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Subject:
NYSEG – Lyons Former MGP Site, Lyons, New York
NYSDEC Site No. 859020
Pre-Design Investigation Summary

ENVIRONMENT

Dear Ms. Thompson:

This letter summarizes the pre-design investigation (PDI) activities completed at the New York State Electric and Gas (NYSEG) Lyons Former Manufactured Gas Plant (MGP) Site (the site) located in Lyons, New York (Figure 1). PDI activities were conducted in accordance with the New York State Department of Environmental Conservation- (NYSDEC-) approved Remedial Design Work Plan (RDWP; Arcadis 2018).

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

Date:
August 28, 2018

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B0013143.0000 #10

PRE-DESIGN INVESTIGATION

PDI Task 1 – Utility Evaluation

Available historical and updated as-built utility drawings identify the presence of subsurface utilities in and around the proposed remedial areas. No single, comprehensive figure was available showing subsurface utilities in the area, and it was suspected that there may be additional utilities beyond those shown on available mapping.

The utilities within the project area present significant challenges for the PDI and remedial construction. Therefore, as an initial step of the PDI, the following activities were conducted to better understand the nature and extent of utilities in and around the proposed remedial area:

- Arcadis conducted a detailed visual site inspection to identify utilities present at the site in comparison to the site survey and available utility plans.
- Arcadis retained a private utility locating service (TREC Environmental Inc. [TREC] of Spencerport, New York) to perform a geophysical survey using electromagnetic (EM) and ground-penetrating radar (GPR) techniques to identify and mark the location of underground utilities and obstructions at and in the immediate vicinity of anticipated remedial areas.

- Personnel from utility owners and/or locators on behalf of the owners marked out their respective natural gas, electric, sanitary and storm sewers, and water lines in response to a Dig-Safely New York ticket request issued by the Arcadis geophysical survey and drilling subcontractors (TREC and Nothnagle Drilling, Inc. [Nothnagle] of Scottsville, New York).
- Nothnagle excavated potholes using vacuum/manual methods to visually identify the location, depth, and construction materials of subsurface utilities in the immediate vicinity of anticipated remedial areas.
- Nothnagle encountered a water pipe while drilling PDI soil boring SB-102. The pipe was repaired and traced by Wayne County Water Authority to identify its location.

Utility evaluation PDI activities identified/confirmed the presence of multiple storm and sanitary sewer lines, natural gas mains, an underground electric service line, and a water service line. Arcadis' survey subcontractor Fischer Associates (Fisher) of Rochester, New York surveyed and documented the locations of the identified utilities. A utility location drawing will be presented in the Remedial Design (RD).

PDI Task 2 – Surface Soil Sampling

The PDI surface soil sampling activities consisted of manually collecting soil from 0 to 2 inches below ground surface (bgs). Arcadis' field geologist screened each soil sample for the potential presence of volatile organic vapors using a photoionization detector (PID) and visually characterized and logged the physical characteristics of each sample in a field book.

Arcadis' field geologist collected and submitted a total of nine surface soil samples (SS-100 through SS-108) for laboratory analysis to delineate the extent of impacted surface soil in the vicinity of Remedial Investigation (RI) surface soil samples SS-10 and SS-8 collected in the northern and southern grassed covered areas (respectively). Each surface soil sample was submitted to SGS Accutest, Inc. of Marlborough, Massachusetts (SGS) for laboratory analysis of polycyclic aromatic hydrocarbons (PAHs) by United States Environmental Protection Agency (USEPA) SW-846 Method 8270C. Select samples (SS-104, SS-105, and SS-107) collected from 'step-out' locations were initially placed on hold, pending receipt of the initial results. An analytical sample summary, presenting the laboratory analyses for each PDI sample, is included as Table 1.

A summary of the surface soil analytical results is presented below.

- *Northern Removal/Cover Area* – Results obtained for the analysis of samples SS-100, SS-101, and SS-102 indicated that PAHs were not detected at concentrations exceeding commercial use soil cleanup objectives (SCOs) presented in Title 6 of the New York Code of Rules and Regulations (NYCRR) Part 375-6 (NYSDEC 2006) and sufficiently delineated the western, northern, and southern surface soil removal limits. Benzo(a)pyrene was detected in surface soil sample SS-103 (collected to the east of RI sample SS-10) at a concentration slightly exceeding the commercial use SCOs and step-out sample SS-104 (collected further to the east) was released for laboratory analysis. Results obtained for the analysis of sample SS-104 indicated the presence of several PAHs at concentrations exceeding commercial use SCOs. The northern surface soil removal area is delineated to the east by the proposed eastern excavation/in-situ soil solidification (ISS) area.
- *Southern Removal/Cover Area* – Results obtained for the analysis of surface soil samples SS-106 and SS-107 did not exceed commercial use SCOs. The southern surface soil area is sufficiently delineated to the east and west by PDI surface soil samples SS-107 and SS-106, respectively, and to

the north and south by asphalt/concrete. Surface soil samples placed on hold at the laboratory from step-out locations (SS-105 and SS-108) were not analyzed.

Surface soil analytical results are presented in Table 2 and the locations of the PDI surface soil samples with their results relative to the Commercial Use SCOs are shown on Figure 2. Surface soil laboratory analytical data reports and data usability summary reports are included on the attached compact disc (CD).

PDI Task 3 – Subsurface Soil Investigation

Nothnagle completed soil borings at 21 locations (SB-100 through SB-120, as shown on Figure 2) from May 10, 2018 through May 22, 2018 using vacuum/manual excavation and/or conventional hollow-stem auger (HSA) drilling techniques and continuous split-spoon soil sampling. An Arcadis geologist was onsite full-time to characterize soil recovered from the borings, collect and process samples for laboratory analysis, and perform air monitoring in accordance with the RDWP. Several of the soil boring locations were adjusted in the field relative to those shown in the RDWP to avoid utilities and existing features (e.g., trees).

Prior to drilling, soil was removed from each boring by vacuum/manual excavation to a depth of approximately 5 feet bgs as an additional measure to identify/avoid subsurface utilities/obstructions.

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

The RDWP proposed the collection of undisturbed soil samples (Shelby tubes) from below the proposed ISS area to evaluate certain in-situ soil properties (strength, consolidation) and the potential effects from the ISS process. Nothnagle attempted to collect Shelby tubes at several locations, but sufficient cohesive soil volume could not be recovered.

Soil samples were collected from the HSA and vacuum/manual excavation borings for the following purposes:

- *Delineate the Extent of Remedial Limits:* The selected remedy presented in the Record of Decision (ROD) indicates that subsurface soil required further investigation to evaluate the extent of impacted material. The investigation included collecting samples for laboratory analysis, as identified below:
 - ISS Areas – A total of 11 subsurface soil samples were collected near the ISS areas and submitted for laboratory analysis of PAHs. Samples were only submitted for analysis if grossly-impacted material was not observed at the soil boring.
 - TP-3 Area – A total of three subsurface soil samples were collected near TP-3 (where historical mercury blebs were observed) and submitted for laboratory analysis of mercury.
- *Evaluate Pre-ISS Excavation Soil Handling Requirements:* The selected remedy presented in the ROD includes excavation of:
 - the top 1 foot of soil from the northern and southern removal/soil cover areas.
 - the top 4 feet of soil from the ISS area prior to starting ISS.

Arcadis collected six composite soil samples (samples WC-1 through WC-6) to characterize soil for waste handling and disposal. Each composite soil sample was formed using several discrete grab subsamples from the following sampling locations:

- *Sample WC-1:* Soil from the 0- to 1-foot depth interval of surface soil locations SS-100 through SS-108.
- *Samples WC-2 through WC-6:* Soil from the 0- to 4-foot depth interval of borings SB-104, SB-106, SB-109, SB-112, and SB-114/SB-115/SB-116, respectively.

Each composite sample was submitted to SGS for laboratory analysis for polychlorinated biphenyls (PCBs), Toxicity Characteristic Leaching Procedure (TCLP) SVOCs, TCLP metals, TCLP pesticides, TCLP herbicides, volatile organic compounds (VOCs), SVOCs, metals, ignitability, corrosivity, reactivity, percent sulfur, total cyanide, heat of combustion, and total petroleum hydrocarbons. Discrete grab samples (i.e., collected from one of the subsamples used to form each composite sample) were also analyzed for TCLP VOCs.

- *Obtain Soil for the Bench-Scale Treatability Studies:* Approximately 10 gallons of soil were obtained from each ISS area (a total of approximately 20 gallons) and placed in 5-gallon containers that were sealed and transported to the Arcadis treatability laboratory in Durham, North Carolina. The soil in each container was collected from depths of between 4 and 26 feet bgs and included minimally and heavily impacted material encountered within each proposed ISS area (5 gallons each of minimally and heavily impacted material from each ISS area).

Conditions encountered in the soil borings drilled as part of the PDI are summarized on the soil boring logs included on the attached CD. Key observations made from review of these data and information are presented in Table 3 and summarized below.

- Grossly contaminated material as defined in Section 1.3(b) of DER-10 (visually impacted material that does not include residually impacted material [e.g., sheen, staining, odor]) was encountered in seven soil borings (SB-100, SB-101, SB-104, SB-105, SB-109, SB-111, and SB-112). Grossly impacted material was identified at depths ranging from approximately 2.5 to 27 feet bgs.
- Mercury was not observed at the soil borings completed adjacent to test pit TP-3 (SB-114, SB-115, and SB-116).

The subsurface soil delineation analytical results presented in Table 4 are compared to the commercial use SCOs. These results are summarized below.

- Subsurface soil samples with total PAHs greater than 500 ppm were identified at seven soil borings (SB-102, SB-103, SB-106, SB-108, SB-110, SB-117, and SB-120).
- Mercury was not identified at concentrations exceeding the commercial use SCOs adjacent to test pit TP-3 (SB-114, SB-115, and SB-116).

The soil waste characterization analytical results (Table 5) are compared to the regulatory thresholds for a characteristically hazardous waste as presented in 6 NYCRR Parts 371.3(b) through (e) and Part 371.4(e). Waste characterization analytical results indicated that none of the material was identified as being characteristically hazardous for ignitability, corrosivity, reactivity, or toxicity. Waste handling requirements will be presented in the RD.

Geotechnical samples were collected from four soil borings (SB-106, SB-111, SB-113, and SB-119) to evaluate geotechnical properties of soil within the remedial areas. Samples were submitted to Geotechnics, Inc. (Geotechnics) of East Pittsburgh, Pennsylvania for geotechnical testing for:

- moisture content by ASTM 2216-10

- grain size analysis (sieve and hydrometer) by ASTM D422-63
- multi-point Atterberg limits by ASTM D4318-17

Subsurface soil laboratory analytical data reports, geotechnical laboratory reports, and data validation reports are included on the attached CD.

PDI Task 4 – ISS Bench-Scale Treatability Study

As indicated above, Arcadis field personnel collected bulk subsurface soil samples during the subsurface soil investigation to facilitate an ISS bench-scale treatability study. Arcadis collected and shipped five 5-gallon buckets to their Durham, NC treatability laboratory. In addition to the soil, Arcadis collected and shipped one 5-gallon container of potable water from a spigot at the nearby Lyons publicly owned treatment works (POTW). The water is considered representative of that which will be obtained from the municipal water supply for use during the full-scale implementation of ISS to prepare grout.

The ISS bench-scale treatability study results will be presented in the RD.

PDI Task 5 – Site Survey

Fisher Associates conducted a land survey in the project area to document the PDI soil borings, overhead and subsurface utilities, and ground surface elevations (to generate one-foot topographic contours to facilitate preparation of the RD). The survey will be used to develop the RD design drawings and is included on the attached CD.

Investigation Derived Waste

Investigation-derived waste (IDW) generated during the PDI was containerized onsite. Nothnagle segregated solid (i.e., soil cuttings, personal protective equipment, spent disposable sampling materials) and liquid (i.e., decontamination water) waste separately and placed the material in a roll-off waste container and Department of Transportation- (DOT-) approved 55-gallon steel drums (10 total), respectively. NYSEG's waste disposal vendor (Clean Harbors, Inc.) characterized the waste prior to transporting the IDW for offsite treatment/disposal. Disposal documentation is included on the attached CD.

SUMMARY AND PROPOSED ADDITIONAL PDI ACTIVITIES

The initial PDI activities were successful in meeting the following PDI objectives:

- Delineating surface soil containing PAHs at concentrations exceeding commercial-use SCOs
- Confirming that residual mercury appears to have been addressed during the limited soil removal conducted during the RI activities
- Obtaining sufficient grossly impacted soil volume to facilitate a bench scale treatability study

Arcadis proposes conducting additional PDI activities to further delineate the extent of subsurface soil at depths to 15 feet bgs containing total PAHs at concentrations exceeding 500 ppm, including:

- Advancing eight additional soil borings at the locations shown on Figure 3 using direct push technology

- Collecting and submitting soil samples from similar depths as adjacent PDI samples where total PAHs were detected at concentrations greater than 500 ppm

The subsurface soil samples will be analyzed by a licensed analytical laboratory on an expedited turnaround time (i.e., 3 business days). If the analytical results indicate that total PAH concentrations are greater than 500 ppm, additional 'step-out' soil borings will be completed. Anticipated Phase 2 PDI soil boring depths and analytical sample locations are presented on Table 6 – Proposed Phase 2 Field Sampling Summary.

The additional PDI activities will be completed in accordance with the procedures and methods presented in the NYSDEC-approved RDWP. Arcadis anticipates mobilizing to the site to perform the Phase 2 PDI activities in September or October 2018.

Please do not hesitate to call me at (315) 671-114 if you have any questions or require additional information.

Sincerely,

Arcadis of New York, Inc.



Jason D. Brien, PE
Principal Engineer

Copies:

Jeremy Wolf, RGE

Matt Hysell, P.E., Arcadis

Enclosures:

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TABLES



Table 1
Sampling and Laboratory/Geotechnical Analyses Summary

NYSEG
Lyons Former MGP Site
Lyons, New York

Sample ID	Depth (ft bgs)	Date Collected	Analytical			Geotechnical	Soil for Treatability Study
			Waste Characterization Parameters	PAHs	Mercury	Geotechnical Design Parameters	
In-Situ Soil Waste Characterization							
WC-1	0-1	5/8/2018	X				
WC-2	0-4	5/8/2018	X				
WC-3	0-4	5/9/2018	X				
WC-4	0-4	5/7/2018	X				
WC-5	0-4	5/7/2018	X				
WC-6	0-4	5/16/2018	X				
Surface Soil							
SS-100	0-0.16	5/8/2018		X			
SS-101	0-0.16	5/8/2018		X			
SS-102	0-0.16	5/8/2018		X [X]			
SS-103	0-0.16	5/8/2018		X			
SS-104	0-0.16	5/8/2018		X			
SS-105	0-0.16	5/8/2018					
SS-106	0-0.16	5/8/2018		X			
SS-107	0-0.16	5/8/2018		X			
SS-108	0-0.16	5/8/2018					
Subsurface Soil							
SB-100	4-21	5/10/2018					X
SB-101	4-17	5/15/2018					X
SB-102	4-19	5/16/2018					X
	12-14	5/16/2018		X			
SB-103	4-19	5/11/2018					X
	7-9	5/11/2018		X			
SB-104	4-19	5/10/2018					X
SB-105	5-19	5/14/2018					X
SB-106	4-19	5/11/2018					X
	5-7	5/11/2018		X			
	9-13	5/11/2018				X	
SB-107	4-19	5/14/2018					X
	5-7	5/14/2018		X			
SB-108	0-3	5/7/2018		X			
SB-110	4-26	5/17/2018					X
	7-9	5/17/2018		X			
SB-111	4-27	5/17/2018					X
	7-13	5/17/2018				X	
SB-112	4-22	5/18/2018					X
SB-113	4-26	5/16/2018					X
	11-13	5/16/2018		X [X]			
	13-17	5/16/2018				X	
SB-114	3-5	5/16/2018		X			
SB-115	2-4	5/16/2018			X		
SB-116	3-5	5/16/2018			X [X]		
SB-117	3-4	5/17/2018			X		
SB-118	13-19	5/15/2018					X
	7-9	5/15/2018		X			
SB-119	4-6	5/21/2018		X			
	13-17	5/21/2018				X	
SB-120	13-15	5/22/2018		X			

See Notes on Page 2.

Table 1
Sampling and Laboratory/Geotechnical Analyses Summary

NYSEG
Lyons Former MGP Site
Lyons, New York

Notes:

1. Samples were collected by Arcadis.
2. Duplicate samples are identified in brackets [].
3. Waste Characterization Parameters = Polychlorinated biphenyls (PCBs), Toxicity Characteristic Leaching Procedure (TCLP) volatile organic compounds (VOCs), TCLP semi-volatile organic compounds (SVOCs), TCLP metals, TCLP pesticides, TCLP herbicides, ignitability, corrosivity, reactivity, percent sulfur, total petroleum hydrocarbons, total cyanide, heat of combustion, VOCs, SVOCs, and metals.
4. Laboratory analysis was performed by SGS Laboratories of Marlborough, Massachusetts for one or more of the analyses listed below:
 - Toxic Characteristic Leaching Procedure (TCLP) extraction by United States Environmental Protection Agency (USEPA) SW-846 Method 1311 and analysis by:
 - VOCs using USEPA SW-846 Method 8260C.
 - SVOCs using USEPA SW-846 Method 8270D.
 - Metals using USEPA SW-846 Methods 6010C and 7470A.
 - Pesticides using USEPA SW-846 Method 8081B.
 - Herbicides using USEPA SW-846 Method 8151A.
 - Ignitability using USEPA SW-846 Method 1010A.
 - Corrosivity as pH using USEPA SW-846 Method 9045D.
 - Reactivity using USEPA SW-846 Chapter 7 Method.
 - Total cyanide using USEPA SW-846 Method 9012B.
 - Heat of combustion using ASTM D240-92.
 - Total petroleum hydrocarbons using USEPA SW-846 Method 8015.
 - Percent Sulfur using USEPA Method D129-95.
 - PCBs using USEPA SW-846 Method 8082A.
 - Polycyclic Aromatic Hydrocarbons (PAHs) using USEPA SW-846 Method 8270D.
 - Mercury using USEPA Method 7470A.
5. Samples were submitted for geotechnical testing for one or more of the following parameters:
 - Moisture content by American Society for Testing and Materials (ASTM) D2216-10.
 - Multi-point Atterberg limits by ASTM D4318-17.
 - Sieve and hydrometer by ASTM D422-63 (2007).
6. An **X** indicates analysis was conducted.

Table 2
Surface Soil Analytical Results (ppm)

NYSEG
Lyons Former MGP Site
Lyons, New York

Location ID: Date Collected:	Restricted Use SCOs Commercial	Units	SS-100 05/08/18	SS-101 05/08/18	SS-102 05/08/18	SS-103 05/08/18	SS-104 05/08/18	SS-106 05/08/18	SS-107 05/08/18
PAHs									
Acenaphthene	500	mg/kg	<0.039	<0.039	<0.036 [0.0141 J]	0.0538	0.277	0.0508	<0.038
Acenaphthylene	500	mg/kg	<0.039	<0.039	<0.036 [<0.034]	0.189	0.789	0.0468	0.0222 J
Anthracene	500	mg/kg	<0.039	<0.039	<0.036 [<0.034]	0.336	1.99	0.124	0.0398
Benzo(a)anthracene	5.6	mg/kg	0.0598	0.0559	0.0766 [0.0597]	1.89	9.95 D	0.653	0.202
Benzo(a)pyrene	1	mg/kg	0.0637	0.0608	0.0815 [0.0607]	2.06	12.8 D	0.786	0.247
Benzo(b)fluoranthene	5.6	mg/kg	0.0796	0.0873	0.103 [0.0822]	2.52	12.7 D	0.873	0.298
Benzo(g,h,i)perylene	500	mg/kg	0.0491	0.0536	0.0622 [0.0447]	1.43	6.89 D	0.572	0.197
Benzo(k)fluoranthene	56	mg/kg	0.0318 J	0.0318 J	0.0375 [0.0271 J]	0.82	5.48 D	0.319	0.101
Chrysene	56	mg/kg	0.0667	0.0623	0.0756 [0.0578]	1.74	8.96 D	0.599	0.21
Dibenzo(a,h)anthracene	0.56	mg/kg	<0.039	<0.039	<0.036 [<0.034]	0.445	2.45	0.156	0.0569
Fluoranthene	500	mg/kg	0.101	0.111	0.0999 [0.0791]	2.03	12.7 D	0.766	0.273
Fluorene	500	mg/kg	<0.039	<0.039	<0.036 [0.0195 J]	0.0793	0.34	0.0442	<0.038
Indeno(1,2,3-cd)pyrene	5.6	mg/kg	0.0521	0.0585	0.0685 [0.052]	1.62	8.38 D	0.627	0.207
Naphthalene	500	mg/kg	<0.039	<0.039	<0.036 J [0.216 J]	0.2	0.535	0.0651	0.016 J
Phenanthrene	500	mg/kg	0.048	0.0349 J	0.0387 [0.0612]	0.799	2.92	0.367	0.115
Pyrene	500	mg/kg	0.101	0.0996	0.107 [0.0852]	2.27	12.6 D	0.827	0.267
Total PAHs	- -	mg/kg	0.6528 J	0.6557 J	0.7505 [0.8593 J]	18.4821	99.761	6.8759	2.2519 J

Notes:

1. Samples were collected by Arcadis on the dates indicated.
2. Duplicate samples are identified in brackets [].
3. PAHs = polycyclic aromatic hydrocarbons.
4. Samples were analyzed by SGS Laboratories (SGS) located in Marlborough, Massachusetts for:
 - PAHs using United States Environmental Protection Agency (USEPA) SW-846 Method 8270D.
 - Mercury using USEPA Method 7470A.
5. Concentrations reported milligrams per kilogram (mg/kg), which is equivalent to parts per million (ppm).
6. Data qualifiers are defined as follows:
 - < - Constituent not detected at a
 - D - Concentration is based on a
7. 6 NYCRR Part 375 Soil Cleanup Objectives (SCOs) are from Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of Ne
8. Shading indicates that the result exceeds the 6 NYCRR Part 375 Commercial Use SCO.
9. NA = not analyzed.
10. Results have been validated.
11. - - = No 6 NYCRR Part 375 SCO listed.

Table 3
Subsurface Soil Visual Characterization

NYSEG
Lyons Former MGP Site
Lyons, New York

Sample ID/ Depth Interval (feet bgs)	Sample Description	Grossly Impacted Material
SB-100		
13-13.5	Strong MGP-like odor and heavy black discoloration.	
13.5-15	Trace tar-like stringers and sheen, strong MGP-like odor.	
15-17	Trace tar-like stringers, strong MGP-like odor.	
17.8	Small pocket of viscous tar, strong MGP-like odor.	X
18.5-21	Black coal like material coated with sheen, strong MGP-like odor.	
SB-101		
7-8.5	Strong MGP-like odor, stiff tar-like material at 7.6 to 7.9 feet	X
8.5-9	Strong MGP-like odor.	
9-13.5	Trace tar stringers, strong MGP-like odor, 1-inch diameter tar pocket at 11.7 feet	X
13.5-16	Slight to moderate MGP-like odor, trace black discoloration.	
16-18	Trace tar stringers.	
SB-102		
10-13	Trace black discoloration.	
13-13.5	Little black discoloration.	
13.5-14	Black discolored.	
SB-103		
--	No impacts observed.	
SB-104		
10-11	Moderate MGP-like odor.	
11-12	Trace tar-like stringers, strong MGP-like odor.	
12-13	Trace tar-like stringers, strong MGP-like odor, small tar pockets from 12 to 12.1 feet.	X
13-13.25	Trace tar-like stringers, moderate MGP-like odor.	
13.25-15	Trace tar-like stringers, strong MGP-like odor, tar pocket at 13.9 to 14 feet.	X
15-18.5	Trace tar-like stringers, moderate MGP-like odor, tar pocket at 16.9 to 17 feet	X
18.5-18.75	Trace thin laminations of black MGP-like material, moderate MGP-like odor.	
18.75-19	Moderate MGP-like odor.	
19-19.5	Slight MGP-like odor.	
SB-105		
11-12	Slight to moderate MGP-like odor.	
12-12.5	Moderate MGP-like odor.	
12.5-13	Moderate MGP-like odor, some black discoloration.	
13-15	Trace to little tar-like stringers, slight MGP-like odor.	X
15-16	Slight MGP-like odor.	
16-19	Very slight odor.	
SB-106		
5.5-7	Slight MGP-like odor.	
7-9	Very slight MGP-like odor.	
9-13	Trace black discoloration.	
SB-107		
--	No impacts observed.	
SB-108		
--	No impacts observed.	
SB-109		
2-2.5	Slight to moderate MGP-like odor.	
2.5-3	Stiff tar-like substance, strong MGP-like odor.	X
SB-110		
0.5-5	Black discolored.	
5-8	Trace black discoloration, slight fuel-like odor, trace sheen on water in pore space from 7 to 8 feet.	
8-8.5	Slight fuel-like odor.	
11-13	Trace black discoloration.	
13-14	Black discoloration, very slight petroleum-like odor.	
SB-111		
0.5-5	Black discolored.	
11-12	Trace very dark brown discoloration.	
13-15	Black discoloration, slight MGP-like odor, very slight petroleum-like odor at 14 feet.	
15-19	Very fine to fine Creosote-like material, moderate MGP-like odor, trace sheen from 17 to 19 feet.	

See Notes on Page 2.

Table 3
Subsurface Soil Visual Characterization

NYSEG
Lyons Former MGP Site
Lyons, New York

Sample ID/ Depth Interval (feet bgs)	Sample Description	Grossly Impacted Material
SB-111 (cont.)		
19-19.5	Moderate MGP-like odor.	
19.5-20	Slight MGP-like odor.	
20-20.5	Little to some tar-like stringers, strong MGP-like odor	X
21.5-22	Strong MGP-like odor, tar pocket at 21.5 to 21.6 feet.	
22-23	Moderate MGP-like odor.	
23-27	Very slight MGP-like odor, little to some tar pockets and tar-like stringers with moderate MGP-like odor at 25 to 27 feet.	X
SB-112		
0.5-4	Slight MGP-like odor.	
4-7	DNAPL sludge material	X
7-8	Trace tar-like stringers, strong MGP-like odor.	
8-12	Trace tar-like stringers.	
12-16	Black discolored, slight MGP-like odor.	
16-18	Black discolored, moderate MGP-like odor.	
18-22	Black discolored, slight MGP-like odor.	
22-23.5	Little tar-like stringers, slight MGP-like odor.	X
SB-113		
--	No impacts observed.	
SB-114		
--	No impacts observed.	
SB-115		
--	No impacts observed.	
SB-116		
--	No impacts observed.	
SB-117		
1.5-2.5	Slight MGP-like odor.	
2.5-3.5	Trace tar-like material, moderate MGP-like odor.	
5-6	Slight MGP-like odor.	
SB-118		
7-7.5	Very slight MGP-like odor.	
SB-119		
12-17	Trace black discoloration.	
SB-120		
13.5-15	Moderate MGP-like odor.	
19-25	Slight MGP-like odor.	

Notes:

1. MGP = manufactured gas plant.
2. bgs = below ground surface.

Table 4
Subsurface Soil Analytical Results (ppm)

NYSEG
Lyons Former MGP Site
Lyons, New York

Location ID: Sample Depth(feet): Date Collected:	Restricted Use SCOs Commercial	SB-102 12 - 14 05/16/18	SB-103 7 - 9 05/11/18	SB-106 5 - 7 05/11/18	SB-107 5 - 7 05/14/18	SB-108 0 - 3 05/07/18	SB-110 7 - 9 05/17/18	SB-113 11 - 13 05/16/18	SB-114 3 - 5 05/16/18	SB-115 2 - 4 05/16/18	SB-116 3 - 5 05/16/18	SB-117 3 - 4 05/07/18	SB-118 7 - 9 05/15/18	SB-119 4 - 6 05/21/18	SB-120 13 - 15 05/22/18
PAHs															
Acenaphthene	500	5.97	1.22	16.9	1.08	1.37	2.11	0.833 [0.869]	0.235	NA	NA	121	0.747	1.59	17.9 D
Acenaphthylene	500	11.3 D	6.38	231 D	2.41	5.28	11	4.73 D [4.71 D]	0.384	NA	NA	670	5.88 D	0.85	101 D
Anthracene	500	66.4 D	8.21	284 D	6.18	11.9	16.4	7.63 D [7.6 D]	0.788	NA	NA	717	8.31 D	3.37	78.7 D
Benzo(a)anthracene	5.6	55.8 D	69.8 D	315 D	25.3 D	57.3 D	67.4 D	34.5 D [34.9 D]	3.28	NA	NA	667	11.1 D	16 D	45.8 D
Benzo(a)pyrene	1	37.3 D	64.2 D	178	29.2 D	57.6 D	65.7 D	26.4 D [26.2 D]	4.33 J	NA	NA	411	8.31 D	24.3 D	31.5 D
Benzo(b)fluoranthene	5.6	38.2 D	72.3 D	264 D	28.6 D	62.4 D	70 D	28 D [29.3 D]	4.53 J	NA	NA	445	9.28 D	23.1 D	28.5 D
Benzo(g,h,i)perylene	500	12.2 D	26.8 D	81.6	15.3 D	26.2 D	30.2 D	10.7 D [10.7 D]	2.89	NA	NA	157	3.12	14.2 D	13.7
Benzo(k)fluoranthene	56	15.7 D	19.9	108	11.9 D	15.7	26 D	12.4 D [10.4 D]	1.66	NA	NA	187	3.09	3.7	13.3 D
Chrysene	56	43.1 D	54.5 D	262 D	20.2 D	50.1 D	51.8 D	27.2 D [26.8 D]	2.89	NA	NA	552	9.3 D	13.7 D	37.6 D
Dibenzo(a,h)anthracene	0.56	4.21	10.6	39.9	6.83	12.5	6.99	3.58 D [3.58 D]	0.81	NA	NA	89.1	1.08	4.55 D	6.74
Fluoranthene	500	111 D	81.1 D	692 D	26.9 D	62.1 D	122 D	68.6 D [70.5 D]	4.32 J	NA	NA	1,100	24 D	14.7 D	74.8 D
Fluorene	500	45 D	1.21	27.3	1.74	2.99	9	1.69 [1.73]	0.203	NA	NA	715	5.82 D	0.934	98.7 D
Indeno(1,2,3-cd)pyrene	5.6	15.2 D	28.1 D	86.6	14.6 D	27.8 D	36.7 D	13.5 D [13.2 D]	3.35	NA	NA	166	4.28 D	16.9 D	14.9
Naphthalene	500	13.2 D	1.91	995 D	1.63	4.97	55.7 D	0.756 [0.721]	0.233	NA	NA	1,280 D	9.05 D	0.769	421 D
Phenanthrene	500	145 D	8.1	1,240 D	13.1 D	36.1 D	74.3 D	8.02 D [8.21 D]	1.89	NA	NA	1,750 D	29.9 D	8.96 D	190 D
Pyrene	500	85.5 D	80 D	561 D	24.8 D	73.7 D	99.4 D	54.8 D [54.9 D]	4.03 J	NA	NA	993	18.6 D	13.9 D	71.9 D
Total PAHs	- -	705.08	534.33	5,382.3	229.77	508.01	744.7	303.339 [304.32]	35.823 J	NA	NA	10,020.1	151.867	161.523	1,246.04
Inorganics															
Mercury	2.8	NA	NA	NA	NA	NA	NA	NA	0.43	1.6	0.21 [0.16]	NA	NA	NA	NA

Notes:

1. Samples were collected by Arcadis on the dates indicated.
2. Duplicate samples are identified in brackets [].
3. PAHs = polycyclic aromatic hydrocarbons.
4. Samples were analyzed by SGS Laboratories (SGS) located in Marlborough, Massachusetts for:
 - PAHs using United States Environmental Protection Agency (USEPA) SW-846 Method 8270D.
 - Mercury using USEPA Method 7470A.
5. Concentrations reported milligrams per kilogram (mg/kg), which is equivalent to parts per million (ppm).
6. Data qualifiers are defined as follows:
 - < - Constituent not detected at a concentration above the reported detection limit.
 - D - Concentration is based on a diluted sample analysis.
7. 6 NYCRR Part 375 Soil Cleanup Objectives (SCOs) are from Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York (6 NYCRR) Part 375-6.8(a) and (b), effective December 14, 2006.
8. Shading indicates that the result exceeds the 6 NYCRR Part 375 Commercial Use SCO.
9. NA = not analyzed.
10. Results have been validated.
11. - - = No 6 NYCRR Part 375 SCO listed.

Table 5
Soil Waste Characterization Analytical Results

NYSEG
Lyons Former MGP Site
Lyons, New York

Location ID: Date Collected:	6 NYCRR Part 371 (TCLP)	Units	WC-1 05/08/18	WC-2 05/08/18	WC-2 05/09/18	WC-3 05/07/18	WC-4 05/07/18	WC-6 05/16/18
PCBs								
Aroclor-1016	--	mg/kg	<0.037	<0.035	<0.037	<0.032	<0.04	<0.035
Aroclor-1221	--	mg/kg	<0.037	<0.035	<0.037	<0.032	<0.04	<0.035
Aroclor-1232	--	mg/kg	<0.037	<0.035	<0.037	<0.032	<0.04	<0.035
Aroclor-1242	--	mg/kg	<0.037	<0.035	<0.037	<0.032	<0.04	<0.035
Aroclor-1248	--	mg/kg	<0.037	<0.035	<0.037	<0.032	<0.04	<0.035
Aroclor-1254	--	mg/kg	<0.037	<0.035	<0.037	<0.032	<0.04	<0.035
Aroclor-1260	--	mg/kg	<0.037	<0.035	<0.037	<0.032	<0.04	<0.035
Aroclor-1262	--	mg/kg	<0.037	<0.035	<0.037	<0.032	<0.04	<0.035
Aroclor-1268	--	mg/kg	<0.037	<0.035	<0.037	<0.032	<0.04	<0.035
VOCs								
1,1,1-Trichloroethane	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
1,1,2,2-Tetrachloroethane	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	--	mg/kg	<0.0052	<0.0046	<0.0058	<0.0048	<43	<0.0049
1,1,2-Trichloroethane	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
1,1-Dichloroethane	--	mg/kg	<0.001	<0.00091	<0.0012	<0.00097	<8.6	<0.00097
1,1-Dichloroethene	--	mg/kg	<0.001	<0.00091	<0.0012	<0.00097	<8.6	<0.00097
1,2,3-Trichlorobenzene	--	mg/kg	<0.0052	<0.0046	<0.0058	<0.0048	<43	<0.0049
1,2,4-Trichlorobenzene	--	mg/kg	<0.0052	<0.0046	<0.0058	<0.0048	<43	<0.0049
1,2-Dibromo-3-chloropropane	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
1,2-Dibromoethane	--	mg/kg	<0.001	<0.00091	<0.0012	<0.00097	<8.6	<0.00097
1,2-Dichlorobenzene	--	mg/kg	<0.001	<0.00091	<0.0012	<0.00097	<8.6	<0.00097
1,2-Dichloroethane	--	mg/kg	<0.001	<0.00091	<0.0012	<0.00097	<8.6	<0.00097
1,2-Dichloroethene (cis) (DCE)	--	mg/kg	<0.001	<0.00091	<0.0012	<0.00097	<8.6	<0.00097
1,2-Dichloroethene (trans)	--	mg/kg	<0.001	<0.00091	<0.0012	<0.00097	<8.6	<0.00097
1,2-Dichloropropane	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
1,3-Dichlorobenzene	--	mg/kg	<0.001	<0.00091	<0.0012	<0.00097	<8.6	<0.00097
1,3-Dichloropropene (cis)	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
1,3-Dichloropropene (trans)	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
1,4-Dichlorobenzene	--	mg/kg	<0.001	<0.00091	<0.0012	<0.00097	<8.6	<0.00097
2-Butanone (Methyl ethyl ketone)	--	mg/kg	<0.01	<0.0091	<0.012	<0.0097	<86	<0.0097
4-Methyl-2-pentanone (MIBK)	--	mg/kg	<0.0052	<0.0046	<0.0058	<0.0048	<43	<0.0049
Acetone (2-propanone)	--	mg/kg	<0.01	<0.0091	0.0209	<0.0097	<86	0.0085 J
Benzene	--	mg/kg	<0.00052	<0.00046	0.002	0.00033 J	4.74	<0.00049
Bromodichloromethane	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
Bromoform	--	mg/kg	<0.0052	<0.0046	<0.0058	<0.0048	<43	<0.0049
Bromomethane (Methyl bromide)	--	mg/kg	<0.0052	<0.0046	<0.0058	<0.0048	<43	<0.0049
Carbon disulfide	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
Carbon tetrachloride	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
Chlorobenzene	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
Chlorobromomethane	--	mg/kg	<0.0052	<0.0046	<0.0058	<0.0048	<43	<0.0049
Chloroethane	--	mg/kg	<0.0052	<0.0046	<0.0058	<0.0048	<43	<0.0049

See Notes on Page 6.

Table 5
Soil Waste Characterization Analytical Results

NYSEG
Lyons Former MGP Site
Lyons, New York

Location ID: Date Collected:	6 NYCRR Part 371 (TCLP)	Units	WC-1 05/08/18	WC-2 05/08/18	WC-2 05/09/18	WC-3 05/07/18	WC-4 05/07/18	WC-6 05/16/18
VOCs (cont.)								
Chloroform	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
Chloromethane (Methyl chloride)	--	mg/kg	<0.0052	<0.0046	<0.0058	<0.0048	<43	<0.0049
Cyclohexane	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
Dibromochloromethane	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
Dichlorodifluoromethane (Freon 12)	--	mg/kg	<0.0052	<0.0046	<0.0058	<0.0048	<43	<0.0049
Ethylbenzene	--	mg/kg	<0.001	<0.00091	<0.0012	<0.00097	<8.6	<0.00097
Isopropylbenzene (Cumene)	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
Methyl Acetate	--	mg/kg	<0.0052	<0.0046	<0.0058	<0.0048	<43	<0.0049
Methyl Butyl Ketone (2-Hexanone)	--	mg/kg	<0.0052	<0.0046	<0.0058	<0.0048	<43	<0.0049
Methyl cyclohexane	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
Methyl tert-Butyl Ether (MTBE)	--	mg/kg	<0.001	<0.00091	<0.0012	<0.00097	<8.6	<0.00097
Methylene chloride	--	mg/kg	<0.0052	<0.0046	<0.0058	<0.0048	<43	<0.0049
Styrene	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	8.49 J	<0.0019
Tetrachloroethene (PCE)	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
Toluene	--	mg/kg	<0.001	<0.00091	0.00091 J	<0.00097	12.8	<0.00097
Trichloroethene (TCE)	--	mg/kg	<0.001	<0.00091	<0.0012	<0.00097	<8.6	<0.00097
Trichlorofluoromethane (Freon 11)	--	mg/kg	<0.0052	<0.0046	<0.0058	<0.0048	<43	<0.0049
Vinyl chloride	--	mg/kg	<0.0021	<0.0018	<0.0023	<0.0019	<17	<0.0019
Xylenes (m&p)	--	mg/kg	<0.001	<0.00091	<0.0012	<0.00097	31.2	<0.00097
Xylenes (o)	--	mg/kg	<0.001	<0.00091	<0.0012	<0.00097	18.4	<0.00097
Xylenes (total)	--	mg/kg	<0.001	<0.00091	<0.0012	<0.00097	49.6	<0.00097
TCLP VOCs								
1,1-Dichloroethene	0.7	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.5	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,4-Dichlorobenzene	7.5	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Butanone (Methyl ethyl ketone)	200	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzene	0.5	mg/L	<0.0025	<0.0025	0.0021 J	<0.0025	0.0098	<0.0025
Carbon tetrachloride	0.5	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	100	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroform	6	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene (PCE)	0.7	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene (TCE)	0.5	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl chloride	0.2	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SVOCS								
1,1'-Biphenyl	--	mg/kg	<0.074	<0.071	0.14	<0.35	3.94	0.0436 J
1,2,4,5-Tetrachlorobenzene	--	mg/kg	<0.19	<0.18	<0.18	<0.88	<2	<0.17
2,3,4,6-Tetrachlorophenol	--	mg/kg	<0.19	<0.18	<0.18	<0.88	<2	<0.17
3&4-Methylphenol	--	mg/kg	<0.074	<0.071	0.453	<0.35	3.61	0.122
Acetophenone	--	mg/kg	<0.19	<0.18	<0.18	<0.88	<2	<0.17
Caprolactam	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
Total PAHs	--	mg/kg	3.485 J	1.1487 J	283.469	23.543 J	790.52	56.65

See Notes on Page 6.

Table 5
Soil Waste Characterization Analytical Results

NYSEG
Lyons Former MGP Site
Lyons, New York

Location ID: Date Collected:	6 NYCRR Part 371 (TCLP)	Units	WC-1 05/08/18	WC-2 05/08/18	WC-2 05/09/18	WC-3 05/07/18	WC-4 05/07/18	WC-6 05/16/18
SVOCs (cont.)								
1,4-Dioxane	--	mg/kg	<0.037	<0.035	<0.036	<0.18	<0.39	<0.035
2,4,5-Trichlorophenol	--	mg/kg	<0.19	<0.18	<0.18	<0.88	<2	<0.17
2,4,6-Trichlorophenol	--	mg/kg	<0.19	<0.18	<0.18	<0.88	<2	<0.17
2,4-Dichlorophenol	--	mg/kg	<0.19	<0.18	<0.18	<0.88	<2	<0.17
2,4-Dimethylphenol	--	mg/kg	<0.19	<0.18	0.224	<0.88	1.26 J	0.103 J
2,4-Dinitrophenol	--	mg/kg	<0.19	<0.18	<0.18	<0.88	<2	<0.17
2,4-Dinitrotoluene	--	mg/kg	<0.037	<0.035	<0.036	<0.18	<0.39	<0.035
2,6-Dinitrotoluene	--	mg/kg	<0.037	<0.035	<0.036	<0.18	<0.39	<0.035
Benzaldehyde	--	mg/kg	0.0182 J	<0.18	<0.18	<0.88	<2	<0.17
2-Chloronaphthalene	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
2-Chlorophenol	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
2-Methylnaphthalene	--	mg/kg	<0.037	<0.035	0.444	<0.18	16.1	0.196
2-Methylphenol	--	mg/kg	<0.074	<0.071	0.157	<0.35	1.05	0.0399 J
2-Nitroaniline	--	mg/kg	<0.19	<0.18	<0.18	<0.88	<2	<0.17
2-Nitrophenol	--	mg/kg	<0.19	<0.18	<0.18	<0.88	<2	<0.17
3,3'-Dichlorobenzidine	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
3-Nitroaniline	--	mg/kg	<0.19	<0.18	<0.18	<0.88	<2	<0.17
4,6-Dinitro-2-methylphenol	--	mg/kg	<0.19	<0.18	<0.18	<0.88	<2	<0.17
4-Bromophenyl phenyl ether	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
4-Chloro-3-methylphenol	--	mg/kg	<0.19	<0.18	<0.18	<0.88	<2	<0.17
4-Chloroaniline	--	mg/kg	<0.19	<0.18	<0.18	<0.88	<2	<0.17
4-chlorophenyl-phenylether	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
4-Nitroaniline	--	mg/kg	<0.19	<0.18	<0.18	<0.88	<2	<0.17
4-Nitrophenol	--	mg/kg	<0.37	<0.35	<0.36	<1.8	<3.9	<0.35
Acenaphthene	--	mg/kg	0.0147 J	<0.035	0.18	0.122 J	3.42	0.412
Acenaphthylene	--	mg/kg	0.0275 J	<0.035	4.59	0.195	21.5	0.513
Anthracene	--	mg/kg	0.0612	0.0255 J	5.88	0.574	31.3	1.28
Atrazine	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
Benzo(a)anthracene	--	mg/kg	0.351	0.122	28.1	2.51	71.7	5.41
Benzo(a)pyrene	--	mg/kg	0.433	0.142	27	3.16	69.4	6.83
Benzo(b)fluoranthene	--	mg/kg	0.431	0.17	30.2	3.41	76.1	7.76
Benzo(g,h,i)perylene	--	mg/kg	0.276	0.0885	17.1	1.41	28.2	4.97
Benzo(k)fluoranthene	--	mg/kg	0.204	0.0604	12.1	1.33	38.7	2.27
Bis(2-chloro-1-methylethyl) ether	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
Bis(2-chloroethoxy)methane	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
Bis(2-chloroethyl)ether	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
Bis(2-ethylhexyl)phthalate	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
Butyl benzyl phthalate	--	mg/kg	<0.074	0.0501 J	<0.072	<0.35	<0.78	<0.069
Carbazole	--	mg/kg	0.025 J	<0.071	1	0.288 J	15.5	0.481
Chrysene	--	mg/kg	0.332	0.112	24.8	2.04	59.4	4.78
Dibenzo(a,h)anthracene	--	mg/kg	0.0823	0.0281 J	4.12	0.513	18.2	1.25

See Notes on Page 6.

Table 5
Soil Waste Characterization Analytical Results

NYSEG
Lyons Former MGP Site
Lyons, New York

Location ID: Date Collected:	6 NYCRR Part 371 (TCLP)	Units	WC-1 05/08/18	WC-2 05/08/18	WC-2 05/09/18	WC-3 05/07/18	WC-4 05/07/18	WC-6 05/16/18
SVOCs (cont.)								
Dibenzofuran	--	mg/kg	<0.074	<0.071	0.798	0.113 J	17.6	0.292
Diethylphthalate	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
Dimethylphthalate	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
Di-n-butylphthalate	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
Di-n-octylphthalate	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
Fluoranthene	--	mg/kg	0.363	0.116	50.3	2.49	101	6.12
Fluorene	--	mg/kg	<0.037	<0.035	0.589	0.143 J	20.8	0.339
Hexachlorobenzene	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
Hexachlorobutadiene	--	mg/kg	<0.037	<0.035	<0.036	<0.18	<0.39	<0.035
Hexachlorocyclopentadiene	--	mg/kg	<0.37	<0.35	<0.36	<1.8	<3.9	<0.35
Hexachloroethane	--	mg/kg	<0.19	<0.18	<0.18	<0.88	<2	<0.17
Indeno(1,2,3-cd)pyrene	--	mg/kg	0.25	0.082	18.8	1.9	35.6	5.4
Isophorone	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
Naphthalene	--	mg/kg	0.0193 J	<0.035	1.91	0.116 J	33.8	0.356
Nitrobenzene	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
N-Nitroso-di-n-propylamine	--	mg/kg	<0.074	<0.071	<0.072	<0.35	<0.78	<0.069
N-Nitrosodiphenylamine	--	mg/kg	<0.19	<0.18	<0.18	<0.88	<2	<0.17
Pentachlorophenol	--	mg/kg	<0.15	<0.14	<0.14	<0.7	<1.6	<0.14
Phenanthrene	--	mg/kg	0.162	0.0642	12.6	1.31	83.7	2.9
Phenol	--	mg/kg	<0.074	<0.071	0.315	<0.35	2.09	0.0776
Pyrene	--	mg/kg	0.478	0.138	45.2	2.32	97.7	6.06
TCLP SVOCs								
3&4-Methylphenol	--	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1,4-Dichlorobenzene	7.5	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
2,4,5-Trichlorophenol	400	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
2,4,6-Trichlorophenol	2	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
2,4-Dinitrotoluene	0.13	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
2-Methylphenol	200	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Hexachlorobenzene	0.13	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Hexachlorobutadiene	0.5	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Hexachloroethane	3	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrobenzene	2	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Pentachlorophenol	100	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyridine	5	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Inorganics								
Arsenic	--	mg/kg	4.8	4.8	5.5	4.2	6.2	8.7
Barium	--	mg/kg	44.8	42.1	39.8	25.9	48.5	63
Cadmium	--	mg/kg	<0.59	<0.57	<0.57	<0.57	<0.61	<0.54
Chromium	--	mg/kg	9.5	11.1	8.7	9.4	12.4	8.4
Lead	--	mg/kg	56.3	9.2	42.8	16.8	59	124
Mercury	--	mg/kg	3.3	<0.034	0.35	<0.035	0.15	2.3

See Notes on Page 6.

Table 5
Soil Waste Characterization Analytical Results

NYSEG
Lyons Former MGP Site
Lyons, New York

Location ID: Date Collected:	6 NYCRR Part 371 (TCLP)	Units	WC-1 05/08/18	WC-2 05/08/18	WC-2 05/09/18	WC-3 05/07/18	WC-4 05/07/18	WC-6 05/16/18
Inorganics (cont.)								
Selenium	--	mg/kg	<2.4	<2.3	<2.3	<2.3	<2.4	<2.2
Silver	--	mg/kg	<0.59	<0.57	<0.57	<0.57	<0.61	<0.54
Aluminum	--	mg/kg	7,890	8,860	6,980	6,740	9,110	6,060
Antimony	--	mg/kg	<2.4	<2.3	<2.3	<2.3	<2.4	<2.2
Beryllium	--	mg/kg	0.33	0.38	0.37	0.35	0.45	0.34
Calcium	--	mg/kg	15,300	90,100	87,500	107,000	128,000	86,400
Cobalt	--	mg/kg	<5.9	6.6	<5.7	8.8	<6.1	5.6
Copper	--	mg/kg	14.7	25.8	23.1	29.3	20.3	42.7
Iron	--	mg/kg	14,000	15,400	11,100	12,600	14,100	11,800
Magnesium	--	mg/kg	8,570	32,200	18,500	38,400	30,900	19,700
Manganese	--	mg/kg	533	615	508	496	414	502
Nickel	--	mg/kg	9	14.8	11.6	12.9	16.5	12.9
Potassium	--	mg/kg	<1,200	2,340	1,730	2,150	2,630	1,600
Sodium	--	mg/kg	<1,200	<1,100	<1,100	<1,100	<1,200	<1,100
Thallium	--	mg/kg	<1.2	<1.1	<1.1	<1.1	<1.2	<1.1
Vanadium	--	mg/kg	16.6	16.9	15.4	13.9	15.2	14.2
Zinc	--	mg/kg	83.8	78.7	70.5	59.6	78.4	132
TCLP Inorganics								
Arsenic	5	mg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Barium	100	mg/L	<1	<1	<1	<1	<1	<1
Cadmium	1	mg/L	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Chromium	5	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lead	5	mg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Mercury	0.2	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Selenium	1	mg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Silver	5	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Miscellaneous								
Corrosivity as pH	--	SU	7.21 NC	8.51 NC	8.34 NC	9.42 NC	7.96 NC	8.68 NC
Cyanide Reactivity	--	mg/kg	<12	<11	<11	<11	<11	<11
Heat Content, BTU	--	BTU/lb	793	277	766	435	2,610	1,330
Ignitability (Flashpoint)	--	°F	>200	>200	>200	>200	>200	>200
Percent Sulfur	--	%	<0.1	<0.1	<0.1	0.18	0.83	<0.1
Sulfide Reactivity	--	mg/kg	<120	<110	<110	<110	<110	<110
Cyanide, total	--	mg/kg	0.71	<0.19	7.1	0.2	1.6	1.1
TPH								
TPH-DRO (C10-C28)	--	mg/kg	25.6	12.1	448	57.2	1,090	211
TPH-GRO (C6-C10)	--	mg/kg	<29	<23	20.9 J	<23	783	<26

See Notes on Page 6.

Table 5
Soil Waste Characterization Analytical Results

NYSEG
Lyons Former MGP Site
Lyons, New York

Location ID: Date Collected:	6 NYCRR Part 371 (TCLP)	Units	WC-1 05/08/18	WC-2 05/08/18	WC-2 05/09/18	WC-3 05/07/18	WC-4 05/07/18	WC-6 05/16/18
TCLP Pesticides								
Chlordane (technical)	0.03	mg/L	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
Endrin	0.02	mg/L	<0.000067	<0.000067	<0.000067	<0.000067	<0.000067	<0.000067
gamma-BHC (Lindane)	0.4	mg/L	<0.000067	<0.000067	<0.000067	<0.000067	<0.000067	<0.000067
Heptachlor	0.008	mg/L	<0.000067	<0.000067	<0.000067	<0.000067	<0.000067	<0.000067
Heptachlor epoxide	- -	mg/L	<0.000067	<0.000067	<0.000067	<0.000067	<0.000067	<0.000067
Methoxychlor	10	mg/L	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
Toxaphene	0.5	mg/L	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017
TCLP Herbicides								
2,4,5-TP (Silvex)	1	mg/L	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012
2,4-D	10	mg/L	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042

Notes:

- Samples were collected by Arcadis on the dates indicated.
- PCBs = Polychlorinated biphenyls.
- TCLP = Toxicity Characteristic Leaching Procedure.
- VOCs = Volatile Organic Compounds.
- SVOCs = Semi-Volatile Organic Compounds.
- Samples were analyzed by SGS Laboratories (SGS) located in Marlborough, Massachusetts using extraction by United States Environmental Protection Agency (USEPA) SW-846 Method 1311 and by:
 - VOCs using USEPA SW-846 Method 8260C.
 - SVOCs using USEPA SW-846 Method 8270D.
 - Pesticides using USEPA SW-846 Methods 8081.
 - Herbicides using USEPA SW-846 Methods 8151.
 - Metals using USEPA SW-846 Methods 6010C/7470A.
- Samples were analyzed by SGS for:
 - PCBs using USEPA SW-846 Method 8082A.
 - Ignitability using USEPA SW-846 Method 1010A.
 - Corrosivity using USEPA SW-846 Method 9045D.
 - Reactive cyanide and sulfide using USEPA SW-846 Chapter 7 Methods.
 - Total petroleum hydrocarbons using USEPA SW-846 Method 8015.
- Concentrations reported as follows:
 - TCLP VOCs, TCLP SVOCs, TCLP Inorganics, TCLP pesticides, and TCLP herbicides: in milligrams per liter (mg/L), which is equivalent to parts per million (ppm).
 - PCBs, VOCs, SVOCs, inorganics, cyanide, reactive cyanide and sulfide, and total petroleum hydrocarbons: in milligrams per kilogram (mg/kg), which is equivalent to ppm.
 - Ignitability (flashpoint): degrees Fahrenheit.
 - Percent Sulfur: %.
 - Heat Content: British Thermal Units per pound.
 - pH: standard units.
- Data qualifiers are defined as follows:
 - < - Constituent not detected at a concentration above the reported detection limit.
 - NC - Non corrosive.
 - J - Indicates that the associated numerical value is an estimated concentration.

Table 6
Proposed Phase 2 PDI Field Sampling Summary

NYSEG
Lyons Former MGP Site
Lyons, New York

Sample ID	Investigation Area	Depth (ft bgs)		Laboratory Analysis of PAHs
		Boring	Sample	
SB-121	Western Impacted Area	15	0-15 ¹	X
SB-122		15	0-15 ¹	X
SB-123		15	0-15 ¹	X
SB-124		15	0-15 ¹	X
SB-125		15	0-15 ¹	X
SB-126	Eastern Impacted Area	5	0-5 ¹	X
SB-127		5	0-5 ¹	X
SB-128		15	0-15 ¹	X

Notes:

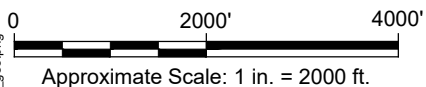
1. PDI = pre-design investigation.
2. ft bgs = feet below ground surface.
3. PAHs = polycyclic aromatic hydrocarbons.
4. X = indicates respective sample will be collected.
5. ¹ = indicates a sample will only be collected if grossly impacted material is not identified at the soil boring. Soil samples for laboratory analysis will be selected from the 2-foot interval where, based on photoionization detector readings and visual and olfactory observations, the strongest evidence of impacts is identified.
6. PAHs will be analyzed by United States Environmental Protection Agency SW-846 Method 8270.

FIGURES





REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., LYONS & NEWARK, NY, 2016.



NYSEG
 LYONS FORMER MANUFACTURED GAS PLANT SITE
 LYONS, NEW YORK

SITE LOCATION MAP



LEGEND:

- PDI SOIL BORING LOCATION
- PDI SURFACE SOIL SAMPLING LOCATION
- CATCH BASIN
- LIGHT POLE
- UTILITY POLE
- FORMER MGP STRUCTURES
- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- SURFACE SOIL SAMPLE LOCATION
- TEST PIT LOCATION
- SOIL BORING WITH TAR-LIKE MATERIAL
- SOIL BORING WITH TRACE OIL-LIKE MATERIAL
- SURFACE SOIL SAMPLE EXCEEDING COMMERCIAL USE SCOs
- TOTAL PAH SOIL ANALYTICAL RESULT >500 ppm (SAMPLE <15 FEET bgs)
- PROPOSED EXCAVATION/ISS LIMITS (RECORD OF DECISION)
- PROPOSED SURFACE SOIL REMOVAL LIMITS (RECORD OF DECISION)

NOTES:

- ALL LOCATIONS ARE APPROXIMATE.
- BASE MAP REFERENCE: "CURRENT AND HISTORICAL FEATURES AND UTILITIES" BY GEI CONSULTANTS; DATED OCTOBER 2013. SOIL BORING LOCATIONS BY FISHER ASSOCIATES; DATED MAY 8, 2018.
- PPM = PARTS PER MILLION.
- BGS = BELOW GROUND SURFACE.
- iSS = IN-SITU SOIL SOLIDIFICATION.
- THE LOCATION OF SOIL BORING SB-117 IS BASED ON FIELD MEASUREMENTS.
- SURFACE SOIL ANALYTICAL RESULTS ARE COMPARED TO THE COMMERCIAL USE SOIL CLEANUP OBJECTIVES (SCOs) PRESENTED IN 6 NEW YORK CODES RULES AND REGULATIONS (NYCRR) PART 375.

0 50' 100'

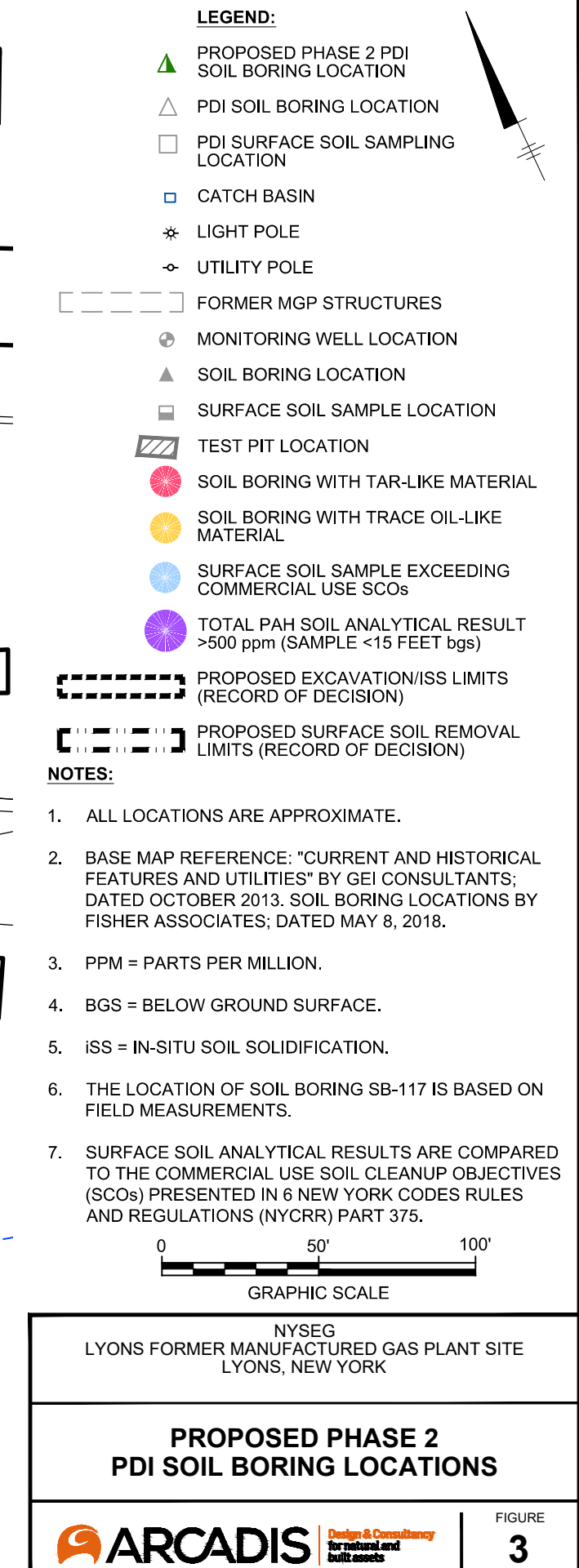
GRAPHIC SCALE

NYSEG
LYONS FORMER MANUFACTURED GAS PLANT SITE
LYONS, NEW YORK

**PDI SOIL SAMPLING LOCATIONS
AND DISTRIBUTION OF PAHs
AND NAPL IN SOIL**

ARCADIS Design & Consultancy
for natural and built assets

FIGURE
2



ATTACHMENT 1

Analytical Laboratory Reports



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

e-Hardcopy 2.0
Automated Report

Technical Report for

Arcadis

NYSEG - Lyons MGP Site, Lyons NY

B0013143.0000

SGS Job Number: JC65662

Sampling Date: 05/07/18

Report to:

Arcadis
295 Woodcliff Drive Suite 301
Fairport, NY 14450
matt.hysell@arcadis.com; Nicholas.Beyrle@arcadis.com

ATTN: Matthew Hysell

Total number of pages in report: **119**



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

Nancy F. Cole

Nancy Cole
Laboratory Director

Client Service contact: Diane Komar 732-329-0200

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

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

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Sample Summary

Arcadis

Job No: JC65662

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.0000

Sample Number	Collected		Matrix Code	Type	Client Sample ID	
	Date	Time By			Received	
JC65662-1	05/07/18	10:20 RDC	05/08/18	SO	Soil	SB-108(0-3)
JC65662-2	05/07/18	15:00 RDC	05/08/18	SO	Soil	SB-117(3-4)

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Arcadis

Job No JC65662

Site: NYSEG - Lyons MGP Site, Lyons NY

Report Date 5/24/2018 12:09:08 P

On 05/08/2018, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.9 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC65662 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

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

MS Semi-volatiles By Method SW846 8270D

Matrix: SO

Batch ID: OP11893

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65662-1MS, JC65662-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike / Matrix Spike Duplicate Recovery(s) for Acenaphthylene, Naphthalene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, Pyrene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- RPD(s) for MSD for Acenaphthene are outside control limits for sample OP11893-MSD. analytical precision exceeds in-house control limits.
- JC65662-1: Dilution required due to matrix interference.
- JC65662-2 for 2-Fluorobiphenyl: Outside control limits due to dilution.
- JC65662-2 for Nitrobenzene-d5: Outside control limits due to dilution.
- JC65662-2 for Terphenyl-d14: Outside control limits due to dilution.
- JC65662-2 for Terphenyl-d14: Outside control limits due to dilution.

General Chemistry By Method SM2540 G-97

Matrix: SO

Batch ID: GN79936

- The data for SM2540 G-97 meets quality control requirements.

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

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

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

Thursday, May 24, 2018

Page 1 of 1

Summary of Hits

Job Number: JC65662
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/07/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

JC65662-1 SB-108(0-3)

Acenaphthene ^a	1370	200	69	ug/kg	SW846 8270D
Acenaphthylene ^a	5280	200	100	ug/kg	SW846 8270D
Anthracene ^a	11900	200	120	ug/kg	SW846 8270D
Benzo(a)anthracene	57300	800	230	ug/kg	SW846 8270D
Benzo(a)pyrene	57600	800	370	ug/kg	SW846 8270D
Benzo(b)fluoranthene	62400	800	360	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	26200	800	400	ug/kg	SW846 8270D
Benzo(k)fluoranthene ^a	15700	200	94	ug/kg	SW846 8270D
Chrysene	50100	800	250	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene ^a	12500	200	89	ug/kg	SW846 8270D
Fluoranthene	62100	800	360	ug/kg	SW846 8270D
Fluorene ^a	2990	200	92	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	27800	800	380	ug/kg	SW846 8270D
Naphthalene ^a	4970	200	57	ug/kg	SW846 8270D
Phenanthrene	36100	800	270	ug/kg	SW846 8270D
Pyrene	73700	800	260	ug/kg	SW846 8270D

JC65662-2 SB-117(3-4)

Acenaphthene	121000	11000	3900	ug/kg	SW846 8270D
Acenaphthylene	670000	11000	5800	ug/kg	SW846 8270D
Anthracene	717000	11000	7000	ug/kg	SW846 8270D
Benzo(a)anthracene	667000	11000	3200	ug/kg	SW846 8270D
Benzo(a)pyrene	411000	11000	5200	ug/kg	SW846 8270D
Benzo(b)fluoranthene	445000	11000	5100	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	157000	11000	5700	ug/kg	SW846 8270D
Benzo(k)fluoranthene	187000	11000	5300	ug/kg	SW846 8270D
Chrysene	552000	11000	3600	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	89100	11000	5100	ug/kg	SW846 8270D
Fluoranthene	1100000	11000	5100	ug/kg	SW846 8270D
Fluorene	715000	11000	5200	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	166000	11000	5400	ug/kg	SW846 8270D
Naphthalene	1280000	110000	32000	ug/kg	SW846 8270D
Phenanthrene	1750000	110000	38000	ug/kg	SW846 8270D
Pyrene	993000	11000	3700	ug/kg	SW846 8270D

(a) Dilution required due to matrix interference.



Dayton, NJ

Section 4

4

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SB-108(0-3)	Date Sampled:	05/07/18
Lab Sample ID:	JC65662-1	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	82.9
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	2P79417.D	5	05/10/18 16:18	SB	05/09/18 16:30	OP11893	E2P3498
Run #2	2P79418.D	20	05/10/18 15:13	SB	05/09/18 16:30	OP11893	E2P3498

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2	30.0 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1370	200	69	ug/kg	
208-96-8	Acenaphthylene	5280	200	100	ug/kg	
120-12-7	Anthracene	11900	200	120	ug/kg	
56-55-3	Benzo(a)anthracene	57300 ^b	800	230	ug/kg	
50-32-8	Benzo(a)pyrene	57600 ^b	800	370	ug/kg	
205-99-2	Benzo(b)fluoranthene	62400 ^b	800	360	ug/kg	
191-24-2	Benzo(g,h,i)perylene	26200 ^b	800	400	ug/kg	
207-08-9	Benzo(k)fluoranthene	15700	200	94	ug/kg	
218-01-9	Chrysene	50100 ^b	800	250	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	12500	200	89	ug/kg	
206-44-0	Fluoranthene	62100 ^b	800	360	ug/kg	
86-73-7	Fluorene	2990	200	92	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	27800 ^b	800	380	ug/kg	
91-20-3	Naphthalene	4970	200	57	ug/kg	
85-01-8	Phenanthrene	36100 ^b	800	270	ug/kg	
129-00-0	Pyrene	73700 ^b	800	260	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	43%	54%	26-134%
321-60-8	2-Fluorobiphenyl	53%	65%	39-124%
1718-51-0	Terphenyl-d14	45%	66%	36-134%

(a) Dilution required due to matrix interference.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SB-117(3-4)	Date Sampled:	05/07/18
Lab Sample ID:	JC65662-2	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	72.4
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P79622.D	5	05/15/18 16:16	CC	05/09/18 16:30	OP11893	E2P3505
Run #2	2P79620.D	50	05/15/18 15:32	CC	05/09/18 16:30	OP11893	E2P3505
Run #3	2P79618.D	500	05/15/18 14:48	CC	05/09/18 16:30	OP11893	E2P3505

	Initial Weight	Final Volume
Run #1	30.2 g	5.0 ml
Run #2	30.2 g	5.0 ml
Run #3	30.2 g	5.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	121000 ^a	11000	3900	ug/kg	
208-96-8	Acenaphthylene	670000 ^a	11000	5800	ug/kg	
120-12-7	Anthracene	717000 ^a	11000	7000	ug/kg	
56-55-3	Benzo(a)anthracene	667000 ^a	11000	3200	ug/kg	
50-32-8	Benzo(a)pyrene	411000 ^a	11000	5200	ug/kg	
205-99-2	Benzo(b)fluoranthene	445000 ^a	11000	5100	ug/kg	
191-24-2	Benzo(g,h,i)perylene	157000 ^a	11000	5700	ug/kg	
207-08-9	Benzo(k)fluoranthene	187000 ^a	11000	5300	ug/kg	
218-01-9	Chrysene	552000 ^a	11000	3600	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	89100 ^a	11000	5100	ug/kg	
206-44-0	Fluoranthene	1100000 ^a	11000	5100	ug/kg	
86-73-7	Fluorene	715000 ^a	11000	5200	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	166000 ^a	11000	5400	ug/kg	
91-20-3	Naphthalene	1280000 ^b	110000	32000	ug/kg	
85-01-8	Phenanthrene	1750000 ^b	110000	38000	ug/kg	
129-00-0	Pyrene	993000 ^a	11000	3700	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
4165-60-0	Nitrobenzene-d5	82%	105%	0% ^c	26-134%
321-60-8	2-Fluorobiphenyl	102%	111%	0% ^c	39-124%
1718-51-0	Terphenyl-d14	117%	157% ^c	0% ^c	36-134%

(a) Result is from Run# 2

(b) Result is from Run# 3

(c) Outside control limits due to dilution.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

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

SGS Sample Receipt Summary

Job Number: JC65662

Client: ARCADIS

Project: NYSEG - LYONS MGP SITE, LYONS NY - DELIN

Date / Time Received: 5/8/2018 9:30:00 AM

Delivery Method:

Airbill #s:

Cooler Temps (Raw Measured) °C: Cooler 1: (1.4);

Cooler Temps (Corrected) °C: Cooler 1: (2.9);

Cooler Security

Y or N

1. Custody Seals Present: ☒ ☐

2. Custody Seals Intact: ☒ ☐

3. COC Present: ☒ ☐

4. Smpl Dates/Time OK: ☒ ☐

Y or N

Cooler Temperature

Y or N

1. Temp criteria achieved: ☒ ☐

2. Cooler temp verification: IR Gun

3. Cooler media: Ice (Bag)

4. No. Coolers: 1

Quality Control Preservation

Y or N

N/A

1. Trip Blank present / cooler: ☐ ☒ ☐

2. Trip Blank listed on COC: ☐ ☒ ☐

3. Samples preserved properly: ☒ ☐ ☐

4. VOCs headspace free: ☐ ☐ ☒

Sample Integrity - Documentation

Y or N

1. Sample labels present on bottles: ☒ ☐

2. Container labeling complete: ☒ ☐

3. Sample container label / COC agree: ☒ ☐

Sample Integrity - Condition

Y or N

1. Sample recvd within HT: ☒ ☐

2. All containers accounted for: ☒ ☐

3. Condition of sample: Intact

Sample Integrity - Instructions

Y or N N/A

1. Analysis requested is clear: ☒ ☐

2. Bottles received for unspecified tests: ☐ ☒

3. Sufficient volume recvd for analysis: ☒ ☐

4. Compositing instructions clear: ☐ ☐ ☒

5. Filtering instructions clear: ☐ ☐ ☒

Test Strip Lot #s:

pH 1-12:

216017

pH 12+:

208717

Other: (Specify)

Comments

Comments on COC state to discard sample for SB-109-(0-3). Please confirm with client. Sample placed on the HOLD shelf in cold storage.

SM089-02 Rev. Date 12/1/16

JC65662: Chain of Custody

Page 2 of 3

SB-109(0-3) can be disposed of, do not log in on HOLD.

JC65662: Chain of Custody
Page 3 of 3

Internal Sample Tracking Chronicle

Arcadis

Job No: JC65662

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.0000

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC65662-1 Collected: 07-MAY-18 10:20 By: RDC Received: 08-MAY-18 By: RL SB-108(0-3)						
JC65662-1	SW846 8270D	10-MAY-18 15:13	SB	09-MAY-18 LL		B8270PAH
JC65662-1	SW846 8270D	10-MAY-18 16:18	SB	09-MAY-18 LL		B8270PAH
JC65662-1	SM2540 G-97	14-MAY-18 11:16	RI			SOL104
JC65662-2 Collected: 07-MAY-18 15:00 By: RDC Received: 08-MAY-18 By: RL SB-117(3-4)						
JC65662-2	SM2540 G-97	14-MAY-18 11:16	RI			SOL104
JC65662-2	SW846 8270D	15-MAY-18 14:48	CC	09-MAY-18 LL		B8270PAH
JC65662-2	SW846 8270D	15-MAY-18 15:32	CC	09-MAY-18 LL		B8270PAH
JC65662-2	SW846 8270D	15-MAY-18 16:16	CC	09-MAY-18 LL		B8270PAH

SGS Internal Chain of Custody

Page 1 of 1

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/08/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65662-1.1	Secured Storage	Todd Shoemaker	05/09/18 11:15	Retrieve from Storage
JC65662-1.1	Todd Shoemaker	Secured Staging Area	05/09/18 11:15	Return to Storage
JC65662-1.1	Secured Staging Area	Chatayah Canaday	05/09/18 12:29	Retrieve from Storage
JC65662-1.1	Chatayah Canaday	Secured Storage	05/09/18 16:56	Return to Storage
JC65662-1.1	Secured Storage	Dwayne Johnson	05/14/18 11:08	Retrieve from Storage
JC65662-1.1	Dwayne Johnson	Secured Staging Area	05/14/18 11:08	Return to Storage
JC65662-1.1	Secured Staging Area	Rie Iwasaki	05/14/18 11:10	Retrieve from Storage
JC65662-1.1	Rie Iwasaki	Secured Storage	05/14/18 12:50	Return to Storage
JC65662-1.1.1	Chatayah Canaday	Organics Prep	05/09/18 12:34	Extract from JC65662-1.1
JC65662-1.1.1	Organics Prep	Lindsey Lee	05/09/18 21:36	Extract from JC65662-1.1
JC65662-1.1.1	Lindsey Lee	Extract Storage	05/09/18 21:36	Return to Storage
JC65662-1.1.1	Extract Storage	George Sleem	05/10/18 01:57	Retrieve from Storage
JC65662-1.1.1	George Sleem	GCMS2P	05/10/18 01:57	Load on Instrument
JC65662-1.1.1	GCMS2P	John Boudreau	05/11/18 09:46	Unload from Instrument
JC65662-1.1.1	John Boudreau	Extract Freezer	05/11/18 09:46	Return to Storage
JC65662-2.1	Secured Storage	Todd Shoemaker	05/09/18 11:15	Retrieve from Storage
JC65662-2.1	Todd Shoemaker	Secured Staging Area	05/09/18 11:15	Return to Storage
JC65662-2.1	Secured Staging Area	Chatayah Canaday	05/09/18 12:29	Retrieve from Storage
JC65662-2.1	Chatayah Canaday	Secured Storage	05/09/18 16:56	Return to Storage
JC65662-2.1	Secured Storage	Dwayne Johnson	05/14/18 11:08	Retrieve from Storage
JC65662-2.1	Dwayne Johnson	Secured Staging Area	05/14/18 11:08	Return to Storage
JC65662-2.1	Secured Staging Area	Rie Iwasaki	05/14/18 11:10	Retrieve from Storage
JC65662-2.1	Rie Iwasaki	Secured Storage	05/14/18 12:50	Return to Storage
JC65662-2.1.1	Chatayah Canaday	Organics Prep	05/09/18 12:34	Extract from JC65662-2.1
JC65662-2.1.1	Organics Prep	Lindsey Lee	05/09/18 21:36	Extract from JC65662-2.1
JC65662-2.1.1	Lindsey Lee	Extract Storage	05/09/18 21:36	Return to Storage
JC65662-2.1.1	Extract Storage	George Sleem	05/10/18 01:57	Retrieve from Storage
JC65662-2.1.1	George Sleem	GCMS2P	05/10/18 01:57	Load on Instrument
JC65662-2.1.1	GCMS2P	John Boudreau	05/11/18 09:46	Unload from Instrument
JC65662-2.1.1	John Boudreau	Extract Freezer	05/11/18 09:46	Return to Storage
JC65662-2.1.1	Extract Freezer	Sufiyanu Ahmed	05/14/18 22:55	Retrieve from Storage
JC65662-2.1.1	Sufiyanu Ahmed	GCMS2P	05/14/18 22:55	Load on Instrument
JC65662-2.1.1	GCMS2P	John Boudreau	05/17/18 15:50	Unload from Instrument
JC65662-2.1.1	John Boudreau	Extract Freezer	05/17/18 15:50	Return to Storage

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11893-MB	2P79375.D	1	05/10/18	GS	05/09/18	OP11893	E2P3497

The QC reported here applies to the following samples: Method: SW846 8270D

JC65662-1, JC65662-2

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	81% 26-134%
321-60-8	2-Fluorobiphenyl	97% 39-124%
1718-51-0	Terphenyl-d14	91% 36-134%

Blank Spike Summary

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Job Number: JC65662

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11893-BS	2P79376.D	1	05/10/18	GS	05/09/18	OP11893	E2P3497

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65662-1, JC65662-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	1670	1560	94	53-119
208-96-8	Acenaphthylene	1670	1450	87	41-125
120-12-7	Anthracene	1670	1450	87	51-120
56-55-3	Benzo(a)anthracene	1670	1460	88	54-118
50-32-8	Benzo(a)pyrene	1670	1440	86	55-121
205-99-2	Benzo(b)fluoranthene	1670	1430	86	57-116
191-24-2	Benzo(g,h,i)perylene	1670	1560	94	40-124
207-08-9	Benzo(k)fluoranthene	1670	1370	82	59-116
218-01-9	Chrysene	1670	1420	85	51-115
53-70-3	Dibenzo(a,h)anthracene	1670	1500	90	48-121
206-44-0	Fluoranthene	1670	1500	90	58-117
86-73-7	Fluorene	1670	1550	93	56-114
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1560	94	49-124
91-20-3	Naphthalene	1670	1330	80	44-116
85-01-8	Phenanthrene	1670	1420	85	53-119
129-00-0	Pyrene	1670	1340	80	54-124

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	81%	26-134%
321-60-8	2-Fluorobiphenyl	88%	39-124%
1718-51-0	Terphenyl-d14	90%	36-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11893-MS	2P79415.D	5	05/10/18	SB	05/09/18	OP11893	E2P3498
OP11893-MSD	2P79416.D	5	05/10/18	SB	05/09/18	OP11893	E2P3498
JC65662-1 ^a	2P79417.D	5	05/10/18	SB	05/09/18	OP11893	E2P3498
JC65662-1	2P79418.D	20	05/10/18	SB	05/09/18	OP11893	E2P3498

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65662-1, JC65662-2

CAS No.	Compound	JC65662-1 ug/kg	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	1370	2010	3030	83	2000	2120	37	35* ^b	21-136/34
208-96-8	Acenaphthylene	5280	2010	4520	0* ^c	2000	4460	0* ^c	1	10-143/36
120-12-7	Anthracene	11900	2010	11400	0* ^c	2000	7860	0* ^c	37	10-147/39
56-55-3	Benzo(a)anthracene	57300 ^d	2010	31900	0* ^c	2000	29400	0* ^c	8	10-151/41
50-32-8	Benzo(a)pyrene	57600 ^d	2010	36200	0* ^c	2000	34200	0* ^c	6	10-149/40
205-99-2	Benzo(b)fluoranthene	62400 ^d	2010	39300	0* ^c	2000	38800	0* ^c	1	10-147/42
191-24-2	Benzo(g,h,i)perylene	26200 ^d	2010	17500	0* ^c	2000	16600	0* ^c	5	10-150/41
207-08-9	Benzo(k)fluoranthene	15700	2010	11400	0* ^c	2000	10200	0* ^c	11	12-142/41
218-01-9	Chrysene	50100 ^d	2010	30800	0* ^c	2000	27700	0* ^c	11	10-151/41
53-70-3	Dibenzo(a,h)anthracene	12500	2010	10200	0* ^c	2000	8730	0* ^c	16	10-152/38
206-44-0	Fluoranthene	62100 ^d	2010	33700	0* ^c	2000	31000	0* ^c	8	10-151/44
86-73-7	Fluorene	2990	2010	4970	98	2000	3550	28	33	19-133/36
193-39-5	Indeno(1,2,3-cd)pyrene	27800 ^d	2010	18400	0* ^c	2000	17600	0* ^c	4	10-148/41
91-20-3	Naphthalene	4970	2010	3440	0* ^c	2000	2790	0* ^c	21	10-136/36
85-01-8	Phenanthrene	36100 ^d	2010	26700	0* ^c	2000	17600	0* ^c	41	11-145/45
129-00-0	Pyrene	73700 ^d	2010	38900	0* ^c	2000	35900	0* ^c	8	11-155/44

CAS No.	Surrogate Recoveries	MS	MSD	JC65662-1	JC65662-1	Limits
4165-60-0	Nitrobenzene-d5	51%	50%	43%	54%	26-134%
321-60-8	2-Fluorobiphenyl	59%	59%	53%	65%	39-124%
1718-51-0	Terphenyl-d14	54%	53%	45%	66%	36-134%

(a) Dilution required due to matrix interference.

(b) analytical precision exceeds in-house control limits.

(c) Outside control limits due to high level in sample relative to spike amount.

(d) Result is from Run #2.

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Page 1 of 1

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-DFTPP
Lab File ID: 2P79036.D
Instrument ID: GCMS2P
Injection Date: 05/01/18
Injection Time: 20:08

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	100824	37.2	Pass
68	Less than 2.0% of mass 69	1207	0.45 (0.86) ^a	Pass
69	Mass 69 relative abundance	140923	52.0	Pass
70	Less than 2.0% of mass 69	673	0.25 (0.48) ^a	Pass
127	40.0 - 60.0% of mass 198	151036	55.8	Pass
197	Less than 1.04% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	270763	100.0	Pass
199	5.0 - 9.0% of mass 198	19261	7.11	Pass
275	10.0 - 30.0% of mass 198	64885	24.0	Pass
365	1.0 - 100.0% of mass 198	8152	3.01	Pass
441	Present, but less than mass 443	33955	12.5 (83.8) ^b	Pass
442	40.0 - 100.0% of mass 198	216021	79.8	Pass
443	17.0 - 23.0% of mass 442	40507	15.0 (18.8) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3481-IC3481	2P79037.D	05/01/18	20:33	00:25	Initial cal 100
E2P3481-IC3481	2P79038.D	05/01/18	20:55	00:47	Initial cal 80
E2P3481-ICC3481	2P79039.D	05/01/18	21:16	01:08	Initial cal 50
E2P3481-IC3481	2P79040.D	05/01/18	21:38	01:30	Initial cal 25
E2P3481-IC3481	2P79041.D	05/01/18	22:00	01:52	Initial cal 10
E2P3481-IC3481	2P79042.D	05/01/18	22:22	02:14	Initial cal 5
E2P3481-IC3481	2P79043.D	05/01/18	22:44	02:36	Initial cal 2
E2P3481-IC3481	2P79044.D	05/01/18	23:05	02:57	Initial cal 1
E2P3481-ICV3479	2P79045.D	05/01/18	23:27	03:19	Initial cal verification 50
E2P3481-ICV3481	2P79046.D	05/01/18	23:49	03:41	Initial cal verification 50
E2P3481-ICV3481	2P79047.D	05/02/18	00:11	04:03	Initial cal verification 50
E2P3481-ICV3481	2P79048.D	05/02/18	00:32	04:24	Initial cal verification 50
E2P3481-ICV3481	2P79049.D	05/02/18	00:54	04:46	Initial cal verification 50

Instrument Performance Check (DFTPP)

Page 1 of 1

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-DFTPP
Lab File ID: 2P79079.D
Instrument ID: GCMS2P
Injection Date: 05/03/18
Injection Time: 02:24

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	47513	40.1	Pass
68	Less than 2.0% of mass 69	1010	0.85 (1.56) ^a	Pass
69	Mass 69 relative abundance	64706	54.6	Pass
70	Less than 2.0% of mass 69	314	0.26 (0.49) ^a	Pass
127	40.0 - 60.0% of mass 198	69344	58.5	Pass
197	Less than 1.04% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	118616	100.0	Pass
199	5.0 - 9.0% of mass 198	8351	7.04	Pass
275	10.0 - 30.0% of mass 198	28589	24.1	Pass
365	1.0 - 100.0% of mass 198	4437	3.74	Pass
441	Present, but less than mass 443	15602	13.2 (80.2) ^b	Pass
442	40.0 - 100.0% of mass 198	100016	84.3	Pass
443	17.0 - 23.0% of mass 442	19461	16.4 (19.5) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3484-IC3484	2P79081.D	05/03/18	03:21	00:57	Initial cal 100
E2P3484-IC3484	2P79082.D	05/03/18	03:43	01:19	Initial cal 80
E2P3484-ICC3484	2P79083.D	05/03/18	04:05	01:41	Initial cal 50
E2P3484-IC3484	2P79084.D	05/03/18	04:26	02:02	Initial cal 25
E2P3484-IC3484	2P79085.D	05/03/18	04:48	02:24	Initial cal 10
E2P3484-IC3484	2P79086.D	05/03/18	05:10	02:46	Initial cal 5
E2P3484-IC3484	2P79087.D	05/03/18	05:31	03:07	Initial cal 2
E2P3484-IC3484	2P79088.D	05/03/18	05:53	03:29	Initial cal 1
E2P3484-ICV3484	2P79089.D	05/03/18	06:14	03:50	Initial cal verification 50
E2P3484-ICV3484	2P79090.D	05/03/18	06:36	04:12	Initial cal verification 50
E2P3484-ICV3484	2P79091.D	05/03/18	06:58	04:34	Initial cal verification 50
E2P3484-ICV3484	2P79092.D	05/03/18	07:19	04:55	Initial cal verification 50
E2P3484-ICV3484	2P79093.D	05/03/18	07:41	05:17	Initial cal verification 50
E2P3484-ICV3484	2P79094.D	05/03/18	08:02	05:38	Initial cal verification 50

Instrument Performance Check (DFTPP)

Page 1 of 2

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3497-DFTPP
Lab File ID: 2P79371.D
Instrument ID: GCMS2P
Injection Date: 05/09/18
Injection Time: 23:57

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	59918	37.2	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	82229	51.1	Pass
70	Less than 2.0% of mass 69	242	0.15 (0.29) ^a	Pass
127	40.0 - 60.0% of mass 198	92904	57.7	Pass
197	Less than 1.04% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	160896	100.0	Pass
199	5.0 - 9.0% of mass 198	11176	6.95	Pass
275	10.0 - 30.0% of mass 198	40891	25.4	Pass
365	1.0 - 100.0% of mass 198	5736	3.57	Pass
441	Present, but less than mass 443	19038	11.8 (84.3) ^b	Pass
442	40.0 - 100.0% of mass 198	116435	72.4	Pass
443	17.0 - 23.0% of mass 442	22595	14.0 (19.4) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3497-CC3484	2P79372.D	05/10/18	00:07	00:10	Continuing cal 50
E2P3497-CC3481	2P79373.D	05/10/18	00:29	00:32	Continuing cal 50
OP11893-MB	2P79375.D	05/10/18	01:19	01:22	Method Blank
OP11893-BS	2P79376.D	05/10/18	01:40	01:43	Blank Spike
ZZZZZZ	2P79377.D	05/10/18	02:02	02:05	(unrelated sample)
ZZZZZZ	2P79378.D	05/10/18	02:23	02:26	(unrelated sample)
ZZZZZZ	2P79379.D	05/10/18	02:45	02:48	(unrelated sample)
ZZZZZZ	2P79380.D	05/10/18	03:06	03:09	(unrelated sample)
ZZZZZZ	2P79381.D	05/10/18	03:28	03:31	(unrelated sample)
ZZZZZZ	2P79382.D	05/10/18	03:49	03:52	(unrelated sample)
ZZZZZZ	2P79383.D	05/10/18	04:11	04:14	(unrelated sample)
ZZZZZZ	2P79384.D	05/10/18	04:32	04:35	(unrelated sample)
ZZZZZZ	2P79385.D	05/10/18	04:54	04:57	(unrelated sample)
ZZZZZZ	2P79386.D	05/10/18	05:15	05:18	(unrelated sample)
ZZZZZZ	2P79387.D	05/10/18	05:37	05:40	(unrelated sample)
ZZZZZZ	2P79388.D	05/10/18	05:58	06:01	(unrelated sample)
ZZZZZZ	2P79389.D	05/10/18	06:20	06:23	(unrelated sample)
ZZZZZZ	2P79390.D	05/10/18	06:41	06:44	(unrelated sample)
ZZZZZZ	2P79391.D	05/10/18	07:03	07:06	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	E2P3497-DFTPP	Injection Date:	05/09/18
Lab File ID:	2P79371.D	Injection Time:	23:57
Instrument ID:	GCMS2P		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	2P79392.D	05/10/18	07:24	07:27	(unrelated sample)

Instrument Performance Check (DFTPP)

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Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3498-DFTPP
Lab File ID: 2P79409.D
Instrument ID: GCMS2P
Injection Date: 05/10/18
Injection Time: 12:52

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	68455	38.0	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	88816	49.4	Pass
70	Less than 2.0% of mass 69	106	0.06 (0.12) ^a	Pass
127	40.0 - 60.0% of mass 198	97883	54.4	Pass
197	Less than 1.04% of mass 198	456	0.25	Pass
198	Base peak, 100% relative abundance	179960	100.0	Pass
199	5.0 - 9.0% of mass 198	11228	6.24	Pass
275	10.0 - 30.0% of mass 198	47720	26.5	Pass
365	1.0 - 100.0% of mass 198	6733	3.74	Pass
441	Present, but less than mass 443	24645	13.7 (82.1) ^b	Pass
442	40.0 - 100.0% of mass 198	158304	88.0	Pass
443	17.0 - 23.0% of mass 442	30013	16.7 (19.0) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3498-CC3484	2P79410.D	05/10/18	13:03	00:11	Continuing cal 25
E2P3498-CC3481	2P79411.D	05/10/18	13:25	00:33	Continuing cal 25
OP11915-MB1	2P79413.D	05/10/18	14:29	01:37	Method Blank
OP11915-BS1	2P79414.D	05/10/18	14:51	01:59	Blank Spike
JC65662-1	2P79418.D	05/10/18	15:13	02:21	SB-108(0-3)
OP11893-MS	2P79415.D	05/10/18	15:34	02:42	Matrix Spike
OP11893-MSD	2P79416.D	05/10/18	15:56	03:04	Matrix Spike Duplicate
JC65662-1	2P79417.D	05/10/18	16:18	03:26	SB-108(0-3)
OP11915-MS	2P79419.D	05/10/18	16:40	03:48	Matrix Spike
OP11915-MSD	2P79420.D	05/10/18	17:02	04:10	Matrix Spike Duplicate
ZZZZZZ	2P79422.D	05/10/18	17:46	04:54	(unrelated sample)
ZZZZZZ	2P79423.D	05/10/18	18:08	05:16	(unrelated sample)
ZZZZZZ	2P79424.D	05/10/18	18:30	05:38	(unrelated sample)
ZZZZZZ	2P79425.D	05/10/18	18:52	06:00	(unrelated sample)
ZZZZZZ	2P79426.D	05/10/18	19:14	06:22	(unrelated sample)
ZZZZZZ	2P79427.D	05/10/18	19:36	06:44	(unrelated sample)
ZZZZZZ	2P79428.D	05/10/18	19:58	07:06	(unrelated sample)
ZZZZZZ	2P79429.D	05/10/18	20:20	07:28	(unrelated sample)
ZZZZZZ	2P79430.D	05/10/18	20:42	07:50	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	E2P3498-DFTPP	Injection Date:	05/10/18
Lab File ID:	2P79409.D	Injection Time:	12:52
Instrument ID:	GCMS2P		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
JC65790-1	2P79431.D	05/10/18	21:03	08:11	(used for QC only; not part of job JC65662)
ZZZZZZ	2P79432.D	05/10/18	21:25	08:33	(unrelated sample)
ZZZZZZ	2P79433.D	05/10/18	21:47	08:55	(unrelated sample)
ZZZZZZ	2P79434.D	05/10/18	22:09	09:17	(unrelated sample)

Instrument Performance Check (DFTPP)

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Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3505-DFTPP	Injection Date: 05/15/18
Lab File ID: 2P79602.D	Injection Time: 09:06
Instrument ID: GCMS2P	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	52804	34.6	Pass
68	Less than 2.0% of mass 69	397	0.26 (0.57) ^a	Pass
69	Mass 69 relative abundance	69191	45.4	Pass
70	Less than 2.0% of mass 69	33	0.02 (0.05) ^a	Pass
127	40.0 - 60.0% of mass 198	83261	54.6	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	152533	100.0	Pass
199	5.0 - 9.0% of mass 198	10578	6.93	Pass
275	10.0 - 30.0% of mass 198	40707	26.7	Pass
365	1.0 - 100.0% of mass 198	7716	5.06	Pass
441	Present, but less than mass 443	26771	17.6 (94.2) ^b	Pass
442	40.0 - 100.0% of mass 198	146416	96.0	Pass
443	17.0 - 23.0% of mass 442	28419	18.6 (19.4) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3505-CC3484	2P79603.D	05/15/18	09:18	00:12	Continuing cal 25
E2P3505-CC3481	2P79604.D	05/15/18	09:41	00:35	Continuing cal 25
OP11970-MB1	2P79616.D	05/15/18	14:04	04:58	Method Blank
JC65662-2	2P79618.D	05/15/18	14:48	05:42	SB-117(3-4)
ZZZZZZ	2P79619.D	05/15/18	15:10	06:04	(unrelated sample)
JC65662-2	2P79620.D	05/15/18	15:32	06:26	SB-117(3-4)
ZZZZZZ	2P79621.D	05/15/18	15:54	06:48	(unrelated sample)
JC65662-2	2P79622.D	05/15/18	16:16	07:10	SB-117(3-4)

Internal Standard Area Summary

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Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E2P3497-CC3484	Injection Date: 05/10/18
Lab File ID: 2P79372.D	Injection Time: 00:07
Instrument ID: GCMS2P	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	506798	4.53	1659161	5.59	975463	7.02	1727807	8.28	1794927	11.44	1691548	13.41
Upper Limit ^a	1013596	5.03	3318322	6.09	1950926	7.52	3455614	8.78	3589854	11.94	3383096	13.91
Lower Limit ^b	253399	4.03	829581	5.09	487732	6.52	863904	7.78	897464	10.94	845774	12.91

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP11893-MB	727518	4.53	2661908	5.59	1241763	7.02	2257689	8.27	2099347	11.43	1937692	13.40
OP11893-BS	569979	4.53	1856036	5.59	928702	7.02	1750252	8.28	1808338	11.44	1651673	13.40
ZZZZZZ	774759	4.53	2791236	5.59	1291452	7.02	2371314	8.27	2172552	11.43	1986657	13.40
ZZZZZZ	436522	4.53	1644649	5.59	1015140	7.02	2057726	8.27	2116408	11.43	1972288	13.40
ZZZZZZ	454825	4.53	1615931	5.59	1034791	7.02	2097673	8.27	2165251	11.43	1995323	13.40
ZZZZZZ	781510	4.53	2859905	5.59	1330285	7.02	2403658	8.27	2165377	11.43	1993613	13.40
ZZZZZZ	756753	4.53	2670264	5.59	1250825	7.02	2222462	8.27	1968290	11.43	1777982	13.40
ZZZZZZ	796051	4.53	2851895	5.59	1330206	7.02	2404893	8.27	2160147	11.43	1904990	13.40
ZZZZZZ	765195	4.53	2726526	5.59	1279013	7.02	2241102	8.27	2071323	11.43	1855404	13.40
ZZZZZZ	792583	4.53	2783609	5.59	1282300	7.02	2308032	8.27	2045559	11.43	1822532	13.40
ZZZZZZ	793859	4.53	2838913	5.59	1332119	7.02	2388543	8.27	2197366	11.43	1919064	13.40
ZZZZZZ	768950	4.53	2730823	5.59	1285110	7.02	2351788	8.27	2158374	11.43	1950863	13.40
ZZZZZZ	752058	4.53	2683185	5.59	1245547	7.02	2287075	8.27	2092562	11.43	1901585	13.40
ZZZZZZ	766727	4.53	2732684	5.59	1272411	7.02	2342431	8.27	2150001	11.43	1964238	13.40
ZZZZZZ	744850	4.53	2689540	5.59	1256893	7.02	2297114	8.27	2130964	11.43	1912685	13.40
ZZZZZZ	746483	4.53	2684474	5.59	1262011	7.02	2350910	8.27	2144171	11.43	1952457	13.40
ZZZZZZ	789825	4.53	2775055	5.59	1267035	7.02	2222397	8.27	1897595	11.43	1675593	13.41
ZZZZZZ	674209	4.53	2297409	5.59	1090839	7.02	1932419	8.28	1501351	11.44	1387295	13.42

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

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

Internal Standard Area Summary

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Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E2P3498-CC3484	Injection Date: 05/10/18
Lab File ID: 2P79410.D	Injection Time: 13:03
Instrument ID: GCMS2P	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	644070	4.53	2116786	5.59	1161057	7.02	2086563	8.28	2152987	11.46	1610747	13.43
Upper Limit ^a	1288140	5.03	4233572	6.09	2322114	7.52	4173126	8.78	4305974	11.96	3221494	13.93
Lower Limit ^b	322035	4.03	1058393	5.09	580529	6.52	1043282	7.78	1076494	10.96	805374	12.93

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP11915-MB1	1002444	4.53	3650253	5.59	1717909	7.02	3146969	8.28	2777245	11.46	2156557	13.43
OP11915-BS1	658201	4.53	2144709	5.59	1082331	7.02	1992320	8.28	2057205	11.46	1587842	13.43
JC65662-1	901066	4.53	3192415	5.59	1379564	7.02	2254204	8.28	1508459	11.47	1396324	13.45
OP11893-MS	851322	4.53	2840836	5.59	1210026	7.02	1926042	8.29	1461633	11.49	1386123	13.49
OP11893-MSD	850170	4.53	2854491	5.59	1192005	7.02	1919645	8.29	1416326	11.50	1310144	13.49
JC65662-1 ^c	848454	4.53	2861040	5.59	1141642	7.02	1772827	8.29	1357869	11.51	1269979	13.51
OP11915-MS	752689	4.54	2522706	5.59	1199829	7.03	2000398	8.29	1714821	11.48	1468307	13.47
OP11915-MSD	655169	4.54	2191679	5.59	1075541	7.03	1834276	8.29	1523770	11.48	1314441	13.46
ZZZZZZ	858801	4.53	3167638	5.59	1463861	7.02	2579965	8.29	1946919	11.47	1378559	13.45
ZZZZZZ	1020907	4.53	3610240	5.59	1730674	7.02	3029510	8.29	2404135	11.47	1682758	13.45
ZZZZZZ	1026815	4.53	3542697	5.59	1711943	7.02	3071807	8.29	2379975	11.47	1668271	13.45
ZZZZZZ	941242	4.53	3382063	5.59	1593040	7.02	2795568	8.29	2239549	11.47	1608704	13.45
ZZZZZZ	904727	4.53	3267387	5.59	1557553	7.02	2803972	8.29	2289379	11.47	1667072	13.45
ZZZZZZ	932725	4.53	3321690	5.59	1570501	7.02	2724428	8.29	2280382	11.47	1698391	13.44
ZZZZZZ	931383	4.53	3321073	5.59	1569947	7.02	2806328	8.29	2385800	11.47	1816786	13.44
ZZZZZZ	907773	4.53	3144597	5.59	1501779	7.02	2691151	8.29	2273926	11.47	1714123	13.44
ZZZZZZ	892740	4.53	3187533	5.59	1471354	7.02	2628933	8.28	2310047	11.47	1737206	13.44
JC65790-1	894200	4.53	3271130	5.59	1494550	7.02	2564833	8.29	1892759	11.47	1500141	13.45
ZZZZZZ	814451	4.53	2986743	5.59	1383084	7.02	2409920	8.29	1768355	11.47	1323434	13.44
ZZZZZZ	882604	4.53	3298654	5.59	1475765	7.02	2490364	8.29	1705342	11.47	1377876	13.45
ZZZZZZ	907812	4.53	3246383	5.59	1502362	7.02	2544889	8.29	1714730	11.47	1377329	13.45

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

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Dilution required due to matrix interference.

Internal Standard Area Summary

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Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E2P3505-CC3484	Injection Date: 05/15/18
Lab File ID: 2P79603.D	Injection Time: 09:18
Instrument ID: GCMS2P	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	708704	4.47	2293559	5.53	1330000	6.96	2334098	8.22	2442915	11.37	1836283	13.35
Upper Limit ^a	1417408	4.97	4587118	6.03	2660000	7.46	4668196	8.72	4885830	11.87	3672566	13.85
Lower Limit ^b	354352	3.97	1146780	5.03	665000	6.46	1167049	7.72	1221458	10.87	918142	12.85

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP11970-MB1	967707	4.47	3596243	5.53	1740069	6.96	3145902	8.21	2949569	11.37	2790282	13.34
JC65662-2	952478	4.47	3419366	5.53	1565246	6.96	2858379	8.21	2701324	11.37	2593742	13.34
ZZZZZZ	1033861	4.47	3807688	5.53	1840348	6.96	3295369	8.21	2685117	11.37	2398960	13.35
JC65662-2	871279	4.47	2945381	5.53	1077451	6.96	2145791	8.22	1849962	11.39	1928181	13.36
ZZZZZZ	428925	4.48	1569595	5.53	716894	6.96	1097526*	8.22	867052*	11.37	861402*	13.35
JC65662-2	631079	4.48	2204525	5.55	849888	6.97	1822639	8.26	1749244	11.48	1574614	13.46

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

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

Surrogate Recovery Summary

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8270D	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
JC65662-1	2P79418.D	54	65	66
JC65662-1	2P79417.D	43	53	45
JC65662-2	2P79618.D	0* a	0* a	0* a
JC65662-2	2P79620.D	105	111	157* a
JC65662-2	2P79622.D	82	102	117
OP11893-BS	2P79376.D	81	88	90
OP11893-MB	2P79375.D	81	97	91
OP11893-MS	2P79415.D	51	59	54
OP11893-MSD	2P79416.D	50	59	53

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-134%
S2 = 2-Fluorobiphenyl	39-124%
S3 = Terphenyl-d14	36-134%

(a) Outside control limits due to dilution.

Initial Calibration Summary

Page 1 of 1

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-ICC3481
Lab FileID: 2P79039.D

Response Factor Report MS2P

Method : C:\MSDCHEM\1\METHODS\M2P3481.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed May 02 11:50:31 2018
Response via : Initial Calibration

Calibration Files

2 =2p79043.D 5 =2p79042.D 25 =2p79040.D 80 =2p79038.D
100 =2p79037.D 50 =2p79039.D 1 =2p79044.D 10 =2p79041.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
101) I 1,4-Dichlorobenzene-d										
102) Benzaldehyde	1.115	1.081	1.036	1.024	1.044	1.038	1.056	1.066	1.057	2.79
103) I Naphthalene-d8a										
104) Hydroquinone	0.289	0.310	0.347	0.329	0.312	0.345	0.229	0.334	0.312	12.37
105) I Acenaphthene-d10a										
106) Atrazine	0.172	0.177	0.176	0.169	0.156	0.178	0.173	0.173	0.172	4.10
107) 1,2,4,5-Tetr	0.659	0.629	0.576	0.507	0.483	0.539	0.633	0.595	0.577	10.94
108) I Chrysene-d12a										
109) Benzidine	0.331	0.474	0.558	0.508	0.488	0.551	0.227	0.601	0.467	27.02
----- Quadratic regression -----										Coefficient = 0.9998
Response Ratio = -0.01140 + 0.61773 *A + -0.05046 *A^2										
110) I Phenanthrene-d10a										
111) 1-Chloroocta	0.291	0.300	0.294	0.277	0.271	0.295	0.273	0.309	0.289	4.71
112) o-terphenyl	0.546	0.547	0.535	0.511	0.499	0.537	0.553	0.561	0.536	3.94
113) Pentachloron	0.040	0.044	0.047	0.047	0.045	0.047	0.040	0.046	0.044#	6.91

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

M2P3479.M

Wed May 02 11:58:44 2018

RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-ICV3481
Lab FileID: 2P79046.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79046.D Vial: 11
Acq On : 1 May 2018 11:49 pm Operator: chriss2
Sample : icv3481-50 Inst : MS2P
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed May 02 11:50:31 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105 I	Acenaphthene-d10a	1.000	1.000	0.0	100	0.00	7.11
107	1,2,4,5-Tetrachlorobenzen	0.577	0.708	-22.7	132	0.00	6.39
108 I	Chrysene-d12a	1.000	1.000	0.0	84	0.00	11.59
	----- True Calc. % Drift -----						
109	Benzidine	100.000	82.100	17.9	128	0.00	9.91

(#) = Out of Range
2p79039a.D M2P3479.M

SPCC's out = 0 CCC's out = 0
Wed May 02 11:56:41 2018 RPT1

6.7.2
6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-ICV3481
Lab FileID: 2P79047.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79047.D Vial: 12
Acq On : 2 May 2018 12:11 am Operator: chriss2
Sample : icv3481-50 Inst : MS2P
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed May 02 11:50:31 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	118	0.00	4.62
102	Benzaldehyde	1.057	0.996	5.8	113	0.00	4.28
105 I	Acenaphthene-d10a	1.000	1.000	0.0	105	0.00	7.11
106	Atrazine	0.172	0.218	-26.7	129	0.00	8.14

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p79039a.D M2P3479.M Wed May 02 11:56:43 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-ICV3481
Lab FileID: 2P79048.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79048.D Vial: 13
Acq On : 2 May 2018 12:32 am Operator: chriss2
Sample : icv3481-50 Inst : MS2P
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed May 02 11:50:31 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
110 I	Phenanthrene-d10a	1.000	1.000	0.0	116	0.00	8.38
113	Pentachloronitrobenzene	0.044	0.048#	-9.1	118	0.00	8.22

(#) = Out of Range
2p79039a.D M2P3479.M

SPCC's out = 0 CCC's out = 0
Wed May 02 11:56:45 2018 RPT1

6.7.4
6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-ICV3481
Lab FileID: 2P79049.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79049.D Vial: 14
Acq On : 2 May 2018 12:54 am Operator: chriss2
Sample : icv3481-50 Inst : MS2P
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed May 02 11:50:31 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
103 I	Naphthalene-d8a	1.000	1.000	0.0	134	0.00	5.67
104	Hydroquinone	0.312	0.353	-13.1	138	-0.02	6.13

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p79039a.D M2P3479.M Wed May 02 11:56:47 2018 RPT1

Initial Calibration Summary

Page 1 of 3

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICC3484
Lab FileID: 2P79083.D

Response Factor Report MS2P

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Initial Calibration

Calibration Files

2 =2p79087.D 5 =2p79086.D 25 =2p79084.D 80 =2p79082.D
100 =2p79081.D 50 =2p79083.D 1 =2p79088.D 10 =2p79085.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
-----ISTD-----										
1) I 1,4-Dichlorobenzene-d										
2) 1,4-Dioxane	0.559	0.542	0.656	0.782	0.943	0.662	0.339	0.613	0.637	27.84
----- Quadratic regression -----										Coefficient = 0.997
Response Ratio =	0.02544									+ 0.37596 *A + 0.21544 *A^2
3) Pyridine	1.381	1.345	1.578	1.740	2.026	1.670	1.495	1.302	1.567	15.45
4) N-Nitrosodim	0.694	0.699	0.952	1.106	1.158	0.961	0.614	0.855	0.880	22.69
----- Linear regression -----										Coefficient = 0.9948
Response Ratio =	-0.07189									+ 1.14713 *A
5) 2-Fluorophen	1.291	1.363	1.649	1.887		1.773		1.510	1.579	14.77
6) Indene	2.056	2.057	2.089	2.046	1.969	2.057	2.057	2.157	2.061	2.51
7) Cumene	3.433	3.540	3.999	4.094	4.067	4.020	3.617	3.825	3.824	6.83
8) Phenol-d5	1.540	1.599	1.737	1.701	1.660	1.689	1.476	1.687	1.636	5.48
9) Phenol	1.575	1.674	1.745	1.651	1.644	1.675	1.687	1.733	1.673	3.18
10) Aniline	1.838	1.955	2.321	2.428	2.318	2.373	1.877	2.137	2.156	11.01
11) bis(2-Chloro	1.283	1.342	1.370	1.315	1.360	1.300	1.202	1.356	1.316	4.21
12) 2-Chlorophen	1.461	1.485	1.411	1.310	1.267	1.326	1.469	1.476	1.401	6.20
13) Decane	1.357	1.268	1.236	1.131	1.101	1.135	1.324	1.289	1.230	7.85
14) 1,3-Dichloro	1.674	1.649	1.593	1.555	1.508	1.532	1.699	1.658	1.609	4.45
15) 1,4-Dichloro	1.493	1.474	1.466	1.471	1.447	1.445	1.526	1.505	1.478	1.90
16) Benzyl alcoh	0.478	0.607	0.700	0.707	0.691	0.708		0.677	0.652	12.98
17) 1,2-Dichloro	1.380	1.450	1.495	1.546	1.504	1.492	1.464	1.521	1.481	3.43
18) Acetophenone	1.730	1.705	1.714	1.686	1.635	1.666	1.698	1.811	1.706	3.04
19) 2-Methylphen	1.112	1.079	1.163	1.158	1.102	1.137	1.042	1.229	1.128	5.11
20) 2,2'-oxybis(	0.265	0.324	0.317	0.295	0.289	0.299	0.340	0.343	0.309	8.67
21) 3&4-Methylph	1.108	1.144	1.149	1.103	1.097	1.128	1.018	1.227	1.122	5.25
22) n-Nitroso-di	0.796	0.806	0.805	0.766	0.737	0.774	0.779	0.852	0.790	4.32
23) Hexachloroet	0.464	0.450	0.457	0.467	0.452	0.453	0.486	0.480	0.464	2.90
-----ISTD-----										
24) I Naphthalene-d8										
25) Nitrobenzene	0.353	0.371	0.372	0.366	0.366	0.374	0.360	0.387	0.369	2.78
26) Nitrobenzene	0.361	0.369	0.352	0.339	0.335	0.351	0.386	0.376	0.359	4.95
27) Quinoline	0.659	0.700	0.721	0.764	0.767	0.756	0.665	0.747	0.722	6.03
28) Isophorone	0.560	0.598	0.632	0.654	0.663	0.665	0.547	0.633	0.619	7.44
29) 2-Nitropheno		0.189	0.206	0.203	0.202	0.207		0.206	0.202	3.32
30) 2,4-Dimethyl	0.342	0.358	0.361	0.358	0.352	0.365	0.320	0.376	0.354	4.81
31) Benzoic acid	0.074	0.093	0.168	0.207	0.217	0.207		0.133	0.157	36.86
----- Quadratic regression -----										Coefficient = 0.999
Response Ratio =	-0.01219									+ 0.19449 *A + 0.01053 *A^2
32) bis(2-Chloro	0.362	0.363	0.347	0.342	0.339	0.354	0.364	0.369	0.355	3.21
33) 2,4-Dichloro	0.287	0.300	0.317	0.329	0.330	0.329	0.264	0.315	0.309	7.67
34) 2,6-Dichloro	0.250	0.266	0.290	0.304	0.306	0.301	0.236	0.287	0.280	9.35
35) 1,3,5-Trichl	0.364	0.362	0.362	0.364	0.357	0.367	0.373	0.373	0.365	1.48
36) 1,2,4-Trichl	0.336	0.338	0.319	0.317	0.317	0.323	0.362	0.345	0.332	4.86

Initial Calibration Summary

Page 2 of 3

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICC3484
Lab FileID: 2P79083.D

37)	1,2,3-Trichl	0.301	0.291	0.287	0.278	0.276	0.287	0.300	0.307	0.291	3.77
38)	Naphthalene	0.974	0.951	0.955	0.954	0.935	0.968	1.002	1.001	0.968	2.47
39)	4-Chloroanil	0.403	0.419	0.435	0.432	0.421	0.444	0.425	0.459	0.430	3.93
40)	2,3-Dichloro	0.364	0.374	0.370	0.376	0.375	0.377	0.359	0.386	0.373	2.21
41)	Caprolactam	0.075	0.092	0.112	0.123	0.122	0.118		0.110	0.107	16.51
42)	Hexachlorobu	0.158	0.162	0.157	0.156	0.153	0.160	0.158	0.166	0.159	2.53
43)	4-Chloro-3-m	0.278	0.296	0.327	0.340	0.338	0.340	0.264	0.326	0.314	9.59
44)	2-Methylnaph	0.608	0.608	0.616	0.598	0.589	0.619	0.600	0.645	0.611	2.78
45)	1-Methylnaph	0.650	0.640	0.641	0.619	0.616	0.640	0.662	0.675	0.643	3.09
46)	Dimethylnaph	0.621	0.596	0.587	0.608	0.612	0.609	0.623	0.630	0.611	2.30
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.243	0.273	0.331	0.331	0.324	0.336		0.317	0.308	11.53
49)	2,4,6-Trichl	0.339	0.364	0.402	0.394	0.389	0.400	0.335	0.392	0.377	7.20
50)	2,4,5-Trichl	0.367	0.385	0.394	0.368	0.354	0.383	0.329	0.405	0.373	6.42
51)	2-Fluorobiph	1.485	1.450	1.358	1.212	1.151	1.262	1.601	1.458	1.372	11.20
52)	2-Chloronaph	1.258	1.200	1.079	0.954	0.931	1.005	1.254	1.216	1.112	12.27
53)	Biphenyl	1.713	1.650	1.529	1.404	1.367	1.445	1.716	1.632	1.557	8.97
54)	2-Nitroanili	0.291	0.328	0.332	0.303	0.288	0.315	0.279	0.355	0.311	8.32
55)	Dimethylphth	1.331	1.334	1.302	1.247	1.225	1.277	1.335	1.385	1.305	4.02
56)	Acenaphthyle	1.957	2.009	1.905	1.711	1.664	1.810	1.899	2.030	1.873	7.15
57)	2,6-Dinitrot	0.242	0.272	0.302	0.289	0.291	0.297	0.211	0.304	0.276	12.03
58)	3-Nitroanili	0.267	0.297	0.333	0.320	0.307	0.335	0.238	0.334	0.304	11.62
59)	Acenaphthene	1.129	1.138	1.156	1.131	1.110	1.165	1.199	1.189	1.152	2.68
60)	2,4-Dinitrop	0.042	0.069	0.134	0.162	0.161	0.152	0.030	0.101	0.106	50.75
----- Quadratic regression -----										Coefficient =	0.9993
Response Ratio = -0.01619 + 0.14975 *A + 0.00329 *A^2											
61)	4-Nitropheno	0.161	0.196	0.186	0.183	0.188		0.189	0.184		6.42
62)	Dibenzofuran	1.582	1.619	1.645	1.556	1.527	1.600	1.600	1.689	1.602	3.16
63)	2,4-Dinitrot	0.306	0.340	0.373	0.352	0.341	0.364	0.234	0.375	0.336	13.97
64)	2,3,4,6-Tetr	0.268	0.278	0.319	0.330	0.327	0.325	0.233	0.314	0.299	11.87
65)	Diethylphtha	1.308	1.343	1.344	1.239	1.210	1.268	1.274	1.411	1.300	5.00
66)	Fluorene	1.313	1.330	1.304	1.197	1.139	1.271	1.336	1.396	1.286	6.40
67)	4-Chlorophen	0.586	0.577	0.592	0.584	0.565	0.594	0.574	0.623	0.587	2.94
68)	4-Nitroanili	0.296	0.338	0.361	0.347	0.336	0.350	0.266	0.374	0.333	10.65
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.043	0.067	0.109	0.123	0.125	0.120	0.036	0.091	0.089	40.74
----- Quadratic regression -----										Coefficient =	0.9997
Response Ratio = -0.00500 + 0.11879 *A + 0.00328 *A^2											
71)	n-Nitrosodip	0.569	0.561	0.521	0.504	0.489	0.511	0.576	0.567	0.537	6.42
72)	1,2-Diphenyl	0.822	0.815	0.745	0.643	0.620	0.690	0.807	0.833	0.747	11.51
73)	2,4,6-Tribo	0.107	0.113	0.125	0.136	0.140	0.134	0.097	0.124	0.122	12.39
74)	4-Bromopheny	0.199	0.206	0.215	0.226	0.231	0.225	0.199	0.220	0.215	5.93
75)	Hexachlorobe	0.259	0.266	0.267	0.271	0.271	0.270	0.281	0.278	0.270	2.59
76)	Pentachlorop	0.055	0.081	0.112	0.134	0.136	0.130	0.048	0.099	0.099	35.16
----- Quadratic regression -----										Coefficient =	0.9995
Response Ratio = -0.00956 + 0.12388 *A + 0.00287 *A^2											
77)	Phenanthrene	1.022	1.003	0.991	1.008	0.993	1.021	1.070	1.035	1.018	2.54
78)	Anthracene	0.978	1.009	1.007	0.974	0.959	1.001	0.948	1.052	0.991	3.37
79)	Carbazole	1.018	1.061	1.082	1.079	1.064	1.108	1.012	1.118	1.068	3.56
80)	Di-n-butylph	1.135	1.299	1.465	1.460	1.444	1.497	1.034	1.453	1.348	13.01
81)	Fluoranthene	1.201	1.266	1.407	1.411	1.397	1.435	1.174	1.381	1.334	7.78
82)	Octadecane	0.317	0.333	0.332	0.311	0.299	0.328	0.296	0.349	0.320	5.70
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.365	1.385	1.317	1.266	1.266	1.327	1.363	1.440	1.341	4.45

Initial Calibration Summary

Page 3 of 3

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICC3484
Lab FileID: 2P79083.D

85)	Terphenyl-d1	0.853	0.846	0.844	0.889	0.878	0.873	0.874	0.901	0.870	2.36
86)	Butylbenzylp	0.520	0.607	0.701	0.748	0.744	0.746		0.700	0.681	12.67
87)	Benzo[a]anth	1.164	1.185	1.258	1.336	1.323	1.324	1.130	1.278	1.250	6.40
88)	3,3'-Dichlor	0.292	0.330	0.378	0.408	0.412	0.403		0.373	0.371	12.09
89)	Chrysene	1.025	1.006	0.971	0.928	0.915	0.965	1.043	1.034	0.986	4.92
90)	bis(2-Ethylh	0.546	0.636	0.714	0.703	0.692	0.717	0.465	0.731	0.650	14.82
91)	I Perylene-d12	-----ISTD-----									
92)	Di-n-octylph	0.934	1.253	1.742	1.851	1.823	1.835	0.761	1.583	1.473	29.55
	----- Quadratic regression -----	Coefficient = 0.9998									
	Response Ratio =	-0.06116 + 1.89887 *A + -0.01697 *A^2									
93)	Benzo[b]fluo	1.323	1.293	1.359	1.332	1.348	1.350	1.276	1.419	1.338	3.28
94)	Benzo[k]fluo	1.119	1.136	1.067	0.975	0.927	1.031	1.128	1.157	1.068	7.82
95)	Benzo[a]pyre	0.951	1.031	1.156	1.173	1.162	1.175	0.964	1.137	1.094	8.78
96)	Indeno[1,2,3	1.019	1.102	1.264	1.325	1.317	1.320	0.992	1.234	1.197	11.59
97)	Dibenz(a,h)a	0.717	0.810	0.952	1.052	1.055	1.017	0.668	0.894	0.896	16.84
98)	Dibenz[a,h]a	0.846	0.909	1.006	1.025	1.025	1.023	0.850	1.004	0.961	8.29
99)	7,12-Dimethy	0.498	0.549	0.614	0.620	0.629	0.624	0.473	0.620	0.578	10.93
100)	Benzo[g,h,i]	0.860	0.858	0.994	1.047	1.038	1.044	0.845	0.970	0.957	9.28

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

M2P3484.M

Thu May 03 12:47:05 2018

RPT1

6.7.6

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
Lab FileID: 2P79089.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79089.D Vial: 11
Acq On : 3 May 2018 6:14 am Operator: chriss2
Sample : icv3484-50 Inst : MS2P
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	173	0.00	4.61
5 S	2-Fluorophenol	1.579	1.555	1.5	151	0.00	3.59
8 S	Phenol-d5	1.636	1.614	1.3	165	0.00	4.42
24 I	Naphthalene-d8	1.000	1.000	0.0	187	0.00	5.66
25 S	Nitrobenzene-d5	0.369	0.380	-3.0	190	0.00	5.10
47 I	Acenaphthene-d10	1.000	1.000	0.0	173	0.00	7.09
51 S	2-Fluorobiphenyl	1.372	1.371	0.1	188	0.00	6.55
69 I	Phenanthrene-d10	1.000	1.000	0.0	161	0.00	8.36
73 S	2,4,6-Tribromophenol	0.122	0.127	-4.1	153	0.00	7.75
83 I	Chrysene-d12	1.000	1.000	0.0	149	0.00	11.56
85 S	Terphenyl-d14	0.870	0.915	-5.2	156	0.00	10.14

(#) = Out of Range
2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
Thu May 03 12:39:22 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
Lab FileID: 2P79090.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79090.D Vial: 12
Acq On : 3 May 2018 6:36 am Operator: chriss2
Sample : icv3484-50 Inst : MS2P
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	152	0.00	4.61
9 t	Phenol	1.673	1.903	-13.7	173	0.00	4.43
12 t	2-Chlorophenol	1.401	1.531	-9.3	176	0.00	4.47
19 t	2-Methylphenol	1.128	1.161	-2.9	155	0.00	4.90
21 t	3&4-Methylphenol	1.122	1.176	-4.8	159	0.00	5.03
24 I	Naphthalene-d8	1.000	1.000	0.0	135	0.00	5.66
29 t	2-Nitrophenol	0.202	0.240	-18.8	157	0.00	5.37
30 t	2,4-Dimethylphenol	0.354	0.369	-4.2	136	0.00	5.44
	----- True Calc. % Drift -----						
31 t	Benzoic acid	50.000	27.287	45.4#	66	0.00	5.60
	----- AvgRF CCRF % Dev -----						
33 t	2,4-Dichlorophenol	0.309	0.320	-3.6	131	0.00	5.58
34 t	2,6-Dichlorophenol	0.280	0.304	-8.6	137	0.00	5.76
43 t	4-Chloro-3-methylphenol	0.314	0.331	-5.4	132	-0.01	6.20
47 I	Acenaphthene-d10	1.000	1.000	0.0	134	0.00	7.09
49 t	2,4,6-Trichlorophenol	0.377	0.403	-6.9	135	0.00	6.50
50 t	2,4,5-Trichlorophenol	0.373	0.380	-1.9	133	-0.01	6.54
	----- True Calc. % Drift -----						
60 t	2,4-Dinitrophenol	50.000	48.263	3.5	122	0.00	7.18
	----- AvgRF CCRF % Dev -----						
61 t	4-Nitrophenol	0.184	0.196	-6.5	140	0.00	7.32
64	2,3,4,6-Tetrachlorophenol	0.299	0.302	-1.0	125	0.00	7.38
69 I	Phenanthrene-d10	1.000	1.000	0.0	132	0.00	8.36
	----- True Calc. % Drift -----						
70 t	4,6-Dinitro-2-methylpheno	50.000	52.365	-4.7	137	0.00	7.60
	----- True Calc. % Drift -----						
76 t	Pentachlorophenol	50.000	59.284	-18.6	151	0.00	8.21

(#) = Out of Range
2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
Thu May 03 12:39:24 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
Lab FileID: 2P79091.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79091.D Vial: 13
Acq On : 3 May 2018 6:58 am Operator: chriss2
Sample : icv3484-50 Inst : MS2P
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	141	0.00	4.61
3 t	Pyridine	1.567	1.173	25.1	99	0.14	2.49
10	Aniline	2.156	2.116	1.9	125	0.01	4.39
16 t	Benzyl alcohol	0.652	0.721	-10.6	143	0.00	4.78
24 I	Naphthalene-d8	1.000	1.000	0.0	165	0.00	5.66
39 t	4-Chloroaniline	0.430	0.371	13.7	138	0.00	5.77
44 t	2-Methylnaphthalene	0.611	0.517	15.4	138	0.00	6.24
47 I	Acenaphthene-d10	1.000	1.000	0.0	145	0.00	7.09
54 t	2-Nitroaniline	0.311	0.343	-10.3	157	0.00	6.78
58 t	3-Nitroaniline	0.304	0.306	-0.7	132	0.00	7.12
62 t	Dibenzofuran	1.602	1.452	9.4	131	0.00	7.26
68 t	4-Nitroaniline	0.333	0.329	1.2	136	0.00	7.64
69 I	Phenanthrene-d10	1.000	1.000	0.0	138	0.00	8.36
79 t	Carbazole	1.068	1.029	3.7	128	0.00	8.63

(#) = Out of Range
2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
Thu May 03 12:39:26 2018 RPT1

Initial Calibration Verification

Page 1 of 2

Job Number: JC65662
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
 Lab FileID: 2P79092.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79092.D Vial: 14
 Acq On : 3 May 2018 7:19 am Operator: chriss2
 Sample : icv3484-50 Inst : MS2P
 Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu May 03 12:30:09 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	146	0.00	4.61
----- True Calc. % Drift -----							
4 t	N-Nitrosodimethylamine	50.000	27.362	45.3#	86	0.01	2.30
----- AvgRF CCRF % Dev -----							
11 t	bis(2-Chloroethyl)ether	1.316	1.389	-5.5	156	0.00	4.41
14 t	1,3-Dichlorobenzene	1.609	1.690	-5.0	161	0.00	4.56
15 t	1,4-Dichlorobenzene	1.478	1.358	8.1	137	0.00	4.62
17 t	1,2-Dichlorobenzene	1.481	1.347	9.0	131	0.00	4.75
20 t	2,2'-oxybis(1-Chloropropa	0.309	0.314	-1.6	153	0.00	4.84
22 t	n-Nitroso-di-n-propylamin	0.790	0.732	7.3	138	-0.01	4.96
23 t	Hexachloroethane	0.464	0.447	3.7	144	0.00	5.03
24 I	Naphthalene-d8	1.000	1.000	0.0	140	0.00	5.66
26 t	Nitrobenzene	0.359	0.336	6.4	134	0.00	5.11
28 t	Isophorone	0.619	0.592	4.4	125	0.00	5.29
32 t	bis(2-Chloroethoxy)methan	0.355	0.388	-9.3	153	0.00	5.48
36 t	1,2,4-Trichlorobenzene	0.332	0.344	-3.6	149	0.00	5.61
38 t	Naphthalene	0.968	0.909	6.1	131	0.00	5.68
42 t	Hexachlorobutadiene	0.159	0.171	-7.5	149	0.00	5.78
47 I	Acenaphthene-d10	1.000	1.000	0.0	130	0.00	7.10
48 t	Hexachlorocyclopentadiene	0.308	0.361	-17.2	127	0.00	6.37
52 t	2-Chloronaphthalene	1.112	1.271	-14.3	165	0.00	6.64
55 t	Dimethylphthalate	1.305	1.374	-5.3	140	0.00	6.90
56 t	Acenaphthylene	1.873	1.768	5.6	127	0.00	6.98
57 t	2,6-Dinitrotoluene	0.276	0.283	-2.5	124	0.00	6.95
59 t	Acenaphthene	1.152	1.079	6.3	121	0.00	7.12
63 t	2,4-Dinitrotoluene	0.336	0.361	-7.4	129	0.00	7.28
65 t	Diethylphthalate	1.300	1.340	-3.1	137	0.00	7.46
66 t	Fluorene	1.286	1.206	6.2	123	0.00	7.54
67 t	4-Chlorophenyl-phenylethe	0.587	0.572	2.6	125	0.00	7.53
69 I	Phenanthrene-d10	1.000	1.000	0.0	140	0.00	8.36
71 t	n-Nitrosodiphenylamine	0.537	0.449	16.4	123	0.00	7.65
72 t	1,2-Diphenylhydrazine	0.747	0.612	18.1	124	0.00	7.67
74 t	4-Bromophenyl-phenylether	0.215	0.199	7.4	124	0.00	7.95
75 t	Hexachlorobenzene	0.270	0.236	12.6	122	0.00	8.01
77 t	Phenanthrene	1.018	0.921	9.5	126	0.00	8.39
78 t	Anthracene	0.991	0.857	13.5	120	0.00	8.44
80 t	Di-n-butylphthalate	1.348	1.282	4.9	120	0.00	8.95

Initial Calibration Verification

Page 2 of 2

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
Lab FileID: 2P79092.D

81 t	Fluoranthene	1.334	1.206	9.6	117	0.00	9.66
83 I	Chrysene-d12	1.000	1.000	0.0	117	0.00	11.56
84 t	Pyrene	1.341	1.268	5.4	112	0.00	9.94
86 t	Butylbenzylphthalate	0.681	0.746	-9.5	117	0.00	10.81
87 t	Benzo[a]anthracene	1.250	1.285	-2.8	113	0.00	11.54
89 t	Chrysene	0.986	0.877	11.1	106	0.00	11.60
90 t	bis(2-Ethylhexyl)phthalat	0.650	0.647	0.5	105	0.00	11.60
91 I	Perylene-d12	1.000	1.000	0.0	119	0.00	13.54
		----- True	Calc.	% Drift	-----		
92 t	Di-n-octylphthalate	50.000	46.822	6.4	111	0.00	12.51
		----- AvgRF	CCRF	% Dev	-----		
93 t	Benzo[b]fluoranthene	1.338	1.276	4.6	113	0.00	13.03
94 t	Benzo[k]fluoranthene	1.068	1.073	-0.5	124	0.00	13.07
95 t	Benzo[a]pyrene	1.094	1.126	-2.9	114	0.00	13.46
96 t	Indeno[1,2,3-cd]pyrene	1.197	1.361	-13.7	123	0.00	14.86
98 t	Dibenz[a,h]anthracene	0.961	1.025	-6.7	120	0.00	14.88
100 t	Benzo[g,h,i]perylene	0.957	1.092	-14.1	125	0.00	15.23

(#) = Out of Range
2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
Thu May 03 12:39:28 2018 RPT1

6.7.10
6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
Lab FileID: 2P79093.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79093.D Vial: 15
Acq On : 3 May 2018 7:41 am Operator: chriss2
Sample : icv3484-50 Inst : MS2P
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	151	0.00	4.61
	----- True	Calc.	% Drift	-----			
2 t	1,4-Dioxane	50.000	51.921	-3.8	160	0.01	1.96
	----- AvgRF	CCRF	% Dev	-----			
6 t	Indene	2.061	2.197	-6.6	162	0.00	4.82
7 t	Cumene	3.824	3.688	3.6	139	0.00	3.92
13 t	Decane	1.230	1.136	7.6	151	0.00	4.45
18 t	Acetophenone	1.706	1.554	8.9	141	0.00	4.96
24 I	Naphthalene-d8	1.000	1.000	0.0	174	0.00	5.66
27 t	Quinoline	0.722	0.618	14.4	142	-0.01	5.97
40 t	2,3-Dichloroaniline	0.373	0.267	28.4	123	0.00	6.51
41 t	Caprolactam	0.107	0.081	24.3	120	-0.03	6.06
45 t	1-Methylnaphthalene	0.643	0.470	26.9	128	0.00	6.32
46 t	Dimethylnaphthalene	0.611	0.451	26.2	129	0.00	6.74
47 I	Acenaphthene-d10	1.000	1.000	0.0	129	0.00	7.09
53 t	Biphenyl	1.557	1.517	2.6	136	0.00	6.63
69 I	Phenanthrene-d10	1.000	1.000	0.0	129	0.00	8.36
82 t	Octadecane	0.320	0.310	3.1	122	0.00	8.20
91 I	Perylene-d12	1.000	1.000	0.0	125	0.00	13.53
99 t	7,12-Dimethylbenz(a)anthr	0.578	0.378	34.6#	76	-0.01	13.02

(#) = Out of Range
2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
Thu May 03 12:39:30 2018 RPT1

6.7.11

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
Lab FileID: 2P79094.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79094.D Vial: 16
Acq On : 3 May 2018 8:02 am Operator: chriss2
Sample : icv3484-50 Inst : MS2P
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	152	0.00	11.56
88 t	3,3'-Dichlorobenzidine	0.371	0.353	4.9	133	0.00	11.58

(#) = Out of Range
2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
Thu May 03 12:39:32 2018 RPT1

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3497-CC3484
Lab FileID: 2P79372.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3497\2p79372.D Vial: 2
 Acq On : 10 May 2018 12:07 am Operator: georges
 Sample : cc3484-50 Inst : MS2P
 Misc : op10929,e2p3497,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu May 03 12:30:09 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00	4.53
	----- True	Calc.	% Drift	-----			
2 t	1,4-Dioxane	50.000	52.163	-4.3	99	-0.08	1.84
	----- AvgRF	CCRF	% Dev	-----			
3 t	Pyridine	1.567	1.534	2.1	85	-0.08	2.22
	----- True	Calc.	% Drift	-----			
4 t	N-Nitrosodimethylamine	50.000	43.208	13.6	90	-0.08	2.18
	----- AvgRF	CCRF	% Dev	-----			
5 S	2-Fluorophenol	1.579	1.494	5.4	78	-0.02	3.51
6 t	Indene	2.061	1.997	3.1	90	0.00	4.75
7 t	Cumene	3.824	3.722	2.7	86	-0.02	3.84
8 S	Phenol-d5	1.636	1.492	8.8	82	0.00	4.35
9 t	Phenol	1.673	1.518	9.3	84	0.00	4.36
10	Aniline	2.156	1.750	18.8	68	0.00	4.31
11 t	bis(2-Chloroethyl)ether	1.316	1.161	11.8	83	0.00	4.34
12 t	2-Chlorophenol	1.401	1.254	10.5	88	0.00	4.40
13 t	Decane	1.230	1.129	8.2	92	0.00	4.37
14 t	1,3-Dichlorobenzene	1.609	1.561	3.0	95	0.00	4.48
15 t	1,4-Dichlorobenzene	1.478	1.493	-1.0	96	0.00	4.54
16 t	Benzyl alcohol	0.652	0.402	38.3#	53	0.00	4.71
17 t	1,2-Dichlorobenzene	1.481	1.522	-2.8	95	0.00	4.68
18 t	Acetophenone	1.706	1.663	2.5	93	0.00	4.89
19 t	2-Methylphenol	1.128	1.100	2.5	90	0.02	4.84
20 t	2,2'-oxybis(1-Chloropropa	0.309	0.285	7.8	89	0.00	4.77
21 t	3&4-Methylphenol	1.122	1.065	5.1	88	0.02	4.97
22 t	n-Nitroso-di-n-propylamin	0.790	0.749	5.2	90	0.01	4.90
23 t	Hexachloroethane	0.464	0.507	-9.3	104	0.00	4.95
24 I	Naphthalene-d8	1.000	1.000	0.0	94	0.00	5.59
25 S	Nitrobenzene-d5	0.369	0.366	0.8	91	0.00	5.03
26 t	Nitrobenzene	0.359	0.348	3.1	93	0.00	5.04
27 t	Quinoline	0.722	0.718	0.6	89	0.01	5.91
28 t	Isophorone	0.619	0.613	1.0	86	0.00	5.22
29 t	2-Nitrophenol	0.202	0.206	-2.0	93	0.00	5.30
30 t	2,4-Dimethylphenol	0.354	0.321	9.3	82	0.00	5.38
	----- True	Calc.	% Drift	-----			
31 t	Benzoic acid	50.000	61.514	-23.0#	113	0.02	5.56

Continuing Calibration Summary

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3497-CC3484
Lab FileID: 2P79372.D

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		AvgRF	CCRF	% Dev			
32 t	bis(2-Chloroethoxy)methan	0.355	0.331	6.8	88	0.00	5.41
33 t	2,4-Dichlorophenol	0.309	0.321	-3.9	91	0.00	5.52
34 t	2,6-Dichlorophenol	0.280	0.296	-5.7	92	0.00	5.69
35	1,3,5-Trichlorobenzene	0.365	0.397	-8.8	101	0.00	5.27
36 t	1,2,4-Trichlorobenzene	0.332	0.352	-6.0	102	0.00	5.54
37	1,2,3-Trichlorobenzene	0.291	0.313	-7.6	102	0.00	5.73
38 t	Naphthalene	0.968	0.952	1.7	92	0.00	5.60
39 t	4-Chloroaniline	0.430	0.418	2.8	88	0.00	5.70
40 t	2,3-Dichloroaniline	0.373	0.397	-6.4	99	0.01	6.44
41 t	Caprolactam	0.107	0.108	-0.9	86	0.00	6.02
42 t	Hexachlorobutadiene	0.159	0.195	-22.6#	114	0.00	5.71
43 t	4-Chloro-3-methylphenol	0.314	0.320	-1.9	88	0.02	6.14
44 t	2-Methylnaphthalene	0.611	0.670	-9.7	101	0.00	6.17
45 t	1-Methylnaphthalene	0.643	0.658	-2.3	96	0.00	6.25
46 t	Dimethylnaphthalene	0.611	0.638	-4.4	98	0.01	6.67
47 I	Acenaphthene-d10	1.000	1.000	0.0	98	0.00	7.02
48 t	Hexachlorocyclopentadiene	0.308	0.408	-32.5#	119	0.00	6.30
49 t	2,4,6-Trichlorophenol	0.377	0.401	-6.4	98	0.00	6.43
50 t	2,4,5-Trichlorophenol	0.373	0.381	-2.1	98	0.00	6.48
51 S	2-Fluorobiphenyl	1.372	1.311	4.4	102	0.00	6.48
52 t	2-Chloronaphthalene	1.112	1.003	9.8	98	0.00	6.57
53 t	Biphenyl	1.557	1.436	7.8	98	0.00	6.55
54 t	2-Nitroaniline	0.311	0.291	6.4	91	0.00	6.71
55 t	Dimethylphthalate	1.305	1.263	3.2	97	0.00	6.83
56 t	Acenaphthylene	1.873	1.793	4.3	97	0.00	6.90
57 t	2,6-Dinitrotoluene	0.276	0.294	-6.5	97	0.00	6.88
58 t	3-Nitroaniline	0.304	0.317	-4.3	93	0.00	7.05
59 t	Acenaphthene	1.152	1.165	-1.1	98	0.00	7.04
60 t	2,4-Dinitrophenol	100.000	117.734	-17.7	117	0.00	7.11
61 t	4-Nitrophenol	0.184	0.202	-9.8	105	0.01	7.26
62 t	Dibenzofuran	1.602	1.574	1.7	97	0.00	7.19
63 t	2,4-Dinitrotoluene	0.336	0.365	-8.6	98	0.00	7.21
64	2,3,4,6-Tetrachlorophenol	0.299	0.355	-18.7	107	0.00	7.32
65 t	Diethylphthalate	1.300	1.283	1.3	99	0.00	7.38
66 t	Fluorene	1.286	1.284	0.2	99	0.00	7.46
67 t	4-Chlorophenyl-phenylethe	0.587	0.637	-8.5	105	0.00	7.46
68 t	4-Nitroaniline	0.333	0.330	0.9	92	0.00	7.57
69 I	Phenanthrene-d10	1.000	1.000	0.0	101	0.00	8.28
70 t	4,6-Dinitro-2-methylpheno	50.000	54.916	-9.8	111	0.00	7.53
71 t	n-Nitrosodiphenylamine	0.537	0.500	6.9	99	0.00	7.58
72 t	1,2-Diphenylhydrazine	0.747	0.641	14.2	94	0.00	7.59
73 S	2,4,6-Tribromophenol	0.122	0.138	-13.1	104	0.00	7.67
74 t	4-Bromophenyl-phenylether	0.215	0.242	-12.6	109	0.00	7.87
75 t	Hexachlorobenzene	0.270	0.275	-1.9	103	0.00	7.92
76 t	Pentachlorophenol	100.000	123.432	-23.4#	125	0.00	8.14

Continuing Calibration Summary

Page 3 of 3

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3497-CC3484
Lab FileID: 2P79372.D

		AvgRF	CCRF	% Dev			
77 t	Phenanthrene	1.018	1.029	-1.1	102	0.00	8.30
78 t	Anthracene	0.991	1.000	-0.9	101	0.00	8.35
79 t	Carbazole	1.068	1.033	3.3	94	0.00	8.55
80 t	Di-n-butylphthalate	1.348	1.419	-5.3	96	0.00	8.85
81 t	Fluoranthene	1.334	1.393	-4.4	98	0.00	9.56
82 t	Octadecane	0.320	0.299	6.6	93	0.00	8.12
83 I	Chrysene-d12	1.000	1.000	0.0	106	0.00	11.44
84 t	Pyrene	1.341	1.287	4.0	103	0.00	9.83
85 S	Terphenyl-d14	0.870	0.893	-2.6	109	0.00	10.03
86 t	Butylbenzylphthalate	0.681	0.663	2.6	94	0.00	10.70
87 t	Benzo[a]anthracene	1.250	1.288	-3.0	103	0.00	11.42
88 t	3,3'-Dichlorobenzidine	0.371	0.405	-9.2	107	0.00	11.47
89 t	Chrysene	0.986	1.004	-1.8	110	0.00	11.48
90 t	bis(2-Ethylhexyl)phthalat	0.650	0.661	-1.7	98	0.00	11.49
91 I	Perylene-d12	1.000	1.000	0.0	111	0.00	13.41
		True	Calc.	% Drift			
92 t	Di-n-octylphthalate	50.000	43.624	12.8	96	0.00	12.39
		AvgRF	CCRF	% Dev			
93 t	Benzo[b]fluoranthene	1.338	1.344	-0.4	111	0.00	12.91
94 t	Benzo[k]fluoranthene	1.068	1.004	6.0	108	0.00	12.95
95 t	Benzo[a]pyrene	1.094	1.124	-2.7	106	0.00	13.33
96 t	Indeno[1,2,3-cd]pyrene	1.197	1.293	-8.0	109	0.00	14.71
97 t	Dibenz(a,h)acridine	0.896	1.010	-12.7	110	0.00	14.43
98 t	Dibenz[a,h]anthracene	0.961	1.031	-7.3	112	0.00	14.74
99 t	7,12-Dimethylbenz(a)anthr	0.578	0.604	-4.5	108	0.00	12.90
100 t	Benzo[g,h,i]perylene	0.957	1.013	-5.9	108	-0.01	15.07

(#) = Out of Range
 2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
 Thu May 10 11:49:06 2018 RPT1

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3497-CC3481
Lab FileID: 2P79373.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3497\2p79373.D Vial: 3
 Acq On : 10 May 2018 12:29 am Operator: georges
 Sample : cc3481-50 Inst : MS2P
 Misc : op10929,e2p3497,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu May 03 12:30:09 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	54	0.00	4.53
102	Benzaldehyde	1.057	0.845	20.1#	44#	-0.01	4.19
103 I	Naphthalene-d8a	1.000	1.000	0.0	52	0.00	5.59
104	Hydroquinone	0.312	0.300	3.8	46#	0.02	6.06
105 I	Acenaphthene-d10a	1.000	1.000	0.0	53	0.00	7.02
106	Atrazine	0.172	0.176	-2.3	52	0.00	8.04
107	1,2,4,5-Tetrachlorobenzen	0.577	0.604	-4.7	59	-0.01	6.30
108 I	Chrysene-d12a	1.000	1.000	0.0	57	-0.01	11.43
	----- True Calc. % Drift -----						
109	Benzidine	50.000	32.379	35.2#	37	0.00	9.79
	----- AvgRF CCRF % Dev -----						
110 I	Phenanthrene-d10a	1.000	1.000	0.0	56	0.00	8.27
111 s	1-Chlorooctadecane	0.289	0.251	13.1	48#	0.00	9.36
112 s	o-terphenyl	0.536	0.568	-6.0	60	0.00	8.65
113	Pentachloronitrobenzene	0.044	0.051	-15.9	61	0.00	8.11

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 2p79083a.D M2P3484.M Thu May 10 11:49:09 2018 RPT1

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3498-CC3484
Lab FileID: 2P79410.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3498\2p79410.D Vial: 2
Acq On : 10 May 2018 1:03 pm Operator: seanb1
Sample : cc3484-25 Inst : MS2P
Misc : op10929,e2p3498,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	4.53
	----- True	Calc.	% Drift	-----			
2 t	1,4-Dioxane	25.000	23.106	7.6	79	-0.07	1.85
	----- AvgRF	CCRF	% Dev	-----			
3 t	Pyridine	1.567	1.219	22.2#	80	-0.07	2.23
	----- True	Calc.	% Drift	-----			
4 t	N-Nitrosodimethylamine	25.000	17.773	28.9#	76	-0.06	2.20
	----- AvgRF	CCRF	% Dev	-----			
5 S	2-Fluorophenol	1.579	1.466	7.2	92	0.00	3.52
6 t	Indene	2.061	1.895	8.1	94	0.00	4.75
7 t	Cumene	3.824	3.704	3.1	96	-0.02	3.84
8 S	Phenol-d5	1.636	1.494	8.7	89	0.01	4.36
9 t	Phenol	1.673	1.519	9.2	90	0.01	4.37
10	Aniline	2.156	1.897	12.0	84	0.00	4.31
11 t	bis(2-Chloroethyl)ether	1.316	1.198	9.0	90	0.00	4.34
12 t	2-Chlorophenol	1.401	1.294	7.6	95	0.00	4.40
13 t	Decane	1.230	1.189	3.3	99	0.00	4.37
14 t	1,3-Dichlorobenzene	1.609	1.530	4.9	99	0.00	4.48
15 t	1,4-Dichlorobenzene	1.478	1.431	3.2	101	0.00	4.54
16 t	Benzyl alcohol	0.652	0.527	19.2	78	0.00	4.71
17 t	1,2-Dichlorobenzene	1.481	1.475	0.4	102	0.00	4.68
18 t	Acetophenone	1.706	1.631	4.4	98	0.00	4.89
19 t	2-Methylphenol	1.128	1.059	6.1	94	0.02	4.84
20 t	2,2'-oxybis(1-Chloropropa	0.309	0.273	11.7	89	0.00	4.77
21 t	3&4-Methylphenol	1.122	0.990	11.8	89	0.02	4.97
22 t	n-Nitroso-di-n-propylamin	0.790	0.730	7.6	94	0.00	4.89
23 t	Hexachloroethane	0.464	0.508	-9.5	115	0.00	4.95
24 I	Naphthalene-d8	1.000	1.000	0.0	101	0.00	5.59
25 S	Nitrobenzene-d5	0.369	0.360	2.4	98	0.00	5.03
26 t	Nitrobenzene	0.359	0.331	7.8	95	0.00	5.04
27 t	Quinoline	0.722	0.659	8.7	93	0.00	5.90
28 t	Isophorone	0.619	0.582	6.0	93	0.00	5.22
29 t	2-Nitrophenol	0.202	0.202	0.0	100	0.00	5.30
30 t	2,4-Dimethylphenol	0.354	0.328	7.3	92	0.00	5.38
	----- True	Calc.	% Drift	-----			
31 t	Benzoic acid	25.000	30.208	-20.8#	136	0.01	5.54

Continuing Calibration Summary

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3498-CC3484
Lab FileID: 2P79410.D

Page 2 of 3

		AvgRF	CCRF	% Dev			
32 t	bis(2-Chloroethoxy)methan	0.355	0.308	13.2	90	0.00	5.41
33 t	2,4-Dichlorophenol	0.309	0.317	-2.6	102	0.00	5.52
34 t	2,6-Dichlorophenol	0.280	0.294	-5.0	103	0.00	5.69
35	1,3,5-Trichlorobenzene	0.365	0.389	-6.6	109	0.00	5.27
36 t	1,2,4-Trichlorobenzene	0.332	0.354	-6.6	112	0.00	5.54
37	1,2,3-Trichlorobenzene	0.291	0.307	-5.5	108	0.00	5.73
38 t	Naphthalene	0.968	0.885	8.6	94	0.00	5.60
39 t	4-Chloroaniline	0.430	0.419	2.6	98	0.00	5.70
40 t	2,3-Dichloroaniline	0.373	0.393	-5.4	107	0.01	6.44
41 t	Caprolactam	0.107	0.100	6.5	90	0.00	6.02
42 t	Hexachlorobutadiene	0.159	0.203	-27.7#	131	0.00	5.71
43 t	4-Chloro-3-methylphenol	0.314	0.306	2.5	95	0.02	6.14
44 t	2-Methylnaphthalene	0.611	0.644	-5.4	106	0.00	6.17
45 t	1-Methylnaphthalene	0.643	0.637	0.9	101	0.01	6.25
46 t	Dimethylnaphthalene	0.611	0.608	0.5	105	0.02	6.67
47 I	Acenaphthene-d10	1.000	1.000	0.0	105	0.00	7.02
48 t	Hexachlorocyclopentadiene	0.308	0.408	-32.5#	129	-0.01	6.29
49 t	2,4,6-Trichlorophenol	0.377	0.429	-13.8	112	0.00	6.44
50 t	2,4,5-Trichlorophenol	0.373	0.392	-5.1	105	0.00	6.49
51 S	2-Fluorobiphenyl	1.372	1.353	1.4	104	0.00	6.48
52 t	2-Chloronaphthalene	1.112	1.069	3.9	104	0.00	6.57
53 t	Biphenyl	1.557	1.479	5.0	102	0.00	6.55
54 t	2-Nitroaniline	0.311	0.314	-1.0	99	0.00	6.71
55 t	Dimethylphthalate	1.305	1.291	1.1	104	0.00	6.82
56 t	Acenaphthylene	1.873	1.842	1.7	101	0.00	6.91
57 t	2,6-Dinitrotoluene	0.276	0.295	-6.9	102	0.00	6.88
58 t	3-Nitroaniline	0.304	0.304	0.0	96	0.00	7.05
59 t	Acenaphthene	1.152	1.151	0.1	104	0.00	7.04
60 t	2,4-Dinitrophenol	50.000	53.679	-7.4	119	0.02	7.13
61 t	4-Nitrophenol	0.184	0.222	-20.7#	119	0.02	7.27
62 t	Dibenzofuran	1.602	1.587	0.9	101	0.00	7.19
63 t	2,4-Dinitrotoluene	0.336	0.373	-11.0	105	0.02	7.22
64	2,3,4,6-Tetrachlorophenol	0.299	0.352	-17.7	116	0.00	7.32
65 t	Diethylphthalate	1.300	1.350	-3.8	105	0.00	7.38
66 t	Fluorene	1.286	1.321	-2.7	106	0.00	7.47
67 t	4-Chlorophenyl-phenylethe	0.587	0.653	-11.2	116	0.00	7.46
68 t	4-Nitroaniline	0.333	0.340	-2.1	99	0.01	7.57
69 I	Phenanthrene-d10	1.000	1.000	0.0	108	0.00	8.28
70 t	4,6-Dinitro-2-methylpheno	25.000	27.048	-8.2	122	0.02	7.56
71 t	n-Nitrosodiphenylamine	0.537	0.512	4.7	106	0.00	7.58
72 t	1,2-Diphenylhydrazine	0.747	0.667	10.7	97	0.00	7.59
73 S	2,4,6-Tribromophenol	0.122	0.138	-13.1	119	0.00	7.68
74 t	4-Bromophenyl-phenylether	0.215	0.240	-11.6	120	0.00	7.87
75 t	Hexachlorobenzene	0.270	0.288	-6.7	116	0.00	7.93
76 t	Pentachlorophenol	50.000	55.588	-11.2	130	0.01	8.15

Continuing Calibration Summary

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Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3498-CC3484
Lab FileID: 2P79410.D

		AvgRF	CCRF	% Dev			
77 t	Phenanthrene	1.018	0.987	3.0	107	0.00	8.30
78 t	Anthracene	0.991	1.001	-1.0	107	0.00	8.35
79 t	Carbazole	1.068	0.996	6.7	99	0.00	8.55
80 t	Di-n-butylphthalate	1.348	1.413	-4.8	104	0.00	8.86
81 t	Fluoranthene	1.334	1.385	-3.8	106	0.00	9.57
82 t	Octadecane	0.320	0.308	3.8	100	0.00	8.11
83 I	Chrysene-d12	1.000	1.000	0.0	110	0.02	11.46
84 t	Pyrene	1.341	1.279	4.6	107	0.00	9.84
85 S	Terphenyl-d14	0.870	0.885	-1.7	116	0.00	10.04
86 t	Butylbenzylphthalate	0.681	0.653	4.1	103	0.00	10.70
87 t	Benzo[a]anthracene	1.250	1.215	2.8	107	0.02	11.44
88 t	3,3'-Dichlorobenzidine	0.371	0.398	-7.3	116	0.00	11.47
89 t	Chrysene	0.986	0.942	4.5	107	0.01	11.49
90 t	bis(2-Ethylhexyl)phthalat	0.650	0.679	-4.5	105	0.00	11.49
91 I	Perylene-d12	1.000	1.000	0.0	95	0.03	13.43
		True	Calc.	% Drift			
92 t	Di-n-octylphthalate	25.000	23.736	5.1	92	0.00	12.39
		AvgRF	CCRF	% Dev			
93 t	Benzo[b]fluoranthene	1.338	1.413	-5.6	99	0.03	12.93
94 t	Benzo[k]fluoranthene	1.068	1.054	1.3	94	0.02	12.96
95 t	Benzo[a]pyrene	1.094	1.115	-1.9	91	0.02	13.35
96 t	Indeno[1,2,3-cd]pyrene	1.197	1.109	7.4	83	0.03	14.74
97 t	Dibenz(a,h)acridine	0.896	0.834	6.9	83	0.03	14.46
98 t	Dibenz[a,h]anthracene	0.961	0.915	4.8	86	0.02	14.77
99 t	7,12-Dimethylbenz(a)anthr	0.578	0.629	-8.8	97	0.01	12.92
100 t	Benzo[g,h,i]perylene	0.957	0.808	15.6	77	0.02	15.10

(#) = Out of Range
 2p79084a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
 Thu May 10 16:53:06 2018 RPT1

6.7.15
 6

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3498-CC3481
Lab FileID: 2P79411.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3498\2p79411.D Vial: 3
 Acq On : 10 May 2018 1:25 pm Operator: seanb1
 Sample : cc3481-25 Inst : MS2P
 Misc : op10929,e2p3498,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu May 03 12:30:09 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	55	0.00	4.53
102	Benzaldehyde	1.057	0.810	23.4#	43#	0.00	4.19
103 I	Naphthalene-d8a	1.000	1.000	0.0	58	0.00	5.59
104	Hydroquinone	0.312	0.299	4.2	50#	0.01	6.06
105 I	Acenaphthene-d10a	1.000	1.000	0.0	59	0.00	7.02
106	Atrazine	0.172	0.175	-1.7	59	0.00	8.04
107	1,2,4,5-Tetrachlorobenzen	0.577	0.570	1.2	59	0.00	6.30
108 I	Chrysene-d12a	1.000	1.000	0.0	61	0.01	11.46
	----- True Calc. % Drift -----						
109	Benzidine	25.000	15.332	38.7#	38	0.00	9.80
	----- AvgRF CCRF % Dev -----						
110 I	Phenanthrene-d10a	1.000	1.000	0.0	63	0.00	8.28
111 s	1-Chlorooctadecane	0.289	0.230	20.4#	49#	0.00	9.37
112 s	o-terphenyl	0.536	0.533	0.6	63	0.00	8.65
113	Pentachloronitrobenzene	0.044	0.049#	-11.4	65	0.01	8.13

(#) = Out of Range
 2p79084a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
 Thu May 10 16:53:08 2018 RPT1

6.7.16

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3505-CC3484
Lab FileID: 2P79603.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\SV0A\2p3505\2p79603.d Vial: 2
 Acq On : 15 May 2018 9:18 am Operator: christc2
 Sample : cc3484-25 Inst : MS2P
 Misc : op10929,e2p3505,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu May 03 12:30:09 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	114	0.00	4.47
	----- True	Calc.	% Drift	-----			
2 t	1,4-Dioxane	25.000	30.721	-22.9#	122	-0.12	1.77
	----- AvgRF	CCRF	% Dev	-----			
3 t	Pyridine	1.567	1.370	12.6	99	-0.13	2.14
	----- True	Calc.	% Drift	-----			
4 t	N-Nitrosodimethylamine	25.000	20.090	19.6	96	-0.11	2.11
	----- AvgRF	CCRF	% Dev	-----			
5 S	2-Fluorophenol	1.579	1.506	4.6	104	-0.01	3.46
6 t	Indene	2.061	1.915	7.1	104	0.01	4.69
7 t	Cumene	3.824	3.743	2.1	106	-0.03	3.77
8 S	Phenol-d5	1.636	1.688	-3.2	110	0.03	4.31
9 t	Phenol	1.673	1.450	13.3	94	0.03	4.32
10	Aniline	2.156	1.674	22.4#	82	0.00	4.25
11 t	bis(2-Chloroethyl)ether	1.316	1.137	13.6	94	0.00	4.28
12 t	2-Chlorophenol	1.401	1.322	5.6	106	0.01	4.35
13 t	Decane	1.230	1.190	3.3	109	0.00	4.31
14 t	1,3-Dichlorobenzene	1.609	1.527	5.1	109	0.00	4.42
15 t	1,4-Dichlorobenzene	1.478	1.406	4.9	109	0.00	4.49
16 t	Benzyl alcohol	0.652	0.546	16.3	89	0.02	4.65
17 t	1,2-Dichlorobenzene	1.481	1.441	2.7	110	0.00	4.62
18 t	Acetophenone	1.706	1.596	6.4	106	0.02	4.83
19 t	2-Methylphenol	1.128	1.058	6.2	103	0.04	4.79
20 t	2,2'-oxybis(1-Chloropropa	0.309	0.281	9.1	101	0.01	4.71
21 t	3&4-Methylphenol	1.122	1.008	10.2	100	0.04	4.92
22 t	n-Nitroso-di-n-propylamin	0.790	0.745	5.7	105	0.02	4.83
23 t	Hexachloroethane	0.464	0.494	-6.5	123	0.01	4.89
24 I	Naphthalene-d8	1.000	1.000	0.0	110	0.00	5.53
25 S	Nitrobenzene-d5	0.369	0.354	4.1	104	0.00	4.97
26 t	Nitrobenzene	0.359	0.337	6.1	105	0.00	4.98
27 t	Quinoline	0.722	0.712	1.4	109	0.01	5.85
28 t	Isophorone	0.619	0.593	4.2	103	0.00	5.16
29 t	2-Nitrophenol	0.202	0.202	0.0	108	0.00	5.24
30 t	2,4-Dimethylphenol	0.354	0.319	9.9	97	0.01	5.33
	----- True	Calc.	% Drift	-----			
31 t	Benzoic acid	25.000	31.660	-26.6#	155	0.02	5.50

Continuing Calibration Summary

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3505-CC3484
Lab FileID: 2P79603.D

Page 2 of 3

		AvgRF	CCRF	% Dev			
32 t	bis(2-Chloroethoxy)methan	0.355	0.312	12.1	99	0.00	5.35
33 t	2,4-Dichlorophenol	0.309	0.334	-8.1	116	0.01	5.46
34 t	2,6-Dichlorophenol	0.280	0.305	-8.9	116	0.00	5.64
35	1,3,5-Trichlorobenzene	0.365	0.384	-5.2	116	0.00	5.21
36 t	1,2,4-Trichlorobenzene	0.332	0.350	-5.4	120	0.00	5.49
37	1,2,3-Trichlorobenzene	0.291	0.302	-3.8	116	0.00	5.67
38 t	Naphthalene	0.968	0.917	5.3	105	0.00	5.54
39 t	4-Chloroaniline	0.430	0.414	3.7	105	0.00	5.64
40 t	2,3-Dichloroaniline	0.373	0.404	-8.3	120	0.02	6.38
41 t	Caprolactam	0.107	0.106	0.9	104	0.00	5.95
42 t	Hexachlorobutadiene	0.159	0.202	-27.0#	141	0.00	5.65
43 t	4-Chloro-3-methylphenol	0.314	0.329	-4.8	110	0.03	6.09
44 t	2-Methylnaphthalene	0.611	0.671	-9.8	120	0.02	6.11
45 t	1-Methylnaphthalene	0.643	0.658	-2.3	113	0.02	6.19
46 t	Dimethylnaphthalene	0.611	0.633	-3.6	118	0.03	6.61
47 I	Acenaphthene-d10	1.000	1.000	0.0	120	0.00	6.96
48 t	Hexachlorocyclopentadiene	0.308	0.377	-22.4#	137	-0.02	6.24
49 t	2,4,6-Trichlorophenol	0.377	0.411	-9.0	123	0.00	6.38
50 t	2,4,5-Trichlorophenol	0.373	0.383	-2.7	117	0.00	6.43
51 S	2-Fluorobiphenyl	1.372	1.321	3.7	117	-0.02	6.42
52 t	2-Chloronaphthalene	1.112	1.022	8.1	114	0.00	6.51
53 t	Biphenyl	1.557	1.463	6.0	115	0.00	6.50
54 t	2-Nitroaniline	0.311	0.301	3.2	109	0.00	6.65
55 t	Dimethylphthalate	1.305	1.294	0.8	119	0.00	6.77
56 t	Acenaphthylene	1.873	1.805	3.6	114	0.00	6.85
57 t	2,6-Dinitrotoluene	0.276	0.295	-6.9	117	0.00	6.83
58 t	3-Nitroaniline	0.304	0.293	3.6	106	0.00	6.99
59 t	Acenaphthene	1.152	1.121	2.7	117	0.00	6.99
60 t	2,4-Dinitrophenol	50.000	55.317	-10.6	141	0.02	7.07
61 t	4-Nitrophenol	0.184	0.211	-14.7	130	0.03	7.22
62 t	Dibenzofuran	1.602	1.600	0.1	117	0.00	7.13
63 t	2,4-Dinitrotoluene	0.336	0.378	-12.5	122	0.01	7.16
64	2,3,4,6-Tetrachlorophenol	0.299	0.338	-13.0	127	0.01	7.27
65 t	Diethylphthalate	1.300	1.315	-1.2	118	0.00	7.33
66 t	Fluorene	1.286	1.307	-1.6	120	0.00	7.41
67 t	4-Chlorophenyl-phenylethe	0.587	0.645	-9.9	131	0.00	7.40
68 t	4-Nitroaniline	0.333	0.325	2.4	108	0.00	7.51
69 I	Phenanthrene-d10	1.000	1.000	0.0	121	0.00	8.22
70 t	4,6-Dinitro-2-methylpheno	25.000	27.557	-10.2	139	0.02	7.50
71 t	n-Nitrosodiphenylamine	0.537	0.526	2.0	122	0.00	7.52
72 t	1,2-Diphenylhydrazine	0.747	0.645	13.7	104	0.00	7.53
73 S	2,4,6-Tribromophenol	0.122	0.155	-27.0#	150	0.00	7.62
74 t	4-Bromophenyl-phenylether	0.215	0.244	-13.5	137	0.00	7.81
75 t	Hexachlorobenzene	0.270	0.306	-13.3	138	0.00	7.87
76 t	Pentachlorophenol	50.000	59.215	-18.4	156	0.00	8.09

Continuing Calibration Summary

Page 3 of 3

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3505-CC3484
Lab FileID: 2P79603.D

		AvgRF	CCRF	% Dev			
77 t	Phenanthrene	1.018	0.978	3.9	119	0.00	8.24
78 t	Anthracene	0.991	0.983	0.8	118	0.00	8.28
79 t	Carbazole	1.068	1.033	3.3	115	0.00	8.48
80 t	Di-n-butylphthalate	1.348	1.440	-6.8	119	0.00	8.79
81 t	Fluoranthene	1.334	1.422	-6.6	122	0.00	9.49
82 t	Octadecane	0.320	0.296	7.5	108	0.00	8.05
83 I	Chrysene-d12	1.000	1.000	0.0	125	0.00	11.37
84 t	Pyrene	1.341	1.323	1.3	126	-0.02	9.76
85 S	Terphenyl-d14	0.870	0.899	-3.3	134	-0.01	9.96
86 t	Butylbenzylphthalate	0.681	0.656	3.7	117	-0.01	10.62
87 t	Benzo[a]anthracene	1.250	1.219	2.5	121	0.00	11.35
88 t	3,3'-Dichlorobenzidine	0.371	0.401	-8.1	133	0.00	11.39
89 t	Chrysene	0.986	0.941	4.6	121	0.00	11.41
90 t	bis(2-Ethylhexyl)phthalat	0.650	0.681	-4.8	120	0.00	11.41
91 I	Perylene-d12	1.000	1.000	0.0	108	0.00	13.35
		True	Calc.	% Drift			
92 t	Di-n-octylphthalate	25.000	23.472	6.1	104	-0.02	12.31
		AvgRF	CCRF	% Dev			
93 t	Benzo[b]fluoranthene	1.338	1.329	0.7	106	0.00	12.85
94 t	Benzo[k]fluoranthene	1.068	1.057	1.0	107	-0.01	12.88
95 t	Benzo[a]pyrene	1.094	1.067	2.5	100	0.00	13.26
96 t	Indeno[1,2,3-cd]pyrene	1.197	1.147	4.2	98	0.00	14.65
97 t	Dibenz(a,h)acridine	0.896	0.871	2.8	99	0.00	14.36
98 t	Dibenz[a,h]anthracene	0.961	0.956	0.5	103	0.00	14.67
99 t	7,12-Dimethylbenz(a)anthr	0.578	0.576	0.3	102	-0.01	12.84
100 t	Benzo[g,h,i]perylene	0.957	0.898	6.2	98	-0.01	15.00

(#) = Out of Range
 2p79084a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
 Wed May 16 03:01:47 2018

6.7.17
 6

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3505-CC3481
Lab FileID: 2P79604.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\SV0A\2p3505\2p79604.d Vial: 3
 Acq On : 15 May 2018 9:41 am Operator: christc2
 Sample : cc3481-25 Inst : MS2P
 Misc : op10929,e2p3505,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu May 03 12:30:09 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	61	0.00	4.47
102	Benzaldehyde	1.057	0.815	22.9#	48#	-0.01	4.13
103 I	Naphthalene-d8a	1.000	1.000	0.0	62	0.00	5.53
104	Hydroquinone	0.312	0.311	0.3	56	0.03	6.01
105 I	Acenaphthene-d10a	1.000	1.000	0.0	66	0.00	6.96
106	Atrazine	0.172	0.176	-2.3	66	0.01	7.98
107	1,2,4,5-Tetrachlorobenzen	0.577	0.586	-1.6	67	-0.02	6.25
108 I	Chrysene-d12a	1.000	1.000	0.0	63	0.00	11.37
	----- True Calc. % Drift -----						
109	Benzidine	25.000	18.419	26.3#	48	-0.02	9.72
	----- AvgRF CCRF % Dev -----						
110 I	Phenanthrene-d10a	1.000	1.000	0.0	68	0.00	8.22
111 s	1-Chlorooctadecane	0.289	0.228	21.1#	53	0.00	9.30
112 s	o-terphenyl	0.536	0.543	-1.3	70	0.00	8.58
113	Pentachloronitrobenzene	0.044	0.058	-31.8#	84	0.00	8.06
114	Chrysene-d12b	1.000	1.000	0.0	63	0.00	11.37
115	2,3,7,8-TCDD			-----NA-----			

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 2p79084a.D M2P3484.M Wed May 16 03:06:41 2018

6.7.18

6



MS Semi-volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3498\
 Data File : 2p79418.D
 Acq On : 10 May 2018 3:13 pm
 Operator : seanb1
 Sample : jc65662-1
 Misc : op11893,e2p3498,30.0,,,1,20
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 10 17:08:01 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu May 10 09:07:01 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.534	152	901066	40.00	ppm	0.00
24) Naphthalene-d8	5.588	136	3192415	40.00	ppm	0.00
47) Acenaphthene-d10	7.016	164	1379564	40.00	ppm	0.00
69) Phenanthrene-d10	8.283	188	2254204	40.00	ppm	0.00
83) Chrysene-d12	11.471	240	1508459	40.00	ppm	0.03
91) Perylene-d12	13.450	264	1396324	40.00	ppm	0.04
101) 1,4-Dichlorobenzene-d4a	4.534	152	901066	40.00	ppm	0.00
103) Naphthalene-d8a	5.588	136	3192415	40.00	ppm	0.00
105) Acenaphthene-d10a	7.016	164	1379564	40.00	ppm	0.00
108) Chrysene-d12a	11.471	240	1508459	40.00	ppm	0.03
110) Phenanthrene-d10a	8.283	188	2254204	40.00	ppm	0.00
114) Chrysene-d12b	11.471	240	1508459	40.00	ppm	0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.523	112	37434	1.05	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery =	2.10%#		
8) Phenol-d5	4.363	99	44286	1.20	ppm	0.02
Spiked Amount 50.000	Range 10 - 59		Recovery =	2.40%#		
25) Nitrobenzene-d5	5.031	82	39648	1.35	ppm	0.00
Spiked Amount 50.000	Range 19 - 61		Recovery =	2.70%#		
51) 2-Fluorobiphenyl	6.476	172	76449	1.62	ppm	0.00
Spiked Amount 50.000	Range 21 - 58		Recovery =	3.24%#		
73) 2,4,6-Tribromophenol	7.674	330	11819	1.72	ppm	0.00
Spiked Amount 50.000	Range 12 - 68		Recovery =	3.44%#		
85) Terphenyl-d14	10.038	244	54156	1.65	ppm	0.00
Spiked Amount 50.000	Range 16 - 65		Recovery =	3.30%#		
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
Target Compounds						
						Qvalue
38) Naphthalene	5.604	128	568443	7.36	ppm	99
44) 2-Methylnaphthalene	6.165	141	178098	3.65	ppm	97
56) Acenaphthylene	6.903	152	481561	7.45	ppm	99
59) Acenaphthene	7.042	153	83439	2.10	ppm	95
66) Fluorene	7.460	166	203466m	4.59	ppm	
77) Phenanthrene	8.305	178	2574258	44.88	ppm	100
78) Anthracene	8.348	178	936082	16.76	ppm	95
81) Fluoranthene	9.578	202	5805040	77.22	ppm	98
84) Pyrene	9.856	202	4636097	91.67	ppm	100
87) Benzo[a]anthracene	11.455	228	3356902	71.23	ppm	93
89) Chrysene	11.509	228	2316064	62.30	ppm	98
93) Benzo[b]fluoranthene	12.953	252	3622808m	77.59	ppm	
94) Benzo[k]fluoranthene	12.979	252	1189055m	31.91	ppm	
95) Benzo[a]pyrene	13.381	252	2734274	71.62	ppm	95
96) Indeno[1,2,3-cd]pyrene	14.777	276	1443611	34.56	ppm	87
98) Dibenz[a,h]anthracene	14.777	278	515901	15.38	ppm	92
100) Benzo[g,h,i]perylene	15.135	276	1087029	32.54	ppm	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3498\
Data File : 2p79418.D
Acq On : 10 May 2018 3:13 pm
Operator : seanb1
Sample : jc65662-1
Misc : op11893,e2p3498,30.0,,,1,20
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 10 17:08:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 10 09:07:01 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----	-----	-----	-----	-----	-----	-----

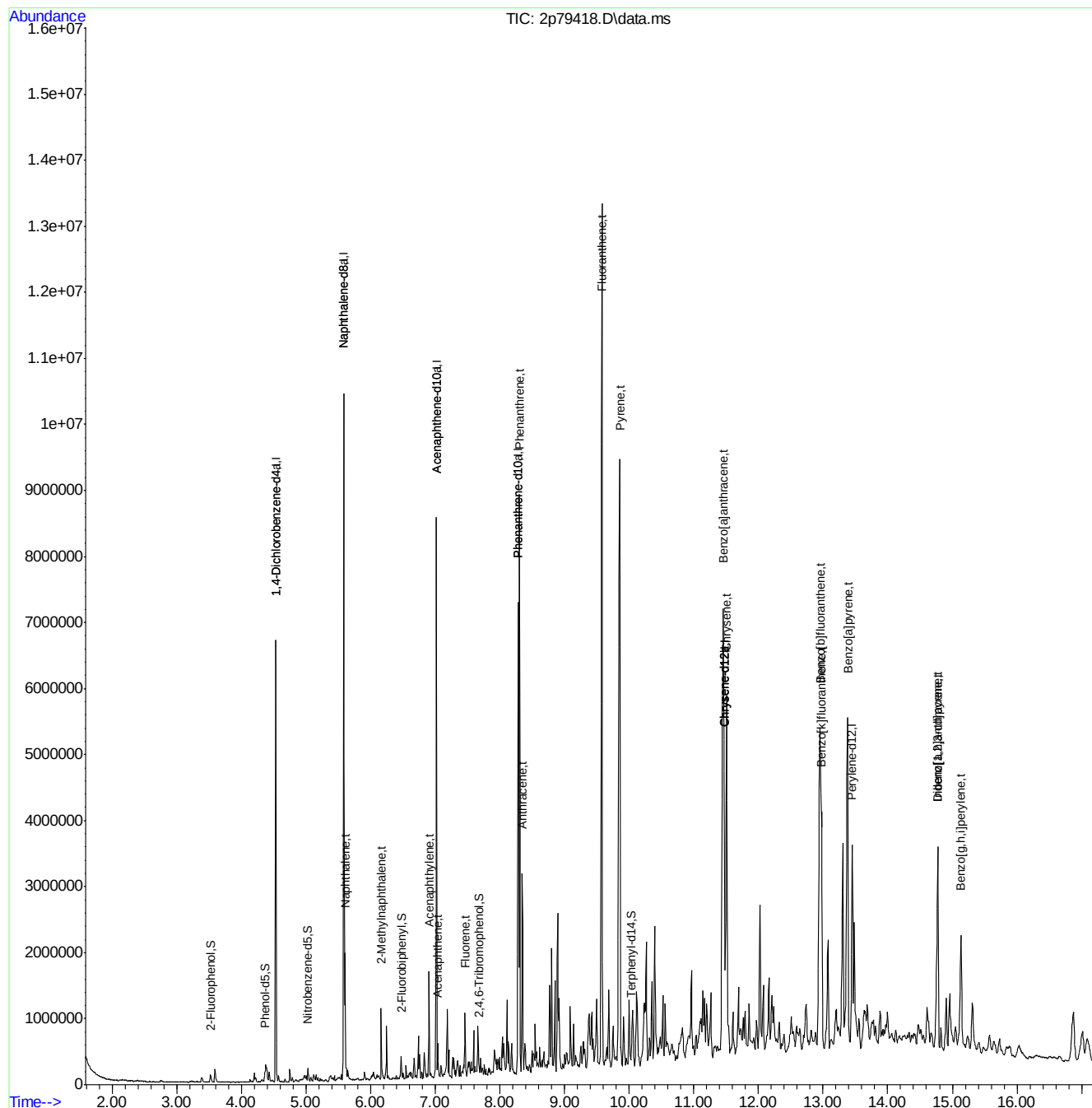
(#) = qualifier out of range (m) = manual integration (+) = signals summed

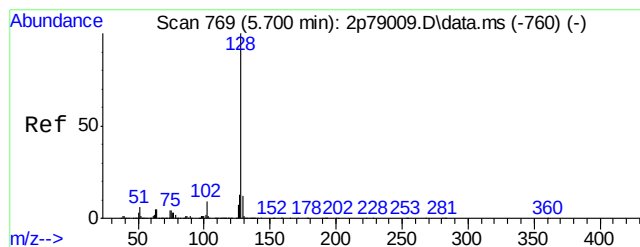
7.1.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3498\
Data File : 2p79418.D
Acq On : 10 May 2018 3:13 pm
Operator : seanb1
Sample : jc65662-1
Misc : op11893,e2p3498,30.0,,,1,20
ALS Vial : 10 Sample Multiplier: 1

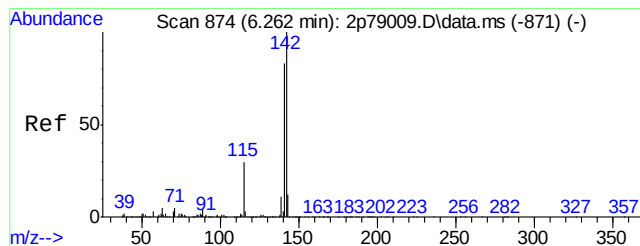
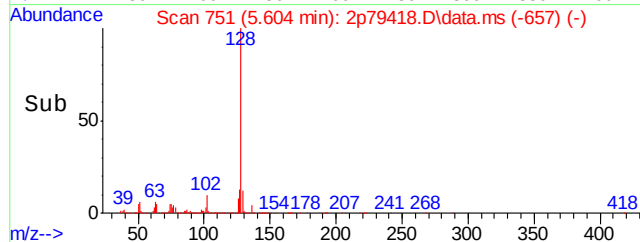
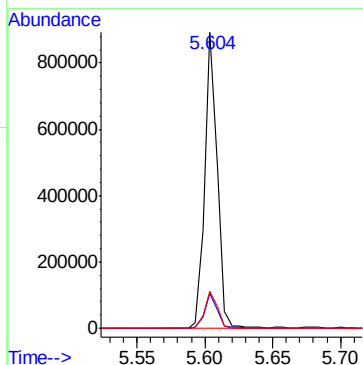
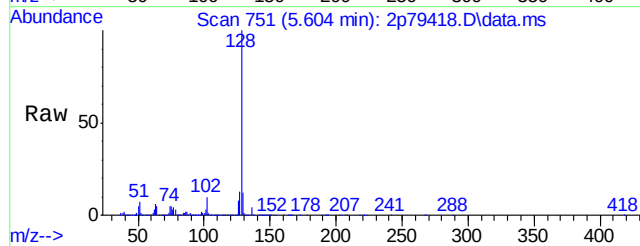
Quant Time: May 10 17:08:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 10 09:07:01 2018
Response via : Initial Calibration





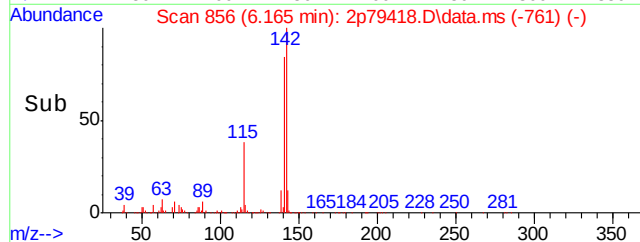
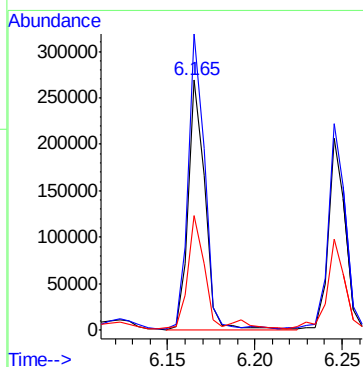
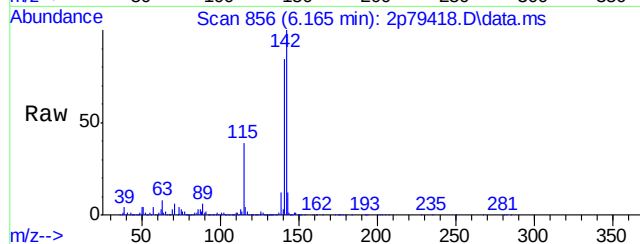
#38
Naphthalene
Concen: 7.36 ppm
RT: 5.604 min Scan# 751
Delta R.T. 0.000 min
Lab File: 2p79418.D
Acq: 10 May 2018 3:13 pm

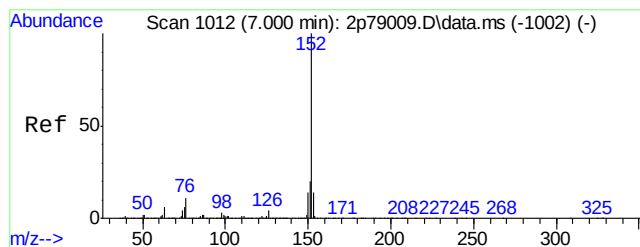
Tgt Ion	Ratio	Lower	Upper
128	100		
129	11.7	0.0	41.8
127	12.6	0.0	43.2



#44
2-Methylnaphthalene
Concen: 3.65 ppm
RT: 6.165 min Scan# 856
Delta R.T. 0.008 min
Lab File: 2p79418.D
Acq: 10 May 2018 3:13 pm

Tgt Ion	Ratio	Lower	Upper
141	100		
142	118.4	87.7	147.7
115	44.8	8.4	68.4





#56

Acenaphthylene

Concen: 7.45 ppm

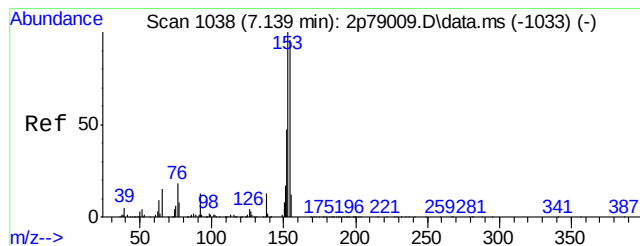
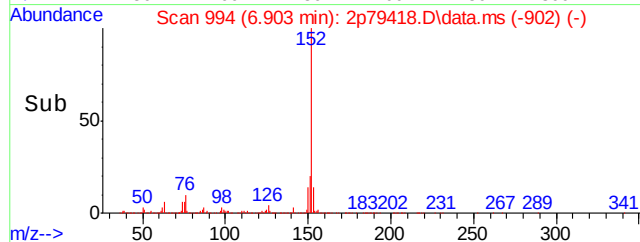
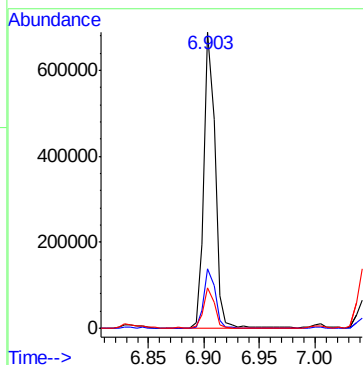
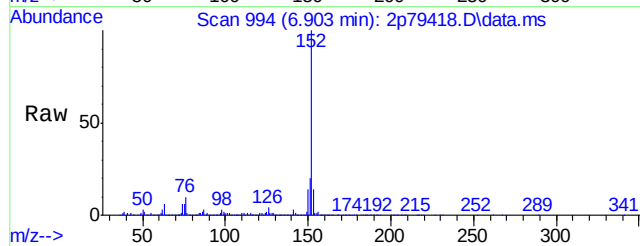
RT: 6.903 min Scan# 994

Delta R.T. -0.007 min

Lab File: 2p79418.D

Acq: 10 May 2018 3:13 pm

Tgt	Ion:152	Resp:	481561
Ion	Ratio	Lower	Upper
152	100		
151	20.1	0.0	50.2
153	13.8	0.0	43.3



#59

Acenaphthene

Concen: 2.10 ppm

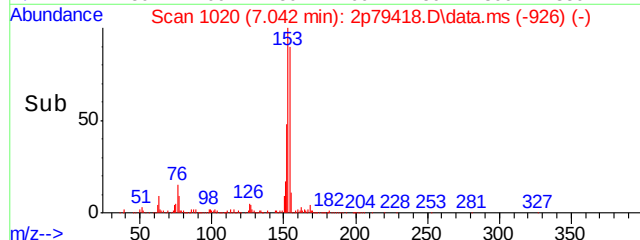
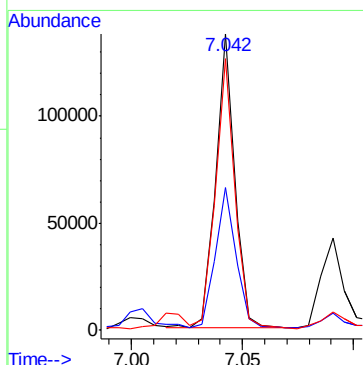
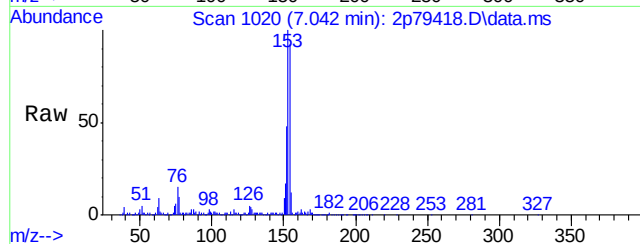
RT: 7.042 min Scan# 1020

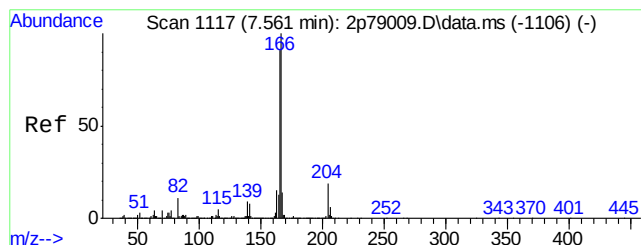
Delta R.T. 0.000 min

Lab File: 2p79418.D

Acq: 10 May 2018 3:13 pm

Tgt	Ion:153	Resp:	83439
Ion	Ratio	Lower	Upper
153	100		
152	47.0	17.5	77.5
154	89.3	65.6	125.6





#66

Fluorene

Concen: 4.59 ppm m

RT: 7.460 min Scan# 1098

Delta R.T. -0.001 min

Lab File: 2p79418.D

Acq: 10 May 2018 3:13 pm

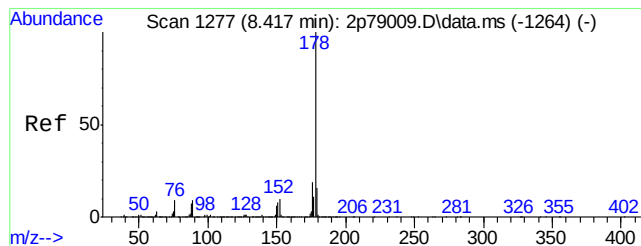
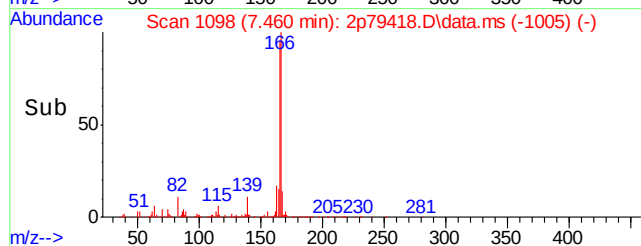
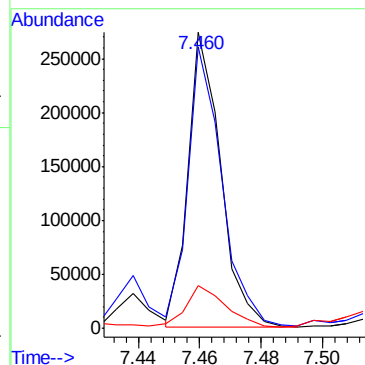
Tgt Ion:166 Resp: 203466

Ion Ratio Lower Upper

166 100

165 95.1 61.9 121.9

167 14.3 0.0 43.7



#77

Phenanthrene

Concen: 44.88 ppm

RT: 8.305 min Scan# 1256

Delta R.T. 0.000 min

Lab File: 2p79418.D

Acq: 10 May 2018 3:13 pm

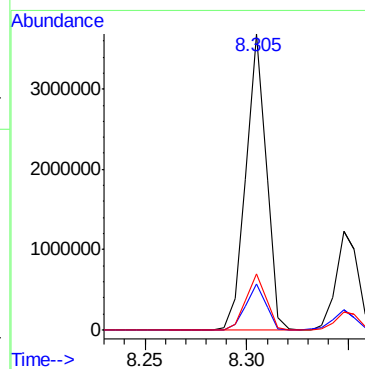
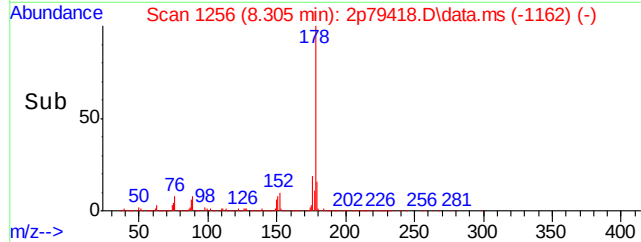
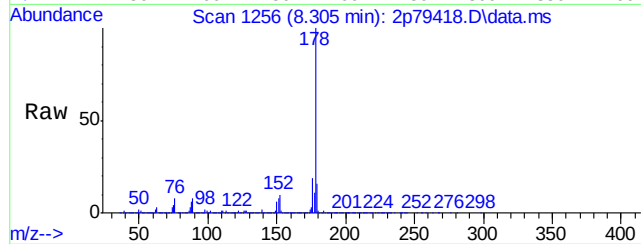
Tgt Ion:178 Resp: 2574258

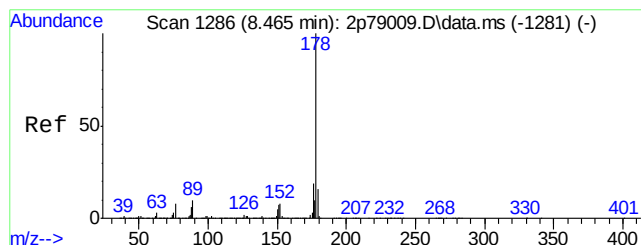
Ion Ratio Lower Upper

178 100

179 15.5 0.0 45.6

176 18.9 0.0 49.1





#78

Anthracene

Concen: 16.76 ppm

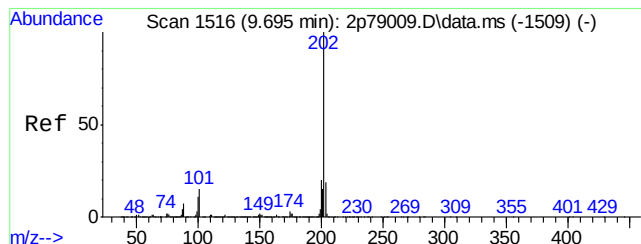
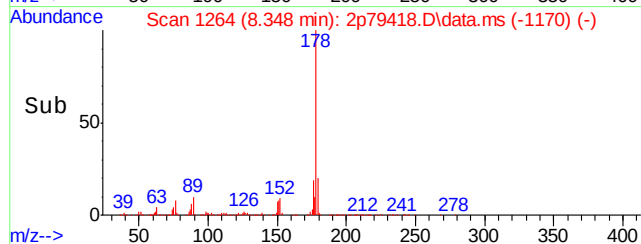
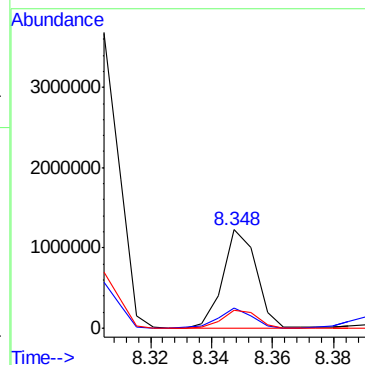
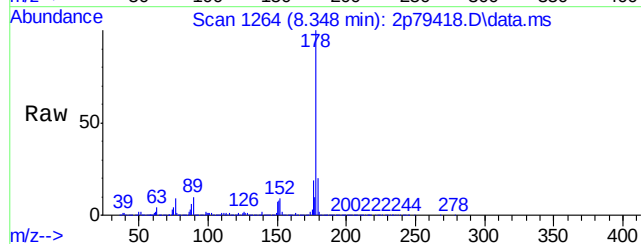
RT: 8.348 min Scan# 1264

Delta R.T. 0.001 min

Lab File: 2p79418.D

Acq: 10 May 2018 3:13 pm

Tgt	Ion:178	Resp:	936082
Ion	Ratio	Lower	Upper
178	100		
179	19.8	0.0	45.7
176	18.6	0.0	48.8



#81

Fluoranthene

Concen: 77.22 ppm

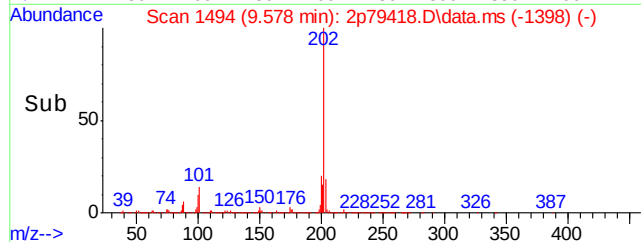
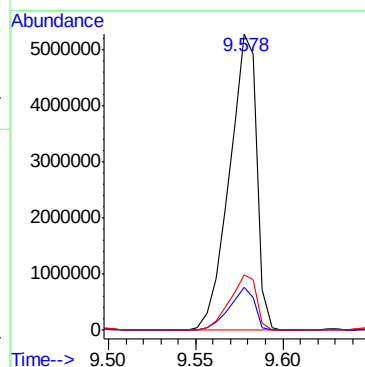
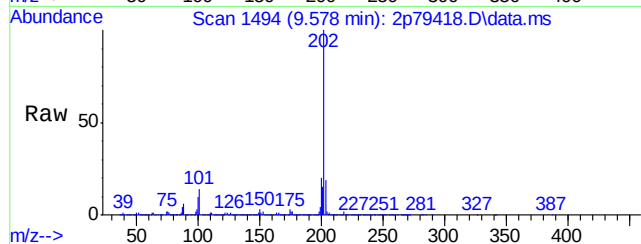
RT: 9.578 min Scan# 1494

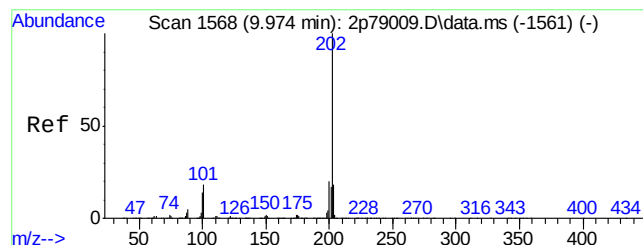
Delta R.T. 0.013 min

Lab File: 2p79418.D

Acq: 10 May 2018 3:13 pm

Tgt	Ion:202	Resp:	5805040
Ion	Ratio	Lower	Upper
202	100		
101	14.2	0.0	45.6
203	18.5	0.0	48.4





#84

Pyrene

Concen: 91.67 ppm

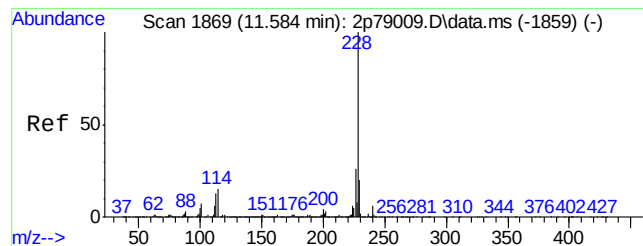
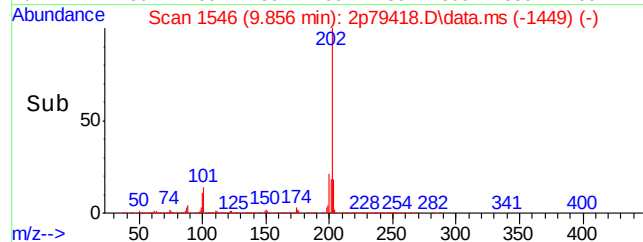
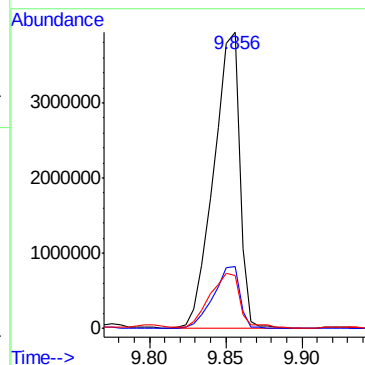
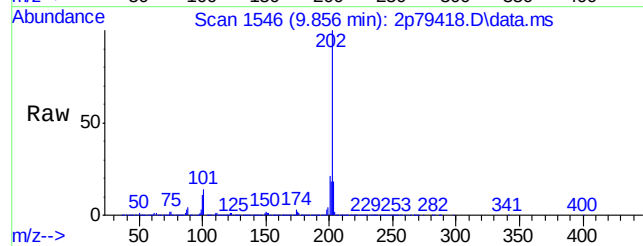
RT: 9.856 min Scan# 1546

Delta R.T. 0.021 min

Lab File: 2p79418.D

Acq: 10 May 2018 3:13 pm

Tgt Ion:	202	Resp:	4636097
Ion Ratio	Lower	Upper	
202	100		
200	20.7	0.0	50.7
203	17.7	0.0	47.7



#87

Benzo[a]anthracene

Concen: 71.23 ppm

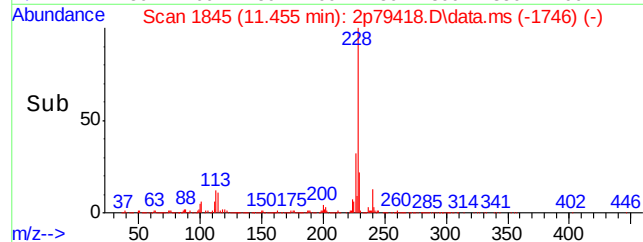
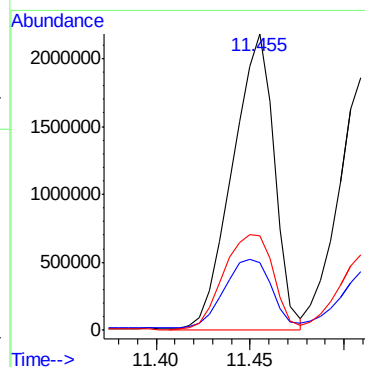
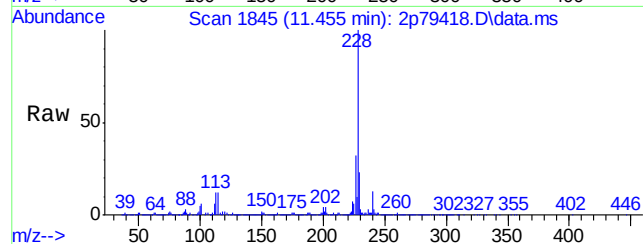
RT: 11.455 min Scan# 1845

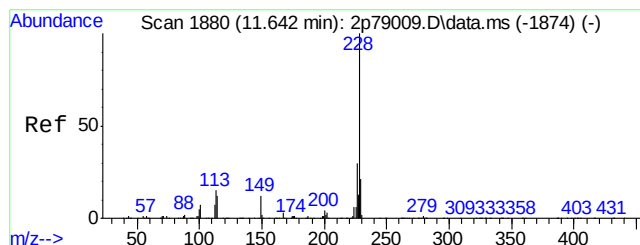
Delta R.T. 0.032 min

Lab File: 2p79418.D

Acq: 10 May 2018 3:13 pm

Tgt Ion:	228	Resp:	3356902
Ion Ratio	Lower	Upper	
228	100		
229	21.6	0.0	50.2
226	31.7	0.0	56.8





#89

Chrysene

Concen: 62.30 ppm

RT: 11.509 min Scan# 1855

Delta R.T. 0.027 min

Lab File: 2p79418.D

Acq: 10 May 2018 3:13 pm

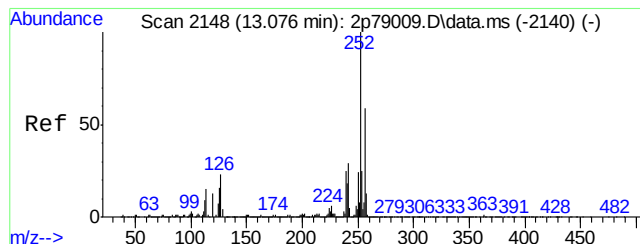
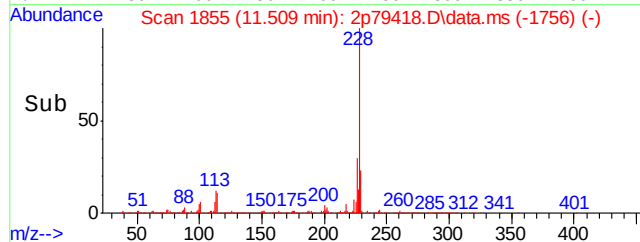
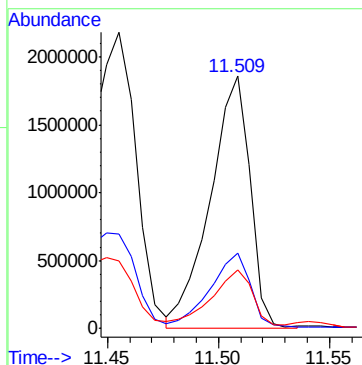
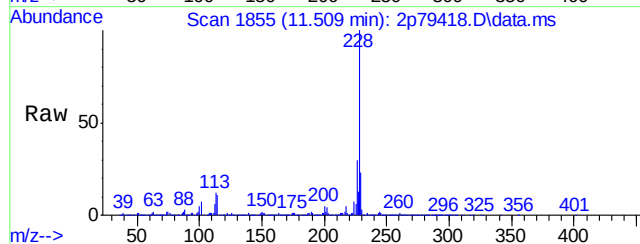
Tgt Ion: 228 Resp: 2316064

Ion Ratio Lower Upper

228 100

226 29.5 0.0 59.4

229 21.4 0.0 49.9



#93

Benzo[b]fluoranthene

Concen: 77.59 ppm m

RT: 12.953 min Scan# 2125

Delta R.T. 0.049 min

Lab File: 2p79418.D

Acq: 10 May 2018 3:13 pm

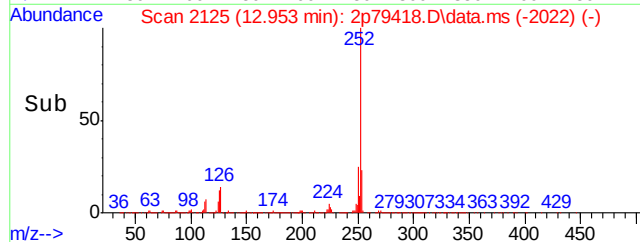
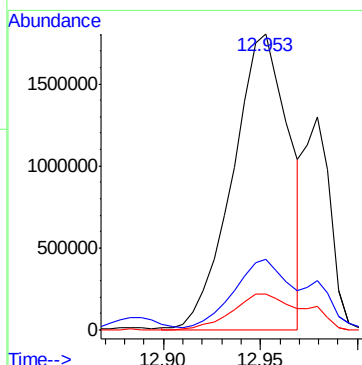
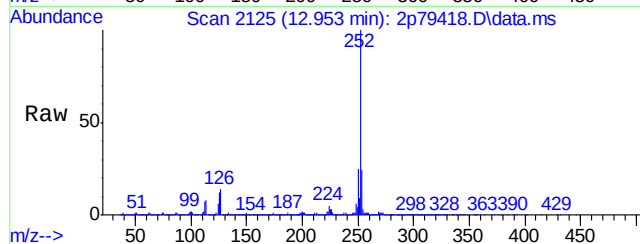
Tgt Ion: 252 Resp: 3622808

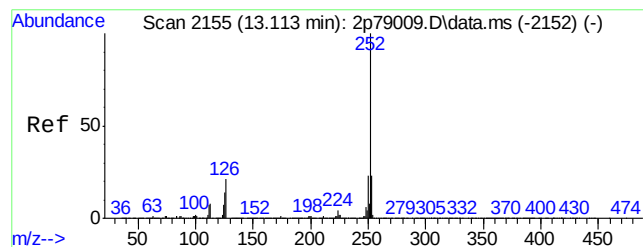
Ion Ratio Lower Upper

252 100

253 23.7 0.0 55.5

125 12.3 0.0 49.6





#94

Benzo[k]fluoranthene

Concen: 31.91 ppm

RT: 12.979 min Scan# 2130

Delta R.T. 0.033 min

Lab File: 2p79418.D

Acq: 10 May 2018 3:13 pm

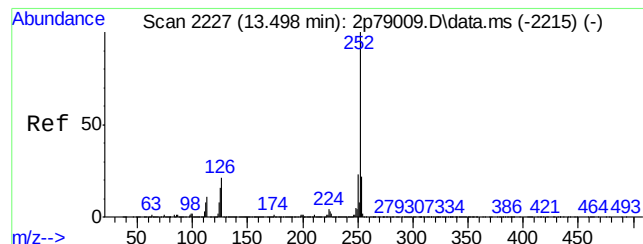
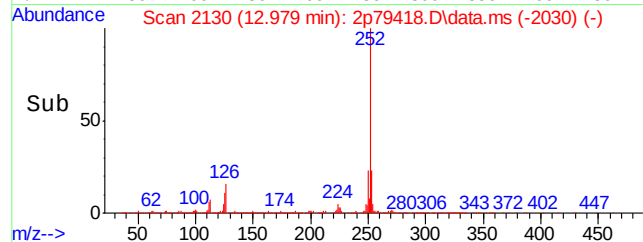
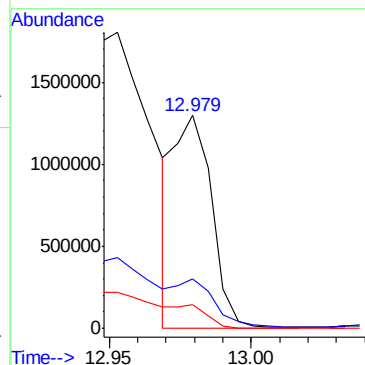
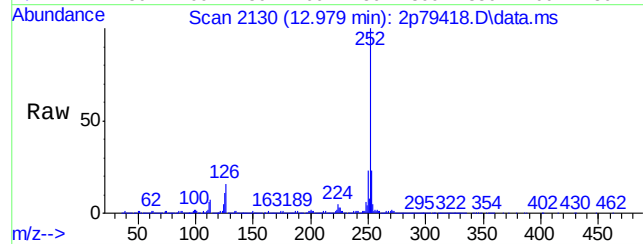
Tgt Ion: 252 Resp: 1189055

Ion Ratio Lower Upper

252 100

253 23.5 0.0 52.6

125 11.3 0.0 45.2



#95

Benzo[a]pyrene

Concen: 71.62 ppm

RT: 13.381 min Scan# 2205

Delta R.T. 0.053 min

Lab File: 2p79418.D

Acq: 10 May 2018 3:13 pm

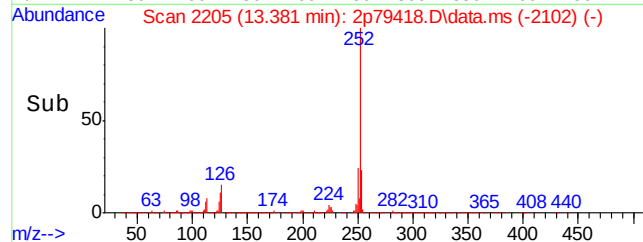
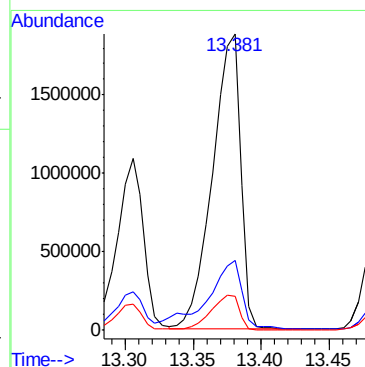
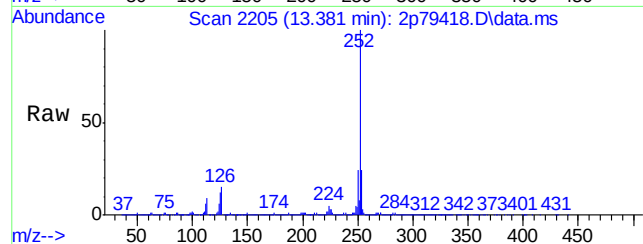
Tgt Ion: 252 Resp: 2734274

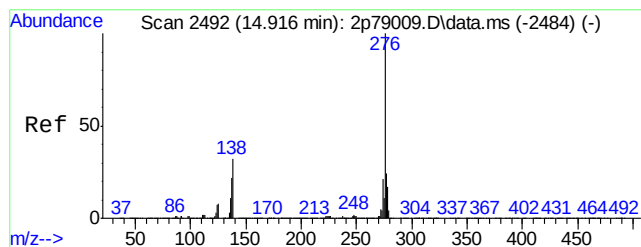
Ion Ratio Lower Upper

252 100

253 21.6 0.0 51.5

125 11.4 0.0 46.4





#96

Indeno[1,2,3-cd]pyrene

Concen: 34.56 ppm

RT: 14.777 min Scan# 2466

Delta R.T. 0.061 min

Lab File: 2p79418.D

Acq: 10 May 2018 3:13 pm

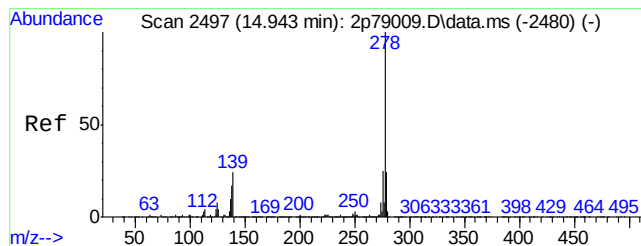
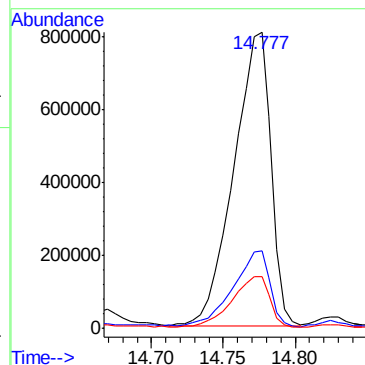
Tgt Ion: 276 Resp: 1443611

Ion Ratio Lower Upper

276 100

138 25.6 3.3 63.3

137 17.3 0.0 53.5



#98

Dibenz[a,h]anthracene

Concen: 15.38 ppm

RT: 14.777 min Scan# 2466

Delta R.T. 0.034 min

Lab File: 2p79418.D

Acq: 10 May 2018 3:13 pm

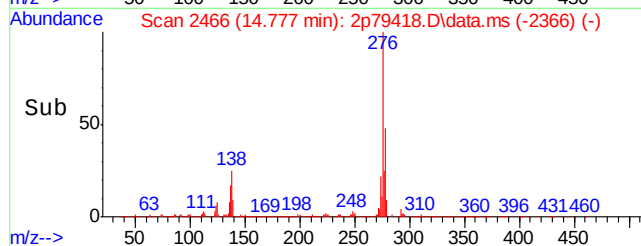
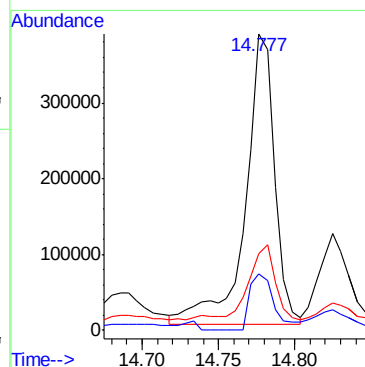
Tgt Ion: 278 Resp: 515901

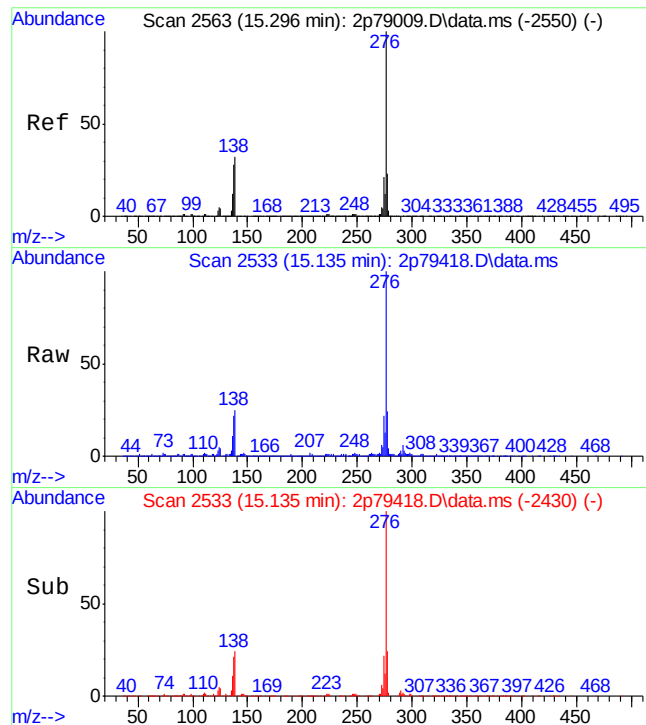
Ion Ratio Lower Upper

278 100

139 17.9 0.0 55.1

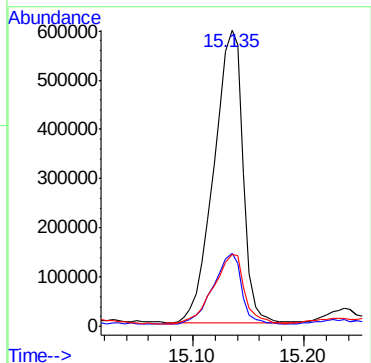
279 23.6 0.0 54.3





#100
Benzo[g,h,i]perylene
Concen: 32.54 ppm
RT: 15.135 min Scan# 2533
Delta R.T. 0.053 min
Lab File: 2p79418.D
Acq: 10 May 2018 3:13 pm

Tgt Ion:	276	Resp:	1087029
Ion Ratio	Lower	Upper	
276	100		
138	24.1	2.9	62.9
277	23.6	0.0	53.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3498\
 Data File : 2p79417.D
 Acq On : 10 May 2018 4:18 pm
 Operator : seanb1
 Sample : jc65662-1
 Misc : op11893,e2p3498,30.0,,,1,5
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 10 17:06:16 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu May 10 09:07:01 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.534	152	848454	40.00	ppm	0.00
24) Naphthalene-d8	5.593	136	2861040	40.00	ppm	0.00
47) Acenaphthene-d10	7.021	164	1141642	40.00	ppm	0.00
69) Phenanthrene-d10	8.294	188	1772827	40.00	ppm	0.02
83) Chrysene-d12	11.514	240	1357869	40.00	ppm	0.07
91) Perylene-d12	13.514	264	1269979	40.00	ppm	0.11
101) 1,4-Dichlorobenzene-d4a	4.534	152	848454	40.00	ppm	0.00
103) Naphthalene-d8a	5.593	136	2861040	40.00	ppm	# 0.00
105) Acenaphthene-d10a	7.021	164	1141642	40.00	ppm	0.00
108) Chrysene-d12a	11.514	240	1357869	40.00	ppm	0.07
110) Phenanthrene-d10a	8.294	188	1772827	40.00	ppm	0.02
114) Chrysene-d12b	11.514	240	1357869	40.00	ppm	0.07

System Monitoring Compounds

5) 2-Fluorophenol	3.523	112	119600	3.57	ppm	0.00
Spiked Amount	50.000	Range	11 - 58	Recovery	=	7.14%#
8) Phenol-d5	4.363	99	131065	3.78	ppm	0.02
Spiked Amount	50.000	Range	10 - 59	Recovery	=	7.56%#
25) Nitrobenzene-d5	5.031	82	112532	4.27	ppm	0.00
Spiked Amount	50.000	Range	19 - 61	Recovery	=	8.54%#
51) 2-Fluorobiphenyl	6.475	172	208181	5.32	ppm	0.00
Spiked Amount	50.000	Range	21 - 58	Recovery	=	10.64%#
73) 2,4,6-Tribromophenol	7.684	330	29973	5.54	ppm	0.00
Spiked Amount	50.000	Range	12 - 68	Recovery	=	11.08%#
85) Terphenyl-d14	10.059	244	132649	4.49	ppm	0.02
Spiked Amount	50.000	Range	16 - 65	Recovery	=	8.98%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#

Target Compounds

						Qvalue
38) Naphthalene	5.609	128	1710932	24.72	ppm	99
44) 2-Methylnaphthalene	6.171	141	523654	11.99	ppm	96
56) Acenaphthylene	6.909	152	1403661	26.26	ppm	99
59) Acenaphthene	7.048	153	224873	6.84	ppm	99
66) Fluorene	7.465	166	545913	14.88	ppm	100
77) Phenanthrene	8.321	178	7185742	159.31	ppm	97
78) Anthracene	8.363	178	2603021	59.26	ppm	97
81) Fluoranthene	9.615	202	14376176	243.15	ppm	97
84) Pyrene	9.893	202	12487227	274.28	ppm	96
87) Benzo[a]anthracene	11.498	228	9384844	221.21	ppm	77
89) Chrysene	11.557	228	7051002	210.71	ppm	97
93) Benzo[b]fluoranthene	13.022	252	11776403m	277.31	ppm	
94) Benzo[k]fluoranthene	13.049	252	2654118m	78.31	ppm	
95) Benzo[a]pyrene	13.455	252	8410985	242.23	ppm	94
96) Indeno[1,2,3-cd]pyrene	14.873	276	4731790	124.55	ppm	89
98) Dibenz[a,h]anthracene	14.873	278	1895583	62.12	ppm	91
100) Benzo[g,h,i]perylene	15.253	276	3389744	111.56	ppm	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3498\
Data File : 2p79417.D
Acq On : 10 May 2018 4:18 pm
Operator : seanb1
Sample : jc65662-1
Misc : op11893,e2p3498,30.0,,,1,5
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 10 17:06:16 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 10 09:07:01 2018
Response via : Initial Calibration

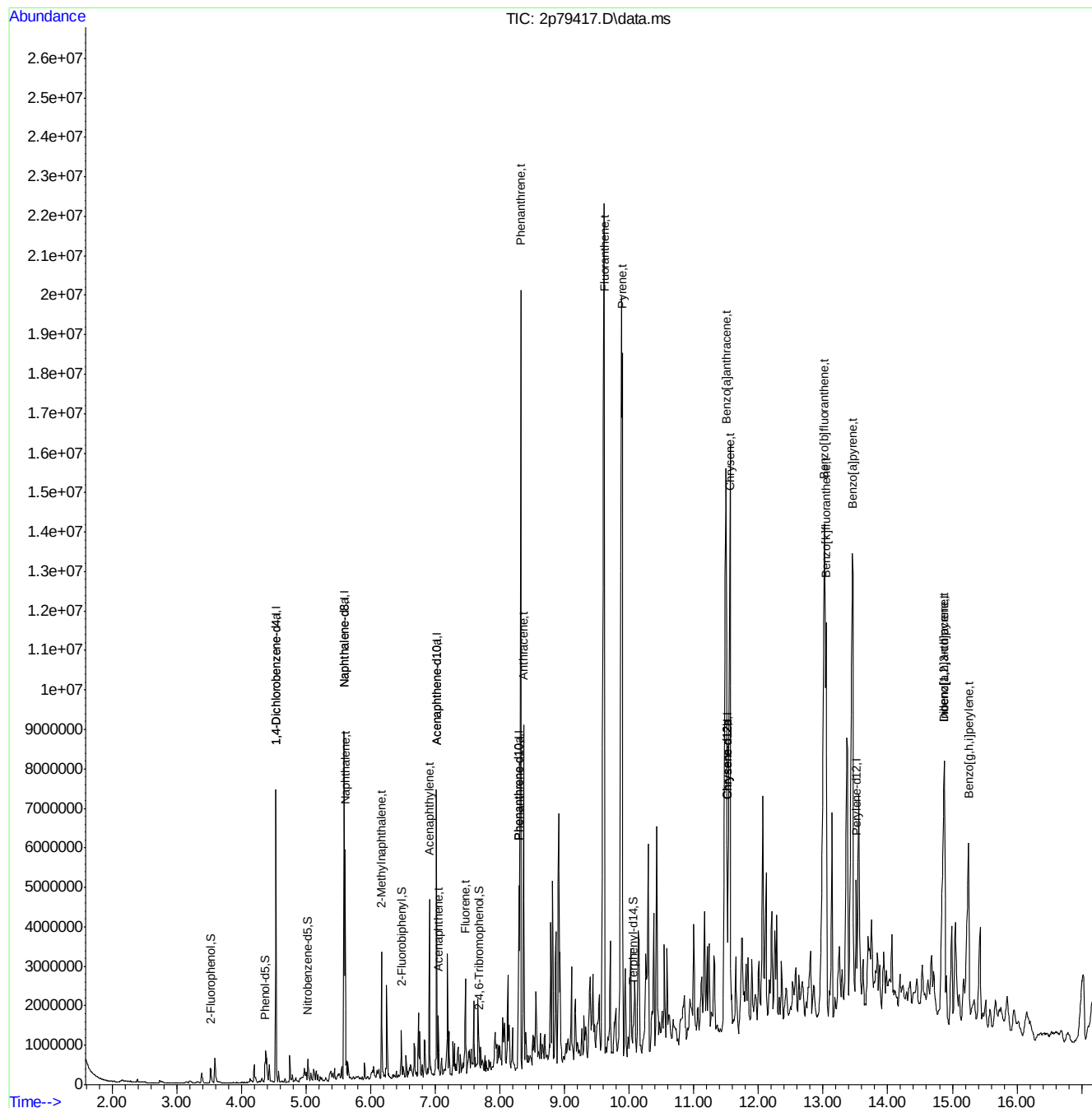
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

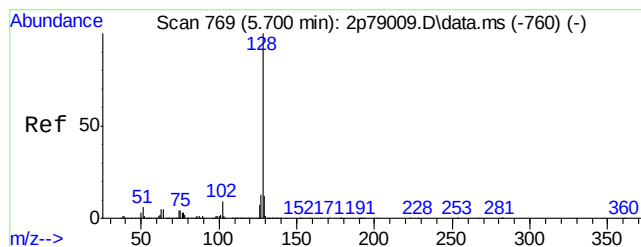
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path   : C:\msdchem\1\DATA\2P3498\  
Data File  : 2p79417.D  
Acq On     : 10 May 2018    4:18 pm  
Operator   : seanb1  
Sample     : jc65662-1  
Misc       : op11893,e2p3498,30.0,,,1,5  
ALS Vial   : 9      Sample Multiplier: 1
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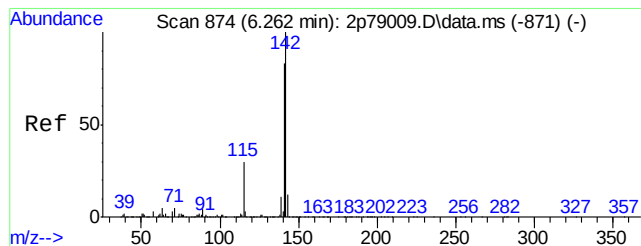
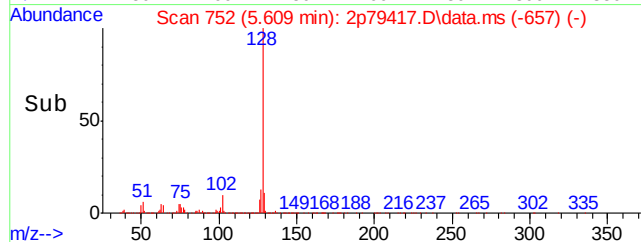
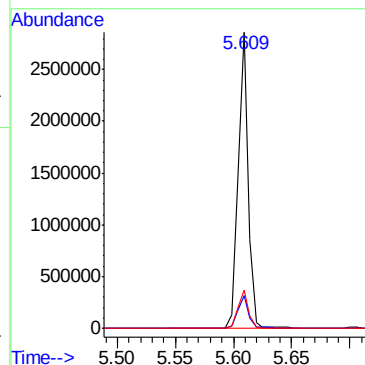
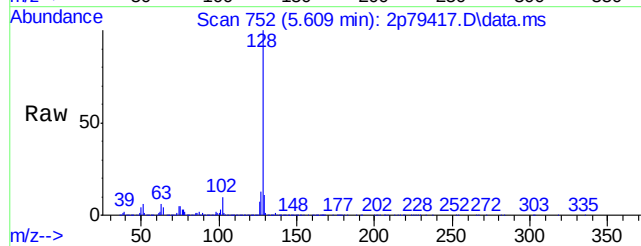
Quant Time: May 10 17:06:16 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 10 09:07:01 2018
Response via : Initial Calibration





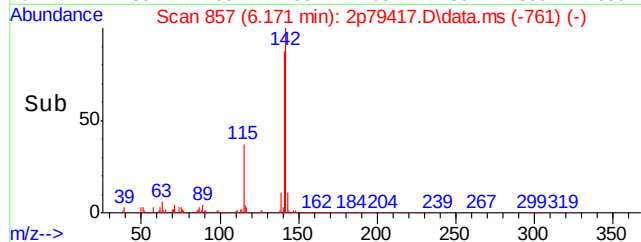
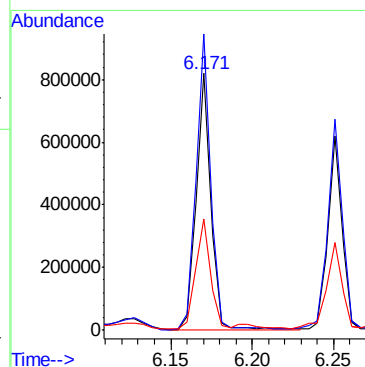
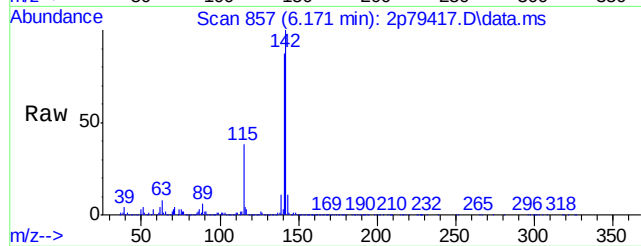
#38
Naphthalene
Concen: 24.72 ppm
RT: 5.609 min Scan# 752
Delta R.T. 0.005 min
Lab File: 2p79417.D
Acq: 10 May 2018 4:18 pm

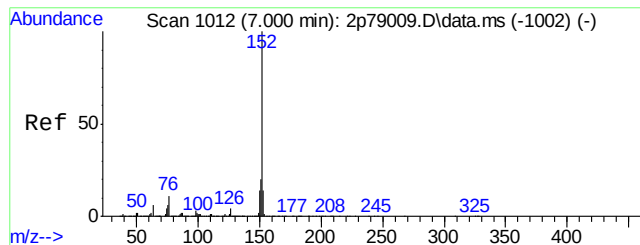
Tgt Ion	Ratio	Lower	Upper
128	100		
129	11.1	0.0	41.8
127	12.8	0.0	43.2



#44
2-Methylnaphthalene
Concen: 11.99 ppm
RT: 6.171 min Scan# 857
Delta R.T. 0.013 min
Lab File: 2p79417.D
Acq: 10 May 2018 4:18 pm

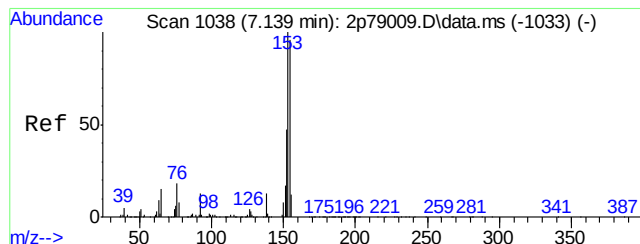
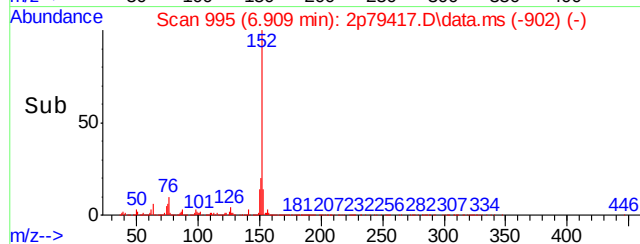
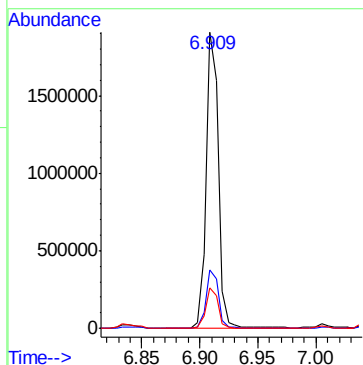
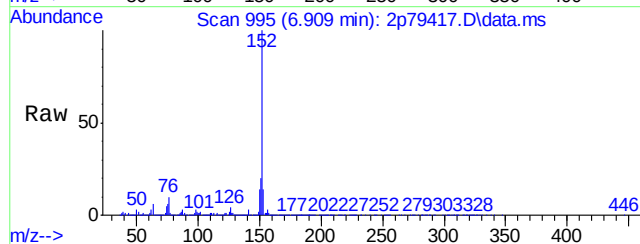
Tgt Ion	Ratio	Lower	Upper
141	100		
142	115.1	87.7	147.7
115	42.6	8.4	68.4





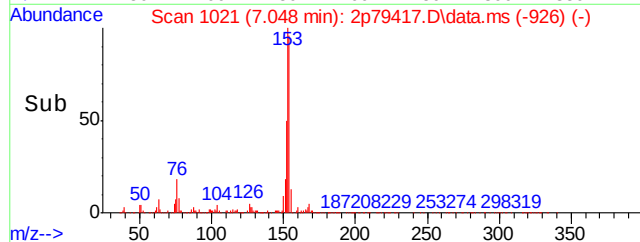
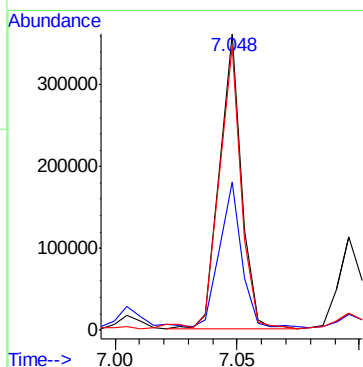
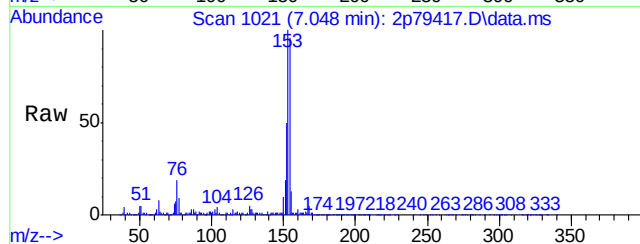
#56
Acenaphthylene
Concen: 26.26 ppm
RT: 6.909 min Scan# 995
Delta R.T. -0.001 min
Lab File: 2p79417.D
Acq: 10 May 2018 4:18 pm

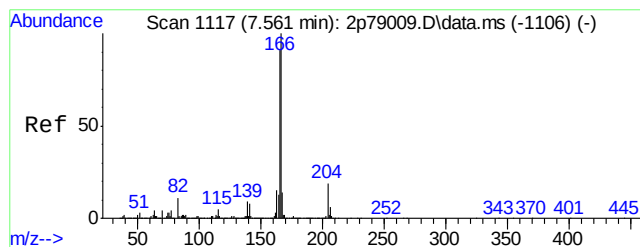
Tgt Ion:	152	Resp:	1403661
Ion Ratio	Lower	Upper	
152	100		
151	19.5	0.0	50.2
153	13.6	0.0	43.3



#59
Acenaphthene
Concen: 6.84 ppm
RT: 7.048 min Scan# 1021
Delta R.T. 0.006 min
Lab File: 2p79417.D
Acq: 10 May 2018 4:18 pm

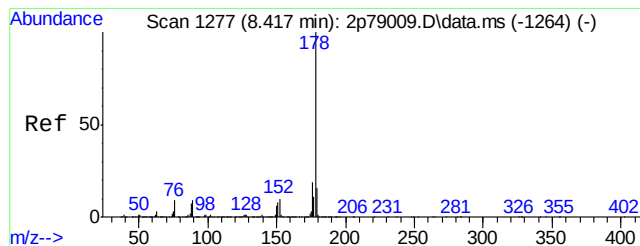
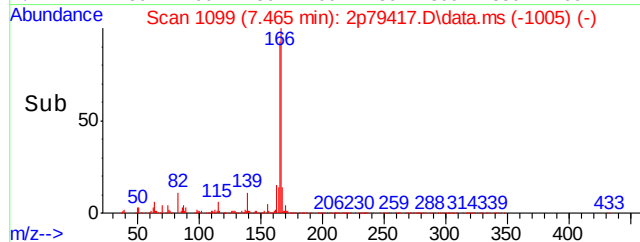
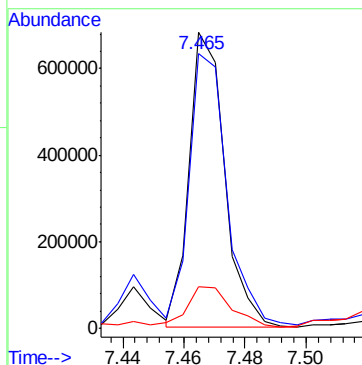
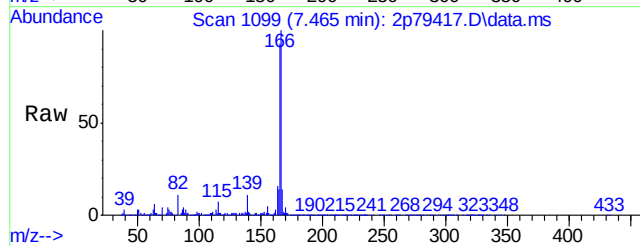
Tgt Ion:	153	Resp:	224873
Ion Ratio	Lower	Upper	
153	100		
152	48.9	17.5	77.5
154	95.2	65.6	125.6





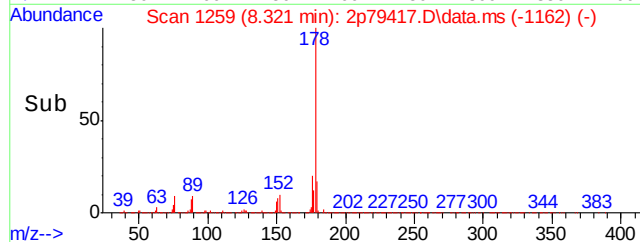
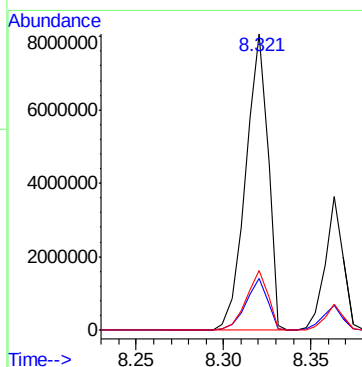
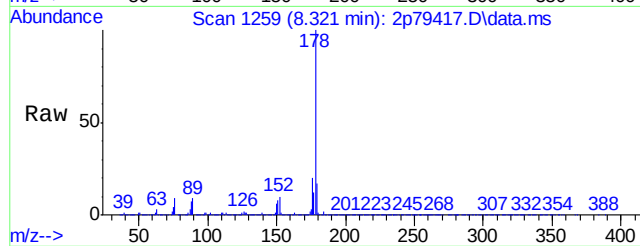
#66
Fluorene
Concen: 14.88 ppm
RT: 7.465 min Scan# 1099
Delta R.T. 0.005 min
Lab File: 2p79417.D
Acq: 10 May 2018 4:18 pm

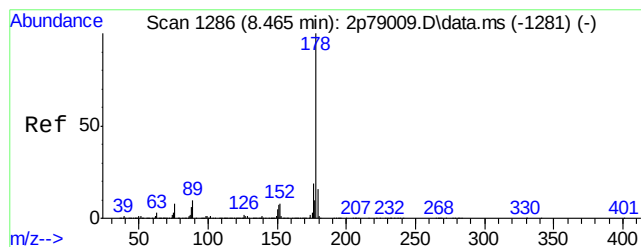
Tgt Ion:	166	Resp:	545913
Ion Ratio	Lower	Upper	
166	100		
165	92.1	61.9	121.9
167	12.8	0.0	43.7



#77
Phenanthrene
Concen: 159.31 ppm
RT: 8.321 min Scan# 1259
Delta R.T. 0.016 min
Lab File: 2p79417.D
Acq: 10 May 2018 4:18 pm

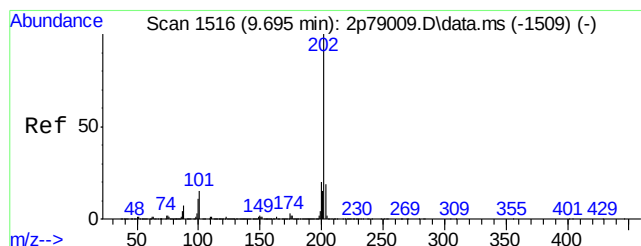
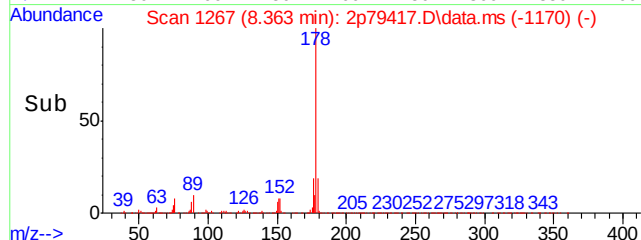
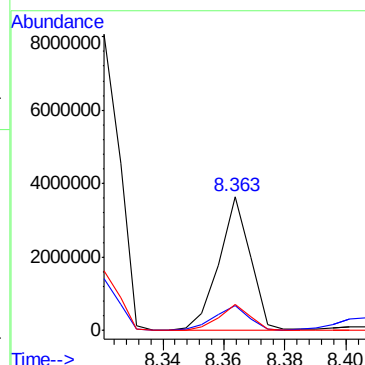
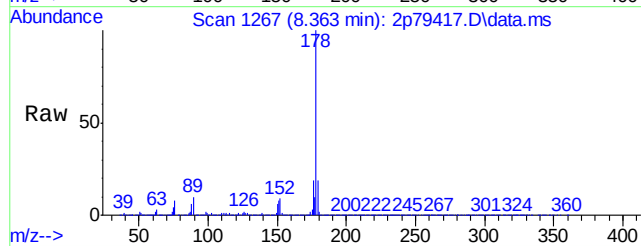
Tgt Ion:	178	Resp:	7185742
Ion Ratio	Lower	Upper	
178	100		
179	17.4	0.0	45.6
176	20.0	0.0	49.1





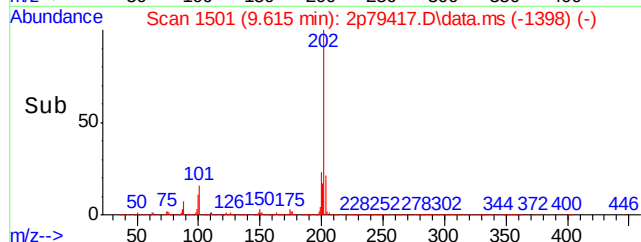
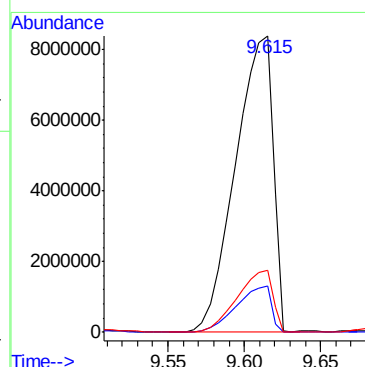
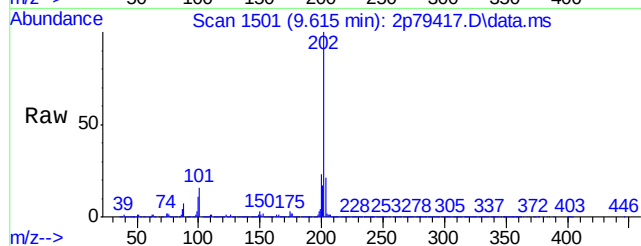
#78
 Anthracene
 Concen: 59.26 ppm
 RT: 8.363 min Scan# 1267
 Delta R.T. 0.017 min
 Lab File: 2p79417.D
 Acq: 10 May 2018 4:18 pm

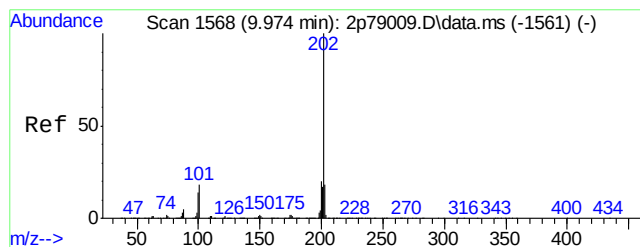
Tgt Ion:	178	Resp:	2603021
Ion Ratio	Lower	Upper	
178	100		
179	18.4	0.0	45.7
176	19.1	0.0	48.8



#81
 Fluoranthene
 Concen: 243.15 ppm
 RT: 9.615 min Scan# 1501
 Delta R.T. 0.051 min
 Lab File: 2p79417.D
 Acq: 10 May 2018 4:18 pm

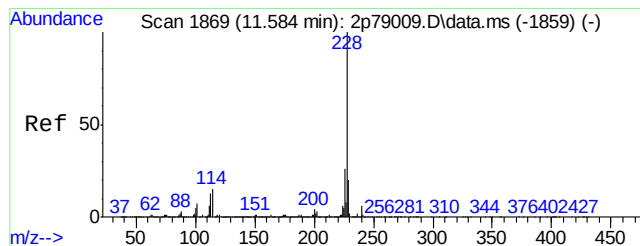
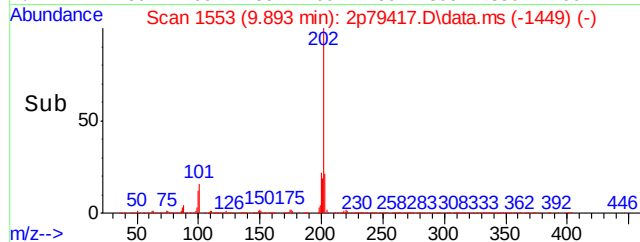
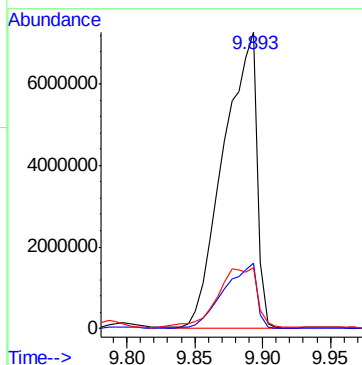
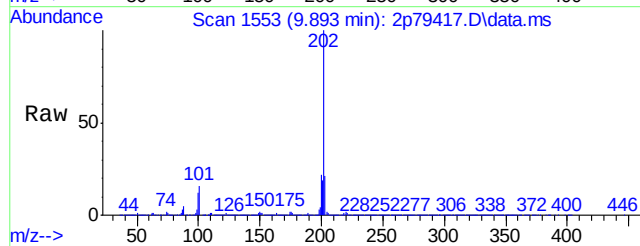
Tgt Ion:	202	Resp:	14376176
Ion Ratio	Lower	Upper	
202	100		
101	15.6	0.0	45.6
203	20.9	0.0	48.4





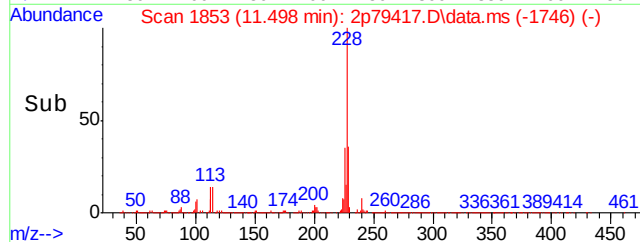
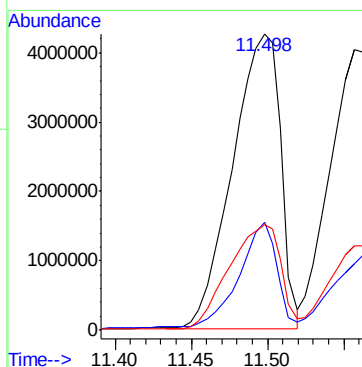
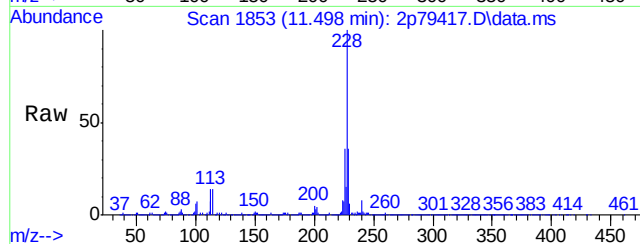
#84
Pyrene
Concen: 274.28 ppm
RT: 9.893 min Scan# 1553
Delta R.T. 0.058 min
Lab File: 2p79417.D
Acq: 10 May 2018 4:18 pm

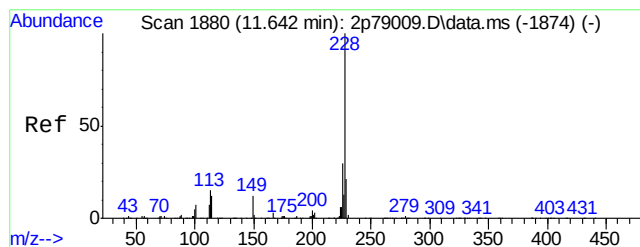
Tgt Ion:	202	Resp:	12487227
Ion Ratio	Lower	Upper	
202	100		
200	22.0	0.0	50.7
203	20.2	0.0	47.7



#87
Benzo[a]anthracene
Concen: 221.21 ppm
RT: 11.498 min Scan# 1853
Delta R.T. 0.075 min
Lab File: 2p79417.D
Acq: 10 May 2018 4:18 pm

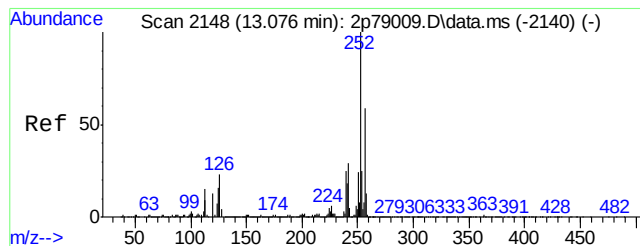
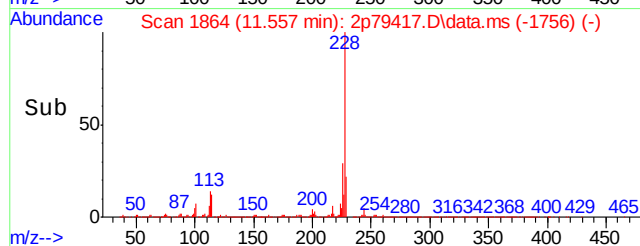
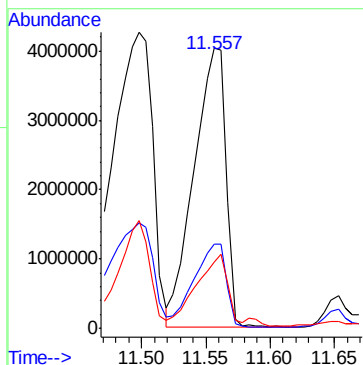
Tgt Ion:	228	Resp:	9384844
Ion Ratio	Lower	Upper	
228	100		
229	35.9	0.0	50.2
226	34.8	0.0	56.8





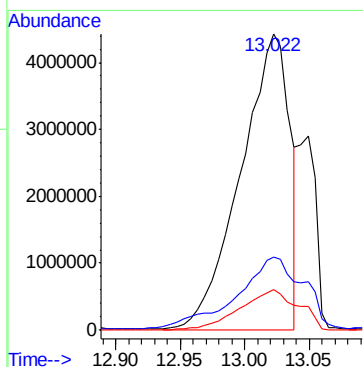
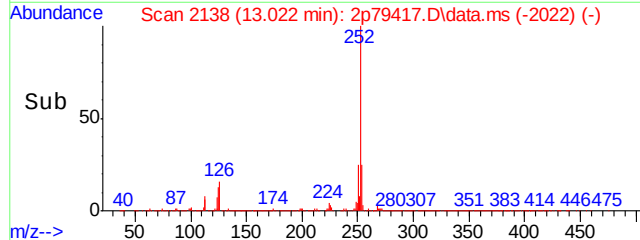
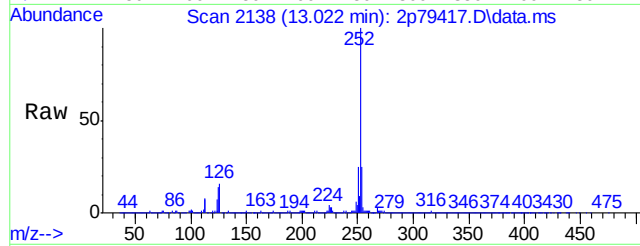
#89
Chrysene
Concen: 210.71 ppm
RT: 11.557 min Scan# 1864
Delta R.T. 0.075 min
Lab File: 2p79417.D
Acq: 10 May 2018 4:18 pm

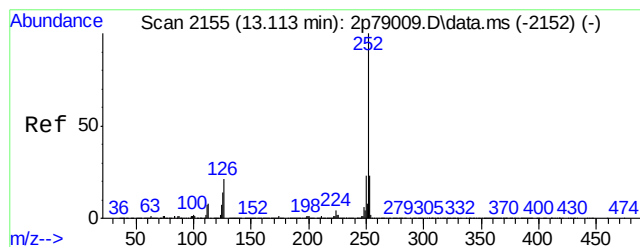
Tgt Ion: 228 Resp: 7051002
Ion Ratio Lower Upper
228 100
226 28.8 0.0 59.4
229 22.5 0.0 49.9



#93
Benzo[b]fluoranthene
Concen: 277.31 ppm m
RT: 13.022 min Scan# 2138
Delta R.T. 0.118 min
Lab File: 2p79417.D
Acq: 10 May 2018 4:18 pm

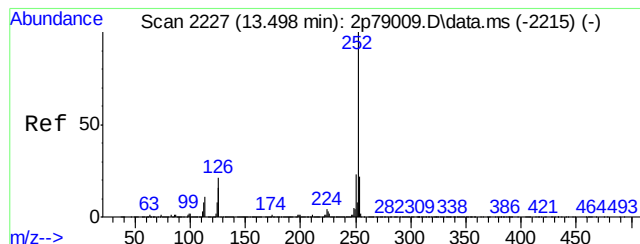
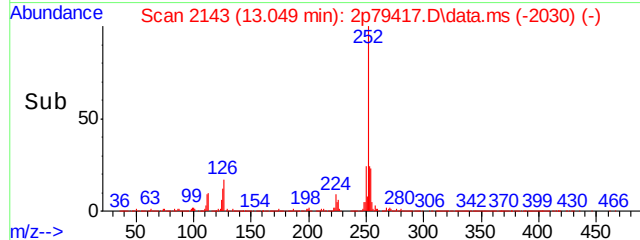
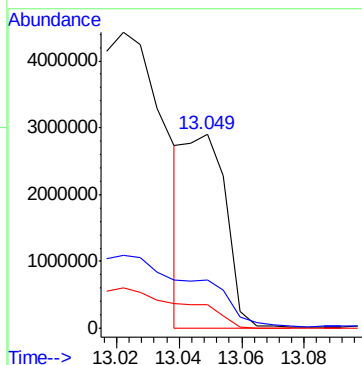
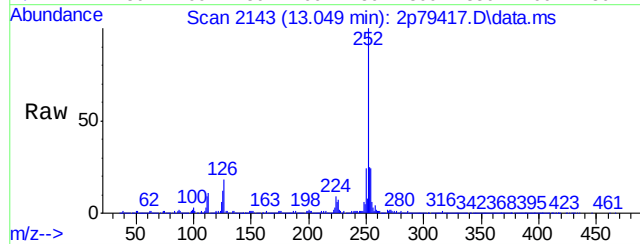
Tgt Ion: 252 Resp: 11776403
Ion Ratio Lower Upper
252 100
253 24.7 0.0 55.5
125 13.5 0.0 49.6





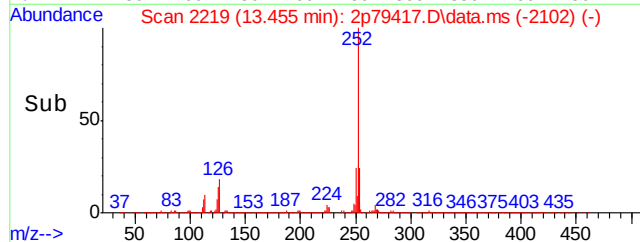
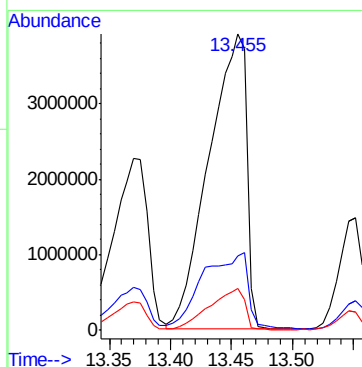
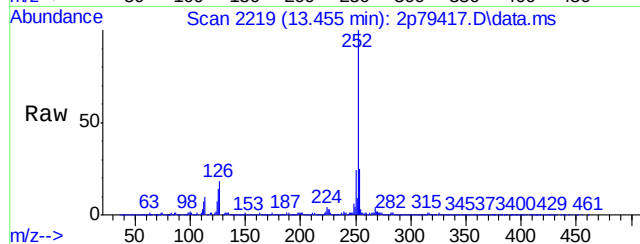
#94
Benzo[k]fluoranthene
Concen: 78.31 ppm
RT: 13.049 min Scan# 2143
Delta R.T. 0.102 min
Lab File: 2p79417.D
Acq: 10 May 2018 4:18 pm

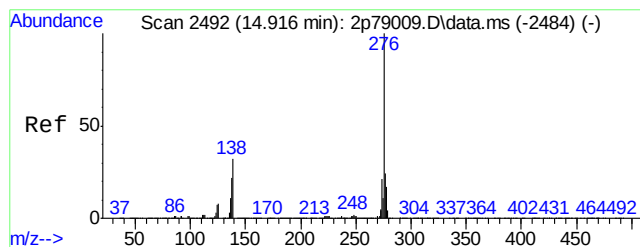
Tgt Ion:	252	Resp:	2654118
Ion Ratio	Lower	Upper	
252	100		
253	24.7	0.0	52.6
125	11.9	0.0	45.2



#95
Benzo[a]pyrene
Concen: 242.23 ppm
RT: 13.455 min Scan# 2219
Delta R.T. 0.127 min
Lab File: 2p79417.D
Acq: 10 May 2018 4:18 pm

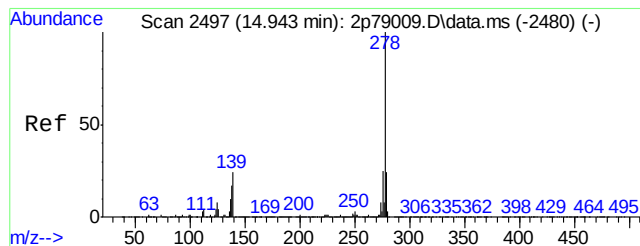
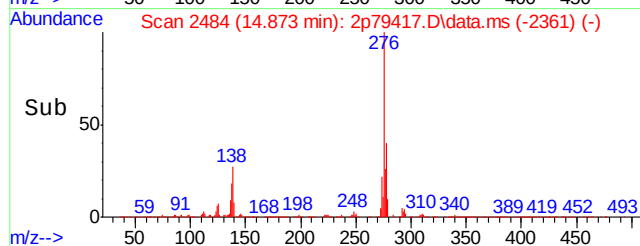
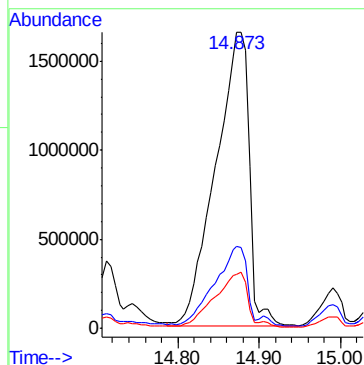
Tgt Ion:	252	Resp:	8410985
Ion Ratio	Lower	Upper	
252	100		
253	24.2	0.0	51.5
125	13.8	0.0	46.4





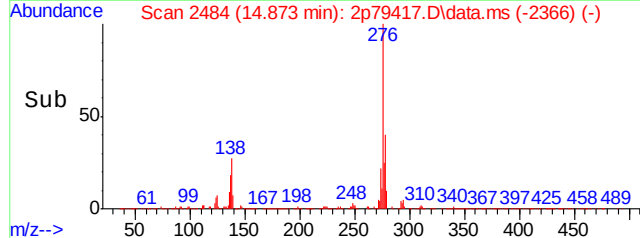
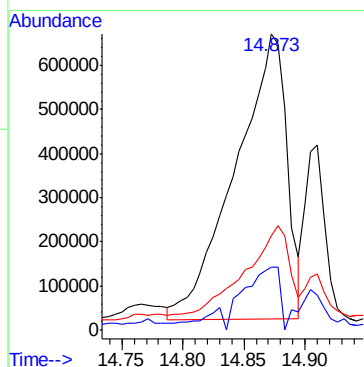
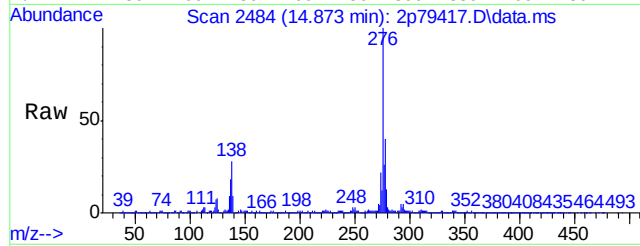
#96
Indeno[1,2,3-cd]pyrene
Concen: 124.55 ppm
RT: 14.873 min Scan# 2484
Delta R.T. 0.157 min
Lab File: 2p79417.D
Acq: 10 May 2018 4:18 pm

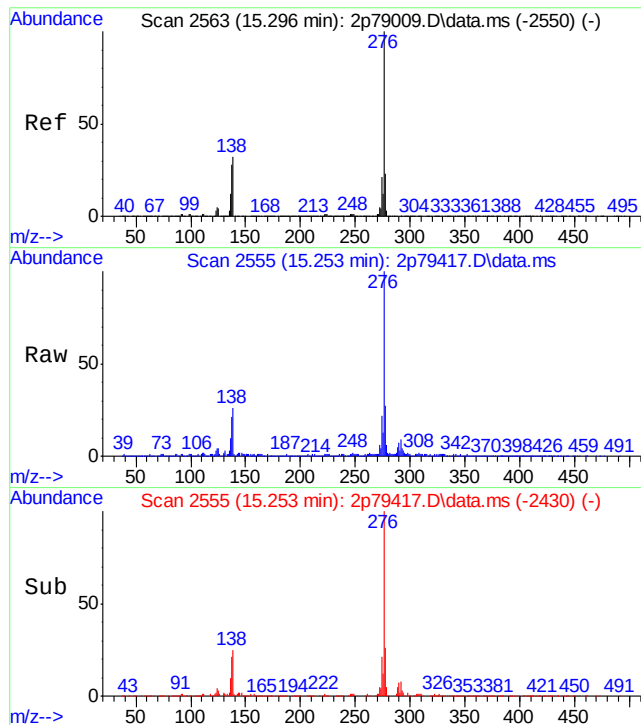
Tgt Ion: 276 Resp: 4731790
Ion Ratio Lower Upper
276 100
138 26.8 3.3 63.3
137 18.0 0.0 53.5



#98
Dibenz[a,h]anthracene
Concen: 62.12 ppm
RT: 14.873 min Scan# 2484
Delta R.T. 0.130 min
Lab File: 2p79417.D
Acq: 10 May 2018 4:18 pm

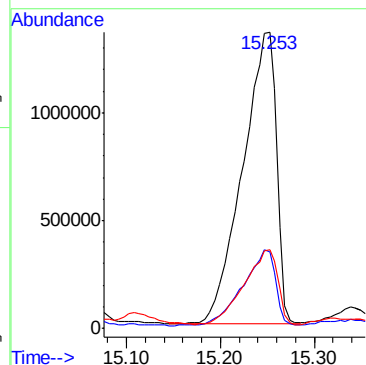
Tgt Ion: 278 Resp: 1895583
Ion Ratio Lower Upper
278 100
139 20.4 0.0 55.1
279 28.4 0.0 54.3





#100
Benzo[g,h,i]perylene
Concen: 111.56 ppm
RT: 15.253 min Scan# 2555
Delta R.T. 0.171 min
Lab File: 2p79417.D
Acq: 10 May 2018 4:18 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	25.1	2.9	62.9
277	25.4	0.0	53.6



Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-16-18\lotusa\e2p3505\
 Data File : 2p79618.d
 Acq On : 15 May 2018 2:48 pm
 Operator : christc2
 Sample : jc65662-2
 Misc : op11893,e2p3505,30.2,,,5,500
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 24 11:32:12 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu May 03 12:30:09 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.470	152	952478	40.00	ppm	0.00
24) Naphthalene-d8	5.529	136	3419366	40.00	ppm	0.00
47) Acenaphthene-d10	6.957	164	1565246	40.00	ppm	0.00
69) Phenanthrene-d10	8.214	188	2858379	40.00	ppm	0.00
83) Chrysene-d12	11.370	240	2701324	40.00	ppm	0.00
91) Perylene-d12	13.343	264	2593742	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.470	152	952478	40.00	ppm	0.00
103) Naphthalene-d8a	5.529	136	3419366	40.00	ppm	0.00
105) Acenaphthene-d10a	6.957	164	1565246	40.00	ppm	0.00
108) Chrysene-d12a	11.370	240	2701324	40.00	ppm	0.00
110) Phenanthrene-d10a	8.214	188	2858379	40.00	ppm	0.00
114) Chrysene-d12b	11.370	240	2701324	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000	Range 11 - 58	Recovery	=	0.00%#	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000	Range 10 - 59	Recovery	=	0.00%#	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000	Range 19 - 61	Recovery	=	0.00%#	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount	50.000	Range 21 - 58	Recovery	=	0.00%#	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000	Range 12 - 68	Recovery	=	0.00%#	
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount	50.000	Range 16 - 65	Recovery	=	0.00%#	
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery	=	0.00%#	
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery	=	0.00%#	
Target Compounds						
						Qvalue
38) Naphthalene	5.545	128	923168	11.16	ppm	99
44) 2-Methylnaphthalene	6.107	141	392148	7.51	ppm	96
56) Acenaphthylene	6.845	152	388092	5.30	ppm	99
59) Acenaphthene	6.984	153	42485	0.94	ppm	98
66) Fluorene	7.401	166	257917	5.13	ppm	98
77) Phenanthrene	8.235	178	1111178	15.28	ppm	99
78) Anthracene	8.283	178	404912	5.72	ppm	99
81) Fluoranthene	9.487	202	866558	9.09	ppm	95
84) Pyrene	9.754	202	690312	7.62	ppm	99
87) Benzo[a]anthracene	11.348	228	462921	5.48	ppm	91
89) Chrysene	11.402	228	279345	4.20	ppm	98
93) Benzo[b]fluoranthene	12.830	252	341430m	3.94	ppm	
94) Benzo[k]fluoranthene	12.856	252	97129m	1.40	ppm	
95) Benzo[a]pyrene	13.252	252	226411	3.19	ppm	90
96) Indeno[1,2,3-cd]pyrene	14.627	276	90167	1.16	ppm	81
100) Benzo[g,h,i]perylene	14.975	276	67861	1.09	ppm	91

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-16-18\lotusa\e2p3505\
Data File : 2p79618.d
Acq On : 15 May 2018 2:48 pm
Operator : christc2
Sample : jc65662-2
Misc : op11893,e2p3505,30.2,,,5,500
ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 24 11:32:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 03 12:30:09 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

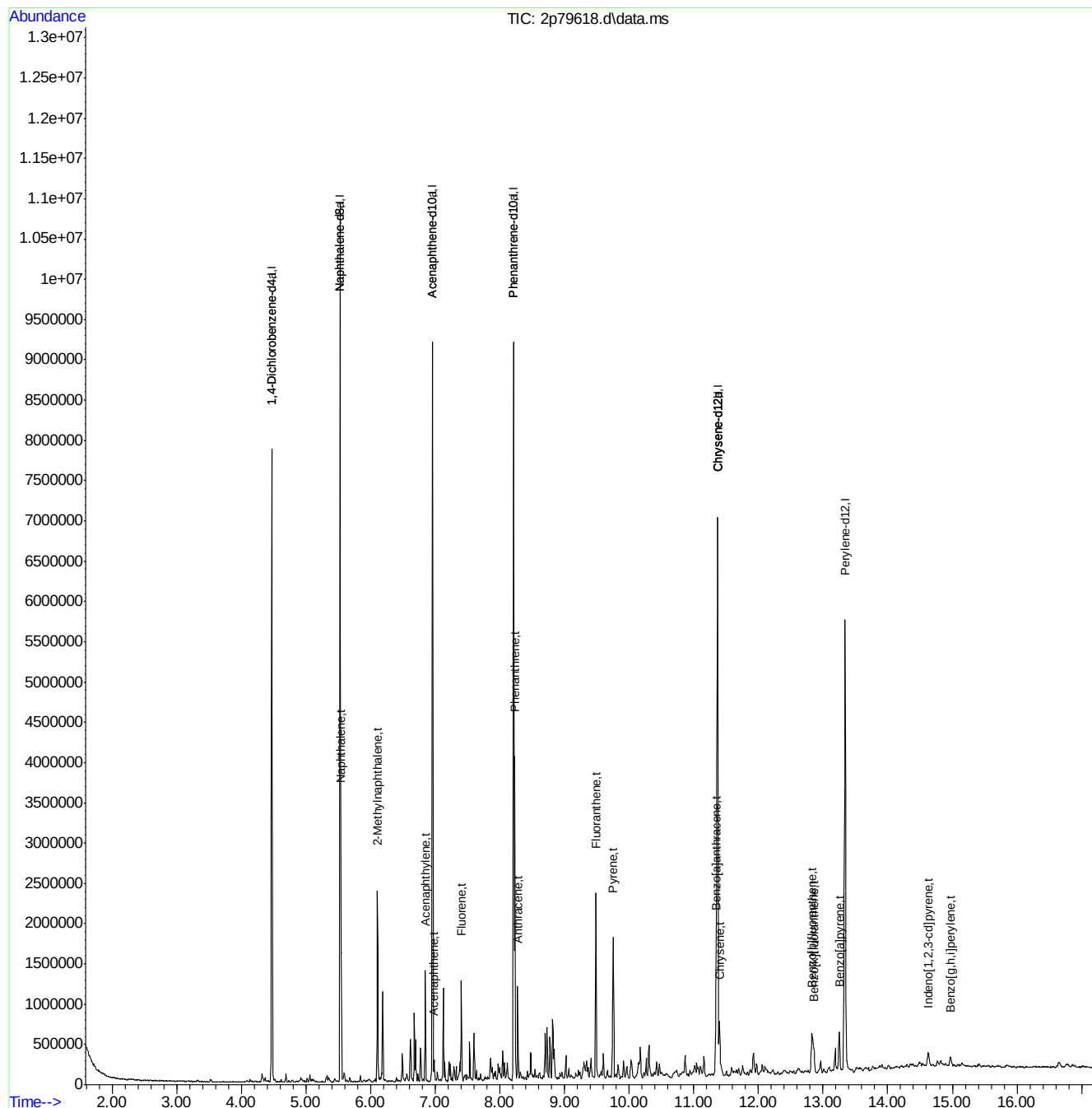
(#) = qualifier out of range (m) = manual integration (+) = signals summed						

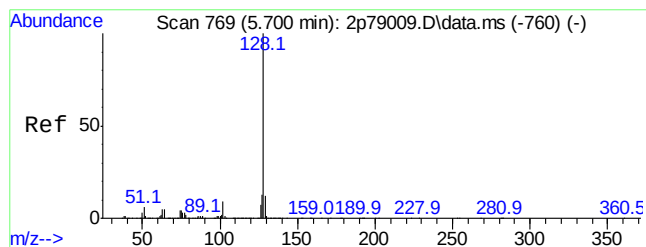
7.1.3
7

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-16-18\lotusa\e2p3505\
Data File : 2p79618.d
Acq On : 15 May 2018 2:48 pm
Operator : christc2
Sample : jc65662-2
Misc : op11893,e2p3505,30.2,,,5,500
ALS Vial : 17 Sample Multiplier: 1

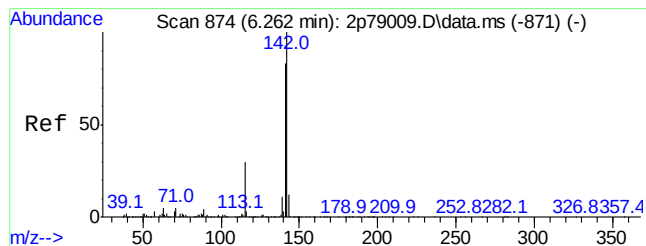
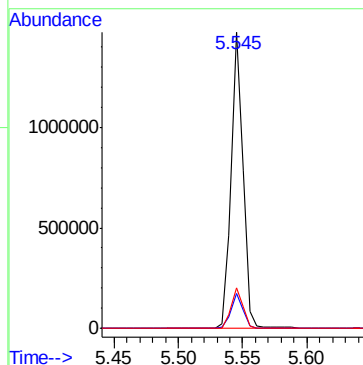
Quant Time: May 24 11:32:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 03 12:30:09 2018
Response via : Initial Calibration





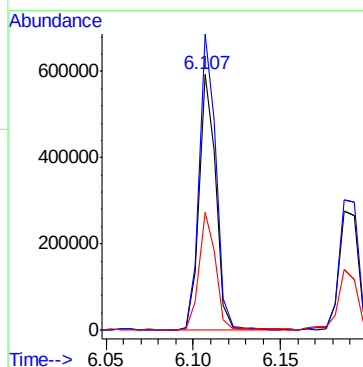
#38
Naphthalene
Concen: 11.16 ppm
RT: 5.545 min Scan# 740
Delta R.T. 0.000 min
Lab File: 2p79618.d
Acq: 15 May 2018 2:48 pm

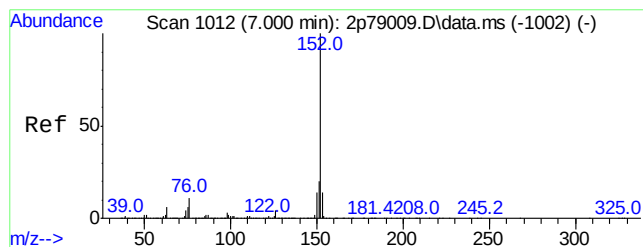
Tgt Ion	Ratio	Lower	Upper
128	100		
129	11.7	0.0	41.8
127	13.7	0.0	43.2



#44
2-Methylnaphthalene
Concen: 7.51 ppm
RT: 6.107 min Scan# 845
Delta R.T. 0.014 min
Lab File: 2p79618.d
Acq: 15 May 2018 2:48 pm

Tgt Ion	Ratio	Lower	Upper
141	100		
142	115.7	87.7	147.7
115	46.0	8.4	68.4





#56

Acenaphthylene

Concen: 5.30 ppm

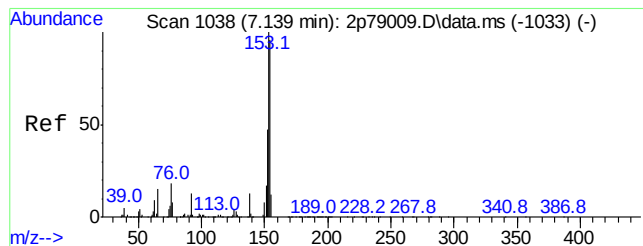
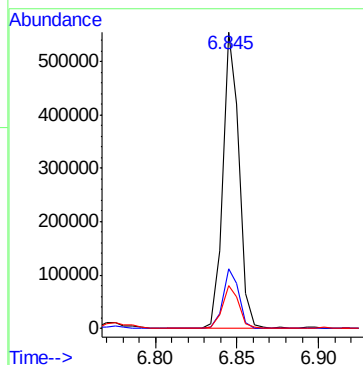
RT: 6.845 min Scan# 983

Delta R.T. -0.013 min

Lab File: 2p79618.d

Acq: 15 May 2018 2:48 pm

Tgt Ion:	152	Resp:	388092
Ion Ratio	Lower	Upper	
152	100		
151	20.1	0.0	50.2
153	14.3	0.0	43.3



#59

Acenaphthene

Concen: 0.94 ppm

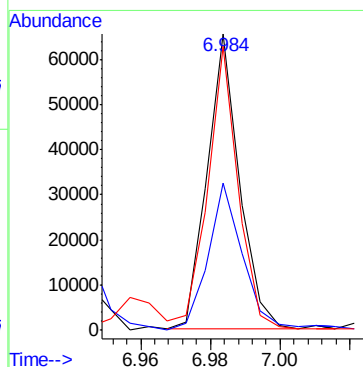
RT: 6.984 min Scan# 1009

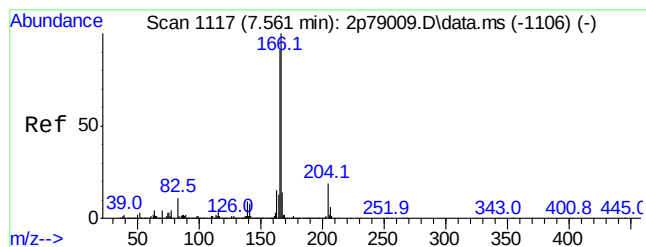
Delta R.T. -0.005 min

Lab File: 2p79618.d

Acq: 15 May 2018 2:48 pm

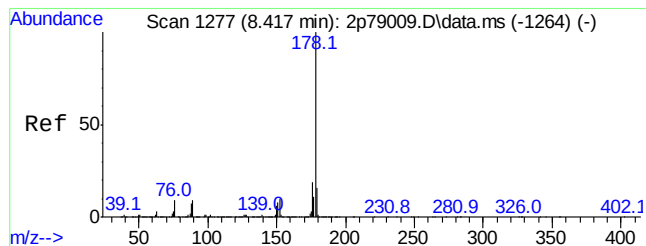
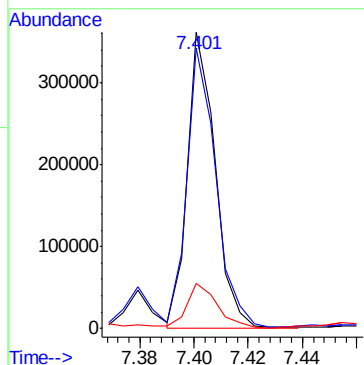
Tgt Ion:	153	Resp:	42485
Ion Ratio	Lower	Upper	
153	100		
152	49.2	17.5	77.5
154	94.5	65.6	125.6





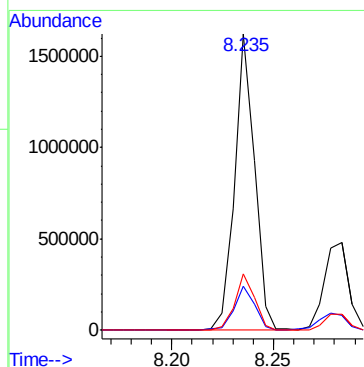
#66
Fluorene
Concen: 5.13 ppm
RT: 7.401 min Scan# 1087
Delta R.T. -0.003 min
Lab File: 2p79618.d
Acq: 15 May 2018 2:48 pm

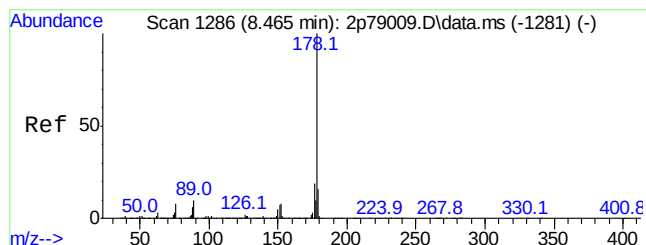
Tgt Ion	Ratio	Lower	Upper
166	100		
165	94.1	61.9	121.9
167	14.3	0.0	43.7



#77
Phenanthrene
Concen: 15.28 ppm
RT: 8.235 min Scan# 1243
Delta R.T. -0.010 min
Lab File: 2p79618.d
Acq: 15 May 2018 2:48 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	14.7	0.0	45.6
176	19.1	0.0	49.1





#78

Anthracene

Concen: 5.72 ppm

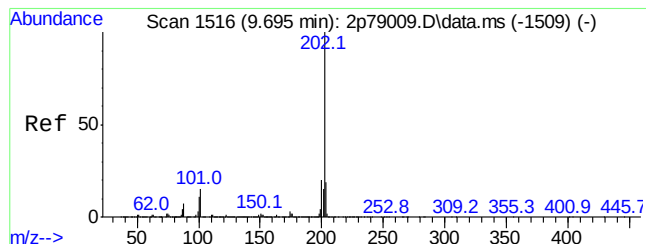
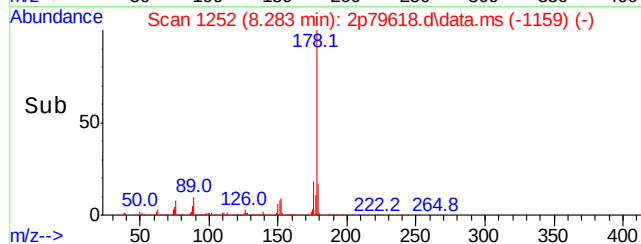
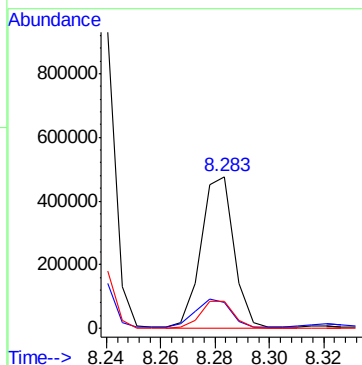
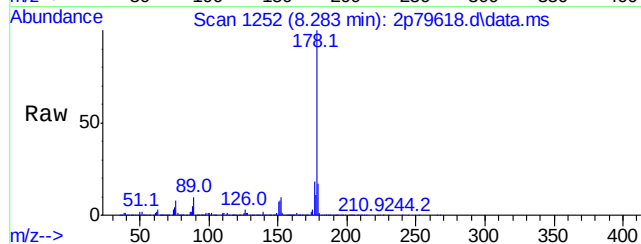
RT: 8.283 min Scan# 1252

Delta R.T. -0.004 min

Lab File: 2p79618.d

Acq: 15 May 2018 2:48 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	15.8	0.0	45.7
176	18.1	0.0	48.8



#81

Fluoranthene

Concen: 9.09 ppm

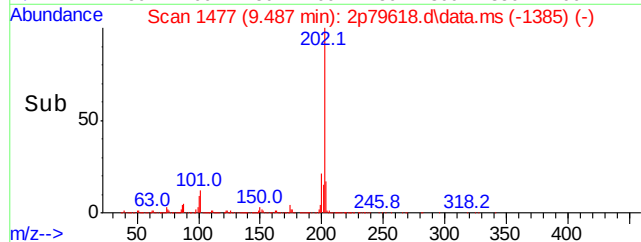
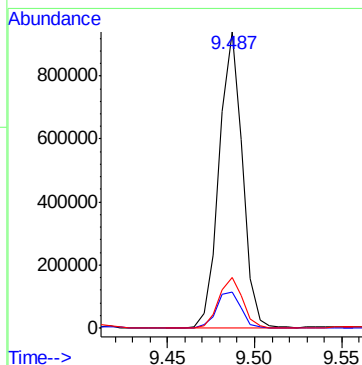
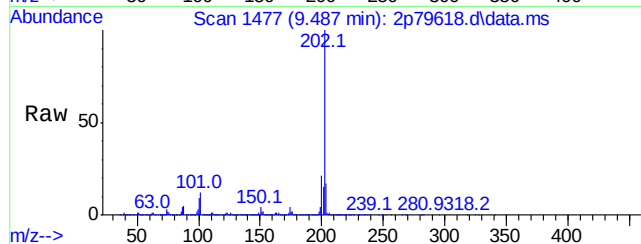
RT: 9.487 min Scan# 1477

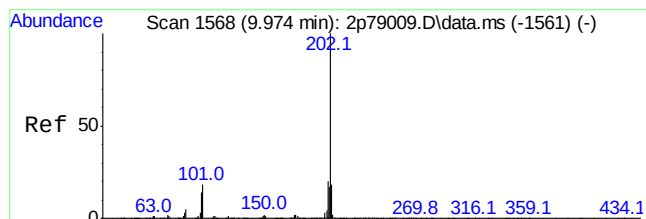
Delta R.T. -0.010 min

Lab File: 2p79618.d

Acq: 15 May 2018 2:48 pm

Tgt Ion	Ratio	Lower	Upper
202	100		
101	12.2	0.0	45.6
203	16.9	0.0	48.4





#84

Pyrene

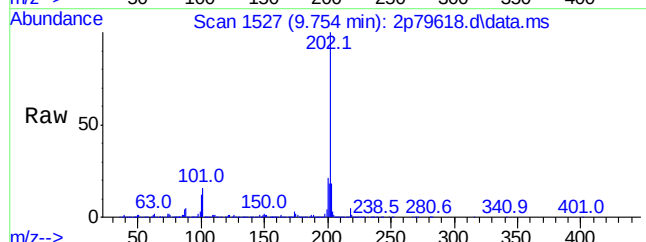
Concen: 7.62 ppm

RT: 9.754 min Scan# 1527

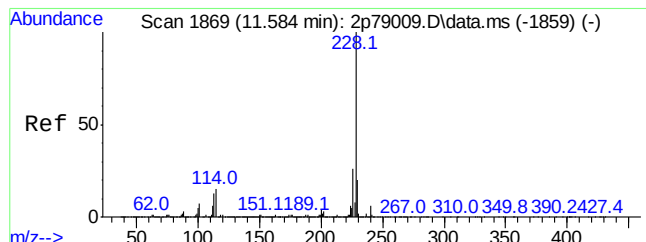
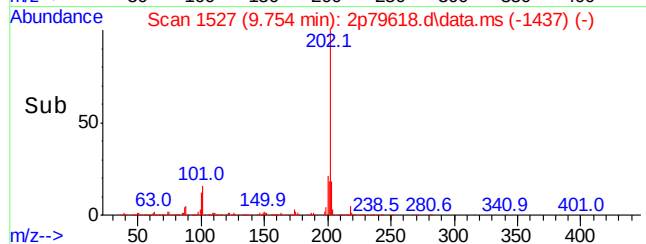
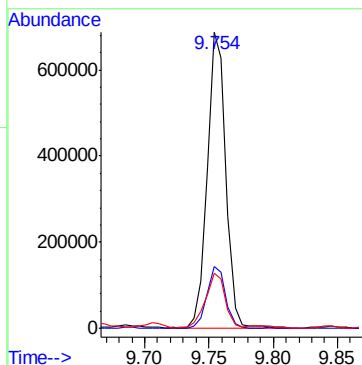
Delta R.T. -0.021 min

Lab File: 2p79618.d

Acq: 15 May 2018 2:48 pm



Tgt	Ion:202	Resp:	690312
Ion	Ratio	Lower	Upper
202	100		
200	21.0	0.0	50.7
203	18.0	0.0	47.7



#87

Benzo[a]anthracene

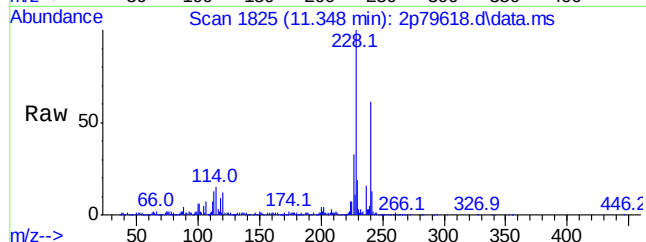
Concen: 5.48 ppm

RT: 11.348 min Scan# 1825

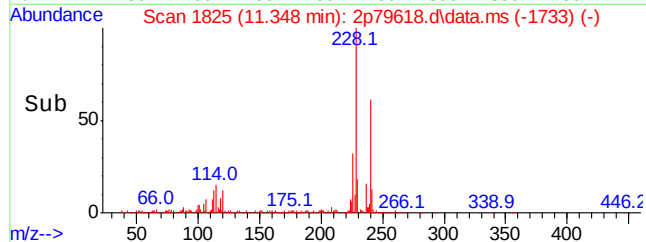
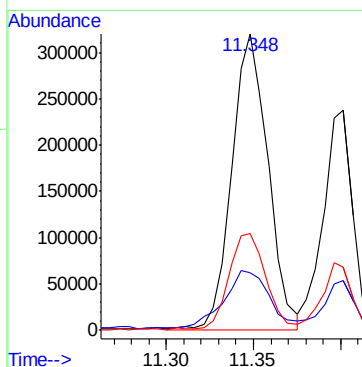
Delta R.T. -0.006 min

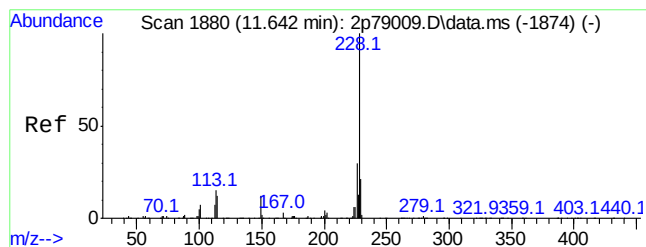
Lab File: 2p79618.d

Acq: 15 May 2018 2:48 pm



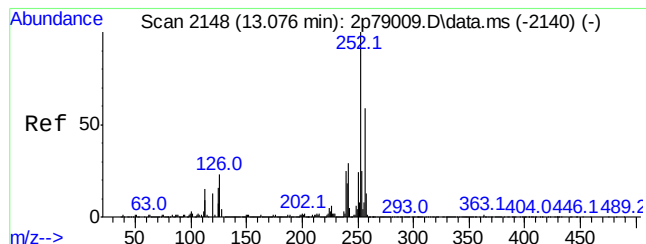
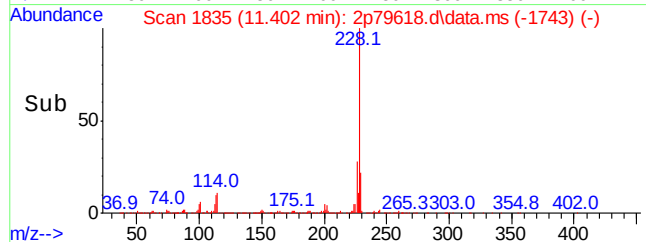
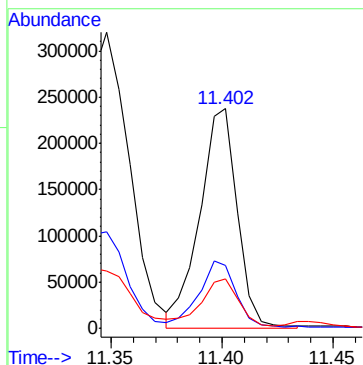
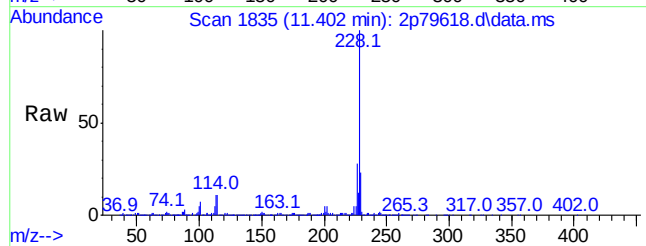
Tgt	Ion:228	Resp:	462921
Ion	Ratio	Lower	Upper
228	100		
229	18.1	0.0	50.2
226	32.8	0.0	56.8





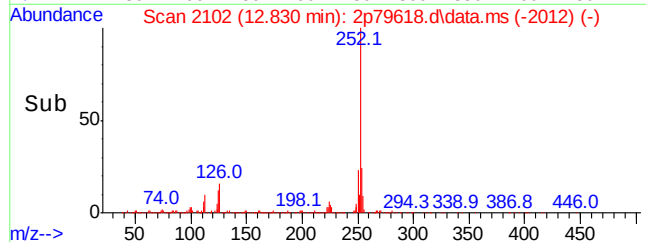
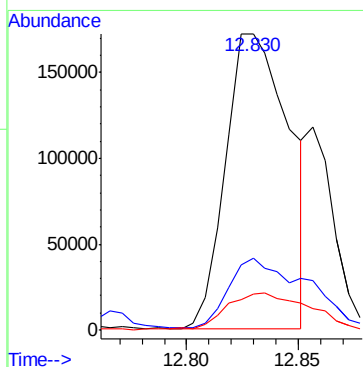
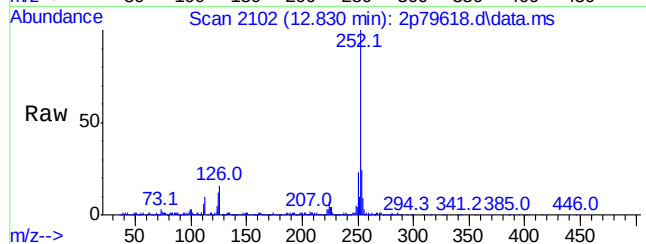
#89
Chrysene
Concen: 4.20 ppm
RT: 11.402 min Scan# 1835
Delta R.T. -0.010 min
Lab File: 2p79618.d
Acq: 15 May 2018 2:48 pm

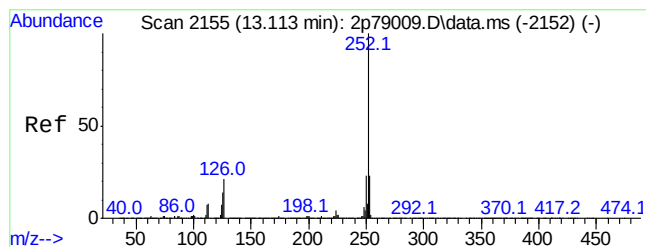
Tgt Ion	Ratio	Lower	Upper
228	100		
226	27.9	0.0	59.4
229	20.0	0.0	49.9



#93
Benzo[b]fluoranthene
Concen: 3.94 ppm m
RT: 12.830 min Scan# 2102
Delta R.T. -0.018 min
Lab File: 2p79618.d
Acq: 15 May 2018 2:48 pm

Tgt Ion	Ratio	Lower	Upper
252	100		
253	24.4	0.0	55.5
125	12.2	0.0	49.6





#94

Benzo[k]fluoranthene

Concen: 1.40 ppm

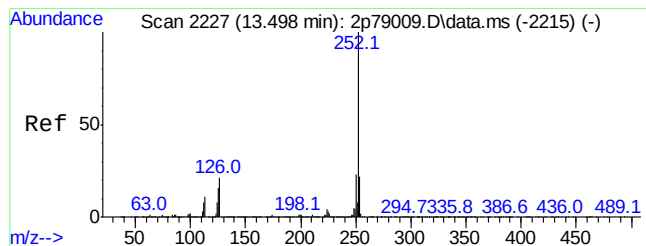
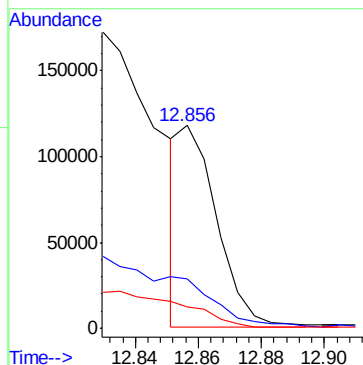
RT: 12.856 min Scan# 2107

Delta R.T. -0.033 min

Lab File: 2p79618.d

Acq: 15 May 2018 2:48 pm

Tgt	Ion:252	Resp:	97129
Ion	Ratio	Lower	Upper
252	100		
253	24.5	0.0	52.6
125	10.8	0.0	45.2



#95

Benzo[a]pyrene

Concen: 3.19 ppm

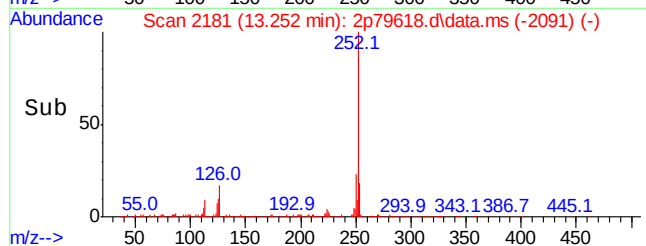
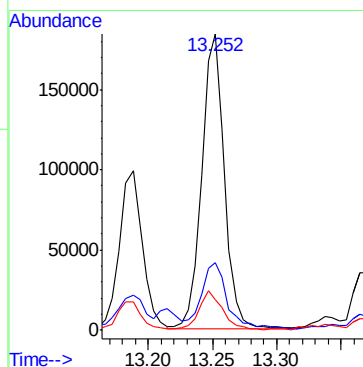
RT: 13.252 min Scan# 2181

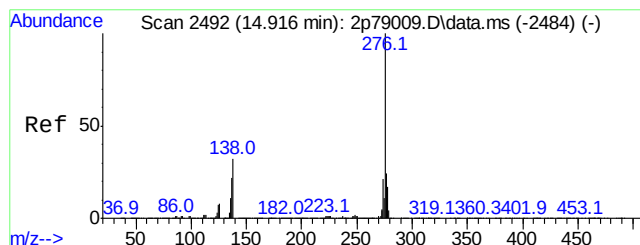
Delta R.T. -0.017 min

Lab File: 2p79618.d

Acq: 15 May 2018 2:48 pm

Tgt	Ion:252	Resp:	226411
Ion	Ratio	Lower	Upper
252	100		
253	19.0	0.0	51.5
125	9.5	0.0	46.4





#96

Indeno[1,2,3-cd]pyrene

Concen: 1.16 ppm

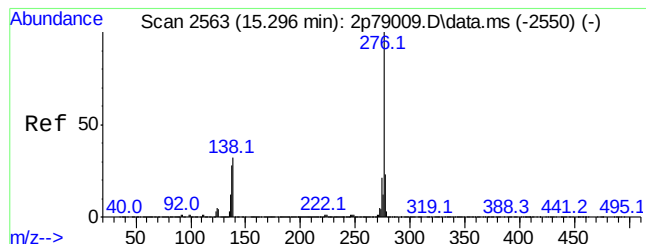
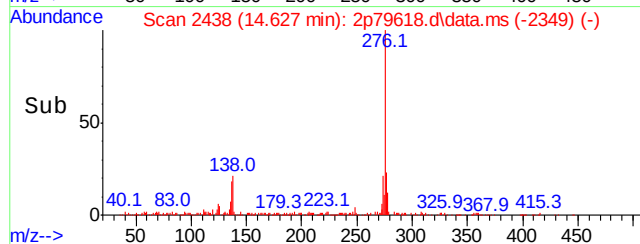
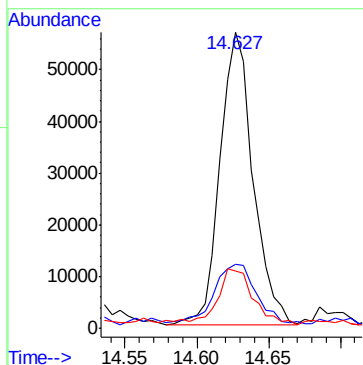
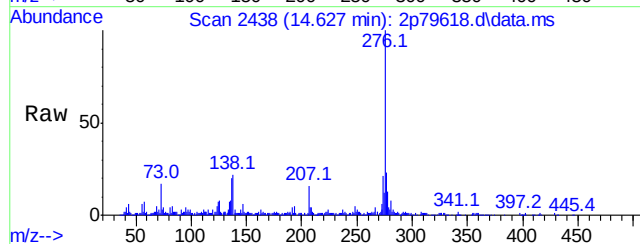
RT: 14.627 min Scan# 2438

Delta R.T. -0.025 min

Lab File: 2p79618.d

Acq: 15 May 2018 2:48 pm

Tgt Ion:	276	Resp:	90167
Ion Ratio	Lower	Upper	
276	100		
138	20.1	3.3	63.3
137	17.7	0.0	53.5



#100

Benzo[g,h,i]perylene

Concen: 1.09 ppm

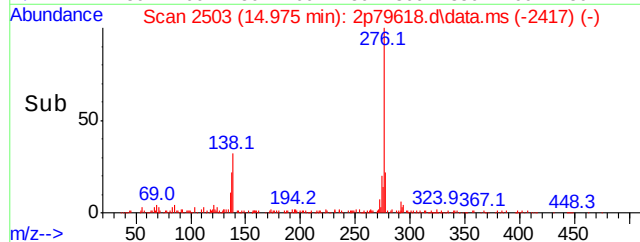
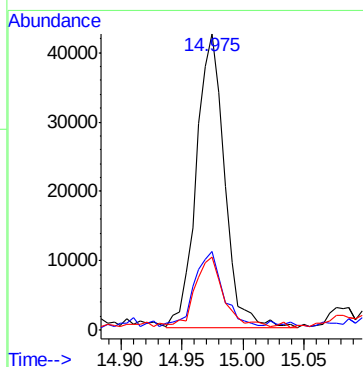
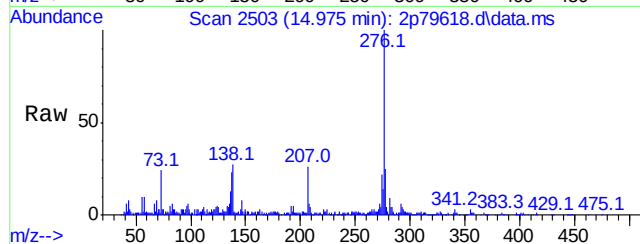
RT: 14.975 min Scan# 2503

Delta R.T. -0.041 min

Lab File: 2p79618.d

Acq: 15 May 2018 2:48 pm

Tgt Ion:	276	Resp:	67861
Ion Ratio	Lower	Upper	
276	100		
138	24.7	2.9	62.9
277	22.9	0.0	53.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\SV0A\2p3505\
 Data File : 2p79620.d
 Acq On : 15 May 2018 3:32 pm
 Operator : christc2
 Sample : jc65662-2
 Misc : op11893,e2p3505,30.2,,,1,50
 ALS Vial : 19 Sample Multiplier: 1
 Inst : MS2P

Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
 Quant Results File: M2P3484.RES
 Quant Time: May 16 04:22:41 2018
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu May 03 12:30:09 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.470	152	871279	40.00	ppm	0.00
24) Naphthalene-d8	5.534	136	2945381	40.00	ppm	0.00
47) Acenaphthene-d10	6.962	164	1077451	40.00	ppm	0.00
69) Phenanthrene-d10	8.219	188	2145791	40.00	ppm	0.00
83) Chrysene-d12	11.385	240	1849962	40.00	ppm	0.01
91) Perylene-d12	13.359	264	1928181	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4a	4.470	152	871279	40.00	ppm	0.00
103) Naphthalene-d8a	5.534	136	2945381	40.00	ppm	# 0.00
105) Acenaphthene-d10a	6.962	164	1077451	40.00	ppm	0.00
108) Chrysene-d12a	11.385	240	1849962	40.00	ppm	0.01
110) Phenanthrene-d10a	8.219	188	2145791	40.00	ppm	0.00
114) Chrysene-d12b	11.385	240	1849962	40.00	ppm	0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.464	112	5046	0.15	ppm	0.00
Spiked Amount	50.000	Range	11 - 58	Recovery	=	0.30%#
8) Phenol-d5	4.309	99	6185m	0.17	ppm	0.03
Spiked Amount	50.000	Range	10 - 59	Recovery	=	0.34%#
25) Nitrobenzene-d5	4.972	82	5678	0.21	ppm	0.00
Spiked Amount	50.000	Range	19 - 61	Recovery	=	0.42%#
51) 2-Fluorobiphenyl	6.417	172	8183	0.22	ppm	-0.02
Spiked Amount	50.000	Range	21 - 58	Recovery	=	0.44%#
73) 2,4,6-Tribromophenol	7.620	330	1514	0.23	ppm	0.00
Spiked Amount	50.000	Range	12 - 68	Recovery	=	0.46%#
85) Terphenyl-d14	9.963	244	12628	0.31	ppm	-0.01
Spiked Amount	50.000	Range	16 - 65	Recovery	=	0.62%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
Target Compounds						
38) Naphthalene	5.550	128	7453605	104.61	ppm	81
44) 2-Methylnaphthalene	6.112	141	3378874	75.16	ppm	98
56) Acenaphthylene	6.850	152	2957274	58.62	ppm	98
59) Acenaphthene	6.983	153	328047	10.57	ppm	95
66) Fluorene	7.411	166	2165708	62.54	ppm	100
77) Phenanthrene	8.251	178	8913735	163.27	ppm	90
78) Anthracene	8.294	178	3332397	62.68	ppm	98
81) Fluoranthene	9.508	202	6856810	95.82	ppm	98
84) Pyrene	9.775	202	5387819	86.86	ppm	99
87) Benzo[a]anthracene	11.364	228	3372690	58.35	ppm	91
89) Chrysene	11.423	228	2199471	48.24	ppm	96
93) Benzo[b]fluoranthene	12.856	252	2507613	38.89	ppm	89
94) Benzo[k]fluoranthene	12.883	252	841459	16.35	ppm	93
95) Benzo[a]pyrene	13.273	252	1895969	35.96	ppm	94
96) Indeno[1,2,3-cd]pyrene	14.653	276	835623	14.49	ppm	84
98) Dibenz[a,h]anthracene	14.664	278	361107	7.79	ppm	88
100) Benzo[g,h,i]perylene	15.001	276	634200	13.75	ppm	91

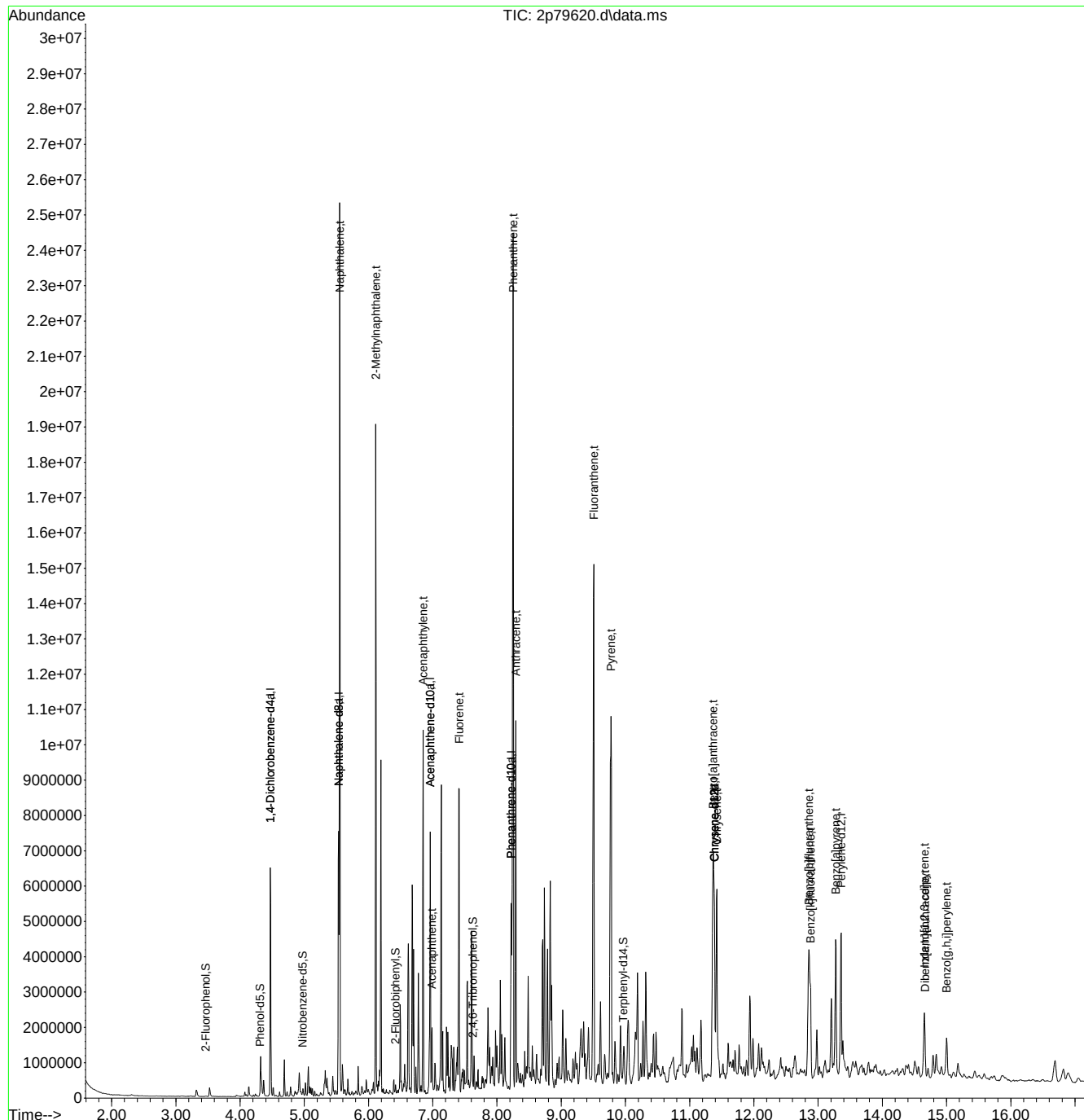
(#) = qualifier out of range (m) = manual integration (+) = signals summed

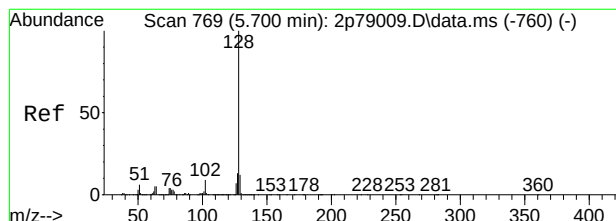
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\SV0A\e2p3505\
Data File : 2p79620.d
Acq On : 15 May 2018 3:32 pm
Operator : christc2
Sample : jc65662-2
Misc : op11893,e2p3505,30.2,,,1,50
ALS Vial : 19 Sample Multiplier: 1

Inst : MS2P

Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
Quant Results File: M2P3484.RES
Quant Time: May 16 04:22:41 2018
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 03 12:30:09 2018
Response via : Initial Calibration





#38

Naphthalene

Concen: 104.61 ppm

RT: 5.550 min Scan# 741

Delta R.T. 0.005 min

Lab File: 2p79620.d

Acq: 15 May 2018 3:32 pm

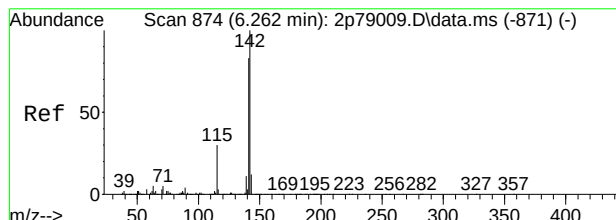
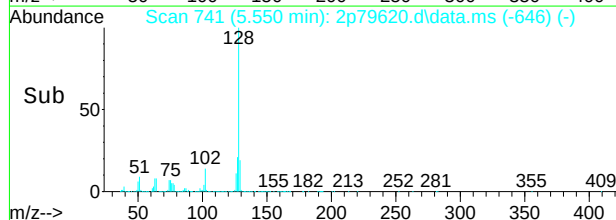
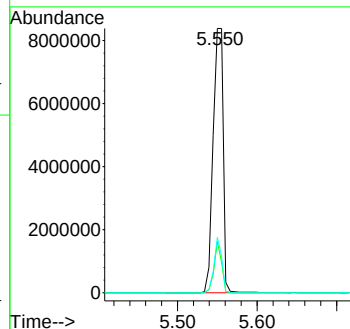
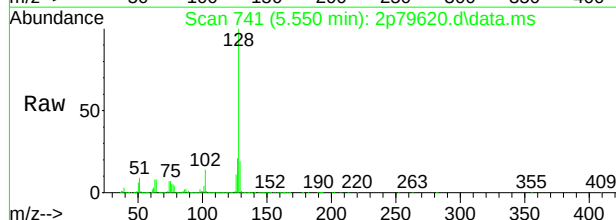
Tgt Ion:128 Resp: 7453605

Ion Ratio Lower Upper

128 100

129 19.3 0.0 41.8

127 21.0 0.0 43.2



#44

2-Methylnaphthalene

Concen: 75.16 ppm

RT: 6.112 min Scan# 846

Delta R.T. 0.019 min

Lab File: 2p79620.d

Acq: 15 May 2018 3:32 pm

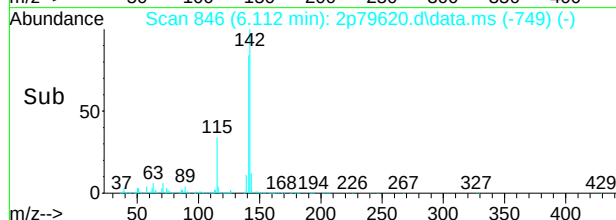
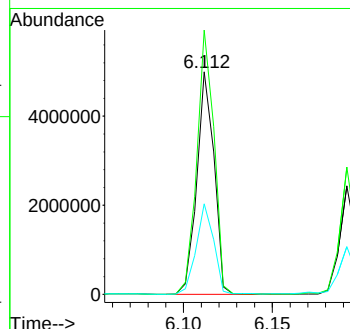
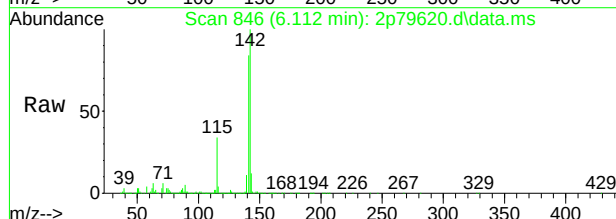
Tgt Ion:141 Resp: 3378874

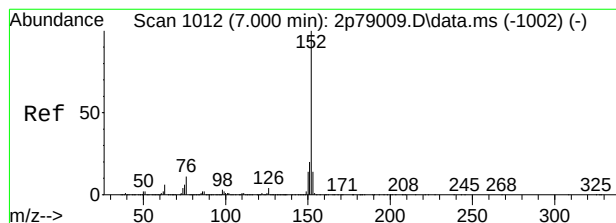
Ion Ratio Lower Upper

141 100

142 118.9 87.7 147.7

115 40.6 8.4 68.4





#56

Acenaphthylene

Concen: 58.62 ppm

RT: 6.850 min Scan# 984

Delta R.T. -0.008 min

Lab File: 2p79620.d

Acq: 15 May 2018 3:32 pm

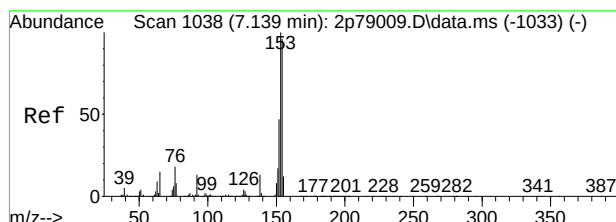
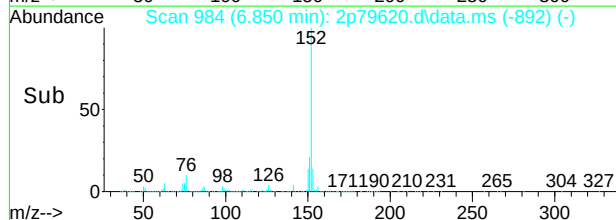
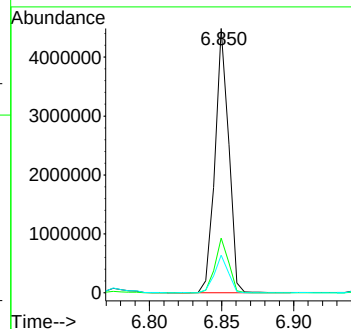
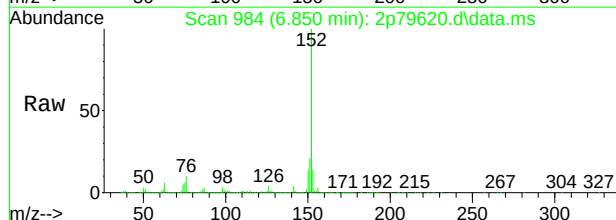
Tgt Ion:152 Resp: 2957274

Ion Ratio Lower Upper

152 100

151 20.7 0.0 50.2

153 14.2 0.0 43.3



#59

Acenaphthene

Concen: 10.57 ppm

RT: 6.983 min Scan# 1009

Delta R.T. -0.005 min

Lab File: 2p79620.d

Acq: 15 May 2018 3:32 pm

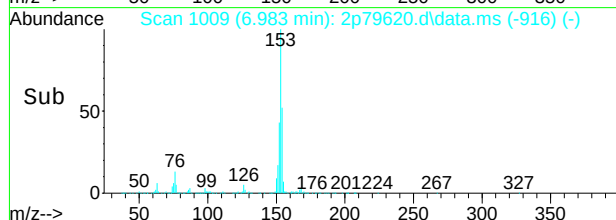
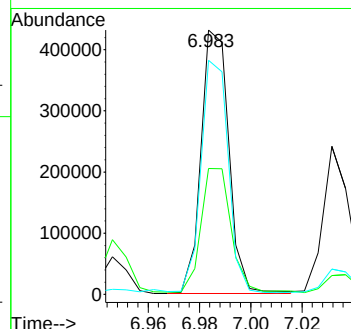
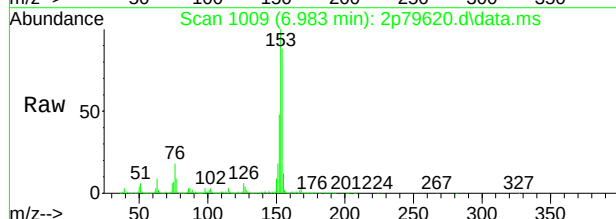
Tgt Ion:153 Resp: 328047

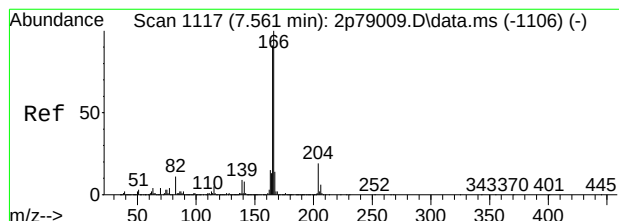
Ion Ratio Lower Upper

153 100

152 46.9 17.5 77.5

154 88.1 65.6 125.6





#66

Fluorene

Concen: 62.54 ppm

RT: 7.411 min Scan# 1089

Delta R.T. 0.008 min

Lab File: 2p79620.d

Acq: 15 May 2018 3:32 pm

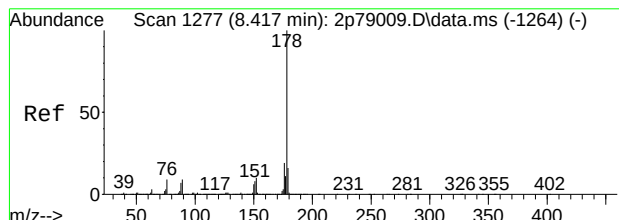
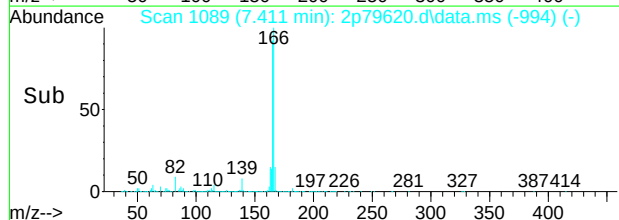
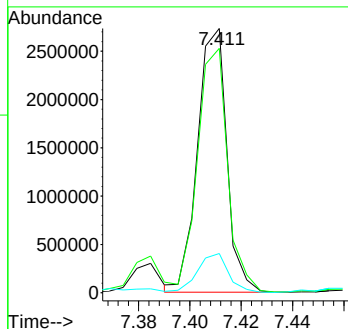
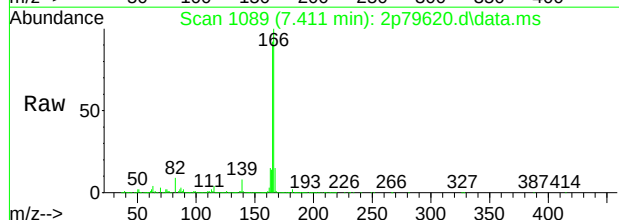
Tgt Ion:166 Resp: 2165708

Ion Ratio Lower Upper

166 100

165 91.8 61.9 121.9

167 14.7 0.0 43.7



#77

Phenanthrene

Concen: 163.27 ppm

RT: 8.251 min Scan# 1246

Delta R.T. 0.006 min

Lab File: 2p79620.d

Acq: 15 May 2018 3:32 pm

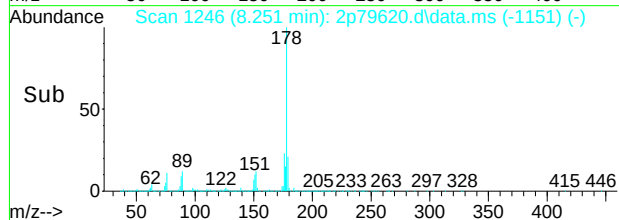
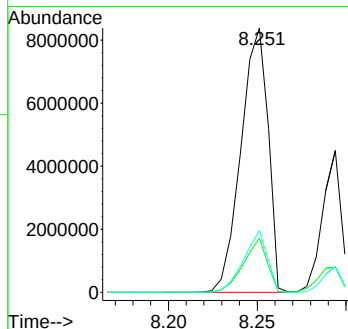
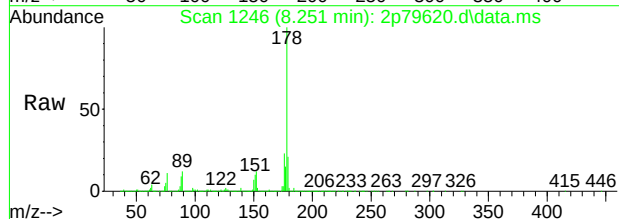
Tgt Ion:178 Resp: 8913735

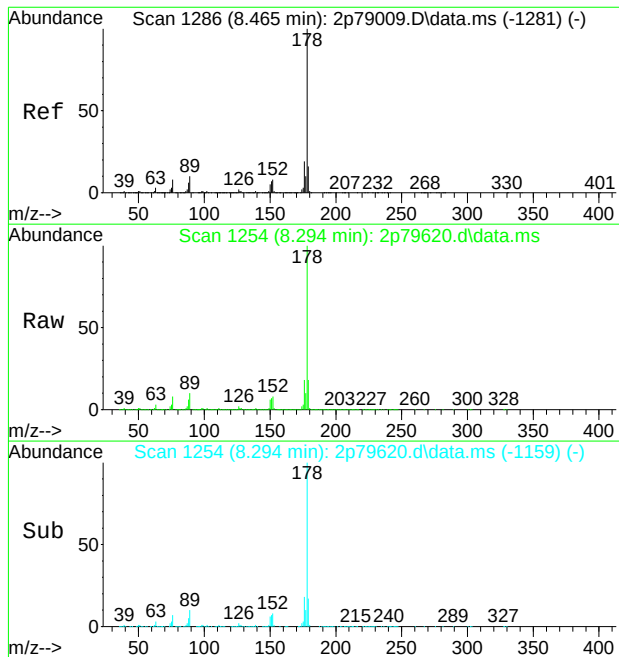
Ion Ratio Lower Upper

178 100

179 20.5 0.0 45.6

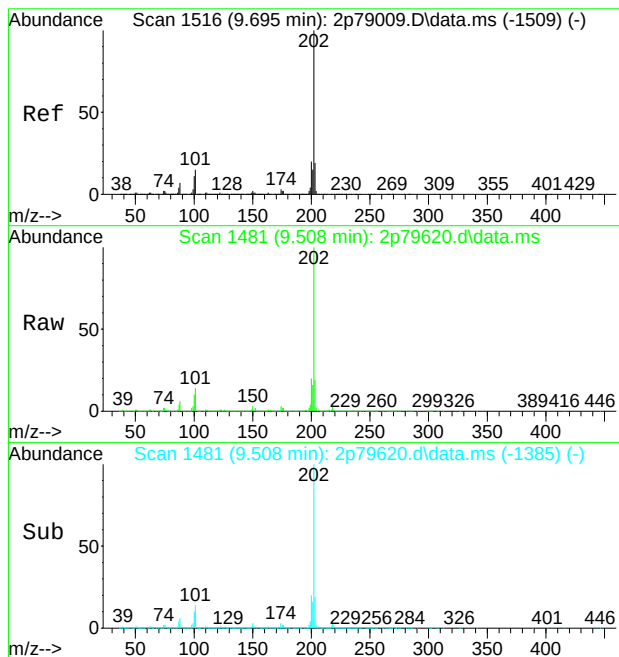
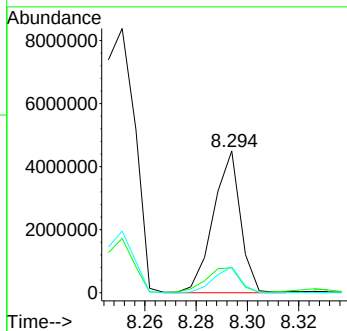
176 23.3 0.0 49.1





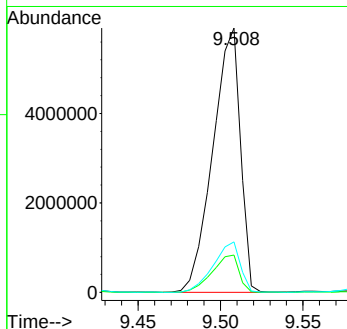
#78
 Anthracene
 Concen: 62.68 ppm
 RT: 8.294 min Scan# 1254
 Delta R.T. 0.006 min
 Lab File: 2p79620.d
 Acq: 15 May 2018 3:32 pm

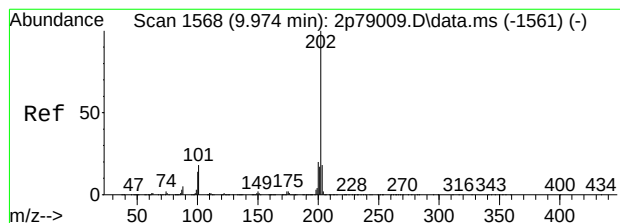
Tgt Ion:178 Resp: 3332397
 Ion Ratio Lower Upper
 178 100
 179 16.8 0.0 45.7
 176 18.3 0.0 48.8



#81
 Fluoranthene
 Concen: 95.82 ppm
 RT: 9.508 min Scan# 1481
 Delta R.T. 0.011 min
 Lab File: 2p79620.d
 Acq: 15 May 2018 3:32 pm

Tgt Ion:202 Resp: 6856810
 Ion Ratio Lower Upper
 202 100
 101 14.1 0.0 45.6
 203 19.1 0.0 48.4

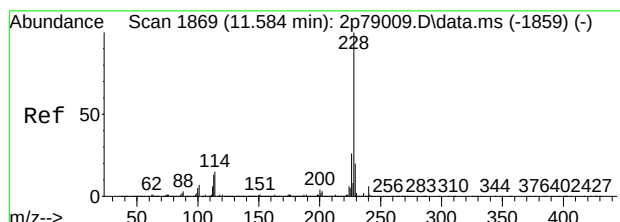
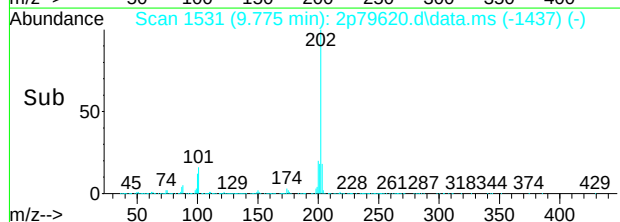
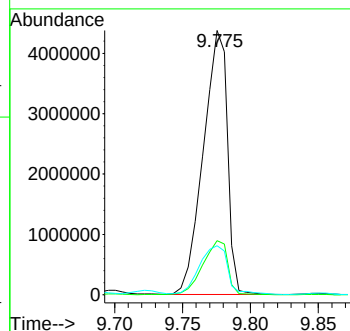
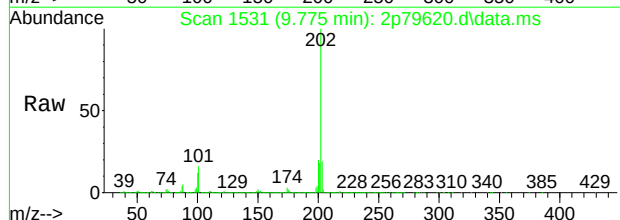




#84
Pyrene
Concen: 86.86 ppm
RT: 9.775 min Scan# 1531
Delta R.T. 0.000 min
Lab File: 2p79620.d
Acq: 15 May 2018 3:32 pm

Tgt Ion: 202 Resp: 5387819

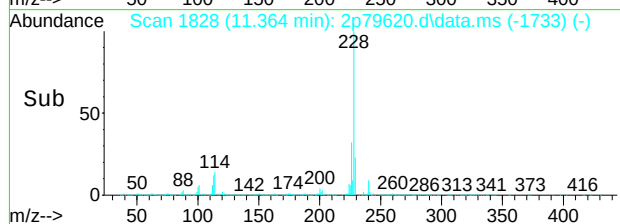
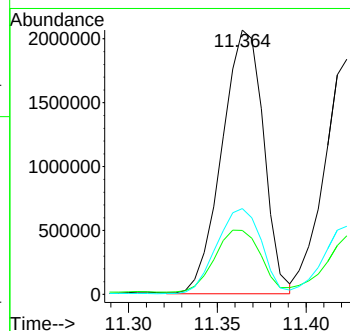
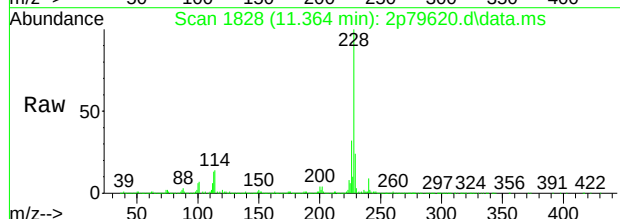
Ion	Ratio	Lower	Upper
202	100		
200	20.4	0.0	50.7
203	18.3	0.0	47.7

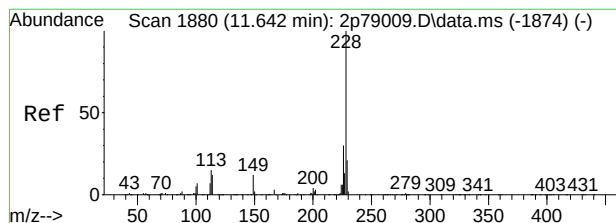


#87
Benzo[a]anthracene
Concen: 58.35 ppm
RT: 11.364 min Scan# 1828
Delta R.T. 0.010 min
Lab File: 2p79620.d
Acq: 15 May 2018 3:32 pm

Tgt Ion: 228 Resp: 3372690

Ion	Ratio	Lower	Upper
228	100		
229	23.0	0.0	50.2
226	32.2	0.0	56.8





#89

Chrysene

Concen: 48.24 ppm

RT: 11.423 min Scan# 1839

Delta R.T. 0.011 min

Lab File: 2p79620.d

Acq: 15 May 2018 3:32 pm

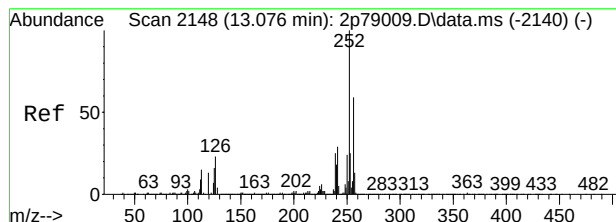
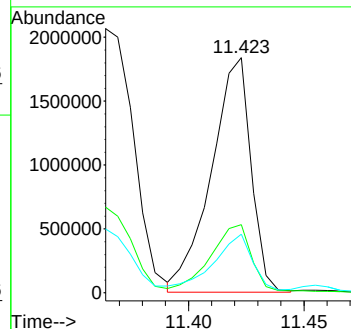
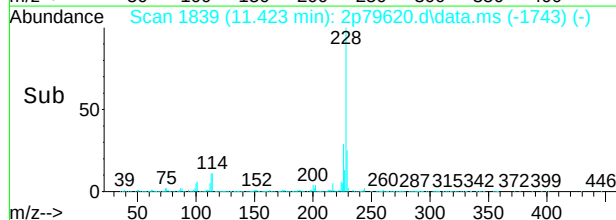
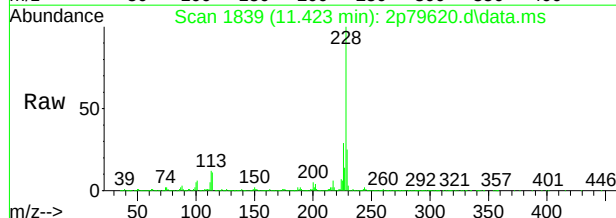
Tgt Ion: 228 Resp: 2199471

Ion Ratio Lower Upper

228 100

226 28.4 0.0 59.4

229 23.4 0.0 49.9



#93

Benzo[b]fluoranthene

Concen: 38.89 ppm

RT: 12.856 min Scan# 2107

Delta R.T. 0.009 min

Lab File: 2p79620.d

Acq: 15 May 2018 3:32 pm

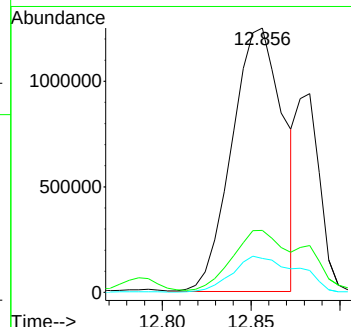
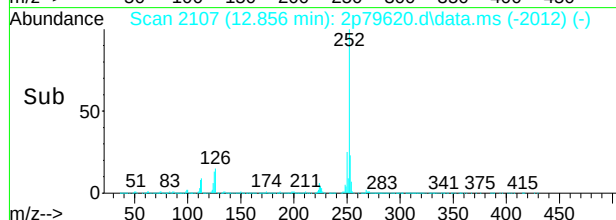
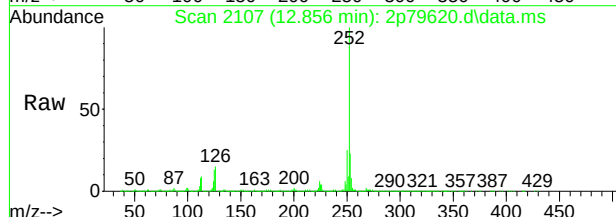
Tgt Ion: 252 Resp: 2507613

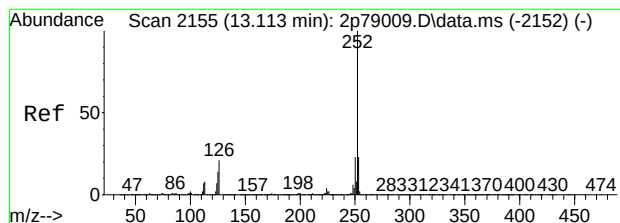
Ion Ratio Lower Upper

252 100

253 21.8 0.0 55.5

125 12.1 0.0 49.6





#94

Benzo[k]fluoranthene

Concen: 16.35 ppm

RT: 12.883 min Scan# 2112

Delta R.T. -0.007 min

Lab File: 2p79620.d

Acq: 15 May 2018 3:32 pm

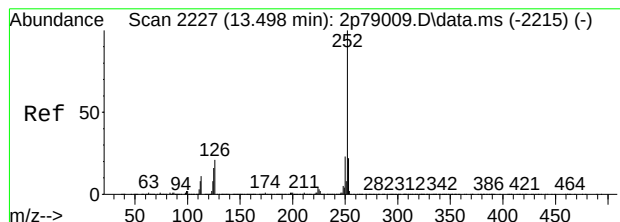
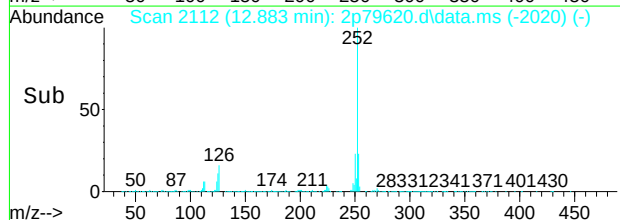
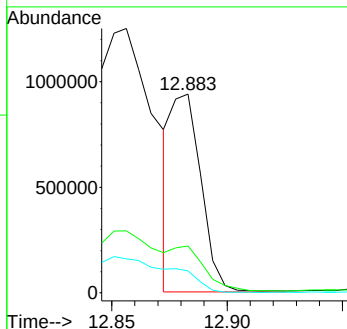
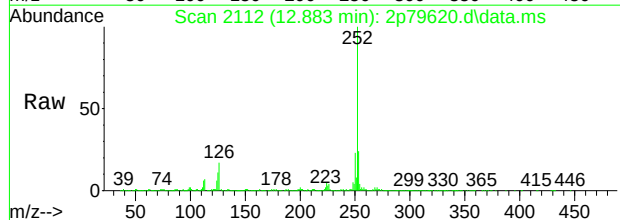
Tgt Ion: 252 Resp: 841459

Ion Ratio Lower Upper

252 100

253 22.2 0.0 52.6

125 8.4 0.0 45.2



#95

Benzo[a]pyrene

Concen: 35.96 ppm

RT: 13.273 min Scan# 2185

Delta R.T. 0.004 min

Lab File: 2p79620.d

Acq: 15 May 2018 3:32 pm

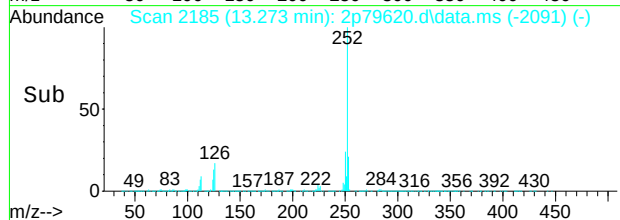
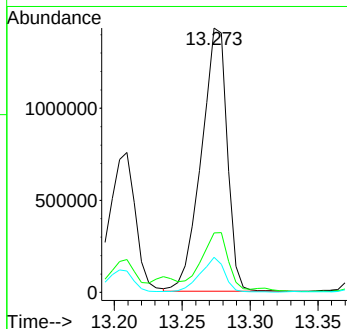
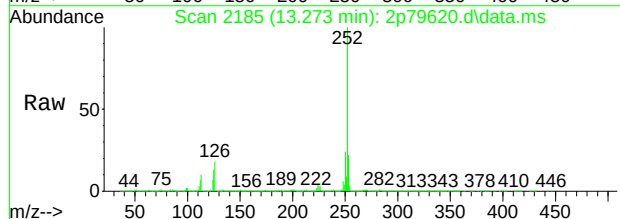
Tgt Ion: 252 Resp: 1895969

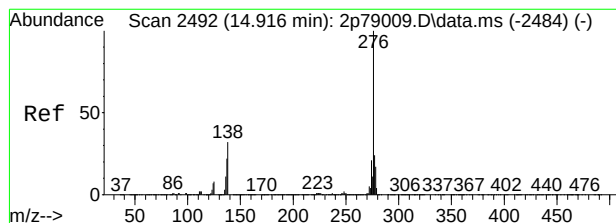
Ion Ratio Lower Upper

252 100

253 19.4 0.0 51.5

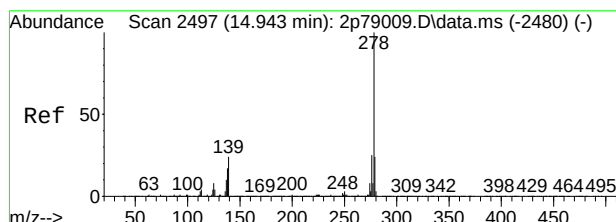
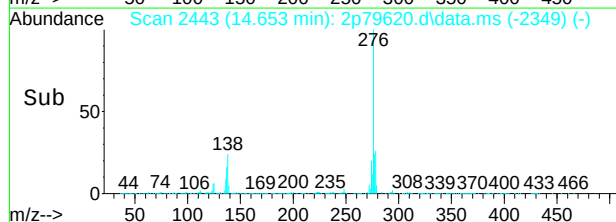
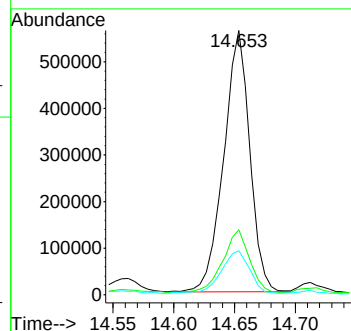
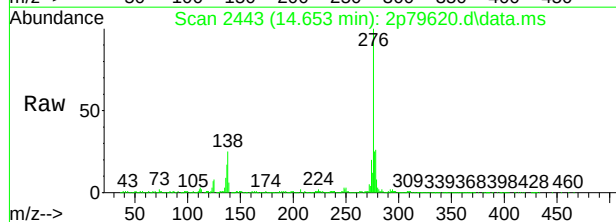
125 13.1 0.0 46.4





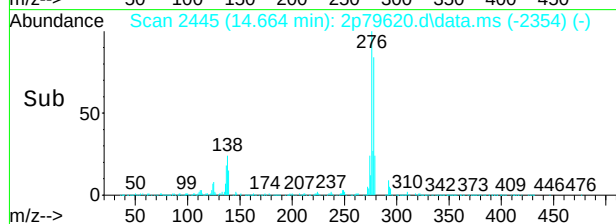
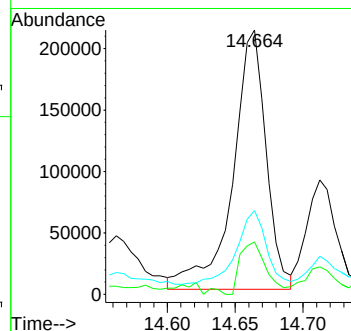
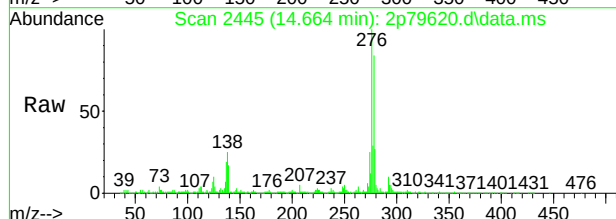
#96
Indeno[1,2,3-cd]pyrene
Concen: 14.49 ppm
RT: 14.653 min Scan# 2443
Delta R.T. 0.002 min
Lab File: 2p79620.d
Acq: 15 May 2018 3:32 pm

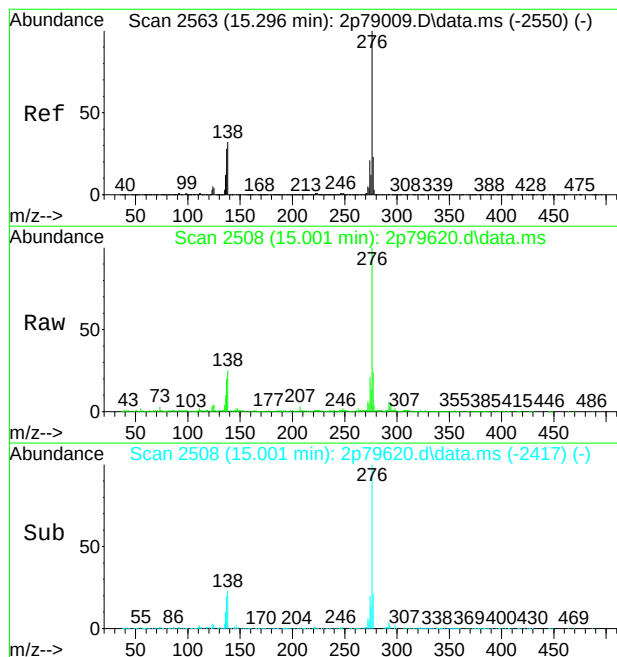
Tgt Ion	Ratio	Lower	Upper
276	100		
138	24.0	3.3	63.3
137	16.2	0.0	53.5



#98
Dibenz[a,h]anthracene
Concen: 7.79 ppm
RT: 14.664 min Scan# 2445
Delta R.T. -0.014 min
Lab File: 2p79620.d
Acq: 15 May 2018 3:32 pm

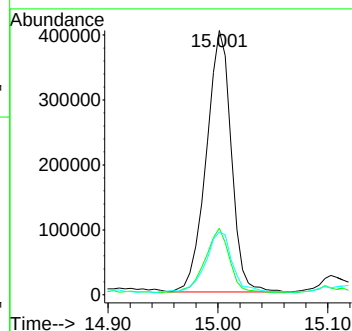
Tgt Ion	Ratio	Lower	Upper
278	100		
139	17.9	0.0	55.1
279	28.7	0.0	54.3





#100
 Benzo[g,h,i]perylene
 Concen: 13.75 ppm
 RT: 15.001 min Scan# 2508
 Delta R.T. -0.014 min
 Lab File: 2p79620.d
 Acq: 15 May 2018 3:32 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	24.4	2.9	62.9
277	22.8	0.0	53.6



Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-16-18\lotusa\e2p3505\
 Data File : 2p79622.d
 Acq On : 15 May 2018 4:16 pm
 Operator : christc2
 Sample : jc65662-2
 Misc : op11893,e2p3505,30.2,,,1,5
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 24 11:30:32 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu May 03 12:30:09 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.475	152	631079	40.00	ppm	0.00
24) Naphthalene-d8	5.550	136	2204525	40.00	ppm	0.02
47) Acenaphthene-d10	6.973	164	849888	40.00	ppm	0.01
69) Phenanthrene-d10	8.262	188	1822639	40.00	ppm	0.04
83) Chrysene-d12	11.482	240	1749244	40.00	ppm	0.11
91) Perylene-d12	13.461	264	1574614	40.00	ppm	0.11
101) 1,4-Dichlorobenzene-d4a	4.475	152	631079	40.00	ppm	0.00
103) Naphthalene-d8a	5.550	136	2204525	40.00	ppm	0.02
105) Acenaphthene-d10a	6.973	164	849888	40.00	ppm	0.01
108) Chrysene-d12a	11.482	240	1749244	40.00	ppm	0.11
110) Phenanthrene-d10a	8.262	188	1822639	40.00	ppm	0.04
114) Chrysene-d12b	11.482	240	1749244	40.00	ppm	0.11

System Monitoring Compounds

5) 2-Fluorophenol	3.470	112	40196	1.61	ppm	0.00
Spiked Amount	50.000	Range	11 - 58	Recovery	=	3.22%#
8) Phenol-d5	4.320	99	46721	1.81	ppm	0.04
Spiked Amount	50.000	Range	10 - 59	Recovery	=	3.62%#
25) Nitrobenzene-d5	4.973	82	33126	1.63	ppm	0.00
Spiked Amount	50.000	Range	19 - 61	Recovery	=	3.26%#
51) 2-Fluorobiphenyl	6.422	172	59751	2.05	ppm	0.00
Spiked Amount	50.000	Range	21 - 58	Recovery	=	4.10%#
73) 2,4,6-Tribromophenol	7.642	330	10109	1.82	ppm	0.02
Spiked Amount	50.000	Range	12 - 68	Recovery	=	3.64%#
85) Terphenyl-d14	9.990	244	89369	2.35	ppm	0.01
Spiked Amount	50.000	Range	16 - 65	Recovery	=	4.70%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#

Target Compounds

						Qvalue
38) Naphthalene	5.556	128	21756041	407.94	ppm	75
44) 2-Methylnaphthalene	6.128	141	16140755	479.68	ppm	86
56) Acenaphthylene	6.866	152	13458242	338.18	ppm	86
59) Acenaphthene	7.000	153	2945556	120.32	ppm	97
66) Fluorene	7.438	166	12993937	475.71	ppm	91
77) Phenanthrene	8.262	178	33251301	717.03	ppm	94
78) Anthracene	8.337	178	15850299	351.01	ppm	83
81) Fluoranthene	9.551	202	33538104	551.74	ppm	96
84) Pyrene	9.840	202	32789540	559.08	ppm	88
87) Benzo[a]anthracene	11.455	228	26427952	483.55	ppm	81
89) Chrysene	11.525	228	16848628	390.85	ppm	95
93) Benzo[b]fluoranthene	12.974	252	23796892m	451.95	ppm	
94) Benzo[k]fluoranthene	12.990	252	5264044m	125.26	ppm	
95) Benzo[a]pyrene	13.413	252	15870267m	368.63	ppm	
96) Indeno[1,2,3-cd]pyrene	14.809	276	7275003m	154.44	ppm	
98) Dibenz[a,h]anthracene	14.841	278	4838540m	127.89	ppm	
100) Benzo[g,h,i]perylene	15.172	276	5372983m	142.62	ppm	

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-16-18\lotusa\e2p3505\
Data File : 2p79622.d
Acq On : 15 May 2018 4:16 pm
Operator : christc2
Sample : jc65662-2
Misc : op11893,e2p3505,30.2,,,1,5
ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 24 11:30:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 03 12:30:09 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

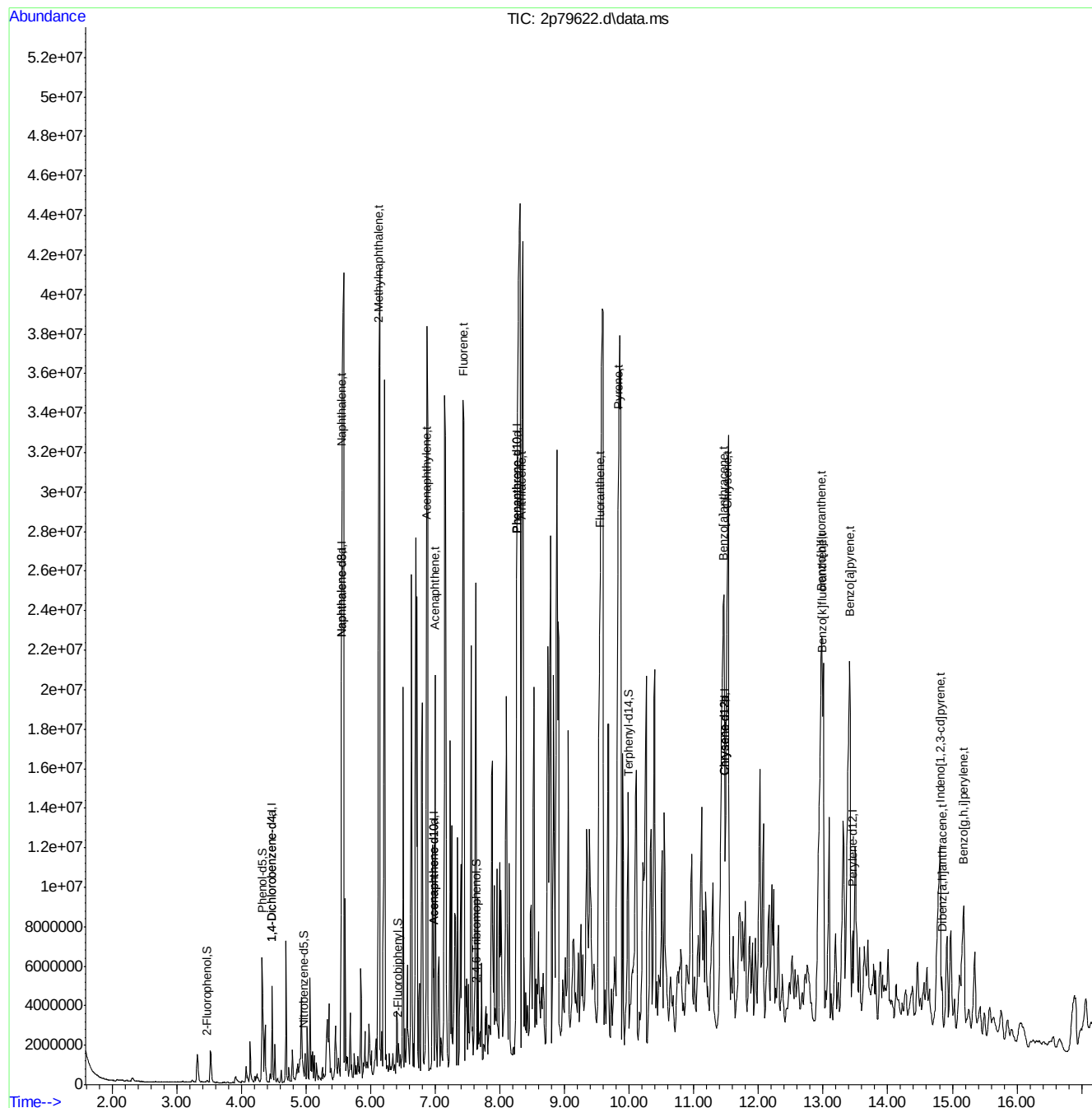
(#)=qualifier out of range (m)=manual integration (+)=signals summed						

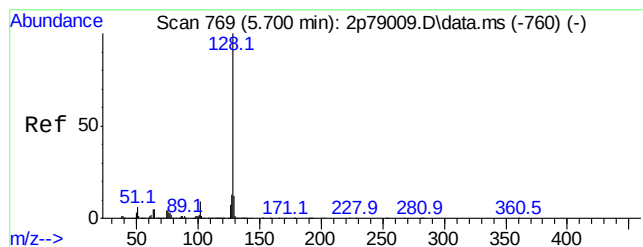
7.1.5
7

Quantitation Report (QT Reviewed)

```
Data Path : Z:\svoa\completed\05-16-18\lotusa\2p3505\  
Data File : 2p79622.d  
Acq On    : 15 May 2018    4:16 pm  
Operator  : christc2  
Sample    : jc65662-2  
Misc      : op11893,2p3505,30.2,,,1,5  
ALS Vial  : 21    Sample Multiplier: 1
```

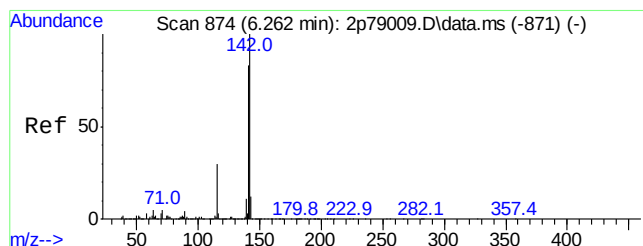
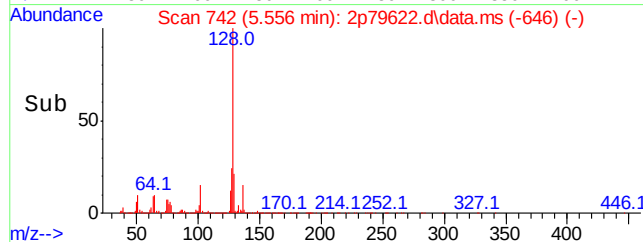
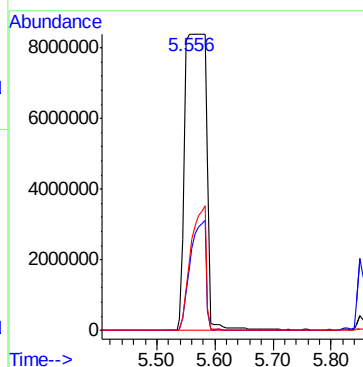
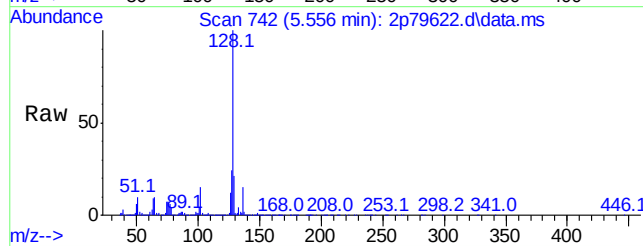
Quant Time: May 24 11:30:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 03 12:30:09 2018
Response via : Initial Calibration





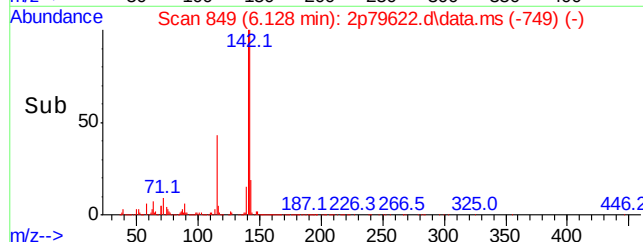
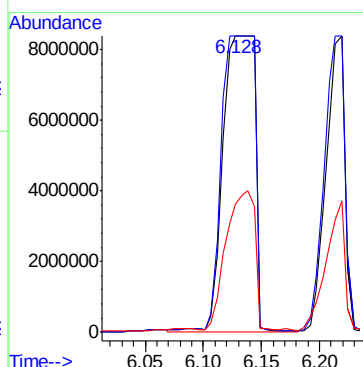
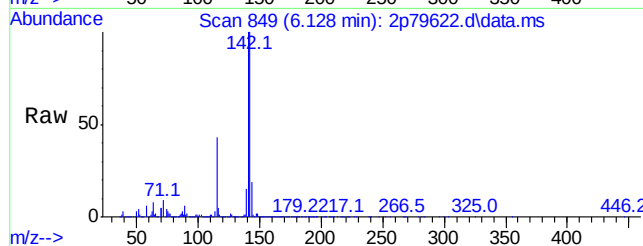
#38
Naphthalene
Concen: 407.94 ppm
RT: 5.556 min Scan# 742
Delta R.T. 0.011 min
Lab File: 2p79622.d
Acq: 15 May 2018 4:16 pm

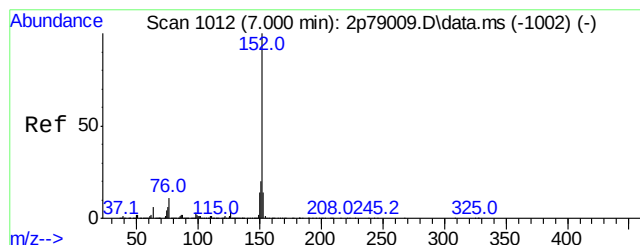
Tgt Ion:	128	Resp:	21756041
Ion Ratio	Lower	Upper	
128	100		
129	21.4	0.0	41.8
127	23.5	0.0	43.2



#44
2-Methylnaphthalene
Concen: 479.68 ppm
RT: 6.128 min Scan# 849
Delta R.T. 0.035 min
Lab File: 2p79622.d
Acq: 15 May 2018 4:16 pm

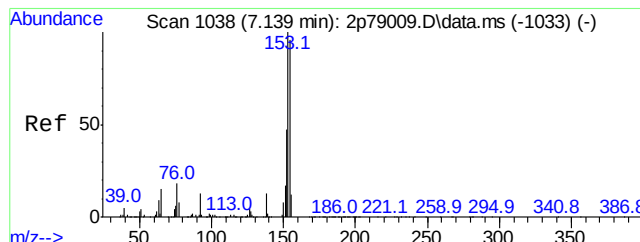
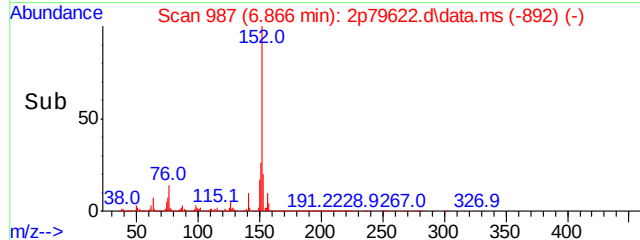
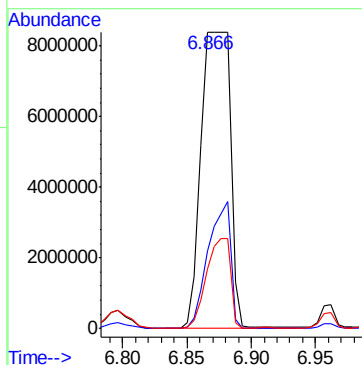
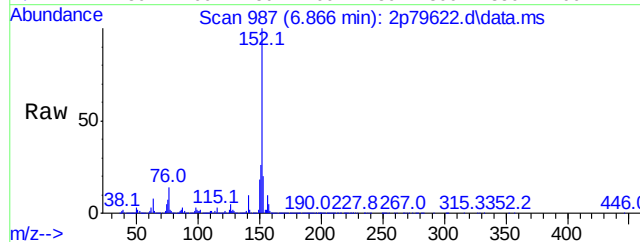
Tgt Ion:	141	Resp:	16140755
Ion Ratio	Lower	Upper	
141	100		
142	100.0	87.7	147.7
115	42.6	8.4	68.4





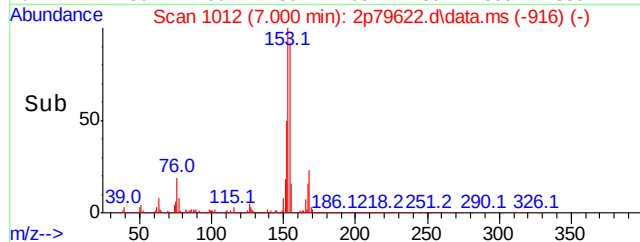
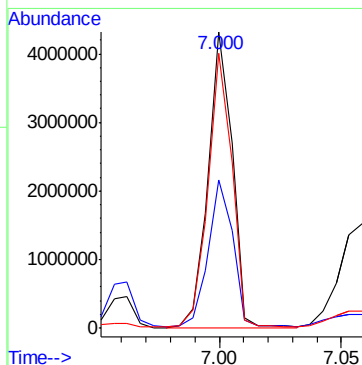
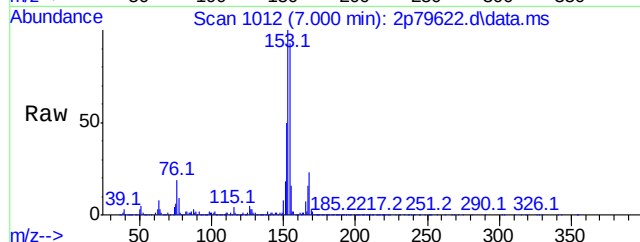
#56
Acenaphthylene
Concen: 338.18 ppm
RT: 6.866 min Scan# 987
Delta R.T. 0.009 min
Lab File: 2p79622.d
Acq: 15 May 2018 4:16 pm

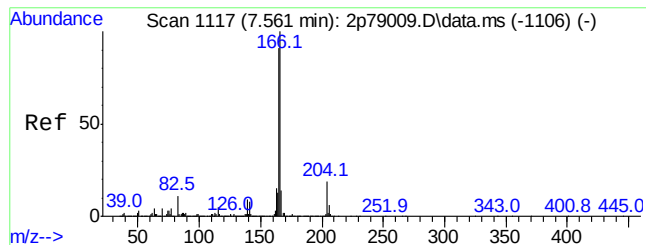
Tgt Ion:	152	Resp:	13458242
Ion Ratio	Lower	Upper	
152	100		
151	26.1	0.0	50.2
153	20.1	0.0	43.3



#59
Acenaphthene
Concen: 120.32 ppm
RT: 7.000 min Scan# 1012
Delta R.T. 0.011 min
Lab File: 2p79622.d
Acq: 15 May 2018 4:16 pm

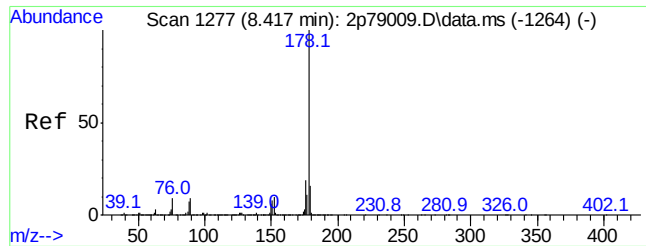
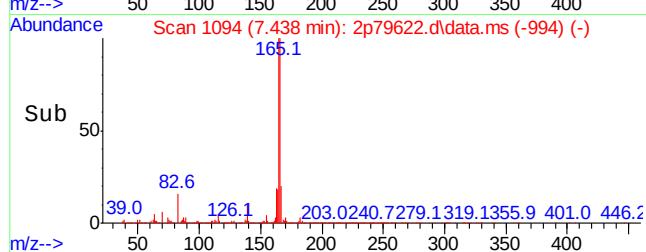
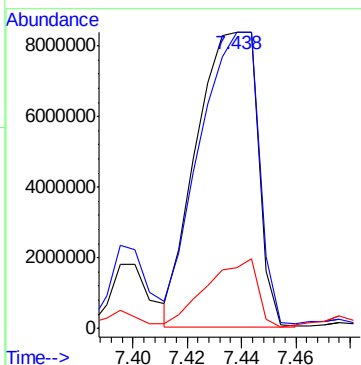
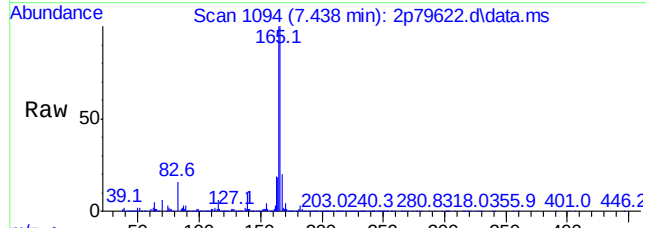
Tgt Ion:	153	Resp:	2945556
Ion Ratio	Lower	Upper	
153	100		
152	49.8	17.5	77.5
154	92.7	65.6	125.6





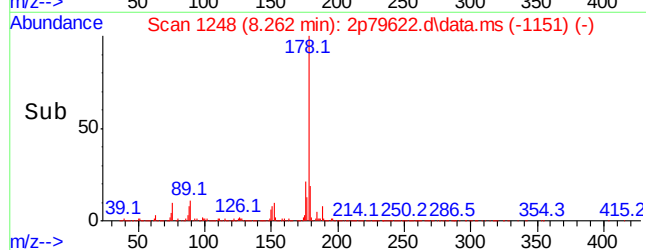
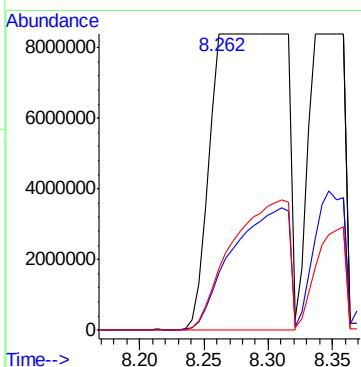
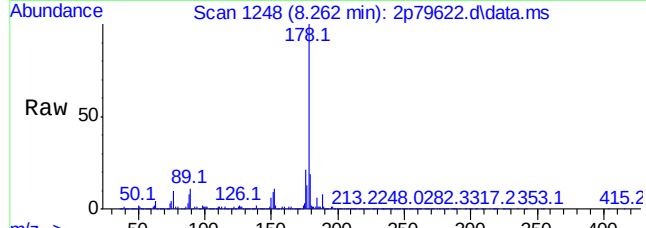
#66
Fluorene
Concen: 475.71 ppm
RT: 7.438 min Scan# 1094
Delta R.T. 0.035 min
Lab File: 2p79622.d
Acq: 15 May 2018 4:16 pm

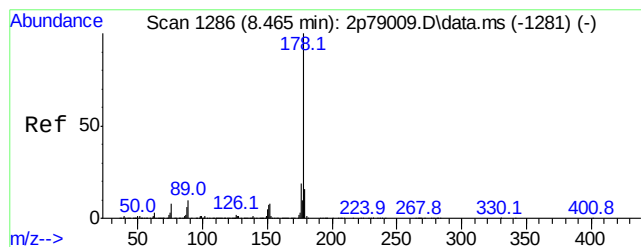
Tgt Ion:	166	Resp:	12993937
Ion Ratio	Lower	Upper	
166	100		
165	99.2	61.9	121.9
167	20.0	0.0	43.7



#77
Phenanthrene
Concen: 717.03 ppm
RT: 8.262 min Scan# 1248
Delta R.T. 0.016 min
Lab File: 2p79622.d
Acq: 15 May 2018 4:16 pm

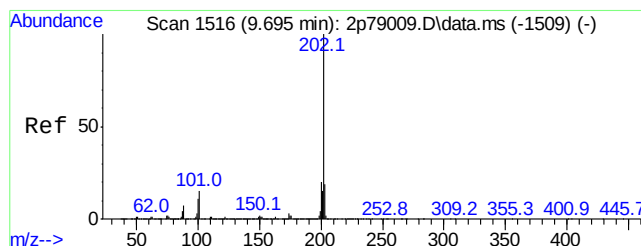
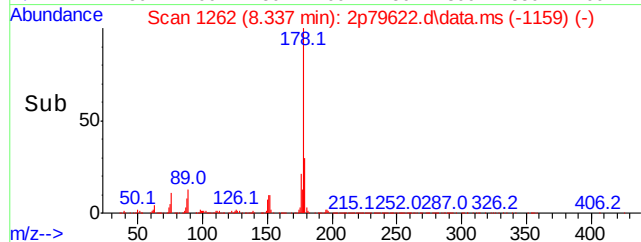
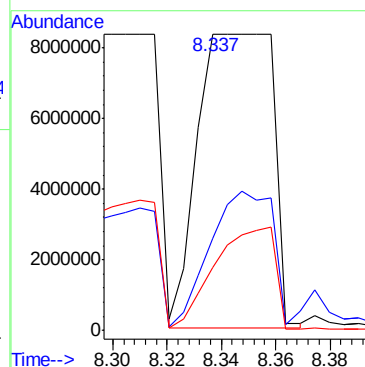
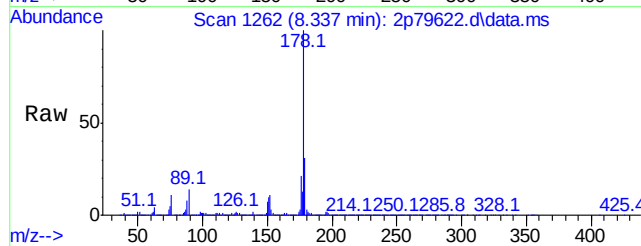
Tgt Ion:	178	Resp:	33251301
Ion Ratio	Lower	Upper	
178	100		
179	19.0	0.0	45.6
176	20.9	0.0	49.1





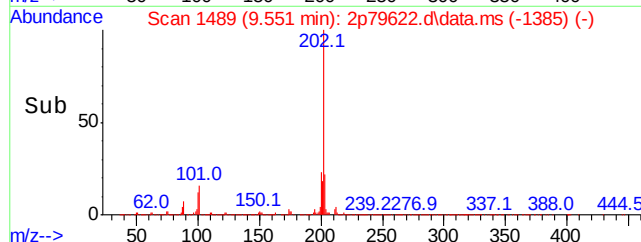
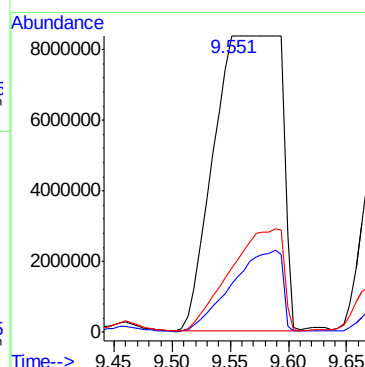
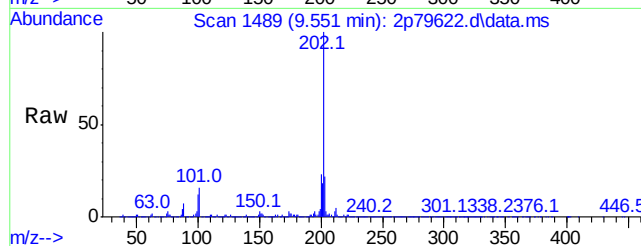
#78
 Anthracene
 Concen: 351.01 ppm
 RT: 8.337 min Scan# 1262
 Delta R.T. 0.049 min
 Lab File: 2p79622.d
 Acq: 15 May 2018 4:16 pm

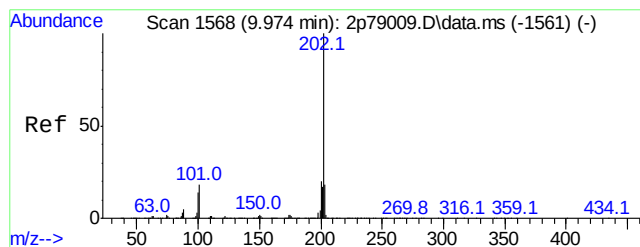
Tgt Ion:	178	Resp:	15850299
Ion Ratio	Lower	Upper	
178	100		
179	28.0	0.0	45.7
176	21.5	0.0	48.8



#81
 Fluoranthene
 Concen: 551.74 ppm
 RT: 9.551 min Scan# 1489
 Delta R.T. 0.054 min
 Lab File: 2p79622.d
 Acq: 15 May 2018 4:16 pm

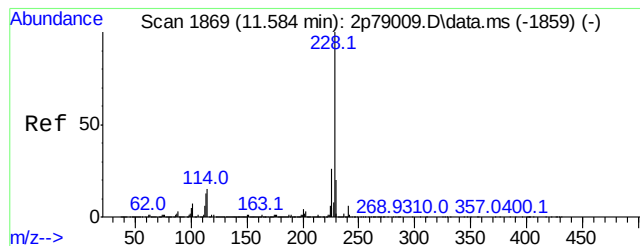
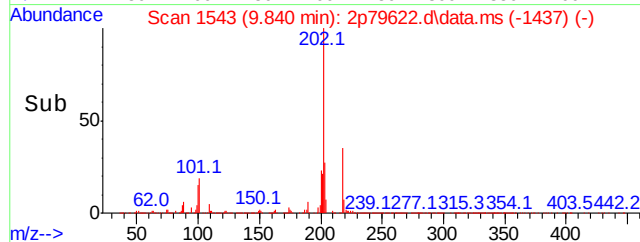
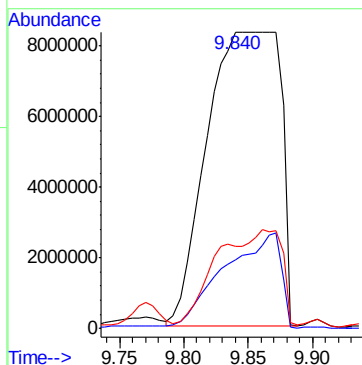
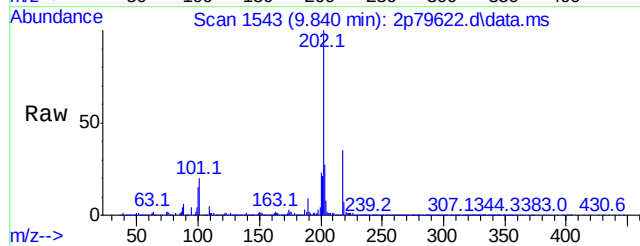
Tgt Ion:	202	Resp:	33538104
Ion Ratio	Lower	Upper	
202	100		
101	16.3	0.0	45.6
203	21.4	0.0	48.4





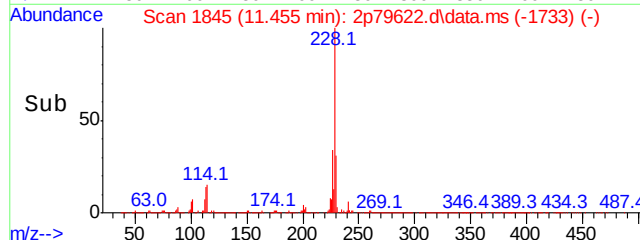
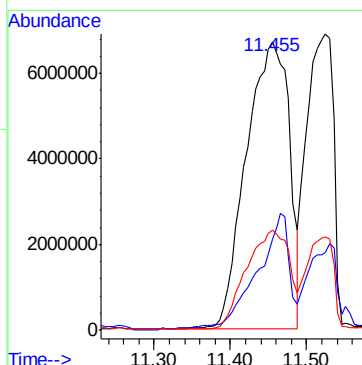
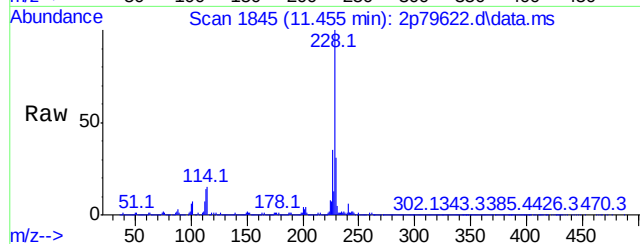
#84
Pyrene
Concen: 559.08 ppm
RT: 9.840 min Scan# 1543
Delta R.T. 0.065 min
Lab File: 2p79622.d
Acq: 15 May 2018 4:16 pm

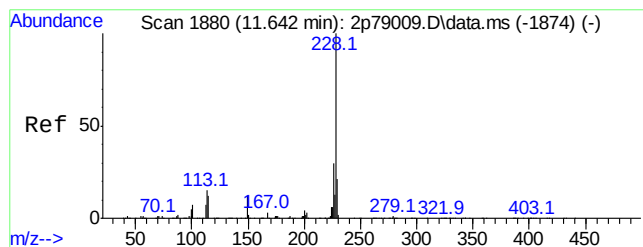
Tgt Ion:202 Resp:32789540
Ion Ratio Lower Upper
202 100
200 23.1 0.0 50.7
203 26.0 0.0 47.7



#87
Benzo[a]anthracene
Concen: 483.55 ppm
RT: 11.455 min Scan# 1845
Delta R.T. 0.101 min
Lab File: 2p79622.d
Acq: 15 May 2018 4:16 pm

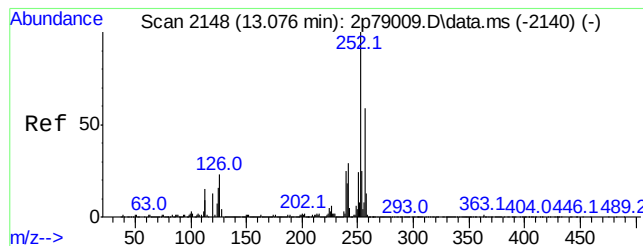
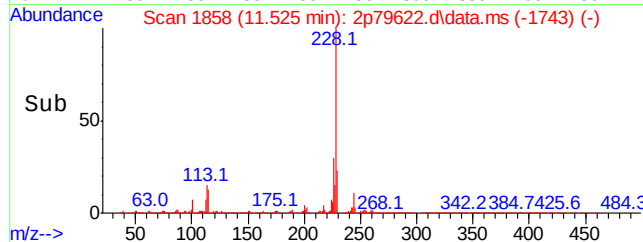
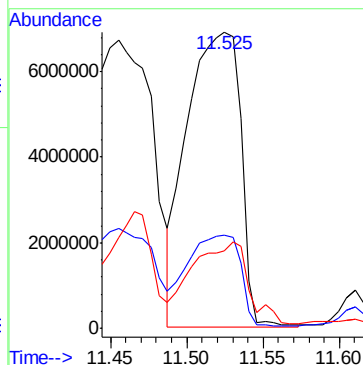
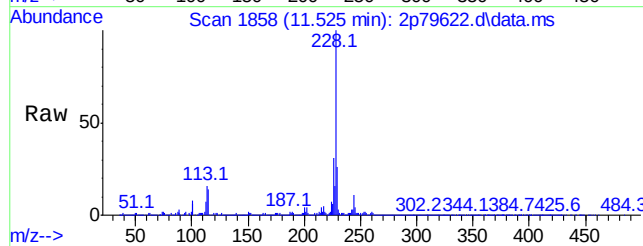
Tgt Ion:228 Resp:26427952
Ion Ratio Lower Upper
228 100
229 32.3 0.0 50.2
226 34.0 0.0 56.8





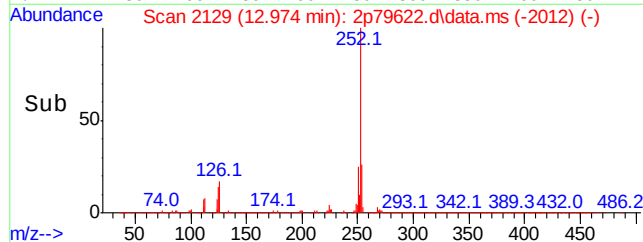
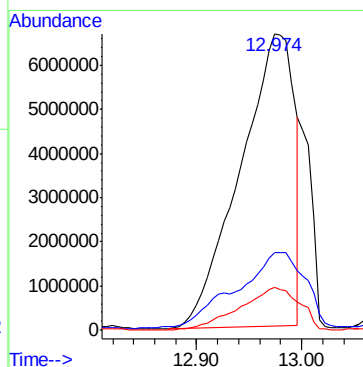
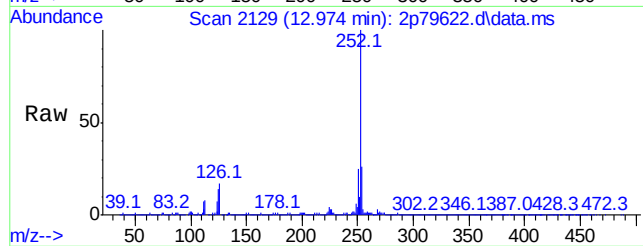
#89
Chrysene
Concen: 390.85 ppm
RT: 11.525 min Scan# 1858
Delta R.T. 0.113 min
Lab File: 2p79622.d
Acq: 15 May 2018 4:16 pm

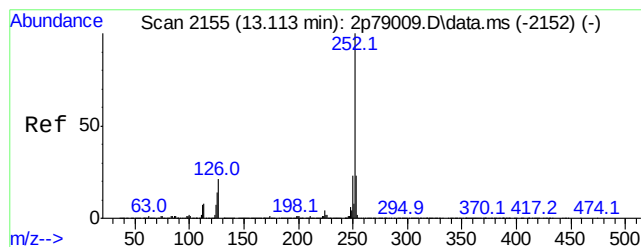
Tgt Ion	Ratio	Lower	Upper
228	100		
226	29.9	0.0	59.4
229	25.5	0.0	49.9



#93
Benzo[b]fluoranthene
Concen: 451.95 ppm
RT: 12.974 min Scan# 2129
Delta R.T. 0.127 min
Lab File: 2p79622.d
Acq: 15 May 2018 4:16 pm

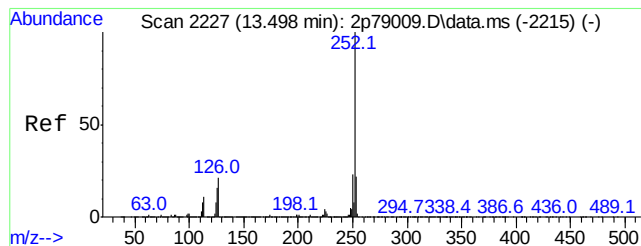
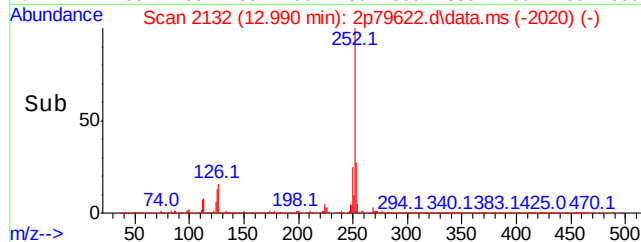
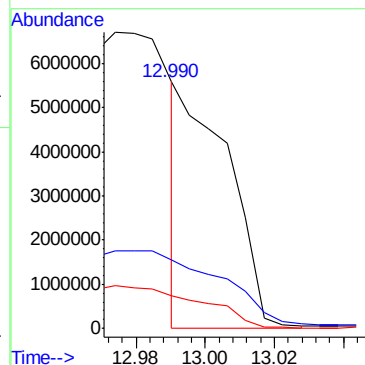
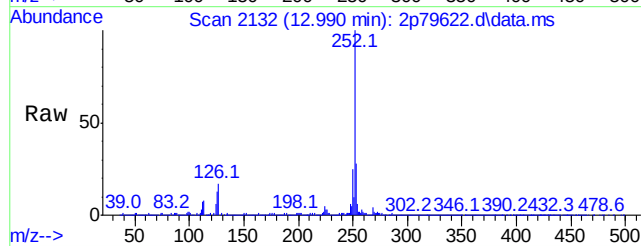
Tgt Ion	Ratio	Lower	Upper
252	100		
253	26.3	0.0	55.5
125	14.3	0.0	49.6





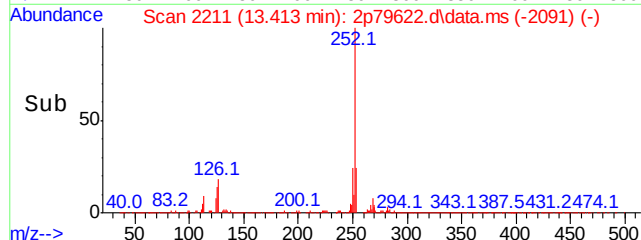
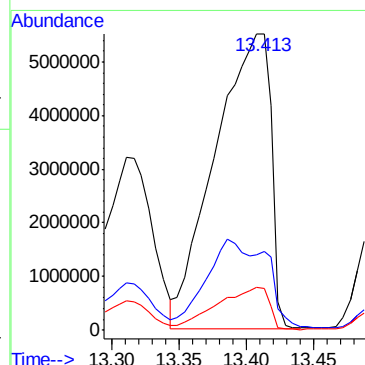
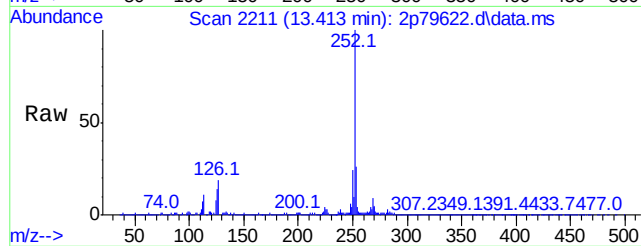
#94
Benzo[k]fluoranthene
Concen: 125.26 ppm m
RT: 12.990 min Scan# 2132
Delta R.T. 0.100 min
Lab File: 2p79622.d
Acq: 15 May 2018 4:16 pm

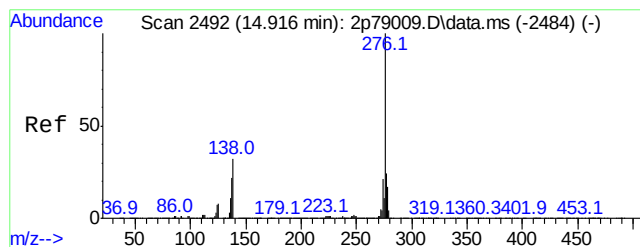
Tgt Ion:	252	Resp:	5264044
Ion Ratio	Lower	Upper	
252	100		
253	27.7	0.0	52.6
125	13.2	0.0	45.2



#95
Benzo[a]pyrene
Concen: 368.63 ppm m
RT: 13.413 min Scan# 2211
Delta R.T. 0.143 min
Lab File: 2p79622.d
Acq: 15 May 2018 4:16 pm

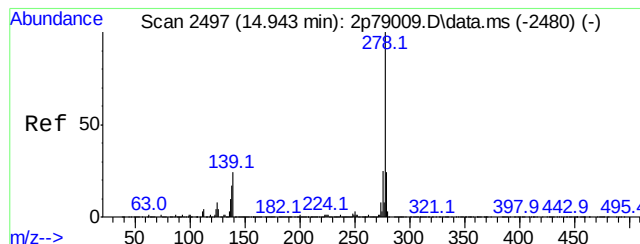
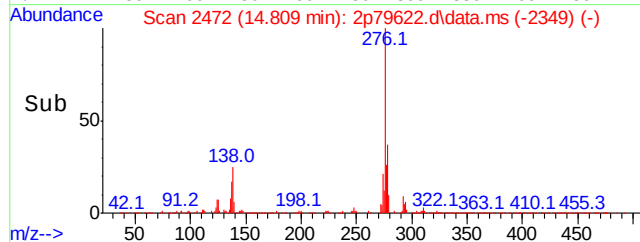
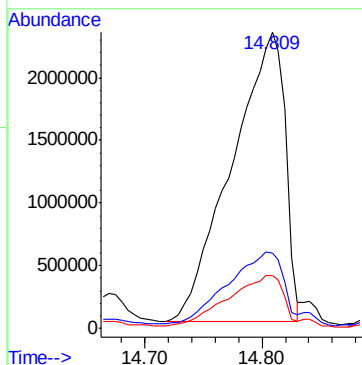
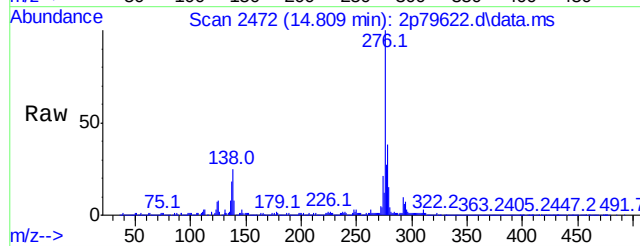
Tgt Ion:	252	Resp:	15870267
Ion Ratio	Lower	Upper	
252	100		
253	26.4	0.0	51.5
125	14.0	0.0	46.4





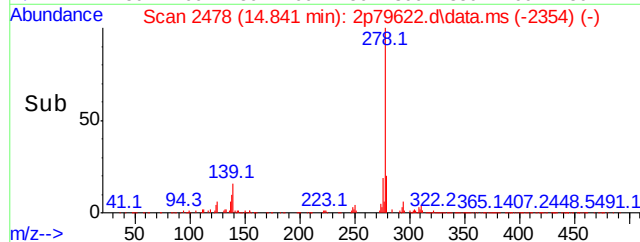
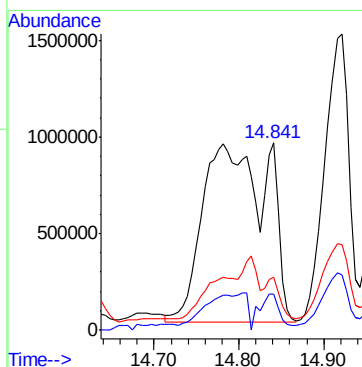
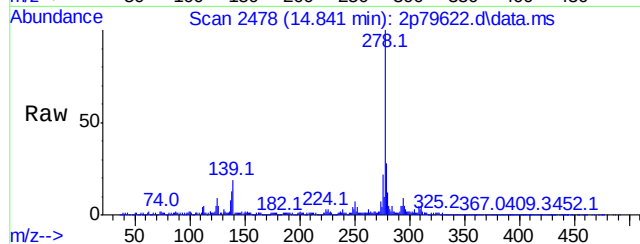
#96
Indeno[1,2,3-cd]pyrene
Concen: 154.44 ppm m
RT: 14.809 min Scan# 2472
Delta R.T. 0.157 min
Lab File: 2p79622.d
Acq: 15 May 2018 4:16 pm

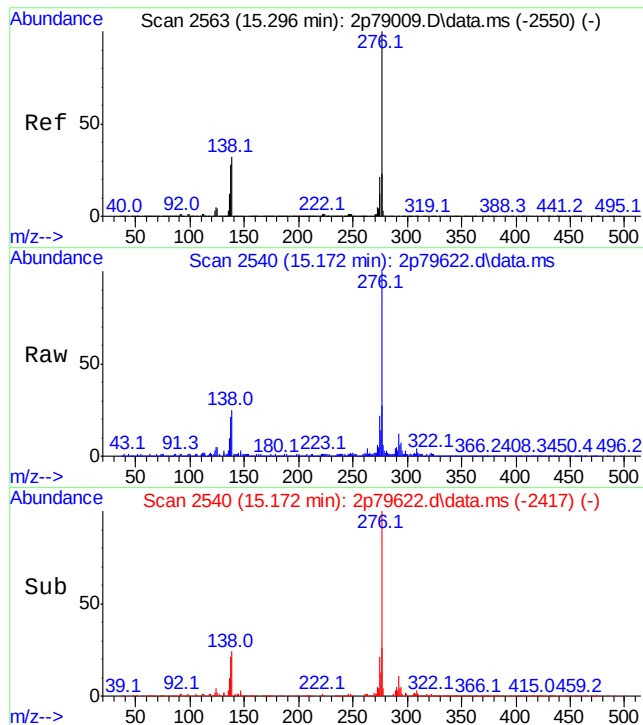
Tgt Ion: 276 Resp: 7275003
Ion Ratio Lower Upper
276 100
138 25.4 3.3 63.3
137 17.8 0.0 53.5



#98
Dibenz[a,h]anthracene
Concen: 127.89 ppm m
RT: 14.841 min Scan# 2478
Delta R.T. 0.163 min
Lab File: 2p79622.d
Acq: 15 May 2018 4:16 pm

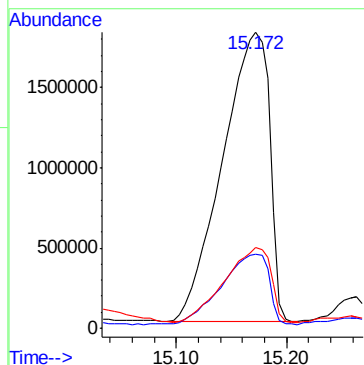
Tgt Ion: 278 Resp: 4838540
Ion Ratio Lower Upper
278 100
139 19.3 0.0 55.1
279 28.1 0.0 54.3





#100
Benzo[g,h,i]perylene
Concen: 142.62 ppm m
RT: 15.172 min Scan# 2540
Delta R.T. 0.157 min
Lab File: 2p79622.d
Acq: 15 May 2018 4:16 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	25.1	2.9	62.9
277	27.1	0.0	53.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3497\
 Data File : 2p79375.D
 Acq On : 10 May 2018 1:19 am
 Operator : chriss2
 Sample : op11893-mb
 Misc : op11893,e2p3497,30.0,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 10 11:55:10 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu May 03 10:55:58 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.534	152	727518	40.00	ppm	-0.08
24) Naphthalene-d8	5.588	136	2661908	40.00	ppm	-0.07
47) Acenaphthene-d10	7.016	164	1241763	40.00	ppm	-0.07
69) Phenanthrene-d10	8.273	188	2257689	40.00	ppm	-0.09
83) Chrysene-d12	11.434	240	2099347	40.00	ppm	-0.13
91) Perylene-d12	13.402	264	1937692	40.00	ppm	-0.13
101) 1,4-Dichlorobenzene-d4a	4.534	152	727518	40.00	ppm	-0.07
103) Naphthalene-d8a	5.588	136	2661908	40.00	ppm	-0.07
105) Acenaphthene-d10a	7.016	164	1241763	40.00	ppm	-0.07
108) Chrysene-d12a	11.434	240	2099347	40.00	ppm	-0.12
110) Phenanthrene-d10a	8.273	188	2257689	40.00	ppm	-0.09
114) Chrysene-d12b	11.434	240	2099347	40.00	ppm	-0.12
System Monitoring Compounds						
5) 2-Fluorophenol	3.518	112	996023	34.68	ppm	-0.06
Spiked Amount	50.000	Range	11 - 58	Recovery	=	69.36%#
8) Phenol-d5	4.352	99	1135623	38.16	ppm	-0.06
Spiked Amount	50.000	Range	10 - 59	Recovery	=	76.32%#
25) Nitrobenzene-d5	5.021	82	991342	40.41	ppm	-0.07
Spiked Amount	50.000	Range	19 - 61	Recovery	=	80.82%#
51) 2-Fluorobiphenyl	6.475	172	2058183	48.32	ppm	-0.07
Spiked Amount	50.000	Range	21 - 58	Recovery	=	96.64%#
73) 2,4,6-Tribromophenol	7.668	330	343368	49.80	ppm	-0.09
Spiked Amount	50.000	Range	12 - 68	Recovery	=	99.60%#
85) Terphenyl-d14	10.032	244	2066420	45.27	ppm	-0.11
Spiked Amount	50.000	Range	16 - 65	Recovery	=	90.54%#
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#

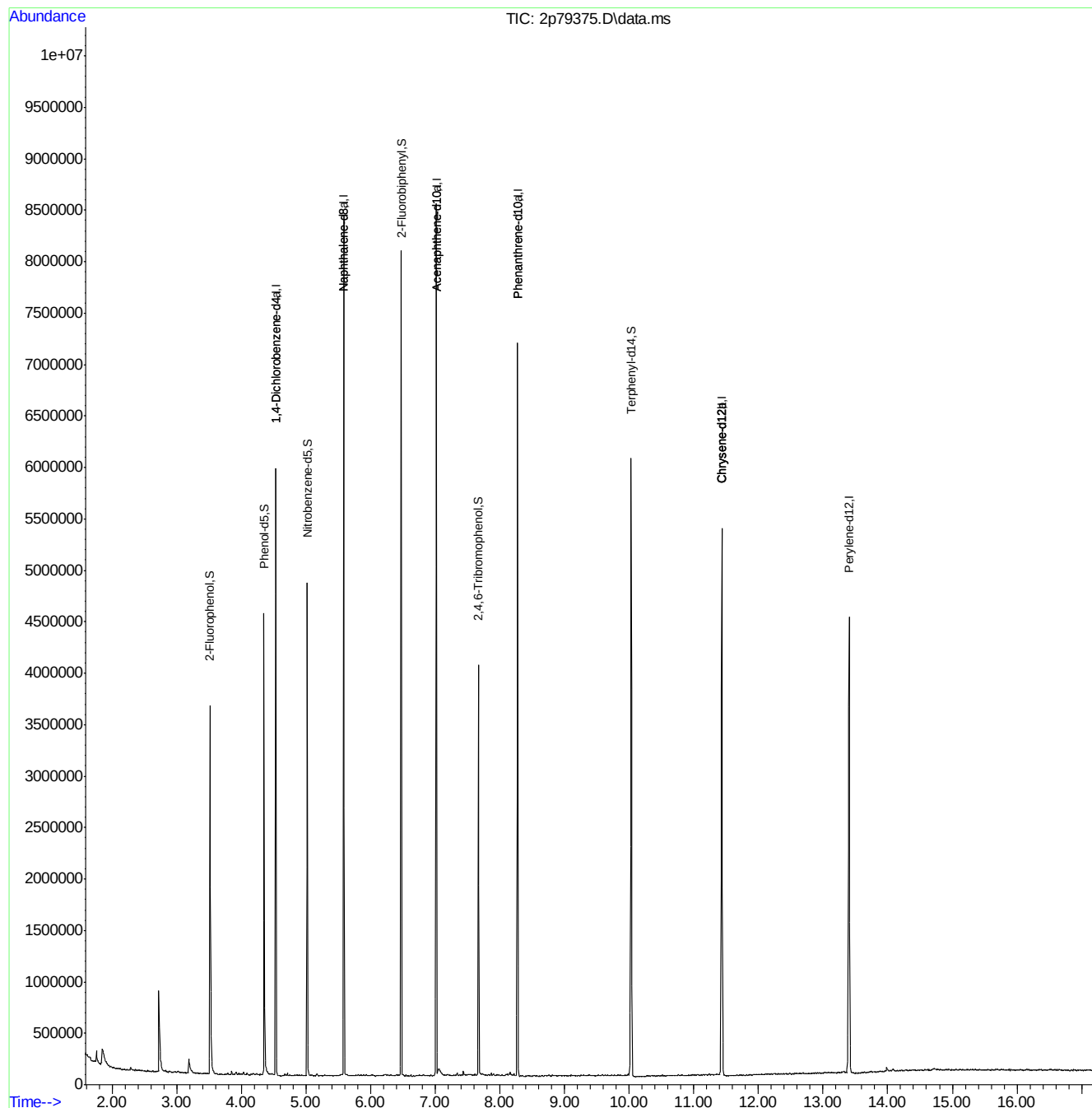
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3497\
Data File : 2p79375.D
Acq On : 10 May 2018 1:19 am
Operator : chriss2
Sample : op11893-mb
Misc : op11893,e2p3497,30.0,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 10 11:55:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 03 10:55:58 2018
Response via : Initial Calibration



General Chemistry

QC Data Summaries



Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Job Number: JC65662
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: JC65662-1		Analyzed: 14-MAY-18 by RI		Method: SM2540 G-97	
ClientID: SB-108(0-3)					
Wet Weight (Total)	35.61	g			
Tare Weight	26.41	g			
Dry Weight (Total)	34.04	g			
Solids, Percent	82.9	%			
Sample: JC65662-2		Analyzed: 14-MAY-18 by RI		Method: SM2540 G-97	
ClientID: SB-117(3-4)					
Wet Weight (Total)	35.51	g			
Tare Weight	27.32	g			
Dry Weight (Total)	33.25	g			
Solids, Percent	72.4	%			

8.1
8

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

e-Hardcopy 2.0
Automated Report

Technical Report for

Arcadis

NYSEG - Lyons MGP Site, Lyons NY

B0013143.0000

SGS Job Number: JC65663

Sampling Date: 05/07/18

Report to:

Arcadis
295 Woodcliff Drive Suite 301
Fairport, NY 14450
matt.hysell@arcadis.com; Nicholas.Beyrle@arcadis.com

ATTN: Matthew Hysell

Total number of pages in report: **716**



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

Nancy F. Cole

Nancy Cole
Laboratory Director

Client Service contact: Diane Komar 732-329-0200

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

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Test results relate only to samples analyzed.

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Sample Summary

Arcadis

Job No: JC65663

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.0000

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JC65663-1	05/07/18	11:15 RDC	05/08/18	SO	Soil	WC-4
JC65663-1A	05/07/18	11:15 RDC	05/08/18	SO	Soil	WC-4
JC65663-2	05/07/18	15:45 RDC	05/08/18	SO	Soil	WC-3
JC65663-2A	05/07/18	15:45 RDC	05/08/18	SO	Soil	WC-3

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

2

Client: Arcadis

Job No JC65663

Site: NYSEG - Lyons MGP Site, Lyons NY

Report Date 5/22/2018 5:55:37 PM

On 05/08/2018, 4 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.9 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC65663 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Please refer to certification exceptions summary for additional certification information.

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

MS Volatiles By Method SW846 8260C

Matrix: LEACHATE

Batch ID: V2V2015

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65676-1LS, JC65676-1MS, JC65676-1MSD were used as the QC samples indicated.

Matrix: LEACHATE

Batch ID: VA9208

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65741-2MS, JC65741-2MSD were used as the QC samples indicated.

Matrix: SO

Batch ID: VE10833

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC65761-16MS, JC65761-16MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for 1,2-Dibromo-3-chloropropane are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for 1,2-Dibromo-3-chloropropane are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Recovery(s) for 1,1,1-Trichloroethane, Tetrachloroethene, Trichloroethene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- JC65663-1: Diluted due to high concentration of non-target compound.
- JC65663-1 for Acetone: Associated CCV outside of control limits high, sample was ND.
- JC65663-1 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC65663-1 for 1,2-Dibromoethane: This compound in BS is outside in house QC limits bias high.
- JC65663-1 for 1,2,3-Trichlorobenzene: This compound in BS is outside in house QC limits bias high. Associated CCV outside of control limits high, sample was ND.
- JC65663-1 for 1,2-Dibromo-3-chloropropane: This compound in BS is outside in house QC limits bias high. Associated CCV outside of control limits high, sample was ND.
- JC65663-1 for Bromoform: This compound in BS is outside in house QC limits bias high.
- VE10833-BS for Bromoform: High percent recoveries and no associated positive reported in the QC batch.
- VE10833-BS for 1,2-Dibromoethane: High percent recoveries and no associated positive reported in the QC batch.
- VE10833-BS for 1,2-Dibromo-3-chloropropane: High percent recoveries and no associated positive reported in the QC batch.
- VE10833-BS for 1,2,3-Trichlorobenzene: High percent recoveries and no associated positive reported in the QC batch.

Matrix: SO

Batch ID: VY7777

Tuesday, May 22, 2018

Page 1 of 7

MS Volatiles By Method SW846 8260C

Matrix: SO

Batch ID: VY7777

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65784-48DUP, JC65784-50MS were used as the QC samples indicated.
- JC65663-2 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits high, sample was ND.
- JC65663-2 for Acetone: Associated CCV outside of control limits low.
- JC65663-2 for Freon 113: Associated CCV outside of control limits high, sample was ND.

Tuesday, May 22, 2018

Page 2 of 7

MS Semi-volatiles By Method SW846 8270D

Matrix: LEACHATE

Batch ID: OP11952

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65677-1LS, JC65677-1MS, JC65677-1MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for 2,4,6-Trichlorophenol are outside control limits. High percent recoveries and no associated positive found in the QC batch.
- Matrix Spike Duplicate Recovery(s) for 2,4,6-Trichlorophenol are outside control limits. High percent recoveries and no associated positive found in the QC batch.
- JC65663-2A for Hexachlorobutadiene: Associated CCV outside of control limits high, sample was ND.
- JC65663-2A for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC65663-1A for 2,4,6-Trichlorophenol: This compound in BS is outside in house QC limits bias high.
- JC65663-1A for 2,4,6-Tribromophenol: This compound in BS is outside in house QC limits bias high.
- JC65663-1A for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- OP11952-BS1 for 2,4,6-Trichlorophenol: High percent recoveries and no associated positive found in the QC batch.
- JC65663-1A for Hexachlorobutadiene: Associated CCV outside of control limits high, sample was ND.

Matrix: SO

Batch ID: OP11892

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65493-4MS, JC65493-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for 2,4-Dinitrophenol, 2,4-Dinitrotoluene, 2-Nitroaniline, 3,3'-Dichlorobenzidine, 4,6-Dinitro-o-cresol, 4-Chloroaniline, 4-Nitroaniline, 4-Nitrophenol, Benzaldehyde, Caprolactam, Di-n-octyl phthalate, Hexachlorocyclopentadiene, N-Nitrosodiphenylamine, Pentachlorophenol are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for 2,4-Dinitrophenol, 2-Nitroaniline, 4,6-Dinitro-o-cresol, 4-Chloroaniline, 4-Nitroaniline, 4-Nitrophenol, Hexachlorocyclopentadiene, Pentachlorophenol, 3,3'-Dichlorobenzidine, 4-Bromophenyl phenyl ether, Di-n-butyl phthalate, Di-n-octyl phthalate, Hexachlorobenzene, N-Nitrosodiphenylamine, Nitrobenzene are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike / Matrix Spike Duplicate Recovery(s) for 1,1'-Biphenyl, 2,4-Dimethylphenol, 2-Methylnaphthalene, 2-Methylphenol, 3&4-Methylphenol, Acenaphthene, Acenaphthylene, Acetophenone, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Carbazole, Chrysene, Dibenzo(a,h)anthracene, Dibenzofuran, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Phenol, Pyrene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- RPD(s) for MSD for 1,1'-Biphenyl, 2,4-Dimethylphenol, 2,4-Dinitrotoluene, 2-Methylnaphthalene, 2-Methylphenol, 3&4-Methylphenol, 3,3'-Dichlorobenzidine, 4-Bromophenyl phenyl ether, Acenaphthene, Acenaphthylene, Acetophenone, Anthracene, Benzaldehyde, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, bis(2-Ethylhexyl)phthalate, Carbazole, Di-n-butyl phthalate, Di-n-octyl phthalate, Dibenzo(a,h)anthracene, Dibenzofuran, Fluoranthene, Fluorene, Hexachlorobenzene, Indeno(1,2,3-cd)pyrene, N-Nitroso-di-n-propylamine, N-Nitrosodiphenylamine, Naphthalene, Nitrobenzene, Phenanthrene, Phenol are outside of in house control limits for sample OP11892-MSD.
- JC65663-2 for Benzo(g,h,i)perylene: Associated CCV outside of control limits low.
- JC65663-2 for Benzaldehyde: Associated CCV outside of control limits low.
- JC65663-1 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC65663-2 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- OP11892-MSD for 2,4,6-Tribromophenol: Outside control limits due to matrix interference.
- JC65663-2 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.
- JC65663-2 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC65663-2 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC65663-1 for Benzo(g,h,i)perylene: Associated CCV outside of control limits low.
- JC65663-1 for Benzaldehyde: Associated CCV outside of control limits low.

MS Semi-volatiles By Method SW846 8270D

Matrix: SO

Batch ID: OP11892

- JC65663-1 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.
- JC65663-2 for Butyl benzyl phthalate: Associated CCV outside of control limits high, sample was ND.
- OP11892-MSD for Terphenyl-d14: Outside control limits due to matrix interference.
- JC65663-2 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65663-2 for 2,4-Dinitrophenol: Associated CCV outside of control limits high, sample was ND.
- OP11892-MSD for N-Nitroso-di-n-propylamine: Outside of in house control limits.
- JC65663-1 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- OP11892-MS for Terphenyl-d14: Outside control limits due to matrix interference.

GC Volatiles By Method SW846 8015C

Matrix: SO

Batch ID: GLM3852

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC65751-1MS, JC65751-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC65663-1: Dilution required due to sample matrix (turbidity).

GC/LC Semi-volatiles By Method SW846 8015C

Matrix: SO

Batch ID: OP11891

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65493-4MS, JC65493-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for TPH-DRO (C10-C28) are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- RPD(s) for MSD for TPH-DRO (C10-C28) are outside control limits for sample OP11891-MSD. Outside control limits due to matrix interference.
- OP11891-MS/MSD for o-Terphenyl: Outside control limits due to matrix interference.
- OP11891-MS/MSD for Tetracosane-d50: Outside control limits due to matrix interference.
- OP11891-MS/MSD for 5a-Androstane: Outside control limits due to matrix interference.

GC/LC Semi-volatiles By Method SW846 8081B

Matrix: LEACHATE

Batch ID: OP11950

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65677-3LS, JC65677-3MS, JC65677-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- OP11950-BS1 for Methoxychlor: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO

Batch ID: OP11896

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65281-10MS, JC65281-10MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC65663-2 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- JC65663-1 for Decachlorobiphenyl: Outside control limits due to matrix interference.

GC/LC Semi-volatiles By Method SW846 8151A

Matrix: LEACHATE

Batch ID: OP11951

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65676-2LS, JC65676-2MS, JC65676-2MSD were used as the QC samples indicated.
- Matrix Spike Duplicate Recovery(s) for 2,4,5-TP (Silvex) are outside control limits.
- RPD(s) for MSD for 2,4,5-TP (Silvex) are outside control limits for sample OP11951-MSD.

Metals Analysis By Method SW846 6010C

Matrix: LEACHATE

Batch ID: MP7074

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65698-1AMS, JC65698-1AMSD, JC65698-1ASDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic, Cadmium, Chromium are outside control limits for sample MP7074-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Samples(s) JC65663-1A, JC65663-2A: New York does not offer 3010A certification for antimony and silver. The laboratory is certified for method 3010A (Acid Digestion for Total Metals) for all other metals and is certified for the associated analytical methods of 6010C (ICP Analysis) and 6020A (ICP-MS Analysis). New York does certify for method 3005A (Acid Digestion for Total Recoverable or Dissolved Metals) for antimony and silver and the laboratory holds that certification, but that provides total recoverable rather than total metals results.

Matrix: SO

Batch ID: MP7070

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TD20701-1MS, TD20701-1MSD, TD20701-1PS, TD20701-1SDL, TD20701-1DUP were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Copper, Lead, Nickel, Zinc, Calcium are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike Duplicate Recovery(s) for Silver are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike Recovery(s) for Barium, Iron, Manganese are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for Duplicate for Antimony, Cadmium, Silver, Zinc are outside control limits for sample MP7070-D1. RPD acceptable due to low duplicate and sample concentrations.
- RPD(s) for MSD for Nickel are outside control limits for sample MP7070-S2. High rpd due to possible sample nonhomogeneity.
- RPD(s) for Serial Dilution for Antimony, Cadmium, Silver, Potassium, Magnesium are outside control limits for sample MP7070-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP7070-PS1 for Copper: Spike recovery indicates possible matrix interference.
- MP7070-PS1 for Zinc: Spike recovery indicates possible matrix interference.

Tuesday, May 22, 2018

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Metals Analysis By Method SW846 7470A

Matrix: LEACHATE **Batch ID:** MP7073

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65698-1AMS, JC65698-1AMSD were used as the QC samples for metals.

Metals Analysis By Method SW846 7471B

Matrix: SO **Batch ID:** MP7039

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65281-101MS, JC65281-101MSD were used as the QC samples for metals.

General Chemistry By Method ASTM D129-95

Matrix: SO **Batch ID:** GP13154

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64996-7DUP were used as the QC samples for Percent Sulfur.

General Chemistry By Method ASTM D240-92

Matrix: SO **Batch ID:** GP13163

- Sample(s) JC64996-7DUP were used as the QC samples for Heat Content, BTU.

General Chemistry By Method SM2540 G-97

Matrix: SO **Batch ID:** GN79964

- The data for SM2540 G-97 meets quality control requirements.

General Chemistry By Method SW846 1010A/ASTM D93

Matrix: SO **Batch ID:** GN80239

- Sample(s) JC65698-1ADUP were used as the QC samples for Ignitability (Flashpoint).

General Chemistry By Method SW846 9012B/LACHAT

Matrix: SO **Batch ID:** GP12933

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65267-1ADUP, JC65267-1AMS were used as the QC samples for Cyanide.

General Chemistry By Method SW846 9045D

Matrix: SO **Batch ID:** GN80222

- Sample(s) JC65736-1DUP were used as the QC samples for Corrosivity as pH.

General Chemistry By Method SW846 CHAP7/9012 B**Matrix:** SO**Batch ID:** GP12928

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65618-1ADUP were used as the QC samples for Cyanide Reactivity.

General Chemistry By Method SW846 CHAP7/9034**Matrix:** SO**Batch ID:** GP12929

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65618-1ADUP, JC65618-1AMS were used as the QC samples for Sulfide Reactivity.

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

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

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

Summary of Hits

Job Number: JC65663
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/07/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC65663-1	WC-4					
Benzene ^a		4740	4300	920	ug/kg	SW846 8260C
Styrene ^a		8490 J	17000	4300	ug/kg	SW846 8260C
Toluene ^a		12800	8600	4700	ug/kg	SW846 8260C
m,p-Xylene ^a		31200	8600	4700	ug/kg	SW846 8260C
o-Xylene ^a		18400	8600	2200	ug/kg	SW846 8260C
Xylene (total) ^a		49600	8600	2200	ug/kg	SW846 8260C
2,4-Dimethylphenol		1260 J	2000	700	ug/kg	SW846 8270D
2-Methylphenol		1050	780	250	ug/kg	SW846 8270D
3&4-Methylphenol		3610	780	320	ug/kg	SW846 8270D
Phenol		2090	780	200	ug/kg	SW846 8270D
Acenaphthene		3420	390	130	ug/kg	SW846 8270D
Acenaphthylene		21500	390	200	ug/kg	SW846 8270D
Anthracene		31300	2000	1200	ug/kg	SW846 8270D
Benzo(a)anthracene		71700	2000	550	ug/kg	SW846 8270D
Benzo(a)pyrene		69400	2000	890	ug/kg	SW846 8270D
Benzo(b)fluoranthene		76100	2000	860	ug/kg	SW846 8270D
Benzo(g,h,i)perylene ^b		28200	2000	980	ug/kg	SW846 8270D
Benzo(k)fluoranthene		38700	390	180	ug/kg	SW846 8270D
1,1'-Biphenyl		3940	780	54	ug/kg	SW846 8270D
Carbazole		15500	780	57	ug/kg	SW846 8270D
Chrysene		59400	2000	620	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		18200	390	170	ug/kg	SW846 8270D
Dibenzofuran		17600	780	160	ug/kg	SW846 8270D
Fluoranthene		101000	2000	870	ug/kg	SW846 8270D
Fluorene		20800	390	180	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		35600	2000	920	ug/kg	SW846 8270D
2-Methylnaphthalene		16100	390	88	ug/kg	SW846 8270D
Naphthalene		33800	390	110	ug/kg	SW846 8270D
Phenanthrene		83700	2000	660	ug/kg	SW846 8270D
Pyrene		97700	2000	620	ug/kg	SW846 8270D
TPH-GRO (C6-C10) ^c		783	690	350	mg/kg	SW846 8015C
TPH-DRO (C10-C28)		1090	10	2.5	mg/kg	SW846 8015C
Aluminum		9110	61		mg/kg	SW846 6010C
Arsenic		6.2	2.4		mg/kg	SW846 6010C
Barium		48.5	24		mg/kg	SW846 6010C
Beryllium		0.45	0.24		mg/kg	SW846 6010C
Calcium		128000	3100		mg/kg	SW846 6010C
Chromium		12.4	1.2		mg/kg	SW846 6010C
Copper		20.3	3.1		mg/kg	SW846 6010C
Iron		14100	61		mg/kg	SW846 6010C
Lead		59.0	2.4		mg/kg	SW846 6010C
Magnesium		30900	610		mg/kg	SW846 6010C
Manganese		414	1.8		mg/kg	SW846 6010C

Summary of Hits

Job Number: JC65663
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/07/18



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Mercury		0.15	0.038		mg/kg	SW846 7471B
Nickel		16.5	4.9		mg/kg	SW846 6010C
Potassium		2630	1200		mg/kg	SW846 6010C
Vanadium		15.2	6.1		mg/kg	SW846 6010C
Zinc		78.4	6.1		mg/kg	SW846 6010C
Cyanide		1.6	0.16		mg/kg	SW846 9012B/LACHAT
Heat Content, BTU		2610	100		BTU/lb	ASTM D240-92
Percent Sulfur		0.83	0.10		%	ASTM D129-95

JC65663-1A WC-4

Corrosivity as pH	7.96 NC			su	SW846 9045D
Ignitability (Flashpoint)	> 200			Deg. F	SW846 1010A/ASTM D93
Benzene	0.0098	0.0025	0.00087	mg/l	SW846 8260C

JC65663-2 WC-3

Benzene	0.33 J	0.48	0.10	ug/kg	SW846 8260C
Acenaphthene	122 J	180	61	ug/kg	SW846 8270D
Acenaphthylene	195	180	89	ug/kg	SW846 8270D
Anthracene	574	180	110	ug/kg	SW846 8270D
Benzo(a)anthracene	2510	180	50	ug/kg	SW846 8270D
Benzo(a)pyrene	3160	180	80	ug/kg	SW846 8270D
Benzo(b)fluoranthene	3410	180	78	ug/kg	SW846 8270D
Benzo(g,h,i)perylene ^b	1410	180	88	ug/kg	SW846 8270D
Benzo(k)fluoranthene	1330	180	82	ug/kg	SW846 8270D
Carbazole	288 J	350	25	ug/kg	SW846 8270D
Chrysene	2040	180	55	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	513	180	78	ug/kg	SW846 8270D
Dibenzofuran	113 J	350	72	ug/kg	SW846 8270D
Fluoranthene	2490	180	78	ug/kg	SW846 8270D
Fluorene	143 J	180	81	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	1900	180	82	ug/kg	SW846 8270D
Naphthalene	116 J	180	50	ug/kg	SW846 8270D
Phenanthrene	1310	180	59	ug/kg	SW846 8270D
Pyrene	2320	180	56	ug/kg	SW846 8270D
TPH-DRO (C10-C28)	57.2	11	2.6	mg/kg	SW846 8015C
Aluminum	6740	57		mg/kg	SW846 6010C
Arsenic	4.2	2.3		mg/kg	SW846 6010C
Barium	25.9	23		mg/kg	SW846 6010C
Beryllium	0.35	0.23		mg/kg	SW846 6010C
Calcium	107000	2800		mg/kg	SW846 6010C
Chromium	9.4	1.1		mg/kg	SW846 6010C
Cobalt	8.8	5.7		mg/kg	SW846 6010C
Copper	29.3	2.8		mg/kg	SW846 6010C

Summary of Hits

Job Number: JC65663
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/07/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						
Iron		12600	57		mg/kg	SW846 6010C
Lead		16.8	2.3		mg/kg	SW846 6010C
Magnesium		38400	570		mg/kg	SW846 6010C
Manganese		496	1.7		mg/kg	SW846 6010C
Nickel		12.9	4.6		mg/kg	SW846 6010C
Potassium		2150	1100		mg/kg	SW846 6010C
Vanadium		13.9	5.7		mg/kg	SW846 6010C
Zinc		59.6	5.7		mg/kg	SW846 6010C
Cyanide		0.20	0.18		mg/kg	SW846 9012B/LACHAT
Heat Content, BTU		435	100		BTU/lb	ASTM D240-92
Percent Sulfur		0.18	0.10		%	ASTM D129-95

JC65663-2A WC-3

Corrosivity as pH	9.42 NC	su	SW846 9045D
Ignitability (Flashpoint)	> 200	Deg. F	SW846 1010A/ASTM D93

- (a) Diluted due to high concentration of non-target compound.
- (b) Associated CCV outside of control limits low.
- (c) Dilution required due to sample matrix (turbidity).



Dayton, NJ

Section 4

4

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-4	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-1	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	83.4
Method:	SW846 8260C		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Run	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	E252374.D	1	05/11/18 16:01	TDN	n/a	n/a	VE10833
Run #2							

Run	Initial Weight	Final Volume	Methanol Aliquot
Run #1	3.7 g	10.0 ml	2.0 ul
Run #2			

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone ^b	ND	86000	55000	ug/kg	
71-43-2	Benzene	4740	4300	920	ug/kg	
74-97-5	Bromochloromethane	ND	43000	3700	ug/kg	
75-27-4	Bromodichloromethane	ND	17000	2100	ug/kg	
75-25-2	Bromoform ^c	ND	43000	2700	ug/kg	
74-83-9	Bromomethane	ND	43000	6000	ug/kg	
78-93-3	2-Butanone (MEK)	ND	86000	45000	ug/kg	
75-15-0	Carbon disulfide	ND	17000	5200	ug/kg	
56-23-5	Carbon tetrachloride	ND	17000	5600	ug/kg	
108-90-7	Chlorobenzene	ND	17000	2500	ug/kg	
75-00-3	Chloroethane	ND	43000	7800	ug/kg	
67-66-3	Chloroform	ND	17000	2800	ug/kg	
74-87-3	Chloromethane	ND	43000	8500	ug/kg	
110-82-7	Cyclohexane	ND	17000	2900	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropan ^d	ND	17000	5800	ug/kg	
124-48-1	Dibromochloromethane	ND	17000	3300	ug/kg	
106-93-4	1,2-Dibromoethane ^c	ND	8600	2100	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	8600	4400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	8600	2500	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	8600	4100	ug/kg	
75-71-8	Dichlorodifluoromethane ^b	ND	43000	5200	ug/kg	
75-34-3	1,1-Dichloroethane	ND	8600	2200	ug/kg	
107-06-2	1,2-Dichloroethane	ND	8600	1500	ug/kg	
75-35-4	1,1-Dichloroethene	ND	8600	6100	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	8600	3500	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	8600	5000	ug/kg	
78-87-5	1,2-Dichloropropane	ND	17000	3400	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	17000	3300	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	17000	2000	ug/kg	
100-41-4	Ethylbenzene	ND	8600	2500	ug/kg	
76-13-1	Freon 113	ND	43000	5800	ug/kg	
591-78-6	2-Hexanone	ND	43000	24000	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-4	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-1	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	83.4
Method:	SW846 8260C		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	17000	2100	ug/kg	
79-20-9	Methyl Acetate	ND	43000	22000	ug/kg	
108-87-2	Methylcyclohexane	ND	17000	4700	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	8600	3700	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	43000	15000	ug/kg	
75-09-2	Methylene chloride	ND	43000	21000	ug/kg	
100-42-5	Styrene	8490	17000	4300	ug/kg	J
79-34-5	1,1,2,2-Tetrachloroethane	ND	17000	2200	ug/kg	
127-18-4	Tetrachloroethene	ND	17000	5500	ug/kg	
108-88-3	Toluene	12800	8600	4700	ug/kg	
87-61-6	1,2,3-Trichlorobenzene ^d	ND	43000	8600	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	43000	8600	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	17000	5000	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	17000	3600	ug/kg	
79-01-6	Trichloroethene	ND	8600	4700	ug/kg	
75-69-4	Trichlorofluoromethane	ND	43000	4100	ug/kg	
75-01-4	Vinyl chloride	ND	17000	6600	ug/kg	
	m,p-Xylene	31200	8600	4700	ug/kg	
95-47-6	o-Xylene	18400	8600	2200	ug/kg	
1330-20-7	Xylene (total)	49600	8600	2200	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		75-127%
17060-07-0	1,2-Dichloroethane-D4	106%		75-130%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	95%		79-127%

(a) Diluted due to high concentration of non-target compound.

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

(c) This compound in BS is outside in house QC limits bias high.

(d) This compound in BS is outside in house QC limits bias high. Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 3

Client Sample ID:	WC-4	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-1	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	83.4
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M146106.D	2	05/11/18 20:27	CC	05/09/18 11:45	OP11892	EM6207
Run #2	M146151.D	10	05/13/18 03:09	GS	05/09/18 11:45	OP11892	EM6209

	Initial Weight	Final Volume
Run #1	30.7 g	5.0 ml
Run #2	30.7 g	5.0 ml

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	780	190	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2000	240	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2000	330	ug/kg	
105-67-9	2,4-Dimethylphenol	1260	2000	700	ug/kg	J
51-28-5	2,4-Dinitrophenol	ND	2000	1500	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2000	420	ug/kg	
95-48-7	2-Methylphenol	1050	780	250	ug/kg	
	3&4-Methylphenol	3610	780	320	ug/kg	
88-75-5	2-Nitrophenol	ND	2000	260	ug/kg	
100-02-7	4-Nitrophenol	ND	3900	1000	ug/kg	
87-86-5	Pentachlorophenol	ND	1600	370	ug/kg	
108-95-2	Phenol	2090	780	200	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	2000	260	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2000	290	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2000	230	ug/kg	
83-32-9	Acenaphthene	3420	390	130	ug/kg	
208-96-8	Acenaphthylene	21500	390	200	ug/kg	
98-86-2	Acetophenone	ND	2000	84	ug/kg	
120-12-7	Anthracene	31300 ^a	2000	1200	ug/kg	
1912-24-9	Atrazine	ND	780	170	ug/kg	
56-55-3	Benzo(a)anthracene	71700 ^a	2000	550	ug/kg	
50-32-8	Benzo(a)pyrene	69400 ^a	2000	890	ug/kg	
205-99-2	Benzo(b)fluoranthene	76100 ^a	2000	860	ug/kg	
191-24-2	Benzo(g,h,i)perylene ^b	28200 ^a	2000	980	ug/kg	
207-08-9	Benzo(k)fluoranthene	38700	390	180	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	780	150	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	780	95	ug/kg	
92-52-4	1,1'-Biphenyl	3940	780	54	ug/kg	
100-52-7	Benzaldehyde ^b	ND	2000	97	ug/kg	
91-58-7	2-Chloronaphthalene	ND	780	93	ug/kg	
106-47-8	4-Chloroaniline	ND	2000	140	ug/kg	
86-74-8	Carbazole	15500	780	57	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-4	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-1	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	83.4
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam ^c	ND	780	150	ug/kg	
218-01-9	Chrysene	59400 ^a	2000	620	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	780	84	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	780	170	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	780	140	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	780	130	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	390	120	ug/kg	
606-20-2	2,6-Dinitrotoluene ^c	ND	390	200	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	780	330	ug/kg	
123-91-1	1,4-Dioxane	ND	390	260	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	18200	390	170	ug/kg	
132-64-9	Dibenzofuran	17600	780	160	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	780	64	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	780	97	ug/kg	
84-66-2	Diethyl phthalate	ND	780	83	ug/kg	
131-11-3	Dimethyl phthalate	ND	780	70	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	780	91	ug/kg	
206-44-0	Fluoranthene	101000 ^a	2000	870	ug/kg	
86-73-7	Fluorene	20800	390	180	ug/kg	
118-74-1	Hexachlorobenzene	ND	780	99	ug/kg	
87-68-3	Hexachlorobutadiene	ND	390	160	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	3900	160	ug/kg	
67-72-1	Hexachloroethane	ND	2000	190	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	35600 ^a	2000	920	ug/kg	
78-59-1	Isophorone	ND	780	84	ug/kg	
91-57-6	2-Methylnaphthalene	16100	390	88	ug/kg	
88-74-4	2-Nitroaniline ^c	ND	2000	92	ug/kg	
99-09-2	3-Nitroaniline	ND	2000	98	ug/kg	
100-01-6	4-Nitroaniline	ND	2000	100	ug/kg	
91-20-3	Naphthalene	33800	390	110	ug/kg	
98-95-3	Nitrobenzene	ND	780	150	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	780	110	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	2000	140	ug/kg	
85-01-8	Phenanthrene	83700 ^a	2000	660	ug/kg	
129-00-0	Pyrene	97700 ^a	2000	620	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2000	99	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	79%	47%	23-115%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-4	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-1	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	83.4
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	83%	64%	27-114%
118-79-6	2,4,6-Tribromophenol	105%	77%	19-152%
4165-60-0	Nitrobenzene-d5	98%	70%	26-134%
321-60-8	2-Fluorobiphenyl	90%	67%	39-124%
1718-51-0	Terphenyl-d14	96%	77%	36-134%

- (a) Result is from Run# 2
- (b) Associated CCV outside of control limits low.
- (c) Associated CCV outside of control limits high, sample was ND.

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

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-4						
Lab Sample ID:	JC65663-1				Date Sampled:	05/07/18	
Matrix:	SO - Soil				Date Received:	05/08/18	
Method:	SW846 8015C				Percent Solids:	83.4	
Project:	NYSEG - Lyons MGP Site, Lyons NY						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	LM94726.D	1	05/10/18 15:46	KC	n/a	n/a	GLM3852
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	3.7 g	10.0 ml	5.0 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	783	690	350	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
98-08-8	aaa-Trifluorotoluene	96%		70-116%		

(a) Dilution required due to sample matrix (turbidity).

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-4		
Lab Sample ID:	JC65663-1	Date Sampled:	05/07/18
Matrix:	SO - Soil	Date Received:	05/08/18
Method:	SW846 8082A SW846 3546	Percent Solids:	83.4
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G163191.D	1	05/10/18 02:06	TR	05/09/18 06:30	OP11896	G2G4328
Run #2							

	Initial Weight	Final Volume
Run #1	15.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	40	16	ug/kg	
11104-28-2	Aroclor 1221	ND	40	16	ug/kg	
11141-16-5	Aroclor 1232	ND	40	11	ug/kg	
53469-21-9	Aroclor 1242	ND	40	6.4	ug/kg	
12672-29-6	Aroclor 1248	ND	40	23	ug/kg	
11097-69-1	Aroclor 1254	ND	40	9.8	ug/kg	
11096-82-5	Aroclor 1260	ND	40	13	ug/kg	
11100-14-4	Aroclor 1268	ND	40	5.9	ug/kg	
37324-23-5	Aroclor 1262	ND	40	3.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	106%		24-152%
877-09-8	Tetrachloro-m-xylene	55%		24-152%
2051-24-3	Decachlorobiphenyl	2306% ^a		10-166%
2051-24-3	Decachlorobiphenyl	2017% ^a		10-166%

(a) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-4						
Lab Sample ID:	JC65663-1					Date Sampled:	05/07/18
Matrix:	SO - Soil					Date Received:	05/08/18
Method:	SW846 8015C SW846 3546					Percent Solids:	83.4
Project:	NYSEG - Lyons MGP Site, Lyons NY						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Y91034.D	1	05/10/18 16:51	TL	05/09/18 13:00	OP11891	G2Y3469
Run #2							

	Initial Weight	Final Volume
Run #1	11.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	1090	10	2.5	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	82%		18-132%
16416-32-3	Tetracosane-d50	98%		25-137%
438-22-2	5a-Androstane	124%		22-134%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-4	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-1	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	83.4
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	9110	61	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Antimony	< 2.4	2.4	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Arsenic	6.2	2.4	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Barium	48.5	24	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Beryllium	0.45	0.24	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Cadmium	< 0.61	0.61	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Calcium	128000	3100	mg/kg	5	05/10/18	05/13/18	GT	SW846 6010C ³ SW846 3050B ⁵
Chromium	12.4	1.2	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Cobalt	< 6.1	6.1	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Copper	20.3	3.1	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Iron	14100	61	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Lead	59.0	2.4	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Magnesium	30900	610	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Manganese	414	1.8	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Mercury	0.15	0.038	mg/kg	1	05/09/18	05/09/18	JA	SW846 7471B ¹ SW846 7471B ⁴
Nickel	16.5	4.9	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Potassium	2630	1200	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Selenium	< 2.4	2.4	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Silver	< 0.61	0.61	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Sodium	< 1200	1200	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Thallium	< 1.2	1.2	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Vanadium	15.2	6.1	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Zinc	78.4	6.1	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵

(1) Instrument QC Batch: MA44367

(2) Instrument QC Batch: MA44386

(3) Instrument QC Batch: MA44393

(4) Prep QC Batch: MP7039

(5) Prep QC Batch: MP7070

RL = Reporting Limit

Report of Analysis

Client Sample ID:	WC-4	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-1	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	83.4
Project:	NYSEG - Lyons MGP Site, Lyons NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	1.6	0.16	mg/kg	1	05/10/18 11:54	BM	SW846 9012B/LACHAT
Heat Content, BTU	2610	100	BTU/lb	1	05/20/18 14:00	JOO	ASTM D240-92
Percent Sulfur	0.83	0.10	%	1	05/20/18	JOO	ASTM D129-95
Solids, Percent	83.4		%	1	05/14/18 23:42	JV	SM2540 G-97

RL = Reporting Limit

4.1
4

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-4		
Lab Sample ID:	JC65663-1A	Date Sampled:	05/07/18
Matrix:	SO - Soil	Date Received:	05/08/18
Method:	SW846 8260C SW846 1311	Percent Solids:	83.4
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V50491.D	5	05/10/18 13:58	JP	05/09/18 10:25	GP12924	V2V2015
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	0.0098	D018	0.50	0.0025	0.00087	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.024	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0017	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0012	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0014	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.00087	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0010	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0024	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0025	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0013	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0031	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	116%		76-120%
17060-07-0	1,2-Dichloroethane-D4	124%		64-135%
2037-26-5	Toluene-D8	106%		76-117%
460-00-4	4-Bromofluorobenzene	102%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-4		
Lab Sample ID:	JC65663-1A	Date Sampled:	05/07/18
Matrix:	SO - Soil	Date Received:	05/08/18
Method:	SW846 8270D SW846 3510C	Percent Solids:	83.4
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P79566.D	1	05/14/18 17:51	JB	05/12/18 13:30	OP11952	E2P3503
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol ^a	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol ^b	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene ^a	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		14-88%
4165-62-2	Phenol-d5	31%		10-110%
118-79-6	2,4,6-Tribromophenol	129% ^b		39-149%
4165-60-0	Nitrobenzene-d5	93%		32-128%
321-60-8	2-Fluorobiphenyl	107%		35-119%
1718-51-0	Terphenyl-d14	100%		10-126%

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

(b) This compound in BS is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-4								
Lab Sample ID:	JC65663-1A							Date Sampled:	05/07/18
Matrix:	SO - Soil							Date Received:	05/08/18
Method:	SW846 8151A SW846 8151/3510C							Percent Solids:	83.4
Project:	NYSEG - Lyons MGP Site, Lyons NY								

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA133355.D	1	05/15/18 03:53	VDT	05/13/18 20:15	OP11951	GOA4568
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.5 ml
Run #2		

Herbicide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0042	0.0012	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0012	0.00025	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	71%		50-142%
19719-28-9	2,4-DCAA	76%		50-142%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-4		
Lab Sample ID:	JC65663-1A	Date Sampled:	05/07/18
Matrix:	SO - Soil	Date Received:	05/08/18
Method:	SW846 8081B SW846 3510C	Percent Solids:	83.4
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G146135.D	1	05/14/18 06:21	CP	05/12/18 13:30	OP11950	G1G4644
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.0 ml
Run #2		

Pesticide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.000067	0.000040	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0033	0.0014	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.000067	0.000040	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.000067	0.000030	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.000067	0.000040	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00013	0.000045	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0017	0.0011	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		30-137%
877-09-8	Tetrachloro-m-xylene	75%		30-137%
2051-24-3	Decachlorobiphenyl	115%		10-137%
2051-24-3	Decachlorobiphenyl	75%		10-137%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-4	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-1A	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	83.4
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	5	05/10/18	05/11/18 ND	SW846 6010C ²	SW846 3010A ⁴
Barium	< 1.0	D005	100	1.0	mg/l	5	05/10/18	05/11/18 ND	SW846 6010C ²	SW846 3010A ⁴
Cadmium	< 0.025	D006	1.0	0.025	mg/l	5	05/10/18	05/11/18 ND	SW846 6010C ²	SW846 3010A ⁴
Chromium	< 0.050	D007	5.0	0.050	mg/l	5	05/10/18	05/11/18 ND	SW846 6010C ²	SW846 3010A ⁴
Lead	< 0.50	D008	5.0	0.50	mg/l	5	05/10/18	05/11/18 ND	SW846 6010C ²	SW846 3010A ⁴
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	05/10/18	05/10/18 JA	SW846 7470A ¹	SW846 7470A ³
Selenium	< 0.50	D010	1.0	0.50	mg/l	5	05/10/18	05/11/18 ND	SW846 6010C ²	SW846 3010A ⁴
Silver	< 0.050	D011	5.0	0.050	mg/l	5	05/10/18	05/11/18 ND	SW846 6010C ²	SW846 3010A ⁴

- (1) Instrument QC Batch: MA44376
- (2) Instrument QC Batch: MA44385
- (3) Prep QC Batch: MP7073
- (4) Prep QC Batch: MP7074

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

Report of Analysis

Client Sample ID:	WC-4	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-1A	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	83.4
Project:	NYSEG - Lyons MGP Site, Lyons NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.96 NC		su	1	05/19/18 16:06	AC	SW846 9045D
Cyanide Reactivity	< 11	11	mg/kg	1	05/10/18 12:41	BM	SW846 CHAP7/9012 B
Ignitability (Flashpoint)	> 200		Deg. F	1	05/19/18	AC	SW846 1010A/ASTM D93
Sulfide Reactivity	< 110	110	mg/kg	1	05/10/18 09:55	MP	SW846 CHAP7/9034

RL = Reporting Limit

4.2
4

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-3	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-2	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	92.4
Method:	SW846 8260C		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y179820.D	1	05/12/18 23:11	PS	n/a	n/a	VY7777
Run #2							

Run #	Initial Weight
Run #1	5.6 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone ^a	ND	9.7	6.2	ug/kg	J
71-43-2	Benzene	0.33	0.48	0.10	ug/kg	
74-97-5	Bromochloromethane	ND	4.8	0.42	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	0.23	ug/kg	
75-25-2	Bromoform	ND	4.8	0.30	ug/kg	
74-83-9	Bromomethane	ND	4.8	0.68	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.7	5.1	ug/kg	
75-15-0	Carbon disulfide	ND	1.9	0.59	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	0.63	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	0.28	ug/kg	
75-00-3	Chloroethane	ND	4.8	0.87	ug/kg	
67-66-3	Chloroform	ND	1.9	0.31	ug/kg	
74-87-3	Chloromethane	ND	4.8	0.95	ug/kg	
110-82-7	Cyclohexane	ND	1.9	0.33	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.9	0.65	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	0.37	ug/kg	
106-93-4	1,2-Dibromoethane	ND	0.97	0.24	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.97	0.50	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.97	0.28	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.97	0.46	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	4.8	0.59	ug/kg	
75-34-3	1,1-Dichloroethane	ND	0.97	0.25	ug/kg	
107-06-2	1,2-Dichloroethane	ND	0.97	0.17	ug/kg	
75-35-4	1,1-Dichloroethene	ND	0.97	0.68	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	0.97	0.39	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.97	0.56	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	0.38	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	0.37	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.23	ug/kg	
100-41-4	Ethylbenzene	ND	0.97	0.28	ug/kg	
76-13-1	Freon 113 ^b	ND	4.8	0.65	ug/kg	
591-78-6	2-Hexanone	ND	4.8	2.7	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-3	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-2	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	92.4
Method:	SW846 8260C		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.9	0.24	ug/kg	
79-20-9	Methyl Acetate	ND	4.8	2.4	ug/kg	
108-87-2	Methylcyclohexane	ND	1.9	0.53	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.97	0.41	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK) ^b	ND	4.8	1.7	ug/kg	
75-09-2	Methylene chloride	ND	4.8	2.4	ug/kg	
100-42-5	Styrene	ND	1.9	0.48	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	0.25	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	0.62	ug/kg	
108-88-3	Toluene	ND	0.97	0.53	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.8	0.97	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.8	0.97	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.9	0.56	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.41	ug/kg	
79-01-6	Trichloroethene	ND	0.97	0.53	ug/kg	
75-69-4	Trichlorofluoromethane	ND	4.8	0.46	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	0.74	ug/kg	
	m,p-Xylene	ND	0.97	0.53	ug/kg	
95-47-6	o-Xylene	ND	0.97	0.24	ug/kg	
1330-20-7	Xylene (total)	ND	0.97	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		75-127%
17060-07-0	1,2-Dichloroethane-D4	83%		75-130%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	114%		79-127%

(a) Associated CCV outside of control limits low.

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

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 3

Client Sample ID:	WC-3	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-2	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	92.4
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M146150.D	1	05/13/18 02:40	GS	05/09/18 11:45	OP11892	EM6209
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.8 g	5.0 ml
Run #2		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	350	87	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	880	110	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	880	150	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	880	310	ug/kg	
51-28-5	2,4-Dinitrophenol ^a	ND	880	660	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	880	190	ug/kg	
95-48-7	2-Methylphenol	ND	350	110	ug/kg	
	3&4-Methylphenol	ND	350	140	ug/kg	
88-75-5	2-Nitrophenol	ND	880	120	ug/kg	
100-02-7	4-Nitrophenol	ND	1800	470	ug/kg	
87-86-5	Pentachlorophenol	ND	700	160	ug/kg	
108-95-2	Phenol	ND	350	92	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	880	120	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	880	130	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	880	100	ug/kg	
83-32-9	Acenaphthene	122	180	61	ug/kg	J
208-96-8	Acenaphthylene	195	180	89	ug/kg	
98-86-2	Acetophenone	ND	880	38	ug/kg	
120-12-7	Anthracene	574	180	110	ug/kg	
1912-24-9	Atrazine	ND	350	75	ug/kg	
56-55-3	Benzo(a)anthracene	2510	180	50	ug/kg	
50-32-8	Benzo(a)pyrene	3160	180	80	ug/kg	
205-99-2	Benzo(b)fluoranthene	3410	180	78	ug/kg	
191-24-2	Benzo(g,h,i)perylene ^b	1410	180	88	ug/kg	
207-08-9	Benzo(k)fluoranthene	1330	180	82	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	350	68	ug/kg	
85-68-7	Butyl benzyl phthalate ^a	ND	350	43	ug/kg	
92-52-4	1,1'-Biphenyl	ND	350	24	ug/kg	
100-52-7	Benzaldehyde ^b	ND	880	44	ug/kg	
91-58-7	2-Chloronaphthalene	ND	350	42	ug/kg	
106-47-8	4-Chloroaniline	ND	880	63	ug/kg	
86-74-8	Carbazole	288	350	25	ug/kg	J

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-3	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-2	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	92.4
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam ^a	ND	350	69	ug/kg	
218-01-9	Chrysene	2040	180	55	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	350	38	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	350	76	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	350	63	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	350	57	ug/kg	
121-14-2	2,4-Dinitrotoluene ^a	ND	180	54	ug/kg	
606-20-2	2,6-Dinitrotoluene ^a	ND	180	88	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	350	150	ug/kg	
123-91-1	1,4-Dioxane	ND	180	120	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	513	180	78	ug/kg	
132-64-9	Dibenzofuran	113	350	72	ug/kg	J
84-74-2	Di-n-butyl phthalate	ND	350	29	ug/kg	
117-84-0	Di-n-octyl phthalate ^a	ND	350	44	ug/kg	
84-66-2	Diethyl phthalate	ND	350	37	ug/kg	
131-11-3	Dimethyl phthalate	ND	350	31	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	350	41	ug/kg	
206-44-0	Fluoranthene	2490	180	78	ug/kg	
86-73-7	Fluorene	143	180	81	ug/kg	J
118-74-1	Hexachlorobenzene	ND	350	44	ug/kg	
87-68-3	Hexachlorobutadiene	ND	180	71	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	1800	70	ug/kg	
67-72-1	Hexachloroethane	ND	880	87	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	1900	180	82	ug/kg	
78-59-1	Isophorone	ND	350	38	ug/kg	
91-57-6	2-Methylnaphthalene	ND	180	40	ug/kg	
88-74-4	2-Nitroaniline ^a	ND	880	41	ug/kg	
99-09-2	3-Nitroaniline	ND	880	44	ug/kg	
100-01-6	4-Nitroaniline	ND	880	46	ug/kg	
91-20-3	Naphthalene	116	180	50	ug/kg	J
98-95-3	Nitrobenzene	ND	350	68	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	350	51	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	880	64	ug/kg	
85-01-8	Phenanthrene	1310	180	59	ug/kg	
129-00-0	Pyrene	2320	180	56	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	880	45	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	67%		23-115%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-3	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-2	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	92.4
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	74%		27-114%
118-79-6	2,4,6-Tribromophenol	103%		19-152%
4165-60-0	Nitrobenzene-d5	83%		26-134%
321-60-8	2-Fluorobiphenyl	85%		39-124%
1718-51-0	Terphenyl-d14	94%		36-134%

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

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

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-3	
Lab Sample ID:	JC65663-2	Date Sampled: 05/07/18
Matrix:	SO - Soil	Date Received: 05/08/18
Method:	SW846 8015C	Percent Solids: 92.4
Project:	NYSEG - Lyons MGP Site, Lyons NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LM94725.D	1	05/10/18 15:17	KC	n/a	n/a	GLM3852
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.9 g	10.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	23	11	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	94%		70-116%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-3	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-2	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	92.4
Method:	SW846 8082A SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G163192.D	1	05/10/18 02:23	TR	05/09/18 06:30	OP11896	G2G4328
Run #2							

	Initial Weight	Final Volume
Run #1	16.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	32	13	ug/kg	
11104-28-2	Aroclor 1221	ND	32	13	ug/kg	
11141-16-5	Aroclor 1232	ND	32	8.6	ug/kg	
53469-21-9	Aroclor 1242	ND	32	5.1	ug/kg	
12672-29-6	Aroclor 1248	ND	32	19	ug/kg	
11097-69-1	Aroclor 1254	ND	32	7.9	ug/kg	
11096-82-5	Aroclor 1260	ND	32	10	ug/kg	
11100-14-4	Aroclor 1268	ND	32	4.8	ug/kg	
37324-23-5	Aroclor 1262	ND	32	2.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		24-152%
877-09-8	Tetrachloro-m-xylene	80%		24-152%
2051-24-3	Decachlorobiphenyl	60%		10-166%
2051-24-3	Decachlorobiphenyl	185% ^a		10-166%

(a) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-3	
Lab Sample ID:	JC65663-2	Date Sampled: 05/07/18
Matrix:	SO - Soil	Date Received: 05/08/18
Method:	SW846 8015C SW846 3546	Percent Solids: 92.4
Project:	NYSEG - Lyons MGP Site, Lyons NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Y91035.D	1	05/10/18 17:24	TL	05/09/18 13:00	OP11891	G2Y3469
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	57.2	11	2.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	76%		18-132%
16416-32-3	Tetracosane-d50	97%		25-137%
438-22-2	5a-Androstane	73%		22-134%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-3	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-2	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	92.4
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6740	57	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Antimony	< 2.3	2.3	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Arsenic	4.2	2.3	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Barium	25.9	23	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Beryllium	0.35	0.23	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Cadmium	< 0.57	0.57	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Calcium	107000	2800	mg/kg	5	05/10/18	05/13/18	GT	SW846 6010C ³ SW846 3050B ⁵
Chromium	9.4	1.1	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Cobalt	8.8	5.7	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Copper	29.3	2.8	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Iron	12600	57	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Lead	16.8	2.3	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Magnesium	38400	570	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Manganese	496	1.7	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Mercury	< 0.035	0.035	mg/kg	1	05/09/18	05/09/18	JA	SW846 7471B ¹ SW846 7471B ⁴
Nickel	12.9	4.6	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Potassium	2150	1100	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Selenium	< 2.3	2.3	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Silver	< 0.57	0.57	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Sodium	< 1100	1100	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Thallium	< 1.1	1.1	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Vanadium	13.9	5.7	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵
Zinc	59.6	5.7	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ⁵

(1) Instrument QC Batch: MA44367

(2) Instrument QC Batch: MA44386

(3) Instrument QC Batch: MA44393

(4) Prep QC Batch: MP7039

(5) Prep QC Batch: MP7070

RL = Reporting Limit

Report of Analysis

Client Sample ID:	WC-3	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-2	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	92.4
Project:	NYSEG - Lyons MGP Site, Lyons NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.20	0.18	mg/kg	1	05/10/18 11:55	BM	SW846 9012B/LACHAT
Heat Content, BTU	435	100	BTU/lb	1	05/20/18 14:00	JOO	ASTM D240-92
Percent Sulfur	0.18	0.10	%	1	05/20/18	JOO	ASTM D129-95
Solids, Percent	92.4		%	1	05/14/18 23:42	JV	SM2540 G-97

RL = Reporting Limit

4.3
4

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-3		
Lab Sample ID:	JC65663-2A	Date Sampled:	05/07/18
Matrix:	SO - Soil	Date Received:	05/08/18
Method:	SW846 8260C SW846 1311	Percent Solids:	92.4
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A241584.D	5	05/14/18 11:22	OI	05/09/18 10:25	GP12924	VA9208
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.0025	0.00087	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.024	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0017	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0012	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0014	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.00087	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0010	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0024	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0025	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0013	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0031	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		76-120%
17060-07-0	1,2-Dichloroethane-D4	99%		64-135%
2037-26-5	Toluene-D8	96%		76-117%
460-00-4	4-Bromofluorobenzene	92%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-3		
Lab Sample ID:	JC65663-2A	Date Sampled:	05/07/18
Matrix:	SO - Soil	Date Received:	05/08/18
Method:	SW846 8270D SW846 3510C	Percent Solids:	92.4
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P79567.D	1	05/14/18 18:13	JB	05/12/18 13:30	OP11952	E2P3503
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol ^a	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene ^a	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	35%		14-88%
4165-62-2	Phenol-d5	26%		10-110%
118-79-6	2,4,6-Tribromophenol	112%		39-149%
4165-60-0	Nitrobenzene-d5	77%		32-128%
321-60-8	2-Fluorobiphenyl	90%		35-119%
1718-51-0	Terphenyl-d14	96%		10-126%

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

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-3								
Lab Sample ID:	JC65663-2A							Date Sampled:	05/07/18
Matrix:	SO - Soil							Date Received:	05/08/18
Method:	SW846 8151A SW846 8151/3510C							Percent Solids:	92.4
Project:	NYSEG - Lyons MGP Site, Lyons NY								

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA133356.D	1	05/15/18 04:21	VDT	05/13/18 20:15	OP11951	GOA4568
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.5 ml
Run #2		

Herbicide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0042	0.0012	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0012	0.00025	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	80%		50-142%
19719-28-9	2,4-DCAA	81%		50-142%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-3		
Lab Sample ID:	JC65663-2A	Date Sampled:	05/07/18
Matrix:	SO - Soil	Date Received:	05/08/18
Method:	SW846 8081B SW846 3510C	Percent Solids:	92.4
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G146136.D	1	05/14/18 06:39	CP	05/12/18 13:30	OP11950	G1G4644
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.0 ml
Run #2		

Pesticide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.000067	0.000040	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0033	0.0014	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.000067	0.000040	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.000067	0.000030	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.000067	0.000040	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00013	0.000045	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0017	0.0011	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	81%		30-137%
877-09-8	Tetrachloro-m-xylene	77%		30-137%
2051-24-3	Decachlorobiphenyl	89%		10-137%
2051-24-3	Decachlorobiphenyl	71%		10-137%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-3	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-2A	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	92.4
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	5	05/10/18	05/11/18 ND	SW846 6010C ²	SW846 3010A ⁴
Barium	< 1.0	D005	100	1.0	mg/l	5	05/10/18	05/11/18 ND	SW846 6010C ²	SW846 3010A ⁴
Cadmium	< 0.025	D006	1.0	0.025	mg/l	5	05/10/18	05/11/18 ND	SW846 6010C ²	SW846 3010A ⁴
Chromium	< 0.050	D007	5.0	0.050	mg/l	5	05/10/18	05/11/18 ND	SW846 6010C ²	SW846 3010A ⁴
Lead	< 0.50	D008	5.0	0.50	mg/l	5	05/10/18	05/11/18 ND	SW846 6010C ²	SW846 3010A ⁴
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	05/10/18	05/10/18 JA	SW846 7470A ¹	SW846 7470A ³
Selenium	< 0.50	D010	1.0	0.50	mg/l	5	05/10/18	05/11/18 ND	SW846 6010C ²	SW846 3010A ⁴
Silver	< 0.050	D011	5.0	0.050	mg/l	5	05/10/18	05/11/18 ND	SW846 6010C ²	SW846 3010A ⁴

- (1) Instrument QC Batch: MA44376
- (2) Instrument QC Batch: MA44385
- (3) Prep QC Batch: MP7073
- (4) Prep QC Batch: MP7074

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

Report of Analysis

Client Sample ID:	WC-3	Date Sampled:	05/07/18
Lab Sample ID:	JC65663-2A	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	92.4
Project:	NYSEG - Lyons MGP Site, Lyons NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	9.42 NC		su	1	05/19/18 16:10	AC	SW846 9045D
Cyanide Reactivity	< 11	11	mg/kg	1	05/10/18 12:43	BM	SW846 CHAP7/9012 B
Ignitability (Flashpoint)	> 200		Deg. F	1	05/19/18	AC	SW846 1010A/ASTM D93
Sulfide Reactivity	< 110	110	mg/kg	1	05/10/18 09:55	MP	SW846 CHAP7/9034

RL = Reporting Limit

4.4
4

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

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

Parameter Certification Exceptions

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

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

Parameter	CAS#	Method	Mat	Certification Status
Cyanide Reactivity		SW846 CHAP7/9012 B	SO	SGS is not certified for this parameter. ^a
Percent Sulfur		ASTM D129-95	SO	SGS is not certified for this parameter. ^b
Sulfide Reactivity		SW846 CHAP7/9034	SO	SGS is not certified for this parameter. ^a

- (a) Reactivity analyzed following SW846 Chapter 7 is no longer recognized by regulatory agencies. Use of results should be verified through the program to which the data is being submitted.
- (b) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

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



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FED-EX Tracking # 21259553 4847	Bottle Order Control # DK-05118-28
SGS Quote #	SGS Job # JC65663

[illegible]

<http://www.sqs.com/en/terms-and-conditions>

JC65663: Chain of Custody

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JC65663

SGS Sample Receipt Summary

Job Number: JC65663

Client: ARCADIS

Project: NYSEG - LYONS MGP SITE, LYONS NY - LTDD

Date / Time Received: 5/8/2018 9:30:00 AM

Delivery Method:
Airbill #s:
Cooler Temps (Raw Measured) °C: Cooler 1: (1.4);

Cooler Temps (Corrected) °C: Cooler 1: (2.9);

Cooler Security
Y or N
Y or N

- | | |
|--|---|
| 1. Custody Seals Present: ☒ Y ☐ N | 3. COC Present: ☒ Y ☐ N |
| 2. Custody Seals Intact: ☒ Y ☐ N | 4. Smpl Dates/Time OK: ☒ Y ☐ N |

Cooler Temperature
Y or N

- | | |
|---|-----------|
| 1. Temp criteria achieved: ☒ Y ☐ N | IR Gun |
| 2. Cooler temp verification: | |
| 3. Cooler media: | Ice (Bag) |
| 4. No. Coolers: | 1 |

Quality Control Preservation
Y or N
N/A

- | | |
|---|--|
| 1. Trip Blank present / cooler: ☐ Y ☒ N ☐ N/A | |
| 2. Trip Blank listed on COC: ☐ Y ☒ N ☐ N/A | |
| 3. Samples preserved properly: ☒ Y ☐ N ☐ N/A | |
| 4. VOCs headspace free: ☐ Y ☐ N ☒ N/A | |

Sample Integrity - Documentation
Y or N

- | | |
|---|--|
| 1. Sample labels present on bottles: ☒ Y ☐ N | |
| 2. Container labeling complete: ☒ Y ☐ N | |
| 3. Sample container label / COC agree: ☒ Y ☐ N | |

Sample Integrity - Condition
Y or N

- | | |
|---|--------|
| 1. Sample recvd within HT: ☒ Y ☐ N | |
| 2. All containers accounted for: ☒ Y ☐ N | |
| 3. Condition of sample: ☐ Y ☐ N | Intact |

Sample Integrity - Instructions
Y or N
N/A

- | | |
|---|---|
| 1. Analysis requested is clear: ☒ Y ☐ N | |
| 2. Bottles received for unspecified tests: ☐ Y ☒ N | |
| 3. Sufficient volume recvd for analysis: ☒ Y ☐ N | |
| 4. Compositing instructions clear: ☐ Y ☐ N | ☒ N/A |
| 5. Filtering instructions clear: ☐ Y ☐ N | ☒ N/A |

Test Strip Lot #s:

pH 1-12: 216017

pH 12+: 208717

Other: (Specify)

Comments

 SM089-03
Rev. Date 12/7/17

JC65663: Chain of Custody

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Internal Sample Tracking Chronicle

Arcadis

Job No: JC65663

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.0000

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC65663-1 Collected: 07-MAY-18 11:15 By: RDC Received: 08-MAY-18 By: RL WC-4						
JC65663-1	SW846 7471B	09-MAY-18 09:37	JA	09-MAY-18 JA		HG
JC65663-1	SW846 8082A	10-MAY-18 02:06	TR	09-MAY-18 MA		P8082PCB11
JC65663-1	SW846 9012B/LACHAT	10-MAY-18 11:54	BM	09-MAY-18 FO		CN
JC65663-1	SW846 8015C	10-MAY-18 15:46	KC			V8015GRO
JC65663-1	SW846 8015C	10-MAY-18 16:51	TL	09-MAY-18 LL		B8015DRO
JC65663-1	SW846 8260C	11-MAY-18 16:01	TDN			V8260TCL20
JC65663-1	SW846 6010C	11-MAY-18 18:21	ND	10-MAY-18 CH		AG,AL,AS,BA,BE,CD,CO,CR,CU, FE,K,MG,MN,NA,NI,PB,SB,SE, TL,V,ZN
JC65663-1	SW846 8270D	11-MAY-18 20:27	CC	09-MAY-18 FN		AB8270TCL20
JC65663-1	SW846 8270D	13-MAY-18 03:09	GS	09-MAY-18 FN		AB8270TCL20
JC65663-1	SW846 6010C	13-MAY-18 16:43	GT	10-MAY-18 CH		CA
JC65663-1	SM2540 G-97	14-MAY-18 23:42	JV			SOL104
JC65663-1	ASTM D129-95	20-MAY-18	JOO	18-MAY-18 JOO		SULFUR
JC65663-1	ASTM D240-92	20-MAY-18 14:00	JOO	18-MAY-18 JOO		BTU
JC65663-2 Collected: 07-MAY-18 15:45 By: RDC Received: 08-MAY-18 By: RL WC-3						
JC65663-2	SW846 7471B	09-MAY-18 09:38	JA	09-MAY-18 JA		HG
JC65663-2	SW846 8082A	10-MAY-18 02:23	TR	09-MAY-18 MA		P8082PCB11
JC65663-2	SW846 9012B/LACHAT	10-MAY-18 11:55	BM	09-MAY-18 FO		CN
JC65663-2	SW846 8015C	10-MAY-18 15:17	KC			V8015GRO
JC65663-2	SW846 8015C	10-MAY-18 17:24	TL	09-MAY-18 LL		B8015DRO
JC65663-2	SW846 6010C	11-MAY-18 18:25	ND	10-MAY-18 CH		AG,AL,AS,BA,BE,CD,CO,CR,CU, FE,K,MG,MN,NA,NI,PB,SB,SE, TL,V,ZN
JC65663-2	SW846 8260C	12-MAY-18 23:11	PS			V8260TCL20
JC65663-2	SW846 8270D	13-MAY-18 02:40	GS	09-MAY-18 FN		AB8270TCL20
JC65663-2	SW846 6010C	13-MAY-18 16:47	GT	10-MAY-18 CH		CA
JC65663-2	SM2540 G-97	14-MAY-18 23:42	JV			SOL104
JC65663-2	ASTM D129-95	20-MAY-18	JOO	18-MAY-18 JOO		SULFUR
JC65663-2	ASTM D240-92	20-MAY-18 14:00	JOO	18-MAY-18 JOO		BTU
JC65663-1A Collected: 07-MAY-18 11:15 By: RDC Received: 08-MAY-18 By: RL WC-4						

Internal Sample Tracking Chronicle

Arcadis

Job No: JC65663

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.0000

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC65663-1ASW846 CHAP7/9034		10-MAY-18 09:55	MP	09-MAY-18 FO		SREAC
JC65663-1ASW846 CHAP7/9012 B		10-MAY-18 12:41	BM	09-MAY-18 FO		CREAC
JC65663-1ASW846 7470A		10-MAY-18 13:15	JA	10-MAY-18 JA		EHG
JC65663-1ASW846 8260C		10-MAY-18 13:58	JP	09-MAY-18 AC		V8260TCLP
JC65663-1ASW846 6010C		11-MAY-18 14:19	ND	10-MAY-18 BP		EAG,EAS,EBA,ECD,ECR,EPB,ESE
JC65663-1ASW846 8081B		14-MAY-18 06:21	CP	12-MAY-18 VP		P8081TCLP
JC65663-1ASW846 8270D		14-MAY-18 17:51	JB	12-MAY-18 VP		AB8270TCLP
JC65663-1ASW846 8151A		15-MAY-18 03:53	VDT	13-MAY-18 AA		H8151TCLP
JC65663-1ASW846 1010A/ASTM D193		15-MAY-18	AC			IGN
JC65663-1ASW846 9045D		19-MAY-18 16:06	AC			CORR

JC65663-2A Collected: 07-MAY-18 15:45 By: RDC Received: 08-MAY-18 By: RL
WC-3

JC65663-2ASW846 CHAP7/9034		10-MAY-18 09:55	MP	09-MAY-18 FO		SREAC
JC65663-2ASW846 CHAP7/9012 B		10-MAY-18 12:43	BM	09-MAY-18 FO		CREAC
JC65663-2ASW846 7470A		10-MAY-18 13:17	JA	10-MAY-18 JA		EHG
JC65663-2ASW846 6010C		11-MAY-18 14:24	ND	10-MAY-18 BP		EAG,EAS,EBA,ECD,ECR,EPB,ESE
JC65663-2ASW846 8081B		14-MAY-18 06:39	CP	12-MAY-18 VP		P8081TCLP
JC65663-2ASW846 8260C		14-MAY-18 11:22	OI	09-MAY-18 AC		V8260TCLP
JC65663-2ASW846 8270D		14-MAY-18 18:13	JB	12-MAY-18 VP		AB8270TCLP
JC65663-2ASW846 8151A		15-MAY-18 04:21	VDT	13-MAY-18 AA		H8151TCLP
JC65663-2ASW846 1010A/ASTM D193		15-MAY-18	AC			IGN
JC65663-2ASW846 9045D		19-MAY-18 16:10	AC			CORR

SGS Internal Chain of Custody

Page 1 of 6

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/08/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65663-1.1	Secured Storage	Dave Hunkele	05/08/18 12:24	Retrieve from Storage
JC65663-1.1	Dave Hunkele	Secured Staging Area	05/08/18 12:24	Return to Storage
JC65663-1.1	Secured Staging Area	Jessica Adametz	05/08/18 12:29	Retrieve from Storage
JC65663-1.1	Jessica Adametz	Secured Storage	05/08/18 12:29	Return to Storage
JC65663-1.1	Secured Storage	Luis Villanueva	05/08/18 16:54	Retrieve from Storage
JC65663-1.1	Luis Villanueva	Secured Staging Area	05/08/18 16:55	Return to Storage
JC65663-1.1	Secured Staging Area	Brian Miller	05/09/18 02:47	Retrieve from Storage
JC65663-1.1	Brian Miller	Faraja Ombwayo	05/09/18 09:59	Custody Transfer
JC65663-1.1	Secured Storage	Todd Shoemaker	05/10/18 12:09	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC65663-1.1	Todd Shoemaker	Secured Staging Area	05/10/18 12:09	Return to Storage
JC65663-1.1	Secured Staging Area	Colleen Hill	05/10/18 14:58	Retrieve from Storage
JC65663-1.1	Colleen Hill	Secured Storage	05/10/18 16:49	Return to Storage
JC65663-1.1	Secured Storage	Dwayne Johnson	05/18/18 09:29	Retrieve from Storage
JC65663-1.1	Dwayne Johnson	Secured Staging Area	05/18/18 09:29	Return to Storage
JC65663-1.1	Secured Staging Area	Jared O. Onindo	05/18/18 13:13	Retrieve from Storage
JC65663-1.1	Jared O. Onindo	Secured Storage	05/18/18 18:54	Return to Storage
JC65663-1.1.1	Brian Miller	TCLP	05/09/18 02:47	Leachate from JC65663-1.1
JC65663-1.1.1	TCLP	Andrew Csimbok	05/10/18 08:10	Leachate from JC65663-1.1
JC65663-1.1.1	Andrew Csimbok	Secured Storage	05/10/18 08:10	Return to Storage
JC65663-1.1.1	Secured Storage	Vikas Parikh	05/12/18 05:45	Retrieve from Storage
JC65663-1.1.1	Vikas Parikh	Secured Storage	05/12/18 20:35	Return to Storage
JC65663-1.1.2	TCLP	Andrew Csimbok	05/10/18 08:10	Leachate from JC65663-1.1
JC65663-1.1.2	Andrew Csimbok	Secured Storage	05/10/18 08:10	Return to Storage
JC65663-1.1.2	Secured Storage	Bhooma Patel	05/10/18 11:49	Retrieve from Storage
JC65663-1.1.2	Bhooma Patel	Secured Storage	05/10/18 11:50	Return to Storage
JC65663-1.1.3	Bhooma Patel	Metals Digestion	05/10/18 11:49	Digestate from JC65663-1.1.2
JC65663-1.1.3	Metals Digestion	Bhooma Patel	05/10/18 11:50	Digestate from JC65663-1.1.2
JC65663-1.1.3	Bhooma Patel	Metals Digestate Storage	05/10/18 11:50	Return to Storage
JC65663-1.1.4	Colleen Hill	Metals Digestion	05/10/18 16:46	Digestate from JC65663-1.1
JC65663-1.1.4	Metals Digestion	Colleen Hill	05/10/18 16:46	Digestate from JC65663-1.1
JC65663-1.1.4	Colleen Hill	Metals Digestate Storage	05/10/18 16:46	Return to Storage
JC65663-1.1.5	Vikas Parikh	Organics Prep	05/12/18 05:47	Extract from JC65663-1.1.1
JC65663-1.1.5	Organics Prep	Vikas Parikh	05/12/18 11:56	Extract from JC65663-1.1.1
JC65663-1.1.5	Vikas Parikh	Extract Storage	05/12/18 11:56	Return to Storage
JC65663-1.1.5	Extract Storage	John Boudreau	05/14/18 11:00	Retrieve from Storage
JC65663-1.1.5	John Boudreau	GCMS2P	05/14/18 11:00	Load on Instrument
JC65663-1.1.5	GCMS2P	George Sleem	05/14/18 19:16	Unload from Instrument
JC65663-1.1.5	George Sleem	Extract Freezer	05/14/18 19:16	Return to Storage

SGS Internal Chain of Custody

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/08/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65663-1.1.6	Vikas Parikh	Organics Prep	05/12/18 05:49	Extract from JC65663-1.1.1
JC65663-1.1.6	Organics Prep	Vikas Parikh	05/12/18 11:56	Extract from JC65663-1.1.1
JC65663-1.1.6	Vikas Parikh	Extract Storage	05/12/18 11:56	Return to Storage
JC65663-1.1.6	Extract Storage	Christine Phillips	05/14/18 00:46	Retrieve from Storage
JC65663-1.1.6	Christine Phillips	GC1G	05/14/18 00:46	Load on Instrument
JC65663-1.1.7	Vikas Parikh	Organics Prep	05/12/18 20:32	Extract from JC65663-1.1.1
JC65663-1.1.7	Organics Prep	Alexander Arotin	05/13/18 12:42	Extract from JC65663-1.1.1
JC65663-1.1.7	Alexander Arotin	Extract Storage	05/13/18 12:42	Return to Storage
JC65663-1.1.7	Extract Storage	Vincent Drago	05/14/18 16:21	Retrieve from Storage
JC65663-1.1.7	Vincent Drago	GCOA	05/14/18 16:21	Load on Instrument
JC65663-1.2	Secured Storage	Jennifer Voitovitch	05/08/18 18:52	Retrieve from Storage
JC65663-1.2	Jennifer Voitovitch	Secured Staging Area	05/08/18 18:52	Return to Storage
JC65663-1.2	Secured Staging Area	Meilly Arbelo	05/09/18 06:18	Retrieve from Storage
JC65663-1.2	Meilly Arbelo	Secured Storage	05/09/18 14:51	Return to Storage
JC65663-1.2	Secured Storage	Christopher Hall	05/15/18 18:25	Retrieve from Storage
JC65663-1.2	Christopher Hall	Secured Staging Area	05/15/18 18:25	Return to Storage
JC65663-1.2	Secured Staging Area	Hans Seignon	05/16/18 17:08	Retrieve from Storage
JC65663-1.2	Shirley Grzybowski	Secured Storage	05/17/18 07:12	Return to Storage
Analyst unavailable for custody transfer.				
JC65663-1.2	Secured Storage	Sahara Feliciano	05/17/18 16:05	Retrieve from Storage
JC65663-1.2	Sahara Feliciano	Secured Staging Area	05/17/18 16:05	Return to Storage
JC65663-1.2	Secured Staging Area	Hans Seignon	05/17/18 16:53	Retrieve from Storage
JC65663-1.2	Hans Seignon	Secured Storage	05/17/18 23:09	Return to Storage
JC65663-1.2	Secured Storage	Sahara Feliciano	05/18/18 17:58	Retrieve from Storage
JC65663-1.2	Sahara Feliciano	Secured Staging Area	05/18/18 17:58	Return to Storage
JC65663-1.2	Secured Staging Area	Andrew Csimbok	05/19/18 13:24	Retrieve from Storage
JC65663-1.2	Andrew Csimbok	Secured Storage	05/19/18 17:10	Return to Storage
JC65663-1.2.1	Meilly Arbelo	Organics Prep	05/09/18 06:22	Extract from JC65663-1.2
JC65663-1.2.1	Organics Prep	Sora Lynn Mathurin	05/09/18 14:08	Extract from JC65663-1.2
JC65663-1.2.1	Sora Lynn Mathurin	Extract Storage	05/09/18 14:08	Return to Storage
JC65663-1.2.1	Extract Storage	Tianwei Ruan	05/09/18 18:28	Retrieve from Storage
JC65663-1.2.1	Tianwei Ruan	GC2G	05/09/18 18:28	Load on Instrument
JC65663-1.2.1	GC2G	Edouard Adrian Lee	05/12/18 14:55	Unload from Instrument
JC65663-1.2.1	Edouard Adrian Lee	Extract Freezer	05/12/18 14:55	Return to Storage
JC65663-1.2.2	Meilly Arbelo	Organics Prep	05/09/18 06:45	Extract from JC65663-1.2
JC65663-1.2.2	Organics Prep	Lindsey Lee	05/09/18 21:34	Extract from JC65663-1.2
JC65663-1.2.2	Lindsey Lee	Extract Storage	05/09/18 21:34	Return to Storage
JC65663-1.2.2	Extract Storage	Rebecca Krug	05/10/18 16:49	Retrieve from Storage
JC65663-1.2.2	Rebecca Krug	GC2Y	05/10/18 16:49	Load on Instrument

SGS Internal Chain of Custody

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/08/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65663-1.2.2	GC2Y	Rebecca Krug	05/14/18 14:23	Unload from Instrument
JC65663-1.2.2	Rebecca Krug	Extract Freezer	05/14/18 14:23	Return to Storage
JC65663-1.2.3	Meilly Arbelo	Organics Prep	05/09/18 06:52	Extract from JC65663-1.2
JC65663-1.2.3	Organics Prep	Christine Change	05/11/18 12:06	Extract from JC65663-1.2
JC65663-1.2.3	Christine Change	Extract Storage	05/11/18 12:06	Return to Storage
JC65663-1.2.3	Extract Storage	Christine Change	05/11/18 12:08	Retrieve from Storage
JC65663-1.2.3	Christine Change	GCMSM	05/11/18 12:08	Load on Instrument
JC65663-1.2.3	GCMSM	John Boudreau	05/14/18 16:14	Unload from Instrument
JC65663-1.2.3	John Boudreau	Extract Freezer	05/14/18 16:14	Return to Storage
JC65663-1.3	Secured Storage	Luis Villanueva	05/08/18 16:54	Retrieve from Storage
JC65663-1.3	Luis Villanueva	Secured Staging Area	05/08/18 16:55	Return to Storage
JC65663-1.3	Secured Staging Area	Brian Miller	05/09/18 02:47	Retrieve from Storage
JC65663-1.3	Brian Miller	Secured Storage	05/09/18 10:28	Return to Storage
JC65663-1.3	Secured Storage	Christopher Hall	05/14/18 17:30	Retrieve from Storage
JC65663-1.3	Christopher Hall	Secured Staging Area	05/14/18 17:30	Return to Storage
JC65663-1.3	Secured Staging Area	Jennifer Voitovitch	05/14/18 21:19	Retrieve from Storage
JC65663-1.3	Jennifer Voitovitch	Secured Storage	05/14/18 23:45	Return to Storage
JC65663-1.3.1	Brian Miller	TCLP	05/09/18 02:47	Leachate from JC65663-1.3
JC65663-1.3.1	TCLP	Brian Miller	05/10/18 05:15	Leachate from JC65663-1.3
JC65663-1.3.1	Brian Miller	Secured Storage	05/10/18 05:15	Return to Storage
JC65663-1.3.1	Secured Storage	Jessica Potts	05/10/18 12:48	Retrieve from Storage
JC65663-1.3.1	Jessica Potts	GCMS2V	05/10/18 12:48	Load on Instrument
JC65663-1.3.1	GCMS2V	Jessica Potts	05/11/18 07:48	Unload from Instrument
JC65663-1.3.1	Jessica Potts	Secured Storage	05/11/18 07:48	Return to Storage
JC65663-1.3.2	TCLP	Brian Miller	05/10/18 05:15	Leachate from JC65663-1.3
JC65663-1.3.2	Brian Miller	Secured Storage	05/10/18 05:15	Return to Storage
JC65663-1.5	Secured Storage	Thien Nguyen	05/10/18 09:56	Retrieve from Storage
JC65663-1.5	Thien Nguyen	Secured Storage	05/10/18 09:56	Return to Storage
JC65663-1.5	Secured Storage	Krizhka Cuenta	05/10/18 12:11	Retrieve from Storage
JC65663-1.5	Krizhka Cuenta	Secured Storage	05/10/18 12:11	Return to Storage
JC65663-1.5	Secured Storage	Thien Nguyen	05/11/18 08:26	Retrieve from Storage
JC65663-1.5	Thien Nguyen	Secured Storage	05/11/18 08:26	Return to Storage
JC65663-2.1	Secured Storage	Dave Hunkele	05/08/18 12:24	Retrieve from Storage
JC65663-2.1	Dave Hunkele	Secured Staging Area	05/08/18 12:24	Return to Storage
JC65663-2.1	Secured Staging Area	Jessica Adametz	05/08/18 12:29	Retrieve from Storage
JC65663-2.1	Jessica Adametz	Secured Storage	05/08/18 12:29	Return to Storage
JC65663-2.1	Secured Storage	Luis Villanueva	05/08/18 16:54	Retrieve from Storage
JC65663-2.1	Luis Villanueva	Secured Staging Area	05/08/18 16:55	Return to Storage

SGS Internal Chain of Custody

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/08/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65663-2.1	Secured Staging Area	Brian Miller	05/09/18 02:47	Retrieve from Storage
JC65663-2.1	Brian Miller	Faraja Ombwayo	05/09/18 09:59	Custody Transfer
JC65663-2.1	Secured Storage	Todd Shoemaker	05/10/18 12:09	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC65663-2.1	Todd Shoemaker	Secured Staging Area	05/10/18 12:09	Return to Storage
JC65663-2.1	Secured Staging Area	Colleen Hill	05/10/18 14:58	Retrieve from Storage
JC65663-2.1	Colleen Hill	Secured Storage	05/10/18 16:49	Return to Storage
JC65663-2.1	Secured Storage	Dwayne Johnson	05/18/18 09:29	Retrieve from Storage
JC65663-2.1	Dwayne Johnson	Secured Staging Area	05/18/18 09:29	Return to Storage
JC65663-2.1	Secured Staging Area	Jared O. Onindo	05/18/18 13:13	Retrieve from Storage
JC65663-2.1	Jared O. Onindo	Secured Storage	05/18/18 18:54	Return to Storage
JC65663-2.1.1	Brian Miller	TCLP	05/09/18 02:47	Leachate from JC65663-2.1
JC65663-2.1.1	TCLP	Andrew Csimbok	05/10/18 08:10	Leachate from JC65663-2.1
JC65663-2.1.1	Andrew Csimbok	Secured Storage	05/10/18 08:10	Return to Storage
JC65663-2.1.1	Secured Storage	Vikas Parikh	05/12/18 05:45	Retrieve from Storage
JC65663-2.1.1	Vikas Parikh	Secured Storage	05/12/18 20:35	Return to Storage
JC65663-2.1.2	TCLP	Andrew Csimbok	05/10/18 08:10	Leachate from JC65663-2.1
JC65663-2.1.2	Andrew Csimbok	Secured Storage	05/10/18 08:10	Return to Storage
JC65663-2.1.2	Secured Storage	Bhooma Patel	05/10/18 11:49	Retrieve from Storage
JC65663-2.1.2	Bhooma Patel	Secured Storage	05/10/18 11:50	Return to Storage
JC65663-2.1.3	Bhooma Patel	Metals Digestion	05/10/18 11:49	Digestate from JC65663-2.1.2
JC65663-2.1.3	Metals Digestion	Bhooma Patel	05/10/18 11:50	Digestate from JC65663-2.1.2
JC65663-2.1.3	Bhooma Patel	Metals Digestate Storage	05/10/18 11:50	Return to Storage
JC65663-2.1.4	Colleen Hill	Metals Digestion	05/10/18 16:46	Digestate from JC65663-2.1
JC65663-2.1.4	Metals Digestion	Colleen Hill	05/10/18 16:46	Digestate from JC65663-2.1
JC65663-2.1.4	Colleen Hill	Metals Digestate Storage	05/10/18 16:46	Return to Storage
JC65663-2.1.5	Vikas Parikh	Organics Prep	05/12/18 05:47	Extract from JC65663-2.1.1
JC65663-2.1.5	Organics Prep	Vikas Parikh	05/12/18 11:56	Extract from JC65663-2.1.1
JC65663-2.1.5	Vikas Parikh	Extract Storage	05/12/18 11:56	Return to Storage
JC65663-2.1.5	Extract Storage	John Boudreau	05/14/18 11:00	Retrieve from Storage
JC65663-2.1.5	John Boudreau	GCMS2P	05/14/18 11:00	Load on Instrument
JC65663-2.1.5	GCMS2P	George Sleem	05/14/18 19:16	Unload from Instrument
JC65663-2.1.5	George Sleem	Extract Freezer	05/14/18 19:16	Return to Storage
JC65663-2.1.6	Vikas Parikh	Organics Prep	05/12/18 05:49	Extract from JC65663-2.1.1
JC65663-2.1.6	Organics Prep	Vikas Parikh	05/12/18 11:56	Extract from JC65663-2.1.1
JC65663-2.1.6	Vikas Parikh	Extract Storage	05/12/18 11:56	Return to Storage
JC65663-2.1.6	Extract Storage	Christine Phillips	05/14/18 00:46	Retrieve from Storage
JC65663-2.1.6	Christine Phillips	GC1G	05/14/18 00:46	Load on Instrument

SGS Internal Chain of Custody

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/08/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65663-2.1.7	Vikas Parikh	Organics Prep	05/12/18 20:32	Extract from JC65663-2.1.1
JC65663-2.1.7	Organics Prep	Alexander Arotin	05/13/18 12:42	Extract from JC65663-2.1.1
JC65663-2.1.7	Alexander Arotin	Extract Storage	05/13/18 12:42	Return to Storage
JC65663-2.1.7	Extract Storage	Vincent Drago	05/14/18 16:21	Retrieve from Storage
JC65663-2.1.7	Vincent Drago	GCOA	05/14/18 16:21	Load on Instrument
JC65663-2.2	Secured Storage	Jennifer Voitovitch	05/08/18 18:52	Retrieve from Storage
JC65663-2.2	Jennifer Voitovitch	Secured Staging Area	05/08/18 18:52	Return to Storage
JC65663-2.2	Secured Staging Area	Meilly Arbelo	05/09/18 06:18	Retrieve from Storage
JC65663-2.2	Meilly Arbelo	Secured Storage	05/09/18 14:51	Return to Storage
JC65663-2.2	Secured Storage	Christopher Hall	05/15/18 18:25	Retrieve from Storage
JC65663-2.2	Christopher Hall	Secured Staging Area	05/15/18 18:25	Return to Storage
JC65663-2.2	Secured Staging Area	Hans Seignon	05/16/18 17:08	Retrieve from Storage
JC65663-2.2	Shirley Grzybowski	Secured Storage	05/17/18 07:12	Return to Storage
Analyst unavailable for custody transfer.				
JC65663-2.2	Secured Storage	Sahara Feliciano	05/17/18 20:41	Retrieve from Storage
JC65663-2.2	Sahara Feliciano	Secured Staging Area	05/17/18 20:41	Return to Storage
JC65663-2.2	Secured Staging Area	Rie Iwasaki	05/18/18 08:21	Retrieve from Storage
JC65663-2.2	Rie Iwasaki	Secured Storage	05/18/18 17:37	Return to Storage
JC65663-2.2	Secured Storage	Sahara Feliciano	05/18/18 17:58	Retrieve from Storage
JC65663-2.2	Sahara Feliciano	Secured Staging Area	05/18/18 17:58	Return to Storage
JC65663-2.2	Secured Staging Area	Andrew Csimbok	05/19/18 13:24	Retrieve from Storage
JC65663-2.2	Andrew Csimbok	Secured Storage	05/19/18 17:10	Return to Storage
JC65663-2.2.1	Meilly Arbelo	Organics Prep	05/09/18 06:22	Extract from JC65663-2.2
JC65663-2.2.1	Organics Prep	Sora Lynn Mathurin	05/09/18 14:08	Extract from JC65663-2.2
JC65663-2.2.1	Sora Lynn Mathurin	Extract Storage	05/09/18 14:08	Return to Storage
JC65663-2.2.1	Extract Storage	Tianwei Ruan	05/09/18 18:28	Retrieve from Storage
JC65663-2.2.1	Tianwei Ruan	GC2G	05/09/18 18:28	Load on Instrument
JC65663-2.2.1	GC2G	Edouard Adrian Lee	05/12/18 14:55	Unload from Instrument
JC65663-2.2.1	Edouard Adrian Lee	Extract Freezer	05/12/18 14:55	Return to Storage
JC65663-2.2.2	Meilly Arbelo	Organics Prep	05/09/18 06:45	Extract from JC65663-2.2
JC65663-2.2.2	Organics Prep	Lindsey Lee	05/09/18 21:34	Extract from JC65663-2.2
JC65663-2.2.2	Lindsey Lee	Extract Storage	05/09/18 21:34	Return to Storage
JC65663-2.2.2	Extract Storage	Rebecca Krug	05/10/18 16:49	Retrieve from Storage
JC65663-2.2.2	Rebecca Krug	GC2Y	05/10/18 16:49	Load on Instrument
JC65663-2.2.2	GC2Y	Rebecca Krug	05/14/18 14:23	Unload from Instrument
JC65663-2.2.2	Rebecca Krug	Extract Freezer	05/14/18 14:23	Return to Storage
JC65663-2.2.3	Meilly Arbelo	Organics Prep	05/09/18 06:52	Extract from JC65663-2.2
JC65663-2.2.3	Organics Prep	Christine Change	05/11/18 12:06	Extract from JC65663-2.2
JC65663-2.2.3	Christine Change	Extract Storage	05/11/18 12:06	Return to Storage

SGS Internal Chain of Custody

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/08/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65663-2.2.3	Extract Storage	Christine Change	05/11/18 12:08	Retrieve from Storage
JC65663-2.2.3	Christine Change	GCMSM	05/11/18 12:08	Load on Instrument
JC65663-2.2.3	GCMSM	John Boudreau	05/14/18 16:14	Unload from Instrument
JC65663-2.2.3	John Boudreau	Extract Freezer	05/14/18 16:14	Return to Storage
JC65663-2.3	Secured Storage	Luis Villanueva	05/08/18 16:54	Retrieve from Storage
JC65663-2.3	Luis Villanueva	Secured Staging Area	05/08/18 16:55	Return to Storage
JC65663-2.3	Secured Staging Area	Brian Miller	05/09/18 02:47	Retrieve from Storage
JC65663-2.3	Brian Miller	Secured Storage	05/09/18 10:28	Return to Storage
JC65663-2.3	Secured Storage	Christopher Hall	05/14/18 17:30	Retrieve from Storage
JC65663-2.3	Christopher Hall	Secured Staging Area	05/14/18 17:30	Return to Storage
JC65663-2.3	Secured Staging Area	Jennifer Voitovitch	05/14/18 21:19	Retrieve from Storage
JC65663-2.3	Jennifer Voitovitch	Secured Storage	05/14/18 23:45	Return to Storage
JC65663-2.3.1	Brian Miller	TCLP	05/09/18 02:47	Leachate from JC65663-2.3
JC65663-2.3.1	TCLP	Brian Miller	05/10/18 05:15	Leachate from JC65663-2.3
JC65663-2.3.1	Brian Miller	Secured Storage	05/10/18 05:15	Return to Storage
JC65663-2.3.1	Secured Storage	Jessica Potts	05/10/18 12:48	Retrieve from Storage
JC65663-2.3.1	Jessica Potts	GCMS2V	05/10/18 12:48	Load on Instrument
JC65663-2.3.1	GCMS2V	Jessica Potts	05/11/18 07:48	Unload from Instrument
JC65663-2.3.1	Jessica Potts	Secured Storage	05/11/18 07:48	Return to Storage
JC65663-2.3.2	TCLP	Brian Miller	05/10/18 05:15	Leachate from JC65663-2.3
JC65663-2.3.2	Brian Miller	Secured Storage	05/10/18 05:15	Return to Storage
JC65663-2.3.2	Secured Storage	Jessica Potts	05/14/18 10:39	Retrieve from Storage
JC65663-2.3.2	Jessica Potts	GCMSA	05/14/18 10:39	Load on Instrument
JC65663-2.3.2	GCMSA	Oyinade Ifaturoti	05/15/18 06:23	Unload from Instrument
JC65663-2.3.2	Oyinade Ifaturoti	Secured Storage	05/15/18 06:23	Return to Storage
JC65663-2.5	Secured Storage	Krizhka Cuenta	05/10/18 12:11	Retrieve from Storage
JC65663-2.5	Krizhka Cuenta	Secured Storage	05/10/18 12:11	Return to Storage
JC65663-2.6	Secured Storage	Prashant Shukla	05/12/18 15:54	Retrieve from Storage
JC65663-2.6	Prashant Shukla	GCMSY	05/12/18 15:54	Load on Instrument
JC65663-2.6	GCMSY	Prashant Shukla	05/14/18 10:14	Unload from Instrument
JC65663-2.6	Prashant Shukla		05/14/18 10:14	Depleted

MS Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

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Job Number: JC65663**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2V2015-MB	2V50484.D	1	05/10/18	JP	n/a	n/a	V2V2015

The QC reported here applies to the following samples:**Method:** SW846 8260C

JC65663-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.17	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	106% 76-120%
17060-07-0	1,2-Dichloroethane-D4	119% 64-135%
2037-26-5	Toluene-D8	89% 76-117%
460-00-4	4-Bromofluorobenzene	106% 72-122%

Method Blank Summary

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Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE10833-MB	E252362.D	1	05/11/18	TDN	n/a	n/a	VE10833

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65663-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	500	320	ug/kg	
71-43-2	Benzene	ND	25	5.4	ug/kg	
74-97-5	Bromochloromethane	ND	250	22	ug/kg	
75-27-4	Bromodichloromethane	ND	100	12	ug/kg	
75-25-2	Bromoform	ND	250	16	ug/kg	
74-83-9	Bromomethane	ND	250	35	ug/kg	
78-93-3	2-Butanone (MEK)	ND	500	260	ug/kg	
75-15-0	Carbon disulfide	ND	100	31	ug/kg	
56-23-5	Carbon tetrachloride	ND	100	32	ug/kg	
108-90-7	Chlorobenzene	ND	100	14	ug/kg	
75-00-3	Chloroethane	ND	250	45	ug/kg	
67-66-3	Chloroform	ND	100	16	ug/kg	
74-87-3	Chloromethane	ND	250	49	ug/kg	
110-82-7	Cyclohexane	ND	100	17	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	100	34	ug/kg	
124-48-1	Dibromochloromethane	ND	100	19	ug/kg	
106-93-4	1,2-Dibromoethane	ND	50	12	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	50	26	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	50	14	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	50	24	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	250	30	ug/kg	
75-34-3	1,1-Dichloroethane	ND	50	13	ug/kg	
107-06-2	1,2-Dichloroethane	ND	50	9.0	ug/kg	
75-35-4	1,1-Dichloroethene	ND	50	35	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	50	20	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	50	29	ug/kg	
78-87-5	1,2-Dichloropropane	ND	100	20	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	100	19	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	100	12	ug/kg	
100-41-4	Ethylbenzene	ND	50	14	ug/kg	
76-13-1	Freon 113	ND	250	34	ug/kg	
591-78-6	2-Hexanone	ND	250	140	ug/kg	
98-82-8	Isopropylbenzene	ND	100	12	ug/kg	
79-20-9	Methyl Acetate	ND	250	130	ug/kg	
108-87-2	Methylcyclohexane	ND	100	27	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	50	21	ug/kg	

Method Blank Summary

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Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE10833-MB	E252362.D	1	05/11/18	TDN	n/a	n/a	VE10833

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65663-1

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	250	90	ug/kg	
75-09-2	Methylene chloride	ND	250	130	ug/kg	
100-42-5	Styrene	ND	100	25	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	100	13	ug/kg	
127-18-4	Tetrachloroethene	ND	100	32	ug/kg	
108-88-3	Toluene	ND	50	27	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	250	50	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	250	50	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	100	29	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	100	21	ug/kg	
79-01-6	Trichloroethene	ND	50	27	ug/kg	
75-69-4	Trichlorofluoromethane	ND	250	24	ug/kg	
75-01-4	Vinyl chloride	ND	100	38	ug/kg	
	m,p-Xylene	ND	50	27	ug/kg	
95-47-6	o-Xylene	ND	50	13	ug/kg	
1330-20-7	Xylene (total)	ND	50	13	ug/kg	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	100% 75-127%
17060-07-0	1,2-Dichloroethane-D4	105% 75-130%
2037-26-5	Toluene-D8	93% 80-120%
460-00-4	4-Bromofluorobenzene	95% 79-127%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	4.13	4700	ug/kg	J
	Total TIC, Volatile		0	ug/kg	

Method Blank Summary

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Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY7777-MB	Y179803.D	1	05/12/18	PS	n/a	n/a	VY7777

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65663-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.4	ug/kg	
71-43-2	Benzene	ND	0.50	0.11	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.44	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.24	ug/kg	
75-25-2	Bromoform	ND	5.0	0.31	ug/kg	
74-83-9	Bromomethane	ND	5.0	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	5.2	ug/kg	
75-15-0	Carbon disulfide	ND	2.0	0.61	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.65	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.29	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.90	ug/kg	
67-66-3	Chloroform	ND	2.0	0.32	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.99	ug/kg	
110-82-7	Cyclohexane	ND	2.0	0.34	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.38	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.0	0.25	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.52	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.29	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.48	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.61	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.0	0.71	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.40	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.58	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.40	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.38	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.24	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/kg	
76-13-1	Freon 113	ND	5.0	0.67	ug/kg	
591-78-6	2-Hexanone	ND	5.0	2.8	ug/kg	
98-82-8	Isopropylbenzene	ND	2.0	0.25	ug/kg	
79-20-9	Methyl Acetate	ND	5.0	2.5	ug/kg	
108-87-2	Methylcyclohexane	ND	2.0	0.55	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/kg	

Method Blank Summary

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Job Number: JC65663**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY7777-MB	Y179803.D	1	05/12/18	PS	n/a	n/a	VY7777

The QC reported here applies to the following samples:**Method:** SW846 8260C

JC65663-2

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.8	ug/kg	
75-09-2	Methylene chloride	ND	5.0	2.5	ug/kg	
100-42-5	Styrene	ND	2.0	0.50	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.25	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.64	ug/kg	
108-88-3	Toluene	ND	1.0	0.55	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.58	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.42	ug/kg	
79-01-6	Trichloroethene	ND	1.0	0.55	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	0.48	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.77	ug/kg	
	m,p-Xylene	ND	1.0	0.55	ug/kg	
95-47-6	o-Xylene	ND	1.0	0.25	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.25	ug/kg	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	95% 75-127%
17060-07-0	1,2-Dichloroethane-D4	84% 75-130%
2037-26-5	Toluene-D8	95% 80-120%
460-00-4	4-Bromofluorobenzene	109% 79-127%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

Method Blank Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA9208-MB	A241580.D	1	05/14/18	OI	n/a	n/a	VA9208

The QC reported here applies to the following samples: Method: SW846 8260C

JC65663-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.17	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	100% 76-120%
17060-07-0	1,2-Dichloroethane-D4	98% 64-135%
2037-26-5	Toluene-D8	94% 76-117%
460-00-4	4-Bromofluorobenzene	94% 72-122%

Method Blank Summary

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Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2V2016-MB	2V50506.D	1	05/11/18	JP	n/a	n/a	V2V2016

The QC reported here applies to the following samples:

Method: SW846 8260C

GP12924-LB5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.17	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	109% 76-120%
17060-07-0	1,2-Dichloroethane-D4	120% 64-135%
2037-26-5	Toluene-D8	104% 76-117%
460-00-4	4-Bromofluorobenzene	115% 72-122%

Leachate Blank Summary

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Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GP12924-LB4	2V50485.D	5	05/10/18	JP	05/09/18	GP12924	V2V2015

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65663-1A, JC65663-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.5	0.87	ug/l	
78-93-3	2-Butanone (MEK)	ND	50	24	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	1.7	ug/l	
108-90-7	Chlorobenzene	ND	5.0	1.2	ug/l	
67-66-3	Chloroform	ND	5.0	1.4	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	0.87	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	5.0	2.4	ug/l	
127-18-4	Tetrachloroethene	ND	5.0	2.5	ug/l	
79-01-6	Trichloroethene	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	5.0	3.1	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	109% 76-120%
17060-07-0	1,2-Dichloroethane-D4	116% 64-135%
2037-26-5	Toluene-D8	106% 76-117%
460-00-4	4-Bromofluorobenzene	105% 72-122%

Leachate Blank Summary

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Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GP12924-LB4	A241583.D	5	05/14/18	OI	05/09/18	GP12924	VA9208

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65663-1A, JC65663-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.5	0.87	ug/l	
78-93-3	2-Butanone (MEK)	ND	50	24	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	1.7	ug/l	
108-90-7	Chlorobenzene	ND	5.0	1.2	ug/l	
67-66-3	Chloroform	ND	5.0	1.4	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	0.87	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	5.0	2.4	ug/l	
127-18-4	Tetrachloroethene	ND	5.0	2.5	ug/l	
79-01-6	Trichloroethene	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	5.0	3.1	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	103% 76-120%
17060-07-0	1,2-Dichloroethane-D4	97% 64-135%
2037-26-5	Toluene-D8	96% 76-117%
460-00-4	4-Bromofluorobenzene	95% 72-122%

Leachate Blank Summary

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Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GP12924-LB5	2V50507.D	5	05/11/18	JP	05/09/18	GP12924	V2V2016

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65663-1A, JC65663-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.5	0.87	ug/l	
78-93-3	2-Butanone (MEK)	ND	50	24	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	1.7	ug/l	
108-90-7	Chlorobenzene	ND	5.0	1.2	ug/l	
67-66-3	Chloroform	ND	5.0	1.4	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	0.87	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	5.0	2.4	ug/l	
127-18-4	Tetrachloroethene	ND	5.0	2.5	ug/l	
79-01-6	Trichloroethene	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	5.0	3.1	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	112% 76-120%
17060-07-0	1,2-Dichloroethane-D4	114% 64-135%
2037-26-5	Toluene-D8	98% 76-117%
460-00-4	4-Bromofluorobenzene	94% 72-122%

Blank Spike Summary

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Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2V2015-BS	2V50482.D	1	05/10/18	JP	n/a	n/a	V2V2015

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65663-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	47.8	96	75-122
78-93-3	2-Butanone (MEK)	200	197	99	64-130
56-23-5	Carbon tetrachloride	50	51.5	103	75-148
108-90-7	Chlorobenzene	50	49.6	99	76-124
67-66-3	Chloroform	50	49.7	99	77-124
106-46-7	1,4-Dichlorobenzene	50	51.6	103	71-123
107-06-2	1,2-Dichloroethane	50	52.8	106	66-150
75-35-4	1,1-Dichloroethene	50	53.8	108	61-132
127-18-4	Tetrachloroethene	50	49.7	99	70-136
79-01-6	Trichloroethene	50	48.4	97	79-126
75-01-4	Vinyl chloride	50	43.8	88	56-146

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	107%	76-120%
17060-07-0	1,2-Dichloroethane-D4	116%	64-135%
2037-26-5	Toluene-D8	102%	76-117%
460-00-4	4-Bromofluorobenzene	102%	72-122%

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: JC65663**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE10833-BS	E252360.D	1	05/11/18	TDN	n/a	n/a	VE10833

The QC reported here applies to the following samples:**Method:** SW846 8260C

JC65663-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	10000	14000	140	48-149
71-43-2	Benzene	2500	2400	96	74-117
74-97-5	Bromochloromethane	2500	2860	114	82-121
75-27-4	Bromodichloromethane	2500	2510	100	78-119
75-25-2	Bromoform	2500	3420	137* a	76-130
74-83-9	Bromomethane	2500	2500	100	58-137
78-93-3	2-Butanone (MEK)	10000	12500	125	65-143
75-15-0	Carbon disulfide	2500	2670	107	66-140
56-23-5	Carbon tetrachloride	2500	2620	105	69-136
108-90-7	Chlorobenzene	2500	2420	97	79-117
75-00-3	Chloroethane	2500	2540	102	62-139
67-66-3	Chloroform	2500	2370	95	76-119
74-87-3	Chloromethane	2500	2500	100	52-144
110-82-7	Cyclohexane	2500	2560	102	64-136
96-12-8	1,2-Dibromo-3-chloropropane	2500	3590	144* a	72-124
124-48-1	Dibromochloromethane	2500	2740	110	78-122
106-93-4	1,2-Dibromoethane	2500	3030	121* a	80-116
95-50-1	1,2-Dichlorobenzene	2500	2470	99	77-117
541-73-1	1,3-Dichlorobenzene	2500	2320	93	75-117
106-46-7	1,4-Dichlorobenzene	2500	2360	94	76-115
75-71-8	Dichlorodifluoromethane	2500	2920	117	43-156
75-34-3	1,1-Dichloroethane	2500	2430	97	75-124
107-06-2	1,2-Dichloroethane	2500	2460	98	74-124
75-35-4	1,1-Dichloroethene	2500	2800	112	64-129
156-59-2	cis-1,2-Dichloroethene	2500	2500	100	74-118
156-60-5	trans-1,2-Dichloroethene	2500	2570	103	71-125
78-87-5	1,2-Dichloropropane	2500	2390	96	80-119
10061-01-5	cis-1,3-Dichloropropene	2500	2440	98	80-119
10061-02-6	trans-1,3-Dichloropropene	2500	2550	102	78-119
100-41-4	Ethylbenzene	2500	2400	96	75-118
76-13-1	Freon 113	2500	2890	116	60-181
591-78-6	2-Hexanone	10000	13200	132	63-138
98-82-8	Isopropylbenzene	2500	2480	99	74-122
79-20-9	Methyl Acetate	2500	2700	108	61-140
108-87-2	Methylcyclohexane	2500	2740	110	67-136
1634-04-4	Methyl Tert Butyl Ether	2500	2780	111	75-123

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE10833-BS	E252360.D	1	05/11/18	TDN	n/a	n/a	VE10833

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65663-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	10000	12400	124	73-136
75-09-2	Methylene chloride	2500	2900	116	73-120
100-42-5	Styrene	2500	2610	104	78-120
79-34-5	1,1,2,2-Tetrachloroethane	2500	2860	114	72-120
127-18-4	Tetrachloroethene	2500	2410	96	69-128
108-88-3	Toluene	2500	2310	92	74-117
87-61-6	1,2,3-Trichlorobenzene	2500	3960	158* a	72-133
120-82-1	1,2,4-Trichlorobenzene	2500	3200	128	73-132
71-55-6	1,1,1-Trichloroethane	2500	2560	102	73-131
79-00-5	1,1,2-Trichloroethane	2500	2800	112	79-117
79-01-6	Trichloroethene	2500	2400	96	80-120
75-69-4	Trichlorofluoromethane	2500	2500	100	63-141
75-01-4	Vinyl chloride	2500	2460	98	55-145
	m,p-Xylene	5000	4920	98	75-120
95-47-6	o-Xylene	2500	2480	99	75-119
1330-20-7	Xylene (total)	7500	7390	99	76-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	75-127%
17060-07-0	1,2-Dichloroethane-D4	103%	75-130%
2037-26-5	Toluene-D8	97%	80-120%
460-00-4	4-Bromofluorobenzene	94%	79-127%

(a) High percent recoveries and no associated positive reported in the QC batch.

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: JC65663**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY7777-BS	Y179801.D	1	05/12/18	PS	n/a	n/a	VY7777

The QC reported here applies to the following samples:**Method:** SW846 8260C

JC65663-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	200	139	70	48-149
71-43-2	Benzene	50	45.9	92	74-117
74-97-5	Bromochloromethane	50	55.0	110	82-121
75-27-4	Bromodichloromethane	50	47.6	95	78-119
75-25-2	Bromoform	50	56.9	114	76-130
74-83-9	Bromomethane	50	48.0	96	58-137
78-93-3	2-Butanone (MEK)	200	210	105	65-143
75-15-0	Carbon disulfide	50	43.6	87	66-140
56-23-5	Carbon tetrachloride	50	48.6	97	69-136
108-90-7	Chlorobenzene	50	48.7	97	79-117
75-00-3	Chloroethane	50	49.9	100	62-139
67-66-3	Chloroform	50	45.4	91	76-119
74-87-3	Chloromethane	50	46.7	93	52-144
110-82-7	Cyclohexane	50	46.3	93	64-136
96-12-8	1,2-Dibromo-3-chloropropane	50	50.5	101	72-124
124-48-1	Dibromochloromethane	50	54.1	108	78-122
106-93-4	1,2-Dibromoethane	50	55.7	111	80-116
95-50-1	1,2-Dichlorobenzene	50	49.7	99	77-117
541-73-1	1,3-Dichlorobenzene	50	50.7	101	75-117
106-46-7	1,4-Dichlorobenzene	50	48.3	97	76-115
75-71-8	Dichlorodifluoromethane	50	49.2	98	43-156
75-34-3	1,1-Dichloroethane	50	47.2	94	75-124
107-06-2	1,2-Dichloroethane	50	45.1	90	74-124
75-35-4	1,1-Dichloroethene	50	49.2	98	64-129
156-59-2	cis-1,2-Dichloroethene	50	43.1	86	74-118
156-60-5	trans-1,2-Dichloroethene	50	47.5	95	71-125
78-87-5	1,2-Dichloropropane	50	50.3	101	80-119
10061-01-5	cis-1,3-Dichloropropene	50	55.4	111	80-119
10061-02-6	trans-1,3-Dichloropropene	50	47.8	96	78-119
100-41-4	Ethylbenzene	50	43.6	87	75-118
76-13-1	Freon 113	50	56.9	114	60-181
591-78-6	2-Hexanone	200	207	104	63-138
98-82-8	Isopropylbenzene	50	44.3	89	74-122
79-20-9	Methyl Acetate	50	49.7	99	61-140
108-87-2	Methylcyclohexane	50	44.3	89	67-136
1634-04-4	Methyl Tert Butyl Ether	50	45.5	91	75-123

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY7777-BS	Y179801.D	1	05/12/18	PS	n/a	n/a	VY7777

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65663-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	256	128	73-136
75-09-2	Methylene chloride	50	49.9	100	73-120
100-42-5	Styrene	50	47.0	94	78-120
79-34-5	1,1,2,2-Tetrachloroethane	50	52.6	105	72-120
127-18-4	Tetrachloroethene	50	49.8	100	69-128
108-88-3	Toluene	50	46.6	93	74-117
87-61-6	1,2,3-Trichlorobenzene	50	45.8	92	72-133
120-82-1	1,2,4-Trichlorobenzene	50	45.5	91	73-132
71-55-6	1,1,1-Trichloroethane	50	44.4	89	73-131
79-00-5	1,1,2-Trichloroethane	50	48.2	96	79-117
79-01-6	Trichloroethene	50	45.4	91	80-120
75-69-4	Trichlorofluoromethane	50	49.6	99	63-141
75-01-4	Vinyl chloride	50	48.9	98	55-145
	m,p-Xylene	100	98.5	99	75-120
95-47-6	o-Xylene	50	42.8	86	75-119
1330-20-7	Xylene (total)	150	141	94	76-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	75-127%
17060-07-0	1,2-Dichloroethane-D4	89%	75-130%
2037-26-5	Toluene-D8	93%	80-120%
460-00-4	4-Bromofluorobenzene	106%	79-127%

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA9208-BS	A241578.D	1	05/14/18	OI	n/a	n/a	VA9208

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65663-2A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	46.6	93	75-122
78-93-3	2-Butanone (MEK)	200	189	95	64-130
56-23-5	Carbon tetrachloride	50	51.6	103	75-148
108-90-7	Chlorobenzene	50	51.0	102	76-124
67-66-3	Chloroform	50	45.7	91	77-124
106-46-7	1,4-Dichlorobenzene	50	50.4	101	71-123
107-06-2	1,2-Dichloroethane	50	45.3	91	66-150
75-35-4	1,1-Dichloroethene	50	53.6	107	61-132
127-18-4	Tetrachloroethene	50	51.6	103	70-136
79-01-6	Trichloroethene	50	50.4	101	79-126
75-01-4	Vinyl chloride	50	54.0	108	56-146

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	76-120%
17060-07-0	1,2-Dichloroethane-D4	95%	64-135%
2037-26-5	Toluene-D8	95%	76-117%
460-00-4	4-Bromofluorobenzene	99%	72-122%

* = Outside of Control Limits.

Matrix Spike Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65784-50MS	Y179813.D	1	05/12/18	PS	n/a	n/a	VY7777
JC65784-50	Y179805.D	1	05/12/18	PS	n/a	n/a	VY7777

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65663-2

CAS No.	Compound	JC65784-50	Spike	MS	MS	Limits
		ug/kg	Q	ug/kg	ug/kg	
67-64-1	Acetone	ND	231	108	47	10-157
71-43-2	Benzene	ND	57.8	44.9	78	58-125
74-97-5	Bromochloromethane	ND	57.8	52.3	90	60-127
75-27-4	Bromodichloromethane	ND	57.8	44.4	77	57-128
75-25-2	Bromoform	ND	57.8	49.0	85	48-133
74-83-9	Bromomethane	ND	57.8	44.1	76	31-141
78-93-3	2-Butanone (MEK)	ND	231	166	72	29-146
75-15-0	Carbon disulfide	ND	57.8	39.9	69	47-145
56-23-5	Carbon tetrachloride	ND	57.8	47.9	83	51-143
108-90-7	Chlorobenzene	ND	57.8	44.8	78	54-130
75-00-3	Chloroethane	ND	57.8	47.4	82	22-153
67-66-3	Chloroform	ND	57.8	44.8	78	61-125
74-87-3	Chloromethane	ND	57.8	40.8	71	43-142
110-82-7	Cyclohexane	ND	57.8	45.5	79	37-148
96-12-8	1,2-Dibromo-3-chloropropane	ND	57.8	38.9	67	41-127
124-48-1	Dibromochloromethane	ND	57.8	49.2	85	56-127
106-93-4	1,2-Dibromoethane	ND	57.8	48.1	83	54-121
95-50-1	1,2-Dichlorobenzene	ND	57.8	39.8	69	41-134
541-73-1	1,3-Dichlorobenzene	ND	57.8	41.1	71	41-135
106-46-7	1,4-Dichlorobenzene	ND	57.8	39.0	67	41-133
75-71-8	Dichlorodifluoromethane	ND	57.8	39.3	68	30-153
75-34-3	1,1-Dichloroethane	ND	57.8	46.6	81	61-131
107-06-2	1,2-Dichloroethane	ND	57.8	40.5	70	56-126
75-35-4	1,1-Dichloroethene	ND	57.8	48.0	83	53-132
156-59-2	cis-1,2-Dichloroethene	ND	57.8	42.4	73	57-125
156-60-5	trans-1,2-Dichloroethene	ND	57.8	45.4	79	56-130
78-87-5	1,2-Dichloropropane	ND	57.8	47.8	83	63-126
10061-01-5	cis-1,3-Dichloropropene	ND	57.8	46.7	81	55-126
10061-02-6	trans-1,3-Dichloropropene	ND	57.8	39.4	68	51-126
100-41-4	Ethylbenzene	ND	57.8	41.1	71	49-132
76-13-1	Freon 113	ND	57.8	53.4	92	42-179
591-78-6	2-Hexanone	ND	231	156	67	25-150
98-82-8	Isopropylbenzene	ND	57.8	40.0	69	43-141
79-20-9	Methyl Acetate	ND	57.8	78.3	135	32-158
108-87-2	Methylcyclohexane	ND	57.8	34.4	60	22-158
1634-04-4	Methyl Tert Butyl Ether	ND	57.8	42.9	74	58-123

* = Outside of Control Limits.

Matrix Spike Summary

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Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65784-50MS	Y179813.D	1	05/12/18	PS	n/a	n/a	VY7777
JC65784-50	Y179805.D	1	05/12/18	PS	n/a	n/a	VY7777

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65663-2

CAS No.	Compound	JC65784-50	Spike	MS	MS	Limits	
		ug/kg	Q	ug/kg	ug/kg		%
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		231	197	85	40-140
75-09-2	Methylene chloride	ND		57.8	48.8	84	57-123
100-42-5	Styrene	ND		57.8	41.6	72	46-139
79-34-5	1,1,2,2-Tetrachloroethane	ND		57.8	42.4	73	44-127
127-18-4	Tetrachloroethene	ND		57.8	46.4	80	39-154
108-88-3	Toluene	ND		57.8	45.6	79	54-127
87-61-6	1,2,3-Trichlorobenzene	ND		57.8	30.5	53	17-151
120-82-1	1,2,4-Trichlorobenzene	ND		57.8	30.2	52	19-153
71-55-6	1,1,1-Trichloroethane	ND		57.8	44.5	77	57-138
79-00-5	1,1,2-Trichloroethane	ND		57.8	43.0	74	53-127
79-01-6	Trichloroethene	ND		57.8	43.9	76	52-140
75-69-4	Trichlorofluoromethane	ND		57.8	48.3	84	46-142
75-01-4	Vinyl chloride	ND		57.8	46.0	80	43-146
	m,p-Xylene	ND		116	91.3	79	45-137
95-47-6	o-Xylene	ND		57.8	40.1	69	48-135
1330-20-7	Xylene (total)	ND		173	131	76	46-137

CAS No.	Surrogate Recoveries	MS	JC65784-50	Limits
1868-53-7	Dibromofluoromethane	96%	102%	75-127%
17060-07-0	1,2-Dichloroethane-D4	81%	96%	75-130%
2037-26-5	Toluene-D8	93%	91%	80-120%
460-00-4	4-Bromofluorobenzene	108%	112%	79-127%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65676-1MS	2V50494.D	5	05/10/18	JP	n/a	n/a	V2V2015
JC65676-1MSD	2V50495.D	5	05/10/18	JP	n/a	n/a	V2V2015
JC65676-1	2V50493.D	5	05/10/18	JP	05/09/18	GP12924	V2V2015

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65663-1A

CAS No.	Compound	JC65676-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	250	222	89	250	252	101	13	38-139/13
78-93-3	2-Butanone (MEK)	ND	1000	980	98	1000	960	96	2	58-140/14
56-23-5	Carbon tetrachloride	ND	250	257	103	250	259	104	1	50-161/18
108-90-7	Chlorobenzene	ND	250	241	96	250	239	96	1	65-128/12
67-66-3	Chloroform	ND	250	240	96	250	237	95	1	66-132/14
106-46-7	1,4-Dichlorobenzene	ND	250	248	99	250	245	98	1	63-126/13
107-06-2	1,2-Dichloroethane	ND	250	252	101	250	269	108	7	59-153/15
75-35-4	1,1-Dichloroethene	ND	250	261	104	250	265	106	2	41-144/17
127-18-4	Tetrachloroethene	ND	250	242	97	250	251	100	4	48-145/15
79-01-6	Trichloroethene	ND	250	231	92	250	229	92	1	53-141/15
75-01-4	Vinyl chloride	ND	250	267	107	250	276	110	3	34-151/20

CAS No.	Surrogate Recoveries	MS	MSD	JC65676-1	Limits
1868-53-7	Dibromofluoromethane	109%	107%	110%	76-120%
17060-07-0	1,2-Dichloroethane-D4	115%	123%	129%	64-135%
2037-26-5	Toluene-D8	106%	100%	107%	76-117%
460-00-4	4-Bromofluorobenzene	99%	96%	105%	72-122%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65761-16MS	E252371.D	1	05/11/18	TDN	n/a	n/a	VE10833
JC65761-16MSD	E252372.D	1	05/11/18	TDN	n/a	n/a	VE10833
JC65761-16	E252365.D	1	05/11/18	TDN	n/a	n/a	VE10833

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65663-1

CAS No.	Compound	JC65761-16 ug/kg	Spike Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		382000	502000	131	382000	496000	130	1	10-157/31
71-43-2	Benzene	ND		95500	83300	87	95500	83500	87	0	58-125/22
74-97-5	Bromochloromethane	ND		95500	100000	105	95500	102000	107	2	60-127/22
75-27-4	Bromodichloromethane	ND		95500	87200	91	95500	89400	94	2	57-128/22
75-25-2	Bromoform	ND		95500	121000	127	95500	122000	128	1	48-133/21
74-83-9	Bromomethane	ND		95500	85700	90	95500	87700	92	2	31-141/28
78-93-3	2-Butanone (MEK)	ND		382000	439000	115	382000	451000	118	3	29-146/27
75-15-0	Carbon disulfide	ND		95500	91100	95	95500	92300	97	1	47-145/24
56-23-5	Carbon tetrachloride	ND		95500	91800	96	95500	91200	95	1	51-143/25
108-90-7	Chlorobenzene	ND		95500	85000	89	95500	86400	90	2	54-130/22
75-00-3	Chloroethane	ND		95500	89700	94	95500	91500	96	2	22-153/32
67-66-3	Chloroform	1260	J	95500	83000	86	95500	84700	87	2	61-125/22
74-87-3	Chloromethane	ND		95500	85800	90	95500	86900	91	1	43-142/27
110-82-7	Cyclohexane	ND		95500	96800	101	95500	96400	101	0	37-148/26
96-12-8	1,2-Dibromo-3-chloropropane	ND		95500	127000	133* a	95500	123000	129* a	3	41-127/23
124-48-1	Dibromochloromethane	ND		95500	96800	101	95500	97700	102	1	56-127/21
106-93-4	1,2-Dibromoethane	ND		95500	108000	113	95500	106000	111	2	54-121/21
95-50-1	1,2-Dichlorobenzene	ND		95500	87400	92	95500	86800	91	1	41-134/22
541-73-1	1,3-Dichlorobenzene	ND		95500	82600	86	95500	82700	87	0	41-135/22
106-46-7	1,4-Dichlorobenzene	ND		95500	83500	87	95500	83400	87	0	41-133/22
75-71-8	Dichlorodifluoromethane	ND		95500	105000	110	95500	106000	111	1	30-153/29
75-34-3	1,1-Dichloroethane	6980		95500	89300	86	95500	90400	87	1	61-131/23
107-06-2	1,2-Dichloroethane	ND		95500	85600	90	95500	86900	91	2	56-126/21
75-35-4	1,1-Dichloroethene	70100		95500	149000	83	95500	151000	85	1	53-132/23
156-59-2	cis-1,2-Dichloroethene	51600		95500	125000	77	95500	129000	81	3	57-125/22
156-60-5	trans-1,2-Dichloroethene	ND		95500	91100	95	95500	91200	95	0	56-130/23
78-87-5	1,2-Dichloropropane	ND		95500	83800	88	95500	83600	88	0	63-126/22
10061-01-5	cis-1,3-Dichloropropene	ND		95500	85600	90	95500	85500	90	0	55-126/21
10061-02-6	trans-1,3-Dichloropropene	ND		95500	89500	94	95500	89900	94	0	51-126/21
100-41-4	Ethylbenzene	1640	J	95500	85300	88	95500	85900	88	1	49-132/23
76-13-1	Freon 113	10100		95500	106000	100	95500	108000	102	2	42-179/25
591-78-6	2-Hexanone	ND		382000	467000	122	382000	469000	123	0	25-150/25
98-82-8	Isopropylbenzene	ND		95500	86300	90	95500	86300	90	0	43-141/25
79-20-9	Methyl Acetate	ND		95500	96000	101	95500	101000	106	5	32-158/26
108-87-2	Methylcyclohexane	ND		95500	95600	100	95500	94100	99	2	22-158/30
1634-04-4	Methyl Tert Butyl Ether	ND		95500	93900	98	95500	93600	98	0	58-123/23

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65761-16MS	E252371.D	1	05/11/18	TDN	n/a	n/a	VE10833
JC65761-16MSD	E252372.D	1	05/11/18	TDN	n/a	n/a	VE10833
JC65761-16	E252365.D	1	05/11/18	TDN	n/a	n/a	VE10833

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65663-1

CAS No.	Compound	JC65761-16		Spike	MS	MS	Spike	MSD	MSD	RPD	Limits
		ug/kg	Q	ug/kg	ug/kg	%	ug/kg	ug/kg	%		Rec/RPD
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		382000	437000	114	382000	436000	114	0	40-140/24
75-09-2	Methylene chloride	ND		95500	103000	108	95500	105000	110	2	57-123/23
100-42-5	Styrene	ND		95500	91500	96	95500	93400	98	2	46-139/22
79-34-5	1,1,2,2-Tetrachloroethane	ND		95500	103000	108	95500	102000	107	1	44-127/26
127-18-4	Tetrachloroethene	817000	E	95500	683000	-140* b	95500	696000	-127* b	2	39-154/26
108-88-3	Toluene	3520		95500	84100	84	95500	83800	84	0	54-127/22
87-61-6	1,2,3-Trichlorobenzene	ND		95500	133000	139	95500	129000	135	3	17-151/32
120-82-1	1,2,4-Trichlorobenzene	ND		95500	111000	116	95500	108000	113	3	19-153/32
71-55-6	1,1,1-Trichloroethane	890000	E	95500	738000	-159* b	95500	744000	-153* b	1	57-138/24
79-00-5	1,1,2-Trichloroethane	ND		95500	103000	108	95500	103000	108	0	53-127/22
79-01-6	Trichloroethene	503000	E	95500	450000	-55* b	95500	460000	-45* b	2	52-140/24
75-69-4	Trichlorofluoromethane	ND		95500	94700	99	95500	96000	101	1	46-142/27
75-01-4	Vinyl chloride	1960	J	95500	89400	92	95500	90000	92	1	43-146/26
	m,p-Xylene	5550		191000	176000	89	191000	177000	90	1	45-137/23
95-47-6	o-Xylene	1450	J	95500	87200	90	95500	86900	89	0	48-135/22
1330-20-7	Xylene (total)	7000		287000	263000	89	287000	264000	90	0	46-137/23

CAS No.	Surrogate Recoveries	MS	MSD	JC65761-16	Limits
1868-53-7	Dibromofluoromethane	100%	101%	100%	75-127%
17060-07-0	1,2-Dichloroethane-D4	99%	108%	106%	75-130%
2037-26-5	Toluene-D8	96%	96%	95%	80-120%
460-00-4	4-Bromofluorobenzene	95%	94%	97%	79-127%

(a) Outside control limits due to matrix interference.

(b) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65741-2MS	A241591.D	5	05/14/18	OI	n/a	n/a	VA9208
JC65741-2MSD	A241592.D	5	05/14/18	OI	n/a	n/a	VA9208
JC65741-2	A241586.D	5	05/14/18	OI	05/11/18	GP12985	VA9208

The QC reported here applies to the following samples: Method: SW846 8260C

JC65663-2A

CAS No.	Compound	JC65741-2 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	250	245	98	250	256	102	4	38-139/13
78-93-3	2-Butanone (MEK)	ND	1000	1020	102	1000	1030	103	1	58-140/14
56-23-5	Carbon tetrachloride	ND	250	274	110	250	285	114	4	50-161/18
108-90-7	Chlorobenzene	ND	250	259	104	250	268	107	3	65-128/12
67-66-3	Chloroform	ND	250	251	100	250	256	102	2	66-132/14
106-46-7	1,4-Dichlorobenzene	ND	250	255	102	250	265	106	4	63-126/13
107-06-2	1,2-Dichloroethane	ND	250	236	94	250	247	99	5	59-153/15
75-35-4	1,1-Dichloroethene	ND	250	265	106	250	279	112	5	41-144/17
127-18-4	Tetrachloroethene	ND	250	258	103	250	264	106	2	48-145/15
79-01-6	Trichloroethene	ND	250	257	103	250	270	108	5	53-141/15
75-01-4	Vinyl chloride	ND	250	263	105	250	275	110	4	34-151/20

CAS No.	Surrogate Recoveries	MS	MSD	JC65741-2	Limits
1868-53-7	Dibromofluoromethane	107%	106%	108%	76-120%
17060-07-0	1,2-Dichloroethane-D4	96%	97%	100%	64-135%
2037-26-5	Toluene-D8	97%	96%	94%	76-117%
460-00-4	4-Bromofluorobenzene	100%	100%	94%	72-122%

* = Outside of Control Limits.

Leachate Spike Summary

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Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GP12924-LS3	2V50494A.D	5	05/10/18	JP	05/09/18	GP12924	V2V2015
JC65676-1	2V50493.D	5	05/10/18	JP	05/09/18	GP12924	V2V2015

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65663-1A, JC65663-2A

CAS No.	Compound	JC65676-1 ug/l	Spike Q	ug/l	LS ug/l	LS %	Limits
71-43-2	Benzene	ND	250	222	89		38-139
78-93-3	2-Butanone (MEK)	ND	1000	980	98		58-140
56-23-5	Carbon tetrachloride	ND	250	257	103		50-161
108-90-7	Chlorobenzene	ND	250	241	96		65-128
67-66-3	Chloroform	ND	250	240	96		66-132
106-46-7	1,4-Dichlorobenzene	ND	250	248	99		63-126
107-06-2	1,2-Dichloroethane	ND	250	252	101		59-153
75-35-4	1,1-Dichloroethene	ND	250	261	104		41-144
127-18-4	Tetrachloroethene	ND	250	242	97		48-145
79-01-6	Trichloroethene	ND	250	231	92		53-141
75-01-4	Vinyl chloride	ND	250	267	107		34-151

CAS No.	Surrogate Recoveries	LS	JC65676-1	Limits
1868-53-7	Dibromofluoromethane	109%	110%	76-120%
17060-07-0	1,2-Dichloroethane-D4	115%	129%	64-135%
2037-26-5	Toluene-D8	106%	107%	76-117%
460-00-4	4-Bromofluorobenzene	99%	105%	72-122%

* = Outside of Control Limits.

Duplicate Summary

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Job Number: JC65663**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65784-48DUP	Y179808.D	1	05/12/18	PS	n/a	n/a	VY7777
JC65784-48	Y179804.D	1	05/12/18	PS	n/a	n/a	VY7777

The QC reported here applies to the following samples:**Method:** SW846 8260C

JC65663-2

CAS No.	Compound	JC65784-48 DUP		Q	RPD	Limits
		ug/kg	Q ug/kg			
67-64-1	Acetone	ND	ND		nc	40
71-43-2	Benzene	ND	ND		nc	30
74-97-5	Bromochloromethane	ND	ND		nc	30
75-27-4	Bromodichloromethane	ND	ND		nc	30
75-25-2	Bromoform	ND	ND		nc	30
74-83-9	Bromomethane	ND	ND		nc	30
78-93-3	2-Butanone (MEK)	ND	ND		nc	30
75-15-0	Carbon disulfide	ND	ND		nc	30
56-23-5	Carbon tetrachloride	ND	ND		nc	30
108-90-7	Chlorobenzene	ND	ND		nc	30
75-00-3	Chloroethane	ND	ND		nc	30
67-66-3	Chloroform	ND	ND		nc	30
74-87-3	Chloromethane	ND	ND		nc	30
110-82-7	Cyclohexane	ND	ND		nc	30
96-12-8	1,2-Dibromo-3-chloropropane	ND	ND		nc	30
124-48-1	Dibromochloromethane	ND	ND		nc	30
106-93-4	1,2-Dibromoethane	ND	ND		nc	30
95-50-1	1,2-Dichlorobenzene	ND	ND		nc	30
541-73-1	1,3-Dichlorobenzene	ND	ND		nc	30
106-46-7	1,4-Dichlorobenzene	ND	ND		nc	30
75-71-8	Dichlorodifluoromethane	ND	ND		nc	30
75-34-3	1,1-Dichloroethane	ND	ND		nc	30
107-06-2	1,2-Dichloroethane	ND	ND		nc	30
75-35-4	1,1-Dichloroethene	ND	ND		nc	30
156-59-2	cis-1,2-Dichloroethene	ND	ND		nc	30
156-60-5	trans-1,2-Dichloroethene	ND	ND		nc	30
78-87-5	1,2-Dichloropropane	ND	ND		nc	30
10061-01-5	cis-1,3-Dichloropropene	ND	ND		nc	30
10061-02-6	trans-1,3-Dichloropropene	ND	ND		nc	30
100-41-4	Ethylbenzene	ND	ND		nc	30
76-13-1	Freon 113	ND	ND		nc	30
591-78-6	2-Hexanone	ND	ND		nc	30
98-82-8	Isopropylbenzene	ND	ND		nc	30
79-20-9	Methyl Acetate	ND	ND		nc	30
108-87-2	Methylcyclohexane	ND	ND		nc	30
1634-04-4	Methyl Tert Butyl Ether	ND	ND		nc	30

* = Outside of Control Limits.

Duplicate Summary

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Job Number: JC65663**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65784-48DUP	Y179808.D	1	05/12/18	PS	n/a	n/a	VY7777
JC65784-48	Y179804.D	1	05/12/18	PS	n/a	n/a	VY7777

The QC reported here applies to the following samples:**Method:** SW846 8260C

JC65663-2

CAS No.	Compound	JC65784-48		Q	RPD	Limits
		ug/kg	DUP ug/kg			
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	ND		nc	30
75-09-2	Methylene chloride	ND	ND		nc	36
100-42-5	Styrene	ND	ND		nc	30
79-34-5	1,1,2,2-Tetrachloroethane	ND	ND		nc	30
127-18-4	Tetrachloroethene	ND	ND		nc	30
108-88-3	Toluene	ND	ND		nc	24
87-61-6	1,2,3-Trichlorobenzene	ND	ND		nc	30
120-82-1	1,2,4-Trichlorobenzene	ND	ND		nc	30
71-55-6	1,1,1-Trichloroethane	ND	ND		nc	30
79-00-5	1,1,2-Trichloroethane	ND	ND		nc	30
79-01-6	Trichloroethene	ND	ND		nc	30
75-69-4	Trichlorofluoromethane	ND	ND		nc	30
75-01-4	Vinyl chloride	ND	ND		nc	30
	m,p-Xylene	ND	ND		nc	32
95-47-6	o-Xylene	ND	ND		nc	30
1330-20-7	Xylene (total)	ND	ND		nc	33

CAS No.	Surrogate Recoveries	DUP	JC65784-48	Limits
1868-53-7	Dibromofluoromethane	101%	101%	75-127%
17060-07-0	1,2-Dichloroethane-D4	94%	97%	75-130%
2037-26-5	Toluene-D8	92%	91%	80-120%
460-00-4	4-Bromofluorobenzene	110%	108%	79-127%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V1992-BFB	Injection Date: 04/20/18
Lab File ID: 2V49935.D	Injection Time: 21:15
Instrument ID: GCMS2V	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	28419	19.6	Pass
75	30.0 - 60.0% of mass 95	69003	47.6	Pass
95	Base peak, 100% relative abundance	145059	100.0	Pass
96	5.0 - 9.0% of mass 95	9905	6.83	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	109355	75.4	Pass
175	5.0 - 9.0% of mass 174	8677	5.98 (7.93) ^a	Pass
176	95.0 - 101.0% of mass 174	104872	72.3 (95.9) ^a	Pass
177	5.0 - 9.0% of mass 176	6929	4.78 (6.61) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2V1992-IC1992	2V49936.D	04/20/18	21:44	00:29	Initial cal 0.5
V2V1992-IC1992	2V49937.D	04/20/18	22:10	00:55	Initial cal 1
V2V1992-IC1992	2V49938.D	04/20/18	22:35	01:20	Initial cal 2
V2V1992-IC1992	2V49939.D	04/20/18	23:01	01:46	Initial cal 5
V2V1992-IC1992	2V49940.D	04/20/18	23:26	02:11	Initial cal 10
V2V1992-IC1992	2V49941.D	04/20/18	23:51	02:36	Initial cal 20
V2V1992-ICC1992	2V49942.D	04/21/18	00:17	03:02	Initial cal 50
V2V1992-IC1992	2V49943.D	04/21/18	00:42	03:27	Initial cal 100
V2V1992-IC1992	2V49944.D	04/21/18	01:08	03:53	Initial cal 200
V2V1992-ICV1992	2V49947.D	04/21/18	02:24	05:09	Initial cal verification 50
V2V1992-ICV1992	2V49948.D	04/21/18	02:50	05:35	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	V2V1992-BFB2	Injection Date:	04/23/18
Lab File ID:	2V49951.D	Injection Time:	08:45
Instrument ID:	GCMS2V		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	29075	18.4	Pass
75	30.0 - 60.0% of mass 95	73819	46.8	Pass
95	Base peak, 100% relative abundance	157696	100.0	Pass
96	5.0 - 9.0% of mass 95	10395	6.59	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	118291	75.0	Pass
175	5.0 - 9.0% of mass 174	9358	5.93 (7.91) ^a	Pass
176	95.0 - 101.0% of mass 174	116291	73.7 (98.3) ^a	Pass
177	5.0 - 9.0% of mass 176	7485	4.75 (6.44) ^b	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2V1992-ICV1992	2V49952.D	04/23/18	09:14	00:29	Initial cal verification 50

Instrument Performance Check (BFB)

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V2015-BFB **Injection Date:** 05/10/18
Lab File ID: 2V50477.D **Injection Time:** 06:26
Instrument ID: GCMS2V

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	27829	23.6	Pass
75	30.0 - 60.0% of mass 95	60847	51.6	Pass
95	Base peak, 100% relative abundance	117877	100.0	Pass
96	5.0 - 9.0% of mass 95	8035	6.82	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	88149	74.8	Pass
175	5.0 - 9.0% of mass 174	7165	6.08 (8.13) ^a	Pass
176	95.0 - 101.0% of mass 174	85640	72.7 (97.2) ^a	Pass
177	5.0 - 9.0% of mass 176	5995	5.09 (7.00) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2V2015-CC1992	2V50477.D	05/10/18	06:26	00:00	Continuing cal 20
V2V2014-BS2	2V50478.D	05/10/18	07:06	00:40	Blank Spike
V2V2014-MB2	2V50480.D	05/10/18	08:05	01:39	Method Blank
JC65719-5MS	2V50481.D	05/10/18	08:43	02:17	Matrix Spike
V2V2015-BS	2V50482.D	05/10/18	09:17	02:51	Blank Spike
V2V2015-MB	2V50484.D	05/10/18	10:15	03:49	Method Blank
GP12924-LB4	2V50485.D	05/10/18	10:51	04:25	Leachate Blank
ZZZZZZ	2V50486.D	05/10/18	11:33	05:07	(unrelated sample)
GP12870-LB2	2V50488.D	05/10/18	12:36	06:10	Leachate Blank
ZZZZZZ	2V50489.D	05/10/18	13:06	06:40	(unrelated sample)
ZZZZZZ	2V50490.D	05/10/18	13:32	07:06	(unrelated sample)
JC65663-1A	2V50491.D	05/10/18	13:58	07:32	WC-4
JC65676-1	2V50493.D	05/10/18	14:50	08:24	(used for QC only; not part of job JC65663)
JC65676-1MS	2V50494.D	05/10/18	15:16	08:50	Matrix Spike
GP12924-LS3	2V50494A.D	05/10/18	15:16	08:50	Leachate Spike
JC65676-1MSD	2V50495.D	05/10/18	15:42	09:16	Matrix Spike Duplicate
ZZZZZZ	2V50497.D	05/10/18	16:33	10:07	(unrelated sample)
ZZZZZZ	2V50498.D	05/10/18	16:59	10:33	(unrelated sample)
ZZZZZZ	2V50499.D	05/10/18	17:25	10:59	(unrelated sample)
ZZZZZZ	2V50500.D	05/10/18	17:51	11:25	(unrelated sample)
ZZZZZZ	2V50501.D	05/10/18	18:17	11:51	(unrelated sample)

Instrument Performance Check (BFB)

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V2016-BFB	Injection Date: 05/11/18
Lab File ID: 2V50503.D	Injection Time: 06:36
Instrument ID: GCMS2V	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	28314	21.7	Pass
75	30.0 - 60.0% of mass 95	64748	49.6	Pass
95	Base peak, 100% relative abundance	130437	100.0	Pass
96	5.0 - 9.0% of mass 95	8451	6.48	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	99941	76.6	Pass
175	5.0 - 9.0% of mass 174	8064	6.18 (8.07) ^a	Pass
176	95.0 - 101.0% of mass 174	98029	75.2 (98.1) ^a	Pass
177	5.0 - 9.0% of mass 176	6503	4.99 (6.63) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2V2016-CC1992	2V50503.D	05/11/18	06:36	00:00	Continuing cal 20
V2V2016-BS	2V50504.D	05/11/18	07:14	00:38	Blank Spike
V2V2016-MB	2V50506.D	05/11/18	08:22	01:46	Method Blank
GP12924-LB5	2V50507.D	05/11/18	09:09	02:33	Leachate Blank
ZZZZZZ	2V50508.D	05/11/18	09:35	02:59	(unrelated sample)
ZZZZZZ	2V50509.D	05/11/18	10:01	03:25	(unrelated sample)
ZZZZZZ	2V50510.D	05/11/18	10:27	03:51	(unrelated sample)
JC65677-4	2V50511.D	05/11/18	10:54	04:18	(used for QC only; not part of job JC65663)
ZZZZZZ	2V50512.D	05/11/18	11:19	04:43	(unrelated sample)
ZZZZZZ	2V50513.D	05/11/18	11:45	05:09	(unrelated sample)
ZZZZZZ	2V50514.D	05/11/18	12:11	05:35	(unrelated sample)
ZZZZZZ	2V50515.D	05/11/18	12:37	06:01	(unrelated sample)
JC65677-4MS	2V50516.D	05/11/18	13:03	06:27	Matrix Spike
JC65677-4MSD	2V50517.D	05/11/18	13:28	06:52	Matrix Spike Duplicate
ZZZZZZ	2V50519.D	05/11/18	14:20	07:44	(unrelated sample)
GP12870-LB6	2V50521.D	05/11/18	15:52	09:16	Leachate Blank
ZZZZZZ	2V50522.D	05/11/18	16:18	09:42	(unrelated sample)
ZZZZZZ	2V50523.D	05/11/18	16:43	10:07	(unrelated sample)
ZZZZZZ	2V50524.D	05/11/18	17:09	10:33	(unrelated sample)
ZZZZZZ	2V50525.D	05/11/18	17:35	10:59	(unrelated sample)

Instrument Performance Check (BFB)

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-BFB
Lab File ID: A240801.D
Instrument ID: GCMSA
Injection Date: 04/03/18
Injection Time: 17:23

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	14.95 - 40.0% of mass 95	10680	17.4	Pass
75	30.0 - 60.0% of mass 95	27821	45.2	Pass
95	Base peak, 100% relative abundance	61501	100.0	Pass
96	5.0 - 9.0% of mass 95	4068	6.61	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	51685	84.0	Pass
175	5.0 - 9.0% of mass 174	4265	6.93 (8.25) ^a	Pass
176	95.0 - 101.0% of mass 174	50666	82.4 (98.0) ^a	Pass
177	5.0 - 9.0% of mass 176	3509	5.71 (6.93) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VA9165-IC9165	A240802.D	04/03/18	17:52	00:29	Initial cal 0.2
VA9165-IC9165	A240803.D	04/03/18	18:21	00:58	Initial cal 0.5
VA9165-IC9165	A240804.D	04/03/18	18:50	01:27	Initial cal 1
VA9165-IC9165	A240805.D	04/03/18	19:19	01:56	Initial cal 2
VA9165-IC9165	A240806.D	04/03/18	19:48	02:25	Initial cal 5
VA9165-IC9165	A240807.D	04/03/18	20:17	02:54	Initial cal 10
VA9165-IC9165	A240808.D	04/03/18	20:46	03:23	Initial cal 20
VA9165-ICC9165	A240809.D	04/03/18	21:15	03:52	Initial cal 50
VA9165-IC9165	A240810.D	04/03/18	21:44	04:21	Initial cal 100
VA9165-IC9165	A240811.D	04/03/18	22:13	04:50	Initial cal 200
VA9165-ICV9165	A240814.D	04/03/18	23:40	06:17	Initial cal verification 50
VA9165-ICV9165	A240815.D	04/04/18	00:09	06:46	Initial cal verification 50

Instrument Performance Check (BFB)

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9208-BFB
Lab File ID: A241577.D
Instrument ID: GCMSA
Injection Date: 05/14/18
Injection Time: 06:52

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	14.95 - 40.0% of mass 95	10045	15.2	Pass
75	30.0 - 60.0% of mass 95	28485	43.1	Pass
95	Base peak, 100% relative abundance	66067	100.0	Pass
96	5.0 - 9.0% of mass 95	4234	6.41	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	61552	93.2	Pass
175	5.0 - 9.0% of mass 174	4762	7.21 (7.74) ^a	Pass
176	95.0 - 101.0% of mass 174	59981	90.8 (97.4) ^a	Pass
177	5.0 - 9.0% of mass 176	3752	5.68 (6.26) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VA9208-CC9165	A241577.D	05/14/18	06:52	00:00	Continuing cal 20
VA9208-BS	A241578.D	05/14/18	07:46	00:54	Blank Spike
VA9208-MB	A241580.D	05/14/18	08:47	01:55	Method Blank
GP12870-LB7	A241581.D	05/14/18	09:50	02:58	Leachate Blank
GP12985-LB8	A241582.D	05/14/18	10:21	03:29	Leachate Blank
GP12924-LB4	A241583.D	05/14/18	10:52	04:00	Leachate Blank
JC65663-2A	A241584.D	05/14/18	11:22	04:30	WC-3
ZZZZZZ	A241585.D	05/14/18	11:51	04:59	(unrelated sample)
JC65741-2	A241586.D	05/14/18	12:21	05:29	(used for QC only; not part of job JC65663)
ZZZZZZ	A241587.D	05/14/18	12:50	05:58	(unrelated sample)
ZZZZZZ	A241588.D	05/14/18	13:20	06:28	(unrelated sample)
ZZZZZZ	A241589.D	05/14/18	13:49	06:57	(unrelated sample)
JC65741-2MS	A241591.D	05/14/18	14:48	07:56	Matrix Spike
GP12985-LS4	A241591A.D	05/14/18	14:48	07:56	Leachate Spike
JC65741-2MSD	A241592.D	05/14/18	15:18	08:26	Matrix Spike Duplicate
ZZZZZZ	A241594.D	05/14/18	16:17	09:25	(unrelated sample)
ZZZZZZ	A241595.D	05/14/18	16:46	09:54	(unrelated sample)
ZZZZZZ	A241596.D	05/14/18	17:15	10:23	(unrelated sample)
ZZZZZZ	A241597.D	05/14/18	17:45	10:53	(unrelated sample)
ZZZZZZ	A241598.D	05/14/18	18:15	11:23	(unrelated sample)

Instrument Performance Check (BFB)

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VE10811-BFB	Injection Date: 04/18/18
Lab File ID: E251854.D	Injection Time: 15:08
Instrument ID: GCMSE	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	14156	18.9	Pass
75	30.0 - 60.0% of mass 95	36592	48.8	Pass
95	Base peak, 100% relative abundance	74936	100.0	Pass
96	5.0 - 9.0% of mass 95	4840	6.46	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 150.0% of mass 95	65736	87.7	Pass
175	5.0 - 9.0% of mass 174	4805	6.41 (7.31) ^a	Pass
176	95.0 - 101.0% of mass 174	62728	83.7 (95.4) ^a	Pass
177	5.0 - 9.0% of mass 176	4150	5.54 (6.62) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VE10811-IC10811	E251855.D	04/18/18	16:02	00:54	Initial cal 0.5
VE10811-IC10811	E251856.D	04/18/18	16:32	01:24	Initial cal 1
VE10811-IC10811	E251857.D	04/18/18	17:02	01:54	Initial cal 2
VE10811-IC10811	E251858.D	04/18/18	17:32	02:24	Initial cal 4
VE10811-IC10811	E251859.D	04/18/18	18:02	02:54	Initial cal 8
VE10811-IC10811	E251860.D	04/18/18	18:33	03:25	Initial cal 20
VE10811-ICC10811	E251861.D	04/18/18	19:03	03:55	Initial cal 50
VE10811-IC10811	E251862.D	04/18/18	19:34	04:26	Initial cal 100
VE10811-IC10811	E251863.D	04/18/18	20:05	04:57	Initial cal 200
VE10811-ICV10811	E251866.D	04/18/18	21:36	06:28	Initial cal verification 50
VE10811-ICV10811	E251867.D	04/18/18	22:06	06:58	Initial cal verification 50

Instrument Performance Check (BFB)

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VE10833-BFB	Injection Date: 05/11/18
Lab File ID: E252359.D	Injection Time: 07:46
Instrument ID: GCMSE	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	14034	18.8	Pass
75	30.0 - 60.0% of mass 95	34477	46.2	Pass
95	Base peak, 100% relative abundance	74661	100.0	Pass
96	5.0 - 9.0% of mass 95	5080	6.80	Pass
173	Less than 2.0% of mass 174	202	0.27 (0.30) ^a	Pass
174	50.0 - 150.0% of mass 95	66331	88.8	Pass
175	5.0 - 9.0% of mass 174	5147	6.89 (7.76) ^a	Pass
176	95.0 - 101.0% of mass 174	64416	86.3 (97.1) ^a	Pass
177	5.0 - 9.0% of mass 176	4527	6.06 (7.03) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VE10833-CC10811	E252359.D	05/11/18	07:46	00:00	Continuing cal 50
VE10833-BS	E252360.D	05/11/18	08:28	00:42	Blank Spike
VE10833-MB	E252362.D	05/11/18	09:34	01:48	Method Blank
ZZZZZZ	E252362A.D	05/11/18	09:34	01:48	(unrelated sample)
ZZZZZZ	E252363.D	05/11/18	10:23	02:37	(unrelated sample)
ZZZZZZ	E252364.D	05/11/18	10:54	03:08	(unrelated sample)
JC65761-16	E252365.D	05/11/18	11:24	03:38	(used for QC only; not part of job JC65663)
ZZZZZZ	E252366.D	05/11/18	11:55	04:09	(unrelated sample)
ZZZZZZ	E252367.D	05/11/18	12:26	04:40	(unrelated sample)
ZZZZZZ	E252368.D	05/11/18	12:57	05:11	(unrelated sample)
ZZZZZZ	E252370.D	05/11/18	13:58	06:12	(unrelated sample)
JC65761-16MS	E252371.D	05/11/18	14:29	06:43	Matrix Spike
JC65761-16MSD	E252372.D	05/11/18	15:00	07:14	Matrix Spike Duplicate
JC65663-1	E252374.D	05/11/18	16:01	08:15	WC-4
ZZZZZZ	E252375.D	05/11/18	16:32	08:46	(unrelated sample)

Instrument Performance Check (BFB)

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-BFB	Injection Date: 02/27/18
Lab File ID: Y178404.D	Injection Time: 17:32
Instrument ID: GCMSY	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	10392	17.4	Pass
75	30.0 - 60.0% of mass 95	26546	44.5	Pass
95	Base peak, 100% relative abundance	59720	100.0	Pass
96	5.0 - 9.0% of mass 95	3564	5.97	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	55101	92.3	Pass
175	5.0 - 9.0% of mass 174	4101	6.87 (7.44) ^a	Pass
176	95.0 - 101.0% of mass 174	54221	90.8 (98.4) ^a	Pass
177	5.0 - 9.0% of mass 176	3555	5.95 (6.56) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VY7713-IC7713	Y178405.D	02/27/18	18:24	00:52	Initial cal 0.2
VY7713-IC7713	Y178406.D	02/27/18	18:53	01:21	Initial cal 0.5
VY7713-IC7713	Y178407.D	02/27/18	19:21	01:49	Initial cal 1
VY7713-IC7713	Y178408.D	02/27/18	19:50	02:18	Initial cal 2
VY7713-IC7713	Y178409.D	02/27/18	20:18	02:46	Initial cal 4
VY7713-IC7713	Y178410.D	02/27/18	20:53	03:21	Initial cal 8
VY7713-IC7713	Y178411.D	02/27/18	21:21	03:49	Initial cal 20
VY7713-ICC7713	Y178412.D	02/27/18	21:50	04:18	Initial cal 50
VY7713-IC7713	Y178413.D	02/27/18	22:19	04:47	Initial cal 100
VY7713-IC7713	Y178414.D	02/27/18	22:52	05:20	Initial cal 200
VY7713-ICV7713	Y178417.D	02/28/18	00:17	06:45	Initial cal verification 50
VY7713-ICV7713	Y178418.D	02/28/18	00:45	07:13	Initial cal verification 50

Instrument Performance Check (BFB)

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Job Number: JC65663**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY**Sample:** VY7713-BFB2**Injection Date:** 02/28/18**Lab File ID:** Y178420.D**Injection Time:** 13:40**Instrument ID:** GCMSY

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	12286	18.8	Pass
75	30.0 - 60.0% of mass 95	30709	47.0	Pass
95	Base peak, 100% relative abundance	65304	100.0	Pass
96	5.0 - 9.0% of mass 95	4323	6.62	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	60085	92.0	Pass
175	5.0 - 9.0% of mass 174	5068	7.76 (8.43) ^a	Pass
176	95.0 - 101.0% of mass 174	59149	90.6 (98.4) ^a	Pass
177	5.0 - 9.0% of mass 176	3877	5.94 (6.55) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VY7713-ICV7713	Y178421.D	02/28/18	14:19	00:39	Initial cal verification 50

Instrument Performance Check (BFB)

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7777-BFB
Lab File ID: Y179798.D
Instrument ID: GCMSY
Injection Date: 05/12/18
Injection Time: 11:34

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	12894	16.4	Pass
75	30.0 - 60.0% of mass 95	33320	42.4	Pass
95	Base peak, 100% relative abundance	78557	100.0	Pass
96	5.0 - 9.0% of mass 95	5298	6.74	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	70445	89.7	Pass
175	5.0 - 9.0% of mass 174	5244	6.68 (7.44) ^a	Pass
176	95.0 - 101.0% of mass 174	67523	86.0 (95.9) ^a	Pass
177	5.0 - 9.0% of mass 176	4743	6.04 (7.02) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VY7777-CC7713	Y179799.D	05/12/18	12:08	00:34	Continuing cal 50
VY7777-BS	Y179801.D	05/12/18	13:07	01:33	Blank Spike
VY7777-MB	Y179803.D	05/12/18	14:16	02:42	Method Blank
JC65784-48	Y179804.D	05/12/18	14:45	03:11	(used for QC only; not part of job JC65663)
JC65784-50	Y179805.D	05/12/18	15:13	03:39	(used for QC only; not part of job JC65663)
ZZZZZZ	Y179806.D	05/12/18	15:42	04:08	(unrelated sample)
ZZZZZZ	Y179807.D	05/12/18	16:11	04:37	(unrelated sample)
JC65784-48DUP	Y179808.D	05/12/18	16:39	05:05	Duplicate
ZZZZZZ	Y179809.D	05/12/18	17:19	05:45	(unrelated sample)
ZZZZZZ	Y179810.D	05/12/18	17:48	06:14	(unrelated sample)
ZZZZZZ	Y179811.D	05/12/18	18:17	06:43	(unrelated sample)
JC65784-50MS	Y179813.D	05/12/18	19:14	07:40	Matrix Spike
ZZZZZZ	Y179815.D	05/12/18	20:11	08:37	(unrelated sample)
ZZZZZZ	Y179816.D	05/12/18	20:40	09:06	(unrelated sample)
ZZZZZZ	Y179817.D	05/12/18	21:16	09:42	(unrelated sample)
ZZZZZZ	Y179818.D	05/12/18	21:44	10:10	(unrelated sample)
JC65663-2	Y179820.D	05/12/18	23:11	11:37	WC-3

Instrument Performance Check (BFB)

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Job Number: JC65663**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY**Sample:** VY7781-BFB**Injection Date:** 05/16/18**Lab File ID:** Y179903.D**Injection Time:** 22:31**Instrument ID:** GCMSY

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	9976	15.5	Pass
75	30.0 - 60.0% of mass 95	27234	42.3	Pass
95	Base peak, 100% relative abundance	64333	100.0	Pass
96	5.0 - 9.0% of mass 95	4327	6.73	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	62853	97.7	Pass
175	5.0 - 9.0% of mass 174	4537	7.05 (7.22) ^a	Pass
176	95.0 - 101.0% of mass 174	61040	94.9 (97.1) ^a	Pass
177	5.0 - 9.0% of mass 176	3975	6.18 (6.51) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VY7781-IC7713	Y179904.D	05/16/18	22:59	00:28	Initial cal 0.5
VY7781-IC7713	Y179905.D	05/16/18	23:28	00:57	Initial cal 1
VY7781-IC7713	Y179906.D	05/16/18	23:56	01:25	Initial cal 2
VY7781-IC7713	Y179907.D	05/17/18	00:25	01:54	Initial cal 4
VY7781-IC7713	Y179908.D	05/17/18	00:54	02:23	Initial cal 8
VY7781-IC7713	Y179909.D	05/17/18	01:23	02:52	Initial cal 20
VY7781-IC7713	Y179910.D	05/17/18	01:51	03:20	Initial cal 50
VY7781-IC7713	Y179911.D	05/17/18	02:20	03:49	Initial cal 100
VY7781-IC7713	Y179912.D	05/17/18	02:49	04:18	Initial cal 200
VY7781-ICV7713	Y179914.D	05/17/18	03:46	05:15	Initial cal verification 50

Internal Standard Area Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: V2V2015-CC1992	Injection Date: 05/10/18
Lab File ID: 2V50477.D	Injection Time: 06:26
Instrument ID: GCMS2V	Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	240709	2.27	325821	3.36	481897	3.88	369253	6.16	172869	8.33
Upper Limit ^a	481418	2.77	651642	3.86	963794	4.38	738506	6.66	345738	8.83
Lower Limit ^b	120355	1.77	162911	2.86	240949	3.38	184627	5.66	86435	7.83

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2V2014-BS2	240571	2.27	327803	3.36	486416	3.88	389184	6.16	182221	8.33
V2V2014-MB2	259996	2.27	322928	3.36	470367	3.88	361137	6.16	154635	8.33
JC65719-5MS	269010	2.27	351109	3.36	499675	3.88	413522	6.16	197883	8.33
V2V2015-BS	283340	2.27	377317	3.36	559945	3.88	450420	6.17	209698	8.33
V2V2015-MB	296017	2.27	368752	3.36	529584	3.88	438437	6.16	176422	8.33
GP12924-LB4	262497	2.27	352316	3.36	529152	3.88	399682	6.16	171405	8.33
ZZZZZZ	245446	2.27	340375	3.36	486677	3.88	376789	6.16	168607	8.33
GP12870-LB2	314430	2.27	408400	3.36	627427	3.88	507132	6.16	203550	8.33
ZZZZZZ	239241	2.27	334384	3.36	484039	3.88	370260	6.16	161247	8.33
ZZZZZZ	240957	2.27	271139	3.36	452685	3.88	348667	6.16	167881	8.33
JC65663-1A	256485	2.27	291635	3.36	489814	3.88	371461	6.16	168861	8.33
JC65676-1	264154	2.27	329103	3.36	459968	3.88	369119	6.16	158736	8.33
JC65676-1MS	282835	2.27	347350	3.36	502818	3.88	408188	6.17	193312	8.33
GP12924-LS3	282835	2.27	347350	3.36	502818	3.88	408188	6.17	193312	8.33
JC65676-1MSD	317858	2.27	379888	3.36	528271	3.88	440046	6.16	216398	8.33
ZZZZZZ	290903	2.27	328905	3.36	548780	3.88	414487	6.16	175975	8.33
ZZZZZZ	269380	2.27	322270	3.36	483287	3.88	346239	6.17	164525	8.33
ZZZZZZ	265553	2.27	300162	3.36	499666	3.88	375196	6.16	164882	8.33
ZZZZZZ	260812	2.27	333315	3.36	495306	3.88	397337	6.16	157552	8.33
ZZZZZZ	261854	2.27	333990	3.36	499764	3.88	371230	6.16	159500	8.33

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

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

Internal Standard Area Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: V2V2016-CC1992	Injection Date: 05/11/18
Lab File ID: 2V50503.D	Injection Time: 06:36
Instrument ID: GCMS2V	Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	271362	2.27	299523	3.36	485063	3.88	393896	6.16	180233	8.33
Upper Limit ^a	542724	2.77	599046	3.86	970126	4.38	787792	6.66	360466	8.83
Lower Limit ^b	135681	1.77	149762	2.86	242532	3.38	196948	5.66	90117	7.83

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2V2016-BS	277029	2.27	358239	3.36	526649	3.88	451451	6.17	200914	8.33
V2V2016-MB	314403	2.27	358953	3.36	545693	3.88	440355	6.16	185037	8.33
GP12924-LB5	265387	2.27	283524	3.36	429628	3.88	395418	6.16	192776	8.33
ZZZZZZ	261136	2.27	293934	3.36	476515	3.88	366108	6.16	167736	8.33
ZZZZZZ	271112	2.27	317489	3.36	493467	3.88	392204	6.16	169900	8.33
ZZZZZZ	261953	2.27	339756	3.36	498707	3.88	381284	6.16	165048	8.33
JC65677-4	254504	2.27	303710	3.36	463146	3.88	378572	6.16	164867	8.33
ZZZZZZ	246995	2.27	331517	3.36	475206	3.88	370521	6.16	161170	8.33
ZZZZZZ	247613	2.27	335735	3.36	489707	3.87	374188	6.16	161849	8.33
ZZZZZZ	236624	2.27	327165	3.36	483332	3.88	366074	6.16	158166	8.33
ZZZZZZ	243271	2.27	305316	3.36	422659	3.88	350090	6.16	152539	8.33
JC65677-4MS	250552	2.27	291377	3.36	483105	3.88	384657	6.16	183066	8.33
JC65677-4MSD	293455	2.27	353046	3.36	526475	3.88	417042	6.16	197599	8.33
ZZZZZZ	269879	2.27	347174	3.36	513545	3.88	391606	6.16	176382	8.33
GP12870-LB6	243710	2.26	309170	3.36	468364	3.88	385821	6.16	169593	8.33
ZZZZZZ	235673	2.26	319078	3.36	456489	3.88	368813	6.16	158947	8.33
ZZZZZZ	242319	2.27	298709	3.36	461020	3.87	364988	6.16	158011	8.33
ZZZZZZ	248897	2.27	317213	3.36	461979	3.88	359225	6.16	156282	8.33
ZZZZZZ	248642	2.26	298643	3.36	404607	3.87	334788	6.16	147265	8.33

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

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

Internal Standard Area Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: VA9208-CC9165	Injection Date: 05/14/18
Lab File ID: A241577.D	Injection Time: 06:52
Instrument ID: GCMSA	Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	341719	7.81	231825	10.17	332171	11.11	281873	14.51	155513	17.11
Upper Limit ^a	683438	8.31	463650	10.67	664342	11.61	563746	15.01	311026	17.61
Lower Limit ^b	170860	7.31	115913	9.67	166086	10.61	140937	14.01	77757	16.61

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VA9208-BS	350926	7.81	237216	10.18	353745	11.11	296700	14.51	160922	17.12
VA9208-MB	330455	7.81	221760	10.18	319894	11.11	271421	14.51	161732	17.11
GP12870-LB7	356417	7.81	231860	10.17	338233	11.11	278337	14.51	161491	17.11
GP12985-LB8	334957	7.81	221154	10.18	321536	11.11	267102	14.51	157168	17.12
GP12924-LB4	335365	7.81	219213	10.17	319242	11.11	269960	14.51	158575	17.11
JC65663-2A	334542	7.81	213101	10.17	314108	11.11	261956	14.51	162009	17.12
ZZZZZZ	331590	7.80	206783	10.17	300556	11.11	260914	14.51	156517	17.11
JC65741-2	336714	7.80	207265	10.17	302761	11.11	260344	14.51	158179	17.11
ZZZZZZ	334274	7.81	204039	10.17	300834	11.11	261991	14.51	159434	17.11
ZZZZZZ	332530	7.81	205661	10.17	302806	11.11	257955	14.51	155207	17.11
ZZZZZZ	321071	7.80	196657	10.17	291962	11.11	247726	14.51	151499	17.11
JC65741-2MS	310306	7.81	212560	10.18	336280	11.11	293056	14.51	158509	17.11
GP12985-LS4	310306	7.81	212560	10.18	336280	11.11	293056	14.51	158509	17.11
JC65741-2MSD	320564	7.81	214364	10.17	332024	11.11	294314	14.51	155932	17.11
ZZZZZZ	322467	7.81	214859	10.17	312154	11.11	260741	14.51	155282	17.11
ZZZZZZ	314538	7.80	204470	10.17	302263	11.11	252003	14.51	154619	17.11
ZZZZZZ	305648	7.81	207315	10.17	304788	11.11	255976	14.51	154329	17.11
ZZZZZZ	316193	7.80	206700	10.17	296262	11.11	252508	14.51	152280	17.11
ZZZZZZ	313284	7.80	214565	10.17	307605	11.11	253285	14.51	154351	17.11

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

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

Internal Standard Area Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: VE10833-CC10811	Injection Date: 05/11/18
Lab File ID: E252359.D	Injection Time: 07:46
Instrument ID: GCMSE	Method: SW846 8260C

	IS 1		IS 2		IS 3		IS 4		IS 5	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	171309	7.74	210022	10.01	297715	10.98	293097	14.38	197834	17.02
Upper Limit ^a	342618	8.24	420044	10.51	595430	11.48	586194	14.88	395668	17.52
Lower Limit ^b	85655	7.24	105011	9.51	148858	10.48	146549	13.88	98917	16.52

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VE10833-BS	161307	7.73	200559	10.01	283945	10.98	278876	14.38	191976	17.02
VE10833-MB	167913	7.76	216390	10.01	311002	10.98	320847	14.38	223676	17.02
ZZZZZZ	167913	7.76	216390	10.01	311002	10.98	320847	14.38	223676	17.02
ZZZZZZ	163968	7.76	204808	10.01	286428	10.98	278534	14.38	197527	17.02
ZZZZZZ	164124	7.77	208899	10.01	296614	10.98	314336	14.38	221646	17.02
JC65761-16	167231	7.76	214975	10.01	301995	10.98	307409	14.38	210095	17.02
ZZZZZZ	175918	7.77	205387	10.01	295984	10.97	305260	14.38	218434	17.02
ZZZZZZ	165927	7.77	218847	10.01	308145	10.97	305242	14.38	217950	17.02
ZZZZZZ	163979	7.74	211114	10.01	299662	10.98	298277	14.38	216394	17.02
ZZZZZZ	174041	7.73	224893	10.01	320536	10.98	325811	14.38	232294	17.02
JC65761-16MS	174704	7.75	224729	10.01	323042	10.98	321472	14.38	214239	17.02
JC65761-16MSD	171633	7.76	221814	10.01	321825	10.98	319004	14.38	219416	17.02
JC65663-1 ^c	174628	7.76	228621	10.01	325272	10.97	320879	14.38	227271	17.02
ZZZZZZ	173106	7.78	221861	10.01	320384	10.98	338133	14.38	305551	17.02

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

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

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

(c) Diluted due to high concentration of non-target compound.

Internal Standard Area Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: VY7777-CC7713	Injection Date: 05/12/18
Lab File ID: Y179799.D	Injection Time: 12:08
Instrument ID: GCMSY	Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	98932	6.97	206533	9.20	318504	10.11	315861	13.28	160362	15.60
Upper Limit ^a	197864	7.47	413066	9.70	637008	10.61	631722	13.78	320724	16.10
Lower Limit ^b	49466	6.47	103267	8.70	159252	9.61	157931	12.78	80181	15.10

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VY7777-BS	98720	6.97	211681	9.20	320443	10.11	312338	13.28	153839	15.60
VY7777-MB	69191	6.98	209031	9.20	313079	10.11	288474	13.28	139552	15.60
JC65784-48	100873	6.97	206924	9.20	308410	10.11	300072	13.28	149657	15.60
JC65784-50	94572	6.98	191445	9.20	302800	10.11	305789	13.29	142212	15.60
ZZZZZZ	97941	6.98	195014	9.20	310507	10.11	310045	13.29	142287	15.60
ZZZZZZ	83144	6.98	208547	9.20	319121	10.11	308738	13.29	143456	15.60
JC65784-48DUP	95653	6.97	208305	9.20	323056	10.11	308771	13.28	145335	15.60
ZZZZZZ	96161	6.98	205375	9.20	318360	10.11	301357	13.29	144538	15.60
ZZZZZZ	83257	6.98	208096	9.20	321786	10.11	311916	13.29	146154	15.60
ZZZZZZ	92056	6.97	197755	9.20	311438	10.11	313902	13.28	144165	15.60
JC65784-50MS	86770	6.97	241547	9.20	367178	10.11	350196	13.28	173440	15.60
ZZZZZZ	117136	6.97	239593	9.20	360220	10.11	345192	13.28	167574	15.60
ZZZZZZ	99235	6.98	211440	9.20	318079	10.11	298700	13.28	152344	15.60
ZZZZZZ	70048	6.97	221562	9.20	333196	10.11	313279	13.29	145360	15.60
ZZZZZZ	82227	6.98	220449	9.20	337079	10.11	315371	13.29	151859	15.60
JC65663-2	51538	6.98	191019	9.20	301013	10.11	279361	13.29	119651	15.60

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

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

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

Surrogate Recovery Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8260C	Matrix: LEACHATE
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC65663-1A	2V50491.D	116	124	106	102
JC65663-2A	A241584.D	106	99	96	92
GP12924-LB4	2V50485.D	109	116	106	105
GP12924-LB4	A241583.D	103	97	96	95
GP12924-LB5	2V50507.D	112	114	98	94
GP12924-LS3	2V50494A.D	109	115	106	99
JC65676-1MS	2V50494.D	109	115	106	99
JC65676-1MSD	2V50495.D	107	123	100	96
JC65741-2MS	A241591.D	107	96	97	100
JC65741-2MSD	A241592.D	106	97	96	100
V2V2015-BS	2V50482.D	107	116	102	102
V2V2015-MB	2V50484.D	106	119	89	106
VA9208-BS	A241578.D	99	95	95	99
VA9208-MB	A241580.D	100	98	94	94
V2V2016-MB	2V50506.D	109	120	104	115

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	76-120%
S2 = 1,2-Dichloroethane-D4	64-135%
S3 = Toluene-D8	76-117%
S4 = 4-Bromofluorobenzene	72-122%

6.10.1
6

Surrogate Recovery Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8260C	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC65663-1	E252374.D	102	106	97	95
JC65663-2	Y179820.D	97	83	95	114
JC65761-16MS	E252371.D	100	99	96	95
JC65761-16MSD	E252372.D	101	108	96	94
JC65784-48DUP	Y179808.D	101	94	92	110
JC65784-50MS	Y179813.D	96	81	93	108
VE10833-BS	E252360.D	101	103	97	94
VE10833-MB	E252362.D	100	105	93	95
VY7777-BS	Y179801.D	97	89	93	106
VY7777-MB	Y179803.D	95	84	95	109

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	75-127%
S2 = 1,2-Dichloroethane-D4	75-130%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	79-127%

6.10.2
6

Initial Calibration Summary

Page 1 of 5

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V1992-ICC1992
Lab FileID: 2V49942.D

Response Factor Report MS2V

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)
Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)
Last Update : Mon Apr 23 10:50:09 2018
Response via : Initial Calibration

Calibration Files

10 =2V49940.D 0.5 =2V49936.D 5 =2V49939.D 50 =2V49942.D
100 =2V49943.D 1 =2V49937.D 200 =2V49944.D 20 =2V49941.D
2 =2V49938.D =

Compound	10	0.5	5	50	100	1	200	20	2	Avg	%RSD

1) I Tert Butyl Alcohol-d9	-----ISTD-----										
2) ethanol	0.165	0.176	0.161	0.153	0.136	0.168		0.159	0.171	0.161	7.73
3) tertiary butyl alcohol	1.442	1.627	1.466	1.391	1.347	1.477	1.359	1.414	1.509	1.448	5.95
4) 1,4-dioxane	0.140		0.136	0.134	0.126	0.153	0.123	0.132	0.148	0.137	7.53
5) I pentafluorobenzene	-----ISTD-----										
6) chlorodifluoromethane	0.814	0.879	0.785	0.765	0.729	0.828	0.682	0.801	0.829	0.790	7.43
7) dichlorodifluoromethane	0.992	0.976	0.964	0.951	0.947	1.020	0.874	0.997	0.987	0.967	4.35
8) freon 114										0.000	-1.00
9) freon 142b										0.000	-1.00
10) chloromethane	1.043		1.041	1.036	1.005	1.159	0.910	1.068	1.113	1.047	7.04
11) vinyl chloride	0.871	0.938	0.825	0.835	0.820	0.916	0.804	0.868	0.909	0.865	5.51
12) bromomethane	0.352		0.372	0.272	0.200			0.338	0.423	0.326	24.16
	----- Quadratic regression -----						Coefficient = 0.9997				
	Response Ratio = 0.00486 + 0.34213 *A + -0.07233 *A^2										
13) chloroethane	0.348		0.363	0.306	0.266	0.417		0.345	0.404	0.350	15.01
14) trichlorofluoromethane	1.094	1.087	1.058	1.048	1.050	1.141	1.006	1.105	1.137	1.081	4.09
15) vinyl bromide	0.577	0.650	0.561	0.559	0.557	0.618	0.490	0.580	0.590	0.576	7.72
16) 1,3-butadiene										0.000	-1.00
17) ethyl ether	0.315	0.309	0.300	0.302	0.297	0.341	0.296	0.306	0.323	0.310	4.73
18) 2-chloropropane	0.926	0.944	0.916	0.866	0.863	0.996	0.810	0.918	0.959	0.911	6.19
19) acrolein	0.183	0.204	0.167	0.172	0.165	0.201	0.169	0.179	0.190	0.181	8.07
20) freon 113	0.396	0.403	0.382	0.354	0.369	0.356	0.357	0.384	0.384	0.376	4.80
21) 1,1-dichloroethene	0.990	0.996	0.984	0.948	0.943	0.963	0.915	0.994	0.997	0.970	3.02

Initial Calibration Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V1992-ICC1992
Lab FileID: 2V49942.D

22)	acetone	0.074	0.081	0.072	0.073	0.066	0.083	0.067	0.075	0.074	0.074	7.58
23)	acetonitrile	0.119	0.136	0.113	0.113	0.104	0.131	0.106	0.119	0.121	0.118	9.00
24)	iodomethane	0.272		0.244	0.352	0.431		0.470	0.295	0.247	0.330	27.39
	----- Quadratic regression -----											
											Coefficient =	0.9992
											Response Ratio =	-0.02172 + 0.37944 *A + 0.02435 *A^2
25)	carbon disulfide	1.483	1.811	1.478	1.401	1.393	1.542	1.363	1.482	1.494	1.494	8.84
26)	methylene chloride	0.648	0.780	0.652	0.611	0.602	0.698	0.593	0.646	0.718	0.661	9.25
27)	methyl acetate	0.664	0.708	0.642	0.626	0.589	0.692	0.602	0.651	0.675	0.650	6.10
28)	methyl tert butyl ether	1.845	1.955	1.790	1.786	1.769	1.888	1.737	1.832	1.794	1.822	3.68
29)	trans-1,2-dichloroethene	0.595	0.641	0.576	0.554	0.559	0.620	0.548	0.592	0.587	0.586	5.23
30)	hexane	0.378	0.345	0.352	0.345	0.357	0.330	0.352	0.371	0.365	0.355	4.17
31)	di-isopropyl ether	2.103	2.187	2.041	2.034	2.009	2.097	1.922	2.100	2.066	2.062	3.58
32)	ethyl tert-butyl ether	1.951	1.938	1.865	1.917	1.899	1.986	1.857	1.931	1.902	1.916	2.14
33)	1,1-dichloroethane	1.245	1.265	1.225	1.189	1.189	1.252	1.146	1.245	1.272	1.225	3.44
34)	chloroprene	0.898	0.904	0.864	0.884	0.888	0.837	0.859	0.914	0.888	0.882	2.76
35)	acrylonitrile	0.316	0.331	0.304	0.310	0.287	0.326	0.292	0.321	0.317	0.312	4.71
36)	vinyl acetate	0.099		0.095	0.097	0.095	0.086	0.098	0.099	0.088	0.095	5.29
37)	ethyl acetate	0.148		0.146	0.147	0.135	0.152	0.132	0.152	0.153	0.146	5.46
38)	2-butanone	0.098	0.103	0.095	0.097	0.089	0.096	0.091	0.097	0.094	0.095	4.33
39)	2,2-dichloropropane	0.855	0.867	0.851	0.832	0.831	0.871	0.796	0.845	0.888	0.849	3.17
40)	cis-1,2-dichloroethene	0.670	0.785	0.661	0.644	0.649	0.661	0.628	0.678	0.684	0.673	6.72
41)	propionitrile	0.152	0.152	0.147	0.148	0.133	0.152	0.134	0.152	0.155	0.147	5.41
42)	methyl acrylate	0.133		0.124	0.132	0.124	0.120	0.123	0.135	0.130	0.128	4.34
43)	bromochloromethane	0.313	0.294	0.297	0.307	0.303	0.278	0.279	0.314	0.312	0.300	4.60
44)	tetrahydrofuran	0.115		0.114	0.116	0.108	0.129	0.108	0.121	0.112	0.116	6.13
45)	chloroform	1.226	1.376	1.184	1.176	1.163	1.325	1.129	1.211	1.260	1.228	6.52
46)	dibromofluoromethane (s)	0.496	0.496	0.496	0.506	0.513	0.513	0.503	0.513	0.494	0.503	1.61
47)	methacrylonitrile	0.343	0.321	0.315	0.331	0.314	0.308	0.314	0.338	0.326	0.323	3.74
48)	1,1,1-trichloroethane	0.998	1.094	0.969	0.971	0.962	1.025	0.943	1.004	1.021	0.999	4.55
49)	cyclohexane	0.769	0.852	0.733	0.709	0.724	0.674	0.714	0.751	0.728	0.739	6.77
50)	1,1-dichloropropene											

Initial Calibration Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V1992-ICC1992
Lab FileID: 2V49942.D

	0.913	0.939	0.912	0.874	0.869	0.967	0.843	0.903	0.946	0.907	4.41
51)	carbon tetrachloride										
	0.830	0.857	0.804	0.786	0.778	0.826	0.745	0.814	0.818	0.806	4.06
52)	isobutyl alcohol										
	0.044	0.043	0.039	0.043	0.040	0.042	0.042	0.044	0.040	0.042	4.45
53)	tert-amyl alcohol										
	0.042	0.038	0.040	0.039	0.035	0.040	0.036	0.042	0.041	0.039	6.10
54)	I 1,4-difluorobenzene -----ISTD-----										
55)	1,2-dichloroethane-d4 (s)										
	0.355	0.352	0.342	0.346	0.353	0.360	0.336	0.345	0.339	0.348	2.32
56)	n-butyl alcohol										
	0.019	0.017	0.018	0.020	0.018	0.017	0.019	0.020	0.017	0.019	6.73
57)	benzene										
	1.675	1.806	1.634	1.589	1.570	1.737	1.509	1.650	1.680	1.650	5.41
58)	tert-amyl methyl ether										
	1.259	1.312	1.191	1.224	1.199	1.227	1.160	1.244	1.217	1.226	3.55
59)	iso-octane										
	1.075	1.012	1.026	0.997	1.014	1.007	0.979	1.048	1.035	1.022	2.80
60)	heptane										
	0.224	0.212	0.213	0.206	0.211	0.204	0.208	0.214	0.215	0.212	2.80
61)	isopropyl acetate										
	0.085		0.081	0.085	0.080	0.088	0.080	0.088	0.086	0.084	4.01
62)	1,2-dichloroethane										
	0.634		0.626	0.602	0.581	0.757	0.561	0.626	0.668	0.632	9.56
63)	trichloroethene										
	0.447	0.479	0.437	0.432	0.426	0.484	0.420	0.444	0.465	0.448	5.10
64)	ethyl acrylate										
	0.699	0.667	0.642	0.703	0.664	0.670	0.665	0.709	0.637	0.673	3.84
65)	2-nitropropane										
	0.132		0.114	0.137	0.131	0.141	0.143	0.135	0.121	0.132	7.64
66)	2-chloroethyl vinyl ether										
	0.242		0.204	0.286	0.284		0.276	0.260	0.178	0.247	16.90
67)	methyl methacrylate										
	0.339	0.324	0.310	0.341	0.326	0.322	0.324	0.343	0.309	0.327	3.81
68)	1,2-dichloropropane										
	0.490	0.533	0.468	0.465	0.463	0.481	0.440	0.482	0.488	0.479	5.33
69)	methylcyclohexane										
	0.623	0.574	0.594	0.580	0.596	0.542	0.586	0.611	0.573	0.586	4.00
70)	dibromomethane										
	0.344	0.365	0.326	0.325	0.319	0.370	0.307	0.336	0.335	0.336	6.14
71)	bromodichloromethane										
	0.636	0.669	0.604	0.624	0.622	0.613	0.603	0.631	0.617	0.624	3.23
72)	epichlorohydrin										
	0.057	0.053	0.052	0.056	0.052	0.053	0.053	0.060	0.053	0.054	4.92
73)	cis-1,3-dichloropropene										
	0.715	0.729	0.674	0.715	0.715	0.695	0.683	0.724	0.674	0.703	3.03
74)	4-methyl-2-pentanone										
	0.237	0.216	0.220	0.235	0.216	0.216	0.216	0.239	0.222	0.224	4.51
75)	3-methyl-1-butanol										
	0.016		0.014	0.017	0.015		0.016	0.016	0.013	0.015	9.88
76)	I chlorobenzene-d5 -----ISTD-----										
77)	toluene-d8 (s)										
	1.307	1.300	1.296	1.277	1.276	1.285	1.259	1.297	1.327	1.292	1.54
78)	toluene										
	1.160	1.300	1.157	1.086	1.055	1.167	1.036	1.123	1.196	1.142	7.02
79)	ethyl methacrylate										
	0.690	0.634	0.648	0.701	0.675	0.612	0.673	0.704	0.633	0.663	4.95
80)	trans-1,3-dichloropropene										

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Initial Calibration Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V1992-ICC1992
Lab FileID: 2V49942.D

		0.769	0.719	0.726	0.761	0.754	0.730	0.743	0.766	0.729	0.744	2.55
81)	1,1,2-trichloroethane	0.472	0.509	0.445	0.447	0.427	0.470	0.421	0.456	0.472	0.458	5.86
82)	2-hexanone	0.286	0.258	0.264	0.281	0.253	0.245	0.258	0.289	0.271	0.267	5.75
83)	tetrachloroethene	0.368	0.397	0.365	0.353	0.350	0.367	0.349	0.369	0.389	0.367	4.50
84)	1,3-dichloropropane	0.788	0.840	0.750	0.741	0.717	0.769	0.697	0.763	0.764	0.759	5.40
85)	butyl acetate	0.409	0.422	0.388	0.408	0.380	0.388	0.384	0.413	0.408	0.400	3.76
86)	dibromochloromethane	0.567	0.536	0.524	0.554	0.544	0.543	0.534	0.555	0.530	0.543	2.51
87)	1,2-dibromoethane	0.588	0.622	0.557	0.568	0.545	0.574	0.538	0.571	0.575	0.571	4.32
88)	n-butyl ether	2.090	1.989	1.996	2.032	1.964	1.934	1.863	2.070	1.980	1.991	3.48
89)	chlorobenzene	1.236	1.356	1.188	1.161	1.139	1.247	1.121	1.201	1.242	1.210	5.86
90)	1,1,1,2-tetrachloroethane	0.450	0.423	0.428	0.435	0.435	0.418	0.425	0.442	0.419	0.431	2.52
91)	ethylbenzene	2.151	2.219	2.084	2.079	2.039	2.038	1.958	2.129	2.166	2.096	3.78
92)	m,p-xylene	0.779	0.785	0.752	0.735	0.720	0.741	0.702	0.761	0.777	0.750	3.78
93)	o-xylene	1.696	1.658	1.614	1.620	1.583	1.632	1.561	1.658	1.624	1.627	2.50
94)	styrene	1.290	1.134	1.200	1.257	1.218	1.168	1.196	1.261	1.163	1.210	4.27
95)	butyl acrylate	0.495	0.429	0.449	0.529	0.513	0.407	0.518	0.513	0.436	0.476	9.65
96)	bromoform	0.366	0.334	0.334	0.383	0.374	0.329	0.387	0.372	0.342	0.358	6.48
97)	isopropylbenzene	1.880	1.877	1.830	1.840	1.808	1.791	1.796	1.891	1.866	1.842	2.07
98)	cis-1,4-dichloro-2-butene	0.207		0.182	0.235	0.229		0.245	0.224	0.173	0.213	12.85
99)	I 1,4-dichlorobenzene-d -----ISTD-----											
100)	4-bromofluorobenzene (s)	1.031	1.028	1.018	1.004	1.005	1.019	0.992	1.024	1.032	1.017	1.35
101)	bromobenzene	1.103	1.145	1.064	1.036	1.014	1.119	0.992	1.055	1.062	1.066	4.65
102)	1,1,2,2-tetrachloroethane	1.834	1.797	1.642	1.696	1.602	1.669	1.593	1.739	1.832	1.712	5.48
103)	trans-1,4-dichloro-2-butene	0.357	0.339	0.332	0.373	0.346	0.340	0.360	0.372	0.347	0.352	4.15
104)	1,2,3-trichloropropane	0.372	0.395	0.359	0.354	0.332	0.356	0.327	0.364	0.365	0.358	5.74
105)	n-propylbenzene	5.192	5.105	5.027	4.953	4.779	4.783	4.655	5.089	5.027	4.957	3.62
106)	2-chlorotoluene	1.013	0.960	0.976	0.938	0.906	0.899	0.895	0.958	1.021	0.952	4.91
107)	4-chlorotoluene	0.995	1.081	0.939	0.938	0.904	0.998	0.886	0.966	0.999	0.968	6.10
108)	4-ethyltoluene										0.000	-1.00
109)	1,3,5-trimethylbenzene	3.279	3.170	3.084	3.185	3.100	2.961	3.057	3.225	3.170	3.137	3.06
110)	tert-butylbenzene											

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Initial Calibration Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V1992-ICC1992
Lab FileID: 2V49942.D

	2.600	2.510	2.533	2.528	2.455	2.414	2.454	2.549	2.547	2.510	2.32	
111)	1,2,4-trimethylbenzene	3.380	4.754	3.289	3.197	3.120	3.649	3.087	3.276	3.449	3.467	14.79
112)	sec-butylbenzene	4.069	3.784	3.880	3.951	3.839	3.543	3.814	3.979	3.901	3.862	3.86
113)	1,3-dichlorobenzene	1.877	1.933	1.752	1.801	1.752	1.815	1.752	1.807	1.875	1.818	3.56
114)	p-isopropyltoluene	3.143	3.026	3.060	3.114	3.012	2.674	3.010	3.082	2.971	3.010	4.56
115)	1,4-dichlorobenzene	1.892	2.022	1.850	1.828	1.767	1.884	1.779	1.869	1.969	1.873	4.41
116)	1,2-dichlorobenzene	1.824	1.901	1.732	1.785	1.745	1.737	1.753	1.770	1.760	1.779	3.03
117)	1,4-diethylbenzene										0.000	-1.00
118)	n-butylbenzene	1.661	1.568	1.583	1.691	1.679	1.471	1.686	1.685	1.504	1.614	5.27
119)	1,2,4,5-tetramethylbenzene										0.000	-1.00
120)	1,2-dibromo-3-chloropropane	0.275		0.251	0.310	0.294	0.231	0.316	0.290	0.272	0.280	10.29
121)	1,3,5-trichlorobenzene	1.163	1.202	1.111	1.226	1.213	1.075	1.248	1.181	1.150	1.174	4.75
122)	1,2,4-trichlorobenzene	1.033	0.999	1.004	1.101	1.082	1.013	1.134	1.062	0.983	1.046	4.98
123)	hexachlorobutadiene	0.375	0.390	0.377	0.392	0.391	0.380	0.388	0.381	0.403	0.386	2.28
124)	naphthalene	3.429		3.217	3.582	3.383	3.511	3.440	3.500	3.237	3.412	3.79
125)	1,2,3-trichlorobenzene	1.017	0.991	0.950	1.052	1.027	0.876	1.046	1.019	0.964	0.993	5.64
126)	hexachloroethane	0.457	0.410	0.460	0.498	0.494	0.386	0.523	0.469	0.471	0.463	9.25
127)	Benzyl chloride	2.153	2.181	1.987	2.276	2.199	1.893	2.269	2.200	1.972	2.126	6.54
128)	2-ethylhexyl acrylate	0.577		0.495	0.761	0.814		0.831	0.653		0.689	19.71
129)	2-methylnaphthalene	1.245		1.116	1.502	1.464		1.571	1.364	1.069	1.333	14.61

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

M2V1992.M

Mon Apr 23 10:51:22 2018

RPT1

6.11.1
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Initial Calibration Verification

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V1992-ICV1992
Lab FileID: 2V49947.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2V1992\2V49947.D Vial: 13
Acq On : 21 Apr 2018 2:24 am Operator: JessicaP
Sample : icv1992-50 Inst : MS2V
Misc : MS25736,V2V1992,5,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)
Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)
Last Update : Mon Apr 23 10:50:09 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound		TrueValue	AvgRF	CCRF	%Dev Area%		Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	500.00	1.000	1.000	0.0	102	0.00	2.27
2	ethanol	5000.00	0.161	0.156	3.1	104	0.00	1.78
3 M	tertiary butyl alcohol	250.00	1.448	1.428	1.4	105	0.00	2.32
4	1,4-dioxane	1250.00	0.137	0.137	0.0	105	0.00	4.28
5 I	pentafluorobenzene	50.00	1.000	1.000	0.0	103	0.00	3.36
6	chlorodifluoromethane	-----NA-----						
7	dichlorodifluoromethane	50.00	0.967	1.029	-6.4	111	0.00	1.13
8	freon 114	-----NA-----						
9	freon 142b	-----NA-----						
10	chloromethane	50.00	1.047	1.057	-1.0	105	0.00	1.24
11	vinyl chloride	50.00	0.865	0.828	4.3	102	0.00	1.30
-----TrueValue		CC-RF	Calc.	% Drift	-----		R.T.	
12	bromomethane	50.00	0.338	68.550	-37.1#	128	0.00	1.49
-----TrueValue		AvgRF	CCRF	% Dev	-----		R.T.	
13	chloroethane	50.00	0.350	0.361	-3.1	121	0.00	1.55
14	trichlorofluoromethane	50.00	1.081	1.063	1.7	104	0.00	1.69
15	vinyl bromide	50.00	0.576	0.577	-0.2	106	0.00	1.66
16	1,3-butadiene	-----NA-----						
17	ethyl ether	50.00	0.310	0.299	3.5	102	0.00	1.85
18	2-chloropropane	50.00	0.911	0.911	0.0	108	0.00	1.92
19	acrolein	50.00	0.181	0.193	-6.6	116	0.00	1.93
20	freon 113	50.00	0.376	0.361	4.0	105	0.00	1.99
21	1,1-dichloroethene	50.00	0.970	0.869	10.4	94	0.00	1.99
22	acetone	200.00	0.074	0.075	-1.4	106	0.00	2.01
23	acetonitrile	-----NA-----						
-----TrueValue		CC-RF	Calc.	% Drift	-----		R.T.	
24	iodomethane	50.00	0.048	61.459	-22.9	141	0.00	2.08
-----TrueValue		AvgRF	CCRF	% Dev	-----		R.T.	
25	carbon disulfide	50.00	1.494	1.522	-1.9	112	0.00	2.12
26	methylene chloride	50.00	0.661	0.608	8.0	103	0.00	2.27
27	methyl acetate	50.00	0.650	0.613	5.7	101	0.00	2.18
28	methyl tert butyl ether	50.00	1.822	1.833	-0.6	106	0.00	2.42
29	trans-1,2-dichloroethene	50.00	0.586	0.549	6.3	102	0.00	2.43
30	hexane	50.00	0.355	0.344	3.1	103	0.00	2.59
31	di-isopropyl ether	50.00	2.062	2.067	-0.2	105	0.00	2.70
32	ethyl tert-butyl ether	50.00	1.916	1.930	-0.7	104	0.00	2.92
33 M	1,1-dichloroethane	50.00	1.225	1.183	3.4	102	0.00	2.69

Initial Calibration Verification

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V1992-ICV1992
Lab FileID: 2V49947.D

34	chloroprene	50.00	0.882	0.887	-0.6	103	0.00	2.73
35	acrylonitrile	50.00	0.312	0.349	-11.9	116	0.00	2.40
36	vinyl acetate	50.00	0.095	0.107	-12.6	113	0.00	2.68
37	ethyl acetate	50.00	0.146	0.147	-0.7	103	0.00	3.04
38	2-butanone	200.00	0.095	0.099	-4.2	104	0.00	3.03
39	2,2-dichloropropane	50.00	0.849	0.821	3.3	102	0.00	3.05
40	cis-1,2-dichloroethene	50.00	0.673	0.666	1.0	106	0.00	3.04
41	propionitrile	500.00	0.147	0.147	0.0	102	0.00	3.07
42	methyl acrylate	50.00	0.128	0.133	-3.9	104	0.00	3.07
43	bromochloromethane	50.00	0.300	0.317	-5.7	107	0.00	3.19
44	tetrahydrofuran	50.00	0.116	0.115	0.9	102	0.00	3.20
45	chloroform	50.00	1.228	1.187	3.3	104	0.00	3.25
46 S	dibromofluoromethane (s)	50.00	0.503	0.510	-1.4	104	0.00	3.35
47	methacrylonitrile	50.00	0.323	0.339	-5.0	105	0.00	3.16
48	1,1,1-trichloroethane	50.00	0.999	0.947	5.2	100	0.00	3.36
49	cyclohexane	50.00	0.739	0.769	-4.1	112	0.00	3.41
50	1,1-dichloropropene	50.00	0.907	0.876	3.4	103	0.00	3.46
51	carbon tetrachloride	50.00	0.806	0.771	4.3	101	0.00	3.46
52	isobutyl alcohol	500.00	0.042	0.045	-7.1	107	0.00	3.51
53	tert-amyl alcohol	250.00	0.039	0.040	-2.6	105	0.00	3.59
54 I	1,4-difluorobenzene	50.00	1.000	1.000	0.0	103	0.00	3.88
55 S	1,2-dichloroethane-d4 (s)	50.00	0.348	0.347	0.3	103	0.00	3.58
56	n-butyl alcohol	2500.00	0.019	0.020	-5.3	104	0.00	3.96
57 M	benzene	50.00	1.650	1.603	2.8	104	0.00	3.60
58	tert-amyl methyl ether	50.00	1.226	1.241	-1.2	104	0.00	3.68
59	iso-octane	50.00	1.022	0.971	5.0	100	0.00	3.67
60	heptane	50.00	0.212	0.223	-5.2	111	0.00	3.78
61	isopropyl acetate	50.00	0.084	0.088	-4.8	107	0.00	3.61
62	1,2-dichloroethane	50.00	0.632	0.612	3.2	105	0.00	3.62
63	trichloroethene	50.00	0.448	0.438	2.2	104	0.00	4.04
64	ethyl acrylate	50.00	0.673	0.729	-8.3	107	0.00	4.09
65	2-nitropropane	50.00	0.132	0.149	-12.9	112	0.00	4.58
66	2-chloroethyl vinyl ether	250.00	0.247	0.288	-16.6	104	0.00	4.63
67	methyl methacrylate	50.00	0.327	0.352	-7.6	106	0.00	4.26
68	1,2-dichloropropane	50.00	0.479	0.468	2.3	104	0.00	4.23
69	methylcyclohexane	50.00	0.586	0.569	2.9	101	0.00	4.22
70	dibromomethane	50.00	0.336	0.347	-3.3	110	0.00	4.29
71	bromodichloromethane	50.00	0.624	0.631	-1.1	104	0.00	4.42
72	epichlorohydrin	250.00	0.054	0.057	-5.6	104	0.00	4.66
73	cis-1,3-dichloropropene	50.00	0.703	0.738	-5.0	106	0.00	4.75
74	4-methyl-2-pentanone	200.00	0.224	0.240	-7.1	105	0.00	4.86
75	3-methyl-1-butanol	1000.00	0.015	0.017	-13.3	103	0.00	4.90
76 I	chlorobenzene-d5	50.00	1.000	1.000	0.0	103	0.00	6.17
77 S	toluene-d8 (s)	50.00	1.292	1.279	1.0	103	0.00	4.96
78	toluene	50.00	1.142	1.100	3.7	104	0.00	5.01
79	ethyl methacrylate	50.00	0.663	0.705	-6.3	103	0.00	5.24
80	trans-1,3-dichloropropene	50.00	0.744	0.764	-2.7	103	0.00	5.19
81	1,1,2-trichloroethane	50.00	0.458	0.454	0.9	104	0.00	5.35
82	2-hexanone	200.00	0.267	0.281	-5.2	103	0.00	5.53
83	tetrachloroethene		-----NA-----					
84	1,3-dichloropropane	50.00	0.759	0.777	-2.4	108	0.00	5.49
85	butyl acetate	50.00	0.400	0.431	-7.7	109	0.00	5.63
86	dibromochloromethane	50.00	0.543	0.590	-8.7	109	0.00	5.66
87	1,2-dibromoethane	50.00	0.571	0.587	-2.8	106	0.00	5.77
88	n-butyl ether	50.00	1.991	1.997	-0.3	101	0.00	6.29
89	chlorobenzene	50.00	1.210	1.185	2.1	105	0.00	6.19
90	1,1,1,2-tetrachloroethane	50.00	0.431	0.453	-5.1	107	0.00	6.27
91	ethylbenzene	50.00	2.096	2.111	-0.7	104	0.00	6.28

Initial Calibration Verification

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V1992-ICV1992
Lab FileID: 2V49947.D

92	m, p-xylene	100.00	0.750	0.751	-0.1	105	0.00	6.40
93	o-xylene	50.00	1.627	1.643	-1.0	104	0.00	6.74
94	styrene	50.00	1.210	1.289	-6.5	105	0.00	6.76
95	butyl acrylate	50.00	0.476	0.539	-13.2	105	0.00	6.71
96	bromoform	50.00	0.358	0.415	-15.9	111	0.00	6.91
97	isopropylbenzene	50.00	1.842	1.872	-1.6	105	0.00	7.08
98	cis-1,4-dichloro-2-butene	50.00	0.213	0.232	-8.9	101	0.00	7.14
99 I	1,4-dichlorobenzene-d4	50.00	1.000	1.000	0.0	101	0.00	8.33
100 S	4-bromofluorobenzene (s)	50.00	1.017	1.020	-0.3	103	0.00	7.23
101	bromobenzene	50.00	1.066	1.080	-1.3	106	0.00	7.36
102	1,1,2,2-tetrachloroethane	50.00	1.712	1.713	-0.1	102	0.00	7.37
103	trans-1,4-dichloro-2-bute	50.00	0.352	0.405	-15.1	110	0.00	7.40
104	1,2,3-trichloropropane	50.00	0.358	0.368	-2.8	105	0.00	7.42
105	n-propylbenzene	50.00	4.957	5.022	-1.3	103	0.00	7.47
106	2-chlorotoluene	50.00	0.952	0.950	0.2	103	0.00	7.54
107	4-chlorotoluene	50.00	0.968	0.984	-1.7	106	0.00	7.66
108	4-ethyltoluene		-----NA-----					
109	1,3,5-trimethylbenzene	50.00	3.137	3.222	-2.7	103	0.00	7.65
110	tert-butylbenzene	50.00	2.510	3.218	-28.2	129	0.00	7.94
111	1,2,4-trimethylbenzene	50.00	3.467	3.357	3.2	107	0.00	8.00
112	sec-butylbenzene	50.00	3.862	3.999	-3.5	103	0.00	8.15
113	1,3-dichlorobenzene	50.00	1.818	1.839	-1.2	104	0.00	8.25
114	p-isopropyltoluene	50.00	3.010	3.147	-4.6	103	0.00	8.31
115	1,4-dichlorobenzene	50.00	1.873	1.876	-0.2	104	0.00	8.35
116	1,2-dichlorobenzene	50.00	1.779	1.815	-2.0	103	0.00	8.69
117	1,4-diethylbenzene		-----NA-----					
118	n-butylbenzene	50.00	1.614	1.691	-4.8	101	0.00	8.70
119	1,2,4,5-tetramethylbenzen		-----NA-----					
120	1,2-dibromo-3-chloropropa	50.00	0.280	0.310	-10.7	101	0.00	9.46
121	1,3,5-trichlorobenzene	50.00	1.174	1.225	-4.3	101	0.00	9.64
122	1,2,4-trichlorobenzene	50.00	1.046	1.125	-7.6	104	0.00	10.27
123	hexachlorobutadiene	50.00	0.386	0.385	0.3	100	0.00	10.42
124	naphthalene	50.00	3.412	3.664	-7.4	104	0.00	10.52
125	1,2,3-trichlorobenzene	50.00	0.993	1.043	-5.0	101	0.00	10.73
126	hexachloroethane	50.00	0.463	0.502	-8.4	102	0.00	8.95
127	Benzyl chloride	50.00	2.126	1.866	12.2	83	0.00	8.47
128	2-ethylhexyl acrylate	10.00	0.689	0.826	-19.9	110	0.00	10.52
129	2-methylnaphthalene	25.00	1.333	1.429	-7.2	97	0.00	11.61

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

2V49942.D M2V1992.M

Mon Apr 23 10:51:12 2018 RPT1

Initial Calibration Verification

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V1992-ICV1992
Lab FileID: 2V49948.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2V1992\2V49948.D Vial: 14
Acq On : 21 Apr 2018 2:50 am Operator: JessicaP
Sample : icv1992-50 Inst : MS2V
Misc : MS25736,V2V1992,5,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)
Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)
Last Update : Mon Apr 23 10:47:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	TrueValue	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	500.00	1.000	1.000	0.0	103	0.00	2.27
2	ethanol		-----NA-----					
3 M	tertiary butyl alcohol		-----NA-----					
4	1,4-dioxane		-----NA-----					
5 I	pentafluorobenzene	50.00	1.000	1.000	0.0	104	0.00	3.36
6	chlorodifluoromethane	50.00	0.790	0.927	-17.3	126	0.00	1.14
7	dichlorodifluoromethane		-----NA-----					
8	freon 114		-----NA-----					
9	freon 142b		-----NA-----					
10	chloromethane		-----NA-----					
11	vinyl chloride		-----NA-----					
12	bromomethane		-----NA-----					
13	chloroethane		-----NA-----					
14	trichlorofluoromethane		-----NA-----					
15	vinyl bromide		-----NA-----					
16	1,3-butadiene		-----NA-----					
17	ethyl ether		-----NA-----					
18	2-chloropropane		-----NA-----					
19	acrolein		-----NA-----					
20	freon 113		-----NA-----					
21	1,1-dichloroethene		-----NA-----					
22	acetone		-----NA-----					
23	acetonitrile	500.00	0.118	0.122	-3.4	112	0.00	2.17
24	iodomethane		-----NA-----					
25	carbon disulfide		-----NA-----					
26	methylene chloride		-----NA-----					
27	methyl acetate		-----NA-----					
28	methyl tert butyl ether		-----NA-----					
29	trans-1,2-dichloroethene		-----NA-----					
30	hexane		-----NA-----					
31	di-isopropyl ether		-----NA-----					
32	ethyl tert-butyl ether		-----NA-----					
33 M	1,1-dichloroethane		-----NA-----					
34	chloroprene		-----NA-----					
35	acrylonitrile		-----NA-----					
36	vinyl acetate		-----NA-----					
37	ethyl acetate		-----NA-----					
38	2-butanone		-----NA-----					
39	2,2-dichloropropane		-----NA-----					
40	cis-1,2-dichloroethene		-----NA-----					
41	propionitrile		-----NA-----					

Initial Calibration Verification

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V1992-ICV1992
Lab FileID: 2V49948.D

42	methyl acrylate							
43	bromochloromethane							
44	tetrahydrofuran							
45	chloroform							
46 S	dibromofluoromethane (s)	50.00	0.503	0.498	1.0	102	0.00	3.35
47	methacrylonitrile							
48	1,1,1-trichloroethane							
49	cyclohexane							
50	1,1-dichloropropene							
51	carbon tetrachloride							
52	isobutyl alcohol							
53	tert-amyl alcohol							
54 I	1,4-difluorobenzene	50.00	1.000	1.000	0.0	102	0.00	3.88
55 S	1,2-dichloroethane-d4 (s)	50.00	0.348	0.354	-1.7	104	0.00	3.58
56	n-butyl alcohol							
57 M	benzene							
58	tert-amyl methyl ether							
59	iso-octane							
60	heptane							
61	isopropyl acetate							
62	1,2-dichloroethane							
63	trichloroethene							
64	ethyl acrylate							
65	2-nitropropane							
66	2-chloroethyl vinyl ether							
67	methyl methacrylate							
68	1,2-dichloropropane							
69	methylcyclohexane							
70	dibromomethane							
71	bromodichloromethane							
72	epichlorohydrin							
73	cis-1,3-dichloropropene							
74	4-methyl-2-pentanone							
75	3-methyl-1-butanol							
76 I	chlorobenzene-d5	50.00	1.000	1.000	0.0	98	0.00	6.16
77 S	toluene-d8 (s)	50.00	1.292	1.288	0.3	99	0.00	4.96
78	toluene							
79	ethyl methacrylate							
80	trans-1,3-dichloropropene							
81	1,1,2-trichloroethane							
82	2-hexanone							
83	tetrachloroethene	50.00	0.367	0.361	1.6	101	0.00	5.43
84	1,3-dichloropropane							
85	butyl acetate							
86	dibromochloromethane							
87	1,2-dibromoethane							
88	n-butyl ether							
89	chlorobenzene							
90	1,1,1,2-tetrachloroethane							
91	ethylbenzene							
92	m,p-xylene							
93	o-xylene							
94	styrene							
95	butyl acrylate							
96	bromoform							
97	isopropylbenzene							
98	cis-1,4-dichloro-2-butene							

Initial Calibration Verification

Page 3 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V1992-ICV1992
Lab FileID: 2V49948.D

99	I	1,4-dichlorobenzene-d4	50.00	1.000	1.000	0.0	96	0.00	8.33
100	S	4-bromofluorobenzene (s)	50.00	1.017	1.035	-1.8	99	0.00	7.23
101		bromobenzene		-----	NA	-----			
102		1,1,2,2-tetrachloroethane		-----	NA	-----			
103		trans-1,4-dichloro-2-bute		-----	NA	-----			
104		1,2,3-trichloropropane		-----	NA	-----			
105		n-propylbenzene		-----	NA	-----			
106		2-chlorotoluene		-----	NA	-----			
107		4-chlorotoluene		-----	NA	-----			
108		4-ethyltoluene		-----	NA	-----			
109		1,3,5-trimethylbenzene		-----	NA	-----			
110		tert-butylbenzene		-----	NA	-----			
111		1,2,4-trimethylbenzene		-----	NA	-----			
112		sec-butylbenzene		-----	NA	-----			
113		1,3-dichlorobenzene		-----	NA	-----			
114		p-isopropyltoluene		-----	NA	-----			
115		1,4-dichlorobenzene		-----	NA	-----			
116		1,2-dichlorobenzene		-----	NA	-----			
117		1,4-diethylbenzene		-----	NA	-----			
118		n-butylbenzene		-----	NA	-----			
119		1,2,4,5-tetramethylbenzen		-----	NA	-----			
120		1,2-dibromo-3-chloropropa		-----	NA	-----			
121		1,3,5-trichlorobenzene		-----	NA	-----			
122		1,2,4-trichlorobenzene		-----	NA	-----			
123		hexachlorobutadiene		-----	NA	-----			
124		naphthalene		-----	NA	-----			
125		1,2,3-trichlorobenzene		-----	NA	-----			
126		hexachloroethane		-----	NA	-----			
127		Benzyl chloride		-----	NA	-----			
128		2-ethylhexyl acrylate		-----	NA	-----			
129		2-methylnaphthalene		-----	NA	-----			

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2V49942.D M2V1992.M Mon Apr 23 10:48:25 2018 RPT1

6.11.3

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Initial Calibration Verification

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V1992-ICV1992
Lab FileID: 2V49952.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2V1992\2V49952.D Vial: 2
Acq On : 23 Apr 2018 9:14 am Operator: JessicaP
Sample : icv1992-50 Inst : MS2V
Misc : MS25736,V2V1992,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)
Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)
Last Update : Mon Apr 23 10:47:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	TrueValue	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	500.00	1.000	1.000	0.0	110	0.00	2.27
2	ethanol		-----NA-----					
3 M	tertiary butyl alcohol		-----NA-----					
4	1,4-dioxane		-----NA-----					
5 I	pentafluorobenzene	50.00	1.000	1.000	0.0	113	0.00	3.36
6	chlorodifluoromethane		-----NA-----					
7	dichlorodifluoromethane		-----NA-----					
8	freon 114		-----NA-----					
9	freon 142b		-----NA-----					
10	chloromethane		-----NA-----					
11	vinyl chloride		-----NA-----					
	-----TrueValue	CC-RF	Calc.	% Drift				R.T.
12	bromomethane	50.00	0.273	49.707	0.6	113	0.00	1.49
13	chloroethane		-----NA-----					
14	trichlorofluoromethane		-----NA-----					
15	vinyl bromide		-----NA-----					
16	1,3-butadiene		-----NA-----					
17	ethyl ether		-----NA-----					
18	2-chloropropane		-----NA-----					
19	acrolein		-----NA-----					
20	freon 113		-----NA-----					
21	1,1-dichloroethene		-----NA-----					
22	acetone		-----NA-----					
23	acetonitrile		-----NA-----					
24	iodomethane		-----NA-----					
25	carbon disulfide		-----NA-----					
26	methylene chloride		-----NA-----					
27	methyl acetate		-----NA-----					
28	methyl tert butyl ether		-----NA-----					
29	trans-1,2-dichloroethene		-----NA-----					
30	hexane		-----NA-----					
31	di-isopropyl ether		-----NA-----					
32	ethyl tert-butyl ether		-----NA-----					
33 M	1,1-dichloroethane		-----NA-----					
34	chloroprene		-----NA-----					
35	acrylonitrile		-----NA-----					
36	vinyl acetate		-----NA-----					
37	ethyl acetate		-----NA-----					
38	2-butanone		-----NA-----					
39	2,2-dichloropropane		-----NA-----					

Initial Calibration Verification

Page 2 of 3

Job Number: JC65663
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V1992-ICV1992
 Lab FileID: 2V49952.D

40	cis-1,2-dichloroethene	-----NA-----						
41	propionitrile	-----NA-----						
42	methyl acrylate	-----NA-----						
43	bromochloromethane	-----NA-----						
44	tetrahydrofuran	-----NA-----						
45	chloroform	-----NA-----						
	-----TrueValue		AvgRF	CCRF	% Dev	-----	R.T.	
46 S	dibromofluoromethane (s)	50.00	0.503	0.491	2.4	109	0.00	3.35
47	methacrylonitrile	-----NA-----						
48	1,1,1-trichloroethane	-----NA-----						
49	cyclohexane	-----NA-----						
50	1,1-dichloropropene	-----NA-----						
51	carbon tetrachloride	-----NA-----						
52	isobutyl alcohol	-----NA-----						
53	tert-amyl alcohol	-----NA-----						
54 I	1,4-difluorobenzene	50.00	1.000	1.000	0.0	111	0.00	3.88
55 S	1,2-dichloroethane-d4 (s)	50.00	0.348	0.340	2.3	109	0.00	3.58
56	n-butyl alcohol	-----NA-----						
57 M	benzene	-----NA-----						
58	tert-amyl methyl ether	-----NA-----						
59	iso-octane	-----NA-----						
60	heptane	-----NA-----						
61	isopropyl acetate	-----NA-----						
62	1,2-dichloroethane	-----NA-----						
63	trichloroethene	-----NA-----						
64	ethyl acrylate	-----NA-----						
65	2-nitropropane	-----NA-----						
66	2-chloroethyl vinyl ether	-----NA-----						
67	methyl methacrylate	-----NA-----						
68	1,2-dichloropropane	-----NA-----						
69	methylcyclohexane	-----NA-----						
70	dibromomethane	-----NA-----						
71	bromodichloromethane	-----NA-----						
72	epichlorohydrin	-----NA-----						
73	cis-1,3-dichloropropene	-----NA-----						
74	4-methyl-2-pentanone	-----NA-----						
75	3-methyl-1-butanol	-----NA-----						
76 I	chlorobenzene-d5	50.00	1.000	1.000	0.0	106	0.00	6.16
77 S	toluene-d8 (s)	50.00	1.292	1.296	-0.3	108	0.00	4.96
78	toluene	-----NA-----						
79	ethyl methacrylate	-----NA-----						
80	trans-1,3-dichloropropene	-----NA-----						
81	1,1,2-trichloroethane	-----NA-----						
82	2-hexanone	-----NA-----						
83	tetrachloroethene	-----NA-----						
84	1,3-dichloropropane	-----NA-----						
85	butyl acetate	-----NA-----						
86	dibromochloromethane	-----NA-----						
87	1,2-dibromoethane	-----NA-----						
88	n-butyl ether	-----NA-----						
89	chlorobenzene	-----NA-----						
90	1,1,1,2-tetrachloroethane	-----NA-----						
91	ethylbenzene	-----NA-----						
92	m,p-xylene	-----NA-----						
93	o-xylene	-----NA-----						
94	styrene	-----NA-----						
95	butyl acrylate	-----NA-----						

6.11.4

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Initial Calibration Verification

Page 3 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V1992-ICV1992
Lab FileID: 2V49952.D

96	bromoform								-----NA-----
97	isopropylbenzene								-----NA-----
98	cis-1,4-dichloro-2-butene								-----NA-----
99	I 1,4-dichlorobenzene-d4	50.00	1.000	1.000	0.0	102	0.00	8.33	
100	S 4-bromofluorobenzene (s)	50.00	1.017	1.040	-2.3	106	0.00	7.23	
101	bromobenzene								-----NA-----
102	1,1,2,2-tetrachloroethane								-----NA-----
103	trans-1,4-dichloro-2-bute								-----NA-----
104	1,2,3-trichloropropane								-----NA-----
105	n-propylbenzene								-----NA-----
106	2-chlorotoluene								-----NA-----
107	4-chlorotoluene								-----NA-----
108	4-ethyltoluene								-----NA-----
109	1,3,5-trimethylbenzene								-----NA-----
110	tert-butylbenzene								-----NA-----
111	1,2,4-trimethylbenzene								-----NA-----
112	sec-butylbenzene								-----NA-----
113	1,3-dichlorobenzene								-----NA-----
114	p-isopropyltoluene								-----NA-----
115	1,4-dichlorobenzene								-----NA-----
116	1,2-dichlorobenzene								-----NA-----
117	1,4-diethylbenzene								-----NA-----
118	n-butylbenzene								-----NA-----
119	1,2,4,5-tetramethylbenzen								-----NA-----
120	1,2-dibromo-3-chloropropa								-----NA-----
121	1,3,5-trichlorobenzene								-----NA-----
122	1,2,4-trichlorobenzene								-----NA-----
123	hexachlorobutadiene								-----NA-----
124	naphthalene								-----NA-----
125	1,2,3-trichlorobenzene								-----NA-----
126	hexachloroethane								-----NA-----
127	Benzyl chloride								-----NA-----
128	2-ethylhexyl acrylate								-----NA-----
129	2-methylnaphthalene								-----NA-----

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 2V49942.D M2V1992.M Mon Apr 23 10:48:28 2018 RPT1

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Continuing Calibration Summary

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V2015-CC1992
Lab FileID: 2V50477.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ni...-18\v2v2015\2v50477.d Vial: 2
 Acq On : 10 May 2018 6:26 am Operator: JessicaP
 Sample : cc1992-20 Inst : MS2V
 Misc : MS26169,V2V2015,5,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)
 Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)
 Last Update : Mon Apr 23 10:50:09 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	82	0.00	2.27
2	ethanol	0.161	0.173	-7.5	89	0.00	1.78
3 M	tertiary butyl alcohol	1.448	1.567	-8.2	91	0.00	2.31
4	1,4-dioxane	0.137	0.136	0.7	84	0.00	4.27
5 I	pentafluorobenzene	1.000	1.000	0.0	93	0.00	3.36
6	chlorodifluoromethane	0.790	0.738	6.6	86	0.00	1.14
7	dichlorodifluoromethane	0.967	1.017	-5.2	95	0.00	1.13
8	freon 114			-----NA-----			
9	freon 142b			-----NA-----			
10	chloromethane	1.047	1.107	-5.7	96	0.00	1.24
11	vinyl chloride	0.865	0.943	-9.0	101	0.00	1.30
	----- True	Calc.	% Drift	-----			
12	bromomethane	20.000	20.257	-1.3	91	0.00	1.49
	----- AvgRF	CCRF	% Dev	-----			
13	chloroethane	0.350	0.422	-20.6#	114	0.00	1.55
14	trichlorofluoromethane	1.081	1.020	5.6	86	0.00	1.69
15	vinyl bromide	0.576	0.513	10.9	82	0.00	1.66
16	1,3-butadiene			-----NA-----			
17	ethyl ether	0.310	0.287	7.4	87	0.00	1.85
18	2-chloropropane	0.911	1.023	-12.3	104	0.00	1.92
19	acrolein	0.181	0.171	5.5	89	0.00	1.93
20	freon 113	0.376	0.353	6.1	86	0.00	1.99
21	1,1-dichloroethene	0.970	1.009	-4.0	94	0.00	1.99
22	acetone	0.074	0.070	5.4	88	0.00	2.01
23	acetonitrile	0.118	0.126	-6.8	99	0.00	2.17
	----- True	Calc.	% Drift	-----			
24	iodomethane	20.000	16.341	18.3	83	0.00	2.08
	----- AvgRF	CCRF	% Dev	-----			
25	carbon disulfide	1.494	1.429	4.4	90	0.00	2.12
26	methylene chloride	0.661	0.583	11.8	84	0.00	2.27
27	methyl acetate	0.650	0.711	-9.4	102	0.00	2.18
28	methyl tert butyl ether	1.822	1.735	4.8	88	0.00	2.42
29	trans-1,2-dichloroethene	0.586	0.522	10.9	82	0.00	2.43
30	hexane	0.355	0.374	-5.4	94	0.00	2.59
31	di-isopropyl ether	2.062	2.244	-8.8	99	0.00	2.70
32	ethyl tert-butyl ether	1.916	1.838	4.1	89	0.00	2.92
33 M	1,1-dichloroethane	1.225	1.211	1.1	90	0.00	2.69

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V2015-CC1992
Lab FileID: 2V50477.D

34	chloroprene	0.882	0.925	-4.9	94	0.00	2.73
35	acrylonitrile	0.312	0.316	-1.3	91	0.00	2.40
36	vinyl acetate	0.095	0.088	7.4	83	0.00	2.68
37	ethyl acetate	0.146	0.142	2.7	87	0.00	3.04
38	2-butanone	0.095	0.085	10.5	82	0.00	3.02
39	2,2-dichloropropane	0.849	0.953	-12.2	105	0.00	3.04
40	cis-1,2-dichloroethene	0.673	0.618	8.2	85	0.00	3.04
41	propionitrile	0.147	0.135	8.2	83	0.00	3.06
42	methyl acrylate	0.128	0.120	6.3	83	0.00	3.07
43	bromochloromethane	0.300	0.296	1.3	87	0.00	3.18
44	tetrahydrofuran	0.116	0.105	9.5	81	0.00	3.19
45	chloroform	1.228	1.174	4.4	90	0.00	3.25
46 S	dibromofluoromethane (s)	0.503	0.533	-6.0	97	0.00	3.35
47	methacrylonitrile	0.323	0.301	6.8	83	0.00	3.16
48	1,1,1-trichloroethane	0.999	1.006	-0.7	93	0.00	3.36
49	cyclohexane	0.739	0.598	19.1	74	0.00	3.41
50	1,1-dichloropropene	0.907	0.850	6.3	88	0.00	3.46
51	carbon tetrachloride	0.806	0.858	-6.5	98	0.00	3.46
52	isobutyl alcohol	0.042	0.041	2.4	87	0.00	3.50
53	tert-amyl alcohol	0.039	0.039	0.0	86	0.00	3.58
54 I	1,4-difluorobenzene	1.000	1.000	0.0	91	0.00	3.88
55 S	1,2-dichloroethane-d4 (s)	0.348	0.397	-14.1	105	0.00	3.58
56	n-butyl alcohol	0.019	0.018	5.3	83	0.00	3.95
57 M	benzene	1.650	1.531	7.2	85	0.00	3.60
58	tert-amyl methyl ether	1.226	1.166	4.9	85	0.00	3.67
59	iso-octane	1.022	1.011	1.1	88	0.00	3.67
60	heptane	0.212	0.219	-3.3	93	0.00	3.78
61	isopropyl acetate	0.084	0.081	3.6	84	0.00	3.61
62	1,2-dichloroethane	0.632	0.667	-5.5	97	0.00	3.62
63	trichloroethene	0.448	0.419	6.5	86	0.00	4.04
64	ethyl acrylate	0.673	0.657	2.4	84	0.00	4.09
65	2-nitropropane	0.132	0.161	-22.0#	108	0.00	4.58
66	2-chloroethyl vinyl ether	0.247	0.041	83.4#	14#	0.00	4.63
67	methyl methacrylate	0.327	0.320	2.1	85	0.00	4.26
68	1,2-dichloropropane	0.479	0.460	4.0	87	0.00	4.23
69	methylcyclohexane	0.586	0.549	6.3	82	0.00	4.22
70	dibromomethane	0.336	0.335	0.3	91	0.00	4.29
71	bromodichloromethane	0.624	0.649	-4.0	94	0.00	4.42
72	epichlorohydrin	0.054	0.051	5.6	78	0.00	4.66
73	cis-1,3-dichloropropene	0.703	0.693	1.4	87	0.00	4.75
74	4-methyl-2-pentanone	0.224	0.167	25.4#	63	0.00	4.86
75	3-methyl-1-butanol	0.015	0.012	20.0	66	0.00	4.90
76 I	chlorobenzene-d5	1.000	1.000	0.0	82	0.00	6.16
77 S	toluene-d8 (s)	1.292	1.308	-1.2	83	0.00	4.96
78	toluene	1.142	1.108	3.0	81	0.00	5.01
79	ethyl methacrylate	0.663	0.742	-11.9	86	0.00	5.24
80	trans-1,3-dichloropropene	0.744	0.869	-16.8	93	0.00	5.19
81	1,1,2-trichloroethane	0.458	0.485	-5.9	87	0.00	5.35
82	2-hexanone	0.267	0.303	-13.5	86	0.00	5.53
83	tetrachloroethene	0.367	0.364	0.8	81	0.00	5.43
84	1,3-dichloropropane	0.759	0.814	-7.2	87	0.00	5.49
85	butyl acetate	0.400	0.448	-12.0	89	0.00	5.63
86	dibromochloromethane	0.543	0.597	-9.9	88	0.00	5.66
87	1,2-dibromoethane	0.571	0.596	-4.4	86	0.00	5.76
88	n-butyl ether	1.991	2.257	-13.4	89	0.00	6.29
89	chlorobenzene	1.210	1.189	1.7	81	0.00	6.19
90	1,1,1,2-tetrachloroethane	0.431	0.466	-8.1	87	0.00	6.27
91	ethylbenzene	2.096	2.178	-3.9	84	0.00	6.28

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Continuing Calibration Summary

Page 3 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V2015-CC1992
Lab FileID: 2V50477.D

92	m,p-xylene	0.750	0.756	-0.8	81	0.00	6.40
93	o-xylene	1.627	1.713	-5.3	85	0.00	6.74
94	styrene	1.210	1.286	-6.3	84	0.00	6.75
95	butyl acrylate	0.476	0.560	-17.6	90	0.00	6.71
96	bromoform	0.358	0.408	-14.0	90	0.00	6.91
97	isopropylbenzene	1.842	1.886	-2.4	82	0.00	7.07
98	cis-1,4-dichloro-2-butene	0.213	0.225	-5.6	82	0.00	7.14
99 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	83	0.00	8.33
100 S	4-bromofluorobenzene (s)	1.017	1.026	-0.9	83	0.00	7.23
101	bromobenzene	1.066	1.054	1.1	83	0.00	7.36
102	1,1,2,2-tetrachloroethane	1.712	1.824	-6.5	87	0.00	7.37
103	trans-1,4-dichloro-2-bute	0.352	0.392	-11.4	87	0.00	7.40
104	1,2,3-trichloropropane	0.358	0.375	-4.7	85	0.00	7.42
105	n-propylbenzene	4.957	5.212	-5.1	85	0.00	7.47
106	2-chlorotoluene	0.952	0.973	-2.2	84	0.00	7.54
107	4-chlorotoluene	0.968	0.968	0.0	83	0.00	7.66
108	4-ethyltoluene			-----NA-----			
109	1,3,5-trimethylbenzene	3.137	3.260	-3.9	84	0.00	7.65
110	tert-butylbenzene	2.510	2.522	-0.5	82	0.00	7.93
111	1,2,4-trimethylbenzene	3.467	3.331	3.9	84	0.00	8.00
112	sec-butylbenzene	3.862	4.012	-3.9	84	0.00	8.15
113	1,3-dichlorobenzene	1.818	1.832	-0.8	84	0.00	8.25
114	p-isopropyltoluene	3.010	3.115	-3.5	84	0.00	8.31
115	1,4-dichlorobenzene	1.873	1.906	-1.8	84	0.00	8.35
116	1,2-dichlorobenzene	1.779	1.818	-2.2	85	0.00	8.69
117	1,4-diethylbenzene			-----NA-----			
118	n-butylbenzene	1.614	1.731	-7.2	85	0.00	8.70
119	1,2,4,5-tetramethylbenzen			-----NA-----			
120	1,2-dibromo-3-chloropropa	0.280	0.307	-9.6	88	0.00	9.46
121	1,3,5-trichlorobenzene	1.174	1.196	-1.9	84	0.00	9.64
122	1,2,4-trichlorobenzene	1.046	1.086	-3.8	85	0.00	10.26
123	hexachlorobutadiene	0.386	0.387	-0.3	84	0.00	10.42
124	naphthalene	3.412	3.466	-1.6	82	0.00	10.51
125	1,2,3-trichlorobenzene	0.993	1.048	-5.5	85	0.00	10.73
126	hexachloroethane	0.463	0.474	-2.4	84	0.00	8.95
127	Benzyl chloride	2.126	2.711	-27.5#	102	0.00	8.46
128	2-ethylhexyl acrylate	0.689	0.669	2.9	85	0.00	10.52
129	2-methylnaphthalene	1.333	1.315	1.4	80	0.00	11.60

(#) = Out of Range
 2V49941.D M2V1992.M

SPCC's out = 0 CCC's out = 0
 Fri May 11 11:14:29 2018

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Continuing Calibration Summary

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V2016-CC1992
Lab FileID: 2V50503.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\eu...418\v2v2016\2v50503.d Vial: 2
 Acq On : 11 May 2018 6:36 am Operator: JessicaP
 Sample : cc1992-20 Inst : MS2V
 Misc : MS26188,V2V2016,5,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)
 Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)
 Last Update : Mon Apr 23 10:50:09 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	92	0.00	2.27
2	ethanol	0.161	0.165	-2.5	96	0.00	1.78
3 M	tertiary butyl alcohol	1.448	1.464	-1.1	96	0.00	2.31
4	1,4-dioxane	0.137	0.116	15.3	81	0.00	4.27
5 I	pentafluorobenzene	1.000	1.000	0.0	85	0.00	3.36
6	chlorodifluoromethane	0.790	0.850	-7.6	91	0.00	1.14
7	dichlorodifluoromethane	0.967	1.043	-7.9	89	0.00	1.13
8	freon 114			-----NA-----			
9	freon 142b			-----NA-----			
10	chloromethane	1.047	1.246	-19.0	100	0.00	1.24
11	vinyl chloride	0.865	1.040	-20.2#	102	0.00	1.30
	----- True		Calc.	% Drift			
12	bromomethane	20.000	32.879	-64.4#	126	0.00	1.49
	----- AvgRF		CCRF	% Dev			
13	chloroethane	0.350	0.431	-23.1#	107	0.00	1.55
14	trichlorofluoromethane	1.081	1.120	-3.6	87	0.00	1.70
15	vinyl bromide	0.576	0.604	-4.9	89	0.00	1.66
16	1,3-butadiene			-----NA-----			
17	ethyl ether	0.310	0.335	-8.1	94	0.00	1.85
18	2-chloropropane	0.911	1.185	-30.1#	110	0.00	1.92
19	acrolein	0.181	0.206	-13.8	98	0.00	1.93
20	freon 113	0.376	0.401	-6.6	89	0.00	1.99
21	1,1-dichloroethene	0.970	1.157	-19.3	99	0.00	1.99
22	acetone	0.074	0.083	-12.2	95	0.00	2.01
23	acetonitrile	0.118	0.146	-23.7#	105	0.00	2.17
	----- True		Calc.	% Drift			
24	iodomethane	20.000	21.036	-5.2	103	0.00	2.08
	----- AvgRF		CCRF	% Dev			
25	carbon disulfide	1.494	1.624	-8.7	94	0.00	2.12
26	methylene chloride	0.661	0.673	-1.8	89	0.00	2.27
27	methyl acetate	0.650	0.823	-26.6#	108	0.00	2.18
28	methyl tert butyl ether	1.822	1.983	-8.8	93	0.00	2.42
29	trans-1,2-dichloroethene	0.586	0.601	-2.6	87	0.00	2.43
30	hexane	0.355	0.438	-23.4#	101	0.00	2.59
31	di-isopropyl ether	2.062	2.543	-23.3#	104	0.00	2.70
32	ethyl tert-butyl ether	1.916	2.147	-12.1	95	0.00	2.92
33 M	1,1-dichloroethane	1.225	1.385	-13.1	95	0.00	2.69

Continuing Calibration Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V2016-CC1992
Lab FileID: 2V50503.D

34	chloroprene	0.882	1.063	-20.5#	99	0.00	2.73
35	acrylonitrile	0.312	0.376	-20.5#	100	0.00	2.40
36	vinyl acetate	0.095	0.103	-8.4	89	0.00	2.68
37	ethyl acetate	0.146	0.176	-20.5#	99	0.00	3.04
38	2-butanone	0.095	0.105	-10.5	92	0.00	3.02
39	2,2-dichloropropane	0.849	1.075	-26.6#	109	0.00	3.04
40	cis-1,2-dichloroethene	0.673	0.690	-2.5	87	0.00	3.04
41	propionitrile	0.147	0.169	-15.0	95	0.00	3.06
42	methyl acrylate	0.128	0.138	-7.8	87	0.00	3.07
43	bromochloromethane	0.300	0.326	-8.7	89	0.00	3.19
44	tetrahydrofuran	0.116	0.123	-6.0	87	0.00	3.20
45	chloroform	1.228	1.323	-7.7	93	0.00	3.25
46 S	dibromofluoromethane (s)	0.503	0.567	-12.7	95	0.00	3.35
47	methacrylonitrile	0.323	0.358	-10.8	90	0.00	3.16
48	1,1,1-trichloroethane	0.999	1.103	-10.4	94	0.00	3.36
49	cyclohexane	0.739	0.729	1.4	83	0.00	3.41
50	1,1-dichloropropene	0.907	0.963	-6.2	91	0.00	3.46
51	carbon tetrachloride	0.806	0.889	-10.3	93	0.00	3.46
52	isobutyl alcohol	0.042	0.054	-28.6#	106	0.00	3.50
53	tert-amyl alcohol	0.039	0.046	-17.9	95	0.00	3.58
54 I	1,4-difluorobenzene	1.000	1.000	0.0	92	0.00	3.88
55 S	1,2-dichloroethane-d4 (s)	0.348	0.416	-19.5	111	0.00	3.57
56	n-butyl alcohol	0.019	0.020	-5.3	90	0.00	3.95
57 M	benzene	1.650	1.592	3.5	89	0.00	3.60
58	tert-amyl methyl ether	1.226	1.209	1.4	89	0.00	3.67
59	iso-octane	1.022	1.104	-8.0	97	0.00	3.67
60	heptane	0.212	0.234	-10.4	100	0.00	3.78
61	isopropyl acetate	0.084	0.082	2.4	86	0.00	3.61
62	1,2-dichloroethane	0.632	0.688	-8.9	101	0.00	3.62
63	trichloroethene	0.448	0.435	2.9	90	0.00	4.04
64	ethyl acrylate	0.673	0.700	-4.0	91	0.00	4.09
65	2-nitropropane	0.132	0.146	-10.6	99	0.00	4.58
66	2-chloroethyl vinyl ether	0.247	0.080	67.6#	28#	0.00	4.63
67	methyl methacrylate	0.327	0.292	10.7	78	0.00	4.26
68	1,2-dichloropropane	0.479	0.400	16.5	76	0.00	4.23
69	methylcyclohexane	0.586	0.514	12.3	77	0.00	4.22
70	dibromomethane	0.336	0.312	7.1	85	0.00	4.29
71	bromodichloromethane	0.624	0.611	2.1	89	0.00	4.42
72	epichlorohydrin	0.054	0.049	9.3	76	0.00	4.66
73	cis-1,3-dichloropropene	0.703	0.662	5.8	84	0.00	4.75
74	4-methyl-2-pentanone	0.224	0.199	11.2	76	0.00	4.86
75	3-methyl-1-butanol	0.015	0.014	6.7	80	0.00	4.90
76 I	chlorobenzene-d5	1.000	1.000	0.0	87	0.00	6.16
77 S	toluene-d8 (s)	1.292	1.291	0.1	87	0.00	4.96
78	toluene	1.142	1.053	7.8	82	0.00	5.01
79	ethyl methacrylate	0.663	0.655	1.2	81	0.00	5.24
80	trans-1,3-dichloropropene	0.744	0.784	-5.4	90	0.00	5.19
81	1,1,2-trichloroethane	0.458	0.426	7.0	82	0.00	5.35
82	2-hexanone	0.267	0.251	6.0	76	0.00	5.53
83	tetrachloroethene	0.367	0.384	-4.6	91	0.00	5.43
84	1,3-dichloropropane	0.759	0.715	5.8	82	0.00	5.49
85	butyl acetate	0.400	0.372	7.0	79	0.00	5.63
86	dibromochloromethane	0.543	0.604	-11.2	95	0.00	5.66
87	1,2-dibromoethane	0.571	0.581	-1.8	89	0.00	5.76
88	n-butyl ether	1.991	1.952	2.0	82	0.00	6.29
89	chlorobenzene	1.210	1.204	0.5	88	0.00	6.19
90	1,1,1,2-tetrachloroethane	0.431	0.485	-12.5	96	0.00	6.27
91	ethylbenzene	2.096	2.172	-3.6	89	0.00	6.28

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Continuing Calibration Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V2V2016-CC1992
Lab FileID: 2V50503.D

92	m,p-xylene	0.750	0.776	-3.5	89	0.00	6.39
93	o-xylene	1.627	1.756	-7.9	93	0.00	6.74
94	styrene	1.210	1.324	-9.4	92	0.00	6.75
95	butyl acrylate	0.476	0.542	-13.9	92	0.00	6.71
96	bromoform	0.358	0.438	-22.3#	103	0.00	6.91
97	isopropylbenzene	1.842	1.947	-5.7	90	0.00	7.08
98	cis-1,4-dichloro-2-butene	0.213	0.280	-31.5#	109	0.00	7.14
99 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	86	0.00	8.33
100 S	4-bromofluorobenzene (s)	1.017	1.107	-8.8	93	0.00	7.23
101	bromobenzene	1.066	1.170	-9.8	96	0.00	7.36
102	1,1,2,2-tetrachloroethane	1.712	1.873	-9.4	93	0.00	7.37
103	trans-1,4-dichloro-2-bute	0.352	0.465	-32.1#	108	0.00	7.40
104	1,2,3-trichloropropane	0.358	0.403	-12.6	95	0.00	7.42
105	n-propylbenzene	4.957	5.370	-8.3	91	0.00	7.47
106	2-chlorotoluene	0.952	1.028	-8.0	93	0.00	7.54
107	4-chlorotoluene	0.968	1.023	-5.7	91	0.00	7.66
108	4-ethyltoluene			-----NA-----			
109	1,3,5-trimethylbenzene	3.137	3.401	-8.4	91	0.00	7.65
110	tert-butylbenzene	2.510	2.513	-0.1	85	0.00	7.93
111	1,2,4-trimethylbenzene	3.467	3.353	3.3	88	0.00	8.00
112	sec-butylbenzene	3.862	3.941	-2.0	86	0.00	8.15
113	1,3-dichlorobenzene	1.818	1.856	-2.1	89	0.00	8.25
114	p-isopropyltoluene	3.010	3.114	-3.5	87	0.00	8.31
115	1,4-dichlorobenzene	1.873	1.905	-1.7	88	0.00	8.35
116	1,2-dichlorobenzene	1.779	1.847	-3.8	90	0.00	8.69
117	1,4-diethylbenzene			-----NA-----			
118	n-butylbenzene	1.614	1.731	-7.2	89	0.00	8.69
119	1,2,4,5-tetramethylbenzen			-----NA-----			
120	1,2-dibromo-3-chloropropa	0.280	0.305	-8.9	91	0.00	9.46
121	1,3,5-trichlorobenzene	1.174	1.210	-3.1	88	0.00	9.64
122	1,2,4-trichlorobenzene	1.046	1.097	-4.9	89	0.00	10.26
123	hexachlorobutadiene	0.386	0.381	1.3	86	0.00	10.42
124	naphthalene	3.412	3.547	-4.0	88	0.00	10.51
125	1,2,3-trichlorobenzene	0.993	1.050	-5.7	89	0.00	10.73
126	hexachloroethane	0.463	0.491	-6.0	90	0.00	8.95
127	Benzyl chloride	2.126	2.840	-33.6#	111	0.00	8.46
128	2-ethylhexyl acrylate	0.689	0.698	-1.3	92	0.00	10.52
129	2-methylnaphthalene	1.333	1.354	-1.6	86	0.00	11.60

(#) = Out of Range
 2V49941.D M2V1992.M

SPCC's out = 0 CCC's out = 0
 Mon May 14 03:47:23 2018

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Initial Calibration Summary

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Job Number: JC65663
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
 Lab FileID: A240809.D

Response Factor Report MSA

Method : C:\msdchem\1\METHODS\MA9165.M (RTE Integrator)
 Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
 Last Update : Thu Apr 05 12:19:04 2018
 Response via : Initial Calibration

Calibration Files

5 =A240806.D 2 =A240805.D 20 =A240808.D 50 =A240809.D
 100 =A240810.D 1 =A240804.D 200 =A240811.D 0.5 =A240803.D
 10 =A240807.D 0.2 =A240802.D = =

Compound	5	2	20	50	100	1	200	0.5	10	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 -----ISTD-----												
2) ethanol											0.000#	-1.00
3) tertiary butyl alcohol												
	0.880	0.876	0.899	0.874	0.887	0.891	0.857	0.923		0.886		2.21
4) 1,4-dioxane												
	0.060		0.052	0.055	0.057		0.057	0.053		0.056		5.00
5) I pentafluorobenzene -----ISTD-----												
6) chlorodifluoromethane												
	0.798	0.787	0.773	0.755	0.738		0.743	0.799		0.771		3.31
7) dichlorodifluoromethane												
	0.850	0.932	0.852	0.867	0.801	0.773	0.806	0.867		0.844		5.89
8) freon 114											0.000#	-1.00
9) freon 142b											0.000#	-1.00
10) chloromethane												
	0.937	1.055	0.882	0.910	0.912	1.165	0.941	0.897		0.962		10.16
11) vinyl chloride												
	1.008	1.050	0.981	0.999	0.983	0.928	1.000	0.978		0.991		3.47
12) 1,3-butadiene											0.000#	-1.00
13) bromomethane												
	0.577	0.632	0.543	0.540	0.531	0.569	0.516	0.554		0.558		6.43
14) chloroethane												
	0.535	0.611	0.473	0.456	0.426	0.746		0.495		0.534		20.78
----- Linear regression ----- Coefficient = 0.9985												
Response Ratio = 0.00739 + 0.43515 *A												
15) vinyl bromide												
	0.511	0.503	0.512	0.511	0.514	0.471	0.514	0.514		0.506		2.94
16) trichlorofluoromethane												
	0.794	0.833	0.790	0.790	0.781	0.751	0.779	0.793		0.789		2.85
17) ethyl ether												
	0.267	0.260	0.270	0.255	0.254	0.235	0.237	0.282		0.258		6.27
18) acrolein												
	0.158	0.171	0.152	0.141	0.140		0.137	0.148		0.150		8.09
19) freon 113												
	0.399	0.379	0.396	0.385	0.384	0.407	0.376	0.409		0.392		3.21
20) 1,1-dichloroethene												
	0.496	0.465	0.464	0.441	0.463	0.466	0.438	0.478		0.464		3.98
21) acetone												
	0.075	0.075	0.078	0.075	0.077	0.060	0.073	0.084		0.075		9.16

Initial Calibration Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
Lab FileID: A240809.D

22)	acetonitrile	0.132	0.121	0.117	0.113		0.109		0.125		0.120	6.94	
23)	iodomethane	0.949	0.945	0.912	0.878	0.914	1.085	0.864		0.939	0.936	7.24	
24)	carbon disulfide	1.848	1.825	1.722	1.624	1.715	2.190	1.618		1.784	1.791	10.16	
25)	methylene chloride	0.561	0.520	0.534	0.507	0.518	0.613	0.496		0.531	0.535	6.90	
26)	methyl acetate	0.599	0.616	0.533	0.529	0.526		0.501		0.573	0.554	7.67	
27)	methyl tert butyl ether	1.564	1.572	1.608	1.585	1.533	1.768	1.512	1.687	1.600		4.95	
28)	trans-1,2-dichloroethene	0.488	0.447	0.469	0.439	0.449	0.551	0.425	0.431	0.482		8.41	
29)	hexane	0.675	0.690	0.641	0.618	0.616	0.831	0.591		0.674	0.667	11.20	
30)	di-isopropyl ether	1.742	1.727	1.741	1.687	1.645	1.993	1.589	1.853	1.753	2.053	1.778	8.28
31)	ethyl tert-butyl ether	1.598	1.555	1.621	1.623	1.608	1.674	1.584	1.490	1.668	1.675	1.610	3.60
32)	2-butanone	0.080	0.066	0.081	0.083	0.083	0.080	0.084		0.082	0.080	7.19	
33)	1,1-dichloroethane	0.929	0.950	0.897	0.842	0.842	1.136	0.797		0.934	0.916	11.34	
34)	chloroprene	0.706	0.683	0.714	0.671	0.691	0.775	0.659		0.720	0.702	5.14	
35)	acrylonitrile	0.293	0.243	0.283	0.274	0.271		0.259		0.292	0.274	6.62	
36)	vinyl acetate	0.091		0.093	0.095	0.093		0.092		0.091	0.093	1.83	
37)	ethyl acetate	0.100	0.094	0.101	0.105	0.104		0.102		0.101	0.101	3.55	
38)	2,2-dichloropropane	0.749	0.967	0.734	0.696	0.680	1.027	0.661		0.764	0.785	17.38	
39)	cis-1,2-dichloroethene	0.548	0.513	0.532	0.508	0.515	0.571	0.497	0.572	0.548		5.19	
40)	methyl acrylate	0.088		0.097	0.093	0.097		0.096		0.086	0.093	4.94	
41)	propionitrile	0.166	0.168	0.173	0.175	0.169	0.176	0.166		0.173	0.171	2.45	
42)	bromochloromethane	0.299	0.344	0.275	0.259	0.257	0.367	0.251		0.281	0.292	14.67	
43)	tetrahydrofuran	0.329	0.310	0.298	0.294	0.285		0.279		0.306	0.300	5.65	
44)	chloroform	0.839	0.798	0.813	0.769	0.774	0.890	0.740	0.858	0.812	1.009	0.830	9.25
45)	tert-butyl formate	0.515	0.507	0.523	0.505	0.482	0.567	0.473		0.515	0.511	5.59	
46)	dibromofluoromethane (s)	0.505	0.498	0.498	0.496	0.495	0.502	0.505	0.499	0.497	0.490	0.498	0.92
47)	methacrylonitrile	0.255	0.227	0.258	0.259	0.262		0.256		0.260	0.254	4.79	
48)	cyclohexane	0.751	0.800	0.773	0.743	0.738	0.810	0.730	0.801	0.781		0.770	3.91
49)	1,1,1-trichloroethane	0.755	0.785	0.741	0.719	0.715	0.854	0.702	0.731	0.747		0.750	6.14
50)	iso-butyl alcohol	0.044	0.055	0.046	0.044	0.047		0.046		0.046	0.047		8.06
51)	1,1-dichloropropene	0.623	0.589	0.619	0.612	0.620	0.681	0.607	0.646	0.629		0.625	4.15

Initial Calibration Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
Lab FileID: A240809.D

52)	carbon tetrachloride	0.629	0.629	0.650	0.621	0.624	0.727	0.614	0.660	0.637	0.643	5.35	
53)	tert-amyl alcohol	0.069	0.068	0.067	0.069	0.066	0.066	0.070	0.068	2.23			
54)	I 1,4-difluorobenzene	-----ISTD-----											
55)	1,2-dichloroethane-d4 (s)	0.357	0.356	0.366	0.352	0.346	0.355	0.343	0.366	0.365	0.355	2.20	
56)	benzene	1.270	1.255	1.238	1.184	1.183	1.383	1.120	1.377	1.279	1.254	6.95	
57)	iso-octane	1.203	1.185	1.194	1.175	1.245	1.342	1.203	1.330	1.229	1.234	4.99	
58)	tert-amyl methyl ether	1.087	1.089	1.071	1.028	1.012	1.173	0.963	1.140	1.099	1.255	7.68	
59)	heptane	0.237	0.258	0.231	0.222	0.221	0.235	0.217	0.257	0.243	0.236	6.31	
60)	isopropyl acetate	0.075	0.079	0.080	0.078	0.075	0.078	0.078	0.078	2.80			
61)	1,2-dichloroethane	0.402	0.395	0.387	0.372	0.372	0.493	0.356	0.403	0.397	10.56		
62)	n-butyl alcohol	0.019	0.019	0.019	0.019	0.019	0.021	0.019	0.020	0.020	0.019	3.42	
63)	ethyl acrylate	0.385	0.442	0.413	0.418	0.431	0.525	0.421	0.410	0.431	9.63		
64)	trichloroethene	0.280	0.279	0.287	0.275	0.284	0.314	0.274	0.259	0.298	0.282	5.16	
65)	2-nitropropane	0.166	0.162	0.141	0.151	0.147	0.142	0.156	0.152	6.45			
66)	methylcyclohexane	0.627	0.628	0.625	0.589	0.591	0.734	0.561	0.696	0.653	0.634	8.55	
67)	2-chloroethyl vinyl ether	0.172	0.177	0.178	0.186	0.188	0.198	0.184	0.208	0.182	0.186	5.97	
68)	methyl methacrylate	0.080	0.084	0.086	0.092	0.089	0.082	0.086	5.04				
69)	1,2-dichloropropane	0.333	0.360	0.322	0.312	0.316	0.400	0.302	0.330	0.334	9.50		
70)	dibromomethane	0.190	0.193	0.190	0.190	0.190	0.194	0.183	0.191	0.194	0.191	1.77	
71)	bromodichloromethane	0.392	0.380	0.392	0.384	0.386	0.405	0.374	0.402	0.398	0.371	0.388	2.97
72)	epichlorohydrin	0.047	0.046	0.046	0.047	0.046	0.055	0.045	0.047	0.047	6.74		
73)	cis-1,3-dichloropropene	0.449	0.457	0.447	0.461	0.475	0.480	0.467	0.505	0.465	0.467	3.83	
74)	4-methyl-2-pentanone	0.177	0.183	0.178	0.180	0.176	0.197	0.166	0.185	0.180	0.174	0.180	4.44
75)	3-methyl-1-butanol	0.032	0.032	0.031	0.032	0.031	0.040	0.029	0.033	0.032	9.51		
76)	I chlorobenzene-d5	-----ISTD-----											
77)	toluene-d8 (s)	1.351	1.339	1.357	1.332	1.285	1.341	1.243	1.383	1.398	1.332	1.336	3.36
78)	toluene	0.820	0.838	0.827	0.791	0.790	0.896	0.726	0.911	0.890	0.960	0.845	8.18
79)	trans-1,3-dichloropropene	0.458	0.463	0.473	0.462	0.454	0.491	0.420	0.507	0.495	0.469	5.56	
80)	ethyl methacrylate	0.475	0.484	0.486	0.463	0.452	0.490	0.422	0.520	0.474	6.16		
81)	1,1,2-trichloroethane	0.265	0.252	0.258	0.249	0.242	0.279	0.228	0.234	0.276	0.254	6.97	

Initial Calibration Summary

Page 4 of 5

Job Number: JC65663
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
 Lab FileID: A240809.D

82)	2-hexanone	0.186	0.184	0.182	0.173	0.169	0.189	0.157	0.184	0.200	0.194	0.182	6.92
83)	tetrachloroethene	0.348	0.314	0.340	0.327	0.325	0.362	0.302	0.311	0.364		0.333	6.76
84)	1,3-dichloropropane	0.475	0.502	0.481	0.475	0.465	0.558	0.437	0.551	0.489		0.492	7.99
85)	butyl acetate	0.417		0.303	0.263	0.255		0.237		0.352		0.305	22.53
	----- Linear regression -----	Coefficient = 0.9987											
	Response Ratio = 0.02077 + 0.23792 *A												
86)	3,3-dimethyl-1-butanol											0.000#	-1.00
87)	dibromochloromethane	0.341	0.333	0.326	0.327	0.320	0.403	0.303		0.356		0.339	8.98
88)	1,2-dibromoethane	0.316	0.293	0.306	0.299	0.299	0.313	0.283	0.264	0.324		0.300	6.07
89)	n-butyl ether	1.606	1.596	1.619	1.478	1.411	1.748	1.271		1.644		1.547	9.79
90)	chlorobenzene	0.819	0.810	0.807	0.804	0.808	0.883	0.773	0.822	0.832	0.838	0.820	3.48
91)	1,1,1,2-tetrachloroethane	0.407	0.397	0.409	0.381	0.365	0.388	0.337	0.445	0.429		0.395	8.23
92)	ethylbenzene	1.441	1.441	1.474	1.379	1.386	1.588	1.282	1.599	1.508	1.719	1.482	8.56
93)	m,p-xylene	0.554	0.534	0.561	0.535	0.537	0.568	0.505	0.574	0.588	0.658	0.561	7.41
94)	o-xylene	0.618	0.602	0.644	0.596	0.587	0.674	0.544	0.630	0.657	0.549	0.610	7.11
95)	styrene	0.906	0.901	0.896	0.831	0.847	0.961	0.803	1.055	0.923	0.935	0.906	7.91
96)	butyl acrylate	0.797	0.797	0.757	0.665	0.624		0.568		0.813		0.717	13.63
97)	bromoform	0.231	0.210	0.229	0.215	0.211	0.251	0.202	0.184	0.234		0.219	9.04
98)	isopropylbenzene	1.648	1.647	1.755	1.632	1.556	1.768	1.410	1.707	1.839		1.662	7.65
99)	cis-1,4-dichloro-2-butene	0.179	0.178	0.173	0.156	0.148		0.138		0.190		0.166	11.33
100)	I 1,4-dichlorobenzene-d	-----ISTD-----											
101)	4-bromofluorobenzene (s)	0.797	0.801	0.808	0.834	0.868	0.792	0.877	0.785	0.784	0.798	0.814	4.15
102)	bromobenzene	0.641	0.643	0.656	0.653	0.701	0.695	0.681	0.667	0.644		0.664	3.43
103)	1,1,2,2-tetrachloroethane	0.930	0.933	0.964	0.981	0.967	1.035	0.902	0.991	0.963		0.963	4.04
104)	trans-1,4-dichloro-2-butene	0.209	0.191	0.190	0.184	0.177		0.163		0.190		0.186	7.67
105)	1,2,3-trichloropropane	0.227	0.230	0.229	0.230	0.237	0.225	0.221		0.233		0.229	2.17
106)	n-propylbenzene	3.183	3.254	3.369	3.392	3.451	3.561	3.186	3.335	3.412	3.933	3.408	6.42
107)	2-chlorotoluene	0.648	0.656	0.708	0.726	0.754	0.726	0.731	0.622	0.695		0.696	6.41
108)	4-chlorotoluene	1.716	1.788	1.776	1.754	1.817	1.923	1.761	1.841	1.803		1.798	3.32
109)	4-ethyltoluene											0.000#	-1.00
110)	1,3,5-trimethylbenzene												

Initial Calibration Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
Lab FileID: A240809.D

111)	2.498	2.398	2.635	2.758	2.765	2.656	2.604	2.584	2.642	2.953	2.649	5.77
	tert-butylbenzene											
	0.471	0.443	0.552	0.596	0.616	0.530	0.579		0.536		0.540	11.00
112)	1,2,4-trimethylbenzene											
	2.417	2.338	2.605	2.632	2.698	2.628	2.490	2.518	2.590	2.927	2.584	6.28
113)	sec-butylbenzene											
	3.263	3.111	3.598	3.716	3.757	3.476	3.394	3.110	3.532	3.574	3.453	6.68
114)	1,3-dichlorobenzene											
	1.217	1.201	1.281	1.260	1.244	1.391	1.173	1.229	1.285	1.423	1.270	6.31
115)	p-isopropyltoluene											
	2.721	2.628	2.939	3.008	3.052	2.859	2.807	2.738	2.939	2.907	2.860	4.73
116)	1,4-dichlorobenzene											
	1.302	1.219	1.289	1.266	1.252	1.373	1.182	1.427	1.312		1.291	5.82
117)	1,2-dichlorobenzene											
	1.315	1.342	1.382	1.358	1.332	1.496	1.248	1.573	1.422	1.436	1.390	6.79
118)	1,4-diethylbenzene											
											0.000#	-1.00
119)	n-butylbenzene											
	1.428	1.440	1.528	1.453	1.458	1.559	1.359	1.585	1.518	1.697	1.503	6.40
120)	1,2,4,5-tetramethylbenzene											
											0.000#	-1.00
121)	1,2-dibromo-3-chloropropane											
	0.271	0.260	0.259	0.258	0.248	0.284	0.226	0.259	0.275		0.260	6.45
122)	1,3,5-trichlorobenzene											
	1.305	1.184	1.313	1.300	1.239	1.480	1.159	1.327	1.365	1.488	1.316	8.30
123)	2-ethylhexyl acrylate											
	0.965	1.043	0.984	0.984	0.938	1.093	0.886		1.080		0.997	7.14
124)	1,2,4-trichlorobenzene											
	1.119	1.060	1.152	1.123	1.060	1.208	0.987	1.202	1.214	1.284	1.141	7.82
125)	hexachlorobutadiene											
	0.469	0.441	0.489	0.503	0.505	0.503	0.492	0.401	0.498		0.478	7.45
126)	naphthalene											
	3.027	3.144	2.923	2.833	2.713		2.448		3.167		2.894	8.82
127)	1,2,3-trichlorobenzene											
	1.006	0.975	1.043	1.033	0.993	1.080	0.924	1.120	1.078	1.059	1.031	5.62
128)	hexachloroethane											
	0.431	0.413	0.494	0.555	0.564		0.542		0.498		0.500	11.91
129)	2-methylnaphthalene											
	1.105	1.133	1.144	1.094	1.169		1.101		1.195		1.134	3.33

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

MA9165.M

Thu Apr 05 12:23:06 2018 RPT1

Initial Calibration Verification

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
Lab FileID: A240814.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VA9165\A240814.D Vial: 14
Acq On : 3 Apr 2018 11:40 pm Operator: JessicaP
Sample : icv9165-50 Inst : MSA
Misc : MS25128,VA9165,5,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\MA9165.M (RTE Integrator)
Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
Last Update : Thu Apr 05 11:21:49 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	107	0.00	7.81
2	ethanol			-----NA-----			
3 M	tertiary butyl alcohol	0.886	0.904	-2.0	110	0.03	7.97
4	1,4-dioxane	0.056	0.056	0.0	108	0.00	11.86
5 I	pentafluorobenzene	1.000	1.000	0.0	109	0.00	10.18
6 M	chlorodifluoromethane	0.771	0.713	7.5	103	0.02	4.20
7 M	dichlorodifluoromethane	0.844	0.760	10.0	96	0.02	4.20
8	freon 114			-----NA-----			
9	freon 142b			-----NA-----			
10 M	chloromethane	0.962	0.842	12.5	101	0.01	4.54
11 M	vinyl chloride	0.991	0.867	12.5	95	0.02	4.83
12	1,3-butadiene			-----NA-----			
13 M	bromomethane	0.558	0.515	7.7	104	0.00	5.52
	----- True Calc. % Drift -----						
14 M	chloroethane	50.000	48.193	3.6	102	0.00	5.71
	----- AvgRF CCRF % Dev -----						
15	vinyl bromide	0.506	0.532	-5.1	114	0.00	6.09
16 M	trichlorofluoromethane	0.789	0.726	8.0	100	0.02	6.24
17 M	ethyl ether	0.258	0.261	-1.2	112	0.00	6.68
18 M	acrolein	0.150	0.189	-26.0	147	0.00	6.91
19	freon 113	0.392	0.452	-15.3	128	0.01	7.11
20 M	1,1-dichloroethene	0.464	0.424	8.6	105	0.01	7.11
21 M	acetone	0.075	0.068	9.3	99	0.01	7.16
22 M	acetonitrile	0.120	0.141	-17.5	132	0.07	7.67
23 M	iodomethane	0.936	0.876	6.4	109	0.01	7.40
24 M	carbon disulfide	1.791	1.682	6.1	113	0.00	7.53
25 M	methylene chloride	0.535	0.520	2.8	112	0.00	7.86
26 M	methyl acetate	0.554	0.511	7.8	105	0.00	7.66
27 M	methyl tert butyl ether	1.603	1.564	2.4	108	0.00	8.25
28 M	trans-1,2-dichloroethene	0.465	0.436	6.2	108	0.00	8.27
29	hexane	0.667	0.532	20.2	94	0.00	8.63
30 M	di-isopropyl ether	1.778	1.665	6.4	108	0.00	8.88
31 M	ethyl tert-butyl ether	1.610	1.598	0.7	107	0.00	9.36
32 M	2-butanone	0.080	0.080	0.0	104	0.01	9.59
33 M	1,1-dichloroethane	0.916	0.836	8.7	108	0.00	8.86
34 M	chloroprene	0.702	0.695	1.0	113	0.00	8.99
35 M	acrylonitrile	0.274	0.293	-6.9	116	0.00	8.20
36 M	vinyl acetate	0.093	0.097	-4.3	111	0.00	8.86
37 M	ethyl acetate	0.101	0.108	-6.9	112	0.00	9.62

Initial Calibration Verification

Job Number: JC65663
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
 Lab FileID: A240814.D

38	M	2,2-dichloropropane	0.785	0.659	16.1	103	0.00	9.66
39	M	cis-1,2-dichloroethene	0.534	0.519	2.8	111	0.00	9.63
40		methyl acrylate	0.093	0.088	5.4	104	0.00	9.70
41	M	propionitrile	0.171	0.175	-2.3	109	0.00	9.68
42	M	bromochloromethane	0.292	0.257	12.0	108	0.00	9.94
43	M	tetrahydrofuran	0.300	0.385	-28.3	143	0.00	9.99
44	M	chloroform	0.830	0.777	6.4	110	0.00	10.00
45		tert-butyl formate	0.511	0.427	16.4	92	0.00	10.07
46	S	dibromofluoromethane (s)	0.498	0.499	-0.2	110	0.00	10.21
47	M	methacrylonitrile	0.254	0.251	1.2	106	0.00	9.88
48		cyclohexane	0.770	0.941	-22.2	138	0.00	10.38
49	M	1,1,1-trichloroethane	0.750	0.685	8.7	104	0.00	10.29
50		iso-butyl alcohol	0.047	0.046	2.1	114	0.00	10.45
51		1,1-dichloropropene	0.625	0.602	3.7	107	0.00	10.47
52		carbon tetrachloride	0.643	0.603	6.2	106	0.00	10.51
53		tert-amyl alcohol	0.068	0.069	-1.5	109	0.00	10.60
54	I	1,4-difluorobenzene	1.000	1.000	0.0	108	0.00	11.12
55	S	1,2-dichloroethane-d4 (s)	0.356	0.353	0.8	108	0.00	10.64
56	M	benzene	1.254	1.177	6.1	107	0.00	10.74
57	M	iso-octane	1.234	1.174	4.9	108	0.00	10.79
58		tert-amyl methyl ether	1.092	1.025	6.1	108	0.00	10.80
59	M	heptane	0.236	0.240	-1.7	117	0.00	10.95
60	M	isopropyl acetate	0.078	0.078	0.0	106	0.00	10.67
61	M	1,2-dichloroethane	0.397	0.373	6.0	108	0.00	10.73
62		n-butyl alcohol	0.019	0.019	0.0	107	0.00	11.22
63		ethyl acrylate	0.431	0.411	4.6	106	0.00	11.48
64	M	trichloroethene	0.283	0.275	2.8	108	0.00	11.47
65	M	2-nitropropane	0.152	0.190	-25.0	136	0.00	12.27
66	m	methylcyclohexane	0.634	0.568	10.4	104	0.00	11.74
67	M	2-chloroethyl vinyl ether	0.186	0.192	-3.2	112	0.00	12.30
68	M	methyl methacrylate	0.086	0.083	3.5	105	0.00	11.75
69	M	1,2-dichloropropane	0.334	0.309	7.5	107	0.00	11.74
70	M	dibromomethane	0.191	0.192	-0.5	109	0.00	11.90
71	M	bromodichloromethane	0.388	0.376	3.1	106	0.00	12.03
72		epichlorohydrin	0.047	0.044	6.4	102	0.00	12.42
73	M	cis-1,3-dichloropropene	0.467	0.451	3.4	106	0.00	12.53
74	M	4-methyl-2-pentanone	0.180	0.176	2.2	106	0.00	12.65
75	M	3-methyl-1-butanol	0.032	0.032	0.0	107	0.00	12.65
76	I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	14.52
77	S	toluene-d8 (s)	1.336	1.356	-1.5	104	0.00	12.86
78		toluene	0.845	0.830	1.8	107	0.00	12.94
79		trans-1,3-dichloropropene	0.469	0.442	5.8	98	0.00	13.13
80		ethyl methacrylate	0.474	0.449	5.3	99	0.00	13.15
81		1,1,2-trichloroethane	0.254	0.256	-0.8	105	0.00	13.36
82		2-hexanone	0.182	0.173	4.9	102	0.00	13.57
83	M	tetrachloroethene	0.333	0.380	-14.1	119	0.00	13.58
84	M	1,3-dichloropropane	0.492	0.490	0.4	105	0.00	13.57
		----- True	Calc.	% Drift	-----			
85	M	butyl acetate	50.000	53.430	-6.9	107	0.00	13.66
		----- AvgRF	CCRF	% Dev	-----			
86		3,3-dimethyl-1-butanol		NA				
87	M	dibromochloromethane	0.339	0.339	0.0	106	0.00	13.85
88	M	1,2-dibromoethane	0.300	0.307	-2.3	105	0.00	14.02
89	M	n-butyl ether	1.547	1.430	7.6	99	0.00	14.49
90	M	chlorobenzene	0.820	0.785	4.3	100	0.00	14.55
91	M	1,1,1,2-tetrachloroethane	0.395	0.392	0.8	105	0.00	14.61

Initial Calibration Verification

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Job Number: JC65663
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
 Lab FileID: A240814.D

92	M	ethylbenzene	1.482	1.388	6.3	103	0.00	14.63
93	M	m,p-xylene	0.561	0.534	4.8	102	0.00	14.75
94	M	o-xylene	0.610	0.604	1.0	104	0.00	15.21
95	M	styrene	0.906	0.839	7.4	103	0.00	15.22
96		butyl acrylate	0.717	0.682	4.9	105	0.00	15.02
97	M	bromoform	0.219	0.226	-3.2	107	0.00	15.48
98		isopropylbenzene	1.662	1.652	0.6	103	0.00	15.60
99		cis-1,4-dichloro-2-butene	0.166	0.156	6.0	102	0.00	15.65
100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	17.12
101	S	4-bromofluorobenzene (s)	0.814	0.829	-1.8	103	0.00	15.81
102	M	bromobenzene	0.664	0.656	1.2	104	0.00	16.03
103	M	1,1,2,2-tetrachloroethane	0.963	0.973	-1.0	103	0.00	15.91
104	M	trans-1,4-dichloro-2-bute	0.186	0.232	-24.7	131	0.00	15.96
105	M	1,2,3-trichloropropane	0.229	0.240	-4.8	108	0.00	16.00
106	M	n-propylbenzene	3.408	3.373	1.0	103	0.00	16.06
107	M	2-chlorotoluene	0.696	0.704	-1.1	101	0.00	16.22
108	M	4-chlorotoluene	1.798	1.815	-0.9	107	0.00	16.32
109		4-ethyltoluene			-----NA-----			
110	M	1,3,5-trimethylbenzene	2.649	2.700	-1.9	102	0.00	16.23
111	M	tert-butylbenzene	0.540	0.603	-11.7	105	0.00	16.63
112	M	1,2,4-trimethylbenzene	2.584	2.673	-3.4	105	0.00	16.67
113	M	sec-butylbenzene	3.453	3.733	-8.1	104	0.00	16.87
114	M	1,3-dichlorobenzene	1.270	1.261	0.7	104	0.00	17.06
115	M	p-isopropyltoluene	2.860	2.997	-4.8	103	0.00	17.00
116	M	1,4-dichlorobenzene	1.291	1.264	2.1	104	0.00	17.15
117	M	1,2-dichlorobenzene	1.390	1.355	2.5	104	0.00	17.59
118		1,4-diethylbenzene			-----NA-----			
119	M	n-butylbenzene	1.503	1.467	2.4	105	0.00	17.46
120		1,2,4,5-tetramethylbenzen			-----NA-----			
121	M	1,2-dibromo-3-chloropropa	0.260	0.259	0.4	104	0.00	18.43
122	M	1,3,5-trichlorobenzene	1.316	1.290	2.0	103	0.00	18.65
123		2-ethylhexyl acrylate	0.997	1.003	-0.6	106	0.00	19.36
124	M	1,2,4-trichlorobenzene	1.141	1.142	-0.1	106	0.00	19.37
125	M	hexachlorobutadiene	0.478	0.485	-1.5	100	0.00	19.53
126	M	naphthalene	2.894	2.957	-2.2	108	0.00	19.70
127	M	1,2,3-trichlorobenzene	1.031	1.033	-0.2	104	0.00	19.97
128	M	hexachloroethane	0.500	0.575	-15.0	108	0.00	17.89
129		2-methylnaphthalene	1.134	1.054	7.1	100	0.00	20.99

(#) = Out of Range
 A240809.D MA9165.M

SPCC's out = 0 CCC's out = 0
 Thu Apr 05 11:39:45 2018 RPT1

6.11.8

6

Initial Calibration Verification

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
Lab FileID: A240815.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VA9165\A240815.D Vial: 15
Acq On : 4 Apr 2018 12:09 am Operator: JessicaP
Sample : icv9165-50 Inst : MSA
Misc : MS25128,VA9165,5,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\MA9165.M (RTE Integrator)
Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
Last Update : Thu Apr 05 12:19:04 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	105	0.00	7.81
2	ethanol			NA			
3 M	tertiary butyl alcohol			NA			
4	1,4-dioxane			NA			
5 I	pentafluorobenzene	1.000	1.000	0.0	104	0.00	10.18
6 M	chlorodifluoromethane			NA			
7 M	dichlorodifluoromethane			NA			
8	freon 114			NA			
9	freon 142b			NA			
10 M	chloromethane			NA			
11 M	vinyl chloride			NA			
12	1,3-butadiene			NA			
13 M	bromomethane			NA			
	----- True		Calc.	% Drift			
14 M	chloroethane			NA			
	----- AvgRF		CCRF	% Dev			
15	vinyl bromide			NA			
16 M	trichlorofluoromethane			NA			
17 M	ethyl ether			NA			
18 M	acrolein			NA			
19	freon 113			NA			
20 M	1,1-dichloroethene			NA			
21 M	acetone			NA			
22 M	acetonitrile	0.120	0.114	5.0	102	0.02	7.62
23 M	iodomethane			NA			
24 M	carbon disulfide			NA			
25 M	methylene chloride			NA			
26 M	methyl acetate			NA			
27 M	methyl tert butyl ether			NA			
28 M	trans-1,2-dichloroethene			NA			
29	hexane			NA			
30 M	di-isopropyl ether			NA			
31 M	ethyl tert-butyl ether			NA			
32 M	2-butanone			NA			
33 M	1,1-dichloroethane			NA			
34 M	chloroprene			NA			
35 M	acrylonitrile			NA			
36 M	vinyl acetate			NA			
37 M	ethyl acetate			NA			

Initial Calibration Verification

Page 2 of 3

Job Number: JC65663
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
 Lab FileID: A240815.D

38	M	2,2-dichloropropane							
39	M	cis-1,2-dichloroethene							
40		methyl acrylate							
41	M	propionitrile							
42	M	bromochloromethane							
43	M	tetrahydrofuran							
44	M	chloroform							
45		tert-butyl formate							
46	S	dibromofluoromethane (s)	0.498	0.503	-1.0	105	0.00	10.20	
47	M	methacrylonitrile							
48		cyclohexane							
49	M	1,1,1-trichloroethane							
50		iso-butyl alcohol							
51		1,1-dichloropropene							
52		carbon tetrachloride							
53		tert-amyl alcohol							
54	I	1,4-difluorobenzene	1.000	1.000	0.0	98	0.00	11.12	
55	S	1,2-dichloroethane-d4 (s)	0.356	0.363	-2.0	101	0.00	10.64	
56	M	benzene							
57	M	iso-octane							
58		tert-amyl methyl ether							
59	M	heptane							
60	M	isopropyl acetate							
61	M	1,2-dichloroethane							
62		n-butyl alcohol							
63		ethyl acrylate							
64	M	trichloroethene							
65	M	2-nitropropane							
66	m	methylcyclohexane							
67	M	2-chloroethyl vinyl ether							
68	M	methyl methacrylate							
69	M	1,2-dichloropropane							
70	M	dibromomethane							
71	M	bromodichloromethane							
72		epichlorohydrin							
73	M	cis-1,3-dichloropropene							
74	M	4-methyl-2-pentanone							
75	M	3-methyl-1-butanol							
76	I	chlorobenzene-d5	1.000	1.000	0.0	89	0.00	14.52	
77	S	toluene-d8 (s)	1.336	1.348	-0.9	90	0.00	12.86	
78		toluene							
79		trans-1,3-dichloropropene							
80		ethyl methacrylate							
81		1,1,2-trichloroethane							
82		2-hexanone							
83	M	tetrachloroethene	0.333	0.309	7.2	84	0.00	13.58	
84	M	1,3-dichloropropane							
85	M	butyl acetate							
86		3,3-dimethyl-1-butanol							
87	M	dibromochloromethane							
88	M	1,2-dibromoethane							
89	M	n-butyl ether							
90	M	chlorobenzene							
91	M	1,1,1,2-tetrachloroethane							

----- True

Calc. % Drift -----

----- AvgRF

CCRF % Dev -----

6.11.9

6

Initial Calibration Verification

Page 3 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
Lab FileID: A240815.D

92	M	ethylbenzene							-----NA-----
93	M	m,p-xylene							-----NA-----
94	M	o-xylene							-----NA-----
95	M	styrene							-----NA-----
96		butyl acrylate							-----NA-----
97	M	bromoform							-----NA-----
98		isopropylbenzene							-----NA-----
99		cis-1,4-dichloro-2-butene							-----NA-----
100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	108	0.00	17.12	
101	S	4-bromofluorobenzene (s)	0.814	0.775	4.8	100	0.00	15.81	
102	M	bromobenzene							-----NA-----
103	M	1,1,2,2-tetrachloroethane							-----NA-----
104	M	trans-1,4-dichloro-2-bute							-----NA-----
105	M	1,2,3-trichloropropane							-----NA-----
106	M	n-propylbenzene							-----NA-----
107	M	2-chlorotoluene							-----NA-----
108	M	4-chlorotoluene							-----NA-----
109		4-ethyltoluene							-----NA-----
110	M	1,3,5-trimethylbenzene							-----NA-----
111	M	tert-butylbenzene							-----NA-----
112	M	1,2,4-trimethylbenzene							-----NA-----
113	M	sec-butylbenzene							-----NA-----
114	M	1,3-dichlorobenzene							-----NA-----
115	M	p-isopropyltoluene							-----NA-----
116	M	1,4-dichlorobenzene							-----NA-----
117	M	1,2-dichlorobenzene							-----NA-----
118		1,4-diethylbenzene							-----NA-----
119	M	n-butylbenzene							-----NA-----
120		1,2,4,5-tetramethylbenzen							-----NA-----
121	M	1,2-dibromo-3-chloropropa							-----NA-----
122	M	1,3,5-trichlorobenzene							-----NA-----
123		2-ethylhexyl acrylate							-----NA-----
124	M	1,2,4-trichlorobenzene							-----NA-----
125	M	hexachlorobutadiene							-----NA-----
126	M	naphthalene							-----NA-----
127	M	1,2,3-trichlorobenzene							-----NA-----
128	M	hexachloroethane							-----NA-----
129		2-methylnaphthalene							-----NA-----

(#) = Out of Range
A240809.D MA9165.M

SPCC's out = 0 CCC's out = 0
Thu Apr 05 12:22:15 2018 RPT1

6.11.9

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9208-CC9165
Lab FileID: A241577.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ni...5-18\va9208\va241577.d Vial: 2
Acq On : 14 May 2018 6:52 am Operator: oyinadei
Sample : cc9165-20 Inst : MSA
Misc : MS26219,VA9208,5,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MA9165.M (RTE Integrator)
Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
Last Update : Tue Apr 17 15:31:13 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	98	0.00	7.81
2	ethanol			NA			
3 M	tertiary butyl alcohol	0.886	0.925	-4.4	100	0.00	7.94
4	1,4-dioxane	0.056	0.067	-19.6	125	0.00	11.85
5 I	pentafluorobenzene	1.000	1.000	0.0	96	0.00	10.17
6 M	chlorodifluoromethane	0.771	0.527	31.6#	65	0.02	4.21
7 M	dichlorodifluoromethane	0.844	0.898	-6.4	101	0.02	4.20
8	freon 114			NA			
9	freon 142b			NA			
10 M	chloromethane	0.962	0.951	1.1	103	0.02	4.54
11 M	vinyl chloride	0.991	1.032	-4.1	101	0.02	4.84
12	1,3-butadiene			NA			
13 M	bromomethane	0.558	0.623	-11.6	110	0.01	5.53
	----- True						
14 M	chloroethane	20.000	20.970	-4.8	96	0.00	5.71
	----- AvgRF						
15	vinyl bromide	0.506	0.635	-25.5#	119	0.00	6.10
16 M	trichlorofluoromethane	0.789	0.866	-9.8	105	0.04	6.26
17 M	ethyl ether			NA			
18 M	acrolein	0.150	0.118	21.3#	75	0.00	6.90
19	freon 113	0.392	0.455	-16.1	110	0.02	7.12
20 M	1,1-dichloroethene	0.464	0.499	-7.5	103	0.00	7.11
21 M	acetone	0.075	0.062	17.3	77	-0.01	7.14
22 M	acetonitrile	0.120	0.104	13.3	82	0.00	7.60
23 M	iodomethane			NA			
24 M	carbon disulfide			NA			
25 M	methylene chloride	0.535	0.571	-6.7	103	0.00	7.84
26 M	methyl acetate	0.554	0.445	19.7	80	-0.01	7.65
27 M	methyl tert butyl ether			NA			
28 M	trans-1,2-dichloroethene	0.465	0.444	4.5	91	0.00	8.26
29	hexane	0.667	0.521	21.9#	78	0.00	8.62
30 M	di-isopropyl ether	1.778	1.451	18.4	80	0.00	8.88
31 M	ethyl tert-butyl ether	1.610	1.596	0.9	94	0.00	9.37
32 M	2-butanone	0.080	0.075	6.3	89	0.00	9.58
33 M	1,1-dichloroethane	0.916	0.782	14.6	84	-0.01	8.85
34 M	chloroprene	0.702	0.572	18.5	77	-0.01	8.97
35 M	acrylonitrile			NA			
36 M	vinyl acetate	0.093	0.078	16.1	81	0.00	8.86
37 M	ethyl acetate	0.101	0.082	18.8	77	-0.01	9.61

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9208-CC9165
Lab FileID: A241577.D

38 M	2,2-dichloropropane	0.785	0.744	5.2	97	-0.01	9.64
39 M	cis-1,2-dichloroethene	0.534	0.519	2.8	93	0.00	9.61
40	methyl acrylate						
41 M	propionitrile						
42 M	bromochloromethane	0.292	0.261	10.6	91	0.00	9.93
43 M	tetrahydrofuran						
44 M	chloroform	0.830	0.765	7.8	90	0.00	9.99
45	tert-butyl formate	0.511	0.475	7.0	87	0.00	10.06
46 S	dibromofluoromethane (s)	0.498	0.498	0.0	96	0.00	10.19
47 M	methacrylonitrile						
48	cyclohexane	0.770	0.725	5.8	90	0.00	10.38
49 M	1,1,1-trichloroethane	0.750	0.760	-1.3	98	0.00	10.29
50	iso-butyl alcohol	0.047	0.042	10.6	88	-0.01	10.44
51	1,1-dichloropropene	0.625	0.567	9.3	88	0.00	10.46
52	carbon tetrachloride	0.643	0.638	0.8	94	0.00	10.50
53	tert-amyl alcohol	0.068	0.068	0.0	97	0.00	10.59
54 I	1,4-difluorobenzene	1.000	1.000	0.0	91	0.00	11.11
55 S	1,2-dichloroethane-d4 (s)	0.356	0.343	3.7	85	-0.01	10.63
56 M	benzene	1.254	1.208	3.7	89	0.00	10.73
57 M	iso-octane	1.234	1.251	-1.4	95	0.00	10.78
58	tert-amyl methyl ether	1.092	1.123	-2.8	95	0.00	10.79
59 M	heptane	0.236	0.208	11.9	82	0.00	10.95
60 M	isopropyl acetate	0.078	0.077	1.3	88	0.00	10.67
61 M	1,2-dichloroethane	0.397	0.380	4.3	89	0.00	10.73
62	n-butyl alcohol	0.019	0.020	-5.3	97	0.00	11.21
63	ethyl acrylate	0.431	0.364	15.5	80	0.00	11.47
64 M	trichloroethene	0.283	0.285	-0.7	90	0.00	11.47
65 M	2-nitropropane						
66 m	methylcyclohexane	0.634	0.611	3.6	89	0.00	11.73
67 M	2-chloroethyl vinyl ether	0.186	0.105	43.5#	54	0.00	12.30
68 M	methyl methacrylate						
69 M	1,2-dichloropropane	0.334	0.293	12.3	83	0.00	11.74
70 M	dibromomethane	0.191	0.196	-2.6	93	-0.01	11.88
71 M	bromodichloromethane	0.388	0.391	-0.8	91	0.00	12.02
72	epichlorohydrin	0.047	0.041	12.8	82	0.00	12.41
73 M	cis-1,3-dichloropropene	0.467	0.453	3.0	92	0.00	12.53
74 M	4-methyl-2-pentanone	0.180	0.168	6.7	85	0.00	12.65
75 M	3-methyl-1-butanol	0.032	0.032	0.0	92	0.00	12.64
76 I	chlorobenzene-d5	1.000	1.000	0.0	98	0.00	14.51
77 S	toluene-d8 (s)	1.336	1.272	4.8	92	0.00	12.86
78	toluene	0.845	0.767	9.2	91	0.00	12.93
79	trans-1,3-dichloropropene	0.469	0.462	1.5	96	0.00	13.12
80	ethyl methacrylate						
81	1,1,2-trichloroethane	0.254	0.246	3.1	93	0.00	13.36
82	2-hexanone	0.182	0.170	6.6	91	0.00	13.57
83 M	tetrachloroethene	0.333	0.329	1.2	95	0.00	13.58
84 M	1,3-dichloropropane	0.492	0.472	4.1	96	0.00	13.56
85 M	butyl acetate	20.000	16.728	16.4	81	0.00	13.66
86	3,3-dimethyl-1-butanol						
87 M	dibromochloromethane	0.339	0.342	-0.9	103	0.00	13.84
88 M	1,2-dibromoethane	0.300	0.328	-9.3	105	0.00	14.02
89 M	n-butyl ether	1.547	1.361	12.0	82	0.00	14.48
90 M	chlorobenzene	0.820	0.838	-2.2	102	0.00	14.54
91 M	1,1,1,2-tetrachloroethane	0.395	0.403	-2.0	96	0.00	14.61

6.11.10
6

Continuing Calibration Summary

Page 3 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9208-CC9165
Lab FileID: A241577.D

92 M	ethylbenzene	1.482	1.414	4.6	94	0.00	14.62
93 M	m,p-xylene	0.561	0.554	1.2	97	0.00	14.74
94 M	o-xylene	0.610	0.604	1.0	92	0.00	15.20
95 M	styrene	0.906	0.892	1.5	98	0.00	15.21
96	butyl acrylate	0.717	0.631	12.0	82	0.00	15.01
97 M	bromoform	0.219	0.250	-14.2	107	0.00	15.48
98	isopropylbenzene	1.662	1.629	2.0	91	0.00	15.60
99	cis-1,4-dichloro-2-butene	0.166	0.149	10.2	84	0.00	15.64
100 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	100	0.00	17.11
101 S	4-bromofluorobenzene (s)	0.814	0.797	2.1	98	0.00	15.80
102 M	bromobenzene	0.664	0.685	-3.2	104	0.00	16.02
103 M	1,1,2,2-tetrachloroethane	0.963	0.947	1.7	98	0.00	15.90
104 M	trans-1,4-dichloro-2-bute			-----NA-----			
105 M	1,2,3-trichloropropane	0.229	0.238	-3.9	103	0.00	15.99
106 M	n-propylbenzene	3.408	3.195	6.3	94	-0.01	16.05
107 M	2-chlorotoluene	0.696	0.697	-0.1	98	0.00	16.21
108 M	4-chlorotoluene	1.798	1.768	1.7	99	0.00	16.32
109	4-ethyltoluene			-----NA-----			
110 M	1,3,5-trimethylbenzene	2.649	2.485	6.2	94	0.00	16.22
111 M	tert-butylbenzene	0.540	0.536	0.7	97	0.00	16.62
112 M	1,2,4-trimethylbenzene	2.584	2.447	5.3	94	0.00	16.66
113 M	sec-butylbenzene	3.453	3.383	2.0	94	0.00	16.86
114 M	1,3-dichlorobenzene	1.270	1.294	-1.9	101	0.00	17.05
115 M	p-isopropyltoluene	2.860	2.775	3.0	94	-0.01	16.99
116 M	1,4-dichlorobenzene	1.291	1.338	-3.6	103	0.00	17.14
117 M	1,2-dichlorobenzene	1.390	1.394	-0.3	100	0.00	17.58
118	1,4-diethylbenzene	0.000	0.029	0.0	0#	0.04	17.45
119 M	n-butylbenzene	1.503	1.404	6.6	91	0.00	17.46
120	1,2,4,5-tetramethylbenzen	0.000	0.025	0.0	0#	0.13	18.41
121 M	1,2-dibromo-3-chloropropa	0.260	0.296	-13.8	114	-0.01	18.42
122 M	1,3,5-trichlorobenzene	1.316	1.318	-0.2	100	0.00	18.64
123	2-ethylhexyl acrylate	0.997	0.636	36.2#	64	-0.01	19.35
124 M	1,2,4-trichlorobenzene	1.141	1.255	-10.0	108	0.00	19.37
125 M	hexachlorobutadiene	0.478	0.523	-9.4	106	0.00	19.52
126 M	naphthalene	2.894	3.593	-24.2#	122	0.00	19.69
127 M	1,2,3-trichlorobenzene	1.031	1.291	-25.2#	123	-0.01	19.96
128 M	hexachloroethane			-----NA-----			
129	2-methylnaphthalene	1.134	1.974	-74.1#	172	-0.01	20.97
130	ethylenimine			-----NA-----			
131	bis(chloromethyl)ether			-----NA-----			

(#) = Out of Range
A240808.D MA9165.M

SPCC's out = 0 CCC's out = 0
Tue May 15 04:14:53 2018

6.11.10
6

Initial Calibration Summary

Page 1 of 5

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VE10811-ICC10811
Lab FileID: E251861.D

Response Factor Report MSE

Method : C:\msdchem\1\METHODS\ME10811.M (RTE Integrator)
Title : SW846 8260C, ZB624 MS 60m x 0.25mm x 1.4um
Last Update : Thu Apr 19 08:11:48 2018
Response via : Initial Calibration

Calibration Files

1 =E251856.D 4 =E251858.D 100 =E251862.D 50 =E251861.D
20 =E251860.D 200 =E251863.D 8 =E251859.D 0.5 =E251855.D
2 =E251857.D =

Compound	1	4	100	50	20	200	8	0.5	2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 -----ISTD-----											
2) ethanol										0.000	-1.00
3) tertiary butyl alcohol											
	1.350	1.426	1.356	1.338	1.374	1.359	1.293		1.236	1.341	4.20
4) 1,4-dioxane											
	0.112	0.125	0.126	0.125	0.125	0.118			0.095	0.118	9.62
5) I pentafluorobenzene -----ISTD-----											
6) chlorodifluoromethane											
	1.570	1.559	1.460	1.547	1.538	1.368	1.536	1.901	1.531	1.557	9.23
7) dichlorodifluoromethane											
	1.072	1.276	1.254	1.352	1.342	1.198	1.313	1.116	1.265	1.243	7.82
8) chloromethane											
	2.057	1.936	1.793	1.902	1.940	1.679	1.991		2.076	1.922	6.91
9) vinyl chloride											
	1.804	1.766	1.650	1.760	1.781	1.579	1.795		1.774	1.739	4.62
10) 1,3-butadiene										0.000	-1.00
11) bromomethane											
	1.067	0.914	0.955	1.000	0.853	1.034			1.119	0.992	9.27
12) chloroethane											
	0.880	0.829	0.744	0.758	0.788	0.712	0.795		0.767	0.784	6.65
13) trichlorofluoromethane											
	1.296	1.348	1.287	1.352	1.377	1.274	1.391	1.401	1.413	1.349	3.86
14) vinyl bromide											
	0.848	0.891	0.857	0.884	0.915	0.840	0.897	1.130	0.963	0.914	9.78
15) ethyl ether											
	0.337	0.335	0.330	0.328	0.332	0.321	0.325		0.328	0.330	1.58
16) 2-chloropropane											
	1.471	1.328	1.344	1.439	1.311	1.431			1.592	1.417	6.98
17) acrolein											
	0.117	0.134	0.126	0.130	0.133	0.122			0.107	0.124	7.96
18) freon 113											
	0.532	0.579	0.587	0.620	0.618	0.592	0.602		0.615	0.593	4.88
19) 1,1-dichloroethene											
	0.681	0.736	0.679	0.682	0.708	0.692	0.699		0.742	0.703	3.53
20) acetone											
	0.047	0.048	0.048	0.048	0.048	0.047			0.044	0.047	2.94
21) acetonitrile											
	0.102	0.096	0.095	0.102	0.092	0.102			0.109	0.100	5.92
22) iodomethane											
	1.104	1.094	1.078	1.081	1.120	1.074	1.115	1.194	1.119	1.109	3.30
23) carbon disulfide											

Initial Calibration Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VE10811-ICC10811
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	2.826	2.674	2.434	2.528	2.643	2.354	2.641	3.140	2.758	2.666	8.70
24)	methylene chloride										
	0.839	0.784	0.754	0.746	0.787	0.754	0.798	0.903	0.782	0.794	6.24
25)	methyl acetate										
	0.485	0.433	0.451	0.469	0.414	0.462		0.480	0.456	5.57	
26)	methyl tert butyl ether										
	2.241	2.190	2.177	2.132	2.202	2.065	2.171	2.333	2.166	2.186	3.36
27)	trans-1,2-dichloroethene										
	0.803	0.706	0.633	0.643	0.666	0.630	0.655	0.698	0.698	0.681	7.91
28)	hexane										
	0.498	0.484	0.469	0.484	0.495	0.472	0.483	0.453	0.469	0.478	2.93
29)	di-isopropyl ether										
	2.900	2.756	2.731	2.733	2.798	2.532	2.744	3.294	2.717	2.800	7.43
30)	2-butanone										
	0.044	0.057	0.061	0.058	0.058	0.059	0.055		0.048	0.055	11.10
31)	1,1-dichloroethane										
	1.302	1.287	1.207	1.236	1.256	1.171	1.263	1.381	1.285	1.265	4.75
32)	chloroprene										
	1.092	1.037	0.989	1.001	1.034	0.963	1.012	1.134	0.988	1.028	5.31
33)	acrylonitrile										
	0.204	0.220	0.215	0.218	0.217	0.209		0.175	0.208	7.57	
34)	vinyl acetate										
	0.072	0.089	0.088	0.086	0.087	0.072			0.082	9.79	
35)	ethyl tert-butyl ether										
	2.713	2.520	2.533	2.510	2.588	2.386	2.490	2.888	2.556	2.576	5.65
36)	ethyl acetate										
	0.073	0.092	0.088	0.094	0.086	0.087			0.087	8.41	
37)	2,2-dichloropropane										
	1.304	1.159	1.084	1.123	1.159	1.037	1.155		1.219	1.155	7.04
38)	cis-1,2-dichloroethene										
	0.794	0.746	0.700	0.699	0.709	0.684	0.719	0.666	0.734	0.717	5.26
39)	propionitrile										
	0.091	0.095	0.094	0.092	0.097	0.088	0.092	0.089	0.093	0.092	3.23
40)	methyl acrylate										
	0.044	0.078	0.072	0.076	0.075	0.067			0.069	18.26	
41)	methacrylonitrile										
	0.193	0.218	0.207	0.210	0.211	0.194		0.190	0.203	5.43	
42)	bromochloromethane										
	0.325	0.304	0.312	0.312	0.316	0.306	0.307	0.219	0.307	0.301	10.47
43)	tetrahydrofuran										
	0.185	0.229	0.180	0.191	0.219	0.245			0.208	12.71	
44)	chloroform										
	1.199	1.123	1.080	1.072	1.114	1.036	1.116	1.310	1.153	1.134	7.15
45)	tert-Butyl Formate										
	This compound does not meet initial calibration criteria										
	0.727	0.707	0.739	0.725	0.749	0.685	0.691	0.761	0.744	0.725	3.62
46)	dibromofluoromethane (s)										
	0.476	0.482	0.489	0.479	0.478	0.486	0.484	0.487	0.476	0.482	1.03
47)	1,1,1-trichloroethane										
	1.228	1.176	1.148	1.153	1.163	1.122	1.156	1.448	1.222	1.202	8.20
48)	cyclohexane										
	1.224	1.412	1.346	1.450	1.459	1.374	1.415	1.221	1.349	1.361	6.47
49)	isobutyl alcohol										
										0.000	-1.00
50)	1,1-dichloropropene										
	0.949	0.902	0.833	0.859	0.876	0.817	0.883	0.969	0.884	0.886	5.54
51)	carbon tetrachloride										
	0.977	0.973	0.946	0.964	0.968	0.935	0.959	1.181	0.924	0.981	7.86
52)	tert-amyl alcohol										
	0.035	0.039	0.038	0.039	0.038	0.039		0.038	0.038	3.83	

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Initial Calibration Summary

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Job Number: JC65663
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53)	isopropyl acetate	0.099	0.120	0.112	0.104	0.118	0.104		0.107	0.109	7.24	
54)	I 1,4-difluorobenzene	-----ISTD-----										
55)	1,2-dichloroethane-d4 (s)	0.349	0.361	0.346	0.343	0.368	0.329	0.356	0.366	0.360	0.353	3.50
56)	n-butyl alcohol	0.008	0.010	0.010	0.010	0.010	0.010	0.010		0.010	0.010	6.68
57)	2,2,4-trimethylpentane	1.683	1.780	1.822	1.886	1.869	1.766	1.722	1.680	1.692	1.767	4.48
58)	benzene	1.814	1.794	1.591	1.649	1.714	1.470	1.696	2.034	1.777	1.727	9.17
59)	tert-amyl methyl ether	1.641	1.515	1.454	1.472	1.556	1.328	1.504	1.669	1.601	1.527	6.87
60)	heptane	0.322	0.333	0.298	0.304	0.322	0.295	0.297	0.265	0.279	0.302	7.17
61)	1,2-dichloroethane	0.591	0.542	0.494	0.498	0.518	0.467	0.522		0.546	0.522	7.31
62)	ethyl acrylate	0.376	0.408	0.453	0.428	0.443	0.426	0.431		0.380	0.418	6.70
63)	trichloroethene	0.439	0.436	0.400	0.399	0.412	0.393	0.408	0.430	0.422	0.415	4.08
64)	2-chloroethyl vinyl ether	0.218	0.227	0.233	0.230	0.241	0.211	0.225	0.216	0.220	0.225	4.11
65)	methyl methacrylate	0.074	0.092	0.085	0.084	0.090	0.073				0.083	9.57
66)	methylcyclohexane	0.909	0.944	0.906	0.949	0.951	0.884	0.911	0.928	0.892	0.919	2.69
67)	1,2-dichloropropane	0.465	0.467	0.461	0.452	0.458	0.442	0.464	0.541	0.475	0.469	6.07
68)	dibromomethane	0.233	0.228	0.227	0.223	0.234	0.219	0.224	0.226	0.229	0.227	2.06
69)	bromodichloromethane	0.599	0.562	0.552	0.547	0.563	0.529	0.543	0.550	0.541	0.554	3.58
70)	2-nitropropane	0.126	0.130	0.128	0.136	0.125	0.129				0.129	3.02
71)	epichlorohydrin	0.036	0.037	0.036	0.040	0.036	0.039		0.037		0.038	3.99
72)	cis-1,3-dichloropropene	0.702	0.678	0.686	0.674	0.703	0.653	0.678	0.756	0.665	0.688	4.36
73)	4-methyl-2-pentanone	0.144	0.152	0.161	0.154	0.157	0.151	0.154	0.158	0.147	0.153	3.56
74)	isoamyl alcohol	0.012	0.013	0.012	0.012	0.013	0.012		0.011		0.012	5.26
75)	I chlorobenzene-d5	-----ISTD-----										
76)	toluene-d8 (s)	1.250	1.249	1.224	1.232	1.243	1.227	1.252	1.272	1.237	1.243	1.20
77)	toluene	1.103	1.102	0.978	1.015	1.050	0.925	1.042	1.258	1.060	1.059	8.84
78)	ethyl methacrylate	0.486	0.449	0.500	0.490	0.490	0.477	0.476	0.484	0.462	0.479	3.24
79)	trans-1,3-dichloropropene	0.632	0.593	0.578	0.586	0.616	0.546	0.623	0.696	0.631	0.611	6.93
80)	1,1,2-trichloroethane	0.253	0.273	0.279	0.279	0.280	0.270	0.281	0.266	0.269	0.272	3.31
81)	tetrachloroethene	0.351	0.357	0.336	0.343	0.354	0.333	0.356	0.364	0.377	0.352	3.90
82)	2-hexanone	0.123	0.131	0.139	0.140	0.143	0.134	0.134	0.125	0.129	0.133	5.03

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Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

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83)	1,3-dichloropropane	0.624	0.588	0.557	0.559	0.585	0.522	0.577	0.558	0.585	0.573	4.92
84)	butyl acetate	0.232	0.244	0.262	0.255	0.266	0.254	0.256	0.195	0.242	0.245	8.88
85)	dibromochloromethane	0.392	0.377	0.377	0.373	0.380	0.367	0.378	0.420	0.389	0.384	4.02
86)	1,2-dibromoethane	0.353	0.342	0.342	0.336	0.354	0.330	0.347	0.304	0.341	0.339	4.43
87)	n-butyl ether	2.382	2.237	2.004	2.130	2.234	1.787	2.175	2.422	2.301	2.186	8.97
88)	chlorobenzene	1.224	1.183	1.085	1.111	1.145	1.022	1.136	1.319	1.180	1.156	7.35
89)	1,1,1,2-tetrachloroethane	0.473	0.501	0.468	0.473	0.496	0.454	0.472	0.532	0.477	0.483	4.83
90)	ethylbenzene	2.139	2.063	1.834	1.927	2.035	1.656	2.006	2.342	2.004	2.001	9.56
91)	m,p-xylene	0.775	0.757	0.717	0.741	0.764	0.680	0.754	0.882	0.806	0.764	7.42
92)	o-xylene	1.786	1.783	1.630	1.711	1.776	1.492	1.741	1.955	1.768	1.738	7.25
93)	styrene	1.303	1.270	1.246	1.255	1.297	1.169	1.258	1.313	1.237	1.261	3.46
94)	butyl acrylate	0.856	0.858	0.844	0.833	0.873	0.812	0.832	0.877	0.802	0.843	3.08
95)	isopropylbenzene	2.431	2.324	2.043	2.213	2.310	1.849	2.297	2.548	2.354	2.263	9.21
96)	bromoform	0.228	0.258	0.253	0.247	0.252	0.251	0.238	0.226	0.234	0.243	4.85
97)	cis-1,4-dichloro-2-butene	0.149	0.156	0.151	0.154	0.152	0.154		0.157	0.153	1.74	
98)	I 1,4-dichlorobenzene-d -----ISTD-----											
99)	4-bromofluorobenzene (s)	0.789	0.810	0.821	0.796	0.803	0.799	0.812	0.803	0.793	0.803	1.26
100)	1,1,1,2-tetrachloroethane	0.808	0.808	0.785	0.784	0.810	0.717	0.805	0.859	0.802	0.798	4.66
101)	trans-1,4-dichloro-2-butene	0.221	0.217	0.197	0.199	0.211	0.186	0.200		0.190	0.203	6.17
102)	1,2,3-trichloropropane	0.179	0.208	0.195	0.192	0.197	0.181	0.189		0.199	0.193	4.87
103)	bromobenzene	0.856	0.841	0.849	0.847	0.859	0.799	0.854	1.003	0.839	0.861	6.54
104)	n-propylbenzene	4.349	4.372	3.780	4.059	4.331	3.198	4.296	4.778	4.443	4.179	10.93
105)	2-chlorotoluene	0.878	0.872	0.877	0.875	0.893	0.833	0.874	0.847	0.818	0.863	2.84
106)	4-chlorotoluene	2.636	2.484	2.296	2.374	2.515	2.087	2.498	2.856	2.613	2.484	8.82
107)	1,3,5-trimethylbenzene	3.411	3.400	3.047	3.251	3.389	2.647	3.346	3.750	3.351	3.288	9.17
108)	tert-butylbenzene	2.982	2.911	2.782	2.936	3.034	2.476	2.999	3.396	2.960	2.942	8.18
109)	1,2,4-trimethylbenzene	3.464	3.353	3.043	3.233	3.398	2.652	3.327	3.698	3.358	3.281	8.95
110)	sec-butylbenzene	4.683	4.592	4.017	4.385	4.613	3.399	4.525	5.062	4.480	4.417	10.64
111)	p-isopropyltoluene	3.919	3.780	3.450	3.675	3.821	2.977	3.772	4.121	3.875	3.710	8.87
112)	1,3-dichlorobenzene	1.982	1.863	1.695	1.749	1.829	1.559	1.822	2.188	1.882	1.841	9.64

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Initial Calibration Summary

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Job Number: JC65663
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Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VE10811-ICC10811
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113)	1,4-dichlorobenzene	1.980	1.883	1.729	1.780	1.853	1.595	1.861	2.137	1.960	1.864	8.38
114)	1,2-dichlorobenzene	1.993	1.894	1.767	1.830	1.888	1.600	1.867	2.051	1.953	1.871	7.09
115)	benzyl Chloride	1.913	1.815	1.666	1.723	1.813	1.497	1.729	1.974	1.863	1.777	8.05
116)	n-butylbenzene	1.914	2.045	1.941	2.019	2.059	1.757	2.007	2.048	1.997	1.976	4.85
117)	2-ethylhexyl acrylate	1.022	1.515	1.411	1.181	1.519	1.114			1.080	1.263	16.82
118)	hexachloroethane	0.612	0.669	0.726	0.719	0.715	0.699	0.677	0.736	0.661	0.690	5.74
119)	1,2-dibromo-3-chloropropane	0.143	0.166	0.173	0.173	0.171	0.164	0.170		0.146	0.163	7.31
120)	1,3,5-trichlorobenzene	1.885	1.740	1.782	1.860	1.869	1.562	1.793	2.037	1.793	1.813	7.05
121)	nitrobenzene		0.063	0.055	0.050	0.065	0.043				0.055	16.46
122)	1,2,4-trichlorobenzene	1.185	1.198	1.376	1.390	1.367	1.216	1.285		1.228	1.281	6.70
123)	hexachlorobutadiene	0.826	0.762	0.742	0.786	0.801	0.675	0.785		0.794	0.771	6.02
124)	naphthalene	1.961	2.034	2.348	2.397	2.373	2.019	2.149		2.045	2.166	8.29
125)	1,2,3-trichlorobenzene	0.919	0.843	0.998	1.001	1.003	0.905	0.925		0.902	0.937	6.22
126)	2-methylnaphthalene		0.735	0.629	0.542	0.740	0.488				0.627	18.03

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

ME10811.M

Thu Apr 19 08:12:40 2018

RPT1

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Initial Calibration Verification

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VE10811-ICV10811
Lab FileID: E251866.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VE10811\E251866.D Vial: 13
Acq On : 18 Apr 2018 9:36 pm Operator: ThienN
Sample : icv10811-50 Inst : MSE
Misc : MS25604,VE10811,5,,100,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\ME10811.M (RTE Integrator)
Title : SW846 8260C, ZB624 MS 60m x 0.25mm x 1.4um
Last Update : Thu Apr 19 10:52:27 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	99	0.00	7.75
2	ethanol			-----NA-----			
3	tertiary butyl alcohol	1.341	1.376	-2.6	102	0.02	7.87
4	1,4-dioxane	0.118	0.122	-3.4	96	0.00	11.66
5 I	pentafluorobenzene	1.000	1.000	0.0	104	0.00	10.02
6	chlorodifluoromethane			-----NA-----			
7	dichlorodifluoromethane	1.243	1.022	17.8	79	0.00	4.51
8	chloromethane	1.922	1.614	16.0	88	0.00	4.87
9	vinyl chloride	1.739	1.421	18.3	84	0.00	5.11
10	1,3-butadiene			-----NA-----			
11	bromomethane	0.992	0.854	13.9	93	0.00	5.71
12	chloroethane	0.784	0.682	13.0	94	0.02	5.88
13	trichlorofluoromethane	1.349	1.141	15.4	88	0.00	6.34
14	vinyl bromide	0.914	0.862	5.7	102	0.00	6.22
15	ethyl ether	0.330	0.292	11.5	93	0.00	6.68
16	2-chloropropane	1.417	1.191	15.9	92	0.00	6.92
17	acrolein	0.124	0.134	-8.1	111	0.00	6.92
18	freon 113	0.593	0.589	0.7	99	0.00	7.14
19	1,1-dichloroethene	0.703	0.537	23.6	82	0.00	7.13
20	acetone	0.047	0.046	2.1	102	0.00	7.11
21	acetonitrile			-----NA-----			
22	iodomethane	1.109	1.071	3.4	103	0.00	7.40
23	carbon disulfide	2.666	2.520	5.5	104	0.00	7.55
24	methylene chloride	0.794	0.696	12.3	97	0.00	7.82
25	methyl acetate	0.456	0.385	15.6	89	0.00	7.56
26	methyl tert butyl ether	2.186	1.978	9.5	97	0.00	8.17
27	trans-1,2-dichloroethene	0.681	0.559	17.9	91	0.00	8.21
28	hexane	0.478	0.380	20.5	82	0.00	8.54
29	di-isopropyl ether	2.800	2.607	6.9	99	0.00	8.75
30	2-butanone	0.055	0.057	-3.6	101	0.00	9.42
31	1,1-dichloroethane	1.265	1.124	11.1	95	0.00	8.78
32	chloroprene	1.028	0.917	10.8	96	0.00	8.88
33	acrylonitrile	0.208	0.243	-16.8	117	0.00	8.10
34	vinyl acetate	0.082	0.092	-12.2	109	0.00	8.70
35	ethyl tert-butyl ether	2.576	2.414	6.3	100	0.00	9.21
36	ethyl acetate	0.087	0.092	-5.7	108	0.00	9.43
37	2,2-dichloropropane	1.155	0.960	16.9	89	0.00	9.54
38	cis-1,2-dichloroethene	0.717	0.661	7.8	99	0.00	9.50
39	propionitrile	0.092	0.089	3.3	101	0.00	9.50
40	methyl acrylate	0.069	0.071	-2.9	103	0.00	9.52
41	methacrylonitrile	0.203	0.203	0.0	102	0.00	9.70

Initial Calibration Verification

Job Number: JC65663
Account: AGMNYF Arcadis
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Sample: VE10811-ICV10811
Lab FileID: E251866.D

42	bromochloromethane	0.301	0.292	3.0	98	0.00	9.80
43	tetrahydrofuran	0.208	0.200	3.8	115	0.00	9.83
44	chloroform	1.134	1.030	9.2	100	0.00	9.88
45	tert-Butyl Formate	0.725	0.489	32.6#	70	0.00	9.91
46 S	dibromofluoromethane (s)	0.482	0.482	0.0	105	0.00	10.07
47	1,1,1-trichloroethane	1.202	1.013	15.7	92	0.00	10.16
48	cyclohexane	1.361	1.291	5.1	93	0.00	10.28
49	isobutyl alcohol			-----NA-----			
50	1,1-dichloropropene	0.886	0.780	12.0	95	0.00	10.32
51	carbon tetrachloride	0.981	0.860	12.3	93	0.00	10.36
52	tert-amyl alcohol	0.038	0.037	2.6	103	0.00	10.43
53	isopropyl acetate	0.109	0.111	-1.8	103	0.00	10.45
54 I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00	10.98
55 S	1,2-dichloroethane-d4 (s)	0.353	0.344	2.5	104	0.00	10.51
56	n-butyl alcohol	0.010	0.010	0.0	100	0.00	11.01
57	2,2,4-trimethylpentane	1.767	1.619	8.4	89	0.00	10.66
58	benzene	1.727	1.544	10.6	97	0.00	10.58
59	tert-amyl methyl ether	1.527	1.416	7.3	100	0.00	10.64
60	heptane	0.302	0.296	2.0	101	0.00	10.81
61	1,2-dichloroethane	0.522	0.476	8.8	99	0.00	10.60
62	ethyl acrylate	0.418	0.433	-3.6	105	0.00	11.27
63	trichloroethene	0.415	0.379	8.7	99	0.00	11.31
64	2-chloroethyl vinyl ether	0.225	0.234	-4.0	106	0.00	12.12
65	methyl methacrylate	0.083	0.086	-3.6	105	0.00	11.55
66	methylcyclohexane	0.919	0.787	14.4	86	0.00	11.63
67	1,2-dichloropropane	0.469	0.434	7.5	100	0.00	11.61
68	dibromomethane	0.227	0.225	0.9	105	0.00	11.73
69	bromodichloromethane	0.554	0.524	5.4	99	0.00	11.89
70	2-nitropropane	0.129	0.138	-7.0	112	0.00	12.10
71	epichlorohydrin	0.038	0.036	5.3	103	0.00	12.23
72	cis-1,3-dichloropropene	0.688	0.661	3.9	102	0.00	12.37
73	4-methyl-2-pentanone	0.153	0.154	-0.7	104	0.00	12.47
74	isoamyl alcohol	0.012	0.012	0.0	102	0.00	12.46
75 I	chlorobenzene-d5	1.000	1.000	0.0	103	0.00	14.39
76 S	toluene-d8 (s)	1.243	1.231	1.0	103	0.00	12.71
77	toluene	1.059	0.981	7.4	100	0.00	12.79
78	ethyl methacrylate	0.479	0.474	1.0	100	0.00	12.96
79	trans-1,3-dichloropropene	0.611	0.552	9.7	97	0.00	12.98
80	1,1,2-trichloroethane	0.272	0.277	-1.8	103	0.00	13.23
81	tetrachloroethene			-----NA-----			
82	2-hexanone	0.133	0.137	-3.0	102	0.00	13.40
83	1,3-dichloropropane	0.573	0.564	1.6	104	0.00	13.43
84	butyl acetate	0.245	0.267	-9.0	108	0.00	13.48
85	dibromochloromethane	0.384	0.383	0.3	106	0.00	13.71
86	1,2-dibromoethane	0.339	0.339	0.0	104	0.00	13.89
87	n-butyl ether	2.186	2.035	6.9	99	0.00	14.35
88	chlorobenzene	1.156	1.088	5.9	101	0.00	14.42
89	1,1,1,2-tetrachloroethane	0.483	0.477	1.2	104	0.00	14.50
90	ethylbenzene	2.001	1.874	6.3	101	0.00	14.49
91	m,p-xylene	0.764	0.723	5.4	101	0.00	14.62
92	o-xylene	1.738	1.654	4.8	100	0.00	15.08
93	styrene	1.261	1.249	1.0	103	0.00	15.09
94	butyl acrylate	0.843	0.849	-0.7	105	0.00	14.87
95	isopropylbenzene	2.263	2.106	6.9	98	0.00	15.47
96	bromoform	0.243	0.263	-8.2	110	0.00	15.36
97	cis-1,4-dichloro-2-butene	0.153	0.143	6.5	98	0.00	15.51
98 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	101	0.00	17.02

Initial Calibration Verification

Page 3 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VE10811-ICV10811
Lab FileID: E251866.D

99	S	4-bromofluorobenzene (s)	0.803	0.822	-2.4	104	0.00	15.70
100		1,1,2,2-tetrachloroethane	0.798	0.801	-0.4	103	0.00	15.78
101		trans-1,4-dichloro-2-bute	0.203	0.222	-9.4	112	0.00	15.82
102		1,2,3-trichloropropane	0.193	0.192	0.5	100	0.00	15.89
103		bromobenzene	0.861	0.863	-0.2	102	0.00	15.91
104		n-propylbenzene	4.179	4.024	3.7	100	0.00	15.94
105		2-chlorotoluene	0.863	0.859	0.5	99	0.00	16.10
106		4-chlorotoluene	2.484	2.474	0.4	105	0.00	16.22
107		1,3,5-trimethylbenzene	3.288	3.171	3.6	98	0.00	16.11
108		tert-butylbenzene	2.942	2.904	1.3	99	0.00	16.50
109		1,2,4-trimethylbenzene	3.281	3.289	-0.2	102	0.00	16.56
110		sec-butylbenzene	4.417	4.280	3.1	98	0.00	16.74
111		p-isopropyltoluene	3.710	3.643	1.8	100	0.00	16.89
112		1,3-dichlorobenzene	1.841	1.751	4.9	101	0.00	16.94
113		1,4-dichlorobenzene	1.864	1.788	4.1	101	0.00	17.05
114		1,2-dichlorobenzene	1.871	1.827	2.4	100	0.00	17.47
115		benzyl Chloride	1.777	1.341	24.5	78	0.00	17.15
116		n-butylbenzene	1.976	1.962	0.7	98	0.00	17.35
117		2-ethylhexyl acrylate	1.263	1.389	-10.0	99	0.00	19.27
118		hexachloroethane	0.690	0.723	-4.8	101	0.00	17.81
119		1,2-dibromo-3-chloropropa	0.163	0.170	-4.3	99	0.00	18.33
120		1,3,5-trichlorobenzene	1.813	1.828	-0.8	99	0.00	18.54
121		nitrobenzene	0.055	0.055	0.0	99	0.00	18.55
122		1,2,4-trichlorobenzene	1.281	1.395	-8.9	101	0.00	19.30
123		hexachlorobutadiene	0.771	0.750	2.7	96	0.00	19.43
124		naphthalene	2.166	2.465	-13.8	103	0.00	19.66
125		1,2,3-trichlorobenzene	0.937	1.001	-6.8	101	0.00	19.94
126		2-methylnaphthalene	0.627	0.536	14.5	86	0.00	21.07

(#) = Out of Range
E251861.D ME10811.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 10:53:48 2018 RPT1

Initial Calibration Verification

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VE10811-ICV10811
Lab FileID: E251867.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VE10811\E251867.D Vial: 14
Acq On : 18 Apr 2018 10:06 pm Operator: ThienN
Sample : icv10811-50 Inst : MSE
Misc : MS25604,VE10811,5,,100,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\ME10811.M (RTE Integrator)
Title : SW846 8260C, ZB624 MS 60m x 0.25mm x 1.4um
Last Update : Thu Apr 19 08:07:34 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	103	0.00	7.74
2	ethanol			NA			
3	tertiary butyl alcohol			NA			
4	1,4-dioxane			NA			
5 I	pentafluorobenzene	1.000	1.000	0.0	106	0.00	10.02
6	chlorodifluoromethane	1.557	1.394	10.5	96	0.00	4.52
7	dichlorodifluoromethane			NA			
8	chloromethane			NA			
9	vinyl chloride			NA			
10	1,3-butadiene			NA			
11	bromomethane			NA			
12	chloroethane			NA			
13	trichlorofluoromethane			NA			
14	vinyl bromide			NA			
15	ethyl ether			NA			
16	2-chloropropane			NA			
17	acrolein			NA			
18	freon 113			NA			
19	1,1-dichloroethene			NA			
20	acetone			NA			
21	acetonitrile	0.100	0.098	2.0	110	0.00	7.53
22	iodomethane			NA			
23	carbon disulfide			NA			
24	methylene chloride			NA			
25	methyl acetate			NA			
26	methyl tert butyl ether			NA			
27	trans-1,2-dichloroethene			NA			
28	hexane			NA			
29	di-isopropyl ether			NA			
30	2-butanone			NA			
31	1,1-dichloroethane			NA			
32	chloroprene			NA			
33	acrylonitrile			NA			
34	vinyl acetate			NA			
35	ethyl tert-butyl ether			NA			
36	ethyl acetate			NA			
37	2,2-dichloropropane			NA			
38	cis-1,2-dichloroethene			NA			
39	propionitrile			NA			
40	methyl acrylate			NA			
41	methacrylonitrile			NA			

Initial Calibration Verification

Page 2 of 3

Job Number: JC65663
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VE10811-ICV10811
 Lab FileID: E251867.D

42	bromochloromethane							
43	tetrahydrofuran							
44	chloroform							
45	tert-Butyl Formate							
46 S	dibromofluoromethane (s)	0.482	0.471	2.3	105	0.00	10.07	
47	1,1,1-trichloroethane							
48	cyclohexane							
49	isobutyl alcohol							
50	1,1-dichloropropene							
51	carbon tetrachloride							
52	tert-amyl alcohol							
53	isopropyl acetate							
54 I	1,4-difluorobenzene	1.000	1.000	0.0	105	0.00	10.98	
55 S	1,2-dichloroethane-d4 (s)	0.353	0.352	0.3	107	0.00	10.51	
56	n-butyl alcohol							
57	2,2,4-trimethylpentane							
58	benzene							
59	tert-amyl methyl ether							
60	heptane							
61	1,2-dichloroethane							
62	ethyl acrylate							
63	trichloroethene							
64	2-chloroethyl vinyl ether							
65	methyl methacrylate							
66	methylcyclohexane							
67	1,2-dichloropropane							
68	dibromomethane							
69	bromodichloromethane							
70	2-nitropropane							
71	epichlorohydrin							
72	cis-1,3-dichloropropene							
73	4-methyl-2-pentanone							
74	isoamyl alcohol							
75 I	chlorobenzene-d5	1.000	1.000	0.0	100	0.00	14.39	
76 S	toluene-d8 (s)	1.243	1.260	-1.4	103	0.00	12.71	
77	toluene							
78	ethyl methacrylate							
79	trans-1,3-dichloropropene							
80	1,1,2-trichloroethane							
81	tetrachloroethene	0.352	0.352	0.0	103	0.00	13.40	
82	2-hexanone							
83	1,3-dichloropropane							
84	butyl acetate							
85	dibromochloromethane							
86	1,2-dibromoethane							
87	n-butyl ether							
88	chlorobenzene							
89	1,1,1,2-tetrachloroethane							
90	ethylbenzene							
91	m,p-xylene							
92	o-xylene							
93	styrene							
94	butyl acrylate							
95	isopropylbenzene							
96	bromoform							
97	cis-1,4-dichloro-2-butene							
98 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	17.02	

6.11.13

6

Initial Calibration Verification

Page 3 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VE10811-ICV10811
Lab FileID: E251867.D

99 S	4-bromofluorobenzene (s)	0.803	0.801	0.2	104	0.00	15.71
100	1,1,2,2-tetrachloroethane		-----NA-----				
101	trans-1,4-dichloro-2-bute		-----NA-----				
102	1,2,3-trichloropropane		-----NA-----				
103	bromobenzene		-----NA-----				
104	n-propylbenzene		-----NA-----				
105	2-chlorotoluene		-----NA-----				
106	4-chlorotoluene		-----NA-----				
107	1,3,5-trimethylbenzene		-----NA-----				
108	tert-butylbenzene		-----NA-----				
109	1,2,4-trimethylbenzene		-----NA-----				
110	sec-butylbenzene		-----NA-----				
111	p-isopropyltoluene		-----NA-----				
112	1,3-dichlorobenzene		-----NA-----				
113	1,4-dichlorobenzene		-----NA-----				
114	1,2-dichlorobenzene		-----NA-----				
115	benzyl Chloride		-----NA-----				
116	n-butylbenzene		-----NA-----				
117	2-ethylhexyl acrylate		-----NA-----				
118	hexachloroethane		-----NA-----				
119	1,2-dibromo-3-chloropropa		-----NA-----				
120	1,3,5-trichlorobenzene		-----NA-----				

	----- True	Calc.	% Drift	-----
121	nitrobenzene	-----NA-----		
	----- AvgRF	CCRF	% Dev	-----
122	1,2,4-trichlorobenzene	-----NA-----		
123	hexachlorobutadiene	-----NA-----		
124	naphthalene	-----NA-----		
125	1,2,3-trichlorobenzene	-----NA-----		
126	2-methylnaphthalene	-----NA-----		

(#) = Out of Range
E251861.D ME10811.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 08:08:59 2018 RPT1

6.11.13

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Continuing Calibration Summary

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VE10833-CC10811
Lab FileID: E252359.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\kenrickb\ve10833\ve10833.d Vial: 3
 Acq On : 11 May 2018 7:46 am Operator: ThienN
 Sample : cc10811-50 Inst : MSE
 Misc : MS26117,VE10833,5,,100,5,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\ME10811.M (RTE Integrator)
 Title : SW846 8260C, ZB624 MS 60m x 0.25mm x 1.4um
 Last Update : Thu Apr 19 10:52:27 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	150	0.00	7.74
2	ethanol			-----NA-----			
3	tertiary butyl alcohol	1.341	1.175	12.4	132	0.01	7.86
4	1,4-dioxane	0.118	0.098	16.9	117	-0.02	11.66
5 I	pentafluorobenzene	1.000	1.000	0.0	109	0.00	10.01
6	chlorodifluoromethane	1.557	1.043	33.0#	74	0.00	4.52
7	dichlorodifluoromethane	1.243	1.530	-23.1#	124	-0.01	4.49
8	chloromethane	1.922	1.850	3.7	106	0.01	4.88
9	vinyl chloride	1.739	1.682	3.3	105	0.01	5.11
10	1,3-butadiene			-----NA-----			
11	bromomethane	0.992	0.965	2.7	111	0.00	5.72
12	chloroethane	0.784	0.796	-1.5	115	0.02	5.88
13	trichlorofluoromethane	1.349	1.429	-5.9	116	0.00	6.34
14	vinyl bromide	0.914	0.958	-4.8	119	0.01	6.22
15	ethyl ether	0.330	0.305	7.6	102	0.00	6.68
16	2-chloropropane	1.417	1.209	14.7	98	0.00	6.92
17	acrolein	0.124	0.154	-24.2#	134	0.00	6.92
18	freon 113	0.593	0.651	-9.8	115	0.00	7.13
19	1,1-dichloroethene	0.703	0.710	-1.0	114	0.01	7.13
20	acetone	0.047	0.058	-23.4#	134	0.00	7.10
21	acetonitrile	0.100	0.117	-17.0	135	0.00	7.53
22	iodomethane	1.109	1.162	-4.8	118	0.01	7.40
23	carbon disulfide	2.666	2.565	3.8	111	0.02	7.57
24	methylene chloride	0.794	0.809	-1.9	119	0.00	7.82
25	methyl acetate	0.456	0.425	6.8	103	0.00	7.55
26	methyl tert butyl ether	2.186	2.064	5.6	106	0.00	8.17
27	trans-1,2-dichloroethene	0.681	0.604	11.3	103	0.00	8.20
28	hexane	0.478	0.412	13.8	93	0.00	8.54
29	di-isopropyl ether	2.800	2.200	21.4#	88	0.00	8.75
30	2-butanone	0.055	0.058	-5.5	109	-0.01	9.41
31	1,1-dichloroethane	1.265	1.060	16.2	94	0.00	8.78
32	chloroprene	1.028	0.782	23.9#	85	0.00	8.88
33	acrylonitrile	0.208	0.238	-14.4	121	0.00	8.09
34	vinyl acetate	0.082	0.086	-4.9	107	0.00	8.69
35	ethyl tert-butyl ether	2.576	2.101	18.4	92	0.00	9.22
36	ethyl acetate	0.087	0.082	5.7	101	0.00	9.42
37	2,2-dichloropropane	1.155	1.101	4.7	107	0.00	9.54
38	cis-1,2-dichloroethene	0.717	0.621	13.4	97	0.00	9.49
39	propionitrile	0.092	0.097	-5.4	115	-0.01	9.49
40	methyl acrylate	0.069	0.072	-4.3	109	-0.01	9.51
41	methacrylonitrile	0.203	0.206	-1.5	109	-0.01	9.69

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VE10833-CC10811
Lab FileID: E252359.D

42	bromochloromethane	0.301	0.296	1.7	104	-0.01	9.79
43	tetrahydrofuran	0.208	0.212	-1.9	128	-0.01	9.81
44	chloroform	1.134	0.941	17.0	96	0.00	9.87
45	tert-Butyl Formate	0.725	0.663	8.6	100	0.00	9.91
46 S	dibromofluoromethane (s)	0.482	0.486	-0.8	111	0.00	10.07
47	1,1,1-trichloroethane	1.202	1.107	7.9	105	0.00	10.15
48	cyclohexane	1.361	1.331	2.2	100	0.00	10.27
49	isobutyl alcohol			-----NA-----			
50	1,1-dichloropropene	0.886	0.690	22.1#	88	0.00	10.32
51	carbon tetrachloride	0.981	0.940	4.2	107	0.00	10.36
52	tert-amyl alcohol	0.038	0.043	-13.2	124	0.00	10.43
53	isopropyl acetate	0.109	0.112	-2.8	109	0.00	10.44
54 I	1,4-difluorobenzene	1.000	1.000	0.0	101	0.00	10.98
55 S	1,2-dichloroethane-d4 (s)	0.353	0.359	-1.7	106	0.00	10.50
56	n-butyl alcohol	0.010	0.009	10.0	95	-0.02	11.00
57	2,2,4-trimethylpentane	1.767	1.756	0.6	94	0.00	10.66
58	benzene	1.727	1.447	16.2	89	-0.01	10.57
59	tert-amyl methyl ether	1.527	1.411	7.6	97	0.00	10.64
60	heptane	0.302	0.264	12.6	88	0.00	10.81
61	1,2-dichloroethane	0.522	0.446	14.6	91	0.00	10.59
62	ethyl acrylate	0.418	0.409	2.2	97	0.00	11.27
63	trichloroethene	0.415	0.349	15.9	89	0.00	11.30
64	2-chloroethyl vinyl ether	0.225	0.210	6.7	93	0.00	12.12
65	methyl methacrylate	0.083	0.090	-8.4	107	0.00	11.55
66	methylcyclohexane	0.919	0.942	-2.5	101	0.00	11.63
67	1,2-dichloropropane	0.469	0.389	17.1	87	0.00	11.61
68	dibromomethane	0.227	0.218	4.0	99	0.00	11.73
69	bromodichloromethane	0.554	0.478	13.7	88	0.00	11.89
70	2-nitropropane	0.129	0.124	3.9	98	-0.02	12.08
71	epichlorohydrin	0.038	0.039	-2.6	108	-0.01	12.21
72	cis-1,3-dichloropropene	0.688	0.579	15.8	87	0.00	12.37
73	4-methyl-2-pentanone	0.153	0.159	-3.9	105	0.00	12.46
74	isoamyl alcohol	0.012	0.014	-16.7	112	0.00	12.46
75 I	chlorobenzene-d5	1.000	1.000	0.0	101	0.00	14.38
76 S	toluene-d8 (s)	1.243	1.211	2.6	99	0.00	12.70
77	toluene	1.059	0.859	18.9	85	0.00	12.78
78	ethyl methacrylate	0.479	0.479	0.0	99	0.00	12.95
79	trans-1,3-dichloropropene	0.611	0.537	12.1	92	0.00	12.98
80	1,1,2-trichloroethane	0.272	0.268	1.5	97	0.00	13.23
81	tetrachloroethene	0.352	0.311	11.6	91	0.00	13.40
82	2-hexanone	0.133	0.148	-11.3	107	0.00	13.39
83	1,3-dichloropropane	0.573	0.523	8.7	94	0.00	13.43
84	butyl acetate	0.245	0.260	-6.1	103	0.00	13.48
85	dibromochloromethane	0.384	0.359	6.5	97	0.00	13.71
86	1,2-dibromoethane	0.339	0.349	-2.9	105	0.00	13.89
87	n-butyl ether	2.186	1.714	21.6#	81	0.00	14.35
88	chlorobenzene	1.156	0.974	15.7	88	0.00	14.42
89	1,1,1,2-tetrachloroethane	0.483	0.451	6.6	96	0.00	14.49
90	ethylbenzene	2.001	1.683	15.9	88	0.00	14.48
91	m,p-xylene	0.764	0.656	14.1	89	0.00	14.62
92	o-xylene	1.738	1.504	13.5	89	0.00	15.07
93	styrene	1.261	1.130	10.4	91	0.00	15.09
94	butyl acrylate	0.843	0.802	4.9	97	0.00	14.86
95	isopropylbenzene	2.263	1.975	12.7	90	0.00	15.46
96	bromoform	0.243	0.281	-15.6	115	0.00	15.35
97	cis-1,4-dichloro-2-butene	0.153	0.177	-15.7	118	0.00	15.50
98 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	112	0.00	17.02

6.11.14

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Continuing Calibration Summary

Page 3 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VE10833-CC10811
Lab FileID: E252359.D

99	S	4-bromofluorobenzene (s)	0.803	0.747	7.0	105	0.00	15.70
100		1,1,2,2-tetrachloroethane	0.798	0.790	1.0	113	0.00	15.78
101		trans-1,4-dichloro-2-bute	0.203	0.211	-3.9	118	0.00	15.81
102		1,2,3-trichloropropane	0.193	0.204	-5.7	118	0.00	15.88
103		bromobenzene	0.861	0.731	15.1	96	0.00	15.91
104		n-propylbenzene	4.179	3.264	21.9#	90	0.00	15.93
105		2-chlorotoluene	0.863	0.726	15.9	93	0.00	16.09
106		4-chlorotoluene	2.484	1.947	21.6#	92	0.00	16.22
107		1,3,5-trimethylbenzene	3.288	2.563	22.0#	88	0.00	16.11
108		tert-butylbenzene	2.942	2.284	22.4#	87	0.00	16.49
109		1,2,4-trimethylbenzene	3.281	2.586	21.2#	89	0.00	16.55
110		sec-butylbenzene	4.417	3.449	21.9#	88	0.00	16.74
111		p-isopropyltoluene	3.710	2.963	20.1#	90	0.00	16.89
112		1,3-dichlorobenzene	1.841	1.495	18.8	96	0.00	16.94
113		1,4-dichlorobenzene	1.864	1.531	17.9	96	0.00	17.05
114		1,2-dichlorobenzene	1.871	1.603	14.3	98	0.00	17.47
115		benzyl Chloride	1.777	1.906	-7.3	124	0.00	17.15
116		n-butylbenzene	1.976	1.601	19.0	89	0.00	17.35
117		2-ethylhexyl acrylate	1.263	0.923	26.9#	73	0.00	19.27
118		hexachloroethane	0.690	0.593	14.1	92	0.00	17.81
119		1,2-dibromo-3-chloropropa	0.163	0.199	-22.1#	128	0.00	18.32
120		1,3,5-trichlorobenzene	1.813	1.607	11.4	97	0.00	18.54
121		nitrobenzene	0.055	0.071	-29.1#	144	0.00	18.54
122		1,2,4-trichlorobenzene	1.281	1.440	-12.4	116	0.00	19.29
123		hexachlorobutadiene	0.771	0.747	3.1	106	0.00	19.42
124		naphthalene	2.166	3.149	-45.4#	147	-0.01	19.65
125		1,2,3-trichlorobenzene	0.937	1.281	-36.7#	143	0.00	19.93
126		2-methylnaphthalene	0.627	1.042	-66.2#	185	0.00	21.07

(#) = Out of Range
E251861.D ME10811.M

SPCC's out = 0 CCC's out = 0
Mon May 14 08:41:46 2018

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Initial Calibration Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICC7713
Lab FileID: Y178412.D

Response Factor Report MSY

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
Last Update : Thu May 17 08:41:26 2018
Response via : Initial Calibration

Calibration Files

4 =Y178409.D 8 =Y178410.D 0.5 =Y178406.D 50 =Y178412.D
100 =Y178413.D 1 =Y178407.D 200 =Y178414.D 20 =Y178411.D
2 =Y178408.D 0.2 =Y178405.D = =

Compound	4	8	0.5	50	100	1	200	20	2	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 -----ISTD-----												
2) ethanol										0.000		-1.00
3) tertiary butyl alcohol												
1.644 1.453			1.436	1.567		1.500	1.520			1.520		5.05
4) 1,4-dioxane												
0.111 0.103			0.116	0.126		0.122	0.114			0.115		6.95
5) I pentafluorobenzene -----ISTD-----												
6) chlorodifluoromethane												
0.942 0.846			0.836	0.915	1.071	0.840	0.899	1.005		0.919		9.18
7) dichlorodifluoromethane												
0.867 0.809			0.700	0.738	0.956	0.701	0.804	0.881		0.807		11.38
8) Freon 123										0.000		-1.00
9) Freon 114										0.000		-1.00
10) chloromethane												
1.181 1.106			0.956	1.031		0.973	1.148	1.088		1.069		8.01
11) vinyl chloride												
0.994 0.920			0.832	0.937	0.912	0.898	0.940	0.867		0.913		5.36
12) 1,3-butadiene												
0.917 0.801			0.686	0.795		0.729	0.798	0.891		0.803		10.18
13) bromomethane												
0.825 0.653			0.533	0.585		0.545	0.632			0.629		17.01
14) chloroethane												
0.592 0.519 0.423			0.449	0.481		0.459	0.508	0.596		0.503		12.71
15) vinyl Bromide												
0.598 0.549			0.509	0.554		0.542	0.565			0.553		5.32
16) trichlorofluoromethane												
0.840 0.770			0.728	0.775	0.797	0.756	0.804	0.742		0.776		4.69
17) ethyl ether												
0.326 0.278			0.276	0.294	0.290	0.282	0.298	0.317		0.295		6.14
18) 2-chloropropane												
0.251 0.234			0.210	0.218		0.208	0.226	0.246		0.227		7.45
19) acrolein												
0.137			0.097	0.096		0.094	0.115			0.108		16.92
20) freon 113												
0.432 0.392			0.373	0.396		0.385	0.405	0.365		0.393		5.64
21) 1,1-dichloroethene												
0.856 0.797 0.660			0.735	0.782	0.723	0.737	0.784	0.739		0.757		7.31
22) acetone												
0.067 0.064			0.056	0.057		0.053	0.062	0.074		0.062		11.85
23) acetonitrile												

Initial Calibration Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICC7713
Lab FileID: Y178412.D

	0.078	0.077		0.067	0.072		0.068	0.077		0.073	7.04
24)	iodomethane										
	0.968	0.949	0.863	0.871	0.952	0.912	0.915	0.947	0.894	0.919	4.08
25)	carbon disulfide										
	1.977	1.859	1.837	1.735	1.855	1.805	1.771	1.873	1.846	1.694	4.35
26)	methylene chloride										
	0.652	0.591	0.619	0.543	0.588	0.638	0.562	0.582	0.581	0.595	5.90
27)	methyl acetate										
	0.393	0.355		0.335	0.374		0.351	0.365		0.362	5.56
28)	methyl tert butyl ether										
	1.851	1.742	2.327	1.580	1.712	1.789	1.635	1.714	1.730	1.786	12.17
29)	trans-1,2-dichloroethene										
	0.826	0.754	0.790	0.718	0.754	0.711	0.698	0.752	0.776	0.753	5.40
30)	hexane										
	0.815	0.775		0.688	0.701		0.663	0.761	0.700	0.729	7.53
31)	di-isopropyl ether										
	2.500	2.264		2.124	2.267	2.974	2.130	2.279	2.259	2.350	11.81
32)	ethyl tert-butyl ether										
	2.100	1.962	2.194	1.890	2.062	1.968	1.986	1.991	1.871	2.003	5.08
33)	2-butanone										
	0.055	0.049		0.054	0.058		0.057	0.057	0.036	0.052	14.78
34)	1,1-dichloroethane										
	1.027	0.985	1.013	0.909	0.968	0.877	0.906	0.975	0.996	0.962	5.43
35)	chloroprene										
	0.818	0.755	0.827	0.706	0.731	0.801	0.676	0.755	0.747	0.757	6.68
36)	acrylonitrile										
	0.142	0.197		0.172	0.187	0.168	0.183	0.198	0.140	0.174	13.02
37)	vinyl acetate										
	0.057			0.068	0.080		0.075	0.074		0.071	12.13
38)	ethyl acetate										
	This compound does not meet initial calibration criteria										
	0.115			0.066	0.069		0.079	0.086		0.083	23.78
39)	2,2-dichloropropane										
	0.978	0.848		0.761	0.804	1.014	0.758	0.833	0.962	0.870	11.59
40)	cis-1,2-dichloroethene										
	0.720	0.610		0.550	0.581	0.881	0.545	0.572	0.798	0.657	19.33
41)	propionitrile										
	0.081	0.075		0.072	0.076		0.074	0.079	0.063	0.074	7.68
42)	bromochloromethane										
	0.363	0.335	0.291	0.320	0.351	0.300	0.336	0.352	0.279	0.325	9.12
43)	tetrahydrofuran										
	0.053	0.058		0.059	0.065		0.064	0.071		0.062	10.43
44)	chloroform										
	1.008	0.918		0.854	0.914	1.116	0.859	0.903	0.949	0.940	9.19
45)	tert-Butyl Formate										
	This compound does not meet initial calibration criteria										
	0.234			0.228	0.251		0.241	0.251		0.241	4.25
46)	isobutyl alcohol										
	0.141	0.130		0.121	0.125	0.116	0.120	0.131	0.124	0.126	6.26
47)	dibromofluoromethane (s)										
	0.447	0.444	0.442	0.447	0.452	0.441	0.458	0.455	0.438	0.444	1.43
48)	methacrylonitrile										
	0.159	0.182		0.177	0.186	0.270	0.183	0.195	0.175	0.191	17.63
49)	1,1,1-trichloroethane										
	0.914	0.780	1.062	0.751	0.805	0.858	0.762	0.801	0.875	0.845	11.56
50)	cyclohexane										
	0.877	0.807	0.890	0.741	0.760	0.796	0.769	0.822	0.801	0.807	6.23
51)	1,1-dichloropropene										
	0.685	0.642	0.728	0.615	0.651	0.614	0.608	0.662	0.664	0.516	8.84
52)	tert-amyl alcohol										

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Initial Calibration Summary

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Job Number: JC65663
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICC7713
 Lab FileID: Y178412.D

	0.025	0.026		0.021	0.023		0.022	0.024		0.023	9.12	
53)	carbon tetrachloride											
	0.742	0.673	0.587	0.648	0.683	0.695	0.649	0.696	0.645	0.669	6.49	
54)	I	1,4-difluorobenzene -----ISTD-----										
55)	1,2-dichloroethane-d4 (s)											
	0.306	0.301	0.291	0.284	0.287	0.289	0.283	0.295	0.297	0.292	0.292	2.47
56)	2,2,4-trimethylpentane											
	1.559	1.416	1.812	1.286	1.395	1.690	1.381	1.418	1.452	1.534	1.494	10.57
57)	tert-amyl methyl ether											
	1.344	1.320		1.149	1.262	1.563	1.200	1.256	1.253		1.293	9.67
58)	n-butyl alcohol											
	0.009	0.011		0.010	0.011		0.011	0.012			0.011	8.06
59)	benzene											
	1.550	1.442	1.761	1.312	1.400	1.512	1.299	1.405	1.489		1.463	9.58
60)	heptane											
	0.286	0.276		0.255	0.269		0.250	0.277	0.379		0.285	15.24
61)	isopropyl acetate											
	0.043	0.051		0.057	0.061		0.061	0.058			0.055	12.52
62)	1,2-dichloroethane											
	0.457	0.426	0.577	0.389	0.420	0.452	0.383	0.422	0.424	0.417	0.437	12.44
63)	trichloroethene											
	0.374	0.341	0.415	0.308	0.327	0.379	0.305	0.329	0.346	0.369	0.349	9.94
64)	ethyl acrylate											
	0.271	0.365		0.332	0.359		0.350	0.352			0.338	10.31
65)	2-nitropropane											
	0.078	0.076		0.062	0.068		0.064	0.069			0.069	9.25
66)	2-chloroethyl vinyl ether											
	0.180	0.167		0.158	0.170	0.153	0.164	0.173	0.155		0.165	5.66
67)	methyl methacrylate											
	0.059	0.066		0.067	0.072		0.071	0.068			0.068	6.77
68)	1,2-dichloropropane											
	0.406	0.385	0.371	0.361	0.390	0.359	0.364	0.380	0.385		0.378	4.11
69)	methylcyclohexane											
	0.763	0.686	0.903	0.609	0.656	0.702	0.628	0.670	0.653		0.697	12.84
70)	dibromomethane											
	0.217	0.204	0.182	0.188	0.201	0.214	0.188	0.201	0.187		0.198	6.30
71)	bromodichloromethane											
	0.500	0.465	0.637	0.440	0.474	0.503	0.448	0.461	0.503		0.492	12.04
72)	epichlorohydrin											
		0.034		0.026	0.028		0.027	0.032			0.029	11.70
73)	cis-1,3-dichloropropene											
	0.577	0.553	0.556	0.538	0.582	0.555	0.549	0.562	0.528		0.556	3.07
74)	4-methyl-2-pentanone											
	0.128	0.123	0.075	0.117	0.126	0.097	0.122	0.131	0.114		0.115	15.56
75)	3-methyl-1-butanol											
	0.010	0.011		0.010	0.010		0.010	0.011	0.009		0.010	7.35
76)	I	chlorobenzene-d5 -----ISTD-----										
77)	toluene-d8 (s)											
	1.351	1.352	1.344	1.374	1.371	1.344	1.355	1.372	1.368	1.356	1.359	0.85
78)	toluene											
	1.031	0.958	0.986	0.924	0.979	0.927	0.896	0.950	0.988	0.922	0.956	4.24
79)	trans-1,3-dichloropropene											
	0.609	0.552	0.537	0.546	0.578	0.611	0.535	0.579	0.557	0.592	0.570	4.97
80)	ethyl methacrylate											
	0.544	0.483		0.453	0.466		0.445	0.496			0.481	7.55
81)	1,1,2-trichloroethane											
	0.305	0.281		0.266	0.282	0.322	0.260	0.284	0.277		0.285	7.08
82)	2-hexanone											

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Initial Calibration Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICC7713
Lab FileID: Y178412.D

	0.140	0.139		0.131	0.137	0.109	0.129	0.140	0.111		0.129	9.83
83)	tetrachloroethene											
	0.426	0.367	0.366	0.368	0.388	0.364	0.364	0.402	0.402	0.365	0.381	5.84
84)	1,3-dichloropropane											
	0.562	0.530	0.549	0.490	0.527	0.499	0.490	0.528	0.510	0.425	0.511	7.55
85)	butyl acetate											
	This compound does not meet initial calibration criteria											
	0.206			0.202	0.218		0.205	0.217			0.209	3.57
86)	dibromochloromethane											
	0.371	0.363	0.335	0.354	0.386	0.321	0.368	0.381	0.361		0.360	5.81
87)	1,2-dibromoethane											
	0.327	0.325	0.323	0.312	0.333	0.291	0.312	0.328	0.314		0.318	3.95
88)	3,3-Dimethyl-1-Butanol											
	0.047	0.048		0.043	0.047		0.045	0.051	0.045		0.047	5.56
89)	n-butyl ether											
	2.001	1.869		1.782	1.896		1.720	1.865	1.844		1.854	4.78
90)	chlorobenzene											
	1.105	1.030	1.146	0.993	1.067	0.991	0.986	1.070	1.091	1.263	1.074	7.93
91)	1,1,1,2-tetrachloroethane											
	0.438	0.406	0.339	0.406	0.443	0.406	0.409	0.440	0.408		0.411	7.60
92)	ethylbenzene											
	1.898	1.791	2.128	1.669	1.783	1.700	1.632	1.813	1.844	2.528	1.878	14.23
93)	m,p-xylene											
	0.709	0.665	0.729	0.637	0.680	0.623	0.624	0.670	0.661	0.653	0.665	5.20
94)	o-xylene											
	1.644	1.521	1.892	1.437	1.559	1.501	1.429	1.556	1.622	2.007	1.617	11.77
95)	styrene											
	1.270	1.134	1.237	1.111	1.178	1.126	1.097	1.164	1.149	1.303	1.177	5.96
96)	bromoform											
	0.236	0.232	0.228	0.234	0.251	0.194	0.239	0.242	0.218		0.231	7.17
97)	butyl acrylate											
	0.728	0.643		0.689	0.728		0.683	0.786	0.554		0.687	10.77
98)	isopropylbenzene											
	1.949	1.779	1.888	1.728	1.871	1.767	1.709	1.855	1.806	2.185	1.854	7.47
99)	cis-1,4-dichloro-2-butene											
	0.136	0.129		0.129	0.140		0.128	0.137	0.089		0.127	13.57
100)	I	1,4-dichlorobenzene-d -----ISTD-----										
101)	4-bromofluorobenzene (s)											
	0.821	0.825	0.834	0.833	0.829	0.838	0.827	0.818	0.843	0.833	0.830	0.92
102)	bromobenzene											
	0.865	0.854	0.846	0.822	0.893	0.821	0.834	0.857	0.849	0.817	0.846	2.78
103)	1,1,2,2-tetrachloroethane											
	0.881	0.815	1.117	0.775	0.829	0.985	0.779	0.829	0.913		0.880	12.63
104)	trans-1,4-dichloro-2-butene											
	0.198	0.175		0.164	0.170	0.197	0.156	0.173	0.174		0.176	8.38
105)	1,2,3-trichloropropane											
	0.214	0.185		0.170	0.187	0.129	0.172	0.177	0.186		0.178	13.42
106)	n-propylbenzene											
	4.127	3.859	4.773	3.695	3.977	3.768	3.622	3.941	4.079	5.832	4.167	16.02
107)	4-Ethyltoluene											
											0.000	-1.00
108)	2-chlorotoluene											
	0.862	0.821	0.785	0.793	0.864	0.847	0.800	0.828	0.890	0.626	0.812	9.08
109)	4-chlorotoluene											
	2.505	2.379	3.207	2.171	2.381	2.503	2.191	2.342	2.502		2.465	12.39
110)	1,3,5-trimethylbenzene											
	2.925	2.801	3.060	2.732	3.032	2.693	2.766	2.781	2.889	3.912	2.959	12.06
111)	tert-butylbenzene											
	0.526	0.474	0.490	0.500	0.557	0.452	0.519	0.514	0.468		0.500	6.56

6.11.15

6

Initial Calibration Summary

Page 5 of 5

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICC7713
Lab FileID: Y178412.D

112)	1,2,4-trimethylbenzene	2.986	2.870	3.238	2.795	3.089	2.686	2.830	2.906	3.004	3.424	2.983	7.39
113)	sec-butylbenzene	3.868	3.613	4.225	3.547	3.931	3.700	3.607	3.738	3.670	4.381	3.828	7.28
114)	1,3-dichlorobenzene	1.750	1.665	1.721	1.597	1.746	1.700	1.611	1.665	1.794	1.753	1.700	3.80
115)	p-isopropyltoluene	3.239	3.111	3.485	3.021	3.334	3.042	3.073	3.186	3.076	3.676	3.224	6.68
116)	1,4-dichlorobenzene	1.878	1.722	2.033	1.609	1.749	1.855	1.624	1.700	1.785	1.855	1.781	7.23
117)	1,2-dichlorobenzene	1.790	1.692	1.868	1.629	1.786	1.641	1.652	1.711	1.656	1.890	1.732	5.55
118)	1,4-Diethylbenzene											0.000	-1.00
119)	n-butylbenzene	1.755	1.667	1.985	1.657	1.830	1.579	1.657	1.764	1.705	1.817	1.742	6.65
120)	1,2,4,5-Tetramethylbenzene											0.000	-1.00
121)	1,2-dibromo-3-chloropropane	0.202	0.178		0.170	0.192		0.177	0.185	0.174		0.183	6.16
122)	1,3,5-Trichlorobenzene	1.695	1.610	1.836	1.590	1.825	1.603	1.647	1.747	1.578	2.251	1.738	11.70
123)	1,2,4-trichlorobenzene	1.433	1.310	1.326	1.333	1.561	1.293	1.414	1.411	1.329	1.557	1.397	7.01
124)	hexachlorobutadiene	0.922	0.829	1.057	0.838	0.933	0.833	0.813	0.887	0.897	0.839	0.885	8.31
125)	naphthalene	2.622	2.382	2.840	2.326	2.751	2.468	2.535	2.602	2.535	3.062	2.612	8.48
126)	1,2,3-trichlorobenzene	1.296	1.178	1.201	1.184	1.383	1.199	1.271	1.286	1.191	1.298	1.248	5.46
127)	hexachloroethane	0.512	0.524	0.388	0.559	0.627	0.425	0.596	0.555	0.490		0.520	14.82
128)	Benzyl chloride	1.635	1.587		1.449	1.556	1.943	1.440	1.573	1.603		1.598	9.75
129)	2-ethylhexyl acrylate	1.268	0.957		0.990	1.206		1.119	1.089	1.337		1.138	12.37
130)	2-methylnaphthalene	1.086			1.147	1.469		1.423	1.223			1.269	13.32
131)	pentafluorobenzene(a)	-----ISTD-----											
132)	freon 142b	0.979	0.882	1.115	1.040	0.898	1.015	0.968	0.827	0.886		0.957	9.56
133)	freon 141b	0.911	0.862	0.648	0.941	0.828	0.853	0.873	0.774	0.814		0.834	10.29

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

MYS7713.M

Thu May 17 08:44:26 2018

RPT1

Initial Calibration Verification

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
Lab FileID: Y178417.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\VY7713\Y178417.D Vial: 14
 Acq On : 28 Feb 2018 12:17 am Operator: PrashanS
 Sample : ICV7713-50 Inst : MSY
 Misc : MS24386,VY7713,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)
 Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 Last Update : Mon Mar 05 14:04:44 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	104	-0.01	6.99
2	ethanol			-----NA-----			
3	tertiary butyl alcohol	1.520	1.613	-6.1	117	0.00	7.11
4	1,4-dioxane	0.115	0.126	-9.6	114	0.00	10.84
5 I	pentafluorobenzene	1.000	1.000	0.0	98	0.00	9.22
6	chlorodifluoromethane	0.919	0.807	12.2	94	0.00	3.86
7	dichlorodifluoromethane	0.807	0.829	-2.7	116	0.00	3.86
8	Freon 142B			-----NA-----			
9	Freon 114			-----NA-----			
10	chloromethane	1.069	1.144	-7.0	117	0.00	4.19
11	vinyl chloride	0.913	0.891	2.4	105	0.00	4.42
12	1,3-butadiene			-----NA-----			
13	bromomethane	0.629	0.618	1.7	114	0.00	5.01
14	chloroethane	0.503	0.501	0.4	109	0.00	5.16
15	vinyl Bromide	0.553	0.558	-0.9	107	0.00	5.48
16	trichlorofluoromethane	0.776	0.773	0.4	104	0.01	5.61
17	ethyl ether	0.295	0.296	-0.3	105	0.00	5.96
18	2-chloropropane	0.227	0.225	0.9	105	0.00	6.13
19	acrolein	0.108	0.110	-1.9	111	0.00	6.16
20	freon 113	0.393	0.443	-12.7	116	0.00	6.38
21	1,1-dichloroethene	0.757	0.741	2.1	99	0.00	6.36
22	acetone	0.062	0.055	11.3	96	0.00	6.37
23	acetonitrile	0.073	0.069	5.5	102	0.00	6.75
24	iodomethane	0.919	0.928	-1.0	104	0.00	6.62
25	carbon disulfide	1.825	1.829	-0.2	103	0.00	6.76
26	methylene chloride	0.595	0.598	-0.5	108	0.00	7.03
27	methyl acetate	0.362	0.386	-6.6	113	0.00	6.84
28	methyl tert butyl ether	1.786	1.800	0.8	112	0.00	7.40
29	trans-1,2-dichloroethene	0.753	0.757	-0.5	103	0.00	7.42
30	hexane	0.729	0.603	17.3	86	0.00	7.76
31	di-isopropyl ether	2.350	2.362	-0.5	109	0.00	8.00
32	ethyl tert-butyl ether	2.003	2.135	-6.6	110	0.00	8.45
33	2-butanone	0.052	0.059	-13.5	106	0.00	8.63
34	1,1-dichloroethane	0.962	0.985	-2.4	106	0.00	7.96
35	chloroprene	0.757	0.756	0.1	105	0.00	8.09
36	acrylonitrile	0.174	0.220	-26.4	125	0.00	7.30
37	vinyl acetate	0.071	0.087	-22.5	126	0.00	7.95
38	ethyl acetate	0.083	0.078	6.0	115	0.00	8.68
39	2,2-dichloropropane	0.870	0.818	6.0	105	0.00	8.71
40	cis-1,2-dichloroethene	0.657	0.600	8.7	107	0.00	8.68
41	propionitrile	0.074	0.075	-1.4	103	0.00	8.69

Initial Calibration Verification

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
Lab FileID: Y178417.D

42	bromochloromethane	0.325	0.362	-11.4	111	0.00	8.98
43	tetrahydrofuran	0.062	0.068	-9.7	113	0.00	9.05
44	chloroform	0.940	0.927	1.4	106	0.00	9.04
45	tert-Butyl Formate	0.241	0.339	-40.7#	145	0.01	9.11
46	isobutyl alcohol	0.126	0.131	-4.0	106	0.00	9.42
47 S	dibromofluoromethane (s)	0.447	0.448	-0.2	98	0.00	9.24
48	methacrylonitrile	0.191	0.190	0.5	105	0.00	8.89
49	1,1,1-trichloroethane	0.845	0.788	6.7	103	0.00	9.33
50	cyclohexane	0.807	0.781	3.2	103	0.00	9.43
51	1,1-dichloropropene	0.639	0.655	-2.5	104	0.00	9.51
52	tert-amyl alcohol	0.023	0.026	-13.0	122	0.00	9.61
53	carbon tetrachloride	0.669	0.679	-1.5	102	0.00	9.54
54 I	1,4-difluorobenzene	1.000	1.000	0.0	97	0.00	10.13
55 S	1,2-dichloroethane-d4 (s)	0.292	0.290	0.7	99	0.00	9.65
56	2,2,4-trimethylpentane	1.494	1.442	3.5	108	0.00	9.81
57	tert-amyl methyl ether	1.293	1.332	-3.0	112	0.00	9.82
58	n-butyl alcohol	0.011	0.012	-9.1	114	0.00	10.22
59	benzene	1.463	1.432	2.1	105	0.00	9.76
60	heptane	0.285	0.296	-3.9	112	0.00	9.99
61	isopropyl acetate	0.055	0.066	-20.0	112	0.00	9.68
62	1,2-dichloroethane	0.437	0.439	-0.5	109	0.00	9.74
63	trichloroethene	0.349	0.335	4.0	105	0.00	10.48
64	ethyl acrylate	0.338	0.374	-10.7	109	0.00	10.47
65	2-nitropropane	0.069	0.072	-4.3	112	0.00	11.20
66	2-chloroethyl vinyl ether	0.165	0.182	-10.3	111	0.00	11.26
67	methyl methacrylate	0.068	0.075	-10.3	107	0.00	10.74
68	1,2-dichloropropane	0.378	0.388	-2.6	104	0.00	10.72
69	methylcyclohexane	0.697	0.620	11.0	98	0.00	10.74
70	dibromomethane	0.198	0.212	-7.1	109	0.00	10.87
71	bromodichloromethane	0.492	0.476	3.3	104	0.00	11.00
72	epichlorohydrin	0.029	0.032	-10.3	118	0.00	11.35
73	cis-1,3-dichloropropene	0.556	0.585	-5.2	105	0.00	11.48
74	4-methyl-2-pentanone	0.115	0.139	-20.9	115	0.00	11.57
75	3-methyl-1-butanol	0.010	0.011	-10.0	108	0.00	11.59
76 I	chlorobenzene-d5	1.000	1.000	0.0	96	0.00	13.29
77 S	toluene-d8 (s)	1.359	1.379	-1.5	97	0.00	11.79
78	toluene	0.956	0.983	-2.8	102	0.00	11.87
79	trans-1,3-dichloropropene	0.570	0.564	1.1	99	0.00	12.03
80	ethyl methacrylate	0.481	0.477	0.8	101	0.00	12.06
81	1,1,2-trichloroethane	0.285	0.291	-2.1	105	0.00	12.24
82	2-hexanone	0.129	0.142	-10.1	105	0.00	12.43
83	tetrachloroethene	0.381	0.429	-12.6	112	0.00	12.47
84	1,3-dichloropropane	0.511	0.563	-10.2	111	0.00	12.43
85	butyl acetate	0.209	0.241	-15.3	115	0.00	12.53
86	dibromochloromethane	0.360	0.406	-12.8	110	0.00	12.69
87	1,2-dibromoethane	0.318	0.347	-9.1	107	0.00	12.85
88	3,3-Dimethyl-1-Butanol	0.047	0.051	-8.5	113	0.00	12.60
89	n-butyl ether	1.854	1.881	-1.5	101	0.00	13.29
90	chlorobenzene	1.074	1.074	0.0	104	0.00	13.33
91	1,1,1,2-tetrachloroethane	0.411	0.456	-10.9	108	0.00	13.38
92	ethylbenzene	1.878	1.826	2.8	105	0.00	13.40
93	m,p-xylene	0.665	0.696	-4.7	105	0.00	13.50
94	o-xylene	1.617	1.594	1.4	107	0.00	13.92
95	styrene	1.177	1.226	-4.2	106	0.00	13.92
96	bromoform	0.231	0.270	-16.9	111	0.00	14.15
97	butyl acrylate	0.687	0.791	-15.1	110	0.00	13.74
98	isopropylbenzene	1.854	1.905	-2.8	106	0.00	14.26
99	cis-1,4-dichloro-2-butene	0.127	0.142	-11.8	106	0.00	14.29

Initial Calibration Verification

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
Lab FileID: Y178417.D

100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	96	0.00	15.61
101	S	4-bromofluorobenzene (s)	0.830	0.824	0.7	95	0.00	14.45
102		bromobenzene	0.846	0.901	-6.5	106	0.00	14.64
103		1,1,2,2-tetrachloroethane	0.880	0.860	2.3	107	0.00	14.52
104		trans-1,4-dichloro-2-bute	0.176	0.222	-26.1	131	0.00	14.57
105		1,2,3-trichloropropane	0.178	0.192	-7.9	108	0.00	14.60
106		n-propylbenzene	4.167	4.028	3.3	105	0.00	14.67
107		4-Ethyltoluene			-----NA-----			
108		2-chlorotoluene	0.812	0.864	-6.4	105	0.00	14.81
109		4-chlorotoluene	2.465	2.470	-0.2	109	0.00	14.90
110		1,3,5-trimethylbenzene	2.959	3.007	-1.6	106	0.00	14.82
111		tert-butylbenzene	0.500	0.555	-11.0	107	0.00	15.17
112		1,2,4-trimethylbenzene	2.983	3.161	-6.0	109	0.00	15.21
113		sec-butylbenzene	3.828	3.943	-3.0	107	0.00	15.38
114		1,3-dichlorobenzene	1.700	1.753	-3.1	106	0.00	15.55
115		p-isopropyltoluene	3.224	3.403	-5.6	108	0.00	15.50
116		1,4-dichlorobenzene	1.781	1.764	1.0	106	0.00	15.63
117		1,2-dichlorobenzene	1.732	1.776	-2.5	105	0.00	16.01
118		1,4-Diethylbenzene			-----NA-----			
119		n-butylbenzene	1.742	1.923	-10.4	112	0.00	15.92
120		1,2,4,5-Tetramethylbenzen			-----NA-----			
121		1,2-dibromo-3-chloropropa	0.183	0.201	-9.8	114	0.00	16.77
122		1,3,5-Trichlorobenzene	1.738	1.807	-4.0	109	0.00	16.99
123		1,2,4-trichlorobenzene	1.397	1.544	-10.5	111	0.00	17.60
124		hexachlorobutadiene	0.885	0.916	-3.5	105	0.00	17.75
125		naphthalene	2.612	2.757	-5.6	114	0.00	17.87
126		1,2,3-trichlorobenzene	1.248	1.342	-7.5	109	0.00	18.11
127		hexachloroethane	0.520	0.630	-21.2	109	0.00	16.30
128		Benzyl chloride	1.598	1.395	12.7	93	0.00	15.73
129		2-ethylhexyl acrylate	1.138	1.285	-12.9	125	0.00	17.61
130		2-methylnaphthalene	1.269	1.210	4.6	101	0.00	19.05

(#) = Out of Range
Y178412.D MYS7713.M

SPCC's out = 0 CCC's out = 0
Mon Mar 05 14:06:10 2018 RPT1

6.11.16

6

Initial Calibration Verification

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
Lab FileID: Y178418.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\VY7713\Y178418.D Vial: 15
Acq On : 28 Feb 2018 12:45 am Operator: PrashanS
Sample : ICV7713-50 Inst : MSY
Misc : MS24386,VY7713,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
Last Update : Wed Feb 28 11:02:25 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	106	0.00	7.00
2	ethanol			-----NA-----			
3	tertiary butyl alcohol			-----NA-----			
4	1,4-dioxane			-----NA-----			
5 I	pentafluorobenzene	1.000	1.000	0.0	94	0.00	9.22
6	chlorodifluoromethane			-----NA-----			
7	dichlorodifluoromethane			-----NA-----			
8	Freon 142B			-----NA-----			
9	Freon 114			-----NA-----			
10	chloromethane			-----NA-----			
11	vinyl chloride			-----NA-----			
12	1,3-butadiene			-----NA-----			
13	bromomethane			-----NA-----			
14	chloroethane			-----NA-----			
15	vinyl Bromide			-----NA-----			
16	trichlorofluoromethane			-----NA-----			
17	ethyl ether			-----NA-----			
18	2-chloropropane			-----NA-----			
19	acrolein			-----NA-----			
20	freon 113			-----NA-----			
21	1,1-dichloroethene			-----NA-----			
22	acetone			-----NA-----			
23	acetonitrile	0.073	0.076	-4.1	106	0.01	6.76
24	iodomethane			-----NA-----			
25	carbon disulfide			-----NA-----			
26	methylene chloride			-----NA-----			
27	methyl acetate			-----NA-----			
28	methyl tert butyl ether			-----NA-----			
29	trans-1,2-dichloroethene			-----NA-----			
30	hexane			-----NA-----			
31	di-isopropyl ether			-----NA-----			
32	ethyl tert-butyl ether			-----NA-----			
33	2-butanone			-----NA-----			
34	1,1-dichloroethane			-----NA-----			
35	chloroprene			-----NA-----			
36	acrylonitrile			-----NA-----			
37	vinyl acetate			-----NA-----			
38	ethyl acetate			-----NA-----			
39	2,2-dichloropropane			-----NA-----			
40	cis-1,2-dichloroethene			-----NA-----			
41	propionitrile			-----NA-----			

Initial Calibration Verification

Page 2 of 3

Job Number: JC65663
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
 Lab FileID: Y178418.D

42	bromochloromethane						
43	tetrahydrofuran						
44	chloroform						
45	tert-Butyl Formate						
46	isobutyl alcohol						
47 S	dibromofluoromethane (s)	0.447	0.447	0.0	94	0.00	9.23
48	methacrylonitrile						
49	1,1,1-trichloroethane						
50	cyclohexane						
51	1,1-dichloropropene						
52	tert-amyl alcohol						
53	carbon tetrachloride						
54 I	1,4-difluorobenzene	1.000	1.000	0.0	91	0.00	10.13
55 S	1,2-dichloroethane-d4 (s)	0.292	0.301	-3.1	96	0.00	9.64
56	2,2,4-trimethylpentane						
57	tert-amyl methyl ether						
58	n-butyl alcohol						
59	benzene						
60	heptane						
61	isopropyl acetate						
62	1,2-dichloroethane						
63	trichloroethene						
64	ethyl acrylate						
65	2-nitropropane						
66	2-chloroethyl vinyl ether						
67	methyl methacrylate						
68	1,2-dichloropropane						
69	methylcyclohexane						
70	dibromomethane						
71	bromodichloromethane						
72	epichlorohydrin						
73	cis-1,3-dichloropropene						
74	4-methyl-2-pentanone						
75	3-methyl-1-butanol						
76 I	chlorobenzene-d5	1.000	1.000	0.0	94	0.00	13.30
77 S	toluene-d8 (s)	1.359	1.323	2.6	90	0.00	11.79
78	toluene						
79	trans-1,3-dichloropropene						
80	ethyl methacrylate						
81	1,1,2-trichloroethane						
82	2-hexanone						
83	tetrachloroethene	0.381	0.383	-0.5	98	0.00	12.47
84	1,3-dichloropropane						
85	butyl acetate						
86	dibromochloromethane						
87	1,2-dibromoethane						
88	3,3-Dimethyl-1-Butanol						
89	n-butyl ether						
90	chlorobenzene						
91	1,1,1,2-tetrachloroethane						
92	ethylbenzene						
93	m,p-xylene						
94	o-xylene						
95	styrene						
96	bromoform						
97	butyl acrylate						
98	isopropylbenzene						
99	cis-1,4-dichloro-2-butene						

6.11.17

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Initial Calibration Verification

Page 3 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
Lab FileID: Y178418.D

100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	15.61
101	S	4-bromofluorobenzene (s)	0.830	0.818	1.4	96	0.00	14.45
102		bromobenzene					-----NA-----	
103		1,1,2,2-tetrachloroethane					-----NA-----	
104		trans-1,4-dichloro-2-bute					-----NA-----	
105		1,2,3-trichloropropane					-----NA-----	
106		n-propylbenzene					-----NA-----	
107		4-Ethyltoluene					-----NA-----	
108		2-chlorotoluene					-----NA-----	
109		4-chlorotoluene					-----NA-----	
110		1,3,5-trimethylbenzene					-----NA-----	
111		tert-butylbenzene					-----NA-----	
112		1,2,4-trimethylbenzene					-----NA-----	
113		sec-butylbenzene					-----NA-----	
114		1,3-dichlorobenzene					-----NA-----	
115		p-isopropyltoluene					-----NA-----	
116		1,4-dichlorobenzene					-----NA-----	
117		1,2-dichlorobenzene					-----NA-----	
118		1,4-Diethylbenzene					-----NA-----	
119		n-butylbenzene					-----NA-----	
120		1,2,4,5-Tetramethylbenzen					-----NA-----	
121		1,2-dibromo-3-chloropropa					-----NA-----	
122		1,3,5-Trichlorobenzene					-----NA-----	
123		1,2,4-trichlorobenzene					-----NA-----	
124		hexachlorobutadiene					-----NA-----	
125		naphthalene					-----NA-----	
126		1,2,3-trichlorobenzene					-----NA-----	
127		hexachloroethane					-----NA-----	
128		Benzyl chloride					-----NA-----	
129		2-ethylhexyl acrylate					-----NA-----	
130		2-methylnaphthalene					-----NA-----	

(#) = Out of Range
Y178412.D MYS7713.M

SPCC's out = 0 CCC's out = 0
Thu Mar 01 09:38:46 2018 RPT1

6.11.17

6

Initial Calibration Verification

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
Lab FileID: Y178421.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\VY7713\Y178421.D Vial: 18
Acq On : 28 Feb 2018 2:19 pm Operator: PrashanS
Sample : ICV7713-50 Inst : MSY
Misc : MS24386,VY7713,5.0,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
Last Update : Wed Feb 28 11:02:25 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	104	0.00	7.01
2	ethanol			-----NA-----			
3	tertiary butyl alcohol			-----NA-----			
4	1,4-dioxane			-----NA-----			
5 I	pentafluorobenzene	1.000	1.000	0.0	91	0.00	9.22
6	chlorodifluoromethane			-----NA-----			
7	dichlorodifluoromethane			-----NA-----			
8	Freon 142B			-----NA-----			
9	Freon 114			-----NA-----			
10	chloromethane			-----NA-----			
11	vinyl chloride			-----NA-----			
12	1,3-butadiene	0.803	0.977	-21.7	130	0.00	4.45
13	bromomethane			-----NA-----			
14	chloroethane			-----NA-----			
15	vinyl Bromide			-----NA-----			
16	trichlorofluoromethane			-----NA-----			
17	ethyl ether			-----NA-----			
18	2-chloropropane			-----NA-----			
19	acrolein			-----NA-----			
20	freon 113			-----NA-----			
21	1,1-dichloroethene			-----NA-----			
22	acetone			-----NA-----			
23	acetonitrile			-----NA-----			
24	iodomethane			-----NA-----			
25	carbon disulfide			-----NA-----			
26	methylene chloride			-----NA-----			
27	methyl acetate			-----NA-----			
28	methyl tert butyl ether			-----NA-----			
29	trans-1,2-dichloroethene			-----NA-----			
30	hexane			-----NA-----			
31	di-isopropyl ether			-----NA-----			
32	ethyl tert-butyl ether			-----NA-----			
33	2-butanone			-----NA-----			
34	1,1-dichloroethane			-----NA-----			
35	chloroprene			-----NA-----			
36	acrylonitrile			-----NA-----			
37	vinyl acetate			-----NA-----			
38	ethyl acetate			-----NA-----			
39	2,2-dichloropropane			-----NA-----			
40	cis-1,2-dichloroethene			-----NA-----			
41	propionitrile			-----NA-----			

Initial Calibration Verification

Page 2 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
Lab FileID: Y178421.D

42	bromochloromethane							
43	tetrahydrofuran							
44	chloroform							
45	tert-Butyl Formate							
46	isobutyl alcohol							
47 S	dibromofluoromethane (s)	0.447	0.452	-1.1	92	0.00	9.24	
48	methacrylonitrile							
49	1,1,1-trichloroethane							
50	cyclohexane							
51	1,1-dichloropropene							
52	tert-amyl alcohol							
53	carbon tetrachloride							
54 I	1,4-difluorobenzene	1.000	1.000	0.0	88	0.00	10.13	
55 S	1,2-dichloroethane-d4 (s)	0.292	0.306	-4.8	95	0.00	9.65	
56	2,2,4-trimethylpentane							
57	tert-amyl methyl ether							
58	n-butyl alcohol							
59	benzene							
60	heptane							
61	isopropyl acetate							
62	1,2-dichloroethane							
63	trichloroethene							
64	ethyl acrylate							
65	2-nitropropane							
66	2-chloroethyl vinyl ether							
67	methyl methacrylate							
68	1,2-dichloropropane							
69	methylcyclohexane							
70	dibromomethane							
71	bromodichloromethane							
72	epichlorohydrin							
73	cis-1,3-dichloropropene							
74	4-methyl-2-pentanone							
75	3-methyl-1-butanol							
76 I	chlorobenzene-d5	1.000	1.000	0.0	90	0.00	13.30	
77 S	toluene-d8 (s)	1.359	1.330	2.1	87	0.00	11.79	
78	toluene							
79	trans-1,3-dichloropropene							
80	ethyl methacrylate							
81	1,1,2-trichloroethane							
82	2-hexanone							
83	tetrachloroethene							
84	1,3-dichloropropane							
85	butyl acetate							
86	dibromochloromethane							
87	1,2-dibromoethane							
88	3,3-Dimethyl-1-Butanol							
89	n-butyl ether							
90	chlorobenzene							
91	1,1,1,2-tetrachloroethane							
92	ethylbenzene							
93	m,p-xylene							
94	o-xylene							
95	styrene							
96	bromoform							
97	butyl acrylate							
98	isopropylbenzene							
99	cis-1,4-dichloro-2-butene							

Initial Calibration Verification

Page 3 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
Lab FileID: Y178421.D

100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	15.61
101	S	4-bromofluorobenzene (s)	0.830	0.827	0.4	92	0.00	14.45
102		bromobenzene					-----NA-----	
103		1,1,2,2-tetrachloroethane					-----NA-----	
104		trans-1,4-dichloro-2-bute					-----NA-----	
105		1,2,3-trichloropropane					-----NA-----	
106		n-propylbenzene					-----NA-----	
107		4-Ethyltoluene					-----NA-----	
108		2-chlorotoluene					-----NA-----	
109		4-chlorotoluene					-----NA-----	
110		1,3,5-trimethylbenzene					-----NA-----	
111		tert-butylbenzene					-----NA-----	
112		1,2,4-trimethylbenzene					-----NA-----	
113		sec-butylbenzene					-----NA-----	
114		1,3-dichlorobenzene					-----NA-----	
115		p-isopropyltoluene					-----NA-----	
116		1,4-dichlorobenzene					-----NA-----	
117		1,2-dichlorobenzene					-----NA-----	
118		1,4-Diethylbenzene					-----NA-----	
119		n-butylbenzene					-----NA-----	
120		1,2,4,5-Tetramethylbenzen					-----NA-----	
121		1,2-dibromo-3-chloropropa					-----NA-----	
122		1,3,5-Trichlorobenzene					-----NA-----	
123		1,2,4-trichlorobenzene					-----NA-----	
124		hexachlorobutadiene					-----NA-----	
125		naphthalene					-----NA-----	
126		1,2,3-trichlorobenzene					-----NA-----	
127		hexachloroethane					-----NA-----	
128		Benzyl chloride					-----NA-----	
129		2-ethylhexyl acrylate					-----NA-----	
130		2-methylnaphthalene					-----NA-----	

(#) = Out of Range
Y178412.D MYS7713.M

SPCC's out = 0 CCC's out = 0
Thu Mar 01 09:29:58 2018 RPT1

6.11.18

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Continuing Calibration Summary

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7777-CC7713
Lab FileID: Y179799.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\eu...1518\vy7777\y179799.d Vial: 2
 Acq On : 12 May 2018 12:08 pm Operator: PrashanS
 Sample : CC7713-50 Inst : MSY
 Misc : MS26254,VY7777,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)
 Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 Last Update : Mon Sep 13 11:48:20 2010
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	107	-0.03	6.97
2	ethanol			-----NA-----			
3	tertiary butyl alcohol	1.520	1.496	1.6	112	-0.01	7.09
4	1,4-dioxane	0.115	0.144	-25.2#	133	0.00	10.83
5 I	pentafluorobenzene	1.000	1.000	0.0	102	-0.02	9.20
6	chlorodifluoromethane	0.919	0.671	27.0#	82	0.00	3.86
7	dichlorodifluoromethane	0.807	0.908	-12.5	132	0.01	3.86
8	Freon 142B			-----NA-----			
9	Freon 114			-----NA-----			
10	chloromethane	1.069	1.124	-5.1	120	0.02	4.21
11	vinyl chloride	0.913	1.004	-10.0	123	0.00	4.42
12	1,3-butadiene	0.803	0.610	24.0#	91	0.00	4.45
13	bromomethane	0.629	0.684	-8.7	131	0.02	5.02
14	chloroethane	0.503	0.555	-10.3	126	0.00	5.17
15	vinyl Bromide	0.553	0.616	-11.4	124	0.01	5.49
16	trichlorofluoromethane	0.776	0.853	-9.9	119	0.00	5.61
17	ethyl ether	0.295	0.301	-2.0	112	0.00	5.96
18	2-chloropropane	0.227	0.214	5.7	104	-0.02	6.12
19	acrolein	0.108	0.097	10.2	102	-0.02	6.14
20	freon 113	0.393	0.491	-24.9#	134	-0.01	6.37
21	1,1-dichloroethene	0.757	0.794	-4.9	110	0.00	6.35
22	acetone	0.062	0.043	30.6#	79	-0.01	6.35
23	acetonitrile	0.073	0.076	-4.1	115	-0.02	6.73
24	iodomethane	0.919	0.877	4.6	103	-0.02	6.60
25	carbon disulfide	1.825	1.726	5.4	101	-0.01	6.75
26	methylene chloride	0.595	0.626	-5.2	118	-0.02	7.01
27	methyl acetate	0.362	0.361	0.3	110	-0.02	6.82
28	methyl tert butyl ether	1.786	1.692	5.3	109	-0.02	7.38
29	trans-1,2-dichloroethene	0.753	0.745	1.1	106	-0.02	7.41
30	hexane	0.729	0.688	5.6	102	0.00	7.76
31	di-isopropyl ether	2.350	2.019	14.1	97	-0.02	7.98
32	ethyl tert-butyl ether	2.003	1.856	7.3	100	-0.02	8.44
33	2-butanone	0.052	0.056	-7.7	106	-0.02	8.61
34	1,1-dichloroethane	0.962	0.951	1.1	107	-0.02	7.94
35	chloroprene	0.757	0.652	13.9	94	-0.01	8.07
36	acrylonitrile	0.174	0.176	-1.1	104	-0.02	7.29
37	vinyl acetate	0.071	0.074	-4.2	111	-0.01	7.94
38	ethyl acetate	0.083	0.075	9.6	116	-0.01	8.67
39	2,2-dichloropropane	0.870	0.806	7.4	108	-0.02	8.69
40	cis-1,2-dichloroethene	0.657	0.585	11.0	109	-0.02	8.67
41	propionitrile	0.074	0.079	-6.8	112	-0.02	8.67

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7777-CC7713
Lab FileID: Y179799.D

42	bromochloromethane	0.325	0.365	-12.3	116	-0.02	8.96
43	tetrahydrofuran	0.062	0.068	-9.7	118	-0.02	9.03
44	chloroform	0.940	0.883	6.1	105	-0.02	9.03
45	tert-Butyl Formate	0.241	0.502	-108.3#	225#	0.00	9.08
46	isobutyl alcohol	0.126	0.123	2.4	104	-0.01	9.40
47 S	dibromofluoromethane (s)	0.447	0.437	2.2	99	-0.02	9.21
48	methacrylonitrile	0.191	0.180	5.8	104	-0.01	8.88
49	1,1,1-trichloroethane	0.845	0.805	4.7	109	-0.01	9.31
50	cyclohexane	0.807	0.811	-0.5	112	-0.01	9.42
51	1,1-dichloropropene	0.639	0.633	0.9	105	-0.01	9.50
52	tert-amyl alcohol	0.023	0.027	-17.4	136	-0.02	9.59
53	carbon tetrachloride	0.669	0.702	-4.9	110	-0.01	9.53
54 I	1,4-difluorobenzene	1.000	1.000	0.0	104	-0.01	10.11
55 S	1,2-dichloroethane-d4 (s)	0.292	0.259	11.3	95	-0.02	9.63
56	2,2,4-trimethylpentane	1.494	1.352	9.5	110	-0.01	9.80
57	tert-amyl methyl ether	1.293	1.142	11.7	104	-0.02	9.81
58	n-butyl alcohol	0.011	0.012	-9.1	122	-0.01	10.21
59	benzene	1.463	1.357	7.2	108	-0.01	9.75
60	heptane	0.285	0.261	8.4	107	-0.01	9.98
61	isopropyl acetate	0.055	0.068	-23.6#	124	0.00	9.68
62	1,2-dichloroethane	0.437	0.392	10.3	105	-0.02	9.72
63	trichloroethene	0.349	0.325	6.9	110	-0.01	10.47
64	ethyl acrylate	0.338	0.404	-19.5	127	0.00	10.46
65	2-nitropropane	0.069	0.063	8.7	107	-0.02	11.18
66	2-chloroethyl vinyl ether	0.165	0.194	-17.6	128	0.00	11.24
67	methyl methacrylate	0.068	0.083	-22.1#	129	-0.02	10.73
68	1,2-dichloropropane	0.378	0.389	-2.9	113	-0.02	10.71
69	methylcyclohexane	0.697	0.650	6.7	112	-0.01	10.73
70	dibromomethane	0.198	0.213	-7.6	118	-0.01	10.86
71	bromodichloromethane	0.492	0.473	3.9	112	0.00	10.99
72	epichlorohydrin	0.029	0.032	-10.3	130	-0.02	11.34
73	cis-1,3-dichloropropene	0.556	0.614	-10.4	119	-0.01	11.47
74	4-methyl-2-pentanone	0.115	0.147	-27.8#	131	-0.01	11.56
75	3-methyl-1-butanol	0.010	0.011	-10.0	125	-0.01	11.57
76 I	chlorobenzene-d5	1.000	1.000	0.0	126	-0.01	13.28
77 S	toluene-d8 (s)	1.359	1.247	8.2	115	-0.01	11.78
78	toluene	0.956	0.912	4.6	125	-0.01	11.86
79	trans-1,3-dichloropropene	0.570	0.539	5.4	125	-0.01	12.02
80	ethyl methacrylate	0.481	0.453	5.8	126	-0.01	12.05
81	1,1,2-trichloroethane	0.285	0.273	4.2	129	-0.01	12.23
82	2-hexanone	0.129	0.134	-3.9	129	0.00	12.42
83	tetrachloroethene	0.381	0.390	-2.4	134	0.00	12.46
84	1,3-dichloropropane	0.511	0.533	-4.3	137	-0.01	12.42
85	butyl acetate	0.209	0.236	-12.9	147	-0.01	12.52
86	dibromochloromethane	0.360	0.388	-7.8	138	-0.02	12.68
87	1,2-dibromoethane	0.318	0.353	-11.0	143	-0.01	12.83
88	3,3-Dimethyl-1-Butanol			-----NA-----			
89	n-butyl ether	1.854	1.682	9.3	119	0.00	13.28
90	chlorobenzene	1.074	1.075	-0.1	136	-0.01	13.32
91	1,1,1,2-tetrachloroethane	0.411	0.392	4.6	122	-0.01	13.37
92	ethylbenzene	1.878	1.708	9.1	129	-0.01	13.39
93	m,p-xylene	0.665	0.668	-0.5	132	-0.01	13.49
94	o-xylene	1.617	1.433	11.4	126	-0.01	13.91
95	styrene	1.177	1.142	3.0	130	-0.01	13.91
96	bromoform	0.231	0.265	-14.7	143	-0.01	14.15
97	butyl acrylate	0.687	0.630	8.3	115	0.00	13.74
98	isopropylbenzene	1.854	1.710	7.8	125	-0.01	14.25
99	cis-1,4-dichloro-2-butene	0.127	0.131	-3.1	127	-0.01	14.28

6.11.19
6

Continuing Calibration Summary

Page 3 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7777-CC7713
Lab FileID: Y179799.D

100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	115	-0.01	15.60
101	S	4-bromofluorobenzene (s)	0.830	0.880	-6.0	122	-0.01	14.43
102		bromobenzene	0.846	0.969	-14.5	136	-0.01	14.63
103		1,1,2,2-tetrachloroethane	0.880	0.885	-0.6	131	-0.01	14.51
104		trans-1,4-dichloro-2-bute	0.176	0.178	-1.1	126	-0.02	14.55
105		1,2,3-trichloropropane	0.178	0.201	-12.9	136	-0.01	14.59
106		n-propylbenzene	4.167	3.918	6.0	122	-0.01	14.66
107		4-Ethyltoluene			-----NA-----			
108		2-chlorotoluene	0.812	0.903	-11.2	131	-0.01	14.80
109		4-chlorotoluene	2.465	2.373	3.7	126	-0.01	14.89
110		1,3,5-trimethylbenzene	2.959	2.905	1.8	122	-0.01	14.81
111		tert-butylbenzene	0.500	0.542	-8.4	125	-0.01	15.16
112		1,2,4-trimethylbenzene	2.983	2.929	1.8	121	0.00	15.20
113		sec-butylbenzene	3.828	3.745	2.2	122	-0.01	15.37
114		1,3-dichlorobenzene	1.700	1.735	-2.1	125	-0.01	15.54
115		p-isopropyltoluene	3.224	3.152	2.2	120	0.00	15.50
116		1,4-dichlorobenzene	1.781	1.738	2.4	124	-0.01	15.62
117		1,2-dichlorobenzene	1.732	1.722	0.6	122	-0.02	16.00
118		1,4-Diethylbenzene			-----NA-----			
119		n-butylbenzene	1.742	1.624	6.8	113	-0.01	15.90
120		1,2,4,5-Tetramethylbenzen			-----NA-----			
121		1,2-dibromo-3-chloropropa	0.183	0.181	1.1	123	-0.02	16.75
122		1,3,5-Trichlorobenzene	1.738	1.604	7.7	116	-0.01	16.98
123		1,2,4-trichlorobenzene	1.397	1.304	6.7	113	-0.01	17.59
124		hexachlorobutadiene	0.885	0.838	5.3	115	-0.01	17.73
125		naphthalene	2.612	2.283	12.6	113	-0.01	17.86
126		1,2,3-trichlorobenzene	1.248	1.193	4.4	116	-0.01	18.10
127		hexachloroethane	0.520	0.586	-12.7	121	0.00	16.29
128		Benzyl chloride	1.598	1.430	10.5	114	-0.01	15.72
129		2-ethylhexyl acrylate	1.138	0.408	64.1#	47#	0.00	17.60
130		2-methylnaphthalene	1.269	0.792	37.6#	79	-0.01	19.04

(#) = Out of Range
Y178412.D MYS7713.M

SPCC's out = 0 CCC's out = 0
Mon May 14 23:14:17 2018

6.11.19
6



MS Volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\marianng\05-15-18\ve10833_halfway\
Data File : e252374.d
Acq On : 11 May 2018 4:01 pm
Operator : ThienN
Sample : jc65663-1 Inst : MSE
Misc : MS26153,VE10833,3.7,,2,10,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\ME10811.M
Quant Results File: ME10811.RES
Quant Time: May 14 22:27:50 2018
Quant Title : SW846 8260C, ZB624 MS 60m x 0.25mm x 1.4um
QLast Update : Thu Apr 19 10:52:27 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.758	65	174628	500.00	ug/L	0.02
5) pentafluorobenzene	10.013	168	228621	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.975	114	325272	50.00	ug/L	0.00
75) chlorobenzene-d5	14.380	117	320879	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.021	152	227271	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.065	113	112154	50.91	ug/L	-0.01
Spiked Amount	50.000	Range 72 - 129	Recovery	=	101.82%	
55) 1,2-dichloroethane-d4 (s)	10.499	65	121766	52.99	ug/L	0.00
Spiked Amount	50.000	Range 73 - 132	Recovery	=	105.98%	
76) toluene-d8 (s)	12.701	98	386977	48.52	ug/L	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery	=	97.04%	
99) 4-bromofluorobenzene (s)	15.698	95	173272	47.47	ug/L	0.00
Spiked Amount	50.000	Range 77 - 125	Recovery	=	94.94%	
Target Compounds						
58) benzene	10.567	78	6193	0.55	ug/L	74
77) toluene	12.785	92	10129	1.49	ug/L	99
91) m,p-xylene	14.605	106	17791	3.63	ug/L	93
92) o-xylene	15.070	91	23881	2.14	ug/L	99
93) styrene	15.086	104	7990	0.99	ug/L	89

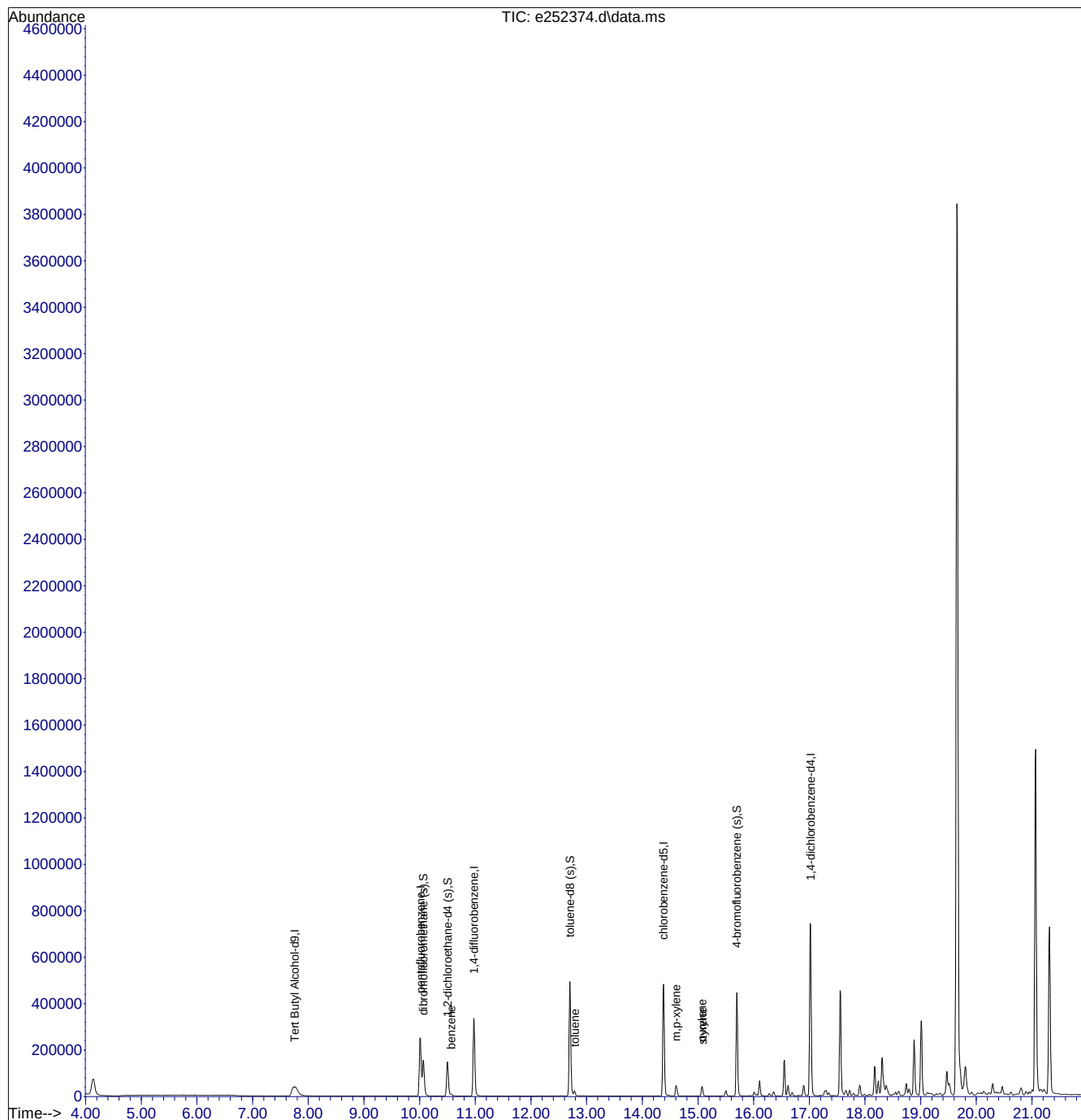
(#) = qualifier out of range (m) = manual integration (+) = signals summed

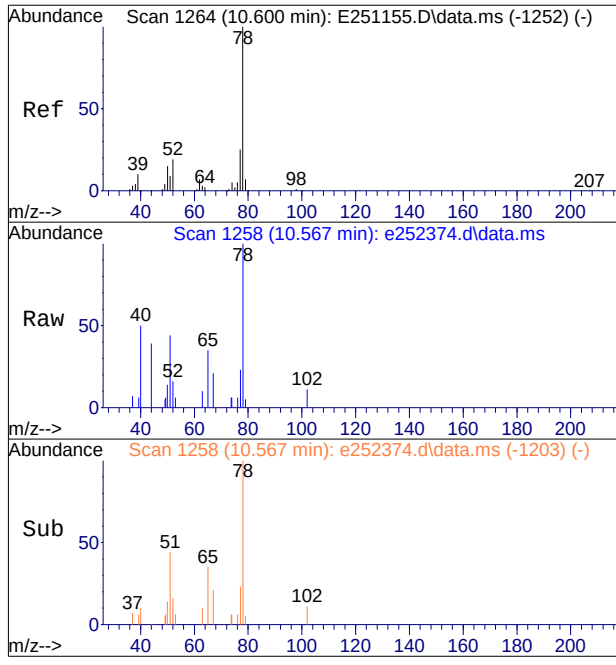
7.1.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\marianng\05-15-18\ve10833_halfway\
 Data File : e252374.d
 Acq On : 11 May 2018 4:01 pm
 Operator : ThienN
 Sample : jc65663-1
 Misc : MS26153,VE10833,3.7,,2,10,1
 ALS Vial : 18 Sample Multiplier: 1
 Inst : MSE

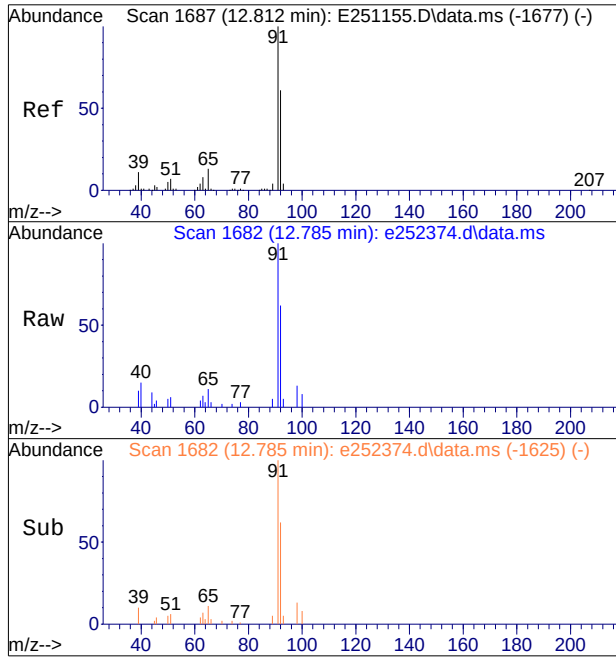
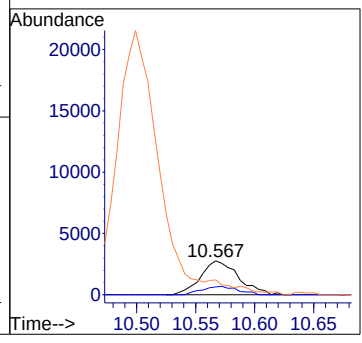
Quant Method : C:\msdchem\1\METHODS\ME10811.M
 Quant Results File: ME10811.RES
 Quant Time: May 14 22:27:50 2018
 Quant Title : SW846 8260C, ZB624 MS 60m x 0.25mm x 1.4um
 QLast Update : Thu Apr 19 10:52:27 2018
 Response via : Initial Calibration





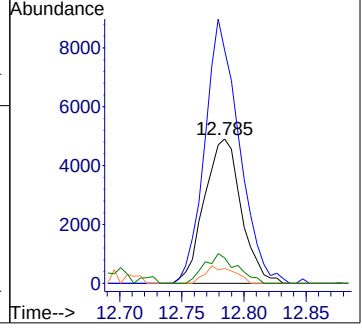
#58
benzene
Concen: 0.55 ug/L
RT: 10.567 min Scan# 1258
Delta R.T. -0.011 min
Lab File: e252374.d
Acq: 11 May 2018 4:01 pm

Tgt Ion	Ratio	Lower	Upper
78	100		
77	23.1	0.0	54.8
51	43.7	0.0	48.9

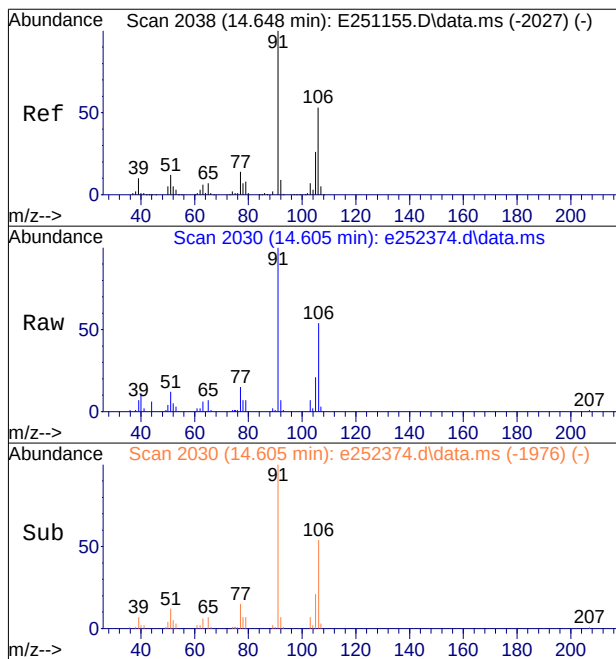


#77
toluene
Concen: 1.49 ug/L
RT: 12.785 min Scan# 1682
Delta R.T. -0.000 min
Lab File: e252374.d
Acq: 11 May 2018 4:01 pm

Tgt Ion	Ratio	Lower	Upper
92	100		
91	161.5	141.3	181.3
51	10.4	0.0	41.9
65	17.8	0.0	50.7

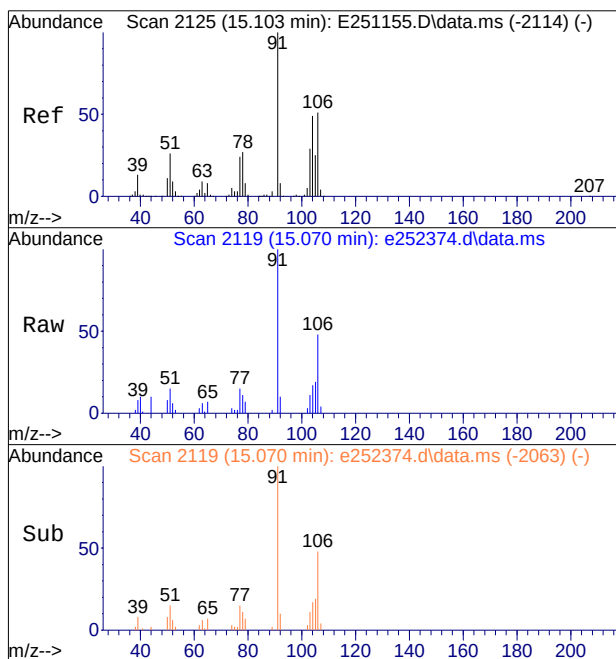
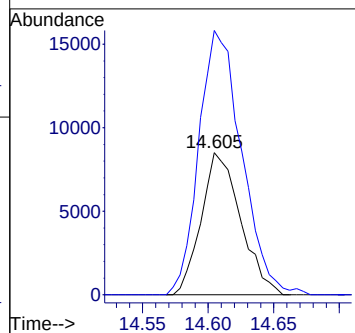


7.1.1
7



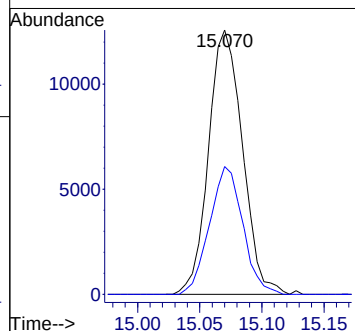
#91
m,p-xylene
Concen: 3.63 ug/L
RT: 14.605 min Scan# 2030
Delta R.T. -0.016 min
Lab File: e252374.d
Acq: 11 May 2018 4:01 pm

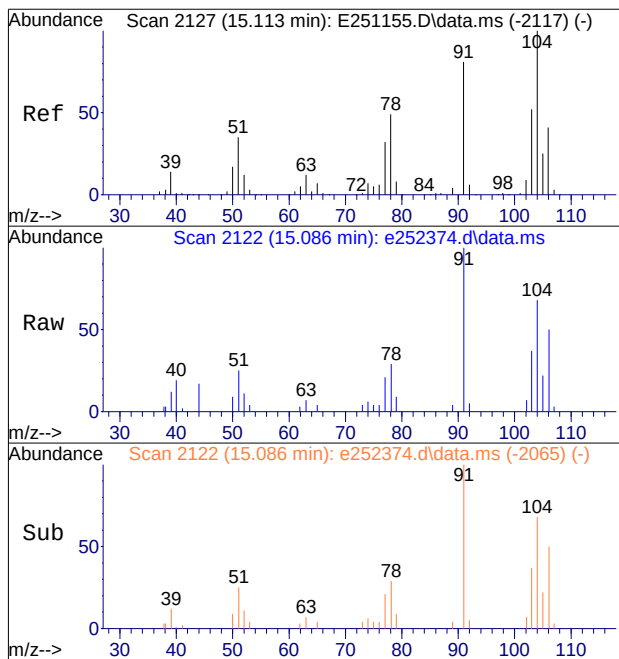
Tgt Ion	Ratio	Lower	Upper
106	100		
91	186.2	167.3	227.3



#92
o-xylene
Concen: 2.14 ug/L
RT: 15.070 min Scan# 2119
Delta R.T. -0.006 min
Lab File: e252374.d
Acq: 11 May 2018 4:01 pm

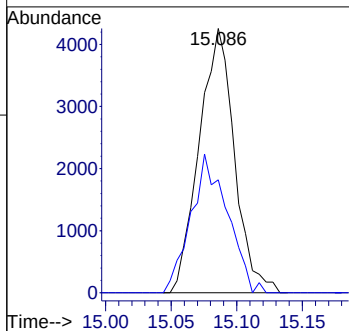
Tgt Ion	Ratio	Lower	Upper
91	100		
106	48.3	17.5	77.5





#93
styrene
Concen: 0.99 ug/L
RT: 15.086 min Scan# 2122
Delta R.T. -0.000 min
Lab File: e252374.d
Acq: 11 May 2018 4:01 pm

Tgt Ion:	104	Resp:	7990
Ion Ratio	Lower	Upper	
104	100		
78	42.8	20.3	80.3



Quantitation Report (QT Reviewed)

Data Path : R:\complete\2018\dayton201805\05-14-18\mariannng\v2v2015\
Data File : 2v50491.d
Acq On : 10 May 2018 1:58 pm
Operator : JessicaP
Sample : JC65663-1A
Misc : MS26188,V2V2015,5,,,,,5
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 14 13:29:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2V1992.M
Quant Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)
QLast Update : Mon Apr 23 10:38:21 2018
Response via : Initial Calibration

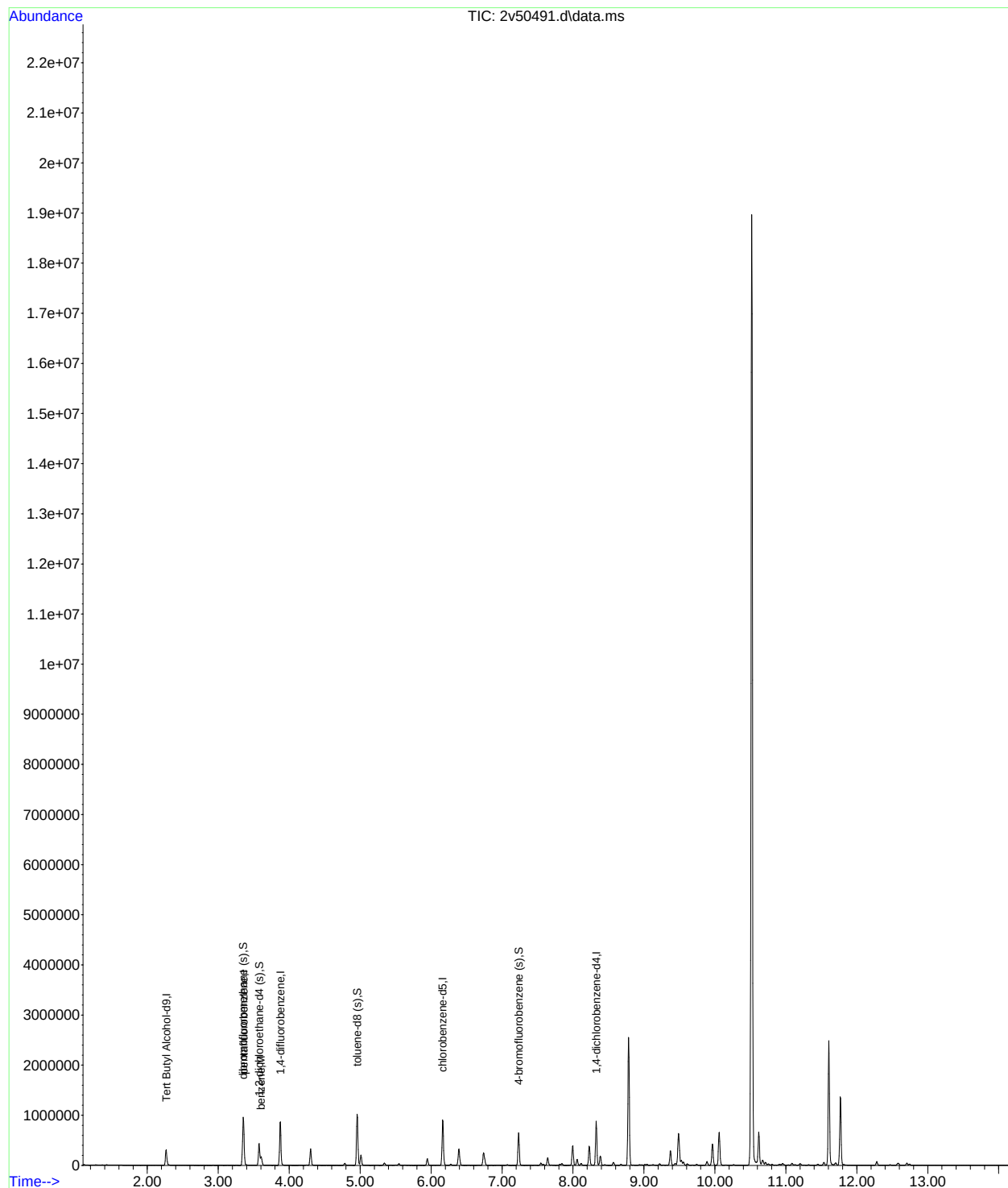
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	2.267	65	256485	500.00	ug/L	0.00
5) pentafluorobenzene	3.357	168	291635	50.00	ug/L	0.00
54) 1,4-difluorobenzene	3.876	114	489814	50.00	ug/L	0.00
76) chlorobenzene-d5	6.162	117	371461	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	8.328	152	168861	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	3.347	113	169932	57.88	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery =	115.76%		
55) 1,2-dichloroethane-d4 (s)	3.577	65	211406	62.10	ug/L	0.00
Spiked Amount 50.000	Range 64 - 135		Recovery =	124.20%		
77) toluene-d8 (s)	4.956	98	508681	53.01	ug/L	0.00
Spiked Amount 50.000	Range 76 - 117		Recovery =	106.02%		
100) 4-bromofluorobenzene (s)	7.232	95	175118	50.98	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery =	101.96%		
Target Compounds						
57) benzene	3.598	78	31682	1.96	ug/L	Qvalue 100

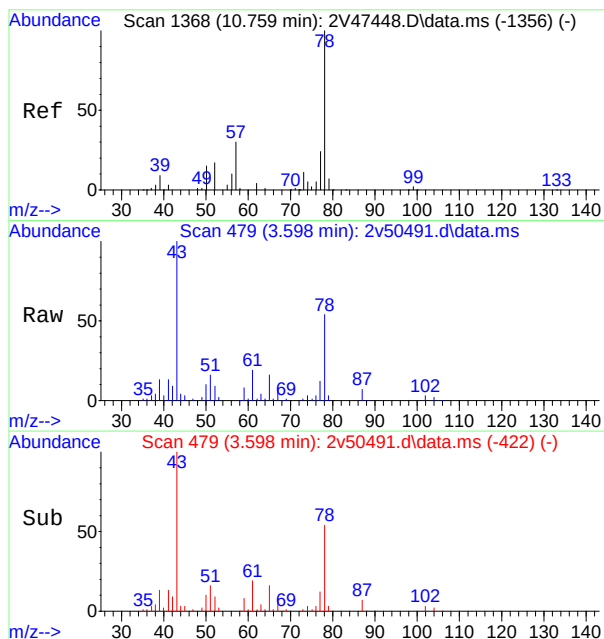
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : R:\complete\2018\dayton201805\05-14-18\marianng\v2v2015\
Data File : 2v50491.d
Acq On : 10 May 2018 1:58 pm
Operator : JessicaP
Sample : JC65663-1A
Misc : MS26188,V2V2015,5,,,,5
ALS Vial : 16 Sample Multiplier: 1

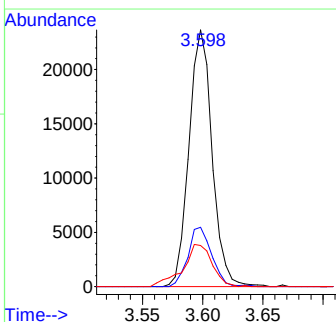
Quant Time: May 14 13:29:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2V1992.M
Quant Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)
QLast Update : Mon Apr 23 10:38:21 2018
Response via : Initial Calibration





#57
benzene
Concen: 1.96 ug/L
RT: 3.598 min Scan# 479
Delta R.T. 0.000 min
Lab File: 2v50491.d
Acq: 10 May 2018 1:58 pm

Tgt Ion:	78	Resp:	31682
Ion Ratio	Lower	Upper	
78	100		
77	23.1	0.0	53.0
52	16.1	0.0	46.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem51518\vy7777\
 Data File : y179820.d
 Acq On : 12 May 2018 11:11 pm
 Operator : Prashans
 Sample : JC65663-2 Inst : MSY
 Misc : MS26153,VY7777,5.6,,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M
 Quant Results File: MYS7713.RES
 Quant Time: May 14 23:09:11 2018
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Mon Mar 05 14:04:44 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.976	65	51538	500.00	ug/L	-0.03
5) pentafluorobenzene	9.199	168	191019	50.00	ug/L	-0.02
54) 1,4-difluorobenzene	10.114	114	301013	50.00	ug/L	0.00
76) chlorobenzene-d5	13.289	117	279361	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.596	152	119651	50.00	ug/L	-0.01
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.220	113	83093	48.68	ug/L	-0.02
Spiked Amount	50.000	Range	72 - 129	Recovery	=	97.36%
55) 1,2-dichloroethane-d4 (s)	9.633	65	73283	41.62	ug/L	-0.02
Spiked Amount	50.000	Range	73 - 132	Recovery	=	83.24%
77) toluene-d8 (s)	11.783	98	362117	47.70	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	95.40%
101) 4-bromofluorobenzene (s)	14.440	95	112861	56.82	ug/L	0.00
Spiked Amount	50.000	Range	77 - 125	Recovery	=	113.64%
Target Compounds						
26) methylene chloride	7.013	84	2140	0.94	ug/L	87
59) benzene	9.754	78	3013	0.34	ug/L	88

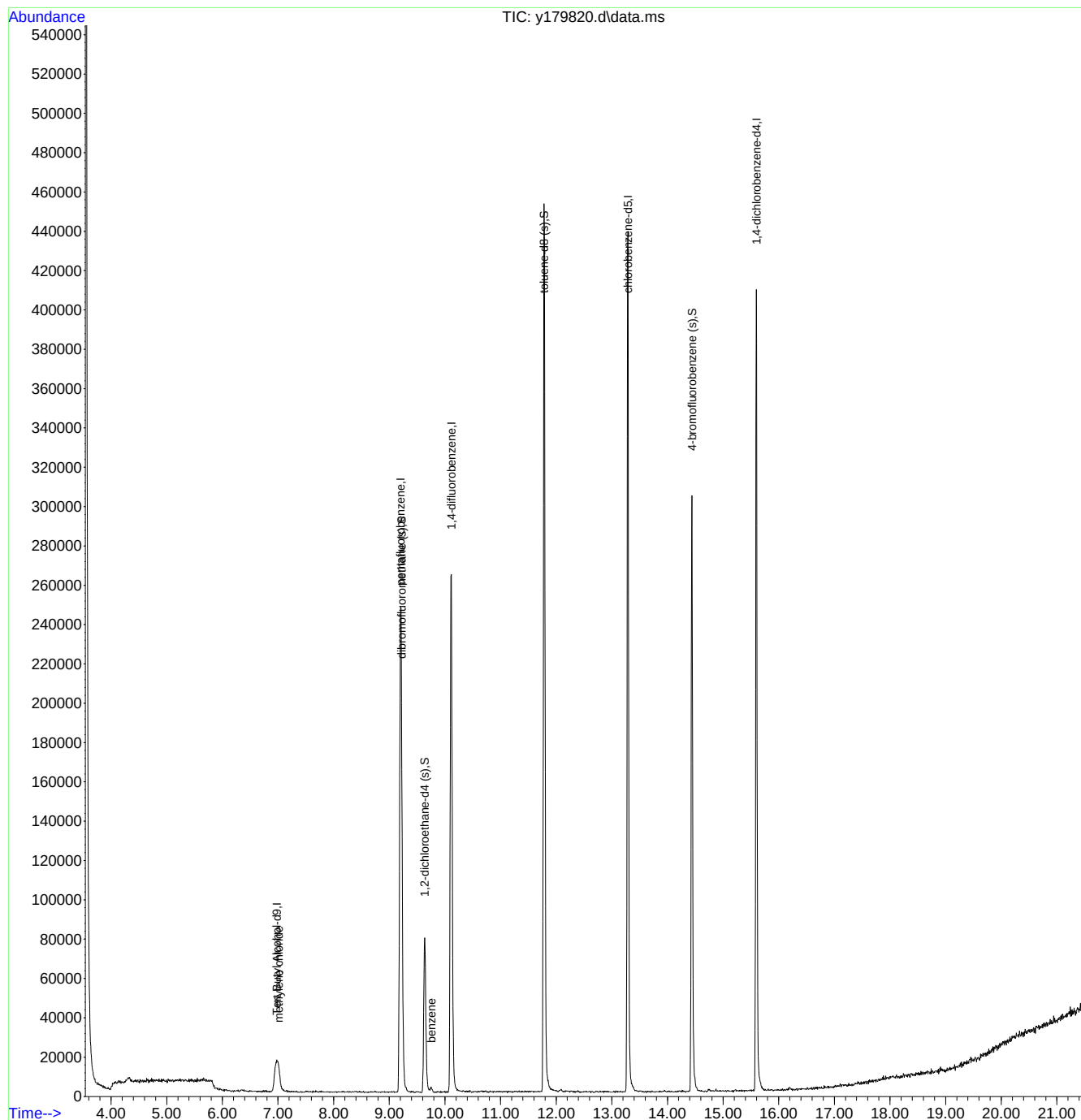
(#) = qualifier out of range (m) = manual integration (+) = signals summed

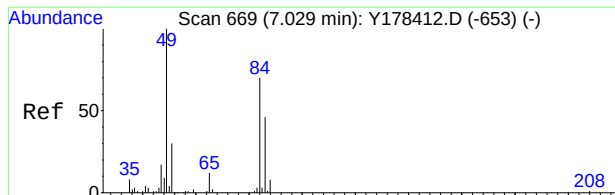
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem51518\vy7777\
Data File : y179820.d
Acq On : 12 May 2018 11:11 pm
Operator : PrashanS
Sample : JC65663-2
Misc : MS26153,VY7777,5.6,,,,,1
ALS Vial : 23 Sample Multiplier: 1

Inst : MSY

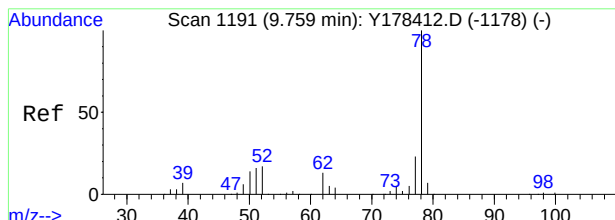
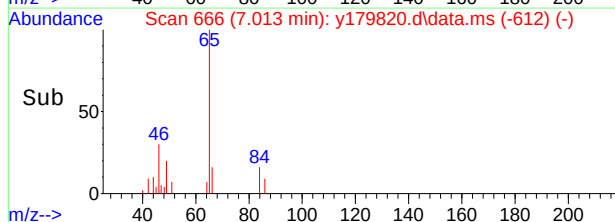
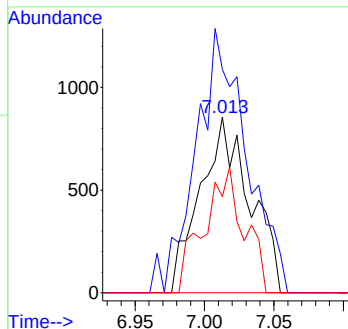
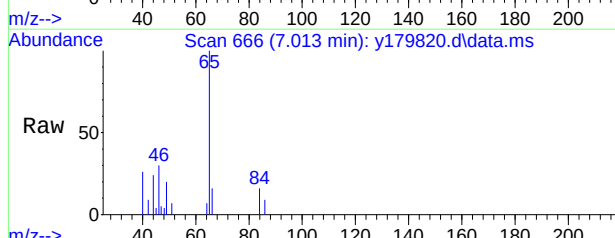
Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M
Quant Results File: MYS7713.RES
Quant Time: May 14 23:09:11 2018
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 05 14:04:44 2018
Response via : Initial Calibration





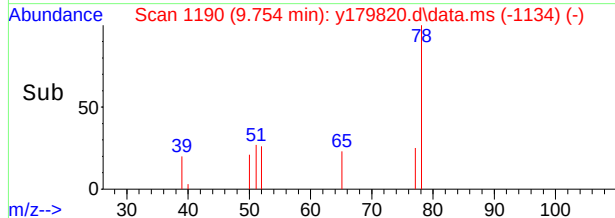
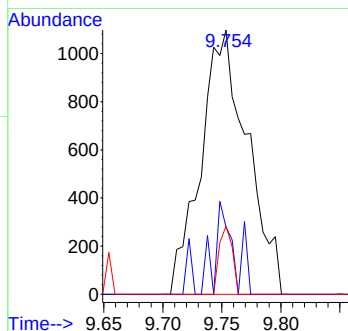
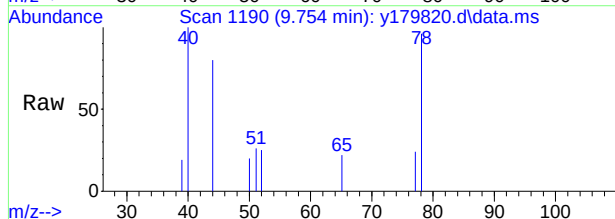
#26
methylene chloride
Concen: 0.94 ug/L
RT: 7.013 min Scan# 666
Delta R.T. -0.016 min
Lab File: y179820.d
Acq: 12 May 2018 11:11 pm

Tgt Ion: 84 Resp: 2140
Ion Ratio Lower Upper
84 100
49 127.1 113.5 173.5
86 54.7 35.7 95.7



#59
benzene
Concen: 0.34 ug/L
RT: 9.754 min Scan# 1190
Delta R.T. -0.005 min
Lab File: y179820.d
Acq: 12 May 2018 11:11 pm

Tgt Ion: 78 Resp: 3013
Ion Ratio Lower Upper
78 100
77 25.4 0.0 53.1
52 25.8 0.0 46.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-15-18\va9208\
Data File : a241584.d
Acq On : 14 May 2018 11:22 am
Operator : oyinadei
Sample : JC65663-2A Inst : MSA
Misc : MS26188,VA9208,5,,,,,5
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
Quant Results File: MA9165.RES
Quant Time: May 15 04:29:18 2018
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 17 15:31:13 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.811	65	334542	500.00	ug/L	0.00
5) pentafluorobenzene	10.175	168	213101	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.111	114	314108	50.00	ug/L	0.00
76) chlorobenzene-d5	14.510	117	261956	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.115	152	162009	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.196	113	112867	53.14	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	106.28%
55) 1,2-dichloroethane-d4 (s)	10.635	65	110326	49.31	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	98.62%
77) toluene-d8 (s)	12.858	98	334614	47.80	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	95.60%
101) 4-bromofluorobenzene (s)	15.802	95	121265	45.95	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	91.90%

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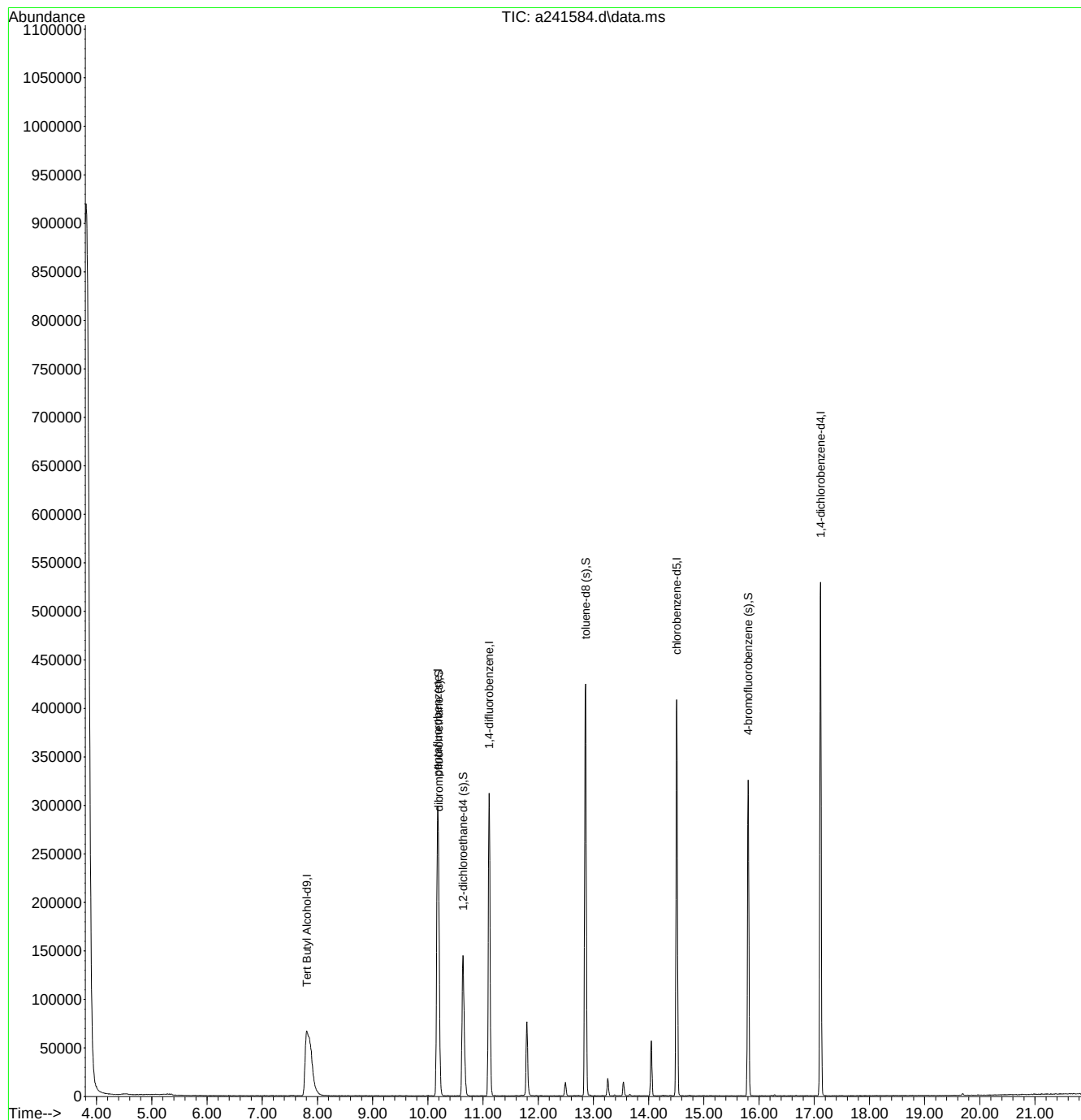
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-15-18\va9208\
Data File : a241584.d
Acq On : 14 May 2018 11:22 am
Operator : oyinadei
Sample : JC65663-2A
Misc : MS26188,VA9208,5,,,,,5
ALS Vial : 9 Sample Multiplier: 1

Inst : MSA

Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
Quant Results File: MA9165.RES
Quant Time: May 15 04:29:18 2018
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 17 15:31:13 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-11-18\v2v2015\
 Data File : 2v50484.d
 Acq On : 10 May 2018 10:15 am
 Operator : JessicaP
 Sample : mb Inst : MS2V
 Misc : MS26188,V2V2015,5,,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V1992.M
 Quant Results File: M2V1992.RES
 Quant Time: May 11 11:22:06 2018
 Quant Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)
 QLast Update : Mon Apr 23 10:38:21 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	2.266	65	296017	500.00	ug/L	0.00
5) pentafluorobenzene	3.357	168	368752	50.00	ug/L	0.00
54) 1,4-difluorobenzene	3.876	114	529584	50.00	ug/L	0.00
76) chlorobenzene-d5	6.162	117	438437	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	8.327	152	176422	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	3.346	113	196978	53.06	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery =	106.12%		
55) 1,2-dichloroethane-d4 (s)	3.577	65	219384	59.60	ug/L	0.00
Spiked Amount 50.000	Range 64 - 135		Recovery =	119.20%		
77) toluene-d8 (s)	4.956	98	506766	44.74	ug/L	0.00
Spiked Amount 50.000	Range 76 - 117		Recovery =	89.48%		
100) 4-bromofluorobenzene (s)	7.232	95	190867	53.19	ug/L	0.00
Spiked Amount 50.000	Range 72 - 122		Recovery =	106.38%		

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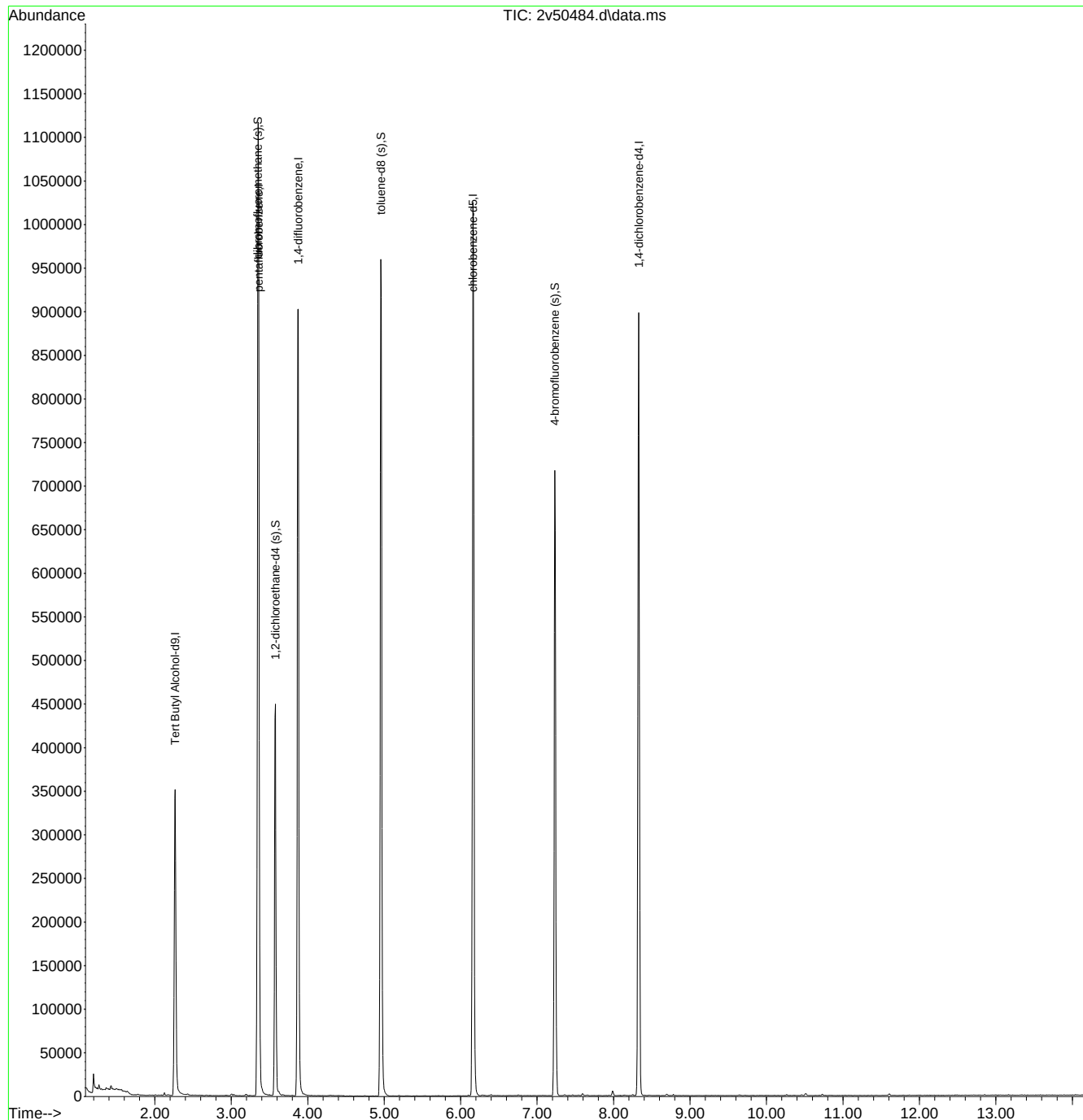
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-11-18\v2v2015\
Data File : 2v50484.d
Acq On : 10 May 2018 10:15 am
Operator : JessicaP
Sample : mb
Misc : MS26188,V2V2015,5,,,,,1
ALS Vial : 9 Sample Multiplier: 1

Inst : MS2V

Quant Method : C:\MSDCHEM\1\METHODS\M2V1992.M
Quant Results File: M2V1992.RES
Quant Time: May 11 11:22:06 2018
Quant Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)
QLast Update : Mon Apr 23 10:38:21 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-15-18\va9208\
Data File : a241580.d
Acq On : 14 May 2018 8:47 am
Operator : oyinadei
Sample : mb Inst : MSA
Misc : MS26219,VA9208,5,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
Quant Results File: MA9165.RES
Quant Time: May 15 04:22:02 2018
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 17 15:31:13 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.813	65	330455	500.00	ug/L	0.00
5) pentafluorobenzene	10.177	168	221760	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.113	114	319894	50.00	ug/L	0.00
76) chlorobenzene-d5	14.507	117	271421	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.112	152	161732	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.198	113	110935	50.19	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.38%
55) 1,2-dichloroethane-d4 (s)	10.637	65	111367	48.87	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	97.74%
77) toluene-d8 (s)	12.855	98	339175	46.77	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.54%
101) 4-bromofluorobenzene (s)	15.804	95	123206	46.77	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.54%

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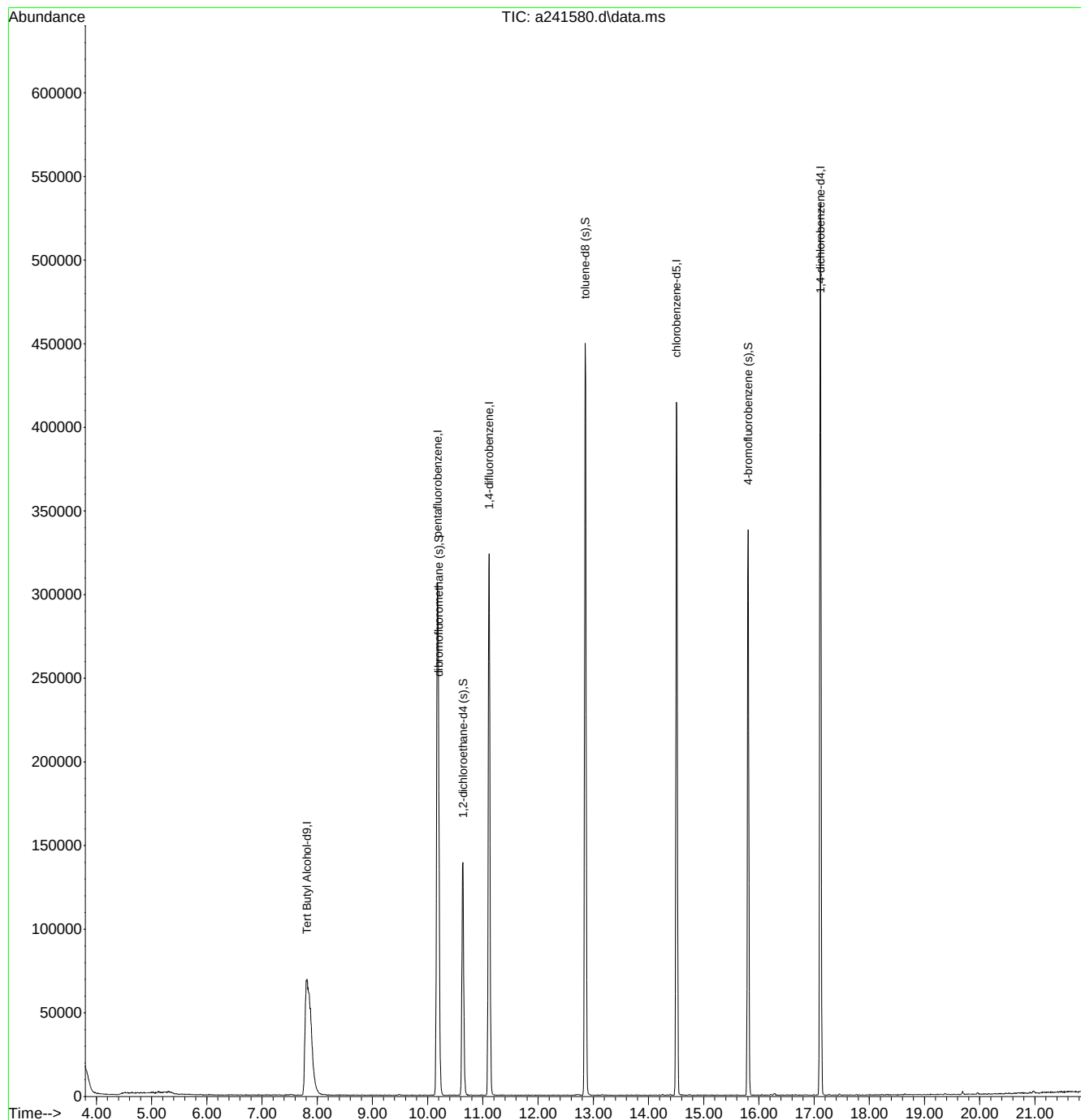
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-15-18\va9208\
Data File : a241580.d
Acq On : 14 May 2018 8:47 am
Operator : ovinadei
Sample : mb
Misc : MS26219,VA9208,5,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Inst : MSA

Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
Quant Results File: MA9165.RES
Quant Time: May 15 04:22:02 2018
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 17 15:31:13 2018
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\ve10833\
 Data File : e252362.d
 Acq On : 11 May 2018 9:34 am
 Operator : ThienN
 Sample : mb Inst : MSE
 Misc : MS26182,VE10833,5,,100,5,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\ME10811.M
 Quant Results File: ME10811.RES
 Quant Time: May 14 08:46:50 2018
 Quant Title : SW846 8260C, ZB624 MS 60m x 0.25mm x 1.4um
 QLast Update : Thu Apr 19 10:52:27 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.765	65	167913	500.00	ug/L	0.02
5) pentafluorobenzene	10.009	168	216390	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.976	114	311002	50.00	ug/L	0.00
75) chlorobenzene-d5	14.381	117	320847	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.017	152	223676	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.066	113	104249	49.99	ug/L	0.00
Spiked Amount	50.000	Range	72 - 129	Recovery	=	99.98%
55) 1,2-dichloroethane-d4 (s)	10.495	65	114821	52.26	ug/L	0.00
Spiked Amount	50.000	Range	73 - 132	Recovery	=	104.52%
76) toluene-d8 (s)	12.697	98	369868	46.38	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.76%
99) 4-bromofluorobenzene (s)	15.699	95	171300	47.69	ug/L	0.00
Spiked Amount	50.000	Range	77 - 125	Recovery	=	95.38%

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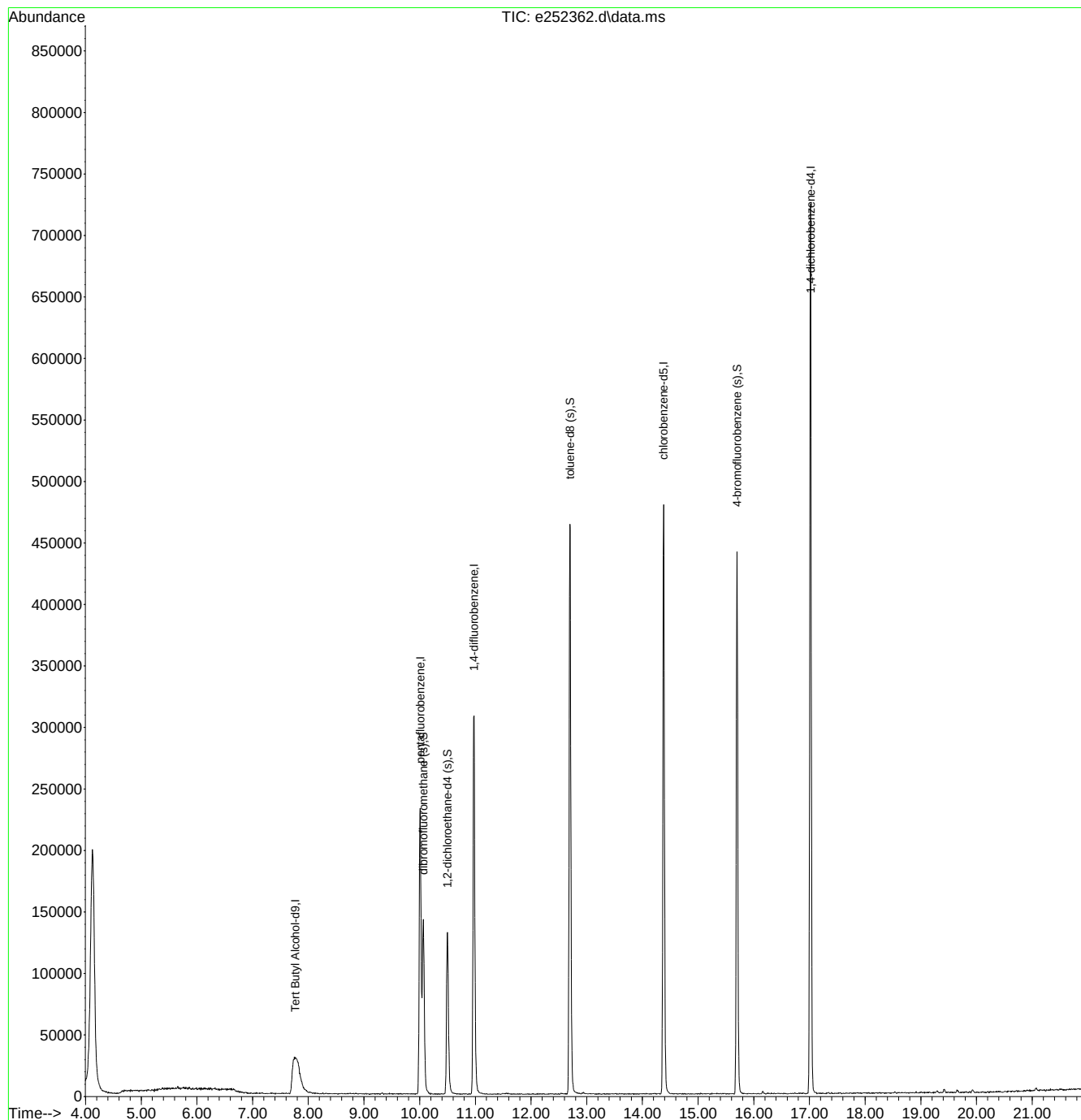
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\ve10833\
Data File : e252362.d
Acq On : 11 May 2018 9:34 am
Operator : ThienN
Sample : mb
Misc : MS26182,VE10833,5,,100,5,1
ALS Vial : 6 Sample Multiplier: 1

Inst : MSE

Quant Method : C:\msdchem\1\METHODS\ME10811.M
Quant Results File: ME10811.RES
Quant Time: May 14 08:46:50 2018
Quant Title : SW846 8260C, ZB624 MS 60m x 0.25mm x 1.4um
QLast Update : Thu Apr 19 10:52:27 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem51518\vy7777\
 Data File : y179803.d
 Acq On : 12 May 2018 2:16 pm
 Operator : Prashans
 Sample : MB Inst : MSY
 Misc : MS26161,VY7777,5.0,,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M
 Quant Results File: MYS7713.RES
 Quant Time: May 14 22:46:24 2018
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Mon Mar 05 14:04:44 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.976	65	69191	500.00	ug/L	-0.03
5) pentafluorobenzene	9.199	168	209031	50.00	ug/L	-0.02
54) 1,4-difluorobenzene	10.109	114	313079	50.00	ug/L	-0.01
76) chlorobenzene-d5	13.284	117	288474	50.00	ug/L	-0.01
100) 1,4-dichlorobenzene-d4	15.596	152	139552	50.00	ug/L	-0.01
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.215	113	88515	47.39	ug/L	-0.02
Spiked Amount	50.000	Range	72 - 129	Recovery	=	94.78%
55) 1,2-dichloroethane-d4 (s)	9.633	65	77050	42.07	ug/L	-0.02
Spiked Amount	50.000	Range	73 - 132	Recovery	=	84.14%
77) toluene-d8 (s)	11.783	98	370624	47.28	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	94.56%
101) 4-bromofluorobenzene (s)	14.435	95	126025	54.40	ug/L	-0.01
Spiked Amount	50.000	Range	77 - 125	Recovery	=	108.80%

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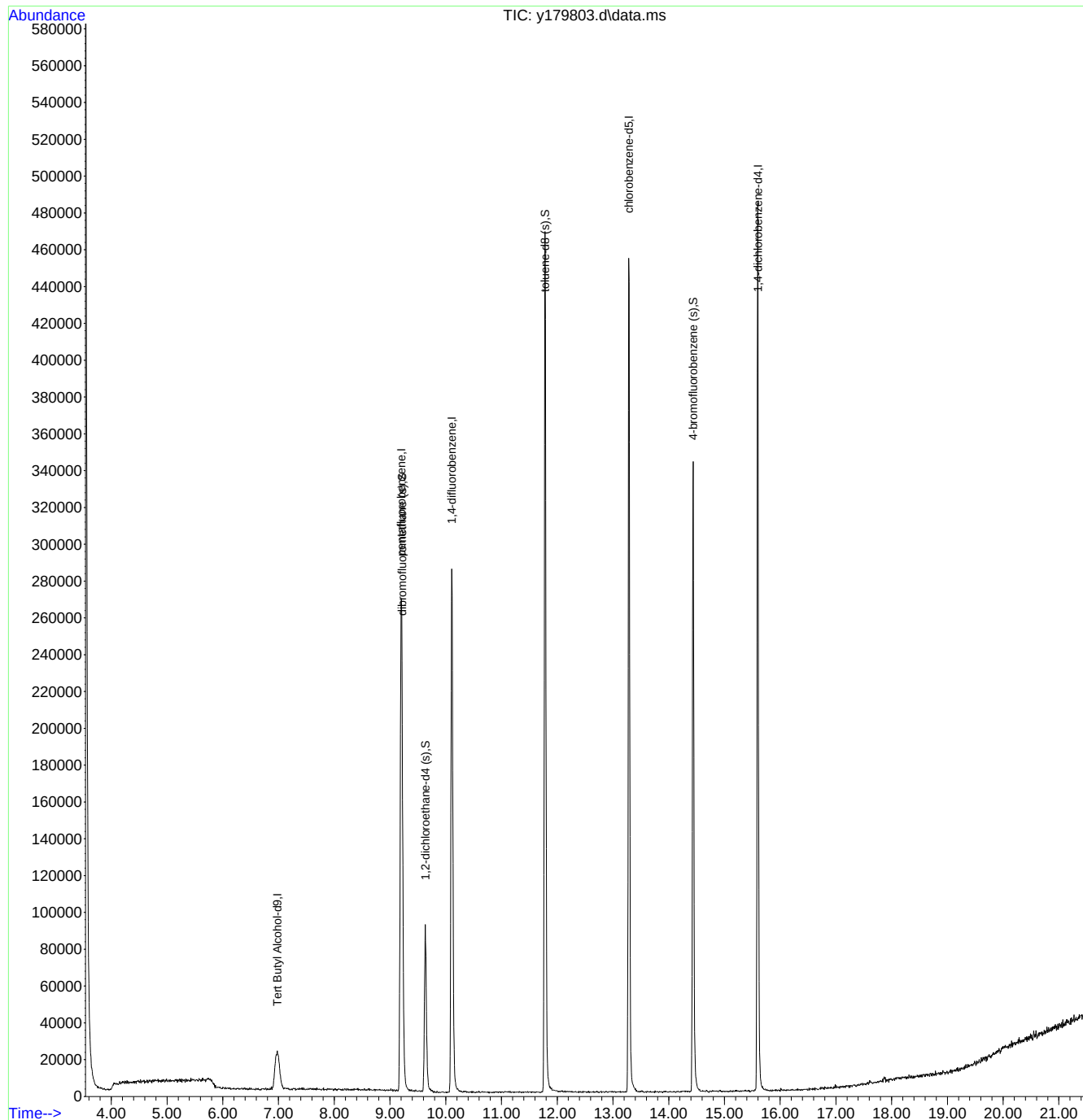
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem51518\vy7777\
Data File : y179803.d
Acq On : 12 May 2018 2:16 pm
Operator : PrashanS
Sample : MB
Misc : MS26161,VY7777,5.0,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Inst : MSY

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M
Quant Results File: MYS7713.RES
Quant Time: May 14 22:46:24 2018
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 05 14:04:44 2018
Response via : Initial Calibration



MS Semi-volatiles

QC Data Summaries

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Includes the following where applicable:

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

Method Blank Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11892-MB	M146091.D	1	05/11/18	CC	05/09/18	OP11892	EM6207

The QC reported here applies to the following samples: Method: SW846 8270D

JC65663-1, JC65663-2

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	67	16	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	20	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	28	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	59	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	170	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	36	ug/kg	
95-48-7	2-Methylphenol	ND	67	21	ug/kg	
	3&4-Methylphenol	ND	67	27	ug/kg	
88-75-5	2-Nitrophenol	ND	170	22	ug/kg	
100-02-7	4-Nitrophenol	ND	330	89	ug/kg	
87-86-5	Pentachlorophenol	ND	130	31	ug/kg	
108-95-2	Phenol	ND	67	17	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	170	22	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	25	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	20	ug/kg	
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
98-86-2	Acetophenone	ND	170	7.2	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
1912-24-9	Atrazine	ND	67	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	67	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	67	8.1	ug/kg	
92-52-4	1,1'-Biphenyl	ND	67	4.6	ug/kg	
100-52-7	Benzaldehyde	ND	170	8.3	ug/kg	
91-58-7	2-Chloronaphthalene	ND	67	7.9	ug/kg	
106-47-8	4-Chloroaniline	ND	170	12	ug/kg	
86-74-8	Carbazole	ND	67	4.8	ug/kg	
105-60-2	Caprolactam	ND	67	13	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	67	7.1	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	67	14	ug/kg	

8.1.1
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Method Blank Summary

Page 2 of 3

Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11892-MB	M146091.D	1	05/11/18	CC	05/09/18	OP11892	EM6207

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65663-1, JC65663-2

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	67	12	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	67	11	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	33	10	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	33	17	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	67	28	ug/kg	
123-91-1	1,4-Dioxane	ND	33	22	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
132-64-9	Dibenzofuran	ND	67	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	67	5.4	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	67	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	67	7.1	ug/kg	
131-11-3	Dimethyl phthalate	ND	67	5.9	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	67	7.8	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	67	8.4	ug/kg	
87-68-3	Hexachlorobutadiene	ND	33	13	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	330	13	ug/kg	
67-72-1	Hexachloroethane	ND	170	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
78-59-1	Isophorone	ND	67	7.1	ug/kg	
91-57-6	2-Methylnaphthalene	ND	33	7.5	ug/kg	
88-74-4	2-Nitroaniline	ND	170	7.9	ug/kg	
99-09-2	3-Nitroaniline	ND	170	8.3	ug/kg	
100-01-6	4-Nitroaniline	ND	170	8.6	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
98-95-3	Nitrobenzene	ND	67	13	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	67	9.6	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	12	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	170	8.5	ug/kg	

8.1.1

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Method Blank Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11892-MB	M146091.D	1	05/11/18	CC	05/09/18	OP11892	EM6207

The QC reported here applies to the following samples: Method: SW846 8270D

JC65663-1, JC65663-2

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	68% 23-115%
4165-62-2	Phenol-d5	73% 27-114%
118-79-6	2,4,6-Tribromophenol	86% 19-152%
4165-60-0	Nitrobenzene-d5	78% 26-134%
321-60-8	2-Fluorobiphenyl	73% 39-124%
1718-51-0	Terphenyl-d14	80% 36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	2.86	300	ug/kg	J
	Total TIC, Semi-Volatile		0	ug/kg	

Method Blank Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11952-MB1	2P79548.D	1	05/14/18	JB	05/12/18	OP11952	E2P3503

The QC reported here applies to the following samples: Method: SW846 8270D

JC65663-1A, JC65663-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.17	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.0	0.55	ug/l	
118-74-1	Hexachlorobenzene	ND	2.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.39	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
110-86-1	Pyridine	ND	2.0	0.39	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	40% 14-88%
4165-62-2	Phenol-d5	31% 10-110%
118-79-6	2,4,6-Tribromophenol	128% 39-149%
4165-60-0	Nitrobenzene-d5	87% 32-128%
321-60-8	2-Fluorobiphenyl	103% 35-119%
1718-51-0	Terphenyl-d14	97% 10-126%

8.1.2
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Leachate Blank Summary

Page 1 of 1

Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11952-LB7	2P79550.D	1	05/14/18	JB	05/12/18	OP11952	E2P3503

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65663-1A, JC65663-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	20	8.9	ug/l	
	3&4-Methylphenol	ND	20	8.8	ug/l	
87-86-5	Pentachlorophenol	ND	100	14	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	50	13	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	50	9.2	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	20	1.7	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	20	5.5	ug/l	
118-74-1	Hexachlorobenzene	ND	20	3.3	ug/l	
87-68-3	Hexachlorobutadiene	ND	10	4.9	ug/l	
67-72-1	Hexachloroethane	ND	50	3.9	ug/l	
98-95-3	Nitrobenzene	ND	20	6.4	ug/l	
110-86-1	Pyridine	ND	20	3.9	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	40%	14-88%
4165-62-2	Phenol-d5	30%	10-110%
118-79-6	2,4,6-Tribromophenol	125%	39-149%
4165-60-0	Nitrobenzene-d5	84%	32-128%
321-60-8	2-Fluorobiphenyl	101%	35-119%
1718-51-0	Terphenyl-d14	102%	10-126%

82.1
8

Blank Spike Summary

Page 1 of 1

Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11952-BS1	2P79549.D	1	05/14/18	JB	05/12/18	OP11952	E2P3503

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65663-1A, JC65663-2A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-48-7	2-Methylphenol	500	348	70	42-103
	3&4-Methylphenol	500	297	59	39-110
87-86-5	Pentachlorophenol	500	491	98	30-136
95-95-4	2,4,5-Trichlorophenol	500	514	103	55-116
88-06-2	2,4,6-Trichlorophenol	500	603	121* a	56-115
106-46-7	1,4-Dichlorobenzene	500	393	79	39-110
121-14-2	2,4-Dinitrotoluene	500	529	106	57-122
118-74-1	Hexachlorobenzene	500	556	111	49-122
87-68-3	Hexachlorobutadiene	500	515	103	24-112
67-72-1	Hexachloroethane	500	433	87	31-107
98-95-3	Nitrobenzene	500	390	78	44-116
110-86-1	Pyridine	500	219	44	10-110

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	56%	14-88%
4165-62-2	Phenol-d5	38%	10-110%
118-79-6	2,4,6-Tribromophenol	133%	39-149%
4165-60-0	Nitrobenzene-d5	88%	32-128%
321-60-8	2-Fluorobiphenyl	97%	35-119%
1718-51-0	Terphenyl-d14	110%	10-126%

(a) High percent recoveries and no associated positive found in the QC batch.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11892-BS	M146092.D	1	05/11/18	CC	05/09/18	OP11892	EM6207
OP11892-BSD	M146093.D	1	05/11/18	CC	05/09/18	OP11892	EM6207

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65663-1, JC65663-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	1670	1420	85	1470	88	3	44-122/30
59-50-7	4-Chloro-3-methyl phenol	1670	1630	98	1620	97	1	50-123/30
120-83-2	2,4-Dichlorophenol	1670	1580	95	1590	95	1	48-122/30
105-67-9	2,4-Dimethylphenol	1670	1590	95	1550	93	3	48-124/30
51-28-5	2,4-Dinitrophenol	3330	3390	102	3420	103	1	34-146/30
534-52-1	4,6-Dinitro-o-cresol	1670	1590	95	1610	97	1	49-140/30
95-48-7	2-Methylphenol	1670	1380	83	1400	84	1	40-126/30
	3&4-Methylphenol	1670	1470	88	1480	89	1	40-127/30
88-75-5	2-Nitrophenol	1670	1690	101	1690	101	0	44-133/30
100-02-7	4-Nitrophenol	1670	1710	103	1700	102	1	35-153/30
87-86-5	Pentachlorophenol	1670	1340	80	1360	82	1	15-149/30
108-95-2	Phenol	1670	1260	76	1250	75	1	50-109/30
58-90-2	2,3,4,6-Tetrachlorophenol	1670	1640	98	1620	97	1	44-132/30
95-95-4	2,4,5-Trichlorophenol	1670	1640	98	1650	99	1	45-124/30
88-06-2	2,4,6-Trichlorophenol	1670	1650	99	1690	101	2	57-122/30
83-32-9	Acenaphthene	1670	1410	85	1420	85	1	53-119/30
208-96-8	Acenaphthylene	1670	1400	84	1410	85	1	41-125/30
98-86-2	Acetophenone	1670	1460	88	1490	89	2	52-112/30
120-12-7	Anthracene	1670	1390	83	1390	83	0	51-120/30
1912-24-9	Atrazine	1670	1660	100	1660	100	0	49-139/30
56-55-3	Benzo(a)anthracene	1670	1580	95	1570	94	1	54-118/30
50-32-8	Benzo(a)pyrene	1670	1630	98	1630	98	0	55-121/30
205-99-2	Benzo(b)fluoranthene	1670	1580	95	1590	95	1	57-116/30
191-24-2	Benzo(g,h,i)perylene	1670	1590	95	1570	94	1	40-124/30
207-08-9	Benzo(k)fluoranthene	1670	1530	92	1460	88	5	59-116/30
101-55-3	4-Bromophenyl phenyl ether	1670	1440	86	1460	88	1	60-122/30
85-68-7	Butyl benzyl phthalate	1670	1810	109	1820	109	1	51-134/30
92-52-4	1,1'-Biphenyl	1670	1400	84	1410	85	1	46-122/30
100-52-7	Benzaldehyde	1670	1110	67	1130	68	2	14-139/30
91-58-7	2-Chloronaphthalene	1670	1320	79	1340	80	2	49-120/30
106-47-8	4-Chloroaniline	1670	830	50	760	46	9	10-115/30
86-74-8	Carbazole	1670	1460	88	1460	88	0	52-124/30
105-60-2	Caprolactam	1670	1610	97	1670	100	4	16-139/30
218-01-9	Chrysene	1670	1410	85	1390	83	1	51-115/30
111-91-1	bis(2-Chloroethoxy)methane	1670	1380	83	1420	85	3	36-131/30
111-44-4	bis(2-Chloroethyl)ether	1670	1290	77	1320	79	2	41-131/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11892-BS	M146092.D	1	05/11/18	CC	05/09/18	OP11892	EM6207
OP11892-BSD	M146093.D	1	05/11/18	CC	05/09/18	OP11892	EM6207

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65663-1, JC65663-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
108-60-1	2,2'-Oxybis(1-chloropropane)	1670	1380	83	1450	87	5	22-134/30
7005-72-3	4-Chlorophenyl phenyl ether	1670	1420	85	1420	85	0	56-118/30
121-14-2	2,4-Dinitrotoluene	1670	1640	98	1700	102	4	57-131/30
606-20-2	2,6-Dinitrotoluene	1670	1820	109	1840	110	1	57-132/30
91-94-1	3,3'-Dichlorobenzidine	3330	2220	67	2010	60	10	10-129/30
123-91-1	1,4-Dioxane	1670	773	46	767	46	1	10-110/30
53-70-3	Dibenzo(a,h)anthracene	1670	1510	91	1500	90	1	48-121/30
132-64-9	Dibenzofuran	1670	1460	88	1480	89	1	51-119/30
84-74-2	Di-n-butyl phthalate	1670	1700	102	1710	103	1	59-125/30
117-84-0	Di-n-octyl phthalate	1670	1680	101	1690	101	1	47-147/30
84-66-2	Diethyl phthalate	1670	1620	97	1650	99	2	57-116/30
131-11-3	Dimethyl phthalate	1670	1540	92	1570	94	2	56-116/30
117-81-7	bis(2-Ethylhexyl)phthalate	1670	1590	95	1610	97	1	53-133/30
206-44-0	Fluoranthene	1670	1520	91	1500	90	1	58-117/30
86-73-7	Fluorene	1670	1470	88	1480	89	1	56-114/30
118-74-1	Hexachlorobenzene	1670	1300	78	1310	79	1	50-128/30
87-68-3	Hexachlorobutadiene	1670	1450	87	1490	89	3	43-129/30
77-47-4	Hexachlorocyclopentadiene	3330	3170	95	3180	95	0	15-140/30
67-72-1	Hexachloroethane	1670	1400	84	1390	83	1	43-123/30
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1600	96	1570	94	2	49-124/30
78-59-1	Isophorone	1670	1330	80	1350	81	1	38-128/30
91-57-6	2-Methylnaphthalene	1670	1350	81	1350	81	0	37-124/30
88-74-4	2-Nitroaniline	1670	1950	117	1960	118	1	45-144/30
99-09-2	3-Nitroaniline	1670	1320	79	1270	76	4	10-134/30
100-01-6	4-Nitroaniline	1670	1620	97	1690	101	4	41-130/30
91-20-3	Naphthalene	1670	1270	76	1280	77	1	44-116/30
98-95-3	Nitrobenzene	1670	1350	81	1340	80	1	36-132/30
621-64-7	N-Nitroso-di-n-propylamine	1670	1420	85	1450	87	2	38-125/30
86-30-6	N-Nitrosodiphenylamine	1670	1380	83	1410	85	2	51-122/30
85-01-8	Phenanthrene	1670	1350	81	1330	80	1	53-119/30
129-00-0	Pyrene	1670	1500	90	1490	89	1	54-124/30
95-94-3	1,2,4,5-Tetrachlorobenzene	1670	1010	61	1020	61	1	45-128/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11892-BS	M146092.D	1	05/11/18	CC	05/09/18	OP11892	EM6207
OP11892-BSD	M146093.D	1	05/11/18	CC	05/09/18	OP11892	EM6207

The QC reported here applies to the following samples: Method: SW846 8270D

JC65663-1, JC65663-2

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	84%	88%	23-115%
4165-62-2	Phenol-d5	79%	80%	27-114%
118-79-6	2,4,6-Tribromophenol	94%	93%	19-152%
4165-60-0	Nitrobenzene-d5	84%	84%	26-134%
321-60-8	2-Fluorobiphenyl	77%	77%	39-124%
1718-51-0	Terphenyl-d14	92%	93%	36-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11892-MS	M146098.D	5	05/11/18	CC	05/09/18	OP11892	EM6207
OP11892-MSD	M146100.D	5	05/11/18	CC	05/09/18	OP11892	EM6207
JC65493-4 ^a	M146099.D	5	05/11/18	CC	05/07/18	OP11892	EM6207
JC65493-4	M146109.D	50	05/11/18	CC	05/09/18	OP11892	EM6207

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65663-1, JC65663-2

CAS No.	Compound	JC65493-4 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND		5000	3640	73	4950	3520	71	3	10-137/34
59-50-7	4-Chloro-3-methyl phenol	ND		5000	4340	87	4950	6210	125	35	11-147/35
120-83-2	2,4-Dichlorophenol	ND		5000	4260	85	4950	5580	113	27	15-140/34
105-67-9	2,4-Dimethylphenol	435000 ^d		5000	196000	-4780* ^b	4950	396000	-788* ^b	68* ^c	10-151/34
51-28-5	2,4-Dinitrophenol	ND		10000	ND	0* ^e	9900	ND	0* ^e	nc	10-148/49
534-52-1	4,6-Dinitro-o-cresol	ND		5000	ND	0* ^e	4950	ND	0* ^e	nc	10-150/48
95-48-7	2-Methylphenol	303000 ^d		5000	119000	-3680* ^b	4950	216000	-1757* ^b	58* ^c	10-138/33
	3&4-Methylphenol	752000 ^d		5000	268000	-9680* ^b	4950	513000	-4828* ^b	63* ^c	10-143/33
88-75-5	2-Nitrophenol	ND		5000	5010	100	4950	4850	98	3	10-150/39
100-02-7	4-Nitrophenol	ND		5000	ND	0* ^e	4950	ND	0* ^e	nc	10-163/38
87-86-5	Pentachlorophenol	ND		5000	ND	0* ^e	4950	ND	0* ^e	nc	10-148/39
108-95-2	Phenol	436000 ^d		5000	166000	-5400* ^b	4950	310000	-2545* ^b	61* ^c	24-114/32
58-90-2	2,3,4,6-Tetrachlorophenol	ND		5000	2350	47	4950	2800	57	17	14-140/38
95-95-4	2,4,5-Trichlorophenol	ND		5000	3960	79	4950	4460	90	12	10-146/36
88-06-2	2,4,6-Trichlorophenol	ND		5000	4150	83	4950	4220	85	2	16-148/36
83-32-9	Acenaphthene	2230000 ^d		5000	786000	-28880* ^b	4950	1300000	-18786* ^b	49* ^c	21-136/34
208-96-8	Acenaphthylene	212000		5000	120000	-1840* ^b	4950	194000	-364* ^b	47* ^c	10-143/36
98-86-2	Acetophenone	58600		5000	45600	-260* ^b	4950	63200	93	32* ^c	24-127/31
120-12-7	Anthracene	4540000 ^f		5000	2710000	-36600* ^b	4950	7100000	51712* ^b	90* ^c	10-147/39
1912-24-9	Atrazine	ND		5000	6070	121	4950	4570	92	28	10-161/38
56-55-3	Benzo(a)anthracene	3420000 ^f		5000	1510000	-38200* ^b	4950	2490000	-18786* ^b	49* ^c	10-151/41
50-32-8	Benzo(a)pyrene	2790000 ^f		5000	1770000	-20400* ^b	4950	2990000	4040* ^b	51* ^c	10-149/40
205-99-2	Benzo(b)fluoranthene	3050000 ^f		5000	2050000	-20000* ^b	4950	3770000	14544* ^b	59* ^c	10-147/42
191-24-2	Benzo(g,h,i)perylene	1280000 ^d		5000	741000	-10780* ^b	4950	1330000	1010* ^b	57* ^c	10-150/41
207-08-9	Benzo(k)fluoranthene	1310000 ^d		5000	591000	-14380* ^b	4950	637000	-13595* ^b	7	12-142/41
101-55-3	4-Bromophenyl phenyl ether	ND		5000	5290	106	4950	10400	210* ^e	65* ^c	26-138/37
85-68-7	Butyl benzyl phthalate	ND		5000	4380	88	4950	4860	98	10	24-143/36
92-52-4	1,1'-Biphenyl	580000 ^d		5000	243000	-6740* ^b	4950	390000	-3838* ^b	46* ^c	18-138/32
100-52-7	Benzaldehyde	ND		5000	28100	562* ^e	4950	43200	873* ^e	42* ^c	10-149/37
91-58-7	2-Chloronaphthalene	ND		5000	3950	79	4950	4260	86	8	24-130/31
106-47-8	4-Chloroaniline	ND		5000	ND	0* ^e	4950	ND	0* ^e	nc	10-111/52
86-74-8	Carbazole	2400000 ^d		5000	1670000	-14600* ^b	4950	4550000	43430* ^b	93* ^c	12-146/39
105-60-2	Caprolactam	ND		5000	29600	592* ^e	4950	30300	612* ^e	2	10-147/40
218-01-9	Chrysene	2820000 ^f		5000	1350000	-29400* ^b	4950	1950000	-17574* ^b	36	10-151/41
111-91-1	bis(2-Chloroethoxy)methane	ND		5000	4000	80	4950	3370	68	17	10-144/35
111-44-4	bis(2-Chloroethyl)ether	ND		5000	3630	73	4950	3730	75	3	12-142/35

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11892-MS	M146098.D	5	05/11/18	CC	05/09/18	OP11892	EM6207
OP11892-MSD	M146100.D	5	05/11/18	CC	05/09/18	OP11892	EM6207
JC65493-4 ^a	M146099.D	5	05/11/18	CC	05/07/18	OP11892	EM6207
JC65493-4	M146109.D	50	05/11/18	CC	05/09/18	OP11892	EM6207

The QC reported here applies to the following samples: Method: SW846 8270D

JC65663-1, JC65663-2

CAS No.	Compound	JC65493-4 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
108-60-1	2,2'-Oxybis(1-chloropropane)	ND		5000	4350	87	4950	5560	112	24	10-137/33
7005-72-3	4-Chlorophenyl phenyl ether	ND		5000	2810	56	4950	3000	61	7	21-136/35
121-14-2	2,4-Dinitrotoluene	ND		5000	28000	560* ^e	4950	46700	943* ^e	50* ^c	14-148/41
606-20-2	2,6-Dinitrotoluene	ND		5000	4650	93	4950	3330	67	33	14-152/40
91-94-1	3,3'-Dichlorobenzidine	ND		10000	18600	186* ^e	9900	32300	326* ^e	54* ^c	10-137/47
123-91-1	1,4-Dioxane	ND		5000	2520	50	4950	2150	43	16	10-110/40
53-70-3	Dibenzo(a,h)anthracene	377000 ^d		5000	206000	-3420* ^b	4950	323000	-1091* ^b	44* ^c	10-152/38
132-64-9	Dibenzofuran	2750000 ^f		5000	922000	-36560* ^b	4950	1470000	-25856* ^b	46* ^c	17-141/36
84-74-2	Di-n-butyl phthalate	ND		5000	6730	135	4950	10000	202* ^e	39* ^c	26-137/35
117-84-0	Di-n-octyl phthalate	ND		5000	8390	168* ^e	4950	54600	1103* ^e	147* ^c	23-145/36
84-66-2	Diethyl phthalate	ND		5000	3900	78	4950	3850	78	1	25-133/35
131-11-3	Dimethyl phthalate	ND		5000	3560	71	4950	3710	75	4	21-134/36
117-81-7	bis(2-Ethylhexyl)phthalate	ND		5000	6500	130	4950	3210	65	68* ^c	26-144/39
206-44-0	Fluoranthene	8890000 ^f		5000	5200000	-73800* ^b	4950	13200000	87062* ^b	87* ^c	10-151/44
86-73-7	Fluorene	4430000 ^f		5000	1380000	-61000* ^b	4950	2190000	-45248* ^b	45* ^c	19-133/36
118-74-1	Hexachlorobenzene	ND		5000	4710	94	4950	8280	167* ^e	55* ^c	18-142/37
87-68-3	Hexachlorobutadiene	ND		5000	3640	73	4950	4740	96	26	16-137/32
77-47-4	Hexachlorocyclopentadiene	ND		10000	ND	0* ^e	9900	ND	0* ^e	nc	10-150/50
67-72-1	Hexachloroethane	ND		5000	2610	52	4950	2140	43	20	10-131/38
193-39-5	Indeno(1,2,3-cd)pyrene	1630000 ^d		5000	925000	-14100* ^b	4950	1710000	1616* ^b	60* ^c	10-148/41
78-59-1	Isophorone	ND		5000	4070	81	4950	4100	83	1	11-142/33
91-57-6	2-Methylnaphthalene	2810000 ^f		5000	1010000	-36000* ^b	4950	1740000	-21614* ^b	53* ^c	10-141/35
88-74-4	2-Nitroaniline	ND		5000	10500	210* ^e	4950	12000	242* ^e	13	14-156/38
99-09-2	3-Nitroaniline	ND		5000	3710	74	4950	4660	94	23	10-144/45
100-01-6	4-Nitroaniline	ND		5000	ND	0* ^e	4950	ND	0* ^e	nc	10-156/44
91-20-3	Naphthalene	10100000 ^f		5000	2300000	-156000* ^b	4950	3980000	-123624* ^b	54* ^c	10-136/36
98-95-3	Nitrobenzene	ND		5000	6170	123	4950	9360	189* ^e	41* ^c	10-142/34
621-64-7	N-Nitroso-di-n-propylamine	ND		5000	5360	107	4950	1240	25	125* ^c	10-142/31
86-30-6	N-Nitrosodiphenylamine	ND		5000	14200	284* ^e	4950	53100	1073* ^e	116* ^c	10-156/37
85-01-8	Phenanthrene	13600000 ^f		5000	6650000	-139000* ^b	4950	17700000	82820* ^b	91* ^c	11-145/45
129-00-0	Pyrene	7890000 ^f		5000	2420000	-109400* ^b	4950	3590000	-86860* ^b	39	11-155/44
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		5000	2250	45	4950	2420	49	7	23-136/32

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11892-MS	M146098.D	5	05/11/18	CC	05/09/18	OP11892	EM6207
OP11892-MSD	M146100.D	5	05/11/18	CC	05/09/18	OP11892	EM6207
JC65493-4 ^a	M146099.D	5	05/11/18	CC	05/07/18	OP11892	EM6207
JC65493-4	M146109.D	50	05/11/18	CC	05/09/18	OP11892	EM6207

The QC reported here applies to the following samples: Method: SW846 8270D

JC65663-1, JC65663-2

CAS No.	Surrogate Recoveries	MS	MSD	JC65493-4	JC65493-4	Limits
367-12-4	2-Fluorophenol	69%	81%	80%	0%* ^g	23-115%
4165-62-2	Phenol-d5	67%	67%	63%	0%* ^g	27-114%
118-79-6	2,4,6-Tribromophenol	118%	222%* ^e	184%* ^h	0%* ^g	19-152%
4165-60-0	Nitrobenzene-d5	83%	91%	94%	0%* ^g	26-134%
321-60-8	2-Fluorobiphenyl	64%	65%	61%	0%* ^g	39-124%
1718-51-0	Terphenyl-d14	14%* ^e	26%* ^e	44%	0%* ^g	36-134%

- (a) Dilution required due to matrix interference.
- (b) Outside control limits due to high level in sample relative to spike amount.
- (c) Outside of in house control limits.
- (d) Result is from Run #2.
- (e) Outside control limits due to matrix interference.
- (f) Result is from Run #3.
- (g) Outside control limits due to dilution.
- (h) Outside control limits due to dilution and matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11952-MS	2P79552.D	1	05/14/18	JB	05/12/18	OP11952	E2P3503
OP11952-MSD	2P79553.D	1	05/14/18	JB	05/12/18	OP11952	E2P3503
JC65677-1	2P79558.D	1	05/14/18	JB	05/12/18	OP11952	E2P3503

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65663-1A, JC65663-2A

CAS No.	Compound	JC65677-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-48-7	2-Methylphenol	ND	500	360	72	500	342	68	5	47-112/18
	3&4-Methylphenol	ND	500	320	64	500	303	61	5	44-113/19
87-86-5	Pentachlorophenol	ND	500	497	99	500	510	102	3	25-151/25
95-95-4	2,4,5-Trichlorophenol	ND	500	519	104	500	511	102	2	51-124/20
88-06-2	2,4,6-Trichlorophenol	ND	500	621	124* a	500	610	122* a	2	53-120/21
106-46-7	1,4-Dichlorobenzene	ND	500	411	82	500	394	79	4	40-105/22
121-14-2	2,4-Dinitrotoluene	ND	500	544	109	500	540	108	1	54-123/27
118-74-1	Hexachlorobenzene	ND	500	580	116	500	566	113	2	46-125/24
87-68-3	Hexachlorobutadiene	ND	500	557	111	500	516	103	8	26-121/24
67-72-1	Hexachloroethane	ND	500	458	92	500	433	87	6	35-111/26
98-95-3	Nitrobenzene	ND	500	411	82	500	391	78	5	35-130/25
110-86-1	Pyridine	ND	500	222	44	500	223	45	0	12-102/41

CAS No.	Surrogate Recoveries	MS	MSD	JC65677-1	Limits
367-12-4	2-Fluorophenol	62%	59%	42%	14-88%
4165-62-2	Phenol-d5	40%	39%	30%	10-110%
118-79-6	2,4,6-Tribromophenol	142%	138%	133% b	39-149%
4165-60-0	Nitrobenzene-d5	93%	90%	90%	32-128%
321-60-8	2-Fluorobiphenyl	98%	97%	108%	35-119%
1718-51-0	Terphenyl-d14	107%	106%	114%	10-126%

(a) High percent recoveries and no associated positive found in the QC batch.

(b) This compound in BS is outside in house QC limits bias high.

* = Outside of Control Limits.

Leachate Spike Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11952-LS5	2P79552.D	1	05/14/18	JB	05/12/18	OP11952	E2P3503
JC65677-1	2P79558.D	1	05/14/18	JB	05/12/18	OP11952	E2P3503

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65663-1A, JC65663-2A

CAS No.	Compound	JC65677-1 ug/l	Spike Q	ug/l	LS ug/l	LS %	Limits
95-48-7	2-Methylphenol	ND	500	360	72		47-112
	3&4-Methylphenol	ND	500	320	64		44-113
87-86-5	Pentachlorophenol	ND	500	497	99		25-151
95-95-4	2,4,5-Trichlorophenol	ND	500	519	104		51-124
88-06-2	2,4,6-Trichlorophenol	ND	500	621	124* a		53-120
106-46-7	1,4-Dichlorobenzene	ND	500	411	82		40-105
121-14-2	2,4-Dinitrotoluene	ND	500	544	109		54-123
118-74-1	Hexachlorobenzene	ND	500	580	116		46-125
87-68-3	Hexachlorobutadiene	ND	500	557	111		26-121
67-72-1	Hexachloroethane	ND	500	458	92		35-111
98-95-3	Nitrobenzene	ND	500	411	82		35-130
110-86-1	Pyridine	ND	500	222	44		12-102

CAS No.	Surrogate Recoveries	LS	JC65677-1	Limits
367-12-4	2-Fluorophenol	62%	42%	14-88%
4165-62-2	Phenol-d5	40%	30%	10-110%
118-79-6	2,4,6-Tribromophenol	142%	133% b	39-149%
4165-60-0	Nitrobenzene-d5	93%	90%	32-128%
321-60-8	2-Fluorobiphenyl	98%	108%	35-119%
1718-51-0	Terphenyl-d14	107%	114%	10-126%

(a) High percent recoveries and no associated positive found in the QC batch.

(b) This compound in BS is outside in house QC limits bias high.

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-DFTPP
Lab File ID: 2P79036.D
Instrument ID: GCMS2P
Injection Date: 05/01/18
Injection Time: 20:08

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	100824	37.2	Pass
68	Less than 2.0% of mass 69	1207	0.45 (0.86) ^a	Pass
69	Mass 69 relative abundance	140923	52.0	Pass
70	Less than 2.0% of mass 69	673	0.25 (0.48) ^a	Pass
127	40.0 - 60.0% of mass 198	151036	55.8	Pass
197	Less than 1.04% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	270763	100.0	Pass
199	5.0 - 9.0% of mass 198	19261	7.11	Pass
275	10.0 - 30.0% of mass 198	64885	24.0	Pass
365	1.0 - 100.0% of mass 198	8152	3.01	Pass
441	Present, but less than mass 443	33955	12.5 (83.8) ^b	Pass
442	40.0 - 100.0% of mass 198	216021	79.8	Pass
443	17.0 - 23.0% of mass 442	40507	15.0 (18.8) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3481-IC3481	2P79037.D	05/01/18	20:33	00:25	Initial cal 100
E2P3481-IC3481	2P79038.D	05/01/18	20:55	00:47	Initial cal 80
E2P3481-ICC3481	2P79039.D	05/01/18	21:16	01:08	Initial cal 50
E2P3481-IC3481	2P79040.D	05/01/18	21:38	01:30	Initial cal 25
E2P3481-IC3481	2P79041.D	05/01/18	22:00	01:52	Initial cal 10
E2P3481-IC3481	2P79042.D	05/01/18	22:22	02:14	Initial cal 5
E2P3481-IC3481	2P79043.D	05/01/18	22:44	02:36	Initial cal 2
E2P3481-IC3481	2P79044.D	05/01/18	23:05	02:57	Initial cal 1
E2P3481-ICV3479	2P79045.D	05/01/18	23:27	03:19	Initial cal verification 50
E2P3481-ICV3481	2P79046.D	05/01/18	23:49	03:41	Initial cal verification 50
E2P3481-ICV3481	2P79047.D	05/02/18	00:11	04:03	Initial cal verification 50
E2P3481-ICV3481	2P79048.D	05/02/18	00:32	04:24	Initial cal verification 50
E2P3481-ICV3481	2P79049.D	05/02/18	00:54	04:46	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-DFTPP	Injection Date: 05/03/18
Lab File ID: 2P79079.D	Injection Time: 02:24
Instrument ID: GCMS2P	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	47513	40.1	Pass
68	Less than 2.0% of mass 69	1010	0.85 (1.56) ^a	Pass
69	Mass 69 relative abundance	64706	54.6	Pass
70	Less than 2.0% of mass 69	314	0.26 (0.49) ^a	Pass
127	40.0 - 60.0% of mass 198	69344	58.5	Pass
197	Less than 1.04% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	118616	100.0	Pass
199	5.0 - 9.0% of mass 198	8351	7.04	Pass
275	10.0 - 30.0% of mass 198	28589	24.1	Pass
365	1.0 - 100.0% of mass 198	4437	3.74	Pass
441	Present, but less than mass 443	15602	13.2 (80.2) ^b	Pass
442	40.0 - 100.0% of mass 198	100016	84.3	Pass
443	17.0 - 23.0% of mass 442	19461	16.4 (19.5) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3484-IC3484	2P79081.D	05/03/18	03:21	00:57	Initial cal 100
E2P3484-IC3484	2P79082.D	05/03/18	03:43	01:19	Initial cal 80
E2P3484-ICC3484	2P79083.D	05/03/18	04:05	01:41	Initial cal 50
E2P3484-IC3484	2P79084.D	05/03/18	04:26	02:02	Initial cal 25
E2P3484-IC3484	2P79085.D	05/03/18	04:48	02:24	Initial cal 10
E2P3484-IC3484	2P79086.D	05/03/18	05:10	02:46	Initial cal 5
E2P3484-IC3484	2P79087.D	05/03/18	05:31	03:07	Initial cal 2
E2P3484-IC3484	2P79088.D	05/03/18	05:53	03:29	Initial cal 1
E2P3484-ICV3484	2P79089.D	05/03/18	06:14	03:50	Initial cal verification 50
E2P3484-ICV3484	2P79090.D	05/03/18	06:36	04:12	Initial cal verification 50
E2P3484-ICV3484	2P79091.D	05/03/18	06:58	04:34	Initial cal verification 50
E2P3484-ICV3484	2P79092.D	05/03/18	07:19	04:55	Initial cal verification 50
E2P3484-ICV3484	2P79093.D	05/03/18	07:41	05:17	Initial cal verification 50
E2P3484-ICV3484	2P79094.D	05/03/18	08:02	05:38	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3501-DFTPP
Lab File ID: 2P79508.D
Instrument ID: GCMS2P
Injection Date: 05/12/18
Injection Time: 15:39

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	58699	37.8	Pass
68	Less than 2.0% of mass 69	256	0.16 (0.33) ^a	Pass
69	Mass 69 relative abundance	77404	49.8	Pass
70	Less than 2.0% of mass 69	367	0.24 (0.47) ^a	Pass
127	40.0 - 60.0% of mass 198	88301	56.8	Pass
197	Less than 1.04% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	155405	100.0	Pass
199	5.0 - 9.0% of mass 198	11257	7.24	Pass
275	10.0 - 30.0% of mass 198	39488	25.4	Pass
365	1.0 - 100.0% of mass 198	6560	4.22	Pass
441	Present, but less than mass 443	17987	11.6 (78.9) ^b	Pass
442	40.0 - 100.0% of mass 198	106427	68.5	Pass
443	17.0 - 23.0% of mass 442	22797	14.7 (21.4) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3501-IC3501	2P79513.D	05/12/18	17:23	01:44	Initial cal 80
E2P3501-ICC3501	2P79514.D	05/12/18	17:44	02:05	Initial cal 50
E2P3501-IC3501	2P79515.D	05/12/18	18:06	02:27	Initial cal 25
E2P3501-IC3501	2P79516.D	05/12/18	18:28	02:49	Initial cal 10
E2P3501-IC3501	2P79517.D	05/12/18	18:49	03:10	Initial cal 5
E2P3501-IC3501	2P79518.D	05/12/18	19:11	03:32	Initial cal 2
E2P3501-IC3501	2P79519.D	05/12/18	19:32	03:53	Initial cal 1
E2P3501-ICV3501	2P79520.D	05/12/18	19:54	04:15	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3503-DFTPP
Lab File ID: 2P79543.D
Instrument ID: GCMS2P
Injection Date: 05/14/18
Injection Time: 09:05

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	74011	35.4	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	97966	46.8	Pass
70	Less than 2.0% of mass 69	544	0.26 (0.56) ^a	Pass
127	40.0 - 60.0% of mass 198	114587	54.7	Pass
197	Less than 1.04% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	209344	100.0	Pass
199	5.0 - 9.0% of mass 198	14127	6.75	Pass
275	10.0 - 30.0% of mass 198	58301	27.8	Pass
365	1.0 - 100.0% of mass 198	9120	4.36	Pass
441	Present, but less than mass 443	31248	14.9 (88.1) ^b	Pass
442	40.0 - 100.0% of mass 198	178795	85.4	Pass
443	17.0 - 23.0% of mass 442	35483	16.9 (19.8) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3503-CC3484	2P79544.D	05/14/18	09:17	00:12	Continuing cal 25
E2P3503-CC3481	2P79545.D	05/14/18	09:41	00:36	Continuing cal 25
E2P3503-CC3501	2P79546.D	05/14/18	10:11	01:06	Continuing cal 25
OP11952-MB1	2P79548.D	05/14/18	10:55	01:50	Method Blank
OP11952-BS1	2P79549.D	05/14/18	11:17	02:12	Blank Spike
OP11952-LB7	2P79550.D	05/14/18	11:39	02:34	Leachate Blank
ZZZZZZ	2P79551.D	05/14/18	12:01	02:56	(unrelated sample)
OP11952-MS	2P79552.D	05/14/18	12:23	03:18	Matrix Spike
OP11952-LS5	2P79552.D	05/14/18	12:23	03:18	Leachate Spike
OP11952-MSD	2P79553.D	05/14/18	12:45	03:40	Matrix Spike Duplicate
ZZZZZZ	2P79554.D	05/14/18	13:06	04:01	(unrelated sample)
ZZZZZZ	2P79555.D	05/14/18	13:50	04:45	(unrelated sample)
ZZZZZZ	2P79556.D	05/14/18	14:12	05:07	(unrelated sample)
ZZZZZZ	2P79557.D	05/14/18	14:34	05:29	(unrelated sample)
JC65677-1	2P79558.D	05/14/18	14:56	05:51	(used for QC only; not part of job JC65663)
ZZZZZZ	2P79559.D	05/14/18	15:18	06:13	(unrelated sample)
ZZZZZZ	2P79560.D	05/14/18	15:40	06:35	(unrelated sample)
ZZZZZZ	2P79561.D	05/14/18	16:02	06:57	(unrelated sample)
ZZZZZZ	2P79562.D	05/14/18	16:23	07:18	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	E2P3503-DFTPP	Injection Date:	05/14/18
Lab File ID:	2P79543.D	Injection Time:	09:05
Instrument ID:	GCMS2P		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	2P79563.D	05/14/18	16:45	07:40	(unrelated sample)
ZZZZZZ	2P79564.D	05/14/18	17:07	08:02	(unrelated sample)
ZZZZZZ	2P79565.D	05/14/18	17:29	08:24	(unrelated sample)
JC65663-1A	2P79566.D	05/14/18	17:51	08:46	WC-4
JC65663-2A	2P79567.D	05/14/18	18:13	09:08	WC-3

8.7.4
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Instrument Performance Check (DFTPP)

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6168-DFTPP	Injection Date: 04/17/18
Lab File ID: M145273.D	Injection Time: 03:46
Instrument ID: GCMSM	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	59257	34.1	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	71939	41.4	Pass
70	Less than 2.0% of mass 69	174	0.10 (0.24) ^a	Pass
127	40.0 - 60.0% of mass 198	91976	52.9	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	173922	100.0	Pass
199	5.0 - 9.0% of mass 198	11453	6.59	Pass
275	10.0 - 30.0% of mass 198	41398	23.8	Pass
365	1.0 - 100.0% of mass 198	4915	2.83	Pass
441	Present, but less than mass 443	18451	10.6 (77.9) ^b	Pass
442	40.0 - 100.0% of mass 198	120712	69.4	Pass
443	17.0 - 23.0% of mass 442	23676	13.6 (19.6) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6168-IC6168	M145274.D	04/17/18	04:09	00:23	Initial cal 100
EM6168-IC6168	M145275.D	04/17/18	04:38	00:52	Initial cal 80
EM6168-ICC6168	M145276.D	04/17/18	05:08	01:22	Initial cal 50
EM6168-IC6168	M145277.D	04/17/18	05:37	01:51	Initial cal 25
EM6168-IC6168	M145278.D	04/17/18	06:06	02:20	Initial cal 10
EM6168-IC6168	M145279.D	04/17/18	06:35	02:49	Initial cal 5
EM6168-IC6168	M145280.D	04/17/18	07:05	03:19	Initial cal 2
EM6168-IC6168	M145281.D	04/17/18	07:34	03:48	Initial cal 1
EM6168-ICV6168	M145282.D	04/17/18	08:03	04:17	Initial cal verification 50
EM6168-ICV6168	M145284.D	04/17/18	09:02	05:16	Initial cal verification 50
EM6168-ICV6168	M145285.D	04/17/18	09:31	05:45	Initial cal verification 50
EM6168-ICV6168	M145286.D	04/17/18	10:00	06:14	Initial cal verification 50
EM6168-ICV6168	M145287.D	04/17/18	10:30	06:44	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6169-DFTPP
Lab File ID: M145288.D
Instrument ID: GCMSM
Injection Date: 04/17/18
Injection Time: 10:55

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	54344	32.2	Pass
68	Less than 2.0% of mass 69	349	0.21 (0.51) ^a	Pass
69	Mass 69 relative abundance	68186	40.4	Pass
70	Less than 2.0% of mass 69	378	0.22 (0.55) ^a	Pass
127	40.0 - 60.0% of mass 198	89104	52.9	Pass
197	Less than 1.0% of mass 198	462	0.27	Pass
198	Base peak, 100% relative abundance	168576	100.0	Pass
199	5.0 - 9.0% of mass 198	11591	6.88	Pass
275	10.0 - 30.0% of mass 198	39557	23.5	Pass
365	1.0 - 100.0% of mass 198	4960	2.94	Pass
441	Present, but less than mass 443	18883	11.2 (73.4) ^b	Pass
442	40.0 - 100.0% of mass 198	132344	78.5	Pass
443	17.0 - 23.0% of mass 442	25736	15.3 (19.4) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6169-IC6169	M145289.D	04/17/18	11:39	00:44	Initial cal 100
EM6169-IC6169	M145290.D	04/17/18	12:08	01:13	Initial cal 80
EM6169-ICC6169	M145291.D	04/17/18	12:37	01:42	Initial cal 50
EM6169-IC6169	M145292.D	04/17/18	13:07	02:12	Initial cal 25
EM6169-IC6169	M145293.D	04/17/18	13:36	02:41	Initial cal 10
EM6169-IC6169	M145294.D	04/17/18	14:06	03:11	Initial cal 5
EM6169-IC6169	M145295.D	04/17/18	14:35	03:40	Initial cal 2
EM6169-IC6169	M145296.D	04/17/18	15:04	04:09	Initial cal 1
EM6169-ICV6169	M145297.D	04/17/18	15:34	04:39	Initial cal verification 50
EM6169-ICV6169	M145298.D	04/17/18	16:03	05:08	Initial cal verification 50
EM6169-ICV6169	M145299.D	04/17/18	16:32	05:37	Initial cal verification 50
EM6169-ICV6169	M145300.D	04/17/18	17:02	06:07	Initial cal verification 50
EM6169-ICV6169	M145301.D	04/17/18	17:31	06:36	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6170-DFTPP	Injection Date: 04/17/18
Lab File ID: M145302.D	Injection Time: 20:36
Instrument ID: GCMSM	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	57893	30.8	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	73598	39.2	Pass
70	Less than 2.0% of mass 69	465	0.25 (0.63) ^a	Pass
127	40.0 - 60.0% of mass 198	97176	51.8	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	187690	100.0	Pass
199	5.0 - 9.0% of mass 198	13198	7.03	Pass
275	10.0 - 30.0% of mass 198	44914	23.9	Pass
365	1.0 - 100.0% of mass 198	6194	3.30	Pass
441	Present, but less than mass 443	24056	12.8 (73.3) ^b	Pass
442	40.0 - 100.0% of mass 198	165570	88.2	Pass
443	17.0 - 23.0% of mass 442	32797	17.5 (19.8) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6170-ICV6168	M145303.D	04/17/18	20:55	00:19	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6207-DFTPP
Lab File ID: M146087.D
Instrument ID: GCMSM
Injection Date: 05/11/18
Injection Time: 10:02

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	50004	40.6	Pass
68	Less than 2.0% of mass 69	999	0.81 (1.71) ^a	Pass
69	Mass 69 relative abundance	58560	47.5	Pass
70	Less than 2.0% of mass 69	12	0.01 (0.02) ^a	Pass
127	40.0 - 60.0% of mass 198	66826	54.2	Pass
197	Less than 1.0% of mass 198	192	0.16	Pass
198	Base peak, 100% relative abundance	123229	100.0	Pass
199	5.0 - 9.0% of mass 198	8390	6.81	Pass
275	10.0 - 30.0% of mass 198	31597	25.6	Pass
365	1.0 - 100.0% of mass 198	5331	4.33	Pass
441	Present, but less than mass 443	13927	11.3 (70.7) ^b	Pass
442	40.0 - 100.0% of mass 198	104128	84.5	Pass
443	17.0 - 23.0% of mass 442	19703	16.0 (18.9) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6207-CC6168	M146088.D	05/11/18	10:17	00:15	Continuing cal 50
EM6207-CC6169	M146089.D	05/11/18	10:47	00:45	Continuing cal 50
OP11892-MB	M146091.D	05/11/18	11:47	01:45	Method Blank
OP11892-BS	M146092.D	05/11/18	12:17	02:15	Blank Spike
OP11892-BSD	M146093.D	05/11/18	12:47	02:45	Blank Spike Duplicate
ZZZZZZ	M146094.D	05/11/18	13:17	03:15	(unrelated sample)
ZZZZZZ	M146095.D	05/11/18	13:47	03:45	(unrelated sample)
ZZZZZZ	M146096.D	05/11/18	14:17	04:15	(unrelated sample)
ZZZZZZ	M146097.D	05/11/18	14:46	04:44	(unrelated sample)
OP11892-MS	M146098.D	05/11/18	15:16	05:14	Matrix Spike
JC65493-4	M146099.D	05/11/18	15:46	05:44	(used for QC only; not part of job JC65663)
OP11892-MSD	M146100.D	05/11/18	16:15	06:13	Matrix Spike Duplicate
ZZZZZZ	M146102.D	05/11/18	17:28	07:26	(unrelated sample)
JC65493-4	M146109.D	05/11/18	18:28	08:26	(used for QC only; not part of job JC65663)
JC65493-4	M146110.D	05/11/18	18:58	08:56	(used for QC only; not part of job JC65663)
ZZZZZZ	M146104.D	05/11/18	19:28	09:26	(unrelated sample)
ZZZZZZ	M146105.D	05/11/18	19:57	09:55	(unrelated sample)
JC65663-1	M146106.D	05/11/18	20:27	10:25	WC-4
ZZZZZZ	M146107.D	05/11/18	20:57	10:55	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	EM6207-DFTPP	Injection Date:	05/11/18
Lab File ID:	M146087.D	Injection Time:	10:02
Instrument ID:	GCMSM		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	M146108.D	05/11/18	21:27	11:25	(unrelated sample)

Instrument Performance Check (DFTPP)

Page 1 of 2

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6209-DFTPP
Lab File ID: M146133.D
Instrument ID: GCMSM
Injection Date: 05/12/18
Injection Time: 18:27

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	50478	35.1	Pass
68	Less than 2.0% of mass 69	164	0.11 (0.25) ^a	Pass
69	Mass 69 relative abundance	64443	44.8	Pass
70	Less than 2.0% of mass 69	522	0.36 (0.81) ^a	Pass
127	40.0 - 60.0% of mass 198	75973	52.8	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	143858	100.0	Pass
199	5.0 - 9.0% of mass 198	9383	6.52	Pass
275	10.0 - 30.0% of mass 198	39456	27.4	Pass
365	1.0 - 100.0% of mass 198	6973	4.85	Pass
441	Present, but less than mass 443	18147	12.6 (75.6) ^b	Pass
442	40.0 - 100.0% of mass 198	123024	85.5	Pass
443	17.0 - 23.0% of mass 442	24000	16.7 (19.5) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6209-CC6168	M146134.D	05/12/18	18:40	00:13	Continuing cal 50
EM6209-CC6169	M146135.D	05/12/18	19:11	00:44	Continuing cal 50
ZZZZZZ	M146138.D	05/12/18	20:41	02:14	(unrelated sample)
ZZZZZZ	M146139.D	05/12/18	21:11	02:44	(unrelated sample)
ZZZZZZ	M146140.D	05/12/18	21:41	03:14	(unrelated sample)
ZZZZZZ	M146141.D	05/12/18	22:11	03:44	(unrelated sample)
ZZZZZZ	M146142.D	05/12/18	22:41	04:14	(unrelated sample)
ZZZZZZ	M146143.D	05/12/18	23:11	04:44	(unrelated sample)
ZZZZZZ	M146144.D	05/12/18	23:41	05:14	(unrelated sample)
ZZZZZZ	M146146.D	05/13/18	00:40	06:13	(unrelated sample)
ZZZZZZ	M146147.D	05/13/18	01:10	06:43	(unrelated sample)
ZZZZZZ	M146148.D	05/13/18	01:40	07:13	(unrelated sample)
ZZZZZZ	M146149.D	05/13/18	02:10	07:43	(unrelated sample)
JC65663-2	M146150.D	05/13/18	02:40	08:13	WC-3
JC65663-1	M146151.D	05/13/18	03:09	08:42	WC-4
ZZZZZZ	M146152.D	05/13/18	03:39	09:12	(unrelated sample)
ZZZZZZ	M146153.D	05/13/18	04:09	09:42	(unrelated sample)
ZZZZZZ	M146154.D	05/13/18	04:39	10:12	(unrelated sample)
ZZZZZZ	M146155.D	05/13/18	05:08	10:41	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	EM6209-DFTPP	Injection Date:	05/12/18
Lab File ID:	M146133.D	Injection Time:	18:27
Instrument ID:	GCMSM		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	M146156.D	05/13/18	05:38	11:11	(unrelated sample)

Internal Standard Area Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E2P3503-CC3484	Injection Date: 05/14/18
Lab File ID: 2P79544.D	Injection Time: 09:17
Instrument ID: GCMS2P	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	695693	4.48	2362069	5.54	1358038	6.97	2396659	8.22	2417392	11.39	2409187	13.35
Upper Limit ^a	1391386	4.98	4724138	6.04	2716076	7.47	4793318	8.72	4834784	11.89	4818374	13.85
Lower Limit ^b	347847	3.98	1181035	5.04	679019	6.47	1198330	7.72	1208696	10.89	1204594	12.85

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP11952-MB1	946621	4.48	3369895	5.54	1627051	6.97	2974442	8.22	2766923	11.38	2795743	13.35
OP11952-BS1	814503	4.49	2638616	5.54	1370972	6.97	2521846	8.23	2486668	11.39	2478545	13.35
OP11952-LB7	1146264	4.48	3991601	5.54	1915419	6.97	3516294	8.22	3267688	11.38	3187953	13.35
ZZZZZZ	961958	4.48	3347367	5.54	1629972	6.97	2989261	8.22	3001101	11.37	2883581	13.35
OP11952-MS	820034	4.49	2573966	5.54	1380619	6.97	2482775	8.23	2464527	11.39	2453094	13.35
OP11952-LS5	820034	4.49	2573966	5.54	1380619	6.97	2482775	8.23	2464527	11.39	2453094	13.35
OP11952-MSD	802321	4.48	2577325	5.54	1345329	6.97	2436381	8.23	2484583	11.39	2481221	13.35
ZZZZZZ	1098013	4.48	3696179	5.54	1736604	6.97	3193168	8.22	3037689	11.37	2914470	13.35
ZZZZZZ	1180339	4.48	4009308	5.54	1903862	6.97	3525513	8.22	3372384	11.37	3294195	13.35
ZZZZZZ	1122543	4.48	3750252	5.54	1741564	6.97	3252972	8.22	3106274	11.37	3052471	13.35
ZZZZZZ	1152482	4.48	3836770	5.54	1812456	6.97	3268346	8.22	3198490	11.37	3101799	13.35
JC65677-1	1051732	4.48	3507526	5.54	1635207	6.97	2940413	8.22	2827229	11.37	2739375	13.35
ZZZZZZ	850552	4.48	2876847	5.54	1540110	6.97	2856359	8.22	2778979	11.37	2722033	13.35
ZZZZZZ	995625	4.48	3322266	5.54	1555935	6.97	2781897	8.22	2707026	11.37	2602713	13.35
ZZZZZZ	1022752	4.48	3465708	5.54	1625569	6.97	2936225	8.22	2810893	11.37	2778281	13.35
ZZZZZZ	1134209	4.48	3756535	5.54	1753036	6.97	3148676	8.22	3079377	11.37	3010998	13.35
ZZZZZZ	992445	4.48	3322188	5.54	1529973	6.97	2797883	8.22	2719507	11.37	2608947	13.34
ZZZZZZ	995322	4.48	3309324	5.54	1533210	6.97	2825213	8.22	2726184	11.37	2634349	13.35
ZZZZZZ	1051834	4.48	3507946	5.54	1618094	6.97	2986917	8.22	2891719	11.37	2847565	13.35
JC65663-1A	1025012	4.48	3357843	5.54	1480703	6.97	2782822	8.22	2831830	11.37	2820372	13.35
JC65663-2A	1143076	4.48	3757021	5.54	1792928	6.97	3185334	8.22	3057417	11.37	3023577	13.35

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

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

Internal Standard Area Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: EM6207-CC6168	Injection Date: 05/11/18
Lab File ID: M146088.D	Injection Time: 10:17
Instrument ID: GCMSM	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	149897	4.50	575283	5.59	354147	7.85	693601	10.44	619506	15.58	627455	18.19
Upper Limit ^a	299794	5.00	1150566	6.09	708294	8.35	1387202	10.94	1239012	16.08	1254910	18.69
Lower Limit ^b	74949	4.00	287642	5.09	177074	7.35	346801	9.94	309753	15.08	313728	17.69

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP11892-MB	198223	4.50	739970	5.59	386189	7.85	729950	10.43	636616	15.58	636110	18.19
OP11892-BS	166916	4.50	608180	5.59	330323	7.85	649757	10.44	549353	15.58	557328	18.19
OP11892-BSD	171679	4.50	632058	5.59	341192	7.86	673058	10.44	568309	15.58	578778	18.19
ZZZZZZ	184801	4.50	679957	5.59	328018	7.85	477641	10.44	333950	15.59	303871*	18.20
ZZZZZZ	177309	4.50	557588	5.59	282651	7.86	493980	10.44	383174	15.58	357960	18.20
ZZZZZZ	169875	4.51	547176	5.59	285932	7.86	519516	10.44	520625	15.58	446156	18.19
ZZZZZZ	142300	4.50	440051	5.59	264207	7.88	438226	10.48	406929	15.59	402032	18.20
OP11892-MS	147381	4.50	488884	5.60	297831	7.86	307703*	10.48	448592	15.65	344133	18.26
JC65493-4	162424	4.51	430446	5.61	339078	7.87	242706*	10.52	524013	15.75	391506	18.35
OP11892-MSD	140053	4.51	412059	5.62	294130	7.87	177213*	10.54	455781	15.73	339512	18.34
ZZZZZZ	187169	4.51	715427	5.60	302840	7.97	390233	10.70	575239	15.83	614850	18.38
JC65493-4	138688	4.51	529085	5.60	279832	7.87	531062	10.47	395607	15.64	352513	18.26
JC65493-4	153716	4.51	579294	5.59	302975	7.87	582669	10.46	418196	15.61	371710	18.24
ZZZZZZ	116041	4.51	407168	5.60	220928	7.88	411411	10.46	343889	15.62	323816	18.24
ZZZZZZ	145020	4.51	535477	5.60	259629	7.87	475996	10.46	306402*	15.62	289690*	18.24
JC65663-1	149855	4.51	539532	5.60	268384	7.87	502433	10.46	382047	15.65	346320	18.28
ZZZZZZ	126404	4.51	341071	5.62	277229	7.88	330628*	10.56	431476	15.74	331802	18.35
ZZZZZZ	149932	4.51	360507	5.63	316929	7.89	486786	10.57	535437	15.77	471173	18.39

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

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

Internal Standard Area Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: EM6209-CC6168	Injection Date: 05/12/18
Lab File ID: M146134.D	Injection Time: 18:40
Instrument ID: GCMSM	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	175307	4.49	672247	5.58	409233	7.84	817895	10.42	704379	15.57	570453	18.19
Upper Limit ^a	350614	4.99	1344494	6.08	818466	8.34	1635790	10.92	1408758	16.07	1140906	18.69
Lower Limit ^b	87654	3.99	336124	5.08	204617	7.34	408948	9.92	352190	15.07	285227	17.69

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
ZZZZZZ	182732	4.49	692132	5.57	373370	7.83	762585	10.41	694678	15.56	660023	18.18
ZZZZZZ	178655	4.49	688544	5.57	376428	7.83	759841	10.41	708624	15.56	672352	18.18
ZZZZZZ	178907	4.49	680107	5.57	355340	7.83	689021	10.41	592885	15.55	519397	18.18
ZZZZZZ	189097	4.49	727282	5.57	384453	7.83	750031	10.41	655799	15.56	614654	18.18
ZZZZZZ	179190	4.49	713171	5.57	377670	7.83	740679	10.41	686153	15.55	647538	18.18
ZZZZZZ	190440	4.49	723343	5.57	377819	7.83	729610	10.41	629682	15.56	577089	18.17
ZZZZZZ	194904	4.49	744498	5.57	372641	7.83	720951	10.41	627696	15.56	554686	18.17
ZZZZZZ	190115	4.49	708197	5.57	368986	7.83	697843	10.41	575645	15.55	440170	18.18
ZZZZZZ	196907	4.49	710320	5.57	355382	7.83	678680	10.41	539979	15.56	489963	18.18
ZZZZZZ	198873	4.49	741797	5.57	363017	7.83	719079	10.41	627777	15.56	555771	18.18
ZZZZZZ	163762	4.49	614865	5.57	313244	7.83	576617	10.41	423700	15.56	385300	18.18
JC65663-2	174999	4.48	659289	5.57	350017	7.83	663505	10.41	532964	15.56	432986	18.18
JC65663-1	187915	4.49	704886	5.57	365834	7.83	710858	10.41	556377	15.56	503913	18.18
ZZZZZZ	189592	4.49	709551	5.57	351005	7.83	655280	10.41	499768	15.56	454360	18.18
ZZZZZZ	179775	4.49	672949	5.57	336287	7.83	653902	10.41	536644	15.56	478466	18.18
ZZZZZZ	158929	4.49	582388	5.57	285324	7.83	539478	10.41	406598	15.56	365267	18.18
ZZZZZZ	179076	4.49	651837	5.58	359882	7.83	680793	10.42	509438	15.58	455598	18.19
ZZZZZZ	182141	4.49	667382	5.57	356794	7.83	691747	10.41	520803	15.57	479534	18.19

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

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

Surrogate Recovery Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8270D	Matrix: LEACHATE
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC65663-1A	2P79566.D	42	31	129 ^a	93	107	100
JC65663-2A	2P79567.D	35	26	112	77	90	96
OP11952-BS1	2P79549.D	56	38	133	88	97	110
OP11952-LB7	2P79550.D	40	30	125	84	101	102
OP11952-LS5	2P79552.D	62	40	142	93	98	107
OP11952-MB1	2P79548.D	40	31	128	87	103	97
OP11952-MS	2P79552.D	62	40	142	93	98	107
OP11952-MSD	2P79553.D	59	39	138	90	97	106

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	14-88%
S2 = Phenol-d5	10-110%
S3 = 2,4,6-Tribromophenol	39-149%
S4 = Nitrobenzene-d5	32-128%
S5 = 2-Fluorobiphenyl	35-119%
S6 = Terphenyl-d14	10-126%

(a) This compound in BS is outside in house QC limits bias high.

Surrogate Recovery Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8270D	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC65663-1	M146106.D	79	83	105	98	90	96
JC65663-1	M146151.D	47	64	77	70	67	77
JC65663-2	M146150.D	67	74	103	83	85	94
OP11892-BS	M146092.D	84	79	94	84	77	92
OP11892-BSD	M146093.D	88	80	93	84	77	93
OP11892-MB	M146091.D	68	73	86	78	73	80
OP11892-MS	M146098.D	69	67	118	83	64	14* a
OP11892-MSD	M146100.D	81	67	222* a	91	65	26* a

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	23-115%
S2 = Phenol-d5	27-114%
S3 = 2,4,6-Tribromophenol	19-152%
S4 = Nitrobenzene-d5	26-134%
S5 = 2-Fluorobiphenyl	39-124%
S6 = Terphenyl-d14	36-134%

(a) Outside control limits due to matrix interference.

Initial Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-ICC3481
Lab FileID: 2P79039.D

Response Factor Report MS2P

Method : C:\MSDCHEM\1\METHODS\M2P3481.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed May 02 11:50:31 2018
Response via : Initial Calibration

Calibration Files

2 =2p79043.D 5 =2p79042.D 25 =2p79040.D 80 =2p79038.D
100 =2p79037.D 50 =2p79039.D 1 =2p79044.D 10 =2p79041.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
101) I 1,4-Dichlorobenzene-d										
102) Benzaldehyde	1.115	1.081	1.036	1.024	1.044	1.038	1.056	1.066	1.057	2.79
103) I Naphthalene-d8a										
104) Hydroquinone	0.289	0.310	0.347	0.329	0.312	0.345	0.229	0.334	0.312	12.37
105) I Acenaphthene-d10a										
106) Atrazine	0.172	0.177	0.176	0.169	0.156	0.178	0.173	0.173	0.172	4.10
107) 1,2,4,5-Tetr	0.659	0.629	0.576	0.507	0.483	0.539	0.633	0.595	0.577	10.94
108) I Chrysene-d12a										
109) Benizidine	0.331	0.474	0.558	0.508	0.488	0.551	0.227	0.601	0.467	27.02
----- Quadratic regression -----										Coefficient = 0.9998
Response Ratio = -0.01140 + 0.61773 *A + -0.05046 *A^2										
110) I Phenanthrene-d10a										
111) 1-Chloroocta	0.291	0.300	0.294	0.277	0.271	0.295	0.273	0.309	0.289	4.71
112) o-terphenyl	0.546	0.547	0.535	0.511	0.499	0.537	0.553	0.561	0.536	3.94
113) Pentachloron	0.040	0.044	0.047	0.047	0.045	0.047	0.040	0.046	0.044#	6.91

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

M2P3479.M

Wed May 02 11:58:44 2018

RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-ICV3481
Lab FileID: 2P79046.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79046.D Vial: 11
Acq On : 1 May 2018 11:49 pm Operator: chriss2
Sample : icv3481-50 Inst : MS2P
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed May 02 11:50:31 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105 I	Acenaphthene-d10a	1.000	1.000	0.0	100	0.00	7.11
107	1,2,4,5-Tetrachlorobenzen	0.577	0.708	-22.7	132	0.00	6.39
108 I	Chrysene-d12a	1.000	1.000	0.0	84	0.00	11.59
	----- True Calc. % Drift -----						
109	Benzidine	100.000	82.100	17.9	128	0.00	9.91

(#) = Out of Range
2p79039a.D M2P3479.M

SPCC's out = 0 CCC's out = 0
Wed May 02 11:56:41 2018 RPT1

8.10.2
8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-ICV3481
Lab FileID: 2P79047.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79047.D Vial: 12
Acq On : 2 May 2018 12:11 am Operator: chriss2
Sample : icv3481-50 Inst : MS2P
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed May 02 11:50:31 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	118	0.00	4.62
102	Benzaldehyde	1.057	0.996	5.8	113	0.00	4.28
105 I	Acenaphthene-d10a	1.000	1.000	0.0	105	0.00	7.11
106	Atrazine	0.172	0.218	-26.7	129	0.00	8.14

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p79039a.D M2P3479.M Wed May 02 11:56:43 2018 RPT1

8.10.3

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-ICV3481
Lab FileID: 2P79048.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79048.D Vial: 13
Acq On : 2 May 2018 12:32 am Operator: chriss2
Sample : icv3481-50 Inst : MS2P
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed May 02 11:50:31 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
110 I	Phenanthrene-d10a	1.000	1.000	0.0	116	0.00	8.38
113	Pentachloronitrobenzene	0.044	0.048#	-9.1	118	0.00	8.22

(#) = Out of Range
2p79039a.D M2P3479.M

SPCC's out = 0 CCC's out = 0
Wed May 02 11:56:45 2018 RPT1

8.10.4

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-ICV3481
Lab FileID: 2P79049.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79049.D Vial: 14
Acq On : 2 May 2018 12:54 am Operator: chriss2
Sample : icv3481-50 Inst : MS2P
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed May 02 11:50:31 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
103 I	Naphthalene-d8a	1.000	1.000	0.0	134	0.00	5.67
104	Hydroquinone	0.312	0.353	-13.1	138	-0.02	6.13

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p79039a.D M2P3479.M Wed May 02 11:56:47 2018 RPT1

8.10.5

8

Initial Calibration Summary

Page 1 of 3

Job Number: JC65663
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICC3484
 Lab FileID: 2P79083.D

Response Factor Report MS2P

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu May 03 12:30:09 2018
 Response via : Initial Calibration

Calibration Files

2 =2p79087.D 5 =2p79086.D 25 =2p79084.D 80 =2p79082.D
 100 =2p79081.D 50 =2p79083.D 1 =2p79088.D 10 =2p79085.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD

1) I 1,4-Dichlorobenzene-d	-----ISTD-----									
2) 1,4-Dioxane	0.559	0.542	0.656	0.782	0.943	0.662	0.339	0.613	0.637	27.84
----- Quadratic regression -----										
Coefficient = 0.9974										
Response Ratio = 0.02544 + 0.37596 *A + 0.21544 *A^2										
3) Pyridine	1.381	1.345	1.578	1.740	2.026	1.670	1.495	1.302	1.567	15.45
4) N-Nitrosodim	0.694	0.699	0.952	1.106	1.158	0.961	0.614	0.855	0.880	22.69
----- Linear regression -----										
Coefficient = 0.9948										
Response Ratio = -0.07189 + 1.14713 *A										
5) 2-Fluorophen	1.291	1.363	1.649	1.887		1.773		1.510	1.579	14.77
6) Indene	2.056	2.057	2.089	2.046	1.969	2.057	2.057	2.157	2.061	2.51
7) Cumene	3.433	3.540	3.999	4.094	4.067	4.020	3.617	3.825	3.824	6.83
8) Phenol-d5	1.540	1.599	1.737	1.701	1.660	1.689	1.476	1.687	1.636	5.48
9) Phenol	1.575	1.674	1.745	1.651	1.644	1.675	1.687	1.733	1.673	3.18
10) Aniline	1.838	1.955	2.321	2.428	2.318	2.373	1.877	2.137	2.156	11.01
11) bis(2-Chloro	1.283	1.342	1.370	1.315	1.360	1.300	1.202	1.356	1.316	4.21
12) 2-Chlorophen	1.461	1.485	1.411	1.310	1.267	1.326	1.469	1.476	1.401	6.20
13) Decane	1.357	1.268	1.236	1.131	1.101	1.135	1.324	1.289	1.230	7.85
14) 1,3-Dichloro	1.674	1.649	1.593	1.555	1.508	1.532	1.699	1.658	1.609	4.45
15) 1,4-Dichloro	1.493	1.474	1.466	1.471	1.447	1.445	1.526	1.505	1.478	1.90
16) Benzyl alcoh	0.478	0.607	0.700	0.707	0.691	0.708		0.677	0.652	12.98
17) 1,2-Dichloro	1.380	1.450	1.495	1.546	1.504	1.492	1.464	1.521	1.481	3.43
18) Acetophenone	1.730	1.705	1.714	1.686	1.635	1.666	1.698	1.811	1.706	3.04
19) 2-Methylphen	1.112	1.079	1.163	1.158	1.102	1.137	1.042	1.229	1.128	5.11
20) 2,2'-oxybis(	0.265	0.324	0.317	0.295	0.289	0.299	0.340	0.343	0.309	8.67
21) 3&4-Methylph	1.108	1.144	1.149	1.103	1.097	1.128	1.018	1.227	1.122	5.25
22) n-Nitroso-di	0.796	0.806	0.805	0.766	0.737	0.774	0.779	0.852	0.790	4.32
23) Hexachloroet	0.464	0.450	0.457	0.467	0.452	0.453	0.486	0.480	0.464	2.90

24) I Naphthalene-d8	-----ISTD-----									
25) Nitrobenzene	0.353	0.371	0.372	0.366	0.366	0.374	0.360	0.387	0.369	2.78
26) Nitrobenzene	0.361	0.369	0.352	0.339	0.335	0.351	0.386	0.376	0.359	4.95
27) Quinoline	0.659	0.700	0.721	0.764	0.767	0.756	0.665	0.747	0.722	6.03
28) Isophorone	0.560	0.598	0.632	0.654	0.663	0.665	0.547	0.633	0.619	7.44
29) 2-Nitropheno		0.189	0.206	0.203	0.202	0.207		0.206	0.202	3.32
30) 2,4-Dimethyl	0.342	0.358	0.361	0.358	0.352	0.365	0.320	0.376	0.354	4.81
31) Benzoic acid	0.074	0.093	0.168	0.207	0.217	0.207		0.133	0.157	36.86
----- Quadratic regression -----										
Coefficient = 0.9990										
Response Ratio = -0.01219 + 0.19449 *A + 0.01053 *A^2										
32) bis(2-Chloro	0.362	0.363	0.347	0.342	0.339	0.354	0.364	0.369	0.355	3.21
33) 2,4-Dichloro	0.287	0.300	0.317	0.329	0.330	0.329	0.264	0.315	0.309	7.67
34) 2,6-Dichloro	0.250	0.266	0.290	0.304	0.306	0.301	0.236	0.287	0.280	9.35
35) 1,3,5-Trichl	0.364	0.362	0.362	0.364	0.357	0.367	0.373	0.373	0.365	1.48
36) 1,2,4-Trichl	0.336	0.338	0.319	0.317	0.317	0.323	0.362	0.345	0.332	4.86

Initial Calibration Summary

Page 2 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICC3484
Lab FileID: 2P79083.D

37)	1,2,3-Trichl	0.301	0.291	0.287	0.278	0.276	0.287	0.300	0.307	0.291	3.77
38)	Naphthalene	0.974	0.951	0.955	0.954	0.935	0.968	1.002	1.001	0.968	2.47
39)	4-Chloroanil	0.403	0.419	0.435	0.432	0.421	0.444	0.425	0.459	0.430	3.93
40)	2,3-Dichloro	0.364	0.374	0.370	0.376	0.375	0.377	0.359	0.386	0.373	2.21
41)	Caprolactam	0.075	0.092	0.112	0.123	0.122	0.118		0.110	0.107	16.51
42)	Hexachlorobu	0.158	0.162	0.157	0.156	0.153	0.160	0.158	0.166	0.159	2.53
43)	4-Chloro-3-m	0.278	0.296	0.327	0.340	0.338	0.340	0.264	0.326	0.314	9.59
44)	2-Methylnaph	0.608	0.608	0.616	0.598	0.589	0.619	0.600	0.645	0.611	2.78
45)	1-Methylnaph	0.650	0.640	0.641	0.619	0.616	0.640	0.662	0.675	0.643	3.09
46)	Dimethylnaph	0.621	0.596	0.587	0.608	0.612	0.609	0.623	0.630	0.611	2.30
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.243	0.273	0.331	0.331	0.324	0.336		0.317	0.308	11.53
49)	2,4,6-Trichl	0.339	0.364	0.402	0.394	0.389	0.400	0.335	0.392	0.377	7.20
50)	2,4,5-Trichl	0.367	0.385	0.394	0.368	0.354	0.383	0.329	0.405	0.373	6.42
51)	2-Fluorobiph	1.485	1.450	1.358	1.212	1.151	1.262	1.601	1.458	1.372	11.20
52)	2-Chloronaph	1.258	1.200	1.079	0.954	0.931	1.005	1.254	1.216	1.112	12.27
53)	Biphenyl	1.713	1.650	1.529	1.404	1.367	1.445	1.716	1.632	1.557	8.97
54)	2-Nitroanili	0.291	0.328	0.332	0.303	0.288	0.315	0.279	0.355	0.311	8.32
55)	Dimethylphth	1.331	1.334	1.302	1.247	1.225	1.277	1.335	1.385	1.305	4.02
56)	Acenaphthyle	1.957	2.009	1.905	1.711	1.664	1.810	1.899	2.030	1.873	7.15
57)	2,6-Dinitrot	0.242	0.272	0.302	0.289	0.291	0.297	0.211	0.304	0.276	12.03
58)	3-Nitroanili	0.267	0.297	0.333	0.320	0.307	0.335	0.238	0.334	0.304	11.62
59)	Acenaphthene	1.129	1.138	1.156	1.131	1.110	1.165	1.199	1.189	1.152	2.68
60)	2,4-Dinitrop	0.042	0.069	0.134	0.162	0.161	0.152	0.030	0.101	0.106	50.75
----- Quadratic regression -----										Coefficient =	0.9993
Response Ratio = -0.01619 + 0.14975 *A + 0.00329 *A^2											
61)	4-Nitropheno	0.161	0.196	0.186	0.183	0.188		0.189	0.184		6.42
62)	Dibenzofuran	1.582	1.619	1.645	1.556	1.527	1.600	1.600	1.689	1.602	3.16
63)	2,4-Dinitrot	0.306	0.340	0.373	0.352	0.341	0.364	0.234	0.375	0.336	13.97
64)	2,3,4,6-Tetr	0.268	0.278	0.319	0.330	0.327	0.325	0.233	0.314	0.299	11.87
65)	Diethylphtha	1.308	1.343	1.344	1.239	1.210	1.268	1.274	1.411	1.300	5.00
66)	Fluorene	1.313	1.330	1.304	1.197	1.139	1.271	1.336	1.396	1.286	6.40
67)	4-Chlorophen	0.586	0.577	0.592	0.584	0.565	0.594	0.574	0.623	0.587	2.94
68)	4-Nitroanili	0.296	0.338	0.361	0.347	0.336	0.350	0.266	0.374	0.333	10.65
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.043	0.067	0.109	0.123	0.125	0.120	0.036	0.091	0.089	40.74
----- Quadratic regression -----										Coefficient =	0.9997
Response Ratio = -0.00500 + 0.11879 *A + 0.00328 *A^2											
71)	n-Nitrosodip	0.569	0.561	0.521	0.504	0.489	0.511	0.576	0.567	0.537	6.42
72)	1,2-Diphenyl	0.822	0.815	0.745	0.643	0.620	0.690	0.807	0.833	0.747	11.51
73)	2,4,6-Tribo	0.107	0.113	0.125	0.136	0.140	0.134	0.097	0.124	0.122	12.39
74)	4-Bromopheny	0.199	0.206	0.215	0.226	0.231	0.225	0.199	0.220	0.215	5.93
75)	Hexachlorobe	0.259	0.266	0.267	0.271	0.271	0.270	0.281	0.278	0.270	2.59
76)	Pentachlorop	0.055	0.081	0.112	0.134	0.136	0.130	0.048	0.099	0.099	35.16
----- Quadratic regression -----										Coefficient =	0.9995
Response Ratio = -0.00956 + 0.12388 *A + 0.00287 *A^2											
77)	Phenanthrene	1.022	1.003	0.991	1.008	0.993	1.021	1.070	1.035	1.018	2.54
78)	Anthracene	0.978	1.009	1.007	0.974	0.959	1.001	0.948	1.052	0.991	3.37
79)	Carbazole	1.018	1.061	1.082	1.079	1.064	1.108	1.012	1.118	1.068	3.56
80)	Di-n-butylph	1.135	1.299	1.465	1.460	1.444	1.497	1.034	1.453	1.348	13.01
81)	Fluoranthene	1.201	1.266	1.407	1.411	1.397	1.435	1.174	1.381	1.334	7.78
82)	Octadecane	0.317	0.333	0.332	0.311	0.299	0.328	0.296	0.349	0.320	5.70
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.365	1.385	1.317	1.266	1.266	1.327	1.363	1.440	1.341	4.45

8.10.6

8

Initial Calibration Summary

Page 3 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICC3484
Lab FileID: 2P79083.D

85)	Terphenyl-d1	0.853	0.846	0.844	0.889	0.878	0.873	0.874	0.901	0.870	2.36
86)	Butylbenzylp	0.520	0.607	0.701	0.748	0.744	0.746		0.700	0.681	12.67
87)	Benzo[a]anth	1.164	1.185	1.258	1.336	1.323	1.324	1.130	1.278	1.250	6.40
88)	3,3'-Dichlor	0.292	0.330	0.378	0.408	0.412	0.403		0.373	0.371	12.09
89)	Chrysene	1.025	1.006	0.971	0.928	0.915	0.965	1.043	1.034	0.986	4.92
90)	bis(2-Ethylh	0.546	0.636	0.714	0.703	0.692	0.717	0.465	0.731	0.650	14.82
91)	I Perylene-d12	-----ISTD-----									
92)	Di-n-octylph	0.934	1.253	1.742	1.851	1.823	1.835	0.761	1.583	1.473	29.55
	----- Quadratic regression -----	Coefficient = 0.9998									
	Response Ratio =	-0.06116 + 1.89887 *A + -0.01697 *A^2									
93)	Benzo[b]fluo	1.323	1.293	1.359	1.332	1.348	1.350	1.276	1.419	1.338	3.28
94)	Benzo[k]fluo	1.119	1.136	1.067	0.975	0.927	1.031	1.128	1.157	1.068	7.82
95)	Benzo[a]pyre	0.951	1.031	1.156	1.173	1.162	1.175	0.964	1.137	1.094	8.78
96)	Indeno[1,2,3	1.019	1.102	1.264	1.325	1.317	1.320	0.992	1.234	1.197	11.59
97)	Dibenz(a,h)a	0.717	0.810	0.952	1.052	1.055	1.017	0.668	0.894	0.896	16.84
98)	Dibenz[a,h]a	0.846	0.909	1.006	1.025	1.025	1.023	0.850	1.004	0.961	8.29
99)	7,12-Dimethy	0.498	0.549	0.614	0.620	0.629	0.624	0.473	0.620	0.578	10.93
100)	Benzo[g,h,i]	0.860	0.858	0.994	1.047	1.038	1.044	0.845	0.970	0.957	9.28

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

M2P3484.M

Thu May 03 12:47:05 2018

RPT1

8.10.6

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
Lab FileID: 2P79089.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79089.D Vial: 11
Acq On : 3 May 2018 6:14 am Operator: chriss2
Sample : icv3484-50 Inst : MS2P
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	173	0.00	4.61
5 S	2-Fluorophenol	1.579	1.555	1.5	151	0.00	3.59
8 S	Phenol-d5	1.636	1.614	1.3	165	0.00	4.42
24 I	Naphthalene-d8	1.000	1.000	0.0	187	0.00	5.66
25 S	Nitrobenzene-d5	0.369	0.380	-3.0	190	0.00	5.10
47 I	Acenaphthene-d10	1.000	1.000	0.0	173	0.00	7.09
51 S	2-Fluorobiphenyl	1.372	1.371	0.1	188	0.00	6.55
69 I	Phenanthrene-d10	1.000	1.000	0.0	161	0.00	8.36
73 S	2,4,6-Tribromophenol	0.122	0.127	-4.1	153	0.00	7.75
83 I	Chrysene-d12	1.000	1.000	0.0	149	0.00	11.56
85 S	Terphenyl-d14	0.870	0.915	-5.2	156	0.00	10.14

(#) = Out of Range
2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
Thu May 03 12:39:22 2018 RPT1

8.10.7

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
 Lab FileID: 2P79090.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79090.D Vial: 12
 Acq On : 3 May 2018 6:36 am Operator: chriss2
 Sample : icv3484-50 Inst : MS2P
 Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu May 03 12:30:09 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	152	0.00	4.61
9 t	Phenol	1.673	1.903	-13.7	173	0.00	4.43
12 t	2-Chlorophenol	1.401	1.531	-9.3	176	0.00	4.47
19 t	2-Methylphenol	1.128	1.161	-2.9	155	0.00	4.90
21 t	3&4-Methylphenol	1.122	1.176	-4.8	159	0.00	5.03
24 I	Naphthalene-d8	1.000	1.000	0.0	135	0.00	5.66
29 t	2-Nitrophenol	0.202	0.240	-18.8	157	0.00	5.37
30 t	2,4-Dimethylphenol	0.354	0.369	-4.2	136	0.00	5.44
	----- True Calc. % Drift -----						
31 t	Benzoic acid	50.000	27.287	45.4#	66	0.00	5.60
	----- AvgRF CCRF % Dev -----						
33 t	2,4-Dichlorophenol	0.309	0.320	-3.6	131	0.00	5.58
34 t	2,6-Dichlorophenol	0.280	0.304	-8.6	137	0.00	5.76
43 t	4-Chloro-3-methylphenol	0.314	0.331	-5.4	132	-0.01	6.20
47 I	Acenaphthene-d10	1.000	1.000	0.0	134	0.00	7.09
49 t	2,4,6-Trichlorophenol	0.377	0.403	-6.9	135	0.00	6.50
50 t	2,4,5-Trichlorophenol	0.373	0.380	-1.9	133	-0.01	6.54
	----- True Calc. % Drift -----						
60 t	2,4-Dinitrophenol	50.000	48.263	3.5	122	0.00	7.18
	----- AvgRF CCRF % Dev -----						
61 t	4-Nitrophenol	0.184	0.196	-6.5	140	0.00	7.32
64	2,3,4,6-Tetrachlorophenol	0.299	0.302	-1.0	125	0.00	7.38
69 I	Phenanthrene-d10	1.000	1.000	0.0	132	0.00	8.36
	----- True Calc. % Drift -----						
70 t	4,6-Dinitro-2-methylpheno	50.000	52.365	-4.7	137	0.00	7.60
	----- True Calc. % Drift -----						
76 t	Pentachlorophenol	50.000	59.284	-18.6	151	0.00	8.21

(#) = Out of Range
 2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
 Thu May 03 12:39:24 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
Lab FileID: 2P79091.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79091.D Vial: 13
Acq On : 3 May 2018 6:58 am Operator: chriss2
Sample : icv3484-50 Inst : MS2P
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	141	0.00	4.61
3 t	Pyridine	1.567	1.173	25.1	99	0.14	2.49
10	Aniline	2.156	2.116	1.9	125	0.01	4.39
16 t	Benzyl alcohol	0.652	0.721	-10.6	143	0.00	4.78
24 I	Naphthalene-d8	1.000	1.000	0.0	165	0.00	5.66
39 t	4-Chloroaniline	0.430	0.371	13.7	138	0.00	5.77
44 t	2-Methylnaphthalene	0.611	0.517	15.4	138	0.00	6.24
47 I	Acenaphthene-d10	1.000	1.000	0.0	145	0.00	7.09
54 t	2-Nitroaniline	0.311	0.343	-10.3	157	0.00	6.78
58 t	3-Nitroaniline	0.304	0.306	-0.7	132	0.00	7.12
62 t	Dibenzofuran	1.602	1.452	9.4	131	0.00	7.26
68 t	4-Nitroaniline	0.333	0.329	1.2	136	0.00	7.64
69 I	Phenanthrene-d10	1.000	1.000	0.0	138	0.00	8.36
79 t	Carbazole	1.068	1.029	3.7	128	0.00	8.63

(#) = Out of Range
2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
Thu May 03 12:39:26 2018 RPT1

8.10.9

8

Initial Calibration Verification

Page 1 of 2

Job Number: JC65663
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
 Lab FileID: 2P79092.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79092.D Vial: 14
 Acq On : 3 May 2018 7:19 am Operator: chriss2
 Sample : icv3484-50 Inst : MS2P
 Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu May 03 12:30:09 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	146	0.00	4.61
----- True Calc. % Drift -----							
4 t	N-Nitrosodimethylamine	50.000	27.362	45.3#	86	0.01	2.30
----- AvgRF CCRF % Dev -----							
11 t	bis(2-Chloroethyl)ether	1.316	1.389	-5.5	156	0.00	4.41
14 t	1,3-Dichlorobenzene	1.609	1.690	-5.0	161	0.00	4.56
15 t	1,4-Dichlorobenzene	1.478	1.358	8.1	137	0.00	4.62
17 t	1,2-Dichlorobenzene	1.481	1.347	9.0	131	0.00	4.75
20 t	2,2'-oxybis(1-Chloropropa	0.309	0.314	-1.6	153	0.00	4.84
22 t	n-Nitroso-di-n-propylamin	0.790	0.732	7.3	138	-0.01	4.96
23 t	Hexachloroethane	0.464	0.447	3.7	144	0.00	5.03
24 I	Naphthalene-d8	1.000	1.000	0.0	140	0.00	5.66
26 t	Nitrobenzene	0.359	0.336	6.4	134	0.00	5.11
28 t	Isophorone	0.619	0.592	4.4	125	0.00	5.29
32 t	bis(2-Chloroethoxy)methan	0.355	0.388	-9.3	153	0.00	5.48
36 t	1,2,4-Trichlorobenzene	0.332	0.344	-3.6	149	0.00	5.61
38 t	Naphthalene	0.968	0.909	6.1	131	0.00	5.68
42 t	Hexachlorobutadiene	0.159	0.171	-7.5	149	0.00	5.78
47 I	Acenaphthene-d10	1.000	1.000	0.0	130	0.00	7.10
48 t	Hexachlorocyclopentadiene	0.308	0.361	-17.2	127	0.00	6.37
52 t	2-Chloronaphthalene	1.112	1.271	-14.3	165	0.00	6.64
55 t	Dimethylphthalate	1.305	1.374	-5.3	140	0.00	6.90
56 t	Acenaphthylene	1.873	1.768	5.6	127	0.00	6.98
57 t	2,6-Dinitrotoluene	0.276	0.283	-2.5	124	0.00	6.95
59 t	Acenaphthene	1.152	1.079	6.3	121	0.00	7.12
63 t	2,4-Dinitrotoluene	0.336	0.361	-7.4	129	0.00	7.28
65 t	Diethylphthalate	1.300	1.340	-3.1	137	0.00	7.46
66 t	Fluorene	1.286	1.206	6.2	123	0.00	7.54
67 t	4-Chlorophenyl-phenylethe	0.587	0.572	2.6	125	0.00	7.53
69 I	Phenanthrene-d10	1.000	1.000	0.0	140	0.00	8.36
71 t	n-Nitrosodiphenylamine	0.537	0.449	16.4	123	0.00	7.65
72 t	1,2-Diphenylhydrazine	0.747	0.612	18.1	124	0.00	7.67
74 t	4-Bromophenyl-phenylether	0.215	0.199	7.4	124	0.00	7.95
75 t	Hexachlorobenzene	0.270	0.236	12.6	122	0.00	8.01
77 t	Phenanthrene	1.018	0.921	9.5	126	0.00	8.39
78 t	Anthracene	0.991	0.857	13.5	120	0.00	8.44
80 t	Di-n-butylphthalate	1.348	1.282	4.9	120	0.00	8.95

Initial Calibration Verification

Page 2 of 2

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
Lab FileID: 2P79092.D

81 t	Fluoranthene	1.334	1.206	9.6	117	0.00	9.66
83 I	Chrysene-d12	1.000	1.000	0.0	117	0.00	11.56
84 t	Pyrene	1.341	1.268	5.4	112	0.00	9.94
86 t	Butylbenzylphthalate	0.681	0.746	-9.5	117	0.00	10.81
87 t	Benzo[a]anthracene	1.250	1.285	-2.8	113	0.00	11.54
89 t	Chrysene	0.986	0.877	11.1	106	0.00	11.60
90 t	bis(2-Ethylhexyl)phthalat	0.650	0.647	0.5	105	0.00	11.60
91 I	Perylene-d12	1.000	1.000	0.0	119	0.00	13.54
		----- True	Calc.	% Drift	-----		
92 t	Di-n-octylphthalate	50.000	46.822	6.4	111	0.00	12.51
		----- AvgRF	CCRF	% Dev	-----		
93 t	Benzo[b]fluoranthene	1.338	1.276	4.6	113	0.00	13.03
94 t	Benzo[k]fluoranthene	1.068	1.073	-0.5	124	0.00	13.07
95 t	Benzo[a]pyrene	1.094	1.126	-2.9	114	0.00	13.46
96 t	Indeno[1,2,3-cd]pyrene	1.197	1.361	-13.7	123	0.00	14.86
98 t	Dibenz[a,h]anthracene	0.961	1.025	-6.7	120	0.00	14.88
100 t	Benzo[g,h,i]perylene	0.957	1.092	-14.1	125	0.00	15.23

(#) = Out of Range
 2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
 Thu May 03 12:39:28 2018 RPT1

8.10.10
 8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
Lab FileID: 2P79093.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79093.D Vial: 15
Acq On : 3 May 2018 7:41 am Operator: chriss2
Sample : icv3484-50 Inst : MS2P
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	151	0.00	4.61
	----- True	Calc.	% Drift	-----			
2 t	1,4-Dioxane	50.000	51.921	-3.8	160	0.01	1.96
	----- AvgRF	CCRF	% Dev	-----			
6 t	Indene	2.061	2.197	-6.6	162	0.00	4.82
7 t	Cumene	3.824	3.688	3.6	139	0.00	3.92
13 t	Decane	1.230	1.136	7.6	151	0.00	4.45
18 t	Acetophenone	1.706	1.554	8.9	141	0.00	4.96
24 I	Naphthalene-d8	1.000	1.000	0.0	174	0.00	5.66
27 t	Quinoline	0.722	0.618	14.4	142	-0.01	5.97
40 t	2,3-Dichloroaniline	0.373	0.267	28.4	123	0.00	6.51
41 t	Caprolactam	0.107	0.081	24.3	120	-0.03	6.06
45 t	1-Methylnaphthalene	0.643	0.470	26.9	128	0.00	6.32
46 t	Dimethylnaphthalene	0.611	0.451	26.2	129	0.00	6.74
47 I	Acenaphthene-d10	1.000	1.000	0.0	129	0.00	7.09
53 t	Biphenyl	1.557	1.517	2.6	136	0.00	6.63
69 I	Phenanthrene-d10	1.000	1.000	0.0	129	0.00	8.36
82 t	Octadecane	0.320	0.310	3.1	122	0.00	8.20
91 I	Perylene-d12	1.000	1.000	0.0	125	0.00	13.53
99 t	7,12-Dimethylbenz(a)anthr	0.578	0.378	34.6#	76	-0.01	13.02

(#) = Out of Range
2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
Thu May 03 12:39:30 2018 RPT1

8.10.11

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
Lab FileID: 2P79094.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79094.D Vial: 16
Acq On : 3 May 2018 8:02 am Operator: chriss2
Sample : icv3484-50 Inst : MS2P
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	152	0.00	11.56
88 t	3,3'-Dichlorobenzidine	0.371	0.353	4.9	133	0.00	11.58

(#) = Out of Range
2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
Thu May 03 12:39:32 2018 RPT1

8.10.12
8

Initial Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3501-ICC3501
Lab FileID: 2P79514.D

Response Factor Report MS2P

Method : C:\msdchem\1\METHODS\M2P3501.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sun May 13 12:47:08 2018
Response via : Initial Calibration

Calibration Files

2 =2p79518.D 5 =2p79517.D 25 =2p79515.D 80 =2p79513.D
100 =2p79512.D 50 =2p79514.D 1 =2p79519.D 10 =2p79516.D

Compound	2	5	25	80	100	50	1	10	Avg %RSD
114) I 1,4-Dichlorobenzene-d									
115) 2-Picoline	1.559	1.410	1.098	1.140		1.148	1.628	1.242	1.318
116) 2-Aminopyrid	1.223	1.038	0.861	0.993		0.939		0.904	0.993
117) I Acenaphthene-d10b									
118) 2,4'-Bipyrid	0.417	0.399	0.320	0.307		0.311	0.458	0.337	0.364

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

M2P3484sl.M

Sun May 13 12:50:01 2018

RPT1

8.10.13

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3501-ICV3501
Lab FileID: 2P79520.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3501\2p79520.D Vial: 13
Acq On : 12 May 2018 7:54 pm Operator: seanb1
Sample : icv3501-50 Inst : MS2P
Misc : op10929,e2p3501,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\M2P3484sl.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sun May 13 12:47:08 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
114 I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	108	0.00	4.49
115	2-Picoline	1.318	1.269	3.7	119	-0.08	2.84
116	2-Aminopyridine	0.993	1.101	-10.9	126	-0.04	4.45
117 I	Acenaphthene-d10b	1.000	1.000	0.0	117	0.00	6.97
118	2,4'-Bipyridine	0.364	0.305	16.2	115	0.01	7.21

(#) = Out of Range

2p79514a.D M2P3484sl.M

SPCC's out = 0 CCC's out = 0
Sun May 13 12:49:53 2018 RPT1

8.10.14

8

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3503-CC3484
Lab FileID: 2P79544.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3503\2p79544.D Vial: 2
Acq On : 14 May 2018 9:17 am Operator: johnb1
Sample : cc3484-25 Inst : MS2P
Misc : op10929,e2p3503,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	111	0.00	4.48
	----- True	Calc.	% Drift	-----			
2 t	1,4-Dioxane	25.000	31.526	-26.1#	124	0.00	1.78
	----- AvgRF	CCRF	% Dev	-----			
3 t	Pyridine	1.567	1.457	7.0	103	0.00	2.15
	----- True	Calc.	% Drift	-----			
4 t	N-Nitrosodimethylamine	25.000	21.386	14.5	101	0.00	2.12
	----- AvgRF	CCRF	% Dev	-----			
5 S	2-Fluorophenol	1.579	1.404	11.1	95	-0.02	3.46
6 t	Indene	2.061	2.017	2.1	108	0.00	4.69
7 t	Cumene	3.824	3.523	7.9	98	-0.02	3.79
8 S	Phenol-d5	1.636	1.540	5.9	99	0.02	4.31
9 t	Phenol	1.673	1.504	10.1	96	0.02	4.32
10	Aniline	2.156	1.561	27.6#	75	0.00	4.26
11 t	bis(2-Chloroethyl)ether	1.316	1.139	13.4	93	0.00	4.28
12 t	2-Chlorophenol	1.401	1.300	7.2	103	0.00	4.35
13 t	Decane	1.230	1.162	5.5	105	0.00	4.32
14 t	1,3-Dichlorobenzene	1.609	1.548	3.8	108	0.00	4.43
15 t	1,4-Dichlorobenzene	1.478	1.455	1.6	111	0.00	4.50
16 t	Benzyl alcohol	0.652	0.681	-4.4	109	0.01	4.66
17 t	1,2-Dichlorobenzene	1.481	1.492	-0.7	111	0.00	4.63
18 t	Acetophenone	1.706	1.711	-0.3	111	0.02	4.84
19 t	2-Methylphenol	1.128	1.087	3.6	104	0.03	4.79
20 t	2,2'-oxybis(1-Chloropropa	0.309	0.292	5.5	103	0.01	4.72
21 t	3&4-Methylphenol	1.122	1.085	3.3	105	0.03	4.92
22 t	n-Nitroso-di-n-propylamin	0.790	0.761	3.7	105	0.02	4.84
23 t	Hexachloroethane	0.464	0.510	-9.9	124	0.01	4.90
24 I	Naphthalene-d8	1.000	1.000	0.0	113	0.00	5.54
25 S	Nitrobenzene-d5	0.369	0.363	1.6	110	0.00	4.98
26 t	Nitrobenzene	0.359	0.336	6.4	108	-0.01	4.99
27 t	Quinoline	0.722	0.725	-0.4	114	0.02	5.87
28 t	Isophorone	0.619	0.594	4.0	106	0.00	5.17
29 t	2-Nitrophenol	0.202	0.202	0.0	111	0.00	5.25
30 t	2,4-Dimethylphenol	0.354	0.323	8.8	101	0.00	5.33
	----- True	Calc.	% Drift	-----			
31 t	Benzoic acid	25.000	31.769	-27.1#	160	0.01	5.50

8.10.15

8

Continuing Calibration Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3503-CC3484
Lab FileID: 2P79544.D

Page 2 of 3

		AvgRF	CCRF	% Dev			
32 t	bis(2-Chloroethoxy)methan	0.355	0.325	8.5	106	0.00	5.36
33 t	2,4-Dichlorophenol	0.309	0.334	-8.1	119	0.00	5.47
34 t	2,6-Dichlorophenol	0.280	0.307	-9.6	120	0.00	5.65
35	1,3,5-Trichlorobenzene	0.365	0.384	-5.2	120	0.00	5.22
36 t	1,2,4-Trichlorobenzene	0.332	0.348	-4.8	123	0.00	5.49
37	1,2,3-Trichlorobenzene	0.291	0.309	-6.2	122	0.00	5.68
38 t	Naphthalene	0.968	0.949	2.0	112	0.00	5.56
39 t	4-Chloroaniline	0.430	0.394	8.4	103	0.00	5.65
40 t	2,3-Dichloroaniline	0.373	0.398	-6.7	122	0.02	6.39
41 t	Caprolactam	0.107	0.104	2.8	105	0.00	5.97
42 t	Hexachlorobutadiene	0.159	0.192	-20.8#	139	0.00	5.66
43 t	4-Chloro-3-methylphenol	0.314	0.328	-4.5	113	0.02	6.10
44 t	2-Methylnaphthalene	0.611	0.661	-8.2	121	0.01	6.12
45 t	1-Methylnaphthalene	0.643	0.660	-2.6	116	0.02	6.20
46 t	Dimethylnaphthalene	0.611	0.639	-4.6	123	0.03	6.63
47 I	Acenaphthene-d10	1.000	1.000	0.0	123	0.00	6.97
48 t	Hexachlorocyclopentadiene	0.308	0.371	-20.5#	138	-0.02	6.25
49 t	2,4,6-Trichlorophenol	0.377	0.414	-9.8	126	0.00	6.39
50 t	2,4,5-Trichlorophenol	0.373	0.394	-5.6	123	0.00	6.44
51 S	2-Fluorobiphenyl	1.372	1.355	1.2	122	-0.01	6.43
52 t	2-Chloronaphthalene	1.112	1.071	3.7	122	-0.01	6.52
53 t	Biphenyl	1.557	1.515	2.7	122	-0.01	6.50
54 t	2-Nitroaniline	0.311	0.301	3.2	111	0.00	6.66
55 t	Dimethylphthalate	1.305	1.320	-1.1	124	0.00	6.78
56 t	Acenaphthylene	1.873	1.866	0.4	120	0.00	6.86
57 t	2,6-Dinitrotoluene	0.276	0.293	-6.2	119	0.00	6.83
58 t	3-Nitroaniline	0.304	0.281	7.6	104	0.00	7.01
59 t	Acenaphthene	1.152	1.158	-0.5	123	0.00	6.99
60 t	2,4-Dinitrophenol	50.000	54.293	-8.6	141	0.01	7.07
61 t	4-Nitrophenol	0.184	0.208	-13.0	130	0.02	7.22
62 t	Dibenzofuran	1.602	1.630	-1.7	122	0.00	7.14
63 t	2,4-Dinitrotoluene	0.336	0.387	-15.2	128	0.01	7.17
64	2,3,4,6-Tetrachlorophenol	0.299	0.359	-20.1#	138	0.00	7.27
65 t	Diethylphthalate	1.300	1.328	-2.2	121	0.00	7.34
66 t	Fluorene	1.286	1.321	-2.7	124	0.00	7.42
67 t	4-Chlorophenyl-phenylethe	0.587	0.651	-10.9	135	0.00	7.41
68 t	4-Nitroaniline	0.333	0.298	10.5	101	0.00	7.52
69 I	Phenanthrene-d10	1.000	1.000	0.0	124	0.00	8.22
70 t	4,6-Dinitro-2-methylpheno	25.000	27.900	-11.6	145	0.02	7.50
71 t	n-Nitrosodiphenylamine	0.537	0.529	1.5	126	0.00	7.53
72 t	1,2-Diphenylhydrazine	0.747	0.668	10.6	111	0.00	7.55
73 S	2,4,6-Tribromophenol	0.122	0.153	-25.4#	152	0.00	7.63
74 t	4-Bromophenyl-phenylether	0.215	0.243	-13.0	140	0.00	7.82
75 t	Hexachlorobenzene	0.270	0.299	-10.7	139	0.00	7.88
76 t	Pentachlorophenol	50.000	61.821	-23.6#	168	0.00	8.09

8.10.15

8

Continuing Calibration Summary

Page 3 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3503-CC3484
Lab FileID: 2P79544.D

		AvgRF	CCRF	% Dev			
77 t	Phenanthrene	1.018	0.996	2.2	124	0.00	8.25
78 t	Anthracene	0.991	1.008	-1.7	124	0.00	8.29
79 t	Carbazole	1.068	1.012	5.2	116	0.00	8.49
80 t	Di-n-butylphthalate	1.348	1.397	-3.6	118	0.00	8.80
81 t	Fluoranthene	1.334	1.354	-1.5	119	0.00	9.50
82 t	Octadecane	0.320	0.298	6.9	111	0.00	8.06
83 I	Chrysene-d12	1.000	1.000	0.0	124	0.00	11.39
84 t	Pyrene	1.341	1.343	-0.1	126	-0.01	9.77
85 S	Terphenyl-d14	0.870	0.925	-6.3	136	-0.01	9.97
86 t	Butylbenzylphthalate	0.681	0.666	2.2	118	-0.01	10.63
87 t	Benzo[a]anthracene	1.250	1.264	-1.1	125	0.00	11.36
88 t	3,3'-Dichlorobenzidine	0.371	0.362	2.4	119	0.00	11.40
89 t	Chrysene	0.986	1.019	-3.3	130	0.00	11.42
90 t	bis(2-Ethylhexyl)phthalat	0.650	0.703	-8.2	122	0.00	11.42
91 I	Perylene-d12	1.000	1.000	0.0	142	0.00	13.35
		True	Calc.	% Drift			
92 t	Di-n-octylphthalate	25.000	20.931	16.3	121	-0.01	12.32
		AvgRF	CCRF	% Dev			
93 t	Benzo[b]fluoranthene	1.338	1.320	1.3	138	0.00	12.85
94 t	Benzo[k]fluoranthene	1.068	1.038	2.8	138	-0.01	12.88
95 t	Benzo[a]pyrene	1.094	1.125	-2.8	138	0.00	13.27
96 t	Indeno[1,2,3-cd]pyrene	1.197	1.265	-5.7	142	0.00	14.65
97 t	Dibenz(a,h)acridine	0.896	0.970	-8.3	145	0.00	14.37
98 t	Dibenz[a,h]anthracene	0.961	1.041	-8.3	147	-0.01	14.67
99 t	7,12-Dimethylbenz(a)anthr	0.578	0.569	1.6	131	-0.01	12.84
100 t	Benzo[g,h,i]perylene	0.957	0.998	-4.3	142	-0.02	15.00

(#) = Out of Range
 2p79084a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
 Mon May 14 13:41:36 2018 RPT1

8.10.15

8

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3503-CC3481
Lab FileID: 2P79545.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3503\2p79545.D Vial: 3
Acq On : 14 May 2018 9:41 am Operator: johnb1
Sample : cc3481-25 Inst : MS2P
Misc : op10929,e2p3503,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	63	0.00	4.48
102	Benzaldehyde	1.057	0.893	15.5	54	0.00	4.13
103 I	Naphthalene-d8a	1.000	1.000	0.0	62	0.00	5.54
104	Hydroquinone	0.312	0.319	-2.2	57	0.00	6.02
105 I	Acenaphthene-d10a	1.000	1.000	0.0	64	0.00	6.97
106	Atrazine	0.172	0.179	-4.1	65	0.00	7.99
107	1,2,4,5-Tetrachlorobenzen	0.577	0.620	-7.5	69	0.00	6.26
108 I	Chrysene-d12a	1.000	1.000	0.0	69	0.00	11.38
109	Benzidine	25.000	14.257	43.0#	40	0.00	9.73
		True	Calc.	% Drift			
		25.000	14.257	43.0#			
		AvgRF	CCRF	% Dev			
110 I	Phenanthrene-d10a	1.000	1.000	0.0	68	0.00	8.22
111 s	1-Chlorooctadecane	0.289	0.249	13.8	58	0.00	9.31
112 s	o-terphenyl	0.536	0.577	-7.6	74	0.00	8.59
113	Pentachloronitrobenzene	0.044	0.052	-18.2	76	0.00	8.07

(#) = Out of Range
2p79084a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
Mon May 14 13:41:38 2018 RPT1

8.10.16

8

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3503-CC3501
Lab FileID: 2P79546.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3503\2p79546.D Vial: 4
Acq On : 14 May 2018 10:11 am Operator: johnb1
Sample : cc3501-25 Inst : MS2P
Misc : op10929,e2p3503,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\M2P3484sl.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sun May 13 12:47:08 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
114 I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	116	0.00	4.48
115	2-Picoline	1.318	1.296	1.7	137	-0.06	2.86
116	2-Aminopyridine	0.993	0.880	11.4	118	0.09	4.58
117 I	Acenaphthene-d10b	1.000	1.000	0.0	108	0.00	6.97
118	2,4'-Bipyridine	0.364	0.338	7.1	115	0.00	7.21

(#) = Out of Range

2p79515a.D M2P3484sl.M

SPCC's out = 0 CCC's out = 0
Mon May 14 13:43:47 2018 RPT1

8.10.17

8

Initial Calibration Summary

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6168-ICC6168
Lab FileID: M145276.D

Response Factor Report Instrument #1

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Initial Calibration

Calibration Files

2 =M145280.D 5 =M145279.D 100 =M145274.D 50 =M145276.D
1 =M145281.D 10 =M145278.D 80 =M145275.D 25 =M145277.D

Compound	2	5	100	50	1	10	80	25	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	-----ISTD-----									
2) 1,4-Dioxane	0.697	0.733	0.734	0.711	0.727	0.683	0.708	0.704	0.712	2.55
3) Pyridine	1.767	1.885	1.713	1.784	1.797	1.769	1.695	1.747	1.770	3.29
4) N-Nitrosodim	0.574	0.577	0.592	0.577	0.592	0.552	0.569	0.568	0.575	2.28
5) 2-Fluorophen	1.468	1.570	1.471	1.488	1.454	1.486	1.482	1.552	1.496	2.79
6) Indene	2.405	2.362	1.547	1.764	2.366	2.119	1.628	1.961	2.019	17.18
7) Cumene	3.799	3.925	2.881	3.183	3.902	3.514	2.986	3.454	3.455	11.81
8) Phenol-d5	1.856	1.932	1.682	1.771	1.635	1.833	1.710	1.830	1.781	5.60
9) Phenol	2.273	2.252	1.604	1.808	2.096	2.044	1.699	1.993	1.971	12.52
10) Aniline	2.429	2.364	1.594	1.733	2.507	2.207	1.685	1.983	2.063	17.58
11) bis(2-Chloro	1.539	1.448	1.065	1.128	1.494	1.286	1.073	1.216	1.281	14.96
12) 2-Chlorophen	1.588	1.612	1.183	1.272	1.545	1.511	1.205	1.395	1.414	12.34
13) Decane	1.144	1.039		0.735	1.110	0.898	0.683	0.831	0.920	19.78
14) 1,3-Dichloro	1.948	1.937	1.361	1.461	1.921	1.692	1.400	1.599	1.665	14.87
15) 1,4-Dichloro	1.779	1.760	1.296	1.391	1.894	1.593	1.329	1.493	1.567	14.39
16) Benzyl alcoh	0.893	0.904	0.822	0.842	0.851	0.898	0.823	0.900	0.867	4.11
17) 1,2-Dichloro	1.770	1.694	1.145	1.255	1.764	1.488	1.187	1.391	1.462	17.62
18) Acetophenone	2.096	1.973	1.247	1.397	1.938	1.728	1.302	1.599	1.660	19.60
19) 2-Methylphen	1.268	1.291	0.967	1.070	1.214	1.261	1.007	1.181	1.157	10.89
20) 2,2'-oxybis(	0.363	0.416	0.327	0.332	0.406	0.380	0.331	0.348	0.363	9.56
21) 3&4-Methylph	1.228	1.321	0.927	1.077	1.189	1.317	0.984	1.197	1.155	12.64
22) n-Nitroso-di	1.005	0.969	0.623	0.688	0.918	0.868	0.646	0.798	0.814	18.28
23) Hexachloroet	0.579	0.566	0.491	0.504	0.510	0.515	0.498	0.527	0.524	6.12
24) I Naphthalene-d8	-----ISTD-----									
25) Nitrobenzene	0.404	0.435	0.354	0.371	0.396	0.408	0.360	0.398	0.391	6.93
26) Nitrobenzene	0.426	0.406	0.302	0.326	0.387	0.379	0.310	0.359	0.362	12.61
27) Quinoline	0.757	0.794	0.711	0.738	0.682	0.753	0.718	0.771	0.740	4.84
28) Isophorone	0.737	0.729	0.613	0.644	0.685	0.683	0.621	0.686	0.675	6.80
29) 2-Nitropheno	0.160	0.184	0.197	0.204	0.139	0.188	0.200	0.208	0.185	13.06
30) 2,4-Dimethyl	0.316	0.357	0.304	0.321	0.251	0.359	0.309	0.331	0.319	10.67
31) Benzoic acid	0.061	0.122	0.269	0.242		0.149	0.252	0.208	0.186	41.60
---- Quadratic regression ---- Coefficient = 0.9996										
Response Ratio = -0.01239 + 0.21741 *A + 0.02228 *A^2										
32) bis(2-Chloro	0.429	0.417	0.324	0.345	0.407	0.387	0.326	0.373	0.376	10.89
33) 2,4-Dichloro	0.241	0.308	0.285	0.307	0.215	0.312	0.295	0.321	0.285	13.26
34) 2,6-Dichloro	0.296	0.308	0.250	0.277	0.259	0.300	0.263	0.301	0.282	7.92
35) 1,3,5-Trichl	0.436	0.418	0.290	0.326	0.451	0.382	0.303	0.356	0.370	16.57
36) 1,2,4-Trichl	0.444	0.416	0.304	0.332	0.457	0.377	0.312	0.362	0.375	15.67
37) 1,2,3-Trichl	0.385	0.376	0.273	0.296	0.405	0.342	0.279	0.327	0.335	15.01
38) Naphthalene	1.237	1.164	0.858	0.939	1.216	1.074	0.884	1.032	1.050	14.11
39) 4-Chloroanil	0.485	0.504	0.382	0.418	0.470	0.471	0.398	0.458	0.448	9.73
40) 2,3-Dichloro	0.430	0.429	0.345	0.371	0.403	0.410	0.352	0.404	0.393	8.40
41) Caprolactam	0.099	0.126	0.130	0.128	0.089	0.130	0.131	0.137	0.121	14.40
42) Hexachlorobu	0.222	0.200	0.157	0.167	0.231	0.182	0.159	0.176	0.187	15.01

Initial Calibration Summary

Page 2 of 3

Job Number: JC65663
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6168-ICC6168
 Lab FileID: M145276.D

43)	4-Chloro-3-m	0.309	0.329	0.307	0.323	0.283	0.321	0.313	0.334	0.315	5.13
44)	2-Methylnaph	0.700	0.700	0.539	0.597	0.669	0.645	0.556	0.639	0.631	9.72
45)	1-Methylnaph	0.862	0.858	0.642	0.695	0.828	0.772	0.660	0.768	0.761	11.41
46)	Dimethylnaph	0.753	0.743	0.564	0.619	0.725	0.680	0.583	0.680	0.668	10.85
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.278	0.307	0.301	0.312	0.250	0.318	0.308	0.330	0.300	8.39
49)	2,4,6-Trichl	0.394	0.404	0.338	0.362	0.310	0.396	0.348	0.397	0.369	9.32
50)	2,4,5-Trichl	0.426	0.424	0.390	0.407	0.358	0.433	0.395	0.427	0.408	6.30
51)	2-Fluorobiph	1.850	1.694	1.249	1.366	1.882	1.609	1.292	1.485	1.553	15.75
52)	2-Chloronaph	1.505	1.436	0.972	1.076	1.517	1.294	1.010	1.204	1.252	17.62
53)	Biphenyl	1.886	1.827	1.277	1.429	1.905	1.658	1.358	1.580	1.615	15.18
54)	2-Nitroanili	0.230	0.289	0.304	0.308	0.204	0.286	0.300	0.318	0.280	14.51
55)	Dimethylphth	1.543	1.522	1.285	1.343	1.541	1.445	1.307	1.433	1.427	7.36
56)	Acenaphthyle	2.073	2.167	1.689	1.813	2.073	2.053	1.737	2.011	1.952	9.17
57)	2,6-Dinitrot	0.209	0.244	0.305	0.306	0.174	0.272	0.303	0.305	0.264	19.32
58)	3-Nitroanili	0.268	0.322	0.374	0.378	0.202	0.332	0.370	0.388	0.329	19.71
59)	Acenaphthene	1.474	1.334	1.040	1.109	1.371	1.227	1.066	1.202	1.228	12.64
60)	2,4-Dinitrop	0.020	0.050	0.182	0.159		0.072	0.170	0.129	0.112	57.14
---- Quadratic regression ---- Coefficient = 0.9994											
Response Ratio = -0.02314 + 0.13997 *A + 0.00934 *A^2											
61)	4-Nitropheno	0.097	0.143	0.200	0.190		0.157	0.194	0.193	0.168	22.53
---- Quadratic regression ---- Coefficient = 0.9997											
Response Ratio = -0.00483 + 0.18802 *A + 0.00508 *A^2											
62)	Dibenzofuran	2.096	2.025	1.427	1.571	2.201	1.807	1.483	1.746	1.794	16.23
63)	2,4-Dinitrot	0.212	0.326	0.354	0.379	0.145	0.371	0.358	0.402	0.318	28.49
---- Quadratic regression ---- Coefficient = 0.9997											
Response Ratio = -0.00787 + 0.41519 *A + -0.02419 *A^2											
64)	2,3,4,6-Tetr	0.286	0.332	0.346	0.346	0.222	0.333	0.340	0.360	0.321	14.14
65)	Diethylphtha	1.485	1.478	1.280	1.346	1.392	1.434	1.293	1.434	1.393	5.69
66)	Fluorene	1.570	1.575	1.243	1.335	1.522	1.496	1.268	1.472	1.435	9.33
67)	4-Chlorophen	0.740	0.771	0.563	0.606	0.809	0.689	0.572	0.654	0.676	13.70
68)	4-Nitroanili	0.255	0.341	0.345	0.340	0.197	0.342	0.341	0.350	0.314	18.00
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.031	0.054	0.139	0.129		0.073	0.134	0.117	0.097	44.91
---- Quadratic regression ---- Coefficient = 0.9996											
Response Ratio = -0.00884 + 0.12702 *A + 0.00602 *A^2											
71)	n-Nitrosodip	0.580	0.588	0.467	0.494	0.564	0.551	0.477	0.535	0.532	8.88
72)	1,2-Diphenyl	0.823	0.833	0.590	0.635	0.790	0.753	0.595	0.703	0.715	13.90
73)	2,4,6-Tribo	0.097	0.120	0.120	0.120	0.076	0.120	0.120	0.125	0.112	15.08
74)	4-Bromopheny	0.232	0.235	0.210	0.217	0.221	0.221	0.210	0.227	0.222	4.21
75)	Hexachlorobe	0.329	0.315	0.237	0.249	0.314	0.280	0.239	0.267	0.279	13.13
76)	Pentachlorop	0.107	0.145	0.160	0.168		0.145	0.160	0.165	0.150	14.00
77)	Phenanthrene	1.299	1.235	0.861	0.954	1.329	1.137	0.895	1.048	1.095	16.71
78)	Anthracene	1.232	1.245	0.929	1.003	1.171	1.129	0.954	1.086	1.094	11.14
79)	Carbazole	1.224	1.223	0.984	1.058	1.125	1.148	1.011	1.143	1.114	8.08
80)	Di-n-butylph	1.073	1.251	1.204	1.290	0.892	1.273	1.218	1.350	1.194	12.23
81)	Fluoranthene	1.193	1.318	1.128	1.219	1.163	1.281	1.158	1.305	1.221	5.95
82)	Octadecane	0.328	0.356	0.274	0.301	0.295	0.340	0.286	0.330	0.314	9.21
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.486	1.556	1.353	1.377	1.352	1.443	1.339	1.439	1.418	5.41
85)	Terphenyl-d1	0.930	0.999	0.983	0.978	0.869	0.923	0.967	0.980	0.954	4.53
86)	Butylbenzylp	0.381	0.523	0.685	0.669		0.556	0.663	0.649	0.589	18.78
87)	Benzo[a]anth	1.114	1.175	1.244	1.206	1.099	1.113	1.213	1.200	1.170	4.67

8.10.18

8

Initial Calibration Summary

Page 3 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6168-ICC6168
Lab FileID: M145276.D

```
88) 3,3'-Dichlor 0.262 0.356 0.465 0.441 0.215 0.388 0.455 0.441 0.378 24.93
    ---- Quadratic regression ---- Coefficient = 0.9999
    Response Ratio = -0.00777 + 0.43234 *A + 0.01388 *A^2

89) Chrysene      1.221 1.213 1.061 1.056 1.223 1.107 1.046 1.104 1.129 6.89
90) bis(2-Ethylh 0.428 0.620 0.871 0.838 0.276 0.686 0.843 0.811 0.672 32.57
    ---- Quadratic regression ---- Coefficient = 0.9998
    Response Ratio = -0.02041 + 0.81486 *A + 0.02422 *A^2

91) I   Perylene-d12 -----ISTD-----
92) Di-n-octylph 0.494 0.868 1.355 1.377      1.055 1.382 1.338 1.124 30.32
    ---- Linear regression ---- Coefficient = 0.9995
    Response Ratio = -0.05189 + 1.39253 *A

93) Benzo[b]fluo 1.066 1.223 1.136 1.195 0.964 1.179 1.172 1.261 1.150 8.24
94) Benzo[k]fluo 1.234 1.278 0.942 1.029 0.953 1.170 0.998 1.090 1.087 11.81
95) Benzo[a]pyre 0.865 1.008 1.022 1.064 0.711 1.018 1.056 1.092 0.980 13.11
96) Indeno[1,2,3 0.797 0.951 1.009 1.033 0.591 0.979 1.020 1.102 0.935 17.58
97) Dibenz(a,h)a 0.724 0.910 0.960 1.018 0.561 0.950 0.996 1.064 0.898 18.93
98) Dibenz[a,h]a 0.905 1.084 0.986 1.048 0.771 1.057 1.018 1.121 0.999 11.31
99) 7,12-Dimethy 0.372 0.478 0.480 0.499 0.297 0.506 0.498 0.518 0.456 17.28
100) Benzo[g,h,i] 0.920 1.014 0.989 1.009 0.762 1.033 1.003 1.107 0.980 10.38
-----
(# ) = Out of Range   ###   Number of calibration levels exceeded format   ###
```

MM6168.M

Wed Apr 18 15:31:16 2018

MSM

8.10.18

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6168-ICV6168
Lab FileID: M145282.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145282.D Vial: 10
Acq On : 17 Apr 2018 8:03 am Operator: chriss2
Sample : icv6168-50 Inst : Instrument #1
Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	4.65
5 S	2-Fluorophenol	1.496	1.403	6.2	104	0.00	3.67
8 S	Phenol-d5	1.781	1.649	7.4	102	0.00	4.38
24 I	Naphthalene-d8	1.000	1.000	0.0	106	0.00	5.78
25 S	Nitrobenzene-d5	0.391	0.375	4.1	107	0.00	5.10
47 I	Acenaphthene-d10	1.000	1.000	0.0	104	0.00	8.10
51 S	2-Fluorobiphenyl	1.553	1.362	12.3	104	0.00	7.11
69 I	Phenanthrene-d10	1.000	1.000	0.0	94	0.00	10.71
73 S	2,4,6-Tribromophenol	0.112	0.120	-7.1	94	0.00	9.45
83 I	Chrysene-d12	1.000	1.000	0.0	97	0.00	15.85
85 S	Terphenyl-d14	0.954	0.926	2.9	92	0.00	13.88

(#) = Out of Range
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0
Wed Apr 18 02:32:22 2018 MSM

8.10.19

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6168-ICV6168
Lab FileID: M145284.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145284.D Vial: 12
Acq On : 17 Apr 2018 9:02 am Operator: chriss2
Sample : icv6168-50 Inst : Instrument #1
Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00	4.66
3 t	Pyridine	1.770	1.552	12.3	85	0.08	2.59
10 t	Aniline	2.063	2.300	-11.5	129	0.00	4.41
16 t	Benzyl alcohol	0.867	0.960	-10.7	111	0.00	4.76
24 I	Naphthalene-d8	1.000	1.000	0.0	107	0.00	5.78
39 t	4-Chloroaniline	0.448	0.423	5.6	108	0.00	5.86
44 t	2-Methylnaphthalene	0.631	0.563	10.8	101	0.00	6.61
47 I	Acenaphthene-d10	1.000	1.000	0.0	104	0.00	8.11
54 t	2-Nitroaniline	0.280	0.295	-5.4	99	0.00	7.42
58 t	3-Nitroaniline	0.329	0.341	-3.6	94	0.00	8.05
62 t	Dibenzofuran	1.794	1.676	6.6	111	0.00	8.44
68 t	4-Nitroaniline	0.314	0.344	-9.6	105	-0.01	9.07
69 I	Phenanthrene-d10	1.000	1.000	0.0	101	0.00	10.70
79 t	Carbazole	1.114	1.087	2.4	103	0.00	11.18

(#) = Out of Range
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0
Wed Apr 18 02:32:24 2018 MSM

8.10.20

8

Initial Calibration Verification

Page 1 of 2

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6168-ICV6168
Lab FileID: M145285.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145285.D Vial: 13
Acq On : 17 Apr 2018 9:31 am Operator: chriss2
Sample : icv6168-50 Inst : Instrument #1
Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	100	0.00	4.66
4 t	N-Nitrosodimethylamine	0.575	0.412	28.3	71	0.02	2.48
11 t	bis(2-Chloroethyl)ether	1.281	1.294	-1.0	114	0.00	4.45
14 t	1,3-Dichlorobenzene	1.665	1.569	5.8	107	0.00	4.62
15 t	1,4-Dichlorobenzene	1.567	1.393	11.1	100	0.00	4.67
17 t	1,2-Dichlorobenzene	1.462	1.387	5.1	110	0.00	4.79
20 t	2,2'-oxybis(1-Chloropropa	0.363	0.381	-5.0	114	0.00	4.87
22 t	n-Nitroso-di-n-propylamin	0.814	0.819	-0.6	119	0.00	4.97
23 t	Hexachloroethane	0.524	0.483	7.8	96	0.00	5.07
24 I	Naphthalene-d8	1.000	1.000	0.0	95	0.00	5.78
26 t	Nitrobenzene	0.362	0.316	12.7	92	0.00	5.12
28 t	Isophorone	0.675	0.615	8.9	91	0.00	5.33
32 t	bis(2-Chloroethoxy)methan	0.376	0.383	-1.9	105	0.00	5.53
36 t	1,2,4-Trichlorobenzene	0.375	0.344	8.3	98	0.00	5.73
38 t	Naphthalene	1.050	0.948	9.7	96	0.00	5.81
42 t	Hexachlorobutadiene	0.187	0.176	5.9	100	0.00	5.95
47 I	Acenaphthene-d10	1.000	1.000	0.0	91	0.00	8.11
48 t	Hexachlorocyclopentadiene	0.300	0.292	2.7	79	0.00	6.83
52 t	2-Chloronaphthalene	1.252	1.211	3.3	102	0.00	7.26
55 t	Dimethylphthalate	1.427	1.329	6.9	90	0.00	7.72
56 t	Acenaphthylene	1.952	1.796	8.0	90	0.00	7.88
57 t	2,6-Dinitrotoluene	0.264	0.243	8.0	72	0.00	7.80
59 t	Acenaphthene	1.228	1.100	10.4	90	0.00	8.16
	----- True Calc. % Drift -----						
63 t	2,4-Dinitrotoluene	50.000	37.179	25.6	68	0.00	8.44
	----- AvgRF CCRF % Dev -----						
65 t	Diethylphthalate	1.393	1.305	6.3	88	-0.01	8.91
66 t	Fluorene	1.435	1.301	9.3	89	0.00	9.03
67 t	4-Chlorophenyl-phenylethe	0.676	0.574	15.1	86	0.00	9.06
69 I	Phenanthrene-d10	1.000	1.000	0.0	89	0.00	10.70
71 t	n-Nitrosodiphenylamine	0.532	0.486	8.6	88	0.00	9.27
72 t	1,2-Diphenylhydrazine	0.715	0.638	10.8	90	0.00	9.34
74 t	4-Bromophenyl-phenylether	0.222	0.208	6.3	86	0.00	9.93
75 t	Hexachlorobenzene	0.279	0.240	14.0	86	0.00	10.01
77 t	Phenanthrene	1.095	0.999	8.8	93	0.00	10.75
78 t	Anthracene	1.094	0.975	10.9	87	0.00	10.84

Initial Calibration Verification

Page 2 of 2

Job Number: JC65663
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6168-ICV6168
 Lab FileID: M145285.D

80 t	Di-n-butylphthalate	1.194	1.203	-0.8	83	0.00	12.01
81 t	Fluoranthene	1.221	1.133	7.2	83	0.00	13.03
83 I	Chrysene-d12	1.000	1.000	0.0	83	0.00	15.86
84 t	Pyrene	1.418	1.341	5.4	81	0.00	13.45
86 t	Butylbenzylphthalate	0.589	0.643	-9.2	80	0.00	14.94
87 t	Benzo[a]anthracene	1.170	1.163	0.6	80	0.00	15.84
89 t	Chrysene	1.129	1.017	9.9	80	0.00	15.91
----- True Calc. % Drift -----							
90 t	bis(2-Ethylhexyl)phthalat	50.000	49.012	2.0	80	0.00	16.17
----- AvgRF CCRF % Dev -----							
91 I	Perylene-d12	1.000	1.000	0.0	79	0.00	18.46
----- True Calc. % Drift -----							
92 t	Di-n-octylphthalate	50.000	49.824	0.4	77	0.00	17.39
----- AvgRF CCRF % Dev -----							
93 t	Benzo[b]fluoranthene	1.150	1.110	3.5	74	0.00	17.82
94 t	Benzo[k]fluoranthene	1.087	1.074	1.2	83	-0.01	17.87
95 t	Benzo[a]pyrene	0.980	1.037	-5.8	77	0.00	18.36
96 t	Indeno[1,2,3-cd]pyrene	0.935	1.010	-8.0	77	0.00	20.15
98 t	Dibenz[a,h]anthracene	0.999	0.996	0.3	75	0.00	20.21
100 t	Benzo[g,h,i]perylene	0.980	1.072	-9.4	84	-0.01	20.59

(#) = Out of Range
 M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0
 Wed Apr 18 02:32:26 2018 MSM

8.10.21

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6168-ICV6168
Lab FileID: M145286.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145286.D Vial: 14
Acq On : 17 Apr 2018 10:00 am Operator: chriss2
Sample : icv6168-50 Inst : Instrument #1
Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	105	0.00	4.66
2 t	1,4-Dioxane	0.712	0.627	11.9	93	0.01	2.20
6 t	Indene	2.019	2.192	-8.6	131	0.00	4.86
7 t	Cumene	3.455	3.173	8.2	105	0.00	4.06
13 t	Decane	0.920	0.781	15.1	112	0.00	4.54
18 t	Acetophenone	1.660	1.650	0.6	124	0.00	4.97
24 I	Naphthalene-d8	1.000	1.000	0.0	106	0.00	5.78
27 t	Quinoline	0.740	0.681	8.0	97	-0.01	6.17
40 t	2,3-Dichloroaniline	0.393	0.328	16.5	93	0.00	6.98
41 t	Caprolactam	0.121	0.103	14.9	85	-0.03	6.23
45 t	1-Methylnaphthalene	0.761	0.626	17.7	95	0.00	6.73
46 t	Dimethylnaphthalene	0.668	0.586	12.3	100	0.00	7.48
47 I	Acenaphthene-d10	1.000	1.000	0.0	91	0.00	8.11
53 t	Biphenyl	1.615	1.610	0.3	103	0.00	7.25
69 I	Phenanthrene-d10	1.000	1.000	0.0	90	0.00	10.71
82 t	Octadecane	0.314	0.337	-7.3	101	0.00	10.73
91 I	Perylene-d12	1.000	1.000	0.0	77	0.00	18.46
99 t	7,12-Dimethylbenz(a)anthr	0.456	0.343	24.8	53	-0.02	17.83

(#) = Out of Range
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0
Wed Apr 18 02:32:28 2018 MSM

8.10.22
8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6168-ICV6168
Lab FileID: M145287.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145287.D Vial: 15
Acq On : 17 Apr 2018 10:30 am Operator: chriss2
Sample : icv6168-50 Inst : Instrument #1
Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	120	0.00	15.85
	----- True Calc. % Drift -----						
88 t	3,3'-Dichlorobenzidine	50.000	40.829	18.3	98	0.00	15.87

(#) = Out of Range
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0
Wed Apr 18 02:32:30 2018 MSM

8.10.23

8

Initial Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6169-ICC6169
Lab FileID: M145291.D

Response Factor Report Instrument #1

Method : C:\MSDCHEM\1\METHODS\MM6169.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Initial Calibration

Calibration Files

2 =M145295.D 5 =M145294.D 100 =M145289.D 50 =M145291.D
1 =M145296.D 10 =M145293.D 80 =M145290.D 25 =M145292.D

Compound	2	5	100	50	1	10	80	25	Avg %RSD
101) I 1,4-Dichlorobenzene-d									
102) Benzaldehyde	1.324	1.294	0.907	1.038	1.291	1.171	0.983	1.156	13.63
103) I Acenaphthene-d10a									
104) 1,2,4,5-Tetr	0.715	0.765	0.581	0.607	0.682	0.685	0.614	0.672	9.24
105) Atrazine	0.134	0.180	0.207	0.213	0.120	0.183	0.212	0.215	20.31
---- Linear regression ---- Coefficient = 0.9995									
Response Ratio = -0.00230 + 0.21095 *A									
106) I Chrysene-d12a									
107) Benzidine	0.266	0.505		0.585	0.160	0.590	0.545	0.698	40.36
---- Quadratic regression ---- Coefficient = 0.9982									
Response Ratio = -0.01964 + 0.73236 *A + -0.09033 *A^2									
108) 1-chloroocta	0.196	0.231	0.244	0.253		0.237	0.252	0.271	9.70
109) I Phenanthrene-d10a									
110) o-terphenyl	0.548	0.624	0.515	0.552	0.506	0.582	0.529	0.573	7.03
111) Pentachloron		0.023	0.041	0.040		0.030	0.041	0.039	20.56
---- Linear regression ---- Coefficient = 0.9999									
Response Ratio = -0.00254 + 0.04234 *A									
112) I Naphthalene-d8a									
113) Hydroquinone		0.230	0.372	0.374		0.299	0.358	0.354	17.09

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

MM6168.M

Wed Apr 18 15:32:44 2018 MSM

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6169-ICV6169
Lab FileID: M145297.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145297.D Vial: 24
Acq On : 17 Apr 2018 3:34 pm Operator: chriss2
Sample : icv6169-50 Inst : Instrument #1
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
112 I	Naphthalene-d8a	1.000	1.000	0.0	97	0.00	5.79
113	Hydroquinone	0.331	0.350	-5.7	91	0.00	6.23

(#) = Out of Range
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0
Wed Apr 18 02:32:32 2018 MSM

8.10.25

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6169-ICV6169
Lab FileID: M145298.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145298.D Vial: 12
Acq On : 17 Apr 2018 4:03 pm Operator: chriss2
Sample : icv6169-50 Inst : Instrument #1
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
109 I	Phenanthrene-d10a	1.000	1.000	0.0	105	0.00	10.70
	----- True Calc. % Drift -----						
111	Pentachloronitrobenzene	50.000	51.100	-2.2	107	0.00	10.42

(#) = Out of Range SPCC's out = 0 CCC's out = 0
M145291a.D MM6168.M Wed Apr 18 02:32:34 2018 MSM

8.10.26

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6169-ICV6169
Lab FileID: M145299.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145299.D Vial: 13
Acq On : 17 Apr 2018 4:32 pm Operator: chriss2
Sample : icv6169-50 Inst : Instrument #1
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
103 I	Acenaphthene-d10a	1.000	1.000	0.0	96	0.00	8.11
104 I	1,2,4,5-Tetrachlorobenzen	0.665	0.655	1.5	104	0.00	6.83

(#) = Out of Range
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0
Wed Apr 18 02:32:36 2018 MSM

8.10.27

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6169-ICV6169
Lab FileID: M145300.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145300.D Vial: 14
Acq On : 17 Apr 2018 5:02 pm Operator: chriss2
Sample : icv6169-50 Inst : Instrument #1
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	94	0.00	4.65
102 t	Benzaldehyde	1.145	0.949	17.1	86	0.00	4.32
103 I	Acenaphthene-d10a	1.000	1.000	0.0	93	0.00	8.11
	----- True Calc. % Drift -----						
105 t	Atrazine	50.000	50.874	-1.7	93	0.00	10.31

(#) = Out of Range
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0
Wed Apr 18 02:32:38 2018 MSM

8.10.28

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6169-ICV6169
Lab FileID: M145301.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145301.D Vial: 15
Acq On : 17 Apr 2018 5:31 pm Operator: chriss2
Sample : icv6169-50 Inst : Instrument #1
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
106 I	Chrysene-d12a	1.000	1.000	0.0	117	0.00	15.85
	----- True Calc. % Drift -----						
107 t	Benzidine	50.000	61.819	-23.6	144	0.00	13.38

(#) = Out of Range
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0
Wed Apr 18 02:15:55 2018 MSM

8.10.29

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6170-ICV6168
Lab FileID: M145303.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6170\M145303.D Vial: 2
Acq On : 17 Apr 2018 8:55 pm Operator: sufiyana
Sample : icv6168-50 Inst : Instrument #1
Misc : op10492,em6170,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Tue Apr 17 17:19:02 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	4.65
9 t	Phenol	1.971	1.806	8.4	103	0.00	4.39
12 t	2-Chlorophenol	1.414	1.382	2.3	112	0.00	4.49
19 t	2-Methylphenol	1.157	1.141	1.4	110	0.00	4.85
21 t	3&4-Methylphenol	1.155	1.197	-3.6	114	0.00	4.98
24 I	Naphthalene-d8	1.000	1.000	0.0	92	0.00	5.78
29 t	2-Nitrophenol	0.185	0.222	-20.0	100	0.00	5.41
30 t	2,4-Dimethylphenol	0.319	0.345	-8.2	99	0.00	5.45
	----- True Calc. % Drift -----						
31 t	Benzoic acid	50.000	53.638	-7.3	97	0.00	5.55
	----- AvgRF CCRF % Dev -----						
33 t	2,4-Dichlorophenol	0.285	0.301	-5.6	90	0.00	5.64
34 t	2,6-Dichlorophenol	0.282	0.296	-5.0	98	0.00	5.87
43 t	4-Chloro-3-methylphenol	0.315	0.330	-4.8	94	0.00	6.42
47 I	Acenaphthene-d10	1.000	1.000	0.0	85	0.00	8.10
49 t	2,4,6-Trichlorophenol	0.369	0.429	-16.3	100	0.00	6.98
50 t	2,4,5-Trichlorophenol	0.408	0.422	-3.4	88	-0.01	7.03
	----- True Calc. % Drift -----						
60 t	2,4-Dinitrophenol	50.000	59.400	-18.8	106	0.00	8.22
61 t	4-Nitrophenol	50.000	49.997	0.0	85	0.00	8.36
	----- AvgRF CCRF % Dev -----						
64 t	2,3,4,6-Tetrachlorophenol	0.321	0.332	-3.4	81	0.00	8.67
69 I	Phenanthrene-d10	1.000	1.000	0.0	82	0.00	10.71
	----- True Calc. % Drift -----						
70 t	4,6-Dinitro-2-methylpheno	50.000	55.228	-10.5	90	0.00	9.14
	----- AvgRF CCRF % Dev -----						
76 t	Pentachlorophenol	0.150	0.192	-28.0	94	0.00	10.39

(#) = Out of Range
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0
Wed Apr 18 02:23:34 2018 MSM

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6207-CC6168
Lab FileID: M146088.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6207\M146088.D Vial: 2
 Acq On : 11 May 2018 10:17 am Operator: chrisc2
 Sample : cc6168-50 Inst : Instrument #1
 Misc : op10492,em6207,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri May 11 14:56:55 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	73	-0.03	4.50
2 t	1,4-Dioxane	0.712	0.694	2.5	71	-0.14	1.98
3 t	Pyridine	1.770	1.682	5.0	68	-0.10	2.33
4 t	N-Nitrosodimethylamine	0.575	0.823	-43.1#	104	-0.10	2.29
5 S	2-Fluorophenol	1.496	1.511	-1.0	74	-0.02	3.53
6 t	Indene	2.019	2.085	-3.3	86	-0.03	4.70
7 t	Cumene	3.455	3.599	-4.2	82	-0.04	3.90
8 S	Phenol-d5	1.781	1.739	2.4	71	0.00	4.26
9 t	Phenol	1.971	1.856	5.8	75	0.00	4.28
10 t	Aniline	2.063	1.966	4.7	82	-0.02	4.26
11 t	bis(2-Chloroethyl)ether	1.281	1.199	6.4	77	-0.02	4.31
12 t	2-Chlorophenol	1.414	1.395	1.3	80	-0.02	4.36
13 t	Decane	0.920	1.034	-12.4	102	-0.02	4.39
14 t	1,3-Dichlorobenzene	1.665	1.552	6.8	77	-0.02	4.46
15 t	1,4-Dichlorobenzene	1.567	1.490	4.9	78	-0.02	4.52
16 t	Benzyl alcohol	0.867	0.828	4.5	71	-0.01	4.62
17 t	1,2-Dichlorobenzene	1.462	1.449	0.9	84	-0.02	4.63
18 t	Acetophenone	1.660	1.848	-11.3	96	-0.02	4.82
19 t	2-Methylphenol	1.157	1.162	-0.4	79	0.00	4.72
20 t	2,2'-oxybis(1-Chloropropa	0.363	0.352	3.0	77	-0.02	4.71
21 t	3&4-Methylphenol	1.155	1.226	-6.1	83	0.00	4.84
22 t	n-Nitroso-di-n-propylamin	0.814	0.907	-11.4	96	-0.02	4.82
23 t	Hexachloroethane	0.524	0.538	-2.7	78	-0.03	4.90
24 I	Naphthalene-d8	1.000	1.000	0.0	77	-0.02	5.59
25 S	Nitrobenzene-d5	0.391	0.394	-0.8	81	-0.01	4.94
26 t	Nitrobenzene	0.362	0.366	-1.1	86	-0.01	4.95
27 t	Quinoline	0.740	0.750	-1.4	78	-0.01	5.98
28 t	Isophorone	0.675	0.676	-0.1	81	-0.01	5.16
29 t	2-Nitrophenol	0.185	0.210	-13.5	79	-0.02	5.23
30 t	2,4-Dimethylphenol	0.319	0.357	-11.9	85	0.00	5.29
	----- True		Calc.	% Drift	-----		
31 t	Benzoic acid	50.000	64.598	-29.2#	101	0.03	5.42
	----- AvgRF		CCRF	% Dev	-----		
32 t	bis(2-Chloroethoxy)methan	0.376	0.354	5.9	79	-0.02	5.35
33 t	2,4-Dichlorophenol	0.285	0.309	-8.4	77	0.00	5.47
34 t	2,6-Dichlorophenol	0.282	0.288	-2.1	80	-0.01	5.69
35 t	1,3,5-Trichlorobenzene	0.370	0.348	5.9	82	-0.01	5.24
36 t	1,2,4-Trichlorobenzene	0.375	0.334	10.9	77	-0.02	5.54
37 t	1,2,3-Trichlorobenzene	0.335	0.318	5.1	82	-0.02	5.77

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6207-CC6168
Lab FileID: M146088.D

38 t	Naphthalene	1.050	0.961	8.5	78	-0.02	5.61
39 t	4-Chloroaniline	0.448	0.419	6.5	77	-0.01	5.68
40 t	2,3-Dichloroaniline	0.393	0.405	-3.1	84	-0.01	6.76
41 t	Caprolactam	0.121	0.152	-25.6#	91	0.00	6.06
42 t	Hexachlorobutadiene	0.187	0.187	0.0	86	-0.03	5.74
43 t	4-Chloro-3-methylphenol	0.315	0.356	-13.0	84	0.02	6.25
44 t	2-Methylnaphthalene	0.631	0.619	1.9	80	-0.02	6.39
45 t	1-Methylnaphthalene	0.761	0.752	1.2	83	-0.02	6.51
46 t	Dimethylnaphthalene	0.668	0.676	-1.2	84	-0.02	7.23
47 I	Acenaphthene-d10	1.000	1.000	0.0	80	-0.06	7.85
48 t	Hexachlorocyclopentadiene	0.300	0.317	-5.7	82	0.00	6.60
49 t	2,4,6-Trichlorophenol	0.369	0.377	-2.2	84	0.01	6.78
50 t	2,4,5-Trichlorophenol	0.408	0.395	3.2	78	0.00	6.83
51 S	2-Fluorobiphenyl	1.553	1.325	14.7	78	0.00	6.88
52 t	2-Chloronaphthalene	1.252	1.086	13.3	81	0.00	7.03
53 t	Biphenyl	1.615	1.514	6.3	85	0.00	7.01
54 t	2-Nitroaniline	0.280	0.372	-32.9#	97	0.02	7.20
55 t	Dimethylphthalate	1.427	1.430	-0.2	86	0.01	7.49
56 t	Acenaphthylene	1.952	1.833	6.1	81	0.00	7.63
57 t	2,6-Dinitrotoluene	0.264	0.323	-22.3#	85	0.02	7.57
58 t	3-Nitroaniline	0.329	0.374	-13.7	80	0.04	7.83
59 t	Acenaphthene	1.228	1.146	6.7	83	0.01	7.91
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	100.000	117.620	-17.6	95	0.05	8.01
61 t	4-Nitrophenol	50.000	57.243	-14.5	93	0.11	8.20
----- AvgRF CCRF % Dev -----							
62 t	Dibenzofuran	1.794	1.701	5.2	87	0.02	8.19
----- True Calc. % Drift -----							
63 t	2,4-Dinitrotoluene	50.000	57.799	-15.6	92	0.05	8.22
----- AvgRF CCRF % Dev -----							
64 t	2,3,4,6-Tetrachlorophenol	0.321	0.355	-10.6	82	0.05	8.43
65 t	Diethylphthalate	1.393	1.495	-7.3	89	0.03	8.66
66 t	Fluorene	1.435	1.398	2.6	84	0.04	8.77
67 t	4-Chlorophenyl-phenylethe	0.676	0.630	6.8	84	0.03	8.80
68 t	4-Nitroaniline	0.314	0.339	-8.0	80	0.07	8.85
69 I	Phenanthrene-d10	1.000	1.000	0.0	85	-0.06	10.44
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	50.000	53.013	-6.0	89	-0.04	8.92
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.532	0.533	-0.2	92	-0.07	9.02
72 t	1,2-Diphenylhydrazine	0.715	0.660	7.7	88	-0.07	9.08
73 S	2,4,6-Tribromophenol	0.112	0.116	-3.6	82	-0.07	9.19
74 t	4-Bromophenyl-phenylether	0.222	0.218	1.8	85	-0.07	9.66
75 t	Hexachlorobenzene	0.279	0.246	11.8	84	-0.07	9.75
76 t	Pentachlorophenol	0.150	0.145	3.3	73	-0.04	10.15
77 t	Phenanthrene	1.095	0.964	12.0	86	-0.06	10.48
78 t	Anthracene	1.094	1.030	5.9	87	-0.05	10.58
79 t	Carbazole	1.114	1.044	6.3	84	-0.03	10.93
80 t	Di-n-butylphthalate	1.194	1.374	-15.1	90	-0.03	11.74
81 t	Fluoranthene	1.221	1.252	-2.5	87	-0.02	12.76
82 t	Octadecane	0.314	0.365	-16.2	103	-0.06	10.46

8.10.31
8

Continuing Calibration Summary

Page 3 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6207-CC6168
Lab FileID: M146088.D

83 I	Chrysene-d12	1.000	1.000	0.0	86	-0.05	15.58
84 t	Pyrene	1.418	1.391	1.9	87	-0.09	13.18
85 S	Terphenyl-d14	0.954	0.940	1.5	82	-0.08	13.61
86 t	Butylbenzylphthalate	0.589	0.706	-19.9	90	-0.07	14.66
87 t	Benzo[a]anthracene	1.170	1.243	-6.2	88	-0.05	15.57
----- True Calc. % Drift -----							
88 t	3,3'-Dichlorobenzidine	50.000	49.111	1.8	85	-0.05	15.60
----- AvgRF CCRF % Dev -----							
89 t	Chrysene	1.129	1.087	3.7	88	-0.05	15.64
----- True Calc. % Drift -----							
90 t	bis(2-Ethylhexyl)phthalat	50.000	53.378	-6.8	91	-0.05	15.89
----- AvgRF CCRF % Dev -----							
91 I	Perylene-d12	1.000	1.000	0.0	79	-0.05	18.19
----- True Calc. % Drift -----							
92 t	Di-n-octylphthalate	50.000	57.276	-14.6	89	-0.08	17.12
----- AvgRF CCRF % Dev -----							
93 t	Benzo[b]fluoranthene	1.150	1.249	-8.6	83	-0.06	17.56
94 t	Benzo[k]fluoranthene	1.087	1.110	-2.1	85	-0.06	17.61
95 t	Benzo[a]pyrene	0.980	1.126	-14.9	84	-0.06	18.10
96 t	Indeno[1,2,3-cd]pyrene	0.935	1.009	-7.9	77	-0.06	19.86
97 t	Dibenz(a,h)acridine	0.898	0.958	-6.7	74	-0.05	19.53
98 t	Dibenz[a,h]anthracene	0.999	1.012	-1.3	76	-0.07	19.90
99 t	7,12-Dimethylbenz(a)anthr	0.456	0.549	-20.4#	87	-0.07	17.57
100 t	Benzo[g,h,i]perylene	0.980	0.963	1.7	75	-0.09	20.27

(#) = Out of Range
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0
Fri May 11 14:59:59 2018 MSM

8.10.31

8

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6207-CC6169
Lab FileID: M146089.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6207\M146089.D Vial: 3
 Acq On : 11 May 2018 10:47 am Operator: christc2
 Sample : cc6169-50 Inst : Instrument #1
 Misc : op10492,em6207,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri May 11 14:56:55 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	85	-0.02	4.50
102 t	Benzaldehyde	1.145	0.860	24.9#	71	-0.03	4.18
103 I	Acenaphthene-d10a	1.000	1.000	0.0	93	-0.06	7.86
104 I	1,2,4,5-Tetrachlorobenzen	0.665	0.586	11.9	90	-0.06	6.61
	----- True	Calc.	% Drift	-----			
105 t	Atrazine	50.000	51.465	-2.9	94	0.00	10.06
	----- AvgRF	CCRF	% Dev	-----			
106 I	Chrysene-d12a	1.000	1.000	0.0	98	-0.06	15.58
	----- True	Calc.	% Drift	-----			
107 t	Benzidine	50.000	26.999	46.0#	58	-0.08	13.12
	----- AvgRF	CCRF	% Dev	-----			
108 s	1-chlorooctadecane	0.241	0.269	-11.6	105	-0.10	12.78
109 I	Phenanthrene-d10a	1.000	1.000	0.0	94	-0.06	10.44
110 s	o-terphenyl	0.554	0.549	0.9	93	-0.06	11.25
	----- True	Calc.	% Drift	-----			
111	Pentachloronitrobenzene	50.000	54.767	-9.5	103	-0.06	10.15
	----- AvgRF	CCRF	% Dev	-----			
112 I	Naphthalene-d8a	1.000	1.000	0.0	86	-0.02	5.59
113	Hydroquinone	0.331	0.380	-14.8	88	0.04	6.08

(#) = Out of Range
 M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0
 Fri May 11 15:01:37 2018 MSM

8.10.32

8

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6209-CC6168
Lab FileID: M146134.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\Alicja\EM6209\M146134.D Vial: 2
Acq On : 12 May 2018 6:40 pm Operator: georges
Sample : cc6168-50 Inst : Instrument #1
Misc : op10492,em6209,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Sun May 13 14:25:12 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	85	0.00	4.49
2 t	1,4-Dioxane	0.712	0.603	15.3	72	0.00	1.97
3 t	Pyridine	1.770	1.499	15.3	71	0.00	2.32
4 t	N-Nitrosodimethylamine	0.575	0.810	-40.9#	119	0.00	2.28
5 S	2-Fluorophenol	1.496	1.431	4.3	82	0.00	3.52
6 t	Indene	2.019	2.084	-3.2	100	0.00	4.68
7 t	Cumene	3.455	3.503	-1.4	94	0.00	3.89
8 S	Phenol-d5	1.781	1.676	5.9	80	0.00	4.26
9 t	Phenol	1.971	1.805	8.4	85	0.00	4.27
10 t	Aniline	2.063	1.882	8.8	92	0.00	4.25
11 t	bis(2-Chloroethyl)ether	1.281	1.138	11.2	86	0.00	4.29
12 t	2-Chlorophenol	1.414	1.411	0.2	94	0.00	4.35
13 t	Decane	0.920	1.006	-9.3	116	0.00	4.37
14 t	1,3-Dichlorobenzene	1.665	1.534	7.9	89	0.00	4.45
15 t	1,4-Dichlorobenzene	1.567	1.498	4.4	92	0.00	4.50
16 t	Benzyl alcohol	0.867	0.881	-1.6	89	0.00	4.60
17 t	1,2-Dichlorobenzene	1.462	1.428	2.3	97	0.00	4.62
18 t	Acetophenone	1.660	1.868	-12.5	114	0.00	4.80
19 t	2-Methylphenol	1.157	1.110	4.1	88	0.00	4.71
20 t	2,2'-oxybis(1-Chloropropa	0.363	0.333	8.3	85	0.00	4.70
21 t	3&4-Methylphenol	1.155	1.219	-5.5	96	0.00	4.83
22 t	n-Nitroso-di-n-propylamin	0.814	0.911	-11.9	112	0.00	4.81
23 t	Hexachloroethane	0.524	0.558	-6.5	94	0.00	4.88
24 I	Naphthalene-d8	1.000	1.000	0.0	90	0.00	5.58
25 S	Nitrobenzene-d5	0.391	0.391	0.0	94	0.00	4.92
26 t	Nitrobenzene	0.362	0.355	1.9	98	0.00	4.94
27 t	Quinoline	0.740	0.761	-2.8	92	0.00	5.96
28 t	Isophorone	0.675	0.667	1.2	93	0.00	5.15
29 t	2-Nitrophenol	0.185	0.216	-16.8	95	0.00	5.22
30 t	2,4-Dimethylphenol	0.319	0.342	-7.2	95	0.00	5.27
	----- True		Calc.	% Drift	-----		
31 t	Benzoic acid	50.000	65.128	-30.3#	119	0.00	5.41
	----- AvgRF		CCRF	% Dev	-----		
32 t	bis(2-Chloroethoxy)methan	0.376	0.355	5.6	92	0.00	5.34
33 t	2,4-Dichlorophenol	0.285	0.312	-9.5	91	0.00	5.45
34 t	2,6-Dichlorophenol	0.282	0.296	-5.0	96	0.00	5.67
35 t	1,3,5-Trichlorobenzene	0.370	0.356	3.8	98	0.00	5.23
36 t	1,2,4-Trichlorobenzene	0.375	0.345	8.0	93	0.00	5.52
37 t	1,2,3-Trichlorobenzene	0.335	0.327	2.4	99	0.00	5.75

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6209-CC6168
Lab FileID: M146134.D

38 t	Naphthalene	1.050	0.970	7.6	93	0.00	5.60
39 t	4-Chloroaniline	0.448	0.434	3.1	93	0.00	5.66
40 t	2,3-Dichloroaniline	0.393	0.417	-6.1	101	0.00	6.74
41 t	Caprolactam	0.121	0.151	-24.8#	105	0.00	6.05
42 t	Hexachlorobutadiene	0.187	0.196	-4.8	105	0.00	5.73
43 t	4-Chloro-3-methylphenol	0.315	0.360	-14.3	100	0.00	6.23
44 t	2-Methylnaphthalene	0.631	0.628	0.5	94	0.00	6.37
45 t	1-Methylnaphthalene	0.761	0.755	0.8	97	0.00	6.49
46 t	Dimethylnaphthalene	0.668	0.686	-2.7	99	0.00	7.22
47 I	Acenaphthene-d10	1.000	1.000	0.0	93	0.00	7.84
48 t	Hexachlorocyclopentadiene	0.300	0.311	-3.7	93	0.00	6.57
49 t	2,4,6-Trichlorophenol	0.369	0.397	-7.6	102	0.00	6.76
50 t	2,4,5-Trichlorophenol	0.408	0.433	-6.1	99	0.00	6.81
51 S	2-Fluorobiphenyl	1.553	1.360	12.4	92	0.00	6.85
52 t	2-Chloronaphthalene	1.252	1.134	9.4	98	0.00	7.01
53 t	Biphenyl	1.615	1.553	3.8	101	0.00	6.99
54 t	2-Nitroaniline	0.280	0.371	-32.5#	112	0.00	7.18
55 t	Dimethylphthalate	1.427	1.488	-4.3	103	0.00	7.47
56 t	Acenaphthylene	1.952	1.857	4.9	95	0.00	7.61
57 t	2,6-Dinitrotoluene	0.264	0.338	-28.0#	103	0.00	7.55
58 t	3-Nitroaniline	0.329	0.387	-17.6	95	0.00	7.81
59 t	Acenaphthene	1.228	1.159	5.6	97	0.00	7.89
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	100.000	125.400	-25.4#	119	0.00	8.00
61 t	4-Nitrophenol	50.000	57.889	-15.8	109	0.00	8.18
----- AvgRF CCRF % Dev -----							
62 t	Dibenzofuran	1.794	1.760	1.9	104	0.00	8.17
----- True Calc. % Drift -----							
63 t	2,4-Dinitrotoluene	50.000	60.399	-20.8#	111	0.00	8.21
----- AvgRF CCRF % Dev -----							
64 t	2,3,4,6-Tetrachlorophenol	0.321	0.374	-16.5	100	0.00	8.41
65 t	Diethylphthalate	1.393	1.532	-10.0	106	0.00	8.64
66 t	Fluorene	1.435	1.419	1.1	99	0.00	8.74
67 t	4-Chlorophenyl-phenylethe	0.676	0.651	3.7	100	0.00	8.78
68 t	4-Nitroaniline	0.314	0.367	-16.9	100	0.00	8.83
69 I	Phenanthrene-d10	1.000	1.000	0.0	100	0.00	10.42
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	50.000	56.272	-12.5	113	0.00	8.91
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.532	0.532	0.0	108	0.00	9.00
72 t	1,2-Diphenylhydrazine	0.715	0.633	11.5	100	0.00	9.05
73 S	2,4,6-Tribromophenol	0.112	0.123	-9.8	102	0.00	9.18
74 t	4-Bromophenyl-phenylether	0.222	0.224	-0.9	103	0.00	9.64
75 t	Hexachlorobenzene	0.279	0.254	9.0	102	0.00	9.74
76 t	Pentachlorophenol	0.150	0.151	-0.7	90	0.00	10.13
77 t	Phenanthrene	1.095	0.951	13.2	100	0.00	10.46
78 t	Anthracene	1.094	1.016	7.1	101	0.00	10.56
79 t	Carbazole	1.114	1.034	7.2	98	0.00	10.92
80 t	Di-n-butylphthalate	1.194	1.369	-14.7	106	0.00	11.72
81 t	Fluoranthene	1.221	1.248	-2.2	102	0.00	12.74
82 t	Octadecane	0.314	0.346	-10.2	115	0.00	10.44

8.10.33

8

Continuing Calibration Summary

Page 3 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6209-CC6168
Lab FileID: M146134.D

83	I	Chrysene-d12	1.000	1.000	0.0	98	0.00	15.57
84	t	Pyrene	1.418	1.413	0.4	100	0.00	13.17
85	S	Terphenyl-d14	0.954	0.966	-1.3	96	0.00	13.59
86	t	Butylbenzylphthalate	0.589	0.730	-23.9#	106	0.00	14.65
87	t	Benzo[a]anthracene	1.170	1.244	-6.3	101	0.00	15.55
----- True Calc. % Drift -----								
88	t	3,3'-Dichlorobenzidine	50.000	52.932	-5.9	104	0.00	15.59
----- AvgRF CCRF % Dev -----								
89	t	Chrysene	1.129	1.109	1.8	102	0.00	15.62
----- True Calc. % Drift -----								
90	t	bis(2-Ethylhexyl)phthalat	50.000	55.551	-11.1	108	0.00	15.87
----- AvgRF CCRF % Dev -----								
91	I	Perylene-d12	1.000	1.000	0.0	72	0.00	18.19
----- True Calc. % Drift -----								
92	t	Di-n-octylphthalate	50.000	69.035	-38.1#	98	0.00	17.10
----- AvgRF CCRF % Dev -----								
93	t	Benzo[b]fluoranthene	1.150	1.347	-17.1	81	0.00	17.56
94	t	Benzo[k]fluoranthene	1.087	1.220	-12.2	85	0.00	17.60
95	t	Benzo[a]pyrene	0.980	1.161	-18.5	78	0.00	18.09
96	t	Indeno[1,2,3-cd]pyrene	0.935	0.817	12.6	57	0.00	19.86
97	t	Dibenz(a,h)acridine	0.898	0.826	8.0	58	0.00	19.52
98	t	Dibenz[a,h]anthracene	0.999	0.859	14.0	59	0.00	19.90
99	t	7,12-Dimethylbenz(a)anthr	0.456	0.608	-33.3#	87	0.00	17.56
100	t	Benzo[g,h,i]perylene	0.980	0.781	20.3#	56	0.00	20.27

(#) = Out of Range
M146134.D MM6168.M

SPCC's out = 0 CCC's out = 0
Sun May 13 14:28:36 2018 ACC-VOA-DESK4

8.10.33

8

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EM6209-CC6169
Lab FileID: M146135.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\Alicja\EM6209\M146135.D Vial: 3
 Acq On : 12 May 2018 7:11 pm Operator: georges
 Sample : cc6169-50 Inst : Instrument #1
 Misc : op10492,em6209,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Sun May 13 14:25:12 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	82	0.00	4.49
102 t	Benzaldehyde	1.145	0.814	28.9#	64	-0.16	4.16
103 I	Acenaphthene-d10a	1.000	1.000	0.0	95	0.00	7.83
104 I	1,2,4,5-Tetrachlorobenzen	0.665	0.597	10.2	93	-0.24	6.59
	----- True	Calc.	% Drift	-----			
105 t	Atrazine	50.000	53.130	-6.3	99	-0.27	10.04
	----- AvgRF	CCRF	% Dev	-----			
106 I	Chrysene-d12a	1.000	1.000	0.0	99	-0.01	15.56
	----- True	Calc.	% Drift	-----			
107 t	Benzidine	50.000	33.667	32.7#	72	-0.28	13.09
	----- AvgRF	CCRF	% Dev	-----			
108 s	1-chlorooctadecane	0.241	0.276	-14.5	108	-0.30	12.76
109 I	Phenanthrene-d10a	1.000	1.000	0.0	97	0.00	10.42
110 s	o-terphenyl	0.554	0.556	-0.4	98	-0.30	11.22
	----- True	Calc.	% Drift	-----			
111	Pentachloronitrobenzene	50.000	59.276	-18.6	116	-0.28	10.14
	----- AvgRF	CCRF	% Dev	-----			
112 I	Naphthalene-d8a	1.000	1.000	0.0	84	0.00	5.57
113	Hydroquinone	0.331	0.393	-18.7	89	-0.17	6.05

(#) = Out of Range
 M146134.D MM6168.M

SPCC's out = 0 CCC's out = 0
 Sun May 13 14:28:39 2018 ACC-VOA-DESK4

8.10.34

8



MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-15-18\aimeel\em6207\
 Data File : m146106.d
 Acq On : 11 May 2018 8:27 pm
 Operator : christc2
 Sample : jc65663-1
 Misc : op11892,em6207,30.7,,,5,2
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 22 16:59:54 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon May 14 21:24:56 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.508	152	149855	40.00	ppm	0.00
24) Naphthalene-d8	5.597	136	539532	40.00	ppm	0.00
47) Acenaphthene-d10	7.873	164	268384	40.00	ppm	0.02
69) Phenanthrene-d10	10.463	188	502433	40.00	ppm	0.02
83) Chrysene-d12	15.649	240	382047	40.00	ppm	0.07
91) Perylene-d12	18.277	264	346320	40.00	ppm	0.08
101) 1,4-Dichlorobenzene-d4a	4.508	152	149855	40.00	ppm	0.00
103) Acenaphthene-d10a	7.873	164	268384	40.00	ppm	0.02
106) Chrysene-d12a	15.649	240	382047	40.00	ppm	0.07
109) Phenanthrene-d10a	10.463	188	502433	40.00	ppm	0.02
112) Naphthalene-d8a	5.597	136	539532	40.00	ppm	0.00
114) Chrysene-d12b	15.649	240	382047	40.00	ppm	0.07
System Monitoring Compounds						
5) 2-Fluorophenol	3.547	112	22182	3.96	ppm	0.01
Spiked Amount	50.000		Recovery	=	7.92%	
8) Phenol-d5	4.278	99	27717	4.15	ppm	0.05
Spiked Amount	50.000		Recovery	=	8.30%	
25) Nitrobenzene-d5	4.946	82	25878	4.91	ppm	0.01
Spiked Amount	50.000		Recovery	=	9.82%	
51) 2-Fluorobiphenyl	6.885	172	46676	4.48	ppm	0.00
Spiked Amount	50.000		Recovery	=	8.96%	
73) 2,4,6-Tribromophenol	9.213	330	7424	5.27	ppm	0.00
Spiked Amount	50.000		Recovery	=	10.54%	
85) Terphenyl-d14	13.636	244	43500	4.78	ppm	0.00
Spiked Amount	50.000		Recovery	=	9.56%	
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
9) Phenol	4.284	94	39474	5.35	ppm	82
19) 2-Methylphenol	4.727	108	11688m	2.70	ppm	
21) 3&4-Methylphenol	4.850	108	40027m	9.25	ppm	
30) 2,4-Dimethylphenol	5.293	107	13839	3.22	ppm	85
38) Naphthalene	5.619	128	1227978	86.67	ppm	99
44) 2-Methylnaphthalene	6.399	141	350007	41.15	ppm	95
53) Biphenyl	7.018	154	109354	10.09	ppm	97
56) Acenaphthylene	7.648	152	720537	55.01	ppm	99
59) Acenaphthene	7.921	153	72131	8.76	ppm	93
62) Dibenzofuran	8.204	168	543967	45.18	ppm	93
66) Fluorene	8.781	166	513415	53.32	ppm	98
77) Phenanthrene	10.527	178	3773809	274.47	ppm	99
78) Anthracene	10.613	178	1558026	113.43	ppm	100
79) Carbazole	10.960	167	557072	39.80	ppm	99
81) Fluoranthene	12.824	202	4935129	321.91	ppm	96
84) Pyrene	13.246	202	4415982	326.05	ppm	93
87) Benzo[a]anthracene	15.639	228	2781529	248.80	ppm	98

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-15-18\aimeel\em6207\
 Data File : m146106.d
 Acq On : 11 May 2018 8:27 pm
 Operator : christc2
 Sample : jc65663-1
 Misc : op11892,em6207,30.7,,,5,2
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 22 16:59:54 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon May 14 21:24:56 2018
 Response via : Initial Calibration

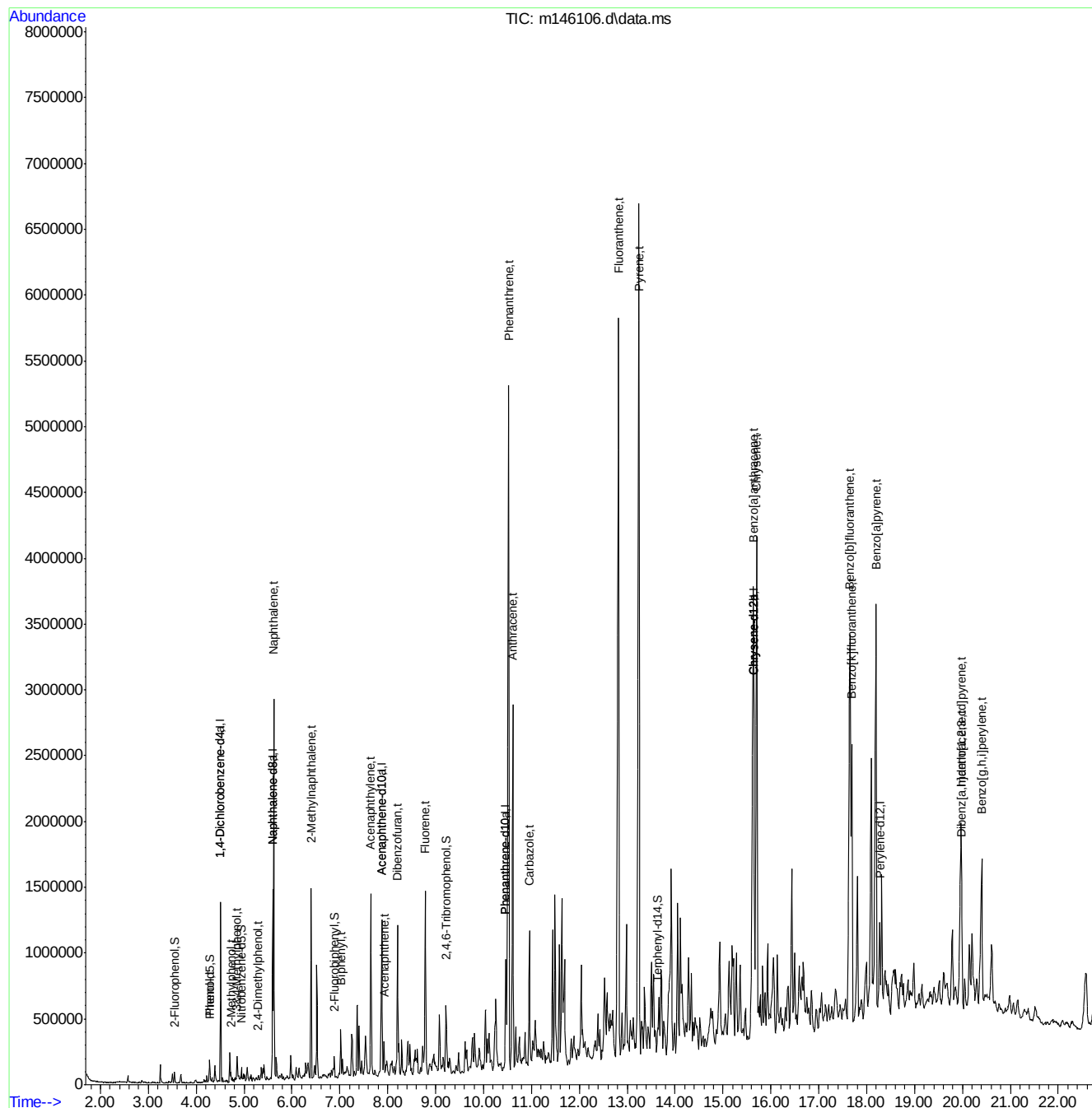
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
89) Chrysene	15.708	228	2333826	216.43	ppm	95
93) Benzo[b]fluoranthene	17.652	252	2677207	268.97	ppm	98
94) Benzo[k]fluoranthene	17.690	252	933107	99.18	ppm	96
95) Benzo[a]pyrene	18.197	252	2247183	264.97	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.970	276	1106200	136.59	ppm	97
98) Dibenz[a,h]anthracene	19.986	278	402958	46.60	ppm	90
100) Benzo[g,h,i]perylene	20.403	276	895601	105.58	ppm	95

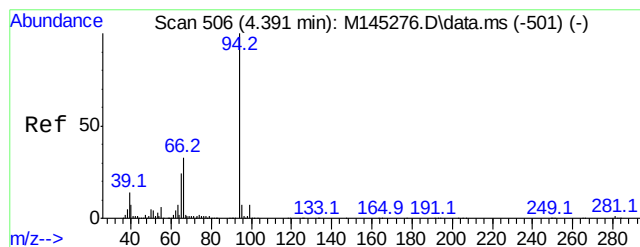
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-15-18\aimeel\em6207\
Data File : m146106.d
Acq On : 11 May 2018 8:27 pm
Operator : christc2
Sample : jc65663-1
Misc : op11892,em6207,30.7,,,5,2
ALS Vial : 20 Sample Multiplier: 1

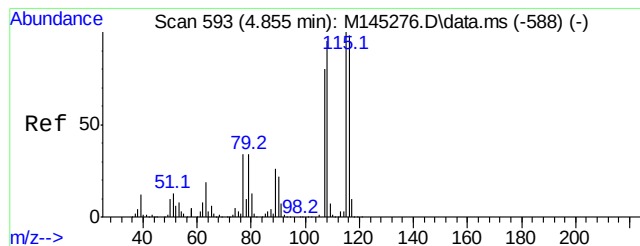
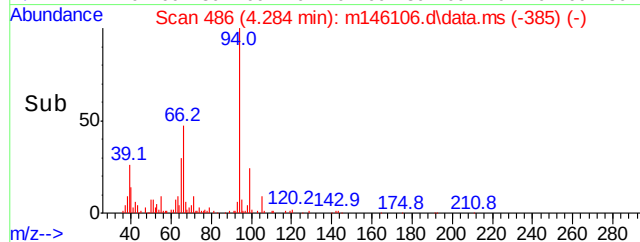
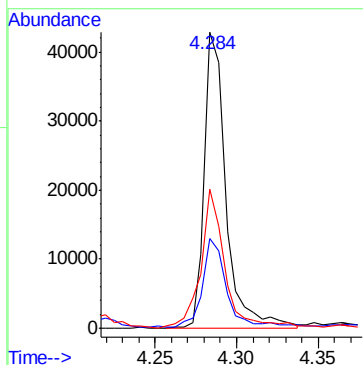
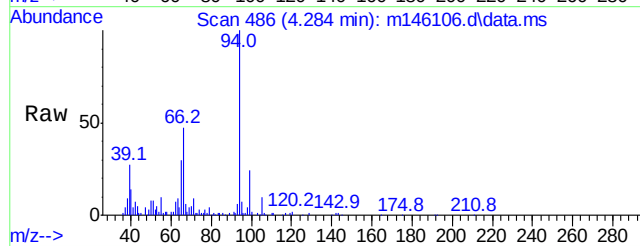
Quant Time: May 22 16:59:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 14 21:24:56 2018
Response via : Initial Calibration





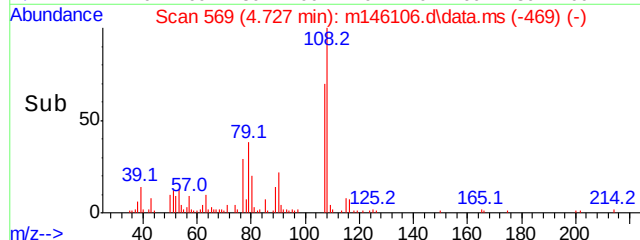
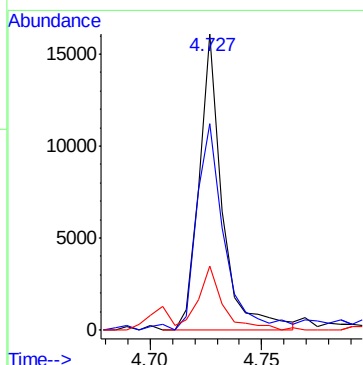
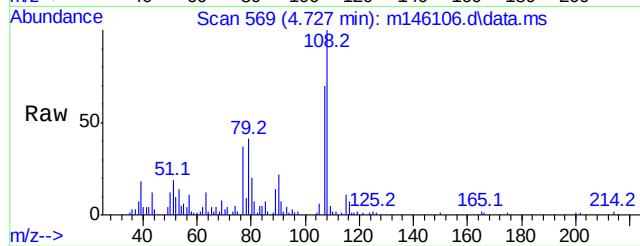
#9
Phenol
Concen: 5.35 ppm
RT: 4.284 min Scan# 486
Delta R.T. 0.042 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

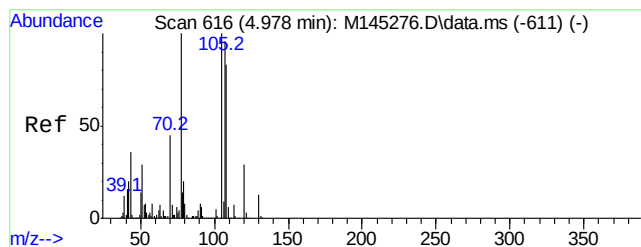
Tgt Ion	Ratio	Lower	Upper
94	100		
65	29.5	0.0	54.4
66	46.4	2.6	62.6



#19
2-Methylphenol
Concen: 2.70 ppm m
RT: 4.727 min Scan# 569
Delta R.T. 0.036 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

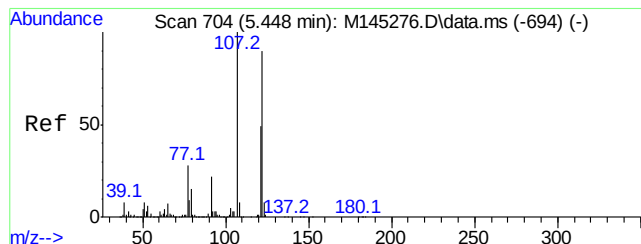
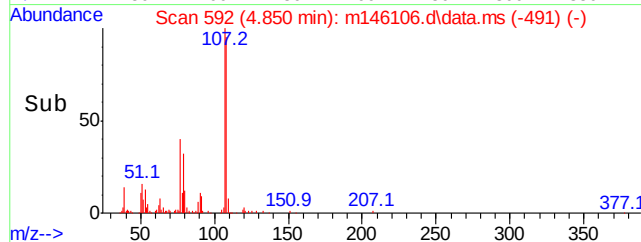
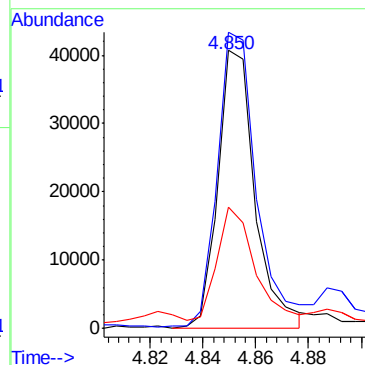
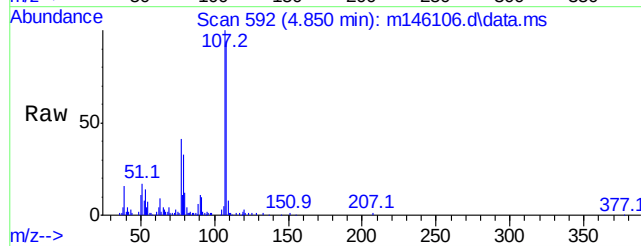
Tgt Ion	Ratio	Lower	Upper
108	100		
107	69.8	53.8	113.8
90	21.7	0.0	53.5





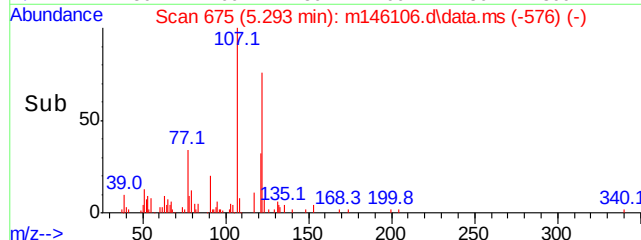
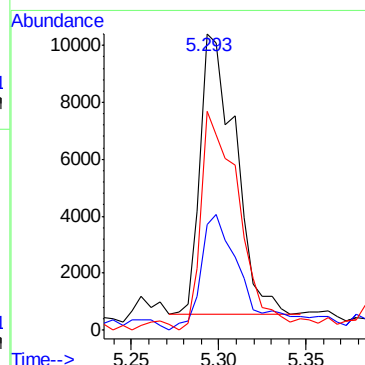
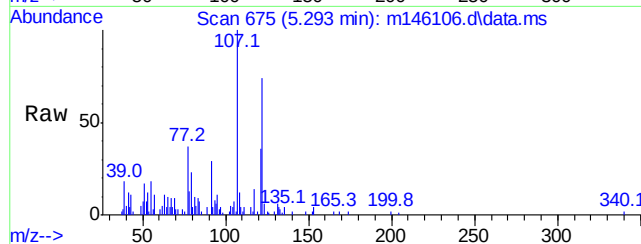
#21
3&4-Methylphenol
Concen: 9.25 ppm m
RT: 4.850 min Scan# 592
Delta R.T. 0.040 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

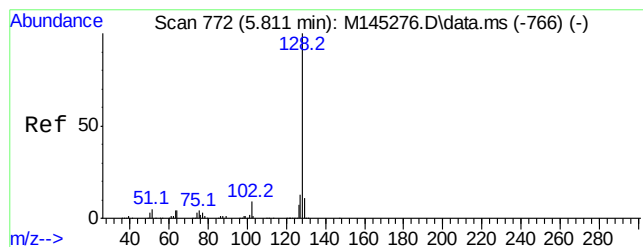
Tgt Ion	Ratio	Lower	Upper
108	100		
107	106.6	86.3	146.3
77	43.5	90.8	150.8#



#30
2,4-Dimethylphenol
Concen: 3.22 ppm
RT: 5.293 min Scan# 675
Delta R.T. 0.029 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

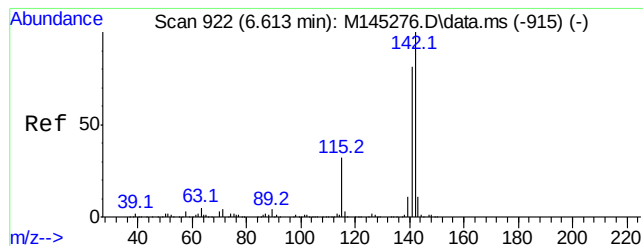
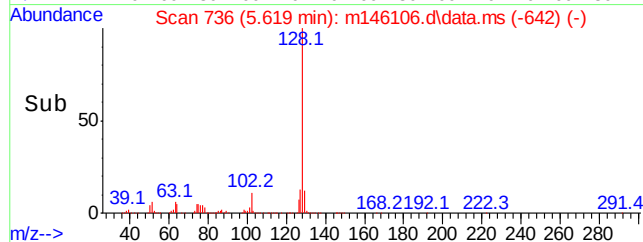
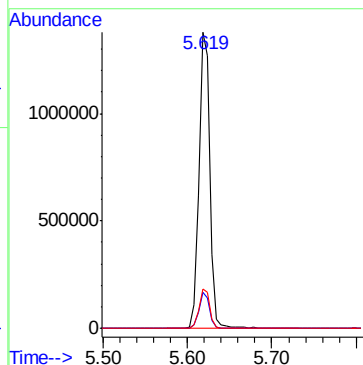
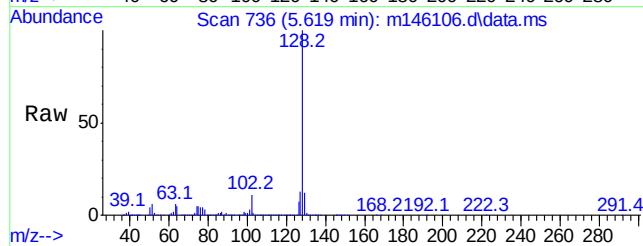
Tgt Ion	Ratio	Lower	Upper
107	100		
121	35.2	19.0	79.0
122	74.9	55.6	115.6





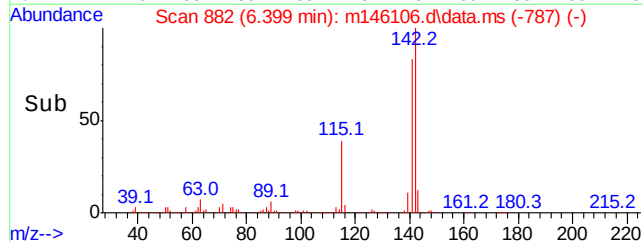
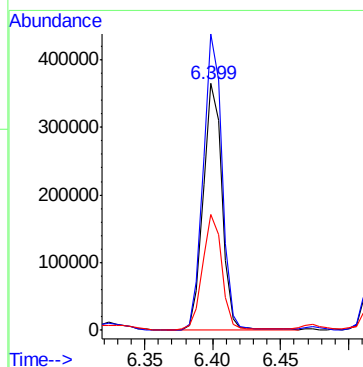
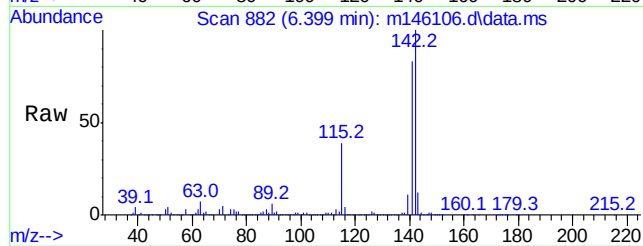
#38
Naphthalene
Concen: 86.67 ppm
RT: 5.619 min Scan# 736
Delta R.T. 0.003 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

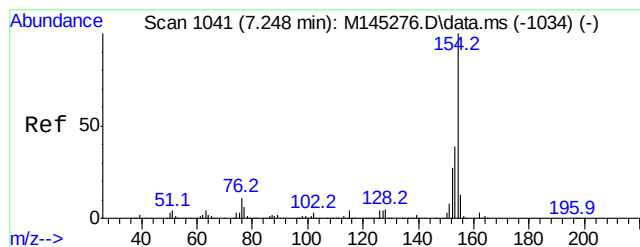
Tgt Ion	Ratio	Lower	Upper
128	100		
129	12.0	0.0	41.4
127	13.1	0.0	42.8



#44
2-Methylnaphthalene
Concen: 41.15 ppm
RT: 6.399 min Scan# 882
Delta R.T. 0.009 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

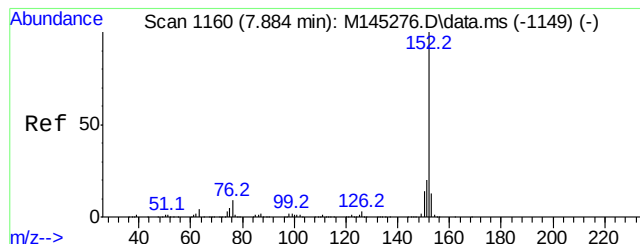
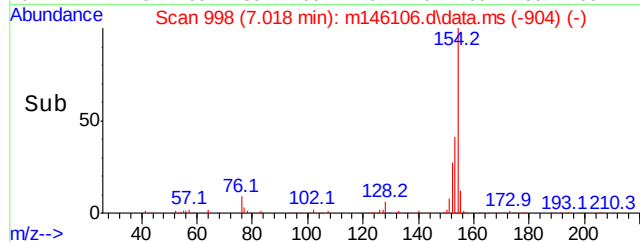
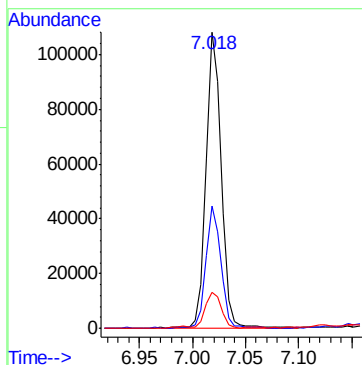
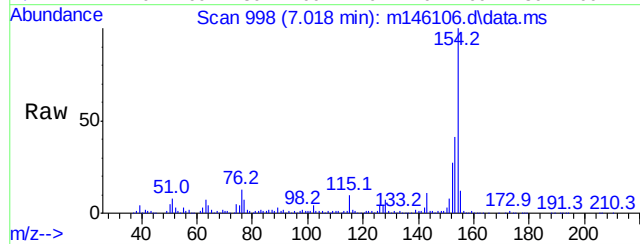
Tgt Ion	Ratio	Lower	Upper
141	100		
142	119.9	93.2	153.2
115	46.2	9.5	69.5





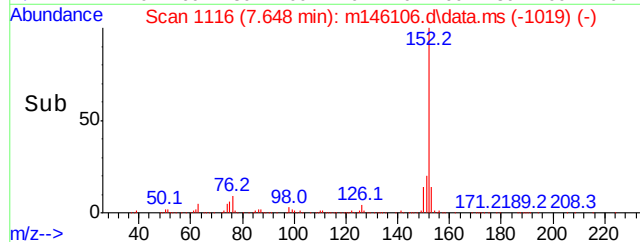
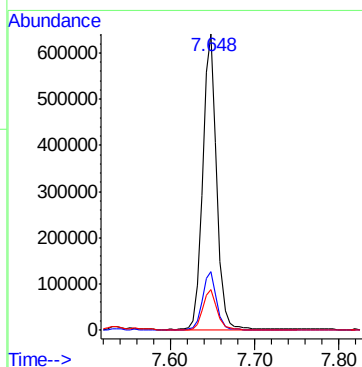
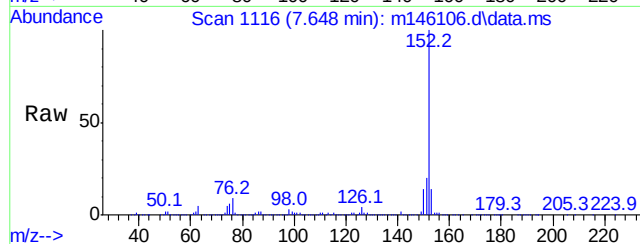
#53
Biphenyl
Concen: 10.09 ppm
RT: 7.018 min Scan# 998
Delta R.T. 0.002 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

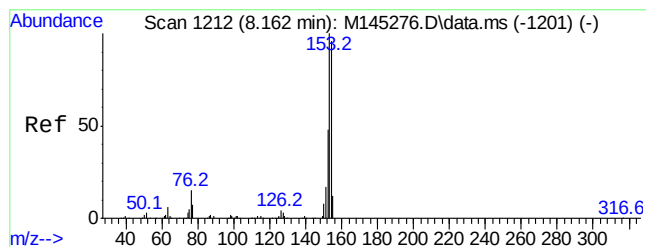
Tgt Ion:	154	Resp:	109354
Ion Ratio	Lower	Upper	
154	100		
153	40.9	9.1	69.1
155	11.9	0.0	43.3



#56
Acenaphthylene
Concen: 55.01 ppm
RT: 7.648 min Scan# 1116
Delta R.T. 0.017 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

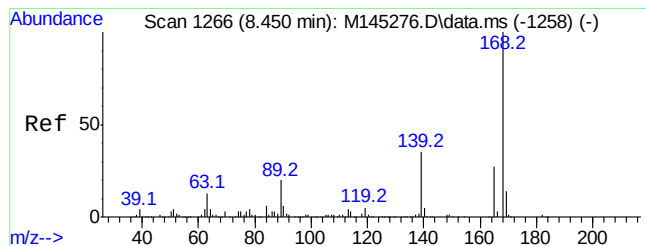
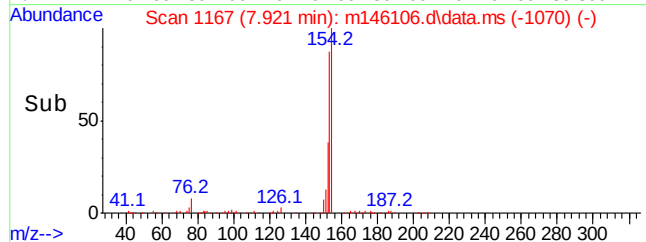
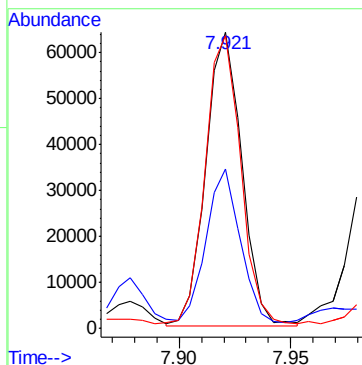
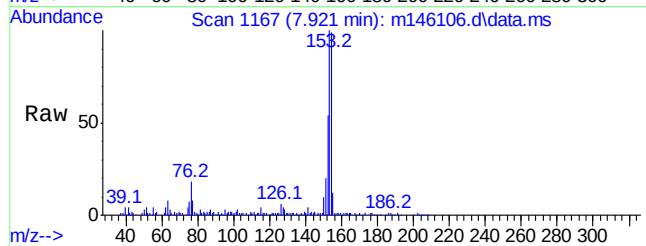
Tgt Ion:	152	Resp:	720537
Ion Ratio	Lower	Upper	
152	100		
151	19.8	0.0	49.8
153	13.7	0.0	43.1





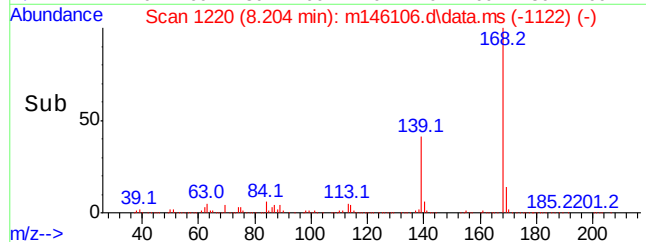
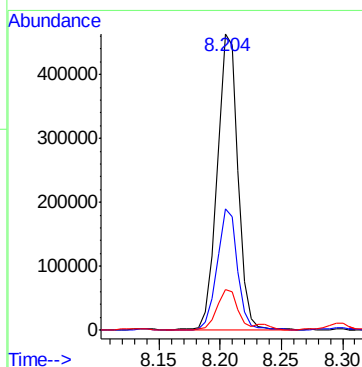
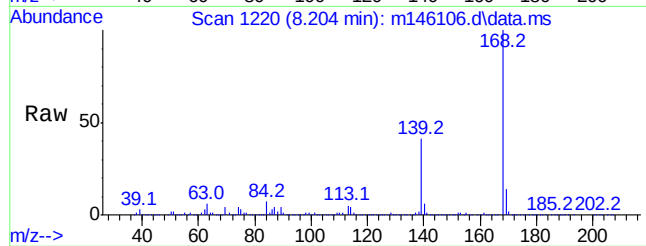
#59
Acenaphthene
Concen: 8.76 ppm
RT: 7.921 min Scan# 1167
Delta R.T. 0.020 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

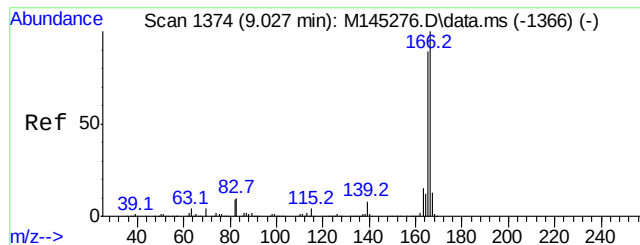
Tgt Ion	Ratio	Lower	Upper
153	100		
152	51.9	18.1	78.1
154	98.9	62.2	122.2



#62
Dibenzofuran
Concen: 45.18 ppm
RT: 8.204 min Scan# 1220
Delta R.T. 0.024 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

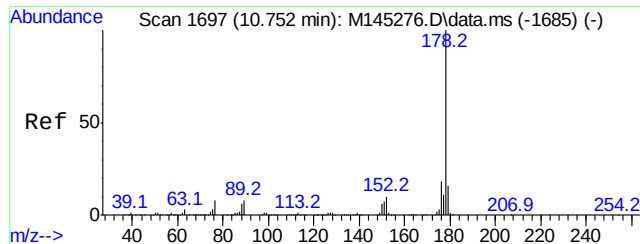
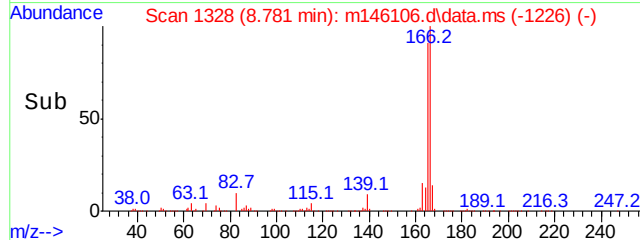
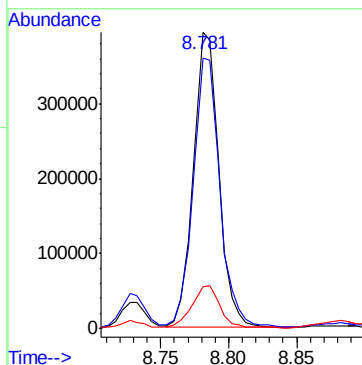
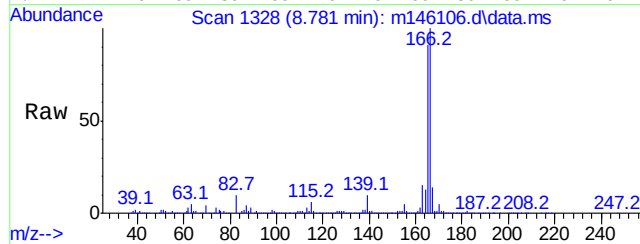
Tgt Ion	Ratio	Lower	Upper
168	100		
139	40.8	5.0	65.0
169	13.5	0.0	43.9





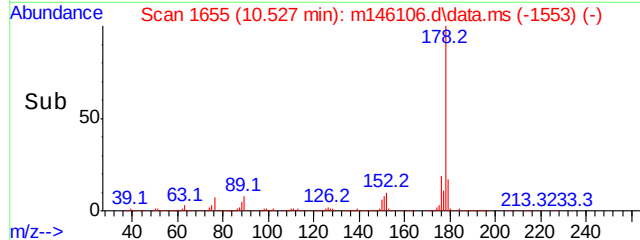
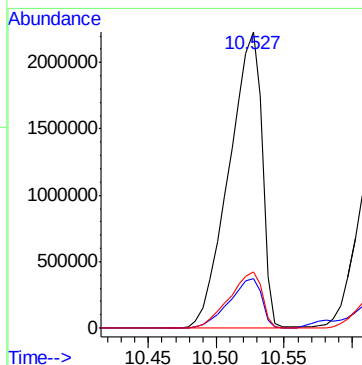
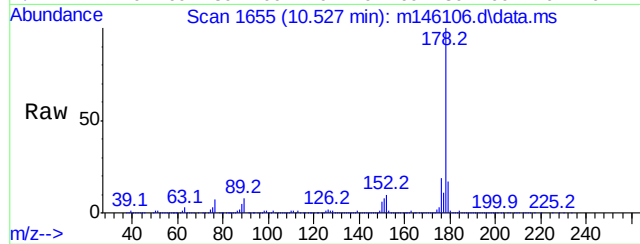
#66
Fluorene
Concen: 53.32 ppm
RT: 8.781 min Scan# 1328
Delta R.T. 0.042 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

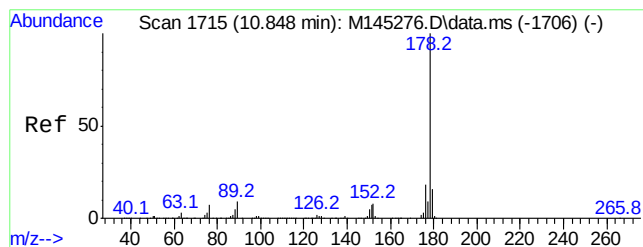
Tgt Ion:166 Resp: 513415
Ion Ratio Lower Upper
166 100
165 90.9 59.1 119.1
167 13.6 0.0 43.0



#77
Phenanthrene
Concen: 274.47 ppm
RT: 10.527 min Scan# 1655
Delta R.T. 0.046 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

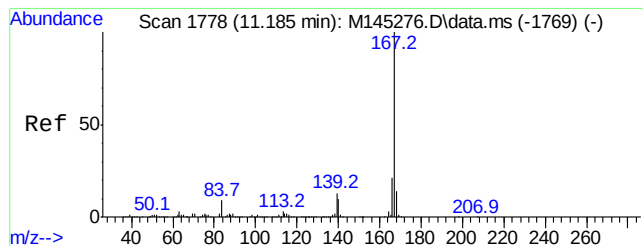
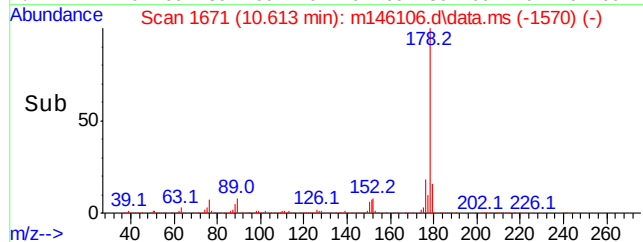
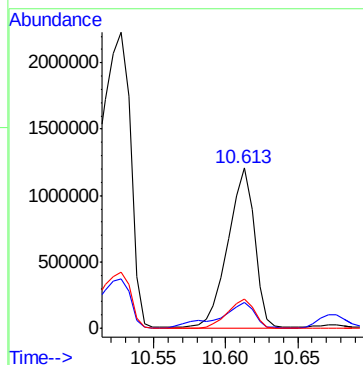
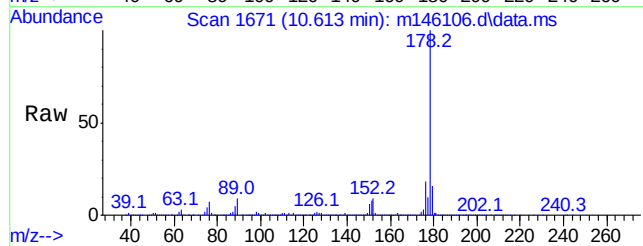
Tgt Ion:178 Resp: 3773809
Ion Ratio Lower Upper
178 100
179 16.6 0.0 46.0
176 18.9 0.0 48.3





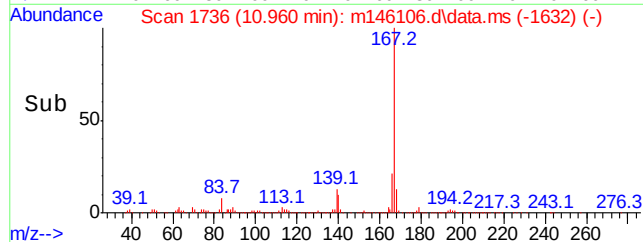
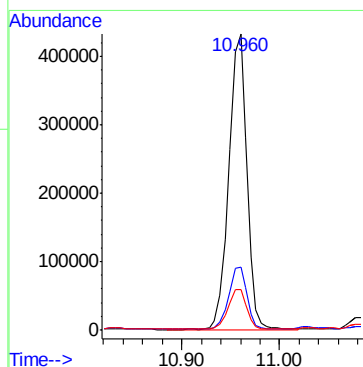
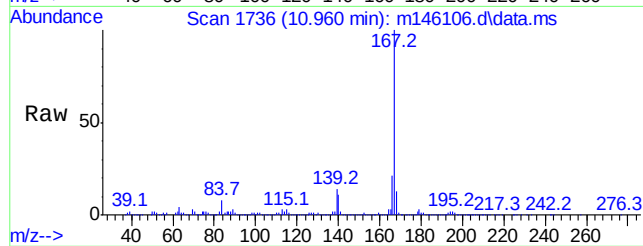
#78
 Anthracene
 Concen: 113.43 ppm
 RT: 10.613 min Scan# 1671
 Delta R.T. 0.038 min
 Lab File: m146106.d
 Acq: 11 May 2018 8:27 pm

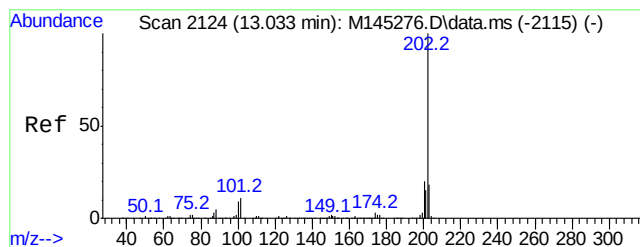
Tgt Ion:178 Resp: 1558026
 Ion Ratio Lower Upper
 178 100
 179 15.6 0.0 45.9
 176 18.1 0.0 48.0



#79
 Carbazole
 Concen: 39.80 ppm
 RT: 10.960 min Scan# 1736
 Delta R.T. 0.057 min
 Lab File: m146106.d
 Acq: 11 May 2018 8:27 pm

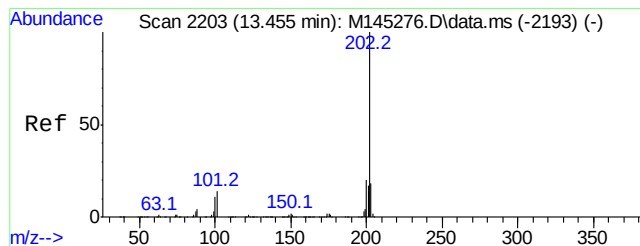
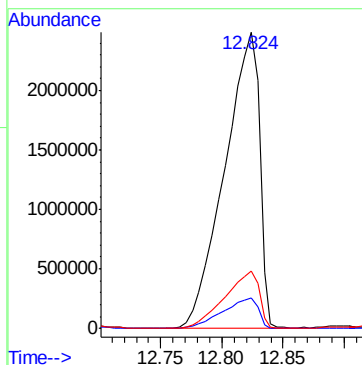
Tgt Ion:167 Resp: 557072
 Ion Ratio Lower Upper
 167 100
 166 20.9 0.0 50.7
 139 13.3 0.0 42.5





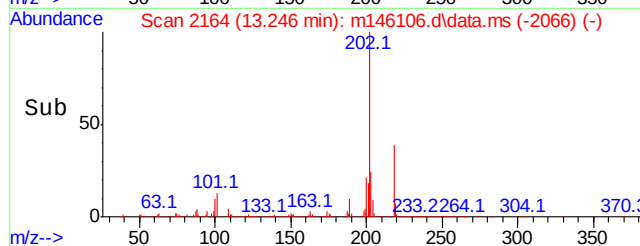
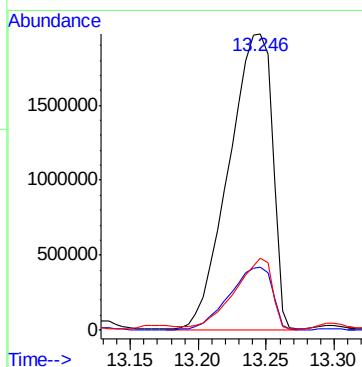
#81
Fluoranthene
Concen: 321.91 ppm
RT: 12.824 min Scan# 2085
Delta R.T. 0.120 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

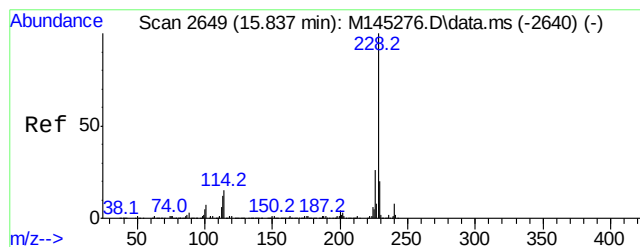
Tgt	Ion	Ratio	Lower	Upper
202	100			
101	10.1	0.0	41.4	
203	19.3	0.0	47.5	



#84
Pyrene
Concen: 326.05 ppm
RT: 13.246 min Scan# 2164
Delta R.T. 0.025 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

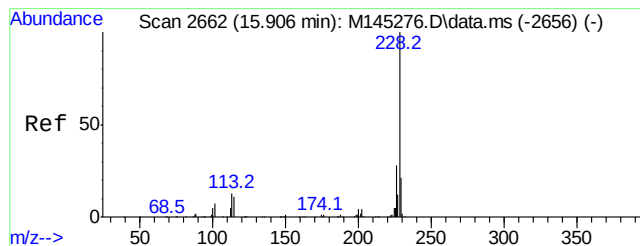
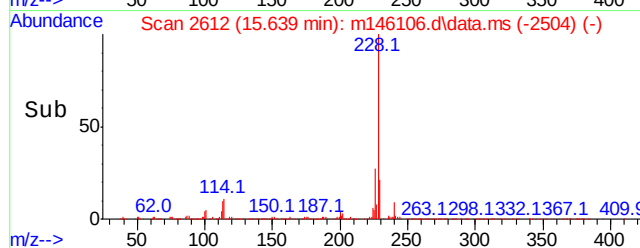
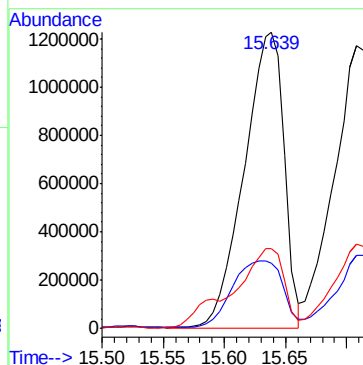
Tgt	Ion	Ratio	Lower	Upper
202	100			
200	21.2	0.0	50.2	
203	23.3	0.0	48.2	





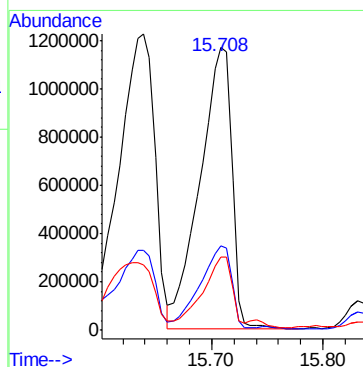
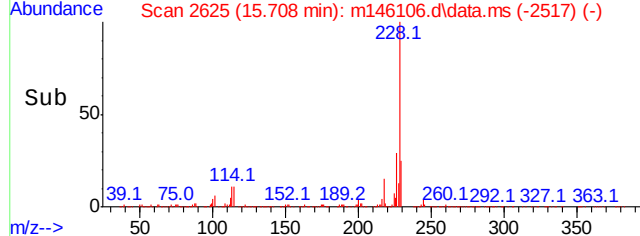
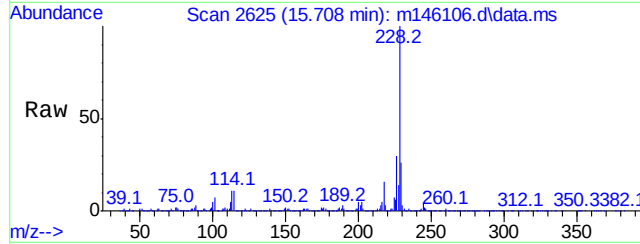
#87
Benzo[a]anthracene
Concen: 248.80 ppm
RT: 15.639 min Scan# 2612
Delta R.T. 0.077 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

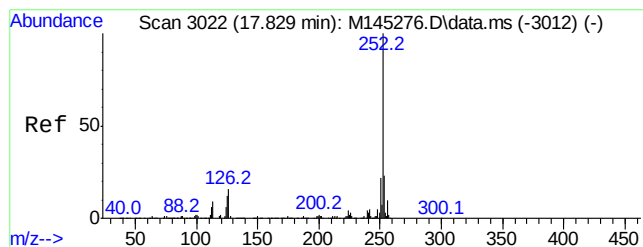
Tgt Ion	Ratio	Lower	Upper
228	100		
229	20.9	0.0	50.4
226	26.8	0.0	55.8



#89
Chrysene
Concen: 216.43 ppm
RT: 15.708 min Scan# 2625
Delta R.T. 0.078 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

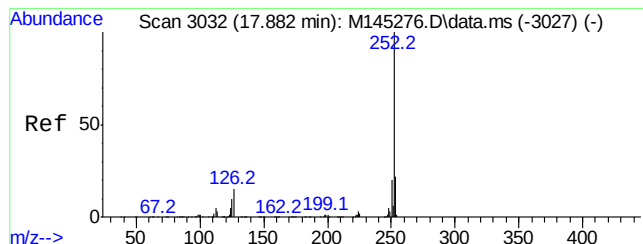
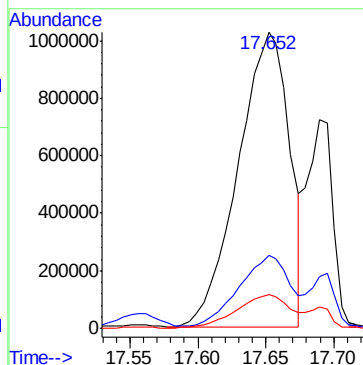
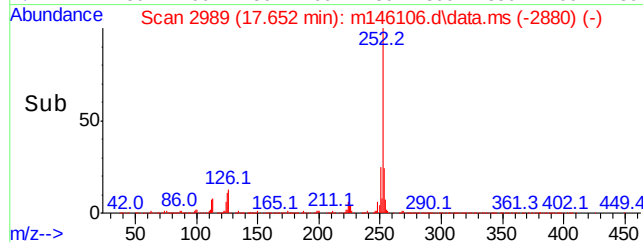
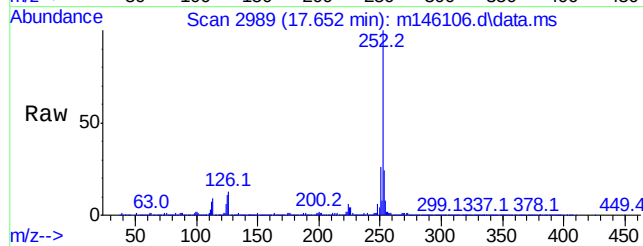
Tgt Ion	Ratio	Lower	Upper
228	100		
226	29.4	0.0	58.6
229	25.0	0.0	50.6





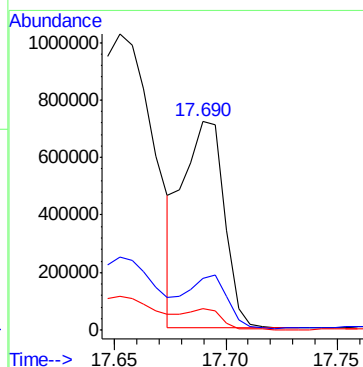
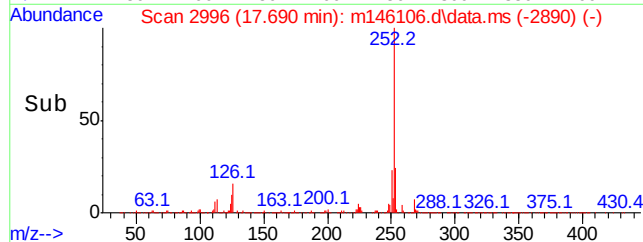
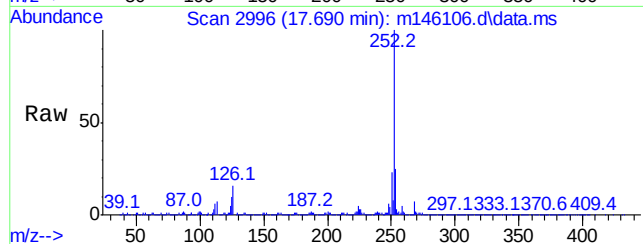
#93
Benzo[b]fluoranthene
Concen: 268.97 ppm
RT: 17.652 min Scan# 2989
Delta R.T. 0.084 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

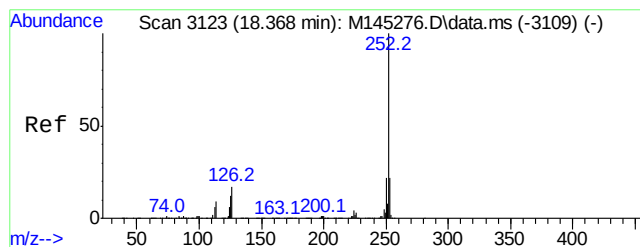
Tgt Ion:	252	Resp:	2677207
Ion Ratio	Lower	Upper	
252	100		
253	23.4	0.0	52.1
125	11.0	0.0	41.0



#94
Benzo[k]fluoranthene
Concen: 99.18 ppm
RT: 17.690 min Scan# 2996
Delta R.T. 0.069 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

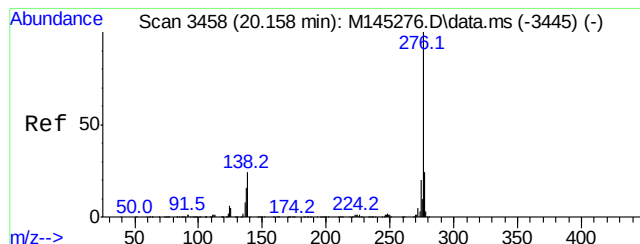
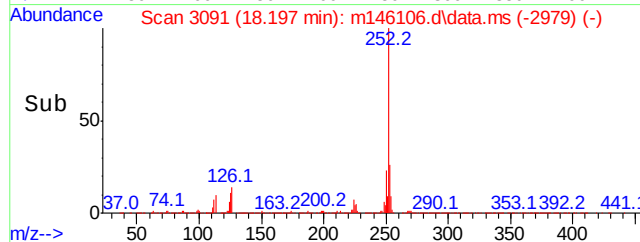
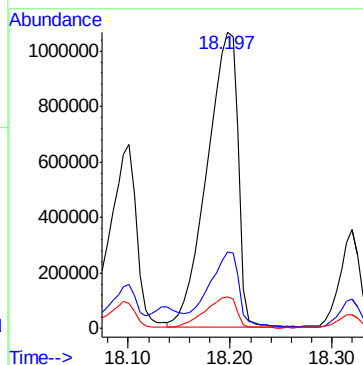
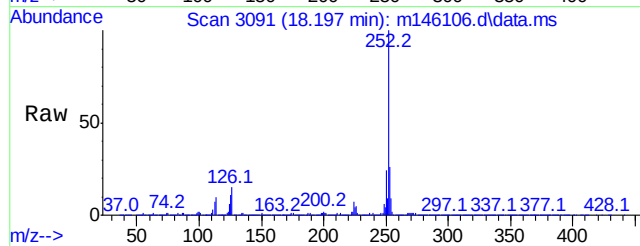
Tgt Ion:	252	Resp:	933107
Ion Ratio	Lower	Upper	
252	100		
253	24.5	0.0	52.4
125	9.5	0.0	41.0





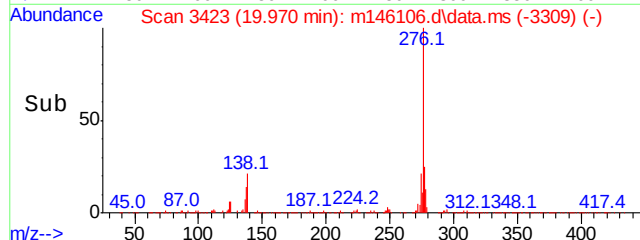
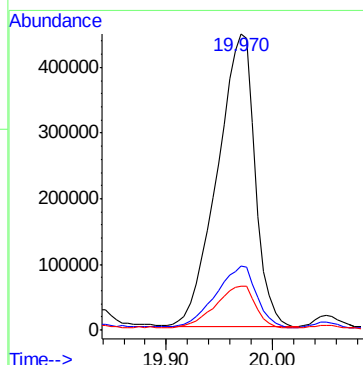
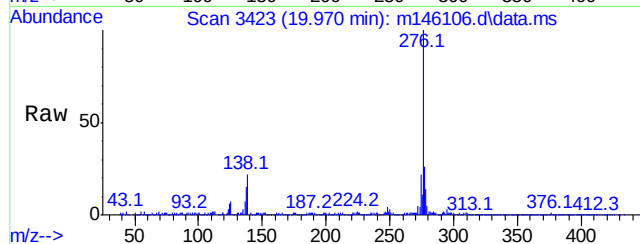
#95
Benzo[a]pyrene
Concen: 264.97 ppm
RT: 18.197 min Scan# 3091
Delta R.T. 0.097 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

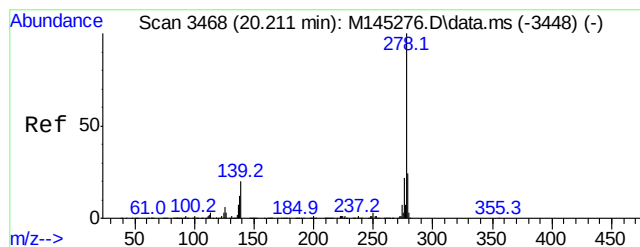
Tgt Ion	Ratio	Lower	Upper
252	100		
253	22.0	0.0	52.4
125	10.6	0.0	42.3



#96
Indeno[1,2,3-cd]pyrene
Concen: 136.59 ppm
RT: 19.970 min Scan# 3423
Delta R.T. 0.107 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

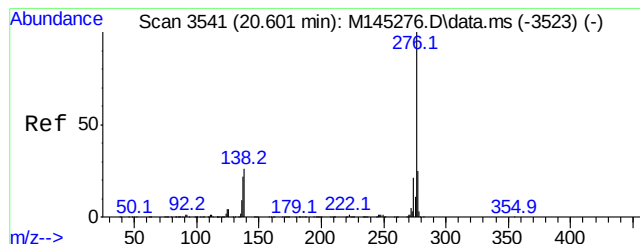
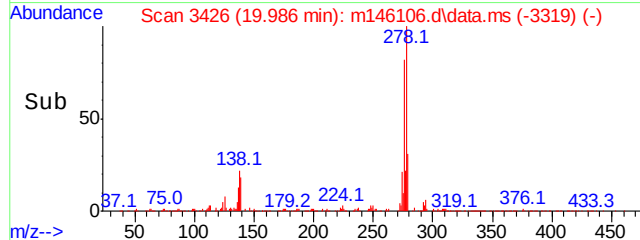
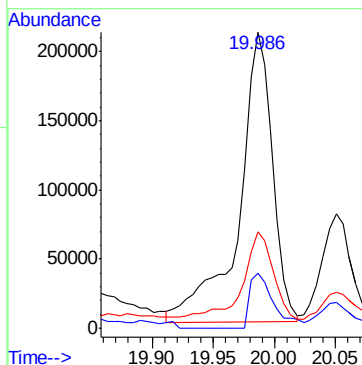
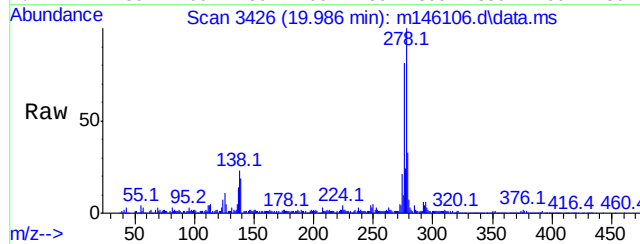
Tgt Ion	Ratio	Lower	Upper
276	100		
138	20.9	0.0	52.4
137	14.3	0.0	45.7





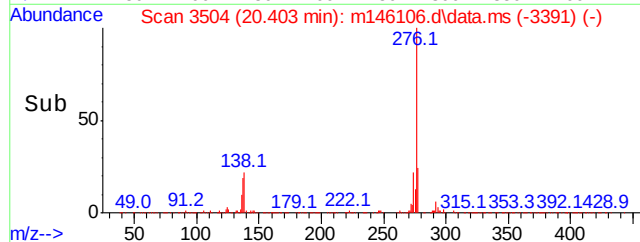
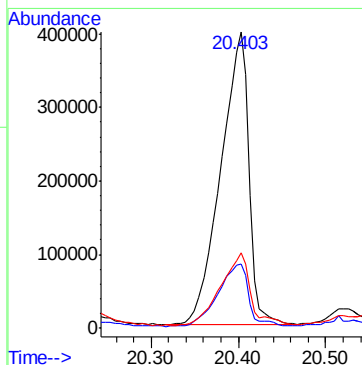
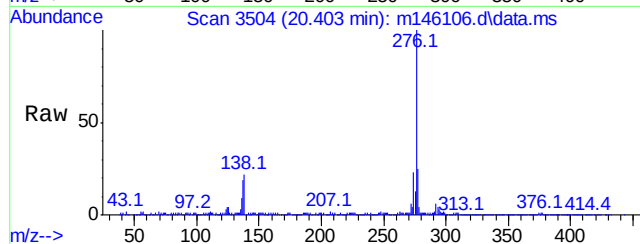
#98
Dibenzo[a,h]anthracene
Concen: 46.60 ppm
RT: 19.986 min Scan# 3426
Delta R.T. 0.071 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

Tgt	Ion:278	Resp:	402958
Ion	Ratio	Lower	Upper
278	100		
139	17.1	0.0	49.8
279	30.9	0.0	54.2



#100
Benzo[g,h,i]perylene
Concen: 105.58 ppm
RT: 20.403 min Scan# 3504
Delta R.T. 0.103 min
Lab File: m146106.d
Acq: 11 May 2018 8:27 pm

Tgt	Ion:276	Resp:	895601
Ion	Ratio	Lower	Upper
276	100		
138	21.3	0.0	55.9
277	24.6	0.0	54.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6209\
 Data File : M146151.D
 Acq On : 13 May 2018 3:09 am
 Operator : georges
 Sample : jc65663-1
 Misc : op11892,em6209,30.7,,,5,10
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 13 15:16:49 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Sat May 12 18:13:49 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.487	152	187915	40.00	ppm	-0.01
24) Naphthalene-d8	5.566	136	704886	40.00	ppm	-0.02
47) Acenaphthene-d10	7.831	164	365834	40.00	ppm	-0.02
69) Phenanthrene-d10	10.410	188	710858	40.00	ppm	-0.02
83) Chrysene-d12	15.565	240	556377	40.00	ppm	-0.04
91) Perylene-d12	18.182	264	503913	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.487	152	187915	40.00	ppm	-0.01
103) Acenaphthene-d10a	7.831	164	365834	40.00	ppm	-0.02
106) Chrysene-d12a	15.565	240	556377	40.00	ppm	-0.04
109) Phenanthrene-d10a	10.410	188	710858	40.00	ppm	-0.02
112) Naphthalene-d8a	5.566	136	704886	40.00	ppm	-0.02
114) Chrysene-d12b	15.565	240	556377	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	3.526	112	3334	0.47	ppm	0.00
Spiked Amount 50.000			Recovery	=	0.94%	
8) Phenol-d5	4.258	99	5324	0.64	ppm	0.03
Spiked Amount 50.000			Recovery	=	1.28%	
25) Nitrobenzene-d5	4.925	82	4818	0.70	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.40%	
51) 2-Fluorobiphenyl	6.848	172	9557	0.67	ppm	0.03
Spiked Amount 50.000			Recovery	=	1.34%	
73) 2,4,6-Tribromophenol	9.166	330	1543	0.77	ppm	-0.04
Spiked Amount 50.000			Recovery	=	1.54%	
85) Terphenyl-d14	13.578	244	10163	0.77	ppm	-0.08
Spiked Amount 50.000			Recovery	=	1.54%	
108) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						
9) Phenol	4.268	94	6950	0.75	ppm	77
21) 3&4-Methylphenol	4.829	108	7989	1.47	ppm	# 47
38) Naphthalene	5.587	128	254244	13.73	ppm	99
44) 2-Methylnaphthalene	6.362	141	71897	6.47	ppm	93
53) Biphenyl	6.981	154	21608	1.46	ppm	97
56) Acenaphthylene	7.601	152	136189	7.63	ppm	97
59) Acenaphthene	7.879	153	14385	1.28	ppm	93
62) Dibenzofuran	8.162	168	114521	6.98	ppm	91
66) Fluorene	8.733	166	109736	8.36	ppm	97
77) Phenanthrene	10.453	178	833688	42.86	ppm	100
78) Anthracene	10.549	178	311423	16.02	ppm	99
79) Carbazole	10.902	167	116198	5.87	ppm	94
81) Fluoranthene	12.739	202	1119515	51.61	ppm	99
84) Pyrene	13.156	202	986970	50.04	ppm	99
87) Benzo[a]anthracene	15.549	228	597677	36.71	ppm	99
89) Chrysene	15.613	228	477692	30.42	ppm	98
93) Benzo[b]fluoranthene	17.546	252	564532	38.98	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6209\
 Data File : M146151.D
 Acq On : 13 May 2018 3:09 am
 Operator : georges
 Sample : jc65663-1
 Misc : op11892,em6209,30.7,,,5,10
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 13 15:16:49 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Sat May 12 18:13:49 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Benzo[k]fluoranthene	17.584	252	196555	14.36	ppm	98
95) Benzo[a]pyrene	18.086	252	438603	35.54	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.843	276	214552	18.21	ppm	94
98) Dibenzo[a,h]anthracene	19.880	278	63230	5.03	ppm	95
100) Benzo[g,h,i]perylene	20.254	276	178308	14.45	ppm	96

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

9.1.2
9

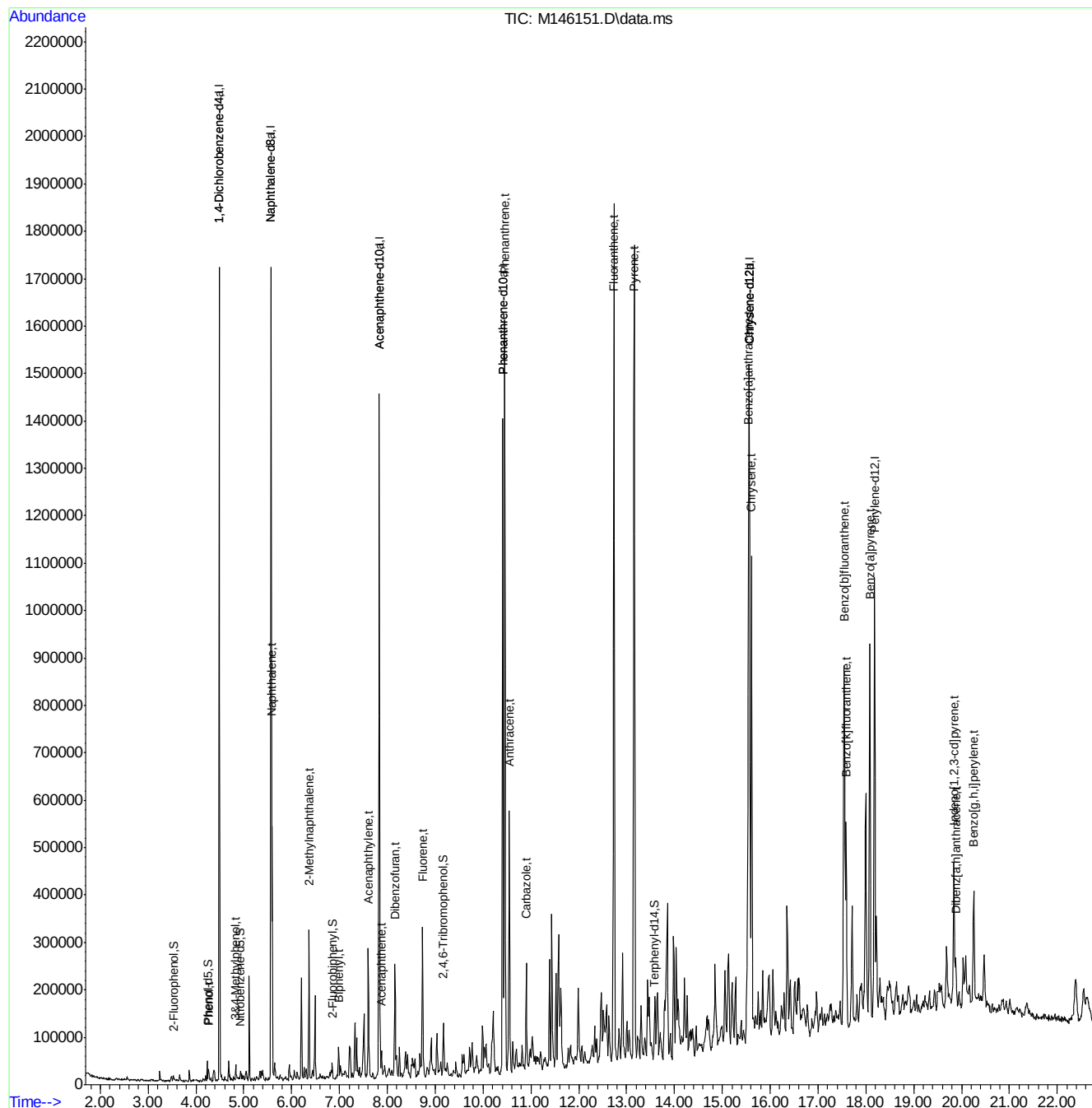
Quantitation Report (QT Reviewed)

```

Data Path   : C:\msdchem\1\DATA\EM6209\
Data File   : M146151.D
Acq On      : 13 May 2018    3:09 am
Operator    : georges
Sample      : jc65663-1
Misc        : op11892,em6209,30.7,,,5,10
ALS Vial    : 19      Sample Multiplier: 1

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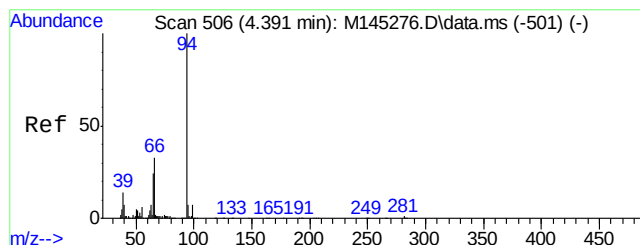
Quant Time: May 13 15:16:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Sat May 12 18:13:49 2018
Response via : Initial Calibration



MM6168.M Tue May 22 14:50:40 2018 MSM

Page: 3

9.1.2



#9

Phenol

Concen: 0.75 ppm

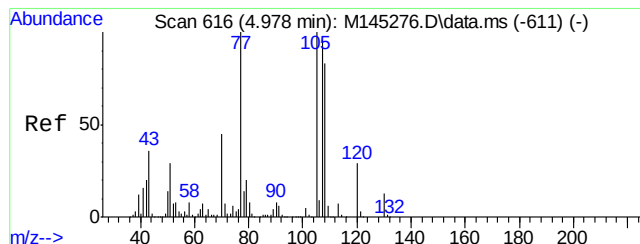
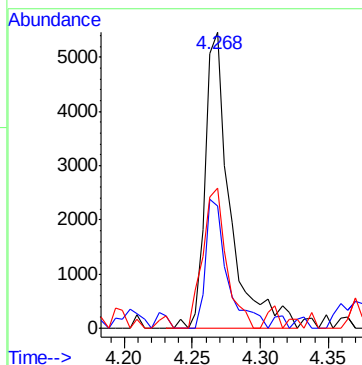
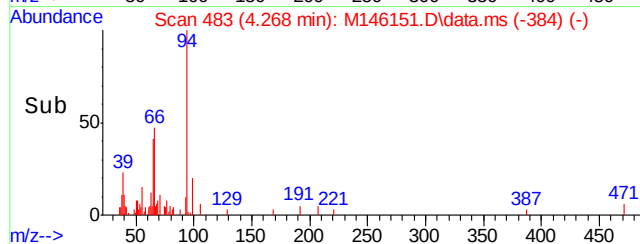
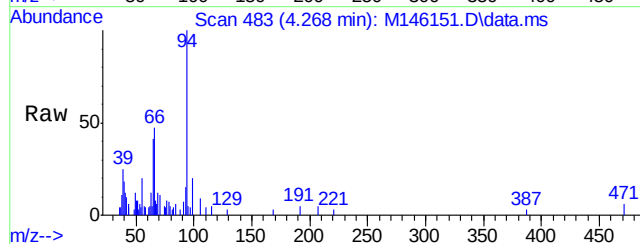
RT: 4.268 min Scan# 483

Delta R.T. 0.027 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

Tgt Ion:	94	Resp:	6950
Ion Ratio	Lower	Upper	
94	100		
65	37.8	0.0	54.4
66	43.9	2.6	62.6



#21

3&4-Methylphenol

Concen: 1.47 ppm

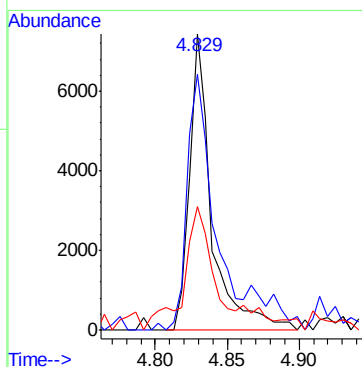
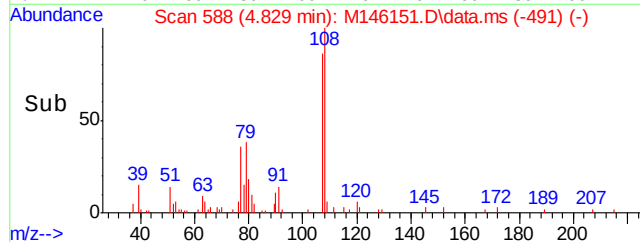
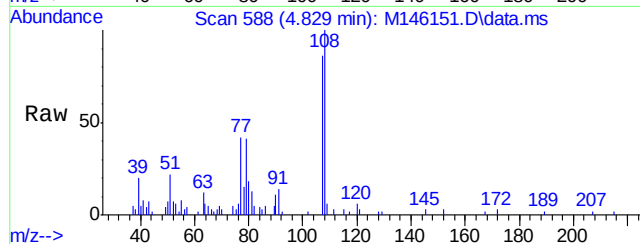
RT: 4.829 min Scan# 588

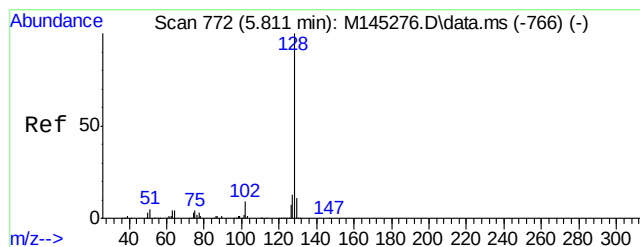
Delta R.T. 0.020 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

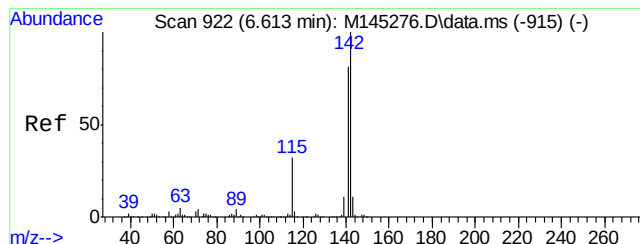
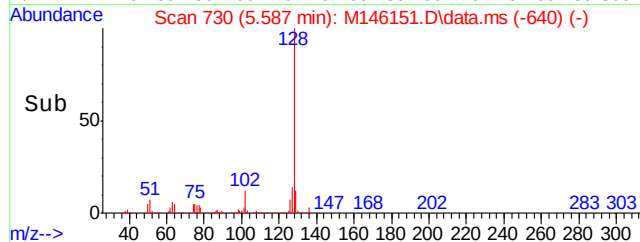
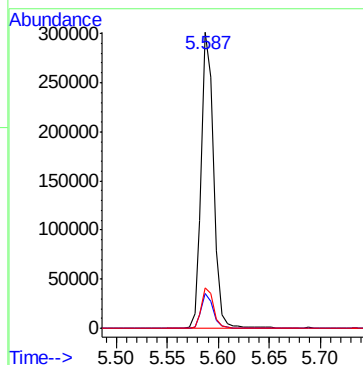
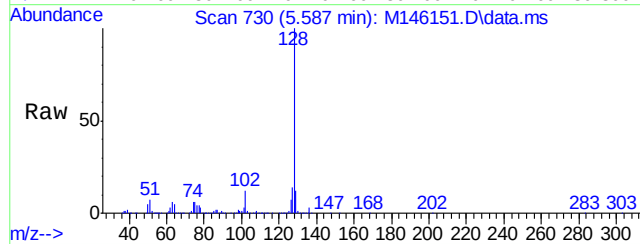
Tgt Ion:	108	Resp:	7989
Ion Ratio	Lower	Upper	
108	100		
107	84.0	86.3	146.3#
77	36.0	90.8	150.8#





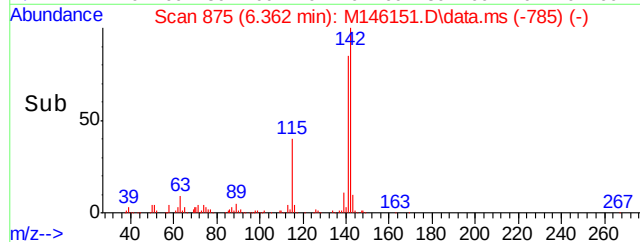
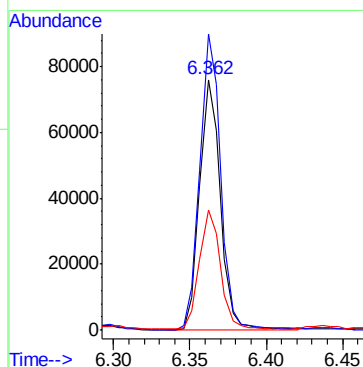
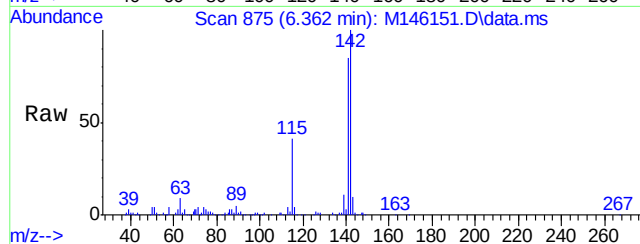
#38
Naphthalene
Concen: 13.73 ppm
RT: 5.587 min Scan# 730
Delta R.T. -0.020 min
Lab File: M146151.D
Acq: 13 May 2018 3:09 am

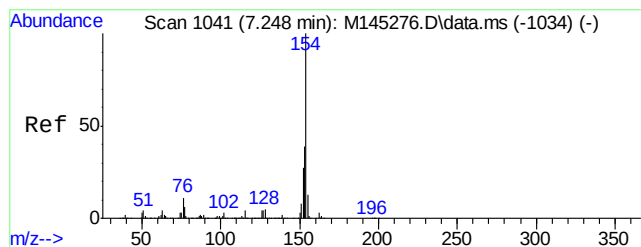
Tgt Ion	Ratio	Lower	Upper
128	100		
129	11.7	0.0	41.4
127	13.6	0.0	42.8



#44
2-Methylnaphthalene
Concen: 6.47 ppm
RT: 6.362 min Scan# 875
Delta R.T. -0.019 min
Lab File: M146151.D
Acq: 13 May 2018 3:09 am

Tgt Ion	Ratio	Lower	Upper
141	100		
142	117.9	93.2	153.2
115	47.4	9.5	69.5





#53

Biphennyl

Concen: 1.46 ppm

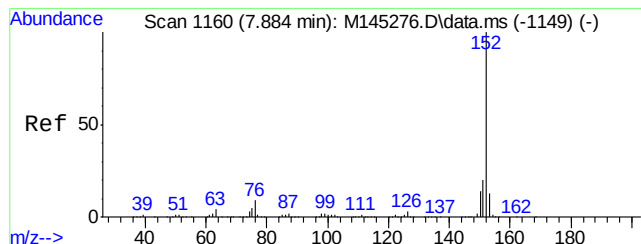
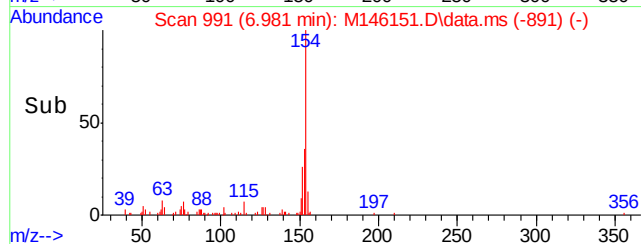
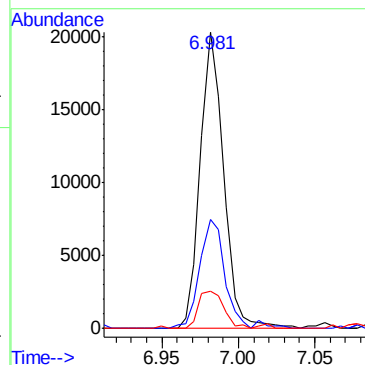
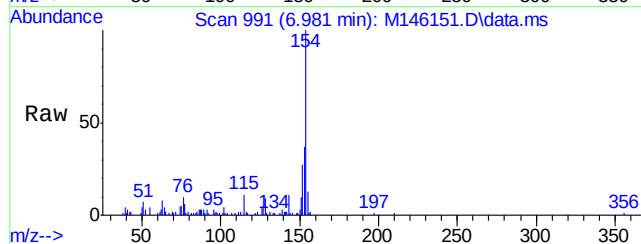
RT: 6.981 min Scan# 991

Delta R.T. 0.033 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

Tgt Ion:	154	Resp:	21608
Ion Ratio	Lower	Upper	
154	100		
153	36.9	9.1	69.1
155	12.5	0.0	43.3



#56

Acenaphthylene

Concen: 7.63 ppm

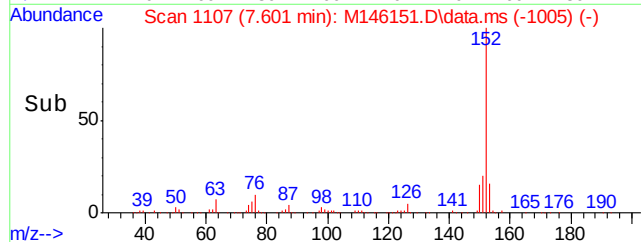
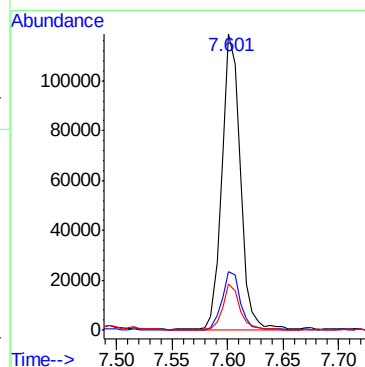
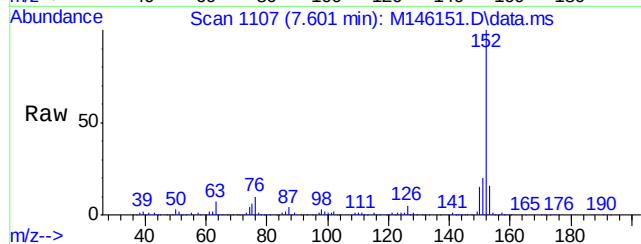
RT: 7.601 min Scan# 1107

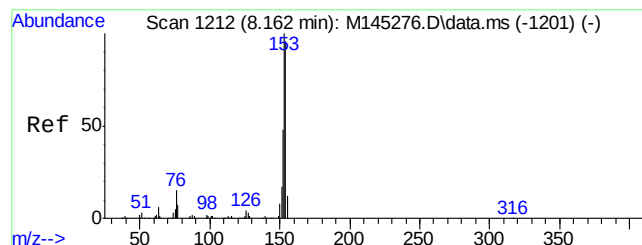
Delta R.T. 0.044 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

Tgt Ion:	152	Resp:	136189
Ion Ratio	Lower	Upper	
152	100		
151	19.8	0.0	49.8
153	15.7	0.0	43.1





#59

Acenaphthene

Concen: 1.28 ppm

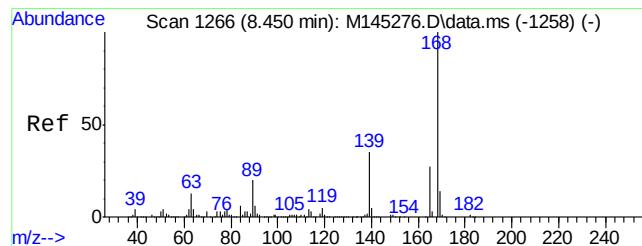
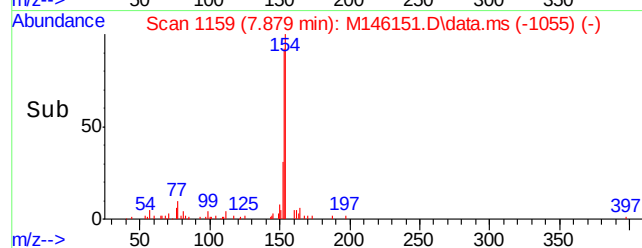
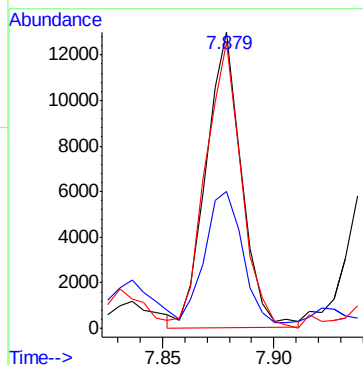
RT: 7.879 min Scan# 1159

Delta R.T. 0.055 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

Tgt Ion:	153	Resp:	14385
Ion Ratio	Lower	Upper	
153	100		
152	43.4	18.1	78.1
154	98.8	62.2	122.2



#62

Dibenzofuran

Concen: 6.98 ppm

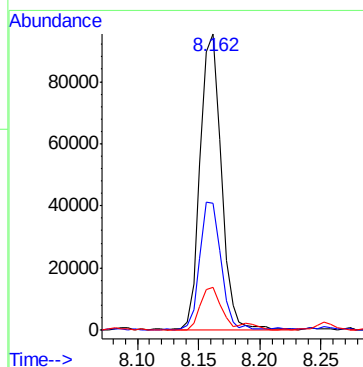
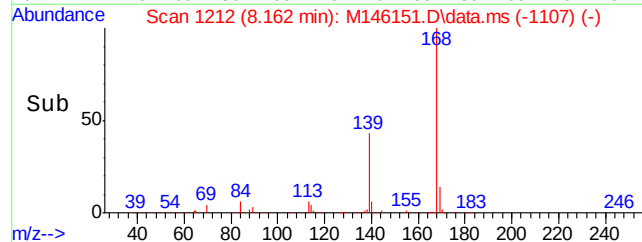
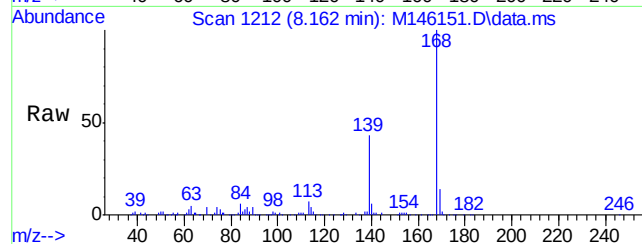
RT: 8.162 min Scan# 1212

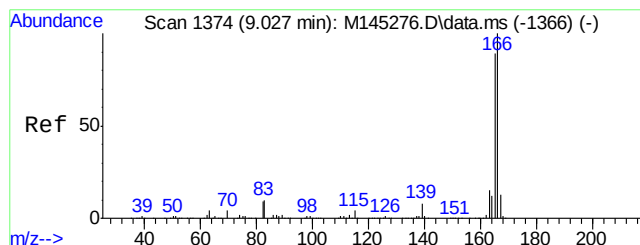
Delta R.T. 0.062 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

Tgt Ion:	168	Resp:	114521
Ion Ratio	Lower	Upper	
168	100		
139	42.4	5.0	65.0
169	14.1	0.0	43.9





#66

Fluorene

Concen: 8.36 ppm

RT: 8.733 min Scan# 1319

Delta R.T. 0.080 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

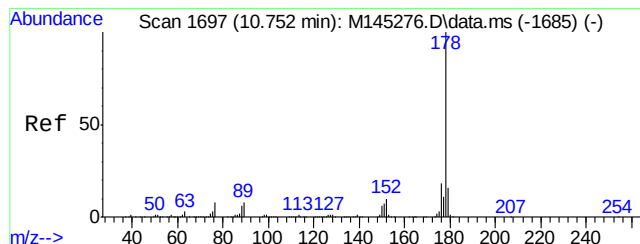
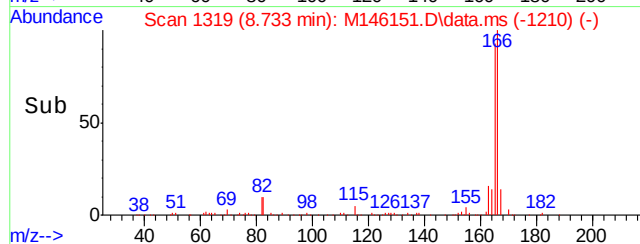
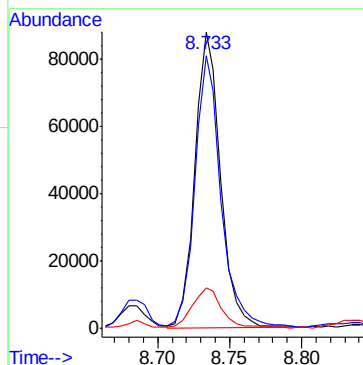
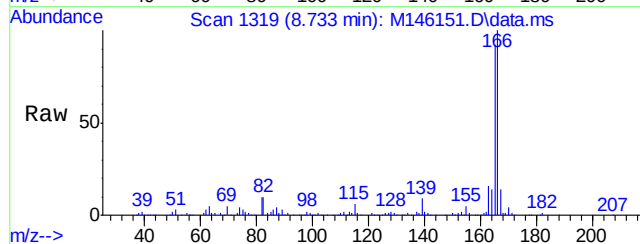
Tgt Ion:166 Resp: 109736

Ion Ratio Lower Upper

166 100

165 91.9 59.1 119.1

167 13.3 0.0 43.0



#77

Phenanthrene

Concen: 42.86 ppm

RT: 10.453 min Scan# 1641

Delta R.T. -0.020 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

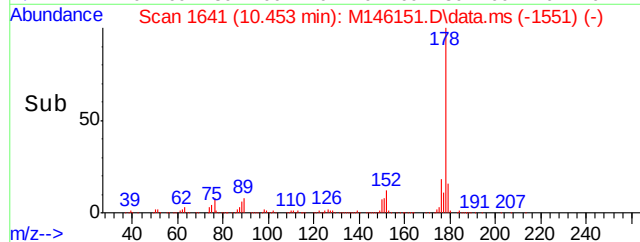
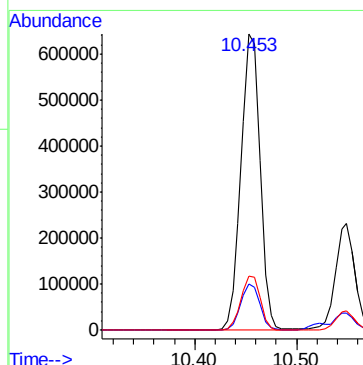
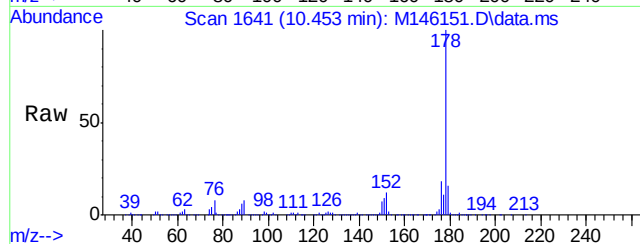
Tgt Ion:178 Resp: 833688

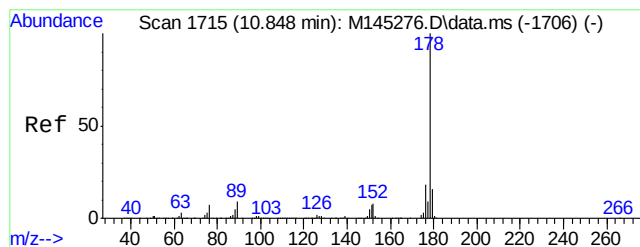
Ion Ratio Lower Upper

178 100

179 15.6 0.0 46.0

176 18.3 0.0 48.3





#78

Anthracene

Concen: 16.02 ppm

RT: 10.549 min Scan# 1659

Delta R.T. -0.018 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

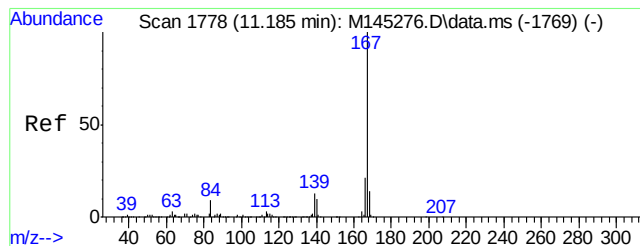
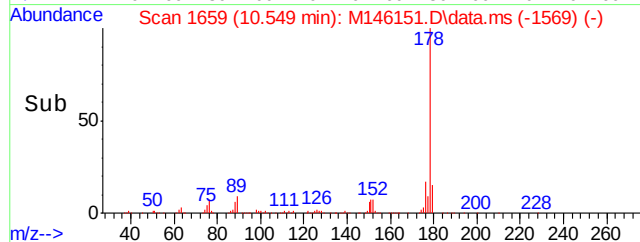
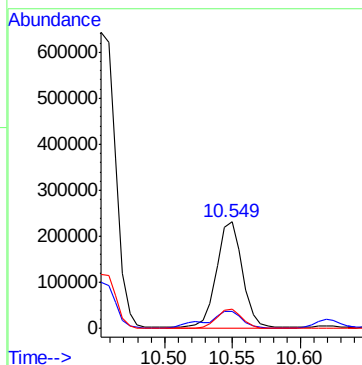
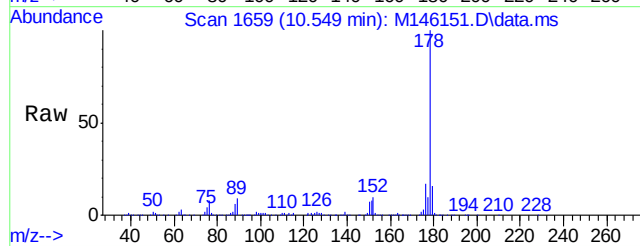
Tgt Ion:178 Resp: 311423

Ion Ratio Lower Upper

178 100

179 15.3 0.0 45.9

176 17.5 0.0 48.0



#79

Carbazole

Concen: 5.87 ppm

RT: 10.902 min Scan# 1725

Delta R.T. 0.007 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

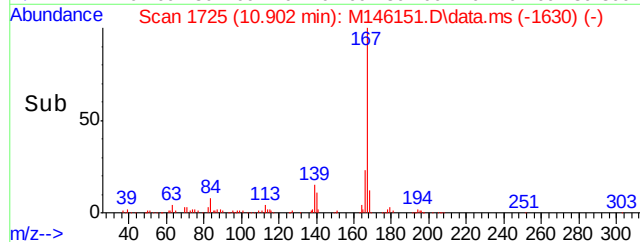
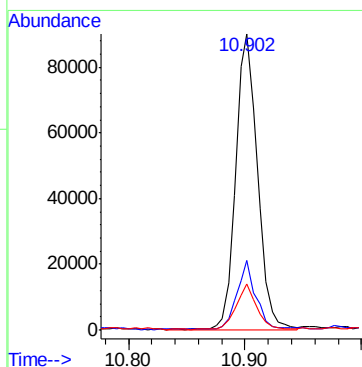
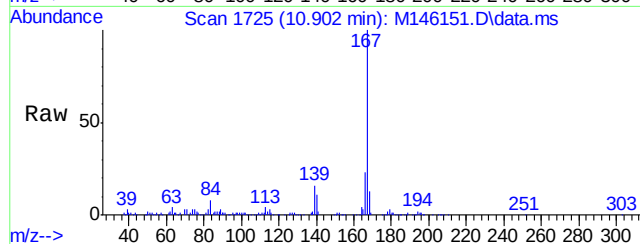
Tgt Ion:167 Resp: 116198

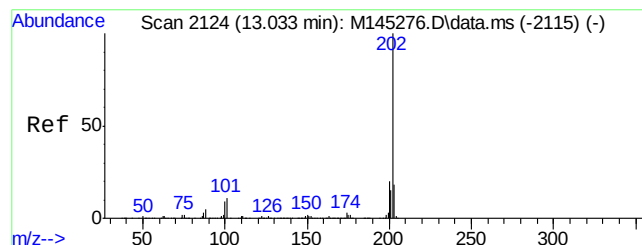
Ion Ratio Lower Upper

167 100

166 22.9 0.0 50.7

139 15.5 0.0 42.5





#81

Fluoranthene

Concen: 51.61 ppm

RT: 12.739 min Scan# 2069

Delta R.T. 0.044 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

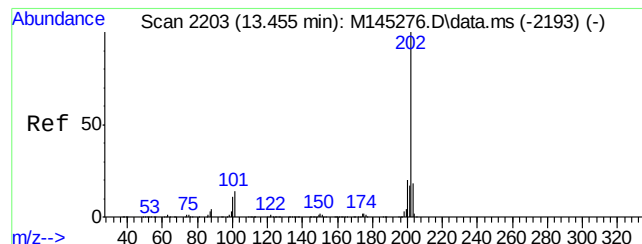
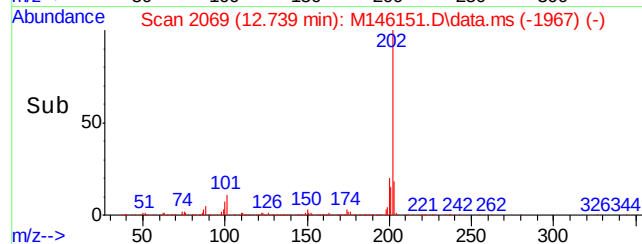
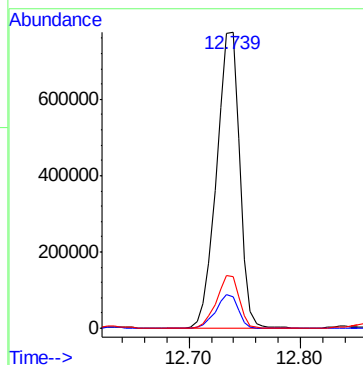
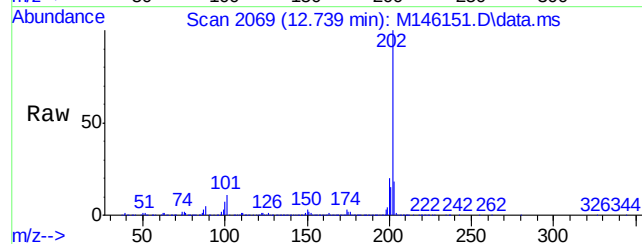
Tgt Ion:202 Resp: 1119515

Ion Ratio Lower Upper

202 100

101 10.7 0.0 41.4

203 17.6 0.0 47.5



#84

Pyrene

Concen: 50.04 ppm

RT: 13.156 min Scan# 2147

Delta R.T. -0.082 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

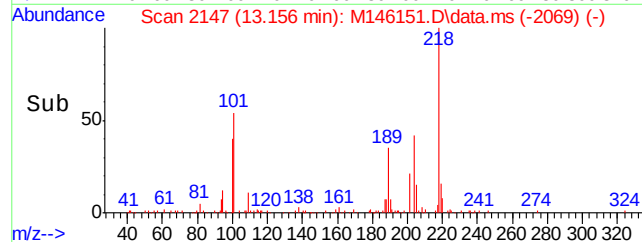
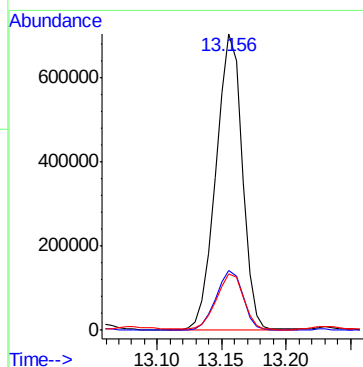
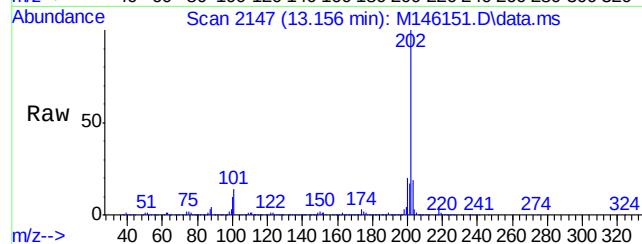
Tgt Ion:202 Resp: 986970

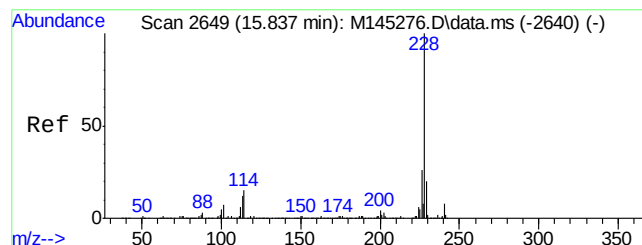
Ion Ratio Lower Upper

202 100

200 20.0 0.0 50.2

203 18.6 0.0 48.2





#87

Benzo[a]anthracene

Concen: 36.71 ppm

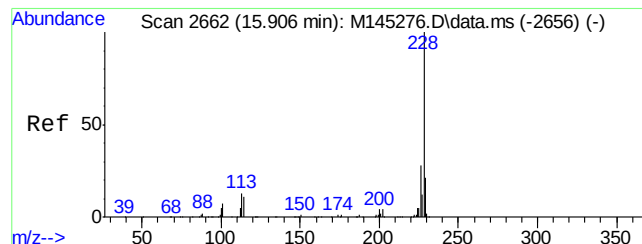
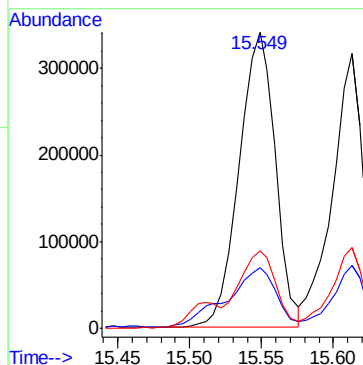
RT: 15.549 min Scan# 2595

Delta R.T. -0.032 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

Tgt	Ion:228	Resp:	597677
Ion	Ratio	Lower	Upper
228	100		
229	19.8	0.0	50.4
226	25.7	0.0	55.8



#89

Chrysene

Concen: 30.42 ppm

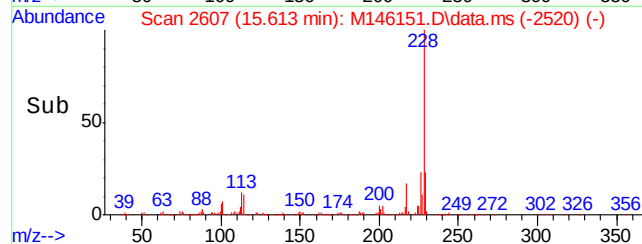
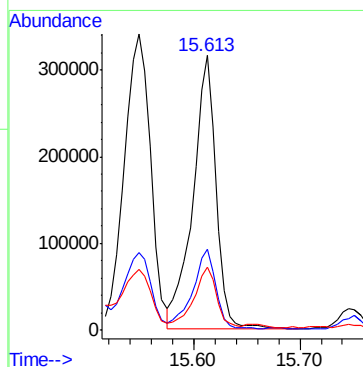
RT: 15.613 min Scan# 2607

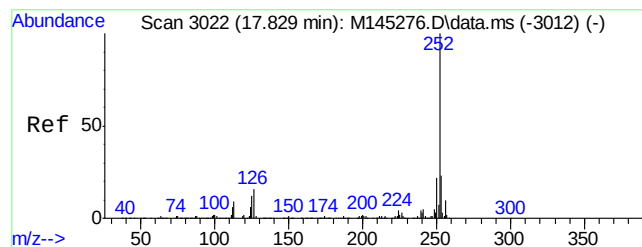
Delta R.T. -0.037 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

Tgt	Ion:228	Resp:	477692
Ion	Ratio	Lower	Upper
228	100		
226	29.2	0.0	58.6
229	22.1	0.0	50.6





#93

Benzo[b]fluoranthene

Concen: 38.98 ppm

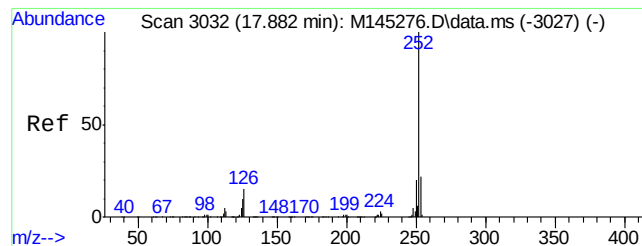
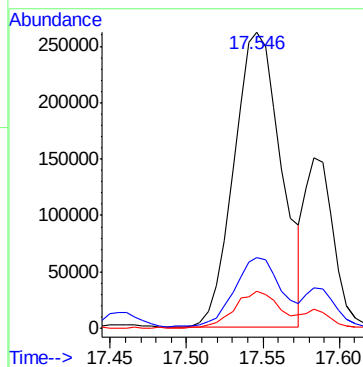
RT: 17.546 min Scan# 2969

Delta R.T. -0.061 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

Tgt	Ion:252	Resp:	564532
Ion	Ratio	Lower	Upper
252	100		
253	23.5	0.0	52.1
125	12.0	0.0	41.0



#94

Benzo[k]fluoranthene

Concen: 14.36 ppm

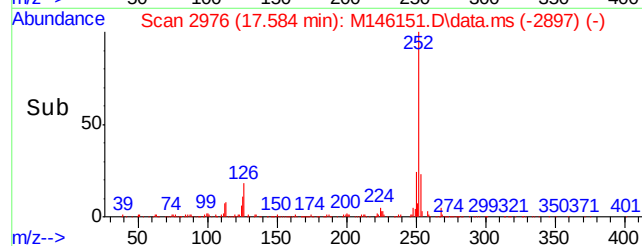
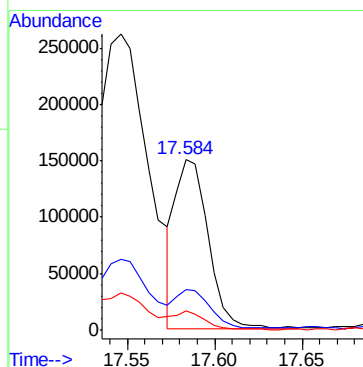
RT: 17.584 min Scan# 2976

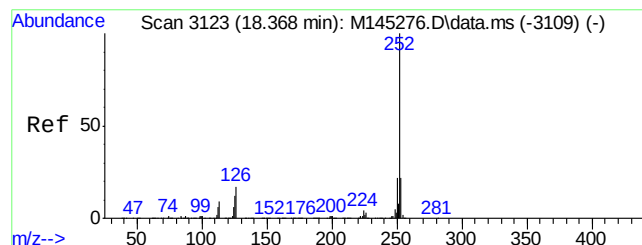
Delta R.T. -0.076 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

Tgt	Ion:252	Resp:	196555
Ion	Ratio	Lower	Upper
252	100		
253	23.1	0.0	52.4
125	9.7	0.0	41.0





#95

Benzo[a]pyrene

Concen: 35.54 ppm

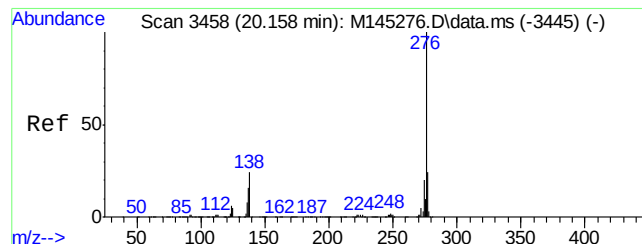
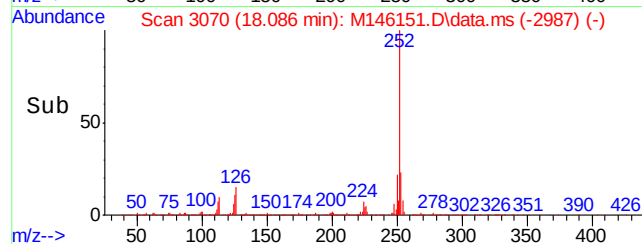
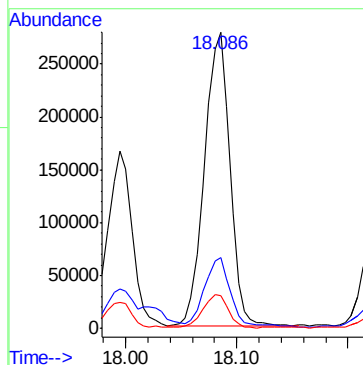
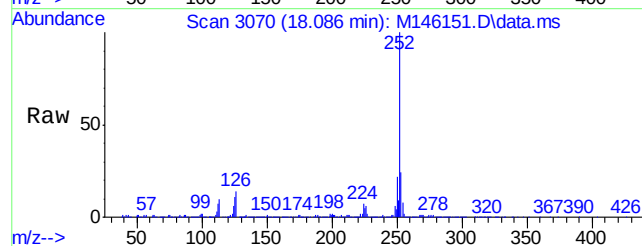
RT: 18.086 min Scan# 3070

Delta R.T. -0.054 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

Tgt Ion:	252	Resp:	438603
Ion Ratio	Lower	Upper	
252	100		
253	22.1	0.0	52.4
125	10.7	0.0	42.3



#96

Indeno[1,2,3-cd]pyrene

Concen: 18.21 ppm

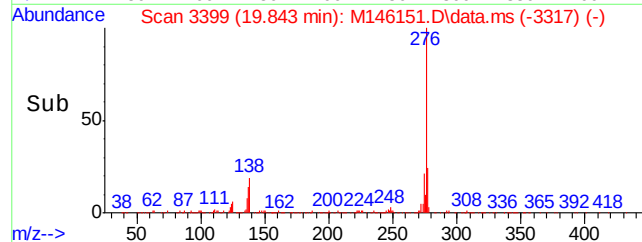
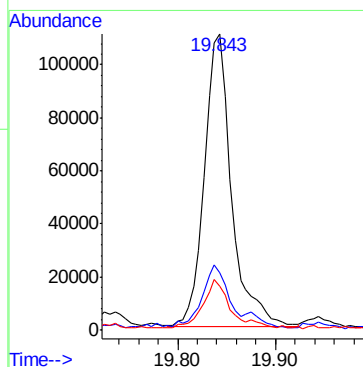
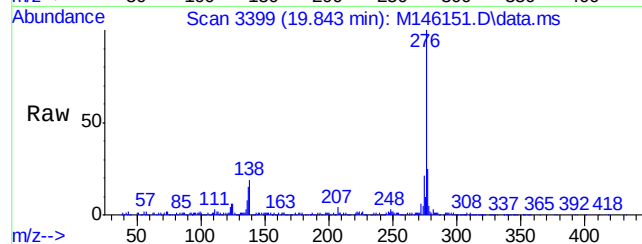
RT: 19.843 min Scan# 3399

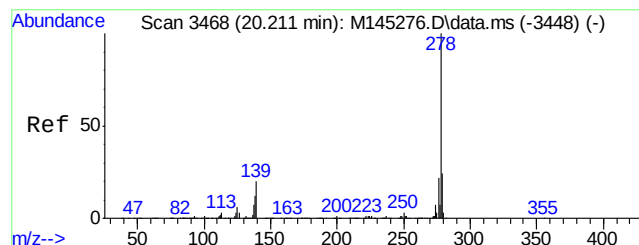
Delta R.T. -0.064 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

Tgt Ion:	276	Resp:	214552
Ion Ratio	Lower	Upper	
276	100		
138	18.5	0.0	52.4
137	14.1	0.0	45.7





#98

Dibenz[a,h]anthracene

Concen: 5.03 ppm

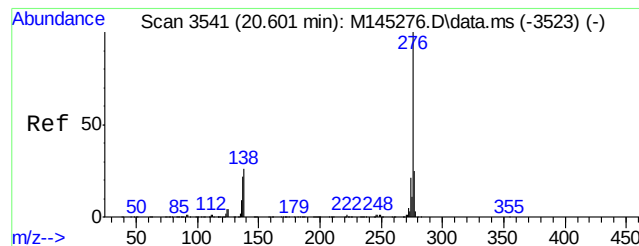
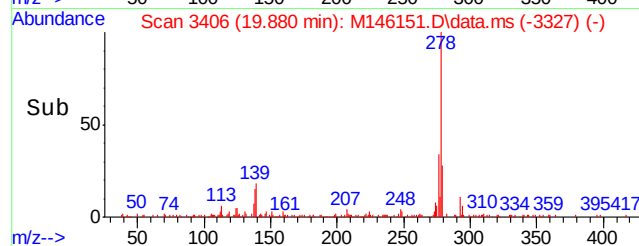
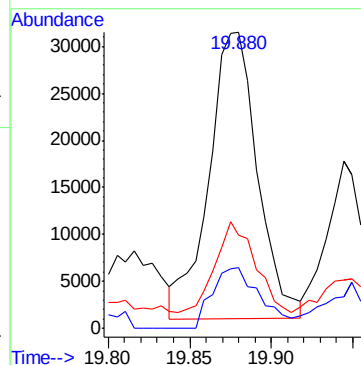
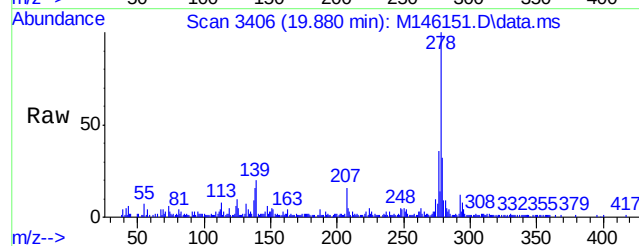
RT: 19.880 min Scan# 3406

Delta R.T. -0.079 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

Tgt Ion:	278	Resp:	63230
Ion Ratio	Lower	Upper	
278	100		
139	20.7	0.0	49.8
279	28.3	0.0	54.2



#100

Benzo[g,h,i]perylene

Concen: 14.45 ppm

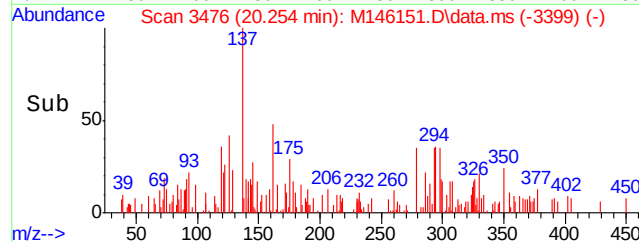
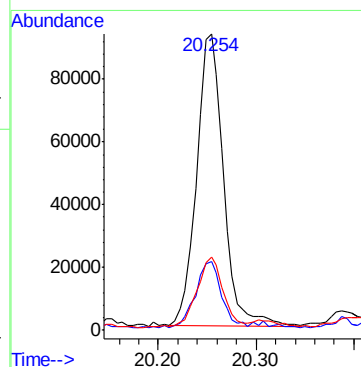
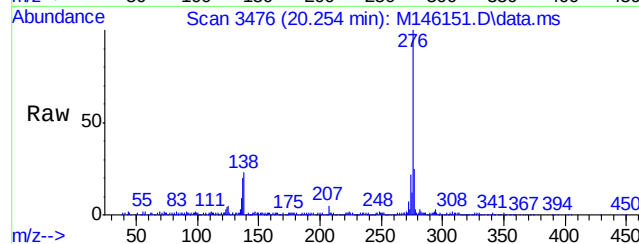
RT: 20.254 min Scan# 3476

Delta R.T. -0.091 min

Lab File: M146151.D

Acq: 13 May 2018 3:09 am

Tgt Ion:	276	Resp:	178308
Ion Ratio	Lower	Upper	
276	100		
138	22.7	0.0	55.9
277	23.9	0.0	54.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3503\
 Data File : 2p79566.D
 Acq On : 14 May 2018 5:51 pm
 Operator : johnb1
 Sample : jc65663-1a
 Misc : op11952,e2p3503,100,,,1,1
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 14 18:17:34 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon May 14 13:33:53 2018
 Response via : Initial Calibration

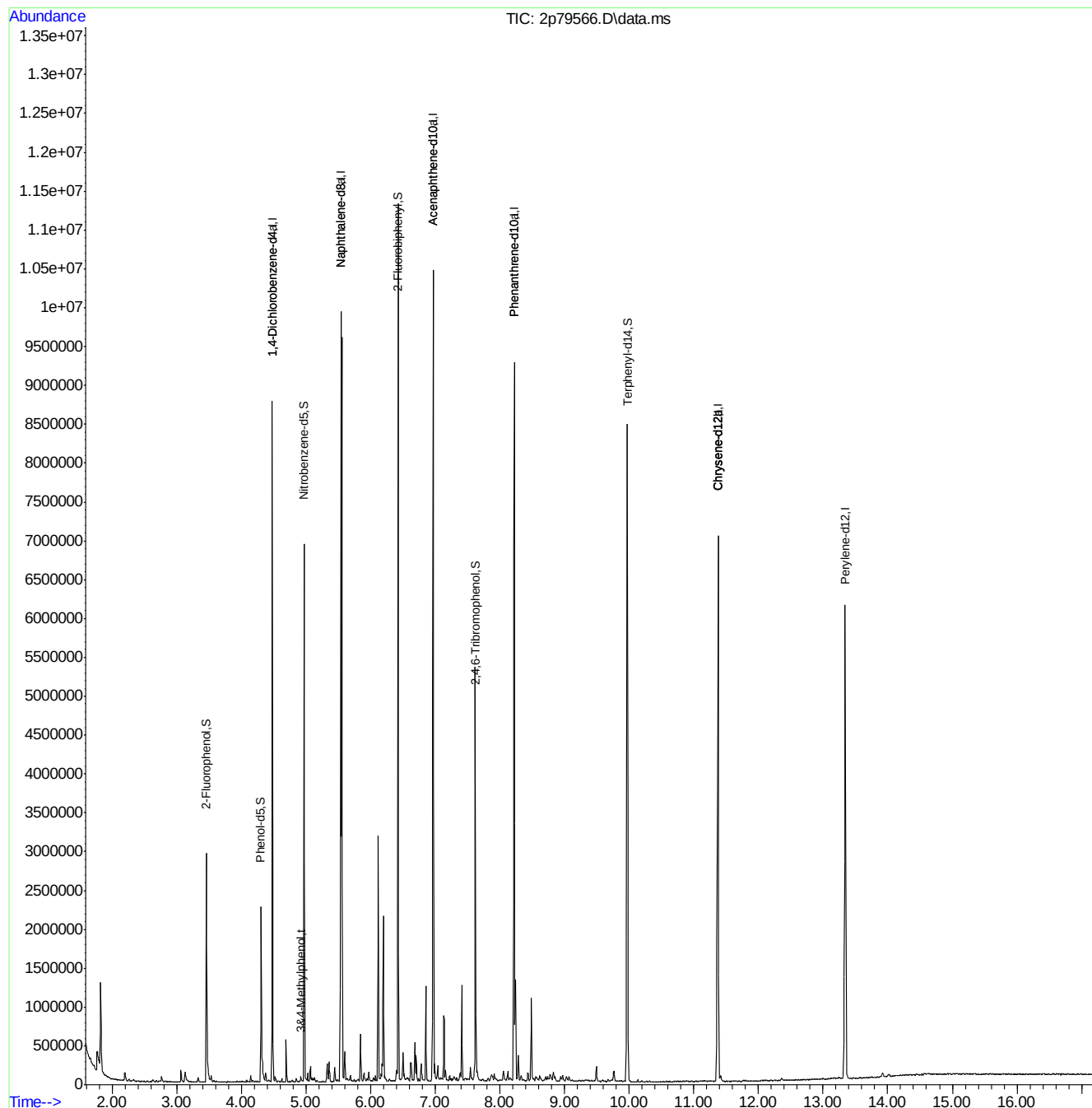
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.480	152	1025012	40.00	ppm	0.00
24) Naphthalene-d8	5.539	136	3357843	40.00	ppm	0.00
47) Acenaphthene-d10	6.968	164	1480703	40.00	ppm	0.00
69) Phenanthrene-d10	8.224	188	2782822	40.00	ppm	0.00
83) Chrysene-d12	11.375	240	2831830	40.00	ppm	-0.01
91) Perylene-d12	13.348	264	2820372	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.480	152	1025012	40.00	ppm	0.00
103) Naphthalene-d8a	5.539	136	3357843	40.00	ppm	0.00
105) Acenaphthene-d10a	6.968	164	1480703	40.00	ppm	0.00
108) Chrysene-d12a	11.375	240	2831830	40.00	ppm	0.00
110) Phenanthrene-d10a	8.224	188	2782822	40.00	ppm	0.00
114) Chrysene-d12b	11.375	240	2831830	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.459	112	855358	21.14	ppm	-0.02
Spiked Amount	50.000	Range	11 - 58	Recovery	=	42.28%
8) Phenol-d5	4.304	99	646706	15.43	ppm	0.01
Spiked Amount	50.000	Range	10 - 59	Recovery	=	30.86%
25) Nitrobenzene-d5	4.972	82	1435113	46.37	ppm	-0.01
Spiked Amount	50.000	Range	19 - 61	Recovery	=	92.74%#
51) 2-Fluorobiphenyl	6.427	172	2706543	53.28	ppm	-0.01
Spiked Amount	50.000	Range	21 - 58	Recovery	=	106.56%#
73) 2,4,6-Tribromophenol	7.625	330	547054	64.37	ppm	0.00
Spiked Amount	50.000	Range	12 - 68	Recovery	=	128.74%#
85) Terphenyl-d14	9.973	244	3085000	50.10	ppm	-0.01
Spiked Amount	50.000	Range	16 - 65	Recovery	=	100.20%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
Target Compounds						
21) 3&4-Methylphenol	4.924	108	13144	0.46	ppm	Qvalue 78

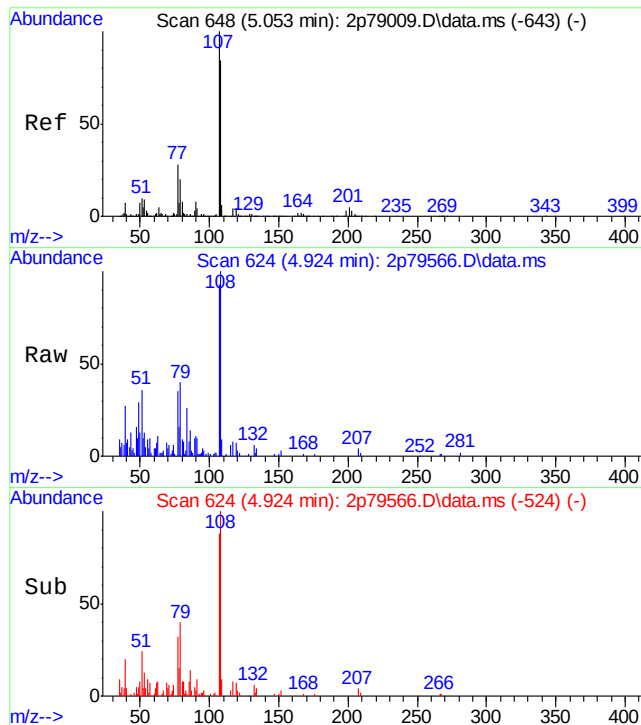
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3503\
Data File : 2p79566.D
Acq On : 14 May 2018 5:51 pm
Operator : johnb1
Sample : jc65663-1a
Misc : op11952,e2p3503,100,,,1,1
ALS Vial : 24 Sample Multiplier: 1

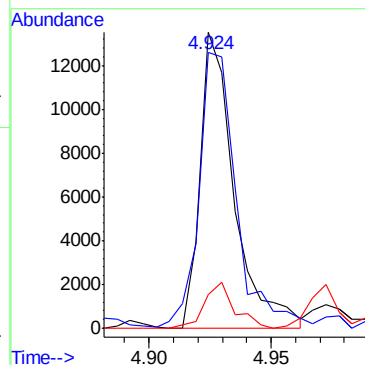
Quant Time: May 14 18:17:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon May 14 13:33:53 2018
Response via : Initial Calibration





#21
3&4-Methylphenol
Concen: 0.46 ppm
RT: 4.924 min Scan# 624
Delta R.T. 0.033 min
Lab File: 2p79566.D
Acq: 14 May 2018 5:51 pm

Tgt	Ion:108	Resp:	13144
Ion	Ratio	Lower	Upper
108	100		
107	91.3	86.8	146.8
90	9.6	0.0	38.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6209\
 Data File : M146150.D
 Acq On : 13 May 2018 2:40 am
 Operator : georges
 Sample : jc65663-2
 Misc : op11892,em6209,30.8,,,5,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 13 15:14:37 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Sat May 12 18:13:49 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.484	152	174999	40.00	ppm	-0.01
24) Naphthalene-d8	5.569	136	659289	40.00	ppm	-0.01
47) Acenaphthene-d10	7.828	164	350017	40.00	ppm	-0.02
69) Phenanthrene-d10	10.408	188	663505	40.00	ppm	-0.02
83) Chrysene-d12	15.556	240	532964	40.00	ppm	-0.05
91) Perylene-d12	18.179	264	432986	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.484	152	174999	40.00	ppm	-0.01
103) Acenaphthene-d10a	7.828	164	350017	40.00	ppm	-0.02
106) Chrysene-d12a	15.556	240	532964	40.00	ppm	-0.05
109) Phenanthrene-d10a	10.408	188	663505	40.00	ppm	-0.02
112) Naphthalene-d8a	5.569	136	659289	40.00	ppm	-0.01
114) Chrysene-d12b	15.556	240	532964	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	3.523	112	44002	6.72	ppm	-0.01
Spiked Amount 50.000			Recovery	=	13.44%	
8) Phenol-d5	4.255	99	57829	7.42	ppm	0.02
Spiked Amount 50.000			Recovery	=	14.84%	
25) Nitrobenzene-d5	4.922	82	53529	8.31	ppm	0.00
Spiked Amount 50.000			Recovery	=	16.62%	
51) 2-Fluorobiphenyl	6.850	172	115486	8.50	ppm	0.04
Spiked Amount 50.000			Recovery	=	17.00%	
73) 2,4,6-Tribromophenol	9.163	330	19200	10.32	ppm	-0.04
Spiked Amount 50.000			Recovery	=	20.64%	
85) Terphenyl-d14	13.575	244	119573	9.41	ppm	-0.08
Spiked Amount 50.000			Recovery	=	18.82%	
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						
						Qvalue
38) Naphthalene	5.590	128	11403	0.66	ppm	98
56) Acenaphthylene	7.604	152	18939	1.11	ppm	97
59) Acenaphthene	7.876	153	7455	0.69	ppm	90
62) Dibenzofuran	8.164	168	10076	0.64	ppm	95
66) Fluorene	8.736	166	10205m	0.81	ppm	
77) Phenanthrene	10.450	178	134909	7.43	ppm	99
78) Anthracene	10.546	178	59315	3.27	ppm	98
79) Carbazole	10.899	167	30332	1.64	ppm	94
81) Fluoranthene	12.731	202	286627	14.16	ppm	98
84) Pyrene	13.148	202	249873	13.22	ppm	98
87) Benzo[a]anthracene	15.540	228	223088	14.30	ppm	98
89) Chrysene	15.604	228	174491	11.60	ppm	99
93) Benzo[b]fluoranthene	17.538	252	241569	19.41	ppm	98
94) Benzo[k]fluoranthene	17.581	252	88907	7.56	ppm	95
95) Benzo[a]pyrene	18.077	252	190606	17.98	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.835	276	109394	10.80	ppm	89
98) Dibenz[a,h]anthracene	19.872	278	31584	2.92	ppm	83

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6209\
Data File : M146150.D
Acq On : 13 May 2018 2:40 am
Operator : georges
Sample : jc65663-2
Misc : op11892,em6209,30.8,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 13 15:14:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Sat May 12 18:13:49 2018
Response via : Initial Calibration

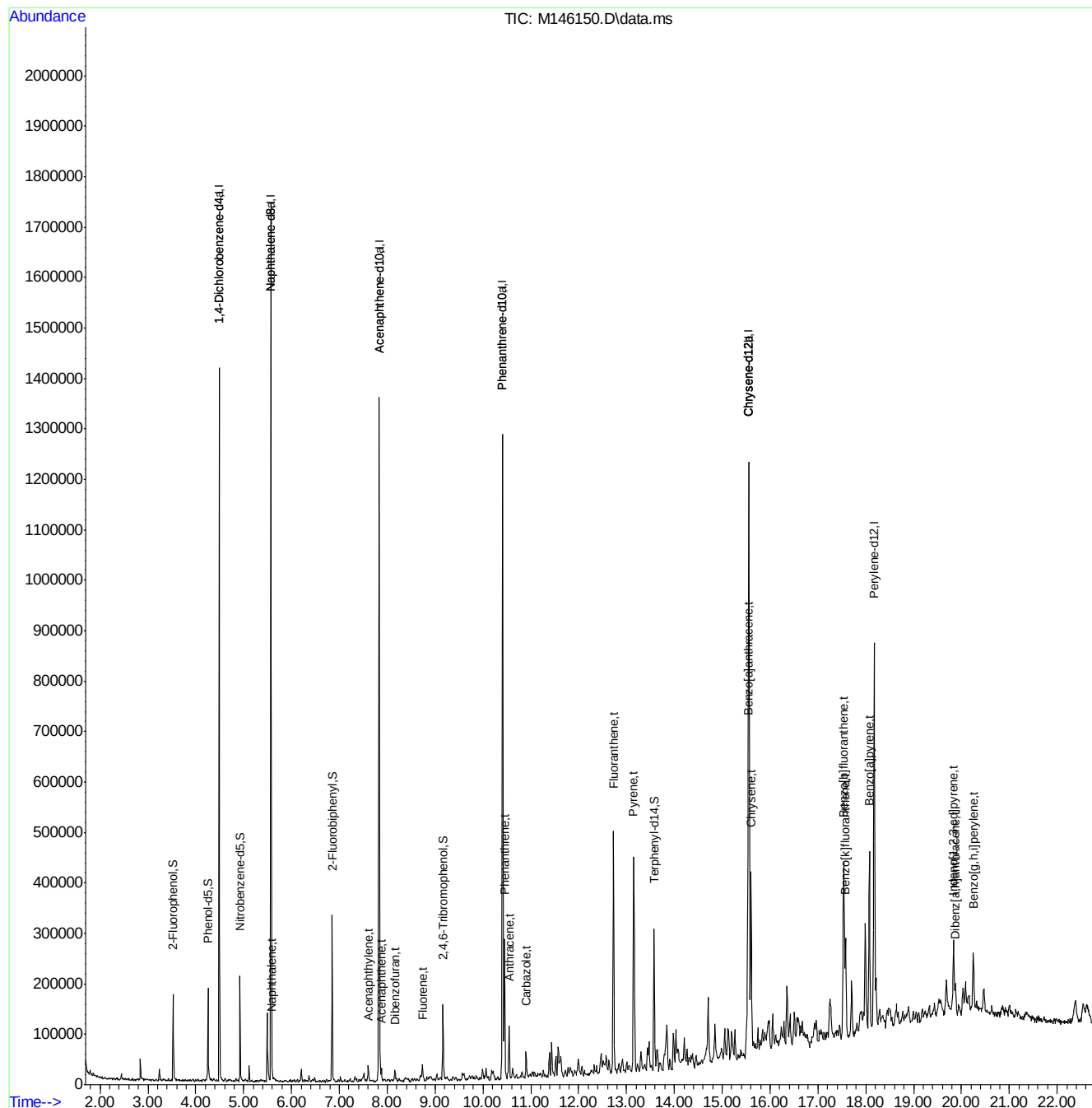
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) Benzo[g,h,i]perylene	20.246	276	85055	8.02	ppm	99

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

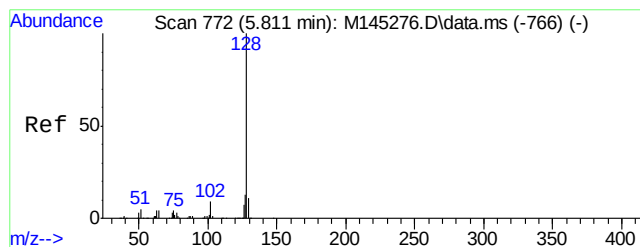
Quantitation Report (QT Reviewed)

```
Data Path   : C:\msdchem\1\DATA\EM6209\  
Data File   : M146150.D  
Acq On      : 13 May 2018    2:40 am  
Operator    : georges  
Sample      : jc65663-2  
Misc        : op11892,em6209,30.8,,,5,1  
ALS Vial    : 18    Sample Multiplier: 1
```

Quant Time: May 13 15:14:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Sat May 12 18:13:49 2018
Response via : Initial Calibration

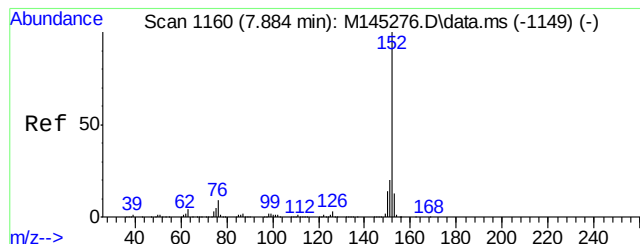
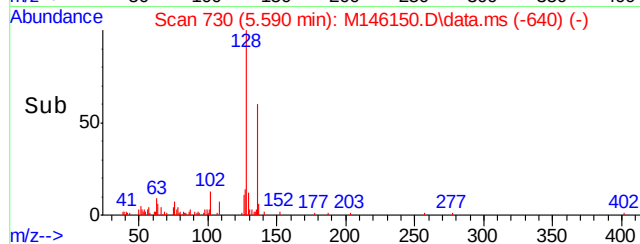
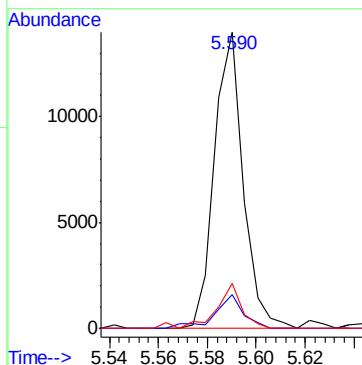
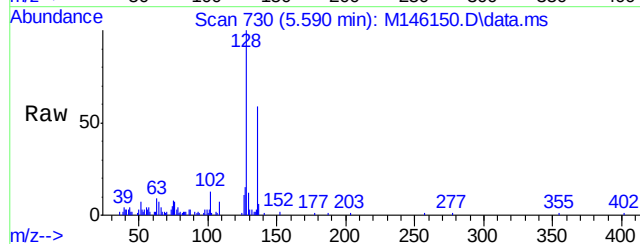


9.1.4



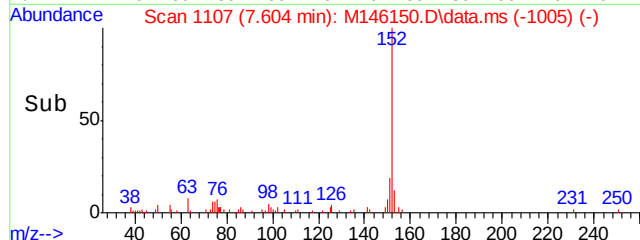
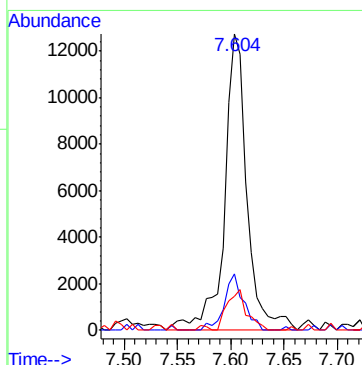
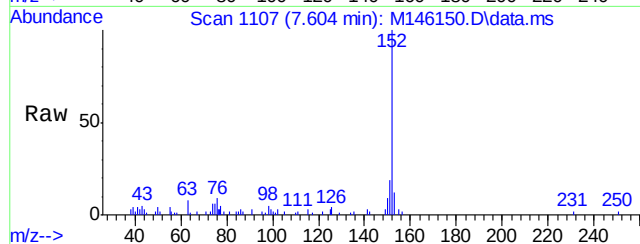
#38
Naphthalene
Concen: 0.66 ppm
RT: 5.590 min Scan# 730
Delta R.T. -0.018 min
Lab File: M146150.D
Acq: 13 May 2018 2:40 am

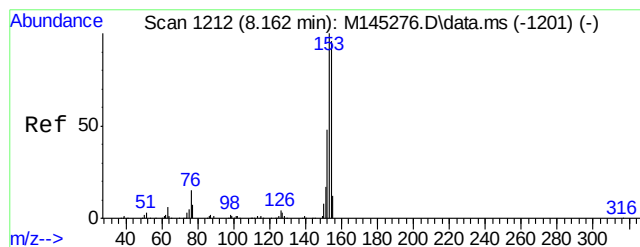
Tgt Ion:	128	Resp:	11403
Ion Ratio	Lower	Upper	
128	100		
129	11.6	0.0	41.4
127	14.3	0.0	42.8



#56
Acenaphthylene
Concen: 1.11 ppm
RT: 7.604 min Scan# 1107
Delta R.T. 0.046 min
Lab File: M146150.D
Acq: 13 May 2018 2:40 am

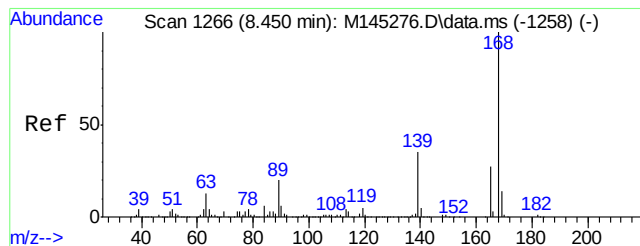
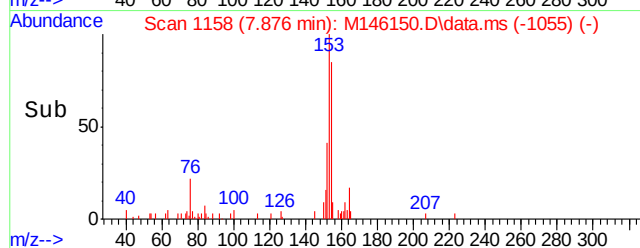
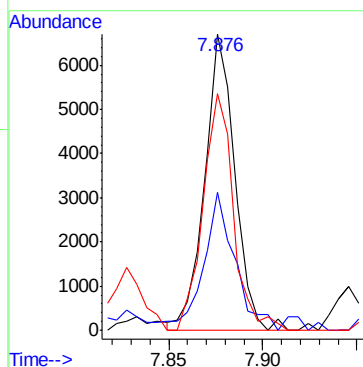
Tgt Ion:	152	Resp:	18939
Ion Ratio	Lower	Upper	
152	100		
151	18.9	0.0	49.8
153	11.6	0.0	43.1





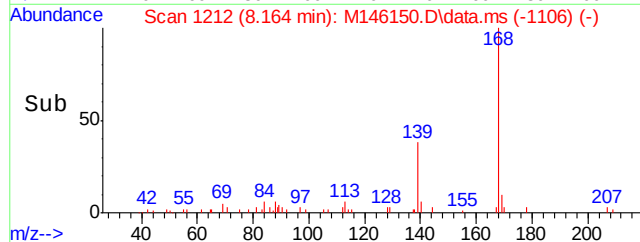
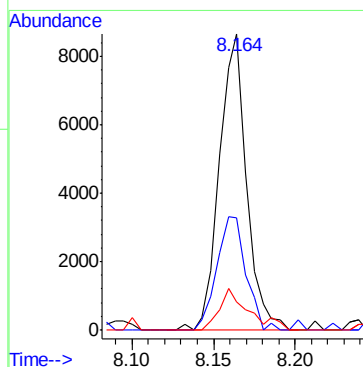
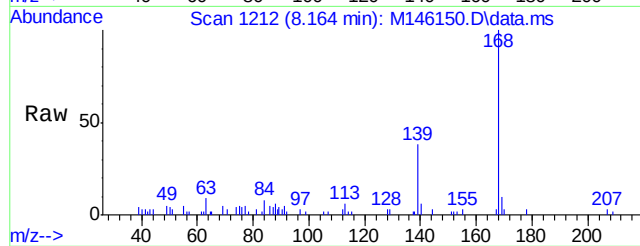
#59
Acenaphthene
Concen: 0.69 ppm
RT: 7.876 min Scan# 1158
Delta R.T. 0.052 min
Lab File: M146150.D
Acq: 13 May 2018 2:40 am

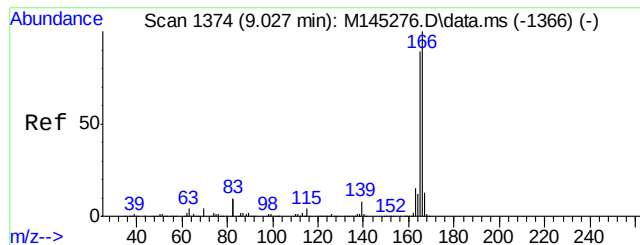
Tgt Ion:	153	Resp:	7455
Ion Ratio	Lower	Upper	
153	100		
152	43.5	18.1	78.1
154	80.9	62.2	122.2



#62
Dibenzofuran
Concen: 0.64 ppm
RT: 8.164 min Scan# 1212
Delta R.T. 0.064 min
Lab File: M146150.D
Acq: 13 May 2018 2:40 am

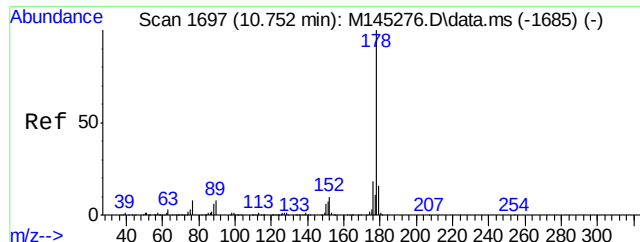
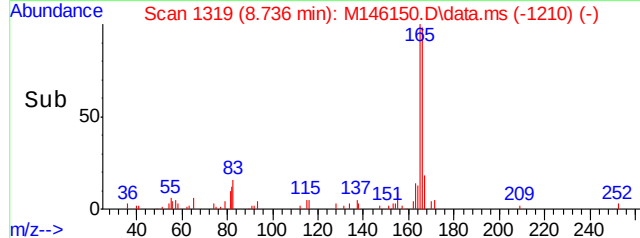
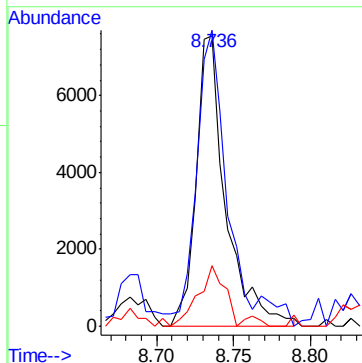
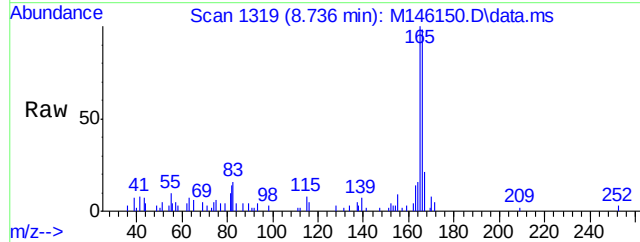
Tgt Ion:	168	Resp:	10076
Ion Ratio	Lower	Upper	
168	100		
139	36.3	5.0	65.0
169	9.5	0.0	43.9





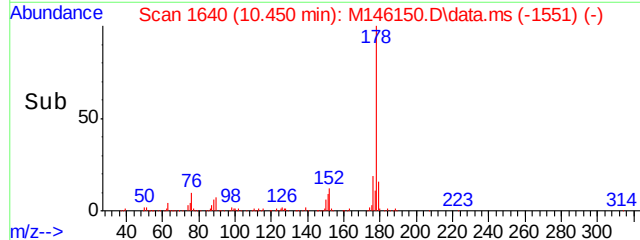
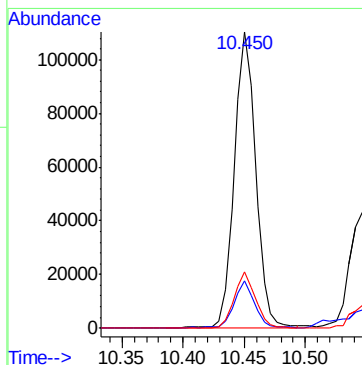
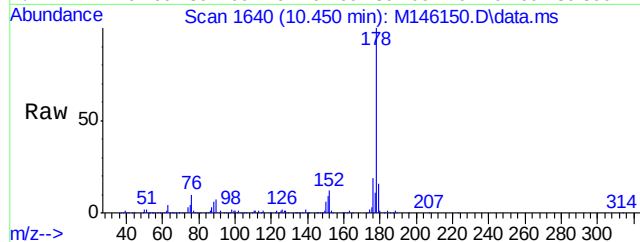
#66
 Fluorene
 Concen: 0.81 ppm
 RT: 8.736 min Scan# 1319
 Delta R.T. 0.083 min
 Lab File: M146150.D
 Acq: 13 May 2018 2:40 am

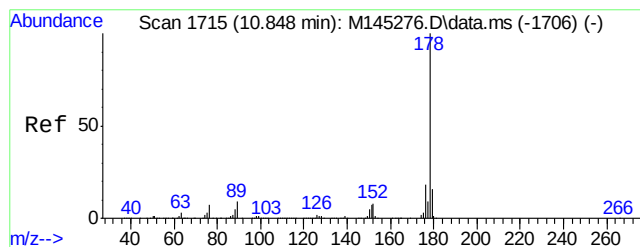
Tgt Ion:	166	Resp:	10205
Ion Ratio	Lower	Upper	
166	100		
165	102.0	59.1	119.1
167	21.0	0.0	43.0



#77
 Phenanthrene
 Concen: 7.43 ppm
 RT: 10.450 min Scan# 1640
 Delta R.T. -0.023 min
 Lab File: M146150.D
 Acq: 13 May 2018 2:40 am

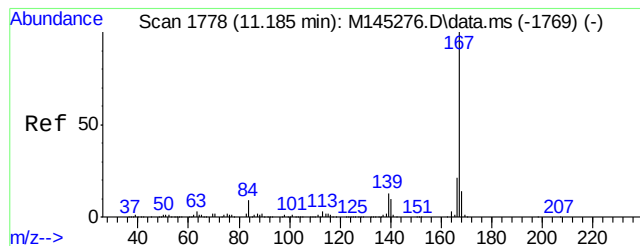
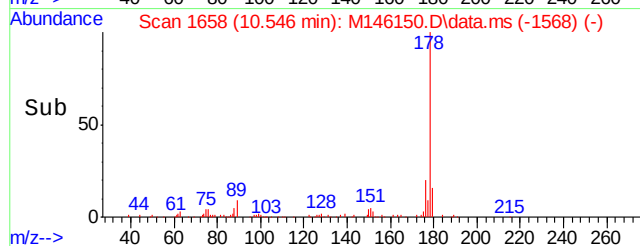
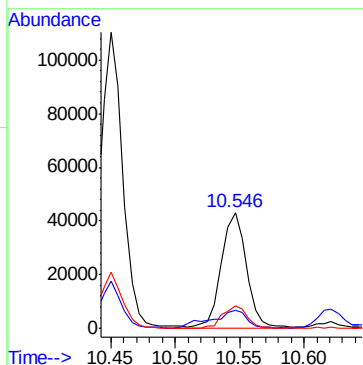
Tgt Ion:	178	Resp:	134909
Ion Ratio	Lower	Upper	
178	100		
179	15.8	0.0	46.0
176	18.9	0.0	48.3





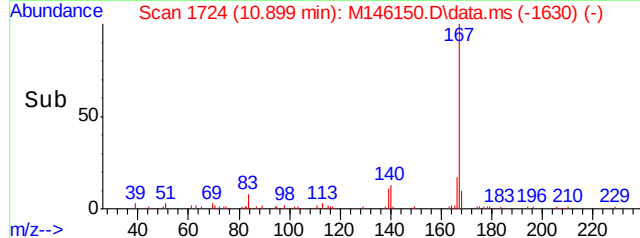
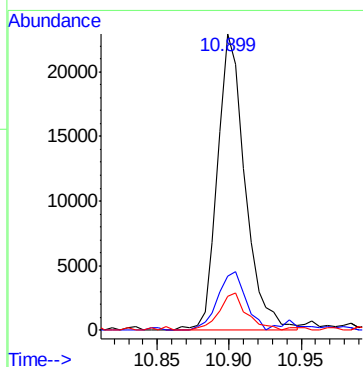
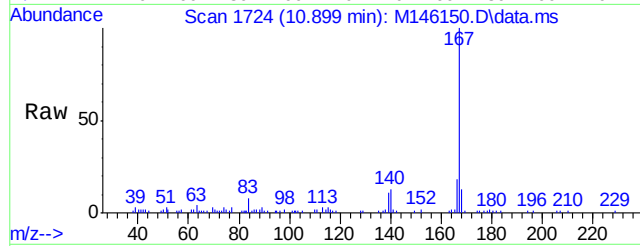
#78
 Anthracene
 Concen: 3.27 ppm
 RT: 10.546 min Scan# 1658
 Delta R.T. -0.021 min
 Lab File: M146150.D
 Acq: 13 May 2018 2:40 am

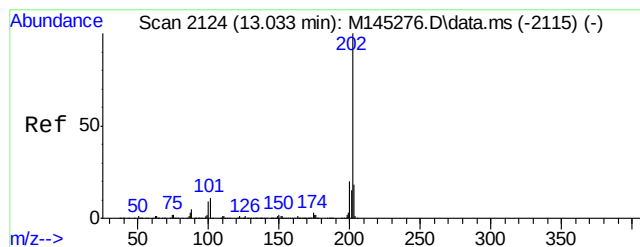
Tgt Ion	Ratio	Lower	Upper
178	100		
179	15.7	0.0	45.9
176	19.5	0.0	48.0



#79
 Carbazole
 Concen: 1.64 ppm
 RT: 10.899 min Scan# 1724
 Delta R.T. 0.004 min
 Lab File: M146150.D
 Acq: 13 May 2018 2:40 am

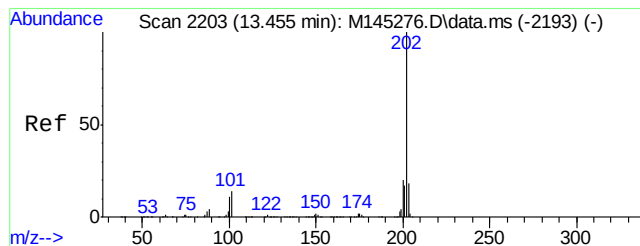
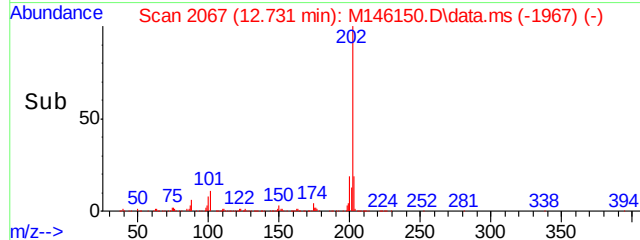
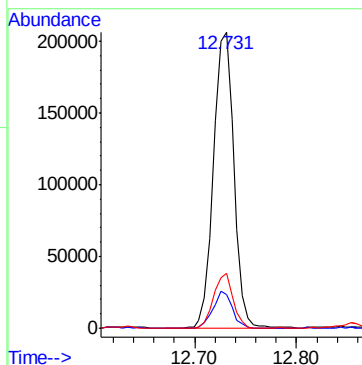
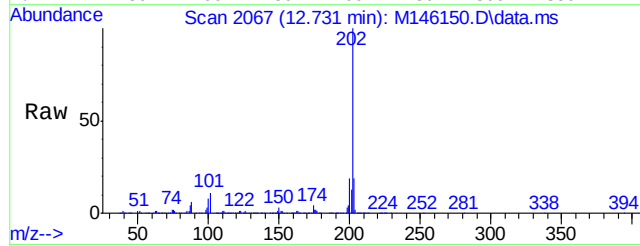
Tgt Ion	Ratio	Lower	Upper
167	100		
166	18.0	0.0	50.7
139	10.5	0.0	42.5





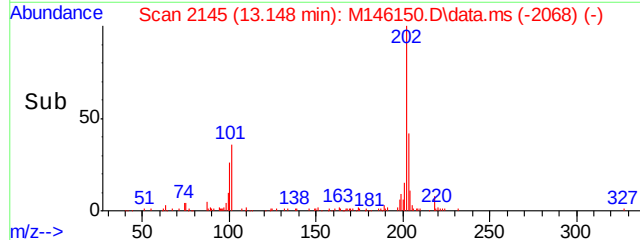
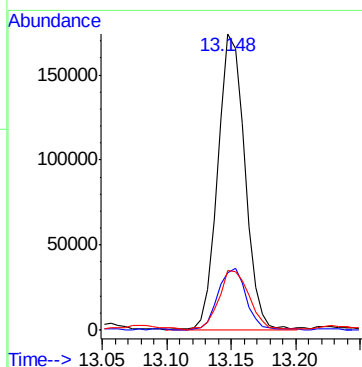
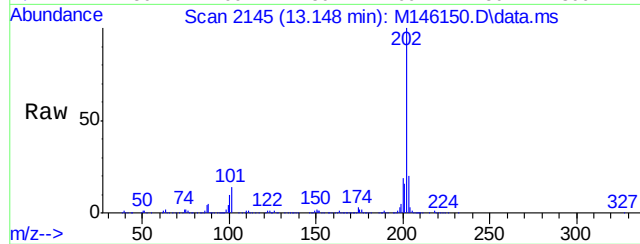
#81
Fluoranthene
Concen: 14.16 ppm
RT: 12.731 min Scan# 2067
Delta R.T. 0.036 min
Lab File: M146150.D
Acq: 13 May 2018 2:40 am

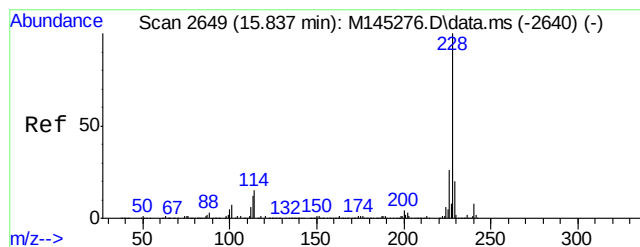
Tgt Ion:	202	Resp:	286627
Ion Ratio	Lower	Upper	
202	100		
101	11.3	0.0	41.4
203	18.6	0.0	47.5



#84
Pyrene
Concen: 13.22 ppm
RT: 13.148 min Scan# 2145
Delta R.T. -0.090 min
Lab File: M146150.D
Acq: 13 May 2018 2:40 am

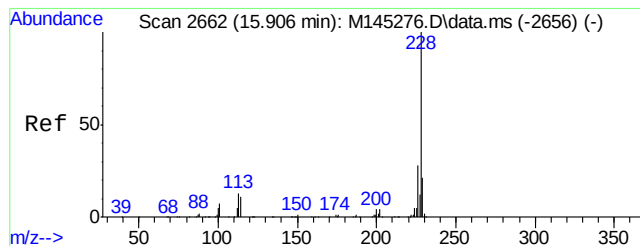
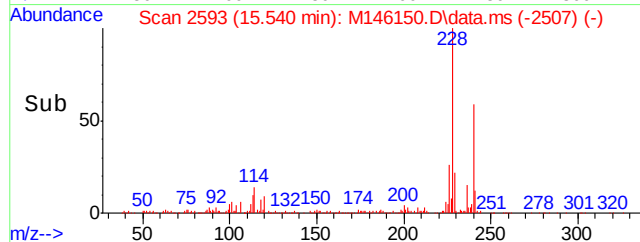
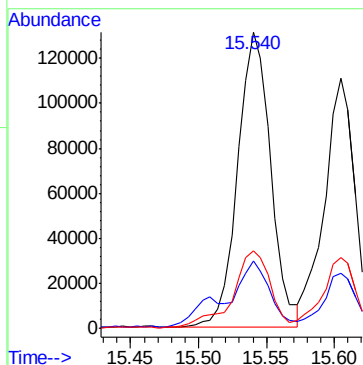
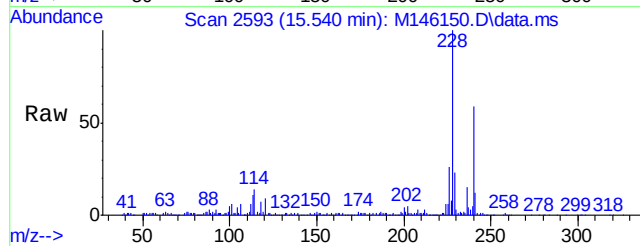
Tgt Ion:	202	Resp:	249873
Ion Ratio	Lower	Upper	
202	100		
200	19.2	0.0	50.2
203	19.5	0.0	48.2





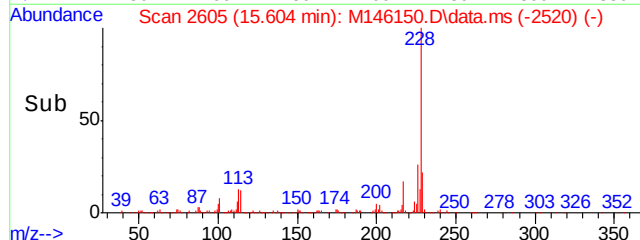
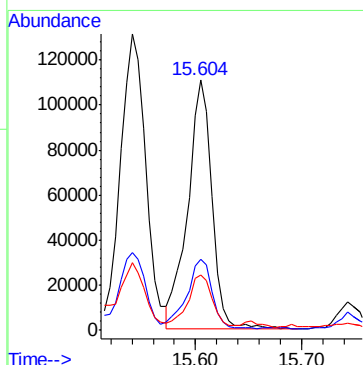
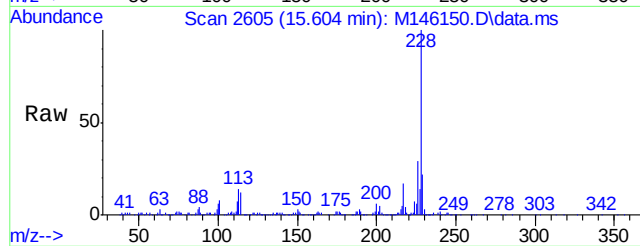
#87
Benzo[a]anthracene
Concen: 14.30 ppm
RT: 15.540 min Scan# 2593
Delta R.T. -0.041 min
Lab File: M146150.D
Acq: 13 May 2018 2:40 am

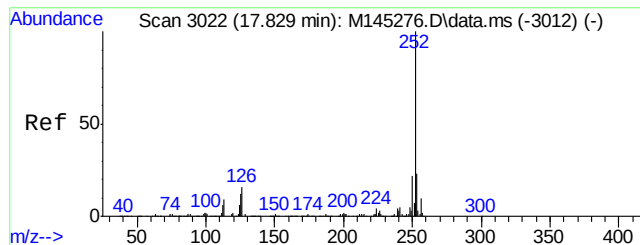
Tgt Ion	Ratio	Lower	Upper
228	100		
229	22.5	0.0	50.4
226	25.7	0.0	55.8



#89
Chrysene
Concen: 11.60 ppm
RT: 15.604 min Scan# 2605
Delta R.T. -0.045 min
Lab File: M146150.D
Acq: 13 May 2018 2:40 am

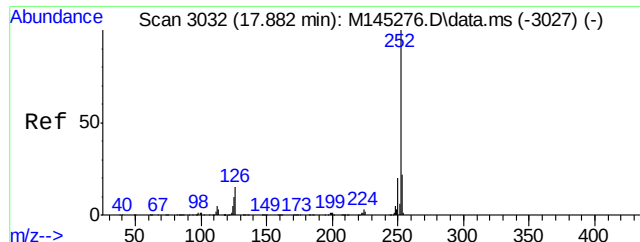
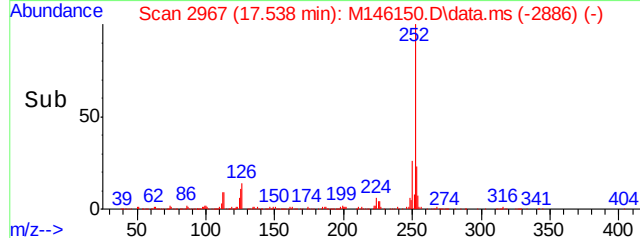
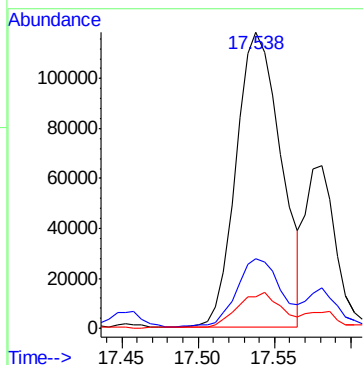
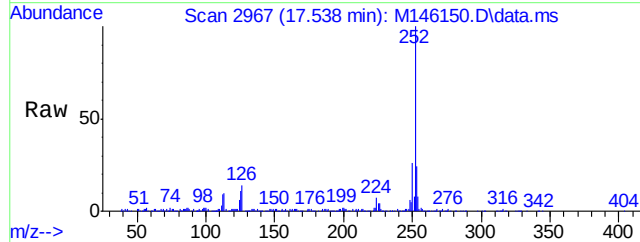
Tgt Ion	Ratio	Lower	Upper
228	100		
226	28.1	0.0	58.6
229	21.2	0.0	50.6





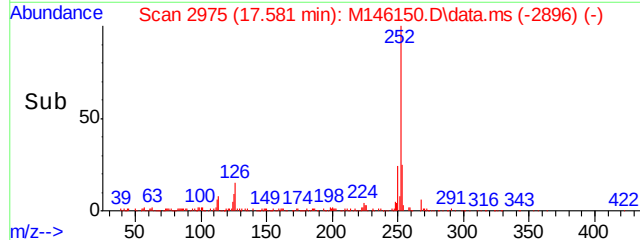
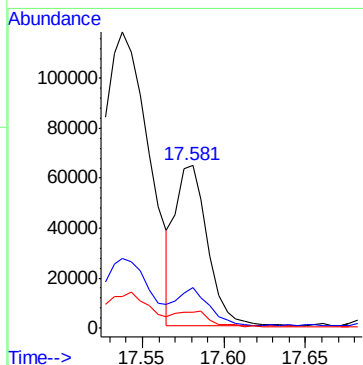
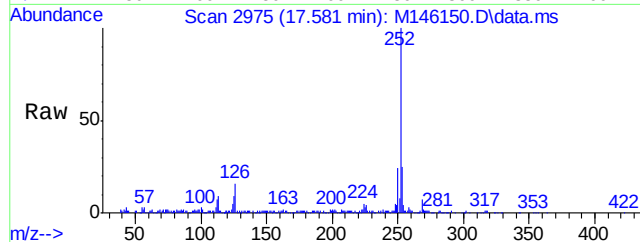
#93
Benzo[b]fluoranthene
Concen: 19.41 ppm
RT: 17.538 min Scan# 2967
Delta R.T. -0.069 min
Lab File: M146150.D
Acq: 13 May 2018 2:40 am

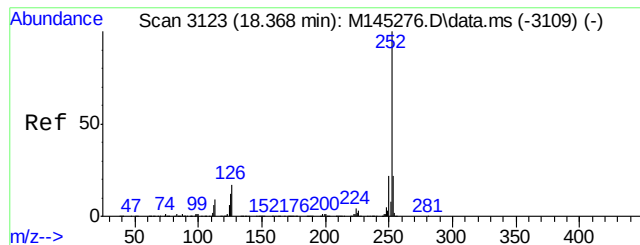
Tgt Ion:	252	Resp:	241569
Ion Ratio	Lower	Upper	
252	100		
253	23.4	0.0	52.1
125	10.4	0.0	41.0



#94
Benzo[k]fluoranthene
Concen: 7.56 ppm
RT: 17.581 min Scan# 2975
Delta R.T. -0.079 min
Lab File: M146150.D
Acq: 13 May 2018 2:40 am

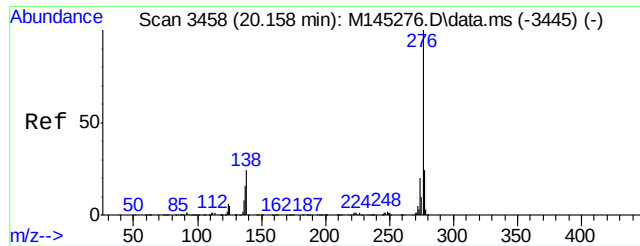
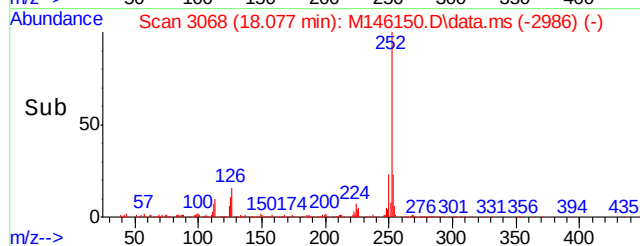
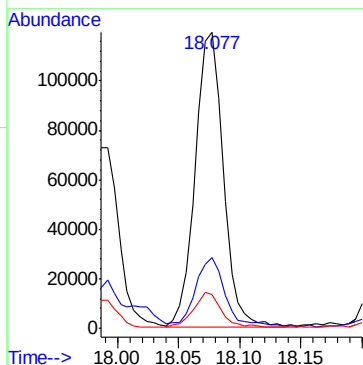
Tgt Ion:	252	Resp:	88907
Ion Ratio	Lower	Upper	
252	100		
253	24.4	0.0	52.4
125	7.9	0.0	41.0





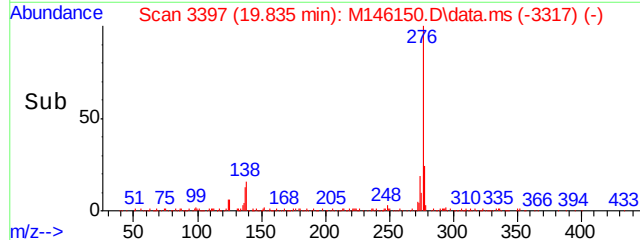
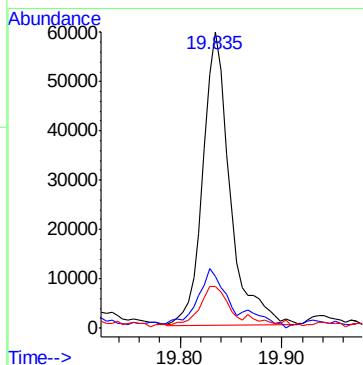
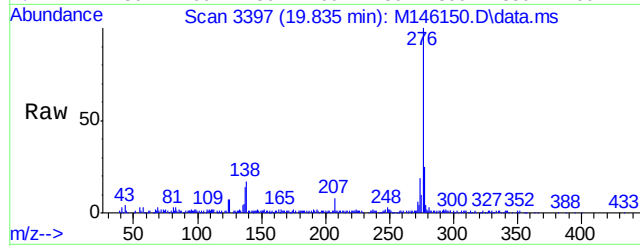
#95
Benzo[a]pyrene
Concen: 17.98 ppm
RT: 18.077 min Scan# 3068
Delta R.T. -0.063 min
Lab File: M146150.D
Acq: 13 May 2018 2:40 am

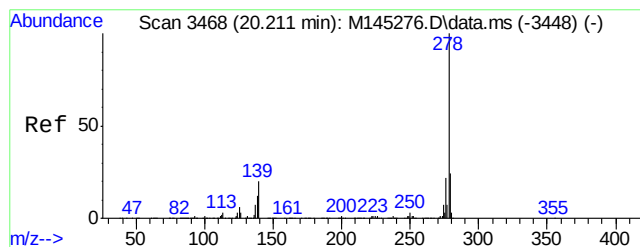
Tgt Ion	Ratio	Lower	Upper
252	100		
253	23.0	0.0	52.4
125	11.1	0.0	42.3



#96
Indeno[1,2,3-cd]pyrene
Concen: 10.80 ppm
RT: 19.835 min Scan# 3397
Delta R.T. -0.072 min
Lab File: M146150.D
Acq: 13 May 2018 2:40 am

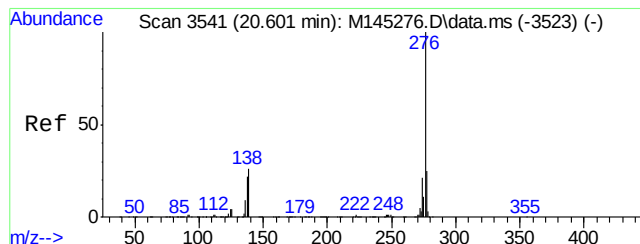
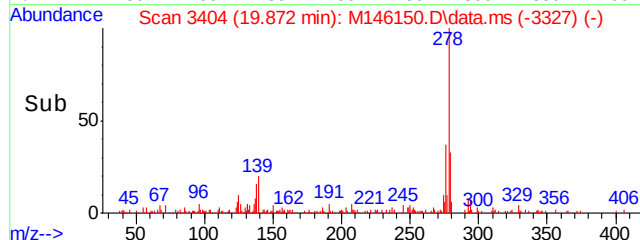
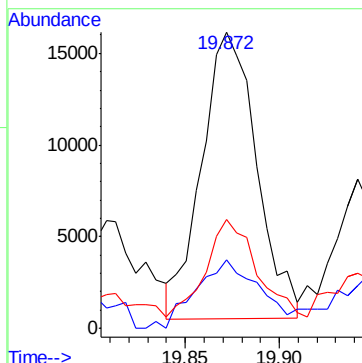
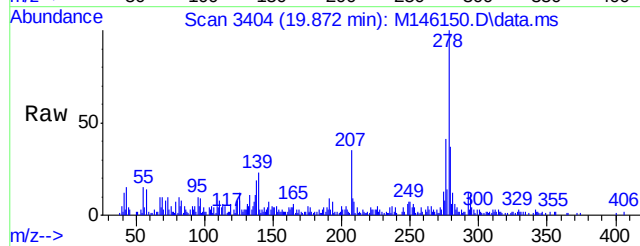
Tgt Ion	Ratio	Lower	Upper
276	100		
138	16.1	0.0	52.4
137	12.8	0.0	45.7





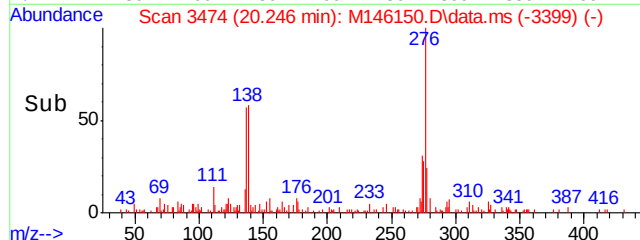
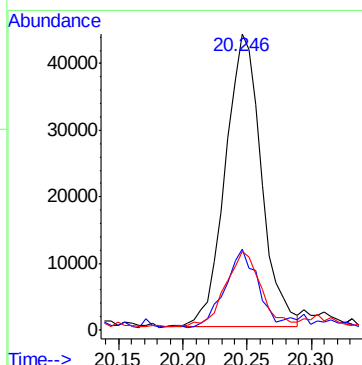
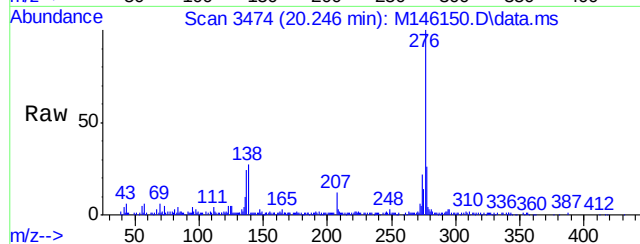
#98
Dibenzo[a,h]anthracene
Concen: 2.92 ppm
RT: 19.872 min Scan# 3404
Delta R.T. -0.088 min
Lab File: M146150.D
Acq: 13 May 2018 2:40 am

Tgt Ion:	278	Resp:	31584
Ion Ratio	Lower	Upper	
278	100		
139	22.6	0.0	49.8
279	36.7	0.0	54.2



#100
Benzo[g,h,i]perylene
Concen: 8.02 ppm
RT: 20.246 min Scan# 3474
Delta R.T. -0.099 min
Lab File: M146150.D
Acq: 13 May 2018 2:40 am

Tgt Ion:	276	Resp:	85055
Ion Ratio	Lower	Upper	
276	100		
138	25.2	0.0	55.9
277	25.2	0.0	54.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3503\
Data File : 2p79567.D
Acq On : 14 May 2018 6:13 pm
Operator : johnb1
Sample : jc65663-2a
Misc : op11952,e2p3503,100,,,1,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: May 15 10:49:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon May 14 13:33:53 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.480	152	1143076	40.00	ppm	0.00
24) Naphthalene-d8	5.539	136	3757021	40.00	ppm	0.00
47) Acenaphthene-d10	6.968	164	1792928	40.00	ppm	0.00
69) Phenanthrene-d10	8.224	188	3185334	40.00	ppm	0.00
83) Chrysene-d12	11.375	240	3057417	40.00	ppm	-0.01
91) Perylene-d12	13.348	264	3023577	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.480	152	1143076	40.00	ppm	0.00
103) Naphthalene-d8a	5.539	136	3757021	40.00	ppm	0.00
105) Acenaphthene-d10a	6.968	164	1792928	40.00	ppm	0.00
108) Chrysene-d12a	11.375	240	3057417	40.00	ppm	0.00
110) Phenanthrene-d10a	8.224	188	3185334	40.00	ppm	0.00
114) Chrysene-d12b	11.375	240	3057417	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.459	112	797564	17.68	ppm	-0.02
Spiked Amount	50.000	Range 11 - 58	Recovery	=	35.36%	
8) Phenol-d5	4.304	99	605852	12.96	ppm	0.01
Spiked Amount	50.000	Range 10 - 59	Recovery	=	25.92%	
25) Nitrobenzene-d5	4.972	82	1339854	38.69	ppm	-0.01
Spiked Amount	50.000	Range 19 - 61	Recovery	=	77.38%#	
51) 2-Fluorobiphenyl	6.427	172	2782941	45.25	ppm	-0.01
Spiked Amount	50.000	Range 21 - 58	Recovery	=	90.50%#	
73) 2,4,6-Tribromophenol	7.625	330	543103	55.83	ppm	0.00
Spiked Amount	50.000	Range 12 - 68	Recovery	=	111.66%#	
85) Terphenyl-d14	9.968	244	3188516	47.96	ppm	-0.02
Spiked Amount	50.000	Range 16 - 65	Recovery	=	95.92%#	
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery	=	0.00%#	
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery	=	0.00%#	

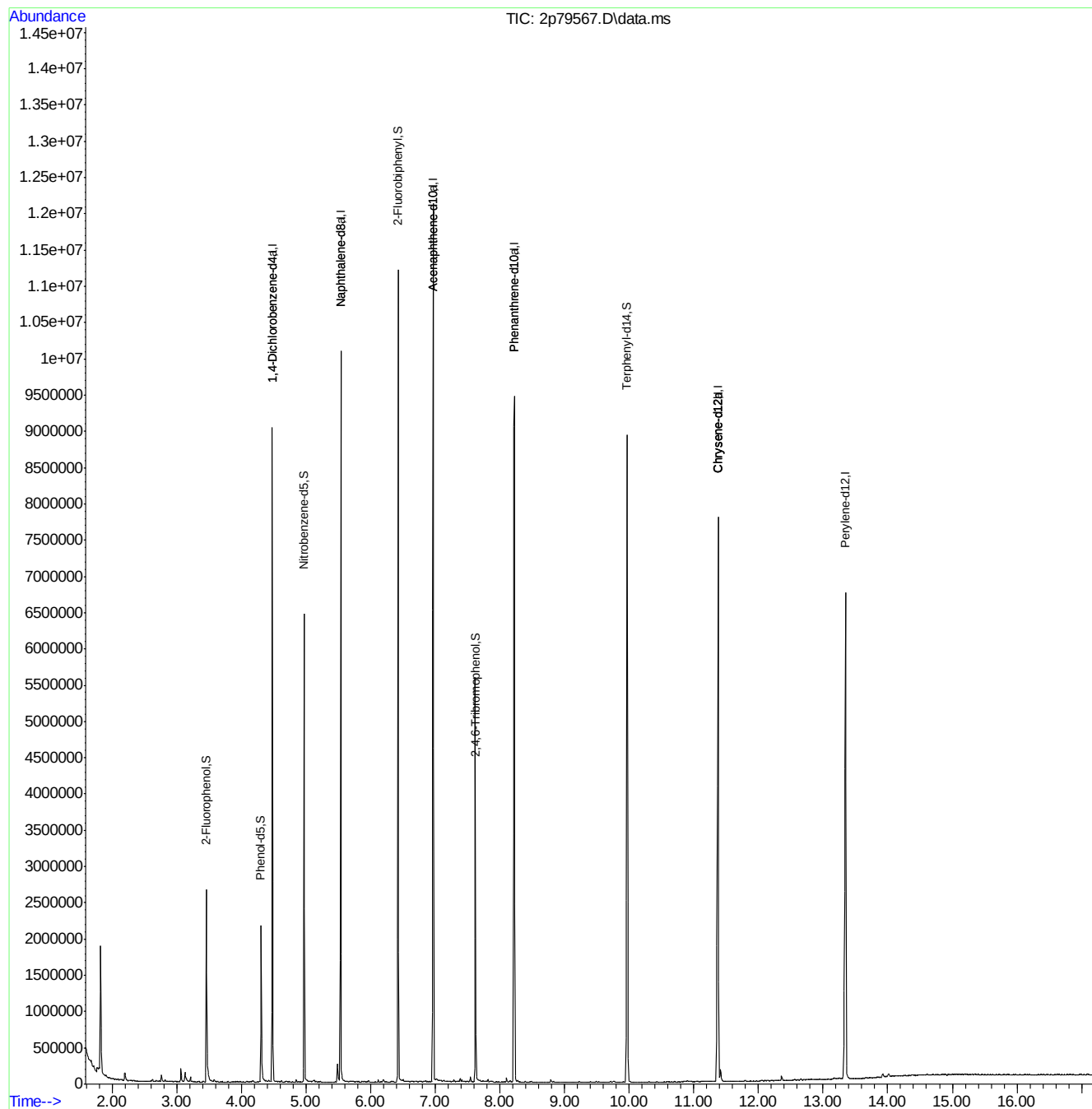
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3503\
Data File : 2p79567.D
Acq On : 14 May 2018 6:13 pm
Operator : johnb1
Sample : jc65663-2a
Misc : op11952,e2p3503,100,,,1,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: May 15 10:49:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon May 14 13:33:53 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3503\
 Data File : 2p79548.D
 Acq On : 14 May 2018 10:55 am
 Operator : johnb1
 Sample : op11952-mb1
 Misc : op11952,e2p3503,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 14 15:29:23 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu May 10 09:07:01 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.480	152	946621	40.00	ppm	-0.05
24) Naphthalene-d8	5.539	136	3369895	40.00	ppm	-0.05
47) Acenaphthene-d10	6.968	164	1627051	40.00	ppm	-0.05
69) Phenanthrene-d10	8.224	188	2974442	40.00	ppm	-0.05
83) Chrysene-d12	11.380	240	2766923	40.00	ppm	-0.06
91) Perylene-d12	13.348	264	2795743	40.00	ppm	-0.06
101) 1,4-Dichlorobenzene-d4a	4.480	152	946621	40.00	ppm	-0.05
103) Naphthalene-d8a	5.539	136	3369895	40.00	ppm	-0.05
105) Acenaphthene-d10a	6.968	164	1627051	40.00	ppm	-0.05
108) Chrysene-d12a	11.380	240	2766923	40.00	ppm	-0.06
110) Phenanthrene-d10a	8.224	188	2974442	40.00	ppm	-0.05
114) Chrysene-d12b	11.380	240	2766923	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.464	112	747808	20.01	ppm	-0.06
Spiked Amount	50.000	Range	11 - 58	Recovery	=	40.02%
8) Phenol-d5	4.309	99	591229	15.27	ppm	-0.04
Spiked Amount	50.000	Range	10 - 59	Recovery	=	30.54%
25) Nitrobenzene-d5	4.973	82	1345140	43.31	ppm	-0.06
Spiked Amount	50.000	Range	19 - 61	Recovery	=	86.62%#
51) 2-Fluorobiphenyl	6.427	172	2879792	51.59	ppm	-0.05
Spiked Amount	50.000	Range	21 - 58	Recovery	=	103.18%#
73) 2,4,6-Tribromophenol	7.625	330	582887	64.17	ppm	-0.05
Spiked Amount	50.000	Range	12 - 68	Recovery	=	128.34%#
85) Terphenyl-d14	9.973	244	2907418	48.33	ppm	-0.06
Spiked Amount	50.000	Range	16 - 65	Recovery	=	96.66%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#

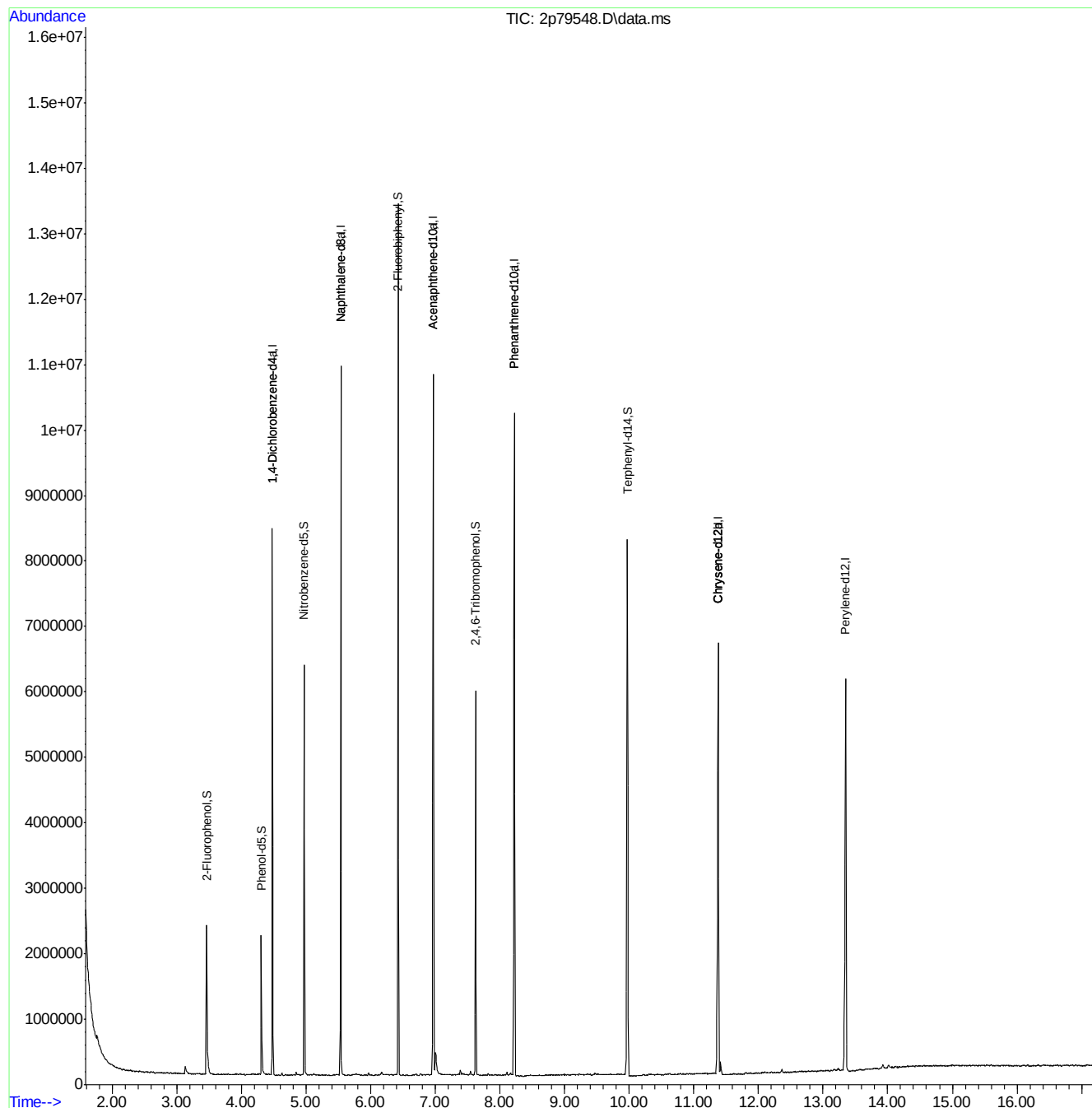
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3503\
Data File : 2p79548.D
Acq On : 14 May 2018 10:55 am
Operator : johnb1
Sample : op11952-mb1
Misc : op11952,e2p3503,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 14 15:29:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 10 09:07:01 2018
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\EM6207\
 Data File : M146091.D
 Acq On : 11 May 2018 11:47 am
 Operator : christc2
 Sample : op11892-mb
 Misc : op11892,em6207,30.0,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 11 15:09:06 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Thu May 10 17:44:05 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.505	152	198223	40.00	ppm	-0.02
24) Naphthalene-d8	5.589	136	739970	40.00	ppm	-0.02
47) Acenaphthene-d10	7.854	164	386189	40.00	ppm	-0.06
69) Phenanthrene-d10	10.433	188	729950	40.00	ppm	-0.06
83) Chrysene-d12	15.577	240	636616	40.00	ppm	-0.06
91) Perylene-d12	18.189	264	636110	40.00	ppm	-0.06
101) 1,4-Dichlorobenzene-d4a	4.505	152	198223	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.854	164	386189	40.00	ppm	-0.06
106) Chrysene-d12a	15.577	240	636616	40.00	ppm	-0.06
109) Phenanthrene-d10a	10.433	188	729950	40.00	ppm	-0.06
112) Naphthalene-d8a	5.589	136	739970	40.00	ppm	-0.02
114) Chrysene-d12b	15.577	240	636616	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.538	112	253895	34.24	ppm	-0.02
Spiked Amount 50.000			Recovery	=	68.48%	
8) Phenol-d5	4.264	99	322910	36.58	ppm	0.00
Spiked Amount 50.000			Recovery	=	73.16%	
25) Nitrobenzene-d5	4.937	82	282133	39.04	ppm	-0.01
Spiked Amount 50.000			Recovery	=	78.08%	
51) 2-Fluorobiphenyl	6.876	172	548802	36.59	ppm	0.00
Spiked Amount 50.000			Recovery	=	73.18%	
73) 2,4,6-Tribromophenol	9.189	330	87884	42.92	ppm	-0.07
Spiked Amount 50.000			Recovery	=	85.84%	
85) Terphenyl-d14	13.601	244	608162	40.07	ppm	-0.09
Spiked Amount 50.000			Recovery	=	80.14%	
108) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	

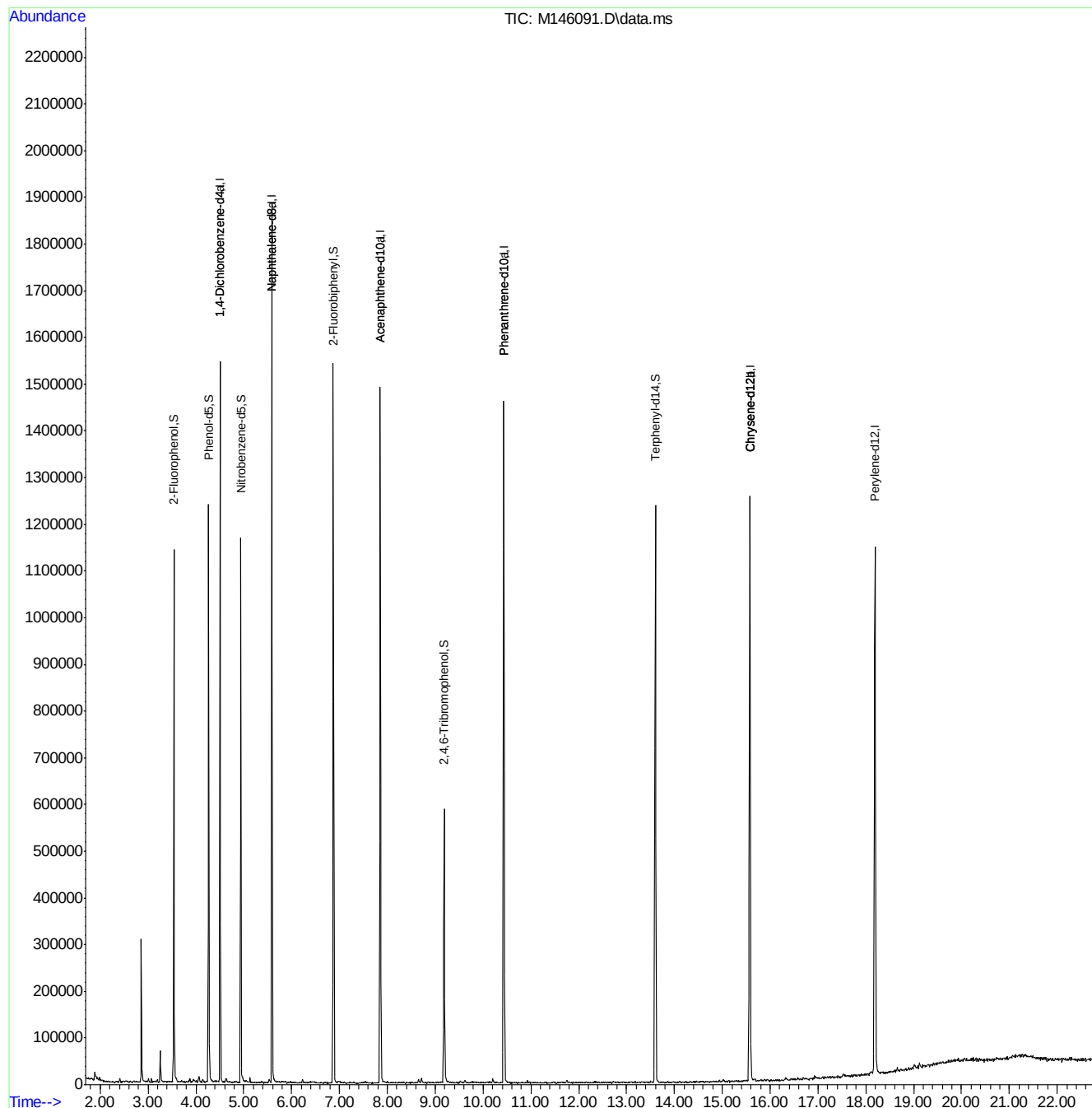
Target Compounds Qvalue

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

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\EM6207\
Data File : M146091.D
Acq On : 11 May 2018 11:47 am
Operator : christc2
Sample : op11892-mb
Misc : op11892,em6207,30.0,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 11 15:09:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu May 10 17:44:05 2018
Response via : Initial Calibration



GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLM3852-MB2	LM94724.D	1	05/10/18	KC	n/a	n/a	GLM3852

The QC reported here applies to the following samples: Method: SW846 8015C
JC65663-1, JC65663-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
98-08-8	aaa-Trifluorotoluene	110% 70-116%

10.1.1
10

Method Blank Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLM3852-MB1	LM94713.D	1	05/10/18	KC	n/a	n/a	GLM3852

The QC reported here applies to the following samples: Method: SW846 8015C
GLM3852-BS, JC65751-1MS, JC65751-1MSD

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
98-08-8	aaa-Trifluorotoluene	96% 70-116%

10.1.2
10

Blank Spike Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLM3852-BS	LM94721.D	1	05/10/18	KC	n/a	n/a	GLM3852

The QC reported here applies to the following samples: Method: SW846 8015C

JC65663-1, JC65663-2

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	400	356	89	75-126

CAS No.	Surrogate Recoveries	BSP	Limits
98-08-8	aaa-Trifluorotoluene	107%	70-116%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65751-1MS	LM94719.D	1	05/10/18	KC	n/a	n/a	GLM3852
JC65751-1MSD	LM94720.D	1	05/10/18	KC	n/a	n/a	GLM3852
JC65751-1	LM94714.D	1	05/10/18	KC	n/a	n/a	GLM3852

The QC reported here applies to the following samples: Method: SW846 8015C

JC65663-1, JC65663-2

CAS No.	Compound	JC65751-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	1620		694	2100	69	694	2170	79	3	68-128/11

CAS No.	Surrogate Recoveries	MS	MSD	JC65751-1	Limits
98-08-8	aaa-Trifluorotoluene	159%* a	162%* a	154%* a	70-116%

(a) Outside control limits due to matrix interference. Confirmed by MS/MSD.

* = Outside of Control Limits.

Surrogate Recovery Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8015C	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a
JC65663-1	LM94726.D	96
JC65663-2	LM94725.D	94
GLM3852-BS	LM94721.D	107
GLM3852-MB2	LM94724.D	110
JC65751-1MS	LM94719.D	159* ^b
JC65751-1MSD	LM94720.D	162* ^b
GLM3852-MB1	LM94713.D	96

Surrogate Compounds	Recovery Limits
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S1 = aaa-Trifluorotoluene 70-116%

- (a) Recovery from GC signal #1
(b) Outside control limits due to matrix interference. Confirmed by MS/MSD.

10.4.1
10

GC Surrogate Retention Time Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GLM3851-CC3729	Injection Date:	05/09/18
Lab File ID:	LM94705.D	Injection Time:	16:43
Instrument ID:	GCLM	Method:	SW846 8015C

S1 ^a
RT

Check Std	10.83
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Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT
GLM3852-RT	LM94710.D	05/10/18	07:54	10.83

Surrogate
Compounds

S1 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

10.5.1
10

GC Surrogate Retention Time Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GLM3852-CC3729	Injection Date:	05/10/18
Lab File ID:	LM94711.D	Injection Time:	08:39
Instrument ID:	GCLM	Method:	SW846 8015C

S1 ^a
RT

Check Std	10.83
-----------	-------

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT
GLM3852-MB1	LM94713.D	05/10/18	09:39	10.82
JC65751-1	LM94714.D	05/10/18	10:17	10.82
JC65751-1MS	LM94719.D	05/10/18	12:31	10.83
JC65751-1MSD	LM94720.D	05/10/18	12:52	10.83
GLM3852-BS	LM94721.D	05/10/18	13:21	10.83

Surrogate
Compounds

S1 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GLM3852-CC3729	Injection Date:	05/10/18
Lab File ID:	LM94722.D	Injection Time:	13:52
Instrument ID:	GCLM	Method:	SW846 8015C

S1 ^a
RT

Check Std	10.83
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Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT
GLM3852-MB2	LM94724.D	05/10/18	14:49	10.83
JC65663-2	LM94725.D	05/10/18	15:17	10.83
JC65663-1	LM94726.D	05/10/18	15:46	10.83

Surrogate Compounds

S1 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

10.5.3
10

Initial Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GLM3729-ICC3729
Lab FileID: LM92038.D

Response Factor Report GCLM

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Initial Calibration

Calibration Files

0.2 =LM92035.D 0.8 =LM92036.D 4 =LM92037.D
8 =LM92038.D 20 =LM92039.D 40 =LM92041.D 30 =LM92040.D

Compound	0.2	0.8	4	8	20	40	30	Avg	%RSD
1)H TPH-GR0 (C6-C10)	1.411	2.302	2.836	2.614	2.206	2.185	2.310	2.266	E6 19.66
2)H TPH-GR0 (C6-C12)	1.390	2.112	2.586	2.370	1.967	1.946	2.061	2.062	E6 18.22
3)S a,a,a-Trifluoroto	2.212	2.318	2.467	2.680	3.184	3.485	3.439	2.827	E6 18.96

Average % RSD = 18.9

(100.0 %) 3 of 3 compounds'% RSD > 0

(#) = Out of Range

MLM3729.M

Wed Dec 13 09:39:21 2017

RPT1

10.6.1
10

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GLM3729-ICV3729
Lab FileID: LM92044.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\LM92044.D Vial: 13
Acq On : 12 Dec 2017 5:34 pm Operator: KRIZHKAC
Sample : ICV3729-80000 Inst : GCLM
Misc : GC51650, GLM3729, 10.0,, 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-GR0 (C6-C10)	2.266	2.680 E6	-18.3	103	0.00	8.54-15.10
2 H	TPH-GR0 (C6-C12)	2.062	2.394 E6	-16.1	101	0.00	8.32-15.32
3 S	a,a,a-Trifluorotoluene	2.827	2.745 E6	2.9	102	0.00	10.78-10.90

Average % D = 12.4

(0.0 %) 0 of 3 compounds '%D > 20

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LM92038.D MLM3729.M Wed Dec 13 09:41:01 2017 RPT1

10.6.2
10

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GLM3851-CC3729
Lab FileID: LM94705.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\LM94705.D Vial: 20
Acq On : 9 May 2018 4:43 pm Operator: KRIZHKAC
Sample : CC3729-4000 Inst : GCLM
Misc : GC52481, GLM3851, 10.0,, 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-GR0 (C6-C10)	2.266	2.591 E6	-14.3	91	0.00	8.54-15.10
2 H	TPH-GR0 (C6-C12)	2.062	2.412 E6	-17.0	93	0.00	8.32-15.32
3 S	a,a,a-Trifluorotoluene	2.827	2.922 E6	-3.4	118	-0.01	10.77-10.89

Average % D = 11.6

(0.0 %) 0 of 3 compounds '%D > 20

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LM92037.D MLM3729.M Thu May 10 10:10:25 2018 RPT1

10.6.3
10

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GLM3852-CC3729
Lab FileID: LM94711.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\LM94711.D Vial: 4
Acq On : 10 May 2018 8:39 am Operator: KRIZHKAC
Sample : CC3729-4000 Inst : GCLM
Misc : GC52481, GLM3852, 10.0,, 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-GR0 (C6-C10)	2.266	2.550 E6	-12.5	90	0.00	8.54-15.10
2 H	TPH-GR0 (C6-C12)	2.062	2.349 E6	-13.9	91	0.00	8.32-15.32
3 S	a,a,a-Trifluorotoluene	2.827	2.913 E6	-3.0	118	-0.01	10.77-10.89

Average % D = 9.8

(0.0 %) 0 of 3 compounds '%D > 20

(#) = Out of Range
LM92037.D MLM3729.M

SPCC's out = 0 CCC's out = 0
Fri May 11 12:25:30 2018 RPT1

10.6.4
10

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GLM3852-CC3729
Lab FileID: LM94722.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\LM94722.D Vial: 15
Acq On : 10 May 2018 1:52 pm Operator: KRIZHKAC
Sample : CC3729-8000 Inst : GCLM
Misc : GC52497, GLM3852, 10.0,, 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-GR0 (C6-C10)	2.266	2.578 E6	-13.8	99	0.00	8.54-15.10
2 H	TPH-GR0 (C6-C12)	2.062	2.391 E6	-16.0	101	0.00	8.32-15.32
3 S	a,a,a-Trifluorotoluene	2.827	3.238 E6	-14.5	121	-0.01	10.77-10.89

Average % D = 14.8

(0.0 %) 0 of 3 compounds '%D > 20

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LM92038.D MLM3729.M Fri May 11 12:26:46 2018 RPT1

10.6.5
10

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GLM3852-CC3729
Lab FileID: LM94727.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\LM94727.D Vial: 20
Acq On : 10 May 2018 4:15 pm Operator: KRIZHKAC
Sample : CC3729-4000 Inst : GCLM
Misc : GC52488, GLM3852, 10.0,, 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-GR0 (C6-C10)	2.266	2.551 E6	-12.6	90	0.00	8.54-15.10
2 H	TPH-GR0 (C6-C12)	2.062	2.374 E6	-15.1	92	0.00	8.32-15.32
3 S	a,a,a-Trifluorotoluene	2.827	2.924 E6	-3.4	119	0.00	10.77-10.89

Average % D = 10.4

(0.0 %) 0 of 3 compounds '%D > 20

(#) = Out of Range
LM92037.D MLM3729.M

SPCC's out = 0 CCC's out = 0
Fri May 11 12:25:55 2018 RPT1

10.6.6
10



GC Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\LM94726.D Vial: 19
Acq On : 10 May 2018 3:46 pm Operator: KRIZHKAC
Sample : JC65663-1 Inst : GCLM
Misc : GC52488, GLM3852, 3.68,, 5, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: May 11 13:50 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Initial Calibration
DataAcq Meth : MLM3729.M

Volume Inj. : N/A
Signal Phase : crossbond phenylmethyl polysiloxane
Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um

Compound	R.T.	Response	Conc Units

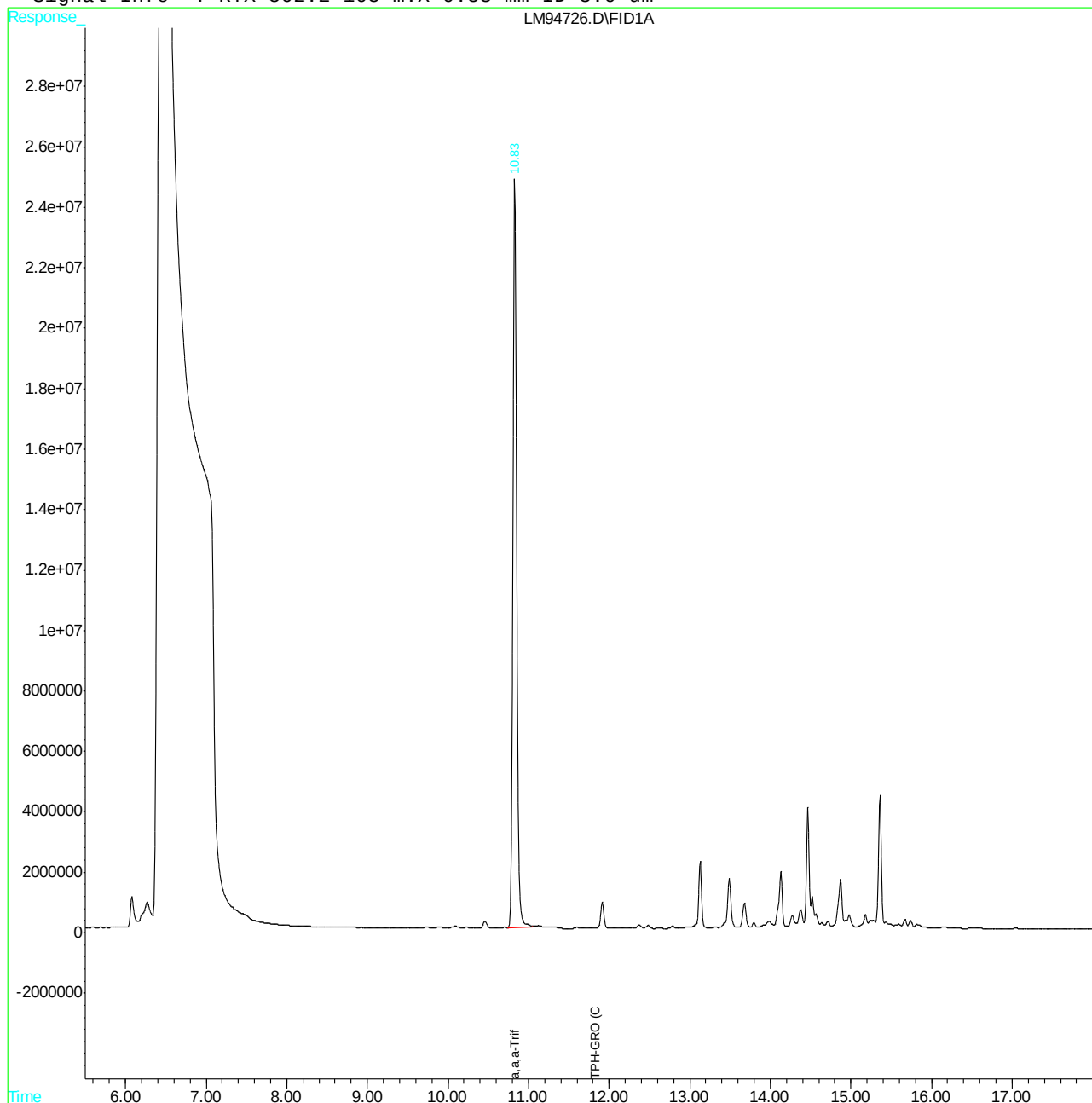
System Monitoring Compounds			
3) S a,a,a-Trifluorotoluene	10.83	809963133	286.557 ug/l
Spiked Amount 300.000	Range 70 - 116	Recovery =	95.52%
Target Compounds			
1) H TPH-GR0 (C6-C10)	11.82	513210824	226.469 ug/l

Quantitation Report

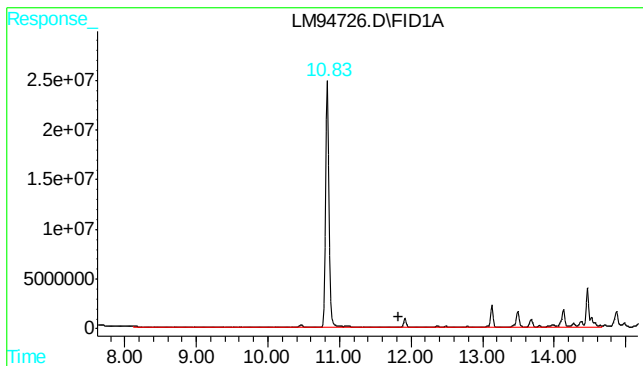
Data File : C:\HPCHEM\1\DATA\LM94726.D Vial: 19
 Acq On : 10 May 2018 3:46 pm Operator: KRIZHKAC
 Sample : JC65663-1 Inst : GCLM
 Misc : GC52488, GLM3852, 3.68,, 5, 10, 1 Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: May 11 13:50 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
 Title : Method SW846 8015C (GRO) .
 Last Update : Wed Dec 13 09:36:39 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : MLM3729.M

Volume Inj. : N/A
 Signal Phase : crossbond phenylmethyl polysiloxane
 Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um



11.11



#1 TPH-GRO (C6-C10)
R.T.: 11.820 min
Delta R.T.: 0.000 min
Response: 513210824
Conc: 226.47 ug/l m

11.1.1
11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\LM94725.D Vial: 18
Acq On : 10 May 2018 3:17 pm Operator: KRIZHKAC
Sample : JC65663-2 Inst : GCLM
Misc : GC52488, GLM3852, 4.93,, 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: May 11 12:35 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Initial Calibration
DataAcq Meth : MLM3729.M

Volume Inj. : N/A
Signal Phase : crossbond phenylmethyl polysiloxane
Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
3) S a,a,a-Trifluorotoluene	10.83	800503305	283.210 ug/l
Spiked Amount 300.000	Range 70 - 116	Recovery =	94.40%

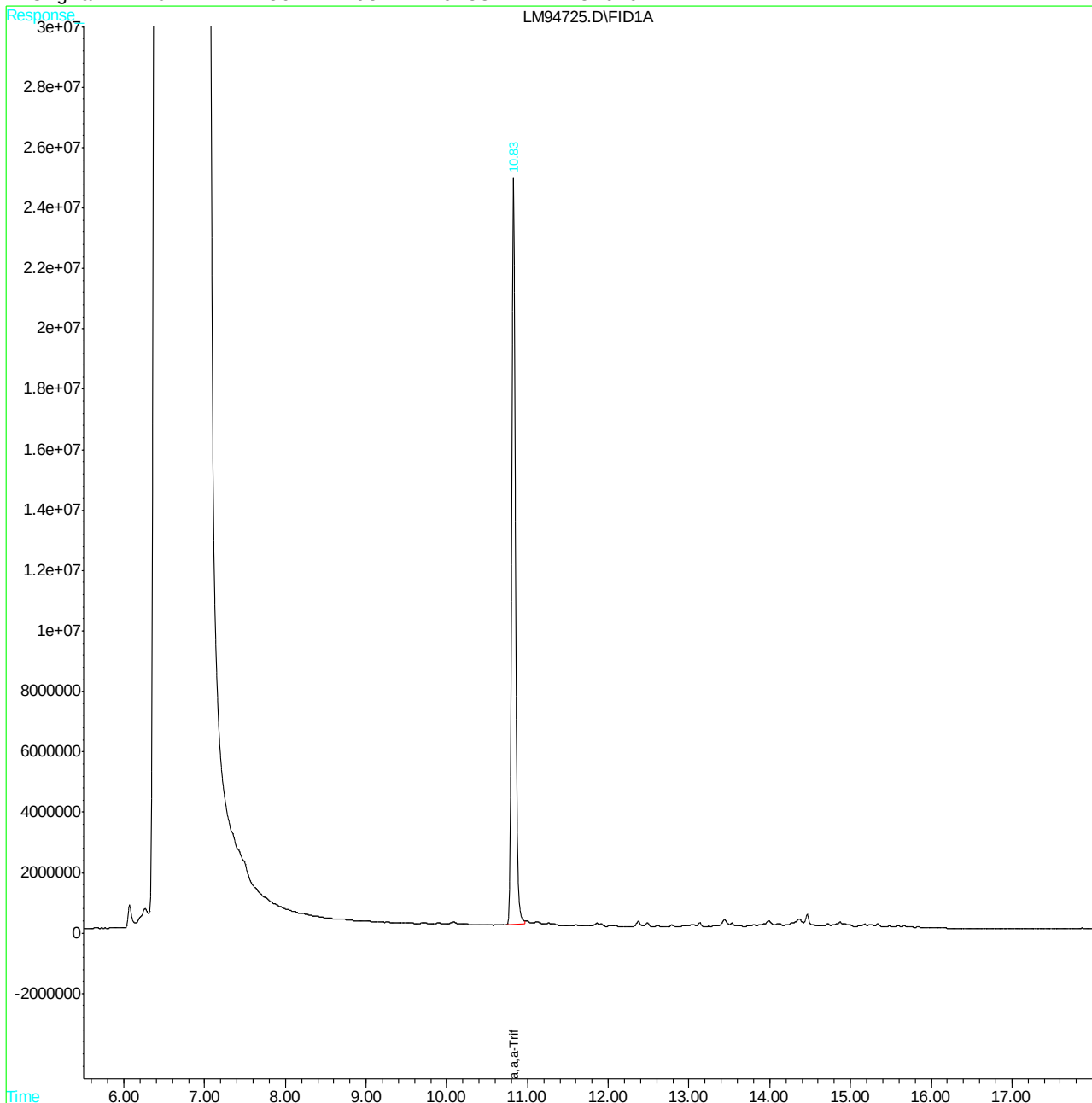
Target Compounds

Quantitation Report

Data File : C:\HPCHEM\1\DATA\LM94725.D Vial: 18
 Acq On : 10 May 2018 3:17 pm Operator: KRIZHKAC
 Sample : JC65663-2 Inst : GCLM
 Misc : GC52488, GLM3852, 4.93,, 100, 10, 1 Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: May 11 12:35 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
 Title : Method SW846 8015C (GR0) .
 Last Update : Wed Dec 13 09:36:39 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : MLM3729.M

Volume Inj. : N/A
 Signal Phase : crossbond phenylmethyl polysiloxane
 Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\LM94724.D Vial: 17
Acq On : 10 May 2018 2:49 pm Operator: KRIZHKAC
Sample : MB2 Inst : GCLM
Misc : GC52497, GLM3852, 10.0, , 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: May 11 12:34 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Initial Calibration
DataAcq Meth : MLM3729.M

Volume Inj. : N/A
Signal Phase : crossbond phenylmethyl polysiloxane
Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
3) S a,a,a-Trifluorotoluene	10.83	930473813	329.193 ug/l
Spiked Amount 300.000	Range 70 - 116	Recovery	= 109.73%

Target Compounds

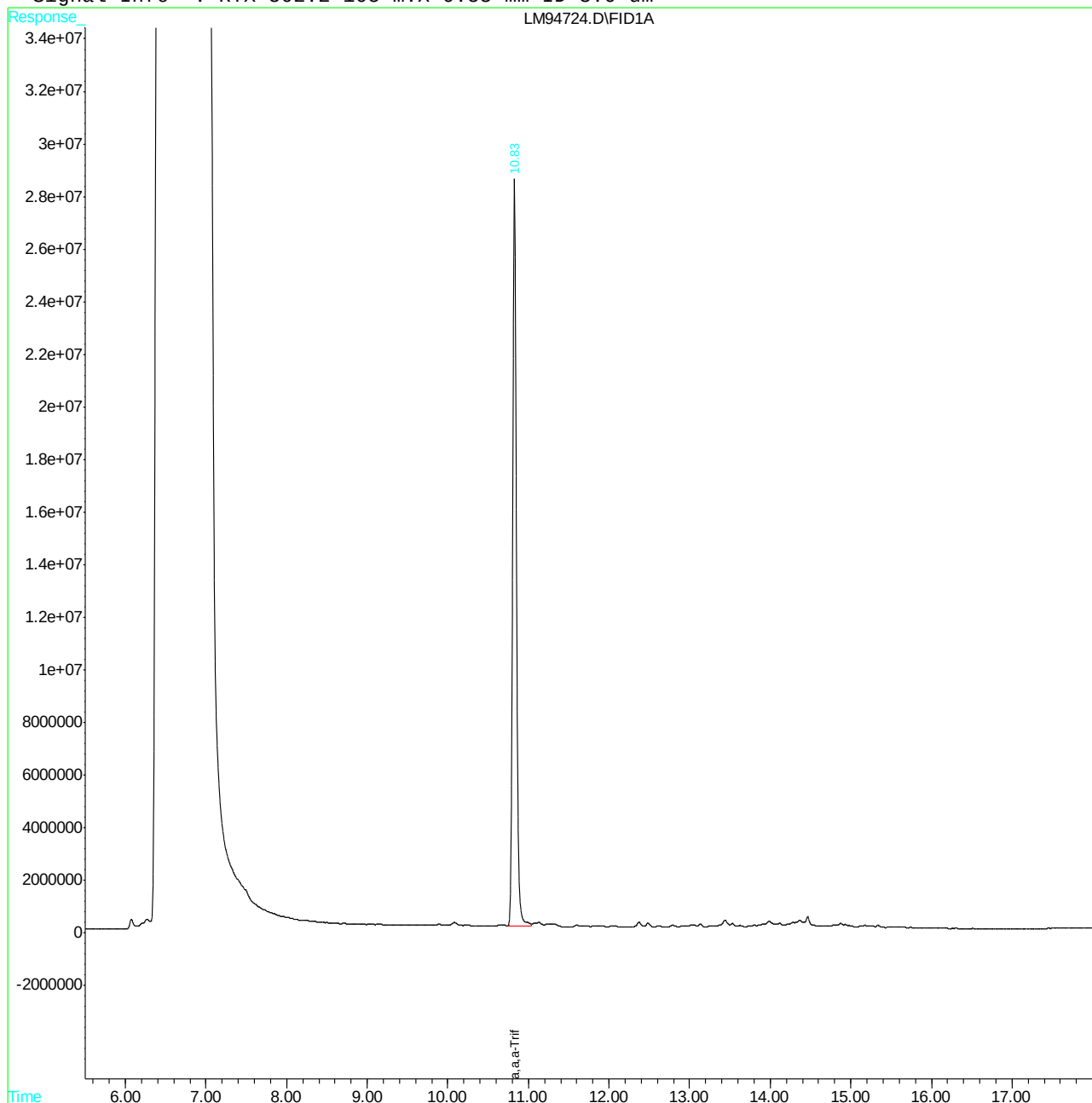
(f)=RT Delta > 1/2 Window (m)=manual int.
LM94724.D MLM3729.M Fri May 11 12:35:11 2018 RPT1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\LM94724.D Vial: 17
Acq On : 10 May 2018 2:49 pm Operator: KRIZHKAC
Sample : MB2 Inst : GCLM
Misc : GC52497, GLM3852, 10.0, , 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: May 11 12:34 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Multiple Level Calibration
DataAcq Meth : MLM3729.M

Volume Inj. : N/A
Signal Phase : crossbond phenylmethyl polysiloxane
Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um



GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- DDT/Endrin Breakdown Checks
- GC Identification Summaries (Hits)
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11951-MB1	OA133321.D	1	05/14/18	VDT	05/13/18	OP11951	GOA4568

The QC reported here applies to the following samples: Method: SW846 8151A
JC65663-1A, JC65663-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	0.42	0.12	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	0.12	0.025	ug/l	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	63% 50-142%
19719-28-9	2,4-DCAA	74% 50-142%

Method Blank Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11950-MB1	1G146111.D	1	05/13/18	CP	05/12/18	OP11950	G1G4644

The QC reported here applies to the following samples: Method: SW846 8081B
JC65663-1A, JC65663-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	0.0067	0.0040	ug/l	
12789-03-6	Chlordane	ND	0.33	0.14	ug/l	
72-20-8	Endrin	ND	0.0067	0.0040	ug/l	
76-44-8	Heptachlor	ND	0.0067	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0067	0.0040	ug/l	
72-43-5	Methoxychlor	ND	0.013	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	82% 30-137%
877-09-8	Tetrachloro-m-xylene	81% 30-137%
2051-24-3	Decachlorobiphenyl	46% 10-137%
2051-24-3	Decachlorobiphenyl	35% 10-137%

12.1.2
12

Method Blank Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11896-MB	2G163187.D	1	05/10/18	TR	05/09/18	OP11896	G2G4328

The QC reported here applies to the following samples: Method: SW846 8082A

JC65663-1, JC65663-2

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	13	ug/kg	
11104-28-2	Aroclor 1221	ND	33	14	ug/kg	
11141-16-5	Aroclor 1232	ND	33	8.9	ug/kg	
53469-21-9	Aroclor 1242	ND	33	5.3	ug/kg	
12672-29-6	Aroclor 1248	ND	33	20	ug/kg	
11097-69-1	Aroclor 1254	ND	33	8.2	ug/kg	
11096-82-5	Aroclor 1260	ND	33	11	ug/kg	
11100-14-4	Aroclor 1268	ND	33	5.0	ug/kg	
37324-23-5	Aroclor 1262	ND	33	2.5	ug/kg	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	88% 24-152%
877-09-8	Tetrachloro-m-xylene	92% 24-152%
2051-24-3	Decachlorobiphenyl	81% 10-166%
2051-24-3	Decachlorobiphenyl	79% 10-166%

12.1.3
12

Method Blank Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11896-MB	XX228265.D	1	05/09/18	TR	05/09/18	OP11896	GXX6343

The QC reported here applies to the following samples: Method: SW846 8082A

JC65663-1, JC65663-2

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	13	ug/kg	
11104-28-2	Aroclor 1221	ND	33	14	ug/kg	
11141-16-5	Aroclor 1232	ND	33	8.9	ug/kg	
53469-21-9	Aroclor 1242	ND	33	5.3	ug/kg	
12672-29-6	Aroclor 1248	ND	33	20	ug/kg	
11097-69-1	Aroclor 1254	ND	33	8.2	ug/kg	
11096-82-5	Aroclor 1260	ND	33	11	ug/kg	
11100-14-4	Aroclor 1268	ND	33	5.0	ug/kg	
37324-23-5	Aroclor 1262	ND	33	2.5	ug/kg	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	85% 24-152%
877-09-8	Tetrachloro-m-xylene	88% 24-152%
2051-24-3	Decachlorobiphenyl	86% 10-166%
2051-24-3	Decachlorobiphenyl	89% 10-166%

12.1.4
12

Method Blank Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11891-MB	2Y91026.D	1	05/10/18	TL	05/09/18	OP11891	G2Y3469

The QC reported here applies to the following samples: Method: SW846 8015C
JC65663-1, JC65663-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	10	2.4	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	73% 18-132%
16416-32-3	Tetracosane-d50	90% 25-137%
438-22-2	5a-Androstane	73% 22-134%

12.1.5
12

Leachate Blank Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11951-LB7	3G116450.D	1	05/14/18	VDT	05/13/18	OP11951	G3G4043

The QC reported here applies to the following samples: Method: SW846 8151A
JC65663-1A, JC65663-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	4.2	1.2	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	1.2	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	135% 50-142%
19719-28-9	2,4-DCAA	113% 50-142%

Leachate Blank Summary

Page 1 of 1

Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11950-LB7	1G146128.D	1	05/14/18	CP	05/12/18	OP11950	G1G4644

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65663-1A, JC65663-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	0.067	0.040	ug/l	
12789-03-6	Chlordane	ND	3.3	1.4	ug/l	
72-20-8	Endrin	ND	0.067	0.040	ug/l	
76-44-8	Heptachlor	ND	0.067	0.030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.067	0.040	ug/l	
72-43-5	Methoxychlor	ND	0.13	0.045	ug/l	
8001-35-2	Toxaphene	ND	1.7	1.1	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	79% 30-137%
877-09-8	Tetrachloro-m-xylene	78% 30-137%
2051-24-3	Decachlorobiphenyl	49% 10-137%
2051-24-3	Decachlorobiphenyl	47% 10-137%

12.2.2
12

Blank Spike Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11951-BS1	OA133322.D	1	05/14/18	VDT	05/13/18	OP11951	GOA4568

The QC reported here applies to the following samples: Method: SW846 8151A
JC65663-1A, JC65663-2A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
94-75-7	2,4-D	13.3	10.8	81	46-153
93-72-1	2,4,5-TP (Silvex)	2.67	2.3	86	57-151

CAS No.	Surrogate Recoveries	BSP	Limits
19719-28-9	2,4-DCAA	71%	50-142%
19719-28-9	2,4-DCAA	69%	50-142%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11950-BS1	1G146112.D	1	05/13/18	CP	05/12/18	OP11950	G1G4644

The QC reported here applies to the following samples: Method: SW846 8081B

JC65663-1A, JC65663-2A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
58-89-9	gamma-BHC (Lindane)	1.67	1.3	78	37-178
72-20-8	Endrin	1.67	1.3	78	45-182
76-44-8	Heptachlor	1.67	1.2	72	26-172
1024-57-3	Heptachlor epoxide	1.67	1.2	72	43-173
72-43-5	Methoxychlor	1.67	1.3	78 ^a	40-192

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	69%	30-137%
877-09-8	Tetrachloro-m-xylene	69%	30-137%
2051-24-3	Decachlorobiphenyl	41%	10-137%
2051-24-3	Decachlorobiphenyl	35%	10-137%

(a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11896-BS	XX228266.D	1	05/09/18	TR	05/09/18	OP11896	GXX6343

The QC reported here applies to the following samples: Method: SW846 8082A

JC65663-1, JC65663-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	133	150	112	61-146
11104-28-2	Aroclor 1221		ND		70-130
11141-16-5	Aroclor 1232		ND		70-130
53469-21-9	Aroclor 1242		ND		70-130
12672-29-6	Aroclor 1248		ND		70-130
11097-69-1	Aroclor 1254		ND		70-130
11096-82-5	Aroclor 1260	133	142	106	62-148
11100-14-4	Aroclor 1268		ND		50-150 ^a
37324-23-5	Aroclor 1262		ND		50-150 ^a

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	93%	24-152%
877-09-8	Tetrachloro-m-xylene	94%	24-152%
2051-24-3	Decachlorobiphenyl	92%	10-166%
2051-24-3	Decachlorobiphenyl	95%	10-166%

(a) Advisory control limits.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11891-BS	2Y91027.D	1	05/10/18	TL	05/09/18	OP11891	G2Y3469

The QC reported here applies to the following samples: Method: SW846 8015C

JC65663-1, JC65663-2

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	100	79.9	80	44-120

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	85%	18-132%
16416-32-3	Tetracosane-d50	105%	25-137%
438-22-2	5a-Androstane	83%	22-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11951-MS	3G116442.D	1	05/14/18	VDT	05/13/18	OP11951	G3G4043
OP11951-MSD	3G116443.D	1	05/14/18	VDT	05/13/18	OP11951	G3G4043
JC65676-2	3G116439.D	1	05/14/18	VDT	05/13/18	OP11951	G3G4043

The QC reported here applies to the following samples: Method: SW846 8151A

JC65663-1A, JC65663-2A

CAS No.	Compound	JC65676-2 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
94-75-7	2,4-D	ND	13.3	9.0	68	13.3	14.0	105	43	43-136/44
93-72-1	2,4,5-TP (Silvex)	ND	2.67	2.0	75	2.67	4.0	150* a	67* a	47-141/41

CAS No.	Surrogate Recoveries	MS	MSD	JC65676-2	Limits
19719-28-9	2,4-DCAA	60%	100%	99%	50-142%
19719-28-9	2,4-DCAA	48%* a	73%	84%	50-142%

(a) Outside the QC limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11950-MS	1G146124.D	1	05/14/18	CP	05/12/18	OP11950	G1G4644
OP11950-MSD	1G146125.D	1	05/14/18	CP	05/12/18	OP11950	G1G4644
JC65677-3	1G146123.D	1	05/14/18	CP	05/12/18	OP11950	G1G4644

The QC reported here applies to the following samples: Method: SW846 8081B

JC65663-1A, JC65663-2A

CAS No.	Compound	JC65677-3 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
58-89-9	gamma-BHC (Lindane)	ND	1.67	1.7	102	1.67	1.2	72	34	39-160/97
12789-03-6	Chlordane	ND		ND			ND		nc	81-123/10
72-20-8	Endrin	ND	1.67	1.9	114	1.67	1.3	78	38	43-169/95
76-44-8	Heptachlor	ND	1.67	1.6	96	1.67	1.2	72	29	35-152/102
1024-57-3	Heptachlor epoxide	ND	1.67	1.7	102	1.67	1.2	72	34	42-159/96
72-43-5	Methoxychlor	ND	1.67	1.7	102	1.67	1.3	78	27	47-170/99
8001-35-2	Toxaphene	ND		ND			ND		nc	50-150/8

CAS No.	Surrogate Recoveries	MS	MSD	JC65677-3	Limits
877-09-8	Tetrachloro-m-xylene	81%	62%	85%	30-137%
877-09-8	Tetrachloro-m-xylene	87%	59%	75%	30-137%
2051-24-3	Decachlorobiphenyl	78%	58%	86%	10-137%
2051-24-3	Decachlorobiphenyl	68%	51%	69%	10-137%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11896-MS	2G163189.D	1	05/10/18	TR	05/09/18	OP11896	G2G4328
OP11896-MSD	2G163190.D	1	05/10/18	TR	05/09/18	OP11896	G2G4328
JC65281-10	2G163188.D	1	05/10/18	TR	05/09/18	OP11896	G2G4328

The QC reported here applies to the following samples: Method: SW846 8082A

JC65663-1, JC65663-2

CAS No.	Compound	JC65281-10 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	183	247	135	184	265	144	7	24-178/46
11104-28-2	Aroclor 1221	ND		ND			ND		nc	70-130/50
11141-16-5	Aroclor 1232	ND		ND			ND		nc	70-130/50
53469-21-9	Aroclor 1242	ND		ND			ND		nc	70-130/50
12672-29-6	Aroclor 1248	ND		ND			ND		nc	70-130/50
11097-69-1	Aroclor 1254	1470		1100			1070		3	70-130/50
11096-82-5	Aroclor 1260	ND	183	320	175	184	337	183	5	15-185/45
11100-14-4	Aroclor 1268	ND		ND			ND		nc	-/50
37324-23-5	Aroclor 1262	ND		ND			ND		nc	-/50

CAS No.	Surrogate Recoveries	MS	MSD	JC65281-10	Limits
877-09-8	Tetrachloro-m-xylene	89%	97%	92%	24-152%
877-09-8	Tetrachloro-m-xylene	89%	100%	93%	24-152%
2051-24-3	Decachlorobiphenyl	77%	80%	77%	10-166%
2051-24-3	Decachlorobiphenyl	76%	85%	82%	10-166%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11891-MS	2Y91029.D	1	05/10/18	TL	05/09/18	OP11891	G2Y3469
OP11891-MSD	2Y91030.D	1	05/10/18	TL	05/09/18	OP11891	G2Y3469
JC65493-4	2Y91028.D	1	05/10/18	TL	05/09/18	OP11891	G2Y3469
JC65493-4	2Y91031.D	5	05/10/18	TL	05/09/18	OP11891	G2Y3469

The QC reported here applies to the following samples: Method: SW846 8015C

JC65663-1, JC65663-2

CAS No.	Compound	JC65493-4 mg/kg	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	57000 ^c	100	128000	67200* ^a	98	42200	-18972* ^a	101* ^b	10-145/50

CAS No.	Surrogate Recoveries	MS	MSD	JC65493-4	JC65493-4	Limits
84-15-1	o-Terphenyl	1908%* ^b	13504%* ^b	10233%* ^b	0%* ^d	18-132%
16416-32-3	Tetracosane-d50	15073%* ^b	1543%* ^b	1850%* ^b	0%* ^d	25-137%
438-22-2	5a-Androstane	12181%* ^b	392%* ^b	221%* ^b	0%* ^d	22-134%

- (a) Outside control limits due to high level in sample relative to spike amount.
- (b) Outside control limits due to matrix interference.
- (c) Result is from Run #2.
- (d) Outside control limits due to dilution.

* = Outside of Control Limits.

Leachate Spike Summary

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Job Number: JC65663

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11951-LS5	3G116442.D	1	05/14/18	VDT	05/13/18	OP11951	G3G4043
JC65676-2	3G116439.D	1	05/14/18	VDT	05/13/18	OP11951	G3G4043

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65663-1A, JC65663-2A

CAS No.	Compound	JC65676-2		Spike	LS	LS	Limits
		ug/l	Q	ug/l	ug/l	%	
94-75-7	2,4-D	ND		13.3	9.0	68	43-136
93-72-1	2,4,5-TP (Silvex)	ND		2.67	2.0	75	47-141

CAS No.	Surrogate Recoveries	LS	JC65676-2	Limits
19719-28-9	2,4-DCAA	60%	99%	50-142%
19719-28-9	2,4-DCAA	48%* a	84%	50-142%

(a) Outside the QC limits.

* = Outside of Control Limits.

Leachate Spike Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11950-LS5	1G146124.D	1	05/14/18	CP	05/12/18	OP11950	G1G4644
JC65677-3	1G146123.D	1	05/14/18	CP	05/12/18	OP11950	G1G4644

The QC reported here applies to the following samples: Method: SW846 8081B

JC65663-1A, JC65663-2A

CAS No.	Compound	JC65677-3 ug/l	Spike Q	ug/l	LS ug/l	LS %	Limits
58-89-9	gamma-BHC (Lindane)	ND		1.67	1.7	102	39-160
12789-03-6	Chlordane	ND			ND		81-123
72-20-8	Endrin	ND		1.67	1.9	114	43-169
76-44-8	Heptachlor	ND		1.67	1.6	96	35-152
1024-57-3	Heptachlor epoxide	ND		1.67	1.7	102	42-159
72-43-5	Methoxychlor	ND		1.67	1.7	102	47-170
8001-35-2	Toxaphene	ND			ND		50-150

CAS No.	Surrogate Recoveries	LS	JC65677-3	Limits
877-09-8	Tetrachloro-m-xylene	81%	85%	30-137%
877-09-8	Tetrachloro-m-xylene	87%	75%	30-137%
2051-24-3	Decachlorobiphenyl	78%	86%	10-137%
2051-24-3	Decachlorobiphenyl	68%	69%	10-137%

* = Outside of Control Limits.

Internal Standard Area Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G1G4644-CC4628	Injection Date:	05/13/18
Lab File ID:	1G146109.D	Injection Time:	22:49
Instrument ID:	GC1G	Method:	SW846 8081B

	IS 1		IS 2	
	AREA	RT	AREA	RT
Check Std	106227419	2.30	736666133	1.99
Upper Limit ^a	212454838	2.80	1473332266	2.49
Lower Limit ^b	53113710	1.80	368333067	1.49

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT
OP11875-MB2	108378507	2.30	780381902	1.99
OP11974-MB1	108378507	2.30	780381902	1.99
OP11950-MB1	108378507	2.30	780381902	1.99
OP11974-BS1	111843766	2.30	843724198	1.99
OP11875-BS2	111843766	2.30	843724198	1.99
OP11950-BS1	111843766	2.30	843724198	1.99
LA43799-1B	128342440	2.30	461705991	1.98
OP11974-LS6	125377535	2.30	454924932	1.98
OP11974-MS	125377535	2.30	454924932	1.98
OP11974-MSD	122302559	2.30	431389970	1.98
DA5034-1	107573480	2.30	529168761	1.97
ZZZZZZ	108333564	2.30	783724240	1.98
ZZZZZZ	106954957	2.30	783017046	1.98
ZZZZZZ	107127186	2.30	759416157	1.98
ZZZZZZ	109462928	2.30	780047129	1.98
ZZZZZZ	114399564	2.30	823704723	1.98
ZZZZZZ	107489926	2.30	753086608	1.98
JC65677-3	108641923	2.30	755994453	1.98
OP11950-LS5	117119748	2.30	937503076	1.98
OP11950-MS	117119748	2.30	937503076	1.98
OP11950-MSD	113303565	2.30	863442255	1.98
ZZZZZZ	114682472	2.30	831321048	1.99
ZZZZZZ	111644368	2.30	864752426	1.98
OP11950-LB7	115995306	2.30	884532494	1.99
OP11974-LB11	119707352	2.30	807847965	1.98

IS 1 = 1-Bromo-2-nitrobenzene (Signal #2)
IS 2 = 1-Bromo-2-nitrobenzene (Signal #1)

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

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

12.6.1
12

Internal Standard Area Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G1G4644-CC4628	Injection Date:	05/14/18
Lab File ID:	1G146130.D	Injection Time:	04:56
Instrument ID:	GC1G	Method:	SW846 8081B

	IS 1		IS 2	
	AREA	RT	AREA	RT
Check Std	110848153	2.30	744149179	1.99
Upper Limit ^a	221696306	2.80	1488298358	2.49
Lower Limit ^b	55424077	1.80	372074590	1.49

Lab	IS 1		IS 2	
Sample ID	AREA	RT	AREA	RT
ZZZZZZ	112473713	2.31	885733028	1.99
ZZZZZZ	112732694	2.31	880337112	1.99
ZZZZZZ	113789098	2.31	918839654	1.99
JC65663-1A	110087333	2.30	616328913	1.98
JC65663-2A	104234008	2.30	703959741	1.99

IS 1 = 1-Bromo-2-nitrobenzene (Signal #2)
IS 2 = 1-Bromo-2-nitrobenzene (Signal #1)

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

DDT/Endrin Breakdown Check

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	G1G4628-DDT	Injection Date:	04/25/18
Lab File ID:	1G145465.D	Injection Time:	11:55
Instrument ID:	GC1G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	19117068	3242526
4,4'-DDE	17540271	2426192
4,4'-DDT	1139549834	151721138

DDT Breakdown ^a	3.1 %	3.6 %
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Endrin aldehyde	6205253	869695
Endrin ketone	16073186	1914397
Endrin	736751809	103748583

Endrin Breakdown ^b	2.9 %	2.6 %
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(a) Calculated as: $(\text{DDD} + \text{DDE}) / (\text{DDD} + \text{DDE} + \text{DDT}) \times 100$

(b) Calculated as: $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G1G4628-IC4628	1G145467.D	04/25/18	12:29	00:34	Initial cal 1
G1G4628-IC4628	1G145468.D	04/25/18	12:46	00:51	Initial cal 2
G1G4628-IC4628	1G145469.D	04/25/18	13:04	01:09	Initial cal 5
G1G4628-IC4628	1G145470.D	04/25/18	13:21	01:26	Initial cal 10
G1G4628-IC4628	1G145471.D	04/25/18	13:38	01:44	Initial cal 25
G1G4628-IC4628	1G145472.D	04/25/18	13:55	02:01	Initial cal 50
G1G4628-IC4628	1G145473.D	04/25/18	14:13	02:18	Initial cal 75
G1G4628-IC4628	1G145474.D	04/25/18	14:30	02:35	Initial cal 100
G1G4628-IC4628	1G145475.D	04/25/18	14:47	02:53	Initial cal 500
G1G4628-IC4628	1G145476.D	04/25/18	15:05	03:10	Initial cal 500
G1G4628-ICV4628	1G145478.D	04/25/18	15:39	03:45	Initial cal verification 500
G1G4628-ICV4628	1G145479.D	04/25/18	15:56	04:02	Initial cal verification 500
G1G4628-ICV4628	1G145481.D	04/25/18	16:31	04:36	Initial cal verification 50

DDT/Endrin Breakdown Check

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4644-DDT	Injection Date: 05/13/18
Lab File ID: 1G146108.D	Injection Time: 22:32
Instrument ID: GC1G	

Compound	Response Signal 1	Response Signal 2
4,4' -DDD	25201970	3700756
4,4' -DDE	18824575	4223385
4,4' -DDT	1164227366	120725639

DDT Breakdown ^a	3.6 %	6.2 %
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Endrin aldehyde	3628172	527978
Endrin ketone	4177532	663851
Endrin	804541378	108070177

Endrin Breakdown ^b	1 %	1.1 %
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(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100

(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G1G4644-CC4628	1G146109.D	05/13/18	22:49	00:17	Continuing cal 25
OP11875-MB2	1G146111.D	05/13/18	23:25	00:53	Method Blank
OP11950-MB1	1G146111.D	05/13/18	23:25	00:53	Method Blank
OP11974-MB1	1G146111.D	05/13/18	23:25	00:53	Method Blank
OP11974-BS1	1G146112.D	05/13/18	23:42	01:10	Blank Spike
OP11875-BS2	1G146112.D	05/13/18	23:42	01:10	Blank Spike
OP11950-BS1	1G146112.D	05/13/18	23:42	01:10	Blank Spike
LA43799-1B	1G146113.D	05/14/18	00:00	01:28	(used for QC only; not part of job JC65663)
OP11974-LS6	1G146114.D	05/14/18	00:18	01:46	Leachate Spike
OP11974-MS	1G146114.D	05/14/18	00:18	01:46	Matrix Spike
OP11974-MSD	1G146115.D	05/14/18	00:36	02:04	Matrix Spike Duplicate
DA5034-1	1G146116.D	05/14/18	00:54	02:22	(used for QC only; not part of job JC65663)
ZZZZZZ	1G146117.D	05/14/18	01:11	02:40	(unrelated sample)
ZZZZZZ	1G146118.D	05/14/18	01:29	02:57	(unrelated sample)
ZZZZZZ	1G146119.D	05/14/18	01:47	03:15	(unrelated sample)
ZZZZZZ	1G146120.D	05/14/18	02:04	03:32	(unrelated sample)
ZZZZZZ	1G146121.D	05/14/18	02:21	03:49	(unrelated sample)
ZZZZZZ	1G146122.D	05/14/18	02:38	04:07	(unrelated sample)
JC65677-3	1G146123.D	05/14/18	02:55	04:24	(used for QC only; not part of job JC65663)
OP11950-MS	1G146124.D	05/14/18	03:13	04:41	Matrix Spike
OP11950-LS5	1G146124.D	05/14/18	03:13	04:41	Leachate Spike
OP11950-MSD	1G146125.D	05/14/18	03:30	04:58	Matrix Spike Duplicate
ZZZZZZ	1G146126.D	05/14/18	03:47	05:15	(unrelated sample)
ZZZZZZ	1G146127.D	05/14/18	04:04	05:33	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	G1G4644-DDT	Injection Date:	05/13/18
Lab File ID:	1G146108.D	Injection Time:	22:32
Instrument ID:	GC1G		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
OP11950-LB7	1G146128.D	05/14/18	04:22	05:50	Leachate Blank
OP11974-LB11	1G146129.D	05/14/18	04:39	06:07	Leachate Blank
G1G4644-CC4628	1G146130.D	05/14/18	04:56	06:24	Continuing cal 50
ZZZZZZ	1G146132.D	05/14/18	05:30	06:59	(unrelated sample)
ZZZZZZ	1G146133.D	05/14/18	05:47	07:16	(unrelated sample)
ZZZZZZ	1G146134.D	05/14/18	06:04	07:33	(unrelated sample)
JC65663-1A	1G146135.D	05/14/18	06:21	07:50	WC-4
JC65663-2A	1G146136.D	05/14/18	06:39	08:07	WC-3

12.7.2
12

GC Identification Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GOA4568-CC4559	Injection Date:	05/14/18
Lab File ID:	OA133319.D	Injection Time:	08:55
Instrument ID:	GCOA	Method:	SW846 8151A
Sample ID:	OP11951-BS1	Injection Date:	05/14/18
Lab File ID:	OA133322.D	Injection Time:	10:29
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
2,4-D	1	8.88	8.89	11.7		ug/l	8.0
2,4-D	2 ^a	10.57	10.57	10.8		ug/l	
2,4,5-TP (Silvex)	1	10.18	10.19	2.7		ug/l	16.0
2,4,5-TP (Silvex)	2 ^a	12.08	12.09	2.3		ug/l	

(a) QC results reported from this column.

12.8.1
12

GC Identification Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4043-CC4020	Injection Date:	05/14/18
Lab File ID:	3G116436.D	Injection Time:	10:56
Instrument ID:	GC3G	Method:	SW846 8151A

Sample ID:	OP11951-MS	Injection Date:	05/14/18
Lab File ID:	3G116442.D	Injection Time:	14:14
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
2,4-D	1 ^a	8.83	8.85	9.0		ug/l	10.5
2,4-D	2	9.48	9.49	10.0		ug/l	
2,4,5-TP (Silvex)	1 ^a	9.90	9.92	2.0		ug/l	35.3
2,4,5-TP (Silvex)	2	10.56	10.57	1.4		ug/l	

(a) QC results reported from this column.

12.8.2
12

GC Identification Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4043-CC4020	Injection Date:	05/14/18
Lab File ID:	3G116436.D	Injection Time:	10:56
Instrument ID:	GC3G	Method:	SW846 8151A
Sample ID:	OP11951-MSD	Injection Date:	05/14/18
Lab File ID:	3G116443.D	Injection Time:	14:42
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
2,4-D	1 ^a	8.82	8.85	14.0		ug/l	10.2
2,4-D	2	9.47	9.49	15.5		ug/l	
2,4,5-TP (Silvex)	1 ^a	9.89	9.92	4.0		ug/l	54.0
2,4,5-TP (Silvex)	2	10.55	10.57	2.3		ug/l	

(a) QC results reported from this column.

12.8.3
12

GC Identification Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G1G4644-CC4628	Injection Date:	05/13/18
Lab File ID:	1G146109.D	Injection Time:	22:49
Instrument ID:	GC1G	Method:	SW846 8081B

Sample ID:	OP11950-BS1	Injection Date:	05/13/18
Lab File ID:	1G146112.D	Injection Time:	23:42
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
gamma-BHC (Lindane)	1	3.30	3.29	1.4		ug/l	7.4
gamma-BHC (Lindane)	2 ^a	4.27	4.27	1.3		ug/l	
Endrin	1	5.99	5.99	1.4		ug/l	7.4
Endrin	2 ^a	7.78	7.78	1.3		ug/l	
Heptachlor	1 ^a	3.79	3.78	1.2		ug/l	0.0
Heptachlor	2	4.87	4.87	1.2		ug/l	
Heptachlor epoxide	1	4.83	4.82	1.3		ug/l	8.0
Heptachlor epoxide	2 ^a	6.18	6.18	1.2		ug/l	
Methoxychlor ^b	1 ^a	7.35	7.35	1.3		ug/l	16.7
Methoxychlor ^b	2	9.68	9.68	1.1		ug/l	

(a) QC results reported from this column.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

12.8.4
12

GC Identification Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G1G4644-CC4628	Injection Date:	05/13/18
Lab File ID:	1G146109.D	Injection Time:	22:49
Instrument ID:	GC1G	Method:	SW846 8081B

Sample ID:	OP11950-MS	Injection Date:	05/14/18
Lab File ID:	1G146124.D	Injection Time:	03:13
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
gamma-BHC (Lindane)	1 ^a	3.30	3.29	1.7		ug/l	0.0
gamma-BHC (Lindane)	2	4.27	4.27	1.7		ug/l	
Endrin	1 ^a	5.98	5.99	1.9		ug/l	11.1
Endrin	2	7.77	7.78	1.7		ug/l	
Heptachlor	1 ^a	3.78	3.78	1.6		ug/l	6.1
Heptachlor	2	4.87	4.87	1.7		ug/l	
Heptachlor epoxide	1 ^a	4.82	4.82	1.7		ug/l	0.0
Heptachlor epoxide	2	6.18	6.18	1.7		ug/l	
Methoxychlor	1 ^a	7.33	7.35	1.7		ug/l	0.0
Methoxychlor	2	9.67	9.68	1.7		ug/l	

(a) QC results reported from this column.

12.8.5
12

GC Identification Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G1G4644-CC4628	Injection Date:	05/13/18
Lab File ID:	1G146109.D	Injection Time:	22:49
Instrument ID:	GC1G	Method:	SW846 8081B
Sample ID:	OP11950-MSD	Injection Date:	05/14/18
Lab File ID:	1G146125.D	Injection Time:	03:30
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
gamma-BHC (Lindane)	1 ^a	3.30	3.29	1.2		ug/l	0.0
gamma-BHC (Lindane)	2	4.27	4.27	1.2		ug/l	
Endrin	1 ^a	5.99	5.99	1.3		ug/l	8.0
Endrin	2	7.78	7.78	1.2		ug/l	
Heptachlor	1 ^a	3.78	3.78	1.2		ug/l	0.0
Heptachlor	2	4.87	4.87	1.2		ug/l	
Heptachlor epoxide	1 ^a	4.83	4.82	1.2		ug/l	0.0
Heptachlor epoxide	2	6.18	6.18	1.2		ug/l	
Methoxychlor	1 ^a	7.33	7.35	1.3		ug/l	16.7
Methoxychlor	2	9.67	9.68	1.1		ug/l	

(a) QC results reported from this column.

12.8.6
12

GC Identification Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: GXX6342-CC6321	Injection Date: 05/09/18
Lab File ID: XX228245.D	Injection Time: 10:08
Instrument ID: GCXX	Method: SW846 8082A

Sample ID: OP11896-BS	Injection Date: 05/09/18
Lab File ID: XX228266.D	Injection Time: 12:08
Client ID: Blank Spike	

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 ^a			150		ug/kg	6.5
Aroclor 1016	2			160		ug/kg	
AR1016-A	1	3.18	3.17	183		ug/kg	
AR1016-A	2	4.20	4.20	199		ug/kg	
AR1016-B	1	3.56	3.56	149		ug/kg	
AR1016-B	2	4.75	4.75	157		ug/kg	
AR1016-C	1	4.12	4.11	138		ug/kg	
AR1016-C	2	5.39	5.39	144		ug/kg	
AR1016-D	1	4.28	4.27	143		ug/kg	
AR1016-D	2	5.58	5.58	153		ug/kg	
AR1016-E	1	4.77	4.76	139		ug/kg	
AR1016-E	2	6.24	6.24	145		ug/kg	
Aroclor 1260	1 ^a			142		ug/kg	2.8
Aroclor 1260	2			146		ug/kg	
AR1260-A	1	7.11	7.11	118		ug/kg	
AR1260-A	2	8.84	8.84	125		ug/kg	
AR1260-B	1	7.27	7.27	162		ug/kg	
AR1260-B	2	8.96	8.96	155		ug/kg	
AR1260-C	1	7.60	7.60	140		ug/kg	
AR1260-C	2	9.39	9.39	147		ug/kg	
AR1260-D	1	8.03	8.03	141		ug/kg	
AR1260-D	2	9.74	9.74	151		ug/kg	
AR1260-E	1	8.42	8.42	148		ug/kg	
AR1260-E	2	10.29	10.29	154		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: G2G4328-CC4311	Injection Date: 05/10/18
Lab File ID: 2G163185.D	Injection Time: 00:24
Instrument ID: GC2G	Method: SW846 8082A

Sample ID: OP11896-MS	Injection Date: 05/10/18
Lab File ID: 2G163189.D	Injection Time: 01:32
Client ID: Matrix Spike	

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 ^a			247		ug/kg	0.4
Aroclor 1016	2			246		ug/kg	
AR1016-A	1	3.15	3.15	247		ug/kg	
AR1016-A	2	4.08	4.09	247		ug/kg	
AR1016-B	1	3.55	3.55	199		ug/kg	
AR1016-B	2	4.62	4.62	195		ug/kg	
AR1016-C	1	4.10	4.09	189		ug/kg	
AR1016-C	2	5.26	5.26	193		ug/kg	
AR1016-D	1	4.26	4.25	224		ug/kg	
AR1016-D	2	5.45	5.45	175		ug/kg	
AR1016-E	1	4.76	4.76	378		ug/kg	
AR1016-E	2	6.09	6.09	418		ug/kg	
Aroclor 1254	1 ^a			1100		ug/kg	2.8
Aroclor 1254	2			1070		ug/kg	
AR1254-A	1	5.25	5.28 ^b	715		ug/kg	
AR1254-A	2	6.68	6.70 ^b	760		ug/kg	
AR1254-B	1	5.59	5.62 ^b	994		ug/kg	
AR1254-B	2	6.94	6.96 ^b	1100		ug/kg	
AR1254-C	1	5.96	5.98 ^b	938		ug/kg	
AR1254-C	2	7.44	7.46 ^b	903		ug/kg	
AR1254-D	1	6.12	6.14 ^b	1040		ug/kg	
AR1254-D	2	7.60	7.63 ^b	1050		ug/kg	
AR1254-E	1	6.49	6.52 ^b	1330		ug/kg	
AR1254-E	2	7.92	7.96 ^b	1300		ug/kg	
AR1254-F	1	6.74	6.77 ^b	1570		ug/kg	
AR1254-F	2	8.43	8.42 ^b	1310		ug/kg	
Aroclor 1260	1 ^a			320		ug/kg	28.4
Aroclor 1260	2			426		ug/kg	
AR1260-B	1	7.28	7.28	337		ug/kg	
AR1260-B	2	8.80	8.80	400		ug/kg	
AR1260-C	1	7.62	7.61	313		ug/kg	
AR1260-C	2	9.20	9.23	688		ug/kg	
AR1260-D	1	8.04	8.04	312		ug/kg	
AR1260-D	2	9.58	9.58	321		ug/kg	
AR1260-E	1	8.43	8.43	320		ug/kg	
AR1260-E	2	10.12	10.12	293		ug/kg	

(a) QC results reported from this column.

(b) StdRT taken from init cal: G2G4311-IC4311 2G162102.D 04/19/18 13:52

GC Identification Summary

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: G2G4328-CC4311	Injection Date: 05/10/18
Lab File ID: 2G163185.D	Injection Time: 00:24
Instrument ID: GC2G	Method: SW846 8082A

Sample ID: OP11896-MSD	Injection Date: 05/10/18
Lab File ID: 2G163190.D	Injection Time: 01:49
Client ID: Matrix Spike Duplicate	

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 ^a			265		ug/kg	1.1
Aroclor 1016	2			268		ug/kg	
AR1016-A	1	3.15	3.15	242		ug/kg	
AR1016-A	2	4.08	4.09	254		ug/kg	
AR1016-B	1	3.55	3.55	227		ug/kg	
AR1016-B	2	4.62	4.62	226		ug/kg	
AR1016-C	1	4.10	4.09	210		ug/kg	
AR1016-C	2	5.26	5.26	221		ug/kg	
AR1016-D	1	4.26	4.25	256		ug/kg	
AR1016-D	2	5.45	5.45	214		ug/kg	
AR1016-E	1	4.76	4.76	392		ug/kg	
AR1016-E	2	6.09	6.09	423		ug/kg	
Aroclor 1254	1 ^a			1070		ug/kg	0.9
Aroclor 1254	2			1060		ug/kg	
AR1254-A	1	5.26	5.28 ^b	705		ug/kg	
AR1254-A	2	6.68	6.70 ^b	747		ug/kg	
AR1254-B	1	5.59	5.62 ^b	950		ug/kg	
AR1254-B	2	6.94	6.96 ^b	1080		ug/kg	
AR1254-C	1	5.96	5.98 ^b	917		ug/kg	
AR1254-C	2	7.44	7.46 ^b	877		ug/kg	
AR1254-D	1	6.12	6.14 ^b	996		ug/kg	
AR1254-D	2	7.61	7.63 ^b	1050		ug/kg	
AR1254-E	1	6.49	6.52 ^b	1300		ug/kg	
AR1254-E	2	7.92	7.96 ^b	1280		ug/kg	
AR1254-F	1	6.74	6.77 ^b	1570		ug/kg	
AR1254-F	2	8.43	8.42 ^b	1300		ug/kg	
Aroclor 1260	1 ^a			337		ug/kg	1.5
Aroclor 1260	2			342		ug/kg	
AR1260-B	1	7.28	7.28	357		ug/kg	
AR1260-B	2	8.80	8.80	365		ug/kg	
AR1260-C	1	7.62	7.61	334		ug/kg	
AR1260-C	2	9.23	9.23	309		ug/kg	
AR1260-D	1	8.04	8.04	330		ug/kg	
AR1260-D	2	9.58	9.58	365		ug/kg	
AR1260-E	1	8.43	8.43	326		ug/kg	
AR1260-E	2	10.12	10.12	328		ug/kg	

(a) QC results reported from this column.

(b) StdRT taken from init cal: G2G4311-IC4311 2G162102.D 04/19/18 13:52

12.8.9
12

Surrogate Recovery Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8151A	Matrix: LEACHATE
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b
JC65663-1A	OA133355.D	71	76
JC65663-2A	OA133356.D	80	81
OP11951-BS1	OA133322.D	71	69
OP11951-LB7	3G116450.D	135	113
OP11951-LS5	3G116442.D	60	48* ^c
OP11951-MB1	OA133321.D	63	74
OP11951-MS	3G116442.D	60	48* ^c
OP11951-MSD	3G116443.D	100	73

Surrogate Compounds	Recovery Limits
S1 = 2,4-DCAA	50-142%

- (a) Recovery from GC signal #2
- (b) Recovery from GC signal #1
- (c) Outside the QC limits.

Surrogate Recovery Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8081B	Matrix: LEACHATE
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a	S2 ^b
JC65663-1A	1G146135.D	84	75	115	75
JC65663-2A	1G146136.D	81	77	89	71
OP11950-BS1	1G146112.D	69	69	41	35
OP11950-LB7	1G146128.D	79	78	49	47
OP11950-LS5	1G146124.D	81	87	78	68
OP11950-MB1	1G146111.D	82	81	46	35
OP11950-MS	1G146124.D	81	87	78	68
OP11950-MSD	1G146125.D	62	59	58	51

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	30-137%
S2 = Decachlorobiphenyl	10-137%

- (a) Recovery from GC signal #1
(b) Recovery from GC signal #2

Surrogate Recovery Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8082A	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a	S2 ^b
JC65663-1	2G163191.D	106	55	2306* ^c	2017* ^c
JC65663-2	2G163192.D	91	80	60	185* ^c
OP11896-BS	XX228266.D	93	94	92	95
OP11896-MB	XX228265.D	85	88	86	89
OP11896-MB	2G163187.D	88	92	81	79
OP11896-MS	2G163189.D	89	89	77	76
OP11896-MSD	2G163190.D	97	100	80	85

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	24-152%
S2 = Decachlorobiphenyl	10-166%

- (a) Recovery from GC signal #1
- (b) Recovery from GC signal #2
- (c) Outside control limits due to matrix interference.

Surrogate Recovery Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8015C	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S2 ^a	S3 ^a
JC65663-1	2Y91034.D	82	98	124
JC65663-2	2Y91035.D	76	97	73
OP11891-BS	2Y91027.D	85	105	83
OP11891-MB	2Y91026.D	73	90	73
OP11891-MS	2Y91029.D	1908* ^b	15073* ^b	12181* ^b
OP11891-MSD	2Y91030.D	13504* ^b	1543* ^b	392* ^b

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	18-132%
S2 = Tetracosane-d50	25-137%
S3 = 5a-Androstane	22-134%

- (a) Recovery from GC signal #1
(b) Outside control limits due to matrix interference.

GC Surrogate Retention Time Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4043-CC4020	Injection Date:	05/14/18
Lab File ID:	3G116436.D	Injection Time:	10:56
Instrument ID:	GC3G	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	7.92	7.45

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
ZZZZZZ	3G116438.D	05/14/18	12:19	7.93	7.47
JC65676-2	3G116439.D	05/14/18	12:48	7.93	7.47
ZZZZZZ	3G116440.D	05/14/18	13:16	7.93	7.47
ZZZZZZ	3G116441.D	05/14/18	13:45	7.93	7.47
OP11951-MS	3G116442.D	05/14/18	14:14	7.93	7.46
OP11951-LS5	3G116442.D	05/14/18	14:14	7.93	7.46
OP11951-MSD	3G116443.D	05/14/18	14:42	7.92	7.45

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.1
12

GC Surrogate Retention Time Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4043-CC4020	Injection Date:	05/14/18
Lab File ID:	3G116444.D	Injection Time:	15:11
Instrument ID:	GC3G	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	7.93	7.46

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
ZZZZZZ	3G116446.D	05/14/18	16:42	7.94	7.48
ZZZZZZ	3G116447.D	05/14/18	17:11	7.93	7.47
ZZZZZZ	3G116448.D	05/14/18	17:40	7.94	7.47
ZZZZZZ	3G116449.D	05/14/18	18:08	7.93	7.46
OP11951-LB7	3G116450.D	05/14/18	18:37	7.93	7.46
ZZZZZZ	3G116451.D	05/14/18	19:06	7.93	7.47
ZZZZZZ	3G116452.D	05/14/18	19:34	7.94	7.47

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.2
12

GC Surrogate Retention Time Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GOA4568-CC4559	Injection Date:	05/14/18
Lab File ID:	OA133319.D	Injection Time:	08:55
Instrument ID:	GCOA	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	8.55	7.35

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
OP11951-MB1	OA133321.D	05/14/18	10:00	8.56	7.36
OP11975-MB1	OA133321.D	05/14/18	10:00	8.56	7.36
OP11951-BS1	OA133322.D	05/14/18	10:29	8.55	7.35
OP11975-BS1	OA133322.D	05/14/18	10:29	8.55	7.35
LA43799-1B	OA133323.D	05/14/18	10:58	8.55	7.35
OP11975-LS6	OA133324.D	05/14/18	11:27	8.55	7.35
OP11975-MS	OA133324.D	05/14/18	11:27	8.55	7.35
OP11975-MSD	OA133325.D	05/14/18	11:55	8.54	7.34
ZZZZZZ	OA133326.D	05/14/18	12:24	8.56	7.33
OP11920-MS	OA133327.D	05/14/18	12:53	8.55	7.34
OP11920-MSD	OA133329.D	05/14/18	14:01	8.55	7.36
GOA4568-ECC4559	OA133330.D	05/14/18	14:53	8.55	7.35

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.3
12

GC Surrogate Retention Time Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GOA4568-CC4559	Injection Date:	05/15/18
Lab File ID:	OA133347.D	Injection Time:	00:04
Instrument ID:	GCOA	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	8.55	7.35

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
ZZZZZZ	OA133349.D	05/15/18	01:01	8.56	7.37
ZZZZZZ	OA133350.D	05/15/18	01:30	8.56	7.36
ZZZZZZ	OA133351.D	05/15/18	01:58	8.56	7.36
ZZZZZZ	OA133352.D	05/15/18	02:27	8.56	7.37
ZZZZZZ	OA133353.D	05/15/18	02:56	8.56	7.36
ZZZZZZ	OA133354.D	05/15/18	03:24	8.56	7.36
JC65663-1A	OA133355.D	05/15/18	03:53	8.56	7.36
JC65663-2A	OA133356.D	05/15/18	04:21	8.56	7.36
OP11975-LB11	OA133357.D	05/15/18	04:50	8.56	7.37
GOA4568-ECC4559	OA133358.D	05/15/18	05:19	8.55	7.35

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.4
12

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: G1G4644-CC4628	Injection Date: 05/13/18
Lab File ID: 1G146109.D	Injection Time: 22:49
Instrument ID: GC1G	Method: SW846 8081B

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.55	3.14	9.80	11.67

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP11875-MB2	1G146111.D	05/13/18	23:25	2.55	3.14	9.80	11.67
OP11974-MB1	1G146111.D	05/13/18	23:25	2.55	3.14	9.80	11.67
OP11950-MB1	1G146111.D	05/13/18	23:25	2.55	3.14	9.80	11.67
OP11974-BS1	1G146112.D	05/13/18	23:42	2.55	3.14	9.80	11.67
OP11875-BS2	1G146112.D	05/13/18	23:42	2.55	3.14	9.80	11.67
OP11950-BS1	1G146112.D	05/13/18	23:42	2.55	3.14	9.80	11.67
LA43799-1B	1G146113.D	05/14/18	00:00	2.55	3.13	9.79	11.66
OP11974-LS6	1G146114.D	05/14/18	00:18	2.55	3.14	9.79	11.67
OP11974-MS	1G146114.D	05/14/18	00:18	2.55	3.14	9.79	11.67
OP11974-MSD	1G146115.D	05/14/18	00:36	2.55	3.14	9.79	11.66
DA5034-1	1G146116.D	05/14/18	00:54	2.56	3.13	9.79	11.66
ZZZZZZ	1G146117.D	05/14/18	01:11	2.54	3.14	9.80	11.67
ZZZZZZ	1G146118.D	05/14/18	01:29	2.54	3.14	9.80	11.67
ZZZZZZ	1G146119.D	05/14/18	01:47	2.54	3.14	9.80	11.67
ZZZZZZ	1G146120.D	05/14/18	02:04	2.54	3.14	9.79	11.66
ZZZZZZ	1G146121.D	05/14/18	02:21	2.54	3.14	9.80	11.67
ZZZZZZ	1G146122.D	05/14/18	02:38	2.54	3.14	9.80	11.67
JC65677-3	1G146123.D	05/14/18	02:55	2.54	3.14	9.80	11.67
OP11950-LS5	1G146124.D	05/14/18	03:13	2.54	3.14	9.80	11.67
OP11950-MS	1G146124.D	05/14/18	03:13	2.54	3.14	9.80	11.67
OP11950-MSD	1G146125.D	05/14/18	03:30	2.54	3.14	9.80	11.67
ZZZZZZ	1G146126.D	05/14/18	03:47	2.55	3.14	9.80	11.67
ZZZZZZ	1G146127.D	05/14/18	04:04	2.55	3.14	9.80	11.67
OP11950-LB7	1G146128.D	05/14/18	04:22	2.55	3.14	9.79	11.66
OP11974-LB11	1G146129.D	05/14/18	04:39	2.54	3.14	9.80	11.67

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

12.10.5
12

GC Surrogate Retention Time Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G1G4644-CC4628	Injection Date:	05/14/18
Lab File ID:	1G146130.D	Injection Time:	04:56
Instrument ID:	GC1G	Method:	SW846 8081B

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.55	3.14	9.80	11.67

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
ZZZZZZ	1G146132.D	05/14/18	05:30	2.55	3.14	9.80	11.67
ZZZZZZ	1G146133.D	05/14/18	05:47	2.55	3.14	9.79	11.66
ZZZZZZ	1G146134.D	05/14/18	06:04	2.55	3.14	9.80	11.67
JC65663-1A	1G146135.D	05/14/18	06:21	2.54	3.14	9.80	11.67
JC65663-2A	1G146136.D	05/14/18	06:39	2.55	3.14	9.80	11.67

Surrogate
Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2G4328-CC4311	Injection Date:	05/10/18
Lab File ID:	2G163185.D	Injection Time:	00:24
Instrument ID:	GC2G	Method:	SW846 8082A

	S1 ^a	S1 ^b	S2 ^a	S2 ^b
	RT	RT	RT	RT
Check Std	2.78	3.43	9.97	11.78

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP11896-MB	2G163187.D	05/10/18	00:58	2.78	3.43	9.97	11.78
JC65281-10	2G163188.D	05/10/18	01:15	2.78	3.43	9.97	11.78
OP11896-MS	2G163189.D	05/10/18	01:32	2.78	3.43	9.97	11.78
OP11896-MSD	2G163190.D	05/10/18	01:49	2.78	3.43	9.97	11.78
JC65663-1	2G163191.D	05/10/18	02:06	2.78	3.43	10.02	11.80
JC65663-2	2G163192.D	05/10/18	02:23	2.78	3.43	9.97	11.78
ZZZZZZ	2G163193.D	05/10/18	02:40	2.78	3.43	9.97	11.78

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GXX6342-CC6321	Injection Date:	05/09/18
Lab File ID:	XX228245.D	Injection Time:	10:08
Instrument ID:	GCXX	Method:	SW846 8082A

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.80	3.54	9.95	11.95

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP11872-MB1	XX228256.D	05/09/18	10:46	2.80	3.54	9.96	11.96
OP11872-BS1	XX228257.D	05/09/18	11:02	2.80	3.54	9.95	11.95
OP11872-BSD	XX228258.D	05/09/18	11:19	2.80	3.54	9.95	11.96
OP11872-LB2	XX228259.D	05/09/18	11:35	2.80	3.54	9.95	11.95
OP11896-MB	XX228265.D	05/09/18	11:52	2.80	3.54	9.95	11.96
OP11896-BS	XX228266.D	05/09/18	12:08	2.80	3.54	9.95	11.95
ZZZZZZ	XX228267.D	05/09/18	12:25	2.80	3.54	9.95	11.95
ZZZZZZ	XX228260.D	05/09/18	12:41	2.80	3.54	9.95	11.95
ZZZZZZ	XX228260.D	05/09/18	12:41	2.80	3.54	9.95	11.95

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2Y3469-CC3446	Injection Date:	05/10/18
Lab File ID:	2Y91023.D	Injection Time:	10:00
Instrument ID:	GC2Y	Method:	SW846 8015C

	S1 ^a	S2 ^a	S3 ^a
	RT	RT	RT
Check Std	9.96	11.75	10.64

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT	S3 ^a RT
G2Y3469-RT	2Y91025.D	05/10/18	11:27			
OP11891-MB	2Y91026.D	05/10/18	12:01	9.97	11.75	10.64
OP11891-BS	2Y91027.D	05/10/18	12:34	9.97	11.75	10.65
JC65493-4	2Y91028.D	05/10/18	13:07	10.02	11.78	10.64
OP11891-MS	2Y91029.D	05/10/18	13:41	10.00	11.76	10.73
OP11891-MSD	2Y91030.D	05/10/18	14:14	10.00	11.73	10.64
JC65493-4	2Y91031.D	05/10/18	14:49	0.00	0.00	0.00

Surrogate Compounds

S1 = o-Terphenyl
S2 = Tetracosane-d50
S3 = 5a-Androstane

(a) Retention time from GC signal #1

12.10.9
12

GC Surrogate Retention Time Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2Y3469-CC3446	Injection Date:	05/10/18
Lab File ID:	2Y91032.D	Injection Time:	15:23
Instrument ID:	GC2Y	Method:	SW846 8015C

	S1 ^a	S2 ^a	S3 ^a
	RT	RT	RT
Check Std	9.96	11.75	10.64

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT	S3 ^a RT
JC65663-1	2Y91034.D	05/10/18	16:51	9.99	11.78	10.67
JC65663-2	2Y91035.D	05/10/18	17:24	9.97	11.76	10.65
ZZZZZZ	2Y91036.D	05/10/18	17:58	10.01	11.75	10.69
ZZZZZZ	2Y91037.D	05/10/18	18:32	9.98	11.78	10.70
ZZZZZZ	2Y91038.D	05/10/18	19:05	10.01	11.75	10.74
ZZZZZZ	2Y91039.D	05/10/18	19:39	9.97	11.76	10.65
ZZZZZZ	2Y91040.D	05/10/18	20:12	9.97	11.76	10.65
ZZZZZZ	2Y91041.D	05/10/18	20:46	9.97	11.76	10.65
ZZZZZZ	2Y91042.D	05/10/18	21:19	9.97	11.76	10.65
G2Y3469-ECC3446	2Y91043.D	05/10/18	21:53	9.97	11.75	10.64

Surrogate Compounds

S1 = o-Terphenyl
S2 = Tetracosane-d50
S3 = 5a-Androstane

(a) Retention time from GC signal #1

12.10.10
12

Initial Calibration Summary

Page 1 of 2

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICC4628
Lab FileID: 1G145471.D

Response Factor Report GC1G

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Initial Calibration

Calibration Files

2 =1G145468.D 5 =1G145469.D 10 =1G145470.D 25 =1G145471.D
50 =1G145472.D 100 =1G145474.D 1 =1G145467.D 75 =1G145473.D

Compound	2	5	10	25	50	100	1	75	Avg %RSD
1) I 1-bromo-2-nitrobenzen	-----ISTD-----								
2) Tetrachloro-	0.891	0.950	0.938	0.944	1.066	0.950	0.834	0.969	7.02
3) Hexachlorobe	1.639	1.655	1.700	1.633	1.820	1.624	1.792	1.641	4.53
4) alpha-BHC	1.118	1.306	1.304	1.329	1.545	1.476	1.219	1.447	10.48
5) gamma-BHC	1.115	1.188	1.201	1.193	1.371	1.288	1.221	1.288	6.43
6) Heptachlor	1.112	1.193	1.215	1.254	1.435	1.321	1.411	1.328	8.61
7) beta-BHC	0.547	0.591	0.534	0.563	0.613	0.570	0.511	0.574	5.72
8) delta-BHC	0.776	0.904	0.999	1.151	1.315	1.249	1.044	1.247	17.32
9) Aldrin	1.029	1.126	1.180	1.153	1.329	1.243	1.241	1.239	7.68
10) Alachlor	0.155	0.126	0.127	0.127	0.139	0.135	0.196	0.135	16.60
11) Heptachlor E	0.980	1.076	1.111	1.092	1.258	1.145	1.110	1.158	7.07
12) gamma-Chlord	1.010	1.054	1.110	1.101	1.274	1.186	1.228	1.188	7.86
13) alpha-Chlord	0.960	1.049	1.079	1.063	1.220	1.131	1.108	1.135	6.94
14) Endosulfan I	1.053	1.180	1.206	1.151	1.319	1.197	1.223	1.209	6.22
15) 4,4'-DDE	0.893	0.914	0.919	0.925	1.065	1.001	1.178	0.999	9.83
16) Dieldrin	1.027	1.059	1.081	1.093	1.270	1.182	1.057	1.177	7.41
17) Endrin	0.923	0.972	1.009	1.019	1.176	1.090	1.012	1.091	7.65
18) 4,4'-DDD	0.716	0.717	0.760	0.772	0.919	0.857	0.794	0.855	9.08
19) Endosulfan I	0.861	0.959	0.996	0.972	1.120	1.023	1.076	1.030	7.81
20) 4,4'-DDT	0.622	0.648	0.693	0.764	0.890	0.875	0.528	0.857	18.15
21) Endrin Aldeh	0.729	0.812	0.817	0.808	0.866	0.845	0.765	0.842	5.53
22) Endosulfan S	0.656	0.759	0.790	0.802	0.912	0.853	0.731	0.848	10.05
23) Methoxychlor	0.210	0.239	0.289	0.332	0.407	0.395	0.161	0.390	30.77
----- Quadratic regression ----- Coefficient = 0.9984									
Response Ratio = -0.01368 + 0.39702 *A + 0.00297 *A^2									
24) Mirex	0.747	0.807	0.826	0.805	0.878	0.793	0.818	0.802	4.51
25) Endrin Keton	0.835	0.878	0.917	0.932	1.066	0.986	0.890	0.991	7.91
26) Decachlorobi	0.948	0.953	0.978	0.951	1.045	0.940	0.985	0.956	3.52
27) I 1-bromo-2-nitrobenzen	-----ISTD-----								
28) Toxaphene{A}					0.018			0.018	0.00
29) Toxaphene{B}					0.044			0.044	0.00
30) Toxaphene{C}					0.037			0.037	0.00
31) Toxaphene{D}					0.025			0.025	0.00
32) Toxaphene{E}					0.027			0.027	0.00
33) I 1-bromo-2-nitrobenzen	-----ISTD-----								
34) Chlordane {A}					0.062			0.062	0.00
35) Chlordane {B}					0.026			0.026	0.00
36) Chlordane {C}					0.153			0.153	0.00
37) Chlordane {D}					0.239			0.239	0.00
38) Chlordane {E}					0.027			0.027	0.00

Signal #2

Initial Calibration Summary

Page 2 of 2

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICC4628
Lab FileID: 1G145471.D

1)	I	1-bromo-2-nitrobenzen	-----	ISTD-----							
2)	Tetrachloro-	1.015	1.010	1.030	1.009	1.140	0.987	1.062	1.012	1.033	4.67
3)	Hexachlorobe	1.367	1.308	1.308	1.271	1.437	1.246	1.840	1.282	1.382	14.08
4)	alpha-BHC	1.299	1.331	1.346	1.385	1.643	1.493	1.355	1.516	1.421	8.31
5)	gamma-BHC	1.214	1.241	1.259	1.276	1.487	1.322	1.188	1.347	1.292	7.33
6)	Heptachlor	1.186	1.248	1.276	1.278	1.484	1.314	1.351	1.337	1.309	6.72
7)	beta-BHC	0.528	0.562	0.592	0.582	0.663	0.567	0.626	0.587	0.588	7.00
8)	delta-BHC	1.026	1.112	1.135	1.157	1.374	1.237	1.098	1.249	1.173	9.27
9)	Aldrin	1.296	1.267	1.269	1.267	1.464	1.302	1.243	1.319	1.303	5.31
10)	Alachlor	0.189	0.179	0.180	0.164	0.180	0.152	0.191	0.158	0.174	8.26
11)	Heptachlor E	1.224	1.197	1.195	1.183	1.349	1.184	1.129	1.209	1.209	5.22
12)	gamma-Chlord	1.201	1.193	1.202	1.180	1.365	1.204	1.266	1.226	1.229	4.94
13)	alpha-Chlord	1.148	1.160	1.165	1.150	1.316	1.154	1.159	1.175	1.178	4.76
14)	Endosulfan I	1.144	1.101	1.102	1.085	1.237	1.084	1.175	1.106	1.129	4.73
15)	4,4'-DDE	0.999	1.040	1.050	1.051	1.231	1.113	0.956	1.124	1.070	7.95
16)	Dieldrin	1.186	1.190	1.201	1.189	1.379	1.227	1.281	1.247	1.237	5.36
17)	Endrin	1.039	1.049	1.051	1.044	1.209	1.079	1.080	1.090	1.080	5.12
18)	4,4'-DDD	0.791	0.767	0.791	0.791	0.933	0.854	0.877	0.848	0.831	6.76
19)	Endosulfan I	1.050	1.038	1.058	1.029	1.181	1.046	1.186	1.056	1.081	5.94
20)	4,4'-DDT	0.512	0.568	0.608	0.669	0.816	0.774	0.520	0.763	0.654	18.32
21)	Endrin Aldeh	0.848	0.843	0.803	0.823	0.887	0.822	0.927	0.836	0.848	4.71
22)	Endosulfan S	0.780	0.799	0.747	0.809	0.929	0.831	0.780	0.840	0.814	6.76
23)	Methoxychlor	0.317	0.361	0.316	0.348	0.406	0.359	0.315	0.362	0.348	9.07
24)	Mirex	0.709	0.760	0.715	0.737	0.814	0.699	0.852	0.717	0.750	7.35
25)	Endrin Keton	0.791	0.826	0.822	0.858	1.014	0.906	0.879	0.919	0.877	8.05
26)	Decachlorobi	0.971	0.934	0.897	0.916	1.025	0.882	0.876	0.907	0.926	5.42
27)	I	1-bromo-2-nitrobenzen	-----	ISTD-----							
28)	Toxaphene{A}					0.020				0.020	0.00
29)	Toxaphene{B}					0.025				0.025	0.00
30)	Toxaphene{C}					0.042				0.042	0.00
31)	Toxaphene{D}					0.025				0.025	0.00
32)	Toxaphene{E}					0.021				0.021	0.00
33)	I	1-bromo-2-nitrobenzen	-----	ISTD-----							
34)	Chlordane {A					0.057				0.057	0.00
35)	Chlordane {B					0.026				0.026	0.00
36)	Chlordane {C					0.143				0.143	0.00
37)	Chlordane {D					0.238				0.238	0.00
38)	Chlordane {E					0.025				0.025	0.00

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

1PST4628.M

Thu Apr 26 09:15:45 2018

RPT1

12.11.1
12

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145478.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145478.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145478.D\ECD2B.CH
Acq On : 4-25-18 03:39:32 PM Operator: dharas
Sample : icv4628-500 Inst : GC1G
Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.00	1.95- 2.01
2 SAB	Tetrachloro-m-xylene	0.943	0.964	-2.2	93	0.00	2.52- 2.58
26 SA	Decachlorobiphenyl	0.970	1.009	-4.0	100	0.00	9.79- 9.85
33 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	93	0.00	1.88- 2.08
34	Chlordane {A}	0.062	0.071	-14.5	107	0.00	3.70- 3.90
35	Chlordane {B}	0.026	0.026	0.0	93	0.00	4.66- 4.86
36	Chlordane {C}	0.153	0.154	-0.7	94	0.00	4.91- 5.11
37	Chlordane {D}	0.239	0.245	-2.5	95	0.00	5.07- 5.27
38	Chlordane {E}	0.027	0.030	-11.1	103	0.00	5.97- 6.17

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	110	0.00	2.27- 2.33
2 SAB	Tetrachloro-m-xylene	1.033	0.916	11.3	88	0.00	3.11- 3.17
26 SA	Decachlorobiphenyl	0.926	0.922	0.4	99	0.00	11.68-11.74
33 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	95	0.00	2.20- 2.40
34	Chlordane {A}	0.057	0.067	-17.5	111	0.00	4.78- 4.98
35	Chlordane {B}	0.026	0.030	-15.4	108	0.00	6.04- 6.24
36	Chlordane {C}	0.143	0.144	-0.7	96	0.00	6.40- 6.60
37	Chlordane {D}	0.238	0.239	-0.4	96	0.00	6.63- 6.83
38	Chlordane {E}	0.025	0.027	-8.0	104	0.00	7.82- 8.02

(#) = Out of Range
1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
Thu Apr 26 09:08:59 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145479.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145479.D\ECD1A.CH Vial: 15
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145479.D\ECD2B.CH
Acq On : 4-25-18 03:56:45 PM Operator: dharas
Sample : icv4628-500 Inst : GC1G
Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	110	0.00	1.95- 2.01
2 SAB	Tetrachloro-m-xylene	0.943	0.840	10.9	87	0.00	2.52- 2.58
26 SA	Decachlorobiphenyl	0.970	0.955	1.5	101	0.00	9.79- 9.85
27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	97	0.00	1.88- 2.08
28 L8	Toxaphene{A}	0.018	0.019	-5.6	104	0.00	5.59- 5.79
29 L8	Toxaphene{B}	0.044	0.046	-4.5	101	0.00	6.22- 6.42
30 L8	Toxaphene{C}	0.037	0.039	-5.4	102	0.00	6.39- 6.59
31 L8	Toxaphene{D}	0.025	0.030	-20.0	118	0.00	6.74- 6.94
32 L8	Toxaphene{E}	0.027	0.029	-7.4	105	0.00	7.39- 7.59
***** Signal #2 *****							
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	112	0.00	2.27- 2.33
2 SAB	Tetrachloro-m-xylene	1.033	0.909	12.0	89	0.00	3.11- 3.17
26 SA	Decachlorobiphenyl	0.926	0.900	2.8	98	0.00	11.68-11.74
27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	0.00	2.20- 2.40
28 L8	Toxaphene{A}	0.020	0.020	0.0	100	0.00	7.14- 7.34
29 L8	Toxaphene{B}	0.025	0.026	-4.0	100	0.00	8.03- 8.23
30 L8	Toxaphene{C}	0.042	0.043	-2.4	100	0.00	8.20- 8.40
31 L8	Toxaphene{D}	0.025	0.026	-4.0	101	0.00	8.63- 8.83
32 L8	Toxaphene{E}	0.021	0.021	0.0	99	0.00	9.53- 9.73

(#) = Out of Range
1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
Thu Apr 26 09:09:00 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145481.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145481.D\ECD1A.CH Vial: 17
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145481.D\ECD2B.CH
Acq On : 4-25-18 04:31:21 PM Operator: dharas
Sample : icv4628-50 Inst : GC1G
Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	1.95- 2.01
3	Hexachlorobenzene	1.688	1.743	-3.3	100	0.00	2.85- 2.91

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	113	0.00	2.27- 2.33
3	Hexachlorobenzene	1.382	1.329	3.8	104	0.00	3.65- 3.71

(#) = Out of Range
1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
Thu Apr 26 09:09:01 2018 RPT1

12.11.4
12

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145508.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145508.D\ECD1A.CH Vial: 25
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145508.D\ECD2B.CH
Acq On : 4-25-18 06:53:01 PM Operator: dharas
Sample : icv4628-50 Inst : GC1G
Misc : op11477,g1g4628,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	116	0.00	1.95- 2.01
10	Alachlor	0.142	0.126	11.3	105	0.00	4.22- 4.28

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	121	0.00	2.27- 2.33
10	Alachlor	0.174	0.151	13.2	101	0.00	5.09- 5.15

(#) = Out of Range
1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
Thu Apr 26 09:09:02 2018 RPT1

12.11.5
12

Initial Calibration Verification

Page 1 of 2

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145488.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145488.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145488.D\ECD2B.CH
Acq On : 4-25-18 07:10:15 PM Operator: dharas
Sample : icv4628-25 Inst : GC1G
Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	97	0.00	1.95-	2.01
2 SAB	Tetrachloro-m-xylene	0.943	0.835	11.5	86	0.00	2.52-	2.58
4 A	alpha-BHC	1.343	1.359	-1.2	99	0.00	2.98-	3.04
5 MA	gamma-BHC	1.233	1.293	-4.9	105	0.00	3.27-	3.33
6 MA	Heptachlor	1.284	1.312	-2.2	101	0.00	3.77-	3.83
7 B	beta-BHC	0.563	0.571	-1.4	98	0.00	3.35-	3.41
8 B	delta-BHC	1.086	1.141	-5.1	96	0.00	3.54-	3.61
9 MB	Aldrin	1.192	1.191	0.1	100	0.00	4.11-	4.17
11 B	Heptachlor Epoxide	1.116	1.105	1.0	98	0.00	4.81-	4.87
12 B	gamma-Chlordane	1.144	1.151	-0.6	101	0.00	4.98-	5.04
13 B	alpha-Chlordane	1.093	1.152	-5.4	105	0.00	5.15-	5.21
14 A	Endosulfan I	1.192	1.184	0.7	100	0.00	5.33-	5.39
15 B	4,4'-DDE	0.987	1.094	-10.8	115	0.00	5.26-	5.32
16 MA	Dieldrin	1.118	1.150	-2.9	102	0.00	5.65-	5.71
17 MA	Endrin	1.036	1.103	-6.5	105	0.00	5.98-	6.04
18 A	4,4'-DDD	0.799	0.839	-5.0	105	0.00	6.10-	6.17
19 B	Endosulfan II	1.005	0.989	1.6	99	0.00	6.30-	6.36
20 MA	4,4'-DDT	0.735	0.836	-13.7	106	0.00	6.52-	6.58
21 B	Endrin Aldehyde	0.811	0.790	2.6	95	0.00	6.93-	6.99
22 B	Endosulfan Sulfate	0.794	0.862	-8.6	104	0.00	7.61-	7.67
----- True Calc. % Drift -----								
23 A	Methoxychlor	25.000	26.181	-4.7	114	0.00	7.30-	7.36
----- AvgRF CCRF % Dev -----								
24	Mirex	0.810	0.766	5.4	92	0.00	7.48-	7.54
25 B	Endrin Ketone	0.937	0.876	6.5	91	0.00	8.06-	8.12
26 SA	Decachlorobiphenyl	0.970	0.868	10.5	88	0.00	9.79-	9.85

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	2.27-	2.33
2 SAB	Tetrachloro-m-xylene	1.033	0.893	13.6	89	0.00	3.11-	3.17
4 A	alpha-BHC	1.421	1.409	0.8	103	0.00	3.80-	3.86
5 MA	gamma-BHC	1.292	1.263	2.2	100	0.00	4.25-	4.31
6 MA	Heptachlor	1.309	1.318	-0.7	104	0.00	4.85-	4.91

Initial Calibration Verification

Page 2 of 2

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145488.D

7	B	beta-BHC	0.588	0.545	7.3	95	0.00	4.34-	4.40
8	B	delta-BHC	1.173	1.168	0.4	102	0.00	4.76-	4.82
9	MB	Aldrin	1.303	1.264	3.0	101	0.00	5.33-	5.39
11	B	Heptachlor Epoxide	1.209	1.183	2.2	101	0.00	6.17-	6.23
12	B	gamma-Chlordane	1.229	1.184	3.7	101	0.00	6.47-	6.53
13	B	alpha-Chlordane	1.178	1.142	3.1	100	0.00	6.70-	6.76
14	A	Endosulfan I	1.129	1.103	2.3	103	0.00	6.80-	6.86
15	B	4,4'-DDE	1.070	1.126	-5.2	108	0.00	6.95-	7.01
16	MA	Dieldrin	1.237	1.190	3.8	101	0.00	7.25-	7.31
17	MA	Endrin	1.080	1.104	-2.2	107	0.00	7.77-	7.83
18	A	4,4'-DDD	0.831	0.851	-2.4	109	0.00	7.93-	7.99
19	B	Endosulfan II	1.081	1.018	5.8	100	0.00	8.13-	8.19
20	MA	4,4'-DDT	0.654	0.753	-15.1	114	0.00	8.47-	8.53
21	B	Endrin Aldehyde	0.848	0.801	5.5	98	0.00	8.71-	8.77
22	B	Endosulfan Sulfate	0.814	0.891	-9.5	111	0.00	9.19-	9.25
23	A	Methoxychlor	0.348	0.342	1.7	99	0.00	9.66-	9.72
24		Mirex	0.750	0.686	8.5	94	0.00	9.98-	10.04
25	B	Endrin Ketone	0.877	0.831	5.2	98	0.00	10.03-	10.09
26	SA	Decachlorobiphenyl	0.926	0.898	3.0	99	0.00	11.68-	11.74

(#) = Out of Range
1G145471.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
Thu Apr 26 09:08:10 2018 RPT1

12.11.6

12

Continuing Calibration Summary

Page 1 of 2

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4644-CC4628
Lab FileID: 1G146109.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4644\1G146109.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4644\1G146109.D\ECD2B.CH
Acq On : 13 May 2018 10:49 pm Operator: christp
Sample : cc4628-25 Inst : GC1G
Misc : op11897,g1g4644,15.9,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Sun May 13 23:05:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	86	0.00	1.96-	2.02
2 SAB	Tetrachloro-m-xylene	0.943	0.937	0.6	85	0.00	2.52-	2.58
3	Hexachlorobenzene	1.688	1.553	8.0	81	0.00	2.85-	2.91
4 A	alpha-BHC	1.343	1.293	3.7	83	0.00	2.97-	3.03
5 MA	gamma-BHC	1.233	1.141	7.5	82	0.00	3.26-	3.32
6 MA	Heptachlor	1.284	1.114	13.2	76	-0.01	3.75-	3.81
7 B	beta-BHC	0.563	0.451	19.9	69	0.01	3.37-	3.43
8 B	delta-BHC	1.086	0.881	18.9	66	0.02	3.56-	3.62
9 MB	Aldrin	1.192	1.125	5.6	84	-0.01	4.09-	4.15
10	Alachlor	0.142	0.121	14.8	82	0.00	4.22-	4.28
11 B	Heptachlor Epoxide	1.116	1.071	4.0	84	-0.01	4.79-	4.85
12 B	gamma-Chlordane	1.144	0.991	13.4	77	-0.01	4.96-	5.02
13 B	alpha-Chlordane	1.093	0.956	12.5	77	-0.01	5.13-	5.19
14 A	Endosulfan I	1.192	1.317	-10.5	98	-0.01	5.31-	5.37
15 B	4,4'-DDE	0.987	0.644	34.8#	60	0.02	5.26-	5.32
16 MA	Dieldrin	1.118	1.097	1.9	86	-0.01	5.63-	5.69
17 MA	Endrin	1.036	1.070	-3.3	90	-0.01	5.96-	6.02
18 A	4,4'-DDD	0.799	0.598	25.2#	66	0.04	6.12-	6.19
19 B	Endosulfan II	1.005	1.035	-3.0	91	0.00	6.29-	6.35
20 MA	4,4'-DDT	0.735	0.700	4.8	78	0.01	6.51-	6.57
21 B	Endrin Aldehyde	0.811	0.823	-1.5	87	0.00	6.91-	6.97
22 B	Endosulfan Sulfate	0.794	0.854	-7.6	91	0.00	7.59-	7.65
----- True Calc. % Drift -----								
23 A	Methoxychlor	25.000	22.302	10.8	85	0.03	7.32-	7.38
----- AvgRF CCRF % Dev -----								
24	Mirex	0.810	0.870	-7.4	92	-0.01	7.45-	7.51
25 B	Endrin Ketone	0.937	0.868	7.4	80	0.00	8.04-	8.10
26 SA	Decachlorobiphenyl	0.970	1.069	-10.2	96	0.00	9.77-	9.83

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.01	2.27-	2.33
2 SAB	Tetrachloro-m-xylene	1.033	0.953	7.7	97	0.00	3.11-	3.17
3	Hexachlorobenzene	1.382	1.451	-5.0	117	0.00	3.64-	3.70
4 A	alpha-BHC	1.421	1.240	12.7	92	0.00	3.79-	3.85
5 MA	gamma-BHC	1.292	1.139	11.8	92	0.00	4.24-	4.30
6 MA	Heptachlor	1.309	1.160	11.4	93	0.00	4.84-	4.90

Continuing Calibration Summary

Page 2 of 2

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4644-CC4628
Lab FileID: 1G146109.D

7 B	beta-BHC	0.588	0.485	17.5	86	0.02	4.34- 4.40
8 B	delta-BHC	1.173	0.916	21.9#	81	0.02	4.75- 4.81
9 MB	Aldrin	1.303	1.174	9.9	95	0.00	5.31- 5.37
10	Alachlor	0.174	0.139	20.1#	87	0.00	5.08- 5.14
11 B	Heptachlor Epoxide	1.209	1.024	15.3	89	0.00	6.15- 6.21
12 B	gamma-Chlordane	1.229	1.048	14.7	91	0.00	6.45- 6.51
13 B	alpha-Chlordane	1.178	1.032	12.4	92	0.00	6.67- 6.73
14 A	Endosulfan I	1.129	0.955	15.4	90	0.00	6.78- 6.84
15 B	4,4'-DDE	1.070	0.904	15.5	88	0.01	6.94- 7.00
16 MA	Dieldrin	1.237	1.025	17.1	89	0.00	7.23- 7.29
17 MA	Endrin	1.080	0.944	12.6	93	0.00	7.75- 7.81
18 A	4,4'-DDD	0.831	0.582	30.0#	76	0.03	7.92- 7.98
19 B	Endosulfan II	1.081	0.896	17.1	89	0.00	8.11- 8.17
20 MA	4,4'-DDT	0.654	0.447	31.7#	69	0.01	8.45- 8.51
21 B	Endrin Aldehyde	0.848	0.668	21.2#	83	0.00	8.68- 8.74
22 B	Endosulfan Sulfate	0.814	0.632	22.4#	80	0.00	9.16- 9.22
23 A	Methoxychlor	0.348	0.270	22.4#	79	0.02	9.65- 9.71
24	Mirex	0.750	0.660	12.0	92	0.00	9.96-10.02
25 B	Endrin Ketone	0.877	0.692	21.1#	83	0.00	10.00-10.06
26 SA	Decachlorobiphenyl	0.926	0.853	7.9	96	0.00	11.64-11.70

(#) = Out of Range
 1G145471.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
 Mon May 14 09:18:28 2018 RPT1

12.11.7
 12

Continuing Calibration Summary

Page 1 of 2

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4644-CC4628
Lab FileID: 1G146130.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4644\1G146130.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4644\1G146130.D\ECD2B.CH
Acq On : 5-14-18 04:56:18 AM Operator: christp
Sample : cc4628-50 Inst : GC1G
Misc : op11974,g1g4644,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Sun May 13 23:05:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	0.00	1.96-	2.02
2 SAB	Tetrachloro-m-xylene	0.943	0.995	-5.5	91	0.00	2.52-	2.58
3	Hexachlorobenzene	1.688	1.674	0.8	90	0.00	2.85-	2.91
4 A	alpha-BHC	1.343	1.471	-9.5	93	0.00	2.97-	3.03
5 MA	gamma-BHC	1.233	1.259	-2.1	90	0.00	3.27-	3.33
6 MA	Heptachlor	1.284	1.398	-8.9	95	-0.01	3.75-	3.81
7 B	beta-BHC	0.563	0.565	-0.4	90	0.02	3.37-	3.43
8 B	delta-BHC	1.086	0.866	20.3#	64	0.02	3.56-	3.62
9 MB	Aldrin	1.192	1.316	-10.4	97	-0.01	4.09-	4.15
10	Alachlor	0.142	0.142	0.0	100	0.00	4.21-	4.27
11 B	Heptachlor Epoxide	1.116	1.241	-11.2	96	-0.01	4.79-	4.85
12 B	gamma-Chlordane	1.144	1.264	-10.5	97	-0.01	4.96-	5.02
13 B	alpha-Chlordane	1.093	1.185	-8.4	95	-0.01	5.13-	5.19
14 A	Endosulfan I	1.192	1.659	-39.2#	123	-0.01	5.31-	5.37
15 B	4,4'-DDE	0.987	0.714	27.7#	66	0.02	5.27-	5.33
16 MA	Dieldrin	1.118	1.297	-16.0	100	-0.01	5.63-	5.69
17 MA	Endrin	1.036	1.241	-19.8	103	-0.01	5.96-	6.02
18 A	4,4'-DDD	0.799	0.752	5.9	80	0.03	6.12-	6.19
19 B	Endosulfan II	1.005	1.194	-18.8	104	0.00	6.29-	6.35
20 MA	4,4'-DDT	0.735	0.785	-6.8	86	0.01	6.51-	6.57
21 B	Endrin Aldehyde	0.811	0.927	-14.3	105	0.00	6.91-	6.97
22 B	Endosulfan Sulfate	0.794	0.836	-5.3	90	0.00	7.59-	7.65
----- True Calc. % Drift -----								
23 A	Methoxychlor	50.000	55.244	-10.5	103	0.03	7.32-	7.38
----- AvgRF CCRF % Dev -----								
24	Mirex	0.810	0.943	-16.4	105	-0.01	7.45-	7.51
25 B	Endrin Ketone	0.937	0.933	0.4	86	0.00	8.03-	8.09
26 SA	Decachlorobiphenyl	0.970	1.135	-17.0	106	0.00	9.77-	9.83

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	122	0.01	2.27-	2.33
2 SAB	Tetrachloro-m-xylene	1.033	0.990	4.2	106	0.00	3.11-	3.17
3	Hexachlorobenzene	1.382	1.544	-11.7	131	0.00	3.64-	3.70
4 A	alpha-BHC	1.421	1.411	0.7	105	0.00	3.79-	3.85
5 MA	gamma-BHC	1.292	1.211	6.3	100	0.00	4.24-	4.30
6 MA	Heptachlor	1.309	1.325	-1.2	109	0.00	4.84-	4.90

Continuing Calibration Summary

Page 2 of 2

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4644-CC4628
Lab FileID: 1G146130.D

7	B	beta-BHC	0.588	0.562	4.4	104	0.02	4.34-	4.40
8	B	delta-BHC	1.173	0.748	36.2#	67	0.02	4.76-	4.82
9	MB	Aldrin	1.303	1.266	2.8	106	0.00	5.31-	5.37
10		Alachlor	0.174	0.148	14.9	100	0.00	5.08-	5.14
11	B	Heptachlor Epoxide	1.209	1.146	5.2	104	0.00	6.15-	6.21
12	B	gamma-Chlordane	1.229	1.176	4.3	105	0.00	6.45-	6.51
13	B	alpha-Chlordane	1.178	1.140	3.2	106	0.00	6.67-	6.73
14	A	Endosulfan I	1.129	1.050	7.0	104	0.00	6.78-	6.84
15	B	4,4'-DDE	1.070	0.985	7.9	98	0.02	6.94-	7.00
16	MA	Dieldrin	1.237	1.143	7.6	101	0.00	7.23-	7.29
17	MA	Endrin	1.080	1.026	5.0	104	0.00	7.75-	7.81
18	A	4,4'-DDD	0.831	0.657	20.9#	86	0.03	7.92-	7.98
19	B	Endosulfan II	1.081	0.978	9.5	101	0.00	8.11-	8.17
20	MA	4,4'-DDT	0.654	0.503	23.1#	75	0.01	8.45-	8.51
21	B	Endrin Aldehyde	0.848	0.709	16.4	98	0.00	8.68-	8.74
22	B	Endosulfan Sulfate	0.814	0.585	28.1#	77	0.00	9.16-	9.22
23	A	Methoxychlor	0.348	0.308	11.5	93	0.01	9.65-	9.71
24		Mirex	0.750	0.689	8.1	104	0.00	9.95-	10.01
25	B	Endrin Ketone	0.877	0.704	19.7	85	0.00	10.00-	10.06
26	SA	Decachlorobiphenyl	0.926	0.850	8.2	101	0.00	11.64-	11.70

(#) = Out of Range
1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
Mon May 14 09:18:57 2018 RPT1

12.11.8
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Initial Calibration Summary

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICC4311
Lab FileID: 2G162099.D

Response Factor Report HP G1530A

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 2PCB4311.M
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response Via : Initial Calibration

Calibration Files

50 =2G162102a.D 250 =2G162097.D 500 =2G162098.D
1000 =2G162099.D 2000 =2G162100.D 3000 =2G162101.D

	Compound	50	250	500	1000	2000	3000	Avg		%RSD
1)	S Tetrachloro-m...	3.853	3.487	3.538	3.692	3.667	3.785	3.670	E6	3.81
2)	AR1221-A				2.897			2.897	E4	0.00
3)	AR1221-B				4.202			4.202	E4	0.00
4)	AR1221-C				1.288			1.288	E5	0.00
5)	AR1221-D				1.466			1.466	E4	0.00
6)	AR1221-E				1.436			1.436	E4	0.00
7)	AR1232-A				9.734			9.734	E4	0.00
8)	AR1232-B				6.684			6.684	E4	0.00
9)	AR1232-C				1.305			1.305	E5	0.00
10)	AR1232-D				5.447			5.447	E4	0.00
11)	AR1232-E				5.149			5.149	E4	0.00
12)	AR1242-A				1.198			1.198	E5	0.00
13)	AR1242-B				2.525			2.525	E5	0.00
14)	AR1242-C				1.054			1.054	E5	0.00
15)	AR1242-D				1.090			1.090	E5	0.00
16)	AR1242-E				9.298			9.298	E4	0.00
17)	AR1248-A				5.917			5.917	E4	0.00
18)	AR1248-B				1.544			1.544	E5	0.00
19)	AR1248-C				1.652			1.652	E5	0.00
20)	AR1248-D				1.598			1.598	E5	0.00
21)	AR1248-E				1.421			1.421	E5	0.00
22)	AR1248-F				1.402			1.402	E5	0.00
23)	AR1248-G				1.572			1.572	E5	0.00
24)	AR1254-A				1.234			1.234	E5	0.00
25)	AR1254-B				2.588			2.588	E5	0.00
26)	AR1254-C				1.370			1.370	E5	0.00
27)	AR1254-D				2.459			2.459	E5	0.00
28)	AR1254-E				1.825			1.825	E5	0.00
29)	AR1254-F				1.712			1.712	E5	0.00
30)	AR1254-G				2.518			2.518	E5	0.00
31)	AR1016-A	9.451	7.869	7.627	7.558	7.126	7.105	7.789	E4	11.13
32)	AR1016-B	1.685	1.361	1.324	1.304	1.242	1.247	1.361	E5	12.16
33)	AR1016-C	3.261	2.840	2.792	2.854	2.797	2.854	2.900	E5	6.18
34)	AR1016-D	1.360	1.162	1.156	1.157	1.119	1.140	1.182	E5	7.49
35)	AR1016-E	1.424	1.227	1.184	1.176	1.145	1.161	1.219	E5	8.51
36)	AR1260-A	3.759	3.397	3.078	3.178	3.473	3.566	3.408	E5	7.36
37)	AR1260-B	1.602	1.368	1.501	1.530	1.316	1.349	1.444	E5	8.00
38)	AR1260-C	1.676	1.539	1.642	1.690	1.480	1.527	1.592	E5	5.54
39)	AR1260-D	3.627	3.372	3.743	3.953	3.621	3.712	3.671	E5	5.17
40)	AR1260-E	3.931	3.596	3.895	4.026	3.611	3.668	3.788	E5	4.88
41)	AR1262-A				1.935			1.935	E5	0.00
42)	AR1262-B				2.424			2.424	E5	0.00
43)	AR1262-C				2.270			2.270	E5	0.00
44)	AR1262-D				4.854			4.854	E5	0.00
45)	AR1262-E				5.588			5.588	E5	0.00
46)	AR1268-A				5.754			5.754	E5	0.00

Initial Calibration Summary

Page 2 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICC4311
Lab FileID: 2G162099.D

47)	AR1268-B				5.673			5.673	E5	0.00
48)	AR1268-C				4.730			4.730	E5	0.00
49)	AR1268-D				1.992			1.992	E5	0.00
50)	AR1268-E				1.615			1.615	E6	0.00
51) S	Decachlorobip...	4.697	4.061	3.924	3.931	3.825	3.897	4.056	E6	7.97

Signal #2 Calibration Files

50	=2G162102a.D	250	=2G162097.D	500	=2G162098.D
1000	=2G162099.D	2000	=2G162100.D	3000	=2G162101.D

	Compound	50	250	500	1000	2000	3000	Avg		%RSD
1) S	Tetrachloro-m...	2.359	2.161	2.233	2.322	2.300	2.354	2.288	E7	3.37
2)	AR1221-A				1.409			1.409	E5	0.00
3)	AR1221-B				2.507			2.507	E5	0.00
4)	AR1221-C				6.558			6.558	E5	0.00
5)	AR1221-D				1.222			1.222	E5	0.00
6)	AR1221-E				8.849			8.849	E4	0.00
7)	AR1232-A				5.020			5.020	E5	0.00
8)	AR1232-B				3.935			3.935	E5	0.00
9)	AR1232-C				8.152			8.152	E5	0.00
10)	AR1232-D				3.615			3.615	E5	0.00
11)	AR1232-E				2.173			2.173	E5	0.00
12)	AR1242-A				7.054			7.054	E5	0.00
13)	AR1242-B				1.548			1.548	E6	0.00
14)	AR1242-C				6.668			6.668	E5	0.00
15)	AR1242-D				4.564			4.564	E5	0.00
16)	AR1242-E				6.343			6.343	E5	0.00
17)	AR1248-A				3.627			3.627	E5	0.00
18)	AR1248-B				9.548			9.548	E5	0.00
19)	AR1248-C				5.697			5.697	E5	0.00
20)	AR1248-D				7.271			7.271	E5	0.00
21)	AR1248-E				8.799			8.799	E5	0.00
22)	AR1248-F				1.097			1.097	E6	0.00
23)	AR1248-G				1.220			1.220	E6	0.00
24)	AR1254-A				9.925			9.925	E5	0.00
25)	AR1254-B				9.839			9.839	E5	0.00
26)	AR1254-C				7.977			7.977	E5	0.00
27)	AR1254-D				1.634			1.634	E6	0.00
28)	AR1254-E				1.089			1.089	E6	0.00
29)	AR1254-F				1.181			1.181	E6	0.00
30)	AR1254-G				1.511			1.511	E6	0.00
31)	AR1016-A	4.464	3.663	3.554	3.667	3.532	3.597	3.746	E5	9.50
32)	AR1016-B	1.008	0.785	0.781	0.777	0.734	0.721	0.801	E6	13.07
33)	AR1016-C	1.870	1.661	1.687	1.744	1.719	1.721	1.734	E6	4.20
34)	AR1016-D	8.979	7.276	7.297	7.378	7.117	7.090	7.523	E5	9.59
35)	AR1016-E	5.760	4.925	4.923	5.029	5.023	5.124	5.131	E5	6.19
36)	AR1260-A	2.222	1.949	1.820	1.882	2.043	2.081	2.000	E6	7.30
37)	AR1260-B	1.009	0.803	0.897	0.917	0.804	0.816	0.874	E6	9.41
38)	AR1260-C	1.124	0.949	1.023	1.051	0.980	1.006	1.022	E6	5.98
39)	AR1260-D	2.347	1.930	2.170	2.256	2.063	2.114	2.146	E6	6.84
40)	AR1260-E	2.219	1.874	2.089	2.144	1.933	1.971	2.038	E6	6.55
41)	AR1262-A				1.044			1.044	E6	0.00
42)	AR1262-B				1.428			1.428	E6	0.00
43)	AR1262-C				1.336			1.336	E6	0.00
44)	AR1262-D				2.732			2.732	E6	0.00
45)	AR1262-E				3.034			3.034	E6	0.00
46)	AR1268-A				3.086			3.086	E6	0.00
47)	AR1268-B				3.099			3.099	E6	0.00
48)	AR1268-C				2.498			2.498	E6	0.00

12.11.9
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Initial Calibration Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICC4311
Lab FileID: 2G162099.D

49)	AR1268-D				1.038				1.038	E6	0.00
50)	AR1268-E				8.238				8.238	E6	0.00
51) S	Decachlorobip...	2.219	1.845	1.796	1.874	1.841	1.884	1.910	E7	8.10	

(#) = Out of Range											

2PCB4311.M Thu Apr 19 15:44:17 2018 RPT1

Initial Calibration Verification

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD1A.CH Vial: 13
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	3.975 E6	-8.3	108	0.00	2.75-	2.81
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	76.686 E3	1.5	101	0.00	3.12-	3.18
32	AR1016-B	136.058	141.949 E3	-4.3	109	0.00	3.53-	3.59
33	AR1016-C	289.965	305.729 E3	-5.4	107	0.00	4.08-	4.14
34	AR1016-D	118.235	126.283 E3	-6.8	109	0.00	4.24-	4.30
35	AR1016-E	121.934	124.361 E3	-2.0	106	0.00	4.75-	4.81
36	AR1260-A	340.850	344.355 E3	-1.0	108	0.00	7.12-	7.18
37	AR1260-B	144.444	147.854 E3	-2.4	97	0.00	7.28-	7.34
38	AR1260-C	159.229	170.106 E3	-6.8	101	0.00	7.62-	7.68
39	AR1260-D	367.146	387.161 E3	-5.5	98	0.00	8.05-	8.11
40	AR1260-E	378.788	394.757 E3	-4.2	98	0.00	8.39-	8.55
41	AR1262-A			-----NA-----				

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Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

```
***** Signal #2 *****
```

12.11.10 12

Initial Calibration Verification

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	18.717	E6	2.0	100	0.00		11.78-11.84	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162099.D 2PCB4311.M Thu Apr 19 15:43:22 2018 RPT1

12.11.10
12

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162107.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD1A.CH Vial: 14
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
2	AR1221-A	28.967	30.231 E3	-4.4	104	0.00	2.18-	2.38
3	AR1221-B	42.023	40.285 E3	4.1	96	0.00	2.85-	3.05
4	AR1221-C	128.795	122.705 E3	4.7	95	0.00	3.05-	3.25
5	AR1221-D	14.657	11.965 E3	18.4	82	0.00	3.46-	3.66
6	AR1221-E	14.364	14.535 E3	-1.2	101	0.00	3.60-	3.80
24	AR1254-A	123.364	129.470 E3	-4.9	105	0.00	4.78-	5.78
25	AR1254-B	258.753	268.829 E3	-3.9	104	0.00	5.52-	5.72
26	AR1254-C	136.952	143.562 E3	-4.8	105	0.00	5.88-	6.08
27	AR1254-D	245.908	257.604 E3	-4.8	105	0.00	6.04-	6.24
28	AR1254-E	182.509	189.827 E3	-4.0	104	0.00	6.42-	6.62
29	AR1254-F	171.196	179.789 E3	-5.0	105	0.00	6.67-	6.87
30	AR1254-G	251.778	263.449 E3	-4.6	105	0.00	7.05-	7.25

***** Signal #2 *****

2	AR1221-A	140.927	146.033 E3	-3.6	104	0.00	2.77-	2.97
3	AR1221-B	250.670	252.257 E3	-0.6	101	0.00	3.72-	3.92
4	AR1221-C	655.831	636.187 E3	3.0	97	0.00	3.99-	4.19
5	AR1221-D	122.166	105.889 E3	13.3	87	0.00	4.55-	4.75
6	AR1221-E	88.492	89.522 E3	-1.2	101	0.00	4.67-	4.87
24	AR1254-A	992.497	1051.994 E3	-6.0	106	0.00	6.20-	7.20
25	AR1254-B	983.915	1037.386 E3	-5.4	105	0.00	6.86-	7.06
26	AR1254-C	797.725	839.207 E3	-5.2	105	0.00	7.37-	7.56
27	AR1254-D	1.634	1.719 E6	-5.2	105	0.00	7.53-	7.73
28	AR1254-E	1.089	1.136 E6	-4.3	104	0.00	7.86-	8.06
29	AR1254-F	1.181	1.231 E6	-4.2	104	0.00	8.32-	8.52
30	AR1254-G	1.511	1.615 E6	-6.9	107	0.00	8.62-	8.82

(#) = Out of Range
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 16:15:57 2018 RPT1

Initial Calibration Verification

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162108.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD1A.CH Vial: 15
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD2B.CH
Acq On : 19 Apr 2018 3:51 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
7	AR1232-A	97.343	98.365 E3	-1.0	101	0.00	3.05-	3.25
8	AR1232-B	66.843	68.498 E3	-2.5	102	0.00	3.46-	3.66
9	AR1232-C	130.487	135.897 E3	-4.1	104	0.00	4.01-	4.21
10	AR1232-D	54.474	56.766 E3	-4.2	104	0.00	4.17-	4.37
11	AR1232-E	51.489	53.116 E3	-3.2	103	0.00	4.68-	4.88
41	AR1262-A	193.481	203.733 E3	-5.3	105	0.00	6.67-	6.87
42	AR1262-B	242.383	258.534 E3	-6.7	107	0.00	7.21-	7.41
43	AR1262-C	227.005	238.593 E3	-5.1	105	0.00	7.55-	7.75
44	AR1262-D	485.357	514.218 E3	-5.9	106	0.00	7.98-	8.18
45	AR1262-E	558.779	598.920 E3	-7.2	107	0.00	8.43-	8.63

***** Signal #2 *****

7	AR1232-A	501.961	512.204 E3	-2.0	102	0.00	4.00-	4.20
8	AR1232-B	393.517	401.624 E3	-2.1	102	0.00	4.54-	4.74
9	AR1232-C	815.235	827.075 E3	-1.5	101	0.00	5.18-	5.38
10	AR1232-D	361.545	372.004 E3	-2.9	103	0.00	5.37-	5.57
11	AR1232-E	217.324	220.012 E3	-1.2	101	0.00	6.02-	6.22
41	AR1262-A	1.044	1.084 E6	-3.8	104	0.00	8.09-	8.29
42	AR1262-B	1.428	1.495 E6	-4.7	105	0.00	8.73-	8.93
43	AR1262-C	1.336	1.393 E6	-4.3	104	0.00	9.16-	9.36
44	AR1262-D	2.732	2.841 E6	-4.0	104	0.00	9.51-	9.71
45	AR1262-E	3.034	3.169 E6	-4.4	104	0.00	10.02-	10.22

(#) = Out of Range
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 16:15:59 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162109.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD1A.CH Vial: 16
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD2B.CH
Acq On : 19 Apr 2018 4:08 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
12	AR1242-A	119.785	114.904 E3	4.1	96	0.00	3.46-	3.66
13	AR1242-B	252.484	244.856 E3	3.0	97	0.00	4.01-	4.21
14	AR1242-C	105.443	101.790 E3	3.5	97	0.00	4.17-	4.37
15	AR1242-D	108.979	102.543 E3	5.9	94	0.00	4.68-	4.88
16	AR1242-E	92.981	87.846 E3	5.5	94	0.00	5.27-	5.47
46	AR1268-A	575.351	581.914 E3	-1.1	101	0.00	8.42-	8.62
47	AR1268-B	567.310	583.888 E3	-2.9	103	0.00	8.48-	8.68
48	AR1268-C	473.024	486.973 E3	-2.9	103	0.00	8.75-	8.95
49	AR1268-D	199.180	204.671 E3	-2.8	103	0.00	9.24-	9.44
50	AR1268-E	1.615	1.646 E6	-1.9	102	0.00	9.64-	9.84

***** Signal #2 *****

12	AR1242-A	705.391	679.662 E3	3.6	96	0.00	4.53-	4.73
13	AR1242-B	1.548	1.499 E6	3.2	97	0.00	5.18-	5.38
14	AR1242-C	666.761	667.573 E3	-0.1	100	0.00	5.37-	5.57
15	AR1242-D	456.404	438.896 E3	3.8	96	0.00	6.01-	6.21
16	AR1242-E	634.341	601.296 E3	5.2	95	0.00	6.63-	6.83
46	AR1268-A	3.086	3.010 E6	2.5	98	0.00	10.02-	10.22
47	AR1268-B	3.099	3.068 E6	1.0	99	0.00	10.09-	10.29
48	AR1268-C	2.498	2.444 E6	2.2	98	0.00	10.46-	10.66
49	AR1268-D	1.038	1.042 E6	-0.4	100	0.00	10.86-	11.06
50	AR1268-E	8.238	7.835 E6	4.9	95	0.00	11.33-	11.53

(#) = Out of Range
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 16:23:22 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162110.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD1A.CH Vial: 17
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
17	AR1248-A	59.174	55.493 E3	6.2	94	0.00	3.45-	3.65
18	AR1248-B	154.398	154.781 E3	-0.2	100	0.00	4.01-	4.21
19	AR1248-C	165.207	165.431 E3	-0.1	100	0.00	4.40-	4.60
20	AR1248-D	159.827	163.966 E3	-2.6	103	0.00	4.68-	4.88
21	AR1248-E	142.066	146.330 E3	-3.0	103	0.00	4.79-	4.99
22	AR1248-F	140.157	154.154 E3	-10.0	110	0.00	5.26-	5.46
23	AR1248-G	157.220	168.971 E3	-7.5	107	0.00	5.12-	6.12

***** Signal #2 *****

17	AR1248-A	362.749	338.780 E3	6.6	93	0.00	4.53-	4.73
18	AR1248-B	954.786	932.709 E3	2.3	98	0.00	5.18-	5.38
19	AR1248-C	569.681	572.997 E3	-0.6	101	0.00	5.63-	5.83
20	AR1248-D	727.117	735.665 E3	-1.2	101	0.00	6.01-	6.21
21	AR1248-E	879.894	914.038 E3	-3.9	104	0.00	6.19-	6.39
22	AR1248-F	1.097	1.158 E6	-5.6	106	0.00	6.62-	6.82
23	AR1248-G	1.220	1.306 E6	-7.0	107	0.00	6.55-	7.55

(#) = Out of Range
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 16:41:13 2018 RPT1

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4328-CC4311
Lab FileID: 2G163185.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4328\2G163185.D\ECD1A.CH Vial: 63
 Signal #2 : C:\msdchem\1\DATA\2G4328\2G163185.D\ECD2B.CH
 Acq On : 10 May 2018 12:24 am Operator: tianweir
 Sample : cc4311-500 Inst : HP G1530A
 Misc : OP11775,G2G4328,15.0,,,10,1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
 Title :
 Last Update : Thu May 10 09:36:48 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	4.056 E6	-10.5	115	0.00	2.75-	2.81
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	87.288 E3	-12.1	114	0.00	3.12-	3.18
32	AR1016-B	136.058	150.878 E3	-10.9	114	0.00	3.52-	3.58
33	AR1016-C	289.965	302.597 E3	-4.4	108	0.00	4.06-	4.12
34	AR1016-D	118.235	127.727 E3	-8.0	111	0.00	4.22-	4.28
35	AR1016-E	121.934	132.577 E3	-8.7	112	0.00	4.73-	4.79
36	AR1260-A	340.850	337.342 E3	1.0	110	0.00	7.09-	7.15
37	AR1260-B	144.444	165.016 E3	-14.2	110	0.00	7.25-	7.31
38	AR1260-C	159.229	182.144 E3	-14.4	111	0.00	7.58-	7.64
39	AR1260-D	367.146	396.953 E3	-8.1	106	0.00	8.01-	8.07
40	AR1260-E	378.788	407.865 E3	-7.7	105	0.00	8.35-	8.51
41	AR1262-A			-----NA-----				

12.11.15
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Continuing Calibration Summary

Page 2 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4328-CC4311
Lab FileID: 2G163185.D

42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								
48	AR1268-C								
49	AR1268-D								
50	AR1268-E								
51 S	Decachlorobiphenyl	4.056	3.847 E6	5.2	98	0.00		9.94-10.00	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	23.768 E6	-3.9	106	0.00		3.40- 3.46	
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1016-A	374.605	427.050 E3	-14.0	120	0.00		4.06- 4.12	
32	AR1016-B	0.801	0.825 E6	-3.0	106	0.00		4.59- 4.65	
33	AR1016-C	1.734	1.715 E6	1.1	102	0.00		5.23- 5.29	
34	AR1016-D	752.270	790.817 E3	-5.1	108	0.00		5.42- 5.48	
35	AR1016-E	513.080	519.333 E3	-1.2	105	0.00		6.06- 6.12	
36	AR1260-A	2.000	1.814 E6	9.3	100	0.00		8.66- 8.72	
37	AR1260-B	0.874	0.917 E6	-4.9	102	0.00		8.77- 8.83	
38	AR1260-C	1.022	1.035 E6	-1.3	101	0.00		9.20- 9.26	
39	AR1260-D	2.146	2.151 E6	-0.2	99	0.00		9.55- 9.61	
40	AR1260-E	2.038	2.088 E6	-2.5	100	0.00		10.09-10.15	
41	AR1262-A								
42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								

12.11.15
12

Continuing Calibration Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4328-CC4311
Lab FileID: 2G163185.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	17.153	E6	10.2	96	0.00	11.75-11.81		

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162098.D 2PCB4311.M Thu May 10 09:50:54 2018 RPT1

12.11.15
12

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4328-CC4311
Lab FileID: 2G163196.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4328\2G163196.D\ECD1A.CH Vial: 71
Signal #2 : C:\msdchem\1\DATA\2G4328\2G163196.D\ECD2B.CH
Acq On : 10 May 2018 3:37 am Operator: tianweir
Sample : cc4311-1000 Inst : HP G1530A
Misc : OP11896,G2G4328,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu May 10 09:36:48 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	4.642 E6	-26.5#	126	0.00	2.75-	2.81
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	92.790 E3	-19.1	123	0.00	3.12-	3.18
32	AR1016-B	136.058	160.382 E3	-17.9	123	0.00	3.52-	3.58
33	AR1016-C	289.965	340.508 E3	-17.4	119	0.00	4.06-	4.12
34	AR1016-D	118.235	142.956 E3	-20.9#	124	0.00	4.22-	4.28
35	AR1016-E	121.934	143.964 E3	-18.1	122	0.00	4.73-	4.79
36	AR1260-A	340.850	377.602 E3	-10.8	119	0.00	7.09-	7.15
37	AR1260-B	144.444	180.900 E3	-25.2#	118	0.00	7.25-	7.31
38	AR1260-C	159.229	201.955 E3	-26.8#	120	0.00	7.58-	7.64
39	AR1260-D	367.146	451.829 E3	-23.1#	114	0.00	8.01-	8.07
40	AR1260-E	378.788	445.590 E3	-17.6	111	0.00	8.35-	8.51
41	AR1262-A			-----NA-----				

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4328-CC4311
Lab FileID: 2G163196.D

42	AR1262-B												
43	AR1262-C												
44	AR1262-D												
45	AR1262-E												
46	AR1268-A												
47	AR1268-B												
48	AR1268-C												
49	AR1268-D												
50	AR1268-E												
51 S	Decachlorobiphenyl	4.056	4.073	E6	-0.4	104	0.00					9.94-10.00	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	27.087	E6	-18.4	117	0.00					3.40- 3.46	
2	AR1221-A												
3	AR1221-B												
4	AR1221-C												
5	AR1221-D												
6	AR1221-E												
7	AR1232-A												
8	AR1232-B												
9	AR1232-C												
10	AR1232-D												
11	AR1232-E												
12	AR1242-A												
13	AR1242-B												
14	AR1242-C												
15	AR1242-D												
16	AR1242-E												
17	AR1248-A												
18	AR1248-B												
19	AR1248-C												
20	AR1248-D												
21	AR1248-E												
22	AR1248-F												
23	AR1248-G												
24	AR1254-A												
25	AR1254-B												
26	AR1254-C												
27	AR1254-D												
28	AR1254-E												
29	AR1254-F												
30	AR1254-G												
31	AR1016-A	374.605	444.127	E3	-18.6	121	0.00					4.05- 4.11	
32	AR1016-B	0.801	0.875	E6	-9.2	113	0.00					4.59- 4.65	
33	AR1016-C	1.734	1.930	E6	-11.3	111	0.00					5.23- 5.29	
34	AR1016-D	752.270	825.863	E3	-9.8	112	0.00					5.41- 5.47	
35	AR1016-E	513.080	570.854	E3	-11.3	114	0.00					6.06- 6.12	
36	AR1260-A	2.000	1.917	E6	4.1	102	0.00					8.65- 8.71	
37	AR1260-B	0.874	0.976	E6	-11.7	106	0.00					8.77- 8.83	
38	AR1260-C	1.022	1.119	E6	-9.5	106	0.00					9.20- 9.26	
39	AR1260-D	2.146	2.367	E6	-10.3	105	0.00					9.55- 9.61	
40	AR1260-E	2.038	2.235	E6	-9.7	104	0.00					10.09-10.15	
41	AR1262-A												
42	AR1262-B												
43	AR1262-C												
44	AR1262-D												
45	AR1262-E												
46	AR1268-A												
47	AR1268-B												

12.11.16
12

Continuing Calibration Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4328-CC4311
Lab FileID: 2G163196.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	20.207	E6	-5.8	108	0.00		11.75-11.81	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G163207.D 2PCB4311.M Thu May 10 09:51:18 2018 RPT1

12.11.16
12

Initial Calibration Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2Y3446-ICC3446
Lab FileID: 2Y90536.D

Response Factor Report GC2Y2Z

Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M (Chemstation Integrator)
Title :
Last Update : Wed Apr 11 13:40:25 2018
Response via : Initial Calibration

Calibration Files
250 =2y90534.D 500 =2y90535.D 1000=2y90536.D 2500=2y90537.D
5000=2y90538.D 100 =2y90533.D 10k =2y90539.D 50k =2y90540.D 25 =2y90531.D 50 =2y90532.D

Compound	250	500	1000	2500	5000	100	10k	50k	25	50	Avg	%RSD
1) TPH-DRO	1.139	1.287	1.385	1.342	1.315	1.201	1.323	1.469	1.107	1.134	1.270	E6 9.46
2) TPH-DRO (C10	1.139	1.287	1.385	1.342	1.315	1.201	1.323	1.469	1.107	1.134	1.270	E6 9.46
3) TPH (C12-C40	1.139	1.287	1.385	1.342	1.315	1.201	1.323	1.469	1.107	1.134	1.270	E6 9.46
4) TPH-ORO (>C2	1.139	1.287	1.385	1.342	1.315	1.201	1.323	1.469	1.107	1.134	1.270	E6 9.46
5) TPH-HRO (C18	1.139	1.287	1.385	1.342	1.315	1.201	1.323	1.469	1.107	1.134	1.270	E6 9.46
6) TPH-DRO (C10	1.139	1.287	1.385	1.342	1.315	1.201	1.323	1.469	1.107	1.134	1.270	E6 9.46
7) TPH-ORO (C20	1.139	1.287	1.385	1.342	1.315	1.201	1.323	1.469	1.107	1.134	1.270	E6 9.46
8) o-Terphenyl	1.552	1.761	1.898	1.808	1.776	1.657			2.075	1.815	1.793	E6 8.67
9) 5a-Androstan	1.478	1.686	1.805	1.740	1.767	1.572			1.802	1.678	1.691	E6 6.83
10) Tetracosane-	1.021	1.224	1.362	1.351	1.377	1.018			1.030	1.003	1.173	E6 14.70

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

DR02Y3446.M Wed Apr 11 13:44:10 2018 RPT1

12.11.17
12

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2Y3446-ICV3446
Lab FileID: 2Y90541.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Y3446\2Y90541.D Vial: 26
Acq On : 10 Apr 2018 3:42 pm Operator: rebeccak
Sample : icv3446-1000 Inst : GC2Y2Z
Misc : op11131,g2y3446,10.4,,,1,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M (Chemstation Integrator)
Title :
Last Update : Wed Apr 11 13:40:25 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-DRO	1.270	1.143 E6	10.0	83	0.00	4.08-13.50
2 H	TPH-DRO (C10-C44)			-----NA-----			
3 H	TPH (C12-C40)			-----NA-----			
4 H	TPH-ORO (>C28-C40)			-----NA-----			
5 H	TPH-HRO (C18-C36)			-----NA-----			
6 H	TPH-DRO (C10-C20)			-----NA-----			
7 H	TPH-ORO (C20-C34)			-----NA-----			
8 S	o-Terphenyl			-----NA-----			
9 S	5a-Androstane			-----NA-----			
10 S	Tetracosane-d50			-----NA-----			

(#) = Out of Range

2y90536.D DR02Y3446.M

SPCC's out = 0 CCC's out = 0
Wed Apr 11 13:43:51 2018 RPT1

12.11.18
12

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2Y3469-CC3446
Lab FileID: 2Y91023.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Y3469\2Y91023.D Vial: 4
Acq On : 10 May 2018 10:00 am Operator: thomasl
Sample : cc3446-1000 Inst : GC2Y2Z
Misc : op11850,g2y3469,10.0,,,1,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M (Chemstation Integrator)
Title :
Last Update : Fri May 11 10:29:55 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-DRO	1.270	1.217 E6	4.2	88	0.00	4.08-13.50
2 H	TPH-DRO (C10-C44)			-----NA-----			
3 H	TPH (C12-C40)			-----NA-----			
4 H	TPH-ORO (>C28-C40)			-----NA-----			
5 H	TPH-HRO (C18-C36)			-----NA-----			
6 H	TPH-DRO (C10-C20)			-----NA-----			
7 H	TPH-ORO (C20-C34)			-----NA-----			
8 S	o-Terphenyl	1.793	1.660 E6	7.4	87	0.00	9.93- 9.99
9 S	5a-Androstane	1.691	1.524 E6	9.9	84	0.00	10.61-10.67
10 S	Tetracosane-d50	1.173	1.269 E6	-8.2	93	0.00	11.72-11.78

(#) = Out of Range
2y90536.D DR02Y3446.M

SPCC's out = 0 CCC's out = 0
Fri May 11 10:42:00 2018 RPT1

12.11.19
12

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2Y3469-CC3446
Lab FileID: 2Y91032.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Y3469\2Y91032.D Vial: 3
Acq On : 10 May 2018 3:23 pm Operator: thomasl
Sample : cc3446-500 Inst : GC2Y2Z
Misc : op11891,g2y3469,10.1,,,10,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M (Chemstation Integrator)
Title :
Last Update : Fri May 11 10:29:55 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-DRO	1.270	1.188 E6	6.5	92	0.00	4.08-13.50
2 H	TPH-DRO (C10-C44)			-----NA-----			
3 H	TPH (C12-C40)			-----NA-----			
4 H	TPH-ORO (>C28-C40)			-----NA-----			
5 H	TPH-HRO (C18-C36)			-----NA-----			
6 H	TPH-DRO (C10-C20)			-----NA-----			
7 H	TPH-ORO (C20-C34)			-----NA-----			
8 S	o-Terphenyl	1.793	1.642 E6	8.4	93	0.00	9.93- 9.99
9 S	5a-Androstane	1.691	1.543 E6	8.8	92	0.00	10.61-10.67
10 S	Tetracosane-d50	1.173	1.325 E6	-13.0	108	0.00	11.72-11.78

(#) = Out of Range
2y90535.D DR02Y3446.M

SPCC's out = 0 CCC's out = 0
Fri May 11 10:41:40 2018 RPT1

12.11.20
12

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2Y3469-ECC3446
Lab FileID: 2Y91043.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Y3469\2Y91043.D Vial: 4
Acq On : 10 May 2018 9:53 pm Operator: rebeccak
Sample : cc3446-1000 Inst : GC2Y2Z
Misc : op11891,g2y3469,10.0,,,1,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M (Chemstation Integrator)
Title :
Last Update : Fri May 11 10:29:55 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-DR0	1.270	1.164 E6	8.3	84	0.00	4.08-13.50
2 H	TPH-DR0 (C10-C44)			-----NA-----			
3 H	TPH (C12-C40)			-----NA-----			
4 H	TPH-OR0 (>C28-C40)			-----NA-----			
5 H	TPH-HR0 (C18-C36)			-----NA-----			
6 H	TPH-DR0 (C10-C20)			-----NA-----			
7 H	TPH-OR0 (C20-C34)			-----NA-----			
8 S	o-Terphenyl	1.793	1.487 E6	17.1	78	0.00	9.94-10.00
9 S	5a-Androstane	1.691	1.232 E6	27.1#	68	0.00	10.61-10.67
10 S	Tetracosane-d50	1.173	1.088 E6	7.2	80	0.00	11.72-11.78

(#)= Out of Range

2y90536.D DR02Y3446.M

SPCC's out = 0 CCC's out = 0

Fri May 11 10:42:01 2018 RPT1

12.11.21
12

Initial Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4020-ICC4020
Lab FileID: 3G115849.D

Response Factor Report GC3G

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)
Title : HERB
Last Update : Tue Apr 10 14:43:51 2018
Response via : Initial Calibration

Calibration Files

500 =3G115851.D 400 =3G115850.D 300 =3G115849.D 200 =3G115848.D
100 =3G115847.D 50 =3G115846.D

	Compound	500	400	300	200	100	50	Avg	%RSD
1)	Dalapon	7.083	7.185	7.406	7.854	8.144	8.279	7.659 E6	6.60
2) S	2,4-DCAA	3.395	3.459	3.670	3.877	4.246	4.778	3.904 E6	13.52
3)	Dicamba	1.693	1.733	1.817	1.866	1.929	2.020	1.843 E7	6.63
4)	MCPD	8.521	8.350	8.258	7.576	5.974		7.736 E3	13.55
5)	MCPA	1.407	1.377	1.417	1.367	1.194		1.352 E4	6.74
6)	Dichloroprop	3.780	3.774	4.012	4.262	4.656	5.052	4.256 E6	12.03
7)	2,4-D	4.908	4.979	5.254	5.553	6.030	6.504	5.538 E6	11.32
8)	Pentachlorophenol	6.916	6.953	6.924	7.246	7.227	7.203	7.078 E7	2.29
9)	2,4,5-TP	2.659	2.711	2.817	2.909	2.976	3.082	2.859 E7	5.63
10)	2,4,5-T	2.676	2.730	2.846	2.940	3.214	3.225	2.939 E7	8.05
11)	2,4-DB	2.821	2.888	3.052	3.192	3.458	3.888	3.216 E6	12.44
12)	Dinoseb	1.346	1.371	1.445	1.534	1.621	1.739	1.509 E7	10.09
13)	Picloram	3.049	3.102	3.215	3.300	3.423	3.617	3.284 E7	6.44

Signal #2

1)	Dalapon	1.761	1.772	1.822	1.909	1.945	1.969	1.863 E6	4.83
2) S	2,4-DCAA	8.144	8.280	8.342	8.604	8.877	9.343	8.598 E5	5.22
3)	Dicamba	4.872	5.077	5.157	5.458	6.312	5.996	5.479 E6	10.31
4)	MCPD	1.668	1.662	1.613	1.524	1.172		1.528 E3	13.55
5)	MCPA	2.780	2.783	2.748	2.648	2.181		2.628 E3	9.74
6)	Dichloroprop	1.066	1.088	1.114	1.166	1.222	1.269	1.154 E6	6.92
7)	2,4-D	1.367	1.419	1.440	1.500	1.558	1.612	1.482 E6	6.18
8)	Pentachlorophenol	2.489	2.546	2.507	2.573	2.469	2.382	2.494 E7	2.68
9)	2,4,5-TP	1.019	1.036	1.049	1.061	1.025	1.004	1.032 E7	2.01
10)	2,4,5-T	0.953	0.965	0.984	1.003	0.986	1.006	0.983 E7	2.11
11)	2,4-DB	8.083	8.098	8.311	8.326	8.197	8.128	8.190 E5	1.30
12)	Dinoseb	6.018	6.007	6.129	6.267	6.105	6.090	6.102 E6	1.54
13)	Picloram	1.401	1.400	1.417	1.402	1.364	1.353	1.390 E7	1.82

(#) = Out of Range

3H4020.M

Tue Apr 10 14:49:23 2018

GC3G

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4020-ICV4020
Lab FileID: 3G115853.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4020\3G115853.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\3G4020\3G115853.D\ECD2B.CH
Acq On : 4-10-2018 02:10:00 PM Operator: vinced
Sample : icv4020-300 Inst : GC3G
Misc : op11152,g3g4020,15.0,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)
Title : HERB
Last Update : Tue Apr 10 14:43:51 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	7.659	7.336 E6	4.2	99	0.00	2.45-	2.51
2 S	2,4-DCAA	3.904	3.735 E6	4.3	102	0.00	7.43-	7.50
3	Dicamba	18.429	19.458 E6	-5.6	107	0.00	7.63-	7.70
4	MCPD	7.736	8.540 E3	-10.4	103	0.00	7.89-	7.96
5	MCPA	13.523	14.274 E3	-5.6	101	0.00	8.06-	8.13
6	Dichloroprop	4.256	3.945 E6	7.3	98	0.00	8.51-	8.58
7	2,4-D	5.538	5.255 E6	5.1	100	0.00	8.79-	8.86
8	Pentachlorophenol	70.783	77.775 E6	-9.9	112	0.00	9.05-	9.12
9	2,4,5-TP	28.591	28.106 E6	1.7	100	0.00	9.87-	9.94
10	2,4,5-T	29.385	30.215 E6	-2.8	106	0.00	10.23-	10.30
11	2,4-DB	3.216	3.108 E6	3.4	102	0.00	10.95-	11.04
12	Dinoseb	15.094	14.627 E6	3.1	101	0.00	12.39-	12.46
13	Picloram	32.841	31.101 E6	5.3	97	0.00	12.13-	12.20

***** Signal #2 *****

1	Dalapon	1.863	1.814 E6	2.6	100	0.00	2.41-	2.48
2 S	2,4-DCAA	859.825	852.586 E3	0.8	102	0.00	7.90-	7.96
3	Dicamba	5.479	5.725 E6	-4.5	111	0.00	8.12-	8.19
4	MCPD	1.528	1.683 E3	-10.1	104	0.00	8.27-	8.34
5	MCPA	2.628	2.764 E3	-5.2	101	0.00	8.58-	8.65
6	Dichloroprop	1.154	1.084 E6	6.1	97	0.00	9.01-	9.08
7	2,4-D	1.482	1.449 E6	2.2	101	0.00	9.44-	9.51
8	Pentachlorophenol	24.942	28.185 E6	-13.0	112	0.00	9.91-	9.98
9	2,4,5-TP	10.323	10.371 E6	-0.5	99	0.00	10.53-	10.60
10	2,4,5-T	9.832	10.002 E6	-1.7	102	0.00	11.06-	11.15
11	2,4-DB	819.049	797.665 E3	2.6	96	0.00	11.79-	11.86
12	Dinoseb	6.102	6.096 E6	0.1	99	0.00	12.18-	12.25
13	Picloram	13.896	13.572 E6	2.3	96	0.00	13.62-	13.69

(#) = Out of Range
3G115849.D 3H4020.M

SPCC's out = 0 CCC's out = 0
Tue Apr 10 14:49:40 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4043-CC4020
Lab FileID: 3G116436.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4043\3G116436.D\ECD1A.CH Vial: 3
 Signal #2 : C:\MSDCHEM\1\DATA\3G4043\3G116436.D\ECD2B.CH
 Acq On : 14 May 2018 10:56 am Operator: vinced
 Sample : cc4020-300 Inst : GC3G
 Misc : op11920,g3g4043,15.0,,,5,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)
 Title : HERB
 Last Update : Mon May 14 12:22:01 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	7.659	6.758 E6	11.8	91	0.00	2.44-	2.50
2 S	2,4-DCAA	3.904	3.998 E6	-2.4	109	0.00	7.42-	7.49
3	Dicamba	18.429	19.562 E6	-6.1	108	0.00	7.62-	7.69
4	MCPD	7.736	7.962 E3	-2.9	96	0.00	7.87-	7.94
5	MCPA	13.523	13.177 E3	2.6	93	0.00	8.05-	8.12
6	Dichloroprop	4.256	4.699 E6	-10.4	117	0.00	8.50-	8.57
7	2,4-D	5.538	6.243 E6	-12.7	119	0.00	8.81-	8.88
8	Pentachlorophenol	70.783	78.317 E6	-10.6	113	0.00	9.04-	9.11
9	2,4,5-TP	28.591	31.727 E6	-11.0	113	0.00	9.88-	9.95
10	2,4,5-T	29.385	32.104 E6	-9.3	113	0.00	10.26-	10.33
11	2,4-DB	3.216	3.912 E6	-21.6#	128	0.00	10.98-	11.07
12	Dinoseb	15.094	18.719 E6	-24.0#	130	0.00	12.38-	12.45
13	Picloram	32.841	28.567 E6	13.0	89	0.00	12.17-	12.24

***** Signal #2 *****

1	Dalapon	1.863	1.629 E6	12.6	89	0.00	2.41-	2.48
2 S	2,4-DCAA	859.825	917.288 E3	-6.7	110	0.00	7.89-	7.95
3	Dicamba	5.479	5.230 E6	4.5	101	0.00	8.11-	8.18
4	MCPD	1.528	1.716 E3	-12.3	106	0.00	8.27-	8.34
5	MCPA	2.628	2.893 E3	-10.1	105	0.00	8.57-	8.64
6	Dichloroprop	1.154	1.255 E6	-8.8	113	0.00	9.01-	9.08
7	2,4-D	1.482	1.622 E6	-9.4	113	0.00	9.45-	9.52
8	Pentachlorophenol	24.942	26.353 E6	-5.7	105	0.00	9.91-	9.98
9	2,4,5-TP	10.323	10.502 E6	-1.7	100	0.00	10.54-	10.61
10	2,4,5-T	9.832	9.885 E6	-0.5	100	0.00	11.08-	11.17
11	2,4-DB	819.049	771.636 E3	5.8	93	0.00	11.81-	11.88
12	Dinoseb	6.102	6.177 E6	-1.2	101	0.00	12.18-	12.25
13	Picloram	13.896	12.287 E6	11.6	87	0.00	13.64-	13.71

(#) = Out of Range
 3G115849.D 3H4020.M

SPCC's out = 0 CCC's out = 0
 Mon May 14 12:23:38 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4043-CC4020
Lab FileID: 3G116444.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4043\3G116444.D\ECD1A.CH Vial: 2
 Signal #2 : C:\MSDCHEM\1\DATA\3G4043\3G116444.D\ECD2B.CH
 Acq On : 5-14-2018 03:11:36 PM Operator: vinced
 Sample : cc4020-200 Inst : GC3G
 Misc : op11951,g3g4043,30,,,2.5,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)
 Title : HERB
 Last Update : Tue May 15 10:44:37 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	7.659	6.823 E6	10.9	87	0.00	2.44-	2.50
2 S	2,4-DCAA	3.904	4.410 E6	-13.0	114	0.00	7.42-	7.49
3	Dicamba	18.429	21.080 E6	-14.4	113	0.00	7.62-	7.69
4	MCPD	7.736	7.529 E3	2.7	99	0.00	7.87-	7.94
5	MCPA	13.523	14.842 E3	-9.8	109	0.00	8.05-	8.12
6	Dichloroprop	4.256	5.361 E6	-26.0#	126	0.00	8.51-	8.58
7	2,4-D	5.538	6.968 E6	-25.8#	125	0.00	8.83-	8.90
8	Pentachlorophenol	70.783	85.667 E6	-21.0#	118	0.00	9.04-	9.11
9	2,4,5-TP	28.591	34.353 E6	-20.2#	118	0.00	9.89-	9.96
10	2,4,5-T	29.385	35.527 E6	-20.9#	121	-0.01	10.27-	10.34
11	2,4-DB	3.216	4.100 E6	-27.5#	128	-0.01	10.99-	11.08
12	Dinoseb	15.094	23.468 E6	-55.5#	153	0.00	12.38-	12.45
13	Picloram	32.841	27.558 E6	16.1	84	-0.02	12.19-	12.26

***** Signal #2 *****

1	Dalapon	1.863	1.564 E6	16.0	82	0.00	2.41-	2.48
2 S	2,4-DCAA	859.825	976.255 E3	-13.5	113	0.00	7.90-	7.96
3	Dicamba	5.479	5.230 E6	4.5	96	0.00	8.11-	8.18
4	MCPD	1.528	1.630 E3	-6.7	107	0.00	8.27-	8.34
5	MCPA	2.628	2.831 E3	-7.7	107	0.00	8.57-	8.64
6	Dichloroprop	1.154	1.381 E6	-19.7	118	0.00	9.01-	9.08
7	2,4-D	1.482	1.746 E6	-17.8	116	0.00	9.46-	9.53
8	Pentachlorophenol	24.942	26.654 E6	-6.9	104	0.00	9.91-	9.98
9	2,4,5-TP	10.323	10.516 E6	-1.9	99	0.00	10.54-	10.61
10	2,4,5-T	9.832	9.779 E6	0.5	97	0.00	11.09-	11.18
11	2,4-DB	819.049	786.076 E3	4.0	94	-0.01	11.82-	11.89
12	Dinoseb	6.102	6.369 E6	-4.4	102	0.00	12.18-	12.25
13	Picloram	13.896	10.858 E6	21.9#	77	0.00	13.65-	13.72

(#) = Out of Range
 3G115848.D 3H4020.M

SPCC's out = 0 CCC's out = 0
 Tue May 15 14:38:35 2018 GC3G

12.11.25
 12

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4043-CC4020
Lab FileID: 3G116455.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4043\3G116455.D\ECD1A.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\3G4043\3G116455.D\ECD2B.CH
Acq On : 5-14-2018 09:00:59 PM Operator: vinced
Sample : cc4020-300 Inst : GC3G
Misc : op11937,g3g4043,15.7,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 10:44:37 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	7.659	7.002 E6	8.6	95	0.00	2.44-	2.50
2 S	2,4-DCAA	3.904	4.229 E6	-8.3	115	0.00	7.42-	7.49
3	Dicamba	18.429	21.459 E6	-16.4	118	0.00	7.62-	7.69
4	MCPD	7.736	8.386 E3	-8.4	102	0.00	7.87-	7.94
5	MCPA	13.523	15.519 E3	-14.8	110	0.00	8.05-	8.12
6	Dichloroprop	4.256	4.916 E6	-15.5	123	0.00	8.50-	8.57
7	2,4-D	5.538	6.423 E6	-16.0	122	-0.01	8.82-	8.89
8	Pentachlorophenol	70.783	82.352 E6	-16.3	119	0.00	9.04-	9.11
9	2,4,5-TP	28.591	33.847 E6	-18.4	120	0.00	9.89-	9.96
10	2,4,5-T	29.385	33.200 E6	-13.0	117	-0.01	10.27-	10.34
11	2,4-DB	3.216	3.929 E6	-22.2#	129	-0.01	10.99-	11.08
12	Dinoseb	15.094	20.156 E6	-33.5#	139	0.00	12.38-	12.45
13	Picloram	32.841	28.255 E6	14.0	88	-0.03	12.19-	12.26

***** Signal #2 *****

1	Dalapon	1.863	1.590 E6	14.7	87	0.00	2.41-	2.48
2 S	2,4-DCAA	859.825	934.305 E3	-8.7	112	0.00	7.89-	7.95
3	Dicamba	5.479	5.769 E6	-5.3	112	0.00	8.11-	8.18
4	MCPD	1.528	1.775 E3	-16.2	110	0.00	8.26-	8.33
5	MCPA	2.628	2.970 E3	-13.0	108	0.00	8.57-	8.64
6	Dichloroprop	1.154	1.223 E6	-6.0	110	0.00	9.01-	9.08
7	2,4-D	1.482	1.564 E6	-5.5	109	0.00	9.46-	9.53
8	Pentachlorophenol	24.942	25.998 E6	-4.2	104	0.00	9.91-	9.98
9	2,4,5-TP	10.323	10.381 E6	-0.6	99	0.00	10.54-	10.61
10	2,4,5-T	9.832	9.754 E6	0.8	99	0.00	11.09-	11.18
11	2,4-DB	819.049	747.663 E3	8.7	90	-0.01	11.82-	11.89
12	Dinoseb	6.102	5.969 E6	2.2	97	0.00	12.18-	12.25
13	Picloram	13.896	11.938 E6	14.1	84	0.00	13.65-	13.72

(#) = Out of Range
3G115849.D 3H4020.M

SPCC's out = 0 CCC's out = 0
Tue May 15 14:39:05 2018 GC3G

Initial Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4559-ICC4559
Lab FileID: OA133102.D

Response Factor Report SVOA0A

Method : C:\MSDCHEM\1\METHODS\H0A4559.M (ChemStation Integrator)
Title : HERB
Last Update : Thu May 03 09:51:17 2018
Response via : Initial Calibration

Calibration Files

500 =oa133104.d 400 =oa133103.d 300 =oa133102.d 200 =oa133101.d
100 =oa133100.d 50 =oa133099.d

	Compound	500	400	300	200	100	50	Avg	%RSD
1)	Dalapon	0.879	0.891	0.915	0.957	1.044	1.104	0.965	E6 9.38
2) S	2,4-DCAA	5.066	5.108	5.284	5.352	6.015	6.645	5.578	E5 11.20
3)	Dicamba	2.394	2.407	2.479	2.409	2.611	2.853	2.526	E6 7.11
4)	MCPD	1.472	1.507	1.511	1.512	1.506		1.502	E3 1.11
5)	MCPA	2.638	2.730	2.748	2.877	3.025		2.804	E3 5.35
6)	Dichloroprop	6.003	6.108	6.378	6.606	7.324	8.217	6.773	E5 12.54
7)	2,4-D	7.450	7.618	7.880	8.223	8.964	9.568	8.284	E5 9.98
8)	Pentachlorophenol	1.127	1.130	1.116	1.123	1.134	1.098	1.121	E7 1.16
9)	2,4,5-TP	4.300	4.307	4.332	4.320	4.391	4.511	4.360	E6 1.86
10)	2,4,5-T	4.168	4.277	4.308	4.315	4.378	4.553	4.333	E6 2.95
11)	2,4-DB	4.144	4.302	4.448	4.625	4.800	5.487	4.635	E5 10.31
12)	Dinoseb	2.716	2.826	2.952	2.911	3.152	3.449	3.001	E6 8.77
13)	Picloram	5.114	5.127	5.205	5.110	5.027	5.019	5.100	E6 1.36

Signal #2

1)	Dalapon	1.054	1.076	1.110	1.169	1.260	1.353	1.170	E7 9.92
2) S	2,4-DCAA	0.769	0.798	0.852	0.912	1.079	1.235	0.941	E7 19.27
3)	Dicamba	3.365	3.524	3.766	3.882	4.386	4.492	3.903	E7 11.65
4)	MCPD	2.714	2.796	2.809	2.828	2.584		2.746	E4 3.66
5)	MCPA	5.757	6.054	6.408	6.741	6.904		6.373	E4 7.45
6)	Dichloroprop	0.763	0.790	0.845	0.898	1.060	1.227	0.930	E7 19.27
7)	2,4-D	1.055	1.066	1.161	1.237	1.358	1.537	1.236	E7 15.05
8)	Pentachlorophenol	1.313	1.354	1.375	1.430	1.525	1.610	1.434	E8 7.87
9)	2,4,5-TP	4.878	4.992	5.212	5.398	5.663	6.258	5.400	E7 9.37
10)	2,4,5-T	5.176	5.342	5.558	5.728	5.887	6.352	5.674	E7 7.39
11)	2,4-DB	6.568	6.741	7.050	7.420	7.949	8.558	7.381	E6 10.30
12)	Dinoseb	2.420	2.534	2.714	2.861	3.258	3.641	2.905	E7 15.98
13)	Picloram	3.970	4.133	4.291	4.448	4.769	5.057	4.445	E7 9.14

(#) = Out of Range

H0A4559.M

Thu May 03 10:03:01 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4559-ICV4559
Lab FileID: OA133105.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4559\oa133105.d\ECD1A.CH Vial: 0
Signal #2 : C:\msdchem\1\data\OA4559\oa133105.d\ECD2B.CH
Acq On : 02-May-18, 18:42:11 Operator: vinced
Sample : icv4559-300 Inst : SVOA0A
Misc : op11359,goa4559,30,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Thu May 03 09:51:17 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	964.956	945.953	E3	2.0	103	0.00	2.32-	2.38
2 S	2,4-DCAA	557.841	561.020	E3	-0.6	106	0.00	7.32-	7.38
3	Dicamba	2.526	2.760	E6	-9.3	111	0.00	7.53-	7.59
4	MCPD	1.502	1.579	E3	-5.1	104	0.00	7.81-	7.87
5	MCPA	2.804	2.875	E3	-2.5	105	0.00	8.00-	8.06
6	Dichloroprop	677.279	676.760	E3	0.1	106	0.00	8.53-	8.59
7	2,4-D	828.384	843.668	E3	-1.8	107	0.00	8.86-	8.93
8	Pentachlorophenol	11.215	12.796	E6	-14.1	115	0.00	9.13-	9.19
9	2,4,5-TP	4.360	4.566	E6	-4.7	105	0.00	10.17-	10.23
10	2,4,5-T	4.333	4.550	E6	-5.0	106	0.00	10.63-	10.70
11	2,4-DB	463.455	479.684	E3	-3.5	108	0.01	11.58-	11.67
12	Dinoseb	3.001	3.161	E6	-5.3	107	0.00	13.50-	13.56
13	Picloram	5.100	5.288	E6	-3.7	102	0.00	13.17-	13.23

***** Signal #2 *****

1	Dalapon	11.702	11.136	E6	4.8	100	0.00	2.63-	2.69
2 S	2,4-DCAA	9.409	9.102	E6	3.3	107	0.00	8.52-	8.58
3	Dicamba	39.025	41.326	E6	-5.9	110	0.00	8.80-	8.86
4	MCPD	27.463	31.252	E3	-13.8	111	0.00	8.99-	9.05
5	MCPA	63.726	74.907	E3	-17.5	117	0.00	9.38-	9.44
6	Dichloroprop	9.304	8.672	E6	6.8	103	0.00	9.97-	10.03
7	2,4-D	12.358	12.382	E6	-0.2	107	0.00	10.55-	10.61
8	Pentachlorophenol	143.443	155.279	E6	-8.3	113	0.00	11.18-	11.24
9	2,4,5-TP	54.001	54.765	E6	-1.4	105	0.00	12.06-	12.12
10	2,4,5-T	56.738	59.311	E6	-4.5	107	0.00	12.82-	12.94
11	2,4-DB	7.381	7.534	E6	-2.1	107	0.00	13.88-	13.98
12	Dinoseb	29.046	28.284	E6	2.6	104	0.00	14.45-	14.52
13	Picloram	44.447	43.644	E6	1.8	102	0.00	16.62-	16.68

(#) = Out of Range
oa133102.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Thu May 03 10:02:29 2018

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4568-CC4559
Lab FileID: OA133319.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4568\oa133319.d\ECD1A.CH Vial: 0
Signal #2 : C:\msdchem\1\data\OA4568\oa133319.d\ECD2B.CH
Acq On : 14-May-18, 08:55:06 Operator: vinced
Sample : cc4559-200 Inst : SV0A0A
Misc : op11920,goa4568,15.0,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Mon May 14 15:39:56 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	964.956	1000.105 E3	-3.6	104	0.00	2.32-	2.38
2 S	2,4-DCAA	557.841	469.228 E3	15.9	88	0.00	7.32-	7.38
3	Dicamba	2.526	2.263 E6	10.4	94	0.00	7.53-	7.59
4	MCPD	1.502	1.246 E3	17.0	82	0.00	7.81-	7.87
5	MCPA	2.804	2.279 E3	18.7	79	0.00	8.01-	8.07
6	Dichloroprop	677.279	583.057 E3	13.9	88	0.00	8.53-	8.59
7	2,4-D	828.384	655.786 E3	20.8#	80	0.00	8.85-	8.92
8	Pentachlorophenol	11.215	9.848 E6	12.2	88	0.00	9.14-	9.20
9	2,4,5-TP	4.360	3.749 E6	14.0	87	0.00	10.16-	10.22
10	2,4,5-T	4.333	3.465 E6	20.0#	80	0.00	10.62-	10.69
11	2,4-DB	463.455	379.737 E3	18.1	82	0.00	11.57-	11.66
12	Dinoseb	3.001	2.783 E6	7.3	96	0.00	13.49-	13.55
13	Picloram	5.100	4.120 E6	19.2	81	0.00	13.15-	13.21

***** Signal #2 *****

1	Dalapon	11.702	11.298 E6	3.5	97	0.00	2.63-	2.69
2 S	2,4-DCAA	9.409	8.953 E6	4.8	98	0.00	8.52-	8.58
3	Dicamba	39.025	36.807 E6	5.7	95	0.00	8.80-	8.86
4	MCPD	27.463	27.318 E3	0.5	97	0.00	8.99-	9.05
5	MCPA	63.726	62.430 E3	2.0	93	0.00	9.39-	9.45
6	Dichloroprop	9.304	8.463 E6	9.0	94	0.00	9.97-	10.03
7	2,4-D	12.358	10.889 E6	11.9	88	0.00	10.54-	10.60
8	Pentachlorophenol	143.443	130.254 E6	9.2	91	0.00	11.18-	11.26
9	2,4,5-TP	54.001	46.168 E6	14.5	86	0.00	12.06-	12.12
10	2,4,5-T	56.738	45.964 E6	19.0	80	0.00	12.81-	12.93
11	2,4-DB	7.381	6.171 E6	16.4	83	0.00	13.88-	13.97
12	Dinoseb	29.046	27.907 E6	3.9	98	0.00	14.45-	14.52
13	Picloram	44.447	31.609 E6	28.9#	71	0.00	16.60-	16.66

(#) = Out of Range
oa133101.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Mon May 14 15:40:03 2018

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4568-ECC4559
Lab FileID: OA133330.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\OA4568\oa133330.d\ECD1A.CH Vial: 0
Acq On : 14-May-18, 14:53:04 Operator: vinced
Sample : ecc4559-300 Inst : SVOA0A
Misc : op11920,goa4568,16.0,,,5,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\msdchem\1\data\OA4568\oa133330.d\ECD2B.CH Vial: 3
Acq On : 14-May-18, 14:53:04 Operator: vinced
Sample : cc4559-300 Inst : SVOA0A
Misc : op11920,goa4568,16.0,,,5,1 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Mon May 14 15:39:56 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	964.956	875.244 E3	9.3	96	0.00	2.32-	2.38
2 S	2,4-DCAA	557.841	514.842 E3	7.7	97	0.00	7.32-	7.38
3	Dicamba	2.526	2.423 E6	4.1	98	0.00	7.53-	7.59
4	MCP	1.502	1.457 E3	3.0	96	0.00	7.81-	7.87
5	MCPA	2.804	2.688 E3	4.1	98	0.00	8.01-	8.07
6	Dichloroprop	677.279	620.159 E3	8.4	97	0.00	8.52-	8.58
7	2,4-D	828.384	768.948 E3	7.2	98	0.00	8.86-	8.93
8	Pentachlorophenol	11.215	10.862 E6	3.1	97	0.00	9.14-	9.20
9	2,4,5-TP	4.360	4.232 E6	2.9	98	0.00	10.17-	10.23
10	2,4,5-T	4.333	4.069 E6	6.1	94	0.00	10.63-	10.70
11	2,4-DB	463.455	415.519 E3	10.3	93	0.00	11.58-	11.67
12	Dinoseb	3.001	2.584 E6	13.9	88	0.00	13.50-	13.56
13	Picloram	5.100	4.975 E6	2.5	96	0.02	13.17-	13.23

***** Signal #2 *****

1	Dalapon	11.702	10.952 E6	6.4	99	0.00	2.63-	2.69
2 S	2,4-DCAA	9.409	9.183 E6	2.4	108	0.00	8.52-	8.58
3	Dicamba	39.025	37.615 E6	3.6	100	0.00	8.80-	8.86
4	MCP	27.463	24.447 E3	11.0	87	0.00	8.99-	9.05
5	MCPA	63.726	53.523 E3	16.0	84	0.00	9.38-	9.44
6	Dichloroprop	9.304	8.645 E6	7.1	102	0.00	9.97-	10.03
7	2,4-D	12.358	11.811 E6	4.4	102	0.00	10.55-	10.61
8	Pentachlorophenol	143.443	137.284 E6	4.3	100	0.00	11.18-	11.26
9	2,4,5-TP	54.001	52.977 E6	1.9	102	0.00	12.06-	12.12
10	2,4,5-T	56.738	54.677 E6	3.6	98	0.00	12.82-	12.94
11	2,4-DB	7.381	6.912 E6	6.4	98	0.00	13.88-	13.97
12	Dinoseb	29.046	21.726 E6	25.2#	80	0.00	14.45-	14.52
13	Picloram	44.447	41.046 E6	7.7	96	0.01	16.62-	16.68

(#) = Out of Range
oa133102.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Mon May 14 15:40:19 2018

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4568-CC4559
Lab FileID: OA133347.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4568\oa133347.d\ECD1A.CH Vial: 0
Signal #2 : C:\msdchem\1\data\OA4568\oa133347.d\ECD2B.CH
Acq On : 15-May-18, 00:04:32 Operator: vinced
Sample : cc4559-300 Inst : SVOA0A
Misc : op11937,goa4568,15.7,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Tue May 15 11:51:37 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	964.956	899.290 E3	6.8	98	0.00	2.32-	2.38
2 S	2,4-DCAA	557.841	532.966 E3	4.5	101	0.00	7.32-	7.38
3	Dicamba	2.526	2.503 E6	0.9	101	0.00	7.53-	7.59
4	MCPD	1.502	1.499 E3	0.2	99	0.00	7.81-	7.87
5	MCPA	2.804	2.731 E3	2.6	99	0.00	8.01-	8.07
6	Dichloroprop	677.279	641.929 E3	5.2	101	0.00	8.53-	8.59
7	2,4-D	828.384	795.597 E3	4.0	101	0.00	8.86-	8.93
8	Pentachlorophenol	11.215	11.234 E6	-0.2	101	0.00	9.14-	9.20
9	2,4,5-TP	4.360	4.384 E6	-0.6	101	0.00	10.17-	10.23
10	2,4,5-T	4.333	4.271 E6	1.4	99	0.01	10.63-	10.70
11	2,4-DB	463.455	439.780 E3	5.1	99	0.01	11.58-	11.67
12	Dinoseb	3.001	2.950 E6	1.7	100	0.00	13.50-	13.56
13	Picloram	5.100	5.049 E6	1.0	97	0.02	13.18-	13.24

***** Signal #2 *****

1	Dalapon	11.702	11.592 E6	0.9	104	0.00	2.63-	2.69
2 S	2,4-DCAA	9.409	9.287 E6	1.3	109	0.00	8.52-	8.58
3	Dicamba	39.025	41.791 E6	-7.1	111	0.00	8.80-	8.86
4	MCPD	27.463	24.522 E3	10.7	87	0.00	8.99-	9.05
5	MCPA	63.726	51.697 E3	18.9	81	0.00	9.38-	9.44
6	Dichloroprop	9.304	9.013 E6	3.1	107	0.00	9.97-	10.03
7	2,4-D	12.358	12.334 E6	0.2	106	0.00	10.55-	10.61
8	Pentachlorophenol	143.443	141.269 E6	1.5	103	0.00	11.17-	11.25
9	2,4,5-TP	54.001	54.925 E6	-1.7	105	0.00	12.06-	12.12
10	2,4,5-T	56.738	56.590 E6	0.3	102	0.00	12.82-	12.94
11	2,4-DB	7.381	6.974 E6	5.5	99	0.00	13.88-	13.98
12	Dinoseb	29.046	27.670 E6	4.7	102	0.00	14.45-	14.52
13	Picloram	44.447	43.037 E6	3.2	100	0.01	16.62-	16.68

(#) = Out of Range
oa133102.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Tue May 15 11:52:04 2018

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4568-ECC4559
Lab FileID: OA133358.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\OA4568\oa133358.d\ECD1A.CH Vial: 0
Acq On : 15-May-18, 05:19:11 Operator: vinced
Sample : ecc4559-200 Inst : SVOA0A
Misc : op11975,goa4568,30,,,2.5,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\msdchem\1\data\OA4568\oa133358.d\ECD2B.CH Vial: 2
Acq On : 15-May-18, 05:19:11 Operator: vinced
Sample : cc4559-200 Inst : SVOA0A
Misc : op11975,goa4568,30,,,2.5,1 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Tue May 15 11:51:37 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	964.956	1059.995 E3	-9.8	111	0.00	2.33-	2.39
2 S	2,4-DCAA	557.841	528.893 E3	5.2	99	0.00	7.32-	7.38
3	Dicamba	2.526	2.446 E6	3.2	102	0.00	7.53-	7.59
4	MCP	1.502	1.438 E3	4.3	95	0.00	7.81-	7.87
5	MCPA	2.804	2.756 E3	1.7	96	0.00	8.01-	8.07
6	Dichloroprop	677.279	648.613 E3	4.2	98	0.00	8.53-	8.59
7	2,4-D	828.384	771.682 E3	6.8	94	0.01	8.87-	8.94
8	Pentachlorophenol	11.215	10.296 E6	8.2	92	0.00	9.14-	9.20
9	2,4,5-TP	4.360	4.198 E6	3.7	97	0.01	10.18-	10.24
10	2,4,5-T	4.333	4.127 E6	4.8	96	0.02	10.64-	10.71
11	2,4-DB	463.455	436.614 E3	5.8	94	0.02	11.59-	11.69
12	Dinoseb	3.001	2.789 E6	7.1	96	0.00	13.50-	13.56
13	Picloram	5.100	4.793 E6	6.0	94	0.03	13.19-	13.25

***** Signal #2 *****

1	Dalapon	11.702	13.818 E6	-18.1	118	0.00	2.63-	2.69
2 S	2,4-DCAA	9.409	9.606 E6	-2.1	105	0.00	8.52-	8.58
3	Dicamba	39.025	39.355 E6	-0.8	101	0.00	8.80-	8.86
4	MCP	27.463	20.577 E3	25.1#	73	0.00	8.99-	9.05
5	MCPA	63.726	48.137 E3	24.5#	71	0.00	9.39-	9.45
6	Dichloroprop	9.304	9.841 E6	-5.8	110	0.00	9.97-	10.03
7	2,4-D	12.358	12.871 E6	-4.2	104	0.00	10.55-	10.61
8	Pentachlorophenol	143.443	143.852 E6	-0.3	101	0.00	11.18-	11.26
9	2,4,5-TP	54.001	56.506 E6	-4.6	105	0.00	12.07-	12.13
10	2,4,5-T	56.738	57.252 E6	-0.9	100	0.01	12.82-	12.94
11	2,4-DB	7.381	7.195 E6	2.5	97	0.01	13.89-	13.98
12	Dinoseb	29.046	28.858 E6	0.6	101	0.00	14.45-	14.52
13	Picloram	44.447	46.628 E6	-4.9	105	0.02	16.62-	16.68

(#) = Out of Range
oa133101.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Tue May 15 11:53:59 2018

Initial Calibration Summary

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GXX6321-ICC6321
Lab FileID: XX227130.D

Response Factor Report HP G1530A

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:50:14 2018
Response via : Initial Calibration

Calibration Files

50 =xx227127.D 250 =xx227128.D 500 =xx227129.D 1000=xx227130.D
2000 =xx227131.D 3000 =xx227132.D

	Compound	50	250	500	1000	2000	3000	Avg	%RSD
1) S	Tetrachloro-m-xylene	8.785	8.000	8.067	8.812	7.909	7.997	8.262 E6	5.07
2)	AR1221-A				5.174			5.174 E4	0.00
3)	AR1221-B				8.842			8.842 E4	0.00
4)	AR1221-C				2.709			2.709 E5	0.00
5)	AR1221-D				3.205			3.205 E4	0.00
6)	AR1221-E				3.963			3.963 E4	0.00
7)	AR1232-A				2.157			2.157 E5	0.00
8)	AR1232-B				1.323			1.323 E5	0.00
9)	AR1232-C				2.865			2.865 E5	0.00
10)	AR1232-D				1.107			1.107 E5	0.00
11)	AR1232-E				1.078			1.078 E5	0.00
12)	AR1242-A				2.360			2.360 E5	0.00
13)	AR1242-B				5.388			5.388 E5	0.00
14)	AR1242-C				2.067			2.067 E5	0.00
15)	AR1242-D				2.249			2.249 E5	0.00
16)	AR1242-E				2.405			2.405 E5	0.00
17)	AR1248-A				1.193			1.193 E5	0.00
18)	AR1248-B				3.477			3.477 E5	0.00
19)	AR1248-C				3.183			3.183 E5	0.00
20)	AR1248-D				3.251			3.251 E5	0.00
21)	AR1248-E				3.020			3.020 E5	0.00
22)	AR1248-F				3.438			3.438 E5	0.00
23)	AR1248-G				5.262			5.262 E5	0.00
24)	AR1254-A				2.744			2.744 E5	0.00
25)	AR1254-B				4.889			4.889 E5	0.00
26)	AR1254-C				2.782			2.782 E5	0.00
27)	AR1254-D				5.467			5.467 E5	0.00
28)	AR1254-E				4.144			4.144 E5	0.00
29)	AR1254-F				3.611			3.611 E5	0.00
30)	AR1254-G				5.307			5.307 E5	0.00
31)	AR1262-A				3.755			3.755 E5	0.00
32)	AR1262-B				5.293			5.293 E5	0.00
33)	AR1262-C				4.780			4.780 E5	0.00
34)	AR1262-D				1.221			1.221 E6	0.00
35)	AR1262-E				1.384			1.384 E6	0.00
36)	AR1268-A				1.395			1.395 E6	0.00
37)	AR1268-B				1.519			1.519 E6	0.00
38)	AR1268-C				1.270			1.270 E6	0.00
39)	AR1268-D				5.193			5.193 E5	0.00
40)	AR1268-E				4.274			4.274 E6	0.00
41)	AR1016-A	1.790	1.789	1.784	1.750	1.663	1.631	1.734 E5	4.04
42)	AR1016-B	3.031	2.705	2.662	2.618	2.483	2.455	2.659 E5	7.80
43)	AR1016-C	6.843	5.959	6.004	6.033	5.888	5.957	6.114 E5	5.90
44)	AR1016-D	2.712	2.336	2.230	2.306	2.205	2.204	2.332 E5	8.32
45)	AR1016-E	2.720	2.412	2.422	2.427	2.324	2.332	2.440 E5	5.93
46)	AR1260-A	7.610	7.124	6.630	6.723	7.269	7.423	7.130 E5	5.43
47)	AR1260-B	3.266	2.994	3.374	3.379	2.905	2.941	3.143 E5	7.03

Initial Calibration Summary

Page 2 of 3

Job Number: JC65663
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GXX6321-ICC6321
 Lab FileID: XX227130.D

48)	AR1260-C	3.460	3.246	3.557	3.601	3.247	3.310	3.403	E5	4.62
49)	AR1260-D	0.914	0.870	0.973	1.029	0.912	0.937	0.939	E6	5.89
50)	AR1260-E	9.314	8.856	9.627	9.767	8.529	8.711	9.134	E5	5.58
51) S	Decachlorobiphenyl	1.072	0.969	0.961	1.064	0.940	0.973	0.997	E7	5.67

Signal #2

1) S	Tetrachloro-m-xylen	8.481	7.951	7.952	8.800	7.767	7.848	8.133	E6	5.06
2)	AR1221-A				4.680			4.680	E4	0.00
3)	AR1221-B				8.448			8.448	E4	0.00
4)	AR1221-C				2.120			2.120	E5	0.00
5)	AR1221-D				4.025			4.025	E4	0.00
6)	AR1221-E				2.615			2.615	E4	0.00
7)	AR1232-A				1.629			1.629	E5	0.00
8)	AR1232-B				1.272			1.272	E5	0.00
9)	AR1232-C				2.774			2.774	E5	0.00
10)	AR1232-D				1.155			1.155	E5	0.00
11)	AR1232-E				7.554			7.554	E4	0.00
12)	AR1242-A				2.253			2.253	E5	0.00
13)	AR1242-B				5.163			5.163	E5	0.00
14)	AR1242-C				2.160			2.160	E5	0.00
15)	AR1242-D				1.558			1.558	E5	0.00
16)	AR1242-E				2.043			2.043	E5	0.00
17)	AR1248-A				1.149			1.149	E5	0.00
18)	AR1248-B				3.219			3.219	E5	0.00
19)	AR1248-C				1.765			1.765	E5	0.00
20)	AR1248-D				2.356			2.356	E5	0.00
21)	AR1248-E				2.739			2.739	E5	0.00
22)	AR1248-F				3.331			3.331	E5	0.00
23)	AR1248-G				3.086			3.086	E5	0.00
24)	AR1254-A				2.904			2.904	E5	0.00
25)	AR1254-B				3.228			3.228	E5	0.00
26)	AR1254-C				2.659			2.659	E5	0.00
27)	AR1254-D				5.396			5.396	E5	0.00
28)	AR1254-E				4.220			4.220	E5	0.00
29)	AR1254-F				4.354			4.354	E5	0.00
30)	AR1254-G				5.520			5.520	E5	0.00
31)	AR1262-A				4.272			4.272	E5	0.00
32)	AR1262-B				6.983			6.983	E5	0.00
33)	AR1262-C				5.335			5.335	E5	0.00
34)	AR1262-D				1.356			1.356	E6	0.00
35)	AR1262-E				1.472			1.472	E6	0.00
36)	AR1268-A				1.675			1.675	E6	0.00
37)	AR1268-B				1.504			1.504	E6	0.00
38)	AR1268-C				1.298			1.298	E6	0.00
39)	AR1268-D				5.152			5.152	E5	0.00
40)	AR1268-E				3.845			3.845	E6	0.00
41)	AR1016-A	1.430	1.428	1.305	1.303	1.218	1.207	1.315	E5	7.41
42)	AR1016-B	2.703	2.613	2.528	2.506	2.324	2.292	2.494	E5	6.43
43)	AR1016-C	6.296	6.063	5.884	5.816	5.552	5.597	5.868	E5	4.80
44)	AR1016-D	2.698	2.621	2.495	2.455	2.291	2.270	2.472	E5	6.96
45)	AR1016-E	1.709	1.823	1.770	1.772	1.666	1.667	1.735	E5	3.69
46)	AR1260-A	8.487	8.447	7.222	7.119	7.521	7.661	7.743	E5	7.68
47)	AR1260-B	4.561	4.315	4.562	4.498	3.859	3.903	4.283	E5	7.57
48)	AR1260-C	4.696	4.266	4.309	4.213	3.801	3.845	4.188	E5	7.89
49)	AR1260-D	1.064	1.019	1.091	1.121	1.011	1.018	1.054	E6	4.31
50)	AR1260-E	1.031	0.969	1.033	1.030	0.902	0.915	0.980	E6	6.16
51) S	Decachlorobiphenyl	1.075	0.904	0.853	0.952	0.834	0.861	0.913	E7	9.83

(#) = Out of Range

Initial Calibration Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GXX6321-ICC6321
Lab FileID: XX227130.D

PCB6321.M Fri Apr 20 16:54:30 2018

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12

Initial Calibration Verification

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Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GXX6321-ICV6321
Lab FileID: XX227137.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...1\xx227137.D\ECD1A.CH Vial: 16
Signal #2 : C:\msdchem\1\DATA\gx6321\xx227137.D\ECD2B.CH
Acq On : 19 Apr 2018 3:42 pm Operator: tianweir
Sample : icv6321-1000 Inst : HP G1530A
Misc : op11391,GXX6321,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:50:14 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	8.262	8.616 E6	-4.3	98	0.00	2.78-	2.84
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1262-A			-----NA-----				
32	AR1262-B			-----NA-----				
33	AR1262-C			-----NA-----				
34	AR1262-D			-----NA-----				
35	AR1262-E			-----NA-----				
36	AR1268-A			-----NA-----				
37	AR1268-B			-----NA-----				
38	AR1268-C			-----NA-----				
39	AR1268-D			-----NA-----				
40	AR1268-E			-----NA-----				
41	AR1016-A	173.436	167.535 E3	3.4	96	0.00	3.16-	3.22

Initial Calibration Verification

Page 2 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GXX6321-ICV6321
Lab FileID: XX227137.D

42	AR1016-B	265.887	277.894	E3	-4.5	106	0.00	3.54- 3.60
43	AR1016-C	611.410	643.644	E3	-5.3	107	0.00	4.10- 4.16
44	AR1016-D	233.235	245.740	E3	-5.4	107	0.00	4.26- 4.32
45	AR1016-E	243.951	255.189	E3	-4.6	105	0.00	4.75- 4.82
46	AR1260-A	713.007	725.063	E3	-1.7	108	0.00	7.11- 7.17
47	AR1260-B	314.313	324.957	E3	-3.4	96	0.00	7.26- 7.32
48	AR1260-C	340.349	354.786	E3	-4.2	99	0.00	7.59- 7.66
49	AR1260-D	939.177	987.611	E3	-5.2	96	0.00	8.03- 8.09
50	AR1260-E	913.406	930.729	E3	-1.9	95	0.00	8.42- 8.48
51 S	Decachlorobiphenyl	9.966	9.477	E6	4.9	89	0.00	9.95-10.02

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	8.133	8.622	E6	-6.0	98	0.00	3.53- 3.59
2	AR1221-A				-----NA-----			
3	AR1221-B				-----NA-----			
4	AR1221-C				-----NA-----			
5	AR1221-D				-----NA-----			
6	AR1221-E				-----NA-----			
7	AR1232-A				-----NA-----			
8	AR1232-B				-----NA-----			
9	AR1232-C				-----NA-----			
10	AR1232-D				-----NA-----			
11	AR1232-E				-----NA-----			
12	AR1242-A				-----NA-----			
13	AR1242-B				-----NA-----			
14	AR1242-C				-----NA-----			
15	AR1242-D				-----NA-----			
16	AR1242-E				-----NA-----			
17	AR1248-A				-----NA-----			
18	AR1248-B				-----NA-----			
19	AR1248-C				-----NA-----			
20	AR1248-D				-----NA-----			
21	AR1248-E				-----NA-----			
22	AR1248-F				-----NA-----			
23	AR1248-G				-----NA-----			
24	AR1254-A				-----NA-----			
25	AR1254-B				-----NA-----			
26	AR1254-C				-----NA-----			
27	AR1254-D				-----NA-----			
28	AR1254-E				-----NA-----			
29	AR1254-F				-----NA-----			
30	AR1254-G				-----NA-----			
31	AR1262-A				-----NA-----			
32	AR1262-B				-----NA-----			
33	AR1262-C				-----NA-----			
34	AR1262-D				-----NA-----			
35	AR1262-E				-----NA-----			
36	AR1268-A				-----NA-----			
37	AR1268-B				-----NA-----			
38	AR1268-C				-----NA-----			
39	AR1268-D				-----NA-----			
40	AR1268-E				-----NA-----			
41	AR1016-A	131.499	132.290	E3	-0.6	102	0.00	4.19- 4.25
42	AR1016-B	249.443	269.685	E3	-8.1	108	0.00	4.74- 4.80
43	AR1016-C	586.781	623.480	E3	-6.3	107	0.00	5.38- 5.44
44	AR1016-D	247.157	259.596	E3	-5.0	106	0.00	5.57- 5.63
45	AR1016-E	173.457	180.050	E3	-3.8	102	0.00	6.23- 6.29
46	AR1260-A	774.265	750.844	E3	3.0	105	0.00	8.84- 8.90
47	AR1260-B	428.295	421.388	E3	1.6	94	0.00	8.96- 9.02

12.11.34
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Initial Calibration Verification

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GXX6321-ICV6321
Lab FileID: XX227137.D

48	AR1260-C	418.819	406.725	E3	2.9	97	0.00	9.39- 9.45
49	AR1260-D	1.054	1.090	E6	-3.4	97	0.00	9.74- 9.80
50	AR1260-E	0.980	0.975	E6	0.5	95	0.00	10.28-10.34
51 S	Decachlorobiphenyl	9.133	8.615	E6	5.7	90	0.00	11.96-12.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
xx227136.D PCB6321.M Thu Apr 19 17:03:53 2018

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Initial Calibration Verification

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GXX6321-ICV6321
Lab FileID: XX227138.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...1\xx227138.D\ECD1A.CH Vial: 17
Signal #2 : C:\msdchem\1\DATA\gx6321\xx227138.D\ECD2B.CH
Acq On : 19 Apr 2018 3:59 pm Operator: tianweir
Sample : icv6321-1000 Inst : HP G1530A
Misc : op11391,GXX6321,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:50:14 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	8.262	8.396 E6	-1.6	95	0.00	2.78	2.84
2	AR1221-A	51.738	54.608 E3	-5.5	106	0.00	2.22	2.42
3	AR1221-B	88.419	85.773 E3	3.0	97	0.00	2.89	3.09
4	AR1221-C	270.889	259.470 E3	4.2	96	0.00	3.08	3.28
5	AR1221-D	32.051	26.306 E3	17.9	82	0.00	3.48	3.68
6	AR1221-E	39.630	36.171 E3	8.7	91	0.00	3.70	3.90
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A	274.426	286.233 E3	-4.3	104	0.00	5.17	5.37
25	AR1254-B	488.934	504.535 E3	-3.2	103	0.00	5.51	5.71
26	AR1254-C	278.220	290.020 E3	-4.2	104	0.00	5.88	6.08
27	AR1254-D	546.727	575.678 E3	-5.3	105	0.00	6.04	6.24
28	AR1254-E	414.443	429.982 E3	-3.7	104	0.00	6.42	6.62
29	AR1254-F	361.094	379.311 E3	-5.0	105	0.00	6.66	6.86
30	AR1254-G	530.661	553.207 E3	-4.2	104	0.00	7.04	7.24
31	AR1262-A			-----NA-----				
32	AR1262-B			-----NA-----				
33	AR1262-C			-----NA-----				
34	AR1262-D			-----NA-----				
35	AR1262-E			-----NA-----				
36	AR1268-A			-----NA-----				
37	AR1268-B			-----NA-----				
38	AR1268-C			-----NA-----				
39	AR1268-D			-----NA-----				
40	AR1268-E			-----NA-----				
41	AR1016-A			-----NA-----				

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Sample: GXX6321-ICV6321
Lab FileID: XX227138.D

```
***** Signal #2 *****
```

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Sample: GXX6321-ICV6321
Lab FileID: XX227138.D

```
(#) = Out of Range          SPCC's out = 0   CCC's out = 0
xx227136.D PCB6321.M      Thu Apr 19 17:03:54 2018
```

Initial Calibration Verification

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GXX6321-ICV6321
Lab FileID: XX227139.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...1\xx227139.D\ECD1A.CH Vial: 18
Signal #2 : C:\msdchem\1\DATA\gx6321\xx227139.D\ECD2B.CH
Acq On : 19 Apr 2018 4:15 pm Operator: tianweir
Sample : icv6321-1000 Inst : HP G1530A
Misc : op11391,GXX6321,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:50:14 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	8.262	9.250 E6	-12.0	105	0.00	2.78	2.84
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A	215.655	203.368 E3	5.7	94	0.00	3.08	3.28
8	AR1232-B	132.280	129.314 E3	2.2	98	0.00	3.48	3.68
9	AR1232-C	286.500	284.930 E3	0.5	99	0.00	4.03	4.23
10	AR1232-D	110.735	110.115 E3	0.6	99	0.00	4.19	4.39
11	AR1232-E	107.817	108.083 E3	-0.2	100	0.00	4.69	4.89
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1262-A	375.538	390.901 E3	-4.1	104	0.00	6.66	6.86
32	AR1262-B	529.278	552.142 E3	-4.3	104	0.00	7.19	7.39
33	AR1262-C	477.985	496.654 E3	-3.9	104	0.00	7.53	7.73
34	AR1262-D	1.221	1.283 E6	-5.1	105	0.00	7.96	8.16
35	AR1262-E	1.384	1.420 E6	-2.6	103	0.00	8.40	8.60
36	AR1268-A			-----NA-----				
37	AR1268-B			-----NA-----				
38	AR1268-C			-----NA-----				
39	AR1268-D			-----NA-----				
40	AR1268-E			-----NA-----				
41	AR1016-A			-----NA-----				

12.11.36 12

Page 2 of 3

Sample: GXX6321-ICV6321
Lab FileID: XX227139.D

12.11.36 12

Page 3 of 3

Sample: GXX6321-ICV6321
Lab FileID: XX227139.D

```
(#) = Out of Range          SPCC's out = 0   CCC's out = 0
xx227136.D PCB6321.M      Thu Apr 19 17:03:55 2018
```

Initial Calibration Verification

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GXX6321-ICV6321
Lab FileID: XX227140.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...1\xx227140.D\ECD1A.CH Vial: 19
Signal #2 : C:\msdchem\1\DATA\gx6321\xx227140.D\ECD2B.CH
Acq On : 19 Apr 2018 4:32 pm Operator: tianweir
Sample : icv6321-1000 Inst : HP G1530A
Misc : op11391,GXX6321,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:50:14 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	8.262	9.287 E6	-12.4	105	0.00	2.78- 2.84
2	AR1221-A			-----NA-----			
3	AR1221-B			-----NA-----			
4	AR1221-C			-----NA-----			
5	AR1221-D			-----NA-----			
6	AR1221-E			-----NA-----			
7	AR1232-A			-----NA-----			
8	AR1232-B			-----NA-----			
9	AR1232-C			-----NA-----			
10	AR1232-D			-----NA-----			
11	AR1232-E			-----NA-----			
12	AR1242-A	236.004	226.658 E3	4.0	96	0.00	3.48- 3.68
13	AR1242-B	538.776	515.151 E3	4.4	96	0.00	4.03- 4.23
14	AR1242-C	206.740	198.151 E3	4.2	96	0.00	4.19- 4.39
15	AR1242-D	224.931	210.298 E3	6.5	93	0.00	4.69- 4.89
16	AR1242-E	240.457	226.057 E3	6.0	94	0.00	5.28- 5.48
17	AR1248-A			-----NA-----			
18	AR1248-B			-----NA-----			
19	AR1248-C			-----NA-----			
20	AR1248-D			-----NA-----			
21	AR1248-E			-----NA-----			
22	AR1248-F			-----NA-----			
23	AR1248-G			-----NA-----			
24	AR1254-A			-----NA-----			
25	AR1254-B			-----NA-----			
26	AR1254-C			-----NA-----			
27	AR1254-D			-----NA-----			
28	AR1254-E			-----NA-----			
29	AR1254-F			-----NA-----			
30	AR1254-G			-----NA-----			
31	AR1262-A			-----NA-----			
32	AR1262-B			-----NA-----			
33	AR1262-C			-----NA-----			
34	AR1262-D			-----NA-----			
35	AR1262-E			-----NA-----			
36	AR1268-A	1.395	1.318 E6	5.5	95	0.00	8.40- 8.60
37	AR1268-B	1.519	1.457 E6	4.1	96	0.00	8.45- 8.65
38	AR1268-C	1.270	1.203 E6	5.3	95	0.00	8.72- 8.92
39	AR1268-D	519.299	494.580 E3	4.8	95	0.00	9.22- 9.42
40	AR1268-E	4.274	4.064 E6	4.9	95	0.00	9.61- 9.81
41	AR1016-A			-----NA-----			

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Sample: GXX6321-ICV6321
Lab FileID: XX227140.D

```
***** Signal #2 *****
```

12.11.37 12

Page 3 of 3

Sample: GXX6321-ICV6321
Lab FileID: XX227140.D

```
(#) = Out of Range          SPCC's out = 0   CCC's out = 0
xx227136.D PCB6321.M      Thu Apr 19 17:03:56 2018
```

Initial Calibration Verification

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GXX6321-ICV6321
Lab FileID: XX227141.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...1\xx227141.D\ECD1A.CH Vial: 20
Signal #2 : C:\msdchem\1\DATA\gx6321\xx227141.D\ECD2B.CH
Acq On : 19 Apr 2018 4:48 pm Operator: tianweir
Sample : icv6321-1000 Inst : HP G1530A
Misc : op11391,GXX6321,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:50:14 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	8.262	9.338 E6	-13.0	106	0.00	2.78-	2.84
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A	119.336	109.214 E3	8.5	92	0.00	3.47-	3.67
18	AR1248-B	347.687	338.033 E3	2.8	97	0.00	4.03-	4.23
19	AR1248-C	318.316	319.578 E3	-0.4	100	0.00	4.41-	4.61
20	AR1248-D	325.148	328.152 E3	-0.9	101	0.00	4.69-	4.89
21	AR1248-E	301.979	314.048 E3	-4.0	104	0.00	4.80-	5.00
22	AR1248-F	343.756	361.915 E3	-5.3	105	0.00	5.27-	5.47
23	AR1248-G	526.174	545.989 E3	-3.8	104	0.00	5.52-	5.72
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1262-A			-----NA-----				
32	AR1262-B			-----NA-----				
33	AR1262-C			-----NA-----				
34	AR1262-D			-----NA-----				
35	AR1262-E			-----NA-----				
36	AR1268-A			-----NA-----				
37	AR1268-B			-----NA-----				
38	AR1268-C			-----NA-----				
39	AR1268-D			-----NA-----				
40	AR1268-E			-----NA-----				
41	AR1016-A			-----NA-----				

Page 2 of 3

Sample: GXX6321-ICV6321
Lab FileID: XX227141.D

```
***** Signal #2 *****
```

12.11.38 12

Page 3 of 3

Sample: GXX6321-ICV6321
Lab FileID: XX227141.D

```
(#) = Out of Range          SPCC's out = 0   CCC's out = 0
xx227136.D PCB6321.M      Thu Apr 19 17:03:57 2018
```

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GXX6342-CC6321
Lab FileID: XX228245.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...2\xx228245.D\ECD1A.CH Vial: 59
Signal #2 : C:\msdchem\1\DATA\gx6342\xx228245.D\ECD2B.CH
Acq On : 09 May 2018 10:08 am Operator: tianweir
Sample : cc6321-500 Inst : HP G1530A
Misc : op11862,GXX6342,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\PCB6321.M (Chemstation Integrator)
Title :
Last Update : Tue May 08 17:16:04 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	8.262	9.231 E6	-11.7	114	0.00	2.77-	2.83
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1262-A			-----NA-----				
32	AR1262-B			-----NA-----				
33	AR1262-C			-----NA-----				
34	AR1262-D			-----NA-----				
35	AR1262-E			-----NA-----				
36	AR1268-A			-----NA-----				
37	AR1268-B			-----NA-----				
38	AR1268-C			-----NA-----				
39	AR1268-D			-----NA-----				
40	AR1268-E			-----NA-----				
41	AR1016-A	173.436	198.580 E3	-14.5	111	0.00	3.14-	3.20

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GXX6342-CC6321
Lab FileID: XX228245.D

42	AR1016-B	265.887	305.866	E3	-15.0	115	0.00	3.53-	3.59
43	AR1016-C	611.410	670.081	E3	-9.6	112	0.00	4.08-	4.14
44	AR1016-D	233.235	263.628	E3	-13.0	118	0.00	4.24-	4.30
45	AR1016-E	243.951	282.211	E3	-15.7	117	0.00	4.73-	4.80
46	AR1260-A	713.007	719.681	E3	-0.9	109	0.00	7.08-	7.14
47	AR1260-B	314.313	373.394	E3	-18.8	111	0.00	7.24-	7.30
48	AR1260-C	340.349	371.737	E3	-9.2	105	0.00	7.56-	7.63
49	AR1260-D	939.177	1028.645	E3	-9.5	106	0.00	8.00-	8.06
50	AR1260-E	913.406	966.711	E3	-5.8	100	0.00	8.39-	8.45
51 S	Decachlorobiphenyl	9.966	10.231	E6	-2.7	106	0.00	9.91-	9.98

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	8.133	9.091	E6	-11.8	114	0.00	3.51-	3.57
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1262-A								
32	AR1262-B								
33	AR1262-C								
34	AR1262-D								
35	AR1262-E								
36	AR1268-A								
37	AR1268-B								
38	AR1268-C								
39	AR1268-D								
40	AR1268-E								
41	AR1016-A	131.499	146.325	E3	-11.3	112	0.00	4.17-	4.23
42	AR1016-B	249.443	289.809	E3	-16.2	115	0.00	4.72-	4.78
43	AR1016-C	586.781	643.658	E3	-9.7	109	0.00	5.36-	5.42
44	AR1016-D	247.157	274.109	E3	-10.9	110	0.00	5.55-	5.61
45	AR1016-E	173.457	183.979	E3	-6.1	104	0.00	6.21-	6.27
46	AR1260-A	774.265	789.162	E3	-1.9	109	0.00	8.81-	8.87
47	AR1260-B	428.295	496.016	E3	-15.8	109	0.00	8.93-	8.99

12.11.39
12

Continuing Calibration Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GXX6342-CC6321
Lab FileID: XX228245.D

48	AR1260-C	418.819	462.174	E3	-10.4	107	0.00	9.36- 9.42
49	AR1260-D	1.054	1.196	E6	-13.5	110	0.00	9.71- 9.77
50	AR1260-E	0.980	1.103	E6	-12.6	107	0.00	10.26-10.32
51 S	Decachlorobiphenyl	9.133	9.166	E6	-0.4	107	0.00	11.92-11.98

(#) = Out of Range SPCC's out = 0 CCC's out = 0
xx227129.D PCB6321.M Wed May 09 11:00:09 2018

12.11.39
12

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GXX6343-CC6321
Lab FileID: XX228263.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...3\xx228263.D\ECD1A.CH Vial: 71
Signal #2 : C:\msdchem\1\DATA\gx6343\xx228263.D\ECD2B.CH
Acq On : 09 May 2018 2:08 pm Operator: tianweir
Sample : cc6321-1000 Inst : HP G1530A
Misc : op11872,GXX6343,500,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\PCB6321.M (Chemstation Integrator)
Title :
Last Update : Tue May 08 17:16:04 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	8.262	8.993 E6	-8.8	111	0.00	2.77-	2.83
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1262-A			-----NA-----				
32	AR1262-B			-----NA-----				
33	AR1262-C			-----NA-----				
34	AR1262-D			-----NA-----				
35	AR1262-E			-----NA-----				
36	AR1268-A			-----NA-----				
37	AR1268-B			-----NA-----				
38	AR1268-C			-----NA-----				
39	AR1268-D			-----NA-----				
40	AR1268-E			-----NA-----				
41	AR1016-A	173.436	192.627 E3	-11.1	108	0.00	3.14-	3.20

12.11.40
12

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GXX6343-CC6321
Lab FileID: XX228263.D

42	AR1016-B	265.887	298.833	E3	-12.4	112	0.00	3.53-	3.59
43	AR1016-C	611.410	643.069	E3	-5.2	107	0.00	4.08-	4.14
44	AR1016-D	233.235	258.198	E3	-10.7	116	0.00	4.24-	4.30
45	AR1016-E	243.951	278.055	E3	-14.0	115	0.00	4.73-	4.80
46	AR1260-A	713.007	700.037	E3	1.8	106	0.00	7.08-	7.14
47	AR1260-B	314.313	369.100	E3	-17.4	109	0.00	7.23-	7.29
48	AR1260-C	340.349	364.891	E3	-7.2	103	0.00	7.56-	7.63
49	AR1260-D	939.177	1016.731	E3	-8.3	104	0.00	8.00-	8.06
50	AR1260-E	913.406	1012.477	E3	-10.8	105	0.00	8.39-	8.45
51 S	Decachlorobiphenyl	9.966	10.355	E6	-3.9	108	0.00	9.91-	9.98

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	8.133	8.700	E6	-7.0	109	0.00	3.51-	3.57
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1262-A								
32	AR1262-B								
33	AR1262-C								
34	AR1262-D								
35	AR1262-E								
36	AR1268-A								
37	AR1268-B								
38	AR1268-C								
39	AR1268-D								
40	AR1268-E								
41	AR1016-A	131.499	137.629	E3	-4.7	106	0.00	4.17-	4.23
42	AR1016-B	249.443	279.811	E3	-12.2	111	0.00	4.72-	4.78
43	AR1016-C	586.781	630.134	E3	-7.4	107	0.00	5.36-	5.42
44	AR1016-D	247.157	273.265	E3	-10.6	110	0.00	5.55-	5.61
45	AR1016-E	173.457	185.352	E3	-6.9	105	0.00	6.21-	6.27
46	AR1260-A	774.265	790.894	E3	-2.1	110	0.00	8.81-	8.87
47	AR1260-B	428.295	484.677	E3	-13.2	106	0.00	8.93-	8.99

12.11.40
12

Continuing Calibration Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GXX6343-CC6321
Lab FileID: XX228263.D

48	AR1260-C	418.819	452.019	E3	-7.9	105	0.00	9.36- 9.42
49	AR1260-D	1.054	1.162	E6	-10.2	107	0.00	9.71- 9.77
50	AR1260-E	0.980	1.096	E6	-11.8	106	0.00	10.26-10.32
51 S	Decachlorobiphenyl	9.133	9.798	E6	-7.3	115	0.00	11.92-11.98

(#) = Out of Range SPCC's out = 0 CCC's out = 0
xx227129.D PCB6321.M Wed May 09 14:23:43 2018

12.11.40
12



GC/LC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4568\
Data File : oa133355.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15-May-18, 03:53:26
Operator : vined
Sample : jc65663-1A
Misc : op11951,goa4568,30,,,2.5,1
ALS Vial : 0 (Sig #1); 27 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 15 11:47:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\H0A4559.M
Quant Title : HERB
QLast Update : Mon May 14 15:39:56 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2

System Monitoring Compounds						
2) S 2,4-DCAA	7.362	8.556	211.6E6	3339.8E6	379.307m	354.963
Spiked Amount	500.000		Recovery	=	75.86%	70.99%

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

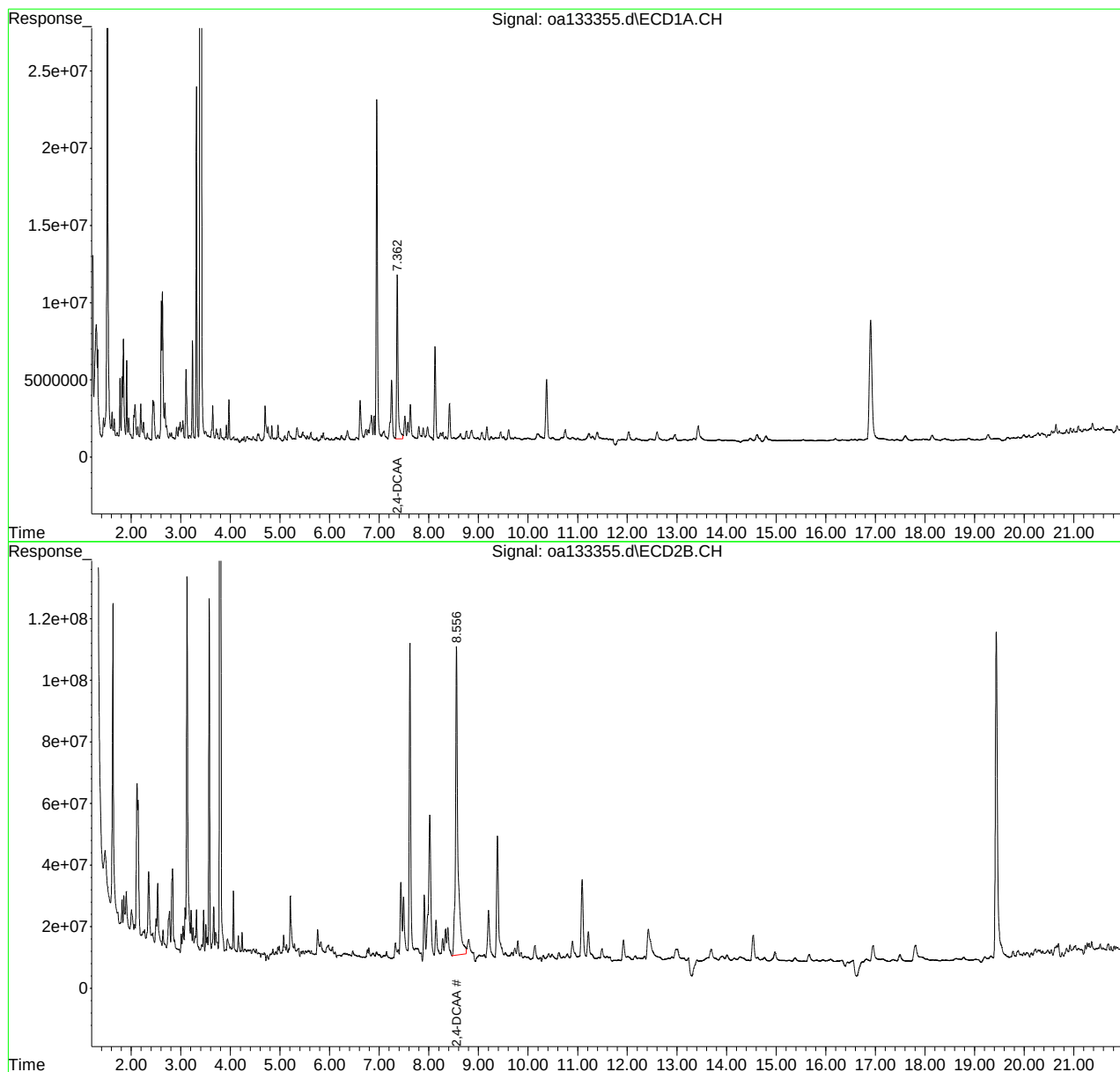
13.1.1
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4568\
Data File : oa133355.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15-May-18, 03:53:26
Operator : vinced
Sample : jc65663-1A
Misc : op11951,goa4568,30,,,2.5,1
ALS Vial : 0 (Sig #1); 27 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 15 11:47:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\H0A4559.M
Quant Title : HERB
QLast Update : Mon May 14 15:39:56 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4568\
 Data File : oa133356.d
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15-May-18, 04:21:59
 Operator : vined
 Sample : jc65663-2A
 Misc : op11951,goa4568,30,,,2.5,1
 ALS Vial : 0 (Sig #1); 28 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: May 15 11:48:52 2018
 Quant Method : C:\MSDCHEM\1\METHODS\H0A4559.M
 Quant Title : HERB
 QLast Update : Mon May 14 15:39:56 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2

System Monitoring Compounds						
2) S 2,4-DCAA	7.362	8.557	227.2E6	3774.6E6	407.249	401.176
Spiked Amount	500.000		Recovery	=	81.45%	80.24%

Target Compounds

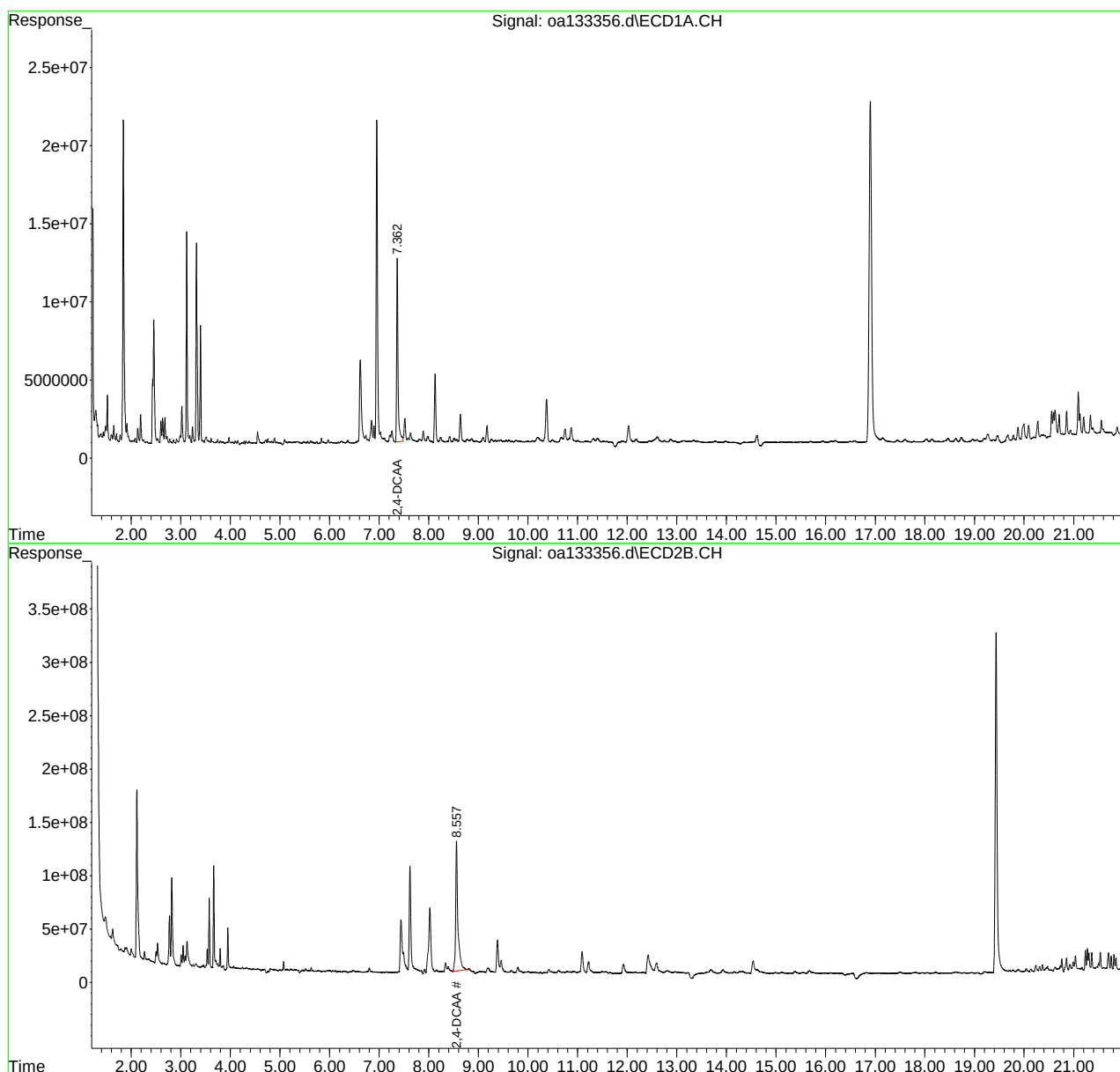
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4568\
 Data File : oa133356.d
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 15-May-18, 04:21:59
 Operator : vinced
 Sample : jc65663-2A
 Misc : op11951,goa4568,30,,,2.5,1
 ALS Vial : 0 (Sig #1); 28 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: May 15 11:48:52 2018
 Quant Method : C:\MSDCHEM\1\METHODS\H0A4559.M
 Quant Title : HERB
 QLast Update : Mon May 14 15:39:56 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
 Signal #1 Phase : RTX-CLP I
 Signal #1 Info : 0.53MM
 Signal #2 Phase: RTX-CLP II
 Signal #2 Info : 0.53MM



Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4644\1G146135.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4644\1G146135.D\ECD2B.CH
Acq On : 5-14-18 06:21:58 AM Operator: christp
Sample : jc65663-1a Inst : GC1G
Misc : op11950,g1g4644,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: May 14 9:15 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Sun May 13 23:05:19 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

Compound		RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1) I	1-bromo-2-nitrob	1.98	2.30	616.3E6	110.1E6	50.000	50.000
27) I	1-bromo-2-nitrob	1.98	2.30	616.3E6	110.1E6	50.000	50.000
33) I	1-bromo-2-nitrob	1.98	2.30	616.3E6	110.1E6	50.000	50.000
System Monitoring Compounds							
2) SAB	Tetrachloro-m-xy	2.54	3.14	390.8E6	67802741	33.623	29.804
Spiked Amount		40.000	Range	30 - 150	Recovery	=	84.06%
26) SA	Decachlorobiphen	9.80	11.67	548.0E6	60843181	45.857	29.835
Spiked Amount		40.000			Recovery	=	114.64%

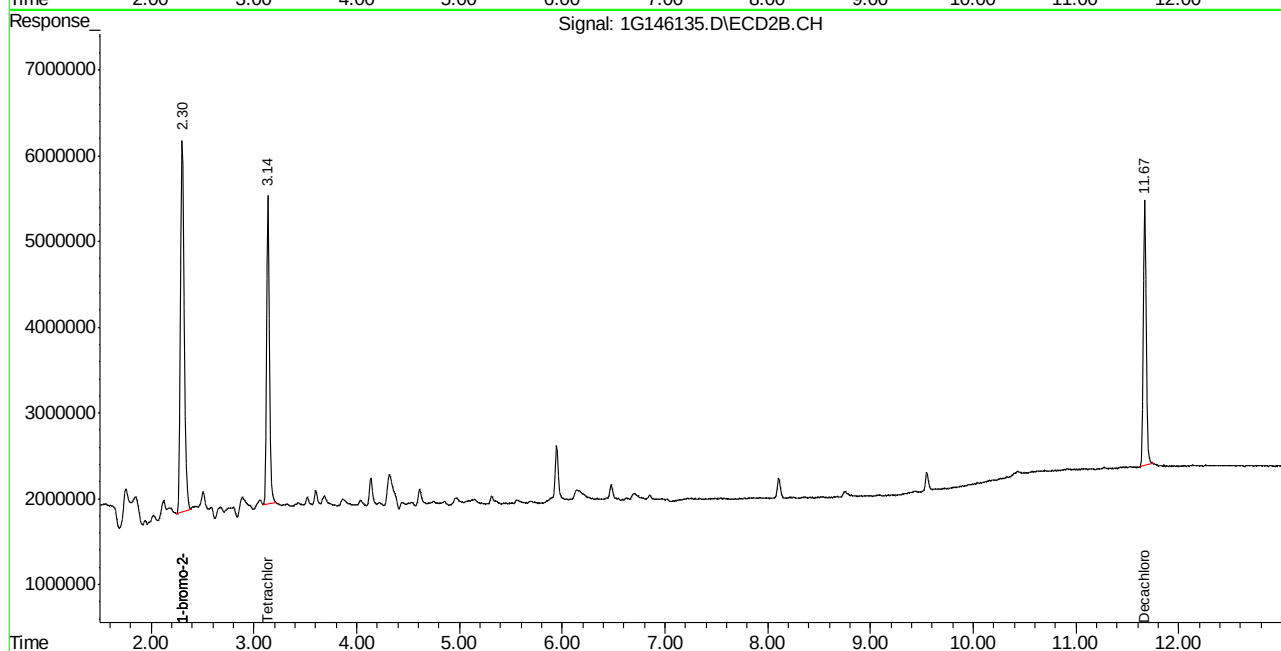
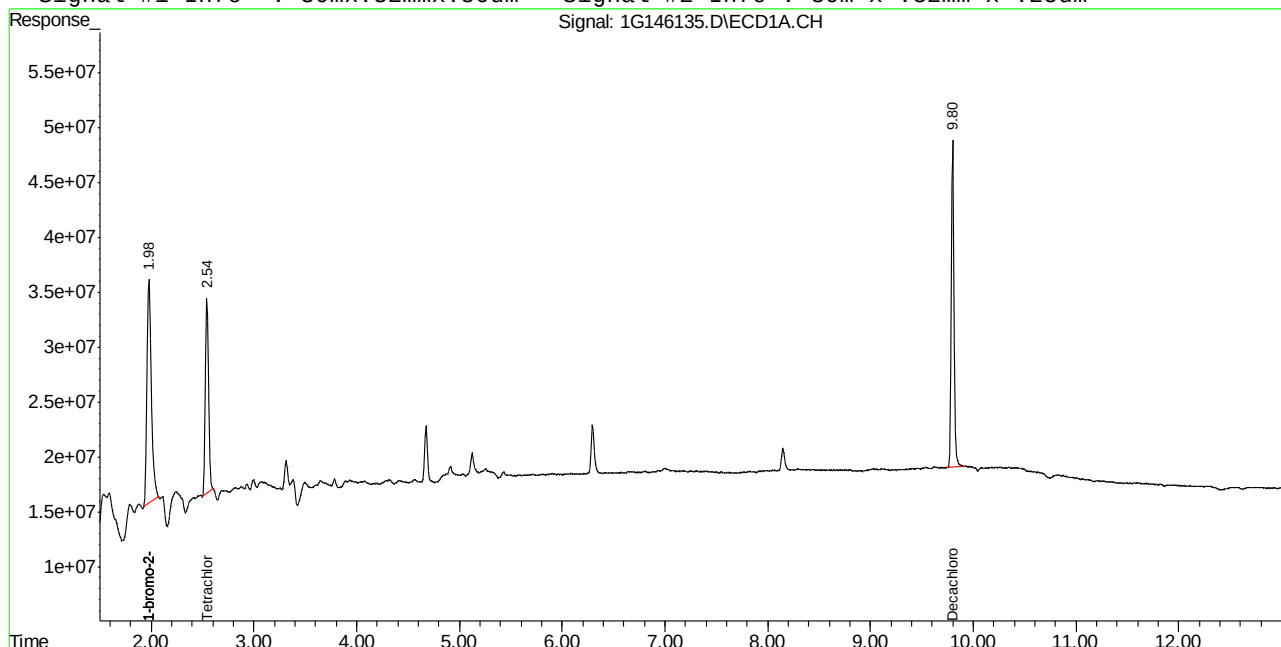
Target Compounds

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4644\1G146135.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\1G4644\1G146135.D\ECD2B.CH
Acq On : 5-14-18 06:21:58 AM Operator: christp
Sample : jc65663-1a Inst : GC1G
Misc : op11950,g1g4644,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: May 14 9:15 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Sun May 13 23:05:19 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4644\1G146136.D\ECD1A.CH Vial: 28
 Signal #2 : C:\MSDCHEM\1\DATA\1G4644\1G146136.D\ECD2B.CH
 Acq On : 5-14-18 06:39:10 AM Operator: christp
 Sample : jc65663-2a Inst : GC1G
 Misc : op11974,g1g4644,30,,,2,1 Multiplr: 1.00
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
 Quant Time: May 14 9:15 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
 Title : PEST/PCB
 Last Update : Sun May 13 23:05:19 2018
 Response via : Initial Calibration
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2-nitrob	1.99	2.30	704.0E6	104.2E6	50.000	50.000
27) I 1-bromo-2-nitrob	1.99	2.30	704.0E6	104.2E6	50.000	50.000
33) I 1-bromo-2-nitrob	1.99	2.30	704.0E6	104.2E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachloro-m-xy	2.55	3.14	428.2E6	66319330	32.252	30.789
Spiked Amount	40.000	Range	30 - 150	Recovery	=	80.63%
26) SA Decachlorobiphen	9.80	11.67	485.8E6	54582395	35.586	28.268
Spiked Amount	40.000			Recovery	=	88.96%

Target Compounds

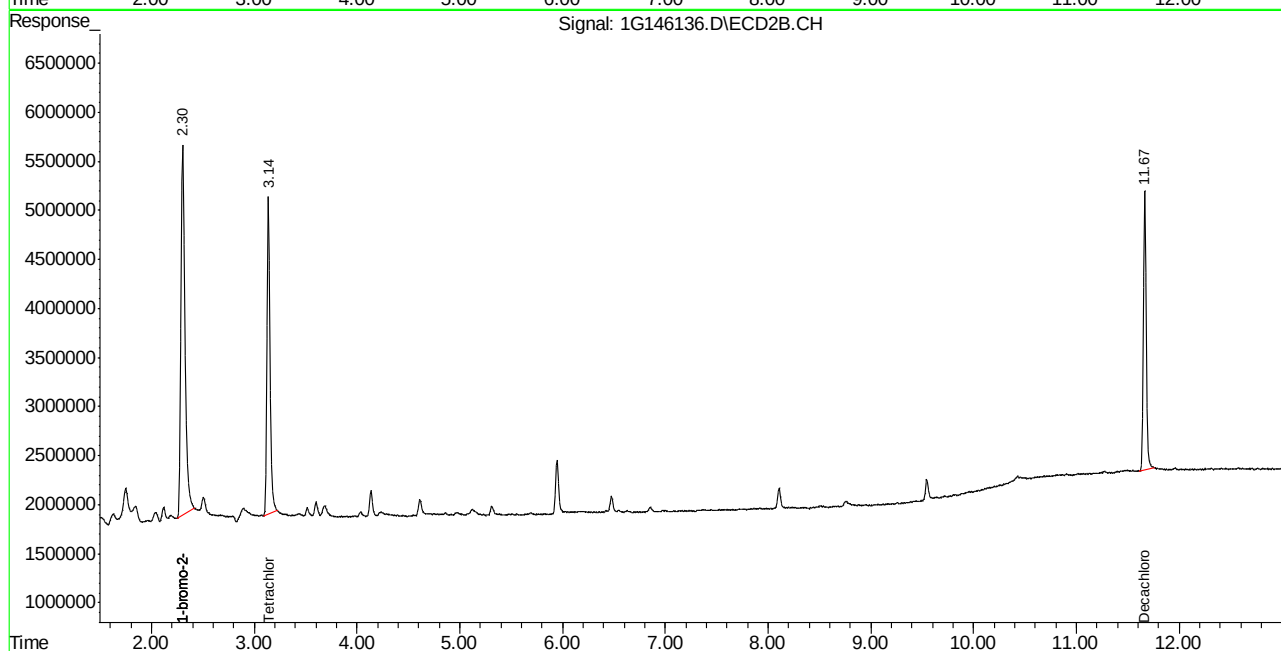
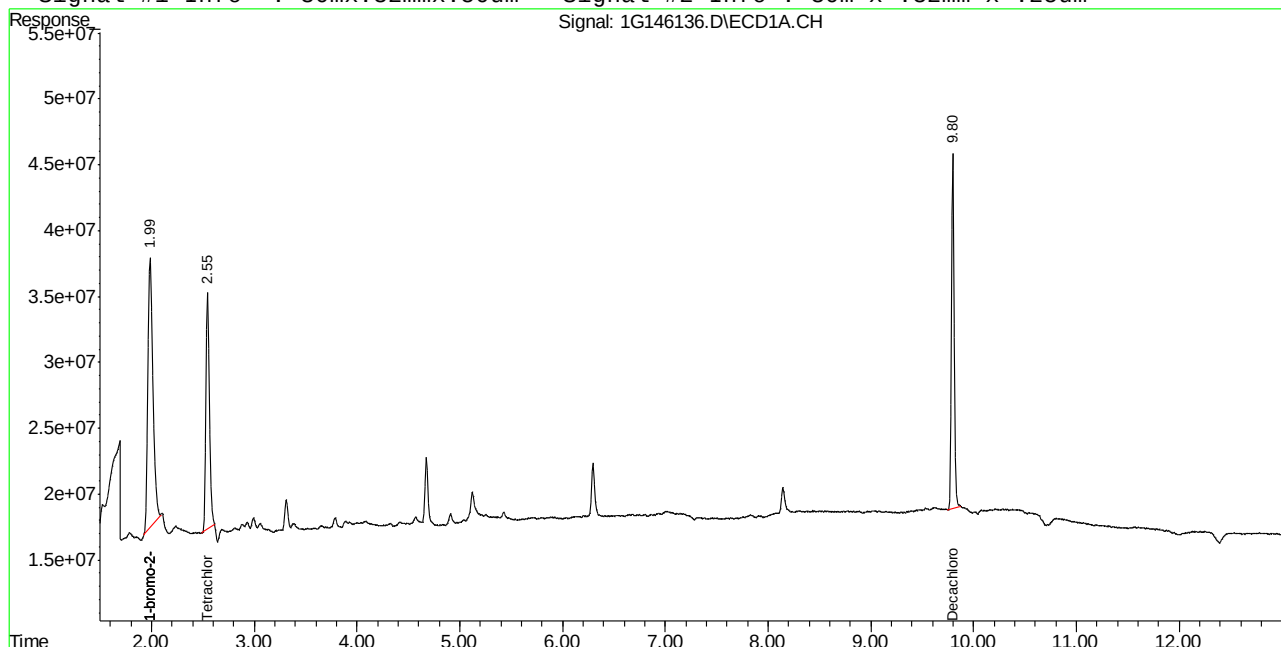
(f)=RT Delta > 1/2 Window (m)=manual int.
 1G146136.D 1PST4628.M Mon May 14 09:16:19 2018 RPT1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4644\1G146136.D\ECD1A.CH Vial: 28
Signal #2 : C:\MSDCHEM\1\DATA\1G4644\1G146136.D\ECD2B.CH
Acq On : 5-14-18 06:39:10 AM Operator: christp
Sample : jc65663-2a Inst : GC1G
Misc : op11974,g1g4644,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: May 14 9:15 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Sun May 13 23:05:19 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4328\
Data File : 2G163191.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 May 2018 2:06 am
Operator : tianweir
Sample : jc65663-1
Misc : OP11896,G2G4328,15.0,,,10,1
ALS Vial : 68 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 10 16:52:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 10 09:36:48 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.782	3.432	155.1E6	506.8E6	42.253	22.149 #
Spiked Amount	40.000		Recovery	=	105.63%	55.37%
51) S Decachlor...	10.020f	11.803f	3740.7E6	15409.0E6	922.321m	806.777
Spiked Amount	40.000		Recovery	=	2305.80%	2016.94%

Target Compounds

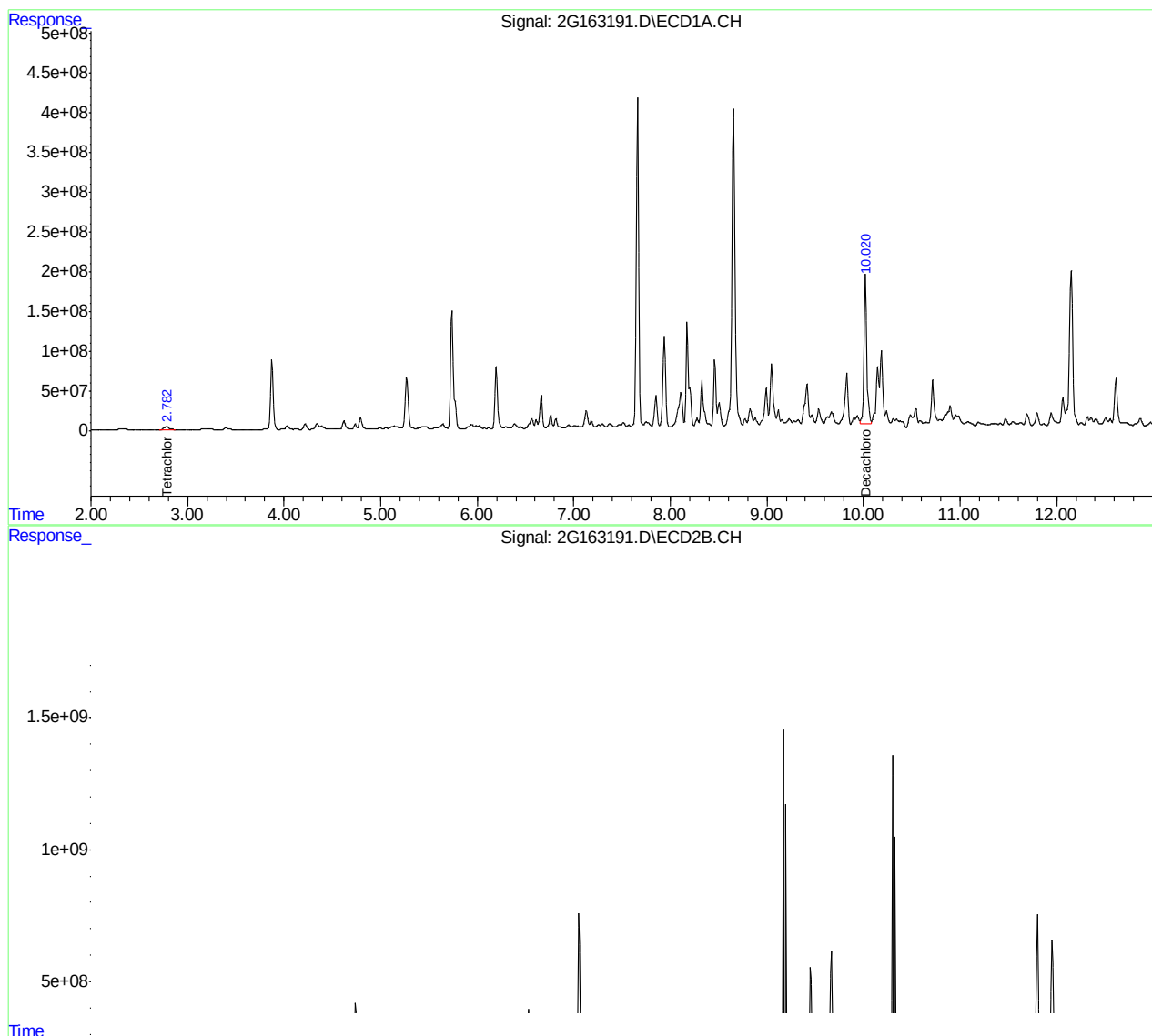
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4328\
 Data File : 2G163191.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 10 May 2018 2:06 am
 Operator : tianweir
 Sample : jc65663-1
 Misc : OP11896,G2G4328,15.0,,,10,1
 ALS Vial : 68 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: May 10 16:52:20 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu May 10 09:36:48 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



13.1.5
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4328\
Data File : 2G163192.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 May 2018 2:23 am
Operator : tianweir
Sample : jc65663-2
Misc : OP11896,G2G4328,16.9,,,10,1
ALS Vial : 69 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 10 16:58:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 10 09:36:48 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds							
1)	S Tetrachlo...	2.782	3.425	133.5E6	734.7E6	36.381	32.107
	Spiked Amount	40.000		Recovery	=	90.95%	80.27%
51)	S Decachlor...	9.969	11.783	97106862	1414.9E6	23.943m	74.080 #
	Spiked Amount	40.000		Recovery	=	59.86%	185.20%

Target Compounds

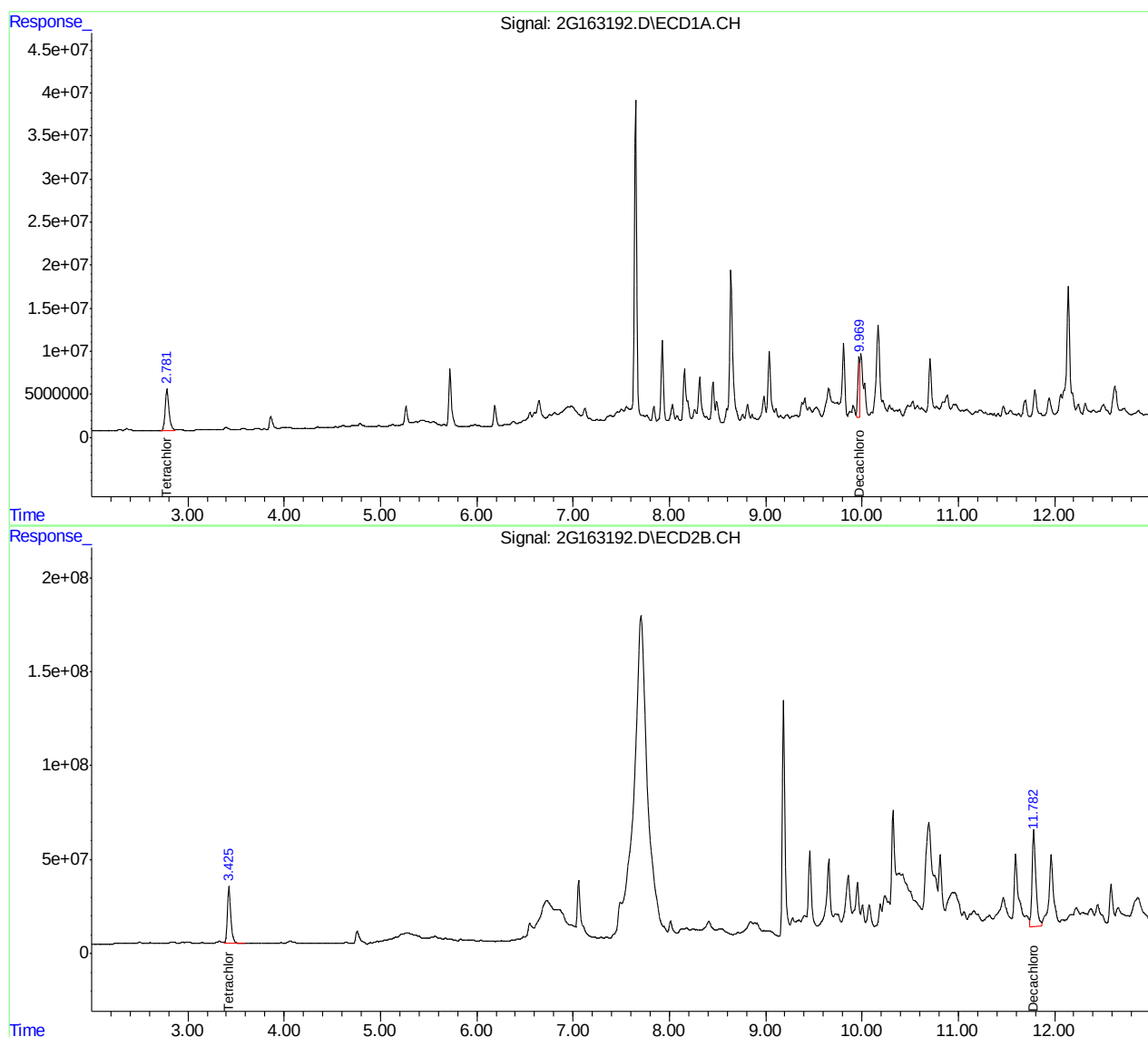
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4328\
Data File : 2G163192.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 May 2018 2:23 am
Operator : tianweir
Sample : jc65663-2
Misc : OP11896,G2G4328,16.9,,,10,1
ALS Vial : 69 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 10 16:58:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 10 09:36:48 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\G2Y3469\
Data File : 2y91034.D
Signal(s) : FID1A.CH
Acq On : 10 May 2018 4:51 pm
Operator : rebeccak
Sample : jc65663-1
Misc : op11891,g2y3469,11.7,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 11 10:29:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M
Quant Title :
QLast Update : Wed May 09 13:26:10 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL
Signal Phase : RTX-1
Signal Info : 30mX0.25mmX0.25um

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
8) S o-Terphenyl	9.99f	73896538	41.221 PPM	m
Spiked Amount 50.000		Recovery =	82.44%	
9) S 5a-Androstane	10.67f	105141561	62.178 PPM	m
Spiked Amount 50.000		Recovery =	124.36%	
10) S Tetracosane-d50	11.78f	57524930	49.028 PPM	m
Spiked Amount 50.000		Recovery =	98.06%	
Target Compounds				
1) H TPH-DRO	8.79	13473400475	10608.454 PPM	
2) H TPH-DRO (C10-C44)	14.69	14789225352	11644.486 PPM	

(f)=RT Delta > 1/2 Window

(m)=manual int.

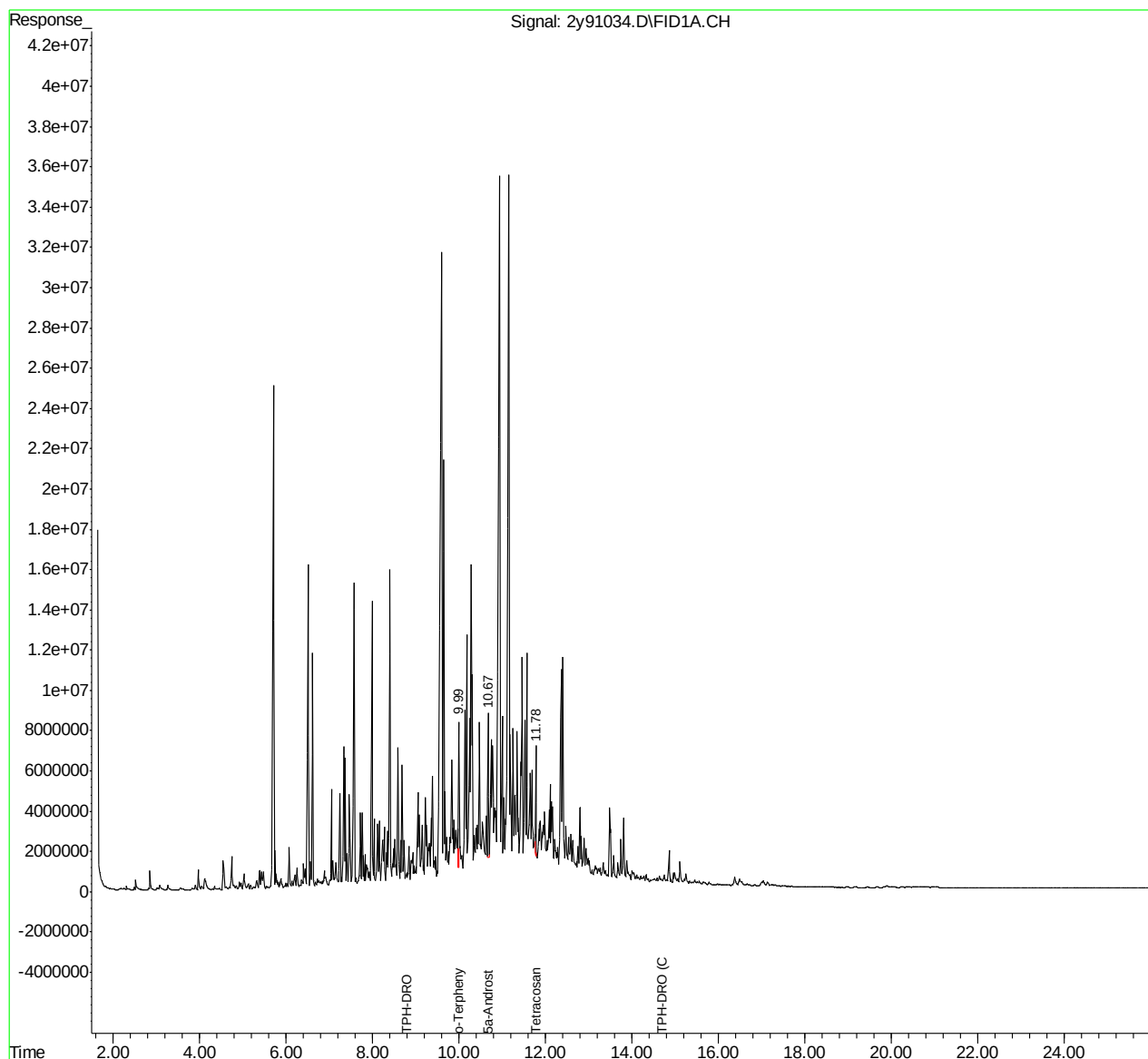
13.1.7
13

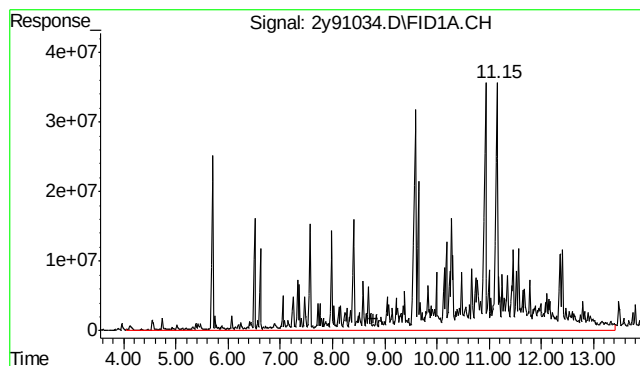
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\G2Y3469\
Data File : 2y91034.D
Signal(s) : FID1A.CH
Acq On : 10 May 2018 4:51 pm
Operator : rebeccak
Sample : jc65663-1
Misc : op11891,g2y3469,11.7,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 11 10:29:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M
Quant Title :
QLast Update : Wed May 09 13:26:10 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

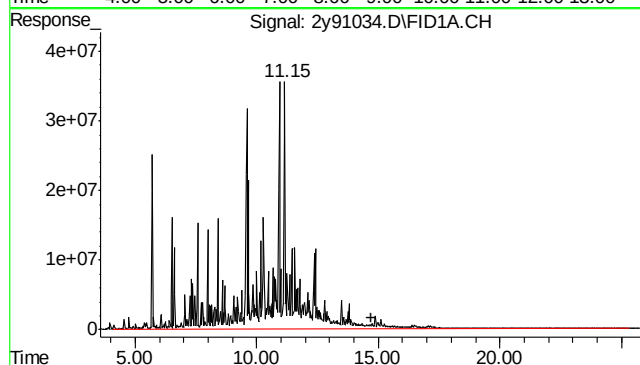
Volume Inj. : 1UL
Signal Phase : RTX-1
Signal Info : 30mX0.25mmX0.25um





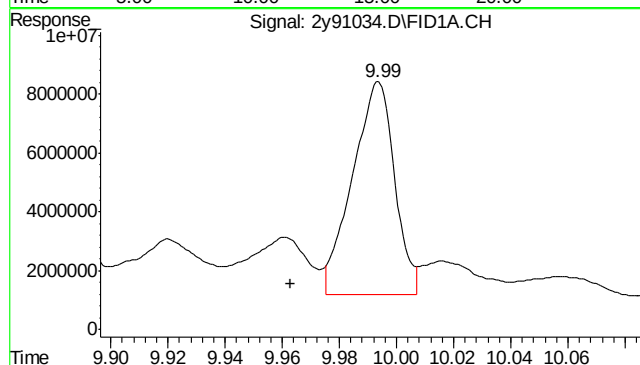
#1 TPH-DRO

R.T.: 8.790 min
Delta R.T.: 0.000 min
Response: 13473400475
Conc: 10608.45 PPM m



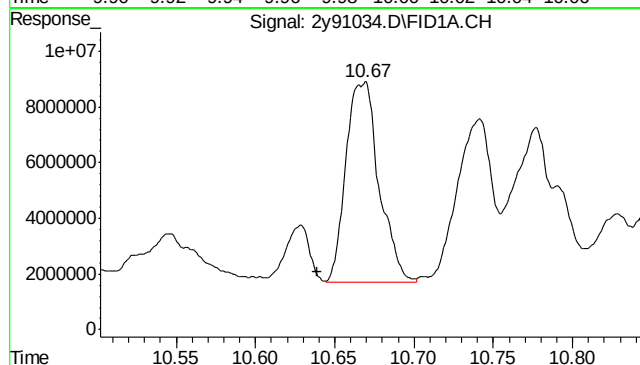
#2 TPH-DRO (C10-C44)

R.T.: 14.690 min
Delta R.T.: 0.000 min
Response: 14789225352
Conc: 11644.49 PPM m



#8 o-Terphenyl

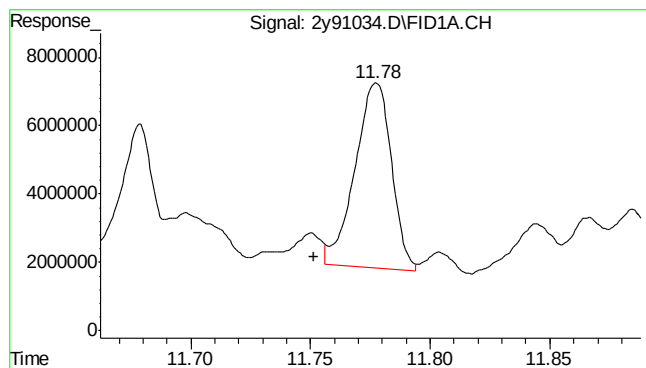
R.T.: 9.993 min
Delta R.T.: 0.031 min
Response: 73896538
Conc: 41.22 PPM m



#9 5a-Androstane

R.T.: 10.669 min
Delta R.T.: 0.030 min
Response: 105141561
Conc: 62.18 PPM m

13.1.7
13



#10 Tetracosane-d50

R.T.: 11.777 min
Delta R.T.: 0.026 min
Response: 57524930
Conc: 49.03 PPM m

13.1.7
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\G2Y3469\
Data File : 2y91035.D
Signal(s) : FID1A.CH
Acq On : 10 May 2018 5:24 pm
Operator : rebeccak
Sample : jc65663-2
Misc : op11891,g2y3469,10.0,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 11 10:30:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M
Quant Title :
QLast Update : Fri May 11 10:29:55 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL
Signal Phase : RTX-1
Signal Info : 30mX0.25mmX0.25um

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
8) S o-Terphenyl	9.97	68243681	38.068 PPM	m
Spiked Amount 50.000		Recovery =	76.14%	
9) S 5a-Androstane	10.65	61640633	36.453 PPM	m
Spiked Amount 50.000		Recovery =	72.91%	
10) S Tetracosane-d50	11.76	57122480	48.685 PPM	m
Spiked Amount 50.000		Recovery =	97.37%	
Target Compounds				
1) H TPH-DRO	8.79	670974953	528.301 PPM	
2) H TPH-DRO (C10-C44)	14.69	959941049	755.822 PPM	

(f)=RT Delta > 1/2 Window

(m)=manual int.

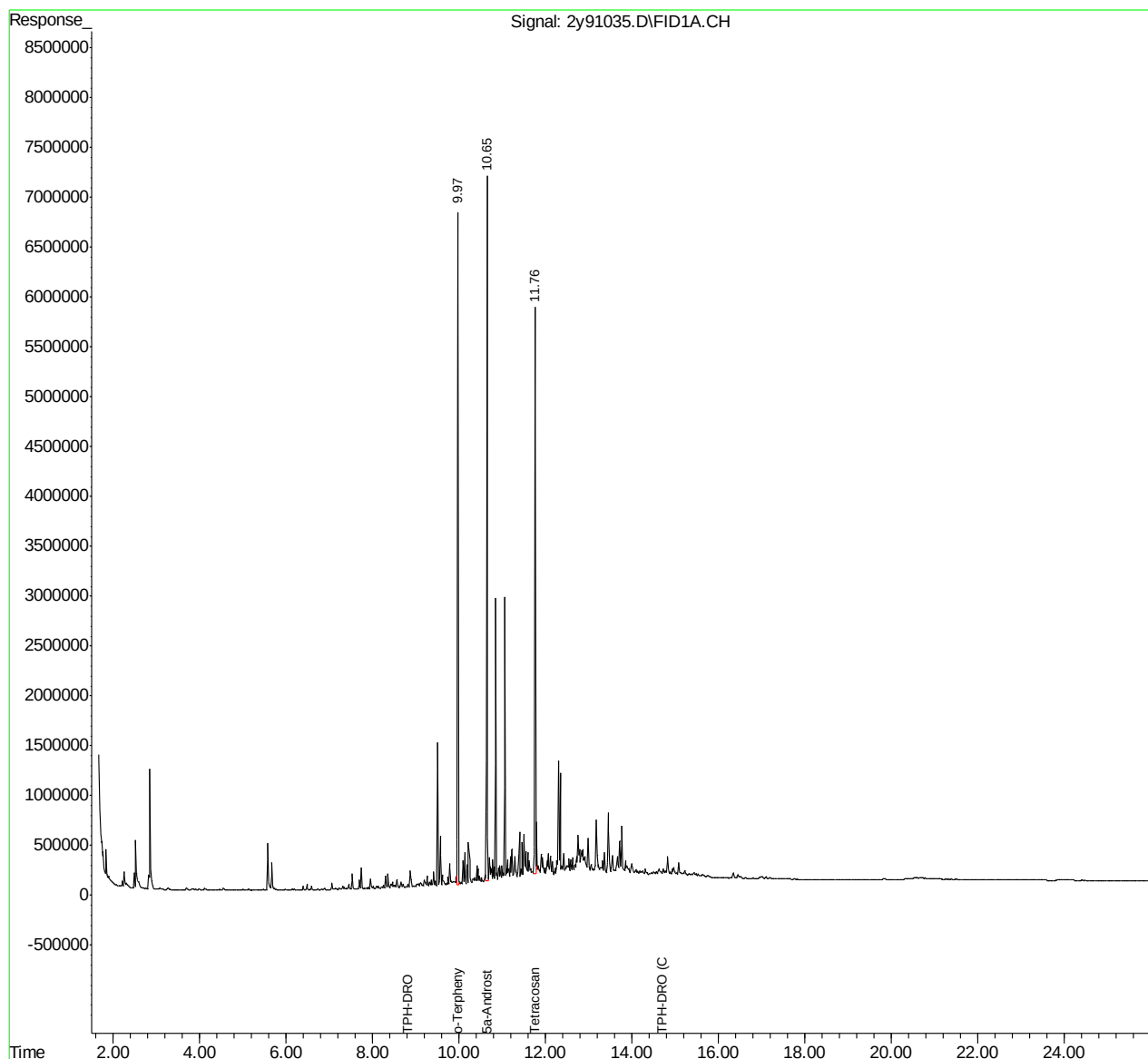
13.1.8
13

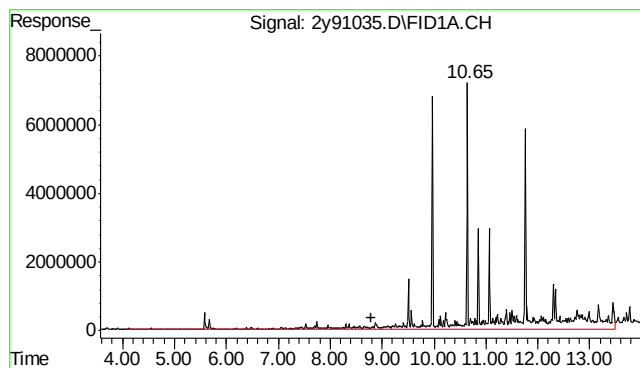
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\G2Y3469\
Data File : 2y91035.D
Signal(s) : FID1A.CH
Acq On : 10 May 2018 5:24 pm
Operator : rebeccak
Sample : jc65663-2
Misc : op11891,g2y3469,10.0,,,1,1
ALS Vial : 18 Sample Multiplier: 1

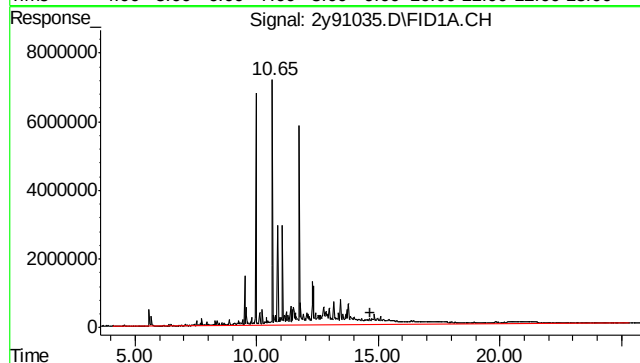
Integration File: autoint1.e
Quant Time: May 11 10:30:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M
Quant Title :
QLast Update : Fri May 11 10:29:55 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL
Signal Phase : RTX-1
Signal Info : 30mX0.25mmX0.25um

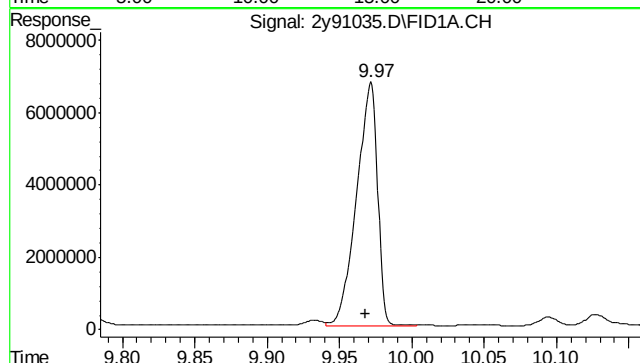




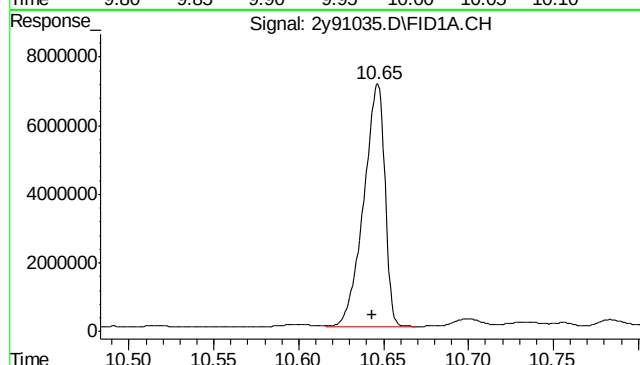
#1 TPH-DRO
R.T.: 8.790 min
Delta R.T.: 0.000 min
Response: 670974953
Conc: 528.30 PPM m



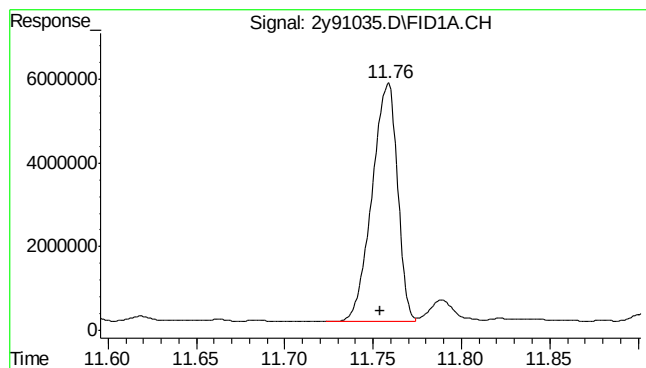
#2 TPH-DRO (C10-C44)
R.T.: 14.690 min
Delta R.T.: 0.000 min
Response: 959941049
Conc: 755.82 PPM m



#8 o-Terphenyl
R.T.: 9.972 min
Delta R.T.: 0.003 min
Response: 68243681
Conc: 38.07 PPM m



#9 5a-Androstane
R.T.: 10.646 min
Delta R.T.: 0.003 min
Response: 61640633
Conc: 36.45 PPM m



#10 Tetracosane-d50

R.T.: 11.759 min
Delta R.T.: 0.005 min
Response: 57122480
Conc: 48.68 PPM m

13.1.8
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Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4644\1G146111.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4644\1G146111.D\ECD2B.CH
Acq On : 13 May 2018 11:25 pm Operator: christp
Sample : op11950-mb1 Inst : GC1G
Misc : op11950,g1g4644,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: May 14 8:19 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Sun May 13 23:05:19 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2-nitrob	1.99	2.30	780.4E6	108.4E6	50.000	50.000
27) I 1-bromo-2-nitrob	1.99	2.30	780.4E6	108.4E6	50.000	50.000
33) I 1-bromo-2-nitrob	1.99	2.30	780.4E6	108.4E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachloro-m-xy	2.55	3.14	483.4E6	72898341	32.850	32.549
Spiked Amount	40.000	Range	30 - 150	Recovery	=	82.13% 81.37%
26) SA Decachlorobiphen	9.80	11.67	275.7E6	28295542	18.218	14.094
Spiked Amount	40.000			Recovery	=	45.55% 35.23%

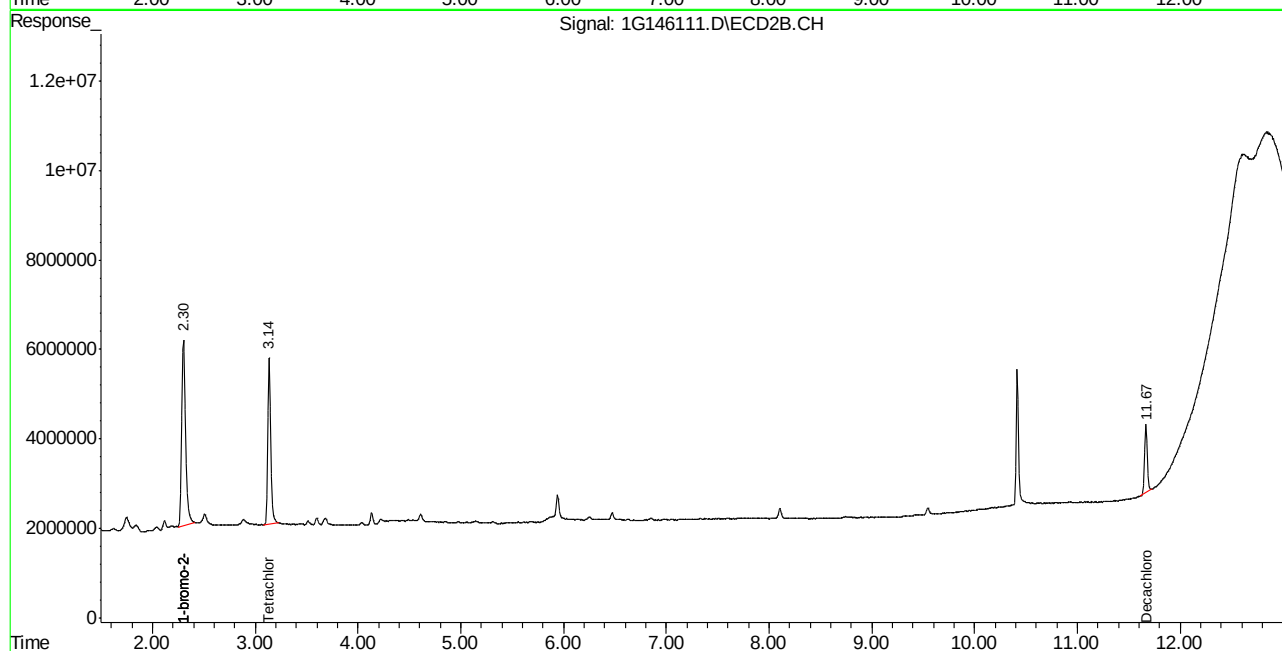
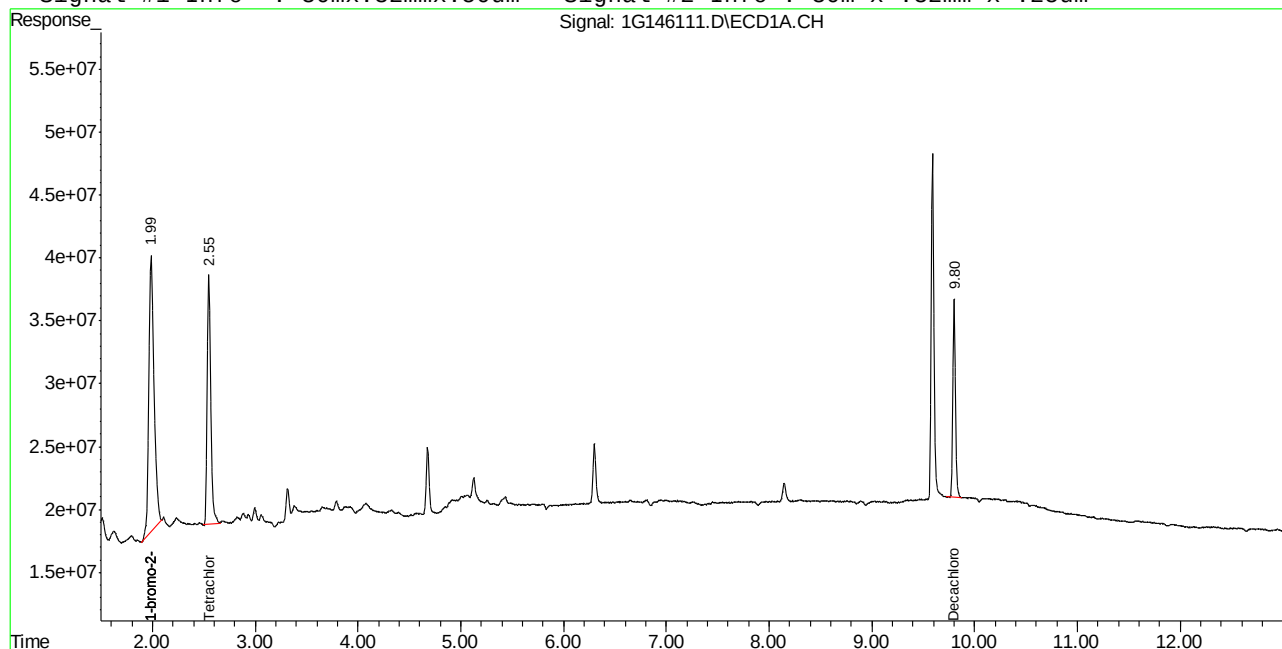
Target Compounds

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4644\1G146111.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4644\1G146111.D\ECD2B.CH
Acq On : 13 May 2018 11:25 pm Operator: christp
Sample : op11950-mb1 Inst : GC1G
Misc : op11950,g1g4644,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: May 14 8:19 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Sun May 13 23:05:19 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4328\
Data File : 2G163187.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 May 2018 12:58 am
Operator : tianweir
Sample : op11896-mb
Misc : OP11896,G2G4328,15.0,,,10,1
ALS Vial : 64 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 10 15:52:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 10 09:36:48 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.781	3.430	128.7E6	842.0E6	35.060	36.796
Spiked Amount	40.000		Recovery	=	87.65%	91.99%
51) S Decachlor...	9.970	11.779	131.4E6	606.0E6	32.402	31.728
Spiked Amount	40.000		Recovery	=	81.01%	79.32%

Target Compounds

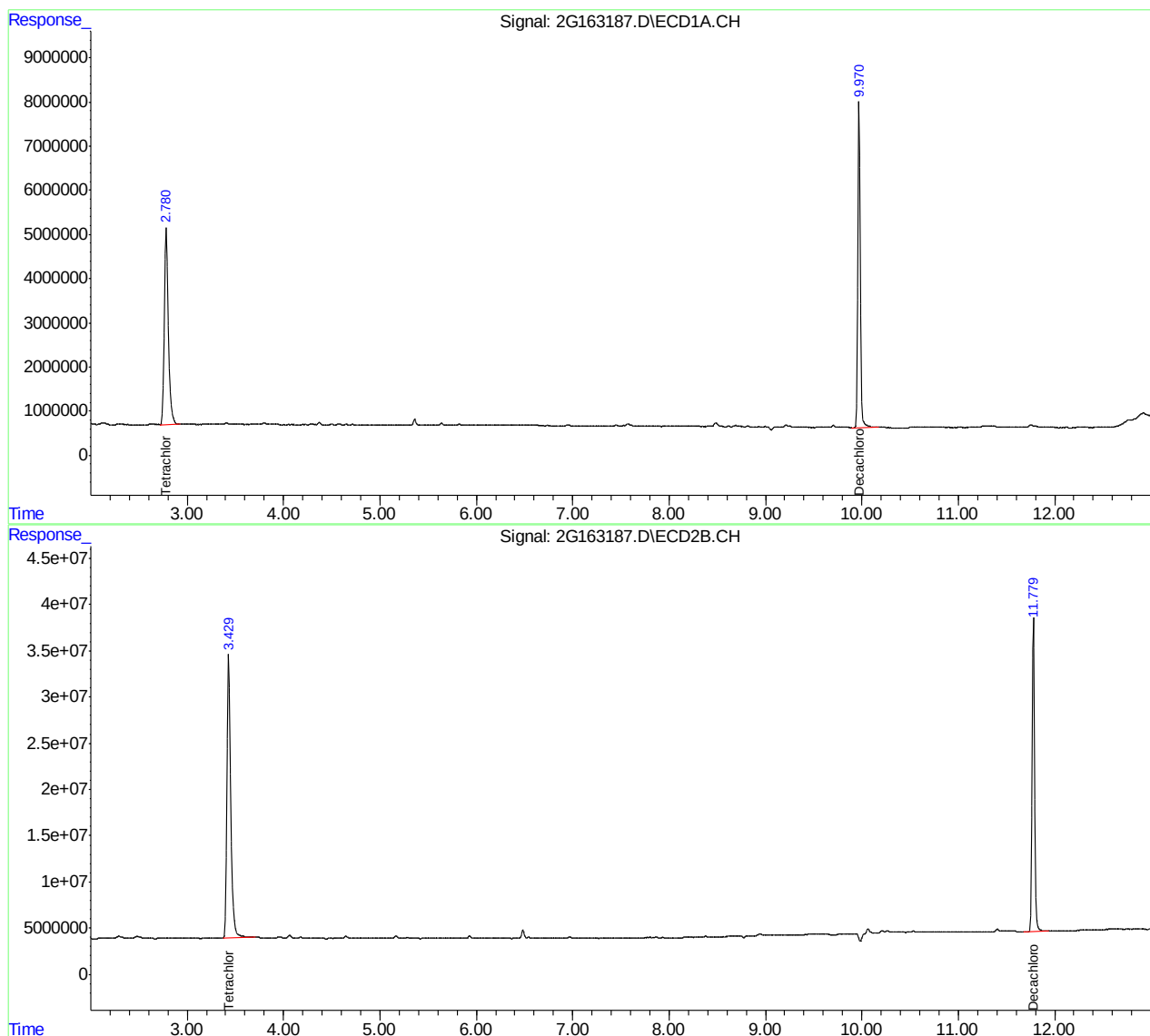
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4328\
Data File : 2G163187.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 May 2018 12:58 am
Operator : tianweir
Sample : op11896-mb
Misc : OP11896,G2G4328,15.0,,,10,1
ALS Vial : 64 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 10 15:52:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 10 09:36:48 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\G2Y3469\
Data File : 2y91026.D
Signal(s) : FID1A.CH
Acq On : 10 May 2018 12:01 pm
Operator : thomasl
Sample : op11891-mb
Misc : op11891,g2y3469,10.0,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 11 10:20:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M
Quant Title :
QLast Update : Wed May 09 13:26:10 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL
Signal Phase : RTX-1
Signal Info : 30mX0.25mmX0.25um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
8) S o-Terphenyl	9.97	65760859	36.683 PPM
Spiked Amount 50.000		Recovery =	73.37%
9) S 5a-Androstane	10.64	61357533	36.285 PPM
Spiked Amount 50.000		Recovery =	72.57%
10) S Tetracosane-d50	11.75	52906349	45.091 PPM
Spiked Amount 50.000		Recovery =	90.18%

Target Compounds

(f)=RT Delta > 1/2 Window

(m)=manual int.

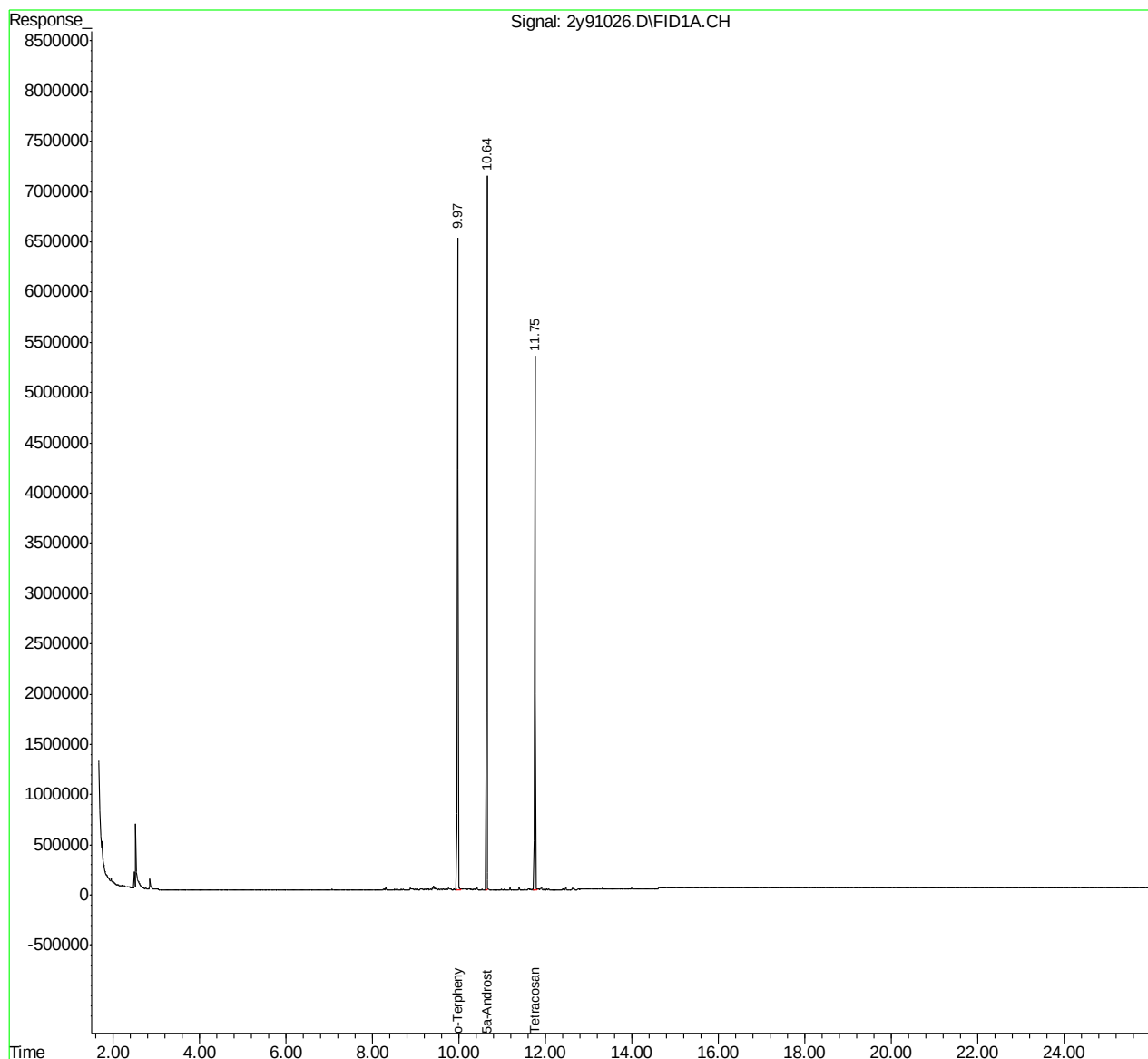
13.23
13

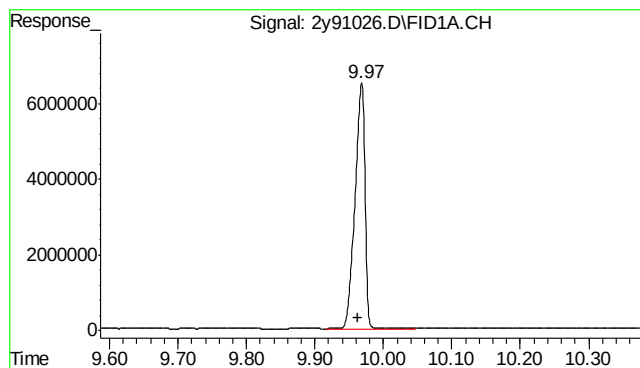
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\G2Y3469\
Data File : 2y91026.D
Signal(s) : FID1A.CH
Acq On : 10 May 2018 12:01 pm
Operator : thomasl
Sample : op11891-mb
Misc : op11891,g2y3469,10.0,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 11 10:20:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M
Quant Title :
QLast Update : Wed May 09 13:26:10 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

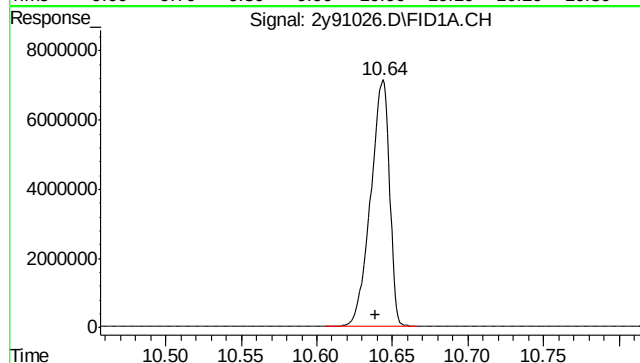
Volume Inj. : 1UL
Signal Phase : RTX-1
Signal Info : 30mX0.25mmX0.25um





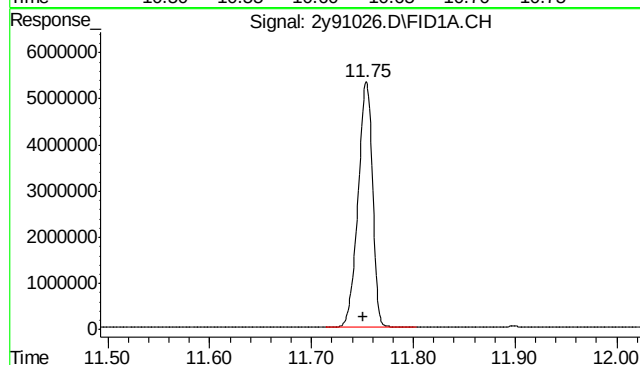
#8 o-Terphenyl

R.T.: 9.968 min
Delta R.T.: 0.005 min
Response: 65760859
Conc: 36.68 PPM



#9 5a-Androstane

R.T.: 10.644 min
Delta R.T.: 0.005 min
Response: 61357533
Conc: 36.29 PPM



#10 Tetracosane-d50

R.T.: 11.754 min
Delta R.T.: 0.003 min
Response: 52906349
Conc: 45.09 PPM

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4568\
Data File : oa133321.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-May-18, 10:00:42
Operator : vined
Sample : op11951-mb1
Misc : op11951,goa4568,300.0,,,2.5,1
ALS Vial : 0 (Sig #1); 4 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 14 14:38:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\H0A4559.M
Quant Title : HERB
QLast Update : Thu May 10 09:25:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2

System Monitoring Compounds						
2) S 2,4-DCAA	7.361f	8.556	206.0E6	2971.3E6	369.360m	315.803
Spiked Amount	500.000		Recovery	=	73.87%	63.16%

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

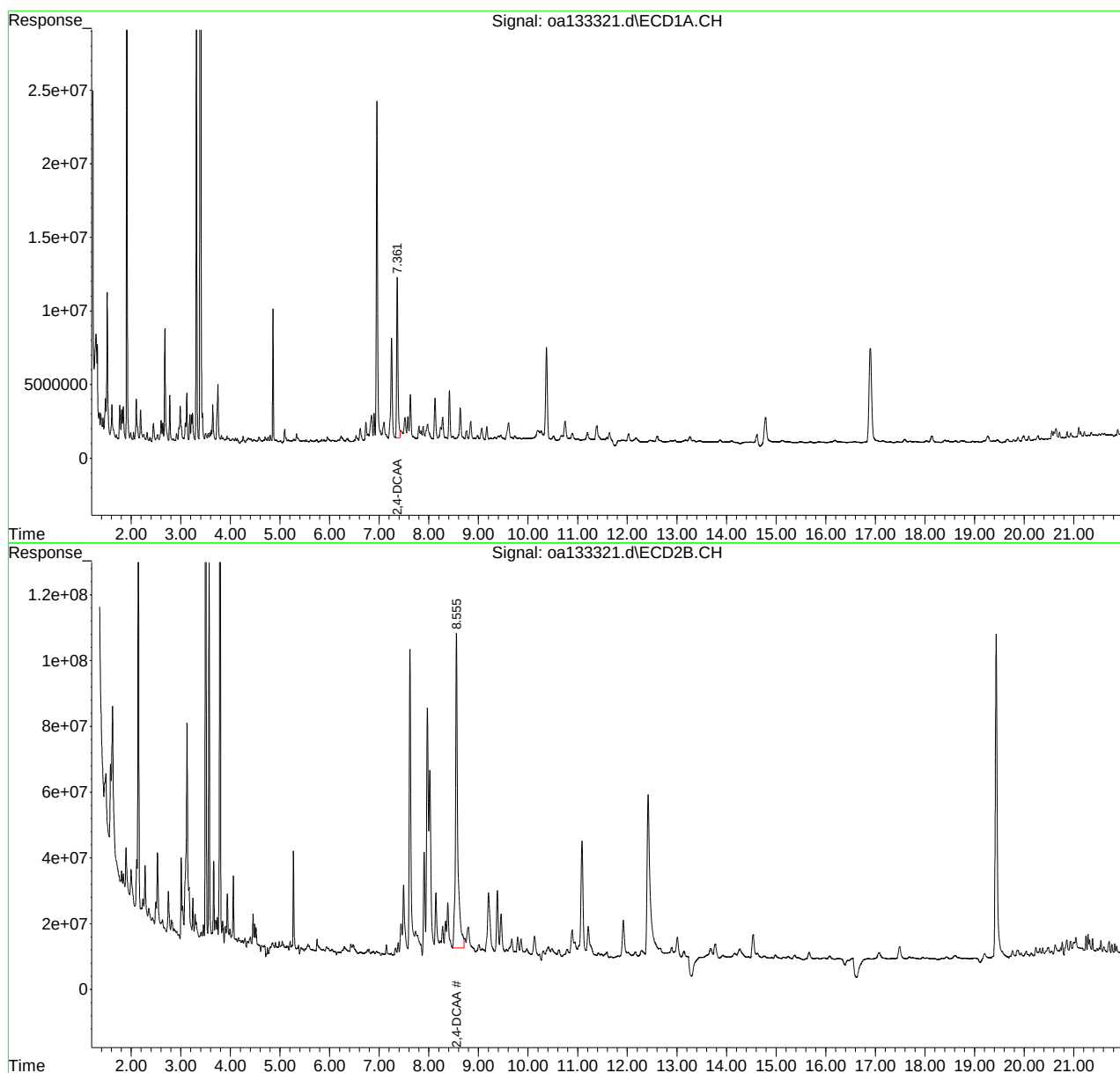
13.2.4
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4568\
Data File : oa133321.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-May-18, 10:00:42
Operator : vinced
Sample : op11951-mb1
Misc : op11951,goa4568,300.0,,,2.5,1
ALS Vial : 0 (Sig #1); 4 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 14 14:38:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\H0A4559.M
Quant Title : HERB
QLast Update : Thu May 10 09:25:35 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6343\
Data File : xx228265.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 09 May 2018 11:52 am
Operator : tianweir
Sample : op11896-mb
Misc : op11896,GXX6343,15.0,,,10,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 09 12:38:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\PCB6321.M
Quant Title :
QLast Update : Tue May 08 17:16:04 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.799	3.540	282.1E6	286.6E6	34.147	35.235
Spiked Amount	40.000		Recovery	=	85.37%	88.09%
51) S Decachlor...	9.950	11.958	342.8E6	323.7E6	34.400	35.446
Spiked Amount	40.000		Recovery	=	86.00%	88.61%

Target Compounds

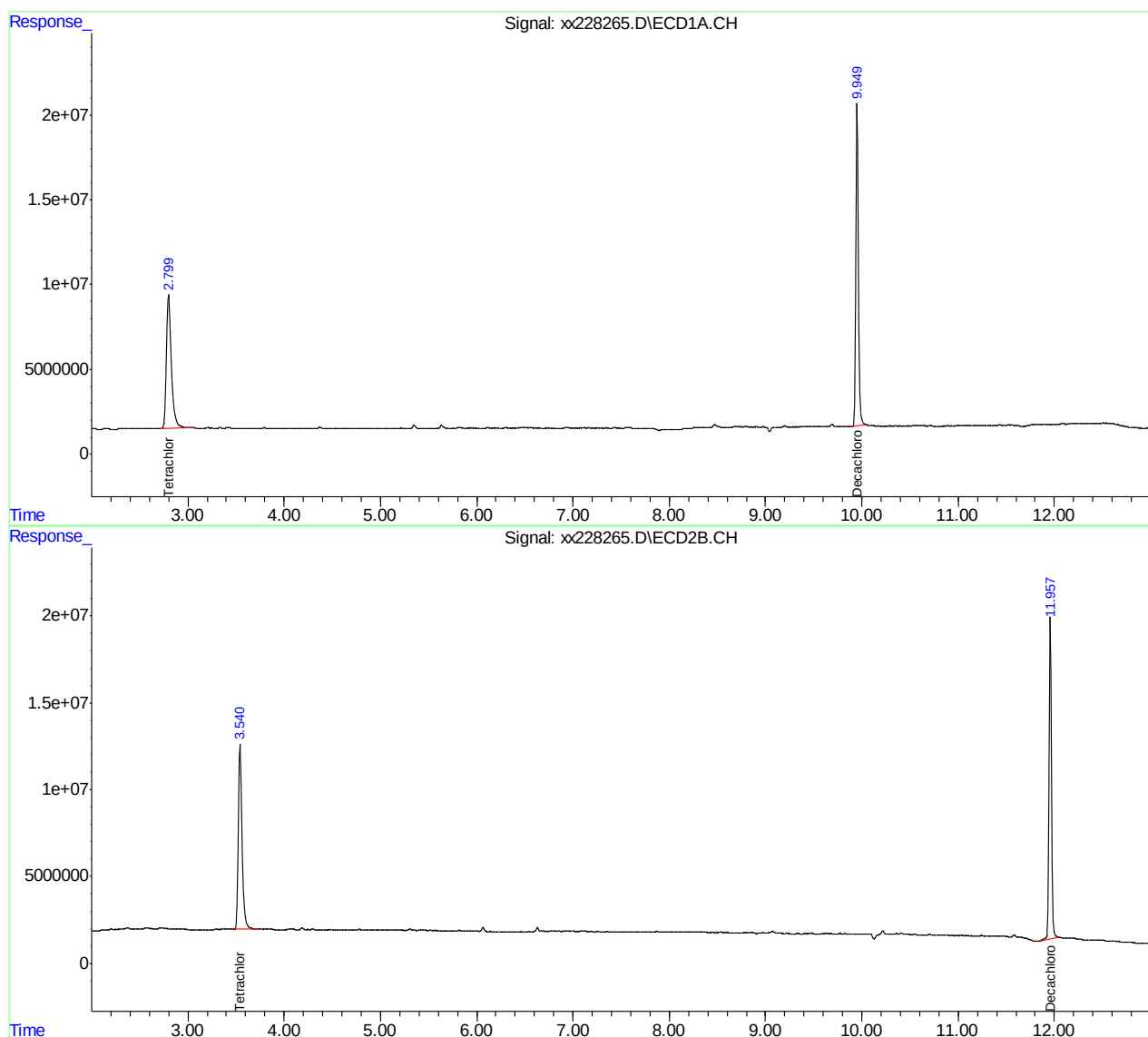
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6343\
Data File : xx228265.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 09 May 2018 11:52 am
Operator : tianweir
Sample : op11896-mb
Misc : op11896,GXX6343,15.0,,,10,1
ALS Vial : 72 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 09 12:38:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\PCB6321.M
Quant Title :
QLast Update : Tue May 08 17:16:04 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145471.D\ECD1A.CH Vial: 7
 Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145471.D\ECD2B.CH
 Acq On : 4-25-18 01:38:34 PM Operator: dharas
 Sample : icc4628-25 Inst : GC1G
 Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
 Quant Time: Apr 25 15:26 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
 Title : PEST/PCB
 Last Update : Tue Apr 24 23:40:36 2018
 Response via : Initial Calibration
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2-nitrob	1.98	2.30	860.1E6	103.4E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachloro-m-xy	2.55	3.14	406.0E6	52192360	26.606	25.907
Spiked Amount 40.000	Range	30 - 150	Recovery	=	66.52%	64.77%
26) SA Decachlorobiphen	9.82	11.72	408.9E6	47393412	23.716	26.094
Spiked Amount 40.000			Recovery	=	59.29%	65.23%
Target Compounds						
3) Hexachlorobenzen	2.88	3.68	702.4E6	65723200	25.472	25.228
4) A alpha-BHC	3.01	3.83	571.5E6	71631347	26.510	26.252
5) MA gamma-BHC	3.30	4.28	513.0E6	65977455	27.041	27.277
6) MA Heptachlor	3.80	4.89	539.2E6	66105692	29.274	31.002
7) B beta-BHC	3.38	4.37	241.9E6	30096828	27.697	26.347
8) B delta-BHC	3.58	4.79	495.1E6	59824637	34.266	31.595
9) MB Aldrin	4.14	5.36	495.8E6	65543121	26.150	25.737
10) Alachlor	4.26	5.13	54523812	8465608	22.957	25.881
11) B Heptachlor Epoxi	4.85	6.21	469.6E6	61191522	26.465	26.309
12) B gamma-Chlordane	5.01	6.50	473.4E6	61010414	28.641	25.881
13) B alpha-Chlordane	5.18	6.73	457.1E6	59465944	27.214	25.827
14) A Endosulfan I	5.36	6.84	495.2E6	56135065	27.162	25.910
15) B 4,4'-DDE	5.30	6.99	398.0E6	54337344	25.480	23.673
16) MA Dieldrin	5.69	7.29	470.0E6	61481129	26.546	23.991
17) MA Endrin	6.01	7.81	438.0E6	53980507	27.337	26.565
18) A 4,4'-DDD	6.14	7.96	332.0E6	40904245	26.764	23.437
19) B Endosulfan II	6.34	8.16	418.1E6	53225896	26.949	25.102
20) MA 4,4'-DDT	6.55	8.50	328.7E6	34574376	32.182	31.015
21) B Endrin Aldehyde	6.96	8.74	347.7E6	42575401	26.732	24.835
22) B Endosulfan Sulfa	7.64	9.22	344.9E6	41812774	38.068	36.459
23) A Methoxychlor	7.34	9.70	142.7E6	18015010	30.137	34.433
24) Mirex	7.51	10.02	346.4E6	38119902	26.191	25.728
25) B Endrin Ketone	8.09	10.06	400.8E6	44391954	34.975	31.169

(f)=RT Delta > 1/2 Window
 1G145471.D 1PST4628.M

Wed Apr 25 15:26:16 2018

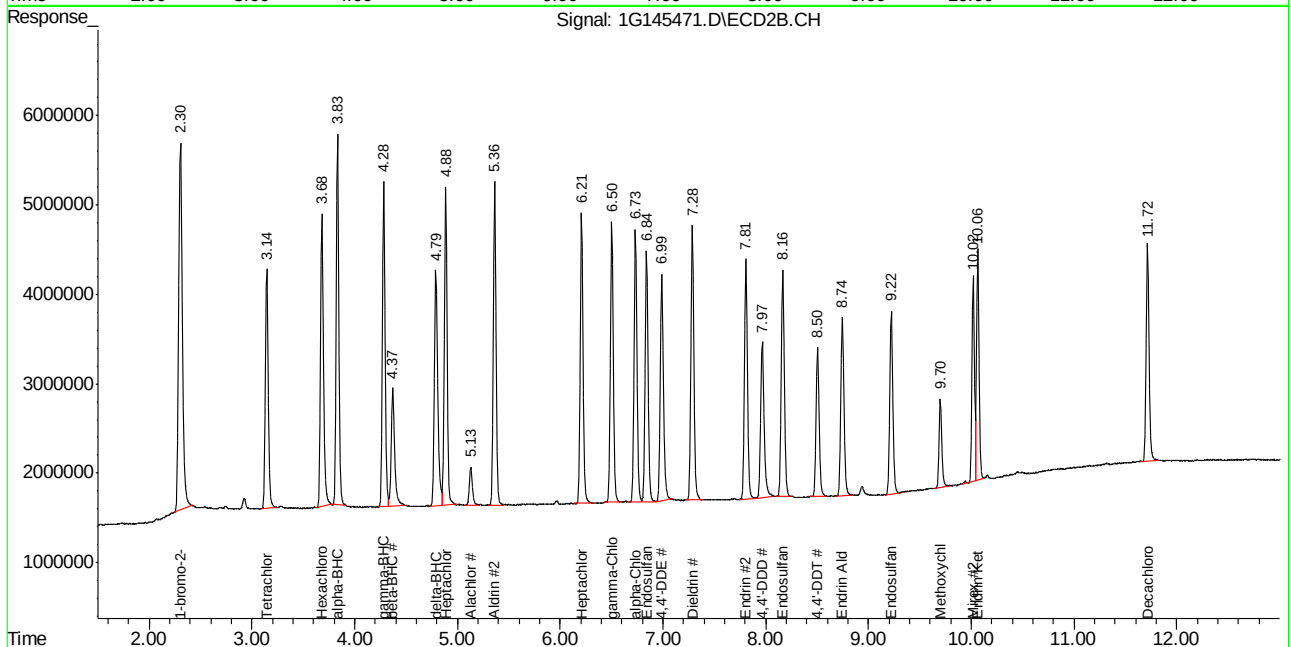
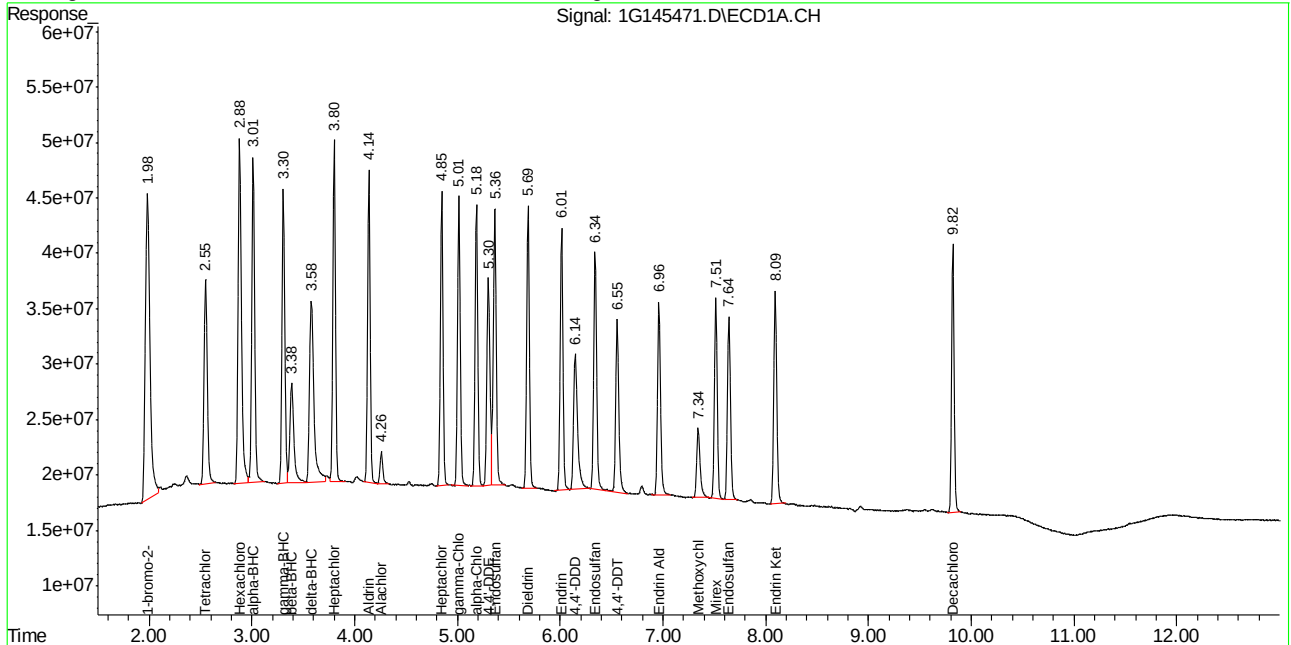
(m)=manual int.
 RPT1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145471.D\ECD1A.CH Vial: 7
 Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145471.D\ECD2B.CH
 Acq On : 4-25-18 01:38:34 PM Operator: dharas
 Sample : icc4628-25 Inst : GC16
 Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
 Quant Time: Apr 25 15:26 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
 Title : PEST/PCB
 Last Update : Tue Apr 24 23:40:36 2018
 Response via : Multiple Level Calibration
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145475.D\ECD1A.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145475.D\ECD2B.CH
Acq On : 4-25-18 02:47:49 PM Operator: dharas
Sample : ic4628-500 Inst : GC1G
Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: Apr 25 15:27 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Tue Apr 24 23:40:36 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
33) I 1-bromo-2-nitrob	1.98	2.30	850.1E6	104.6E6	50.000	50.000

System Monitoring Compounds

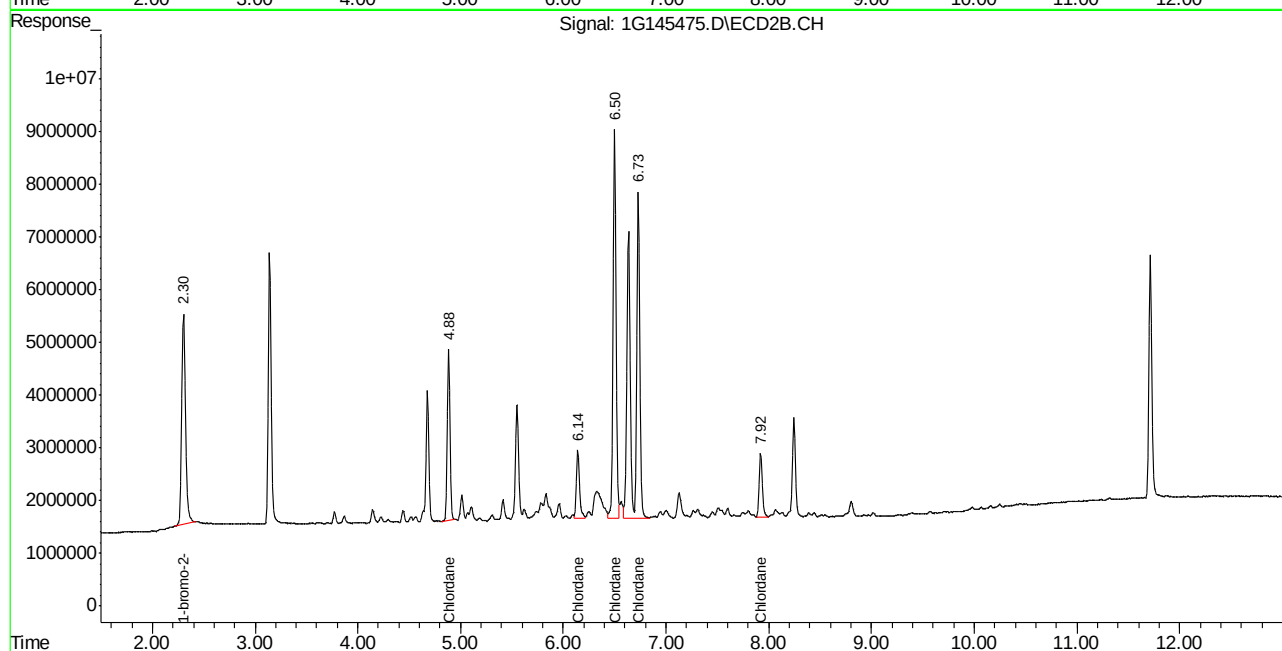
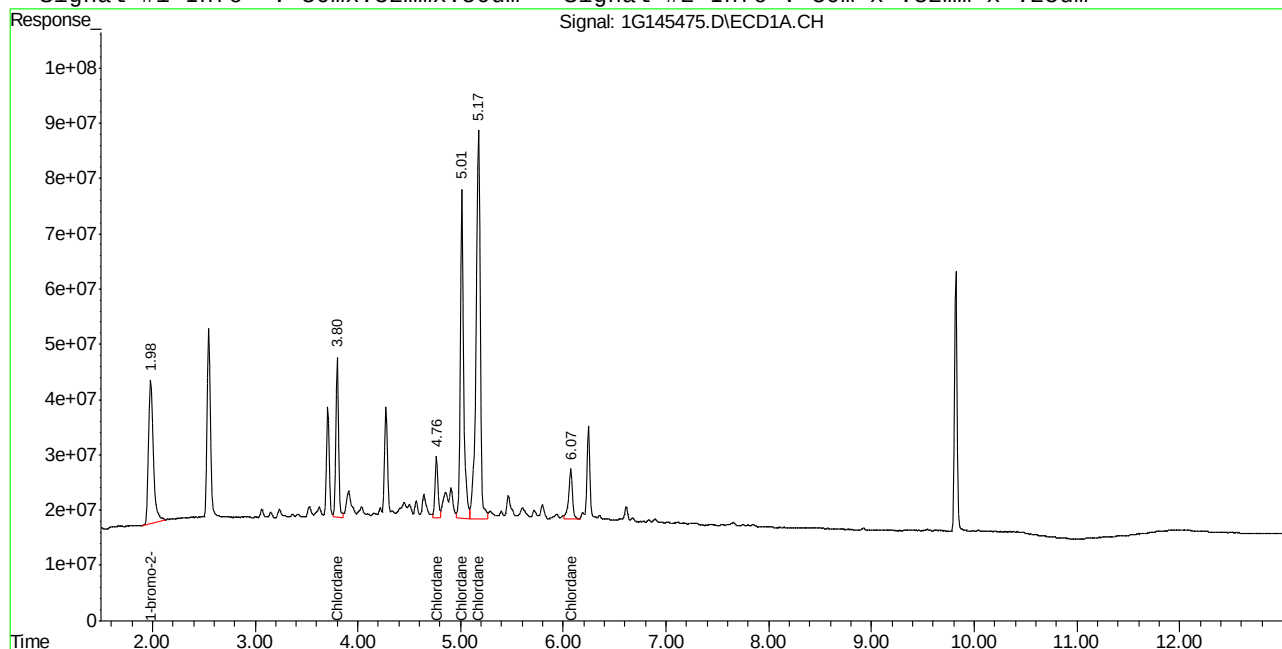
Target Compounds							
34)	Chlordane {A}	3.80	4.88	524.1E6	59928280	547.216	576.893
35)	Chlordane {B}	4.77	6.14	223.4E6	27657469	494.863	490.580
36)	Chlordane {C}	5.01	6.50	1298.6E6	149.6E6	502.977	494.596
37)	Chlordane {D}	5.18	6.73	2029.7E6	248.6E6	510.600	501.440m
38)	Chlordane {E}	6.07	7.92	228.2E6	26069213	416.633	518.173

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145475.D\ECD1A.CH Vial: 11
 Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145475.D\ECD2B.CH
 Acq On : 4-25-18 02:47:49 PM Operator: dharas
 Sample : ic4628-500 Inst : GC16
 Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
 Quant Time: Apr 25 15:27 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
 Title : PEST/PCB
 Last Update : Tue Apr 24 23:40:36 2018
 Response via : Multiple Level Calibration
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145476.D\ECD1A.CH Vial: 12
 Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145476.D\ECD2B.CH
 Acq On : 4-25-18 03:05:01 PM Operator: dharas
 Sample : ic4628-500 Inst : GC1G
 Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
 Quant Time: Apr 25 15:28 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
 Title : PEST/PCB
 Last Update : Tue Apr 24 23:40:36 2018
 Response via : Initial Calibration
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
27) I 1-bromo-2-nitrob	1.98	2.30	862.1E6	103.2E6	50.000	50.000
System Monitoring Compounds						
Target Compounds						
28) L8 Toxaphene{A}	5.69	7.24	153.8E6	20270542	577.408	525.969
29) L8 Toxaphene{B}	6.32	8.13	383.2E6	26247910	599.927	540.966
30) L8 Toxaphene{C}	6.49	8.29	321.3E6	43664106	365.074	546.359
31) L8 Toxaphene{D}	6.84	8.74	212.6E6	26124172	448.709	556.126
32) L8 Toxaphene{E}	7.49	9.63	228.5E6	21820223	604.167	645.918

(f)=RT Delta > 1/2 Window
 1G145476.D 1PST4628.M

Wed Apr 25 15:28:28 2018

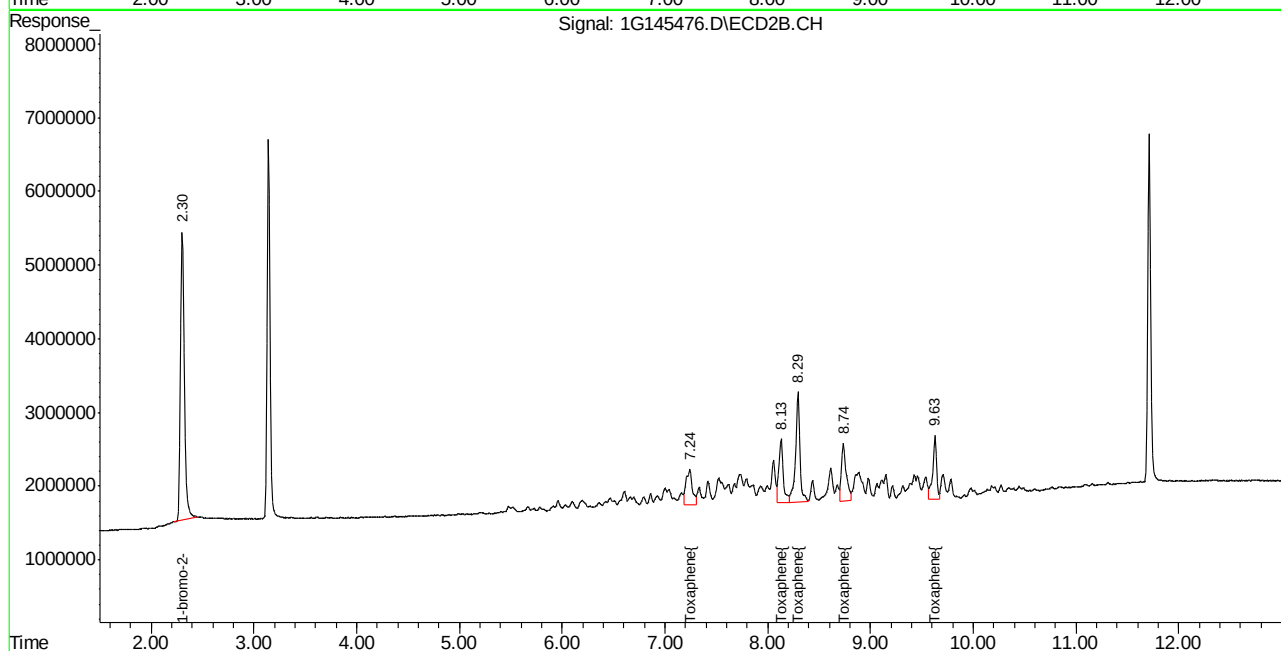
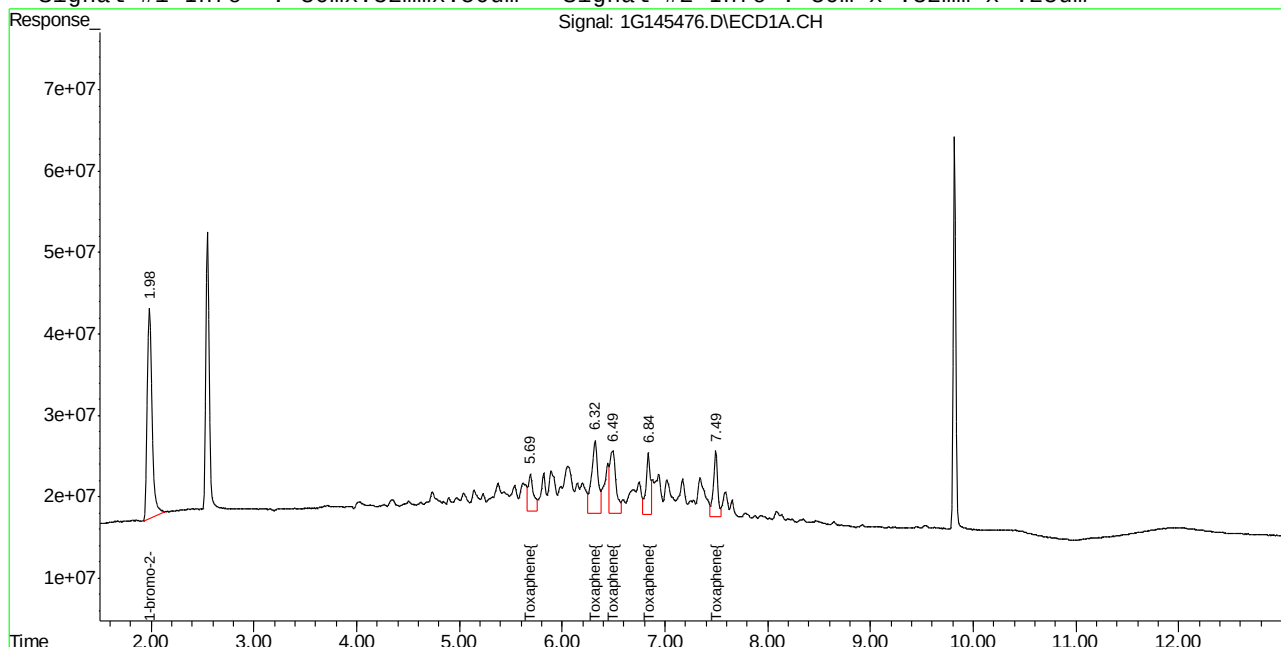
(m)=manual int.
 RPT1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145476.D\ECD1A.CH Vial: 12
 Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145476.D\ECD2B.CH
 Acq On : 4-25-18 03:05:01 PM Operator: dharas
 Sample : ic4628-500 Inst : GC1G
 Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
 Quant Time: Apr 25 15:28 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
 Title : PEST/PCB
 Last Update : Tue Apr 24 23:40:36 2018
 Response via : Multiple Level Calibration
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:33:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.778	3.432	147.7E6	928.7E6	33.797	30.364
Spiked Amount	40.000		Recovery	=	84.49%	75.91%
51) S Decachlor...	10.013	11.809	157.2E6	749.6E6	34.886	39.555
Spiked Amount	40.000		Recovery	=	87.22%	98.89%
Target Compounds						
31) AR1016-A	3.155	4.092	75576037	366.7E6	827.627	761.652
32) AR1016-B	3.557	4.630	130.4E6	777.2E6	1133.202	804.122 #
33) AR1016-C	4.107	5.275	285.4E6	1744.2E6	773.001	833.586
34) AR1016-D	4.268	5.461	115.7E6	737.8E6	860.556	953.596
35) AR1016-E	4.782	6.112	117.6E6	502.9E6	835.629m	883.134
36) AR1260-A	7.151	8.712	317.8E6	1882.4E6	835.813	1010.865m
37) AR1260-B	7.312	8.828	153.0E6	917.3E6	895.825	941.444
38) AR1260-C	7.650	9.260	169.0E6	1051.3E6	1020.047	1122.233
39) AR1260-D	8.080	9.610	395.3E6	2256.3E6	855.811	959.373
40) AR1260-E	8.472	10.153	402.6E6	2144.0E6	925.282m	1047.495m

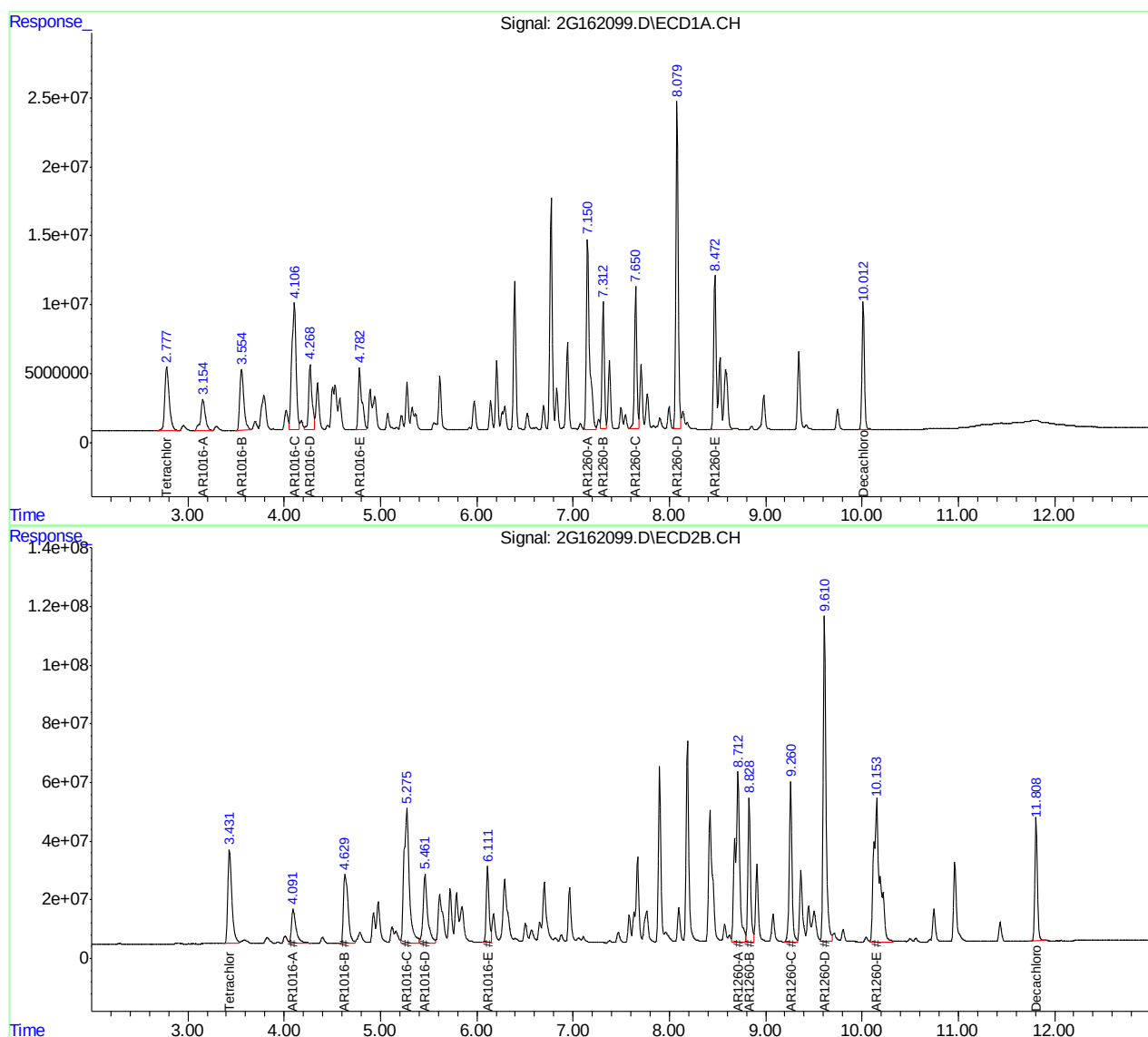
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:33:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.779	3.431	163.8E6	987.2E6	47.199	46.623
Spiked Amount	40.000		Recovery	=	118.00%	116.56%
51) S Decachlor...	10.013	11.809	165.0E6	806.7E6	44.682	46.281
Spiked Amount	40.000		Recovery	=	111.71%	115.70%
Target Compounds						
2) AR1221-A	2.282	2.875	28967496	140.9E6	1023.276	1085.901
3) AR1221-B	2.954	3.821	42022816	250.7E6	983.648	970.364
4) AR1221-C	3.153	4.091	128.8E6	655.8E6	950.947m	1092.099
5) AR1221-D	3.558	4.650	14656903	122.2E6	1190.489	1041.062
6) AR1221-E	3.699	4.770	14363624	88492068	1222.278	1236.269
24) AR1254-A	5.275	6.700	123.4E6	992.5E6	961.679	1070.842
25) AR1254-B	5.616	6.960	258.8E6	983.9E6	1032.998m	1051.674
26) AR1254-C	5.981	7.464	137.0E6	797.7E6	999.447	1078.993
27) AR1254-D	6.143	7.630	245.9E6	1634.3E6	996.318	1197.753
28) AR1254-E	6.519	7.955	182.5E6	1088.9E6	1178.826	1169.607
29) AR1254-F	6.772	8.419	171.2E6	1181.2E6	1099.087	1059.697m
30) AR1254-G	7.152	8.714	251.8E6	1510.8E6	1013.161	1105.727

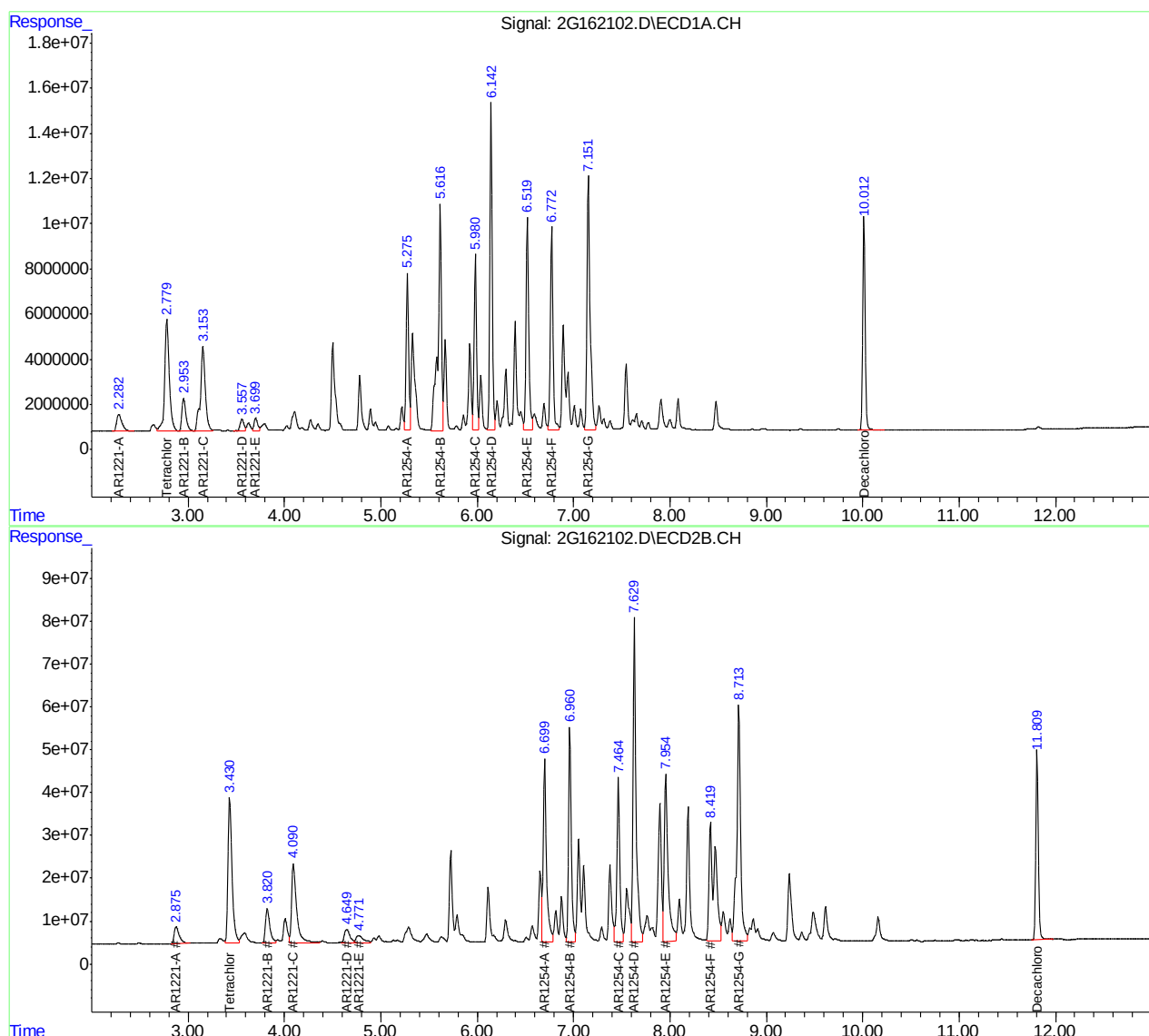
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
 Data File : 2G162102.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Apr 2018 1:52 pm
 Operator : tianweir
 Sample : ic4311-1000
 Misc : OP11095,G2G4311,15.0,,,10.0,1
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Apr 19 14:24:01 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu Apr 19 14:23:00 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.780	3.431	169.1E6	1049.9E6	9.839	9.841
Spiked Amount	40.000		Recovery	=	24.60%	24.60%
51) S Decachlor...	10.014	11.809	173.1E6	864.6E6	9.763	9.860
Spiked Amount	40.000		Recovery	=	24.41%	24.65%
Target Compounds						
7) AR1232-A	3.155	4.093	97343092	502.0E6	807.139m	801.687
8) AR1232-B	3.559	4.634	66842636	393.5E6	814.432	795.791
9) AR1232-C	4.109	5.281	130.5E6	815.2E6	748.996	817.807
10) AR1232-D	4.271	5.467	54473697	361.5E6	844.210	954.940
11) AR1232-E	4.785	6.115	51489431	217.3E6	836.532	879.986
41) AR1262-A	6.772	8.187	193.5E6	1044.2E6	608.178	987.107 #
42) AR1262-B	7.314	8.828	242.4E6	1428.2E6	818.303	912.354
43) AR1262-C	7.651	9.260	227.0E6	1336.0E6	936.108	1081.334
44) AR1262-D	8.081	9.610	485.4E6	2732.2E6	759.581	918.956
45) AR1262-E	8.525	10.123	558.8E6	3034.4E6	795.650m	942.420m

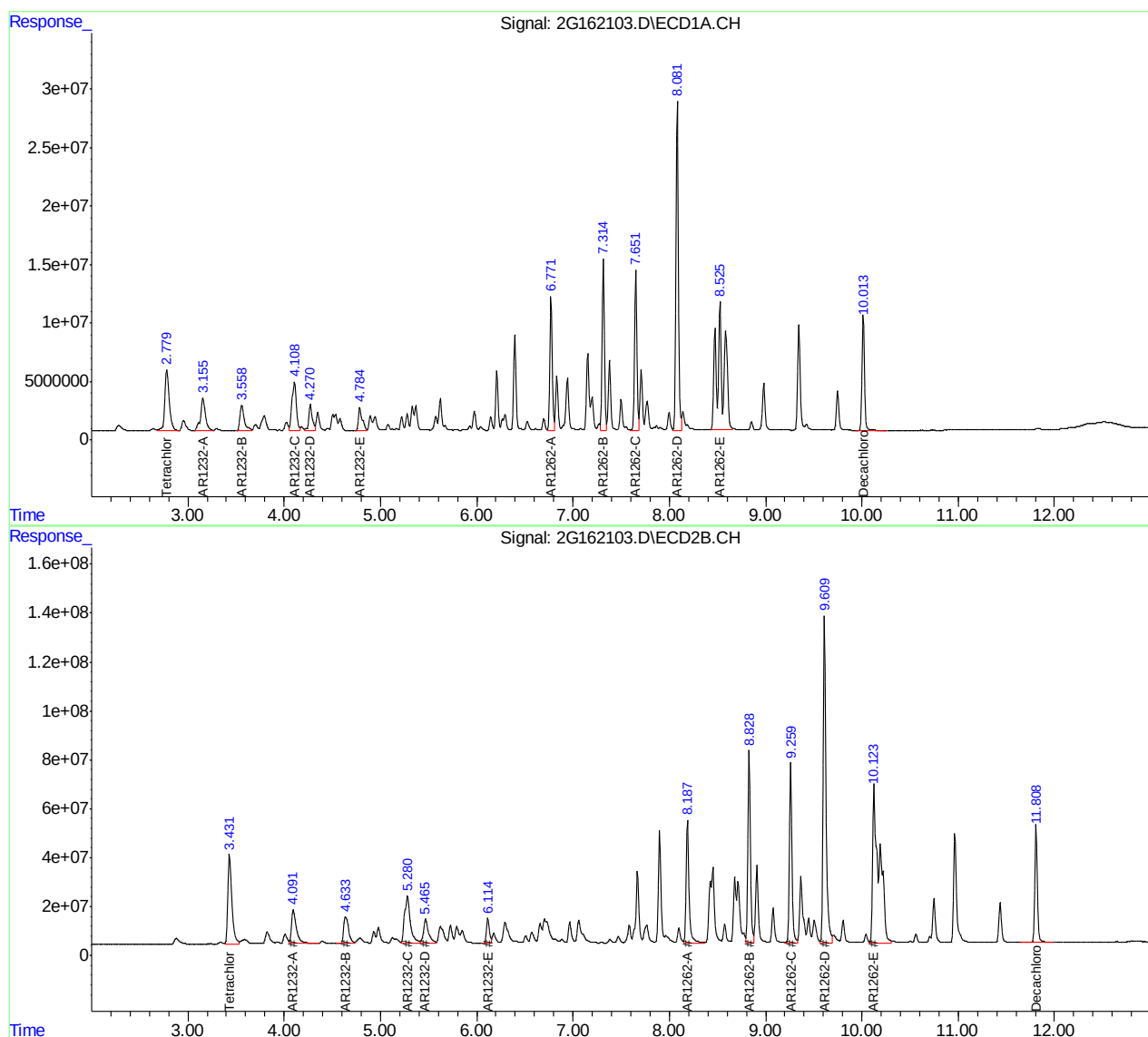
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
 Data File : 2G162104.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Apr 2018 2:44 pm
 Operator : tianweir
 Sample : ic4311-1000
 Misc : OP11095,G2G4311,15.0,,,10.0,1
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Apr 19 15:35:12 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu Apr 19 15:34:50 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.779	3.432	164.4E6	1042.8E6	9.788	9.829
Spiked Amount	40.000		Recovery	=	24.47%	24.57%
51) S Decachlor...	10.010	11.807	482.0E6	2362.8E6	11.088	11.117
Spiked Amount	40.000		Recovery	=	27.72%	27.79%
Target Compounds						
12) AR1242-A	3.557	4.630	119.8E6	705.4E6	833.841	769.896
13) AR1242-B	4.106	5.276	252.5E6	1547.7E6	766.774	823.562
14) AR1242-C	4.268	5.463	105.4E6	666.8E6	881.574	956.816
15) AR1242-D	4.782	6.113	109.0E6	456.4E6	869.789	894.747
16) AR1242-E	5.364	6.725	92980758	634.3E6	872.039	977.929
46) AR1268-A	8.523	10.121	575.4E6	3085.9E6	840.878	938.864
47) AR1268-B	8.578	10.189	567.3E6	3099.0E6	712.876	817.926
48) AR1268-C	8.851	10.557	473.0E6	2498.5E6	752.872	873.269
49) AR1268-D	9.340	10.962	199.2E6	1037.7E6	826.458	946.346
50) AR1268-E	9.742	11.430	1615.1E6	8238.1E6	809.035	1044.134 #

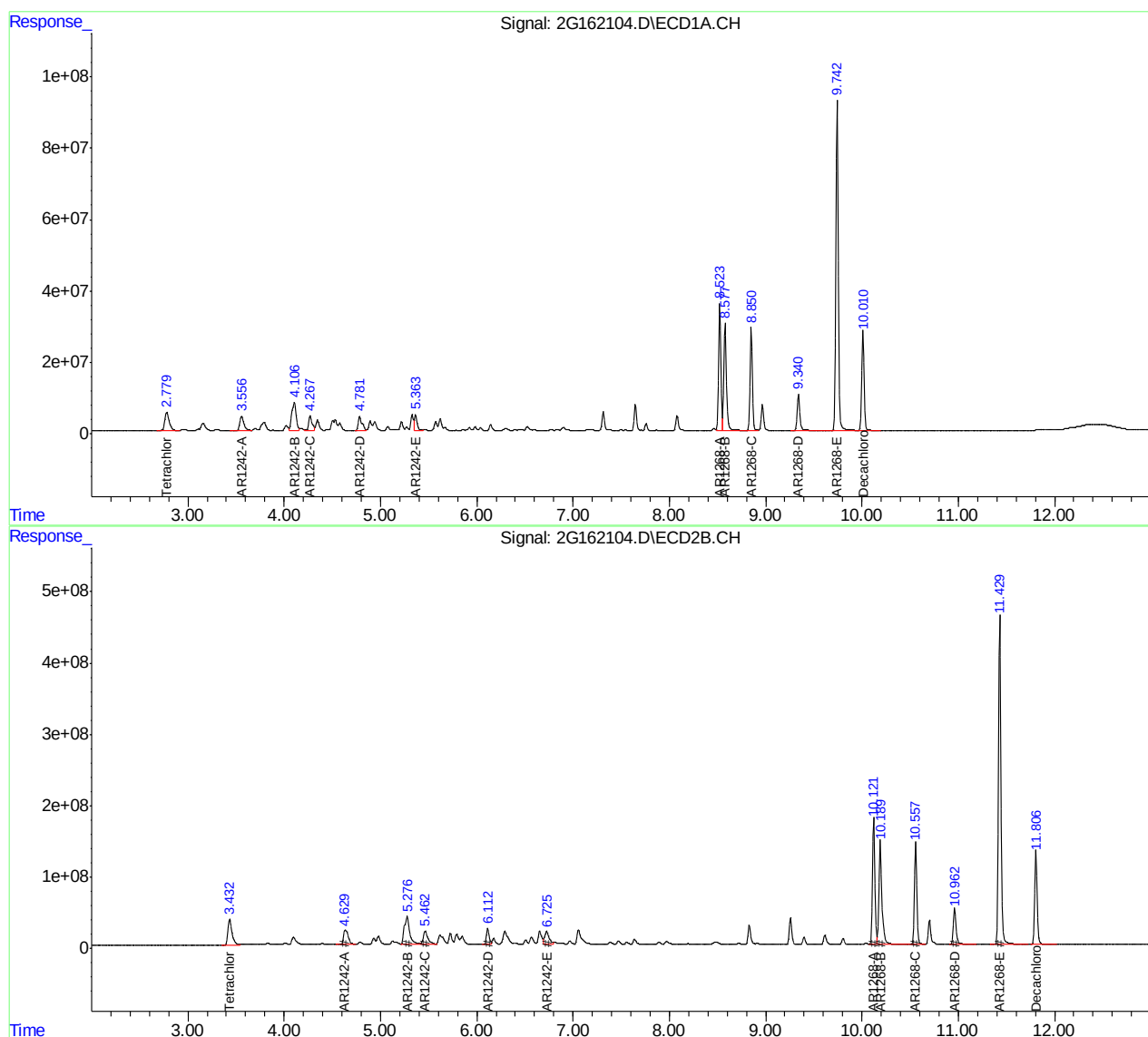
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
 Data File : 2G162104.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Apr 2018 2:44 pm
 Operator : tianweir
 Sample : ic4311-1000
 Misc : OP11095,G2G4311,15.0,,,10.0,1
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Apr 19 15:35:12 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu Apr 19 15:34:50 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:38:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.778	3.432	160.3E6	1054.2E6	9.743	9.848
Spiked Amount	40.000		Recovery	=	24.36%	24.62%
51) S Decachlor...	10.014	11.810	174.1E6	851.3E6	9.773	9.833
Spiked Amount	40.000		Recovery	=	24.43%	24.58%
Target Compounds						
17) AR1248-A	3.555	4.632	59173660	362.7E6	826.748	812.103
18) AR1248-B	4.105	5.281	154.4E6	954.8E6	820.696	837.930m
19) AR1248-C	4.501	5.724	165.2E6	569.7E6	812.299m	907.464
20) AR1248-D	4.782	6.112	159.8E6	727.1E6	860.353	930.188
21) AR1248-E	4.892	6.291	142.1E6	879.9E6	855.462m	1021.118
22) AR1248-F	5.364	6.722	140.2E6	1097.1E6	782.480	1016.890 #
23) AR1248-G	5.620	7.053	157.2E6	1220.2E6	600.449m	1102.458m#

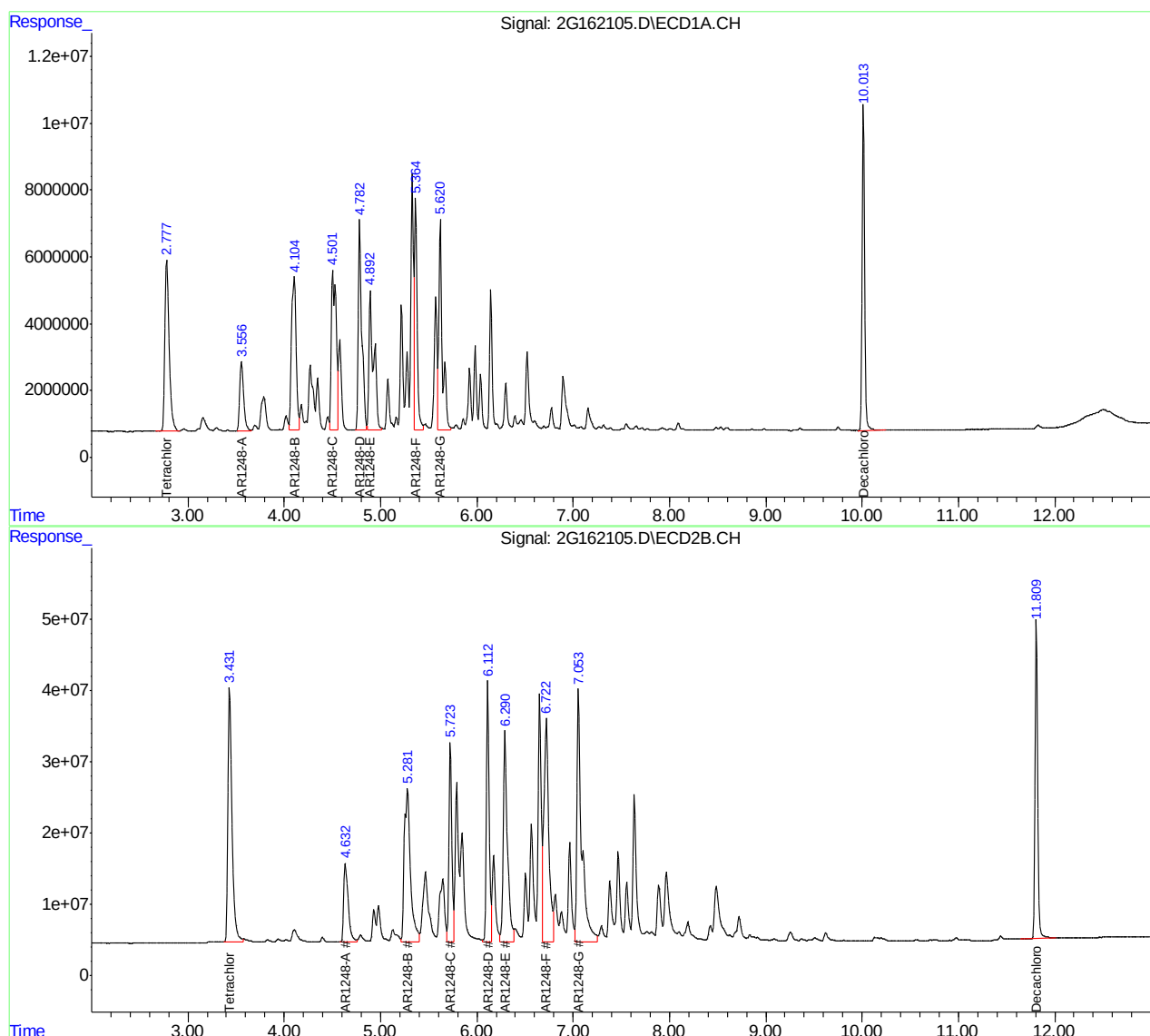
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
 Data File : 2G162105.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Apr 2018 3:00 pm
 Operator : tianweir
 Sample : ic4311-1000
 Misc : OP11095,G2G4311,15.0,,,10.0,1
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Apr 19 15:38:22 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu Apr 19 15:36:57 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Metals Analysis

QC Data Summaries

Includes the following where applicable:

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

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8050918S2.CSV
Analyst: JA
Parameters: Hg

Date Analyzed: 05/09/18 Methods: SW846 7471B
Run ID: MA44367

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:54	MA44367-STD1	1		B=1.0669E-004 C=1.4836E-002 R=0.9998993
08:56	MA44367-STD2	1		STDB
08:57	MA44367-STD3	1		STDC
08:58	MA44367-STD4	1		STDD
09:00	MA44367-STD5	1		STDE
09:01	MA44367-STD6	1		STDF
09:05	MA44367-ICV1	1		
09:07	MA44367-ICB1	1		
09:09	MA44367-CCV1	1		
09:10	MA44367-CCB1	1		
09:12	MA44367-CRI1	1		
09:13	MP7039-MB1	1		
09:14	MP7039-B1	1		
09:15	MP7039-LC1	5		
09:18	MP7039-S1	1		
09:19	MP7039-S2	1		
09:21	JC65281-101	1		(sample used for QC only; not part of login JC65663)
09:23	ZZZZZZ	1		
09:24	MA44367-CCV2	1		
09:26	MA44367-CCB2	1		
09:27	ZZZZZZ	1		
09:29	ZZZZZZ	1		
09:30	ZZZZZZ	1		
09:31	ZZZZZZ	1		
09:33	ZZZZZZ	1		
09:34	ZZZZZZ	1		
09:35	ZZZZZZ	1		
09:37	JC65663-1	1		
09:38	JC65663-2	1		
----->	Last reportable sample/prep for job JC65663			
09:39	MA44367-CCV3	1		
09:41	MA44367-CCB3	1		
09:42	ZZZZZZ	1		
09:44	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8050918S2.CSV
Analyst: JA
Parameters: Hg

Date Analyzed: 05/09/18 Methods: SW846 7471B
Run ID: MA44367

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:45	ZZZZZZ	1		
09:47	ZZZZZZ	1		
09:48	ZZZZZZ	1		
09:50	ZZZZZZ	1		
09:52	ZZZZZZ	1		
09:53	ZZZZZZ	1		
09:54	MA44367-CCV4	1		
09:56	MA44367-CCB4	1		
09:59	MP7045-MB1	1		
10:00	MP7045-B1	1		
10:04	MP7045-S1	1		
10:05	MP7045-S2	1		
10:07	JC65686-1	1		(sample used for QC only; not part of login JC65663)
10:08	ZZZZZZ	1		
10:10	ZZZZZZ	1		
10:11	ZZZZZZ	1		
10:12	ZZZZZZ	1		
10:14	MA44367-CCV5	1		
10:15	MA44367-CCB5	1		
10:17	ZZZZZZ	1		
10:19	ZZZZZZ	1		
10:20	ZZZZZZ	1		
10:21	ZZZZZZ	1		
10:23	ZZZZZZ	1		
10:24	ZZZZZZ	1		
10:25	ZZZZZZ	1		
10:27	ZZZZZZ	1		
10:28	ZZZZZZ	1		
10:30	MA44367-CCV6	1		
10:31	MA44367-CCB6	1		
10:32	ZZZZZZ	1		
10:34	ZZZZZZ	1		
10:35	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8050918S2.CSV
Analyst: JA
Parameters: Hg

Date Analyzed: 05/09/18 Methods: SW846 7471B
Run ID: MA44367

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:37	ZZZZZZ	1		
10:38	ZZZZZZ	1		
10:39	ZZZZZZ	10		
10:41	ZZZZZZ	50		
10:42	ZZZZZZ	1		
10:44	ZZZZZZ	1		
10:46	MA44367-CCV7	1		
10:47	MA44367-CCB7	1		
10:48	MA44367-CRI2	1		
10:51	MA44367-CCV8	1		

10:52 MA44367-CCB8 1
-----> Last reportable CCB for job JC65663
Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8050918S2.CSV Date Analyzed: 05/09/18 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA44367 Units: ug/l

Time: Sample ID:			09:07 ICB1		09:10 CCB1		09:26 CCB2		09:41 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.025	0.0476	<0.20	0.0366	<0.20	0.0465	<0.20	0.0298	<0.20

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8050918S2.CSV Date Analyzed: 05/09/18 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA44367 Units: ug/l

Time: Sample ID:			09:56 CCB4		10:15 CCB5		10:31 CCB6		10:47 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.025	0.0368	<0.20	0.0307	<0.20	0.0153	<0.20	0.0289	<0.20

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8050918S2.CSV Date Analyzed: 05/09/18 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA44367 Units: ug/l

Time:		10:52		
Sample ID:		CCB8		
Metal	RL	IDL	raw	final
Mercury	0.20	.025	0.00580	<0.20

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8050918S2.CSV Date Analyzed: 05/09/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44367 Units: ug/l

Time:		09:05		09:09		09:24	
Sample ID:	ICV	ICV1	CCV	CCV1	CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True
Mercury	3	3.09	103.0	2.5	2.56	102.4	2.5
							2.45
							98.0

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8050918S2.CSV Date Analyzed: 05/09/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44367 Units: ug/l

Time:		09:39		09:54		10:14			
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.41	96.4	2.5	2.57	102.8	2.5	2.61	104.4

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

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample ID:	Time:	10:30		10:46		10:51			
	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.62	104.8	2.5	2.64	105.6	2.5	2.64	105.6

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8050918S2.CSV Date Analyzed: 05/09/18 Methods: SW846 7471B
 QC Limits: 70 to 130 % Recovery Run ID: MA44367 Units: ug/l

Time:				09:12		10:48	
Sample ID:	CRI	CRIA	CRI1		CRI2		
Metal	True	True	Results	% Rec	Results	% Rec	
Mercury	0.20		0.196	98.0	0.209	104.5	

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

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051018W1.CSV
Analyst: JA
Parameters: Hg

Date Analyzed: 05/10/18 Methods: SW846 7470A
Run ID: MA44376

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:44	MA44376-STD1	1		B=1.9571E-004 C=-3.9776E-003 R=0.9998469
09:45	MA44376-STD2	1		STDB
09:46	MA44376-STD3	1		STDC
09:48	MA44376-STD4	1		STDD
09:49	MA44376-STD5	1		STDE
09:50	MA44376-STD6	1		STDF
09:58	MA44376-ICV1	1		
10:00	MA44376-ICB1	1		
10:01	MA44376-CCV1	1		
10:02	MA44376-CCB1	1		
10:04	MA44376-CRI1	1		
10:05	MP7068-MB1	1		
10:07	MP7068-B1	1		
10:09	MP7068-S1	1		
10:10	MP7068-S2	1		
10:12	JC65753-1F	1		(sample used for QC only; not part of login JC65663)
10:14	ZZZZZZ	1		
10:18	MA44376-CCV2	1		
10:19	MA44376-CCB2	1		
10:20	ZZZZZZ	1		
10:22	ZZZZZZ	1		
10:24	ZZZZZZ	1		
10:26	ZZZZZZ	1		
10:27	ZZZZZZ	1		
10:29	ZZZZZZ	1		
10:31	ZZZZZZ	1		
10:32	ZZZZZZ	1		
10:35	MA44376-CCV3	1		
10:37	MA44376-CCV4	1		
10:38	ZZZZZZ	1		
10:40	ZZZZZZ	1		
10:42	ZZZZZZ	1		
10:43	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051018W1.CSV
Analyst: JA
Parameters: Hg

Date Analyzed: 05/10/18 Methods: SW846 7470A
Run ID: MA44376

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:45	ZZZZZZ	1		
10:47	ZZZZZZ	1		
10:48	ZZZZZZ	1		
10:50	ZZZZZZ	1		
10:56	ZZZZZZ	1		
10:57	MA44376-CCV5	1		
10:58	MA44376-CCB3	1		
11:03	ZZZZZZ	2		
11:04	ZZZZZZ	10		
11:06	ZZZZZZ	10		
11:08	ZZZZZZ	2		
11:09	ZZZZZZ	1		
11:11	ZZZZZZ	1		
11:12	ZZZZZZ	1		
11:14	ZZZZZZ	5		
11:15	ZZZZZZ	5		
11:17	MA44376-CCV6	1		
11:18	MA44376-CCB4	1		
11:20	ZZZZZZ	5		
11:21	ZZZZZZ	5		
11:23	ZZZZZZ	50		
11:24	ZZZZZZ	50		
11:26	ZZZZZZ	1		
11:27	ZZZZZZ	1		
11:29	ZZZZZZ	10		
11:30	ZZZZZZ	10		
11:32	MA44376-CCV7	1		
11:33	MA44376-CCB5	1		
11:35	ZZZZZZ	1		
11:36	ZZZZZZ	1		
11:38	MP7069-MB1	1		
11:40	MP7069-B1	1		
11:41	MP7069-S1	1		HIGH

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051018W1.CSV
Analyst: JA
Parameters: Hg

Date Analyzed: 05/10/18 Methods: SW846 7470A
Run ID: MA44376

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:42	MP7069-S2	1		HIGH
11:44	JC65753-11F	1		(sample used for QC only; not part of login JC65663)
11:47	MA44376-CCV8	1		
11:48	MA44376-CCB6	1		
11:50	ZZZZZZ	1		
11:51	ZZZZZZ	1		
11:53	ZZZZZZ	1		
11:55	ZZZZZZ	1		
11:57	ZZZZZZ	1		
11:58	ZZZZZZ	1		
12:00	ZZZZZZ	1		
12:01	ZZZZZZ	1		
12:02	ZZZZZZ	1		
12:04	MA44376-CCV9	1		
12:05	MA44376-CCB7	1		
12:06	ZZZZZZ	1		
12:08	ZZZZZZ	1		
12:09	ZZZZZZ	1		
12:10	ZZZZZZ	1		
12:12	ZZZZZZ	1		
12:13	ZZZZZZ	1		
12:14	ZZZZZZ	1		
12:16	ZZZZZZ	1		
12:18	ZZZZZZ	1		
12:19	MA44376-CCV10	1		
12:20	MA44376-CCB8	1		
12:22	ZZZZZZ	1		
12:23	MP7069-B2	1		
12:24	MP7025-MB2	1		
12:26	MP7025-B2	1		
12:27	ZZZZZZ	1		
12:29	ZZZZZZ	5		
12:30	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051018W1.CSV
Analyst: JA
Parameters: Hg

Date Analyzed: 05/10/18 Methods: SW846 7470A
Run ID: MA44376

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:31	MA44376-CCV11	1		
12:33	MA44376-CCB9	1		
12:35	MP7069-S1	5		
12:36	MP7069-S2	5		
12:37	JC65753-11F	5		(sample used for QC only; not part of login JC65663)
12:39	ZZZZZZ	5		
12:41	ZZZZZZ	10		
12:42	ZZZZZZ	5		
12:44	MP7073-MB1	1		
12:45	MA44376-CCV12	1		
12:47	MA44376-CCB10	1		
12:48	MP7073-B1	1		
12:49	MP7073-S1	1		
12:51	MP7073-S2	1		
12:53	JC65698-1A	1		(sample used for QC only; not part of login JC65663)
12:54	ZZZZZZ	1		
12:55	ZZZZZZ	1		
12:57	ZZZZZZ	1		
12:58	ZZZZZZ	1		
12:59	MA44376-CCV13	1		
13:01	MA44376-CCB11	1		
13:02	ZZZZZZ	1		
13:04	ZZZZZZ	1		
13:05	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:07	ZZZZZZ	1		
13:09	ZZZZZZ	1		
13:10	ZZZZZZ	1		
13:11	ZZZZZZ	1		
13:13	MA44376-CCV14	1		
13:14	MA44376-CCB12	1		
13:15	JC65663-1A	1		
13:17	JC65663-2A	1		
----->	Last reportable sample/prep for job JC65663			

14.2
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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051018W1.CSV
Analyst: JA
Parameters: Hg

Date Analyzed: 05/10/18 Methods: SW846 7470A
Run ID: MA44376

Time	Sample Description	Dilution Factor	PS Recov	Comments
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13:18 ZZZZZZ 1

13:19 ZZZZZZ 1

13:21 ZZZZZZ 1

13:22 MA44376-CRI2 1

13:24 MA44376-CCV15 1

13:25 MA44376-CCB13 1

-----> Last reportable CCB for job JC65663
Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051018W1.CSV Date Analyzed: 05/10/18 Methods: SW846 7470A
 QC Limits: result < RL Run ID: MA44376 Units: ug/l

Time: Sample ID:			10:00 ICB1		10:02 CCB1		10:19 CCB2		10:58 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.038	-0.0521	<0.20	-0.0486	<0.20	-0.0562	<0.20	-0.0600	<0.20

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051018W1.CSV Date Analyzed: 05/10/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44376 Units: ug/l

Time: Sample ID:			11:18 CCB4		11:33 CCB5		11:48 CCB6		12:05 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.038	-0.0603	<0.20	-0.0562	<0.20	-0.0560	<0.20	-0.0504	<0.20

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051018W1.CSV Date Analyzed: 05/10/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44376 Units: ug/l

Time: Sample ID:			12:20 CCB8		12:33 CCB9		12:47 CCB10		13:01 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.038	-0.0506	<0.20	-0.0584	<0.20	-0.0513	<0.20	-0.0486	<0.20

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051018W1.CSV Date Analyzed: 05/10/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44376 Units: ug/l

Time:		13:14		13:25		
Sample ID:		CCB12		CCB13		
Metal	RL	IDL	raw	final	raw	final
Mercury	0.20	.038	-0.0568	<0.20	-0.0531	<0.20

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051018W1.CSV Date Analyzed: 05/10/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44376 Units: ug/l

Time:		09:58			10:01			10:18		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	
Mercury	3	3.03	101.0	2.5	2.42	96.8	2.5	2.47	98.8	

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

14.2.2
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051018W1.CSV Date Analyzed: 05/10/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44376 Units: ug/l

Time:		10:35		10:37		10:57			
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.57	102.8	2.5	2.54	101.6	2.5	2.56	102.4

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051018W1.CSV Date Analyzed: 05/10/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44376 Units: ug/l

Time:		11:17		11:32		11:47			
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.48	99.2	2.5	2.60	104.0	2.5	2.65	106.0

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051018W1.CSV Date Analyzed: 05/10/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44376 Units: ug/l

Time:		12:04		12:19		12:31			
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.58	103.2	2.5	2.59	103.6	2.5	2.62	104.8

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051018W1.CSV Date Analyzed: 05/10/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44376 Units: ug/l

Time:		12:45		12:59		13:13			
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.69	107.6	2.5	2.62	104.8	2.5	2.59	103.6

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051018W1.CSV Date Analyzed: 05/10/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44376 Units: ug/l

Time:	13:24
Sample ID:	CCV
Metal	True
Results	% Rec
Mercury	2.5
	2.54
	101.6

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051018W1.CSV Date Analyzed: 05/10/18 Methods: SW846 7470A
 QC Limits: 70 to 130 % Recovery Run ID: MA44376 Units: ug/l

Time:				10:04		13:22	
Sample ID:	CRI	CRIA	CRI1		CRI2		
Metal	True	True	Results	% Rec	Results	% Rec	
Mercury	0.20		0.194	97.0	0.203	101.5	

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

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44385
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:41	MA44385-STD1	1		STDA
10:45	MA44385-STD2	1		STDB
10:49	ZZZZZZ	1		
10:53	ZZZZZZ	1		
10:58	ZZZZZZ	10		
11:02	ZZZZZZ	10		
11:06	ZZZZZZ	1		
11:11	MA44385-ICV1	1		
11:21	MA44385-ICB1	1		
11:25	MA44385-ICCV1	1		
11:33	MA44385-CCB1	1		
11:46	MA44385-CRI1	1		
11:51	MA44385-CRID1	1		
11:55	MA44385-ICSA1	1		
11:59	MA44385-ICSAB1	1		
12:03	MA44385-HSTD1	1		
12:07	MA44385-HSTD2	1		
12:12	ZZZZZZ	1		
12:16	ZZZZZZ	1		
12:20	ZZZZZZ	1		
12:25	MA44385-CCV1	1		
12:29	MA44385-CCB2	1		
12:33	MA44385-CRID2	1		
12:38	ZZZZZZ	1		
12:42	ZZZZZZ	1		
12:46	ZZZZZZ	1		
12:51	ZZZZZZ	1		
12:55	ZZZZZZ	1		
12:59	ZZZZZZ	1		
13:04	ZZZZZZ	1		
13:08	MA44385-CCV2	1		
13:12	MA44385-CCB3	1		
13:16	MP7062-S1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44385
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:20	MP7062-S2	1		
13:24	JC65531-1	1		(sample used for QC only; not part of login JC65663)
13:28	MP7062-SD1	5		
13:33	ZZZZZZ	2		
13:37	ZZZZZZ	2		
13:41	MP7074-MB1	5		
13:46	MP7074-B1	5		
13:50	MP7074-S1	5		
13:54	MA44385-CCV3	1		
13:58	MA44385-CCB4	1		
14:02	MP7074-S2	5		
14:06	JC65698-1A	5		(sample used for QC only; not part of login JC65663)
14:11	MP7074-SD1	25		
14:15	ZZZZZZ	5		
14:19	JC65663-1A	5		
14:24	JC65663-2A	5		
----->	Last reportable sample/			prep for job JC65663
14:28	ZZZZZZ	5		
14:32	ZZZZZZ	5		
14:37	ZZZZZZ	5		
14:41	MA44385-CCV4	1		
14:45	MA44385-CCB5	1		
14:49	ZZZZZZ	5		
14:54	ZZZZZZ	5		
14:58	ZZZZZZ	5		
15:02	ZZZZZZ	5		
15:07	ZZZZZZ	5		
15:11	ZZZZZZ	5		
15:15	ZZZZZZ	5		
15:20	ZZZZZZ	5		
15:24	ZZZZZZ	5		
15:28	MA44385-CCV5	1		
15:32	MA44385-CCB6	1		
15:37	MP7080-MB1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP
Analyst: ND
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Date Analyzed: 05/11/18
Run ID: MA44385
Methods: EPA 200.7, SW846 6010C

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:41	MP7080-MB2	1		
15:45	MP7080-B1	1		
15:49	MP7080-B2	1		
15:53	MP7080-S1	1		
15:57	MP7080-S2	1		
16:01	JC65578-1	1		(sample used for QC only; not part of login JC65663)
16:06	MP7080-SD1	5		
16:10	ZZZZZZ	1		
16:14	MA44385-CCV6	1		
16:18	MA44385-CCB7	1		
16:23	ZZZZZZ	1		
16:27	ZZZZZZ	1		
16:31	ZZZZZZ	1		
16:36	ZZZZZZ	1		
16:40	ZZZZZZ	1		
16:44	ZZZZZZ	1		
16:48	ZZZZZZ	1		
16:53	MP7080-MB1	1		
16:57	MP7082-B1	1		
17:01	MA44385-CCV7	1		
17:05	MA44385-CCB8	1		
17:10	MP7082-MB1	1		
17:14	MP7082-S1	1		
17:18	MP7082-S2	1		
17:22	JC65659-1	1		(sample used for QC only; not part of login JC65663)
17:26	MP7082-SD1	5		
17:31	ZZZZZZ	1		
17:35	ZZZZZZ	1		
17:39	ZZZZZZ	1		
17:44	ZZZZZZ	1		
17:48	ZZZZZZ	1		
17:52	MA44385-CCV8	1		
17:56	MA44385-CCB9	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44385
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:01	ZZZZZZ	1		
18:05	ZZZZZZ	1		
18:09	ZZZZZZ	1		
18:13	ZZZZZZ	1		
18:18	MP7085-B1	1		
18:22	MP7085-MB1	1		
18:26	MP7085-S1	1		
18:30	MP7085-S2	1		
18:35	JC65725-6	1		(sample used for QC only; not part of login JC65663)
18:39	MP7085-SD1	5		
18:43	MA44385-CCV9	1		
18:47	MA44385-CCB10	1		
18:52	ZZZZZZ	1		
18:56	ZZZZZZ	1		
19:00	ZZZZZZ	1		
19:05	ZZZZZZ	1		
19:09	ZZZZZZ	1		
19:13	ZZZZZZ	1		
19:17	ZZZZZZ	1		
19:22	ZZZZZZ	1		
19:26	ZZZZZZ	1		
19:30	MA44385-CCV10	1		
19:34	MA44385-CCB11	1		
19:39	MA44385-CRI2	1		
19:43	MA44385-CRID3	1		
19:47	MA44385-ICSA2	1		
19:52	MA44385-ICSAB2	1		
19:56	MA44385-CCV11	1		
20:00	MA44385-CCB12	1		
20:04	ZZZZZZ	1		
20:08	ZZZZZZ	1		
20:13	ZZZZZZ	1		
20:17	ZZZZZZ	1		

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Last reportable CCB for job JC65663

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44385
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:22	ZZZZZZ	1		
20:26	ZZZZZZ	1		
20:30	ZZZZZZ	1		
20:35	ZZZZZZ	1		
20:39	ZZZZZZ	1		
20:43	ZZZZZZ	1		
21:00	MA44385-CCV12	1		
21:04	MA44385-CCB13	1		
21:09	MP7083-MB1	1		
21:13	MP7083-MB2	1		
21:18	MP7083-B1	1		
21:22	MP7083-B2	1		
21:26	MP7083-S1	1		
21:30	MP7083-S2	1		
21:34	JC65697-1	1		(sample used for QC only; not part of login JC65663)
21:38	MP7083-SD1	5		
21:43	ZZZZZZ	1		
21:47	MA44385-CCV13	1		
21:51	MA44385-CCB14	1		
21:55	ZZZZZZ	1		
22:00	ZZZZZZ	1		
22:04	ZZZZZZ	1		
22:08	ZZZZZZ	1		
22:12	ZZZZZZ	1		
22:17	ZZZZZZ	1		
22:21	ZZZZZZ	1		
22:25	ZZZZZZ	1		
22:30	ZZZZZZ	1		
22:34	MA44385-CCV14	1		
22:38	MA44385-CCB15	1		
22:42	ZZZZZZ	1		
22:47	ZZZZZZ	1		
22:51	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44385
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:55	ZZZZZZ	1		
23:00	ZZZZZZ	1		
23:04	ZZZZZZ	1		
23:09	MP7103-MB1	5		
23:13	MP7103-MB2	5		
23:18	MP7103-B1	5		
23:22	MP7103-B2	5		
23:26	MA44385-CCV15	1		
23:30	MA44385-CCB16	1		
23:37	MP7103-S1	5		Zn high
23:41	MP7103-S2	5		Zn high
23:45	JC65724-2	5		(sample used for QC only; not part of login JC65663)
23:49	MP7103-SD1	25		Zn high
23:54	ZZZZZZ	5		
23:58	ZZZZZZ	5		
00:02	ZZZZZZ	5		
00:07	ZZZZZZ	5		
00:14	ZZZZZZ	5		
00:18	ZZZZZZ	5		
00:38	MA44385-CCV16	1		
00:42	MA44385-CCB17	1		
00:49	ZZZZZZ	5		
00:54	ZZZZZZ	5		
00:58	ZZZZZZ	5		
01:02	ZZZZZZ	5		
01:07	ZZZZZZ	5		
01:11	ZZZZZZ	5		
01:15	ZZZZZZ	5		
01:20	ZZZZZZ	5		
01:24	MP7104-B1	1		
01:28	MA44385-CCV17	1		
01:32	MA44385-CCB18	1		
01:37	MP7104-MB1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP
Analyst: ND
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44385

Time	Sample Description	Dilution Factor	PS Recov	Comments
01:41	MP7104-S1	1		
01:45	MP7104-S2	1		
01:49	JC65790-1A	1		(sample used for QC only; not part of login JC65663)
01:53	MP7104-SD1	5		
01:58	ZZZZZZ	1		
02:02	ZZZZZZ	1		
02:06	ZZZZZZ	1		
02:10	ZZZZZZ	1		
02:15	ZZZZZZ	1		
02:19	MA44385-CCV18	1		
02:23	MA44385-CCB19	1		
02:27	MA44385-CRI3	1		
02:32	MA44385-CRID4	1		
02:36	MA44385-CCV19	1		
02:40	MA44385-CCB20	1		
02:45	ZZZZZZ	1		
02:49	ZZZZZZ	1		
02:53	MP7036-S1	50		
02:57	MP7036-S2	50		
03:02	JC65257-3	50		(sample used for QC only; not part of login JC65663)
03:06	MP7036-SD1	250		
03:10	MP7036-S3	50		
03:15	MP7036-S4	50		
03:19	JC65257-3F	50		(sample used for QC only; not part of login JC65663)
03:23	MP7036-SD2	250		
03:28	MA44385-CCV20	1		
03:32	MA44385-CCB21	1		
03:36	ZZZZZZ	10		
03:40	ZZZZZZ	5		
03:45	ZZZZZZ	10		
03:49	ZZZZZZ	2		
03:53	ZZZZZZ	5		
03:58	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44385
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
04:02	ZZZZZZ	10		
04:06	ZZZZZZ	5		
04:11	ZZZZZZ	10		
04:15	MA44385-CCV21	1		
04:19	MA44385-CCB22	1		
04:24	ZZZZZZ	5		
04:28	ZZZZZZ	10		
04:32	ZZZZZZ	1		
04:36	ZZZZZZ	1		
04:41	MP7056-S1	5		
04:45	MP7056-S2	5		
04:49	JC65417-2	5		(sample used for QC only; not part of login JC65663)
04:53	MP7056-SD1	25		
04:58	MA44385-CCV22	1		
05:02	MA44385-CCB23	1		
05:06	MP7056-S3	5		
05:10	MP7056-S4	5		
05:14	JC65417-2F	5		(sample used for QC only; not part of login JC65663)
05:19	MP7056-SD2	25		
05:23	ZZZZZZ	3		
05:27	MA44385-CCV23	1		
05:31	MA44385-CCB24	1		
05:36	MA44385-CRI4	1		
05:40	MA44385-CCV24	1		
05:44	MA44385-CCB25	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP
Analyst: ND
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Date Analyzed: 05/11/18
Run ID: MA44385
Methods: EPA 200.7, SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
10:41	MA44385-STD1	3940 R	98921 R	5850 R	9355 R
10:45	MA44385-STD2	3684	92438	5748	7928
10:49	ZZZZZZ	3769	94143	5782	8252
10:53	ZZZZZZ	3923	98920	5833	9332
10:58	ZZZZZZ	3722	95827	5809	8640
11:02	ZZZZZZ	3629	95166	5799	8489
11:06	ZZZZZZ	3843	96640	5927	8554
11:11	MA44385-ICV1	3770	94885	5832	8284
11:21	MA44385-ICB1	3908	99109	5903	9344
11:25	MA44385-ICCV1	3748	94433	5866	8263
11:33	MA44385-CCB1	3884	98369	5856	9295
11:46	MA44385-CRI1	3833	97537	5852	9045
11:51	MA44385-CRID1	3877	98731	5890	9254
11:55	MA44385-ICSA1	3427	86809	5633	7155
11:59	MA44385-ICSAB1	3441	86958	5607	7189
12:03	MA44385-HSTD1	3819	97535	5873	8980
12:07	MA44385-HSTD2	3510	88663	5621	7323
12:12	ZZZZZZ	3806	96917	5873	9113
12:16	ZZZZZZ	3794	98565	5852	9270
12:20	ZZZZZZ	3893	99212	5874	9347
12:25	MA44385-CCV1	3718	93993	5782	8225
12:29	MA44385-CCB2	3880	99005	5853	9311
12:33	MA44385-CRID2	3856	98559	5884	9223
12:38	ZZZZZZ	3844	98423	5903	9252
12:42	ZZZZZZ	3567	92134	5760	8012
12:46	ZZZZZZ	3735	95570	5865	8639
12:51	ZZZZZZ	3866	99116	5910	9310
12:55	ZZZZZZ	3857	98543	5887	9292
12:59	ZZZZZZ	3851	98781	5931	9270
13:04	ZZZZZZ	3741	95546	5843	8452
13:08	MA44385-CCV2	3714	94331	5824	8236
13:12	MA44385-CCB3	3869	98930	5866	9305
13:16	MP7062-S1	3638	93149	5792	8018

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP
Analyst: ND
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44385

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:20	MP7062-S2	3621	93209	5787	7991
13:24	JC65531-1	3673	94582	5800	8357
13:28	MP7062-SD1	3829	97898	5835	9078
13:33	ZZZZZZ	3580	92867	5733	8208
13:37	ZZZZZZ	3594	92731	5790	8243
13:41	MP7074-MB1	3639	92643	5780	8105
13:46	MP7074-B1	3653	92585	5790	8020
13:50	MP7074-S1	3661	92906	5763	8037
13:54	MA44385-CCV3	3712	94348	5781	8217
13:58	MA44385-CCB4	3877	99085	5854	9314
14:02	MP7074-S2	3672	93077	5793	8043
14:06	JC65698-1A	3639	92500	5757	8048
14:11	MP7074-SD1	3786	96303	5804	8749
14:15	ZZZZZZ	3541	91338	5765	7792
14:19	JC65663-1A	3553	91229	5693	7804
14:24	JC65663-2A	3553	91226	5701	7809
14:28	ZZZZZZ	3628	92522	5751	8009
14:32	ZZZZZZ	3624	92171	5711	7988
14:37	ZZZZZZ	3642	91962	5730	8032
14:41	MA44385-CCV4	3721	94328	5782	8242
14:45	MA44385-CCB5	3863	98765	5786	9290
14:49	ZZZZZZ	3610	91928	5687	7972
14:54	ZZZZZZ	3561	90942	5687	7823
14:58	ZZZZZZ	3561	91563	5672	7837
15:02	ZZZZZZ	3572	91335	5655	7864
15:07	ZZZZZZ	3560	91386	5646	7846
15:11	ZZZZZZ	3648	92648	5706	8114
15:15	ZZZZZZ	3643	92783	5695	8096
15:20	ZZZZZZ	3641	92446	5649	8077
15:24	ZZZZZZ	3641	92798	5672	8089
15:28	MA44385-CCV5	3712	93927	5705	8228
15:32	MA44385-CCB6	3857	98501	5739	9261
15:37	MP7080-MB1	No results reported for the elements associated with this internal standard.			

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP
Analyst: ND
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Date Analyzed: 05/11/18
Run ID: MA44385
Methods: EPA 200.7, SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:41	MP7080-MB2	3896	100330	5912	9487
15:45	MP7080-B1	3799	97114	5858	8612
15:49	MP7080-B2	3773	96768	5812	8562
15:53	MP7080-S1	3719	95585	5773	8296
15:57	MP7080-S2	3720	95802	5787	8296
16:01	JC65578-1	3769	96728	5755	8737
16:06	MP7080-SD1	3814	97563	5670	9079
16:10	ZZZZZZ	3711	95800	5753	8503
16:14	MA44385-CCV6	3697	93711	5568	8192
16:18	MA44385-CCB7	3865	98603	5634	9281
16:23	ZZZZZZ	3784	97035	5802	8722
16:27	ZZZZZZ	3704	95485	5753	8384
16:31	ZZZZZZ	3653	94524	5701	8188
16:36	ZZZZZZ	3664	94871	5721	8229
16:40	ZZZZZZ	3533	90381	5654	7643
16:44	ZZZZZZ	3904	99361	5767	9162
16:48	ZZZZZZ	3420	88812	5539	7401
16:53	MP7080-MB1	3845	98275	5587	9272
16:57	MP7082-B1	3807	96859	5687	8640
17:01	MA44385-CCV7	3688	93685	5496	8161
17:05	MA44385-CCB8	3842	98154	5525	9241
17:10	MP7082-MB1	3915	100260	5739	9532
17:14	MP7082-S1	3656	93642	5581	8043
17:18	MP7082-S2	3654	93883	5600	8058
17:22	JC65659-1	3668	94945	5645	8348
17:26	MP7082-SD1	3787	96891	5519	8894
17:31	ZZZZZZ	3680	95092	5665	8360
17:35	ZZZZZZ	3677	95093	5616	8366
17:39	ZZZZZZ	3697	95784	5590	8490
17:44	ZZZZZZ	3672	94739	5625	8221
17:48	ZZZZZZ	3796	97357	5647	8866
17:52	MA44385-CCV8	3700	93490	5420	8171
17:56	MA44385-CCB9	3848	98414	5491	9239

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP
Analyst: ND
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Date Analyzed: 05/11/18
Run ID: MA44385
Methods: EPA 200.7, SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:01	ZZZZZZ	3821	98589	5681	9039
18:05	ZZZZZZ	3557	92182	5446	7930
18:09	ZZZZZZ	3532	90983	5470	7708
18:13	ZZZZZZ	3233	82166	5311	6618
18:18	MP7085-B1	3812	97195	5565	8632
18:22	MP7085-MB1	3913	100310	5631	9517
18:26	MP7085-S1	3519	90801	5452	7539
18:30	MP7085-S2	3538	91037	5475	7570
18:35	JC65725-6	3539	90799	5433	7691
18:39	MP7085-SD1	3706	94875	5368	8439
18:43	MA44385-CCV9	3692	93806	5298	8160
18:47	MA44385-CCB10	3869	98751	5365	9270
18:52	ZZZZZZ	3722	96495	5494	8490
18:56	ZZZZZZ	3698	95709	5493	8433
19:00	ZZZZZZ	3700	94856	5461	8193
19:05	ZZZZZZ	3741	96750	5439	8585
19:09	ZZZZZZ	3644	94551	5437	8155
19:13	ZZZZZZ	3667	93940	5426	8063
19:17	ZZZZZZ	3750	96861	5538	8531
19:22	ZZZZZZ	3833	98547	5543	8925
19:26	ZZZZZZ	No results reported for the elements associated with this internal standard.			
19:30	MA44385-CCV10	3708	93860	5259	8185
19:34	MA44385-CCB11	3880	99127	5339	9304
19:39	MA44385-CRI2	3814	96900	5315	8992
19:43	MA44385-CRID3	3880	99042	5327	9249
19:47	MA44385-ICSA2	3426	86878	5089	7155
19:52	MA44385-ICSAB2	3421	87111	5059	7153
19:56	MA44385-CCV11	3741	94831	5257	8260
20:00	MA44385-CCB12	3902	99441	5326	9359
20:04	ZZZZZZ	4008	94126	5450	8193
20:08	ZZZZZZ	3515	90934	5129	7831
20:13	ZZZZZZ	3545	91111	5129	7899
20:17	ZZZZZZ	3878	99142	5299	9268

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP
Analyst: ND
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Date Analyzed: 05/11/18
Run ID: MA44385
Methods: EPA 200.7, SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:22	ZZZZZZ	3885	99011	5306	9278
20:26	ZZZZZZ	3903	99635	5302	9328
20:30	ZZZZZZ	3892	99246	5324	9306
20:35	ZZZZZZ	3901	99425	5327	9371
20:39	ZZZZZZ	3884	99672	5306	9310
20:43	ZZZZZZ	3923	99739	5337	9409
21:00	MA44385-CCV12	3763	95163	5251	8305
21:04	MA44385-CCB13	3911	99677	5303	9375
21:09	MP7083-MB1	3890	99523	5320	9330
21:13	MP7083-MB2	3892	99425	5343	9346
21:18	MP7083-B1	3803	97244	5322	8572
21:22	MP7083-B2	3773	96561	5314	8505
21:26	MP7083-S1	3758	96605	5312	8351
21:30	MP7083-S2	3751	95437	5331	8339
21:34	JC65697-1	3814	98243	5385	8849
21:38	MP7083-SD1	3897	99672	5390	9260
21:43	ZZZZZZ	3621	93616	5344	7934
21:47	MA44385-CCV13	3759	95502	5318	8321
21:51	MA44385-CCB14	3921	100600	5365	9422
21:55	ZZZZZZ	3713	95947	5307	8514
22:00	ZZZZZZ	3777	97629	5369	8670
22:04	ZZZZZZ	3830	98700	5413	8890
22:08	ZZZZZZ	3711	95272	5358	8339
22:12	ZZZZZZ	3895	100720	5396	9397
22:17	ZZZZZZ	3808	98304	5383	8885
22:21	ZZZZZZ	3637	94131	5337	8032
22:25	ZZZZZZ	3725	96115	5327	8573
22:30	ZZZZZZ	3764	97410	5394	8725
22:34	MA44385-CCV14	3759	96111	5323	8337
22:38	MA44385-CCB15	3923	100630	5397	9451
22:42	ZZZZZZ	3789	98099	5378	8885
22:47	ZZZZZZ	3701	95095	5345	8349
22:51	ZZZZZZ	3887	99937	5396	9389

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44385
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:55	ZZZZZZ	No results reported for the elements associated with this internal standard.			
23:00	ZZZZZZ	3522	90807	5477	6895
23:04	ZZZZZZ	3800	98612	5368	8938
23:09	MP7103-MB1	3584	92087	5284	7970
23:13	MP7103-MB2	3601	92346	5293	8071
23:18	MP7103-B1	3617	92452	5333	7996
23:22	MP7103-B2	3589	91946	5295	7907
23:26	MA44385-CCV15	3667	93807	5340	8209
23:30	MA44385-CCB16	3807	98503	5380	9252
23:37	MP7103-S1	3523	91097	5262	7772
23:41	MP7103-S2	3517	90823	5268	7760
23:45	JC65724-2	3503	91164	5269	7830
23:49	MP7103-SD1	3661	94982	5359	8552
23:54	ZZZZZZ	3451	89488	5210	7724
23:58	ZZZZZZ	3541	91089	5276	7911
00:02	ZZZZZZ	2147 !	85968	5182	4930 !
00:07	ZZZZZZ	155 !	3769 !	196 !	1066 !
00:14	ZZZZZZ	3510	77501	4789	7795
00:18	ZZZZZZ	2535 !	78796	5197	5752 !
00:38	MA44385-CCV16	3657	94188	5338	8143
00:42	MA44385-CCB17	3716	97505	5362	9052
00:49	ZZZZZZ	3447	90420	5238	7729
00:54	ZZZZZZ	3447	90598	5245	7735
00:58	ZZZZZZ	3448	90842	5260	7702
01:02	ZZZZZZ	3476	91208	5268	7778
01:07	ZZZZZZ	3446	91195	5225	7716
01:11	ZZZZZZ	3479	91507	5210	7856
01:15	ZZZZZZ	3379	89668	5209	7529
01:20	ZZZZZZ	3602	95108	5271	8412
01:24	MP7104-B1	3621	96054	5345	8286
01:28	MA44385-CCV17	3543	93590	5211	7970
01:32	MA44385-CCB18	3692	97949	5289	9002
01:37	MP7104-MB1	3705	99113	5354	9006

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP
Analyst: ND
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Date Analyzed: 05/11/18
Run ID: MA44385
Methods: EPA 200.7, SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
01:41	MP7104-S1	3567	94139	5343	8088
01:45	MP7104-S2	3526	93202	5224	8003
01:49	JC65790-1A	3644	96502	5311	8518
01:53	MP7104-SD1	3696	97956	5296	8927
01:58	ZZZZZZ	3590	95702	5293	8462
02:02	ZZZZZZ	3654	97059	5318	8614
02:06	ZZZZZZ	3664	95568	5312	8706
02:10	ZZZZZZ	3690	98040	5388	8733
02:15	ZZZZZZ	3586	95648	5214	8521
02:19	MA44385-CCV18	3589	94205	5245	8058
02:23	MA44385-CCB19	3710	97822	5256	9042
02:27	MA44385-CRI3	3647	96288	5236	8730
02:32	MA44385-CRID4	3706	97652	5243	8980
02:36	MA44385-CCV19	3597	94381	5229	8066
02:40	MA44385-CCB20	3689	97558	5221	9003
02:45	ZZZZZZ	3677	97703	5268	8993
02:49	ZZZZZZ	3581	94280	5257	8200
02:53	MP7036-S1	3620	97229	5216	8819
02:57	MP7036-S2	3618	96950	5251	8815
03:02	JC65257-3	3620	99829	5219	8845
03:06	MP7036-SD1	3705	98400	5238	9009
03:10	MP7036-S3	3622	97396	5217	8825
03:15	MP7036-S4	3609	96614	5169	8797
03:19	JC65257-3F	3651	97359	5256	8901
03:23	MP7036-SD2	3678	97540	5156	8966
03:28	MA44385-CCV20	3548	93334	5159	7974
03:32	MA44385-CCB21	3720	98552	5205	9065
03:36	ZZZZZZ	3589	95938	5176	8623
03:40	ZZZZZZ	3529	95028	5144	8396
03:45	ZZZZZZ	3625	96346	5156	8746
03:49	ZZZZZZ	3133	83074	4963	6806
03:53	ZZZZZZ	3531	94554	5099	8335
03:58	ZZZZZZ	3600	95942	5152	8601

INTERNAL STANDARD SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
 Analyst: ND Run ID: MA44385
 Parameters: As, Ba, Cd, Cr, Pb, Se, Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
04:02	ZZZZZZ	3592	96201	5122	8616
04:06	ZZZZZZ	3608	96570	5219	8536
04:11	ZZZZZZ	3653	97338	5147	8807
04:15	MA44385-CCV21	3590	93709	5129	8037
04:19	MA44385-CCB22	3746	98753	5200	9091
04:24	ZZZZZZ	3601	96348	5182	8474
04:28	ZZZZZZ	3639	96996	5152	8719
04:32	ZZZZZZ	3596	95210	5142	8205
04:36	ZZZZZZ	3688	98396	5153	8976
04:41	MP7056-S1	3661	97403	5220	8618
04:45	MP7056-S2	3640	96477	5198	8579
04:49	JC65417-2	3709	98559	5235	8890
04:53	MP7056-SD1	3710	98067	5164	8991
04:58	MA44385-CCV22	3604	94585	5128	8063
05:02	MA44385-CCB23	3758	99143	5179	9133
05:06	MP7056-S3	3669	97194	5193	8642
05:10	MP7056-S4	3639	96225	5140	8568
05:14	JC65417-2F	3647	96927	5152	8763
05:19	MP7056-SD2	3727	98503	5207	9028
05:23	ZZZZZZ	3532	94602	5154	8280
05:27	MA44385-CCV23	3578	94169	5101	8023
05:31	MA44385-CCB24	3748	98881	5181	9110
05:36	MA44385-CRI4	3677	96830	5122	8791
05:40	MA44385-CCV24	3573	93523	5092	8003
05:44	MA44385-CCB25	3760	99205	5229	9113

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

LEGEND:

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

14.3.1
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP
QC Limits: result < RL

Date Analyzed: 05/11/18
Run ID: MA44385

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:			11:21 ICB1		11:33 CCB1		12:29 CCB2		13:12 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34	anr							
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.4	1.00	<3.0	0.100	<3.0	1.00	<3.0	0.400	<3.0
Barium	200	.5	-0.300	<200	-0.100	<200	0.100	<200	0.00	<200
Beryllium	1.0	.2	anr							
Bismuth	20	2.5								
Boron	100	1.9								
Cadmium	3.0	.3	-0.100	<3.0	0.200	<3.0	0.100	<3.0	0.200	<3.0
Calcium	2000	8.7								
Chromium	10	.6	0.500	<10	0.100	<10	0.200	<10	0.300	<10
Cobalt	50	.5								
Copper	10	1.2	anr							
Iron	100	4.6	anr							
Lead	3.0	1.4	-0.100	<3.0	0.400	<3.0	0.300	<3.0	1.00	<3.0
Lithium	50	2.8								
Magnesium	2000	33								
Manganese	15	.1	anr							
Molybdenum	20	.4	anr							
Nickel	10	.5	anr							
Phosphorus	50	1.7								
Potassium	2000	68								
Selenium	10	3.8	1.40	<10	0.00	<10	0.200	<10	0.800	<10
Silicon	200	2.1								
Silver	10	.5	0.100	<10	-0.100	<10	0.500	<10	0.400	<10
Sodium	2000	15	anr							
Strontium	10	.2								
Sulfur	50	20								
Thallium	2.0	1.6	anr							
Tin	10	1								
Titanium	10	.7								
Tungsten	50	1.8								
Vanadium	50	.4								
Zinc	20	.3	anr							

14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44385 Units: ug/l

Time:		11:21		11:33		12:29		13:12		
Sample ID:		ICB1		CCB1		CCB2		CCB3		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP
QC Limits: result < RL

Date Analyzed: 05/11/18
Run ID: MA44385

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:			13:58 CCB4		14:45 CCB5		15:32 CCB6		16:18 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34	anr							
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.4	1.80	<3.0	1.50	<3.0	1.00	<3.0	1.10	<3.0
Barium	200	.5	0.00	<200	0.100	<200	0.200	<200	0.100	<200
Beryllium	1.0	.2	anr							
Bismuth	20	2.5								
Boron	100	1.9								
Cadmium	3.0	.3	0.300	<3.0	0.00	<3.0	0.100	<3.0	0.200	<3.0
Calcium	2000	8.7								
Chromium	10	.6	0.300	<10	0.300	<10	0.700	<10	0.500	<10
Cobalt	50	.5								
Copper	10	1.2	anr							
Iron	100	4.6	anr							
Lead	3.0	1.4	0.400	<3.0	0.00	<3.0	0.500	<3.0	0.100	<3.0
Lithium	50	2.8								
Magnesium	2000	33								
Manganese	15	.1	anr							
Molybdenum	20	.4	anr							
Nickel	10	.5	anr							
Phosphorus	50	1.7								
Potassium	2000	68								
Selenium	10	3.8	0.100	<10	-1.30	<10	-1.90	<10	1.50	<10
Silicon	200	2.1								
Silver	10	.5	-0.100	<10	0.800	<10	0.00	<10	0.600	<10
Sodium	2000	15	anr							
Strontium	10	.2								
Sulfur	50	20								
Thallium	2.0	1.6	anr							
Tin	10	1								
Titanium	10	.7								
Tungsten	50	1.8								
Vanadium	50	.4								
Zinc	20	.3	anr							

14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

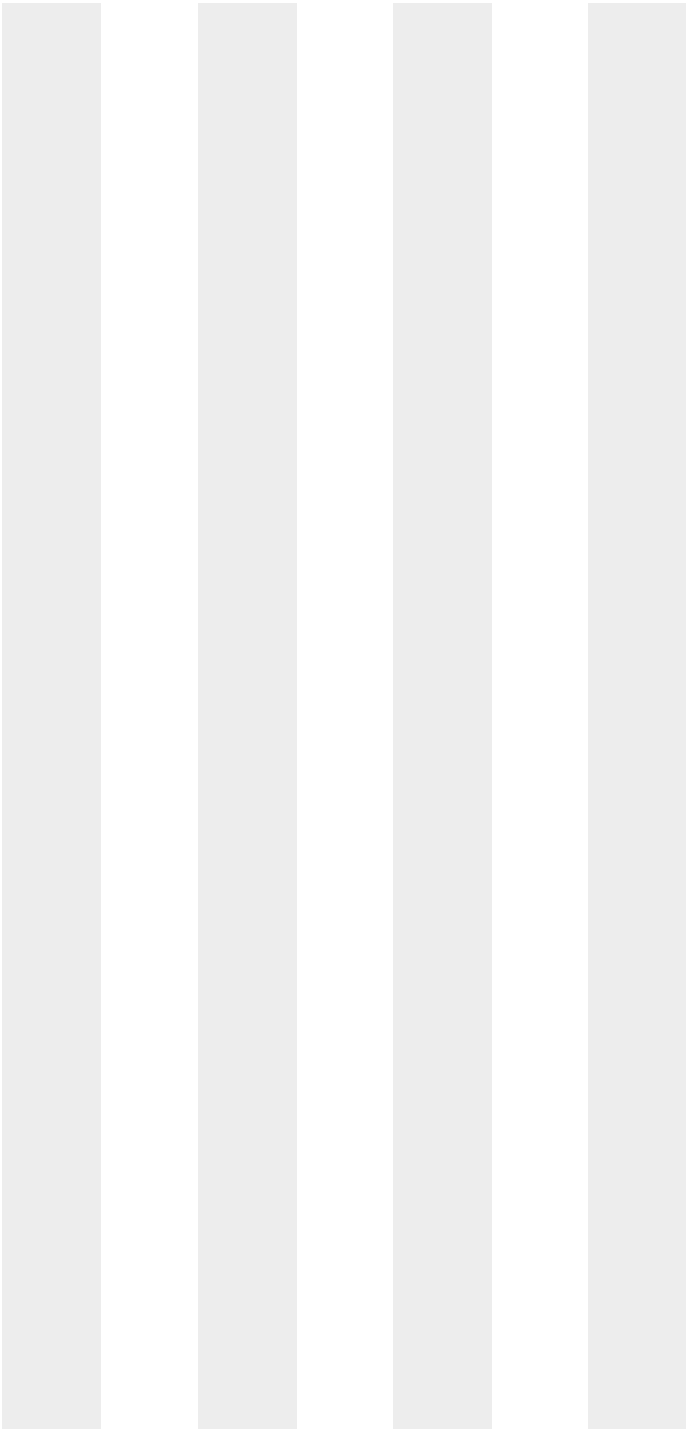
Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44385 Units: ug/l

Time: Sample ID:			13:58 CCB4		14:45 CCB5		15:32 CCB6		16:18 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP
QC Limits: result < RL

Date Analyzed: 05/11/18
Run ID: MA44385

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:			17:05 CCB8		17:56 CCB9		18:47 CCB10		19:34 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34	anr							
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.4	1.70	<3.0	1.50	<3.0	2.10	<3.0	1.10	<3.0
Barium	200	.5	0.400	<200	0.300	<200	0.300	<200	0.100	<200
Beryllium	1.0	.2	anr							
Bismuth	20	2.5								
Boron	100	1.9								
Cadmium	3.0	.3	0.200	<3.0	0.00	<3.0	0.300	<3.0	0.100	<3.0
Calcium	2000	8.7								
Chromium	10	.6	0.700	<10	0.700	<10	0.800	<10	0.300	<10
Cobalt	50	.5								
Copper	10	1.2	anr							
Iron	100	4.6	anr							
Lead	3.0	1.4	-0.100	<3.0	0.300	<3.0	1.10	<3.0	-0.900	<3.0
Lithium	50	2.8								
Magnesium	2000	33								
Manganese	15	.1	anr							
Molybdenum	20	.4	anr							
Nickel	10	.5	anr							
Phosphorus	50	1.7								
Potassium	2000	68								
Selenium	10	3.8	0.800	<10	0.400	<10	1.40	<10	0.300	<10
Silicon	200	2.1								
Silver	10	.5	0.200	<10	0.300	<10	0.200	<10	0.400	<10
Sodium	2000	15	anr							
Strontium	10	.2								
Sulfur	50	20								
Thallium	2.0	1.6	anr							
Tin	10	1								
Titanium	10	.7								
Tungsten	50	1.8								
Vanadium	50	.4								
Zinc	20	.3	anr							

14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44385 Units: ug/l

Time: Sample ID:			17:05 CCB8		17:56 CCB9		18:47 CCB10		19:34 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.3.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP
QC Limits: result < RL

Date Analyzed: 05/11/18
Run ID: MA44385

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:		20:00 CCB12			
Metal	RL	IDL	raw	final	
Aluminum	200	34	anr		
Antimony	6.0	1.4	anr		
Arsenic	3.0	1.4	1.10	<3.0	
Barium	200	.5	0.400	<200	
Beryllium	1.0	.2	anr		
Bismuth	20	2.5			
Boron	100	1.9			
Cadmium	3.0	.3	0.100	<3.0	
Calcium	2000	8.7			
Chromium	10	.6	0.500	<10	
Cobalt	50	.5			
Copper	10	1.2	anr		
Iron	100	4.6	anr		
Lead	3.0	1.4	0.200	<3.0	
Lithium	50	2.8			
Magnesium	2000	33			
Manganese	15	.1	anr		
Molybdenum	20	.4	anr		
Nickel	10	.5	anr		
Phosphorus	50	1.7			
Potassium	2000	68			
Selenium	10	3.8	0.800	<10	
Silicon	200	2.1			
Silver	10	.5	-0.100	<10	
Sodium	2000	15	anr		
Strontium	10	.2			
Sulfur	50	20			
Thallium	2.0	1.6	anr		
Tin	10	1			
Titanium	10	.7			
Tungsten	50	1.8			
Vanadium	50	.4			
Zinc	20	.3	anr		

14.3.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44385 Units: ug/l

Time:		20:00	
Sample ID:		CCB12	
Metal	RL	IDL	raw final

Zirconium 10 .3

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44385 Units: ug/l

Time: Sample ID: ICCV		11:25 ICCV1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	2000	2030	101.5
Barium	2000	2010	100.5
Beryllium	anr		
Bismuth			
Boron			
Cadmium	2000	2040	102.0
Calcium			
Chromium	2000	2080	104.0
Cobalt			
Copper	anr		
Iron	anr		
Lead	2000	2020	101.0
Lithium			
Magnesium			
Manganese	anr		
Molybdenum	anr		
Nickel	anr		
Phosphorus			
Potassium			
Selenium	2000	2020	101.0
Silicon			
Silver	250	253	101.2
Sodium	anr		
Strontium			
Sulfur			
Thallium	anr		
Tin			
Titanium			
Tungsten			
Vanadium			
Zinc	anr		

14.3.3
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CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44385 Units: ug/l

Time:		11:25	
Sample ID:		ICCV1	
Metal	True	Results	% Rec

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44385 Units: ug/l

Time: Sample ID:	ICV	11:11 ICV1		CCV	12:25 CCV1		CCV	13:08 CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2070	103.5	2000	2050	102.5	2000	2050	102.5
Barium	2000	2020	101.0	2000	2030	101.5	2000	2030	101.5
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	2010	100.5	2000	2060	103.0	2000	2070	103.5
Calcium									
Chromium	2000	2000	100.0	2000	2090	104.5	2000	2090	104.5
Cobalt									
Copper	anr								
Iron	anr								
Lead	2000	2020	101.0	2000	2030	101.5	2000	2020	101.0
Lithium									
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium									
Selenium	2000	2090	104.5	2000	2030	101.5	2000	2030	101.5
Silicon									
Silver	250	257	102.8	250	254	101.6	250	255	102.0
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	anr								

14.3.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44385 Units: ug/l

Time:		11:11			12:25			13:08		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44385 Units: ug/l

Time: Sample ID:		13:54 CCV3		14:41 CCV4		15:28 CCV5			
Metal	CCV True	Results	% Rec	CCV True	Results	% Rec	CCV True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2060	103.0	2000	2050	102.5	2000	2060	103.0
Barium	2000	2040	102.0	2000	2030	101.5	2000	2050	102.5
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	2060	103.0	2000	2060	103.0	2000	2070	103.5
Calcium									
Chromium	2000	2090	104.5	2000	2090	104.5	2000	2100	105.0
Cobalt									
Copper	anr								
Iron	anr								
Lead	2000	2030	101.5	2000	2020	101.0	2000	2030	101.5
Lithium									
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium									
Selenium	2000	2030	101.5	2000	2020	101.0	2000	2040	102.0
Silicon									
Silver	250	256	102.4	250	254	101.6	250	255	102.0
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	anr								

14.3.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44385 Units: ug/l

Time:		13:54			14:41			15:28		
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44385 Units: ug/l

Time: Sample ID:		16:14 CCV6		17:01 CCV7		17:52 CCV8			
Metal	CCV	True	Results	% Rec	True	Results	% Rec	True	Results
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2060	103.0		2000	2060	103.0	2000	2070
Barium	2000	2070	103.5		2000	2090	104.5	2000	2100
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	2070	103.5		2000	2070	103.5	2000	2070
Calcium									
Chromium	2000	2100	105.0		2000	2100	105.0	2000	2100
Cobalt									
Copper	anr								
Iron	anr								
Lead	2000	2030	101.5		2000	2030	101.5	2000	2050
Lithium									
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium									
Selenium	2000	2030	101.5		2000	2040	102.0	2000	2050
Silicon									
Silver	250	255	102.0		250	254	101.6	250	254
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	anr								

14.3.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44385 Units: ug/l

Time:		16:14			17:01			17:52		
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44385 Units: ug/l

Time: Sample ID:		18:43 CCV9			19:30 CCV10			19:56 CCV11		
Metal	CCV	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr									
Antimony	anr									
Arsenic	2000	2070	103.5	2000	2060	103.0	2000	2060	103.0	
Barium	2000	2130	106.5	2000	2130	106.5	2000	2130	106.5	
Beryllium	anr									
Bismuth										
Boron										
Cadmium	2000	2080	104.0	2000	2070	103.5	2000	2070	103.5	
Calcium										
Chromium	2000	2100	105.0	2000	2080	104.0	2000	2090	104.5	
Cobalt										
Copper	anr									
Iron	anr									
Lead	2000	2050	102.5	2000	2050	102.5	2000	2050	102.5	
Lithium										
Magnesium										
Manganese	anr									
Molybdenum	anr									
Nickel	anr									
Phosphorus										
Potassium										
Selenium	2000	2050	102.5	2000	2050	102.5	2000	2040	102.0	
Silicon										
Silver	250	253	101.2	250	253	101.2	250	252	100.8	
Sodium	anr									
Strontium										
Sulfur										
Thallium	anr									
Tin										
Titanium										
Tungsten										
Vanadium										
Zinc	anr									

14.3.4
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HIGH STANDARD CHECK SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP
QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/11/18
Run ID: MA44385

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:		12:03 HSTD1	% Rec	12:07 HSTD2	% Rec
Metal	HSTD True	Results		Results	
Aluminum					
Antimony	anr				
Arsenic	5000	5110	102.2		
Barium	5000	5180	103.6		
Beryllium	anr				
Bismuth					
Boron					
Cadmium	5000	5160	103.2		
Calcium					
Chromium	5000	5360	107.2		
Cobalt					
Copper	anr				
Iron					
Lead	5000	5080	101.6		
Lithium					
Magnesium					
Manganese	anr				
Molybdenum	anr				
Nickel	anr				
Phosphorus					
Potassium					
Selenium	5000	5120	102.4		
Silicon					
Silver	625	654	104.6		
Sodium					
Strontium					
Sulfur					
Thallium	anr				
Tin					
Titanium					
Tungsten					
Vanadium					
Zinc	anr				

HIGH STANDARD CHECK SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: 90 to 110 % Recovery Run ID: MA44385 Units: ug/l

Time:		12:03			12:07		
Sample ID:		HSTD	HSTD1	HSTD	HSTD2	HSTD	HSTD2
Metal		True	Results	% Rec	True	Results	% Rec

Zirconium

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44385 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	11:46 CRI1	% Rec	11:51 CRID1	% Rec	12:33 CRID2	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	anr					
Antimony	6.0	20	3.0	anr					
Arsenic	8.0	20	3.0	8.10	101.3	3.20	106.7	3.70	123.3
Barium	200		4.0	212	106.0	4.20	105.0	4.40	110.0
Beryllium	2.0		1.0	anr					
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	3.00	100.0	1.00	100.0	1.20	120.0
Calcium	5000	2000	1000						
Chromium	10		2.0	11.5	115.0				
Cobalt	50		3.0						
Copper	10		2.0	anr					
Iron	100	500		anr					
Lead	3.0	20	2.5	3.30	110.0				
Lithium	50								
Magnesium	5000	2000	100						
Manganese	15		3.0	anr					
Molybdenum	20			anr					
Nickel	10		4.0	anr					
Phosphorus	50								
Potassium	5000		2000						
Selenium	10	20	5.0	11.5	115.0				
Silicon	200								
Silver	5.0		2.0	5.60	112.0				
Sodium	5000		1000	anr					
Strontium	10								
Sulfur	50								
Thallium	10		2.0	anr					
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0						
Zinc	20		10	anr					

14.3.6
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44385 Units: ug/l

Time:					11:46		11:51		12:33	
Sample ID:	CRI	CRIA	CRID	CRI1	% Rec	CRID1	% Rec	CRID2	% Rec	
Metal	True	True	True	Results		Results		Results		

Zirconium 10

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP
QC Limits: 70 to 130 % Recovery

Date Analyzed: 05/11/18
Run ID: MA44385

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	19:39 CRI2	% Rec	19:43 CRID3	% Rec
Metal	True	True	True	Results		Results	
Aluminum	200	500	100	anr			
Antimony	6.0	20	3.0	anr			
Arsenic	8.0	20	3.0	10.1	126.3	3.60	120.0
Barium	200		4.0	221	110.5	4.70	117.5
Beryllium	2.0		1.0	anr			
Bismuth	20						
Boron	100		10				
Cadmium	3.0		1.0	3.40	113.3	1.10	110.0
Calcium	5000	2000	1000				
Chromium	10		2.0	11.4	114.0	2.60	130.0
Cobalt	50		3.0				
Copper	10		2.0	anr			
Iron	100	500		anr			
Lead	3.0	20	2.5	3.20	106.7		
Lithium	50						
Magnesium	5000	2000	100				
Manganese	15		3.0	anr			
Molybdenum	20			anr			
Nickel	10		4.0	anr			
Phosphorus	50						
Potassium	5000		2000				
Selenium	10	20	5.0	11.4	114.0	5.90	118.0
Silicon	200						
Silver	5.0		2.0	5.40	108.0		
Sodium	5000		1000	anr			
Strontium	10						
Sulfur	50						
Thallium	10		2.0	anr			
Tin	10						
Titanium	10						
Tungsten	50						
Vanadium	50		2.0				
Zinc	20		10	anr			

14.3.6
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44385 Units: ug/l

Time:					19:39		19:43	
Sample ID:	CRI	CRIA	CRID		CRI2		CRID3	
Metal	True	True	True		Results	% Rec	Results	% Rec

Zirconium 10

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

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44385 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	11:55 ICSA1 Results	% Rec	11:59 ICSAB1 Results	% Rec	19:47 ICSA2 Results	% Rec	19:52 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	515000	103.0	517000	103.4	526000	105.2	532000	106.4
Antimony		1000	-2.20		1040	104.0	-3.70		1050	105.0
Arsenic		1000	1.70		1070	107.0	-0.300		1090	109.0
Barium		500	0.200		517	103.4	0.500		549	109.8
Beryllium		500	0.200		504	100.8	0.400		490	98.0
Bismuth		500	-2.00		508	101.6	-1.20		519	103.8
Boron		500	-1.20		509	101.8	-0.800		517	103.4
Cadmium		1000	0.600		1050	105.0	0.400		1060	106.0
Calcium	400000	400000	401000	100.3	394000	98.5	387000	96.8	382000	95.5
Chromium		500	-1.60		500	100.0	-1.20		505	101.0
Cobalt		500	0.500		501	100.2	1.00		507	101.4
Copper		500	2.00		512	102.4	-1.20		516	103.2
Iron	200000	200000	194000	97.0	195000	97.5	178000	89.0	179000	89.5
Lead		1000	-2.00		976	97.6	0.600		988	98.8
Lithium		500	2.50		538	107.6	3.60		589	117.8
Magnesium	500000	500000	521000	104.2	518000	103.6	488000	97.6	488000	97.6
Manganese		500	-2.20		501	100.2	-2.70		508	101.6
Molybdenum		500	-2.40		485	97.0	-2.50		493	98.6
Nickel		1000	-1.00		993	99.3	-0.500		1010	101.0
Phosphorus		500	-7.10		492	98.4	-7.50		509	101.8
Potassium			-449		-487		-451		-464	
Selenium		1000	-2.60		986	98.6	-5.00		998	99.8
Silicon		500	-2.50		487	97.4	0.100		499	99.8
Silver		1000	3.20		1070	107.0	-5.90		1070	107.0
Sodium			38.9		55.7		184		215	
Strontium		500	4.80		521	104.2	5.70		544	108.8
Sulfur		500	-50.8		449	89.8	-28.1		480	96.0
Thallium		1000	0.00		949	94.9	-2.80		963	96.3
Tin		500	-4.60		461	92.2	-3.70		467	93.4
Titanium		500	-0.800		505	101.0	-0.500		511	102.2
Tungsten		500	11.0		489	97.8	8.60		498	99.6
Vanadium		500	-1.10		499	99.8	-1.00		504	100.8
Zinc		1000	5.40		965	96.5	6.20		980	98.0

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INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051118M1.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44385 Units: ug/l

Time:				11:55		11:59		19:47		19:52	
Sample ID:	ICSAB	ICSAB	ICSAB	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Metal	True	True	True								

Zirconium 500 0.100 455 91.0 -0.800 462 92.4

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

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:10	MA44386-STD1	1		STDA
15:13	MA44386-STD2	1		STDB
15:16	ZZZZZZ	1		
15:19	ZZZZZZ	1		
15:23	MA44386-ICV1	1		
15:30	MA44386-ICB1	1		
15:36	MA44386-ICCV1	1		
15:45	MA44386-CCB1	1		
15:48	MA44386-CRI1	1		
15:51	MA44386-CRID1	1		
15:54	MA44386-ICSA1	1		
15:57	MA44386-ICSAB1	1		
16:00	MA44386-HSTD1	1		
16:03	MA44386-HSTD2	1		
16:07	ZZZZZZ	1		
16:10	ZZZZZZ	1		
16:13	ZZZZZZ	1		
16:16	MA44386-CCV1	1		
16:19	MA44386-CCB2	1		
16:22	ZZZZZZ	1		
16:25	ZZZZZZ	1		
16:27	MP7035-PS1	1		
16:30	ZZZZZZ	1		
16:34	ZZZZZZ	1		
16:36	MP7044-S1	1		
16:39	MP7044-S2	1		
16:42	JC65337-1	1		(sample used for QC only; not part of login JC65663)
16:45	MP7044-SD1	5		
16:48	MA44386-CCV2	1		
16:51	MA44386-CCB3	1		
16:54	ZZZZZZ	3		
16:57	ZZZZZZ	3		
17:00	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:03	ZZZZZZ	5		
17:06	ZZZZZZ	1		
17:09	ZZZZZZ	3		
17:12	ZZZZZZ	2		
17:15	ZZZZZZ	2		
17:18	ZZZZZZ	2		
17:21	MA44386-CCV3	1		
17:24	MA44386-CCB4	1		
17:27	ZZZZZZ	2		
17:30	ZZZZZZ	2		
17:33	ZZZZZZ	2		
17:36	ZZZZZZ	2		
17:39	ZZZZZZ	2		
17:42	ZZZZZZ	1		
17:45	ZZZZZZ	2		
17:48	ZZZZZZ	2		
17:51	ZZZZZZ	2		
17:54	MA44386-CCV4	1		
17:57	MA44386-CCB5	1		
18:00	MP7070-MB1	1		
18:03	MP7070-B1	1		
18:06	MP7070-S1	1		FE>4000ppm. Post straight for Ca
18:09	MP7070-S2	1		FE>4000ppm
18:12	MP7070-D1	1		FE>4000ppm
18:15	TD20701-1	1		(sample used for QC only; not part of login JC65663)
18:18	MP7070-SD1	5		FE>4000ppm
18:21	JC65663-1	1		%sol Ca high
18:25	JC65663-2	1		%sol Ca high
----->	Last reportable sample/prep for job JC65663			
18:28	MA44386-CCV5	1		
18:31	MA44386-CCB6	1		
18:34	ZZZZZZ	1		
18:37	ZZZZZZ	1		
18:39	ZZZZZZ	1		

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:42	ZZZZZZ	1		
18:45	ZZZZZZ	1		
18:48	ZZZZZZ	1		
18:51	ZZZZZZ	1		
18:54	ZZZZZZ	1		
18:57	ZZZZZZ	1		
19:00	MA44386-CCV6	1		
19:03	MA44386-CCB7	1		
19:06	ZZZZZZ	1		
19:09	ZZZZZZ	1		
19:12	ZZZZZZ	1		
19:15	ZZZZZZ	1		
19:18	ZZZZZZ	1		
19:21	ZZZZZZ	1		
19:24	ZZZZZZ	1		
19:27	ZZZZZZ	1		
19:30	MP7049-S1	5		
19:33	MA44386-CCV7	1		
19:36	MA44386-CCB8	1		
19:39	MP7049-S2	5		
19:42	JC65371-2	5		(sample used for QC only; not part of login JC65663)
19:45	MP7049-SD1	25		
19:48	MP7049-S1	25		
19:51	MP7049-S2	25		
19:54	JC65371-2	25		(sample used for QC only; not part of login JC65663)
19:57	MP7049-SD1	125		
20:00	ZZZZZZ	1		
20:03	ZZZZZZ	1		
20:06	MA44386-CCV8	1		
20:09	MA44386-CCB9	1		
20:12	ZZZZZZ	1		
20:15	ZZZZZZ	1		
20:18	ZZZZZZ	3		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:21	ZZZZZZ	2		
20:24	ZZZZZZ	1		
20:27	ZZZZZZ	1		
20:30	ZZZZZZ	1		
20:33	MP7043-S1	5		
20:36	MP7043-S2	5		
20:39	JC65257-12	5		(sample used for QC only; not part of login JC65663)
20:42	MA44386-CCV9	1		
20:45	MA44386-CCB10	1		
20:48	MP7043-SD1	25		
20:51	ZZZZZZ	10		
20:54	ZZZZZZ	25		
20:57	ZZZZZZ	5		
21:00	ZZZZZZ	5		
21:03	ZZZZZZ	20		
21:06	ZZZZZZ	20		
21:09	ZZZZZZ	10		
21:12	ZZZZZZ	25		
21:15	MA44386-CCV10	1		
21:17	MA44386-CCB11	1		
21:21	ZZZZZZ	5		
21:24	ZZZZZZ	5		
21:27	ZZZZZZ	20		
21:30	ZZZZZZ	20		
21:33	ZZZZZZ	1		
21:36	ZZZZZZ	1		
21:39	ZZZZZZ	1		
21:42	ZZZZZZ	1		
21:45	ZZZZZZ	1		
21:48	MA44386-CCV11	1		
21:51	MA44386-CCB12	1		
21:54	ZZZZZZ	1		
21:57	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:59	MP7048-S1	2		
22:03	MP7048-S2	2		
22:06	JC65331-2F	2		(sample used for QC only; not part of login JC65663)
22:09	MP7048-SD1	10		
22:12	ZZZZZZ	5		
22:15	ZZZZZZ	5		
22:18	ZZZZZZ	10		
22:21	MA44386-CCV12	1		
22:24	MA44386-CCB13	1		
22:27	ZZZZZZ	10		
22:30	ZZZZZZ	10		
22:33	ZZZZZZ	5		
22:36	ZZZZZZ	5		
22:39	ZZZZZZ	5		
22:42	ZZZZZZ	10		
22:45	ZZZZZZ	10		
22:48	ZZZZZZ	10		
22:51	ZZZZZZ	5		
22:54	MA44386-CCV13	1		
22:57	MA44386-CCB14	1		
23:00	MA44386-CRI2	1		
23:03	MA44386-CRID2	1		
23:07	MA44386-ICSA2	1		
23:10	MA44386-ICSAB2	1		
23:13	MA44386-CCV14	1		
23:16	MA44386-CCB15	1		
----->	Last reportable CCB for job JC65663			
23:19	ZZZZZZ	1		
23:24	ZZZZZZ	1		
23:27	ZZZZZZ	1		
23:30	ZZZZZZ	1		
23:34	ZZZZZZ	1		
23:37	ZZZZZZ	1		
23:40	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
23:43	ZZZZZZ	1		
23:46	ZZZZZZ	1		
23:52	ZZZZZZ	1		
23:55	ZZZZZZ	1		
23:58	MA44386-CCV15	1		
00:01	MA44386-CCB16	1		
00:04	ZZZZZZ	1		
00:07	ZZZZZZ	1		
00:10	MP7057-S1	1		
00:13	MP7057-S2	1		
00:15	ZZZZZZ	5		
00:19	ZZZZZZ	1		
00:19	MP7059-MB1	1		Batch to reanalyze for MN, ICV out
00:22	ZZZZZZ	1		
00:22	MP7059-B1	1		
00:24	MP7059-S1	1		
00:27	MP7059-S2	1		
00:30	MA44386-CCV16	1		
00:33	MA44386-CCB17	1		
00:36	JC65577-1	1		(sample used for QC only; not part of login JC65663)
00:39	MP7059-SD1	5		
00:42	ZZZZZZ	1		
00:45	MP7071-B1	1		
00:48	MP7071-MB1	1		
00:51	MP7071-S1	1		Fe, Mn , CR high, Rerun straihgt for Be, neg
00:54	MP7071-S2	1		Fe, Mn , CR high, Rerun straihgt for Be, neg
00:57	JC65783-1	1		(sample used for QC only; not part of login JC65663)
01:00	MP7071-SD1	5		Ni, CR high.Be neg
01:03	MA44386-CCV17	1		
01:06	MA44386-CCB18	1		
01:09	ZZZZZZ	1		
01:12	ZZZZZZ	1		
01:16	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
01:19	ZZZZZZ	1		
01:22	ZZZZZZ	1		
01:25	ZZZZZZ	1		
01:28	ZZZZZZ	1		
01:31	ZZZZZZ	1		
01:34	ZZZZZZ	1		
01:37	MA44386-CCV18	1		
01:40	MA44386-CCB19	1		
01:43	ZZZZZZ	1		
01:46	ZZZZZZ	1		
01:49	ZZZZZZ	1		
01:52	ZZZZZZ	1		
01:55	ZZZZZZ	1		
01:59	ZZZZZZ	1		
02:02	ZZZZZZ	1		
02:05	ZZZZZZ	1		
02:08	ZZZZZZ	1		
02:11	ZZZZZZ	1		
02:14	MA44386-CCV19	1		
02:17	MA44386-CCB20	1		
02:20	MP7086-B1	1		
02:23	MP7086-MB1	1		
02:26	MP7086-S1	1		Fe, Ni, Mn high. rerun straihgt for confirmation
02:29	MP7086-S2	1		Fe, Ni, Mn high. rerun straihgt for confirmation
02:32	JC65784-11	1		(sample used for QC only; not part of login JC65663)
02:35	MP7086-SD1	5		Fe, Ni, Mn high. rerun straihgt for confirmation
02:38	ZZZZZZ	1		
02:41	ZZZZZZ	1		
02:44	ZZZZZZ	1		
02:48	MA44386-CCV20	1		
02:50	MA44386-CCB21	1		
02:53	ZZZZZZ	1		
02:57	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
03:00	ZZZZZZ	1		
03:03	ZZZZZZ	1		
03:06	ZZZZZZ	1		
03:09	ZZZZZZ	1		
03:12	ZZZZZZ	1		
03:15	ZZZZZZ	1		
06:01	MA44386-CCV21	1		
06:06	MA44386-CCB22	1		
06:09	MA44386-CRI3	1		
06:14	MA44386-CRID3	1		
06:18	MA44386-CCV22	1		
06:31	MA44386-CCB23	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, TL, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:10	MA44386-STD1	6664 R	157750 R	22186 R	10300 R
15:13	MA44386-STD2	6383	150840	21524	9545
15:16	ZZZZZZ	6477	151840	21673	9705
15:19	ZZZZZZ	6682	158670	22141	10305
15:23	MA44386-ICV1	6533	153450	21658	9762
15:30	MA44386-ICB1	6683	157360	21983	10303
15:36	MA44386-ICCV1	6563	153380	21773	9809
15:45	MA44386-CCB1	6777	159370	22268	10426
15:48	MA44386-CRI1	6700	157690	21959	10268
15:51	MA44386-CRID1	6741	157540	22088	10354
15:54	MA44386-ICSA1	6147	142830	21149	9028
15:57	MA44386-ICSAB1	6158	143030	21160	9068
16:00	MA44386-HSTD1	6644	158630	21994	10298
16:03	MA44386-HSTD2	6308	146320	21265	9170
16:07	ZZZZZZ	6694	156430	21823	10487
16:10	ZZZZZZ	6639	158500	22152	10403
16:13	ZZZZZZ	6769	159100	21828	10416
16:16	MA44386-CCV1	6558	154590	21697	9813
16:19	MA44386-CCB2	6723	158480	21963	10358
16:22	ZZZZZZ	6764	160390	22296	10410
16:25	ZZZZZZ	6614	156890	22137	9947
16:27	MP7035-PS1	6265	150110	21642	9524
16:30	ZZZZZZ	6792	161110	22461	10424
16:34	ZZZZZZ	6616	157330	22039	9965
16:36	MP7044-S1	7086	163930	23929	9941
16:39	MP7044-S2	6930	161550	23315	9984
16:42	JC65337-1	7121	167240	23823	10186
16:45	MP7044-SD1	6828	161040	22428	10240
16:48	MA44386-CCV2	6608	154200	21774	9863
16:51	MA44386-CCB3	6822	159060	22350	10492
16:54	ZZZZZZ	6770	158490	22284	10358
16:57	ZZZZZZ	6843	159300	22357	10429
17:00	ZZZZZZ	6924	160770	22576	10343

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
17:03	ZZZZZZ	6777	158590	22431	10458
17:06	ZZZZZZ	7000	164000	23229	10291
17:09	ZZZZZZ	6862	160790	22664	10484
17:12	ZZZZZZ	6776	158510	22424	10284
17:15	ZZZZZZ	6975	163430	23085	10299
17:18	ZZZZZZ	6708	158270	22450	9932
17:21	MA44386-CCV3	6621	154800	21701	9890
17:24	MA44386-CCB4	6801	159930	22070	10464
17:27	ZZZZZZ	6971	162980	22755	10323
17:30	ZZZZZZ	6913	162840	22954	10208
17:33	ZZZZZZ	6874	160870	22511	10437
17:36	ZZZZZZ	6787	158140	22397	10149
17:39	ZZZZZZ	6847	159300	22496	10168
17:42	ZZZZZZ	8006	185220	26290	10141
17:45	ZZZZZZ	7285	169080	23888	10141
17:48	ZZZZZZ	6854	158940	22311	10478
17:51	ZZZZZZ	6867	160450	22722	10384
17:54	MA44386-CCV4	6592	153900	21862	9867
17:57	MA44386-CCB5	6963	159070	21918	10708
18:00	MP7070-MB1	6830	160850	22292	10487
18:03	MP7070-B1	6660	157720	21832	10020
18:06	MP7070-S1	5918	144570	21232	12259
18:09	MP7070-S2	5858	144520	21316	12417
18:12	MP7070-D1	5887	144450	21266	12610
18:15	TD20701-1	5859	144210	21040	12510
18:18	MP7070-SD1	6596	156420	21915	11046
18:21	JC65663-1	6387	150270	21714	8933
18:25	JC65663-2	6373	151380	22022	8880
18:28	MA44386-CCV5	6669	156640	21798	9955
18:31	MA44386-CCB6	6838	160190	22057	10513
18:34	ZZZZZZ	6887	161370	22575	10138
18:37	ZZZZZZ	6922	161410	22418	10208
18:39	ZZZZZZ	6806	160370	22709	9999

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:42	ZZZZZZ	6894	161070	22323	10154
18:45	ZZZZZZ	6836	160250	22332	10073
18:48	ZZZZZZ	6846	159960	22326	10048
18:51	ZZZZZZ	6983	161270	22561	10232
18:54	ZZZZZZ	6838	160430	22356	10052
18:57	ZZZZZZ	6862	160800	22555	10103
19:00	MA44386-CCV6	6606	154530	21415	9882
19:03	MA44386-CCB7	6806	158810	21684	10478
19:06	ZZZZZZ	6467	152180	21619	9030
19:09	ZZZZZZ	6840	159190	22442	9870
19:12	ZZZZZZ	6861	160360	22347	10158
19:15	ZZZZZZ	6918	162260	22436	10265
19:18	ZZZZZZ	7149	166190	23127	10323
19:21	ZZZZZZ	6918	163690	22607	10601
19:24	ZZZZZZ	6994	164970	22482	10823
19:27	ZZZZZZ	6778	157390	22239	10215
19:30	MP7049-S1	6353	148900	21148	9342
19:33	MA44386-CCV7	6618	153950	21438	9881
19:36	MA44386-CCB8	6795	158710	21854	10463
19:39	MP7049-S2	6400	150030	21033	9426
19:42	JC65371-2	6374	148050	20940	9378
19:45	MP7049-SD1	6634	155320	21358	10021
19:48	MP7049-S1	No results reported for the elements associated with this internal standard.			
19:51	MP7049-S2	No results reported for the elements associated with this internal standard.			
19:54	JC65371-2	No results reported for the elements associated with this internal standard.			
19:57	MP7049-SD1	No results reported for the elements associated with this internal standard.			
20:00	ZZZZZZ	No results reported for the elements associated with this internal standard.			
20:03	ZZZZZZ	6832	161900	22072	10480
20:06	MA44386-CCV8	6635	155610	21451	9927
20:09	MA44386-CCB9	6803	158980	21879	10480
20:12	ZZZZZZ	6933	162000	22499	10344
20:15	ZZZZZZ	7273	168580	24036	10084
20:18	ZZZZZZ	6958	160570	22458	10168

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:21	ZZZZZZ	6941	162410	22460	10144
20:24	ZZZZZZ	6690	157320	21836	10145
20:27	ZZZZZZ	6873	160990	22189	10568
20:30	ZZZZZZ	6704	157350	22043	10092
20:33	MP7043-S1	6606	154340	21611	9907
20:36	MP7043-S2	6603	154230	21467	9910
20:39	JC65257-12	6633	155230	21647	9985
20:42	MA44386-CCV9	6670	155500	21591	9977
20:45	MA44386-CCB10	6838	159520	21772	10547
20:48	MP7043-SD1	6795	159140	21821	10449
20:51	ZZZZZZ	6703	158560	21740	10312
20:54	ZZZZZZ	6722	159960	21896	10421
20:57	ZZZZZZ	6653	155140	21748	9993
21:00	ZZZZZZ	6731	159070	21898	10362
21:03	ZZZZZZ	6770	158940	21523	10453
21:06	ZZZZZZ	6774	159690	21731	10470
21:09	ZZZZZZ	6673	157030	21823	10274
21:12	ZZZZZZ	6736	159720	21750	10411
21:15	MA44386-CCV10	6664	154980	21594	9966
21:17	MA44386-CCB11	6855	160860	21579	10570
21:21	ZZZZZZ	6657	155740	21562	9991
21:24	ZZZZZZ	6738	159320	21727	10378
21:27	ZZZZZZ	6782	161180	21951	10487
21:30	ZZZZZZ	6794	161150	21956	10504
21:33	ZZZZZZ	6946	163430	22345	10649
21:36	ZZZZZZ	7000	163570	22716	10293
21:39	ZZZZZZ	6967	161800	22484	10251
21:42	ZZZZZZ	6986	163320	22597	10345
21:45	ZZZZZZ	6984	163000	22486	10310
21:48	MA44386-CCV11	6762	157580	21645	10140
21:51	MA44386-CCB12	6910	161870	22003	10667
21:54	ZZZZZZ	6923	163050	22253	10689
21:57	ZZZZZZ	6773	160420	22154	10236

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:59	MP7048-S1	6216	150290	21369	9220
22:03	MP7048-S2	6404	149550	21239	9478
22:06	JC65331-2F	6410	150630	21230	9510
22:09	MP7048-SD1	6701	157600	21811	10229
22:12	ZZZZZZ	6719	159510	21832	10464
22:15	ZZZZZZ	6751	161140	21759	10459
22:18	ZZZZZZ	6694	159880	21636	10435
22:21	MA44386-CCV12	6678	155770	21514	10043
22:24	MA44386-CCB13	6878	161320	21796	10673
22:27	ZZZZZZ	6746	161990	21755	10549
22:30	ZZZZZZ	6769	160020	21972	10552
22:33	ZZZZZZ	6793	161550	21987	10552
22:36	ZZZZZZ	6777	161150	21882	10554
22:39	ZZZZZZ	6826	161670	22006	10568
22:42	ZZZZZZ	6722	161070	21621	10486
22:45	ZZZZZZ	6741	159710	21901	10535
22:48	ZZZZZZ	6741	161770	21709	10523
22:51	ZZZZZZ	6838	161670	21955	10602
22:54	MA44386-CCV13	6766	157340	21946	10166
22:57	MA44386-CCB14	6874	162150	21964	10657
23:00	MA44386-CRI2	6897	162670	21844	10628
23:03	MA44386-CRID2	6975	162820	22436	10816
23:07	MA44386-ICSA2	6313	146590	21196	9363
23:10	MA44386-ICSAB2	6323	147400	21259	9415
23:13	MA44386-CCV14	6738	158110	21902	10187
23:16	MA44386-CCB15	6957	163740	22027	10817
23:19	ZZZZZZ	6945	162980	22216	10793
23:24	ZZZZZZ	6698	158380	21488	10479
23:27	ZZZZZZ	6761	160840	21470	10556
23:30	ZZZZZZ	6731	158240	21536	10501
23:34	ZZZZZZ	6759	159860	21830	10553
23:37	ZZZZZZ	6704	159030	21688	10521
23:40	ZZZZZZ	6364	150910	20813	9614

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
23:43	ZZZZZZ	6347	999999 !	21068	9671
23:46	ZZZZZZ	6780	151610	21685	9944
23:52	ZZZZZZ	6773	160720	21807	10657
23:55	ZZZZZZ	6331	152170	21273	9665
23:58	MA44386-CCV15	6604	155710	21520	10073
00:01	MA44386-CCB16	6787	161010	21912	10666
00:04	ZZZZZZ	6959	165970	22795	10981
00:07	ZZZZZZ	6779	161430	22298	10454
00:10	MP7057-S1	6681	160150	22407	10158
00:13	MP7057-S2	6677	160010	22657	10145
00:15	ZZZZZZ	6456	152940	21363	9778
00:19	ZZZZZZ	6948	166280	22546	10972
00:19	MP7059-MB1	6948	166280	22546	10972
00:22	ZZZZZZ	6732	160040	22285	10372
00:22	MP7059-B1	6732	160040	22285	10372
00:24	MP7059-S1	6896	999999 !a	22212	10392
00:27	MP7059-S2	6567	999999 !a	21907	9940
00:30	MA44386-CCV16	6572	155800	21818	10056
00:33	MA44386-CCB17	6742	159570	21679	10640
00:36	JC65577-1	6640	158660	22146	10149
00:39	MP7059-SD1	6680	158630	21682	10435
00:42	ZZZZZZ	6627	157140	22234	10063
00:45	MP7071-B1	6586	158390	21663	10176
00:48	MP7071-MB1	6810	163120	22179	10712
00:51	MP7071-S1	6624	162380	22720	10424
00:54	MP7071-S2	6603	161520	22703	10418
00:57	JC65783-1	6784	163880	22922	10700
01:00	MP7071-SD1	6799	162000	22100	10590
01:03	MA44386-CCV17	6588	156280	21518	10105
01:06	MA44386-CCB18	6740	161390	21635	10643
01:09	ZZZZZZ	6894	164930	22843	10578
01:12	ZZZZZZ	6698	163980	23080	10854
01:16	ZZZZZZ	6789	165840	23033	10686

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
01:19	ZZZZZZ	6929	166700	23250	10601
01:22	ZZZZZZ	6935	166870	23217	10506
01:25	ZZZZZZ	6892	165060	23083	10636
01:28	ZZZZZZ	6891	166800	23071	10545
01:31	ZZZZZZ	6454	158470	22331	9794
01:34	ZZZZZZ	6861	164560	23105	10414
01:37	MA44386-CCV18	6577	157450	21561	10065
01:40	MA44386-CCB19	6654	160100	21989	10489
01:43	ZZZZZZ	6904	166980	23677	10588
01:46	ZZZZZZ	6802	167430	23360	10767
01:49	ZZZZZZ	6967	167570	23391	10599
01:52	ZZZZZZ	6757	161490	22967	10446
01:55	ZZZZZZ	6763	163550	22850	10343
01:59	ZZZZZZ	6558	162430	23007	10140
02:02	ZZZZZZ	6926	167850	23745	10568
02:05	ZZZZZZ	6801	166530	23437	10773
02:08	ZZZZZZ	6944	166960	23180	10610
02:11	ZZZZZZ	6716	165020	23160	10765
02:14	MA44386-CCV19	6612	157360	21508	10114
02:17	MA44386-CCB20	6776	161850	22098	10677
02:20	MP7086-B1	6626	158790	21616	10198
02:23	MP7086-MB1	6810	164060	22099	10681
02:26	MP7086-S1	No results reported for the elements associated with this internal standard.			
02:29	MP7086-S2	No results reported for the elements associated with this internal standard.			
02:32	JC65784-11	No results reported for the elements associated with this internal standard.			
02:35	MP7086-SD1	No results reported for the elements associated with this internal standard.			
02:38	ZZZZZZ	6961	166540	23111	10644
02:41	ZZZZZZ	6933	165730	22865	10608
02:44	ZZZZZZ	6889	165700	23026	10370
02:48	MA44386-CCV20	6595	157470	21503	10115
02:50	MA44386-CCB21	6788	161910	21934	10693
02:53	ZZZZZZ	6945	166180	23247	10399
02:57	ZZZZZZ	6925	999999 !	23058	10489

INTERNAL STANDARD SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
 Analyst: ND Run ID: MA44386
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
03:00	ZZZZZZ	6901	164210	22721	10501
03:03	ZZZZZZ	6950	164130	23020	10513
03:06	ZZZZZZ	7021	168830	23822	10578
03:09	ZZZZZZ	7069	166490	23627	10568
03:12	ZZZZZZ	7081	169960	23821	10544
03:15	ZZZZZZ	7011	169360	23375	10495
06:01	MA44386-CCV21	6685	158050	21634	10209
06:06	MA44386-CCB22	6868	163110	21667	10798
06:09	MA44386-CRI3	6847	163330	21651	10711
06:14	MA44386-CRID3	6900	162570	22045	10815
06:18	MA44386-CCV22	6694	158120	21372	10198
06:31	MA44386-CCB23	6972	162810	21742	10930

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

LEGEND:

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

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP
QC Limits: result < RL

Date Analyzed: 05/11/18
Run ID: MA44386

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	RL	IDL	15:30 ICB1 raw	final	15:45 CCB1 raw	final	16:19 CCB2 raw	final	16:51 CCB3 raw	final
Metal										
Aluminum	200	19	-3.00	<200	-1.70	<200	5.30	<200	-7.30	<200
Antimony	6.0	2.4	1.30	<6.0	0.100	<6.0	0.500	<6.0	-1.00	<6.0
Arsenic	3.0	1.2	-0.200	<3.0	1.10	<3.0	0.00	<3.0	0.500	<3.0
Barium	200	.6	0.400	<200	0.400	<200	0.00	<200	0.100	<200
Beryllium	1.0	.2	0.100	<1.0	0.00	<1.0	0.100	<1.0	0.300	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	-0.100	<3.0	-0.300	<3.0	-0.100	<3.0	-0.200	<3.0
Calcium	5000	5.5	1.80	<5000	1.60	<5000	3.00	<5000	-1.40	<5000
Chromium	10	.7	-0.800	<10	-0.300	<10	-0.400	<10	-0.400	<10
Cobalt	50	.4	-0.100	<50	0.00	<50	-0.100	<50	-0.200	<50
Copper	10	1.1	-0.200	<10	-0.900	<10	0.00	<10	-0.600	<10
Iron	100	3.5	2.00	<100	1.70	<100	1.80	<100	3.20	<100
Lead	3.0	2.2	0.300	<3.0	-0.600	<3.0	0.300	<3.0	-1.10	<3.0
Lithium	50	3.4								
Magnesium	5000	25	5.40	<5000	-1.00	<5000	12.1	<5000	14.6	<5000
Manganese	15	.14	0.100	<15	0.100	<15	0.100	<15	0.100	<15
Molybdenum	20	.4								
Nickel	10	.5	0.00	<10	0.00	<10	0.500	<10	0.400	<10
Phosphorus	50	2								
Potassium	10000	60	-60.7	<10000	-47.5	<10000	-9.40	<10000	3.80	<10000
Selenium	10	3.7	-0.300	<10	-0.400	<10	0.500	<10	1.60	<10
Silicon	200	1.8								
Silver	10	.7	-0.300	<10	-0.100	<10	0.100	<10	-0.100	<10
Sodium	10000	35	-15.4	<10000	-14.5	<10000	-0.900	<10000	-16.1	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	-0.800	<2.0	0.600	<2.0	0.200	<2.0	0.500	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.100	<50	0.300	<50	0.00	<50	0.00	<50
Zinc	20	.2	0.300	<20	0.300	<20	0.100	<20	0.00	<20

14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44386 Units: ug/l

Time: Sample ID:			15:30 ICB1		15:45 CCB1		16:19 CCB2		16:51 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP
QC Limits: result < RL

Date Analyzed: 05/11/18
Run ID: MA44386

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:			17:24 CCB4		17:57 CCB5		18:31 CCB6		19:03 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	-1.50	<200	6.20	<200	5.30	<200	6.30	<200
Antimony	6.0	2.4	-0.600	<6.0	-0.700	<6.0	0.600	<6.0	-0.200	<6.0
Arsenic	3.0	1.2	0.900	<3.0	0.100	<3.0	0.900	<3.0	-0.700	<3.0
Barium	200	.6	0.500	<200	0.600	<200	0.600	<200	0.700	<200
Beryllium	1.0	.2	0.100	<1.0	0.200	<1.0	0.100	<1.0	0.200	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	-0.300	<3.0	-0.300	<3.0	-0.200	<3.0	0.00	<3.0
Calcium	5000	5.5	2.10	<5000	1.00	<5000	0.400	<5000	2.80	<5000
Chromium	10	.7	-0.400	<10	-0.400	<10	-0.400	<10	-0.400	<10
Cobalt	50	.4	0.00	<50	0.00	<50	0.00	<50	0.100	<50
Copper	10	1.1	-0.400	<10	0.200	<10	-0.400	<10	0.00	<10
Iron	100	3.5	3.70	<100	4.00	<100	3.10	<100	5.40	<100
Lead	3.0	2.2	0.500	<3.0	0.100	<3.0	1.20	<3.0	-1.10	<3.0
Lithium	50	3.4								
Magnesium	5000	25	1.90	<5000	6.50	<5000	3.10	<5000	0.00	<5000
Manganese	15	.14	0.100	<15	0.100	<15	0.100	<15	0.100	<15
Molybdenum	20	.4								
Nickel	10	.5	0.100	<10	0.300	<10	0.100	<10	0.200	<10
Phosphorus	50	2								
Potassium	10000	60	-42.3	<10000	-39.3	<10000	-10.5	<10000	-37.9	<10000
Selenium	10	3.7	-0.900	<10	0.100	<10	-0.700	<10	1.30	<10
Silicon	200	1.8								
Silver	10	.7	0.200	<10	-0.100	<10	0.100	<10	-0.300	<10
Sodium	10000	35	-17.6	<10000	-20.3	<10000	-27.2	<10000	-35.2	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	0.300	<2.0	-0.300	<2.0	1.20	<2.0	1.00	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.200	<50	-0.100	<50	-0.100	<50	-0.100	<50
Zinc	20	.2	0.200	<20	0.200	<20	0.200	<20	0.200	<20

14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44386 Units: ug/l

Time: Sample ID:			17:24 CCB4		17:57 CCB5		18:31 CCB6		19:03 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.4.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP
QC Limits: result < RL

Date Analyzed: 05/11/18
Run ID: MA44386

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	RL	IDL	19:36 CCB8 raw	final	20:09 CCB9 raw	final	20:45 CCB10 raw	final	21:17 CCB11 raw	final
Metal										
Aluminum	200	19	2.40	<200	9.90	<200	1.30	<200	6.40	<200
Antimony	6.0	2.4	1.00	<6.0	-0.100	<6.0	0.300	<6.0	-0.900	<6.0
Arsenic	3.0	1.2	0.100	<3.0	-0.200	<3.0	0.700	<3.0	-0.100	<3.0
Barium	200	.6	0.600	<200	0.400	<200	0.500	<200	0.200	<200
Beryllium	1.0	.2	0.100	<1.0	0.100	<1.0	0.200	<1.0	0.200	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	-0.200	<3.0	-0.300	<3.0	0.00	<3.0	-0.100	<3.0
Calcium	5000	5.5	0.700	<5000	-0.900	<5000	3.30	<5000	2.90	<5000
Chromium	10	.7	-0.600	<10	-0.300	<10	-0.100	<10	-0.400	<10
Cobalt	50	.4	-0.200	<50	0.00	<50	-0.100	<50	0.00	<50
Copper	10	1.1	-0.300	<10	-0.100	<10	0.00	<10	-0.800	<10
Iron	100	3.5	3.20	<100	3.50	<100	2.60	<100	4.40	<100
Lead	3.0	2.2	-0.100	<3.0	1.50	<3.0	-0.300	<3.0	-0.100	<3.0
Lithium	50	3.4								
Magnesium	5000	25	-3.70	<5000	13.9	<5000	8.30	<5000	-0.200	<5000
Manganese	15	.14	0.100	<15	0.100	<15	0.100	<15	0.00	<15
Molybdenum	20	.4								
Nickel	10	.5	0.200	<10	0.100	<10	0.400	<10	0.400	<10
Phosphorus	50	2								
Potassium	10000	60	-39.6	<10000	-17.9	<10000	-68.8	<10000	-23.2	<10000
Selenium	10	3.7	0.100	<10	-1.20	<10	0.500	<10	0.700	<10
Silicon	200	1.8								
Silver	10	.7	-0.400	<10	-0.100	<10	-0.800	<10	-0.300	<10
Sodium	10000	35	-24.2	<10000	-15.3	<10000	-12.1	<10000	-26.3	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	-0.100	<2.0	-0.800	<2.0	-0.500	<2.0	1.40	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.100	<50	0.100	<50	0.300	<50	0.400	<50
Zinc	20	.2	0.100	<20	0.200	<20	0.300	<20	0.200	<20

14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44386 Units: ug/l

Time: Sample ID:			19:36 CCB8		20:09 CCB9		20:45 CCB10		21:17 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.4.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP
QC Limits: result < RL

Date Analyzed: 05/11/18
Run ID: MA44386

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	RL	IDL	21:51 CCB12 raw	final	22:24 CCB13 raw	final	22:57 CCB14 raw	final	23:16 CCB15 raw	final
Metal										
Aluminum	200	19	-5.80	<200	-2.70	<200	-4.20	<200	0.200	<200
Antimony	6.0	2.4	-0.100	<6.0	0.400	<6.0	-0.500	<6.0	1.80	<6.0
Arsenic	3.0	1.2	-0.400	<3.0	-0.700	<3.0	0.600	<3.0	-0.500	<3.0
Barium	200	.6	0.300	<200	0.100	<200	0.300	<200	-0.200	<200
Beryllium	1.0	.2	0.200	<1.0	0.100	<1.0	0.200	<1.0	0.200	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	-0.100	<3.0	-0.100	<3.0	0.100	<3.0	-0.100	<3.0
Calcium	5000	5.5	2.00	<5000	2.90	<5000	5.30	<5000	3.10	<5000
Chromium	10	.7	-0.300	<10	-0.200	<10	-0.300	<10	-0.400	<10
Cobalt	50	.4	-0.100	<50	-0.100	<50	0.00	<50	-0.300	<50
Copper	10	1.1	-0.300	<10	0.00	<10	-0.100	<10	-0.100	<10
Iron	100	3.5	3.30	<100	3.50	<100	4.00	<100	4.80	<100
Lead	3.0	2.2	0.400	<3.0	0.300	<3.0	1.00	<3.0	0.300	<3.0
Lithium	50	3.4								
Magnesium	5000	25	2.80	<5000	8.50	<5000	24.7	<5000	5.80	<5000
Manganese	15	.14	0.100	<15	0.00	<15	0.100	<15	0.100	<15
Molybdenum	20	.4								
Nickel	10	.5	0.300	<10	0.200	<10	0.300	<10	0.00	<10
Phosphorus	50	2								
Potassium	10000	60	-6.10	<10000	-21.5	<10000	-33.6	<10000	-59.8	<10000
Selenium	10	3.7	0.300	<10	1.00	<10	-0.700	<10	-0.700	<10
Silicon	200	1.8								
Silver	10	.7	0.100	<10	0.100	<10	0.00	<10	0.100	<10
Sodium	10000	35	-17.4	<10000	2.50	<10000	-12.6	<10000	-4.50	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	1.00	<2.0	0.00	<2.0	-0.900	<2.0	-0.800	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	-0.100	<50	0.200	<50	0.100	<50	-0.200	<50
Zinc	20	.2	9.30	<20	9.30	<20	9.50	<20	0.200	<20

14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44386 Units: ug/l

Time: Sample ID:			21:51 CCB12		22:24 CCB13		22:57 CCB14		23:16 CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.4.2
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CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time: Sample ID: ICCV	15:36 ICCV1		
Metal	True	Results	% Rec
Aluminum	40000	39900	99.8
Antimony	2000	2030	101.5
Arsenic	2000	2020	101.0
Barium	2000	2020	101.0
Beryllium	2000	2040	102.0
Bismuth			
Boron			
Cadmium	2000	2010	100.5
Calcium	40000	40500	101.3
Chromium	2000	2070	103.5
Cobalt	2000	2040	102.0
Copper	2000	2030	101.5
Iron	40000	40400	101.0
Lead	2000	2050	102.5
Lithium			
Magnesium	40000	40600	101.5
Manganese	2000	2140	107.0*(a
Molybdenum			
Nickel	2000	2050	102.5
Phosphorus			
Potassium	40000	40400	101.0
Selenium	2000	2010	100.5
Silicon			
Silver	250	255	102.0
Sodium	40000	40500	101.3
Strontium			
Sulfur	anr		
Thallium	2000	2050	102.5
Tin			
Titanium			
Tungsten			
Vanadium	2000	2070	103.5
Zinc	2000	2050	102.5

14.4.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time:	15:36
Sample ID:	ICCV ICCV1
Metal	True Results % Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested
(a) Within 90 to 110 percent limits required for SW846 6010. No EPA 200.7 samples reported for this element in the area bracketed by this QC.

14.4.3
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time: Sample ID:	ICV	15:23 ICV1		CCV	16:16 CCV1		CCV	16:48 CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40000	100.0	40000	39200	98.0	40000	39300	98.3
Antimony	2000	2050	102.5	2000	1990	99.5	2000	1990	99.5
Arsenic	2000	2050	102.5	2000	1990	99.5	2000	1990	99.5
Barium	2000	2030	101.5	2000	2000	100.0	2000	2010	100.5
Beryllium	2000	2050	102.5	2000	2020	101.0	2000	2020	101.0
Bismuth									
Boron									
Cadmium	2000	2030	101.5	2000	1970	98.5	2000	1970	98.5
Calcium	40000	40400	101.0	40000	39900	99.8	40000	40000	100.0
Chromium	2000	2050	102.5	2000	2000	100.0	2000	2020	101.0
Cobalt	2000	2070	103.5	2000	2010	100.5	2000	2010	100.5
Copper	2000	2020	101.0	2000	1950	97.5	2000	1970	98.5
Iron	40000	40100	100.3	40000	39800	99.5	40000	39800	99.5
Lead	2000	2070	103.5	2000	2020	101.0	2000	2020	101.0
Lithium									
Magnesium	40000	40600	101.5	40000	40200	100.5	40000	40400	101.0
Manganese	2000	2120	106.0*(a	2000	2070	103.5	2000	2080	104.0
Molybdenum									
Nickel	2000	2060	103.0	2000	2020	101.0	2000	2020	101.0
Phosphorus									
Potassium	40000	40600	101.5	40000	39800	99.5	40000	40000	100.0
Selenium	2000	2050	102.5	2000	1980	99.0	2000	1980	99.0
Silicon									
Silver	250	256	102.4	250	245	98.0	250	248	99.2
Sodium	40000	41000	102.5	40000	39900	99.8	40000	40100	100.3
Strontium									
Sulfur	anr								
Thallium	2000	2070	103.5	2000	2020	101.0	2000	2020	101.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	2050	102.5	2000	2000	100.0	2000	2020	101.0
Zinc	2000	2070	103.5	2000	2020	101.0	2000	2020	101.0

14.4.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time:		15:23			16:16			16:48		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

(*) Outside of QC limits

(anr) Analyte not requested

(a) Within 90 to 110 percent limits required for SW846 6010. No EPA 200.7 samples reported for this element in the area bracketed by this QC.

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time: Sample ID:	CCV	17:21 CCV3 Results	% Rec	CCV	17:54 CCV4 Results	% Rec	CCV	18:28 CCV5 Results	% Rec
Metal	True			True			True		
Aluminum	40000	38500	96.3	40000	38800	97.0	40000	38800	97.0
Antimony	2000	1950	97.5	2000	1990	99.5	2000	1970	98.5
Arsenic	2000	1950	97.5	2000	1990	99.5	2000	1970	98.5
Barium	2000	1960	98.0	2000	1980	99.0	2000	1990	99.5
Beryllium	2000	1980	99.0	2000	1990	99.5	2000	2000	100.0
Bismuth									
Boron									
Cadmium	2000	1940	97.0	2000	1970	98.5	2000	1960	98.0
Calcium	40000	39100	97.8	40000	39400	98.5	40000	39400	98.5
Chromium	2000	1990	99.5	2000	2010	100.5	2000	1990	99.5
Cobalt	2000	1980	99.0	2000	2000	100.0	2000	2000	100.0
Copper	2000	1930	96.5	2000	1950	97.5	2000	1930	96.5
Iron	40000	39000	97.5	40000	39200	98.0	40000	39100	97.8
Lead	2000	1990	99.5	2000	2010	100.5	2000	2010	100.5
Lithium									
Magnesium	40000	39400	98.5	40000	39700	99.3	40000	39700	99.3
Manganese	2000	2050	102.5	2000	2080	104.0	2000	2060	103.0
Molybdenum									
Nickel	2000	1990	99.5	2000	2010	100.5	2000	2010	100.5
Phosphorus									
Potassium	40000	38800	97.0	40000	39500	98.8	40000	40000	100.0
Selenium	2000	1940	97.0	2000	1980	99.0	2000	1960	98.0
Silicon									
Silver	250	242	96.8	250	246	98.4	250	244	97.6
Sodium	40000	39000	97.5	40000	39500	98.8	40000	39800	99.5
Strontium									
Sulfur	anr								
Thallium	2000	1980	99.0	2000	2020	101.0	2000	2000	100.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1980	99.0	2000	2000	100.0	2000	1980	99.0
Zinc	2000	1990	99.5	2000	2020	101.0	2000	2010	100.5

14.4.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time:		17:21			17:54			18:28		
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time: Sample ID: Metal	CCV True	19:00 CCV6 Results	% Rec	CCV True	19:33 CCV7 Results	% Rec	CCV True	20:06 CCV8 Results	% Rec
Aluminum	40000	39300	98.3	40000	39500	98.8	40000	39300	98.3
Antimony	2000	1980	99.0	2000	1970	98.5	2000	1960	98.0
Arsenic	2000	1980	99.0	2000	1970	98.5	2000	1960	98.0
Barium	2000	2000	100.0	2000	1990	99.5	2000	1990	99.5
Beryllium	2000	2010	100.5	2000	1990	99.5	2000	2000	100.0
Bismuth									
Boron									
Cadmium	2000	1970	98.5	2000	1960	98.0	2000	1950	97.5
Calcium	40000	39800	99.5	40000	40000	100.0	40000	39700	99.3
Chromium	2000	2010	100.5	2000	2020	101.0	2000	2000	100.0
Cobalt	2000	2000	100.0	2000	1990	99.5	2000	1990	99.5
Copper	2000	1950	97.5	2000	1950	97.5	2000	1940	97.0
Iron	40000	39600	99.0	40000	39700	99.3	40000	39500	98.8
Lead	2000	2010	100.5	2000	2000	100.0	2000	2000	100.0
Lithium									
Magnesium	40000	40200	100.5	40000	40100	100.3	40000	40100	100.3
Manganese	2000	2070	103.5	2000	2060	103.0	2000	2060	103.0
Molybdenum									
Nickel	2000	2010	100.5	2000	2000	100.0	2000	2000	100.0
Phosphorus									
Potassium	40000	39800	99.5	40000	39500	98.8	40000	39500	98.8
Selenium	2000	1970	98.5	2000	1960	98.0	2000	1950	97.5
Silicon									
Silver	250	246	98.4	250	245	98.0	250	243	97.2
Sodium	40000	39800	99.5	40000	39600	99.0	40000	39700	99.3
Strontium									
Sulfur	anr								
Thallium	2000	2010	100.5	2000	2000	100.0	2000	1990	99.5
Tin									
Titanium									
Tungsten									
Vanadium	2000	2000	100.0	2000	2000	100.0	2000	1990	99.5
Zinc	2000	2020	101.0	2000	2010	100.5	2000	2010	100.5

14.4.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time:		19:00			19:33			20:06		
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time: Sample ID:	CCV	20:42 CCV9		CCV	21:15 CCV10		CCV	21:48 CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38600	96.5	40000	38700	96.8	40000	38700	96.8
Antimony	2000	1940	97.0	2000	1970	98.5	2000	1920	96.0
Arsenic	2000	1940	97.0	2000	1970	98.5	2000	1920	96.0
Barium	2000	1960	98.0	2000	1960	98.0	2000	1960	98.0
Beryllium	2000	1970	98.5	2000	1960	98.0	2000	1970	98.5
Bismuth									
Boron									
Cadmium	2000	1930	96.5	2000	1960	98.0	2000	1910	95.5
Calcium	40000	39000	97.5	40000	39200	98.0	40000	39100	97.8
Chromium	2000	1980	99.0	2000	2010	100.5	2000	1980	99.0
Cobalt	2000	1960	98.0	2000	2000	100.0	2000	1940	97.0
Copper	2000	1910	95.5	2000	1940	97.0	2000	1900	95.0
Iron	40000	38800	97.0	40000	38800	97.0	40000	38900	97.3
Lead	2000	1970	98.5	2000	2000	100.0	2000	1950	97.5
Lithium									
Magnesium	40000	39300	98.3	40000	39400	98.5	40000	39500	98.8
Manganese	2000	2040	102.0	2000	2060	103.0	2000	2030	101.5
Molybdenum									
Nickel	2000	1970	98.5	2000	2000	100.0	2000	1950	97.5
Phosphorus									
Potassium	40000	38700	96.8	40000	38900	97.3	40000	38800	97.0
Selenium	2000	1930	96.5	2000	1960	98.0	2000	1900	95.0
Silicon									
Silver	250	240	96.0	250	245	98.0	250	240	96.0
Sodium	40000	38900	97.3	40000	39100	97.8	40000	39000	97.5
Strontium									
Sulfur	anr								
Thallium	2000	1970	98.5	2000	1990	99.5	2000	1930	96.5
Tin									
Titanium									
Tungsten									
Vanadium	2000	1960	98.0	2000	1990	99.5	2000	1950	97.5
Zinc	2000	1980	99.0	2000	2020	101.0	2000	1970	98.5

14.4.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time:		20:42		21:15		21:48			
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time: Sample ID:	CCV	22:21 CCV12		CCV	22:54 CCV13		CCV	23:13 CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38700	96.8	40000	37900	94.8	40000	39000	97.5
Antimony	2000	1940	97.0	2000	1930	96.5	2000	1970	98.5
Arsenic	2000	1940	97.0	2000	1930	96.5	2000	1970	98.5
Barium	2000	1970	98.5	2000	1940	97.0	2000	1990	99.5
Beryllium	2000	1980	99.0	2000	1950	97.5	2000	2000	100.0
Bismuth									
Boron									
Cadmium	2000	1940	97.0	2000	1910	95.5	2000	1970	98.5
Calcium	40000	39000	97.5	40000	38100	95.3	40000	39100	97.8
Chromium	2000	1990	99.5	2000	1960	98.0	2000	2000	100.0
Cobalt	2000	1970	98.5	2000	1960	98.0	2000	1990	99.5
Copper	2000	1920	96.0	2000	1890	94.5	2000	1940	97.0
Iron	40000	38900	97.3	40000	38100	95.3	40000	39100	97.8
Lead	2000	1980	99.0	2000	1950	97.5	2000	2000	100.0
Lithium									
Magnesium	40000	39300	98.3	40000	38500	96.3	40000	39400	98.5
Manganese	2000	2060	103.0	2000	2030	101.5	2000	2080	104.0
Molybdenum									
Nickel	2000	1970	98.5	2000	1950	97.5	2000	1990	99.5
Phosphorus									
Potassium	40000	39100	97.8	40000	38300	95.8	40000	39700	99.3
Selenium	2000	1930	96.5	2000	1910	95.5	2000	1960	98.0
Silicon									
Silver	250	243	97.2	250	238	95.2	250	245	98.0
Sodium	40000	39100	97.8	40000	38300	95.8	40000	39500	98.8
Strontium									
Sulfur	anr								
Thallium	2000	1960	98.0	2000	1950	97.5	2000	1980	99.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1970	98.5	2000	1940	97.0	2000	1970	98.5
Zinc	2000	1990	99.5	2000	1970	98.5	2000	2030	101.5

14.4.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time:		22:21			22:54			23:13		
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

HIGH STANDARD CHECK SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP
 QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/11/18
 Run ID: MA44386

Methods: EPA 200.7, SW846 6010C
 Units: ug/l

Time: Sample ID:	HSTD	16:00 HSTD1	% Rec	HSTD	16:03 HSTD2	% Rec
Metal	True	Results		True	Results	
Aluminum				300000	293000	97.7
Antimony	5000	5140	102.8			
Arsenic	5000	5080	101.6			
Barium	5000	5180	103.6			
Beryllium	5000	5230	104.6			
Bismuth						
Boron						
Cadmium	5000	5130	102.6			
Calcium				150000	148000	98.7
Chromium	5000	5220	104.4			
Cobalt	5000	5190	103.8			
Copper	5000	5120	102.4			
Iron				150000	151000	100.7
Lead	5000	5240	104.8			
Lithium						
Magnesium				300000	299000	99.7
Manganese	5000	5250	105.0			
Molybdenum						
Nickel	5000	5220	104.4			
Phosphorus						
Potassium				150000	146000	97.3
Selenium	5000	5080	101.6			
Silicon						
Silver	625	648	103.7			
Sodium				150000	153000	102.0
Strontium						
Sulfur	anr					
Thallium	5000	5200	104.0			
Tin						
Titanium						
Tungsten						
Vanadium	5000	5140	102.8			
Zinc	5000	5330	106.6			

14.4.5
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HIGH STANDARD CHECK SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: 90 to 110 % Recovery Run ID: MA44386 Units: ug/l

Time:		16:00			16:03		
Sample ID:		HSTD	HSTD1	HSTD	HSTD2	HSTD	HSTD2
Metal		True	Results	% Rec	True	Results	% Rec

Zirconium

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44386 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	15:48 CRI1	% Rec	15:51 CRID1	% Rec	23:00 CRI2	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	202	101.0	116	116.0	200	100.0
Antimony	6.0	20	3.0	6.20	103.3			4.60	76.7
Arsenic	8.0	20	3.0	6.90	86.3	2.80	93.3	8.80	110.0
Barium	200		4.0	206	103.0	4.40	110.0	205	102.5
Beryllium	2.0		1.0	2.10	105.0	1.10	110.0	2.10	105.0
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	3.00	100.0	1.00	100.0	2.80	93.3
Calcium	5000	2000	1000	5250	105.0	1080	108.0	5120	102.4
Chromium	10		2.0	10.5	105.0	1.60	80.0	10.0	100.0
Cobalt	50		3.0	52.2	104.4	3.20	106.7	50.8	101.6
Copper	10		2.0	9.90	99.0			9.50	95.0
Iron	100	500		108	108.0			106	106.0
Lead	3.0	20	2.5	2.60	86.7			2.80	93.3
Lithium	50								
Magnesium	5000	2000	100	5330	106.6	117	117.0	5220	104.4
Manganese	15		3.0	16.8	112.0	3.50	116.7	16.4	109.3
Molybdenum	20								
Nickel	10		4.0	10.8	108.0	4.60	115.0	10.6	106.0
Phosphorus	50								
Potassium	5000		2000	5040	100.8	2040	102.0	5040	100.8
Selenium	10	20	5.0	12.0	120.0			9.40	94.0
Silicon	200								
Silver	5.0		2.0	5.20	104.0			5.60	112.0
Sodium	5000		1000	5200	104.0	1070	107.0	5140	102.8
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	8.90	89.0	2.90	145.0*(a	9.60	96.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	52.6	105.2	2.30	115.0	50.7	101.4
Zinc	20		10	21.4	107.0	11.4	114.0	21.9	109.5

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44386 Units: ug/l

Time:					15:48		15:51		23:00	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1		CRI2		
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec	

Zirconium 10

(*) Outside of QC limits
(anr) Analyte not requested
(a) No AQ samples reported for this element in the area bracketed by this QC.

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP
QC Limits: 70 to 130 % Recovery

Date Analyzed: 05/11/18
Run ID: MA44386

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID: Metal	CRI True	CRIA True	CRID True	23:03 CRID2 Results	% Rec
Aluminum	200	500	100	92.6	92.6
Antimony	6.0	20	3.0		
Arsenic	8.0	20	3.0	3.60	120.0
Barium	200		4.0	4.30	107.5
Beryllium	2.0		1.0	1.10	110.0
Bismuth	20				
Boron	100		10		
Cadmium	3.0		1.0	0.900	90.0
Calcium	5000	2000	1000	1040	104.0
Chromium	10		2.0	1.70	85.0
Cobalt	50		3.0	3.10	103.3
Copper	10		2.0		
Iron	100	500			
Lead	3.0	20	2.5		
Lithium	50				
Magnesium	5000	2000	100	91.0	91.0
Manganese	15		3.0	3.40	113.3
Molybdenum	20				
Nickel	10		4.0	3.90	97.5
Phosphorus	50				
Potassium	5000		2000	2020	101.0
Selenium	10	20	5.0	5.10	102.0
Silicon	200				
Silver	5.0		2.0		
Sodium	5000		1000	1030	103.0
Strontium	10				
Sulfur	50				
Thallium	10		2.0	2.90	145.0*(a
Tin	10				
Titanium	10				
Tungsten	50				
Vanadium	50		2.0	2.20	110.0
Zinc	20		10	11.6	116.0

14.4.6
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44386 Units: ug/l

Time:					23:03
Sample ID:	CRI	CRIA	CRID	CRID2	
Metal	True	True	True	Results	% Rec

Zirconium 10

(*) Outside of QC limits
(anr) Analyte not requested
(a) No AQ samples reported for this element in the area bracketed by this QC.

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44386 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	15:54 ICSA1 Results	% Rec	15:57 ICSAB1 Results	% Rec	23:07 ICSA2 Results	% Rec	23:10 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	518000	103.6	510000	102.0	503000	100.6	508000	101.6
Antimony		1000	-0.600		1030	103.0	-3.70		1010	101.0
Arsenic		1000	1.70		1060	106.0	1.50		1050	105.0
Barium		500	1.60		508	101.6	1.40		500	100.0
Beryllium		500	0.100		500	100.0	0.00		492	98.4
Bismuth		500	-4.80		507	101.4	-0.300		492	98.4
Boron		500	1.70		511	102.2	0.100		500	100.0
Cadmium		1000	0.500		1020	102.0	0.300		1010	101.0
Calcium	400000	400000	399000	99.8	392000	98.0	386000	96.5	386000	96.5
Chromium		500	-0.300		495	99.0	-0.300		484	96.8
Cobalt		500	0.200		498	99.6	0.100		490	98.0
Copper		500	2.50		512	102.4	1.00		496	99.2
Iron	200000	200000	198000	99.0	198000	99.0	192000	96.0	194000	97.0
Lead		1000	5.20		985	98.5	2.70		966	96.6
Lithium		500	1.90		522	104.4	3.80		507	101.4
Magnesium	500000	500000	514000	102.8	504000	100.8	495000	99.0	493000	98.6
Manganese		500	-0.300		519	103.8	-0.100		512	102.4
Molybdenum		500	0.300		487	97.4	0.500		475	95.0
Nickel		1000	0.00		984	98.4	0.00		959	95.9
Phosphorus		500	3.20		505	101.0	-2.00		498	99.6
Potassium			34.0		90.4		49.4		116	
Selenium		1000	-1.50		992	99.2	-3.80		977	97.7
Silicon		500	12.6		505	101.0	11.0		498	99.6
Silver		1000	1.40		972	97.2	3.40		952	95.2
Sodium			-17.7		-5.60		-20.8		2.30	
Strontium		500	-2.60		506	101.2	-2.90		498	99.6
Sulfur		500	-10.4		496	99.2	-15.3		495	99.0
Thallium		1000	-4.40*(a		985	98.5	-2.80		966	96.6
Tin		500	-3.20		473	94.6	-3.10		476	95.2
Titanium		500	-2.40		503	100.6	-2.40		489	97.8
Tungsten		500	5.00		484	96.8	2.30		474	94.8
Vanadium		500	0.200		505	101.0	0.700		489	97.8
Zinc		1000	5.20		967	96.7	5.20		967	96.7

14.4.7
14

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44386 Units: ug/l

Time:				15:54			15:57			23:07			23:10
Sample ID:	ICSAB	ICSAB	ICSAB	ICSAB1	% Rec	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec

Zirconium 500 -2.60 497 99.4 -2.70 488 97.6

(*) Outside of QC limits
(anr) Analyte not requested
(a) No AQ samples reported for this element in the area bracketed by this QC.

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:39	MA44393-STD1	1		STDA
12:43	MA44393-STD2	1		STDB
12:47	ZZZZZZ	1		
12:51	ZZZZZZ	1		
12:58	MA44393-ICV1	1		
13:10	MA44393-ICB1	1		
13:15	ZZZZZZ	1		
13:20	MA44393-ICCV1	1		
13:35	MA44393-CCB1	1		
13:40	MA44393-CRI1	1		
13:44	MA44393-CRID1	1		
13:49	MA44393-ICSA1	1		
13:53	MA44393-ICSAB1	1		
13:57	MA44393-HSTD1	1		
14:01	MA44393-HSTD2	1		
14:05	ZZZZZZ	1		
14:10	ZZZZZZ	1		
14:14	ZZZZZZ	1		
14:18	MA44393-CCV1	1		
14:22	MA44393-CCB2	1		
14:27	ZZZZZZ	1		
14:32	ZZZZZZ	1		
14:36	ZZZZZZ	25		
14:40	ZZZZZZ	1		
14:44	MP7120-MB1	1		
14:49	MP7120-MB2	1		
14:53	MP7120-MB2	1		
14:57	MP7120-B1	1		
15:01	MP7120-B2	1		
15:06	MA44393-CCV2	1		
15:10	MA44393-CCB3	1		
15:14	MP7120-S1	1		
15:18	MP7120-S2	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:22	JC65870-1A	1		(sample used for QC only; not part of login JC65663)
15:26	MP7120-SD1	5		
15:31	ZZZZZZ	1		
15:35	ZZZZZZ	1		
15:39	ZZZZZZ	5		
15:43	ZZZZZZ	1		
15:48	MA44393-CCV3	1		
15:52	MA44393-CCB4	1		
15:56	ZZZZZZ	1		
16:00	ZZZZZZ	1		
16:04	MP7070-S1	25		
16:09	MP7070-S2	25		
16:13	TD20701-1	25		(sample used for QC only; not part of login JC65663)
16:17	MP7070-SD1	125		
16:21	MP7070-PS1	1		
16:26	MP7070-PS1	5		
16:30	MP7070-PS1	25		
16:34	MA44393-CCV4	1		
16:38	MA44393-CCB5	1		
16:43	JC65663-1	5		%sol
16:47	JC65663-2	5		%sol
----->	Last reportable sample/prep for job JC65663			
16:52	MA44393-CRI2	1		
16:57	MA44393-CRID2	1		
17:01	MA44393-ICSA2	1		
17:05	MA44393-ICSAB2	1		
17:09	MA44393-CCV5	1		
17:13	MA44393-CCB6	1		
----->	Last reportable CCB for job JC65663			
17:18	ZZZZZZ	1		
17:22	ZZZZZZ	1		
17:26	ZZZZZZ	1		
17:31	ZZZZZZ	1		
17:35	ZZZZZZ	1		
17:39	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:44	ZZZZZZ	1		
17:48	ZZZZZZ	1		
17:52	ZZZZZZ	1		
17:56	MA44393-CCV6	1		
18:01	MA44393-CCB7	1		
18:05	ZZZZZZ	1		
18:09	ZZZZZZ	1		
18:14	ZZZZZZ	1		
18:18	ZZZZZZ	1		
18:22	ZZZZZZ	1		
18:27	ZZZZZZ	1		
18:31	ZZZZZZ	1		
18:36	ZZZZZZ	1		
18:40	MA44393-CCV7	1		
18:44	MA44393-CCB8	1		
18:48	MP7103-S1	10		
18:53	MP7103-S2	10		
18:57	JC65724-2	10		(sample used for QC only; not part of login JC65663)
19:01	MP7103-SD1	50		
19:05	ZZZZZZ	25		
19:10	ZZZZZZ	5		
19:14	ZZZZZZ	5		
19:18	ZZZZZZ	5		
19:23	ZZZZZZ	5		
19:27	ZZZZZZ	5		
19:31	MA44393-CCV8	1		
19:35	MA44393-CCB9	1		
19:40	ZZZZZZ	5		
19:44	ZZZZZZ	2		
19:48	ZZZZZZ	1		
19:53	ZZZZZZ	1		
19:57	ZZZZZZ	10		
20:01	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:05	ZZZZZZ	1		
20:09	ZZZZZZ	3		
20:14	ZZZZZZ	3		
20:18	ZZZZZZ	5		
20:22	MA44393-CCV9	1		
20:26	MA44393-CCB10	1		
20:31	ZZZZZZ	1		
20:35	ZZZZZZ	1		
20:39	ZZZZZZ	20		
20:43	ZZZZZZ	1		
20:48	ZZZZZZ	1		
20:52	ZZZZZZ	1		
20:56	ZZZZZZ	1		
21:00	ZZZZZZ	1		
21:04	ZZZZZZ	20		
21:09	ZZZZZZ	20		
21:13	MA44393-CCV10	1		
21:17	MA44393-CCB11	1		
21:22	ZZZZZZ	1		
21:26	ZZZZZZ	1		
21:30	MP7086-S1	3		wrong Df
21:34	MP7086-S2	3		wrong Df
21:38	JC65784-11	3		(sample used for QC only; not part of login JC65663)
21:42	MP7086-SD1	15		wrong Df
21:47	ZZZZZZ	5		
21:51	ZZZZZZ	2		
21:55	ZZZZZZ	3		
21:59	ZZZZZZ	2		
22:04	MA44393-CCV11	1		
22:08	MA44393-CCB12	1		
22:12	ZZZZZZ	5		
22:16	ZZZZZZ	3		
22:20	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:25	ZZZZZZ	5		
22:29	ZZZZZZ	3		
22:33	ZZZZZZ	3		
22:37	ZZZZZZ	3		
22:42	ZZZZZZ	1		
22:46	ZZZZZZ	1		
22:50	ZZZZZZ	1		
22:54	MA44393-CCV12	1		
22:58	MA44393-CCB13	1		
23:03	MA44393-CRI3	1		
23:07	MA44393-CRID3	1		
23:11	MA44393-ICSA3	1		
23:16	MA44393-ICSAB3	1		
23:20	MA44393-CCV13	1		
23:24	MA44393-CCB14	1		
23:28	ZZZZZZ	1		
23:32	ZZZZZZ	1		
23:37	ZZZZZZ	1		
23:41	ZZZZZZ	1		
23:45	ZZZZZZ	1		
23:50	ZZZZZZ	1		
23:54	ZZZZZZ	1		
23:58	MP7071-S1	1		
00:02	MP7071-S2	1		
00:06	MA44393-CCV14	1		
00:10	MA44393-CCB15	1		
00:15	JC65783-1	1		(sample used for QC only; not part of login JC65663)
00:19	MP7071-SD1	5		
00:23	MP7071-S1	2		Needs higher dilution for Ni
00:27	MP7071-S2	2		Needs higher dilution for Ni
00:31	JC65783-1	2		(sample used for QC only; not part of login JC65663)
00:36	MP7071-SD1	10		Needs higher dilution for Ni
00:40	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:44	ZZZZZZ	1		
00:49	ZZZZZZ	2		
00:53	ZZZZZZ	10		
00:57	MA44393-CCV15	1		
01:01	MA44393-CCB16	1		
01:06	ZZZZZZ	5		
01:10	ZZZZZZ	5		
01:14	ZZZZZZ	3		
01:18	ZZZZZZ	1		
01:22	ZZZZZZ	5		
01:27	ZZZZZZ	3		
01:31	ZZZZZZ	1		
01:35	ZZZZZZ	3		
01:39	ZZZZZZ	10		
01:44	ZZZZZZ	5		
01:48	MA44393-CCV16	1		
01:52	MA44393-CCB17	1		
01:56	ZZZZZZ	1		
02:01	ZZZZZZ	5		
02:05	ZZZZZZ	1		
02:09	ZZZZZZ	5		
02:13	ZZZZZZ	10		
02:18	ZZZZZZ	5		
02:22	ZZZZZZ	2		
02:26	ZZZZZZ	10		
02:30	ZZZZZZ	5		
02:34	ZZZZZZ	1		
02:39	MA44393-CCV17	1		
02:43	MA44393-CCB18	1		
02:47	ZZZZZZ	3		
02:51	ZZZZZZ	10		
02:56	ZZZZZZ	5		
03:00	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
03:04	ZZZZZZ	5		
03:08	ZZZZZZ	10		
03:13	ZZZZZZ	5		
03:17	ZZZZZZ	1		
03:21	ZZZZZZ	5		
03:25	ZZZZZZ	10		
03:30	MA44393-CCV18	1		
03:34	MA44393-CCB19	1		
03:38	MP7111-MB1	1		
03:43	MP7111-B1	1		
03:47	MP7111-S1	1		
03:51	MP7111-S2	1		
03:55	JC65750-3	1		(sample used for QC only; not part of login JC65663)
03:59	MP7111-SD1	5		
04:03	ZZZZZZ	1		
04:08	ZZZZZZ	1		
04:12	ZZZZZZ	1		
04:16	ZZZZZZ	1		
04:21	MA44393-CCV19	1		
04:25	MA44393-CCB20	1		
04:29	ZZZZZZ	1		
04:33	ZZZZZZ	1		
04:38	ZZZZZZ	1		
04:42	ZZZZZZ	1		
04:46	ZZZZZZ	1		
04:51	ZZZZZZ	1		
04:55	ZZZZZZ	1		
04:59	ZZZZZZ	1		
05:03	ZZZZZZ	1		
05:08	ZZZZZZ	1		
05:12	MA44393-CCV20	1		
05:16	MA44393-CCB21	1		
05:21	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
05:25	ZZZZZZ	1		
05:29	ZZZZZZ	1		
05:34	ZZZZZZ	1		
05:38	ZZZZZZ	1		
05:43	MA44393-CCV21	1		
05:47	MA44393-CCB22	1		
05:51	MA44393-CRI4	1		
05:55	MA44393-CRID4	1		
06:00	MA44393-CCV22	1		
06:04	MA44393-CCB23	1		
06:08	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:39	MA44393-STD1	3637 R	81495 R	5395 R	8907 R
12:43	MA44393-STD2	3389	75130	5262	7528
12:47	ZZZZZZ	3484	77885	5349	7886
12:51	ZZZZZZ	3615	81159	5363	8863
12:58	MA44393-ICV1	3473	76759	5281	7838
13:10	MA44393-ICB1	3618	81095	5352	8869
13:15	ZZZZZZ	4234	78120	5369	999999 !
13:20	MA44393-ICCV1	3508	77845	5338	7926
13:35	MA44393-CCB1	3637	81715	5390	8908
13:40	MA44393-CRI1	3582	80367	5322	8639
13:44	MA44393-CRID1	3645	81562	5380	8888
13:49	MA44393-ICSA1	3173	70507	5104	6788
13:53	MA44393-ICSAB1	3185	70783	5083	6817
13:57	MA44393-HSTD1	3558	79834	5364	8551
14:01	MA44393-HSTD2	3247	71993	5153	6944
14:05	ZZZZZZ	3518	79532	5316	8632
14:10	ZZZZZZ	3531	81276	5342	8808
14:14	ZZZZZZ	3610	81364	5346	8851
14:18	MA44393-CCV1	3454	76850	5285	7812
14:22	MA44393-CCB2	3587	80652	5284	8803
14:27	ZZZZZZ	3672	83358	5510	9135
14:32	ZZZZZZ	3528	79362	5469	8181
14:36	ZZZZZZ	3472	77512	5284	8113
14:40	ZZZZZZ	3646	82679	5547	9064
14:44	MP7120-MB1	3628	82304	5505	8996
14:49	MP7120-MB2	3580	80916	5339	8786
14:53	MP7120-MB2	3589	80734	5278	8799
14:57	MP7120-B1	3540	79450	5441	8193
15:01	MP7120-B2	3507	79142	5408	8125
15:06	MA44393-CCV2	3428	76441	5265	7757
15:10	MA44393-CCB3	3580	80442	5308	8778
15:14	MP7120-S1	3420	77194	5386	7729
15:18	MP7120-S2	3411	77114	5345	7703

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:22	JC65870-1A	3473	78258	5377	8047
15:26	MP7120-SD1	3552	80095	5325	8516
15:31	ZZZZZZ	3347	75055	5208	7528
15:35	ZZZZZZ	3402	75864	5262	7582
15:39	ZZZZZZ	3383	75753	5232	7652
15:43	ZZZZZZ	3585	80754	5430	8024
15:48	MA44393-CCV3	3456	76750	5226	7799
15:52	MA44393-CCB4	3604	81009	5252	8831
15:56	ZZZZZZ	3574	80973	5323	8763
16:00	ZZZZZZ	3490	78223	5253	8014
16:04	MP7070-S1	3560	80188	5297	8651
16:09	MP7070-S2	3542	79936	5294	8613
16:13	TD20701-1	3549	80144	5270	8653
16:17	MP7070-SD1	3611	81452	5303	8797
16:21	MP7070-PS1	2737	64579	4849	8244
16:26	MP7070-PS1	3343	76333	5162	8335
16:30	MP7070-PS1	3554	80442	5294	8571
16:34	MA44393-CCV4	3458	77010	5215	7794
16:38	MA44393-CCB5	3596	81323	5224	8800
16:43	JC65663-1	3420	76811	5166	7613
16:47	JC65663-2	3432	76752	5185	7670
16:52	MA44393-CRI2	3556	79804	5209	8553
16:57	MA44393-CRID2	3598	81108	5265	8762
17:01	MA44393-ICSA2	3170	70402	4988	6767
17:05	MA44393-ICSAB2	3168	70753	4996	6767
17:09	MA44393-CCV5	3454	77010	5133	7792
17:13	MA44393-CCB6	3608	81532	5199	8831
17:18	ZZZZZZ	3488	78530	5290	8083
17:22	ZZZZZZ	3162	72163	5164	6998
17:26	ZZZZZZ	3618	81929	5396	8839
17:31	ZZZZZZ	3614	82129	5394	8813
17:35	ZZZZZZ	3635	82227	5411	8865
17:39	ZZZZZZ	3622	82276	5395	8833

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
17:44	ZZZZZZ	3602	81599	5352	8800
17:48	ZZZZZZ	3630	82033	5350	8840
17:52	ZZZZZZ	3630	82081	5323	9018
17:56	MA44393-CCV6	3430	76531	5083	7740
18:01	MA44393-CCB7	3597	81765	5179	8790
18:05	ZZZZZZ	3592	80863	5170	8761
18:09	ZZZZZZ	3596	81453	5210	8765
18:14	ZZZZZZ	3603	81479	5209	8839
18:18	ZZZZZZ	3629	81487	5216	8882
18:22	ZZZZZZ	3603	80985	5166	8790
18:27	ZZZZZZ	3726	77136	5319	7774
18:31	ZZZZZZ	3623	81438	5211	8832
18:36	ZZZZZZ	3246	73817	4988	7389
18:40	MA44393-CCV7	3460	77520	5110	7789
18:44	MA44393-CCB8	3615	81191	5177	8843
18:48	MP7103-S1	3436	76893	5108	7787
18:53	MP7103-S2	3452	77023	5115	7818
18:57	JC65724-2	3429	76544	5101	7828
19:01	MP7103-SD1	3551	79667	5187	8427
19:05	ZZZZZZ	3512	78819	5179	8219
19:10	ZZZZZZ	3371	75478	5091	7541
19:14	ZZZZZZ	3387	75169	5051	7580
19:18	ZZZZZZ	3381	75323	5052	7557
19:23	ZZZZZZ	3361	74757	5043	7495
19:27	ZZZZZZ	3367	74898	5031	7511
19:31	MA44393-CCV8	3468	77271	5083	7808
19:35	MA44393-CCB9	3612	81070	5119	8821
19:40	ZZZZZZ	3312	74221	5022	7364
19:44	ZZZZZZ	3390	76283	5103	7743
19:48	ZZZZZZ	3692	83278	5298	9127
19:53	ZZZZZZ	3555	80094	5231	8197
19:57	ZZZZZZ	3580	80001	5115	8577
20:01	ZZZZZZ	3585	81129	5148	8750

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:05	ZZZZZZ	3515	78076	5106	8050
20:09	ZZZZZZ	3492	78141	5084	8061
20:14	ZZZZZZ	3490	78046	5071	8097
20:18	ZZZZZZ	3121	69012	4882	6500
20:22	MA44393-CCV9	3477	76699	5012	7810
20:26	MA44393-CCB10	3626	81427	5079	8838
20:31	ZZZZZZ	3596	80705	5092	8764
20:35	ZZZZZZ	3489	77634	4983	7974
20:39	ZZZZZZ	3467	77771	5027	8035
20:43	ZZZZZZ	3608	80699	5085	8793
20:48	ZZZZZZ	3495	77257	4970	7979
20:52	ZZZZZZ	3677	81687	5293	8164
20:56	ZZZZZZ	3635	82015	5155	8861
21:00	ZZZZZZ	3539	79054	5126	8074
21:04	ZZZZZZ	3600	80966	5082	8696
21:09	ZZZZZZ	3598	80137	5053	8684
21:13	MA44393-CCV10	3501	77392	5028	7849
21:17	MA44393-CCB11	3659	81653	5078	8893
21:22	ZZZZZZ	3597	80480	5041	8718
21:26	ZZZZZZ	3498	77375	4980	7955
21:30	MP7086-S1	No results reported for the elements associated with this internal standard.			
21:34	MP7086-S2	No results reported for the elements associated with this internal standard.			
21:38	JC65784-11	No results reported for the elements associated with this internal standard.			
21:42	MP7086-SD1	No results reported for the elements associated with this internal standard.			
21:47	ZZZZZZ	3670	81304	5127	8537
21:51	ZZZZZZ	3642	81005	5207	8290
21:55	ZZZZZZ	3633	80941	5148	8292
21:59	ZZZZZZ	3649	80845	5212	8181
22:04	MA44393-CCV11	3514	77260	4996	7858
22:08	MA44393-CCB12	3658	81954	5050	8878
22:12	ZZZZZZ	3663	81241	5140	8510
22:16	ZZZZZZ	3651	80686	5158	8400
22:20	ZZZZZZ	3658	81124	5124	8488

INTERNAL STANDARD SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
 Analyst: GT Run ID: MA44393
 Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:25	ZZZZZZ	3679	82013	5146	8469
22:29	ZZZZZZ	3692	81594	5170	8372
22:33	ZZZZZZ	3689	82024	5215	8373
22:37	ZZZZZZ	3678	81765	5207	8378
22:42	ZZZZZZ	3684	82247	5342	7934
22:46	ZZZZZZ	3679	82075	5369	7859
22:50	ZZZZZZ	3635	80834	5311	7731
22:54	MA44393-CCV12	3509	77745	4986	7841
22:58	MA44393-CCB13	3660	81770	5041	8881
23:03	MA44393-CRI3	3604	79863	5003	8593
23:07	MA44393-CRID3	3643	80984	4980	8787
23:11	MA44393-ICSA3	3219	70811	4764	6795
23:16	MA44393-ICSAB3	3210	70752	4763	6782
23:20	MA44393-CCV13	3523	78146	4960	7861
23:24	MA44393-CCB14	3640	81119	4951	8820
23:28	ZZZZZZ	3410	76539	5106	7077
23:32	ZZZZZZ	3550	79742	5150	7527
23:37	ZZZZZZ	3744	83985	5411	8034
23:41	ZZZZZZ	3777	84103	5416	8040
23:45	ZZZZZZ	3643	82669	5284	8059
23:50	ZZZZZZ	3494	77410	4899	7930
23:54	ZZZZZZ	3636	81290	4986	8812
23:58	MP7071-S1	No results reported for the elements associated with this internal standard.			
00:02	MP7071-S2	No results reported for the elements associated with this internal standard.			
00:06	MA44393-CCV14	3502	77666	4947	7821
00:10	MA44393-CCB15	3659	81454	4994	8858
00:15	JC65783-1	No results reported for the elements associated with this internal standard.			
00:19	MP7071-SD1	No results reported for the elements associated with this internal standard.			
00:23	MP7071-S1	3552	79505	5062	8004
00:27	MP7071-S2	3557	79467	5063	8047
00:31	JC65783-1	3610	81088	5146	8305
00:36	MP7071-SD1	3662	81983	5045	8612
00:40	ZZZZZZ	3630	80980	5079	8231

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:44	ZZZZZZ	3529	80736	5177	8048
00:49	ZZZZZZ	3585	80651	5060	8246
00:53	ZZZZZZ	3664	81179	4995	8586
00:57	MA44393-CCV15	3491	77456	4873	7799
01:01	MA44393-CCB16	3644	81456	4968	8820
01:06	ZZZZZZ	3637	81060	5041	8423
01:10	ZZZZZZ	3660	81060	5058	8441
01:14	ZZZZZZ	3633	80864	5040	8299
01:18	ZZZZZZ	3597	81813	5254	7930
01:22	ZZZZZZ	3632	80723	5006	8410
01:27	ZZZZZZ	3630	81020	5063	8308
01:31	ZZZZZZ	3345	76548	5010	7116
01:35	ZZZZZZ	3467	78010	4949	7672
01:39	ZZZZZZ	3567	79545	4942	8220
01:44	ZZZZZZ	3589	80239	4975	8279
01:48	MA44393-CCV16	3489	76986	4885	7778
01:52	MA44393-CCB17	3633	81217	4890	8794
01:56	ZZZZZZ	3636	81980	5258	7974
02:01	ZZZZZZ	3651	81178	4997	8435
02:05	ZZZZZZ	3577	82110	5241	7986
02:09	ZZZZZZ	3622	80820	4990	8396
02:13	ZZZZZZ	3657	81364	4978	8533
02:18	ZZZZZZ	3647	80861	4981	8398
02:22	ZZZZZZ	3551	79555	5006	7987
02:26	ZZZZZZ	3631	80711	4942	8498
02:30	ZZZZZZ	3606	80187	4922	8340
02:34	ZZZZZZ	3392	78023	5094	7274
02:39	MA44393-CCV17	3480	77255	4859	7763
02:43	MA44393-CCB18	3623	80828	4909	8757
02:47	ZZZZZZ	3503	78716	4962	7801
02:51	ZZZZZZ	3583	79419	4903	8270
02:56	ZZZZZZ	3635	80826	4986	8365
03:00	ZZZZZZ	3571	82568	5285	7978

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
03:04	ZZZZZZ	3615	81024	4985	8380
03:08	ZZZZZZ	3656	81286	4948	8535
03:13	ZZZZZZ	3646	80774	4969	8388
03:17	ZZZZZZ	3526	81052	5121	7975
03:21	ZZZZZZ	3610	80780	4962	8413
03:25	ZZZZZZ	3642	81285	4950	8521
03:30	MA44393-CCV18	3464	76960	4850	7716
03:34	MA44393-CCB19	3620	81108	4894	8760
03:38	MP7111-MB1	3609	81095	4906	8735
03:43	MP7111-B1	3506	77996	4902	7969
03:47	MP7111-S1	3415	75716	4814	7570
03:51	MP7111-S2	3402	75796	4805	7535
03:55	JC65750-3	3421	76713	4846	7853
03:59	MP7111-SD1	3560	79800	4859	8456
04:03	ZZZZZZ	3348	75423	4842	7567
04:08	ZZZZZZ	3371	76426	4833	7810
04:12	ZZZZZZ	3372	76884	4821	7813
04:16	ZZZZZZ	3394	76739	4825	7822
04:21	MA44393-CCV19	3461	76840	4840	7732
04:25	MA44393-CCB20	3608	81038	4886	8737
04:29	ZZZZZZ	3366	78244	4827	7747
04:33	ZZZZZZ	3385	76717	4833	7830
04:38	ZZZZZZ	3423	77550	4829	7955
04:42	ZZZZZZ	3370	76068	4828	7817
04:46	ZZZZZZ	3446	77870	4845	8006
04:51	ZZZZZZ	3375	76126	4849	7668
04:55	ZZZZZZ	3458	78434	4894	8077
04:59	ZZZZZZ	3340	74556	4807	7410
05:03	ZZZZZZ	3395	75666	4824	7521
05:08	ZZZZZZ	3115	70181	4699	6811
05:12	MA44393-CCV20	3462	76921	4798	7727
05:16	MA44393-CCB21	3613	80989	4845	8756
05:21	ZZZZZZ	3317	74138	4762	7374

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
05:25	ZZZZZZ	3362	75157	4800	7480
05:29	ZZZZZZ	3115	70211	4724	6832
05:34	ZZZZZZ	3602	81581	4950	8740
05:38	ZZZZZZ	3278	73664	4774	7205
05:43	MA44393-CCV21	3453	76864	4789	7714
05:47	MA44393-CCB22	3613	80738	4828	8752
05:51	MA44393-CRI4	3554	79503	4834	8473
05:55	MA44393-CRID4	3587	80872	4888	8658
06:00	MA44393-CCV22	3464	77009	4797	7738
06:04	MA44393-CCB23	3603	81254	4846	8741
06:08	ZZZZZZ	12191 !	223240 !	10044 !	27606 !

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

LEGEND:

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP
QC Limits: result < RL

Date Analyzed: 05/13/18
Run ID: MA44393

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	RL	IDL	13:10 ICB1 raw	final	13:35 CCB1 raw	final	14:22 CCB2 raw	final	15:10 CCB3 raw	final
Metal										
Aluminum	200	34	anr							
Antimony	6.0	1.4	0.800	<6.0	0.300	<6.0	1.00	<6.0	0.700	<6.0
Arsenic	3.0	1.4	0.200	<3.0	0.500	<3.0	0.00	<3.0	0.300	<3.0
Barium	200	.5	0.400	<200	0.00	<200	0.200	<200	0.100	<200
Beryllium	1.0	.2	anr							
Bismuth	20	2.5								
Boron	100	1.9								
Cadmium	3.0	.3	0.200	<3.0	0.300	<3.0	0.200	<3.0	0.00	<3.0
Calcium	5000	8.7	2.30	<5000	0.800	<5000	3.60	<5000	0.800	<5000
Chromium	10	.6	0.300	<10	0.00	<10	0.200	<10	-0.200	<10
Cobalt	50	.5	-0.100	<50	0.00	<50	-0.100	<50	-0.400	<50
Copper	10	1.2	-0.100	<10	-0.200	<10	0.500	<10	0.800	<10
Iron	100	4.6	-6.00	<100	-7.60	<100	-9.30	<100	-8.30	<100
Lead	3.0	1.4	0.500	<3.0	0.200	<3.0	1.00	<3.0	0.300	<3.0
Lithium	50	2.8								
Magnesium	5000	33	anr							
Manganese	15	.1	0.100	<15	0.100	<15	0.100	<15	0.00	<15
Molybdenum	20	.4								
Nickel	10	.5	-0.100	<10	0.100	<10	0.100	<10	0.00	<10
Phosphorus	50	1.7								
Potassium	10000	68	anr							
Selenium	10	3.8	0.200	<10	-1.90	<10	-0.200	<10	-0.200	<10
Silicon	200	2.1								
Silver	10	.5	-0.100	<10	0.300	<10	0.400	<10	0.300	<10
Sodium	10000	15	anr							
Strontium	10	.2								
Sulfur	50	20	anr							
Thallium	2.0	1.6	-0.800	<2.0	-0.500	<2.0	-0.900	<2.0	-0.200	<2.0
Tin	10	1								
Titanium	10	.7								
Tungsten	50	1.8								
Vanadium	50	.4	-0.100	<50	-0.300	<50	-0.500	<50	0.00	<50
Zinc	20	.3	0.300	<20	0.300	<20	0.400	<20	0.300	<20

14.5.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44393 Units: ug/l

Time: Sample ID:			13:10 ICB1		13:35 CCB1		14:22 CCB2		15:10 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP
QC Limits: result < RL

Date Analyzed: 05/13/18
Run ID: MA44393

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:			15:52 CCB4		16:38 CCB5		17:13 CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	34	anr					
Antimony	6.0	1.4	2.40	<6.0	0.900	<6.0	0.500	<6.0
Arsenic	3.0	1.4	0.200	<3.0	1.30	<3.0	0.400	<3.0
Barium	200	.5	0.300	<200	0.300	<200	0.300	<200
Beryllium	1.0	.2	anr					
Bismuth	20	2.5						
Boron	100	1.9						
Cadmium	3.0	.3	0.100	<3.0	0.100	<3.0	0.300	<3.0
Calcium	5000	8.7	-0.300	<5000	4.80	<5000	7.10	<5000
Chromium	10	.6	0.00	<10	0.300	<10	0.500	<10
Cobalt	50	.5	-0.200	<50	-0.200	<50	0.100	<50
Copper	10	1.2	0.300	<10	-0.300	<10	-0.500	<10
Iron	100	4.6	-11.1	<100	-11.4	<100	6.00	<100
Lead	3.0	1.4	0.600	<3.0	1.40	<3.0	0.700	<3.0
Lithium	50	2.8						
Magnesium	5000	33	anr					
Manganese	15	.1	0.100	<15	0.200	<15	0.200	<15
Molybdenum	20	.4						
Nickel	10	.5	-0.200	<10	-0.100	<10	0.00	<10
Phosphorus	50	1.7						
Potassium	10000	68	anr					
Selenium	10	3.8	-0.600	<10	0.400	<10	0.400	<10
Silicon	200	2.1						
Silver	10	.5	0.00	<10	-0.100	<10	0.300	<10
Sodium	10000	15	anr					
Strontium	10	.2						
Sulfur	50	20	anr					
Thallium	2.0	1.6	0.00	<2.0	0.300	<2.0	0.200	<2.0
Tin	10	1						
Titanium	10	.7						
Tungsten	50	1.8						
Vanadium	50	.4	0.100	<50	-0.100	<50	-0.600	<50
Zinc	20	.3	0.300	<20	0.400	<20	0.400	<20

14.5.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

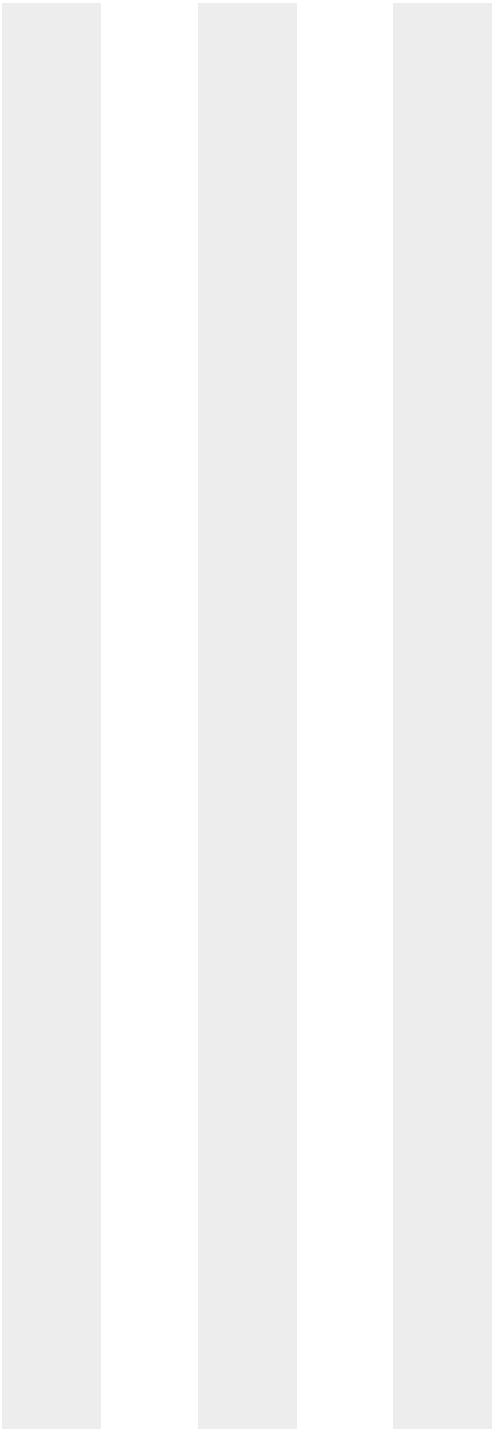
Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44393 Units: ug/l

Time: Sample ID:			15:52 CCB4		16:38 CCB5		17:13 CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final

Zirconium 10 .3

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



CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP
QC Limits: 95 to 105 % Recovery

Date Analyzed: 05/13/18
Run ID: MA44393

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID: ICCV		13:20 ICCV1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	2000	1980	99.0
Arsenic	2000	1960	98.0
Barium	2000	1980	99.0
Beryllium	anr		
Bismuth			
Boron			
Cadmium	2000	1980	99.0
Calcium	40000	39800	99.5
Chromium	2000	1990	99.5
Cobalt	2000	1960	98.0
Copper	2000	1950	97.5
Iron	40000	39800	99.5
Lead	2000	2000	100.0
Lithium			
Magnesium	anr		
Manganese	2000	2000	100.0
Molybdenum			
Nickel	2000	1980	99.0
Phosphorus			
Potassium	anr		
Selenium	2000	1970	98.5
Silicon			
Silver	250	245	98.0
Sodium	anr		
Strontium			
Sulfur	anr		
Thallium	2000	2040	102.0
Tin			
Titanium			
Tungsten			
Vanadium	2000	1970	98.5
Zinc	2000	2010	100.5

14.5.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44393 Units: ug/l

Time:		13:20	
Sample ID:		ICCV1	
Metal	True	Results	% Rec

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44393 Units: ug/l

Time: Sample ID:	ICV	12:58 ICV1		CCV	14:18 CCV1		CCV	15:06 CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	2000	2010	100.5	2000	2020	101.0	2000	2030	101.5
Arsenic	2000	1990	99.5	2000	2000	100.0	2000	2000	100.0
Barium	2000	2010	100.5	2000	2010	100.5	2000	2020	101.0
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	2000	100.0	2000	2010	100.5	2000	2020	101.0
Calcium	40000	40400	101.0	40000	40100	100.3	40000	40100	100.3
Chromium	2000	2020	101.0	2000	2020	101.0	2000	2020	101.0
Cobalt	2000	1980	99.0	2000	1990	99.5	2000	1990	99.5
Copper	2000	1970	98.5	2000	1980	99.0	2000	1990	99.5
Iron	40000	40600	101.5	40000	40100	100.3	40000	39900	99.8
Lead	2000	2030	101.5	2000	2030	101.5	2000	2030	101.5
Lithium									
Magnesium	anr								
Manganese	2000	2030	101.5	2000	2030	101.5	2000	2030	101.5
Molybdenum									
Nickel	2000	2010	100.5	2000	2020	101.0	2000	2010	100.5
Phosphorus									
Potassium	anr								
Selenium	2000	1990	99.5	2000	2000	100.0	2000	2010	100.5
Silicon									
Silver	250	248	99.2	250	249	99.6	250	249	99.6
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	2000	2070	103.5	2000	2060	103.0	2000	2060	103.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1990	99.5	2000	2000	100.0	2000	2000	100.0
Zinc	2000	2030	101.5	2000	2040	102.0	2000	2040	102.0

14.5.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44393 Units: ug/l

Time:		12:58			14:18			15:06		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44393 Units: ug/l

Time: Sample ID:	CCV	15:48 CCV3		CCV	16:34 CCV4		CCV	17:09 CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	2000	2020	101.0	2000	2030	101.5	2000	2030	101.5
Arsenic	2000	1990	99.5	2000	2000	100.0	2000	2000	100.0
Barium	2000	2030	101.5	2000	2040	102.0	2000	2040	102.0
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	2010	100.5	2000	2020	101.0	2000	2020	101.0
Calcium	40000	40000	100.0	40000	40000	100.0	40000	40100	100.3
Chromium	2000	2010	100.5	2000	2030	101.5	2000	2020	101.0
Cobalt	2000	1980	99.0	2000	1990	99.5	2000	1990	99.5
Copper	2000	1980	99.0	2000	2000	100.0	2000	2000	100.0
Iron	40000	39700	99.3	40000	39500	98.8	40000	39700	99.3
Lead	2000	2020	101.0	2000	2030	101.5	2000	2030	101.5
Lithium									
Magnesium	anr								
Manganese	2000	2020	101.0	2000	2030	101.5	2000	2030	101.5
Molybdenum									
Nickel	2000	2020	101.0	2000	2020	101.0	2000	2030	101.5
Phosphorus									
Potassium	anr								
Selenium	2000	2010	100.5	2000	2010	100.5	2000	2020	101.0
Silicon									
Silver	250	248	99.2	250	250	100.0	250	250	100.0
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	2000	2040	102.0	2000	2060	103.0	2000	2060	103.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	2000	100.0	2000	2010	100.5	2000	2010	100.5
Zinc	2000	2030	101.5	2000	2040	102.0	2000	2050	102.5

14.5.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44393 Units: ug/l

Time:		15:48		16:34		17:09			
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zirconium

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

HIGH STANDARD CHECK SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP
QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/13/18
Run ID: MA44393

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	HSTD	13:57 HSTD1	% Rec	HSTD	14:01 HSTD2	% Rec
Metal	True	Results		True	Results	
Aluminum						
Antimony	5000	5140	102.8			
Arsenic	5000	4990	99.8			
Barium	5000	5130	102.6			
Beryllium	anr					
Bismuth						
Boron						
Cadmium	5000	5070	101.4			
Calcium				150000	147000	98.0
Chromium	5000	5210	104.2			
Cobalt	5000	5020	100.4			
Copper	5000	5160	103.2			
Iron				150000	147000	98.0
Lead	5000	5100	102.0			
Lithium						
Magnesium						
Manganese	5000	5180	103.6			
Molybdenum						
Nickel	5000	5030	100.6			
Phosphorus						
Potassium						
Selenium	5000	5070	101.4			
Silicon						
Silver	625	640	102.4			
Sodium						
Strontium						
Sulfur	anr					
Thallium	5000	5330	106.6			
Tin						
Titanium						
Tungsten						
Vanadium	5000	5130	102.6			
Zinc	5000	5260	105.2			

HIGH STANDARD CHECK SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: 90 to 110 % Recovery Run ID: MA44393 Units: ug/l

Time:		13:57			14:01		
Sample ID:	HSTD	HSTD1		HSTD	HSTD2		
Metal	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP
QC Limits: 70 to 130 % Recovery

Date Analyzed: 05/13/18
Run ID: MA44393

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	13:40 CRI1	% Rec	13:44 CRID1	% Rec	16:52 CRI2	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	anr					
Antimony	6.0	20	3.0	6.50	108.3			6.80	113.3
Arsenic	8.0	20	3.0	9.80	122.5	3.50	116.7	9.60	120.0
Barium	200		4.0	211	105.5	4.60	115.0	215	107.5
Beryllium	2.0		1.0	anr					
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	3.30	110.0	1.20	120.0	3.30	110.0
Calcium	5000	2000	1000	5350	107.0	1070	107.0	5320	106.4
Chromium	10		2.0	10.9	109.0	2.60	130.0	10.6	106.0
Cobalt	50		3.0	50.3	100.6	2.90	96.7	50.8	101.6
Copper	10		2.0	11.4	114.0			10.3	103.0
Iron	100	500		101	101.0			105	105.0
Lead	3.0	20	2.5	2.20	73.3			3.90	130.0
Lithium	50								
Magnesium	5000	2000	100	anr					
Manganese	15		3.0	16.4	109.3	3.30	110.0	16.6	110.7
Molybdenum	20								
Nickel	10		4.0	10.3	103.0	3.90	97.5	10.2	102.0
Phosphorus	50								
Potassium	5000		2000	anr					
Selenium	10	20	5.0	11.1	111.0	4.50	90.0	11.5	115.0
Silicon	200								
Silver	5.0		2.0	5.60	112.0			6.00	120.0
Sodium	5000		1000	anr					
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	11.2	112.0	1.70	85.0	10.6	106.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	52.4	104.8	1.60	80.0	52.8	105.6
Zinc	20		10	21.6	108.0	10.8	108.0	22.0	110.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44393 Units: ug/l

Time:					13:40		13:44		16:52	
Sample ID:	CRI	CRIA	CRID	CRI1			CRID1		CRI2	
Metal	True	True	True	Results	% Rec		Results	% Rec	Results	% Rec

Zirconium 10

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP
QC Limits: 70 to 130 % Recovery

Date Analyzed: 05/13/18
Run ID: MA44393

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	16:57 CRID2	% Rec
Metal	True	True	True	Results	
Aluminum	200	500	100	anr	
Antimony	6.0	20	3.0		
Arsenic	8.0	20	3.0	3.60	120.0
Barium	200		4.0	4.40	110.0
Beryllium	2.0		1.0	anr	
Bismuth	20				
Boron	100		10		
Cadmium	3.0		1.0	1.10	110.0
Calcium	5000	2000	1000	1100	110.0
Chromium	10		2.0	2.10	105.0
Cobalt	50		3.0	2.90	96.7
Copper	10		2.0		
Iron	100	500			
Lead	3.0	20	2.5		
Lithium	50				
Magnesium	5000	2000	100		
Manganese	15		3.0	3.30	110.0
Molybdenum	20				
Nickel	10		4.0	3.80	95.0
Phosphorus	50				
Potassium	5000		2000	anr	
Selenium	10	20	5.0		
Silicon	200				
Silver	5.0		2.0		
Sodium	5000		1000	anr	
Strontium	10				
Sulfur	50				
Thallium	10		2.0	2.40	120.0
Tin	10				
Titanium	10				
Tungsten	50				
Vanadium	50		2.0	2.00	100.0
Zinc	20		10	11.0	110.0

14.5.6
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44393 Units: ug/l

Time:					16:57
Sample ID:	CRI	CRIA	CRID	CRID2	
Metal	True	True	True	Results	% Rec

Zirconium 10

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

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44393 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	13:49 ICSA1 Results	% Rec	13:53 ICSAB1 Results	% Rec	17:01 ICSA2 Results	% Rec	17:05 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	525000	105.0	524000	104.8	529000	105.8	531000	106.2
Antimony		1000	-3.00		1020	102.0	0.200		1040	104.0
Arsenic		1000	-1.30		1060	106.0	-0.400		1070	107.0
Barium		500	0.400		521	104.2	0.200		530	106.0
Beryllium		500	0.400		509	101.8	0.400		503	100.6
Bismuth		500	0.800		505	101.0	2.10		509	101.8
Boron		500	-2.10		501	100.2	-0.100		504	100.8
Cadmium		1000	0.700		1040	104.0	0.600		1050	105.0
Calcium	400000	400000	404000	101.0	396000	99.0	402000	100.5	396000	99.0
Chromium		500	-2.20		493	98.6	-1.70		496	99.2
Cobalt		500	0.300		496	99.2	0.300		500	100.0
Copper		500	0.700		504	100.8	0.00		509	101.8
Iron	200000	200000	196000	98.0	195000	97.5	192000	96.0	192000	96.0
Lead		1000	0.900		984	98.4	3.10		991	99.1
Lithium		500	4.00		538	107.6	3.50		546	109.2
Magnesium	500000	500000	511000	102.2	505000	101.0	504000	100.8	503000	100.6
Manganese		500	-1.50		505	101.0	-1.80		504	100.8
Molybdenum		500	-1.90		484	96.8	-2.10		485	97.0
Nickel		1000	-1.00		993	99.3	-0.600		1010	101.0
Phosphorus		500	-2.00		501	100.2	0.400		509	101.8
Potassium			-438		-463		-417		-375	
Selenium		1000	-0.300		990	99.0	-0.400		1000	100.0
Silicon		500	-3.90		484	96.8	-6.20		485	97.0
Silver		1000	3.90		1050	105.0	2.20		1050	105.0
Sodium			30.2		59.2		7.10		19.4	
Strontium		500	5.00		527	105.4	5.30		534	106.8
Sulfur		500	-0.100		500	100.0	0.00		506	101.2
Thallium		1000	-1.50		989	98.9	-0.600		992	99.2
Tin		500	-2.80		466	93.2	-3.00		467	93.4
Titanium		500	-1.00		505	101.0	-0.600		506	101.2
Tungsten		500	6.20		486	97.2	9.30		493	98.6
Vanadium		500	-2.10		496	99.2	-1.90		501	100.2
Zinc		1000	5.50		970	97.0	5.30		980	98.0

14.5.7
14

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44393 Units: ug/l

Time:				13:49			13:53			17:01			17:05
Sample ID:	ICSAB	ICSAB	ICSAB	ICSAB1	% Rec	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Metal	True	True	True	Results				Results		Results		Results	

Zirconium 500 2.10 500 100.0 0.500 505 101.0

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

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44444
Parameters: Sb,As,Ba,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:26	MA44444-STD1	1		STDA
10:33	MA44444-STD2	1		STDB
10:37	ZZZZZZ	1		
10:41	ZZZZZZ	1		
10:45	MA44444-ICV1	1		
10:52	MA44444-ICB1	1		
10:56	MA44444-ICCV1	1		
11:04	MA44444-CCB1	1		
11:08	MA44444-CRI1	1		
11:12	MA44444-CRID1	1		
11:16	MA44444-ICSA1	1		
11:21	MA44444-ICSAB1	1		
11:25	MA44444-HSTD1	1		
11:29	MA44444-HSTD2	1		
11:33	ZZZZZZ	1		
11:38	ZZZZZZ	1		
11:42	ZZZZZZ	1		
11:46	ZZZZZZ	5		
11:51	MA44444-CCV1	1		
11:57	MA44444-CCB2	1		
12:02	MA44444-CRID2	1		
12:06	MP7200-MB1	1		
12:10	MP7200-B1	1		
12:15	MP7200-S1	1		
12:19	MP7200-S2	1		
12:23	MP7200-D1	1		
12:27	JC66320-1	1		(sample used for QC only; not part of login JC65663)
12:31	MP7200-SD1	5		
12:35	ZZZZZZ	1		
12:40	MA44444-CCV2	1		
12:44	MA44444-CCB3	1		
12:48	ZZZZZZ	1		
12:52	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44444
Parameters: Sb,As,Ba,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:57	ZZZZZZ	1		
13:01	ZZZZZZ	1		
13:05	MP7168-S1	3		
13:09	MP7168-S2	3		
13:13	MP7168-D1	3		
13:18	TD20915-1	3		(sample used for QC only; not part of login JC65663)
13:22	MP7168-SD1	15		
13:26	MA44444-CCV3	1		
13:30	MA44444-CCB4	1		
13:34	MP7168-S1	10		
13:38	MP7168-S2	10		
13:43	MP7168-D1	10		
13:47	TD20915-1	10		(sample used for QC only; not part of login JC65663)
13:51	MP7168-SD1	50		
13:55	ZZZZZZ	1		
14:00	ZZZZZZ	1		
14:04	MP7070-D1	25		
----->	Last reportable sample/prep for job JC65663			
14:08	ZZZZZZ	1		
14:12	MA44444-CCV4	1		
14:16	MA44444-CCB5	1		
14:21	ZZZZZZ	1		
14:25	ZZZZZZ	1		
14:29	ZZZZZZ	1		
14:34	MA44444-CRID3	1		
14:38	MA44444-CRI2	1		
14:42	MA44444-ICSA2	1		
14:47	MA44444-ICSAB2	1		
14:51	MA44444-CCV5	1		
14:55	MA44444-CCB6	1		
----->	Last reportable CCB for job JC65663 Refer to raw data for calibration curve and standards.			

INTERNAL STANDARD SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44444
Parameters: Sb,As,Ba,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
10:26	MA44444-STD1	2911 R	77083 R	11204 R	6078 R
10:33	MA44444-STD2	2736	71980	11119	5297
10:37	ZZZZZZ	2806	73256	11167	5470
10:41	ZZZZZZ	2927	77423	11282	6145
10:45	MA44444-ICV1	2826	74143	11306	5540
10:52	MA44444-ICB1	2935	77769	11408	6184
10:56	MA44444-ICCV1	2810	73972	11298	5523
11:04	MA44444-CCB1	2925	77785	11378	6161
11:08	MA44444-CRI1	2898	76819	11387	6015
11:12	MA44444-CRID1	No results reported for the elements associated with this internal standard.			
11:16	MA44444-ICSA1	2595	68052	11015	4902
11:21	MA44444-ICSAB1	2593	67884	10984	4921
11:25	MA44444-HSTD1	2885	76327	11387	6024
11:29	MA44444-HSTD2	2670	69101	11033	4990
11:33	ZZZZZZ	2894	76718	11420	6144
11:38	ZZZZZZ	2862	77813	11440	6161
11:42	ZZZZZZ	2951	77852	11458	6218
11:46	ZZZZZZ	2913	76944	11421	5932
11:51	MA44444-CCV1	2849	74684	11286	5555
11:57	MA44444-CCB2	2967	78461	11384	6228
12:02	MA44444-CRID2	2948	78251	11477	6168
12:06	MP7200-MB1	2964	78839	11548	6236
12:10	MP7200-B1	2877	75395	11395	5699
12:15	MP7200-S1	2810	73830	11287	5448
12:19	MP7200-S2	2829	74261	11322	5475
12:23	MP7200-D1	2859	75030	11413	5624
12:27	JC66320-1	2868	75479	11567	5649
12:31	MP7200-SD1	2932	77491	11470	5993
12:35	ZZZZZZ	2970	79367	11749	6221
12:40	MA44444-CCV2	2859	74936	11455	5589
12:44	MA44444-CCB3	2979	78187	11491	6249
12:48	ZZZZZZ	2954	78336	11517	6141
12:52	ZZZZZZ	3000	79717	11652	6330

INTERNAL STANDARD SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
 Analyst: EAL Run ID: MA44444
 Parameters: Sb,As,Ba,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:57	ZZZZZZ	No results reported for the elements associated with this internal standard.			
13:01	ZZZZZZ	2878	76045	11371	5726
13:05	MP7168-S1	2824	76052	11630	6028
13:09	MP7168-S2	2831	75329	11578	6040
13:13	MP7168-D1	2811	76012	11604	6049
13:18	TD20915-1	2824	75897	11557	6059
13:22	MP7168-SD1	2973	78341	11601	6202
13:26	MA44444-CCV3	2856	75118	11354	5588
13:30	MA44444-CCB4	2999	79153	11422	6275
13:34	MP7168-S1	2937	77649	11586	6097
13:38	MP7168-S2	2934	77711	11520	6096
13:43	MP7168-D1	2953	78236	11508	6140
13:47	TD20915-1	2936	77406	11508	6101
13:51	MP7168-SD1	2966	78113	11366	6168
13:55	ZZZZZZ	2960	78853	11429	6175
14:00	ZZZZZZ	2872	75422	11237	5675
14:04	MP7070-D1	2940	77187	11353	6163
14:08	ZZZZZZ	2974	77852	11670	5735
14:12	MA44444-CCV4	2874	75243	11319	5593
14:16	MA44444-CCB5	2991	79105	11406	6260
14:21	ZZZZZZ	2991	78875	11571	6079
14:25	ZZZZZZ	2978	78907	11458	6224
14:29	ZZZZZZ	2984	78565	11468	6242
14:34	MA44444-CRID3	2980	78690	11361	6208
14:38	MA44444-CRI2	2942	77917	11298	6061
14:42	MA44444-ICSA2	2636	69244	10911	4955
14:47	MA44444-ICSAB2	2631	69054	10938	4958
14:51	MA44444-CCV5	2880	74936	11234	5616
14:55	MA44444-CCB6	2986	78955	11409	6259

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

LEGEND:

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44444 Units: ug/l

Time: Sample ID:			10:52 ICB1		11:04 CCB1		11:57 CCB2		12:44 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34								
Antimony	6.0	1.4	1.00	<6.0	0.500	<6.0	0.800	<6.0	-0.200	<6.0
Arsenic	3.0	1.4	0.900	<3.0	-0.500	<3.0	0.900	<3.0	-0.100	<3.0
Barium	200	.5	-0.200	<200	-0.100	<200	-0.200	<200	-0.400	<200
Beryllium	1.0	.2								
Bismuth	20	2.5								
Boron	100	1.9								
Cadmium	3.0	.3	-0.300	<3.0	0.00	<3.0	-0.200	<3.0	-0.100	<3.0
Calcium	5000	8.7	anr							
Chromium	10	.6	0.300	<10	-0.200	<10	-0.400	<10	0.100	<10
Cobalt	50	.5	0.00	<50	0.100	<50	0.100	<50	0.00	<50
Copper	10	1.2	0.100	<10	0.200	<10	0.200	<10	0.300	<10
Iron	100	4.6	5.10	<100	4.30	<100	4.20	<100	4.90	<100
Lead	3.0	1.4	-0.100	<3.0	-0.500	<3.0	0.400	<3.0	0.300	<3.0
Lithium	50	2.8								
Magnesium	5000	33								
Manganese	15	.1	0.200	<15	0.100	<15	0.100	<15	0.200	<15
Molybdenum	20	.4								
Nickel	10	.5	0.00	<10	0.300	<10	0.00	<10	0.200	<10
Phosphorus	50	1.7								
Potassium	10000	68								
Selenium	10	3.8	-1.00	<10	-1.20	<10	-2.70	<10	-1.60	<10
Silicon	200	2.1								
Silver	10	.5	0.100	<10	0.300	<10	-0.100	<10	0.100	<10
Sodium	10000	15								
Strontium	10	.2								
Sulfur	50	20	anr							
Thallium	2.0	1.6	-0.900	<2.0	0.300	<2.0	0.400	<2.0	-1.00	<2.0
Tin	10	1								
Titanium	10	.7								
Tungsten	50	1.8								
Vanadium	50	.4	anr							
Zinc	20	.3	-0.300	<20	-0.100	<20	-0.100	<20	-0.200	<20

14.6.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44444 Units: ug/l

Time: Sample ID:			10:52 ICB1		11:04 CCB1		11:57 CCB2		12:44 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.6.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44444 Units: ug/l

Time: Sample ID:			13:30 CCB4		14:16 CCB5		14:55 CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	34						
Antimony	6.0	1.4	0.800	<6.0	1.60	<6.0	1.10	<6.0
Arsenic	3.0	1.4	-0.300	<3.0	0.100	<3.0	-0.100	<3.0
Barium	200	.5	-0.100	<200	-0.200	<200	-0.300	<200
Beryllium	1.0	.2						
Bismuth	20	2.5						
Boron	100	1.9						
Cadmium	3.0	.3	-0.200	<3.0	-0.100	<3.0	0.00	<3.0
Calcium	5000	8.7	anr					
Chromium	10	.6	0.00	<10	-0.200	<10	0.00	<10
Cobalt	50	.5	0.00	<50	0.100	<50	0.100	<50
Copper	10	1.2	0.100	<10	0.100	<10	0.200	<10
Iron	100	4.6	5.70	<100	7.50	<100	8.60	<100
Lead	3.0	1.4	0.700	<3.0	0.500	<3.0	-0.100	<3.0
Lithium	50	2.8						
Magnesium	5000	33						
Manganese	15	.1	0.200	<15	0.200	<15	0.100	<15
Molybdenum	20	.4						
Nickel	10	.5	-0.200	<10	0.200	<10	0.500	<10
Phosphorus	50	1.7						
Potassium	10000	68						
Selenium	10	3.8	-0.900	<10	-2.00	<10	-0.900	<10
Silicon	200	2.1						
Silver	10	.5	0.500	<10	0.100	<10	0.00	<10
Sodium	10000	15						
Strontium	10	.2						
Sulfur	50	20	anr					
Thallium	2.0	1.6	0.500	<2.0	-0.200	<2.0	-0.300	<2.0
Tin	10	1						
Titanium	10	.7						
Tungsten	50	1.8						
Vanadium	50	.4	anr					
Zinc	20	.3	-0.200	<20	0.00	<20	-0.300	<20

14.6.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

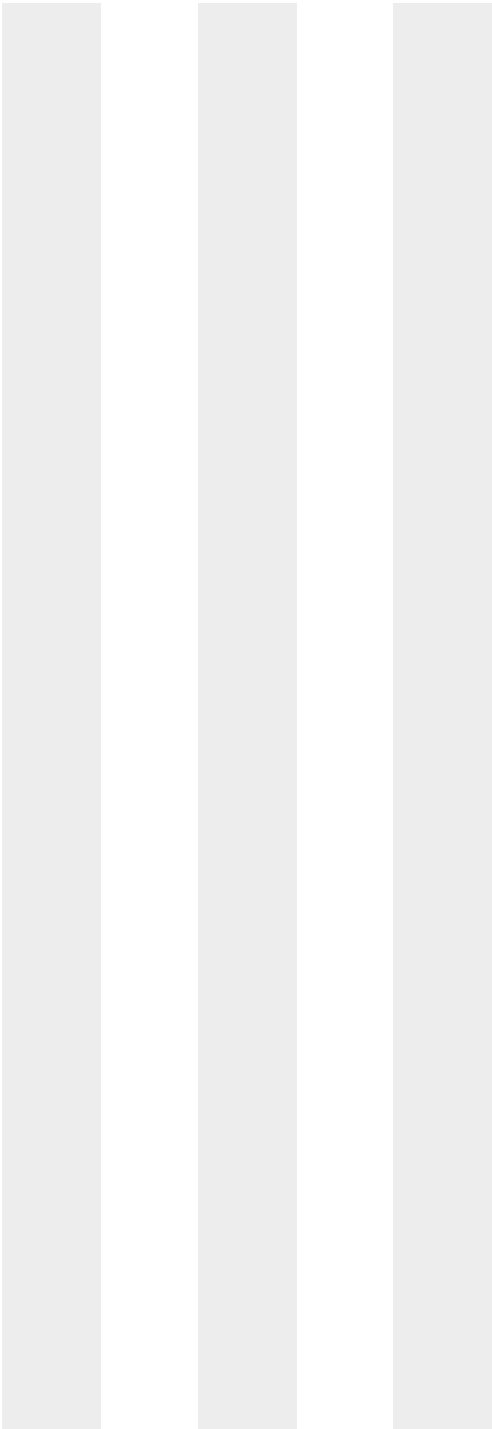
Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44444 Units: ug/l

Time:		13:30		14:16		14:55		
Sample ID:		CCB4		CCB5		CCB6		
Metal	RL	IDL	raw	final	raw	final	raw	final

Zirconium 10 .3

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



CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP
QC Limits: to % Recovery

Date Analyzed: 05/18/18
Run ID: MA44444

Methods: SW846 6010C
Units: ug/l

Time: Sample ID: ICCV		10:56 ICCV1	
Metal	True	Results	% Rec
Aluminum			
Antimony	2000	2000	100.0
Arsenic	2000	1980	99.0
Barium	2000	2000	100.0
Beryllium			
Bismuth			
Boron			
Cadmium	2000	2000	100.0
Calcium	anr		
Chromium	2000	2010	100.5
Cobalt	2000	1980	99.0
Copper	2000	1940	97.0
Iron	40000	40200	100.5
Lead	2000	2000	100.0
Lithium			
Magnesium			
Manganese	2000	2010	100.5
Molybdenum			
Nickel	2000	1990	99.5
Phosphorus			
Potassium			
Selenium	2000	1980	99.0
Silicon			
Silver	250	245	98.0
Sodium			
Strontium			
Sulfur	anr		
Thallium	2000	2040	102.0
Tin			
Titanium			
Tungsten			
Vanadium	anr		
Zinc	2000	2010	100.5

14.6.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: to % Recovery Run ID: MA44444 Units: ug/l

Time:	10:56
Sample ID: ICCV	ICCV1
Metal	True
Results	% Rec

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44444 Units: ug/l

Time: Sample ID:	ICV	10:45 ICV1		CCV	11:51 CCV1		CCV	12:40 CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	2000	2000	100.0	2000	1960	98.0	2000	1980	99.0
Arsenic	2000	2020	101.0	2000	1940	97.0	2000	1960	98.0
Barium	2000	1990	99.5	2000	1980	99.0	2000	2000	100.0
Beryllium									
Bismuth									
Boron									
Cadmium	2000	1970	98.5	2000	1960	98.0	2000	1980	99.0
Calcium	anr								
Chromium	2000	1950	97.5	2000	1970	98.5	2000	2000	100.0
Cobalt	2000	2010	100.5	2000	1960	98.0	2000	1970	98.5
Copper	2000	1910	95.5	2000	1920	96.0	2000	1940	97.0
Iron	40000	38900	97.3	40000	39300	98.3	40000	39300	98.3
Lead	2000	1990	99.5	2000	1990	99.5	2000	2000	100.0
Lithium									
Magnesium									
Manganese	2000	1990	99.5	2000	1990	99.5	2000	2000	100.0
Molybdenum									
Nickel	2000	1950	97.5	2000	1980	99.0	2000	1990	99.5
Phosphorus									
Potassium									
Selenium	2000	2040	102.0	2000	1940	97.0	2000	1960	98.0
Silicon									
Silver	250	251	100.4	250	241	96.4	250	244	97.6
Sodium									
Strontium									
Sulfur	anr								
Thallium	2000	2020	101.0	2000	2030	101.5	2000	2040	102.0
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	2000	1980	99.0	2000	1980	99.0	2000	1990	99.5

14.6.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44444 Units: ug/l

Time:		10:45			11:51			12:40		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44444 Units: ug/l

Time: Sample ID:		13:26 CCV3		14:12 CCV4		14:51 CCV5			
Metal	CCV	True	Results	% Rec	True	Results	% Rec	True	Results
Aluminum									
Antimony	2000		1970	98.5	2000	1970	98.5	2000	1960
Arsenic	2000		1950	97.5	2000	1950	97.5	2000	1940
Barium	2000		2000	100.0	2000	2020	101.0	2000	1990
Beryllium									
Bismuth									
Boron									
Cadmium	2000		1970	98.5	2000	1970	98.5	2000	1960
Calcium	anr								
Chromium	2000		1980	99.0	2000	1980	99.0	2000	1980
Cobalt	2000		1970	98.5	2000	1970	98.5	2000	1960
Copper	2000		1930	96.5	2000	1930	96.5	2000	1930
Iron	40000		39200	98.0	40000	39300	98.3	40000	38800
Lead	2000		2000	100.0	2000	2000	100.0	2000	1990
Lithium									
Magnesium									
Manganese	2000		2000	100.0	2000	2000	100.0	2000	1990
Molybdenum									
Nickel	2000		1980	99.0	2000	1990	99.5	2000	1980
Phosphorus									
Potassium									
Selenium	2000		1950	97.5	2000	1950	97.5	2000	1940
Silicon									
Silver	250		241	96.4	250	242	96.8	250	243
Sodium									
Strontium									
Sulfur	anr								
Thallium	2000		2030	101.5	2000	2040	102.0	2000	2030
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	2000		1990	99.5	2000	1990	99.5	2000	1980

14.6.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44444 Units: ug/l

Time:		13:26			14:12			14:51		
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

HIGH STANDARD CHECK SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP
QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/18/18
Run ID: MA44444

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:	HSTD	11:25 HSTD1	% Rec	HSTD	11:29 HSTD2	% Rec
Metal	True	Results		True	Results	
Aluminum						
Antimony	5000	5040	100.8			
Arsenic	5000	4900	98.0			
Barium	5000	5040	100.8			
Beryllium						
Bismuth						
Boron						
Cadmium	5000	4950	99.0			
Calcium						
Chromium	5000	5110	102.2			
Cobalt	5000	4920	98.4			
Copper	5000	5020	100.4			
Iron				150000	150000	100.0
Lead	5000	4940	98.8			
Lithium						
Magnesium						
Manganese	5000	5060	101.2			
Molybdenum						
Nickel	5000	4890	97.8			
Phosphorus						
Potassium						
Selenium	5000	4930	98.6			
Silicon						
Silver	625	603	96.5			
Sodium						
Strontium						
Sulfur	anr					
Thallium	5000	5150	103.0			
Tin						
Titanium						
Tungsten						
Vanadium	anr					
Zinc	5000	5100	102.0			

HIGH STANDARD CHECK SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
 QC Limits: 90 to 110 % Recovery Run ID: MA44444 Units: ug/l

Time:		11:25			11:29		
Sample ID:	HSTD	HSTD1		HSTD	HSTD2		
Metal	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44444 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	11:08 CRI1	% Rec	12:02 CRID2	% Rec	14:34 CRID3	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100						
Antimony	6.0	20	3.0	7.50	125.0				
Arsenic	8.0	20	3.0	8.10	101.3	3.30	110.0	3.80	126.7
Barium	200		4.0	208	104.0	4.00	100.0	4.10	102.5
Beryllium	2.0		1.0						
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	3.10	103.3	0.900	90.0	0.900	90.0
Calcium	5000	2000	1000	anr					
Chromium	10		2.0	11.1	111.0	2.10	105.0	2.00	100.0
Cobalt	50		3.0	50.7	101.4	3.10	103.3	3.10	103.3
Copper	10		2.0	10.7	107.0				
Iron	100	500		118	118.0				
Lead	3.0	20	2.5	3.50	116.7				
Lithium	50								
Magnesium	5000	2000	100						
Manganese	15		3.0	16.4	109.3	3.40	113.3	3.40	113.3
Molybdenum	20								
Nickel	10		4.0	10.3	103.0	4.00	100.0	4.20	105.0
Phosphorus	50								
Potassium	5000		2000						
Selenium	10	20	5.0	9.60	96.0				
Silicon	200								
Silver	5.0		2.0	4.60	92.0				
Sodium	5000		1000						
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	10.2	102.0	2.00	100.0	1.90	95.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	anr					
Zinc	20		10	21.2	106.0	10.9	109.0	11.0	110.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44444 Units: ug/l

Time:					11:08		12:02		14:34	
Sample ID:	CRI	CRIA	CRID	CRI1	Results	% Rec	CRID2	Results	% Rec	CRID3
Metal	True	True	True							

Zirconium 10

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44444 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	14:38 CRI2	% Rec
Metal	True	True	True	Results	
Aluminum	200	500	100		
Antimony	6.0	20	3.0	6.60	110.0
Arsenic	8.0	20	3.0	8.90	111.3
Barium	200		4.0	209	104.5
Beryllium	2.0		1.0		
Bismuth	20				
Boron	100		10		
Cadmium	3.0		1.0	2.90	96.7
Calcium	5000	2000	1000	anr	
Chromium	10		2.0	10.3	103.0
Cobalt	50		3.0	50.8	101.6
Copper	10		2.0	10.6	106.0
Iron	100	500		112	112.0
Lead	3.0	20	2.5	2.40	80.0
Lithium	50				
Magnesium	5000	2000	100		
Manganese	15		3.0	16.4	109.3
Molybdenum	20				
Nickel	10		4.0	10.3	103.0
Phosphorus	50				
Potassium	5000		2000		
Selenium	10	20	5.0	8.20	82.0
Silicon	200				
Silver	5.0		2.0	4.40	88.0
Sodium	5000		1000		
Strontium	10				
Sulfur	50			anr	
Thallium	10		2.0	10.6	106.0
Tin	10				
Titanium	10				
Tungsten	50				
Vanadium	50		2.0	anr	
Zinc	20		10	21.5	107.5

14.6.6
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44444 Units: ug/l

Time:					14:38
Sample ID:	CRI	CRIA	CRID	CRI2	
Metal	True	True	True	Results	% Rec

Zirconium 10

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

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44444 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	11:16 ICSA1 Results	% Rec	11:21 ICSAB1 Results	% Rec	14:42 ICSA2 Results	% Rec	14:47 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	518000	103.6	520000	104.0	515000	103.0	514000	102.8
Antimony		1000	-3.90		1030	103.0	-0.100		1020	102.0
Arsenic		1000	-0.400		1070	107.0	0.900		1060	106.0
Barium		500	-0.400		518	103.6	-0.300		522	104.4
Beryllium		500	0.200		500	100.0	0.100		495	99.0
Bismuth		500	-2.30		505	101.0	-1.50		502	100.4
Boron		500	0.00		507	101.4	0.200		501	100.2
Cadmium		1000	-0.100		1040	104.0	0.00		1030	103.0
Calcium	400000	400000	403000	100.8	394000	98.5	397000	99.3	393000	98.3
Chromium		500	-1.60		496	99.2	-2.10		490	98.0
Cobalt		500	0.600		493	98.6	0.900		490	98.0
Copper		500	0.00		511	102.2	-0.300		507	101.4
Iron	200000	200000	198000	99.0	199000	99.5	195000	97.5	196000	98.0
Lead		1000	1.20		974	97.4	1.20		975	97.5
Lithium		500	6.80		535	107.0	6.90		534	106.8
Magnesium	500000	500000	510000	102.0	507000	101.4	504000	100.8	503000	100.6
Manganese		500	15.8		522	104.4	15.4		519	103.8
Molybdenum		500	-1.50		488	97.6	-1.60		483	96.6
Nickel		1000	-1.00		981	98.1	-0.500		979	97.9
Phosphorus		500	-6.50		496	99.2	-8.00		493	98.6
Potassium			-384		-316		-405		-360	
Selenium		1000	3.50		993	99.3	1.40		973	97.3
Silicon		500	2.60		495	99.0	6.20		494	98.8
Silver		1000	1.20		1050	105.0	0.700		1040	104.0
Sodium			1.40		24.8		-3.50		1.60	
Strontium		500	4.90		524	104.8	5.00		524	104.8
Sulfur		500	-21.0		480	96.0	-17.2		477	95.4
Thallium		1000	-2.00		966	96.6	0.500		968	96.8
Tin		500	-5.60		469	93.8	-4.50		464	92.8
Titanium		500	-1.10		508	101.6	-0.500		504	100.8
Tungsten		500	10.4		491	98.2	10.0		487	97.4
Vanadium		500	-1.20		496	99.2	-1.40		490	98.0
Zinc		1000	4.60		968	96.8	4.50		964	96.4

14.6.7
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INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44444 Units: ug/l

Time:				11:16			11:21			14:42			14:47
Sample ID:	ICSA	ICSAB	ICSA1	% Rec	ICSAB1	% Rec	ICSA2	% Rec	ICSAB2	% Rec			
Metal	True	True	Results		Results		Results		Results				
Zirconium		500	3.20		495	99.0	3.10		492	98.4			
(*) Outside of QC limits													
(anr) Analyte not requested													

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7039
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/09/18

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0042	.015	0.0019	<0.033

Associated samples MP7039: JC65663-1, JC65663-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 7471B
Units: mg/kg

Metal	JC65281-101 Original MS	SpikeLot HGPWS1	% Rec	QC Limits
Mercury	0.020 0.39	0.337	109.7	80-120

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 7471B
Units: mg/kg

05/09/18

Associated samples MP7039: JC65663-1, JC65663-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 7471B
Units: mg/kg

05/09/18

Associated samples MP7039: JC65663-1, JC65663-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/10/18

Metal	RL	IDL	MDL	MB raw	final
Aluminum	51	1.9	5.3	0.43	<51
Antimony	2.0	.24	.38	-0.010	<2.0
Arsenic	2.0	.12	.26	-0.13	<2.0
Barium	20	.061	.18	0.10	<20
Beryllium	0.20	.02	.05	0.051	<0.20
Bismuth	2.0	.33	.5		
Boron	10	.15	1.3		
Cadmium	0.51	.041	.058	0.031	<0.51
Calcium	510	.56	43	15.7	<510
Chromium	1.0	.071	.18	0.13	<1.0
Cobalt	5.1	.041	.071	0.041	<5.1
Copper	2.6	.11	.4	0.14	<2.6
Iron	51	.36	4.7	4.1	<51
Lead	2.0	.22	.35	0.22	<2.0
Lithium	5.1	.35	1.2		
Magnesium	510	2.5	14	3.4	<510
Manganese	1.5	.014	.089	0.10	<1.5
Molybdenum	2.0	.041	.16		
Nickel	4.1	.051	.25	0.14	<4.1
Phosphorus	10	.2	4.1		
Potassium	1000	6.1	31	3.9	<1000
Selenium	2.0	.38	.66	-0.031	<2.0
Silicon	20	.18	2.6		
Silver	0.51	.071	.29	-0.010	<0.51
Sodium	1000	3.5	14	12.5	<1000
Strontium	5.1	.02	.97		
Sulfur	10	.32	3		
Thallium	1.0	.18	.41	-0.031	<1.0
Tin	10	.092	2.6		
Titanium	1.0	.071	.27		
Tungsten	5.1	.22	1.2		
Vanadium	5.1	.082	.09	0.041	<5.1
Zinc	5.1	.02	3.9	0.54	<5.1

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/10/18

Metal	RL	IDL	MDL	MB raw	final
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Zirconium 2.0 .031 .25

Associated samples MP7070: JC65663-1, JC65663-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/10/18

Metal	TD20701-1 Original MS		SpikeLot MPSPK2	% Rec	QC Limits
Aluminum	148	2360	2530	87.6	75-125
Antimony	7.7	180	202	85.3	75-125
Arsenic	131	295	202	81.2	75-125
Barium	1050	1500	202	222.8(a)	75-125
Beryllium	0.0	173	202	85.6	75-125
Bismuth					
Boron					
Cadmium	3.2	184	202	89.5	75-125
Calcium	2640	4470	2530	72.5N(b)	75-125
Chromium	243	443	202	99.0	75-125
Cobalt	41.8	205	202	80.8	75-125
Copper	753	873	202	59.4N(b)	75-125
Iron	394000	403000	2530	356.4(a)	75-125
Lead	248	393	202	71.8N(b)	75-125
Lithium					
Magnesium	280	2320	2530	80.8	75-125
Manganese	4110	4240	202	64.4 (a)	75-125
Molybdenum					
Nickel	656	765	202	54.0N(b)	75-125
Phosphorus					
Potassium	41.3	2450	2530	95.4	75-125
Selenium	0.0	168	202	83.2	75-125
Silicon					
Silver	5.3	26.5	25.3	84.0	75-125
Sodium	817	2980	2530	85.7	75-125
Strontium					
Sulfur	anr				
Thallium	0.0	176	202	87.1	75-125
Tin					
Titanium					
Tungsten					
Vanadium	48.0	229	202	89.6	75-125
Zinc	195	331	202	67.3N(b)	75-125

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/10/18

Metal	TD20701-1 Original MS	Spike lot MPSPK2	% Rec	QC Limits
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Zirconium

Associated samples MP7070: JC65663-1, JC65663-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

(b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

05/10/18

05/10/18

Metal	TD20701-1 Original	MSD	Spike lot MPSPK2	% Rec	MSD RPD	QC Limit	TD20701-1 Original	DUP	RPD	QC Limits
Aluminum	148	2380	2380	93.7	0.8	20	148	141	4.8	0-20
Antimony	7.7	197	190	99.4	3.6	20	7.7	12.8	49.8 (d)	0-20
Arsenic	131	332	190	105.5	9.8	20	131	140	6.6	0-20
Barium	1050	1310	190	136.5(a)	3.7	20	1050	1110	5.6	0-20
Beryllium	0.0	174	190	91.4	0.6	20	0.0	0.0	NC	0-20
Bismuth										
Boron										
Cadmium	3.2	199	190	102.8	7.8	20	3.2	2.3	32.7 (d)	0-20
Calcium	2640	4550	2380	80.2	1.8	20	2640	2500	5.4	0-20
Chromium	243	450	190	108.7	1.6	20	243	245	0.8	0-20
Cobalt	41.8	227	190	97.2	10.2	20	41.8	44.3	5.8	0-20
Copper	753	1010	190	134.9N(b)	14.6	20	753	785	4.2	0-20
Iron	394000	422000	2380	1176.0(a)	4.6	20	394000	436000	10.1	0-20
Lead	248	453	190	107.6	14.2	20	248	252	1.6	0-20
Lithium										
Magnesium	280	2310	2380	85.3	0.4	20	280	273	2.5	0-20
Manganese	4110	4580	190	246.8(a)	7.7	20	4110	4310	4.8	0-20
Molybdenum										
Nickel	656	957	190	158.0N(b)	22.3 (c)	20	656	638	2.8	0-20
Phosphorus										
Potassium	41.3	2480	2380	102.4	1.2	20	41.3	37.5	9.6	0-20
Selenium	0.0	182	190	95.6	8.0	20	0.0	0.0	NC	0-20
Silicon										
Silver	5.3	23.0	23.8	74.3N(b)	14.1	20	5.3	0.0	200.0(d)	0-20
Sodium	817	3030	2380	92.9	1.7	20	817	784	4.1	0-20
Strontium										
Sulfur	anr									
Thallium	0.0	191	190	100.3	8.2	20	0.0	0.0	NC	0-20
Tin										
Titanium										
Tungsten										
Vanadium	48.0	245	190	103.4	6.8	20				
Zinc	195	372	190	92.9	11.7	20	195	156	22.2 (d)	0-20

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/10/18 05/10/18

Metal	TD20701-1 Original MSD	Spike lot MPSPK2	% Rec	MSD RPD	QC Limit	TD20701-1 Original DUP	RPD	QC Limits
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Zirconium

Associated samples MP7070: JC65663-1, JC65663-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

(b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

(c) High rpd due to possible sample nonhomogeneity.

(d) RPD acceptable due to low duplicate and sample concentrations.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/10/18

Metal	BSP Result	Spike lot MPSPK2	% Rec	QC Limits
Aluminum	2300	2450	93.8	80-120
Antimony	188	196	95.9	80-120
Arsenic	188	196	95.9	80-120
Barium	189	196	96.4	80-120
Beryllium	191	196	97.4	80-120
Bismuth				
Boron				
Cadmium	186	196	94.9	80-120
Calcium	2360	2450	96.3	80-120
Chromium	190	196	96.9	80-120
Cobalt	190	196	96.9	80-120
Copper	185	196	94.4	80-120
Iron	2340	2450	95.5	80-120
Lead	191	196	97.4	80-120
Lithium				
Magnesium	2380	2450	97.1	80-120
Manganese	196	196	100.0	80-120
Molybdenum				
Nickel	191	196	97.4	80-120
Phosphorus				
Potassium	2330	2450	95.1	80-120
Selenium	184	196	93.8	80-120
Silicon				
Silver	22.5	24.5	91.8	80-120
Sodium	2360	2450	96.3	80-120
Strontium				
Sulfur	anr			
Thallium	190	196	96.9	80-120
Tin				
Titanium				
Tungsten				
Vanadium	189	196	96.4	80-120
Zinc	192	196	97.9	80-120

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 6010C
Units: mg/kg

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
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Associated samples MP7070: JC65663-1, JC65663-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/10/18

Metal	TD20701-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum	1510	1520	0.5	0-10
Antimony	78.4	0.00	100.0(a)	0-10
Arsenic	1340	1410	5.4	0-10
Barium	10700	10900	1.3	0-10
Beryllium	0.00	0.00	NC	0-10
Bismuth				
Boron				
Cadmium	32.8	0.00	100.0(a)	0-10
Calcium	27000	28700	6.3	0-10
Chromium	2480	2540	2.5	0-10
Cobalt	426	427	0.2	0-10
Copper	7680	7820	1.8	0-10
Iron	4020000	4200000	4.3	0-10
Lead	2530	2520	0.1	0-10
Lithium				
Magnesium	2860	3150	10.3*(b)	0-10
Manganese	42000	42300	0.9	0-10
Molybdenum				
Nickel	6690	6790	1.5	0-10
Phosphorus				
Potassium	421	0.00	100.0(a)	0-10
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	53.7	72.7	35.4 (a)	0-10
Sodium	8330	8110	2.6	0-10
Strontium				
Sulfur	anr			
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Tungsten				
Vanadium	489	497	1.6	0-10
Zinc	1990	2160	8.3	0-10

14.8.4
14

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/10/18

Metal	TD20701-1		QC Limits
	Original	SDL 1:5 %DIF	

Zirconium

Associated samples MP7070: JC65663-1, JC65663-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

(b) Serial dilution indicates possible matrix interference.

POST DIGESTATE SPIKE SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date:

05/10/18

Metal	Sample ml	Final ml	TD20701-1 Raw	PS Corr.** ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Bismuth									
Boron									
Cadmium									
Calcium	9.0	10	26950	24255	114000	0.1	10000	100000	89.7 80-120
Chromium									
Cobalt									
Copper	9.0	10	7683	6914.7	7233	0.5	10	500	63.7*(a) 80-120
Iron									
Lead	9.0	10	2527	2274.3	2790	0.5	2	500	103.0 80-120
Lithium									
Magnesium									
Manganese									
Molybdenum									
Nickel	9.0	10	6688	6019.2	6477	0.5	10	500	91.6 80-120
Phosphorus									
Potassium									
Selenium									
Silicon									
Silver									
Sodium									
Strontium									
Sulfur									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	9.0	10	1993	1793.7	2397	0.5	10	500	120.7*(a) 80-120

14.8.5
14

POST DIGESTATE SPIKE SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date:

05/10/18

Metal	Sample ml	Final ml	TD20701-1 Raw	PS Corr.** ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
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Zirconium

Associated samples MP7070: JC65663-1, JC65663-2

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (**) Corr. sample result = Raw * (sample volume / final volume)
 (anr) Analyte not requested
 (a) Spike recovery indicates possible matrix interference.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7073
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 05/10/18

Metal	RL	IDL	MDL	MB raw	final
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Mercury 0.00020 .000038 .00013 -0.000026<0.00020

Associated samples MP7073: JC65663-1A, JC65663-2A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7073
 Matrix Type: LEACHATE

Methods: SW846 7470A
 Units: mg/l

Prep Date: 05/10/18

Metal	JC65698-1A Original MS	Spikelot HGPW3	% Rec	QC Limits
Mercury	0.0	0.0022	0.0020	110.0 75-125

Associated samples MP7073: JC65663-1A, JC65663-2A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7073
 Matrix Type: LEACHATE

Methods: SW846 7470A
 Units: mg/l

Prep Date: 05/10/18

Metal	JC65698-1A Original MSD	SpikeLot HGPW3	% Rec	MSD RPD	QC Limit
Mercury	0.0	0.0022	0.0020	110.0	0.0 20

Associated samples MP7073: JC65663-1A, JC65663-2A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 7470A
Units: mg/l

Metal	BSP Result	Spikelot HGPW3	% Rec	QC Limits
Mercury	0.0021	0.0020	105.0	80-120

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7074
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/10/18

Metal	RL	IDL	MDL	MB raw	final
Aluminum	1.0	.17	.17		
Antimony	0.50	.007	.022		
Arsenic	0.50	.007	.014	-0.0036	<0.50
Barium	1.0	.0025	.0063	0.0061	<1.0
Beryllium	0.025	.001	.002		
Bismuth	0.10	.013	.025		
Boron	0.50	.0095	.067		
Cadmium	0.025	.0015	.0035	0.00070	<0.025
Calcium	10	.044	.14		
Chromium	0.050	.003	.0043	0.0025	<0.050
Cobalt	0.25	.0025	.0036		
Copper	0.050	.006	.016		
Iron	0.50	.023	.16		
Lead	0.50	.007	.013	-0.0015	<0.50
Lithium	0.25	.014	.076		
Magnesium	10	.16	.32		
Manganese	0.075	.0005	.0021		
Molybdenum	0.10	.002	.007		
Nickel	0.050	.0025	.0067		
Potassium	10	.34	1.2		
Selenium	0.50	.019	.033	-0.0073	<0.50
Silicon	1.0	.011	.22		
Silver	0.050	.0025	.016	0.0015	<0.050
Sodium	10	.077	.64		
Strontium	0.050	.001	.0015		
Sulfur	0.25	.1	.075		
Thallium	0.50	.008	.0082		
Tin	0.050	.005	.012		
Titanium	0.050	.0035	.0092		
Tungsten	0.25	.009	.071		
Vanadium	0.25	.002	.0064		
Zinc	0.10	.0015	.002		
Zirconium	0.050	.0015	.01		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7074
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/10/18

Metal	RL	IDL	MDL	MB raw	final
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Associated samples MP7074: JC65663-1A, JC65663-2A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7074
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 05/10/18

Metal	JC65698-1A Original MS		SpikeLot MPSPK2	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.064	2.1	2.0	101.8	75-125
Barium	0.32	2.4	2.0	104.0	75-125
Beryllium					
Bismuth					
Boron					
Cadmium	0.0038	2.0	2.0	99.8	75-125
Calcium					
Chromium	0.0050	2.1	2.0	104.8	75-125
Cobalt					
Copper					
Iron					
Lead	0.12	2.1	2.0	99.0	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium	0.0	2.0	2.0	100.0	75-125
Silicon					
Silver	0.0	0.26	0.25	104.0	75-125
Sodium					
Strontium					
Sulfur					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium					
Zinc					
Zirconium					

14.10.2
14

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/10/18

Metal	JC65698-1A Original MS	Spikelot MPSPK2	% Rec	QC Limits
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Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7074
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 05/10/18

Metal	JC65698-1A Original	MSD	Spike lot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.064	2.0	2.0	96.8	4.9	20
Barium	0.32	2.4	2.0	104.0	0.0	20
Beryllium						
Bismuth						
Boron						
Cadmium	0.0038	2.0	2.0	99.8	0.0	20
Calcium						
Chromium	0.0050	2.1	2.0	104.8	0.0	20
Cobalt						
Copper						
Iron						
Lead	0.12	2.0	2.0	94.0	4.9	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium	0.0	2.0	2.0	100.0	0.0	20
Silicon						
Silver	0.0	0.25	0.25	100.0	3.9	20
Sodium						
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc						
Zirconium						

14.10.2
14

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/10/18

Metal	JC65698-1A Original MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
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Associated samples MP7074: JC65663-1A, JC65663-2A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7074
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/10/18

Metal	BSP Result	Spike lot MPSPK2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	2.1	2.0	105.0	80-120
Barium	2.1	2.0	105.0	80-120
Beryllium				
Bismuth				
Boron				
Cadmium	2.1	2.0	105.0	80-120
Calcium				
Chromium	2.1	2.0	105.0	80-120
Cobalt				
Copper				
Iron				
Lead	2.0	2.0	100.0	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	2.0	2.0	100.0	80-120
Silicon				
Silver	0.25	0.25	100.0	80-120
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				
Zirconium				

14.10.3
14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7074
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/10/18

Metal	BSP Result	Spike lot MPSPK2	% Rec	QC Limits
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Associated samples MP7074: JC65663-1A, JC65663-2A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7074
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/10/18

Metal	JC65698-1A Original SDL 5:25 %DIF		QC Limits	
Aluminum				
Antimony				
Arsenic	63.7	84.7	33.0 (a)	0-10
Barium	317	303	4.6	0-10
Beryllium				
Bismuth				
Boron				
Cadmium	3.80	0.00	100.0(a)	0-10
Calcium				
Chromium	5.00	0.00	100.0(a)	0-10
Cobalt				
Copper				
Iron				
Lead	117	127	9.2	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				
Zirconium				

14.10.4
14

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65663
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7074
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/10/18

Metal	JC65698-1A	QC
	Original SDL 5:25 %DIF	Limits

Associated samples MP7074: JC65663-1A, JC65663-2A

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC
- Percent Solids Raw Data Summary

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Cyanide	GP12933/GN79812	0.24	0.0	mg/kg	2	2.01	100.5	90-110%
Cyanide Reactivity	GP12928/GN79813	10	0.0	mg/kg	100	4.70	4.7	.25-27%
Percent Sulfur	GP13154/GN80195	0.10	0.0	%	.667	0.77	114.8	80-120%
Percent Sulfur	GP13154/GN80242	0.10	0.0	%	0.667	0.62	93.4	80-120%
Sulfide Reactivity	GP12929/GN79782	100	0.0	mg/kg	400	220	55.0	42-107%

Associated Samples:

Batch GP12928: JC65663-1A, JC65663-2A

Batch GP12929: JC65663-1A, JC65663-2A

Batch GP12933: JC65663-1, JC65663-2

Batch GP13154: JC65663-1, JC65663-2

(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Corrosivity as pH	GN80222	JC65736-1	su	7.34	7.32	0.3	0-5%
Cyanide	GP12933/GN79812	JC65267-1A	mg/kg	0.099	0.11	10.5	0-49%
Cyanide Reactivity	GP12928/GN79813	JC65618-1A	mg/kg	0.0	0.0	0.0	0-20%
Heat Content, BTU	GP13163/GN80194	JC64996-7	BTU/lb	1950	1850	5.3	0-32%
Ignitability (Flashpoint)	GN80239	JC65698-1A	Deg. F	>200	>200	0.0	0-10%
Percent Sulfur	GP13154/GN80195	JC64996-7	%	0.0	0.0	0.0	0-20%
Sulfide Reactivity	GP12929/GN79782	JC65618-1A	mg/kg	0.0	0.0	0.0	0-20%

Associated Samples:

Batch GN80222: JC65663-1A, JC65663-2A
Batch GN80239: JC65663-1A, JC65663-2A
Batch GP12928: JC65663-1A, JC65663-2A
Batch GP12929: JC65663-1A, JC65663-2A
Batch GP12933: JC65663-1, JC65663-2
Batch GP13154: JC65663-1, JC65663-2
Batch GP13163: JC65663-1, JC65663-2
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Cyanide	GP12933/GN79812	JC65267-1A	mg/kg	0.099	1.86	1.9	97.0	75-125%
Sulfide Reactivity	GP12929/GN79782	JC65618-1A	mg/kg	0.0	423	113	26.7	20-82%

Associated Samples:

Batch GP12929: JC65663-1A, JC65663-2A

Batch GP12933: JC65663-1, JC65663-2

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051018W1.CN
Analyst: BM
Parameters: Cyanide

Date Analyzed: 05/10/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Run ID: GN79812

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:01	GN79812-STD1	1		STDA
11:02	GN79812-STD2	1		STDB
11:03	GN79812-STD3	1		STDC
11:05	GN79812-STD4	1		STDD
11:06	GN79812-STD5	1		STDE
11:07	GN79812-STD6	1		STDF
11:09	GN79812-STD7	1		STDG
11:10	GN79812-ICV1	1		
11:11	GN79812-ICB1	1		
11:13	GN79812-CCV1	1		
11:14	GN79812-CCB1	1		
11:16	GP12939-MB1	1		
11:17	GP12939-B1	1		
11:18	GP12939-S1	1		
11:20	GP12939-D1	1		
11:21	JC65776-1	1		(sample used for QC only; not part of login JC65663)
11:22	GP12933-MB1	1		
11:24	GP12933-B1	1		
11:25	GP12933-S1	1		
11:26	GP12933-S2	1		Over calibration curve. See rerun at dilution.
11:28	GP12933-D1	1		
11:29	GN79812-CCV2	1		
11:30	GN79812-CCB2	1		
11:32	ZZZZZZ	1		
11:33	ZZZZZZ	1		
11:35	JC65267-1A	1		(sample used for QC only; not part of login JC65663)
11:36	JC65672-2	1		(sample used for QC only; not part of login JC65663)
11:37	ZZZZZZ	1		
11:39	ZZZZZZ	1		
11:40	ZZZZZZ	1		
11:41	ZZZZZZ	1		
11:43	ZZZZZZ	1		
11:44	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051018W1.CN
Analyst: BM
Parameters: Cyanide

Date Analyzed: 05/10/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Run ID: GN79812

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:45	GN79812-CCV3	1		
11:47	GN79812-CCB3	1		
11:48	ZZZZZZ	1		
11:50	ZZZZZZ	1		
11:51	ZZZZZZ	1		
11:52	ZZZZZZ	1		
11:54	JC65663-1	1		
11:55	JC65663-2	1		
11:56	GP12932-MB1	1		
11:58	GP12932-B1	1		
11:59	GP12932-S1	1		
12:00	GP12932-D1	1		
12:02	GN79812-CCV4	1		
12:03	GN79812-CCB4	1		
12:05	ZZZZZZ	1		
12:06	JC65418-1	1		(sample used for QC only; not part of login JC65663)
12:07	ZZZZZZ	1		
12:09	ZZZZZZ	1		
12:10	ZZZZZZ	1		
12:11	ZZZZZZ	1		
12:13	ZZZZZZ	1		
12:14	ZZZZZZ	1		
12:15	ZZZZZZ	1		
12:17	GP12933-S2	4		1:4 dilution.
12:18	GN79812-CCV5	1		
12:19	GN79812-CCB5	1		
12:21	JC65672-2	4		(sample used for QC only; not part of login JC65663)
12:34	GN79812-CCV6	1		
12:36	GN79812-CCB6	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051018W1.CN

Date Analyzed: 05/10/18
Run ID: GN79812

Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN79812-ICV1	Cyanide	0.301	0.010	0.0058	.3	100.3	90-110
GN79812-ICB1	Cyanide	-0.00708	0.010	0.0058			
GN79812-CCV1	Cyanide	0.400	0.010	0.0058	.4	100.0	90-110
GN79812-CCB1	Cyanide	-0.00610	0.010	0.0058			
GN79812-CCV2	Cyanide	0.400	0.010	0.0058	.4	100.0	90-110
GN79812-CCB2	Cyanide	-0.00627	0.010	0.0058			
GN79812-CCV3	Cyanide	0.399	0.010	0.0058	.4	99.8	90-110
GN79812-CCB3	Cyanide	-0.00624	0.010	0.0058			
GN79812-CCV4	Cyanide	0.398	0.010	0.0058	.4	99.5	90-110
GN79812-CCB4	Cyanide	0.0058 U	0.010	0.0058			
GN79812-CCV5	Cyanide	0.397	0.010	0.0058	.4	99.3	90-110
GN79812-CCB5	Cyanide	-0.00595	0.010	0.0058			
GN79812-CCV6	Cyanide	0.397	0.010	0.0058	.4	99.3	90-110
GN79812-CCB6	Cyanide	0.0058 U	0.010	0.0058			

(!) Outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051018W2.CN Date Analyzed: 05/10/18 Methods: SW846 CHAP7/9012 B, SW846 CHAP7/9012B
Analyst: BM Run ID: GN79813
Parameters: Cyanide Reactivity

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:01	GN79813-STD1	1		STDA
11:02	GN79813-STD2	1		STDB
11:03	GN79813-STD3	1		STDC
11:05	GN79813-STD4	1		STDD
11:06	GN79813-STD5	1		STDE
11:07	GN79813-STD6	1		STDF
11:09	GN79813-STD7	1		STDG
11:10	GN79813-ICV1	1		
11:11	GN79813-ICB1	1		
12:18	GN79813-CCV1	1		
12:19	GN79813-CCB1	1		
12:22	GP12930-MB1	1		
12:24	GP12930-B1	1		
12:25	GP12930-D1	1		
12:26	JC65468-1	1		(sample used for QC only; not part of login JC65663)
12:28	GP12928-MB1	1		
12:29	GP12928-B1	1		
12:30	GP12928-D1	1		
12:32	JC65618-1A	1		(sample used for QC only; not part of login JC65663)
12:33	ZZZZZZ	1		
12:34	GN79813-CCV2	1		
12:36	GN79813-CCB2	1		
12:37	ZZZZZZ	1		
12:38	ZZZZZZ	1		
12:40	ZZZZZZ	1		
12:41	JC65663-1A	1		
12:43	JC65663-2A	1		
12:44	ZZZZZZ	1		
12:45	GP12912-MB1	1		
12:47	GP12912-B1	1		
12:48	GP12912-D1	1		
12:49	JC65599-2	1		(sample used for QC only; not part of login JC65663)
12:51	GN79813-CCV3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051018W2.CN Date Analyzed: 05/10/18 Methods: SW846 CHAP7/9012 B, SW846 CHAP7/9012B
Analyst: BM Run ID: GN79813
Parameters: Cyanide Reactivity

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:52	GN79813-CCB3	1		
12:53	ZZZZZZ	1		
12:55	ZZZZZZ	1		
12:56	ZZZZZZ	1		
12:58	ZZZZZZ	1		
12:59	ZZZZZZ	1		
13:00	ZZZZZZ	1		
13:02	ZZZZZZ	1		
13:03	ZZZZZZ	1		
13:04	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:07	GN79813-CCV4	1		
13:08	GN79813-CCB4	1		
13:10	ZZZZZZ	1		
13:11	ZZZZZZ	1		
13:13	ZZZZZZ	1		
13:14	ZZZZZZ	1		
13:15	ZZZZZZ	1		
13:17	ZZZZZZ	1		
13:18	ZZZZZZ	1		
13:21	GN79813-CCV5	1		
13:22	GN79813-CCB5	1		

Refer to raw data for calibration curve and standards.

15.5
15

Instrument QC Summary
Inorganics Analyses

Login Number: JC65663
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051018W2.CN

Date Analyzed: 05/10/18
Run ID: GN79813

Methods: SW846 CHAP7/9012 B, SW846 CHAP7/9012B
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN79813-ICV1	Cyanide Reactivity	0.301	0.20	0.046	.3	100.3	90-110
GN79813-ICB1	Cyanide Reactivity	0.046 U	0.20	0.046			
GN79813-CCV1	Cyanide Reactivity	0.397	0.20	0.046	.4	99.3	90-110
GN79813-CCB1	Cyanide Reactivity	0.046 U	0.20	0.046			
GN79813-CCV2	Cyanide Reactivity	0.397	0.20	0.046	.4	99.3	90-110
GN79813-CCB2	Cyanide Reactivity	0.046 U	0.20	0.046			
GN79813-CCV3	Cyanide Reactivity	0.395	0.20	0.046	.4	98.8	90-110
GN79813-CCB3	Cyanide Reactivity	0.046 U	0.20	0.046			
GN79813-CCV4	Cyanide Reactivity	0.395	0.20	0.046	.4	98.8	90-110
GN79813-CCB4	Cyanide Reactivity	0.046 U	0.20	0.046			
GN79813-CCV5	Cyanide Reactivity	0.396	0.20	0.046	.4	99.0	90-110
GN79813-CCB5	Cyanide Reactivity	0.046 U	0.20	0.046			

(!) Outside of QC limits

Percent Solids Raw Data Summary

Job Number: JC65663
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: JC65663-1		Analyzed: 14-MAY-18 by JV		Method: SM2540 G-97	
ClientID: WC-4					
Wet Weight (Total)	31.71	g			
Tare Weight	25.81	g			
Dry Weight (Total)	30.73	g			
Solids, Percent	83.4	%			
Sample: JC65663-2		Analyzed: 14-MAY-18 by JV		Method: SM2540 G-97	
ClientID: WC-3					
Wet Weight (Total)	24.73	g			
Tare Weight	18.7	g			
Dry Weight (Total)	24.27	g			
Solids, Percent	92.4	%			

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

e-Hardcopy 2.0
Automated Report

Technical Report for

Arcadis

NYSEG - Lyons MGP Site, Lyons NY

B0013143.00000

SGS Job Number: JC65799

Sampling Date: 05/08/18

Report to:

Arcadis
295 Woodcliff Drive Suite 301
Fairport, NY 14450
matt.hysell@arcadis.com; Nicholas.Beyrle@arcadis.com

ATTN: Matthew Hysell

Total number of pages in report: **240**



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

Nancy F. Cole

Nancy Cole
Laboratory Director

Client Service contact: Diane Komar 732-329-0200

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

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



June 12, 2018

Mr. Matthew Hysell
Arcadis
295 Wiidckuff Druve Syute 301
Fairport, NY 14450

Re: SGS North America – Dayton, NJ Jobs # JC65799 – Reissues

Dear Mr. Hysell,

The final reports for SGS jobs number JC65799 has been edited to reflect corrections to the final results. These edits have been incorporated into the revised report which is attached.

Specifically, the B8270PAH and SOL104 results have been retrieved for sample JC65799-5R per your request on 5/31/2018. The attached revised report incorporates these revisions.

Please contact me if I can be of further assistance in this matter.

Sincerely,

Report Department

SGS North America Inc.



CONTINUOUS SERVICE IMPROVEMENT!

Our goal is to continuously improve our service to you. Please share your ideas about how we can serve you better at EHS.US.CustomerCare@sgs.com. Your feedback is appreciated!



SGS North America Inc. Mid-Atlantic 2235 US Highway 130 Dayton, NJ 08810, USA t +1 (0)732 329 0200

Member of the SGS Group (SGS SA)

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Sample Summary

Arcadis

Job No: JC65799

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.00000

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JC65799-1	05/08/18	11:00 RDC	05/09/18	SO	Soil	SS-100
JC65799-2	05/08/18	11:10 RDC	05/09/18	SO	Soil	SS-101
JC65799-3	05/08/18	11:20 RDC	05/09/18	SO	Soil	SS-102
JC65799-4	05/08/18	11:30 RDC	05/09/18	SO	Soil	SS-103
JC65799-5	05/08/18	11:40 RDC	05/09/18	SO	Soil	SS-104
JC65799-5R	05/08/18	11:40 RDC	05/09/18	SO	Soil	SS-104
JC65799-6	05/08/18	14:00 RDC	05/09/18	SO	Soil	SS-105
JC65799-7	05/08/18	14:10 RDC	05/09/18	SO	Soil	SS-106
JC65799-7D	05/08/18	14:10 RDC	05/09/18	SO	Soil Dup/MSD	SS-106 MSD
JC65799-7S	05/08/18	14:10 RDC	05/09/18	SO	Soil Matrix Spike	SS-106 MS
JC65799-8	05/08/18	14:20 RDC	05/09/18	SO	Soil	SS-107
JC65799-9	05/08/18	14:30 RDC	05/09/18	SO	Soil	SS-108
JC65799-10	05/08/18	00:00 RDC	05/09/18	SO	Soil	DUP-050818

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Arcadis

Job No JC65799

Site: NYSEG - Lyons MGP Site, Lyons NY

Report Date 6/12/2018 10:02:06 A

On 05/09/2018, 8 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 5.3 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC65799 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

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

MS Semi-volatiles By Method SW846 8270D

Matrix: SO

Batch ID: OP11924

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65773-17MS, JC65773-17MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: SO

Batch ID: OP11971

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65886-9MS, JC65886-9MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike / Matrix Spike Duplicate Recovery(s) for Fluoranthene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- Matrix Spike Duplicate Recovery(s) for Phenanthrene, Pyrene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Matrix: SO

Batch ID: OP12146

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65799-7MS, JC65799-7MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

General Chemistry By Method SM2540 G-97

Matrix: SO

Batch ID: GN80006

- The data for SM2540 G-97 meets quality control requirements.

Matrix: SO

Batch ID: GN80784

- The data for SM2540 G-97 meets quality control requirements.

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

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

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

Tuesday, June 12, 2018

Page 1 of 1

Summary of Hits

Job Number: JC65799
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/08/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC65799-1	SS-100					
Benzo(a)anthracene		59.8	39	11	ug/kg	SW846 8270D
Benzo(a)pyrene		63.7	39	18	ug/kg	SW846 8270D
Benzo(b)fluoranthene		79.6	39	17	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		49.1	39	19	ug/kg	SW846 8270D
Benzo(k)fluoranthene		31.8 J	39	18	ug/kg	SW846 8270D
Chrysene		66.7	39	12	ug/kg	SW846 8270D
Fluoranthene		101	39	17	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		52.1	39	18	ug/kg	SW846 8270D
Phenanthrene		48.0	39	13	ug/kg	SW846 8270D
Pyrene		101	39	12	ug/kg	SW846 8270D
JC65799-2	SS-101					
Benzo(a)anthracene		55.9	39	11	ug/kg	SW846 8270D
Benzo(a)pyrene		60.8	39	18	ug/kg	SW846 8270D
Benzo(b)fluoranthene		87.3	39	17	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		53.6	39	19	ug/kg	SW846 8270D
Benzo(k)fluoranthene		31.8 J	39	18	ug/kg	SW846 8270D
Chrysene		62.3	39	12	ug/kg	SW846 8270D
Fluoranthene		111	39	17	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		58.5	39	18	ug/kg	SW846 8270D
Phenanthrene		34.9 J	39	13	ug/kg	SW846 8270D
Pyrene		99.6	39	12	ug/kg	SW846 8270D
JC65799-3	SS-102					
Benzo(a)anthracene		76.6	36	10	ug/kg	SW846 8270D
Benzo(a)pyrene		81.5	36	16	ug/kg	SW846 8270D
Benzo(b)fluoranthene		103	36	16	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		62.2	36	18	ug/kg	SW846 8270D
Benzo(k)fluoranthene		37.5	36	17	ug/kg	SW846 8270D
Chrysene		75.6	36	11	ug/kg	SW846 8270D
Fluoranthene		99.9	36	16	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		68.5	36	17	ug/kg	SW846 8270D
Phenanthrene		38.7	36	12	ug/kg	SW846 8270D
Pyrene		107	36	11	ug/kg	SW846 8270D
JC65799-4	SS-103					
Acenaphthene		53.8	41	14	ug/kg	SW846 8270D
Acenaphthylene		189	41	21	ug/kg	SW846 8270D
Anthracene		336	41	25	ug/kg	SW846 8270D
Benzo(a)anthracene		1890	41	12	ug/kg	SW846 8270D

Summary of Hits

Job Number: JC65799
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/08/18



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Benzo(a)pyrene		2060	41	19	ug/kg	SW846 8270D
Benzo(b)fluoranthene		2520	41	18	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		1430	41	21	ug/kg	SW846 8270D
Benzo(k)fluoranthene		820	41	19	ug/kg	SW846 8270D
Chrysene		1740	41	13	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		445	41	18	ug/kg	SW846 8270D
Fluoranthene		2030	41	18	ug/kg	SW846 8270D
Fluorene		79.3	41	19	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		1620	41	19	ug/kg	SW846 8270D
Naphthalene		200	41	12	ug/kg	SW846 8270D
Phenanthrene		799	41	14	ug/kg	SW846 8270D
Pyrene		2270	41	13	ug/kg	SW846 8270D
JC65799-5R SS-104						
Acenaphthene		277	36	12	ug/kg	SW846 8270D
Acenaphthylene		789	36	18	ug/kg	SW846 8270D
Anthracene		1990	36	22	ug/kg	SW846 8270D
Benzo(a)anthracene		9950	360	100	ug/kg	SW846 8270D
Benzo(a)pyrene		12800	360	160	ug/kg	SW846 8270D
Benzo(b)fluoranthene		12700	360	160	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		6890	360	180	ug/kg	SW846 8270D
Benzo(k)fluoranthene		5480	360	170	ug/kg	SW846 8270D
Chrysene		8960	360	110	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		2450	36	16	ug/kg	SW846 8270D
Fluoranthene		12700	360	160	ug/kg	SW846 8270D
Fluorene		340	36	17	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		8380	360	170	ug/kg	SW846 8270D
Naphthalene		535	36	10	ug/kg	SW846 8270D
Phenanthrene		2920	36	12	ug/kg	SW846 8270D
Pyrene		12600	360	120	ug/kg	SW846 8270D
JC65799-7 SS-106						
Acenaphthene		50.8	38	13	ug/kg	SW846 8270D
Acenaphthylene		46.8	38	19	ug/kg	SW846 8270D
Anthracene		124	38	23	ug/kg	SW846 8270D
Benzo(a)anthracene		653	38	11	ug/kg	SW846 8270D
Benzo(a)pyrene		786	38	17	ug/kg	SW846 8270D
Benzo(b)fluoranthene		873	38	17	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		572	38	19	ug/kg	SW846 8270D
Benzo(k)fluoranthene		319	38	18	ug/kg	SW846 8270D
Chrysene		599	38	12	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		156	38	17	ug/kg	SW846 8270D
Fluoranthene		766	38	17	ug/kg	SW846 8270D

Summary of Hits

Job Number: JC65799
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/08/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

Fluorene		44.2	38	18	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		627	38	18	ug/kg	SW846 8270D
Naphthalene		65.1	38	11	ug/kg	SW846 8270D
Phenanthrene		367	38	13	ug/kg	SW846 8270D
Pyrene		827	38	12	ug/kg	SW846 8270D

JC65799-8 SS-107

Acenaphthylene	22.2 J	38	19	ug/kg	SW846 8270D
Anthracene	39.8	38	23	ug/kg	SW846 8270D
Benzo(a)anthracene	202	38	11	ug/kg	SW846 8270D
Benzo(a)pyrene	247	38	17	ug/kg	SW846 8270D
Benzo(b)fluoranthene	298	38	17	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	197	38	19	ug/kg	SW846 8270D
Benzo(k)fluoranthene	101	38	18	ug/kg	SW846 8270D
Chrysene	210	38	12	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	56.9	38	17	ug/kg	SW846 8270D
Fluoranthene	273	38	17	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	207	38	18	ug/kg	SW846 8270D
Naphthalene	16.0 J	38	11	ug/kg	SW846 8270D
Phenanthrene	115	38	13	ug/kg	SW846 8270D
Pyrene	267	38	12	ug/kg	SW846 8270D

JC65799-10 DUP-050818

Acenaphthene	14.1 J	34	12	ug/kg	SW846 8270D
Benzo(a)anthracene	59.7	34	9.7	ug/kg	SW846 8270D
Benzo(a)pyrene	60.7	34	16	ug/kg	SW846 8270D
Benzo(b)fluoranthene	82.2	34	15	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	44.7	34	17	ug/kg	SW846 8270D
Benzo(k)fluoranthene	27.1 J	34	16	ug/kg	SW846 8270D
Chrysene	57.8	34	11	ug/kg	SW846 8270D
Fluoranthene	79.1	34	15	ug/kg	SW846 8270D
Fluorene	19.5 J	34	16	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	52.0	34	16	ug/kg	SW846 8270D
Naphthalene	216	34	9.7	ug/kg	SW846 8270D
Phenanthrene	61.2	34	12	ug/kg	SW846 8270D
Pyrene	85.2	34	11	ug/kg	SW846 8270D



Dayton, NJ

Section 4

4

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SS-100						
Lab Sample ID:	JC65799-1					Date Sampled:	05/08/18
Matrix:	SO - Soil					Date Received:	05/09/18
Method:	SW846 8270D SW846 3546					Percent Solids:	83.1
Project:	NYSEG - Lyons MGP Site, Lyons NY						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z130937.D	1	05/23/18 15:49	JB	05/11/18 06:15	OP11924	EZ6455
Run #2							

	Initial Weight	Final Volume
Run #1	31.0 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	39	13	ug/kg	
208-96-8	Acenaphthylene	ND	39	20	ug/kg	
120-12-7	Anthracene	ND	39	24	ug/kg	
56-55-3	Benzo(a)anthracene	59.8	39	11	ug/kg	
50-32-8	Benzo(a)pyrene	63.7	39	18	ug/kg	
205-99-2	Benzo(b)fluoranthene	79.6	39	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	49.1	39	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	31.8	39	18	ug/kg	J
218-01-9	Chrysene	66.7	39	12	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	39	17	ug/kg	
206-44-0	Fluoranthene	101	39	17	ug/kg	
86-73-7	Fluorene	ND	39	18	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	52.1	39	18	ug/kg	
91-20-3	Naphthalene	ND	39	11	ug/kg	
85-01-8	Phenanthrene	48.0	39	13	ug/kg	
129-00-0	Pyrene	101	39	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	72%		26-134%
321-60-8	2-Fluorobiphenyl	69%		39-124%
1718-51-0	Terphenyl-d14	68%		36-134%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SS-101		
Lab Sample ID:	JC65799-2	Date Sampled:	05/08/18
Matrix:	SO - Soil	Date Received:	05/09/18
Method:	SW846 8270D SW846 3546	Percent Solids:	85.0
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z130936.D	1	05/23/18 15:21	JB	05/11/18 06:15	OP11924	EZ6455
Run #2							

	Initial Weight	Final Volume
Run #1	30.4 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	39	13	ug/kg	
208-96-8	Acenaphthylene	ND	39	20	ug/kg	
120-12-7	Anthracene	ND	39	24	ug/kg	
56-55-3	Benzo(a)anthracene	55.9	39	11	ug/kg	
50-32-8	Benzo(a)pyrene	60.8	39	18	ug/kg	
205-99-2	Benzo(b)fluoranthene	87.3	39	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	53.6	39	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	31.8	39	18	ug/kg	J
218-01-9	Chrysene	62.3	39	12	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	39	17	ug/kg	
206-44-0	Fluoranthene	111	39	17	ug/kg	
86-73-7	Fluorene	ND	39	18	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	58.5	39	18	ug/kg	
91-20-3	Naphthalene	ND	39	11	ug/kg	
85-01-8	Phenanthrene	34.9	39	13	ug/kg	J
129-00-0	Pyrene	99.6	39	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	67%		26-134%
321-60-8	2-Fluorobiphenyl	62%		39-124%
1718-51-0	Terphenyl-d14	64%		36-134%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SS-102						
Lab Sample ID:	JC65799-3					Date Sampled:	05/08/18
Matrix:	SO - Soil					Date Received:	05/09/18
Method:	SW846 8270D SW846 3546					Percent Solids:	88.2
Project:	NYSEG - Lyons MGP Site, Lyons NY						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z130935.D	1	05/23/18 14:54	JB	05/11/18 06:15	OP11924	EZ6455
Run #2							

	Initial Weight	Final Volume
Run #1	31.6 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	36	12	ug/kg	
208-96-8	Acenaphthylene	ND	36	18	ug/kg	
120-12-7	Anthracene	ND	36	22	ug/kg	
56-55-3	Benzo(a)anthracene	76.6	36	10	ug/kg	
50-32-8	Benzo(a)pyrene	81.5	36	16	ug/kg	
205-99-2	Benzo(b)fluoranthene	103	36	16	ug/kg	
191-24-2	Benzo(g,h,i)perylene	62.2	36	18	ug/kg	
207-08-9	Benzo(k)fluoranthene	37.5	36	17	ug/kg	
218-01-9	Chrysene	75.6	36	11	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	36	16	ug/kg	
206-44-0	Fluoranthene	99.9	36	16	ug/kg	
86-73-7	Fluorene	ND	36	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	68.5	36	17	ug/kg	
91-20-3	Naphthalene	ND	36	10	ug/kg	
85-01-8	Phenanthrene	38.7	36	12	ug/kg	
129-00-0	Pyrene	107	36	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	72%		26-134%
321-60-8	2-Fluorobiphenyl	69%		39-124%
1718-51-0	Terphenyl-d14	78%		36-134%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SS-103		
Lab Sample ID:	JC65799-4	Date Sampled:	05/08/18
Matrix:	SO - Soil	Date Received:	05/09/18
Method:	SW846 8270D SW846 3546	Percent Solids:	77.9
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z130938.D	1	05/23/18 16:16	JB	05/11/18 06:15	OP11924	EZ6455
Run #2							

	Initial Weight	Final Volume
Run #1	31.2 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	53.8	41	14	ug/kg	
208-96-8	Acenaphthylene	189	41	21	ug/kg	
120-12-7	Anthracene	336	41	25	ug/kg	
56-55-3	Benzo(a)anthracene	1890	41	12	ug/kg	
50-32-8	Benzo(a)pyrene	2060	41	19	ug/kg	
205-99-2	Benzo(b)fluoranthene	2520	41	18	ug/kg	
191-24-2	Benzo(g,h,i)perylene	1430	41	21	ug/kg	
207-08-9	Benzo(k)fluoranthene	820	41	19	ug/kg	
218-01-9	Chrysene	1740	41	13	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	445	41	18	ug/kg	
206-44-0	Fluoranthene	2030	41	18	ug/kg	
86-73-7	Fluorene	79.3	41	19	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	1620	41	19	ug/kg	
91-20-3	Naphthalene	200	41	12	ug/kg	
85-01-8	Phenanthrene	799	41	14	ug/kg	
129-00-0	Pyrene	2270	41	13	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	64%		26-134%
321-60-8	2-Fluorobiphenyl	61%		39-124%
1718-51-0	Terphenyl-d14	63%		36-134%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SS-104		
Lab Sample ID:	JC65799-5R	Date Sampled:	05/08/18
Matrix:	SO - Soil	Date Received:	05/09/18
Method:	SW846 8270D SW846 3546	Percent Solids:	87.9
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P123379.D	1	06/07/18 14:58	AR	05/14/18 07:15	OP11971	EP5535
Run #2	P123452.D	10	06/11/18 12:35	AR	05/14/18 07:15	OP11971	EP5540

	Initial Weight	Final Volume
Run #1	31.4 g	1.0 ml
Run #2	31.4 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	277	36	12	ug/kg	
208-96-8	Acenaphthylene	789	36	18	ug/kg	
120-12-7	Anthracene	1990	36	22	ug/kg	
56-55-3	Benzo(a)anthracene	9950 ^a	360	100	ug/kg	
50-32-8	Benzo(a)pyrene	12800 ^a	360	160	ug/kg	
205-99-2	Benzo(b)fluoranthene	12700 ^a	360	160	ug/kg	
191-24-2	Benzo(g,h,i)perylene	6890 ^a	360	180	ug/kg	
207-08-9	Benzo(k)fluoranthene	5480 ^a	360	170	ug/kg	
218-01-9	Chrysene	8960 ^a	360	110	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	2450	36	16	ug/kg	
206-44-0	Fluoranthene	12700 ^a	360	160	ug/kg	
86-73-7	Fluorene	340	36	17	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	8380 ^a	360	170	ug/kg	
91-20-3	Naphthalene	535	36	10	ug/kg	
85-01-8	Phenanthrene	2920	36	12	ug/kg	
129-00-0	Pyrene	12600 ^a	360	120	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%	68%	26-134%
321-60-8	2-Fluorobiphenyl	74%	73%	39-124%
1718-51-0	Terphenyl-d14	59%	75%	36-134%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SS-106		
Lab Sample ID:	JC65799-7	Date Sampled:	05/08/18
Matrix:	SO - Soil	Date Received:	05/09/18
Method:	SW846 8270D SW846 3546	Percent Solids:	86.6
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z130878.D	1	05/22/18 05:17	CS	05/21/18 14:45	OP12146	EZ6453
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	50.8	38	13	ug/kg	
208-96-8	Acenaphthylene	46.8	38	19	ug/kg	
120-12-7	Anthracene	124	38	23	ug/kg	
56-55-3	Benzo(a)anthracene	653	38	11	ug/kg	
50-32-8	Benzo(a)pyrene	786	38	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	873	38	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	572	38	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	319	38	18	ug/kg	
218-01-9	Chrysene	599	38	12	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	156	38	17	ug/kg	
206-44-0	Fluoranthene	766	38	17	ug/kg	
86-73-7	Fluorene	44.2	38	18	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	627	38	18	ug/kg	
91-20-3	Naphthalene	65.1	38	11	ug/kg	
85-01-8	Phenanthrene	367	38	13	ug/kg	
129-00-0	Pyrene	827	38	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%		26-134%
321-60-8	2-Fluorobiphenyl	63%		39-124%
1718-51-0	Terphenyl-d14	77%		36-134%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SS-107		
Lab Sample ID:	JC65799-8	Date Sampled:	05/08/18
Matrix:	SO - Soil	Date Received:	05/09/18
Method:	SW846 8270D SW846 3546	Percent Solids:	85.3
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z130940.D	1	05/23/18 17:14	JB	05/11/18 06:15	OP11924	EZ6455
Run #2							

	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	38	13	ug/kg	
208-96-8	Acenaphthylene	22.2	38	19	ug/kg	J
120-12-7	Anthracene	39.8	38	23	ug/kg	
56-55-3	Benzo(a)anthracene	202	38	11	ug/kg	
50-32-8	Benzo(a)pyrene	247	38	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	298	38	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	197	38	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	101	38	18	ug/kg	
218-01-9	Chrysene	210	38	12	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	56.9	38	17	ug/kg	
206-44-0	Fluoranthene	273	38	17	ug/kg	
86-73-7	Fluorene	ND	38	18	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	207	38	18	ug/kg	
91-20-3	Naphthalene	16.0	38	11	ug/kg	J
85-01-8	Phenanthrene	115	38	13	ug/kg	
129-00-0	Pyrene	267	38	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	64%		26-134%
321-60-8	2-Fluorobiphenyl	61%		39-124%
1718-51-0	Terphenyl-d14	56%		36-134%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	DUP-050818	
Lab Sample ID:	JC65799-10	Date Sampled: 05/08/18
Matrix:	SO - Soil	Date Received: 05/09/18
Method:	SW846 8270D SW846 3546	Percent Solids: 89.5
Project:	NYSEG - Lyons MGP Site, Lyons NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z130934.D	1	05/23/18 14:27	JB	05/11/18 06:15	OP11924	EZ6455
Run #2							

	Initial Weight	Final Volume
Run #1	32.6 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	14.1	34	12	ug/kg	J
208-96-8	Acenaphthylene	ND	34	17	ug/kg	
120-12-7	Anthracene	ND	34	21	ug/kg	
56-55-3	Benzo(a)anthracene	59.7	34	9.7	ug/kg	
50-32-8	Benzo(a)pyrene	60.7	34	16	ug/kg	
205-99-2	Benzo(b)fluoranthene	82.2	34	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	44.7	34	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	27.1	34	16	ug/kg	J
218-01-9	Chrysene	57.8	34	11	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	34	15	ug/kg	
206-44-0	Fluoranthene	79.1	34	15	ug/kg	
86-73-7	Fluorene	19.5	34	16	ug/kg	J
193-39-5	Indeno(1,2,3-cd)pyrene	52.0	34	16	ug/kg	
91-20-3	Naphthalene	216	34	9.7	ug/kg	
85-01-8	Phenanthrene	61.2	34	12	ug/kg	
129-00-0	Pyrene	85.2	34	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%		26-134%
321-60-8	2-Fluorobiphenyl	65%		39-124%
1718-51-0	Terphenyl-d14	69%		36-134%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

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

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)		Matrix Codes	
Company Name Arcadis		Project Name NYSEG - Lyons MLP Site					
Street Address 295 Woodcliff Dr. Suite 301		Street 2 Water St.					
City Fairport NY		City Lyons NY					
State NY		State NY					
Zip 14450		Zip 14450					
Project Contact Matt Hyatt@arcadis.com		Project # 80813143.0000					
Phone # 315-671-9189		Client Purchase Order #					
Fax #		City					
Sampler(s) Name(s) Ryan Clare 585-860-7247		Project Manager Jason Brien					
Phone #		Attention:					
Lab Sample #		Collection					
Field ID / Point of Collection		MEOH/DI Vial #					
Date		Time					
Sampled by		Matrix					
# of bottles							
NYC		HNO3					
H2SO4		H2SO4					
NONE		DI Water					
MEOH		ENCORE					
1		SS-100		5-8-18 1100 RDC SO 1		X	
2		SS-101		5-8-18 1110 RDC SO 1		X	
3		SS-102		5-8-18 1120 RDC SO 1		X	
4		SS-103		5-8-18 1130 RDC SO 1		X	
5		SS-104		5-8-18 1140 RDC SO 1		X	
6		SS-105		5-8-18 1400 RDC SO 1		X	
7		SS-106		5-8-18 1410 RDC SO 1		X	
8		SS-106 (MVMSP)		5-8-18 1410 RDC SO 2		X	
9		SS-107		5-8-18 1420 RDC SO 1		X	
10		SS-108		5-8-18 1430 RDC SO 1		X	
11		DUP-050818		5-8-18 - RDC SO 1		X	
Turnaround Time (Business days)		Data Deliverable Information					
☒ Std. 10 Business Days ☐ 5 Day RUSH ☐ 3 Day RUSH ☐ 2 Day RUSH ☐ 1 Day RUSH ☐ other		Approved by (SGS Project Manager)/Date: ☐ Commercial "A" (Level 1) ☐ Commercial "B" (Level 2) ☐ FULLT1 (Level 3+4) ☐ NJ Reduced ☐ Commercial "C" ☐ NJ Data of Known Quality Protocol Reporting Commercial "A" = Results Only; Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data		☐ NYASP Category A ☐ NYASP Category B ☐ State Forms ☐ EDD Format ☐ Other		Comments / Special Instructions HOLD SS-104, 105, and 108.	
Emergency & Rush TIA data available via LabLink		Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler: ASL		Date/Time: 5/8/18 16:00		Received By: [Signature]		Date/Time: 5/8/18	
Relinquished by Sampler: FX		Date/Time: 5/9/18 9:50		Received By: FX		Date/Time: 5/9/18	
Relinquished by:		Date/Time:		Received By:		Date/Time:	
Custody Seal #		Intact		Preserved where applicable		On Ice	
		Not Intact				Cooler Temp.	

SGS Sample Receipt Summary

Job Number: JC65799

Client: ARCADIS

Project: NYSEG - LYONS MGP SITE, LYONS NY - DELIN

Date / Time Received: 5/9/2018 9:50:00 AM

Delivery Method:
Airbill #s:
Cooler Temps (Raw Measured) °C: Cooler 1: (3.8);

Cooler Temps (Corrected) °C: Cooler 1: (5.3);

Cooler Security	Y or N
1. Custody Seals Present:	☒ ☐
2. Custody Seals Intact:	☒ ☐
3. COC Present:	☒ ☐
4. Smpl Dates/Time OK	☒ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☒ ☐
2. Cooler temp verification:	IR Gun
3. Cooler media:	Ice (Bag)
4. No. Coolers:	1

Quality Control Preservation	Y or N	N/A
1. Trip Blank present / cooler:	☐ ☒	☐
2. Trip Blank listed on COC:	☐ ☒	☐
3. Samples preserved properly:	☒ ☐	
4. VOCs headspace free:	☐ ☐	☒

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☒ ☐
2. Container labeling complete:	☒ ☐
3. Sample container label / COC agree:	☒ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☒ ☐
2. All containers accounted for:	☒ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☒ ☐	
2. Bottles received for unspecified tests	☐ ☒	
3. Sufficient volume recvd for analysis:	☒ ☐	
4. Compositing instructions clear:	☐ ☐	☒
5. Filtering instructions clear:	☐ ☐	☒

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

Comments

SM089-03
Rev. Date 12/7/17

JC65799: Chain of Custody

Page 2 of 4

Job Change Order: JC65799

Requested Date: 5/11/2018 Received Date: 5/9/2018
Account Name: Arcadis Due Date: 5/23/2018
Project Description: NYSEG - Lyons MGP Site, Lyons NY REDT2
C/O Initiated By: DIANEK PM: DK TAT (Days): 14

Sample #: JC65799-5 Change:
Dept: Take off HOLD and log in for B8270XH

TAT: 14

SS-104

Sample #: JC65799-6 Change:
Dept: Take off HOLD and log in for B8270XH

TAT: 14

SS-105

Sample #: JC65799-9 Change:
Dept: Take off HOLD and log in for B8270XH

TAT: 14

SS-108

Above Changes Per: Nicholas (Klaus) Beyrle Date/Time: 5/11/2018 3:35:58 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Job Change Order: JC65799

Requested Date: 5/31/2018 Received Date: 5/9/2018
Account Name: Arcadis Due Date: 5/23/2018
Project Description: NYSEG - Lyons MGP Site, Lyons NY REDT2
C/O Initiated By: LS PM: DK TAT (Days): 7

Sample #: JC65799-5 Change:
Dept: Relog for B8270PAHAO and SOL104

TAT: 7

SS-104

Above Changes Per: Matt Hysell Date/Time: 5/31/2018 11:57:09 AM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Internal Sample Tracking Chronicle

Arcadis

Job No: JC65799

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.00000

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC65799-1 SS-100	Collected: 08-MAY-18 11:00	By: RDC	Received: 09-MAY-18	By: DG		
JC65799-1	SM2540 G-97	15-MAY-18 16:40	LV			SOL104
JC65799-1	SW846 8270D	23-MAY-18 15:49	JB	11-MAY-18 AY		B8270PAH
JC65799-2 SS-101	Collected: 08-MAY-18 11:10	By: RDC	Received: 09-MAY-18	By: DG		
JC65799-2	SM2540 G-97	15-MAY-18 16:40	LV			SOL104
JC65799-2	SW846 8270D	23-MAY-18 15:21	JB	11-MAY-18 AY		B8270PAH
JC65799-3 SS-102	Collected: 08-MAY-18 11:20	By: RDC	Received: 09-MAY-18	By: DG		
JC65799-3	SM2540 G-97	15-MAY-18 16:40	LV			SOL104
JC65799-3	SW846 8270D	23-MAY-18 14:54	JB	11-MAY-18 AY		B8270PAH
JC65799-4 SS-103	Collected: 08-MAY-18 11:30	By: RDC	Received: 09-MAY-18	By: DG		
JC65799-4	SM2540 G-97	15-MAY-18 16:40	LV			SOL104
JC65799-4	SW846 8270D	23-MAY-18 16:16	JB	11-MAY-18 AY		B8270PAH
JC65799-7 SS-106	Collected: 08-MAY-18 14:10	By: RDC	Received: 09-MAY-18	By: DG		
JC65799-7	SM2540 G-97	15-MAY-18 16:40	LV			SOL104
JC65799-7	SW846 8270D	22-MAY-18 05:17	CS	21-MAY-18 LL		B8270PAH
JC65799-8 SS-107	Collected: 08-MAY-18 14:20	By: RDC	Received: 09-MAY-18	By: DG		
JC65799-8	SM2540 G-97	15-MAY-18 16:40	LV			SOL104
JC65799-8	SW846 8270D	23-MAY-18 17:14	JB	11-MAY-18 AY		B8270PAH
JC65799-10 DUP-050818	Collected: 08-MAY-18 00:00	By: RDC	Received: 09-MAY-18	By: DG		
JC65799-10	SM2540 G-97	15-MAY-18 16:40	LV			SOL104

Internal Sample Tracking Chronicle

Arcadis

Job No: JC65799

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.00000

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC65799-10	SW846 8270D	23-MAY-18 14:27	JB	11-MAY-18	AY	B8270PAH
JC65799-5R Collected: 08-MAY-18 11:40 By: RDC Received: 09-MAY-18 By: DG SS-104						
JC65799-5R	SM2540 G-97	01-JUN-18 13:20	SF			SOL104
JC65799-5R	SW846 8270D	07-JUN-18 14:58	AR	14-MAY-18	FN	B8270PAHAO
JC65799-5R	SW846 8270D	11-JUN-18 12:35	AR	14-MAY-18	FN	B8270PAHAO

SGS Internal Chain of Custody

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/09/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65799-1.1	Secured Staging Area	Sahara Feliciano	05/10/18 17:55	Retrieve from Storage
JC65799-1.1	Sahara Feliciano	Secured Staging Area	05/10/18 17:55	Return to Storage
JC65799-1.1	Secured Staging Area	Sora Lynn Mathurin	05/11/18 05:03	Retrieve from Storage
JC65799-1.1	Sora Lynn Mathurin	Meilly Arbelo	05/11/18 06:39	Custody Transfer
JC65799-1.1	Meilly Arbelo	Secured Storage	05/11/18 11:48	Return to Storage
JC65799-1.1	Secured Storage	Dwayne Johnson	05/15/18 13:59	Retrieve from Storage
JC65799-1.1	Dwayne Johnson	Secured Staging Area	05/15/18 13:59	Return to Storage
JC65799-1.1	Secured Staging Area	Luis Villanueva	05/15/18 16:09	Retrieve from Storage
JC65799-1.1	Luis Villanueva	Secured Storage	05/17/18 14:08	Return to Storage
JC65799-1.1.1	Sora Lynn Mathurin	Organics Prep	05/11/18 05:10	Extract from JC65799-1.1
JC65799-1.1.1	Organics Prep	Christine Change	05/11/18 17:14	Extract from JC65799-1.1
JC65799-1.1.1	Christine Change	Extract Storage	05/11/18 17:14	Return to Storage
JC65799-1.1.1	Extract Storage	Christopher Sowa	05/19/18 03:11	Retrieve from Storage
JC65799-1.1.1	Christopher Sowa	GCMSZ	05/19/18 03:11	Load on Instrument
JC65799-1.1.1	GCMSZ	Christine Change	05/24/18 15:05	Unload from Instrument
JC65799-1.1.1	Christine Change	Extract Freezer	05/24/18 15:05	Return to Storage
JC65799-2.1	Secured Staging Area	Sahara Feliciano	05/10/18 17:55	Retrieve from Storage
JC65799-2.1	Sahara Feliciano	Secured Staging Area	05/10/18 17:55	Return to Storage
JC65799-2.1	Secured Staging Area	Sora Lynn Mathurin	05/11/18 05:03	Retrieve from Storage
JC65799-2.1	Sora Lynn Mathurin	Meilly Arbelo	05/11/18 06:39	Custody Transfer
JC65799-2.1	Meilly Arbelo	Secured Storage	05/11/18 11:48	Return to Storage
JC65799-2.1	Secured Storage	Dwayne Johnson	05/15/18 13:59	Retrieve from Storage
JC65799-2.1	Dwayne Johnson	Secured Staging Area	05/15/18 13:59	Return to Storage
JC65799-2.1	Secured Staging Area	Luis Villanueva	05/15/18 16:09	Retrieve from Storage
JC65799-2.1	Luis Villanueva	Secured Storage	05/17/18 14:08	Return to Storage
JC65799-2.1.1	Sora Lynn Mathurin	Organics Prep	05/11/18 05:10	Extract from JC65799-2.1
JC65799-2.1.1	Organics Prep	Christine Change	05/11/18 17:14	Extract from JC65799-2.1
JC65799-2.1.1	Christine Change	Extract Storage	05/11/18 17:14	Return to Storage
JC65799-2.1.1	Extract Storage	Christopher Sowa	05/19/18 03:11	Retrieve from Storage
JC65799-2.1.1	Christopher Sowa	GCMSZ	05/19/18 03:11	Load on Instrument
JC65799-2.1.1	GCMSZ	Christine Change	05/24/18 15:05	Unload from Instrument
JC65799-2.1.1	Christine Change	Extract Freezer	05/24/18 15:05	Return to Storage
JC65799-3.1	Secured Staging Area	Sahara Feliciano	05/10/18 17:55	Retrieve from Storage
JC65799-3.1	Sahara Feliciano	Secured Staging Area	05/10/18 17:55	Return to Storage
JC65799-3.1	Secured Staging Area	Sora Lynn Mathurin	05/11/18 05:03	Retrieve from Storage
JC65799-3.1	Sora Lynn Mathurin	Meilly Arbelo	05/11/18 06:39	Custody Transfer
JC65799-3.1	Meilly Arbelo	Secured Storage	05/11/18 11:48	Return to Storage
JC65799-3.1	Secured Storage	Dwayne Johnson	05/15/18 13:59	Retrieve from Storage
JC65799-3.1	Dwayne Johnson	Secured Staging Area	05/15/18 13:59	Return to Storage
JC65799-3.1	Secured Staging Area	Luis Villanueva	05/15/18 16:09	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/09/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65799-3.1	Luis Villanueva	Secured Storage	05/17/18 14:08	Return to Storage
JC65799-3.1.1	Sora Lynn Mathurin	Organics Prep	05/11/18 05:10	Extract from JC65799-3.1
JC65799-3.1.1	Organics Prep	Christine Change	05/11/18 17:14	Extract from JC65799-3.1
JC65799-3.1.1	Christine Change	Extract Storage	05/11/18 17:14	Return to Storage
JC65799-3.1.1	Extract Storage	Christopher Sowa	05/19/18 03:11	Retrieve from Storage
JC65799-3.1.1	Christopher Sowa	GCMSZ	05/19/18 03:11	Load on Instrument
JC65799-3.1.1	GCMSZ	Christine Change	05/24/18 15:05	Unload from Instrument
JC65799-3.1.1	Christine Change	Extract Freezer	05/24/18 15:05	Return to Storage
JC65799-4.1	Secured Staging Area	Sahara Feliciano	05/10/18 17:55	Retrieve from Storage
JC65799-4.1	Sahara Feliciano	Secured Staging Area	05/10/18 17:55	Return to Storage
JC65799-4.1	Secured Staging Area	Sora Lynn Mathurin	05/11/18 05:03	Retrieve from Storage
JC65799-4.1	Sora Lynn Mathurin	Meilly Arbelo	05/11/18 06:39	Custody Transfer
JC65799-4.1	Meilly Arbelo	Secured Storage	05/11/18 11:48	Return to Storage
JC65799-4.1	Secured Storage	Dwayne Johnson	05/15/18 13:59	Retrieve from Storage
JC65799-4.1	Dwayne Johnson	Secured Staging Area	05/15/18 13:59	Return to Storage
JC65799-4.1	Secured Staging Area	Luis Villanueva	05/15/18 16:09	Retrieve from Storage
JC65799-4.1	Luis Villanueva	Secured Storage	05/17/18 14:08	Return to Storage
JC65799-4.1.1	Sora Lynn Mathurin	Organics Prep	05/11/18 05:10	Extract from JC65799-4.1
JC65799-4.1.1	Organics Prep	Christine Change	05/11/18 17:14	Extract from JC65799-4.1
JC65799-4.1.1	Christine Change	Extract Storage	05/11/18 17:14	Return to Storage
JC65799-4.1.1	Extract Storage	Christopher Sowa	05/19/18 03:11	Retrieve from Storage
JC65799-4.1.1	Christopher Sowa	GCMSZ	05/19/18 03:11	Load on Instrument
JC65799-4.1.1	GCMSZ	Christine Change	05/24/18 15:05	Unload from Instrument
JC65799-4.1.1	Christine Change	Extract Freezer	05/24/18 15:05	Return to Storage
JC65799-5.1	Secured Storage	Sahara Feliciano	05/13/18 10:39	Retrieve from Storage
JC65799-5.1	Sahara Feliciano	Secured Staging Area	05/13/18 10:39	Return to Storage
JC65799-5.1	Secured Staging Area	Sauvelson Auguste	05/14/18 04:41	Retrieve from Storage
JC65799-5.1	Sauvelson Auguste	Secured Storage	05/14/18 11:01	Return to Storage
JC65799-5.1	Secured Storage	Todd Shoemaker	06/01/18 11:52	Retrieve from Storage
JC65799-5.1	Todd Shoemaker	Secured Staging Area	06/01/18 11:52	Return to Storage
JC65799-5.1	Secured Staging Area	Sahara Feliciano	06/01/18 12:25	Retrieve from Storage
JC65799-5.1	Sahara Feliciano	Secured Storage	06/01/18 13:27	Return to Storage
JC65799-5.1	Sahara Feliciano	Secured Storage	06/01/18 13:27	Return to Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC65799-5.1	Secured Storage	Todd Shoemaker	06/11/18 08:18	Retrieve from Storage
JC65799-5.1	Todd Shoemaker	Secured Staging Area	06/11/18 08:18	Return to Storage
JC65799-5.1	Secured Staging Area	Natasha Torres	06/11/18 08:24	Retrieve from Storage
JC65799-5.1	Natasha Torres	Chatayah Canaday	06/11/18 12:29	Custody Transfer
JC65799-5.1	Chatayah Canaday	Rebecca Gluckman	06/11/18 14:57	Custody Transfer
JC65799-5.1	Rebecca Gluckman	Secured Storage	06/11/18 15:45	Return to Storage

SGS Internal Chain of Custody

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/09/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65799-5.1.1	Sauvelson Auguste	Organics Prep	05/14/18 04:46	Extract from JC65799-5.1
JC65799-5.1.1	Organics Prep	Finley Nyaata	05/14/18 12:14	Extract from JC65799-5.1
JC65799-5.1.1	Finley Nyaata	Extract Storage	05/14/18 12:14	Return to Storage
JC65799-5.1.1	Extract Storage	George Sleem	05/15/18 02:41	Retrieve from Storage
JC65799-5.1.1	George Sleem	GCMS2M	05/15/18 02:41	Load on Instrument
JC65799-5.1.1	GCMS2M	John Boudreau	05/15/18 16:35	Unload from Instrument
JC65799-5.1.1	John Boudreau	Extract Freezer	05/15/18 16:36	Return to Storage
JC65799-5.1.1	Extract Freezer	Angela Rastelli	06/11/18 11:34	Retrieve from Storage
JC65799-5.1.1	Angela Rastelli	GCMS2M	06/11/18 11:34	Load on Instrument
JC65799-5.1.2	Natasha Torres	Organics Prep	06/11/18 08:28	Extract from JC65799-5.1
JC65799-5.1.2	Organics Prep	Natasha Torres	06/11/18 13:59	Extract from JC65799-5.1
JC65799-5.1.2	Natasha Torres	Extract Storage	06/11/18 13:59	Return to Storage
JC65799-6.1	Secured Storage	Sahara Feliciano	05/13/18 10:39	Retrieve from Storage
JC65799-6.1	Sahara Feliciano	Secured Staging Area	05/13/18 10:39	Return to Storage
JC65799-6.1	Secured Staging Area	Sauvelson Auguste	05/14/18 04:41	Retrieve from Storage
JC65799-6.1	Sauvelson Auguste	Secured Storage	05/14/18 11:01	Return to Storage
JC65799-6.1.1	Sauvelson Auguste	Organics Prep	05/14/18 04:46	Extract from JC65799-6.1
JC65799-6.1.1	Organics Prep	Finley Nyaata	05/14/18 12:14	Extract from JC65799-6.1
JC65799-6.1.1	Finley Nyaata	Extract Storage	05/14/18 12:14	Return to Storage
JC65799-6.1.1	Extract Storage	George Sleem	05/15/18 02:41	Retrieve from Storage
JC65799-6.1.1	George Sleem	GCMS2M	05/15/18 02:41	Load on Instrument
JC65799-6.1.1	GCMS2M	John Boudreau	05/15/18 16:35	Unload from Instrument
JC65799-6.1.1	John Boudreau	Extract Freezer	05/15/18 16:36	Return to Storage
JC65799-7.1	Secured Storage	Dwayne Johnson	05/15/18 13:59	Retrieve from Storage
JC65799-7.1	Dwayne Johnson	Secured Staging Area	05/15/18 13:59	Return to Storage
JC65799-7.1	Secured Staging Area	Luis Villanueva	05/15/18 16:09	Retrieve from Storage
JC65799-7.1	Luis Villanueva	Secured Storage	05/17/18 14:08	Return to Storage
JC65799-7.1	Secured Storage	Dwayne Johnson	05/21/18 12:36	Retrieve from Storage
JC65799-7.1	Dwayne Johnson	Secured Staging Area	05/21/18 12:36	Return to Storage
JC65799-7.1	Secured Staging Area	Chadiyah Canaday	05/21/18 12:43	Retrieve from Storage
JC65799-7.1	Chadiyah Canaday	Secured Storage	05/21/18 16:48	Return to Storage
JC65799-7.1.1	Chadiyah Canaday	Organics Prep	05/21/18 12:45	Extract from JC65799-7.1
JC65799-7.1.1	Organics Prep	Lindsey Lee	05/21/18 21:58	Extract from JC65799-7.1
JC65799-7.1.1	Lindsey Lee	Extract Storage	05/21/18 21:58	Return to Storage
JC65799-7.1.1	Extract Storage	Christopher Sowa	05/22/18 03:31	Retrieve from Storage
JC65799-7.1.1	Christopher Sowa	GCMSZ	05/22/18 03:31	Load on Instrument
JC65799-7.1.1	GCMSZ	John Boudreau	05/22/18 15:52	Unload from Instrument
JC65799-7.1.1	John Boudreau	Extract Freezer	05/22/18 15:52	Return to Storage

SGS Internal Chain of Custody

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/09/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65799-7.2	Secured Staging Area	Sahara Feliciano	05/10/18 17:55	Retrieve from Storage
JC65799-7.2	Sahara Feliciano	Secured Staging Area	05/10/18 17:55	Return to Storage
JC65799-7.2	Secured Staging Area	Sora Lynn Mathurin	05/11/18 05:03	Retrieve from Storage
JC65799-7.2	Sora Lynn Mathurin	Meilly Arbelo	05/11/18 06:39	Custody Transfer
JC65799-7.2	Meilly Arbelo	Secured Storage	05/11/18 11:48	Return to Storage
JC65799-7.2	Secured Storage	Dwayne Johnson	05/21/18 12:36	Retrieve from Storage
JC65799-7.2	Dwayne Johnson	Secured Staging Area	05/21/18 12:36	Return to Storage
JC65799-7.2	Secured Staging Area	Chatiyah Canaday	05/21/18 12:43	Retrieve from Storage
JC65799-7.2	Chatiyah Canaday	Secured Storage	05/21/18 16:48	Return to Storage
JC65799-7.2.1	Sora Lynn Mathurin	Organics Prep	05/11/18 05:10	Extract from JC65799-7.2
JC65799-7.2.1	Organics Prep	Christine Change	05/11/18 17:14	Extract from JC65799-7.2
JC65799-7.2.1	Christine Change	Extract Storage	05/11/18 17:14	Return to Storage
JC65799-7.2.1	Extract Storage	Christopher Sowa	05/19/18 03:11	Retrieve from Storage
JC65799-7.2.1	Christopher Sowa	GCMSZ	05/19/18 03:11	Load on Instrument
JC65799-7.2.1	GCMSZ	Christine Change	05/24/18 15:05	Unload from Instrument
JC65799-7.2.1	Christine Change	Extract Freezer	05/24/18 15:05	Return to Storage
JC65799-7.3	Secured Storage	Dwayne Johnson	05/15/18 13:59	Retrieve from Storage
JC65799-7.3	Dwayne Johnson	Secured Staging Area	05/15/18 13:59	Return to Storage
JC65799-7.3	Secured Staging Area	Luis Villanueva	05/15/18 16:09	Retrieve from Storage
JC65799-7.3	Luis Villanueva	Secured Storage	05/17/18 14:08	Return to Storage
JC65799-8.1	Secured Staging Area	Sahara Feliciano	05/10/18 17:55	Retrieve from Storage
JC65799-8.1	Sahara Feliciano	Secured Staging Area	05/10/18 17:55	Return to Storage
JC65799-8.1	Secured Staging Area	Sora Lynn Mathurin	05/11/18 05:03	Retrieve from Storage
JC65799-8.1	Sora Lynn Mathurin	Meilly Arbelo	05/11/18 06:39	Custody Transfer
JC65799-8.1	Meilly Arbelo	Secured Storage	05/11/18 11:48	Return to Storage
JC65799-8.1	Secured Storage	Dwayne Johnson	05/15/18 13:59	Retrieve from Storage
JC65799-8.1	Dwayne Johnson	Secured Staging Area	05/15/18 13:59	Return to Storage
JC65799-8.1	Secured Staging Area	Luis Villanueva	05/15/18 16:09	Retrieve from Storage
JC65799-8.1	Luis Villanueva	Secured Storage	05/17/18 14:08	Return to Storage
JC65799-8.1.1	Sora Lynn Mathurin	Organics Prep	05/11/18 05:10	Extract from JC65799-8.1
JC65799-8.1.1	Organics Prep	Christine Change	05/11/18 17:14	Extract from JC65799-8.1
JC65799-8.1.1	Christine Change	Extract Storage	05/11/18 17:14	Return to Storage
JC65799-8.1.1	Extract Storage	Christopher Sowa	05/19/18 03:11	Retrieve from Storage
JC65799-8.1.1	Christopher Sowa	GCMSZ	05/19/18 03:11	Load on Instrument
JC65799-8.1.1	GCMSZ	Christine Change	05/24/18 15:05	Unload from Instrument
JC65799-8.1.1	Christine Change	Extract Freezer	05/24/18 15:05	Return to Storage
JC65799-9.1	Secured Storage	Sahara Feliciano	05/13/18 10:39	Retrieve from Storage
JC65799-9.1	Sahara Feliciano	Secured Staging Area	05/13/18 10:39	Return to Storage

SGS Internal Chain of Custody

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/09/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65799-9.1	Secured Staging Area	Sauvelson Auguste	05/14/18 04:41	Retrieve from Storage
JC65799-9.1	Sauvelson Auguste	Secured Storage	05/14/18 11:01	Return to Storage
JC65799-9.1.1	Sauvelson Auguste	Organics Prep	05/14/18 04:46	Extract from JC65799-9.1
JC65799-9.1.1	Organics Prep	Finley Nyaata	05/14/18 12:14	Extract from JC65799-9.1
JC65799-9.1.1	Finley Nyaata	Extract Storage	05/14/18 12:14	Return to Storage
JC65799-9.1.1	Extract Storage	George Sleem	05/15/18 02:41	Retrieve from Storage
JC65799-9.1.1	George Sleem	GCMS2M	05/15/18 02:41	Load on Instrument
JC65799-9.1.1	GCMS2M	John Boudreau	05/15/18 16:35	Unload from Instrument
JC65799-9.1.1	John Boudreau	Extract Freezer	05/15/18 16:36	Return to Storage
JC65799-10.1	Secured Staging Area	Sahara Feliciano	05/10/18 17:55	Retrieve from Storage
JC65799-10.1	Sahara Feliciano	Secured Staging Area	05/10/18 17:55	Return to Storage
JC65799-10.1	Secured Staging Area	Sora Lynn Mathurin	05/11/18 05:03	Retrieve from Storage
JC65799-10.1	Sora Lynn Mathurin	Meilly Arbelo	05/11/18 06:39	Custody Transfer
JC65799-10.1	Meilly Arbelo	Secured Storage	05/11/18 11:48	Return to Storage
JC65799-10.1	Secured Storage	Dwayne Johnson	05/15/18 13:59	Retrieve from Storage
JC65799-10.1	Dwayne Johnson	Secured Staging Area	05/15/18 13:59	Return to Storage
JC65799-10.1	Secured Staging Area	Luis Villanueva	05/15/18 16:09	Retrieve from Storage
JC65799-10.1	Luis Villanueva	Secured Storage	05/17/18 14:08	Return to Storage
JC65799-10.1.1	Sora Lynn Mathurin	Organics Prep	05/11/18 05:10	Extract from JC65799-10.1
JC65799-10.1.1	Organics Prep	Christine Change	05/11/18 17:14	Extract from JC65799-10.1
JC65799-10.1.1	Christine Change	Extract Storage	05/11/18 17:14	Return to Storage
JC65799-10.1.1	Extract Storage	Christopher Sowa	05/19/18 03:11	Retrieve from Storage
JC65799-10.1.1	Christopher Sowa	GCMSZ	05/19/18 03:11	Load on Instrument
JC65799-10.1.1	GCMSZ	Christine Change	05/24/18 15:05	Unload from Instrument
JC65799-10.1.1	Christine Change	Extract Freezer	05/24/18 15:05	Return to Storage

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11924-MB1	Z130566.D	1	05/11/18	CC	05/11/18	OP11924	EZ6441

The QC reported here applies to the following samples: Method: SW846 8270D

JC65799-1, JC65799-2, JC65799-3, JC65799-4, JC65799-8, JC65799-10

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	87%	26-134%
321-60-8	2-Fluorobiphenyl	90%	39-124%
1718-51-0	Terphenyl-d14	95%	36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	2.34	390	ug/kg	J
	system artifact	3.25	350	ug/kg	J
	system artifact/aldol-condensation	3.62	140	ug/kg	J
	Total TIC, Semi-Volatile		0	ug/kg	

Method Blank Summary

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Job Number: JC65799

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11971-MB1	2M104020.D	1	05/15/18	GS	05/14/18	OP11971	E2M4624

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65799-5R

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	17.9	33	17	ug/kg	J
120-12-7	Anthracene	ND	33	20	ug/kg	
56-55-3	Benzo(a)anthracene	9.6	33	9.4	ug/kg	J
50-32-8	Benzo(a)pyrene	172	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	102	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	78.2	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	56.0	33	16	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	23.0	33	15	ug/kg	J
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	108	33	16	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
85-01-8	Phenanthrene	13.5	33	11	ug/kg	J
129-00-0	Pyrene	ND	33	11	ug/kg	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	90% 23-115%
4165-62-2	Phenol-d5	89% 27-114%
118-79-6	2,4,6-Tribromophenol	88% 19-152%
4165-60-0	Nitrobenzene-d5	87% 26-134%
321-60-8	2-Fluorobiphenyl	92% 39-124%
1718-51-0	Terphenyl-d14	104% 36-134%

Method Blank Summary

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11971-MB1	P123378.D	1	06/07/18	AR	05/14/18	OP11971	EP5535

The QC reported here applies to the following samples: Method: SW846 8270D

JC65799-5R

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	77% 23-115%
4165-62-2	Phenol-d5	91% 27-114%
118-79-6	2,4,6-Tribromophenol	61% 19-152%
4165-60-0	Nitrobenzene-d5	77% 26-134%
321-60-8	2-Fluorobiphenyl	85% 39-124%
1718-51-0	Terphenyl-d14	90% 36-134%

Method Blank Summary

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12146-MB1	Z130872.D	1	05/22/18	CS	05/21/18	OP12146	EZ6453

The QC reported here applies to the following samples: Method: SW846 8270D

JC65799-7

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	91% 23-115%
4165-62-2	Phenol-d5	100% 27-114%
118-79-6	2,4,6-Tribromophenol	90% 19-152%
4165-60-0	Nitrobenzene-d5	97% 26-134%
321-60-8	2-Fluorobiphenyl	82% 39-124%
1718-51-0	Terphenyl-d14	79% 36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	2.17	620	ug/kg	J
	system artifact/aldol-condensation	3.47	340	ug/kg	J
	Total TIC, Semi-Volatile		0	ug/kg	

Blank Spike Summary

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Job Number: JC65799

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11924-BS1	Z130567.D	1	05/11/18	CC	05/11/18	OP11924	EZ6441

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65799-1, JC65799-2, JC65799-3, JC65799-4, JC65799-8, JC65799-10

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	1670	1490	89	53-119
208-96-8	Acenaphthylene	1670	1500	90	41-125
120-12-7	Anthracene	1670	1440	86	51-120
56-55-3	Benzo(a)anthracene	1670	1470	88	54-118
50-32-8	Benzo(a)pyrene	1670	1370	82	55-121
205-99-2	Benzo(b)fluoranthene	1670	1360	82	57-116
191-24-2	Benzo(g,h,i)perylene	1670	1540	92	40-124
207-08-9	Benzo(k)fluoranthene	1670	1340	80	59-116
218-01-9	Chrysene	1670	1430	86	51-115
53-70-3	Dibenzo(a,h)anthracene	1670	1460	88	48-121
206-44-0	Fluoranthene	1670	1570	94	58-117
86-73-7	Fluorene	1670	1480	89	56-114
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1570	94	49-124
91-20-3	Naphthalene	1670	1140	68	44-116
85-01-8	Phenanthrene	1670	1430	86	53-119
129-00-0	Pyrene	1670	1560	94	54-124

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	80%	26-134%
321-60-8	2-Fluorobiphenyl	82%	39-124%
1718-51-0	Terphenyl-d14	96%	36-134%

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: JC65799

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11971-BS1	2M104021.D	1	05/15/18	GS	05/14/18	OP11971	E2M4624

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65799-5R

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	1670	1520	91	53-119
208-96-8	Acenaphthylene	1670	1530	92	41-125
120-12-7	Anthracene	1670	1450	87	51-120
56-55-3	Benzo(a)anthracene	1670	1440	86	54-118
50-32-8	Benzo(a)pyrene	1670	1570	94	55-121
205-99-2	Benzo(b)fluoranthene	1670	1470	88	57-116
191-24-2	Benzo(g,h,i)perylene	1670	1560	94	40-124
207-08-9	Benzo(k)fluoranthene	1670	1470	88	59-116
218-01-9	Chrysene	1670	1420	85	51-115
53-70-3	Dibenzo(a,h)anthracene	1670	1430	86	48-121
206-44-0	Fluoranthene	1670	1450	87	58-117
86-73-7	Fluorene	1670	1560	94	56-114
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1520	91	49-124
91-20-3	Naphthalene	1670	1340	80	44-116
85-01-8	Phenanthrene	1670	1460	88	53-119
129-00-0	Pyrene	1670	1470	88	54-124

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	87%	23-115%
4165-62-2	Phenol-d5	86%	27-114%
118-79-6	2,4,6-Tribromophenol	93%	19-152%
4165-60-0	Nitrobenzene-d5	82%	26-134%
321-60-8	2-Fluorobiphenyl	90%	39-124%
1718-51-0	Terphenyl-d14	102%	36-134%

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: JC65799

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12146-BS1	Z130873.D	1	05/22/18	CS	05/21/18	OP12146	EZ6453

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65799-7

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	1670	1510	91	53-119
208-96-8	Acenaphthylene	1670	1510	91	41-125
120-12-7	Anthracene	1670	1460	88	51-120
56-55-3	Benzo(a)anthracene	1670	1470	88	54-118
50-32-8	Benzo(a)pyrene	1670	1320	79	55-121
205-99-2	Benzo(b)fluoranthene	1670	1340	80	57-116
191-24-2	Benzo(g,h,i)perylene	1670	1190	71	40-124
207-08-9	Benzo(k)fluoranthene	1670	1250	75	59-116
218-01-9	Chrysene	1670	1430	86	51-115
53-70-3	Dibenzo(a,h)anthracene	1670	1170	70	48-121
206-44-0	Fluoranthene	1670	1640	98	58-117
86-73-7	Fluorene	1670	1540	92	56-114
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1280	77	49-124
91-20-3	Naphthalene	1670	1300	78	44-116
85-01-8	Phenanthrene	1670	1440	86	53-119
129-00-0	Pyrene	1670	1490	89	54-124

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	101%	23-115%
4165-62-2	Phenol-d5	105%	27-114%
118-79-6	2,4,6-Tribromophenol	93%	19-152%
4165-60-0	Nitrobenzene-d5	97%	26-134%
321-60-8	2-Fluorobiphenyl	80%	39-124%
1718-51-0	Terphenyl-d14	94%	36-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11924-MS	Z130575.D	1	05/11/18	CC	05/11/18	OP11924	EZ6441
OP11924-MSD	Z130576.D	1	05/11/18	CC	05/11/18	OP11924	EZ6441
JC65773-17	Z130578.D	1	05/11/18	CC	05/11/18	OP11924	EZ6441

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65799-1, JC65799-2, JC65799-3, JC65799-4, JC65799-8, JC65799-10

CAS No.	Compound	JC65773-17 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	2050	1620	79	2010	1430	71	12	21-136/34
208-96-8	Acenaphthylene	ND	2050	1620	79	2010	1430	71	12	10-143/36
120-12-7	Anthracene	ND	2050	1570	77	2010	1390	69	12	10-147/39
56-55-3	Benzo(a)anthracene	ND	2050	1570	77	2010	1380	69	13	10-151/41
50-32-8	Benzo(a)pyrene	ND	2050	1480	72	2010	1260	63	16	10-149/40
205-99-2	Benzo(b)fluoranthene	ND	2050	1540	75	2010	1270	63	19	10-147/42
191-24-2	Benzo(g,h,i)perylene	ND	2050	1590	78	2010	1350	67	16	10-150/41
207-08-9	Benzo(k)fluoranthene	ND	2050	1410	69	2010	1240	62	13	12-142/41
218-01-9	Chrysene	ND	2050	1550	76	2010	1360	68	13	10-151/41
53-70-3	Dibenzo(a,h)anthracene	ND	2050	1510	74	2010	1310	65	14	10-152/38
206-44-0	Fluoranthene	ND	2050	1700	83	2010	1470	73	15	10-151/44
86-73-7	Fluorene	ND	2050	1620	79	2010	1450	72	11	19-133/36
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2050	1680	82	2010	1450	72	15	10-148/41
91-20-3	Naphthalene	ND	2050	1290	63	2010	1140	57	12	10-136/36
85-01-8	Phenanthrene	ND	2050	1540	75	2010	1380	69	11	11-145/45
129-00-0	Pyrene	ND	2050	1660	81	2010	1490	74	11	11-155/44

CAS No.	Surrogate Recoveries	MS	MSD	JC65773-17	Limits
4165-60-0	Nitrobenzene-d5	71%	67%	76%	26-134%
321-60-8	2-Fluorobiphenyl	74%	69%	79%	39-124%
1718-51-0	Terphenyl-d14	85%	81%	80%	36-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11971-MS	2M104030A.D	1	05/15/18	GS	05/14/18	OP11971	E2M4624
OP11971-MSD	2M104031.D	1	05/15/18	GS	05/14/18	OP11971	E2M4624
JC65886-9	2M104032.D	1	05/15/18	GS	05/14/18	OP11971	E2M4624

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65799-5R

CAS No.	Compound	JC65886-9 ug/kg	Spike Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	1050		1890	2520	78	1890	2230	63	12	21-136/34
208-96-8	Acenaphthylene	122	B	1890	1680	83	1890	1750	86	4	10-143/36
120-12-7	Anthracene	1820		1890	2880	56	1890	2520	37	13	10-147/39
56-55-3	Benzo(a)anthracene	3050	B	1890	4390	71	1890	3570	28	21	10-151/41
50-32-8	Benzo(a)pyrene	2660	B	1890	4160	80	1890	3370	38	21	10-149/40
205-99-2	Benzo(b)fluoranthene	3030	B	1890	4280	66	1890	3590	30	18	10-147/42
191-24-2	Benzo(g,h,i)perylene	1380	B	1890	3200	96	1890	2680	69	18	10-150/41
207-08-9	Benzo(k)fluoranthene	922	B	1890	2590	88	1890	2220	69	15	12-142/41
218-01-9	Chrysene	3010	B	1890	4300	68	1890	3510	27	20	10-151/41
53-70-3	Dibenzo(a,h)anthracene	343	B	1890	1850	80	1890	1780	76	4	10-152/38
206-44-0	Fluoranthene	7550	EB	1890	7610	3* a	1890	6230	0* a	20	10-151/44
86-73-7	Fluorene	1030		1890	2500	78	1890	2300	67	8	19-133/36
193-39-5	Indeno(1,2,3-cd)pyrene	1500	B	1890	3480	105	1890	2680	63	26	10-148/41
91-20-3	Naphthalene	418		1890	1640	65	1890	1570	61	4	10-136/36
85-01-8	Phenanthrene	7460	EB	1890	7670	11	1890	5720	0* a	29	11-145/45
129-00-0	Pyrene	6380	E	1890	7280	48	1890	5550	0* a	27	11-155/44

CAS No.	Surrogate Recoveries	MS	MSD	JC65886-9	Limits
367-12-4	2-Fluorophenol	76%	79%		23-115%
4165-62-2	Phenol-d5	77%	81%		27-114%
118-79-6	2,4,6-Tribromophenol	87%	91%		19-152%
4165-60-0	Nitrobenzene-d5	71%	75%	74%	26-134%
321-60-8	2-Fluorobiphenyl	80%	83%	78%	39-124%
1718-51-0	Terphenyl-d14	94%	97%	88%	36-134%

(a) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: JC65799

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12146-MS	Z130876.D	1	05/22/18	CS	05/21/18	OP12146	EZ6453
OP12146-MSD	Z130877.D	1	05/22/18	CS	05/21/18	OP12146	EZ6453
JC65799-7	Z130878.D	1	05/22/18	CS	05/21/18	OP12146	EZ6453

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65799-7

CAS No.	Compound	JC65799-7 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	50.8	1910	1220	61	1920	1310	66	7	21-136/34
208-96-8	Acenaphthylene	46.8	1910	1220	62	1920	1340	67	9	10-143/36
120-12-7	Anthracene	124	1910	1210	57	1920	1350	64	11	10-147/39
56-55-3	Benzo(a)anthracene	653	1910	1580	49	1920	1890	64	18	10-151/41
50-32-8	Benzo(a)pyrene	786	1910	1530	39	1920	1910	59	22	10-149/40
205-99-2	Benzo(b)fluoranthene	873	1910	1610	39	1920	1970	57	20	10-147/42
191-24-2	Benzo(g,h,i)perylene	572	1910	1450	46	1920	1880	68	26	10-150/41
207-08-9	Benzo(k)fluoranthene	319	1910	1320	53	1920	1500	62	13	12-142/41
218-01-9	Chrysene	599	1910	1550	50	1920	1810	63	15	10-151/41
53-70-3	Dibenzo(a,h)anthracene	156	1910	1100	50	1920	1350	62	20	10-152/38
206-44-0	Fluoranthene	766	1910	1810	55	1920	2010	65	10	10-151/44
86-73-7	Fluorene	44.2	1910	1240	63	1920	1340	68	8	19-133/36
193-39-5	Indeno(1,2,3-cd)pyrene	627	1910	1530	47	1920	1970	70	25	10-148/41
91-20-3	Naphthalene	65.1	1910	1090	54	1920	1140	56	4	10-136/36
85-01-8	Phenanthrene	367	1910	1330	51	1920	1510	60	13	11-145/45
129-00-0	Pyrene	827	1910	1740	48	1920	2270	75	26	11-155/44

CAS No.	Surrogate Recoveries	MS	MSD	JC65799-7	Limits
367-12-4	2-Fluorophenol	80%	80%		23-115%
4165-62-2	Phenol-d5	87%	83%		27-114%
118-79-6	2,4,6-Tribromophenol	71%	75%		19-152%
4165-60-0	Nitrobenzene-d5	74%	70%	66%	26-134%
321-60-8	2-Fluorobiphenyl	61%	63%	63%	39-124%
1718-51-0	Terphenyl-d14	72%	84%	77%	36-134%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-DFTPP
Lab File ID: 2M103893.D
Instrument ID: GCMS2M
Injection Date: 05/09/18
Injection Time: 10:22

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	176008	35.4	Pass
68	Less than 2.0% of mass 69	2989	0.60 (1.53) ^a	Pass
69	Mass 69 relative abundance	194999	39.2	Pass
70	Less than 2.0% of mass 69	895	0.18 (0.46) ^a	Pass
127	40.0 - 60.0% of mass 198	246965	49.6	Pass
197	Less than 1.0% of mass 198	4345	0.87	Pass
198	Base peak, 100% relative abundance	497856	100.0	Pass
199	5.0 - 9.0% of mass 198	32775	6.58	Pass
275	10.0 - 30.0% of mass 198	122106	24.5	Pass
365	1.0 - 100.0% of mass 198	14865	2.99	Pass
441	Present, but less than mass 443	46565	9.35 (78.6) ^b	Pass
442	40.0 - 100.0% of mass 198	323541	65.0	Pass
443	17.0 - 23.0% of mass 442	59280	11.9 (18.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4618-IC4618	2M103895.D	05/09/18	11:56	01:34	Initial cal 100
E2M4618-IC4618	2M103896.D	05/09/18	12:22	02:00	Initial cal 80
E2M4618-ICC4618	2M103897.D	05/09/18	12:47	02:25	Initial cal 50
E2M4618-IC4618	2M103898.D	05/09/18	13:13	02:51	Initial cal 25
E2M4618-IC4618	2M103899.D	05/09/18	13:38	03:16	Initial cal 10
E2M4618-IC4618	2M103900.D	05/09/18	14:04	03:42	Initial cal 5
E2M4618-IC4618	2M103901.D	05/09/18	14:29	04:07	Initial cal 2
E2M4618-IC4618	2M103902.D	05/09/18	14:55	04:33	Initial cal 1

Instrument Performance Check (DFTPP)

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-DFTPP	Injection Date: 05/09/18
Lab File ID: 2M103903.D	Injection Time: 18:30
Instrument ID: GCMS2M	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	205172	37.4	Pass
68	Less than 2.0% of mass 69	3087	0.56 (1.34) ^a	Pass
69	Mass 69 relative abundance	230153	42.0	Pass
70	Less than 2.0% of mass 69	1679	0.31 (0.73) ^a	Pass
127	40.0 - 60.0% of mass 198	288469	52.6	Pass
197	Less than 1.0% of mass 198	4778	0.87	Pass
198	Base peak, 100% relative abundance	548117	100.0	Pass
199	5.0 - 9.0% of mass 198	37624	6.86	Pass
275	10.0 - 30.0% of mass 198	131669	24.0	Pass
365	1.0 - 100.0% of mass 198	14986	2.73	Pass
441	Present, but less than mass 443	45789	8.35 (75.2) ^b	Pass
442	40.0 - 100.0% of mass 198	314570	57.4	Pass
443	17.0 - 23.0% of mass 442	60857	11.1 (19.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4619-IC4619	2M103904.D	05/09/18	18:59	00:29	Initial cal 100
E2M4619-IC4619	2M103905.D	05/09/18	19:25	00:55	Initial cal 80
E2M4619-ICC4619	2M103906.D	05/09/18	19:50	01:20	Initial cal 50
E2M4619-IC4619	2M103907.D	05/09/18	20:16	01:46	Initial cal 25
E2M4619-IC4619	2M103908.D	05/09/18	20:41	02:11	Initial cal 10
E2M4619-IC4619	2M103909.D	05/09/18	21:06	02:36	Initial cal 5
E2M4619-IC4619	2M103910.D	05/09/18	21:32	03:02	Initial cal 2
E2M4619-IC4619	2M103911.D	05/09/18	21:57	03:27	Initial cal 1
E2M4619-ICV4618	2M103912.D	05/09/18	22:23	03:53	Initial cal verification 50
E2M4619-ICV4618	2M103913.D	05/09/18	22:48	04:18	Initial cal verification 50
E2M4619-ICV4619	2M103915A.D	05/09/18	23:38	05:08	Initial cal verification 50
E2M4619-ICV4618	2M103915.D	05/09/18	23:38	05:08	Initial cal verification 50
E2M4619-ICV4618	2M103916.D	05/10/18	00:04	05:34	Initial cal verification 50
E2M4619-ICV4619	2M103916A.D	05/10/18	00:04	05:34	Initial cal verification 50
E2M4619-ICV4618	2M103917.D	05/10/18	00:29	05:59	Initial cal verification 50
E2M4619-ICV4619	2M103918.D	05/10/18	02:14	07:44	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4620-DFTPP
Lab File ID: 2M103920.D
Instrument ID: GCMS2M
Injection Date: 05/11/18
Injection Time: 13:43

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	130877	34.6	Pass
68	Less than 2.0% of mass 69	2584	0.68 (1.71) ^a	Pass
69	Mass 69 relative abundance	151216	40.0	Pass
70	Less than 2.0% of mass 69	823	0.22 (0.54) ^a	Pass
127	40.0 - 60.0% of mass 198	189864	50.2	Pass
197	Less than 1.0% of mass 198	3129	0.83	Pass
198	Base peak, 100% relative abundance	378218	100.0	Pass
199	5.0 - 9.0% of mass 198	24697	6.53	Pass
275	10.0 - 30.0% of mass 198	90376	23.9	Pass
365	1.0 - 100.0% of mass 198	11279	2.98	Pass
441	Present, but less than mass 443	34077	9.01 (76.5) ^b	Pass
442	40.0 - 100.0% of mass 198	230490	60.9	Pass
443	17.0 - 23.0% of mass 442	44552	11.8 (19.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4620-ICV4619	2M103921A.D	05/11/18	13:55	00:12	Initial cal verification 50
E2M4620-ICV4618	2M103921.D	05/11/18	13:55	00:12	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4624-DFTPP	Injection Date: 05/15/18
Lab File ID: 2M104017.D	Injection Time: 01:24
Instrument ID: GCMS2M	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	105657	34.4	Pass
68	Less than 2.0% of mass 69	1567	0.51 (1.25) ^a	Pass
69	Mass 69 relative abundance	125025	40.7	Pass
70	Less than 2.0% of mass 69	566	0.18 (0.45) ^a	Pass
127	40.0 - 60.0% of mass 198	152704	49.7	Pass
197	Less than 1.0% of mass 198	2420	0.79	Pass
198	Base peak, 100% relative abundance	307344	100.0	Pass
199	5.0 - 9.0% of mass 198	20468	6.66	Pass
275	10.0 - 30.0% of mass 198	78861	25.7	Pass
365	1.0 - 100.0% of mass 198	10467	3.41	Pass
441	Present, but less than mass 443	28444	9.25 (74.4) ^b	Pass
442	40.0 - 100.0% of mass 198	197744	64.3	Pass
443	17.0 - 23.0% of mass 442	38229	12.4 (19.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4624-CC4618	2M104018.D	05/15/18	01:39	00:15	Continuing cal 50
E2M4624-CC4619	2M104019.D	05/15/18	02:05	00:41	Continuing cal 50
OP11971-MB1	2M104020.D	05/15/18	02:30	01:06	Method Blank
OP11971-BS1	2M104021.D	05/15/18	02:57	01:33	Blank Spike
ZZZZZZ	2M104026.D	05/15/18	05:04	03:40	(unrelated sample)
OP11971-MS	2M104030A.D	05/15/18	08:05	06:41	Matrix Spike
OP11971-MSD	2M104031.D	05/15/18	08:30	07:06	Matrix Spike Duplicate
JC65886-9	2M104032.D	05/15/18	08:56	07:32	(used for QC only; not part of job JC65799)
ZZZZZZ	2M104033.D	05/15/18	09:21	07:57	(unrelated sample)
ZZZZZZ	2M104034A.D	05/15/18	10:04	08:40	(unrelated sample)
ZZZZZZ	2M104035.D	05/15/18	10:30	09:06	(unrelated sample)
ZZZZZZ	2M104036.D	05/15/18	10:56	09:32	(unrelated sample)
ZZZZZZ	2M104037.D	05/15/18	11:21	09:57	(unrelated sample)
ZZZZZZ	2M104038.D	05/15/18	11:47	10:23	(unrelated sample)

Instrument Performance Check (DFTPP)

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

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

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

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

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

Instrument Performance Check (DFTPP)

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

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

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

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

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

Instrument Performance Check (DFTPP)

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

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

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

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

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

Instrument Performance Check (DFTPP)

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5535-DFTPP
Lab File ID: P123365.D
Instrument ID: GCMSP
Injection Date: 06/07/18
Injection Time: 08:50

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	62018	35.3	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	104190	59.3	Pass
70	Less than 2.0% of mass 69	290	0.17 (0.28) ^a	Pass
127	40.0 - 60.0% of mass 198	100141	57.0	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	175736	100.0	Pass
199	5.0 - 9.0% of mass 198	13492	7.68	Pass
275	10.0 - 30.0% of mass 198	48696	27.7	Pass
365	1.0 - 100.0% of mass 198	5569	3.17	Pass
441	Present, but less than mass 443	11118	6.33 (78.3) ^b	Pass
442	40.0 - 100.0% of mass 198	72970	41.5	Pass
443	17.0 - 23.0% of mass 442	14193	8.08 (19.5) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5535-CC5484	P123366.D	06/07/18	09:02	00:12	Continuing cal 50
EP5535-CC5486	P123367.D	06/07/18	09:29	00:39	Continuing cal 50
OP12599-MB1	P123370.D	06/07/18	10:51	02:01	Method Blank
OP12599-LB33	P123371.D	06/07/18	11:18	02:28	Leachate Blank
OP12599-BS1	P123372.D	06/07/18	11:45	02:55	Blank Spike
OP12479-MB	P123373.D	06/07/18	12:13	03:23	Method Blank
OP11971-MB1	P123378.D	06/07/18	12:40	03:50	Method Blank
JC65440-1	P123374.D	06/07/18	13:08	04:18	(used for QC only; not part of job JC65799)
OP12599-LS14	P123375.D	06/07/18	13:36	04:46	Leachate Spike
OP12599-MS	P123375.D	06/07/18	13:36	04:46	Matrix Spike
OP12599-MSD	P123376.D	06/07/18	14:03	05:13	Matrix Spike Duplicate
ZZZZZZ	P123377.D	06/07/18	14:31	05:41	(unrelated sample)
JC65799-5R	P123379.D	06/07/18	14:58	06:08	SS-104

Instrument Performance Check (DFTPP)

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5540-DFTPP
Lab File ID: P123444.D
Instrument ID: GCMSP
Injection Date: 06/11/18
Injection Time: 09:13

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	63366	37.4	Pass
68	Less than 2.0% of mass 69	340	0.20 (0.32) ^a	Pass
69	Mass 69 relative abundance	105117	62.0	Pass
70	Less than 2.0% of mass 69	355	0.21 (0.34) ^a	Pass
127	40.0 - 60.0% of mass 198	94963	56.0	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	169432	100.0	Pass
199	5.0 - 9.0% of mass 198	12867	7.59	Pass
275	10.0 - 30.0% of mass 198	49162	29.0	Pass
365	1.0 - 100.0% of mass 198	6287	3.71	Pass
441	Present, but less than mass 443	11564	6.83 (72.7) ^b	Pass
442	40.0 - 100.0% of mass 198	77205	45.6	Pass
443	17.0 - 23.0% of mass 442	15916	9.39 (20.6) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5540-CC5484	P123445.D	06/11/18	09:25	00:12	Continuing cal 50
EP5540-CC5486	P123446.D	06/11/18	09:53	00:40	Continuing cal 50
OP12634-MB1	P123449.D	06/11/18	11:14	02:01	Method Blank
OP12634-BS1	P123450.D	06/11/18	11:41	02:28	Blank Spike
OP12634-BSD	P123451.D	06/11/18	12:08	02:55	Blank Spike Duplicate
JC65799-5R	P123452.D	06/11/18	12:35	03:22	SS-104
ZZZZZZ	P123453.D	06/11/18	13:02	03:49	(unrelated sample)
ZZZZZZ	P123455.D	06/11/18	13:57	04:44	(unrelated sample)
OP12641-MB1	P123464.D	06/11/18	15:25	06:12	Method Blank
ZZZZZZ	P123465.D	06/11/18	15:52	06:39	(unrelated sample)
ZZZZZZ	P123466.D	06/11/18	16:19	07:06	(unrelated sample)
ZZZZZZ	P123456A.D	06/11/18	17:15	08:02	(unrelated sample)
ZZZZZZ	P123457.D	06/11/18	17:42	08:29	(unrelated sample)
ZZZZZZ	P123458.D	06/11/18	18:10	08:57	(unrelated sample)
ZZZZZZ	P123459.D	06/11/18	18:37	09:24	(unrelated sample)
ZZZZZZ	P123460.D	06/11/18	19:04	09:51	(unrelated sample)
ZZZZZZ	P123461.D	06/11/18	19:31	10:18	(unrelated sample)

Instrument Performance Check (DFTPP)

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-DFTPP	Injection Date: 05/04/18
Lab File ID: Z130440.D	Injection Time: 18:48
Instrument ID: GCMSZ	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	57058	36.6	Pass
68	Less than 2.0% of mass 69	1013	0.65 (1.64) ^a	Pass
69	Mass 69 relative abundance	61632	39.5	Pass
70	Less than 2.0% of mass 69	376	0.24 (0.61) ^a	Pass
127	40.0 - 60.0% of mass 198	84122	54.0	Pass
197	Less than 1.0% of mass 198	707	0.45	Pass
198	Base peak, 100% relative abundance	155912	100.0	Pass
199	5.0 - 9.0% of mass 198	10520	6.75	Pass
275	10.0 - 30.0% of mass 198	43853	28.1	Pass
365	1.0 - 100.0% of mass 198	6467	4.15	Pass
441	Present, but less than mass 443	22304	14.3 (83.3) ^b	Pass
442	40.0 - 100.0% of mass 198	146432	93.9	Pass
443	17.0 - 23.0% of mass 442	26784	17.2 (18.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EZ6436-IC6436	Z130441.D	05/04/18	19:14	00:26	Initial cal 100
EZ6436-IC6436	Z130442.D	05/04/18	19:41	00:53	Initial cal 80
EZ6436-ICC6436	Z130443.D	05/04/18	20:08	01:20	Initial cal 50
EZ6436-IC6436	Z130444.D	05/04/18	20:35	01:47	Initial cal 25
EZ6436-IC6436	Z130445.D	05/04/18	21:02	02:14	Initial cal 10
EZ6436-IC6436	Z130446.D	05/04/18	21:30	02:42	Initial cal 5
EZ6436-IC6436	Z130447.D	05/04/18	21:57	03:09	Initial cal 2
EZ6436-IC6436	Z130448.D	05/04/18	22:24	03:36	Initial cal 1
EZ6436-ICV6436	Z130449.D	05/04/18	22:51	04:03	Initial cal verification 50
EZ6436-ICV6436	Z130450.D	05/04/18	23:18	04:30	Initial cal verification 50
EZ6436-ICV6436	Z130451.D	05/04/18	23:44	04:56	Initial cal verification 50
EZ6436-ICV6436	Z130452.D	05/05/18	00:11	05:23	Initial cal verification 50
EZ6436-ICV6436	Z130453.D	05/05/18	00:38	05:50	Initial cal verification 50
EZ6436-ICV6436	Z130454.D	05/05/18	01:05	06:17	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-DFTPP	Injection Date: 05/09/18
Lab File ID: Z130457.D	Injection Time: 13:19
Instrument ID: GCMSZ	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	56786	31.7	Pass
68	Less than 2.0% of mass 69	1148	0.64 (1.78) ^a	Pass
69	Mass 69 relative abundance	64605	36.1	Pass
70	Less than 2.0% of mass 69	293	0.16 (0.45) ^a	Pass
127	40.0 - 60.0% of mass 198	90496	50.6	Pass
197	Less than 1.0% of mass 198	511	0.29	Pass
198	Base peak, 100% relative abundance	178973	100.0	Pass
199	5.0 - 9.0% of mass 198	11982	6.69	Pass
275	10.0 - 30.0% of mass 198	51293	28.7	Pass
365	1.0 - 100.0% of mass 198	7589	4.24	Pass
441	Present, but less than mass 443	25773	14.4 (79.7) ^b	Pass
442	40.0 - 100.0% of mass 198	175018	97.8	Pass
443	17.0 - 23.0% of mass 442	32322	18.1 (18.5) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EZ6437-IC6437	Z130458.D	05/09/18	13:34	00:15	Initial cal 100
EZ6437-IC6437	Z130459.D	05/09/18	14:01	00:42	Initial cal 80
EZ6437-ICC6437	Z130460.D	05/09/18	14:28	01:09	Initial cal 50
EZ6437-IC6437	Z130461.D	05/09/18	14:56	01:37	Initial cal 25
EZ6437-IC6437	Z130462.D	05/09/18	15:23	02:04	Initial cal 10
EZ6437-IC6437	Z130463.D	05/09/18	15:50	02:31	Initial cal 5
EZ6437-IC6437	Z130464.D	05/09/18	16:17	02:58	Initial cal 2
EZ6437-IC6437	Z130465.D	05/09/18	16:44	03:25	Initial cal 1
EZ6437-ICV6437	Z130466.D	05/09/18	17:11	03:52	Initial cal verification 50
EZ6437-ICV6437	Z130467.D	05/09/18	17:39	04:20	Initial cal verification 50
EZ6437-ICV6436	Z130468A.D	05/09/18	18:05	04:46	Initial cal verification 50
EZ6437-ICV6437	Z130468.D	05/09/18	18:05	04:46	Initial cal verification 50
EZ6437-ICV6437	Z130470.D	05/09/18	19:00	05:41	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6441-DFTPP
Lab File ID: Z130561.D
Instrument ID: GCMSZ
Injection Date: 05/11/18
Injection Time: 15:59

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	52884	32.0	Pass
68	Less than 2.0% of mass 69	445	0.27 (0.77) ^a	Pass
69	Mass 69 relative abundance	58120	35.2	Pass
70	Less than 2.0% of mass 69	332	0.20 (0.57) ^a	Pass
127	40.0 - 60.0% of mass 198	82008	49.7	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	165163	100.0	Pass
199	5.0 - 9.0% of mass 198	10639	6.44	Pass
275	10.0 - 30.0% of mass 198	48120	29.1	Pass
365	1.0 - 100.0% of mass 198	7072	4.28	Pass
441	Present, but less than mass 443	22306	13.5 (84.1) ^b	Pass
442	40.0 - 100.0% of mass 198	142253	86.1	Pass
443	17.0 - 23.0% of mass 442	26514	16.1 (18.6) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EZ6441-CC6436	Z130562.D	05/11/18	16:14	00:15	Continuing cal 25
EZ6441-CC6437	Z130563.D	05/11/18	16:41	00:42	Continuing cal 25
OP11790-MB1	Z130565.D	05/11/18	17:36	01:37	Method Blank
OP11924-MB1	Z130566.D	05/11/18	18:03	02:04	Method Blank
OP11924-BS1	Z130567.D	05/11/18	18:30	02:31	Blank Spike
ZZZZZZ	Z130568.D	05/11/18	18:57	02:58	(unrelated sample)
ZZZZZZ	Z130569.D	05/11/18	19:24	03:25	(unrelated sample)
ZZZZZZ	Z130570.D	05/11/18	19:50	03:51	(unrelated sample)
ZZZZZZ	Z130571.D	05/11/18	20:17	04:18	(unrelated sample)
ZZZZZZ	Z130572.D	05/11/18	20:44	04:45	(unrelated sample)
ZZZZZZ	Z130573.D	05/11/18	21:11	05:12	(unrelated sample)
ZZZZZZ	Z130574.D	05/11/18	21:38	05:39	(unrelated sample)
OP11924-MS	Z130575.D	05/11/18	22:05	06:06	Matrix Spike
OP11924-MSD	Z130576.D	05/11/18	22:32	06:33	Matrix Spike Duplicate
ZZZZZZ	Z130577.D	05/11/18	22:59	07:00	(unrelated sample)
JC65773-17	Z130578.D	05/11/18	23:26	07:27	(used for QC only; not part of job JC65799)
ZZZZZZ	Z130579.D	05/11/18	23:53	07:54	(unrelated sample)
ZZZZZZ	Z130580.D	05/12/18	00:20	08:21	(unrelated sample)
ZZZZZZ	Z130581.D	05/12/18	00:47	08:48	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	EZ6441-DFTPP	Injection Date:	05/11/18
Lab File ID:	Z130561.D	Injection Time:	15:59
Instrument ID:	GCMSZ		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	Z130582.D	05/12/18	01:14	09:15	(unrelated sample)
ZZZZZZ	Z130583.D	05/12/18	01:41	09:42	(unrelated sample)
ZZZZZZ	Z130584.D	05/12/18	02:08	10:09	(unrelated sample)
ZZZZZZ	Z130585.D	05/12/18	02:34	10:35	(unrelated sample)
ZZZZZZ	Z130586.D	05/12/18	03:01	11:02	(unrelated sample)
ZZZZZZ	Z130587.D	05/12/18	03:28	11:29	(unrelated sample)
ZZZZZZ	Z130588.D	05/12/18	03:55	11:56	(unrelated sample)

Instrument Performance Check (DFTPP)

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6453-DFTPP
Lab File ID: Z130869.D
Instrument ID: GCMSZ
Injection Date: 05/22/18
Injection Time: 01:21

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	48440	39.6	Pass
68	Less than 2.0% of mass 69	589	0.48 (1.06) ^a	Pass
69	Mass 69 relative abundance	55457	45.4	Pass
70	Less than 2.0% of mass 69	117	0.10 (0.21) ^a	Pass
127	40.0 - 60.0% of mass 198	70104	57.3	Pass
197	Less than 1.0% of mass 198	218	0.18	Pass
198	Base peak, 100% relative abundance	122256	100.0	Pass
199	5.0 - 9.0% of mass 198	9059	7.41	Pass
275	10.0 - 30.0% of mass 198	33421	27.3	Pass
365	1.0 - 100.0% of mass 198	5292	4.33	Pass
441	Present, but less than mass 443	13078	10.7 (80.7) ^b	Pass
442	40.0 - 100.0% of mass 198	90178	73.8	Pass
443	17.0 - 23.0% of mass 442	16208	13.3 (18.0) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EZ6453-CC6436	Z130870.D	05/22/18	01:36	00:15	Continuing cal 25
EZ6453-CC6437	Z130871.D	05/22/18	02:03	00:42	Continuing cal 25
OP12146-MB1	Z130872.D	05/22/18	02:31	01:10	Method Blank
OP12146-BS1	Z130873.D	05/22/18	02:58	01:37	Blank Spike
ZZZZZZ	Z130874.D	05/22/18	03:30	02:09	(unrelated sample)
ZZZZZZ	Z130875.D	05/22/18	03:57	02:36	(unrelated sample)
OP12146-MS	Z130876.D	05/22/18	04:23	03:02	Matrix Spike
OP12146-MSD	Z130877.D	05/22/18	04:50	03:29	Matrix Spike Duplicate
JC65799-7	Z130878.D	05/22/18	05:17	03:56	SS-106
ZZZZZZ	Z130879.D	05/22/18	05:44	04:23	(unrelated sample)
ZZZZZZ	Z130880.D	05/22/18	06:10	04:49	(unrelated sample)
ZZZZZZ	Z130881.D	05/22/18	06:37	05:16	(unrelated sample)
ZZZZZZ	Z130883.D	05/22/18	07:31	06:10	(unrelated sample)

Instrument Performance Check (DFTPP)

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6455-DFTPP
Lab File ID: Z130924.D
Instrument ID: GCMSZ
Injection Date: 05/23/18
Injection Time: 10:01

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	46216	33.5	Pass
68	Less than 2.0% of mass 69	1058	0.77 (1.92) ^a	Pass
69	Mass 69 relative abundance	55034	39.9	Pass
70	Less than 2.0% of mass 69	383	0.28 (0.70) ^a	Pass
127	40.0 - 60.0% of mass 198	76261	55.3	Pass
197	Less than 1.0% of mass 198	307	0.22	Pass
198	Base peak, 100% relative abundance	137818	100.0	Pass
199	5.0 - 9.0% of mass 198	9426	6.84	Pass
275	10.0 - 30.0% of mass 198	40285	29.2	Pass
365	1.0 - 100.0% of mass 198	7131	5.17	Pass
441	Present, but less than mass 443	15339	11.1 (84.7) ^b	Pass
442	40.0 - 100.0% of mass 198	96098	69.7	Pass
443	17.0 - 23.0% of mass 442	18108	13.1 (18.8) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EZ6455-CC6436	Z130925.D	05/23/18	10:21	00:20	Continuing cal 25
EZ6455-CC6437	Z130926.D	05/23/18	10:48	00:47	Continuing cal 25
ZZZZZZ	Z130927.D	05/23/18	11:16	01:15	(unrelated sample)
OP12131-LB28	Z130931.D	05/23/18	13:05	03:04	Leachate Blank
OP12132-LB20	Z130932.D	05/23/18	13:32	03:31	Leachate Blank
JC65799-10	Z130934.D	05/23/18	14:27	04:26	DUP-050818
JC65799-3	Z130935.D	05/23/18	14:54	04:53	SS-102
JC65799-2	Z130936.D	05/23/18	15:21	05:20	SS-101
JC65799-1	Z130937.D	05/23/18	15:49	05:48	SS-100
JC65799-4	Z130938.D	05/23/18	16:16	06:15	SS-103
JC65799-8	Z130940.D	05/23/18	17:14	07:13	SS-107

Internal Standard Area Summary

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E2M4624-CC4618	Injection Date: 05/15/18
Lab File ID: 2M104018.D	Injection Time: 01:39
Instrument ID: GCMS2M	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	457622	4.64	1824330	5.73	1017569	7.78	1830422	9.94	1793168	14.11	1852191	16.22
Upper Limit ^a	915244	5.14	3648660	6.23	2035138	8.28	3660844	10.44	3586336	14.61	3704382	16.72
Lower Limit ^b	228811	4.14	912165	5.23	508785	7.28	915211	9.44	896584	13.61	926096	15.72

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP11971-MB1	481526	4.64	1880541	5.72	918142	7.78	1721023	9.94	1603888	14.10	1670391	16.21
OP11971-BS1	524645	4.64	2084280	5.73	1010867	7.78	1853796	9.94	1650784	14.11	1693868	16.21
ZZZZZZ	485037	4.64	1891757	5.72	936300	7.78	1770321	9.94	1700146	14.10	1797465	16.21
OP11971-MS	567737	4.64	2270461	5.73	1106719	7.79	2028194	9.95	1912659	14.13	2022061	16.24
OP11971-MSD	519477	4.64	2081282	5.73	1028802	7.79	1922584	9.95	1781110	14.13	1836835	16.23
JC65886-9	519890	4.64	2084515	5.73	1039923	7.79	1937008	9.95	1807720	14.13	1861240	16.23
ZZZZZZ	526038	4.64	2042982	5.73	985490	7.79	1814942	9.95	1704274	14.12	1725563	16.23
ZZZZZZ	509948	4.65	1893391	5.73	902546	7.80	1650959	9.97	1573735	14.15	1667955	16.26
ZZZZZZ	512458	4.64	2039807	5.73	1013565	7.79	1863772	9.96	1761060	14.15	1833273	16.25
ZZZZZZ	513284	4.64	1987293	5.73	966608	7.79	1747182	9.95	1626481	14.13	1684756	16.25
ZZZZZZ	470177	4.64	1841812	5.73	923788	7.79	1737095	9.96	1527815	14.15	1649601	16.26
ZZZZZZ	537168	4.65	2094407	5.73	1049993	7.79	1956292	9.96	1829338	14.19	1900798	16.29

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

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

Internal Standard Area Summary

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: EP5535-CC5484	Injection Date: 06/07/18
Lab File ID: P123366.D	Injection Time: 09:02
Instrument ID: GCMSP	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	151505	4.23	554365	5.15	352267	6.42	672536	8.04	668351	12.99	565001	15.97
Upper Limit ^a	303010	4.73	1108730	5.65	704534	6.92	1345072	8.54	1336702	13.49	1130002	16.47
Lower Limit ^b	75753	3.73	277183	4.65	176134	5.92	336268	7.54	334176	12.49	282501	15.47

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT
OP12599-MB1	126104	4.23	503275	5.14	300355	6.42	610849	8.04	577945	12.97	496342	15.96
OP12599-LB33	133825	4.23	531010	5.14	325879	6.42	665506	8.04	654744	12.97	573963	15.96
OP12599-BS1	102408	4.23	417303	5.14	242889	6.42	494300	8.04	494827	12.97	443763	15.96
OP12479-MB	114248	4.23	437399	5.14	248455	6.42	502429	8.03	470521	12.97	397125	15.96
OP11971-MB1	117069	4.23	448535	5.14	260356	6.42	521837	8.04	504467	12.97	427022	15.96
JC65440-1	118235	4.23	472273	5.14	279095	6.42	562013	8.04	530981	12.97	460180	15.96
OP12599-LS14	114385	4.23	448470	5.14	251120	6.42	477700	8.04	486223	12.97	423969	15.96
OP12599-MS	114385	4.23	448470	5.14	251120	6.42	477700	8.04	486223	12.97	423969	15.96
OP12599-MSD	111012	4.23	441268	5.14	249007	6.42	496565	8.04	501017	12.97	435314	15.96
ZZZZZZ	140482	4.23	541918	5.14	296378	6.42	548375	8.04	502131	12.98	448039	15.97
JC65799-5R	128389	4.23	459290	5.14	242605	6.42	466715	8.04	554283	13.05	502957	16.06

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

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

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

Internal Standard Area Summary

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: EP5540-CC5484	Injection Date: 06/11/18
Lab File ID: P123445.D	Injection Time: 09:25
Instrument ID: GCMSP	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	190738	4.19	650872	5.10	436867	6.37	794126	7.97	794527	12.89	709137	15.86
Upper Limit ^a	381476	4.69	1301744	5.60	873734	6.87	1588252	8.47	1589054	13.39	1418274	16.36
Lower Limit ^b	95369	3.69	325436	4.60	218434	5.87	397063	7.47	397264	12.39	354569	15.36

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP12634-MB1	143561	4.19	542913	5.10	314174	6.37	633508	7.96	628441	12.87	569714	15.84
OP12634-BS1	127119	4.19	454742	5.10	245965	6.37	480021	7.97	494935	12.88	450415	15.85
OP12634-BSD	139624	4.19	495993	5.10	286160	6.37	557236	7.97	547091	12.88	505980	15.85
JC65799-5R	149905	4.19	552582	5.10	302570	6.37	557290	7.96	527625	12.88	494287	15.86
ZZZZZZ	114341	4.19	773290	5.11	338313	6.39	512813	8.00	511057	12.88	502691	15.84
ZZZZZZ	139334	4.19	518761	5.10	283176	6.37	541408	7.96	542119	12.87	489314	15.84
OP12641-MB1	141930	4.19	526542	5.10	268176	6.37	493195	7.96	469582	12.87	435608	15.84
ZZZZZZ	136566	4.19	469468	5.10	240815	6.37	439746	7.97	485683	12.93	445464	15.90
ZZZZZZ	139469	4.19	553917	5.10	285176	6.37	565085	7.97	622667	12.88	594883	15.86
ZZZZZZ	119721	4.19	459930	5.10	251942	6.37	498444	7.97	483389	12.88	448181	15.85
ZZZZZZ	141336	4.19	538794	5.10	301743	6.37	574245	7.97	565778	12.88	520954	15.85
ZZZZZZ	128271	4.19	459569	5.10	259404	6.37	499631	7.96	492249	12.88	459794	15.85
ZZZZZZ	130614	4.19	482302	5.10	275679	6.37	527160	7.96	510094	12.87	465146	15.85
ZZZZZZ	130952	4.19	473464	5.10	247363	6.37	482849	7.97	507428	12.88	474315	15.85
ZZZZZZ	124067	4.19	506826	5.11	477205	6.39	690199	8.03	524764	12.89	517977	15.86

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

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

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

Internal Standard Area Summary

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: EZ6441-CC6436	Injection Date: 05/11/18
Lab File ID: Z130562.D	Injection Time: 16:14
Instrument ID: GCMSZ	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	228502	4.86	903387	5.78	518342	7.18	918318	8.80	837082	12.63	788235	14.71
Upper Limit ^a	457004	5.36	1806774	6.28	1036684	7.68	1836636	9.30	1674164	13.13	1576470	15.21
Lower Limit ^b	114251	4.36	451694	5.28	259171	6.68	459159	8.30	418541	12.13	394118	14.21

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP11790-MB1	218950	4.86	877254	5.78	446068	7.18	828245	8.80	737929	12.62	685884	14.71
OP11924-MB1	238693	4.86	936899	5.78	457157	7.17	822506	8.80	693023	12.62	656837	14.71
OP11924-BS1	204048	4.86	880984	5.78	415781	7.18	770288	8.80	648323	12.63	654694	14.71
ZZZZZZ	168401	4.87	516605	5.78	348917	7.18	720868	8.80	581805	12.62	583549	14.71
ZZZZZZ	248919	4.86	964711	5.78	454923	7.18	806598	8.80	573102	12.63	638309	14.72
ZZZZZZ	241153	4.86	968548	5.78	472934	7.18	854557	8.80	619563	12.63	648671	14.72
ZZZZZZ	267066	4.86	1052628	5.78	541246	7.18	1009213	8.80	812879	12.62	718653	14.71
ZZZZZZ	213523	4.86	610986	5.78	361013	7.18	721932	8.81	775998	12.63	761532	14.72
ZZZZZZ	177297	4.86	316453*	5.79	294139	7.19	587918	8.83	472348	12.64	601882	14.72
ZZZZZZ	252269	4.86	863493	5.78	462657	7.18	789341	8.80	657293	12.64	746112	14.72
OP11924-MS	190999	4.86	829237	5.78	416169	7.18	785758	8.80	687210	12.63	657256	14.72
OP11924-MSD	195710	4.86	851468	5.78	417313	7.18	785515	8.80	656096	12.63	652980	14.71
ZZZZZZ	156935	4.88	814610	5.79	422631	7.18	819364	8.80	620785	12.62	508273	14.72
JC65773-17	220893	4.86	892064	5.78	450144	7.18	815030	8.80	680480	12.62	632612	14.71
ZZZZZZ	226011	4.86	917457	5.78	458602	7.18	867258	8.80	752027	12.62	690075	14.71
ZZZZZZ	228012	4.86	913763	5.78	473974	7.18	909914	8.80	797386	12.62	754544	14.71
ZZZZZZ	219883	4.86	894766	5.78	461508	7.18	888465	8.80	799238	12.62	726307	14.71
ZZZZZZ	190600	4.86	778149	5.78	460035	7.18	877631	8.80	774528	12.62	740639	14.71
ZZZZZZ	177982	4.86	740726	5.78	395972	7.18	740738	8.80	715307	12.62	687764	14.71
ZZZZZZ	132729	4.87	553872	5.79	340503	7.19	657753	8.81	702142	12.63	679246	14.72
ZZZZZZ	173837	4.87	743007	5.78	411591	7.18	760225	8.80	694416	12.63	647012	14.72
ZZZZZZ	252449	4.86	980281	5.78	476937	7.18	830639	8.80	632774	12.63	640950	14.72
ZZZZZZ	249775	4.86	938570	5.78	440981	7.18	759599	8.80	592776	12.63	634609	14.72
ZZZZZZ	197100	4.86	635465	5.78	325781	7.18	544078	8.81	497571	12.66	561166	14.77

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

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

Internal Standard Area Summary

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: EZ6453-CC6436	Injection Date: 05/22/18
Lab File ID: Z130870.D	Injection Time: 01:36
Instrument ID: GCMSZ	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	191165	4.72	776088	5.63	467425	7.00	852805	8.59	814863	12.39	816535	14.47
Upper Limit ^a	382330	5.22	1552176	6.13	934850	7.50	1705610	9.09	1629726	12.89	1633070	14.97
Lower Limit ^b	95583	4.22	388044	5.13	233713	6.50	426403	8.09	407432	11.89	408268	13.97

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP12146-MB1	154980	4.72	652516	5.63	352148	7.00	701039	8.59	734996	12.38	798178	14.47
OP12146-BS1	142950	4.72	595249	5.63	319732	7.00	622586	8.59	574947	12.39	625640	14.46
ZZZZZZ	145693	4.72	617483	5.63	320506	7.00	635635	8.59	742916	12.38	826157	14.46
ZZZZZZ	164616	4.72	710434	5.63	385710	7.00	765825	8.59	805899	12.38	895650	14.46
OP12146-MS	134838	4.72	604795	5.63	333755	7.00	662099	8.59	588009	12.39	512832	14.47
OP12146-MSD	169438	4.72	754478	5.64	380789	7.00	726912	8.59	541295	12.39	502483	14.47
JC65799-7	196235	4.72	809837	5.63	419622	7.00	773607	8.59	553113	12.39	516527	14.47
ZZZZZZ	191098	4.72	805605	5.63	426742	7.00	791567	8.59	519172	12.40	509284	14.48
ZZZZZZ	202684	4.72	836385	5.64	427613	7.01	766252	8.59	505734	12.40	497736	14.48
ZZZZZZ	201537	4.72	823098	5.64	424051	7.01	755957	8.59	484023	12.40	503368	14.48
ZZZZZZ	193756	4.72	811965	5.64	417137	7.01	738899	8.60	450980	12.40	447305	14.49

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

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

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

Internal Standard Area Summary

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: EZ6455-CC6436	Injection Date: 05/23/18
Lab File ID: Z130925.D	Injection Time: 10:21
Instrument ID: GCMSZ	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	187210	4.72	707824	5.64	405867	7.01	705531	8.60	610945	12.41	566120	14.49
Upper Limit ^a	374420	5.22	1415648	6.14	811734	7.51	1411062	9.10	1221890	12.91	1132240	14.99
Lower Limit ^b	93605	4.22	353912	5.14	202934	6.51	352766	8.10	305473	11.91	283060	13.99

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
ZZZZZZ	162200	4.72	641064	5.64	325354	7.01	608845	8.60	470382	12.40	471480	14.49
OP12131-LB28	200193	4.72	789265	5.64	395410	7.01	715194	8.60	575662	12.40	508893	14.49
OP12132-LB20	194046	4.72	756320	5.64	390568	7.01	725547	8.60	627553	12.40	551107	14.49
JC65799-10	189001	4.72	750803	5.64	354233	7.01	616268	8.59	441579	12.40	453560	14.48
JC65799-3	187950	4.72	721924	5.64	353376	7.01	611755	8.60	458660	12.40	457302	14.49
JC65799-2	180500	4.72	717972	5.64	356413	7.01	639756	8.60	497805	12.40	496785	14.49
JC65799-1	184971	4.72	714098	5.64	343039	7.01	607196	8.60	470594	12.40	483123	14.49
JC65799-4	171241	4.72	662445	5.64	320977	7.01	566633	8.60	423254	12.41	467813	14.50
JC65799-8	170772	4.72	671199	5.64	320572	7.01	560845	8.60	420799	12.41	438922	14.50

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

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

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

Surrogate Recovery Summary

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8270D	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
JC65799-1	Z130937.D	72	69	68
JC65799-2	Z130936.D	67	62	64
JC65799-3	Z130935.D	72	69	78
JC65799-4	Z130938.D	64	61	63
JC65799-7	Z130878.D	66	63	77
JC65799-8	Z130940.D	64	61	56
JC65799-10	Z130934.D	66	65	69
JC65799-5R	P123379.D	66	74	59
JC65799-5R	P123452.D	68	73	75
OP11924-BS1	Z130567.D	80	82	96
OP11924-MB1	Z130566.D	87	90	95
OP11924-MS	Z130575.D	71	74	85
OP11924-MSD	Z130576.D	67	69	81
OP11971-BS1	2M104021.D	82	90	102
OP11971-MB1	2M104020.D	87	92	104
OP11971-MB1	P123378.D	77	85	90
OP11971-MS	2M104030A.D	71	80	94
OP11971-MSD	2M104031.D	75	83	97
OP12146-BS1	Z130873.D	97	80	94
OP12146-MB1	Z130872.D	97	82	79
OP12146-MS	Z130876.D	74	61	72
OP12146-MSD	Z130877.D	70	63	84

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-134%
S2 = 2-Fluorobiphenyl	39-124%
S3 = Terphenyl-d14	36-134%

Initial Calibration Summary

Page 1 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-ICC4618
Lab FileID: 2M103897.D

Response Factor Report MS2M

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

Calibration Files

2 =2m103901.D 5 =2m103900.D 25 =2m103898.D 80 =2m103896.D
100 =2m103895.D 50 =2m103897.D 1 =2m103902.D 10 =2m103899.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	-----ISTD-----									
2) 1,4-Dioxane	0.629	0.598	0.596	0.576	0.591	0.598	0.637	0.615	0.605	3.36
3) Pyridine	1.526	1.559	1.597	1.500	1.499	1.488	1.575	1.674	1.552	4.06
4) N-Nitrosodim	0.914	0.887	0.926	0.908	0.919	0.926	0.933	0.953	0.921	2.09
5) 2-Fluorophen	1.326	1.258	1.311	1.293	1.319	1.322	1.241	1.356	1.303	2.90
6) Indene	2.170	2.166	2.226	2.234	2.233	2.285	2.221	2.299	2.229	2.12
7) Cumene	3.250	3.242	3.325	3.249	3.272	3.374	3.448	3.387	3.318	2.34
8) Phenol-d5	1.620	1.595	1.625	1.627	1.667	1.663	1.622	1.662	1.635	1.57
9) Phenol	1.883	1.787	1.854	1.867	1.899	1.894	1.877	1.959	1.877	2.56
10) Aniline	2.130	2.106	2.037	1.920	1.913	1.981	2.225	2.172	2.061	5.66
11) bis(2-Chloro	1.278	1.274	1.290	1.271	1.281	1.299	1.342	1.346	1.298	2.32
12) 2-Chlorophen	1.403	1.415	1.401	1.397	1.408	1.417	1.356	1.473	1.409	2.30
13) Decane	1.512	1.436	1.429	1.366	1.348	1.426	1.587	1.500	1.450	5.45
14) 1,3-Dichloro	1.585	1.573	1.574	1.545	1.547	1.589	1.621	1.666	1.588	2.51
15) 1,4-Dichloro	1.577	1.595	1.609	1.567	1.567	1.616	1.654	1.677	1.608	2.52
16) Benzyl alcoh	0.854	0.828	0.856	0.885	0.890	0.885	0.927	0.875	0.875	3.37
17) 1,2-Dichloro	1.482	1.435	1.491	1.464	1.456	1.508	1.624	1.553	1.502	4.07
18) Acetophenone	1.832	1.819	1.885	1.847	1.819	1.898	1.873	1.932	1.863	2.19
19) 2-Methylphen	1.240	1.193	1.215	1.239	1.227	1.253	1.221	1.264	1.231	1.83
20) 2,2'-oxybis(	1.624	1.552	1.558	1.504	1.488	1.552	1.685	1.624	1.573	4.22
21) 3&4-Methylph	1.268	1.252	1.293	1.334	1.322	1.328	1.233	1.315	1.293	2.93
22) n-Nitroso-di	0.963	0.956	0.999	0.994	0.980	1.024	1.032	1.034	0.998	3.05
23) Hexachloroet	0.505	0.502	0.510	0.506	0.503	0.516	0.535	0.554	0.516	3.60
24) I Naphthalene-d8	-----ISTD-----									
25) Nitrobenzene	0.369	0.357	0.366	0.366	0.360	0.367	0.357	0.382	0.366	2.19
26) Nitrobenzene	0.367	0.366	0.363	0.360	0.355	0.364	0.364	0.379	0.365	1.87
27) Quinoline	0.672	0.671	0.677	0.684	0.676	0.675	0.681	0.699	0.679	1.35
28) Isophorone	0.641	0.636	0.636	0.640	0.631	0.639	0.659	0.664	0.643	1.84
29) 2-Nitropheno	0.188	0.189	0.196	0.199	0.197	0.197	0.188	0.202	0.195	2.86
30) 2,4-Dimethyl	0.309	0.303	0.309	0.319	0.316	0.311	0.303	0.323	0.312	2.35
31) Benzoic acid	0.182	0.204	0.242	0.266	0.268	0.258		0.234	0.236	13.79
32) bis(2-Chloro	0.370	0.369	0.372	0.366	0.360	0.366	0.381	0.390	0.372	2.50
33) 2,4-Dichloro	0.297	0.290	0.289	0.291	0.290	0.290	0.293	0.294	0.292	0.90
34) 2,6-Dichloro	0.277	0.277	0.287	0.286	0.283	0.286	0.294	0.294	0.286	2.27
35) 1,3,5-Trichl	0.361	0.345	0.342	0.333	0.330	0.338	0.361	0.359	0.346	3.64
36) 1,2,4-Trichl	0.320	0.324	0.314	0.312	0.307	0.317	0.342	0.331	0.321	3.54
37) 1,2,3-Trichl	0.318	0.319	0.318	0.307	0.299	0.310	0.350	0.328	0.319	4.78
38) Naphthalene	1.046	1.023	1.024	1.016	1.003	1.021	1.081	1.070	1.036	2.66
39) 4-Chloroanil	0.438	0.445	0.439	0.440	0.427	0.435	0.445	0.456	0.441	1.96
40) 2,3-Dichloro	0.359	0.362	0.360	0.370	0.366	0.365	0.359	0.378	0.365	1.77
41) Caprolactam	0.140	0.148	0.150	0.155	0.152	0.152	0.145	0.157	0.150	3.58
42) Hexachlorobu	0.175	0.164	0.167	0.164	0.161	0.165	0.171	0.174	0.168	3.00
43) 4-Chloro-3-m	0.279	0.273	0.280	0.286	0.287	0.282	0.268	0.289	0.281	2.58
44) 2-Methylnaph	0.597	0.595	0.596	0.600	0.599	0.601	0.622	0.616	0.603	1.69
45) 1-Methylnaph	0.625	0.625	0.623	0.627	0.625	0.626	0.630	0.651	0.629	1.43

Initial Calibration Summary

Page 2 of 3

Job Number: JC65799
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-ICC4618
 Lab FileID: 2M103897.D

46)	Dimethylnaph	0.626	0.636	0.638	0.647	0.645	0.641	0.655	0.666	0.644	1.89
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.301	0.323	0.357	0.369	0.369	0.370	0.273	0.358	0.340	10.84
49)	2,4,6-Trichl	0.394	0.365	0.395	0.393	0.389	0.395	0.388	0.407	0.391	3.01
50)	2,4,5-Trichl	0.392	0.405	0.417	0.411	0.406	0.417	0.406	0.432	0.411	2.82
51)	2-Fluorobiph	1.434	1.477	1.454	1.421	1.415	1.462	1.477	1.549	1.461	2.93
52)	2-Chloronaph	1.255	1.234	1.209	1.182	1.168	1.213	1.265	1.275	1.225	3.18
53)	Biphenyl	1.673	1.612	1.627	1.628	1.617	1.652	1.639	1.718	1.646	2.14
54)	2-Nitroanili	0.323	0.319	0.344	0.345	0.348	0.349	0.328	0.350	0.338	3.77
55)	Dimethylphth	1.338	1.307	1.309	1.306	1.295	1.311	1.384	1.382	1.329	2.68
56)	Acenaphthyle	1.936	1.916	1.954	1.922	1.919	1.973	1.978	2.042	1.955	2.17
57)	2,6-Dinitrot	0.273	0.290	0.310	0.311	0.309	0.307	0.266	0.311	0.297	6.24
58)	3-Nitroanili	0.309	0.327	0.356	0.364	0.358	0.367	0.318	0.361	0.345	6.66
59)	Acenaphthene	1.268	1.268	1.277	1.267	1.261	1.283	1.306	1.334	1.283	1.95
60)	2,4-Dinitrop	0.076	0.110	0.156	0.187	0.190	0.178	0.069	0.134	0.137	35.30
---- Quadratic regression ---- Coefficient = 0.9997											
Response Ratio = -0.01252 + 0.16728 *A + 0.00532 *A^2											
61)	4-Nitropheno	0.125	0.142	0.161	0.160	0.164	0.162	0.123	0.155	0.149	11.15
62)	Dibenzofuran	1.712	1.715	1.724	1.715	1.695	1.733	1.727	1.783	1.725	1.50
63)	2,4-Dinitrot	0.367	0.362	0.416	0.431	0.430	0.428	0.331	0.407	0.396	9.61
64)	2,3,4,6-Tetr	0.327	0.333	0.344	0.348	0.349	0.347	0.317	0.350	0.339	3.56
65)	Diethylphtha	1.280	1.279	1.319	1.325	1.322	1.331	1.301	1.364	1.315	2.14
66)	Fluorene	1.405	1.379	1.394	1.398	1.399	1.411	1.367	1.432	1.398	1.41
67)	4-Chlorophen	0.643	0.628	0.641	0.619	0.608	0.625	0.658	0.661	0.635	2.93
68)	4-Nitroanili	0.317	0.345	0.345	0.353	0.350	0.358	0.306	0.369	0.343	6.15
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.093	0.099	0.135	0.149	0.148	0.145	0.083	0.123	0.122	21.91
---- Quadratic regression ---- Coefficient = 0.9990											
Response Ratio = -0.00195 + 0.13467 *A + 0.00646 *A^2											
71)	n-Nitrosodip	0.576	0.580	0.599	0.581	0.582	0.585	0.572	0.597	0.584	1.63
72)	1,2-Diphenyl	0.747	0.768	0.786	0.768	0.768	0.774	0.782	0.797	0.774	1.95
73)	2,4,6-Tribo	0.117	0.116	0.127	0.123	0.123	0.122	0.122	0.119	0.121	3.07
74)	4-Bromopheny	0.217	0.219	0.221	0.216	0.215	0.219	0.226	0.229	0.220	2.18
75)	Hexachlorobe	0.247	0.248	0.252	0.243	0.239	0.247	0.275	0.262	0.252	4.55
76)	Pentachlorop	0.136	0.147	0.162	0.167	0.169	0.166	0.122	0.157	0.153	11.07
77)	Phenanthrene	1.168	1.124	1.141	1.120	1.104	1.125	1.185	1.165	1.141	2.49
78)	Anthracene	1.136	1.145	1.158	1.133	1.127	1.151	1.139	1.184	1.147	1.57
79)	Carbazole	1.042	1.037	1.091	1.081	1.077	1.076	1.060	1.102	1.071	2.13
80)	Di-n-butylph	1.233	1.257	1.331	1.351	1.346	1.344	1.264	1.344	1.309	3.72
81)	Fluoranthene	1.150	1.117	1.184	1.191	1.182	1.189	1.166	1.190	1.171	2.22
82)	Octadecane	0.505	0.499	0.531	0.527	0.524	0.522	0.510	0.537	0.519	2.56
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.338	1.361	1.344	1.313	1.258	1.342	1.318	1.413	1.336	3.30
85)	Terphenyl-d1	0.862	0.876	0.880	0.875	0.844	0.883	0.861	0.936	0.877	3.08
86)	Butylbenzylp	0.622	0.595	0.615	0.624	0.606	0.628	0.611	0.635	0.617	2.09
87)	Benzo[a]anth	1.221	1.194	1.176	1.181	1.156	1.184	1.337	1.233	1.210	4.68
88)	3,3'-Dichlor	0.416	0.432	0.454	0.452	0.436	0.454	0.402	0.466	0.439	4.99
89)	Chrysene	1.170	1.145	1.148	1.130	1.093	1.136	1.188	1.190	1.150	2.81
90)	bis(2-Ethylh	0.816	0.833	0.850	0.876	0.848	0.876	0.828	0.879	0.851	2.87
91)	I Perylene-d12	-----ISTD-----									
92)	Di-n-octylph	1.353	1.387	1.463	1.495	1.469	1.495	1.396	1.499	1.445	3.96
93)	Benzo[b]fluo	1.181	1.196	1.248	1.232	1.213	1.266	1.170	1.288	1.224	3.39
94)	Benzo[k]fluo	1.120	1.165	1.124	1.119	1.079	1.123	1.166	1.198	1.137	3.26
95)	Benzo[a]pyre	1.028	1.053	1.070	1.069	1.041	1.089	1.014	1.126	1.061	3.36

Initial Calibration Summary

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-ICC4618
Lab FileID: 2M103897.D

96)	Indeno[1,2,3	1.020	1.014	1.080	1.067	1.073	1.064	1.057	1.077	1.056	2.42
97)	Dibenz(a,h)a	0.927	0.941	0.966	0.961	0.944	0.977	0.929	0.999	0.956	2.60
98)	Dibenz[a,h]a	1.050	1.081	1.107	1.086	1.060	1.106	1.062	1.132	1.086	2.59
99)	7,12-Dimethy	0.505	0.517	0.538	0.549	0.532	0.553	0.517	0.554	0.533	3.51
100)	Benzo[g,h,i]	0.991	1.023	1.039	1.008	0.998	1.027	0.993	1.064	1.018	2.51

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

M2M4618.M Fri May 11 15:20:21 2018

6.7.1
6

Initial Calibration Summary

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICC4619
Lab FileID: 2M103906.D

Response Factor Report MS2M

Method : C:\MSDCHEM\1\METHODS\M2M4619.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

Calibration Files

2 =2m103910.D 5 =2m103909.D 25 =2m103907.D 80 =2m103905.D
100 =2m103904.D 50 =2m103906.D 1 =2m103911.D 10 =2m103908.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
101) 1,4-Dichlorobenzene-d	-----ISTD-----									
102) Benzaldehyde	1.101	1.014	0.930	0.874	0.860	0.882	1.137	1.003	0.975	10.87
103) Acenaphthene-d10a	-----ISTD-----									
104) 1,2,4,5-Tetr	0.599	0.577	0.580	0.583	0.578	0.579	0.607	0.596	0.587	1.99
105) Chrysene-d12a	-----ISTD-----									
106) Benzidine	0.349	0.441	0.364	0.366	0.372	0.385		0.450	0.389	10.24
107) 1-chloroocta	0.315	0.310	0.318	0.328	0.340	0.319	0.319	0.313	0.320	2.99
108) Phenanthrene-d10a	-----ISTD-----									
109) Atrazine	0.106	0.108	0.112	0.111	0.112	0.113	0.104	0.108	0.109	3.06
110) o-terphenyl	0.556	0.534	0.552	0.554	0.554	0.550	0.553	0.551	0.550	1.28
111) Pentachloron	0.038	0.040	0.043	0.044	0.045	0.043	0.044	0.042	0.042#	5.75
112) Naphthalene-d8a	-----ISTD-----									
113) Hydroquinone	0.208	0.235	0.305	0.314	0.322	0.333		0.258	0.282	17.13

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

M2M4618.M

Fri May 11 15:21:52 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103912.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103912.D Vial: 10
Acq On : 9 May 2018 10:23 pm Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	137	0.00	4.66
5 S	2-Fluorophenol	1.303	1.284	1.5	133	0.00	3.67
8 S	Phenol-d5	1.635	1.564	4.3	129	0.00	4.39
24 I	Naphthalene-d8	1.000	1.000	0.0	129	0.00	5.76
25 S	Nitrobenzene-d5	0.366	0.370	-1.1	130	0.00	5.10
47 I	Acenaphthene-d10	1.000	1.000	0.0	131	0.00	7.82
51 S	2-Fluorobiphenyl	1.461	1.365	6.6	123	0.00	6.95
69 I	Phenanthrene-d10	1.000	1.000	0.0	119	0.00	9.98
73 S	2,4,6-Tribromophenol	0.121	0.118	2.5	115	0.00	8.94
83 I	Chrysene-d12	1.000	1.000	0.0	109	-0.01	14.15
85 S	Terphenyl-d14	0.877	0.971	-10.7	119	0.00	12.54

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:36 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103913.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103913.D Vial: 11
Acq On : 9 May 2018 10:48 pm Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	135	0.00	4.66
9 t	Phenol	1.877	1.676	10.7	119	0.00	4.40
12 t	2-Chlorophenol	1.409	1.407	0.1	134	0.00	4.51
19 t	2-Methylphenol	1.231	1.174	4.6	126	0.00	4.86
21 t	3&4-Methylphenol	1.293	1.256	2.9	128	0.00	4.98
24 I	Naphthalene-d8	1.000	1.000	0.0	128	0.00	5.76
29 t	2-Nitrophenol	0.195	0.195	0.0	126	0.00	5.40
30 t	2,4-Dimethylphenol	0.312	0.299	4.2	123	0.00	5.43
31 t	Benzoic acid	0.236	0.229	3.0	113	0.00	5.55
33 t	2,4-Dichlorophenol	0.292	0.290	0.7	128	0.00	5.62
34 t	2,6-Dichlorophenol	0.286	0.288	-0.7	128	0.00	5.84
43 t	4-Chloro-3-methylphenol	0.281	0.276	1.8	125	-0.01	6.33
47 I	Acenaphthene-d10	1.000	1.000	0.0	116	0.00	7.82
49 t	2,4,6-Trichlorophenol	0.391	0.419	-7.2	124	0.00	6.85
50 t	2,4,5-Trichlorophenol	0.411	0.437	-6.3	122	-0.01	6.88
60 t	2,4-Dinitrophenol	50.000	45.968	8.1	111	-0.01	7.91
61 t	4-Nitrophenol	0.149	0.149	0.0	107	0.00	8.02
64	2,3,4,6-Tetrachlorophenol	0.339	0.346	-2.1	116	0.00	8.29
69 I	Phenanthrene-d10	1.000	1.000	0.0	116	0.00	9.98
70 t	4,6-Dinitro-2-methylpheno	50.000	48.080	3.8	108	0.00	8.68
76 t	Pentachlorophenol	0.153	0.179	-17.0	131	-0.01	9.71

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:38 2018

Initial Calibration Verification

Page 1 of 2

Job Number: JC65799
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
 Lab FileID: 2M103915.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103915.D Vial: 13
 Acq On : 9 May 2018 11:38 pm Operator: sufiyana
 Sample : icv4618-50 Inst : MS2M
 Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 Last Update : Fri May 11 12:53:20 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	138	0.00	4.66
4 t	N-Nitrosodimethylamine	0.921	0.735	20.2	109	0.02	2.50
11 t	bis(2-Chloroethyl)ether	1.298	1.311	-1.0	139	0.00	4.46
14 t	1,3-Dichlorobenzene	1.588	1.518	4.4	132	0.00	4.63
15 t	1,4-Dichlorobenzene	1.608	1.533	4.7	131	0.00	4.68
17 t	1,2-Dichlorobenzene	1.502	1.446	3.7	132	0.00	4.80
20 t	2,2'-oxybis(1-Chloropropa	1.573	1.647	-4.7	146	0.00	4.88
22 t	n-Nitroso-di-n-propylamin	0.998	0.915	8.3	123	0.00	4.98
23 t	Hexachloroethane	0.516	0.493	4.5	132	0.00	5.08
24 I	Naphthalene-d8	1.000	1.000	0.0	131	0.00	5.76
26 t	Nitrobenzene	0.365	0.337	7.7	122	0.00	5.12
28 t	Isophorone	0.643	0.623	3.1	128	-0.01	5.32
32 t	bis(2-Chloroethoxy)methan	0.372	0.379	-1.9	136	0.00	5.52
36 t	1,2,4-Trichlorobenzene	0.321	0.311	3.1	129	0.00	5.70
38 t	Naphthalene	1.036	1.004	3.1	129	0.00	5.78
42 t	Hexachlorobutadiene	0.168	0.169	-0.6	134	0.00	5.91
47 I	Acenaphthene-d10	1.000	1.000	0.0	129	0.00	7.82
48 t	Hexachlorocyclopentadiene	0.340	0.320	5.9	115	0.00	6.71
52 t	2-Chloronaphthalene	1.225	1.166	4.8	124	0.00	7.09
55 t	Dimethylphthalate	1.329	1.259	5.3	124	0.00	7.48
56 t	Acenaphthylene	1.955	1.831	6.3	120	0.00	7.62
57 t	2,6-Dinitrotoluene	0.297	0.275	7.4	116	0.00	7.55
59 t	Acenaphthene	1.283	1.229	4.2	124	0.00	7.86
63 t	2,4-Dinitrotoluene	0.396	0.338	14.6	102	0.00	8.10
65 t	Diethylphthalate	1.315	1.243	5.5	120	-0.01	8.47
66 t	Fluorene	1.398	1.320	5.6	121	0.00	8.59
67 t	4-Chlorophenyl-phenylethe	0.635	0.594	6.5	123	0.00	8.61
69 I	Phenanthrene-d10	1.000	1.000	0.0	122	0.00	9.98
71 t	n-Nitrosodiphenylamine	0.584	0.544	6.8	113	0.00	8.79
72 t	1,2-Diphenylhydrazine	0.774	0.775	-0.1	122	0.00	8.84
74 t	4-Bromophenyl-phenylether	0.220	0.215	2.3	120	0.00	9.33
75 t	Hexachlorobenzene	0.252	0.241	4.4	119	0.00	9.41
77 t	Phenanthrene	1.141	1.104	3.2	120	0.00	10.02
78 t	Anthracene	1.147	1.097	4.4	116	0.00	10.10
80 t	Di-n-butylphthalate	1.309	1.269	3.1	115	0.00	11.00
81 t	Fluoranthene	1.171	1.091	6.8	112	0.00	11.87
83 I	Chrysene-d12	1.000	1.000	0.0	109	0.00	14.16
84 t	Pyrene	1.336	1.336	0.0	108	0.00	12.22

Initial Calibration Verification

Page 2 of 2

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103915.D

86	t	Butylbenzylphthalate	0.617	0.615	0.3	107	0.00	13.38
87	t	Benzo[a]anthracene	1.210	1.122	7.3	103	0.00	14.14
89	t	Chrysene	1.150	1.068	7.1	102	0.00	14.20
90	t	bis(2-Ethylhexyl)phthalat	0.851	0.843	0.9	105	0.00	14.35
91	I	Perylene-d12	1.000	1.000	0.0	102	0.00	16.27
92	t	Di-n-octylphthalate	1.445	1.507	-4.3	103	0.00	15.33
93	t	Benzo[b]fluoranthene	1.224	1.103	9.9	89	0.00	15.75
94	t	Benzo[k]fluoranthene	1.137	1.114	2.0	101	-0.01	15.78
95	t	Benzo[a]pyrene	1.061	1.024	3.5	96	0.00	16.19
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.006	4.7	96	-0.01	17.78
98	t	Dibenz[a,h]anthracene	1.086	1.010	7.0	93	-0.01	17.82
100	t	Benzo[g,h,i]perylene	1.018	1.026	-0.8	102	-0.01	18.21

(#) = Out of Range
 2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
 Fri May 11 15:09:40 2018

6.7.5
 6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4619
Lab FileID: 2M103915A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103915a.D Vial: 13
Acq On : 9 May 2018 11:38 pm Operator: sufiyana
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
103	Acenaphthene-d10a	1.000	1.000	0.0	146	0.00	7.82
104	1,2,4,5-Tetrachlorobenzen	0.587	0.655	-11.6	166	0.00	6.71
105	Chrysene-d12a	1.000	1.000	0.0	110	0.00	14.16
106	Benzidine	0.389	0.291	25.2	95	0.00	12.13

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:42 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4619
Lab FileID: 2M103916A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103916a.D Vial: 14
Acq On : 10 May 2018 12:04 am Operator: sufiyana
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	131	0.00	4.66
102	Benzaldehyde	0.975	0.943	3.3	140	0.00	4.33
108	Phenanthrene-d10a	1.000	1.000	0.0	120	0.00	9.98
109	Atrazine	0.109	0.120	-10.1	127	0.00	9.63

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:46 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103916.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103916.D Vial: 14
Acq On : 10 May 2018 12:04 am Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	125	0.00	4.66
2 t	1,4-Dioxane	0.605	0.545	9.9	114	0.02	2.21
6 t	Indene	2.229	2.368	-6.2	130	0.00	4.87
7 t	Cumene	3.318	3.144	5.2	117	0.00	4.07
13 t	Decane	1.450	1.334	8.0	117	0.00	4.55
18 t	Acetophenone	1.863	1.748	6.2	115	0.00	4.98
24 I	Naphthalene-d8	1.000	1.000	0.0	121	0.00	5.76
27 t	Quinoline	0.679	0.660	2.8	119	-0.02	6.11
40 t	2,3-Dichloroaniline	0.365	0.303	17.0	101	0.00	6.84
41 t	Caprolactam	0.150	0.130	13.3	104	-0.03	6.16
45 t	1-Methylnaphthalene	0.629	0.558	11.3	108	0.00	6.62
46 t	Dimethylnaphthalene	0.644	0.603	6.4	114	0.00	7.27
47 I	Acenaphthene-d10	1.000	1.000	0.0	109	0.00	7.82
53 t	Biphenyl	1.646	1.721	-4.6	114	0.00	7.07
69 I	Phenanthrene-d10	1.000	1.000	0.0	111	0.00	9.98
82 t	Octadecane	0.519	0.524	-1.0	111	0.00	9.95

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:44 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103917.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103917.D Vial: 15
Acq On : 10 May 2018 12:29 am Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	106	-0.01	14.15
88 t	3,3'-Dichlorobenzidine	0.439	0.447	-1.8	105	0.00	14.15

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:48 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4619
Lab FileID: 2M103918.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103918.D Vial: 16
Acq On : 10 May 2018 2:14 am Operator: chriss2
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
112	Naphthalene-d8a	1.000	1.000	0.0	143	0.00	5.76
113	Hydroquinone	0.282	0.320	-13.5	138	0.00	6.17

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103906a.D M2M4618.M Fri May 11 15:09:50 2018

6.7.10

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4620-ICV4618
Lab FileID: 2M103921.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4620\2m103921.D Vial: 2
Acq On : 11 May 2018 1:55 pm Operator: christc2
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4620,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	4.67
3 t	Pyridine	1.552	1.520	2.1	112	0.10	2.61
10	Aniline	2.061	2.201	-6.8	122	0.00	4.42
16 t	Benzyl alcohol	0.875	0.939	-7.3	117	0.00	4.78
24 I	Naphthalene-d8	1.000	1.000	0.0	112	0.00	5.76
39 t	4-Chloroaniline	0.441	0.407	7.7	105	0.00	5.83
44 t	2-Methylnaphthalene	0.603	0.585	3.0	109	0.00	6.52
47 I	Acenaphthene-d10	1.000	1.000	0.0	114	0.00	7.82
54 t	2-Nitroaniline	0.338	0.323	4.4	105	0.00	7.22
58 t	3-Nitroaniline	0.345	0.342	0.9	106	0.00	7.77
62 t	Dibenzofuran	1.725	1.699	1.5	112	0.00	8.10
68 t	4-Nitroaniline	0.343	0.311	9.3	99	-0.01	8.63
69 I	Phenanthrene-d10	1.000	1.000	0.0	112	0.00	9.99
79 t	Carbazole	1.071	1.031	3.7	107	0.00	10.37

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:19:12 2018

6.7.11

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4620-ICV4619
Lab FileID: 2M103921A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4620\2m103921a.D Vial: 2
Acq On : 11 May 2018 1:55 pm Operator: christc2
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4620,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
108	Phenanthrene-d10a	1.000	1.000	0.0	122	0.00	9.99
111	Pentachloronitrobenzene	0.042	0.041#	2.4	114	0.00	9.74

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103906a.D M2M4618.M Fri May 11 16:40:21 2018

6.7.12

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4624-CC4618
Lab FileID: 2M104018.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4624\2m104018.D Vial: 2
 Acq On : 15 May 2018 1:39 am Operator: georges
 Sample : cc4618-50 Inst : MS2M
 Misc : op10486,e2m4624,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 Last Update : Fri May 11 12:53:20 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	75	-0.03	4.64
2 t	1,4-Dioxane	0.605	0.582	3.8	73	-0.02	2.17
3 t	Pyridine	1.552	1.532	1.3	77	-0.02	2.49
4 t	N-Nitrosodimethylamine	0.921	0.911	1.1	74	-0.02	2.46
5 S	2-Fluorophenol	1.303	1.321	-1.4	75	-0.01	3.66
6 t	Indene	2.229	2.258	-1.3	74	-0.03	4.84
7 t	Cumene	3.318	3.311	0.2	73	-0.03	4.04
8 S	Phenol-d5	1.635	1.679	-2.7	76	-0.02	4.38
9 t	Phenol	1.877	1.924	-2.5	76	-0.02	4.39
10	Aniline	2.061	1.902	7.7	72	-0.03	4.39
11 t	bis(2-Chloroethyl)ether	1.298	1.306	-0.6	75	-0.03	4.44
12 t	2-Chlorophenol	1.409	1.436	-1.9	76	-0.02	4.49
13 t	Decane	1.450	1.396	3.7	73	-0.03	4.53
14 t	1,3-Dichlorobenzene	1.588	1.573	0.9	74	-0.03	4.60
15 t	1,4-Dichlorobenzene	1.608	1.605	0.2	74	-0.03	4.65
16 t	Benzyl alcohol	0.875	0.878	-0.3	74	-0.02	4.75
17 t	1,2-Dichlorobenzene	1.502	1.509	-0.5	75	-0.03	4.77
18 t	Acetophenone	1.863	1.922	-3.2	76	-0.03	4.96
19 t	2-Methylphenol	1.231	1.269	-3.1	76	-0.02	4.85
20 t	2,2'-oxybis(1-Chloropropa	1.573	1.551	1.4	75	-0.03	4.85
21 t	3&4-Methylphenol	1.293	1.346	-4.1	76	-0.02	4.96
22 t	n-Nitroso-di-n-propylamin	0.998	1.030	-3.2	75	-0.03	4.96
23 t	Hexachloroethane	0.516	0.517	-0.2	75	-0.03	5.04
24 I	Naphthalene-d8	1.000	1.000	0.0	76	-0.03	5.73
25 S	Nitrobenzene-d5	0.366	0.368	-0.5	76	-0.03	5.08
26 t	Nitrobenzene	0.365	0.359	1.6	75	-0.03	5.10
27 t	Quinoline	0.679	0.706	-4.0	80	-0.03	6.09
28 t	Isophorone	0.643	0.634	1.4	76	-0.03	5.30
29 t	2-Nitrophenol	0.195	0.207	-6.2	80	-0.03	5.37
30 t	2,4-Dimethylphenol	0.312	0.306	1.9	75	-0.03	5.41
31 t	Benzoic acid	0.236	0.295	-25.0#	87	-0.03	5.52
32 t	bis(2-Chloroethoxy)methan	0.372	0.368	1.1	77	-0.03	5.49
33 t	2,4-Dichlorophenol	0.292	0.301	-3.1	79	-0.03	5.60
34 t	2,6-Dichlorophenol	0.286	0.289	-1.0	77	-0.03	5.81
35	1,3,5-Trichlorobenzene	0.346	0.334	3.5	76	-0.03	5.39
36 t	1,2,4-Trichlorobenzene	0.321	0.315	1.9	76	-0.03	5.68
37	1,2,3-Trichlorobenzene	0.319	0.311	2.5	77	-0.03	5.89
38 t	Naphthalene	1.036	1.021	1.4	76	-0.03	5.75
39 t	4-Chloroaniline	0.441	0.434	1.6	76	-0.03	5.80
40 t	2,3-Dichloroaniline	0.365	0.381	-4.4	80	-0.03	6.81
41 t	Caprolactam	0.150	0.158	-5.3	80	-0.03	6.16

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4624-CC4618
Lab FileID: 2M104018.D

42 t	Hexachlorobutadiene	0.168	0.165	1.8	76	-0.03	5.88
43 t	4-Chloro-3-methylphenol	0.281	0.296	-5.3	80	-0.02	6.32
44 t	2-Methylnaphthalene	0.603	0.606	-0.5	77	-0.04	6.48
45 t	1-Methylnaphthalene	0.629	0.634	-0.8	77	-0.04	6.59
46 t	Dimethylnaphthalene	0.644	0.665	-3.3	79	-0.04	7.24
47 I	Acenaphthene-d10	1.000	1.000	0.0	80	-0.04	7.78
48 t	Hexachlorocyclopentadiene	0.340	0.364	-7.1	79	-0.03	6.68
49 t	2,4,6-Trichlorophenol	0.391	0.388	0.8	79	-0.03	6.82
50 t	2,4,5-Trichlorophenol	0.411	0.420	-2.2	81	-0.03	6.87
51 S	2-Fluorobiphenyl	1.461	1.422	2.7	78	-0.04	6.92
52 t	2-Chloronaphthalene	1.225	1.187	3.1	79	-0.03	7.06
53 t	Biphenyl	1.646	1.619	1.6	79	-0.04	7.04
54 t	2-Nitroaniline	0.338	0.353	-4.4	81	-0.04	7.19
55 t	Dimethylphthalate	1.329	1.322	0.5	81	-0.04	7.45
56 t	Acenaphthylene	1.955	1.965	-0.5	80	-0.04	7.59
57 t	2,6-Dinitrotoluene	0.297	0.325	-9.4	85	-0.03	7.52
58 t	3-Nitroaniline	0.345	0.388	-12.5	85	-0.04	7.73
59 t	Acenaphthene	1.283	1.273	0.8	80	-0.04	7.83
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	100.000	117.693	-17.7	95	-0.04	7.88
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.149	0.172	-15.4	85	-0.02	8.01
62 t	Dibenzofuran	1.725	1.742	-1.0	81	-0.04	8.07
63 t	2,4-Dinitrotoluene	0.396	0.453	-14.4	85	-0.04	8.07
64	2,3,4,6-Tetrachlorophenol	0.339	0.357	-5.3	83	-0.04	8.25
65 t	Diethylphthalate	1.315	1.376	-4.6	83	-0.04	8.45
66 t	Fluorene	1.398	1.434	-2.6	82	-0.04	8.56
67 t	4-Chlorophenyl-phenylethe	0.635	0.637	-0.3	82	-0.04	8.57
68 t	4-Nitroaniline	0.343	0.385	-12.2	87	-0.04	8.60
69 I	Phenanthrene-d10	1.000	1.000	0.0	84	-0.04	9.94
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	50.000	55.111	-10.2	90	-0.04	8.65
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.584	0.576	1.4	82	-0.04	8.75
72 t	1,2-Diphenylhydrazine	0.774	0.747	3.5	81	-0.04	8.80
73 S	2,4,6-Tribromophenol	0.121	0.123	-1.7	84	-0.04	8.91
74 t	4-Bromophenyl-phenylether	0.220	0.215	2.3	82	-0.04	9.30
75 t	Hexachlorobenzene	0.252	0.240	4.8	81	-0.04	9.38
76 t	Pentachlorophenol	0.153	0.163	-6.5	82	-0.04	9.68
77 t	Phenanthrene	1.141	1.137	0.4	85	-0.04	9.98
78 t	Anthracene	1.147	1.137	0.9	83	-0.04	10.06
79 t	Carbazole	1.071	1.104	-3.1	86	-0.04	10.33
80 t	Di-n-butylphthalate	1.309	1.361	-4.0	85	-0.04	10.97
81 t	Fluoranthene	1.171	1.214	-3.7	86	-0.05	11.83
82 t	Octadecane	0.519	0.508	2.1	82	-0.04	9.92
83 I	Chrysene-d12	1.000	1.000	0.0	88	-0.05	14.11
84 t	Pyrene	1.336	1.306	2.2	86	-0.05	12.18
85 S	Terphenyl-d14	0.877	0.868	1.0	87	-0.05	12.49
86 t	Butylbenzylphthalate	0.617	0.630	-2.1	89	-0.05	13.33
87 t	Benzo[a]anthracene	1.210	1.202	0.7	90	-0.05	14.10
88 t	3,3'-Dichlorobenzidine	0.439	0.462	-5.2	90	-0.05	14.10
89 t	Chrysene	1.150	1.148	0.2	89	-0.05	14.15
90 t	bis(2-Ethylhexyl)phthalat	0.851	0.876	-2.9	88	-0.05	14.30

6.7.13
6

Continuing Calibration Summary

Page 3 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4624-CC4618
Lab FileID: 2M104018.D

91	I	Perylene-d12	1.000	1.000	0.0	91	-0.05	16.22
92	t	Di-n-octylphthalate	1.445	1.487	-2.9	90	-0.05	15.28
93	t	Benzo[b]fluoranthene	1.224	1.448	-18.3	104	-0.05	15.70
94	t	Benzo[k]fluoranthene	1.137	1.222	-7.5	99	-0.05	15.74
95	t	Benzo[a]pyrene	1.061	1.297	-22.2#	108	-0.05	16.14
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.163	-10.1	99	-0.07	17.72
97	t	Dibenz(a,h)acridine	0.956	0.982	-2.7	91	-0.07	17.37
98	t	Dibenz[a,h]anthracene	1.086	1.123	-3.4	92	-0.08	17.75
99	t	7,12-Dimethylbenz(a)anthr	0.533	0.532	0.2	87	-0.05	15.71
100	t	Benzo[g,h,i]perylene	1.018	1.095	-7.6	97	-0.08	18.14

(#) = Out of Range

2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Tue May 15 10:23:57 2018

6.7.13

6

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4624-CC4619
Lab FileID: 2M104019.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4624\2m104019.D Vial: 3
Acq On : 15 May 2018 2:05 am Operator: georges
Sample : cc4619-50 Inst : MS2M
Misc : op10486,e2m4624,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	84	-0.03	4.64
102	Benzaldehyde	0.975	0.874	10.4	83	-0.02	4.31
103	Acenaphthene-d10a	1.000	1.000	0.0	89	-0.04	7.78
104	1,2,4,5-Tetrachlorobenzen	0.587	0.572	2.6	88	-0.04	6.68
105	Chrysene-d12a	1.000	1.000	0.0	96	-0.05	14.10
106	Benzidine	0.389	0.417	-7.2	104	-0.04	12.09
107 s	1-chlorooctadecane	0.320	0.313	2.2	94	-0.04	11.80
108	Phenanthrene-d10a	1.000	1.000	0.0	93	-0.04	9.94
109	Atrazine	0.109	0.111	-1.8	91	-0.04	9.59
110 s	o-terphenyl	0.550	0.552	-0.4	93	-0.04	10.59
111	Pentachloronitrobenzene	0.042	0.044#	-4.8	96	-0.04	9.70
112	Naphthalene-d8a	1.000	1.000	0.0	86	-0.03	5.72
113	Hydroquinone	0.282	0.389	-37.9#	101	-0.02	6.14

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Tue May 15 10:25:32 2018

6.7.14

6

Initial Calibration Summary

Page 1 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICC5484
Lab FileID: P122197.D

Response Factor Report MSVOAMSP

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

Calibration Files

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

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

Initial Calibration Summary

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Job Number: JC65799
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICC5484
 Lab FileID: P122197.D

40)	2,3-Dichloro	0.507	0.477	0.433	0.368	0.366	0.391	0.435	0.471	0.431	12.17
41)	Caprolactam	0.182	0.240	0.241	0.206	0.213	0.221	0.222	0.141	0.208	15.99
42)	Hexachlorobu	0.291	0.273	0.247	0.225	0.225	0.237	0.255	0.266	0.252	9.31
43)	4-Chloro-3-m	0.484	0.507	0.499	0.420	0.417	0.457	0.470	0.372	0.453	10.32
44)	2-Methylnaph	0.895	0.847	0.686	0.537		0.587	0.750	0.852	0.736	18.86
45)	1-Methylnaph	1.016	0.967	0.816	0.639		0.700	0.869	1.065	0.867	18.47
46)	Dimethylnaph	0.869	0.839	0.732	0.593	0.590	0.641	0.754	0.925	0.743	17.24
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.289	0.347	0.377	0.356	0.345	0.368	0.351	0.227	0.333	15.04
49)	2,4,6-Trichl	0.446	0.442	0.421	0.372	0.374	0.395	0.412	0.376	0.405	7.44
50)	2,4,5-Trichl	0.455	0.474	0.451	0.451	0.455	0.453	0.443	0.441	0.453	2.24
51)	2-Fluorobiph	1.931	1.804	1.409	1.191		1.291	1.593		1.537	18.99
52)	2-Chloronaph	1.571	1.430	1.139	0.965		1.035	1.284		1.237	18.97
53)	Biphenyl	1.979	1.856	1.521	1.223		1.329	1.686	2.105	1.671	19.81
54)	2-Nitroanili	0.741	0.730	0.682	0.589	0.552	0.636	0.694	0.601	0.653	10.57
55)	Dimethylphth	1.913	1.715	1.494	1.257	1.184	1.356	1.591	1.852	1.545	17.50
56)	Acenaphthyle	2.267	2.246	1.879	1.498		1.629	2.078	2.431	2.004	17.38
57)	2,6-Dinitrot	0.341	0.345	0.349	0.326	0.325	0.340	0.354	0.281	0.332	7.02
58)	3-Nitroanili	0.377	0.399	0.418	0.367	0.367	0.384	0.402	0.308	0.378	8.90
59)	Acenaphthene	1.396	1.388	1.182	1.009	0.947	1.084	1.261	1.463	1.216	15.83
60)	2,4-Dinitrop	0.036	0.077	0.172	0.203	0.205	0.199	0.116		0.144	47.42
---- Quadratic regression ---- Coefficient = 0.9994											
Response Ratio = -0.03162 + 0.20384 *A + 0.00165 *A^2											
61)	4-Nitropheno	0.253	0.350	0.361	0.367	0.368	0.321		0.337		13.18
62)	Dibenzofuran	2.117	2.128	1.739	1.427	1.351	1.536	1.924	2.182	1.801	18.57
63)	2,4-Dinitrot	0.460	0.509	0.485	0.439	0.432	0.466	0.488	0.342	0.453	11.37
64)	2,3,4,6-Tetr	0.366	0.405	0.409	0.396	0.397	0.409	0.391	0.292	0.383	10.22
65)	Diethylphtha	1.837	1.827	1.576	1.305	1.214	1.412	1.677	1.705	1.569	15.03
66)	Fluorene	1.814	1.682	1.426	1.227	1.174	1.306	1.595	1.691	1.489	16.07
67)	4-Chlorophen	0.891	0.857	0.754	0.716	0.719	0.746	0.777	0.833	0.787	8.36
68)	4-Nitroanili	0.363	0.354	0.388	0.362	0.372	0.380	0.369	0.234	0.353	13.90
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.075	0.104	0.143	0.147	0.153	0.152	0.132		0.129	22.63
---- Quadratic regression ---- Coefficient = 0.9994											
Response Ratio = -0.00422 + 0.14907 *A + 0.00174 *A^2											
71)	n-Nitrosodip	0.683	0.638	0.549	0.460	0.441	0.497	0.562	0.627	0.557	15.78
72)	1,2-Diphenyl	1.606	1.492	1.202	0.920		1.017	1.334	1.423	1.285	19.56
73)	2,4,6-Tribo	0.119	0.130	0.135	0.128	0.128	0.130	0.130	0.101	0.125	8.58
74)	4-Bromopheny	0.318	0.290	0.266	0.232	0.227	0.245	0.262	0.299	0.267	12.26
75)	Hexachlorobe	0.328	0.300	0.265	0.238	0.232	0.253	0.275	0.346	0.280	14.85
76)	Pentachlorop	0.080	0.124	0.158	0.158	0.159	0.160	0.129		0.138	21.58
---- Linear regression ---- Coefficient = 0.9998											
Response Ratio = -0.00847 + 0.16079 *A											
77)	Phenanthrene	1.279	1.236	1.051	0.877	0.813	0.941	1.127	1.318	1.080	17.67
78)	Anthracene	1.321	1.304	1.121	0.919	0.855	1.001	1.200	1.214	1.117	15.65
79)	Carbazole	1.296	1.309	1.110	0.924	0.864	0.996	1.165	1.088	1.094	14.81
80)	Di-n-butylph	1.385	1.577	1.472	1.165	1.085	1.305	1.506	1.137	1.329	13.95
81)	Fluoranthene	1.523	1.580	1.379	1.139	1.068	1.241	1.477	1.402	1.351	13.66
82)	Octadecane	0.719	0.728	0.625	0.516	0.472	0.552	0.659	0.583	0.607	15.29
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.627	1.633	1.402	1.178	1.143	1.228	1.444	1.604	1.407	14.57
85)	Terphenyl-d1	1.165	1.140	1.049	0.920	0.895	0.944	1.053	1.107	1.034	10.00
86)	Butylbenzylp	0.499	0.604	0.667	0.613	0.596	0.626	0.608	0.392	0.575	15.27
87)	Benzo[a]anth	1.334	1.315	1.248	1.130	1.102	1.169	1.257	1.349	1.238	7.65

6.7.15

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Initial Calibration Summary

Page 3 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICC5484
Lab FileID: P122197.D

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

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

MP5484.M

Tue May 01 12:25:48 2018

ACLIMS

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICV5484
Lab FileID: P122203.D

Evaluate Continuing Calibration Report

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

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

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

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

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

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

6.7.16

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Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICV5484
 Lab FileID: P122204.D

Evaluate Continuing Calibration Report

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

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

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

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

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

SPCC's out = 0 CCC's out = 0
 Mon Apr 30 13:38:32 2018 ACLIMS

6.7.17

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICV5484
Lab FileID: P122205.D

Evaluate Continuing Calibration Report

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

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

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

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

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

SPCC's out = 0 CCC's out = 0
Fri Apr 27 18:13:26 2018 ACLIMS

6.7.18

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Initial Calibration Verification

Page 1 of 2

Job Number: JC65799
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICV5484
 Lab FileID: P122206.D

Evaluate Continuing Calibration Report

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

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

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

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

Initial Calibration Verification

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICV5484
Lab FileID: P122206.D

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

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

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

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICV5484
Lab FileID: P122207.D

Evaluate Continuing Calibration Report

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

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

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

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

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

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

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICV5484
Lab FileID: P122208.D

Evaluate Continuing Calibration Report

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

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

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

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

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

6.7.21
6

Initial Calibration Summary

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5486-ICC5486
Lab FileID: P122232.D

Response Factor Report MSVOAMSP

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

Calibration Files

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

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

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

MP5484.M

Mon Apr 30 16:20:09 2018

ACLIMS

6.7.22

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5486-ICV5486
Lab FileID: P122238.D

Evaluate Continuing Calibration Report

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

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

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

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

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

6.7.23

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Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5487-ICV5484
Lab FileID: P122241.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5487\p122241.D Vial: 2
Acq On : 30 Apr 2018 12:57 pm Operator: seanb1
Sample : icv5484-50 Inst : MSVOAMSP
Misc : op9039,ep5487,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

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

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

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

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

6.7.24

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Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5487-ICV5486
Lab FileID: P122242.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5487\p122242.D Vial: 3
Acq On : 30 Apr 2018 1:25 pm Operator: seanb1
Sample : icv5486-50 Inst : MSVOAMSP
Misc : op9039,ep5487,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

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

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

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

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

SPCC's out = 0 CCC's out = 0
Tue May 01 12:25:36 2018 ACLIMS

6.7.25

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5487-ICV5486
Lab FileID: P122243.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5487\p122243.D Vial: 4
Acq On : 30 Apr 2018 1:53 pm Operator: seanb1
Sample : icv5486-50 Inst : MSVOAMSP
Misc : op9039,ep5487,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

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

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

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

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

SPCC's out = 0 CCC's out = 0
Tue May 01 12:25:38 2018 ACLIMS

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5487-ICV5486
Lab FileID: P122244.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5487\p122244.D Vial: 5
Acq On : 30 Apr 2018 2:20 pm Operator: seanb1
Sample : icv5486-50 Inst : MSVOAMSP
Misc : op9039,ep5487,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

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

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

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

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

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5535-CC5484
Lab FileID: P123366.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5535\p123366.D Vial: 2
Acq On : 7 Jun 2018 9:02 am Operator: angelar
Sample : cc5484-50 Inst : MSVOAMSP
Misc : op9039,ep5535,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Jun 05 15:39:45 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	70	-0.03	4.23
2 t	1,4-Dioxane	1.155	0.927	19.7	59	-0.12	1.68
3 t	Pyridine	2.415	2.263	6.3	69	-0.09	2.00
4 t	N-Nitrosodimethylamine	1.272	1.016	20.1#	58	-0.13	1.99
5 S	2-Fluorophenol	1.527	1.589	-4.1	68	-0.07	3.28
6 t	Indene	2.421	2.447	-1.1	80	-0.02	4.42
7 t	Cumene	4.529	4.196	7.4	82	-0.05	3.63
8 S	Phenol-d5	1.962	2.122	-8.2	81	-0.04	4.03
9 t	Phenol	2.185	2.258	-3.3	80	-0.04	4.04
10 t	Aniline	2.463	2.485	-0.9	81	-0.04	4.00
----- True Calc. % Drift -----							
11 t	bis(2-Chloroethyl)ether	50.000	56.058	-12.1	79	-0.03	4.05
----- AvgRF CCRF % Dev -----							
12 t	2-Chlorophenol	1.396	1.475	-5.7	83	-0.04	4.10
----- True Calc. % Drift -----							
13 t	Decane	50.000	33.337	33.3#	51	-0.03	4.12
----- AvgRF CCRF % Dev -----							
14 t	1,3-Dichlorobenzene	1.653	1.588	3.9	78	-0.03	4.19
15 t	1,4-Dichlorobenzene	1.459	1.567	-7.4	83	-0.03	4.25
16 t	Benzyl alcohol	0.900	1.052	-16.9	83	-0.03	4.36
17 t	1,2-Dichlorobenzene	1.475	1.631	-10.6	92	-0.03	4.35
18 t	Acetophenone	2.327	2.514	-8.0	84	-0.02	4.53
19 t	2-Methylphenol	1.385	1.491	-7.7	81	-0.03	4.46
20 t	2,2'-oxybis(1-Chloropropa	0.445	0.482	-8.3	81	-0.02	4.44
21 t	3&4-Methylphenol	1.458	1.589	-9.0	76	-0.02	4.58
22	n-Nitroso-di-n-propylamin	1.561	1.632	-4.5	83	-0.02	4.54
23 t	Hexachloroethane	0.613	0.622	-1.5	79	-0.03	4.59
24 I	Naphthalene-d8	1.000	1.000	0.0	75	-0.03	5.15
25 S	Nitrobenzene-d5	0.726	0.671	7.6	77	-0.04	4.65
26 t	Nitrobenzene	0.688	0.635	7.7	82	-0.04	4.66
27 t	Quinoline	0.843	0.842	0.1	80	-0.03	5.42
28 t	Isophorone	1.077	1.054	2.1	84	-0.03	4.83
29 t	2-Nitrophenol	0.219	0.246	-12.3	88	-0.03	4.89
30 t	2,4-Dimethylphenol	0.460	0.522	-13.5	85	-0.03	4.94
31 t	Benzoic acid	0.373	0.453	-21.4#	83	-0.02	5.09
32 t	bis(2-Chloroethoxy)methan	0.523	0.492	5.9	79	-0.03	4.99
33 t	2,4-Dichlorophenol	0.329	0.366	-11.2	87	-0.03	5.07

Continuing Calibration Summary

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5535-CC5484
Lab FileID: P123366.D

Page 2 of 3

34	2,6-Dichlorophenol	0.323	0.374	-15.8	93	-0.03	5.22
35	1,3,5-Trichlorobenzene	0.429	0.430	-0.2	88	-0.03	4.89
36 t	1,2,4-Trichlorobenzene	0.402	0.376	6.5	81	-0.02	5.11
37	1,2,3-Trichlorobenzene	0.372	0.359	3.5	84	-0.03	5.27
38 t	Naphthalene	1.101	1.010	8.3	86	-0.02	5.16
39 t	4-Chloroaniline	0.487	0.519	-6.6	84	-0.02	5.22
40 t	2,3-Dichloroaniline	0.431	0.471	-9.3	91	-0.02	5.86
41 t	Caprolactam	0.208	0.170	18.3	58	-0.02	5.49
42 t	Hexachlorobutadiene	0.252	0.273	-8.3	87	-0.03	5.25
43 t	4-Chloro-3-methylphenol	0.453	0.522	-15.2	86	-0.02	5.59
44 t	2-Methylnaphthalene	0.736	0.683	7.2	88	-0.02	5.64
45 t	1-Methylnaphthalene	0.867	0.807	6.9	87	-0.02	5.71
46 t	Dimethylnaphthalene	0.743	0.827	-11.3	97	-0.02	6.09
47 I	Acenaphthene-d10	1.000	1.000	0.0	77	-0.04	6.42
48 t	Hexachlorocyclopentadiene	0.333	0.316	5.1	66	-0.03	5.76
49 t	2,4,6-Trichlorophenol	0.405	0.471	-16.3	91	-0.03	5.86
50 t	2,4,5-Trichlorophenol	0.453	0.564	-24.5#	95	-0.03	5.91
51 S	2-Fluorobiphenyl	1.537	1.483	3.5	88	-0.03	5.91
52 t	2-Chloronaphthalene	1.237	1.152	6.9	85	-0.03	5.99
53 t	Biphenyl	1.671	1.548	7.4	89	-0.03	5.98
54 t	2-Nitroaniline	0.653	0.665	-1.8	80	-0.03	6.09
55 t	Dimethylphthalate	1.545	1.478	4.3	83	-0.03	6.22
56 t	Acenaphthylene	2.004	1.810	9.7	85	-0.04	6.31
57 t	2,6-Dinitrotoluene	0.332	0.379	-14.2	85	-0.03	6.27
58 t	3-Nitroaniline	0.378	0.403	-6.6	80	-0.04	6.42
59 t	Acenaphthene	1.216	1.222	-0.5	86	-0.04	6.45
		----- True	Calc.	% Drift	-----		
60 t	2,4-Dinitrophenol	100.000	88.370	11.6	66	-0.03	6.51
		----- AvgRF	CCRF	% Dev	-----		
61 t	4-Nitrophenol	0.337	0.401	-19.0	84	-0.06	6.62
62 t	Dibenzofuran	1.801	1.749	2.9	87	-0.05	6.61
63 t	2,4-Dinitrotoluene	0.453	0.510	-12.6	84	-0.04	6.62
64	2,3,4,6-Tetrachlorophenol	0.383	0.447	-16.7	84	-0.05	6.74
65 t	Diethylphthalate	1.569	1.606	-2.4	87	-0.04	6.84
66 t	Fluorene	1.489	1.554	-4.4	91	-0.05	6.93
67 t	4-Chlorophenyl-phenylethe	0.787	0.901	-14.5	92	-0.05	6.93
68 t	4-Nitroaniline	0.353	0.361	-2.3	73	-0.06	7.00
69 I	Phenanthrene-d10	1.000	1.000	0.0	78	-0.06	8.04
		----- True	Calc.	% Drift	-----		
70 t	4,6-Dinitro-2-methylpheno	50.000	51.445	-2.9	78	-0.03	7.02
		----- AvgRF	CCRF	% Dev	-----		
71 t	n-Nitrosodiphenylamine	0.557	0.617	-10.8	97	-0.04	7.07
72 t	1,2-Diphenylhydrazine	1.285	1.087	15.4	83	-0.04	7.10
73 S	2,4,6-Tribromophenol	0.125	0.111	11.2	66	-0.04	7.19
74 t	4-Bromophenyl-phenylether	0.267	0.259	3.0	82	-0.05	7.47
75 t	Hexachlorobenzene	0.280	0.243	13.2	75	-0.05	7.55
		----- True	Calc.	% Drift	-----		
76 t	Pentachlorophenol	100.000	97.709	2.3	75	-0.06	7.83
		----- AvgRF	CCRF	% Dev	-----		
77 t	Phenanthrene	1.080	1.052	2.6	87	-0.06	8.08
78 t	Anthracene	1.117	1.100	1.5	85	-0.06	8.15
79 t	Carbazole	1.094	1.035	5.4	81	-0.06	8.42

Continuing Calibration Summary

Page 3 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5535-CC5484
Lab FileID: P123366.D

80	t	Di-n-butylphthalate	1.329	1.460	-9.9	87	-0.06	9.04
81	t	Fluoranthene	1.351	1.368	-1.3	86	-0.07	10.03
82	t	Octadecane	0.607	0.493	18.8	70	-0.05	7.95
83	I	Chrysene-d12	1.000	1.000	0.0	77	-0.09	12.99
84	t	Pyrene	1.407	1.361	3.3	85	-0.10	10.44
85	S	Terphenyl-d14	1.034	0.968	6.4	79	-0.10	10.86
86	t	Butylbenzylphthalate	0.575	0.704	-22.4#	86	-0.08	12.00
87	t	Benzo[a]anthracene	1.238	1.272	-2.7	84	-0.08	12.97
88	t	3,3'-Dichlorobenzidine	0.383	0.438	-14.4	76	-0.08	13.04
89	t	Chrysene	1.177	1.206	-2.5	88	-0.08	13.05
90	t	bis(2-Ethylhexyl)phthalat	0.752	0.940	-25.0#	89	-0.07	13.36
91	I	Perylene-d12	1.000	1.000	0.0	63	-0.09	15.97
92	t	Di-n-octylphthalate	1.188	1.785	-50.3#	85	-0.10	14.79
93	t	Benzo[b]fluoranthene	1.232	1.351	-9.7	72	-0.09	15.25
94	t	Benzo[k]fluoranthene	1.161	1.237	-6.5	77	-0.09	15.30
95	t	Benzo[a]pyrene	1.016	1.158	-14.0	71	-0.09	15.86
96	t	Indeno[1,2,3-cd]pyrene	0.920	0.957	-4.0	63	-0.07	17.90
97	t	Dibenz(a,h)acridine	0.882	0.934	-5.9	62	-0.07	17.54
98	t	Dibenz[a,h]anthracene	1.010	1.040	-3.0	66	-0.07	17.95
99	t	7,12-Dimethylbenz(a)anthr	0.476	0.672	-41.2#	82	-0.09	15.26
100	t	Benzo[g,h,i]perylene	0.984	0.939	4.6	62	-0.07	18.32

(#) = Out of Range
p122912.D MP5484.M

SPCC's out = 0 CCC's out = 0
Thu Jun 07 12:33:08 2018 ACLIMS

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5535-CC5486
Lab FileID: P123367.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5535\p123367.D Vial: 3
Acq On : 7 Jun 2018 9:29 am Operator: angelar
Sample : cc5486-50 Inst : MSVOAMSP
Misc : op9039,ep5535,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Jun 05 15:39:45 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	91	-0.03	4.23
102	Benzaldehyde	1.327	1.019	23.2#	81	-0.11	3.91
103 I	Phenanthrene-d10b	1.000	1.000	0.0	109	-0.06	8.04
104	Atrazine	0.259	0.267	-3.1	114	-0.06	7.73
105 I	Chrysene-d12b	1.000	1.000	0.0	119	-0.10	12.98
106	Benzidine	0.635	0.435	31.5#	93	-0.16	10.38
107 I	Naphthalene-d8b	1.000	1.000	0.0	90	-0.03	5.14
108	Hydroquinone	0.354	0.457	-29.1#	106	0.00	5.50
109 I	Acenaphthene-d10b	1.000	1.000	0.0	104	-0.04	6.42
110	1,2,4,5-Tetrachlorobenzen	0.666	0.622	6.6	114	-0.03	5.77

(#) = Out of Range
p122912.D MP5484.M

SPCC's out = 0 CCC's out = 0
Thu Jun 07 12:36:22 2018 ACLIMS

6.7.29

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5540-CC5484
Lab FileID: P123445.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5540\p123445.D Vial: 2
Acq On : 11 Jun 2018 9:25 am Operator: angelar
Sample : cc5484-50 Inst : MSVOAMSP
Misc : op9039,ep5540,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Jun 11 13:05:42 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	89	-0.08	4.19
2 t	1,4-Dioxane	1.155	1.026	11.2	82	-0.17	1.63
3 t	Pyridine	2.415	2.068	14.4	79	-0.15	1.94
4 t	N-Nitrosodimethylamine	1.272	0.989	22.2#	72	-0.20	1.92
5 S	2-Fluorophenol	1.527	1.524	0.2	82	-0.12	3.24
6 t	Indene	2.421	2.226	8.1	92	-0.07	4.37
7 t	Cumene	4.529	3.904	13.8	96	-0.09	3.58
8 S	Phenol-d5	1.962	1.922	2.0	92	-0.09	3.98
9 t	Phenol	2.185	2.016	7.7	90	-0.08	3.99
10 t	Aniline	2.463	1.870	24.1#	76	-0.08	3.96
----- True Calc. % Drift -----							
11 t	bis(2-Chloroethyl)ether	50.000	52.796	-5.6	94	-0.07	4.00
----- AvgRF CCRF % Dev -----							
12 t	2-Chlorophenol	1.396	1.376	1.4	98	-0.08	4.05
----- True Calc. % Drift -----							
13 t	Decane	50.000	31.399	37.2#	60	-0.07	4.07
----- AvgRF CCRF % Dev -----							
14 t	1,3-Dichlorobenzene	1.653	1.500	9.3	93	-0.08	4.14
15 t	1,4-Dichlorobenzene	1.459	1.459	0.0	98	-0.08	4.20
16 t	Benzyl alcohol	0.900	0.913	-1.4	90	-0.07	4.31
17 t	1,2-Dichlorobenzene	1.475	1.500	-1.7	106	-0.07	4.31
18 t	Acetophenone	2.327	2.289	1.6	96	-0.06	4.49
19 t	2-Methylphenol	1.385	1.365	1.4	93	-0.07	4.42
20 t	2,2'-oxybis(1-Chloropropa	0.445	0.449	-0.9	95	-0.07	4.39
21 t	3&4-Methylphenol	1.458	1.475	-1.2	88	-0.06	4.53
22	n-Nitroso-di-n-propylamin	1.561	1.462	6.3	94	-0.06	4.50
23 t	Hexachloroethane	0.613	0.611	0.3	98	-0.07	4.55
24 I	Naphthalene-d8	1.000	1.000	0.0	89	-0.08	5.10
25 S	Nitrobenzene-d5	0.726	0.653	10.1	88	-0.08	4.60
26 t	Nitrobenzene	0.688	0.609	11.5	93	-0.08	4.61
27 t	Quinoline	0.843	0.817	3.1	92	-0.07	5.38
28 t	Isophorone	1.077	0.970	9.9	91	-0.08	4.78
29 t	2-Nitrophenol	0.219	0.234	-6.8	98	-0.08	4.84
30 t	2,4-Dimethylphenol	0.460	0.508	-10.4	97	-0.07	4.90
31 t	Benzoic acid	0.373	0.450	-20.6#	97	-0.06	5.05
32 t	bis(2-Chloroethoxy)methan	0.523	0.468	10.5	88	-0.07	4.94
33 t	2,4-Dichlorophenol	0.329	0.361	-9.7	101	-0.08	5.03

Continuing Calibration Summary

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5540-CC5484
Lab FileID: P123445.D

Page 2 of 3

34	2,6-Dichlorophenol	0.323	0.366	-13.3	106	-0.07	5.17
35	1,3,5-Trichlorobenzene	0.429	0.416	3.0	100	-0.07	4.84
36 t	1,2,4-Trichlorobenzene	0.402	0.369	8.2	93	-0.07	5.06
37	1,2,3-Trichlorobenzene	0.372	0.351	5.6	96	-0.07	5.22
38 t	Naphthalene	1.101	0.962	12.6	96	-0.07	5.12
39 t	4-Chloroaniline	0.487	0.474	2.7	91	-0.07	5.17
40 t	2,3-Dichloroaniline	0.431	0.445	-3.2	101	-0.06	5.81
41 t	Caprolactam	0.208	0.159	23.6#	64	-0.06	5.45
42 t	Hexachlorobutadiene	0.252	0.269	-6.7	100	-0.07	5.21
43 t	4-Chloro-3-methylphenol	0.453	0.505	-11.5	98	-0.06	5.55
44 t	2-Methylnaphthalene	0.736	0.640	13.0	97	-0.07	5.60
45 t	1-Methylnaphthalene	0.867	0.771	11.1	98	-0.07	5.67
46 t	Dimethylnaphthalene	0.743	0.788	-6.1	109	-0.06	6.05
47 I	Acenaphthene-d10	1.000	1.000	0.0	95	-0.09	6.37
48 t	Hexachlorocyclopentadiene	0.333	0.299	10.2	77	-0.08	5.71
49 t	2,4,6-Trichlorophenol	0.405	0.429	-5.9	103	-0.07	5.82
50 t	2,4,5-Trichlorophenol	0.453	0.506	-11.7	106	-0.07	5.86
51 S	2-Fluorobiphenyl	1.537	1.319	14.2	97	-0.07	5.86
52 t	2-Chloronaphthalene	1.237	1.057	14.6	97	-0.08	5.94
53 t	Biphenyl	1.671	1.398	16.3	100	-0.07	5.93
54 t	2-Nitroaniline	0.653	0.594	9.0	89	-0.08	6.04
55 t	Dimethylphthalate	1.545	1.323	14.4	93	-0.08	6.17
56 t	Acenaphthylene	2.004	1.571	21.6#	92	-0.09	6.25
57 t	2,6-Dinitrotoluene	0.332	0.340	-2.4	95	-0.08	6.22
58 t	3-Nitroaniline	0.378	0.361	4.5	89	-0.09	6.37
59 t	Acenaphthene	1.216	1.110	8.7	97	-0.10	6.40
		True	Calc.	% Drift			
60 t	2,4-Dinitrophenol	100.000	93.418	6.6	87	-0.09	6.46
		AvgRF	CCRF	% Dev			
61 t	4-Nitrophenol	0.337	0.374	-11.0	96	-0.11	6.56
62 t	Dibenzofuran	1.801	1.553	13.8	96	-0.10	6.55
63 t	2,4-Dinitrotoluene	0.453	0.465	-2.6	95	-0.09	6.56
64	2,3,4,6-Tetrachlorophenol	0.383	0.407	-6.3	95	-0.11	6.68
65 t	Diethylphthalate	1.569	1.432	8.7	96	-0.10	6.78
66 t	Fluorene	1.489	1.384	7.1	101	-0.12	6.87
67 t	4-Chlorophenyl-phenylethe	0.787	0.812	-3.2	103	-0.11	6.87
68 t	4-Nitroaniline	0.353	0.327	7.4	82	-0.11	6.94
69 I	Phenanthrene-d10	1.000	1.000	0.0	92	-0.13	7.97
		True	Calc.	% Drift			
70 t	4,6-Dinitro-2-methylpheno	50.000	52.695	-5.4	95	-0.09	6.96
		AvgRF	CCRF	% Dev			
71 t	n-Nitrosodiphenylamine	0.557	0.569	-2.2	105	-0.10	7.01
72 t	1,2-Diphenylhydrazine	1.285	1.021	20.5#	92	-0.10	7.04
73 S	2,4,6-Tribromophenol	0.125	0.105	16.0	74	-0.11	7.13
74 t	4-Bromophenyl-phenylether	0.267	0.246	7.9	92	-0.11	7.41
75 t	Hexachlorobenzene	0.280	0.233	16.8	85	-0.12	7.48
		True	Calc.	% Drift			
76 t	Pentachlorophenol	100.000	95.327	4.7	86	-0.13	7.76
		AvgRF	CCRF	% Dev			
77 t	Phenanthrene	1.080	0.986	8.7	96	-0.13	8.01
78 t	Anthracene	1.117	1.040	6.9	95	-0.14	8.08
79 t	Carbazole	1.094	0.984	10.1	91	-0.14	8.34

Continuing Calibration Summary

Page 3 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5540-CC5484
Lab FileID: P123445.D

80	t	Di-n-butylphthalate	1.329	1.355	-2.0	95	-0.14	8.96
81	t	Fluoranthene	1.351	1.292	4.4	96	-0.16	9.93
82	t	Octadecane	0.607	0.441	27.3#	73	-0.12	7.88
83	I	Chrysene-d12	1.000	1.000	0.0	91	-0.19	12.89
84	t	Pyrene	1.407	1.306	7.2	97	-0.20	10.35
85	S	Terphenyl-d14	1.034	0.917	11.3	89	-0.19	10.77
86	t	Butylbenzylphthalate	0.575	0.671	-16.7	98	-0.18	11.90
87	t	Benzo[a]anthracene	1.238	1.240	-0.2	97	-0.19	12.86
88	t	3,3'-Dichlorobenzidine	0.383	0.437	-14.1	90	-0.18	12.94
89	t	Chrysene	1.177	1.179	-0.2	102	-0.19	12.94
90	t	bis(2-Ethylhexyl)phthalat	0.752	0.886	-17.8	99	-0.17	13.27
91	I	Perylene-d12	1.000	1.000	0.0	79	-0.20	15.86
92	t	Di-n-octylphthalate	1.188	1.628	-37.0#	97	-0.20	14.68
93	t	Benzo[b]fluoranthene	1.232	1.357	-10.1	91	-0.20	15.14
94	t	Benzo[k]fluoranthene	1.161	1.165	-0.3	90	-0.20	15.19
95	t	Benzo[a]pyrene	1.016	1.129	-11.1	87	-0.20	15.75
96	t	Indeno[1,2,3-cd]pyrene	0.920	1.035	-12.5	86	-0.19	17.78
97	t	Dibenz(a,h)acridine	0.882	0.974	-10.4	81	-0.18	17.42
98	t	Dibenz[a,h]anthracene	1.010	1.078	-6.7	86	-0.19	17.84
99	t	7,12-Dimethylbenz(a)anthr	0.476	0.631	-32.6#	97	-0.20	15.14
100	t	Benzo[g,h,i]perylene	0.984	1.010	-2.6	83	-0.18	18.20

(#) = Out of Range
 p122912.D MP5484.M

SPCC's out = 0 CCC's out = 0
 Mon Jun 11 13:07:45 2018 ACLIMS

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5540-CC5486
Lab FileID: P123446.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5540\p123446.D Vial: 3
Acq On : 11 Jun 2018 9:53 am Operator: angelar
Sample : cc5486-50 Inst : MSVOAMSP
Misc : op9039,ep5540,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Jun 11 13:05:42 2018
Response via : Multiple Level Calibration

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

Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	90	-0.08	4.18
102	Benzaldehyde	1.327	1.072	19.2	84	-0.16	3.87
103 I	Phenanthrene-d10b	1.000	1.000	0.0	98	-0.13	7.97
104	Atrazine	0.259	0.279	-7.7	107	-0.13	7.66
105 I	Chrysene-d12b	1.000	1.000	0.0	104	-0.20	12.87
106	Benzidine	0.635	0.455	28.3#	85	-0.24	10.30
107 I	Naphthalene-d8b	1.000	1.000	0.0	90	-0.08	5.10
108	Hydroquinone	0.354	0.390	-10.2	91	-0.05	5.46
109 I	Acenaphthene-d10b	1.000	1.000	0.0	100	-0.10	6.37
110	1,2,4,5-Tetrachlorobenzen	0.666	0.639	4.1	113	-0.08	5.72

(#) = Out of Range
p122912.D MP5484.M

SPCC's out = 0 CCC's out = 0
Mon Jun 11 13:10:22 2018 ACLIMS

6.7.31
6

Initial Calibration Summary

Page 1 of 3

Job Number: JC65799
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICC6436
 Lab FileID: Z130443.D

Response Factor Report SVOAMSZ

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 Last Update : Wed May 09 10:42:55 2018
 Response via : Initial Calibration

Calibration Files

100 =z130441.D 80 =z130442.D 50 =z130443.D 25 =z130444.D
 10 =z130445.D 5 =z130446.D 2 =z130447.D 1 =z130448.D

Compound	100	80	50	25	10	5	2	1	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	-----ISTD-----									
2) 1,4-Dioxane	0.751	0.718	0.729	0.717	0.704	0.646	0.675	0.664	0.700	5.08
3) Pyridine	1.729	1.718	1.751	1.739	1.780	1.635	1.653	1.668	1.709	3.00
4) N-Nitrosodim		1.017	1.017	1.006	1.013	0.941	0.898	0.907	0.971	5.55
5) 2-Fluorophen	1.625	1.557	1.584	1.563	1.559	1.404	1.371	1.258	1.490	8.68
6) Indene	1.722	1.798	2.009	2.233	2.474	2.374	2.445	2.447	2.188	13.96
7) Cumene	3.217	3.250	3.522	3.722	3.873	3.661	3.620	3.584	3.556	6.32
8) Phenol-d5	1.831	1.798	1.852	1.895	1.909	1.776	1.666	1.580	1.788	6.36
9) Phenol	1.798	1.779	1.916	1.944	2.052	1.940	1.908	1.847	1.898	4.66
10) Aniline	1.935	1.986	2.053	2.247	2.494	2.347	2.444	2.403	2.239	9.80
11) bis(2-Chloro	1.230	1.229	1.271	1.338	1.471	1.437	1.404	1.428	1.351	7.21
12) 2-Chlorophen	1.416	1.417	1.461	1.520	1.601	1.530	1.505	1.393	1.480	4.81
13) Decane	0.822	0.876	0.997	1.122	1.246	1.204	1.244	1.241	1.094	15.87
14) 1,3-Dichloro	1.442	1.493	1.568	1.671	1.803	1.732	1.752	1.810	1.659	8.55
15) 1,4-Dichloro	1.371	1.398	1.493	1.575	1.695	1.664	1.683	1.684	1.570	8.52
16) Benzyl alcoh	0.909	0.879	0.900	0.918	0.949	0.861	0.806	0.772	0.874	6.79
17) 1,2-Dichloro	1.321	1.355	1.461	1.555	1.683	1.599	1.645	1.614	1.529	8.86
18) Acetophenone	1.428	1.467	1.602	1.799	1.990	1.984	2.071	1.992	1.792	14.45
19) 2-Methylphen	1.105	1.127	1.209	1.266	1.389	1.321	1.255	1.164	1.229	7.93
20) 2,2'-oxybis(	0.352	0.356	0.379	0.400	0.446	0.437	0.438	0.424	0.404	9.37
21) 3&4-Methylph	1.025	1.055	1.148	1.247	1.363	1.358	1.302	1.284	1.223	10.75
22) n-Nitroso-di	0.677	0.678	0.741	0.850	0.956	0.931	0.955	0.958	0.843	14.96
23) Hexachloroet	0.459	0.474	0.491	0.510	0.530	0.494	0.508	0.529	0.499	5.02
24) I Naphthalene-d8	-----ISTD-----									
25) Nitrobenzene	0.315	0.326	0.345	0.356	0.379	0.367	0.350	0.340	0.347	5.98
26) Nitrobenzene	0.295	0.307	0.335	0.353	0.383	0.385	0.370	0.342	0.346	9.62
27) Quinoline	0.743	0.747	0.757	0.786	0.826	0.777	0.768	0.754	0.770	3.54
28) Isophorone	0.617	0.624	0.648	0.673	0.707	0.682	0.660	0.625	0.654	4.88
29) 2-Nitropheno	0.182	0.191	0.206	0.205	0.213	0.192	0.169	0.159	0.190	9.91
30) 2,4-Dimethyl	0.294	0.301	0.305	0.331	0.369	0.353	0.344	0.342	0.330	8.18
31) Benzoic Acid	0.284	0.286	0.275	0.258	0.224	0.160			0.248	19.60
32) bis(2-Chloro	0.326	0.336	0.350	0.371	0.410	0.411	0.406	0.389	0.375	9.18
33) 2,4-Dichloro	0.265	0.277	0.292	0.307	0.324	0.311	0.290	0.268	0.292	7.24
34) 2,6-Dichloro	0.233	0.245	0.261	0.279	0.305	0.286	0.280	0.269	0.270	8.58
35) 1,3,5-Trichl	0.269	0.290	0.320	0.347	0.378	0.375	0.387	0.378	0.343	13.12
36) 1,2,4-Trichl	0.280	0.293	0.315	0.332	0.368	0.355	0.348	0.354	0.331	9.59
37) 1,2,3-Trichl	0.263	0.275	0.293	0.310	0.342	0.342	0.336	0.364	0.316	11.43
38) Naphthalene	0.829	0.884	0.946	1.016	1.110	1.088	1.119	1.144	1.017	11.65
39) 4-Chloroanil	0.374	0.390	0.416	0.449	0.482	0.461	0.446	0.431	0.431	8.41
40) 2,3-Dichloro	0.315	0.326	0.347	0.375	0.410	0.399	0.394	0.393	0.370	9.74
41) Caprolactam	0.151	0.148	0.146	0.149	0.155	0.141	0.128	0.115	0.142	9.41
42) Hexachlorobu	0.151	0.159	0.169	0.175	0.185	0.183	0.189	0.190	0.175	8.21
43) 4-Chloro-3-m	0.294	0.299	0.311	0.319	0.332	0.314	0.282	0.260	0.301	7.53
44) 2-Methylnaph	0.528	0.551	0.594	0.637	0.686	0.654	0.639	0.665	0.619	9.07
45) 1-Methylnaph	0.539	0.560	0.608	0.650	0.716	0.709	0.714	0.734	0.654	11.67

Initial Calibration Summary

Page 2 of 3

Job Number: JC65799
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICC6436
 Lab FileID: Z130443.D

46)	Dimethylnaph	0.562	0.585	0.613	0.655	0.717	0.696	0.697	0.672	0.650	8.75
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.268	0.289	0.307	0.312	0.317	0.289	0.255	0.226	0.283	11.07
49)	2,4,6-Trichl	0.301	0.321	0.341	0.370	0.391	0.370	0.358	0.306	0.345	9.52
50)	2,4,5-Trichl	0.348	0.361	0.378	0.393	0.411	0.404	0.378	0.366	0.380	5.77
51)	2-Fluorobiph	1.105	1.171	1.272	1.379	1.551	1.561	1.571	1.605	1.402	14.18
52)	2-Chloronaph	0.957	1.002	1.076	1.180	1.322	1.345	1.360	1.341	1.198	13.96
53)	Biphenyl	1.304	1.354	1.479	1.601	1.759	1.768	1.790	1.831	1.611	12.94
54)	2-Nitroanili	0.308	0.309	0.325	0.335	0.345	0.317	0.263	0.237	0.305	12.10
55)	Dimethylphth	1.244	1.276	1.326	1.394	1.473	1.467	1.453	1.422	1.382	6.47
56)	Acenaphthyle	1.661	1.752	1.894	2.005	2.174	2.110	2.053	2.060	1.964	9.14
57)	2,6-Dinitrot	0.290	0.300	0.307	0.312	0.313	0.275	0.235	0.217	0.281	12.95
58)	3-Nitroanili	0.369	0.371	0.381	0.394	0.396	0.368	0.314	0.253	0.356	13.69
59)	Acenaphthene	0.988	1.025	1.111	1.179	1.297	1.274	1.269	1.309	1.182	10.75
60)	2,4-Dinitrop	0.148	0.149	0.150	0.140	0.109	0.075	0.041	0.025	0.105	49.06
---- Quadratic regression ---- Coefficient = 0.9996											
Response Ratio = -0.01515 + 0.15628 *A + -0.00090 *A^2											
61)	4-Nitropheno	0.184	0.183	0.184	0.182	0.170	0.152		0.176		7.20
62)	Dibenzofuran	1.416	1.485	1.591	1.722	1.893	1.864	1.876	1.858	1.713	11.21
63)	2,4-Dinitrot	0.412	0.420	0.435	0.436	0.424	0.379	0.298	0.242	0.381	18.96
64)	2,3,4,6-Tetr	0.331	0.336	0.346	0.350	0.351	0.313	0.272	0.237	0.317	13.10
65)	Diethylphtha	1.255	1.301	1.367	1.421	1.498	1.458	1.386	1.354	1.380	5.78
66)	Fluorene	1.089	1.133	1.248	1.341	1.495	1.448	1.446	1.444	1.331	11.75
67)	4-Chlorophen	0.550	0.571	0.602	0.628	0.677	0.665	0.638	0.643	0.622	7.14
68)	4-Nitroanili	0.356	0.350	0.360	0.383	0.400	0.369	0.329	0.272	0.352	11.01
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.128	0.130	0.130	0.125	0.109	0.082	0.050	0.031	0.098	40.07
---- Quadratic regression ---- Coefficient = 0.9998											
Response Ratio = -0.00511 + 0.13654 *A + -0.00252 *A^2											
71)	n-Nitrosodip	0.499	0.511	0.548	0.577	0.636	0.622	0.602	0.569	0.570	8.67
72)	1,2-Diphenyl	0.591	0.624	0.676	0.729	0.804	0.802	0.781	0.732	0.717	11.22
73)	2,4,6-Tribo	0.131	0.134	0.134	0.134	0.132	0.120	0.106	0.096	0.123	11.98
74)	4-Bromopheny	0.223	0.230	0.239	0.245	0.255	0.240	0.248	0.229	0.239	4.56
75)	Hexachlorobe	0.252	0.261	0.272	0.281	0.302	0.292	0.294	0.300	0.282	6.53
76)	Pentachlorop	0.159	0.163	0.168	0.166	0.159	0.132	0.100	0.072	0.140	25.66
---- Quadratic regression ---- Coefficient = 1.0000											
Response Ratio = -0.00866 + 0.17904 *A + -0.00353 *A^2											
77)	Phenanthrene	0.904	0.938	0.999	1.060	1.168	1.145	1.158	1.178	1.069	10.28
78)	Anthracene	0.913	0.947	1.034	1.103	1.210	1.164	1.145	1.136	1.081	9.84
79)	Carbazole	0.978	1.002	1.080	1.161	1.238	1.173	1.135	1.075	1.105	7.97
80)	Di-n-butylph	1.291	1.312	1.409	1.447	1.454	1.356	1.154	1.094	1.315	10.07
81)	Fluoranthene	1.075	1.116	1.199	1.264	1.308	1.188	1.128	1.059	1.167	7.59
82)	Octadecane	0.337	0.365	0.411	0.455	0.496	0.465	0.411	0.367	0.413	13.44
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.272	1.354	1.384	1.399	1.462	1.410	1.337	1.286	1.363	4.71
85)	Terphenyl-d1	0.945	0.990	0.991	0.977	1.000	0.928	0.899	0.862	0.949	5.22
86)	Butylbenzylp	0.722	0.744	0.732	0.719	0.686	0.597	0.511		0.673	12.90
87)	Benzo[a]anth	1.140	1.200	1.226	1.277	1.345	1.270	1.282	1.315	1.257	5.22
88)	3,3'-Dichlor	0.519	0.548	0.548	0.561	0.545	0.491	0.432	0.405	0.506	11.59
89)	Chrysene	1.117	1.151	1.150	1.164	1.237	1.181	1.212	1.239	1.182	3.74
90)	bis(2-Ethylh	0.876	0.890	0.886	0.878	0.863	0.754	0.633		0.826	11.78
91)	I Perylene-d12	-----ISTD-----									
92)	Di-n-octylph	1.628	1.565	1.550	1.489	1.430	1.212	0.921	0.762	1.320	24.49

Initial Calibration Summary

Page 3 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICC6436
Lab FileID: Z130443.D

---- Quadratic regression ---- Coefficient = 0.9998
Response Ratio = -0.02116 + 1.47076 *A + 0.06299 *A^2

93)	Benzo[b]fluo	1.196	1.200	1.243	1.276	1.388	1.418	1.509	1.632	1.358	11.61
94)	Benzo[k]fluo	1.009	1.047	1.073	1.168	1.355	1.350	1.502	1.589	1.262	17.34
95)	Benzo[a]pyre	1.051	1.084	1.116	1.147	1.237	1.207	1.263	1.530	1.204	12.55
96)	Indeno[1,2,3	0.963	1.010	1.073	1.062	1.128	1.009	1.017	1.200	1.058	7.21
97)	Dibenz(a,h)a	0.869	0.950	0.988	1.011	1.033	0.996	0.963	1.111	0.990	7.03
98)	Dibenz[a,h]a	0.917	0.990	1.054	1.091	1.189	1.147	1.117	1.149	1.082	8.41
99)	7,12-Dimethy	0.552	0.551	0.570	0.593	0.639	0.588	0.554	0.541	0.573	5.64
100)	Benzo[g,h,i]	0.880	0.963	1.012	1.071	1.107	1.106	1.122	1.336	1.075	12.54

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

MZ6436.M

Wed May 09 10:56:03 2018

6.7.32
6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICV6436
Lab FileID: Z130449.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130449.D Vial: 10
Acq On : 4 May 2018 10:51 pm Operator: georges
Sample : icv6436-50 Inst : SVOAMSZ
Misc : op8501,eZ6436,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 10:42:55 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	130	0.00	4.89
5 S	2-Fluorophenol	1.490	1.427	4.2	117	0.00	3.91
8 S	Phenol-d5	1.788	1.676	6.3	118	0.00	4.62
24 I	Naphthalene-d8	1.000	1.000	0.0	125	0.00	5.81
25 S	Nitrobenzene-d5	0.347	0.361	-4.0	131	0.00	5.29
47 I	Acenaphthene-d10	1.000	1.000	0.0	123	0.00	7.22
51 S	2-Fluorobiphenyl	1.402	1.249	10.9	121	0.00	6.62
69 I	Phenanthrene-d10	1.000	1.000	0.0	113	0.00	8.85
73 S	2,4,6-Tribromophenol	0.123	0.126	-2.4	106	0.00	8.02
83 I	Chrysene-d12	1.000	1.000	0.0	124	-0.01	12.67
85 S	Terphenyl-d14	0.949	0.908	4.3	114	0.00	11.09

(#) = Out of Range
z130443.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 10:51:12 2018

6.7.33

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICV6436
Lab FileID: Z130450.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130450.D Vial: 11
Acq On : 4 May 2018 11:18 pm Operator: georges
Sample : icv6436-50 Inst : SVOAMSZ
Misc : op8501,eZ6436,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 10:42:55 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	127	0.00	4.89
9 t	Phenol	1.898	1.813	4.5	121	0.00	4.63
12 t	2-Chlorophenol	1.480	1.458	1.5	127	0.00	4.74
19 t	2-Methylphenol	1.229	1.183	3.7	125	0.00	5.07
21 t	3&4-Methylphenol	1.223	1.248	-2.0	138	0.00	5.17
24 I	Naphthalene-d8	1.000	1.000	0.0	115	0.00	5.81
29 t	2-Nitrophenol	0.190	0.210	-10.5	118	0.00	5.53
30 t	2,4-Dimethylphenol	0.330	0.321	2.7	122	0.00	5.56
31	Benzoic Acid	0.248	0.249	-0.4	105	0.05	5.65
33 t	2,4-Dichlorophenol	0.292	0.291	0.3	115	0.00	5.70
34	2,6-Dichlorophenol	0.270	0.285	-5.6	126	0.00	5.86
43 t	4-Chloro-3-methylphenol	0.301	0.296	1.7	110	0.00	6.20
47 I	Acenaphthene-d10	1.000	1.000	0.0	110	0.00	7.22
49 t	2,4,6-Trichlorophenol	0.345	0.391	-13.3	126	0.00	6.55
50 t	2,4,5-Trichlorophenol	0.380	0.381	-0.3	111	0.00	6.58
60 t	2,4-Dinitrophenol	50.000	46.726	6.5	105	0.00	7.26
61 t	4-Nitrophenol	0.176	0.185	-5.1	111	0.00	7.31
64	2,3,4,6-Tetrachlorophenol	0.317	0.333	-5.0	106	0.00	7.53
69 I	Phenanthrene-d10	1.000	1.000	0.0	110	0.00	8.85
70 t	4,6-Dinitro-2-methylpheno	50.000	50.324	-0.6	111	-0.01	7.80
76 t	Pentachlorophenol	50.000	55.070	-10.1	125	0.00	8.61

(#) = Out of Range
z130443.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 10:51:14 2018

6.7.34

6

Initial Calibration Verification

Page 1 of 2

Job Number: JC65799
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICV6436
 Lab FileID: Z130451.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130451.D Vial: 12
 Acq On : 4 May 2018 11:44 pm Operator: georges
 Sample : icv6436-50 Inst : SVOAMSZ
 Misc : op8501,eZ6436,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 Last Update : Wed May 09 10:42:55 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	126	0.00	4.89
4 t	N-Nitrosodimethylamine	0.971	0.778	19.9	96	0.00	2.77
11 t	bis(2-Chloroethyl)ether	1.351	1.410	-4.4	140	0.00	4.69
14 t	1,3-Dichlorobenzene	1.659	1.586	4.4	127	0.00	4.85
15 t	1,4-Dichlorobenzene	1.570	1.421	9.5	120	0.00	4.91
17 t	1,2-Dichlorobenzene	1.529	1.438	6.0	124	0.00	5.02
20 t	2,2'-oxybis(1-Chloropropa	0.404	0.426	-5.4	142	0.00	5.08
22 t	n-Nitroso-di-n-propylamin	0.843	0.849	-0.7	144	0.00	5.17
23 t	Hexachloroethane	0.499	0.471	5.6	121	0.00	5.27
24 I	Naphthalene-d8	1.000	1.000	0.0	118	0.00	5.81
26 t	Nitrobenzene	0.346	0.328	5.2	116	0.00	5.30
28 t	Isophorone	0.654	0.610	6.7	112	0.00	5.47
32 t	bis(2-Chloroethoxy)methan	0.375	0.392	-4.5	133	0.00	5.62
36 t	1,2,4-Trichlorobenzene	0.331	0.321	3.0	121	0.00	5.77
38 t	Naphthalene	1.017	0.911	10.4	114	0.00	5.83
42 t	Hexachlorobutadiene	0.175	0.173	1.1	121	0.00	5.92
47 I	Acenaphthene-d10	1.000	1.000	0.0	116	0.00	7.22
48 t	Hexachlorocyclopentadiene	0.283	0.286	-1.1	107	0.00	6.46
52 t	2-Chloronaphthalene	1.198	1.169	2.4	126	0.00	6.72
55 t	Dimethylphthalate	1.382	1.310	5.2	115	0.00	6.95
56 t	Acenaphthylene	1.964	1.752	10.8	108	0.00	7.09
57 t	2,6-Dinitrotoluene	0.281	0.273	2.8	103	0.00	7.01
59 t	Acenaphthene	1.182	1.054	10.8	110	0.00	7.25
63 t	2,4-Dinitrotoluene	0.381	0.354	7.1	95	0.00	7.38
65 t	Diethylphthalate	1.380	1.296	6.1	110	0.00	7.62
66 t	Fluorene	1.331	1.144	14.0	107	0.00	7.76
67 t	4-Chlorophenyl-phenylethe	0.622	0.552	11.3	107	0.00	7.75
69 I	Phenanthrene-d10	1.000	1.000	0.0	118	0.00	8.85
71 t	n-Nitrosodiphenylamine	0.570	0.473	17.0	102	0.00	7.87
72 t	1,2-Diphenylhydrazine	0.717	0.624	13.0	109	0.00	7.92
74 t	4-Bromophenyl-phenylether	0.239	0.216	9.6	107	0.00	8.29
75 t	Hexachlorobenzene	0.282	0.246	12.8	107	0.00	8.39
77 t	Phenanthrene	1.069	0.938	12.3	111	-0.01	8.87
78 t	Anthracene	1.081	0.913	15.5	104	0.00	8.94
80 t	Di-n-butylphthalate	1.315	1.251	4.9	105	0.00	9.64
81 t	Fluoranthene	1.167	1.040	10.9	103	0.00	10.50
83 I	Chrysene-d12	1.000	1.000	0.0	104	0.00	12.68
84 t	Pyrene	1.363	1.335	2.1	101	0.00	10.83

Initial Calibration Verification

Page 2 of 2

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICV6436
Lab FileID: Z130451.D

86	t	Butylbenzylphthalate	0.673	0.730	-8.5	104	0.00	11.87
87	t	Benzo[a]anthracene	1.257	1.159	7.8	98	0.00	12.66
89	t	Chrysene	1.182	1.082	8.5	98	0.00	12.72
90	t	bis(2-Ethylhexyl)phthalat	0.826	0.856	-3.6	101	0.01	12.81
91	I	Perylene-d12	1.000	1.000	0.0	107	0.00	14.76
----- True Calc. % Drift -----								
92	t	Di-n-octylphthalate	50.000	48.160	3.7	102	0.00	13.78
----- AvgRF CCRF % Dev -----								
93	t	Benzo[b]fluoranthene	1.358	1.122	17.4	96	0.02	14.25
94	t	Benzo[k]fluoranthene	1.262	1.089	13.7	108	0.01	14.28
95	t	Benzo[a]pyrene	1.204	1.041	13.5	100	0.01	14.68
96	t	Indeno[1,2,3-cd]pyrene	1.058	1.013	4.3	101	0.02	16.18
98	t	Dibenz[a,h]anthracene	1.082	0.991	8.4	101	0.02	16.21
100	t	Benzo[g,h,i]perylene	1.075	1.011	6.0	107	0.03	16.57

(#) = Out of Range
z130443.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 10:51:16 2018

6.7.35

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICV6436
Lab FileID: Z130452.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130452.D Vial: 13
Acq On : 5 May 2018 12:11 am Operator: georges
Sample : icv6436-50 Inst : SVOAMSZ
Misc : op8501,eZ6436,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	134	0.00	4.89
2	1,4-Dioxane	0.700	0.575	17.9	106	0.00	2.49
6 t	Indene	2.188	2.327	-6.4	156	0.00	5.08
7 t	Cumene	3.556	3.128	12.0	119	0.00	4.31
13 t	Decane	1.094	0.904	17.4	122	0.00	4.77
18 t	Acetophenone	1.792	1.767	1.4	148	0.00	5.18
24 I	Naphthalene-d8	1.000	1.000	0.0	150	0.00	5.81
27 t	Quinoline	0.770	0.603	21.7	119	0.00	6.06
40 t	2,3-Dichloroaniline	0.370	0.272	26.5	117	0.00	6.55
41 t	Caprolactam	0.142	0.106	25.4	109	-0.02	6.10
45 t	1-Methylnaphthalene	0.654	0.466	28.7	115	0.00	6.41
46 t	Dimethylnaphthalene	0.650	0.505	22.3	123	0.00	6.84
47 I	Acenaphthene-d10	1.000	1.000	0.0	118	0.00	7.22
53 t	Biphenyl	1.611	1.512	6.1	121	0.00	6.70
69 I	Phenanthrene-d10	1.000	1.000	0.0	115	0.00	8.84
82 t	Octadecane	0.413	0.430	-4.1	120	0.00	8.72

(#) = Out of Range
z130460a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 19:38:44 2018

6.7.36

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICV6436
Lab FileID: Z130453.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130453.D Vial: 14
Acq On : 5 May 2018 12:38 am Operator: georges
Sample : icv6436-50 Inst : SVOAMSZ
Misc : op8501,eZ6436,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 10:42:55 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	111	-0.01	12.67
88 t	3,3'-Dichlorobenzidine	0.506	0.518	-2.4	105	0.00	12.65

(#) = Out of Range
z130443.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 10:51:18 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICV6436
Lab FileID: Z130454.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130454.D Vial: 15
Acq On : 5 May 2018 1:05 am Operator: georges
Sample : icv6436-50 Inst : SVOAMSZ
Misc : op8501,eZ6436,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 10:42:55 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	119	0.00	4.90
3 t	Pyridine	1.709	1.633	4.4	111	0.06	2.87
10 t	Aniline	2.239	2.512	-12.2	146	0.00	4.66
16 t	Benzyl alcohol	0.874	1.023	-17.0	136	0.00	4.99
24 I	Naphthalene-d8	1.000	1.000	0.0	133	0.00	5.81
39 t	4-Chloroaniline	0.431	0.428	0.7	137	0.00	5.86
44 t	2-Methylnaphthalene	0.619	0.553	10.7	124	0.00	6.33
47 I	Acenaphthene-d10	1.000	1.000	0.0	134	0.00	7.22
54 t	2-Nitroaniline	0.305	0.315	-3.3	130	0.00	6.80
58 t	3-Nitroaniline	0.356	0.369	-3.7	130	0.00	7.16
62 t	Dibenzofuran	1.713	1.586	7.4	134	0.00	7.41
68 t	4-Nitroaniline	0.352	0.338	4.0	126	0.00	7.77
69 I	Phenanthrene-d10	1.000	1.000	0.0	133	0.00	8.84
79 t	Carbazole	1.105	1.066	3.5	131	0.00	9.14

(#) = Out of Range
z130443.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 10:51:20 2018

6.7.38

6

Initial Calibration Summary

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-ICC6437
Lab FileID: Z130460.D

Response Factor Report SVOAMSZ

Method : C:\MSDCHEM\1\METHODS\MZ6437.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Initial Calibration

Calibration Files

100 =z130458.D 80 =z130459.D 50 =z130460.D 25 =z130461.D
10 =z130462.D 5 =z130463.D 2 =z130464.D 1 =z130465.D

Compound	100	80	50	25	10	5	2	1	Avg	%RSD
101) 1,4-Dichlorobenzene-d	-----ISTD-----									
102) Benzaldehyde	0.847	0.880	0.931	1.009	1.124	1.122	1.156	1.061	1.016	11.67
103) Phenanthrene-d10a	-----ISTD-----									
104) 1-chloroocta	0.246	0.262	0.281	0.295	0.290	0.267	0.225	0.174	0.255	15.68
105) o-terphenyl	0.507	0.517	0.551	0.579	0.591	0.590	0.576	0.567	0.560	5.74
106) Atrazine	0.101	0.103	0.107	0.106	0.103	0.096	0.089	0.070	0.097	12.67
107) Chrysene-d12a	-----ISTD-----									
108) Benzidine	0.452	0.419	0.425	0.414	0.517	0.467	0.295	0.160	0.394	28.80
---- Quadratic regression ---- Coefficient = 0.9982										
Response Ratio = 0.00796 + 0.38082 *A + 0.02448 *A^2										
109) Acenaphthene-d10a	-----ISTD-----									
110) 1,2,4,5-Tetr	0.451	0.463	0.506	0.534	0.567	0.572	0.604	0.565	0.533	10.30
111) I Naphthalene-d8a	-----ISTD-----									
112) Hydroquinone	0.343	0.343	0.344	0.322	0.275	0.224		0.308		15.96
113) Chrysene-d12b	-----ISTD-----									
114) 2,3,7,8-TCDD								0.000#		-1.00
115) Phenanthrene-d10b	-----ISTD-----									
116) Pentachloron	0.044	0.044	0.044	0.043	0.038	0.033		0.041#		11.05

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

MZ6436.M

Wed May 09 19:39:49 2018

6.7.39

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-ICV6437
Lab FileID: Z130466.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130466.D Vial: 10
Acq On : 9 May 2018 5:11 pm Operator: johnb1
Sample : icv6437-50 Inst : SVOAMSZ
Misc : op8501,eZ6437,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
115	Phenanthrene-d10b	1.000	1.000	0.0	103	0.00	8.84
116	Pentachloronitrobenzene	0.041	0.043#	-4.9	100	0.00	8.63

(#) = Out of Range
z130460a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 19:35:28 2018

6.7.40

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-ICV6437
Lab FileID: Z130467.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130467.D Vial: 11
Acq On : 9 May 2018 5:39 pm Operator: johnb1
Sample : icv6437-50 Inst : SVOAMSZ
Misc : op8501,eZ6437,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
107	Chrysene-d12a	1.000	1.000	0.0	81	0.00	12.68
	----- True	Calc.	% Drift	-----			
108	Benzidine	100.000	98.296	1.7	84	0.00	10.71
	----- AvgRF	CCRF	% Dev	-----			
109	Acenaphthene-d10a	1.000	1.000	0.0	91	0.00	7.22
110	1,2,4,5-Tetrachlorobenzen	0.533	0.470	11.8	85	0.00	6.47

(#) = Out of Range
z130460a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 19:35:30 2018

6.7.41
6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-ICV6436
Lab FileID: Z130468A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130468a.D Vial: 12
Acq On : 9 May 2018 6:05 pm Operator: johnb1
Sample : icv6436-50 Inst : SVOAMSZ
Misc : op8501,eZ6437,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
91 I	Perylene-d12	1.000	1.000	0.0	113	0.00	14.76
99 t	7,12-Dimethylbenz(a)anthr	0.573	0.532	7.2	106	0.00	14.24

(#) = Out of Range
z130460a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 20:00:34 2018

6.7.42

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-ICV6437
Lab FileID: Z130468.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130468.D Vial: 12
Acq On : 9 May 2018 6:05 pm Operator: johnb1
Sample : icv6437-50 Inst : SVOAMSZ
Misc : op8501,eZ6437,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	99	0.00	4.89
102	Benzaldehyde	1.016	1.025	-0.9	109	0.00	4.57
103	Phenanthrene-d10a	1.000	1.000	0.0	102	0.00	8.84
106	Atrazine	0.097	0.116	-19.6	111	0.00	8.49

(#) = Out of Range
z130460a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 19:35:32 2018

6.7.43

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-ICV6437
Lab FileID: Z130470.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130470.D Vial: 14
Acq On : 9 May 2018 7:00 pm Operator: johnb1
Sample : icv6437-50 Inst : SVOAMSZ
Misc : op8501,eZ6437,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
111 I	Naphthalene-d8a	1.000	1.000	0.0	137	0.00	5.81
112	Hydroquinone	0.308	0.351	-14.0	140	0.00	6.09

(#) = Out of Range
z130460a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 19:35:34 2018

6.7.44

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6441-CC6436
Lab FileID: Z130562.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jonkm\ez6441\z130562.d Vial: 2
 Acq On : 11 May 2018 4:14 pm Operator: christc2
 Sample : cc6436-25 Inst : SVOAMSZ
 Misc : op8501,ez6441,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 Last Update : Sun May 13 21:35:59 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	107	0.00	4.86
2	1,4-Dioxane	0.700	0.748	-6.9	112	-0.04	2.44
3 t	Pyridine	1.709	1.871	-9.5	115	-0.03	2.76
4 t	N-Nitrosodimethylamine	0.971	1.114	-14.7	119	-0.04	2.72
5 S	2-Fluorophenol	1.490	1.633	-9.6	112	-0.01	3.88
6 t	Indene	2.188	2.277	-4.1	109	0.00	5.05
7 t	Cumene	3.556	3.809	-7.1	110	0.00	4.27
8 S	Phenol-d5	1.788	2.042	-14.2	115	0.00	4.59
9 t	Phenol	1.898	2.262	-19.2	125	0.00	4.60
10 t	Aniline	2.239	2.093	6.5	100	0.00	4.61
11 t	bis(2-Chloroethyl)ether	1.351	1.449	-7.3	116	0.00	4.66
12 t	2-Chlorophenol	1.480	1.602	-8.2	113	0.00	4.70
13 t	Decane	1.094	1.210	-10.6	116	0.00	4.74
14 t	1,3-Dichlorobenzene	1.659	1.696	-2.2	109	0.00	4.82
15 t	1,4-Dichlorobenzene	1.570	1.583	-0.8	108	0.00	4.87
16 t	Benzyl alcohol	0.874	1.001	-14.5	117	0.00	4.96
17 t	1,2-Dichlorobenzene	1.529	1.547	-1.2	107	0.00	4.98
18 t	Acetophenone	1.792	1.921	-7.2	114	0.00	5.15
19 t	2-Methylphenol	1.229	1.354	-10.2	115	0.00	5.04
20 t	2,2'-oxybis(1-Chloropropa	0.404	0.332	17.8	89	0.00	5.05
21 t	3&4-Methylphenol	1.223	1.344	-9.9	115	0.00	5.14
22 t	n-Nitroso-di-n-propylamin	0.843	0.920	-9.1	116	0.00	5.15
23 t	Hexachloroethane	0.499	0.496	0.6	104	0.00	5.23
24 I	Naphthalene-d8	1.000	1.000	0.0	111	0.00	5.78
25 S	Nitrobenzene-d5	0.347	0.381	-9.8	119	0.00	5.26
26 t	Nitrobenzene	0.346	0.375	-8.4	118	0.00	5.27
27 t	Quinoline	0.770	0.822	-6.8	116	0.00	6.04
28 t	Isophorone	0.654	0.729	-11.5	121	0.00	5.44
29 t	2-Nitrophenol	0.190	0.223	-17.4	121	0.00	5.50
30 t	2,4-Dimethylphenol	0.330	0.320	3.0	108	0.00	5.53
31	Benzoic Acid	0.248	0.305	-23.0#	131	0.04	5.60
32 t	bis(2-Chloroethoxy)methan	0.375	0.402	-7.2	121	0.00	5.59
33 t	2,4-Dichlorophenol	0.292	0.321	-9.9	117	0.00	5.68
34	2,6-Dichlorophenol	0.270	0.287	-6.3	114	0.00	5.84
35 t	1,3,5-Trichlorobenzene	0.343	0.338	1.5	109	0.00	5.51
36 t	1,2,4-Trichlorobenzene	0.331	0.324	2.1	109	0.00	5.74
37 t	1,2,3-Trichlorobenzene	0.316	0.303	4.1	109	0.00	5.90
38 t	Naphthalene	1.017	1.021	-0.4	112	0.00	5.79
39 t	4-Chloroaniline	0.431	0.446	-3.5	111	0.00	5.83
40 t	2,3-Dichloroaniline	0.370	0.383	-3.5	114	0.00	6.52
41 t	Caprolactam	0.142	0.174	-22.5#	130	0.00	6.08

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6441-CC6436
Lab FileID: Z130562.D

42 t	Hexachlorobutadiene	0.175	0.168	4.0	107	0.00	5.88
43 t	4-Chloro-3-methylphenol	0.301	0.347	-15.3	121	0.00	6.17
44 t	2-Methylnaphthalene	0.619	0.653	-5.5	114	0.00	6.30
45 t	1-Methylnaphthalene	0.654	0.664	-1.5	114	0.00	6.38
46 t	Dimethylnaphthalene	0.650	0.671	-3.2	114	0.00	6.80
47 I	Acenaphthene-d10	1.000	1.000	0.0	112	0.00	7.18
48 t	Hexachlorocyclopentadiene	0.283	0.295	-4.2	106	0.00	6.43
49 t	2,4,6-Trichlorophenol	0.345	0.366	-6.1	111	0.00	6.52
50 t	2,4,5-Trichlorophenol	0.380	0.390	-2.6	111	0.00	6.55
51 S	2-Fluorobiphenyl	1.402	1.385	1.2	113	0.00	6.58
52 t	2-Chloronaphthalene	1.198	1.174	2.0	112	0.00	6.69
53 t	Biphenyl	1.611	1.630	-1.2	114	0.00	6.67
54 t	2-Nitroaniline	0.305	0.369	-21.0#	123	0.00	6.77
55 t	Dimethylphthalate	1.382	1.439	-4.1	116	0.00	6.91
56 t	Acenaphthylene	1.964	2.041	-3.9	114	0.00	7.04
57 t	2,6-Dinitrotoluene	0.281	0.325	-15.7	117	0.00	6.97
58 t	3-Nitroaniline	0.356	0.420	-18.0	120	0.00	7.12
59 t	Acenaphthene	1.182	1.207	-2.1	115	0.00	7.21
----- True		Calc.	% Drift	-----			
60 t	2,4-Dinitrophenol	50.000	45.279	9.4	103	0.00	7.22
----- AvgRF		CCRF	% Dev	-----			
61 t	4-Nitrophenol	0.176	0.194	-10.2	119	0.00	7.27
62 t	Dibenzofuran	1.713	1.735	-1.3	113	0.00	7.37
63 t	2,4-Dinitrotoluene	0.381	0.460	-20.7#	119	0.00	7.34
64	2,3,4,6-Tetrachlorophenol	0.317	0.344	-8.5	110	0.00	7.49
65 t	Diethylphthalate	1.380	1.508	-9.3	119	0.00	7.58
66 t	Fluorene	1.331	1.372	-3.1	115	0.00	7.72
67 t	4-Chlorophenyl-phenylethe	0.622	0.628	-1.0	112	0.00	7.71
68 t	4-Nitroaniline	0.352	0.393	-11.6	115	0.00	7.73
69 I	Phenanthrene-d10	1.000	1.000	0.0	112	0.00	8.80
----- True		Calc.	% Drift	-----			
70 t	4,6-Dinitro-2-methylpheno	25.000	23.762	5.0	108	0.00	7.76
----- AvgRF		CCRF	% Dev	-----			
71 t	n-Nitrosodiphenylamine	0.570	0.593	-4.0	115	0.00	7.83
72 t	1,2-Diphenylhydrazine	0.717	0.788	-9.9	121	0.00	7.88
73 S	2,4,6-Tribromophenol	0.123	0.133	-8.1	112	0.00	7.97
74 t	4-Bromophenyl-phenylether	0.239	0.243	-1.7	111	0.00	8.25
75 t	Hexachlorobenzene	0.282	0.269	4.6	107	0.00	8.34
----- True		Calc.	% Drift	-----			
76 t	Pentachlorophenol	50.000	46.504	7.0	106	0.00	8.57
----- AvgRF		CCRF	% Dev	-----			
77 t	Phenanthrene	1.069	1.081	-1.1	114	0.00	8.83
78 t	Anthracene	1.081	1.113	-3.0	113	0.00	8.89
79 t	Carbazole	1.105	1.170	-5.9	113	0.00	9.10
80 t	Di-n-butylphthalate	1.315	1.593	-21.1#	123	0.00	9.59
81 t	Fluoranthene	1.167	1.328	-13.8	118	0.01	10.45
82 t	Octadecane	0.413	0.516	-24.9#	127	0.00	8.67
83 I	Chrysene-d12	1.000	1.000	0.0	112	0.00	12.63
84 t	Pyrene	1.363	1.464	-7.4	117	-0.01	10.78
85 S	Terphenyl-d14	0.949	0.996	-5.0	115	0.00	11.04
86 t	Butylbenzylphthalate	0.673	0.792	-17.7	124	0.00	11.83

6.7.45
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Continuing Calibration Summary

Page 3 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6441-CC6436
Lab FileID: Z130562.D

87 t	Benzo[a]anthracene	1.257	1.288	-2.5	113	0.00	12.61
88 t	3,3'-Dichlorobenzidine	0.506	0.513	-1.4	103	0.00	12.60
89 t	Chrysene	1.182	1.166	1.4	112	0.00	12.66
90 t	bis(2-Ethylhexyl)phthalat	0.826	0.987	-19.5	126	0.02	12.76
91 I	Perylene-d12	1.000	1.000	0.0	99	0.00	14.71
----- True Calc. % Drift -----							
92 t	Di-n-octylphthalate	25.000	32.391	-29.6#	128	0.00	13.73
----- AvgRF CCRF % Dev -----							
93 t	Benzo[b]fluoranthene	1.358	1.380	-1.6	107	0.00	14.19
94 t	Benzo[k]fluoranthene	1.262	1.217	3.6	103	0.00	14.24
95 t	Benzo[a]pyrene	1.204	1.176	2.3	101	0.00	14.63
96 t	Indeno[1,2,3-cd]pyrene	1.058	1.096	-3.6	102	0.00	16.12
97 t	Dibenz(a,h)acridine	0.990	0.964	2.6	94	0.00	15.80
98 t	Dibenz[a,h]anthracene	1.082	1.048	3.1	95	0.00	16.14
99 t	7,12-Dimethylbenz(a)anthr	0.573	0.597	-4.2	99	0.00	14.20
100 t	Benzo[g,h,i]perylene	1.075	1.021	5.0	94	0.00	16.50

(#) = Out of Range
z130461a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Sun May 13 21:48:37 2018

6.7.45

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Continuing Calibration Summary

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6441-CC6437
Lab FileID: Z130563.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jonkm\ez6441\z130563.d Vial: 3
 Acq On : 11 May 2018 4:41 pm Operator: christc2
 Sample : cc6437-25 Inst : SVOAMSZ
 Misc : op8501,ez6441,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 Last Update : Sun May 13 21:35:59 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	95	0.00	4.86
102	Benzaldehyde	1.016	0.854	15.9	80	0.00	4.53
103	Phenanthrene-d10a	1.000	1.000	0.0	105	0.00	8.80
104 s	1-chlorooctadecane	0.255	0.275	-7.8	98	0.00	10.34
105 s	o-terphenyl	0.560	0.465	17.0	85	0.00	9.30
106	Atrazine	0.097	0.088	9.3	88	0.00	8.44
107	Chrysene-d12a	1.000	1.000	0.0	110	0.00	12.62
108	Benzidine	25.000	19.980	20.1#	87	0.00	10.67
109	Acenaphthene-d10a	1.000	1.000	0.0	102	0.00	7.18
110	1,2,4,5-Tetrachlorobenzen	0.533	0.413	22.5#	79	0.00	6.43
111 I	Naphthalene-d8a	1.000	1.000	0.0	97	0.00	5.78
112	Hydroquinone	0.308	0.338	-9.7	102	0.00	6.05
113	Phenanthrene-d10b	1.000	1.000	0.0	105	0.00	8.80
114	Pentachloronitrobenzene	0.041	0.037#	9.8	90	0.00	8.59

(#) = Out of Range
 z130461a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
 Sun May 13 21:48:40 2018

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6453-CC6436
Lab FileID: Z130870.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6453\z130870.D Vial: 2
 Acq On : 22 May 2018 1:36 am Operator: chriss2
 Sample : cc6436-25 Inst : SVOAMSZ
 Misc : op8501,eZ6453,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 Last Update : Mon May 21 13:38:40 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	90	0.00	4.72
2	1,4-Dioxane	0.700	0.763	-9.0	95	-0.02	2.27
3 t	Pyridine	1.709	1.879	-9.9	97	0.00	2.61
4 t	N-Nitrosodimethylamine	0.971	1.120	-15.3	100	-0.02	2.56
5 S	2-Fluorophenol	1.490	1.578	-5.9	90	-0.01	3.74
6 t	Indene	2.188	2.381	-8.8	96	0.00	4.91
7 t	Cumene	3.556	3.746	-5.3	90	0.00	4.13
8 S	Phenol-d5	1.788	2.061	-15.3	97	-0.01	4.46
9 t	Phenol	1.898	2.248	-18.4	104	-0.01	4.47
10 t	Aniline	2.239	2.127	5.0	85	-0.01	4.48
11 t	bis(2-Chloroethyl)ether	1.351	1.477	-9.3	99	0.00	4.52
12 t	2-Chlorophenol	1.480	1.610	-8.8	95	0.00	4.57
13 t	Decane	1.094	1.504	-37.5#	120	-0.01	4.60
14 t	1,3-Dichlorobenzene	1.659	1.707	-2.9	92	0.00	4.68
15 t	1,4-Dichlorobenzene	1.570	1.591	-1.3	91	0.00	4.73
16 t	Benzyl alcohol	0.874	1.047	-19.8	102	0.00	4.82
17 t	1,2-Dichlorobenzene	1.529	1.597	-4.4	92	0.00	4.84
18 t	Acetophenone	1.792	2.118	-18.2	106	0.00	5.01
19 t	2-Methylphenol	1.229	1.362	-10.8	96	0.00	4.91
20 t	2,2'-oxybis(1-Chloropropa	0.404	0.433	-7.2	97	0.00	4.91
21 t	3&4-Methylphenol	1.223	1.405	-14.9	101	0.00	5.01
22 t	n-Nitroso-di-n-propylamin	0.843	1.069	-26.8#	113	0.00	5.01
23 t	Hexachloroethane	0.499	0.514	-3.0	90	0.00	5.09
24 I	Naphthalene-d8	1.000	1.000	0.0	96	0.00	5.63
25 S	Nitrobenzene-d5	0.347	0.410	-18.2	110	0.00	5.12
26 t	Nitrobenzene	0.346	0.403	-16.5	109	0.00	5.13
27 t	Quinoline	0.770	0.858	-11.4	104	-0.02	5.89
28 t	Isophorone	0.654	0.769	-17.6	109	0.00	5.30
29 t	2-Nitrophenol	0.190	0.226	-18.9	106	0.00	5.36
30 t	2,4-Dimethylphenol	0.330	0.342	-3.6	99	0.00	5.39
31	Benzoic Acid	0.248	0.320	-29.0#	118	-0.02	5.47
32 t	bis(2-Chloroethoxy)methan	0.375	0.411	-9.6	106	0.00	5.45
33 t	2,4-Dichlorophenol	0.292	0.328	-12.3	102	0.00	5.54
34	2,6-Dichlorophenol	0.270	0.291	-7.8	100	0.00	5.70
35 t	1,3,5-Trichlorobenzene	0.343	0.331	3.5	91	0.00	5.37
36 t	1,2,4-Trichlorobenzene	0.331	0.327	1.2	94	0.00	5.60
37 t	1,2,3-Trichlorobenzene	0.316	0.309	2.2	95	0.00	5.76
38 t	Naphthalene	1.017	1.021	-0.4	96	0.00	5.65
39 t	4-Chloroaniline	0.431	0.472	-9.5	101	0.00	5.69
40 t	2,3-Dichloroaniline	0.370	0.407	-10.0	104	-0.01	6.36
41 t	Caprolactam	0.142	0.213	-50.0#	136	-0.02	5.94

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6453-CC6436
Lab FileID: Z130870.D

42 t	Hexachlorobutadiene	0.175	0.170	2.9	93	0.00	5.74
43 t	4-Chloro-3-methylphenol	0.301	0.371	-23.3#	111	0.00	6.04
44 t	2-Methylnaphthalene	0.619	0.654	-5.7	98	0.00	6.15
45 t	1-Methylnaphthalene	0.654	0.672	-2.8	99	0.00	6.22
46 t	Dimethylnaphthalene	0.650	0.689	-6.0	101	-0.01	6.63
47 I	Acenaphthene-d10	1.000	1.000	0.0	101	0.00	7.00
48 t	Hexachlorocyclopentadiene	0.283	0.264	6.7	86	0.00	6.27
49 t	2,4,6-Trichlorophenol	0.345	0.358	-3.8	98	0.00	6.37
50 t	2,4,5-Trichlorophenol	0.380	0.404	-6.3	104	-0.01	6.40
51 S	2-Fluorobiphenyl	1.402	1.302	7.1	96	0.00	6.42
52 t	2-Chloronaphthalene	1.198	1.149	4.1	98	0.00	6.53
53 t	Biphenyl	1.611	1.588	1.4	100	0.00	6.51
54 t	2-Nitroaniline	0.305	0.414	-35.7#	125	-0.01	6.61
55 t	Dimethylphthalate	1.382	1.473	-6.6	107	0.00	6.75
56 t	Acenaphthylene	1.964	2.013	-2.5	102	-0.01	6.87
57 t	2,6-Dinitrotoluene	0.281	0.341	-21.4#	110	-0.01	6.80
58 t	3-Nitroaniline	0.356	0.420	-18.0	108	-0.01	6.96
59 t	Acenaphthene	1.182	1.164	1.5	100	0.00	7.03
----- True		Calc.	% Drift	-----			
60 t	2,4-Dinitrophenol	50.000	55.209	-10.4	115	-0.01	7.06
----- AvgRF		CCRF	% Dev	-----			
61 t	4-Nitrophenol	0.176	0.234	-33.0#	130	0.00	7.12
62 t	Dibenzofuran	1.713	1.696	1.0	100	-0.01	7.19
63 t	2,4-Dinitrotoluene	0.381	0.475	-24.7#	110	-0.01	7.17
64	2,3,4,6-Tetrachlorophenol	0.317	0.372	-17.4	108	-0.01	7.31
65 t	Diethylphthalate	1.380	1.547	-12.1	110	-0.01	7.40
66 t	Fluorene	1.331	1.386	-4.1	105	0.00	7.53
67 t	4-Chlorophenyl-phenylethe	0.622	0.624	-0.3	101	-0.01	7.52
68 t	4-Nitroaniline	0.352	0.401	-13.9	106	-0.01	7.55
69 I	Phenanthrene-d10	1.000	1.000	0.0	104	0.00	8.59
----- True		Calc.	% Drift	-----			
70 t	4,6-Dinitro-2-methylpheno	25.000	26.678	-6.7	113	-0.01	7.58
----- AvgRF		CCRF	% Dev	-----			
71 t	n-Nitrosodiphenylamine	0.570	0.575	-0.9	104	-0.01	7.64
72 t	1,2-Diphenylhydrazine	0.717	0.838	-16.9	120	0.00	7.69
73 S	2,4,6-Tribromophenol	0.123	0.133	-8.1	104	-0.01	7.78
74 t	4-Bromophenyl-phenylether	0.239	0.245	-2.5	104	0.00	8.05
75 t	Hexachlorobenzene	0.282	0.269	4.6	100	0.00	8.14
----- True		Calc.	% Drift	-----			
76 t	Pentachlorophenol	50.000	48.807	2.4	103	-0.01	8.37
----- AvgRF		CCRF	% Dev	-----			
77 t	Phenanthrene	1.069	1.063	0.6	104	0.00	8.62
78 t	Anthracene	1.081	1.118	-3.4	106	-0.01	8.68
79 t	Carbazole	1.105	1.200	-8.6	108	-0.01	8.89
80 t	Di-n-butylphthalate	1.315	1.622	-23.3#	117	-0.01	9.38
81 t	Fluoranthene	1.167	1.341	-14.9	110	0.00	10.22
82 t	Octadecane	0.413	0.573	-38.7#	131	-0.01	8.47
83 I	Chrysene-d12	1.000	1.000	0.0	109	-0.01	12.39
84 t	Pyrene	1.363	1.446	-6.1	113	-0.01	10.54
85 S	Terphenyl-d14	0.949	0.976	-2.8	109	-0.01	10.81
86 t	Butylbenzylphthalate	0.673	0.804	-19.5	122	-0.01	11.59

6.7.47
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Continuing Calibration Summary

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Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6453-CC6436
Lab FileID: Z130870.D

87 t	Benzo[a]anthracene	1.257	1.285	-2.2	110	0.00	12.37
88 t	3,3'-Dichlorobenzidine	0.506	0.537	-6.1	105	-0.01	12.37
89 t	Chrysene	1.182	1.165	1.4	109	-0.01	12.42
90 t	bis(2-Ethylhexyl)phthalat	0.826	1.011	-22.4#	126	-0.01	12.53
91 I	Perylene-d12	1.000	1.000	0.0	102	-0.01	14.47
----- True Calc. % Drift -----							
92 t	Di-n-octylphthalate	25.000	31.534	-26.1#	129	-0.02	13.50
----- AvgRF CCRF % Dev -----							
93 t	Benzo[b]fluoranthene	1.358	1.328	2.2	106	-0.02	13.95
94 t	Benzo[k]fluoranthene	1.262	1.239	1.8	108	-0.02	13.99
95 t	Benzo[a]pyrene	1.204	1.186	1.5	106	-0.02	14.38
96 t	Indeno[1,2,3-cd]pyrene	1.058	0.997	5.8	96	-0.02	15.82
97 t	Dibenz(a,h)acridine	0.990	0.949	4.1	96	-0.02	15.53
98 t	Dibenz[a,h]anthracene	1.082	1.000	7.6	94	-0.02	15.85
99 t	7,12-Dimethylbenz(a)anthr	0.573	0.590	-3.0	102	-0.01	13.95
100 t	Benzo[g,h,i]perylene	1.075	0.935	13.0	89	-0.02	16.17

(#) = Out of Range
 z130839.D MZ6436.M

SPCC's out = 0 CCC's out = 0
 Tue May 22 16:58:01 2018

6.7.47

6

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6453-CC6437
Lab FileID: Z130871.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6453\z130871.D Vial: 3
 Acq On : 22 May 2018 2:03 am Operator: chriss2
 Sample : cc6437-25 Inst : SVOAMSZ
 Misc : op8501,eZ6453,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 Last Update : Mon May 21 13:38:40 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	66	0.00	4.72
102	Benzaldehyde	1.016	1.055	-3.8	69	-0.04	4.39
103	Phenanthrene-d10a	1.000	1.000	0.0	85	0.00	8.59
104 s	1-chlorooctadecane	0.255	0.427	-67.5#	123	-0.03	10.12
105 s	o-terphenyl	0.560	0.574	-2.5	84	-0.05	9.09
106	Atrazine	0.097	0.111	-14.4	89	-0.05	8.25
107	Chrysene-d12a	1.000	1.000	0.0	95	-0.02	12.38
	----- True Calc. % Drift -----						
108	Benzidine	25.000	28.243	-13.0	106	-0.08	10.44
	----- AvgRF CCRF % Dev -----						
109	Acenaphthene-d10a	1.000	1.000	0.0	79	0.00	7.00
110	1,2,4,5-Tetrachlorobenzen	0.533	0.500	6.2	74	-0.04	6.28
111 I	Naphthalene-d8a	1.000	1.000	0.0	71	0.00	5.63
112	Hydroquinone	0.308	0.467	-51.6#	103	-0.01	5.92
113	Phenanthrene-d10b	1.000	1.000	0.0	85	0.00	8.59
114	Pentachloronitrobenzene	0.041	0.048#	-17.1	95	-0.05	8.39

(#) = Out of Range
 z130839.D MZ6436.M

SPCC's out = 0 CCC's out = 0
 Tue May 22 16:48:07 2018

6.7.48

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6455-CC6436
Lab FileID: Z130925.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6455\z130925.D Vial: 2
Acq On : 23 May 2018 10:21 am Operator: johnb1
Sample : cc6436-25 Inst : SVOAMSZ
Misc : op8501,eZ6455,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Mon May 21 13:38:40 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	88	0.00	4.72
2	1,4-Dioxane	0.700	0.707	-1.0	86	-0.01	2.28
3 t	Pyridine	1.709	1.751	-2.5	88	0.00	2.61
4 t	N-Nitrosodimethylamine	0.971	0.986	-1.5	86	0.00	2.57
5 S	2-Fluorophenol	1.490	1.560	-4.7	88	0.00	3.76
6 t	Indene	2.188	2.330	-6.5	92	0.00	4.91
7 t	Cumene	3.556	3.818	-7.4	90	0.00	4.13
8 S	Phenol-d5	1.788	1.909	-6.8	88	0.00	4.48
9 t	Phenol	1.898	2.056	-8.3	93	0.00	4.49
10 t	Aniline	2.239	2.024	9.6	79	0.00	4.48
11 t	bis(2-Chloroethyl)ether	1.351	1.393	-3.1	91	0.00	4.52
12 t	2-Chlorophenol	1.480	1.547	-4.5	89	0.00	4.58
13 t	Decane	1.094	1.306	-19.4	102	0.00	4.60
14 t	1,3-Dichlorobenzene	1.659	1.653	0.4	87	0.00	4.68
15 t	1,4-Dichlorobenzene	1.570	1.554	1.0	87	0.00	4.73
16 t	Benzyl alcohol	0.874	0.990	-13.3	95	0.00	4.83
17 t	1,2-Dichlorobenzene	1.529	1.513	1.0	85	0.00	4.85
18 t	Acetophenone	1.792	2.061	-15.0	101	0.00	5.01
19 t	2-Methylphenol	1.229	1.217	1.0	84	0.00	4.92
20 t	2,2'-oxybis(1-Chloropropa	0.404	0.416	-3.0	91	0.00	4.92
21 t	3&4-Methylphenol	1.223	1.318	-7.8	93	0.00	5.03
22 t	n-Nitroso-di-n-propylamin	0.843	1.022	-21.2#	106	0.00	5.01
23 t	Hexachloroethane	0.499	0.509	-2.0	88	0.00	5.09
24 I	Naphthalene-d8	1.000	1.000	0.0	87	0.00	5.64
25 S	Nitrobenzene-d5	0.347	0.418	-20.5#	102	0.00	5.12
26 t	Nitrobenzene	0.346	0.413	-19.4	102	0.00	5.14
27 t	Quinoline	0.770	0.824	-7.0	91	-0.01	5.90
28 t	Isophorone	0.654	0.758	-15.9	98	0.00	5.31
29 t	2-Nitrophenol	0.190	0.219	-15.3	93	0.00	5.37
30 t	2,4-Dimethylphenol	0.330	0.346	-4.8	91	0.00	5.40
31	Benzoic Acid	0.248	0.293	-18.1	99	0.00	5.49
32 t	bis(2-Chloroethoxy)methan	0.375	0.400	-6.7	94	0.00	5.45
33 t	2,4-Dichlorophenol	0.292	0.320	-9.6	91	0.00	5.55
34	2,6-Dichlorophenol	0.270	0.284	-5.2	89	0.00	5.70
35 t	1,3,5-Trichlorobenzene	0.343	0.337	1.7	85	0.00	5.38
36 t	1,2,4-Trichlorobenzene	0.331	0.324	2.1	85	0.00	5.60
37 t	1,2,3-Trichlorobenzene	0.316	0.306	3.2	86	0.00	5.76
38 t	Naphthalene	1.017	1.012	0.5	87	0.00	5.66
39 t	4-Chloroaniline	0.431	0.458	-6.3	89	0.00	5.69
40 t	2,3-Dichloroaniline	0.370	0.387	-4.6	90	0.00	6.37
41 t	Caprolactam	0.142	0.177	-24.6#	104	-0.02	5.94

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6455-CC6436
Lab FileID: Z130925.D

42 t	Hexachlorobutadiene	0.175	0.183	-4.6	91	0.00	5.74
43 t	4-Chloro-3-methylphenol	0.301	0.363	-20.6#	99	0.00	6.05
44 t	2-Methylnaphthalene	0.619	0.650	-5.0	89	0.00	6.15
45 t	1-Methylnaphthalene	0.654	0.668	-2.1	90	0.00	6.23
46 t	Dimethylnaphthalene	0.650	0.657	-1.1	88	0.00	6.64
47 I	Acenaphthene-d10	1.000	1.000	0.0	88	0.00	7.01
48 t	Hexachlorocyclopentadiene	0.283	0.258	8.8	73	0.00	6.28
49 t	2,4,6-Trichlorophenol	0.345	0.368	-6.7	87	0.00	6.38
50 t	2,4,5-Trichlorophenol	0.380	0.400	-5.3	89	0.00	6.41
51 S	2-Fluorobiphenyl	1.402	1.322	5.7	84	0.00	6.43
52 t	2-Chloronaphthalene	1.198	1.136	5.2	85	0.00	6.53
53 t	Biphenyl	1.611	1.623	-0.7	89	0.00	6.51
54 t	2-Nitroaniline	0.305	0.406	-33.1#	106	0.00	6.61
55 t	Dimethylphthalate	1.382	1.412	-2.2	89	0.00	6.75
56 t	Acenaphthylene	1.964	1.996	-1.6	87	0.00	6.88
57 t	2,6-Dinitrotoluene	0.281	0.322	-14.6	90	0.00	6.81
58 t	3-Nitroaniline	0.356	0.401	-12.6	89	0.00	6.96
59 t	Acenaphthene	1.182	1.199	-1.4	89	0.00	7.04
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	50.000	49.134	1.7	88	0.00	7.07
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.176	0.231	-31.3#	111	0.02	7.14
62 t	Dibenzofuran	1.713	1.662	3.0	85	0.00	7.20
63 t	2,4-Dinitrotoluene	0.381	0.456	-19.7	92	0.00	7.18
64	2,3,4,6-Tetrachlorophenol	0.317	0.325	-2.5	82	0.00	7.33
65 t	Diethylphthalate	1.380	1.520	-10.1	94	0.00	7.41
66 t	Fluorene	1.331	1.368	-2.8	90	0.00	7.54
67 t	4-Chlorophenyl-phenylethe	0.622	0.619	0.5	87	0.00	7.53
68 t	4-Nitroaniline	0.352	0.388	-10.2	89	0.00	7.56
69 I	Phenanthrene-d10	1.000	1.000	0.0	86	0.00	8.60
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	25.000	24.343	2.6	85	0.00	7.60
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.570	0.566	0.7	85	0.00	7.65
72 t	1,2-Diphenylhydrazine	0.717	0.855	-19.2	101	0.00	7.70
73 S	2,4,6-Tribromophenol	0.123	0.126	-2.4	81	0.00	7.80
74 t	4-Bromophenyl-phenylether	0.239	0.240	-0.4	84	0.00	8.06
75 t	Hexachlorobenzene	0.282	0.264	6.4	81	0.00	8.15
----- True Calc. % Drift -----							
76 t	Pentachlorophenol	50.000	40.298	19.4	70	0.00	8.39
----- AvgRF CCRF % Dev -----							
77 t	Phenanthrene	1.069	1.047	2.1	85	0.00	8.63
78 t	Anthracene	1.081	1.109	-2.6	87	0.00	8.70
79 t	Carbazole	1.105	1.154	-4.4	86	0.00	8.90
80 t	Di-n-butylphthalate	1.315	1.610	-22.4#	96	0.00	9.39
81 t	Fluoranthene	1.167	1.268	-8.7	86	0.01	10.24
82 t	Octadecane	0.413	0.548	-32.7#	104	0.00	8.48
83 I	Chrysene-d12	1.000	1.000	0.0	82	0.01	12.41
84 t	Pyrene	1.363	1.495	-9.7	88	0.01	10.57
85 S	Terphenyl-d14	0.949	0.991	-4.4	83	0.00	10.83
86 t	Butylbenzylphthalate	0.673	0.831	-23.5#	95	0.00	11.61

6.7.49
6

Continuing Calibration Summary

Page 3 of 3

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6455-CC6436
Lab FileID: Z130925.D

87 t	Benzo[a]anthracene	1.257	1.256	0.1	81	0.02	12.39
88 t	3,3'-Dichlorobenzidine	0.506	0.528	-4.3	77	0.00	12.38
89 t	Chrysene	1.182	1.143	3.3	80	0.01	12.45
90 t	bis(2-Ethylhexyl)phthalat	0.826	1.024	-24.0#	96	0.00	12.54
91 I	Perylene-d12	1.000	1.000	0.0	71	0.02	14.49
----- True Calc. % Drift -----							
92 t	Di-n-octylphthalate	25.000	30.622	-22.5#	87	0.00	13.51
----- AvgRF CCRF % Dev -----							
93 t	Benzo[b]fluoranthene	1.358	1.281	5.7	71	0.01	13.97
94 t	Benzo[k]fluoranthene	1.262	1.162	7.9	71	0.00	14.01
95 t	Benzo[a]pyrene	1.204	1.107	8.1	68	0.01	14.41
96 t	Indeno[1,2,3-cd]pyrene	1.058	1.141	-7.8	76	0.02	15.85
97 t	Dibenz(a,h)acridine	0.990	0.991	-0.1	69	0.02	15.56
98 t	Dibenz[a,h]anthracene	1.082	1.121	-3.6	73	0.01	15.88
99 t	7,12-Dimethylbenz(a)anthr	0.573	0.535	6.6	64	0.01	13.97
100 t	Benzo[g,h,i]perylene	1.075	1.040	3.3	69	0.02	16.21

(#) = Out of Range
 z130839.D MZ6436.M

SPCC's out = 0 CCC's out = 0
 Wed May 23 14:04:27 2018

6.7.49

6

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6455-CC6437
Lab FileID: Z130926.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6455\z130926.D Vial: 3
Acq On : 23 May 2018 10:48 am Operator: johnb1
Sample : cc6437-25 Inst : SVOAMSZ
Misc : op8501,eZ6455,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Mon May 21 13:38:40 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	81	0.00	4.72
102	Benzaldehyde	1.016	1.035	-1.9	83	-0.04	4.40
103	Phenanthrene-d10a	1.000	1.000	0.0	87	0.00	8.60
104 s	1-chlorooctadecane	0.255	0.346	-35.7#	102	-0.02	10.13
105 s	o-terphenyl	0.560	0.556	0.7	84	-0.04	9.10
106	Atrazine	0.097	0.107	-10.3	88	-0.03	8.26
107	Chrysene-d12a	1.000	1.000	0.0	83	0.00	12.40
108	Benzidine	25.000	33.752	-35.0#	112	-0.06	10.45
109	Acenaphthene-d10a	1.000	1.000	0.0	86	0.00	7.01
110	1,2,4,5-Tetrachlorobenzen	0.533	0.504	5.4	81	-0.03	6.28
111 I	Naphthalene-d8a	1.000	1.000	0.0	83	0.00	5.64
112	Hydroquinone	0.308	0.378	-22.7#	98	0.00	5.93
113	Phenanthrene-d10b	1.000	1.000	0.0	87	0.00	8.60
114	Pentachloronitrobenzene	0.041	0.047#	-14.6	94	-0.04	8.40

(#) = Out of Range
z130839.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 23 16:31:39 2018

6.7.50

6



MS Semi-volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6455\
 Data File : z130937.D
 Acq On : 23 May 2018 3:49 pm
 Operator : johnb1
 Sample : jc65799-1
 Misc : op11924,eZ6455,31.0,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 23 16:54:54 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 QLast Update : Mon May 21 13:38:40 2018
 Response via : Initial Calibration

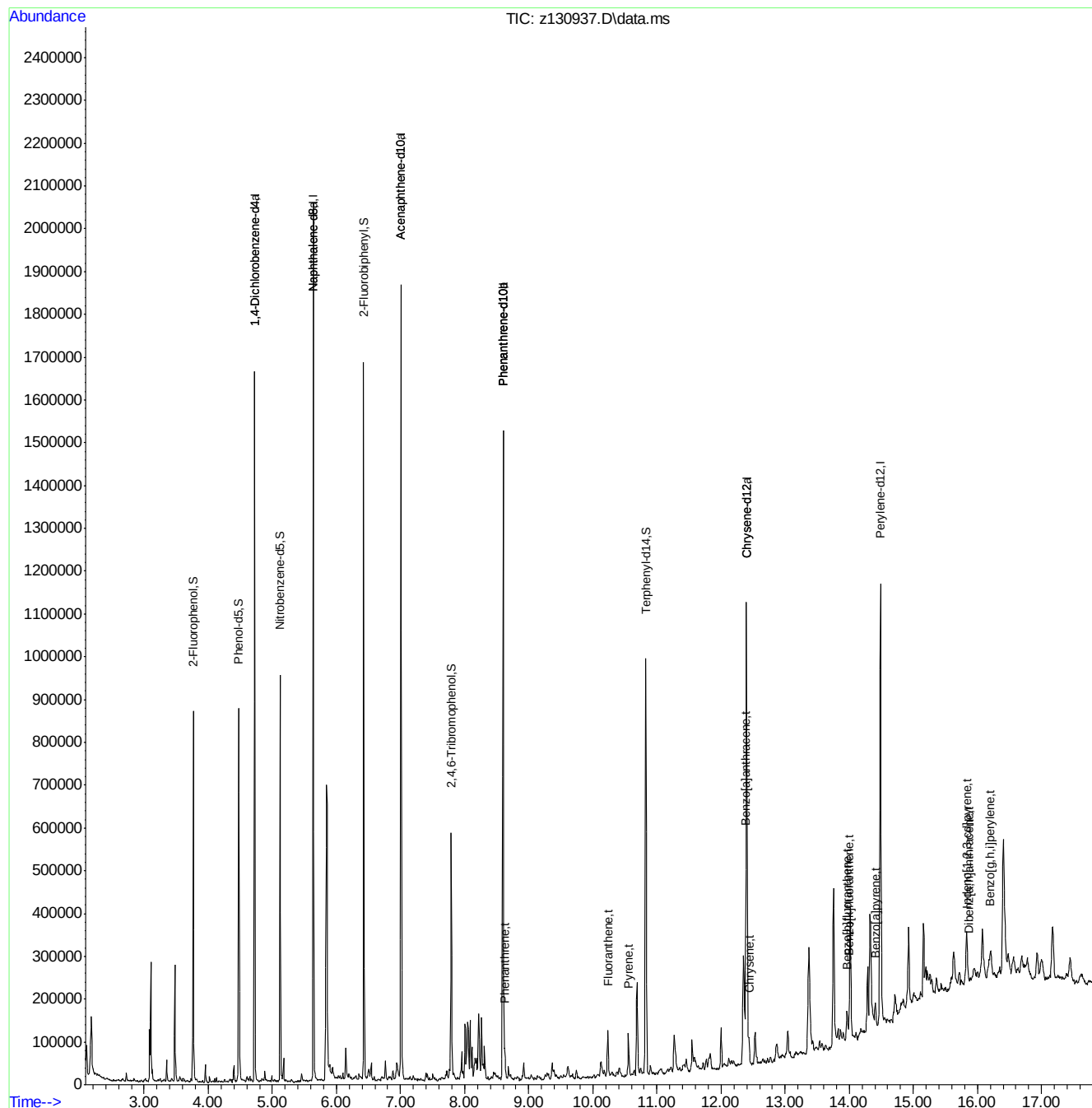
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.721	152	184971	40.00	ppm	0.00
24) Naphthalene-d8	5.640	136	714098	40.00	ppm	0.00
47) Acenaphthene-d10	7.007	164	343039	40.00	ppm	0.00
69) Phenanthrene-d10	8.599	188	607196	40.00	ppm	0.00
83) Chrysene-d12	12.398	240	470594	40.00	ppm	0.00
91) Perylene-d12	14.486	264	483123	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4a	4.721	152	184971	40.00	ppm	0.00
103) Phenanthrene-d10a	8.599	188	607196	40.00	ppm	0.00
107) Chrysene-d12a	12.398	240	470594	40.00	ppm	0.00
109) Acenaphthene-d10a	7.007	164	343039	40.00	ppm	0.00
111) Naphthalene-d8a	5.640	136	714098	40.00	ppm	0.00
113) Phenanthrene-d10b	8.599	188	607196	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.765	112	203574	29.54	ppm	0.01
Spiked Amount 50.000			Recovery	=	59.08%	
8) Phenol-d5	4.475	99	253754	30.68	ppm	0.00
Spiked Amount 50.000			Recovery	=	61.36%	
25) Nitrobenzene-d5	5.121	82	224434	36.21	ppm	0.00
Spiked Amount 50.000			Recovery	=	72.42%	
51) 2-Fluorobiphenyl	6.425	172	413244	34.37	ppm	0.00
Spiked Amount 50.000			Recovery	=	68.74%	
73) 2,4,6-Tribromophenol	7.793	330	64050	34.19	ppm	0.00
Spiked Amount 50.000			Recovery	=	68.38%	
85) Terphenyl-d14	10.827	244	380858	34.11	ppm	0.00
Spiked Amount 50.000			Recovery	=	68.22%	
104) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
105) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						
77) Phenanthrene	8.626	178	20040	1.24	ppm	96
81) Fluoranthene	10.234	202	46180	2.61	ppm	94
84) Pyrene	10.555	202	41747	2.60	ppm	96
87) Benzo[a]anthracene	12.387	228	22764	1.54	ppm	84
89) Chrysene	12.435	228	23902	1.72	ppm	93
93) Benzo[b]fluoranthene	13.968	252	33628	2.05	ppm	93
94) Benzo[k]fluoranthene	14.000	252	12494	0.82	ppm	81
95) Benzo[a]pyrene	14.406	252	23875	1.64	ppm	90
96) Indeno[1,2,3-cd]pyrene	15.843	276	17153	1.34	ppm	86
98) Dibenz[a,h]anthracene	15.865	278	5331	0.41	ppm	75
100) Benzo[g,h,i]perylene	16.201	276	16424	1.27	ppm	88

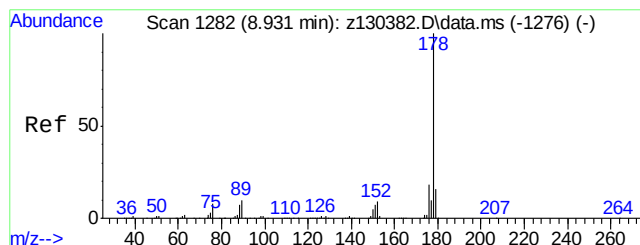
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6455\
Data File : z130937.D
Acq On : 23 May 2018 3:49 pm
Operator : johnb1
Sample : jc65799-1
Misc : op11924, ez6455, 31.0,,,1,1
ALS Vial : 13 Sample Multiplier: 1

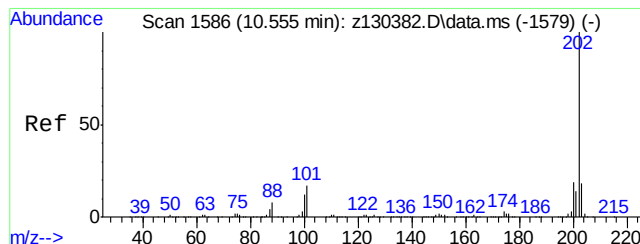
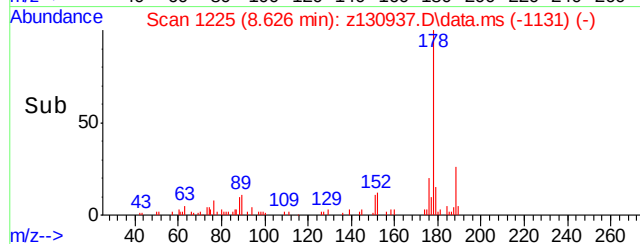
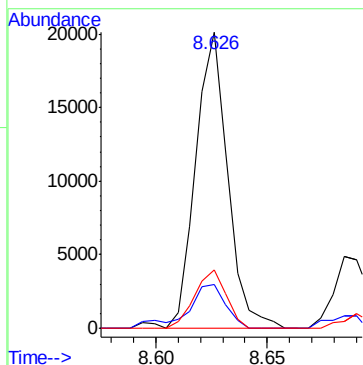
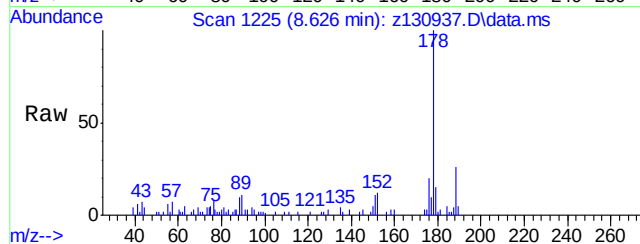
Quant Time: May 23 16:54:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Mon May 21 13:38:40 2018
Response via : Initial Calibration





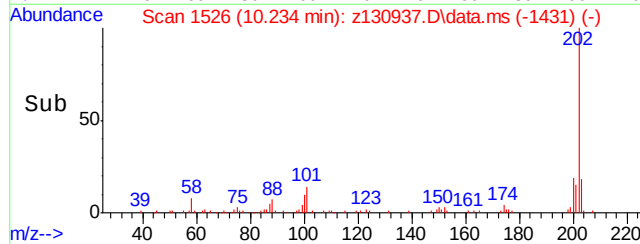
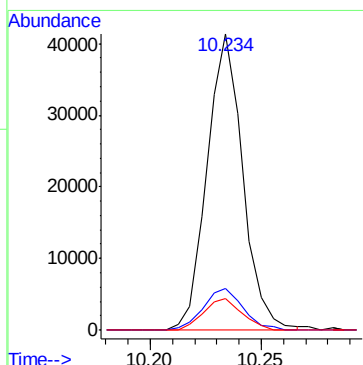
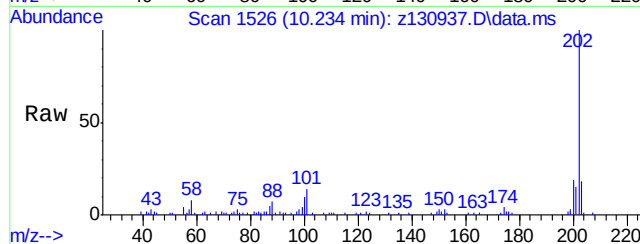
#77
Phenanthrene
Concen: 1.24 ppm
RT: 8.626 min Scan# 1225
Delta R.T. 0.000 min
Lab File: z130937.D
Acq: 23 May 2018 3:49 pm

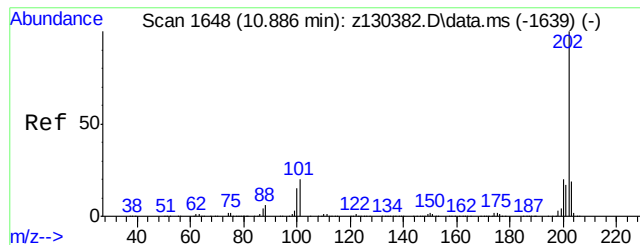
Tgt Ion	Ratio	Lower	Upper
178	100		
179	13.9	0.0	46.3
176	19.6	0.0	48.1



#81
Fluoranthene
Concen: 2.61 ppm
RT: 10.234 min Scan# 1526
Delta R.T. 0.005 min
Lab File: z130937.D
Acq: 23 May 2018 3:49 pm

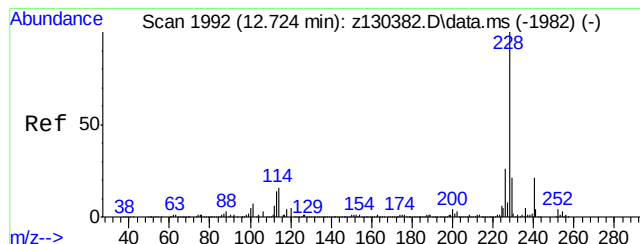
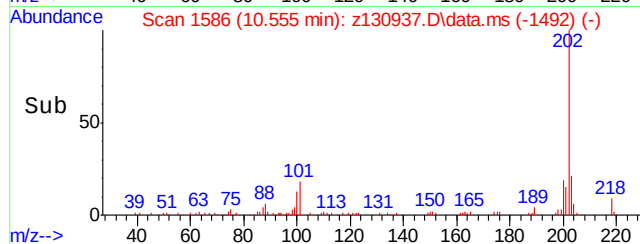
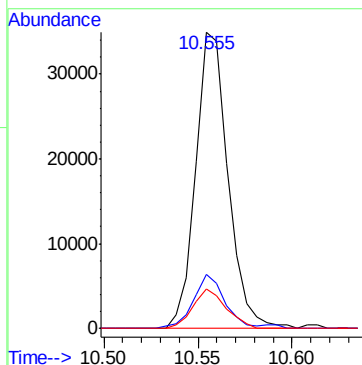
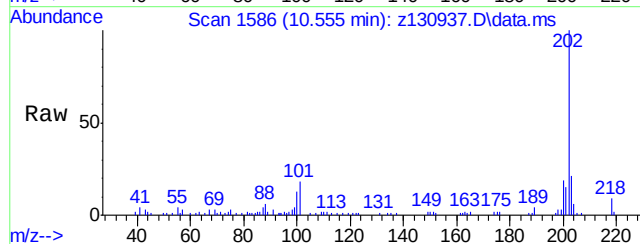
Tgt Ion	Ratio	Lower	Upper
202	100		
101	14.0	0.0	47.2
100	10.5	0.0	42.3





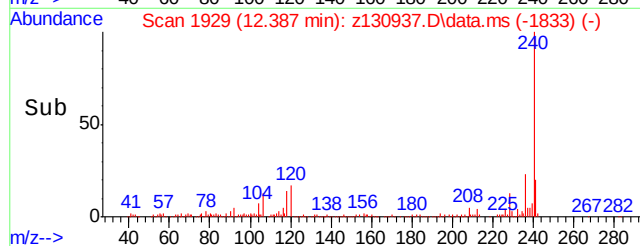
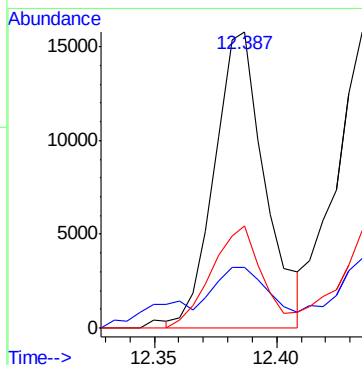
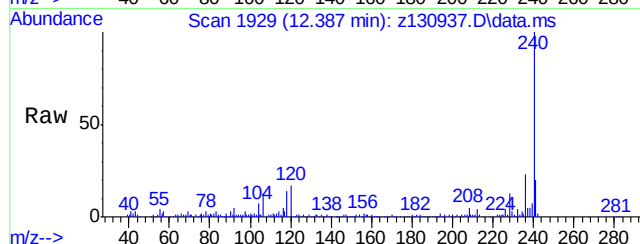
#84
Pyrene
Concen: 2.60 ppm
RT: 10.555 min Scan# 1586
Delta R.T. 0.000 min
Lab File: z130937.D
Acq: 23 May 2018 3:49 pm

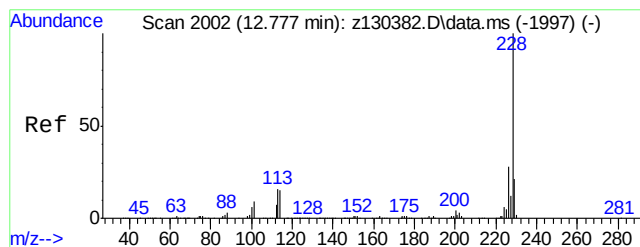
Tgt	Ion:202	Resp:	41747
Ion	Ratio	Lower	Upper
202	100		
101	17.6	0.0	49.8
100	13.3	0.0	44.6



#87
Benzo[a]anthracene
Concen: 1.54 ppm
RT: 12.387 min Scan# 1929
Delta R.T. 0.011 min
Lab File: z130937.D
Acq: 23 May 2018 3:49 pm

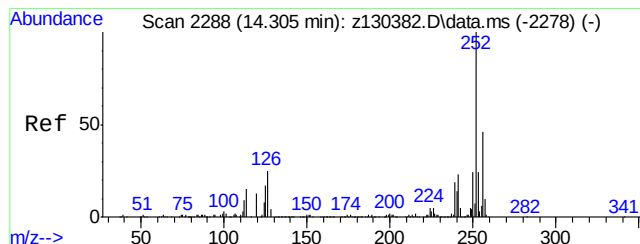
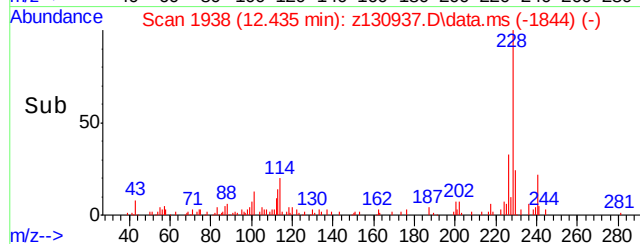
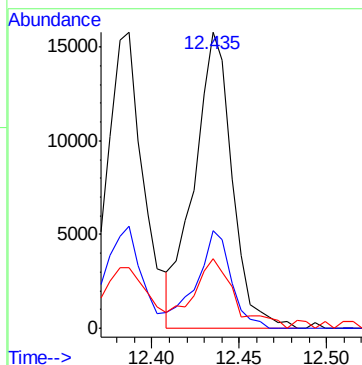
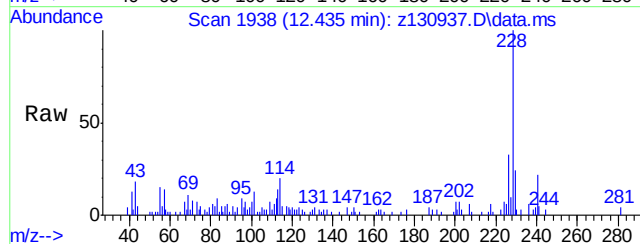
Tgt	Ion:228	Resp:	22764
Ion	Ratio	Lower	Upper
228	100		
229	15.2	0.0	50.7
226	35.7	0.0	56.2





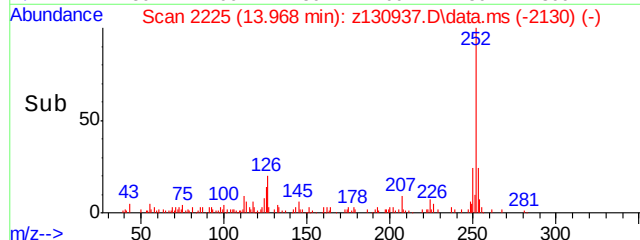
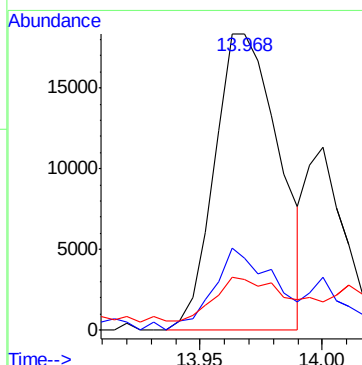
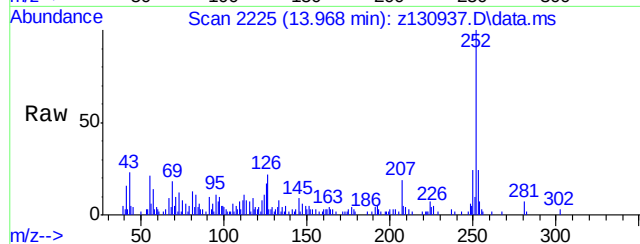
#89
Chrysene
Concen: 1.72 ppm
RT: 12.435 min Scan# 1938
Delta R.T. 0.000 min
Lab File: z130937.D
Acq: 23 May 2018 3:49 pm

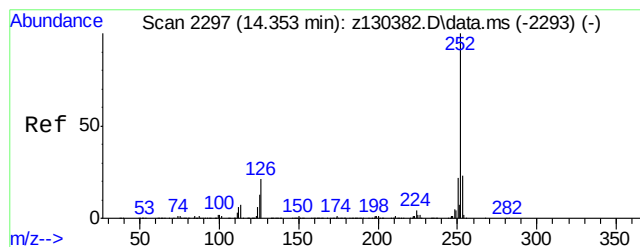
Tgt Ion:	228	Resp:	23902
Ion Ratio	Lower	Upper	
228	100		
226	33.5	0.0	58.0
229	21.3	0.0	50.8



#93
Benzo[b]fluoranthene
Concen: 2.05 ppm
RT: 13.968 min Scan# 2225
Delta R.T. 0.005 min
Lab File: z130937.D
Acq: 23 May 2018 3:49 pm

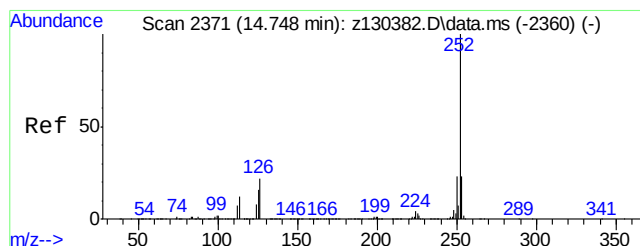
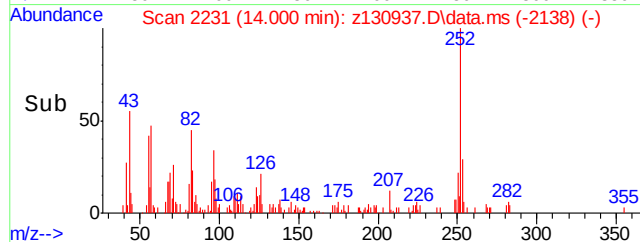
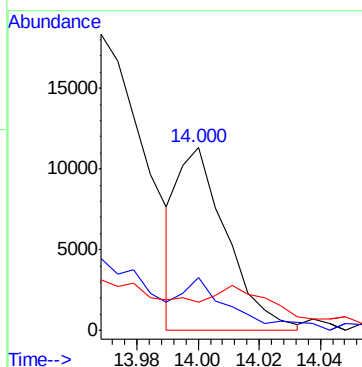
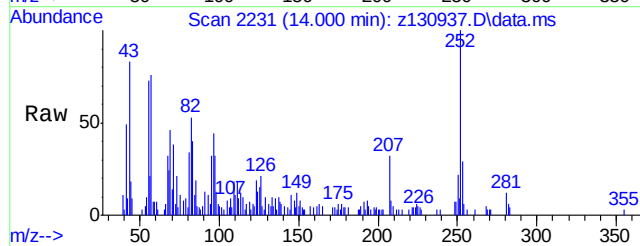
Tgt Ion:	252	Resp:	33628
Ion Ratio	Lower	Upper	
252	100		
253	24.7	0.0	52.0
125	13.1	0.0	47.1





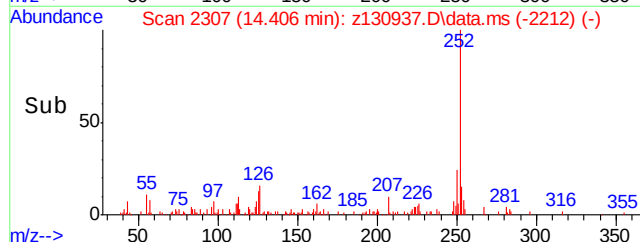
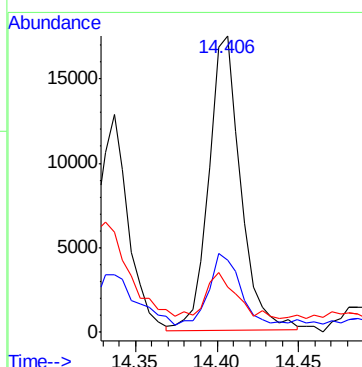
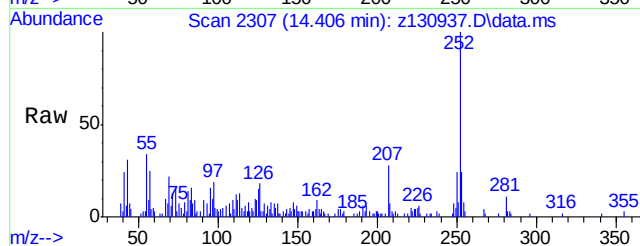
#94
Benzo[k]fluoranthene
Concen: 0.82 ppm
RT: 14.000 min Scan# 2231
Delta R.T. -0.005 min
Lab File: z130937.D
Acq: 23 May 2018 3:49 pm

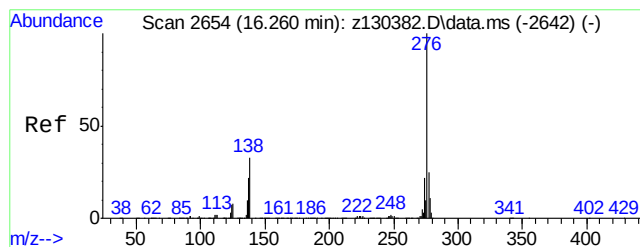
Tgt	Ion	Ratio	Resp	Lower	Upper
252	100		12494		
253	29.4	0.0	52.1		
125	4.7	0.0	44.9		



#95
Benzo[a]pyrene
Concen: 1.64 ppm
RT: 14.406 min Scan# 2307
Delta R.T. 0.005 min
Lab File: z130937.D
Acq: 23 May 2018 3:49 pm

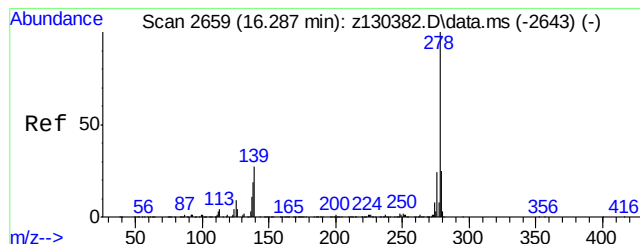
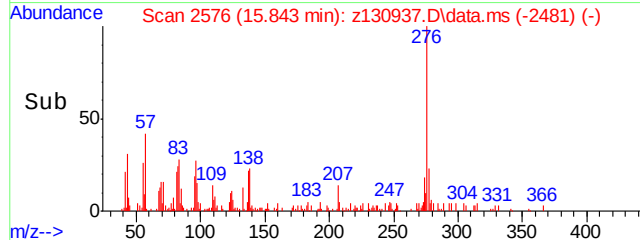
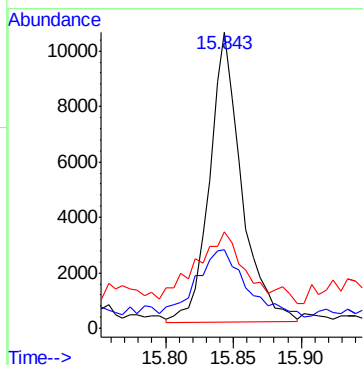
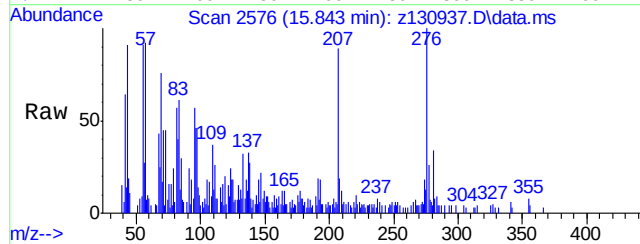
Tgt	Ion	Ratio	Resp	Lower	Upper
252	100		23875		
253	19.8	0.0	51.1		
125	8.9	0.0	47.3		





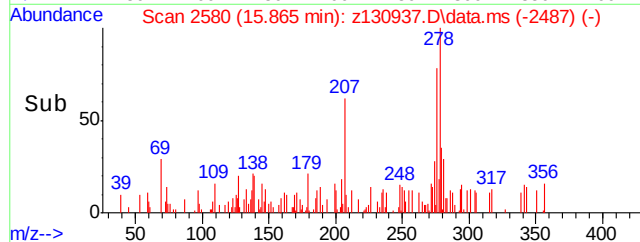
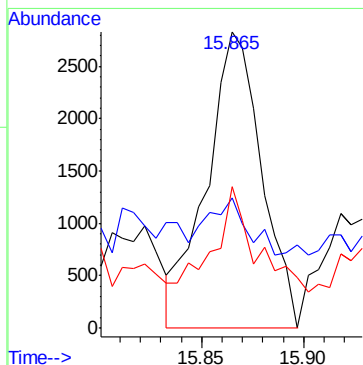
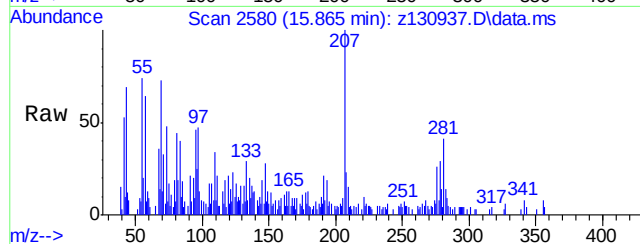
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 1.34 ppm
 RT: 15.843 min Scan# 2576
 Delta R.T. 0.005 min
 Lab File: z130937.D
 Acq: 23 May 2018 3:49 pm

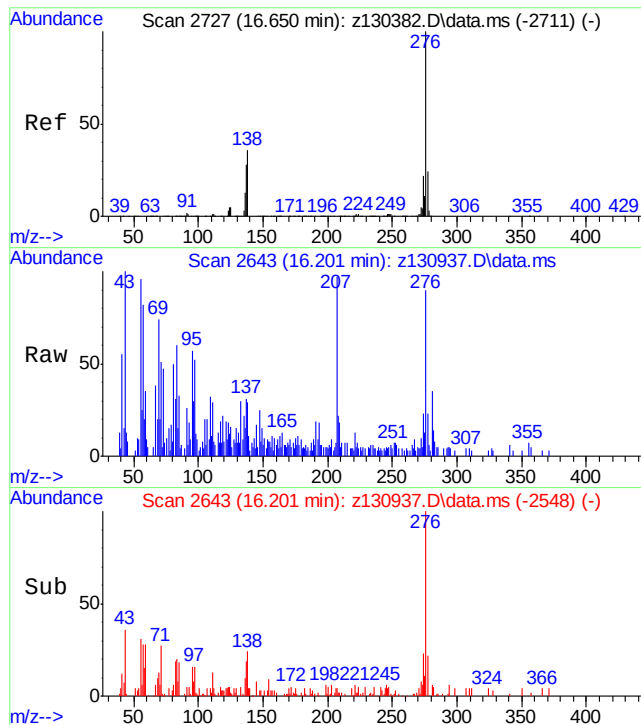
Tgt Ion:	276	Resp:	17153
Ion Ratio		Lower	Upper
276	100		
138	20.9	1.5	61.5
137	22.5	0.0	50.0



#98
 Dibenz[a,h]anthracene
 Concen: 0.41 ppm
 RT: 15.865 min Scan# 2580
 Delta R.T. -0.005 min
 Lab File: z130937.D
 Acq: 23 May 2018 3:49 pm

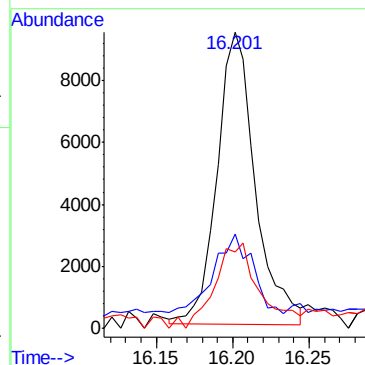
Tgt Ion:	278	Resp:	5331
Ion Ratio		Lower	Upper
278	100		
139	13.2	0.0	55.8
279	34.8	0.0	53.0





#100
Benzo[g,h,i]perylene
Concen: 1.27 ppm
RT: 16.201 min Scan# 2643
Delta R.T. 0.005 min
Lab File: z130937.D
Acq: 23 May 2018 3:49 pm

Tgt Ion:	276	Resp:	16424
Ion Ratio		Lower	Upper
276	100		
138	26.2	7.0	67.0
277	25.1	0.0	54.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6455\
 Data File : z130936.D
 Acq On : 23 May 2018 3:21 pm
 Operator : johnb1
 Sample : jc65799-2
 Misc : op11924,ez6455,30.4,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 23 16:52:31 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 QLast Update : Mon May 21 13:38:40 2018
 Response via : Initial Calibration

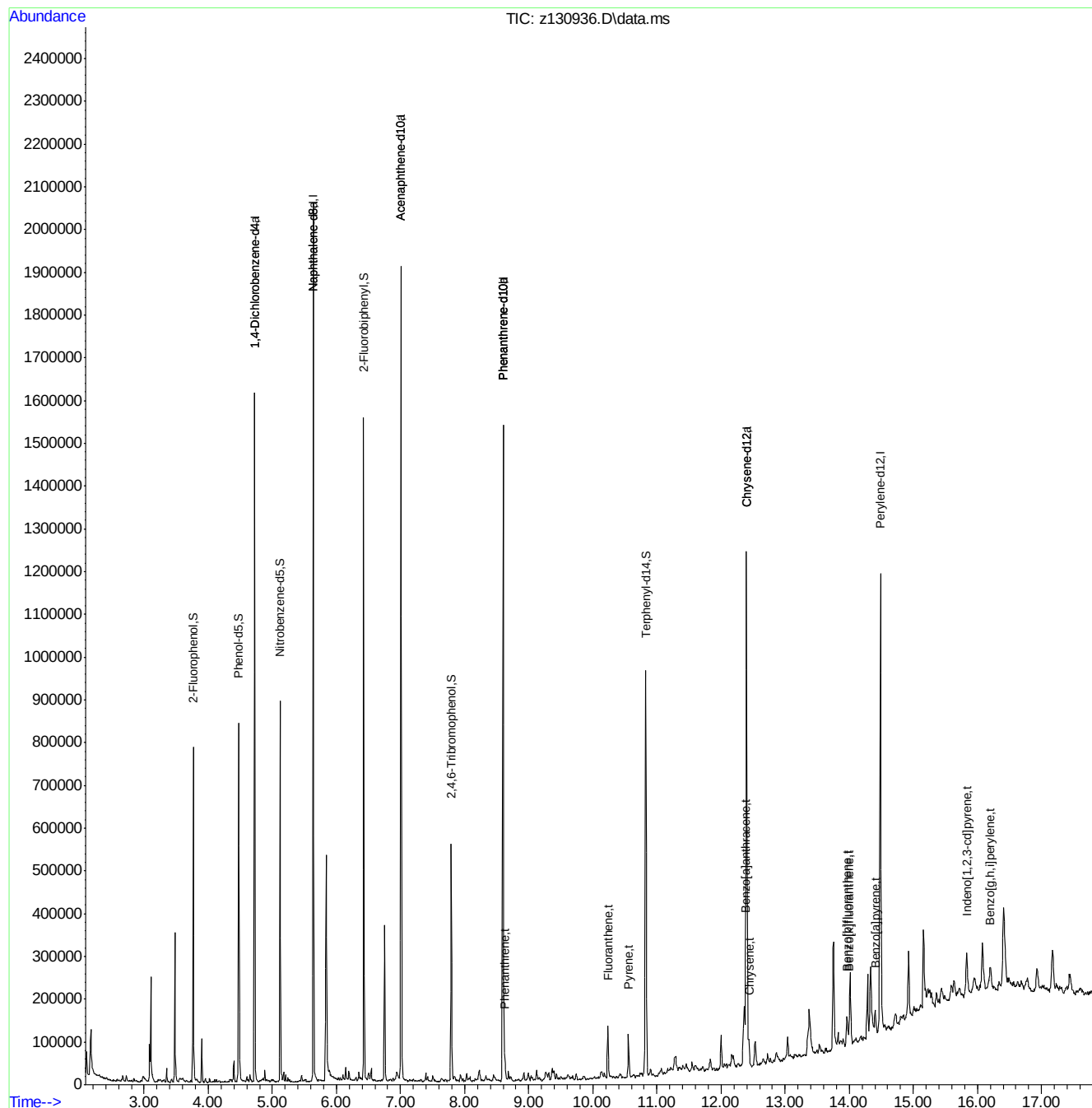
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.721	152	180500	40.00	ppm	0.00
24) Naphthalene-d8	5.640	136	717972	40.00	ppm	0.00
47) Acenaphthene-d10	7.007	164	356413	40.00	ppm	0.00
69) Phenanthrene-d10	8.599	188	639756	40.00	ppm	0.00
83) Chrysene-d12	12.398	240	497805	40.00	ppm	0.00
91) Perylene-d12	14.486	264	496785	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4a	4.721	152	180500	40.00	ppm	0.00
103) Phenanthrene-d10a	8.599	188	639756	40.00	ppm	0.00
107) Chrysene-d12a	12.398	240	497805	40.00	ppm	0.00
109) Acenaphthene-d10a	7.007	164	356413	40.00	ppm	0.00
111) Naphthalene-d8a	5.640	136	717972	40.00	ppm	0.00
113) Phenanthrene-d10b	8.599	188	639756	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.765	112	182190	27.10	ppm	0.01
Spiked Amount 50.000			Recovery	=	54.20%	
8) Phenol-d5	4.475	99	233516	28.94	ppm	0.00
Spiked Amount 50.000			Recovery	=	57.88%	
25) Nitrobenzene-d5	5.121	82	208094	33.39	ppm	0.00
Spiked Amount 50.000			Recovery	=	66.78%	
51) 2-Fluorobiphenyl	6.425	172	385952	30.90	ppm	0.00
Spiked Amount 50.000			Recovery	=	61.80%	
73) 2,4,6-Tribromophenol	7.793	330	61557	31.18	ppm	0.00
Spiked Amount 50.000			Recovery	=	62.36%	
85) Terphenyl-d14	10.827	244	376911	31.91	ppm	0.00
Spiked Amount 50.000			Recovery	=	63.82%	
104) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
105) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						
77) Phenanthrene	8.626	178	15434	0.90	ppm	95
81) Fluoranthene	10.234	202	53555	2.87	ppm	90
84) Pyrene	10.555	202	43632	2.57	ppm	99
87) Benzo[a]anthracene	12.382	228	22580	1.44	ppm	96
89) Chrysene	12.435	228	23659	1.61	ppm	94
93) Benzo[b]fluoranthene	13.963	252	38060	2.26	ppm	94
94) Benzo[k]fluoranthene	14.000	252	12873	0.82	ppm	86
95) Benzo[a]pyrene	14.406	252	23501	1.57	ppm	92
96) Indeno[1,2,3-cd]pyrene	15.838	276	19864	1.51	ppm	99
100) Benzo[g,h,i]perylene	16.201	276	18483	1.38	ppm	82

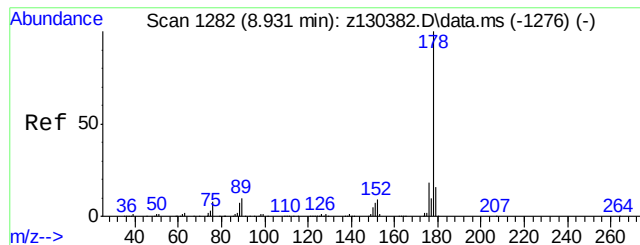
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6455\
Data File : z130936.D
Acq On : 23 May 2018 3:21 pm
Operator : johnb1
Sample : jc65799-2
Misc : op11924,ez6455,30.4,,,1,1
ALS Vial : 12 Sample Multiplier: 1

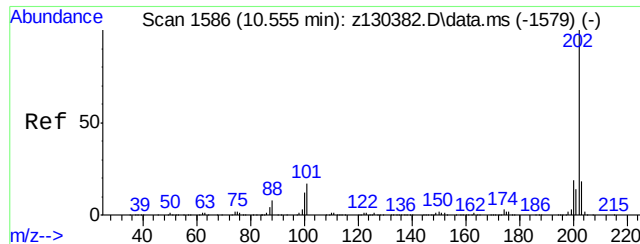
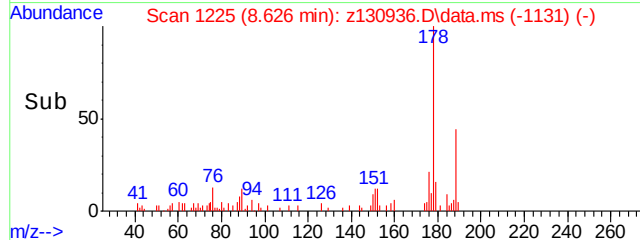
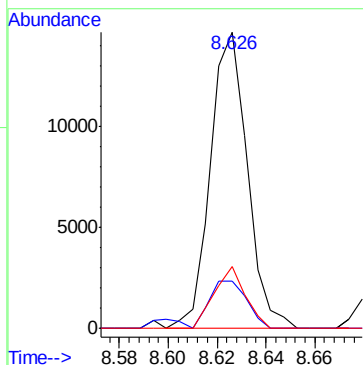
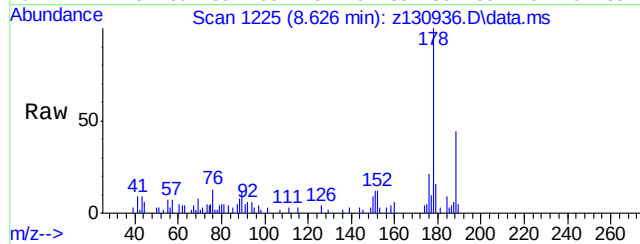
Quant Time: May 23 16:52:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Mon May 21 13:38:40 2018
Response via : Initial Calibration





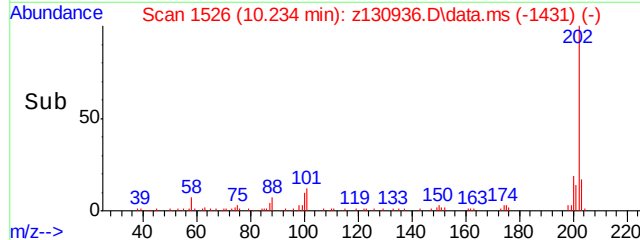
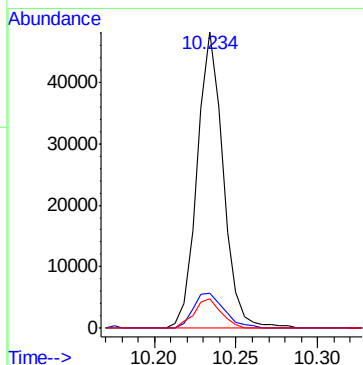
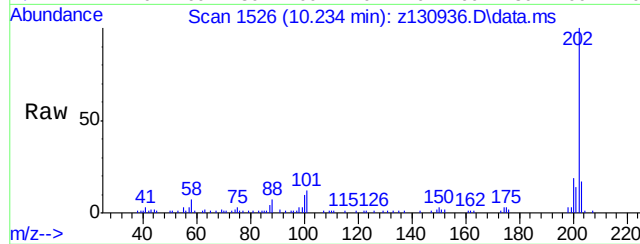
#77
Phenanthrene
Concen: 0.90 ppm
RT: 8.626 min Scan# 1225
Delta R.T. 0.000 min
Lab File: z130936.D
Acq: 23 May 2018 3:21 pm

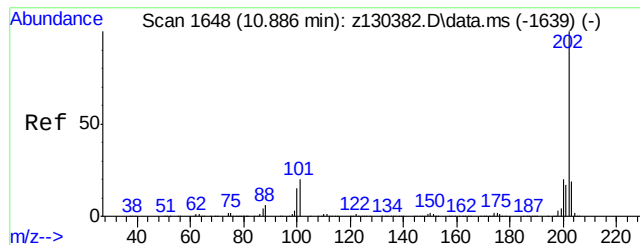
Tgt Ion	Ratio	Lower	Upper
178	100		
179	14.3	0.0	46.3
176	20.7	0.0	48.1



#81
Fluoranthene
Concen: 2.87 ppm
RT: 10.234 min Scan# 1526
Delta R.T. 0.005 min
Lab File: z130936.D
Acq: 23 May 2018 3:21 pm

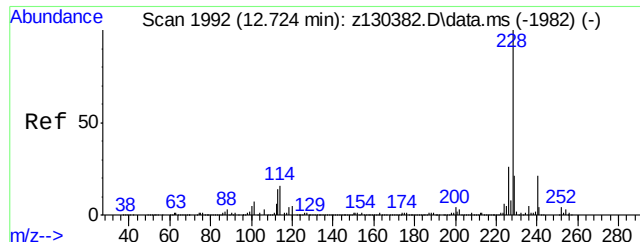
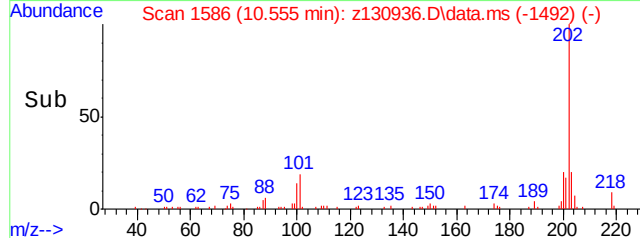
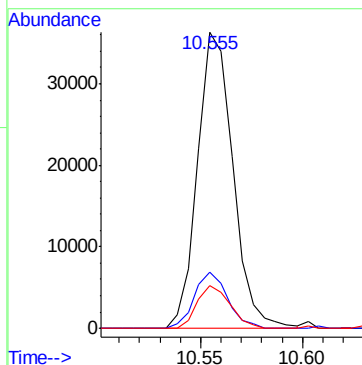
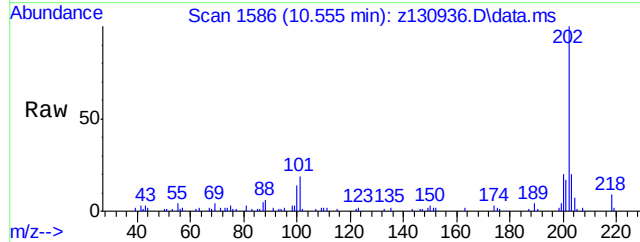
Tgt Ion	Ratio	Lower	Upper
202	100		
101	11.9	0.0	47.2
100	9.8	0.0	42.3





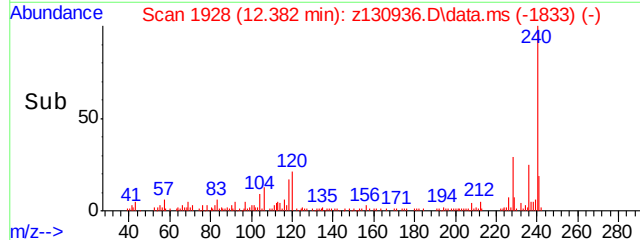
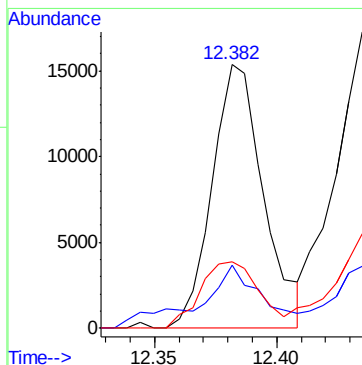
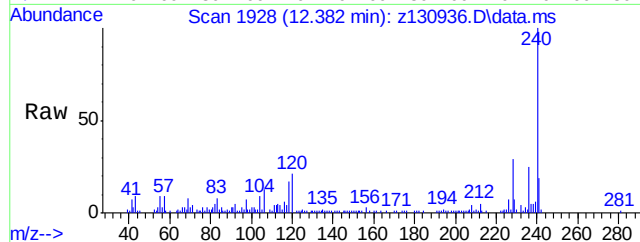
#84
 Pyrene
 Concen: 2.57 ppm
 RT: 10.555 min Scan# 1586
 Delta R.T. 0.000 min
 Lab File: z130936.D
 Acq: 23 May 2018 3:21 pm

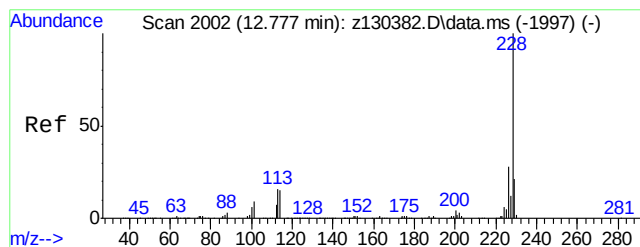
Tgt Ion:	202	Resp:	43632
Ion Ratio	Lower	Upper	
202	100		
101	19.2	0.0	49.8
100	14.5	0.0	44.6



#87
 Benzo[a]anthracene
 Concen: 1.44 ppm
 RT: 12.382 min Scan# 1928
 Delta R.T. 0.005 min
 Lab File: z130936.D
 Acq: 23 May 2018 3:21 pm

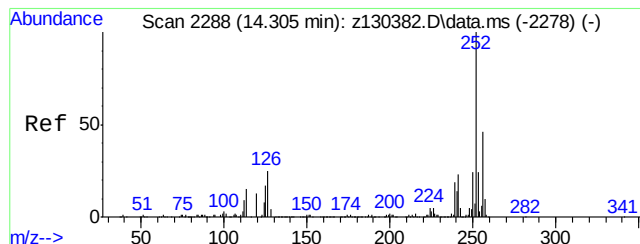
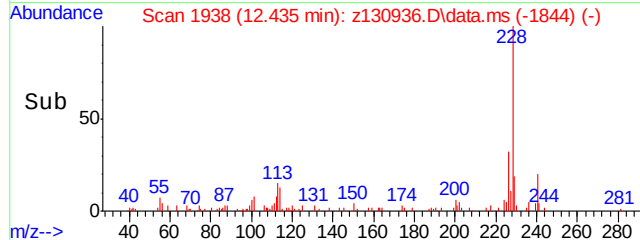
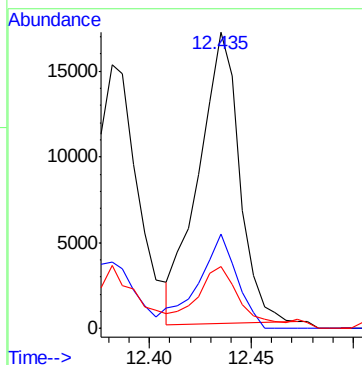
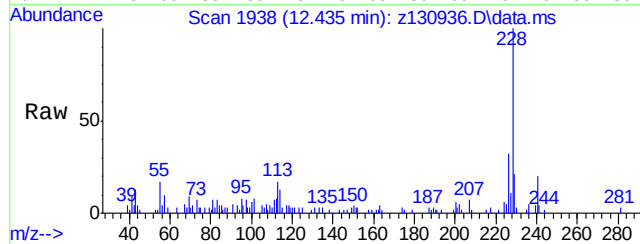
Tgt Ion:	228	Resp:	22580
Ion Ratio	Lower	Upper	
228	100		
229	19.2	0.0	50.7
226	23.5	0.0	56.2





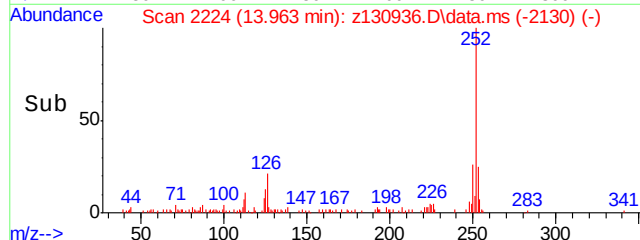
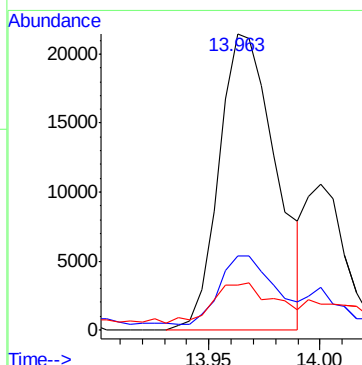
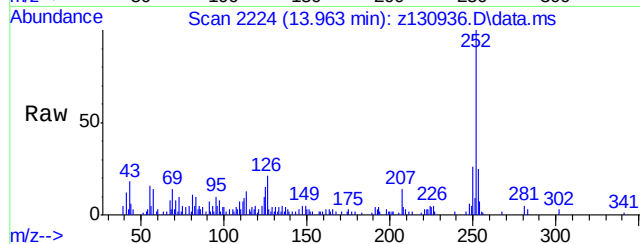
#89
Chrysene
Concen: 1.61 ppm
RT: 12.435 min Scan# 1938
Delta R.T. 0.000 min
Lab File: z130936.D
Acq: 23 May 2018 3:21 pm

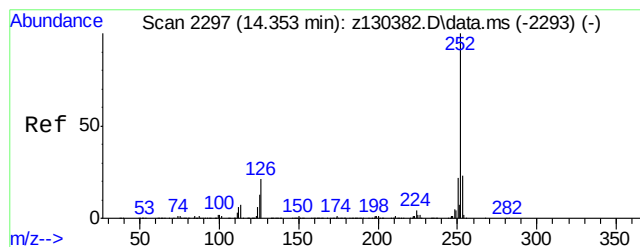
Tgt Ion:	228	Resp:	23659
Ion Ratio	Lower	Upper	
228	100		
226	31.5	0.0	58.0
229	18.6	0.0	50.8



#93
Benzo[b]fluoranthene
Concen: 2.26 ppm
RT: 13.963 min Scan# 2224
Delta R.T. 0.000 min
Lab File: z130936.D
Acq: 23 May 2018 3:21 pm

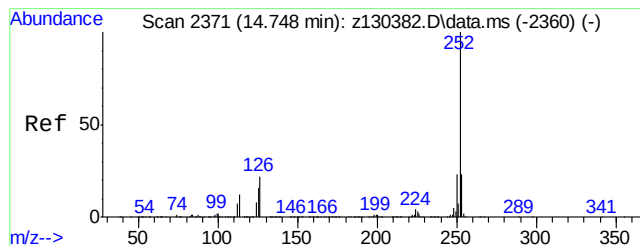
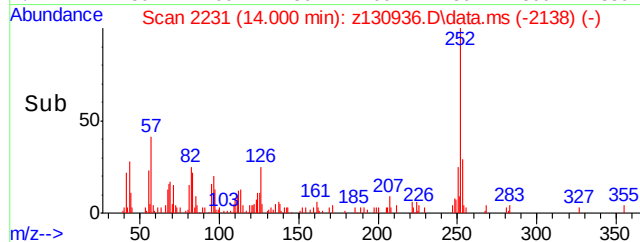
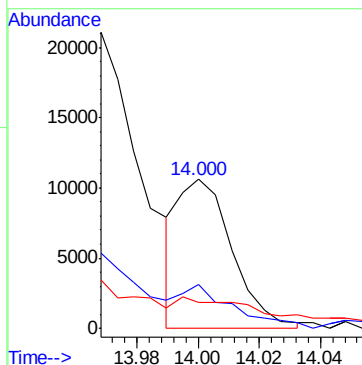
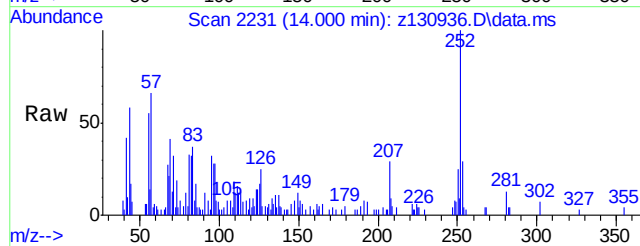
Tgt Ion:	252	Resp:	38060
Ion Ratio	Lower	Upper	
252	100		
253	23.3	0.0	52.0
125	13.1	0.0	47.1





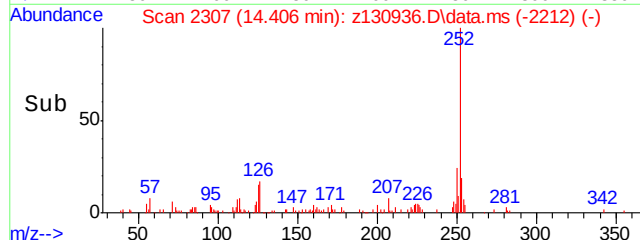
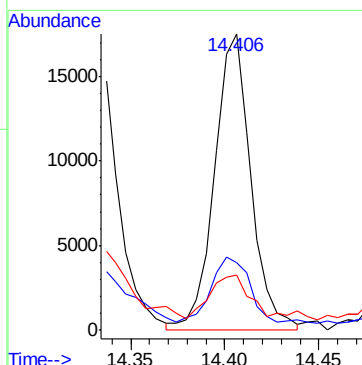
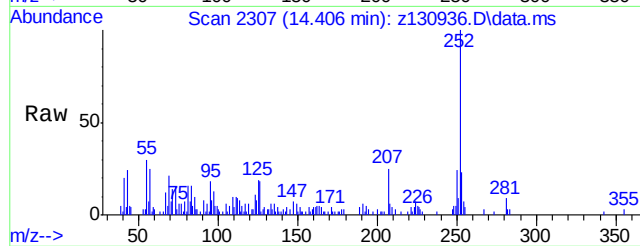
#94
Benzo[k]fluoranthene
Concen: 0.82 ppm
RT: 14.000 min Scan# 2231
Delta R.T. -0.005 min
Lab File: z130936.D
Acq: 23 May 2018 3:21 pm

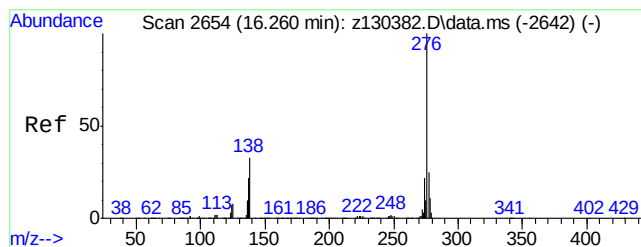
Tgt	Ion:252	Resp:	12873
Ion	Ratio	Lower	Upper
252	100		
253	29.6	0.0	52.1
125	9.6	0.0	44.9



#95
Benzo[a]pyrene
Concen: 1.57 ppm
RT: 14.406 min Scan# 2307
Delta R.T. 0.005 min
Lab File: z130936.D
Acq: 23 May 2018 3:21 pm

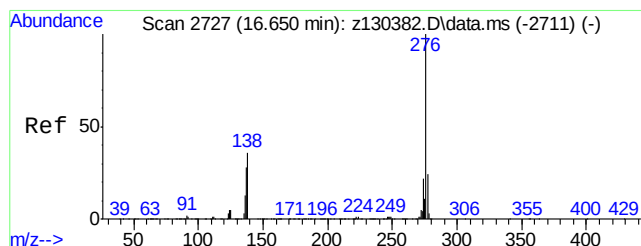
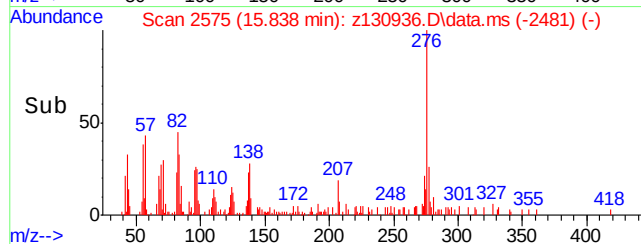
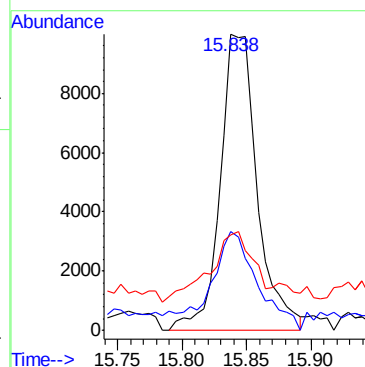
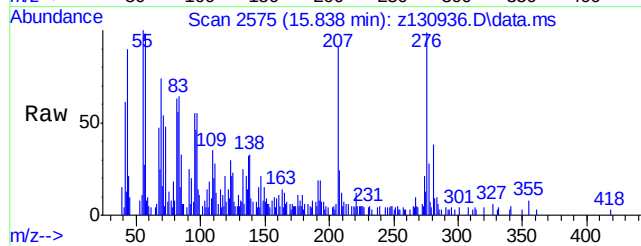
Tgt	Ion:252	Resp:	23501
Ion	Ratio	Lower	Upper
252	100		
253	19.6	0.0	51.1
125	11.5	0.0	47.3





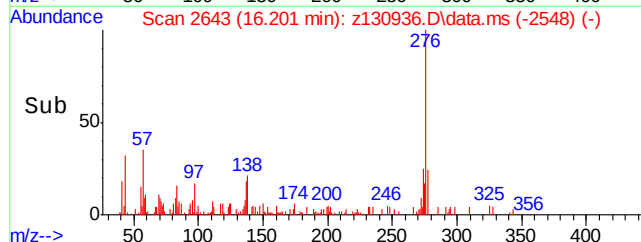
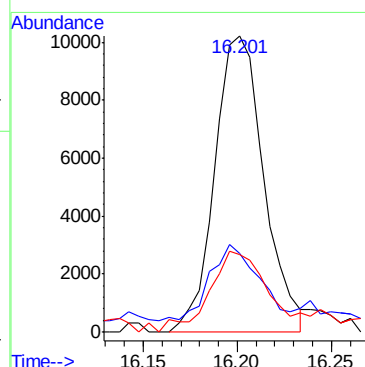
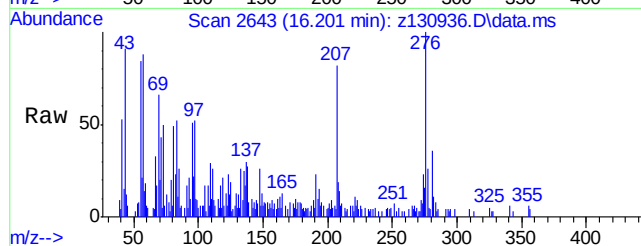
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 1.51 ppm
 RT: 15.838 min Scan# 2575
 Delta R.T. 0.000 min
 Lab File: z130936.D
 Acq: 23 May 2018 3:21 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	30.9	1.5	61.5
137	20.6	0.0	50.0



#100
 Benzo[g,h,i]perylene
 Concen: 1.38 ppm
 RT: 16.201 min Scan# 2643
 Delta R.T. 0.005 min
 Lab File: z130936.D
 Acq: 23 May 2018 3:21 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	20.9	7.0	67.0
277	21.9	0.0	54.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6455\
 Data File : z130935.D
 Acq On : 23 May 2018 2:54 pm
 Operator : johnb1
 Sample : jc65799-3
 Misc : op11924,eZ6455,31.6,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 23 16:51:10 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 QLast Update : Mon May 21 13:38:40 2018
 Response via : Initial Calibration

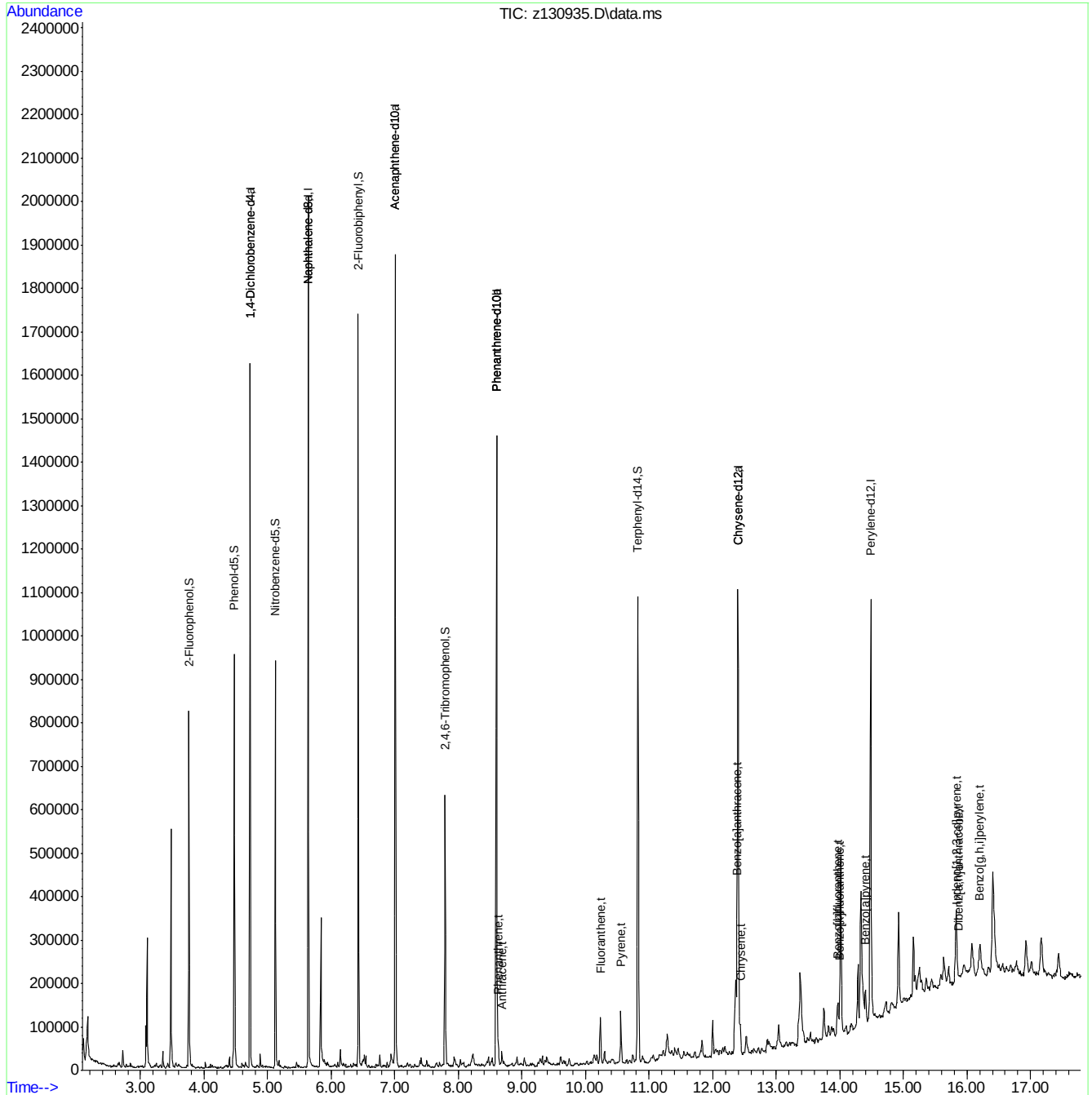
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.721	152	187950	40.00	ppm	0.00
24) Naphthalene-d8	5.640	136	721924	40.00	ppm	0.00
47) Acenaphthene-d10	7.007	164	353376	40.00	ppm	0.00
69) Phenanthrene-d10	8.599	188	611755	40.00	ppm	0.00
83) Chrysene-d12	12.398	240	458660	40.00	ppm	0.00
91) Perylene-d12	14.486	264	457302	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4a	4.721	152	187950	40.00	ppm	0.00
103) Phenanthrene-d10a	8.599	188	611755	40.00	ppm	0.00
107) Chrysene-d12a	12.398	240	458660	40.00	ppm	0.00
109) Acenaphthene-d10a	7.007	164	353376	40.00	ppm	0.00
111) Naphthalene-d8a	5.640	136	721924	40.00	ppm	0.00
113) Phenanthrene-d10b	8.599	188	611755	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.759	112	199315	28.47	ppm	0.00
Spiked Amount 50.000			Recovery	=	56.94%	
8) Phenol-d5	4.475	99	261730	31.15	ppm	0.00
Spiked Amount 50.000			Recovery	=	62.30%	
25) Nitrobenzene-d5	5.121	82	225081	35.92	ppm	0.00
Spiked Amount 50.000			Recovery	=	71.84%	
51) 2-Fluorobiphenyl	6.425	172	426777	34.46	ppm	0.00
Spiked Amount 50.000			Recovery	=	68.92%	
73) 2,4,6-Tribromophenol	7.793	330	69678	36.91	ppm	0.00
Spiked Amount 50.000			Recovery	=	73.82%	
85) Terphenyl-d14	10.822	244	423837	38.95	ppm	0.00
Spiked Amount 50.000			Recovery	=	77.90%	
104) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
105) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
77) Phenanthrene	8.626	178	17610	1.08	ppm	97
78) Anthracene	8.690	178	8962	0.54	ppm	97
81) Fluoranthene	10.234	202	49710	2.79	ppm	98
84) Pyrene	10.554	202	46445	2.97	ppm	98
87) Benzo[a]anthracene	12.382	228	30772	2.14	ppm	95
89) Chrysene	12.435	228	28535	2.11	ppm	97
93) Benzo[b]fluoranthene	13.963	252	44381	2.86	ppm	91
94) Benzo[k]fluoranthene	13.995	252	15074	1.04	ppm	94
95) Benzo[a]pyrene	14.401	252	31291	2.27	ppm	91
96) Indeno[1,2,3-cd]pyrene	15.843	276	23074	1.91	ppm	91
98) Dibenz[a,h]anthracene	15.865	278	5181m	0.42	ppm	
100) Benzo[g,h,i]perylene	16.196	276	21287	1.73	ppm	97

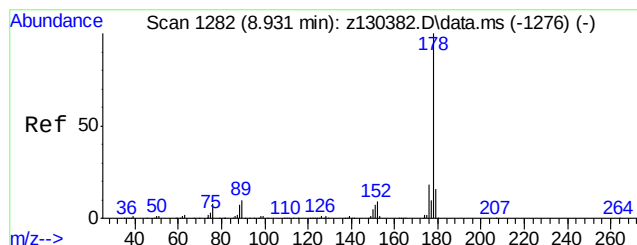
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\EZ6455\  
Data File : z130935.D  
Acq On    : 23 May 2018    2:54 pm  
Operator  : johnb1  
Sample    : jc65799-3  
Misc      : op11924, ez6455, 31.6, , , 1, 1  
ALS Vial  : 11    Sample Multiplier: 1
```

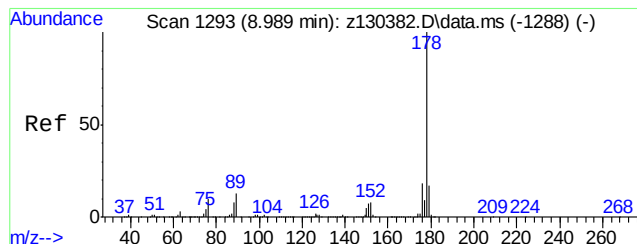
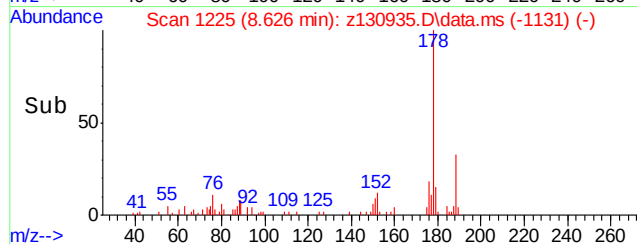
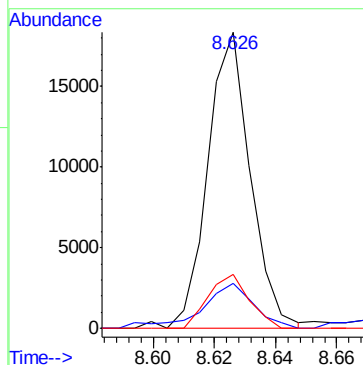
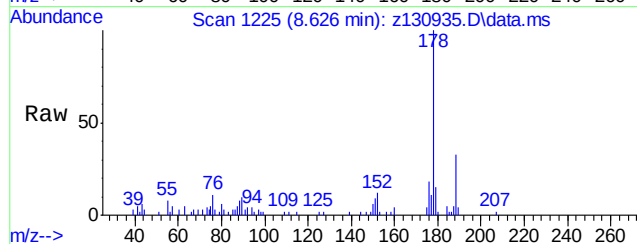
Quant Time: May 23 16:51:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Mon May 21 13:38:40 2018
Response via : Initial Calibration





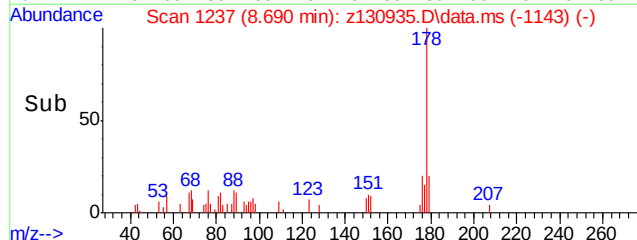
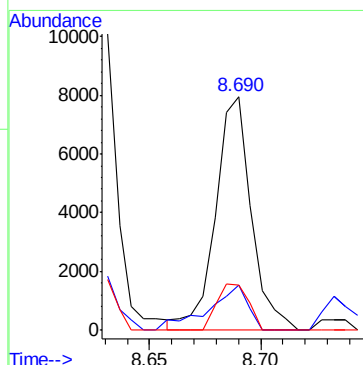
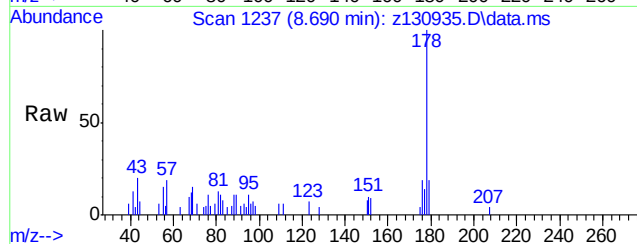
#77
Phenanthrene
Concen: 1.08 ppm
RT: 8.626 min Scan# 1225
Delta R.T. -0.000 min
Lab File: z130935.D
Acq: 23 May 2018 2:54 pm

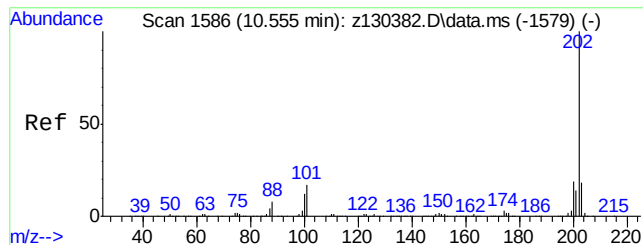
Tgt Ion	Ratio	Lower	Upper
178	100		
179	14.2	0.0	46.3
176	18.5	0.0	48.1



#78
Anthracene
Concen: 0.54 ppm
RT: 8.690 min Scan# 1237
Delta R.T. -0.000 min
Lab File: z130935.D
Acq: 23 May 2018 2:54 pm

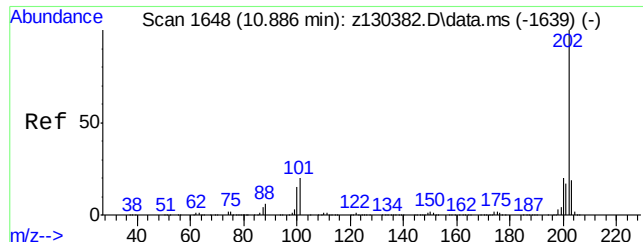
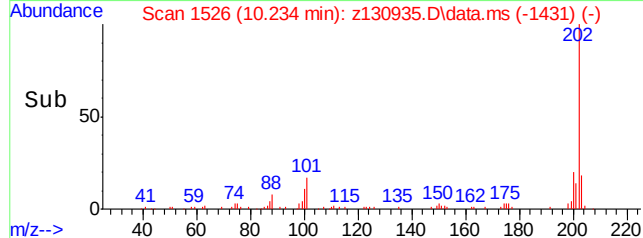
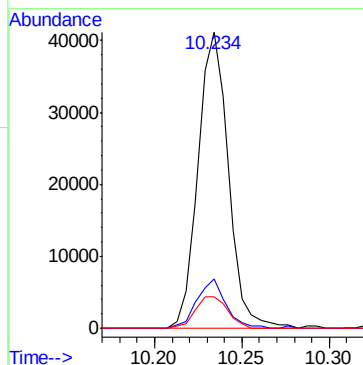
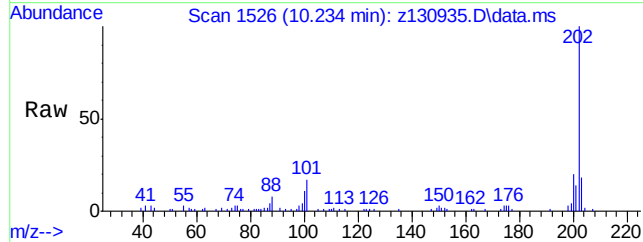
Tgt Ion	Ratio	Lower	Upper
178	100		
179	17.5	0.0	46.9
176	19.6	0.0	48.0





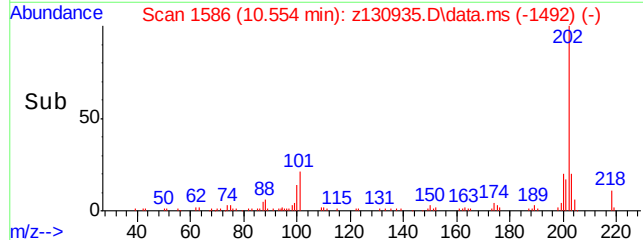
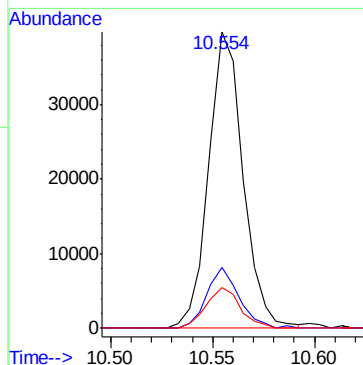
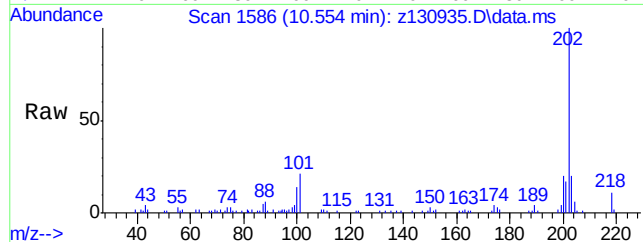
#81
Fluoranthene
Concen: 2.79 ppm
RT: 10.234 min Scan# 1526
Delta R.T. 0.005 min
Lab File: z130935.D
Acq: 23 May 2018 2:54 pm

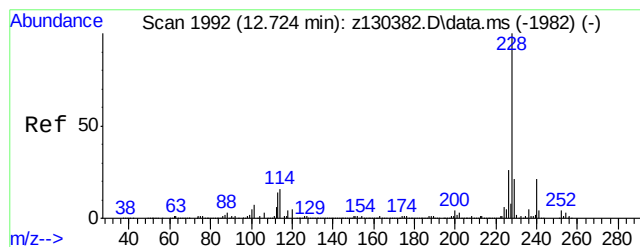
Tgt	Ion:202	Resp:	49710
Ion	Ratio	Lower	Upper
202	100		
101	16.8	0.0	47.2
100	10.7	0.0	42.3



#84
Pyrene
Concen: 2.97 ppm
RT: 10.554 min Scan# 1586
Delta R.T. -0.000 min
Lab File: z130935.D
Acq: 23 May 2018 2:54 pm

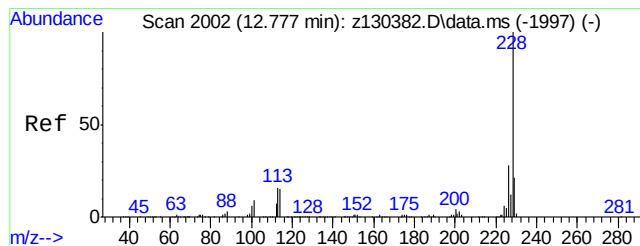
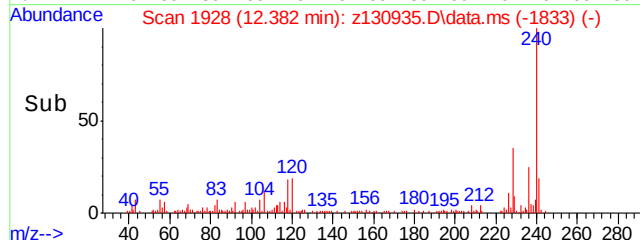
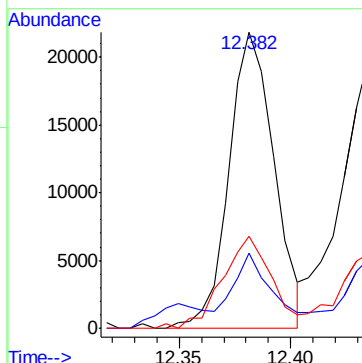
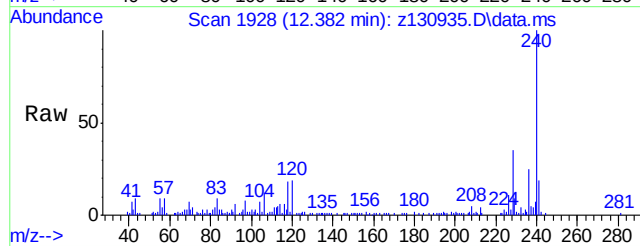
Tgt	Ion:202	Resp:	46445
Ion	Ratio	Lower	Upper
202	100		
101	20.8	0.0	49.8
100	13.8	0.0	44.6





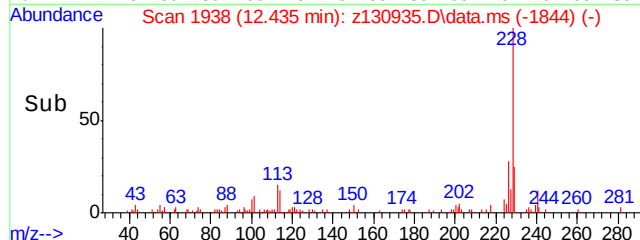
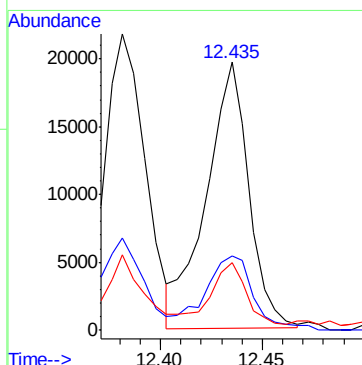
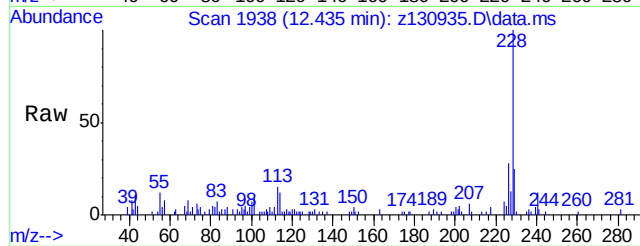
#87
Benzo[a]anthracene
Concen: 2.14 ppm
RT: 12.382 min Scan# 1928
Delta R.T. 0.005 min
Lab File: z130935.D
Acq: 23 May 2018 2:54 pm

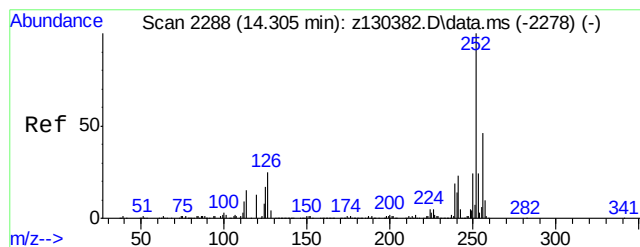
Tgt	Ion:228	Resp:	30772
Ion	Ratio	Lower	Upper
228	100		
229	20.8	0.0	50.7
226	30.5	0.0	56.2



#89
Chrysene
Concen: 2.11 ppm
RT: 12.435 min Scan# 1938
Delta R.T. -0.000 min
Lab File: z130935.D
Acq: 23 May 2018 2:54 pm

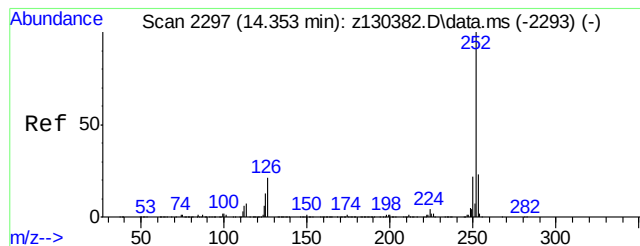
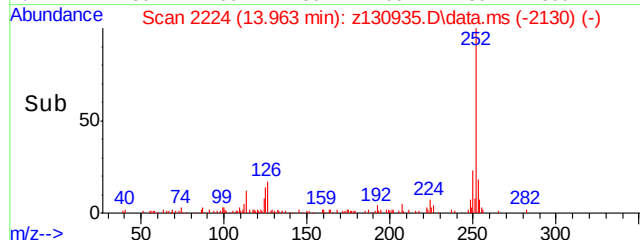
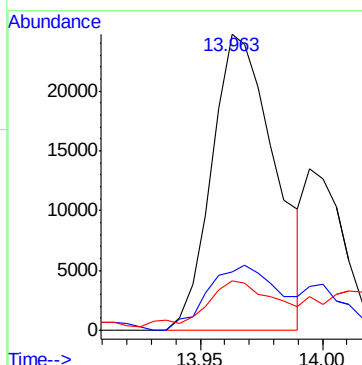
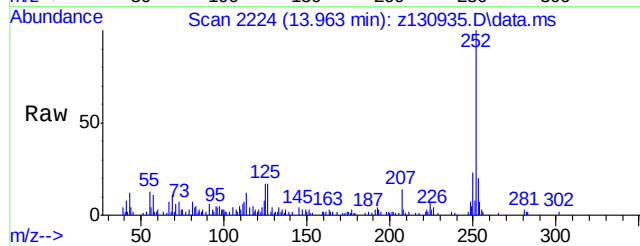
Tgt	Ion:228	Resp:	28535
Ion	Ratio	Lower	Upper
228	100		
226	26.8	0.0	58.0
229	22.7	0.0	50.8





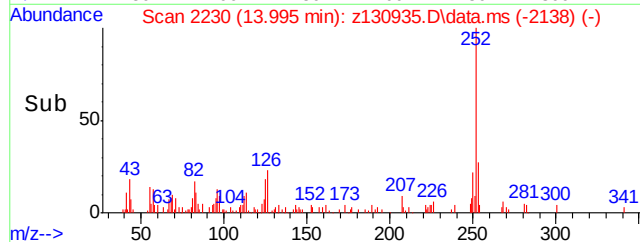
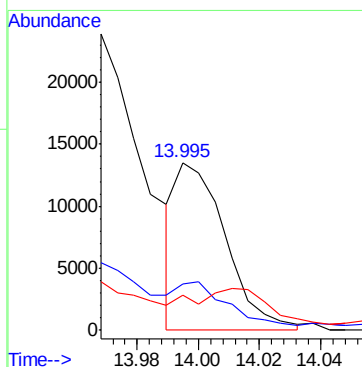
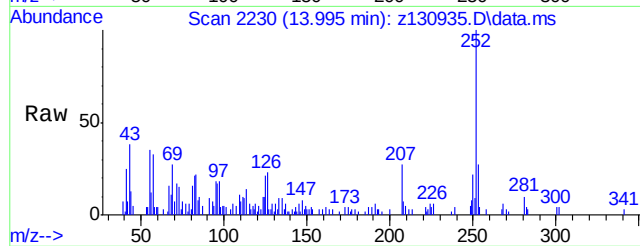
#93
Benzo[b]fluoranthene
Concen: 2.86 ppm
RT: 13.963 min Scan# 2224
Delta R.T. -0.000 min
Lab File: z130935.D
Acq: 23 May 2018 2:54 pm

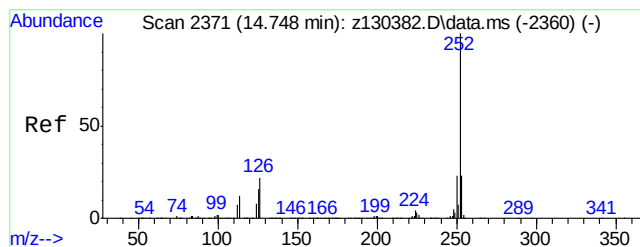
Tgt	Ion:252	Resp:	44381
Ion	Ratio	Lower	Upper
252	100		
253	17.7	0.0	52.0
125	13.7	0.0	47.1



#94
Benzo[k]fluoranthene
Concen: 1.04 ppm
RT: 13.995 min Scan# 2230
Delta R.T. -0.011 min
Lab File: z130935.D
Acq: 23 May 2018 2:54 pm

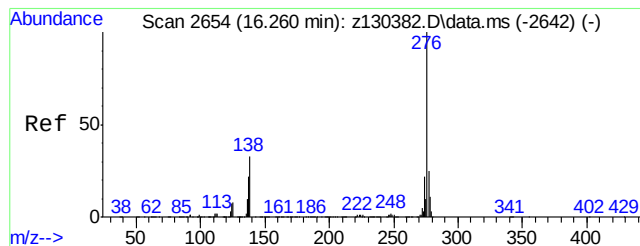
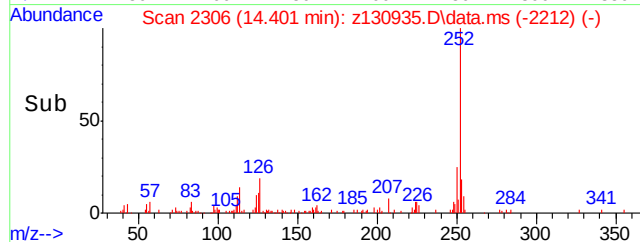
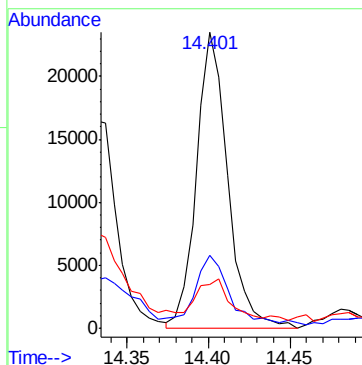
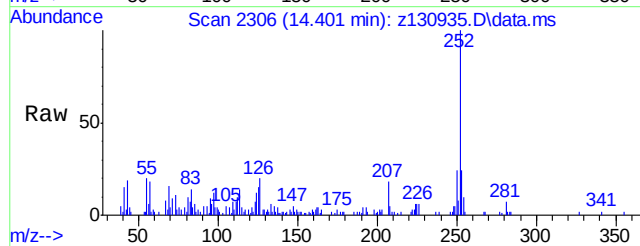
Tgt	Ion:252	Resp:	15074
Ion	Ratio	Lower	Upper
252	100		
253	25.2	0.0	52.1
125	17.1	0.0	44.9





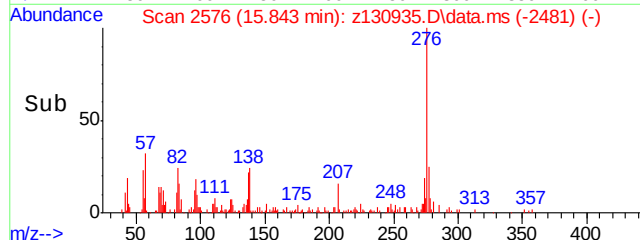
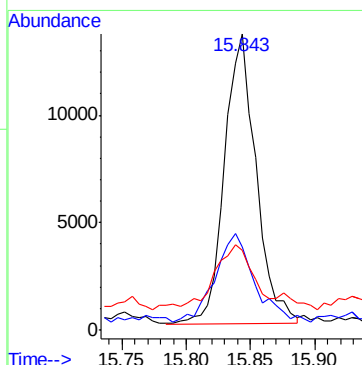
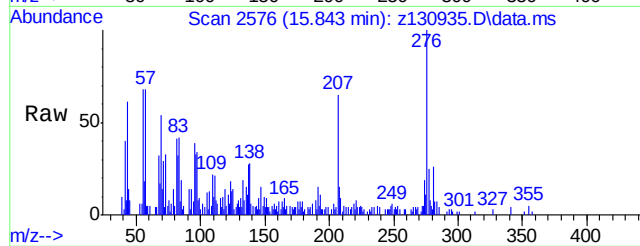
#95
Benzo[a]pyrene
Concen: 2.27 ppm
RT: 14.401 min Scan# 2306
Delta R.T. -0.000 min
Lab File: z130935.D
Acq: 23 May 2018 2:54 pm

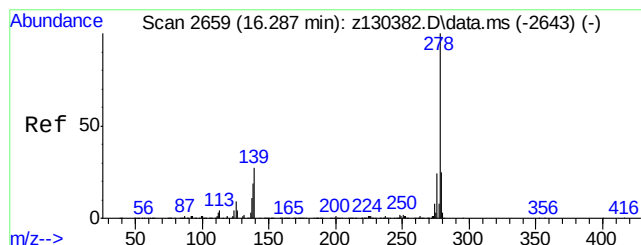
Tgt	Ion:252	Resp:	31291
Ion	Ratio	Lower	Upper
252	100		
253	22.1	0.0	51.1
125	9.8	0.0	47.3



#96
Indeno[1,2,3-cd]pyrene
Concen: 1.91 ppm
RT: 15.843 min Scan# 2576
Delta R.T. 0.005 min
Lab File: z130935.D
Acq: 23 May 2018 2:54 pm

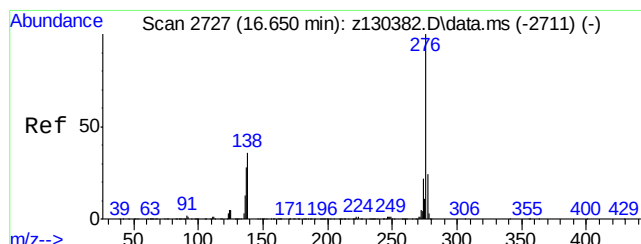
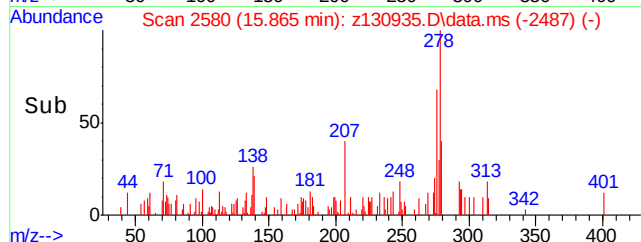
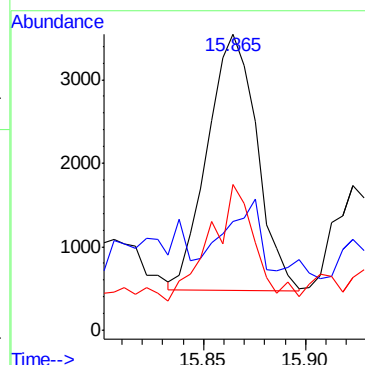
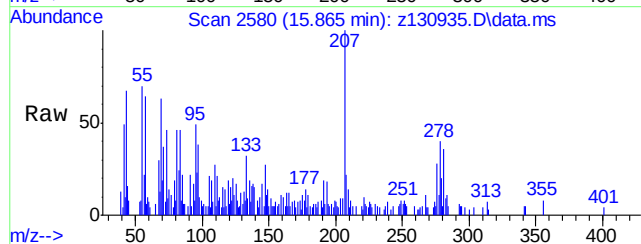
Tgt	Ion:276	Resp:	23074
Ion	Ratio	Lower	Upper
276	100		
138	24.3	1.5	61.5
137	19.0	0.0	50.0





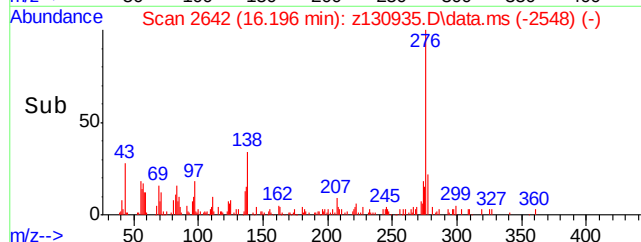
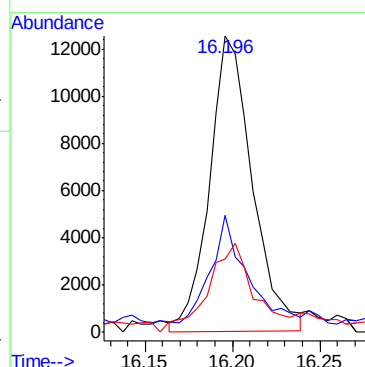
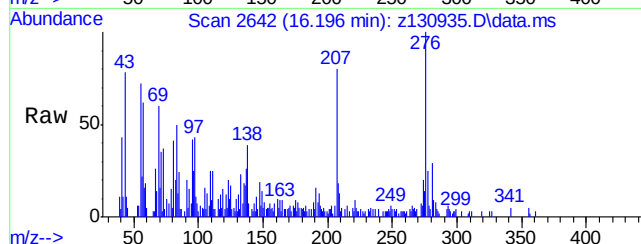
#98
Dibenzo[a,h]anthracene
Concen: 0.42 ppm
RT: 15.865 min Scan# 2580
Delta R.T. -0.005 min
Lab File: z130935.D
Acq: 23 May 2018 2:54 pm

Tgt Ion	Ratio	Lower	Upper
278	100		
139	36.6	0.0	55.8
279	49.2	0.0	53.0



#100
Benzo[g,h,i]perylene
Concen: 1.73 ppm
RT: 16.196 min Scan# 2642
Delta R.T. -0.000 min
Lab File: z130935.D
Acq: 23 May 2018 2:54 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	37.1	7.0	67.0
277	20.8	0.0	54.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6455\
 Data File : z130938.D
 Acq On : 23 May 2018 4:16 pm
 Operator : johnb1
 Sample : jc65799-4
 Misc : op11924,eZ6455,31.2,,,1,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 23 16:56:17 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 QLast Update : Mon May 21 13:38:40 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.721	152	171241	40.00	ppm	0.00
24) Naphthalene-d8	5.640	136	662445	40.00	ppm	0.00
47) Acenaphthene-d10	7.007	164	320977	40.00	ppm	0.00
69) Phenanthrene-d10	8.599	188	566633	40.00	ppm	0.00
83) Chrysene-d12	12.414	240	423254	40.00	ppm	0.02
91) Perylene-d12	14.503	264	467813	40.00	ppm	0.03
101) 1,4-Dichlorobenzene-d4a	4.721	152	171241	40.00	ppm	0.00
103) Phenanthrene-d10a	8.599	188	566633	40.00	ppm	0.00
107) Chrysene-d12a	12.414	240	423254	40.00	ppm	0.02
109) Acenaphthene-d10a	7.007	164	320977	40.00	ppm	0.00
111) Naphthalene-d8a	5.640	136	662445	40.00	ppm	0.00
113) Phenanthrene-d10b	8.599	188	566633	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.765	112	163008	25.55	ppm	0.01
Spiked Amount 50.000			Recovery	=	51.10%	
8) Phenol-d5	4.475	99	216916	28.33	ppm	0.00
Spiked Amount 50.000			Recovery	=	56.66%	
25) Nitrobenzene-d5	5.122	82	185109	32.19	ppm	0.00
Spiked Amount 50.000			Recovery	=	64.38%	
51) 2-Fluorobiphenyl	6.425	172	342820	30.48	ppm	0.00
Spiked Amount 50.000			Recovery	=	60.96%	
73) 2,4,6-Tribromophenol	7.793	330	57438	32.85	ppm	0.00
Spiked Amount 50.000			Recovery	=	65.70%	
85) Terphenyl-d14	10.827	244	315270	31.40	ppm	0.00
Spiked Amount 50.000			Recovery	=	62.80%	
104) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
105) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						
						Qvalue
38) Naphthalene	5.656	128	81859	4.86	ppm	97
44) 2-Methylnaphthalene	6.153	141	38353	3.74	ppm	87
56) Acenaphthylene	6.884	152	72219	4.58	ppm	96
59) Acenaphthene	7.034	153	12389	1.31	ppm	91
66) Fluorene	7.536	166	20568	1.93	ppm	97
77) Phenanthrene	8.626	178	293871	19.41	ppm	98
78) Anthracene	8.690	178	124944	8.16	ppm	96
79) Carbazole	8.899	167	49467	3.16	ppm	96
81) Fluoranthene	10.245	202	814133	49.24	ppm	90
84) Pyrene	10.565	202	795461	55.16	ppm	94
87) Benzo[a]anthracene	12.398	228	611784	46.00	ppm	97
89) Chrysene	12.451	228	528690	42.29	ppm	96
93) Benzo[b]fluoranthene	13.990	252	972888	61.27	ppm	95
94) Benzo[k]fluoranthene	14.022	252	293997	19.92	ppm	93
95) Benzo[a]pyrene	14.428	252	704809	50.04	ppm	92
96) Indeno[1,2,3-cd]pyrene	15.870	276	487376	39.40	ppm	87
98) Dibenz[a,h]anthracene	15.886	278	136880	10.82	ppm	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6455\
Data File : z130938.D
Acq On : 23 May 2018 4:16 pm
Operator : johnb1
Sample : jc65799-4
Misc : op11924,eZ6455,31.2,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 23 16:56:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Mon May 21 13:38:40 2018
Response via : Initial Calibration

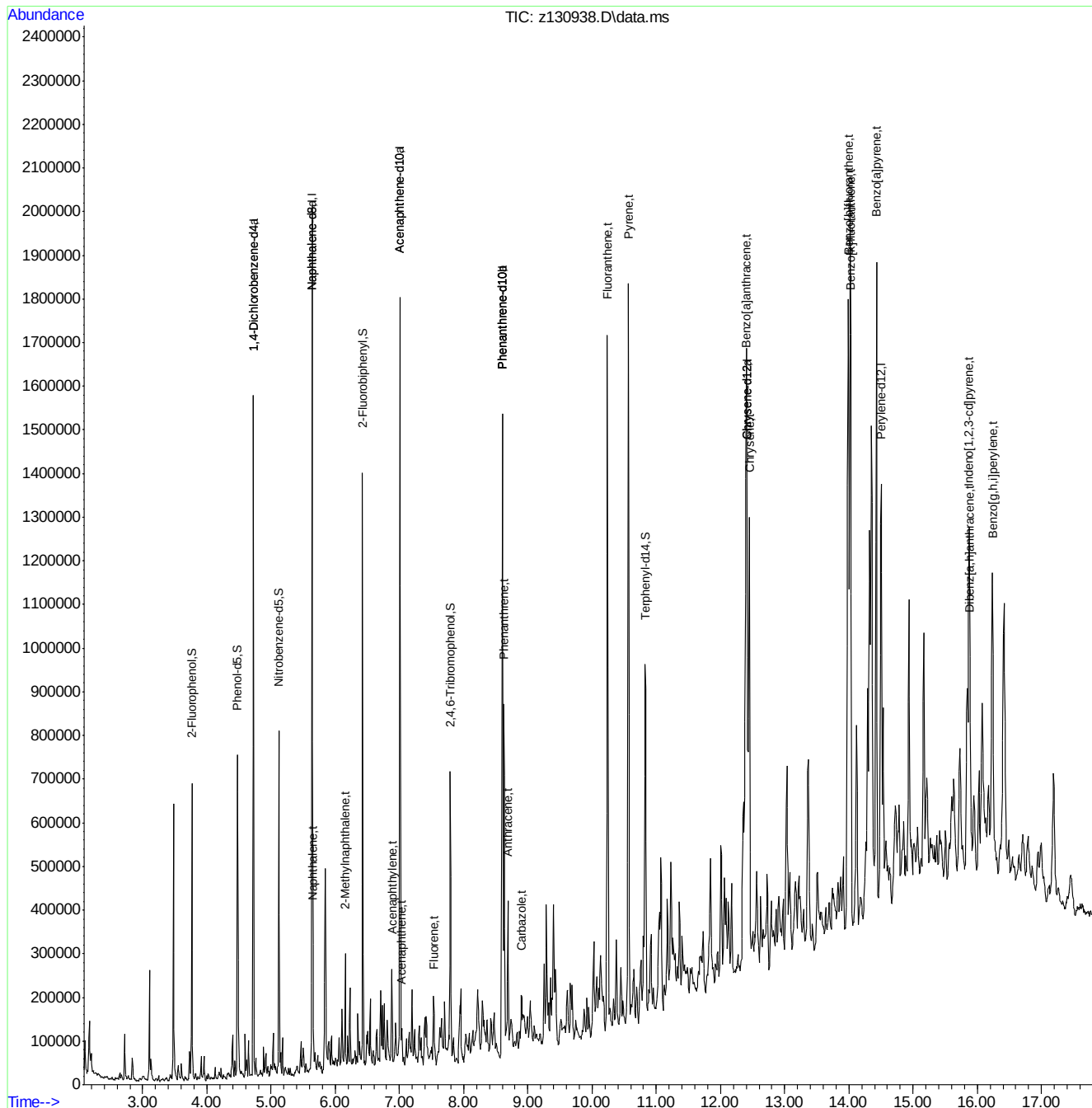
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) Benzo[g,h,i]perylene	16.239	276	438043	34.86	ppm	86

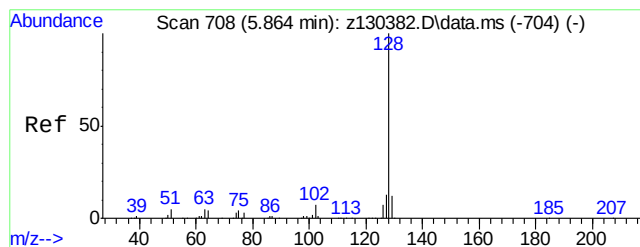
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

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Data Path   : C:\msdchem\1\DATA\EZ6455\  
Data File  : z130938.D  
Acq On     : 23 May 2018    4:16 pm  
Operator   : johnb1  
Sample     : jc65799-4  
Misc       : op11924,ez6455,31.2,,,1,1  
ALS Vial   : 14    Sample Multiplier: 1
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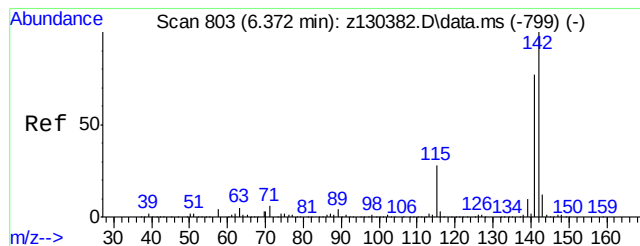
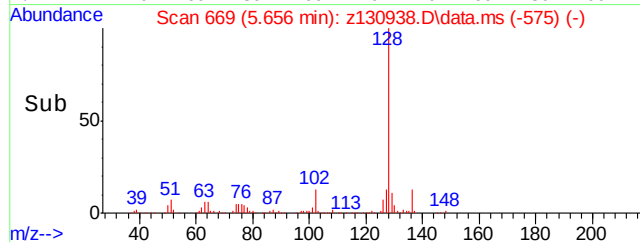
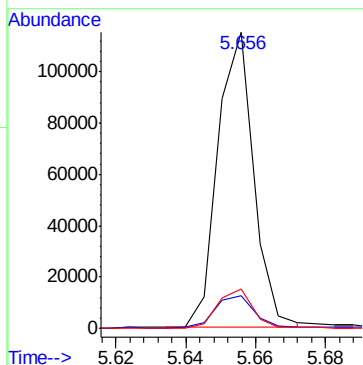
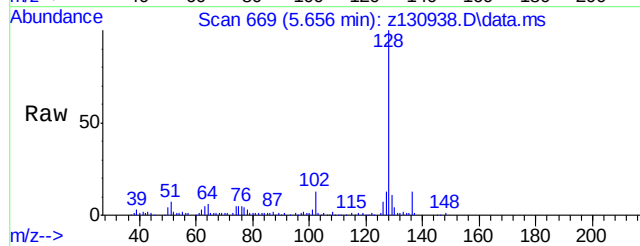
Quant Time: May 23 16:56:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Mon May 21 13:38:40 2018
Response via : Initial Calibration





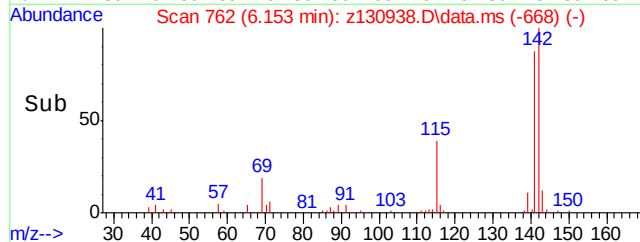
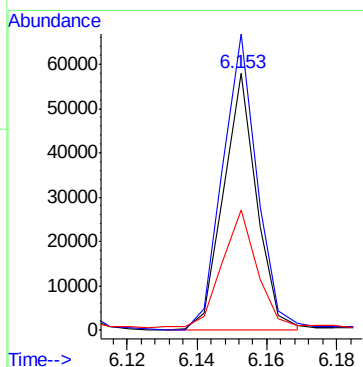
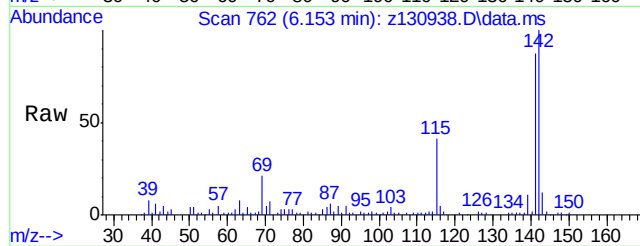
#38
Naphthalene
Concen: 4.86 ppm
RT: 5.656 min Scan# 669
Delta R.T. 0.000 min
Lab File: z130938.D
Acq: 23 May 2018 4:16 pm

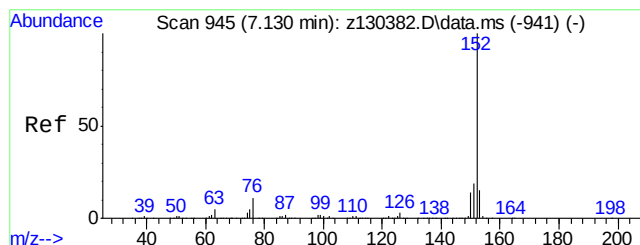
Tgt Ion	Ratio	Lower	Upper
128	100		
129	11.0	0.0	42.1
127	13.3	0.0	41.9



#44
2-Methylnaphthalene
Concen: 3.74 ppm
RT: 6.153 min Scan# 762
Delta R.T. 0.000 min
Lab File: z130938.D
Acq: 23 May 2018 4:16 pm

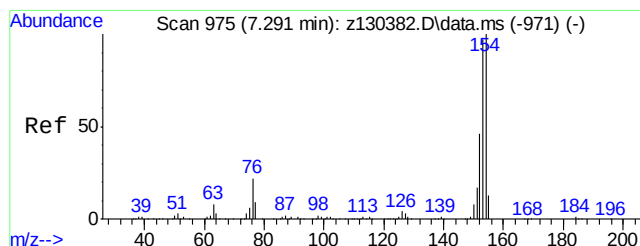
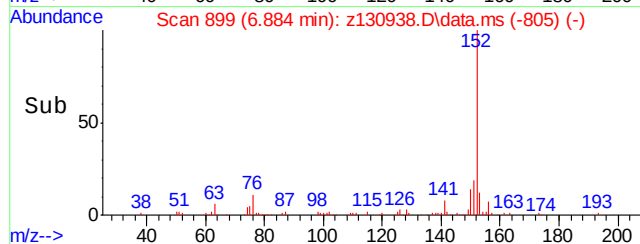
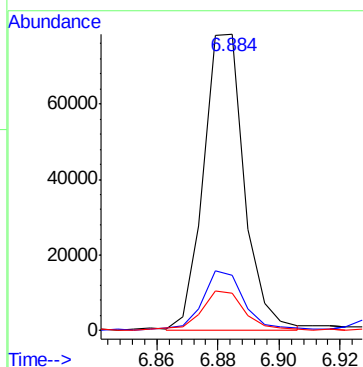
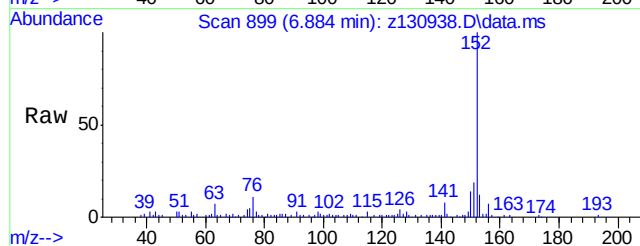
Tgt Ion	Ratio	Lower	Upper
141	100		
142	115.1	99.8	159.8
115	45.8	6.1	66.1





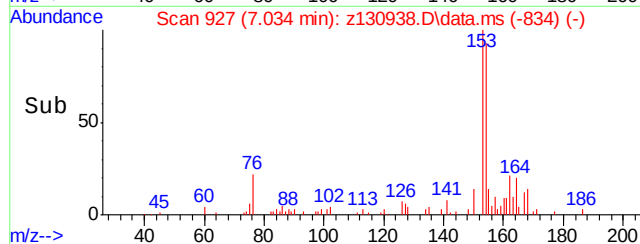
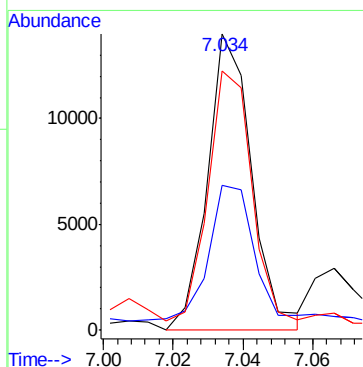
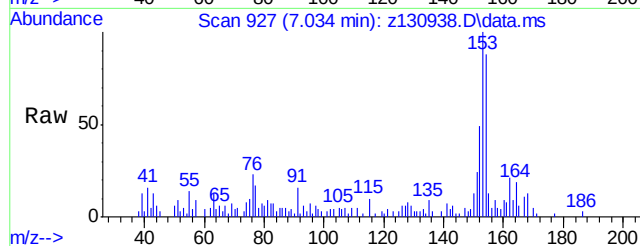
#56
Acenaphthylene
Concen: 4.58 ppm
RT: 6.884 min Scan# 899
Delta R.T. 0.000 min
Lab File: z130938.D
Acq: 23 May 2018 4:16 pm

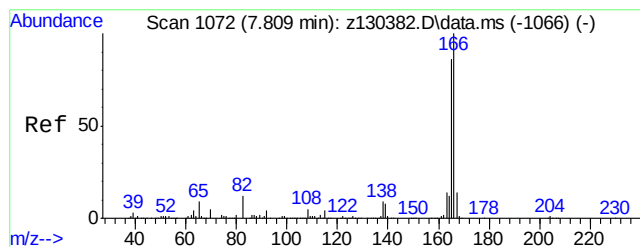
Tgt Ion:	152	Resp:	72219
Ion Ratio	Lower	Upper	
152	100		
151	18.1	0.0	49.4
153	11.9	0.0	44.5



#59
Acenaphthene
Concen: 1.31 ppm
RT: 7.034 min Scan# 927
Delta R.T. -0.005 min
Lab File: z130938.D
Acq: 23 May 2018 4:16 pm

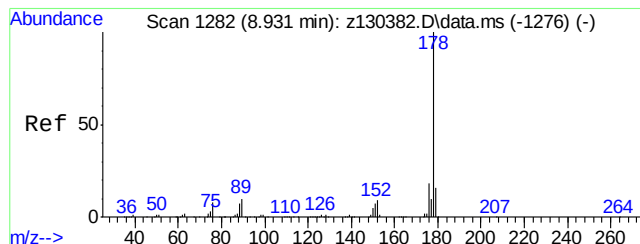
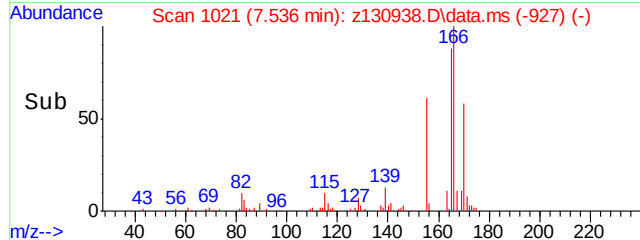
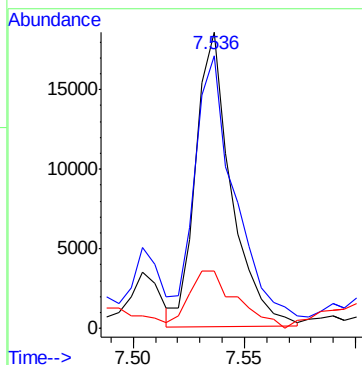
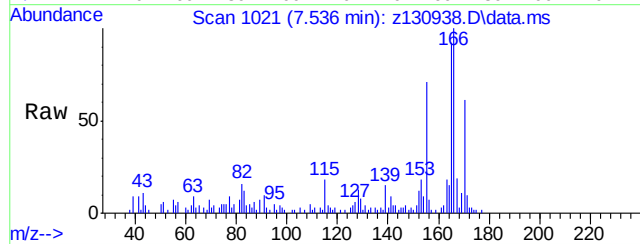
Tgt Ion:	153	Resp:	12389
Ion Ratio	Lower	Upper	
153	100		
152	45.9	16.8	76.8
154	86.9	69.7	129.7





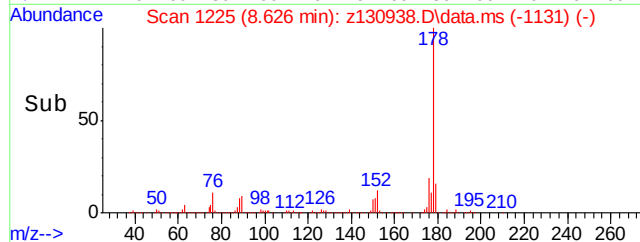
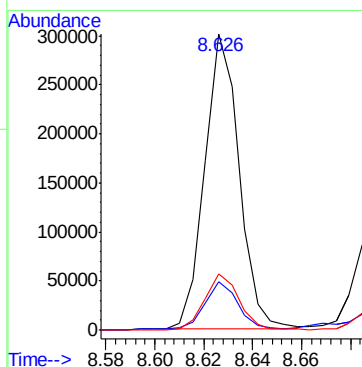
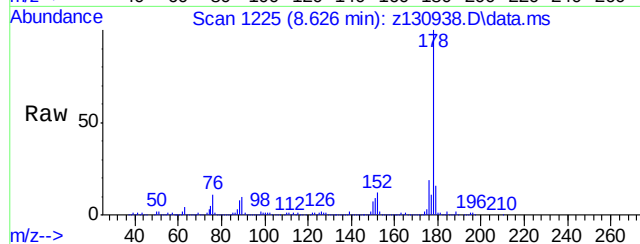
#66
 Fluorene
 Concen: 1.93 ppm
 RT: 7.536 min Scan# 1021
 Delta R.T. 0.000 min
 Lab File: z130938.D
 Acq: 23 May 2018 4:16 pm

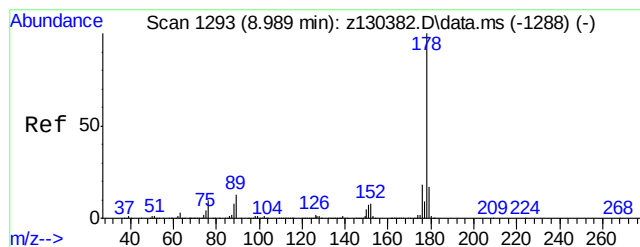
Tgt Ion:	166	Resp:	20568
Ion Ratio	Lower	Upper	
166	100		
165	88.5	56.3	116.3
167	17.8	0.0	44.1



#77
 Phenanthrene
 Concen: 19.41 ppm
 RT: 8.626 min Scan# 1225
 Delta R.T. 0.000 min
 Lab File: z130938.D
 Acq: 23 May 2018 4:16 pm

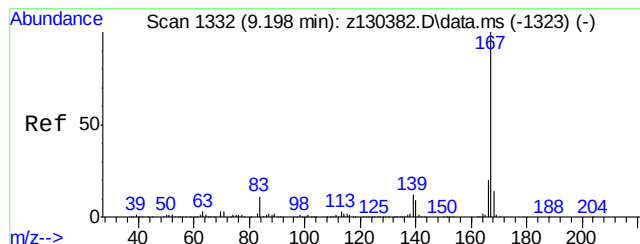
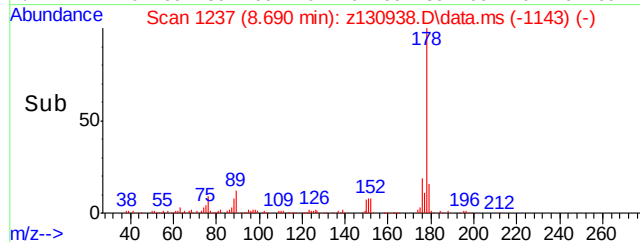
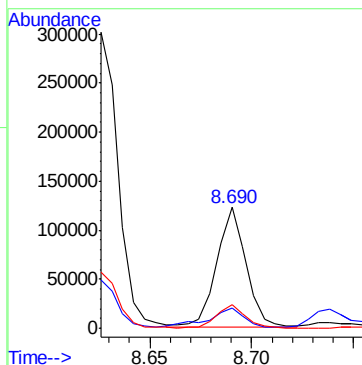
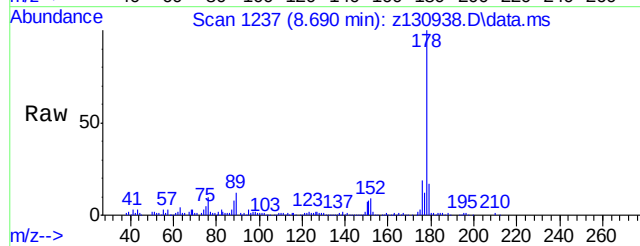
Tgt Ion:	178	Resp:	293871
Ion Ratio	Lower	Upper	
178	100		
179	15.7	0.0	46.3
176	19.0	0.0	48.1





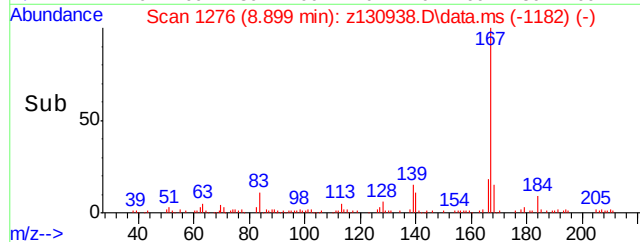
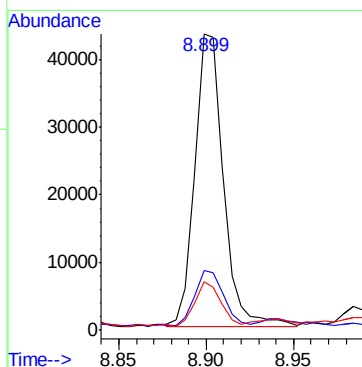
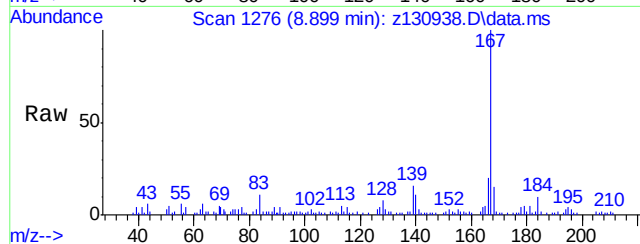
#78
 Anthracene
 Concen: 8.16 ppm
 RT: 8.690 min Scan# 1237
 Delta R.T. 0.000 min
 Lab File: z130938.D
 Acq: 23 May 2018 4:16 pm

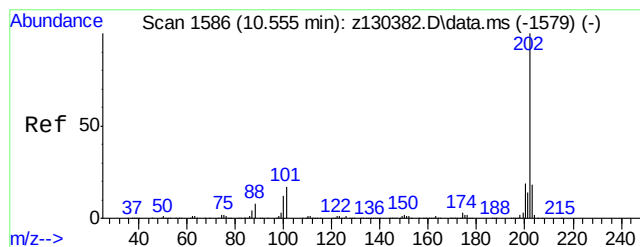
Tgt Ion	Ratio	Lower	Upper
178	100		
179	14.9	0.0	46.9
176	19.3	0.0	48.0



#79
 Carbazole
 Concen: 3.16 ppm
 RT: 8.899 min Scan# 1276
 Delta R.T. 0.000 min
 Lab File: z130938.D
 Acq: 23 May 2018 4:16 pm

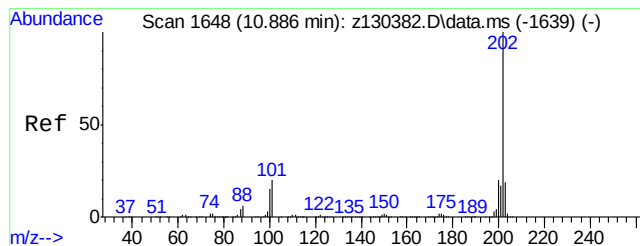
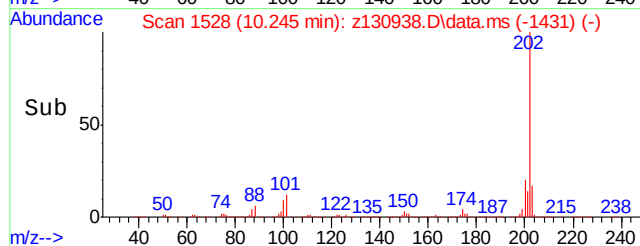
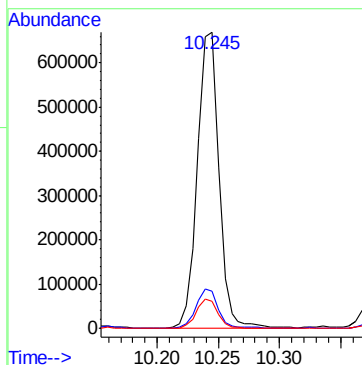
Tgt Ion	Ratio	Lower	Upper
167	100		
166	18.3	0.0	49.8
139	14.2	0.0	42.1





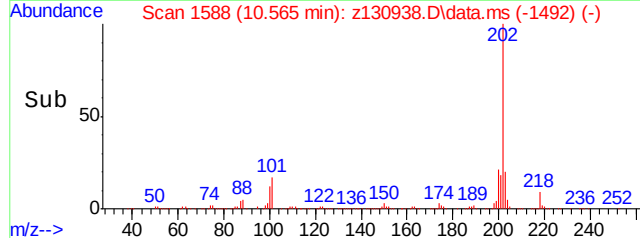
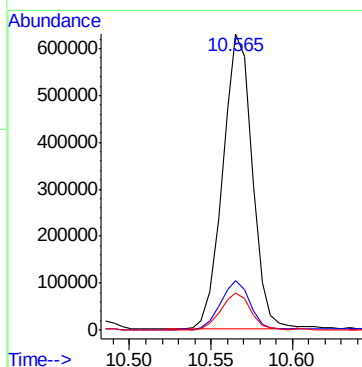
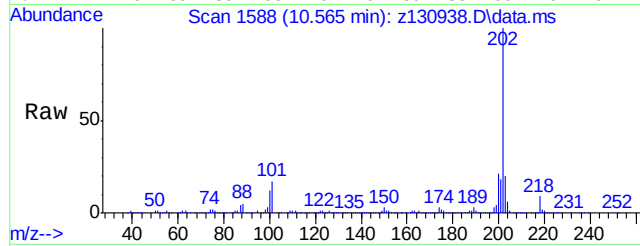
#81
Fluoranthene
Concen: 49.24 ppm
RT: 10.245 min Scan# 1528
Delta R.T. 0.016 min
Lab File: z130938.D
Acq: 23 May 2018 4:16 pm

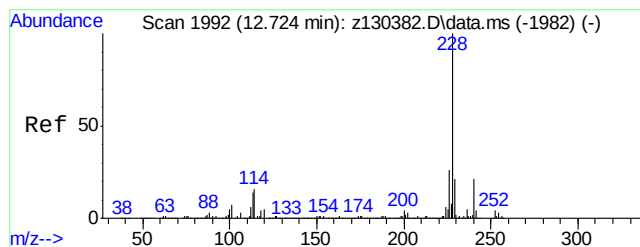
Tgt	Ion:202	Resp:	814133
Ion	Ratio	Lower	Upper
202	100		
101	12.4	0.0	47.2
100	9.1	0.0	42.3



#84
Pyrene
Concen: 55.16 ppm
RT: 10.565 min Scan# 1588
Delta R.T. 0.011 min
Lab File: z130938.D
Acq: 23 May 2018 4:16 pm

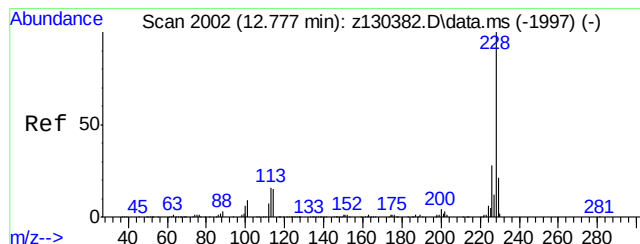
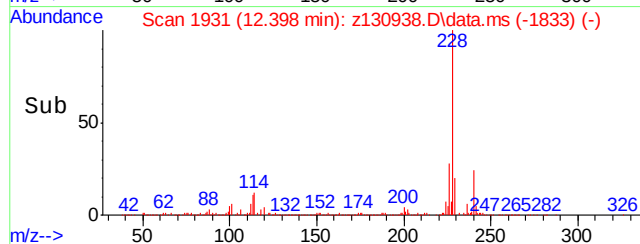
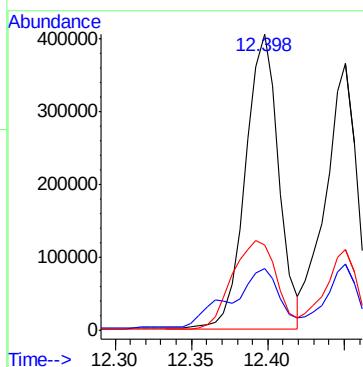
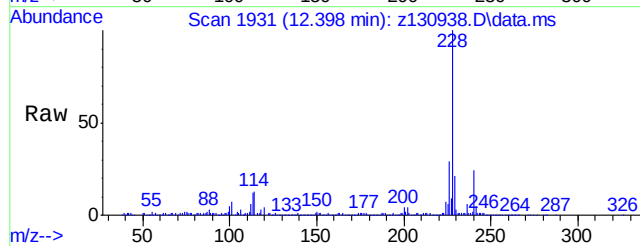
Tgt	Ion:202	Resp:	795461
Ion	Ratio	Lower	Upper
202	100		
101	16.5	0.0	49.8
100	12.4	0.0	44.6





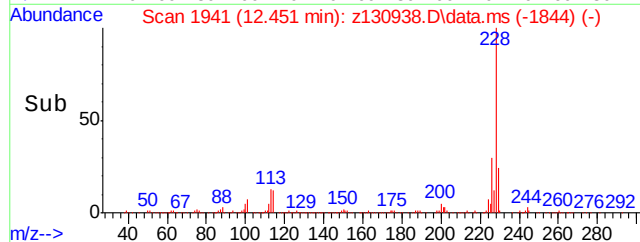
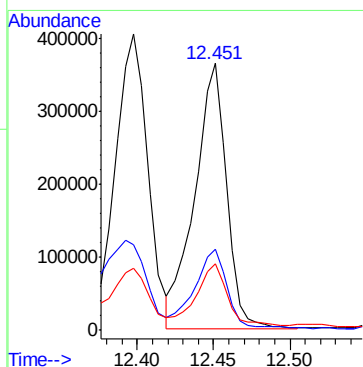
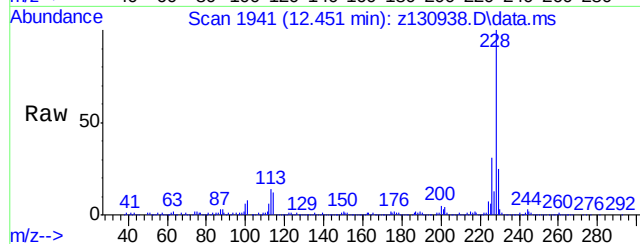
#87
Benzo[a]anthracene
Concen: 46.00 ppm
RT: 12.398 min Scan# 1931
Delta R.T. 0.021 min
Lab File: z130938.D
Acq: 23 May 2018 4:16 pm

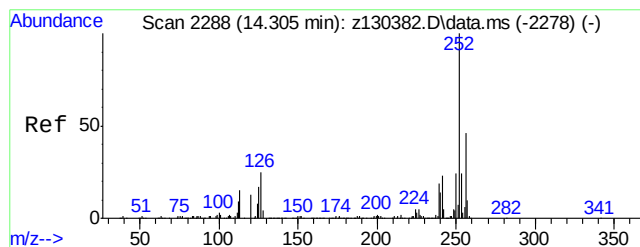
Tgt Ion	Ratio	Lower	Upper
228	100		
229	19.6	0.0	50.7
226	28.3	0.0	56.2



#89
Chrysene
Concen: 42.29 ppm
RT: 12.451 min Scan# 1941
Delta R.T. 0.016 min
Lab File: z130938.D
Acq: 23 May 2018 4:16 pm

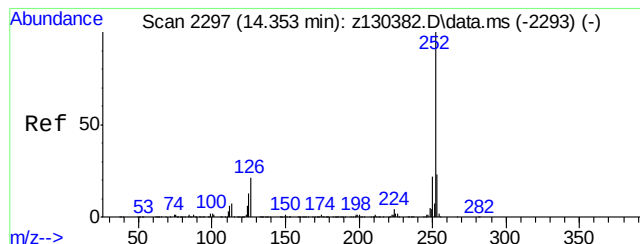
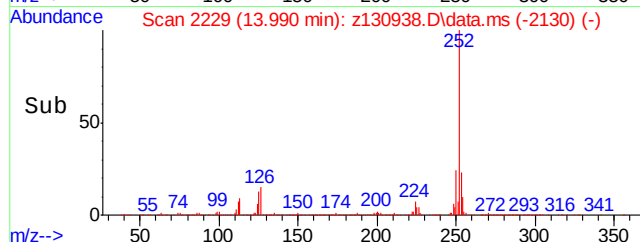
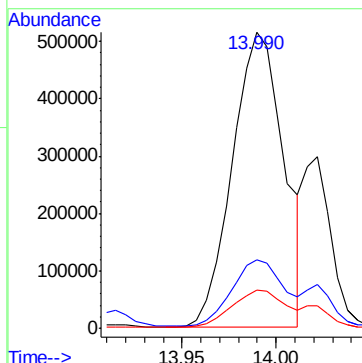
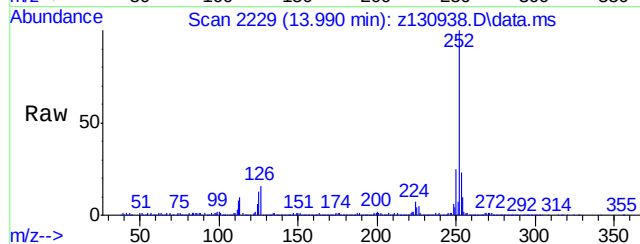
Tgt Ion	Ratio	Lower	Upper
228	100		
226	29.9	0.0	58.0
229	23.1	0.0	50.8





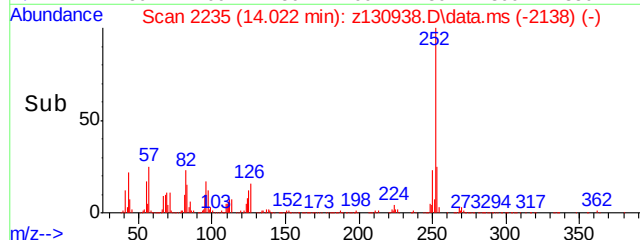
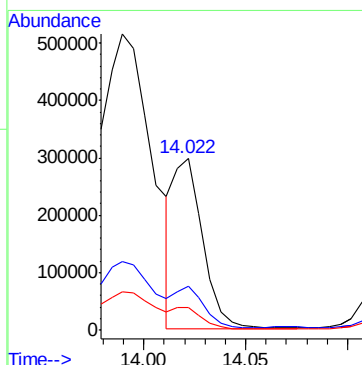
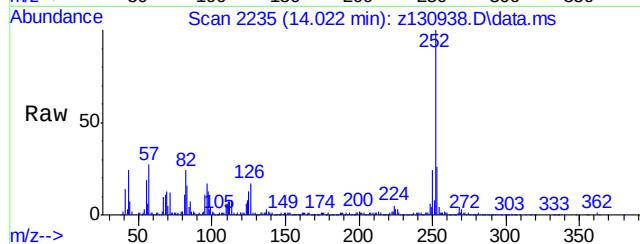
#93
Benzo[b]fluoranthene
Concen: 61.27 ppm
RT: 13.990 min Scan# 2229
Delta R.T. 0.027 min
Lab File: z130938.D
Acq: 23 May 2018 4:16 pm

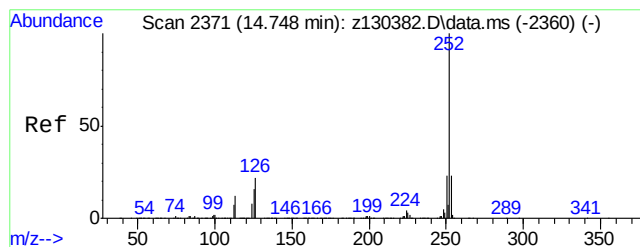
Tgt Ion	Ratio	Lower	Upper
252	100		
253	22.5	0.0	52.0
125	12.4	0.0	47.1



#94
Benzo[k]fluoranthene
Concen: 19.92 ppm
RT: 14.022 min Scan# 2235
Delta R.T. 0.016 min
Lab File: z130938.D
Acq: 23 May 2018 4:16 pm

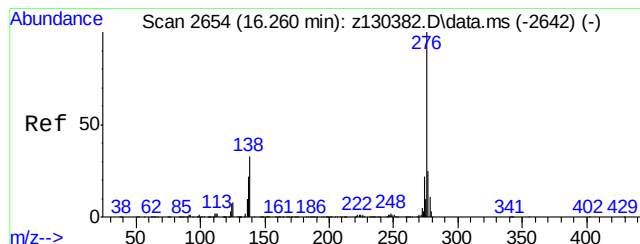
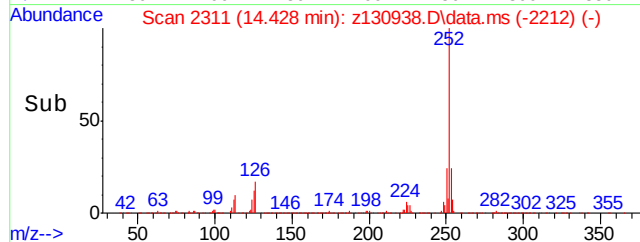
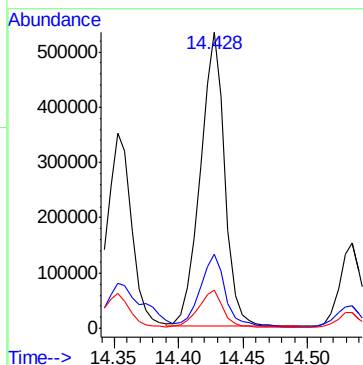
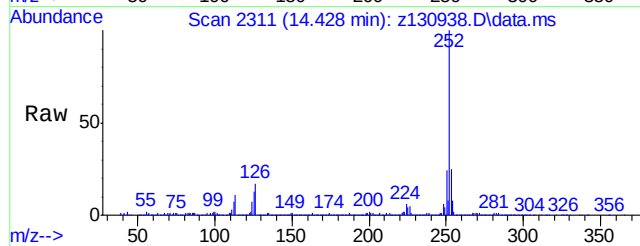
Tgt Ion	Ratio	Lower	Upper
252	100		
253	25.7	0.0	52.1
125	12.1	0.0	44.9





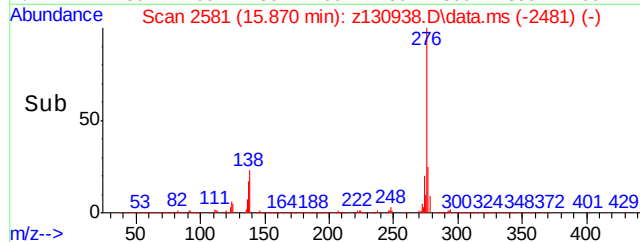
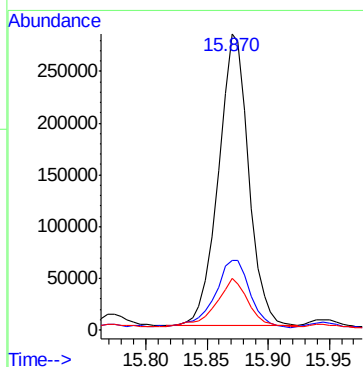
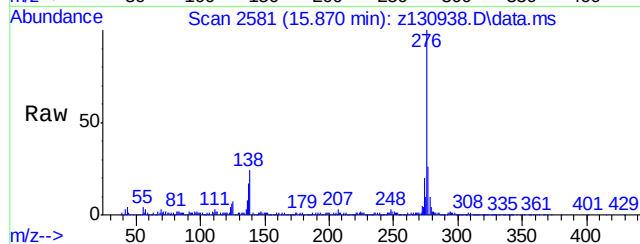
#95
Benzo[a]pyrene
Concen: 50.04 ppm
RT: 14.428 min Scan# 2311
Delta R.T. 0.027 min
Lab File: z130938.D
Acq: 23 May 2018 4:16 pm

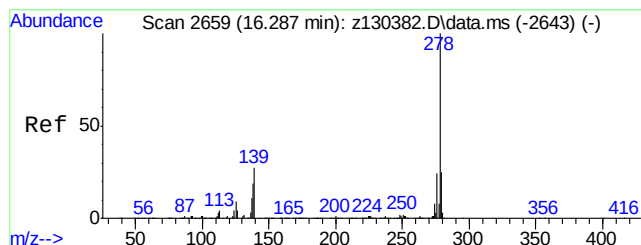
Tgt Ion:	252	Resp:	704809
Ion Ratio	Lower	Upper	
252	100		
253	23.7	0.0	51.1
125	12.4	0.0	47.3



#96
Indeno[1,2,3-cd]pyrene
Concen: 39.40 ppm
RT: 15.870 min Scan# 2581
Delta R.T. 0.032 min
Lab File: z130938.D
Acq: 23 May 2018 4:16 pm

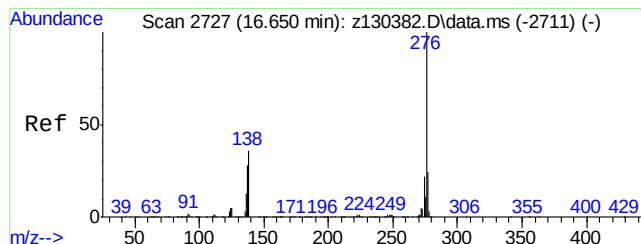
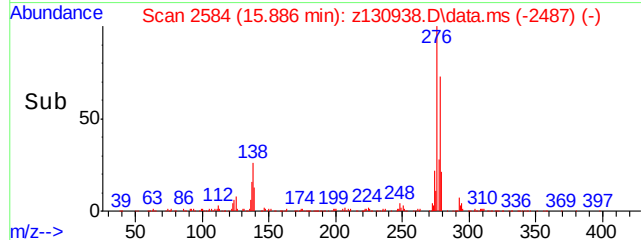
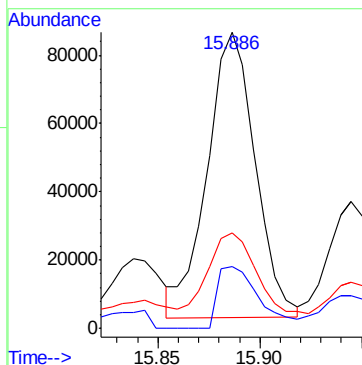
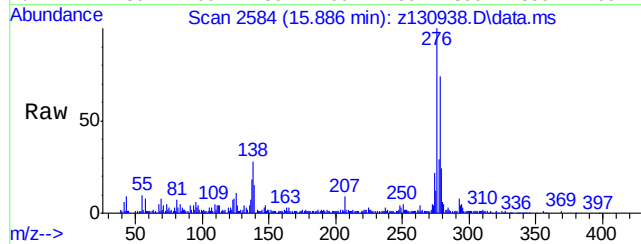
Tgt Ion:	276	Resp:	487376
Ion Ratio	Lower	Upper	
276	100		
138	22.7	1.5	61.5
137	16.4	0.0	50.0





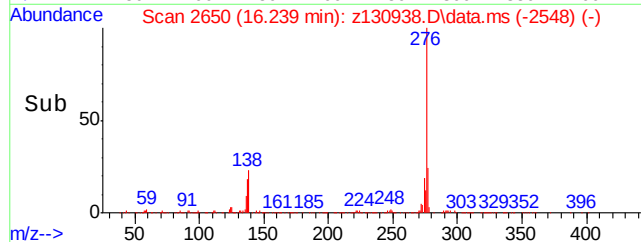
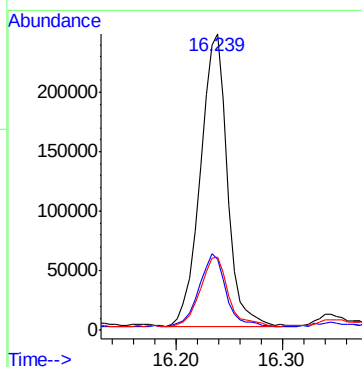
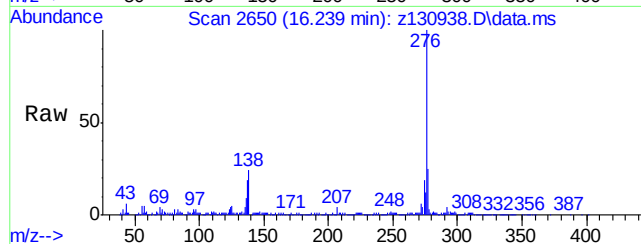
#98
Dibenzo[a,h]anthracene
Concen: 10.82 ppm
RT: 15.886 min Scan# 2584
Delta R.T. 0.016 min
Lab File: z130938.D
Acq: 23 May 2018 4:16 pm

Tgt Ion	Ratio	Lower	Upper
278	100		
139	21.5	0.0	55.8
279	28.8	0.0	53.0



#100
Benzo[g,h,i]perylene
Concen: 34.86 ppm
RT: 16.239 min Scan# 2650
Delta R.T. 0.043 min
Lab File: z130938.D
Acq: 23 May 2018 4:16 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	23.1	7.0	67.0
277	23.8	0.0	54.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5535\
 Data File : p123379.D
 Acq On : 7 Jun 2018 2:58 pm
 Operator : angelar
 Sample : jc65799-5r
 Misc : op11971,ep5535,31.4,,,1,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 11 14:33:39 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Jun 05 15:39:45 2018
 Response via : Initial Calibration

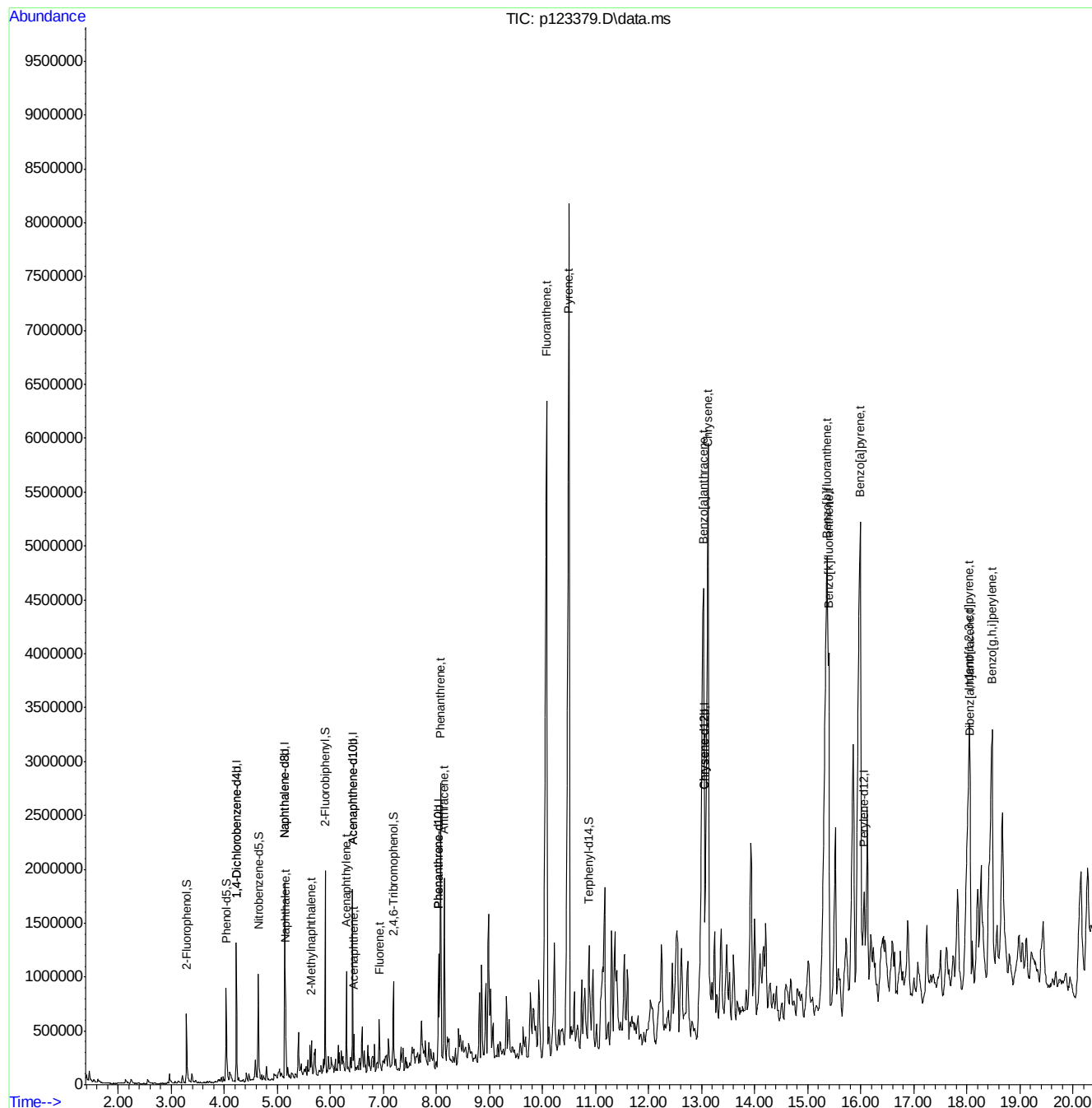
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.229	152	128389	40.00	ppm	-0.03
24) Naphthalene-d8	5.143	136	459290	40.00	ppm	-0.03
47) Acenaphthene-d10	6.419	164	242605	40.00	ppm	-0.04
69) Phenanthrene-d10	8.043	188	466715	40.00	ppm	-0.06
83) Chrysene-d12	13.049	240	554283	40.00	ppm	-0.03
91) Perylene-d12	16.062	264	502957	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.229	152	128389	40.00	ppm	-0.03
103) Phenanthrene-d10b	8.043	188	466715	40.00	ppm	-0.06
105) Chrysene-d12b	13.049	240	554283	40.00	ppm	-0.03
107) Naphthalene-d8b	5.143	136	459290	40.00	ppm	-0.03
109) Acenaphthene-d10b	6.419	164	242605	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	3.289	112	163433	33.35	ppm	-0.06
Spiked Amount	50.000		Recovery	=	66.70%	
8) Phenol-d5	4.031	99	234528	37.23	ppm	-0.04
Spiked Amount	50.000		Recovery	=	74.46%	
25) Nitrobenzene-d5	4.640	82	273528	32.79	ppm	-0.04
Spiked Amount	50.000		Recovery	=	65.58%	
51) 2-Fluorobiphenyl	5.901	172	345268	37.05	ppm	-0.04
Spiked Amount	50.000		Recovery	=	74.10%	
73) 2,4,6-Tribromophenol	7.189	330	42292	28.97	ppm	-0.05
Spiked Amount	50.000		Recovery	=	57.94%	
85) Terphenyl-d14	10.869	244	425415	29.69	ppm	-0.09
Spiked Amount	50.000		Recovery	=	59.38%	
Target Compounds						
						Qvalue
38) Naphthalene	5.159	128	186610	14.76	ppm	93
44) 2-Methylnaphthalene	5.645	141	45945	5.43	ppm	98
56) Acenaphthylene	6.302	152	264665	21.78	ppm	92
59) Acenaphthene	6.446	153	56472	7.66	ppm	96
66) Fluorene	6.921	166	84785	9.39	ppm	87
77) Phenanthrene	8.081	178	1017089	80.70	ppm	98
78) Anthracene	8.150	178	716277	54.96	ppm	96
81) Fluoranthene	10.079	202	4526496	287.14	ppm	93
84) Pyrene	10.490	202	4611397	236.44	ppm	91
87) Benzo[a]anthracene	13.028	228	3676423	214.30	ppm	83
89) Chrysene	13.113	228	3159452	193.72	ppm	88
93) Benzo[b]fluoranthene	15.352	252	5257054	339.28	ppm	88
94) Benzo[k]fluoranthene	15.394	252	1191922	81.66	ppm	91
95) Benzo[a]pyrene	15.987	252	4098975	320.70	ppm	86
96) Indeno[1,2,3-cd]pyrene	18.039	276	2571749	222.31	ppm	84
98) Dibenz[a,h]anthracene	18.060	278	858280	67.61	ppm	86
100) Benzo[g,h,i]perylene	18.477	276	2263937	183.04	ppm	95

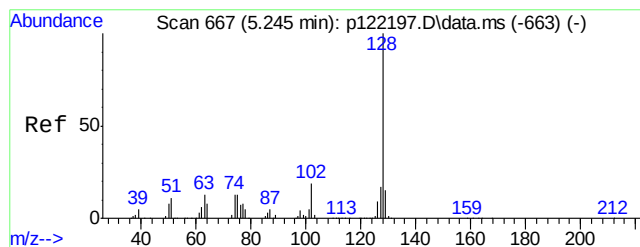
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path   : C:\msdchem\1\DATA\EP5535\
Data File   : p123379.D
Acq On      : 7 Jun 2018    2:58 pm
Operator    : angelar
Sample      : jc65799-5r
Misc        : op11971,ep5535,31.4,,,1,1
ALS Vial    : 15    Sample Multiplier: 1
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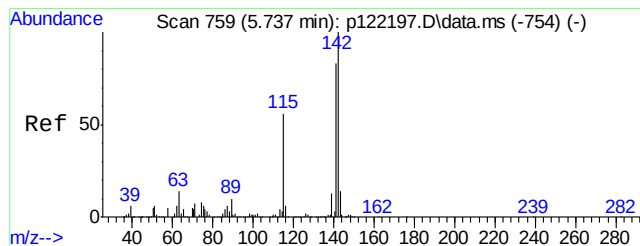
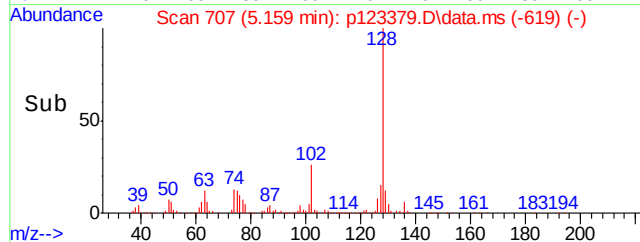
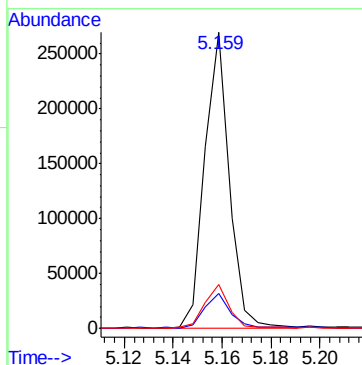
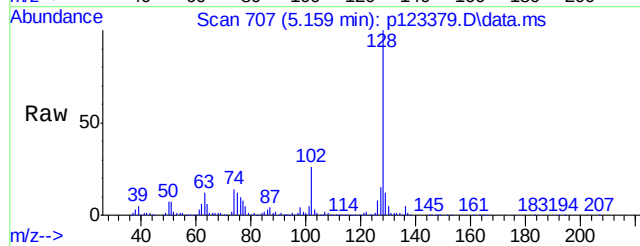
Quant Time: Jun 11 14:33:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Jun 05 15:39:45 2018
Response via : Initial Calibration





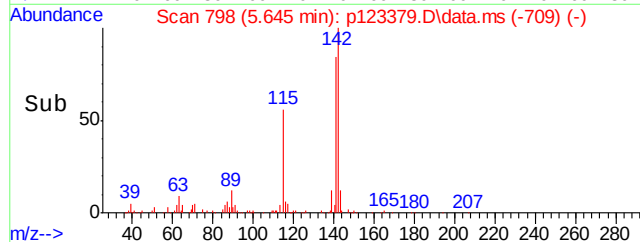
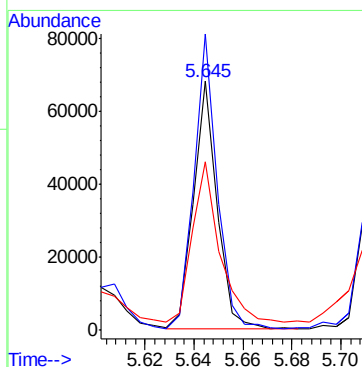
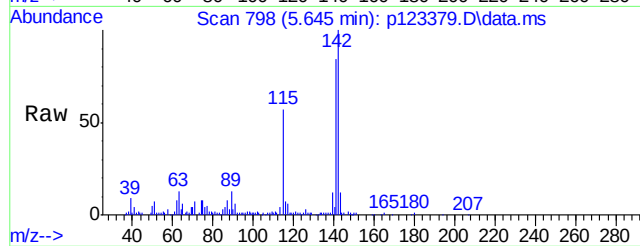
#38
Naphthalene
Concen: 14.76 ppm
RT: 5.159 min Scan# 707
Delta R.T. -0.027 min
Lab File: p123379.D
Acq: 7 Jun 2018 2:58 pm

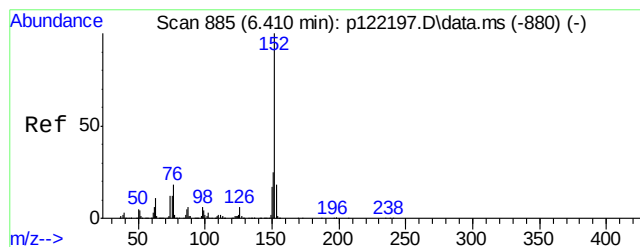
Tgt Ion	Ratio	Lower	Upper
128	100		
129	11.5	0.0	45.0
127	14.6	0.0	46.9



#44
2-Methylnaphthalene
Concen: 5.43 ppm
RT: 5.645 min Scan# 798
Delta R.T. -0.024 min
Lab File: p123379.D
Acq: 7 Jun 2018 2:58 pm

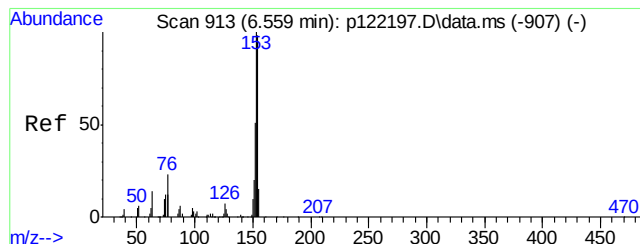
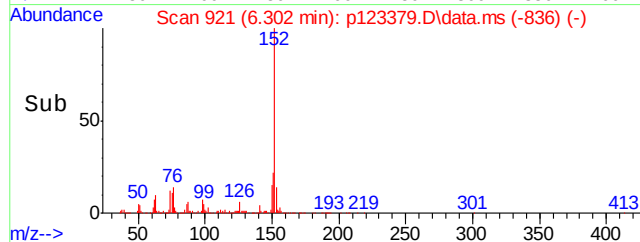
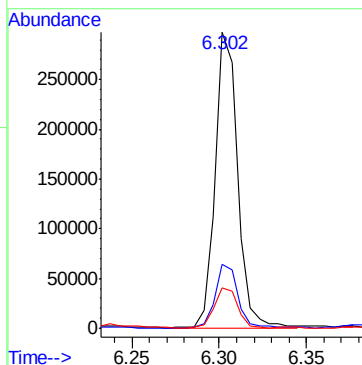
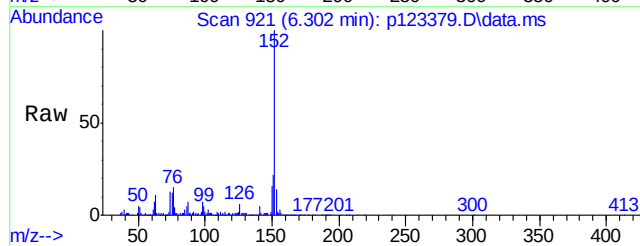
Tgt Ion	Ratio	Lower	Upper
141	100		
142	119.1	90.4	150.4
115	65.0	37.0	97.0





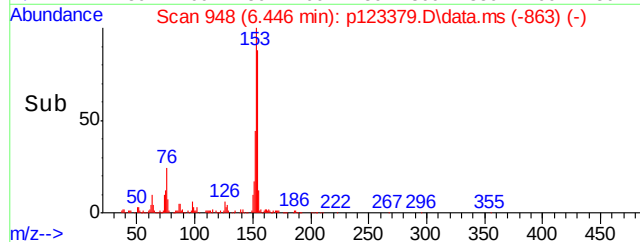
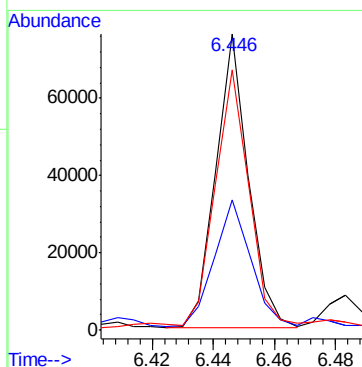
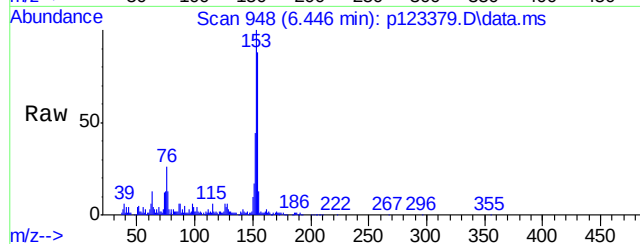
#56
Acenaphthylene
Concen: 21.78 ppm
RT: 6.302 min Scan# 921
Delta R.T. -0.046 min
Lab File: p123379.D
Acq: 7 Jun 2018 2:58 pm

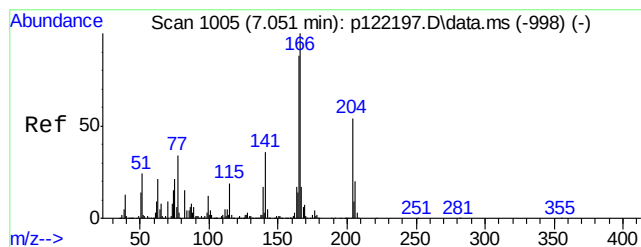
Tgt Ion:	152	Resp:	264665
Ion Ratio	Lower	Upper	
152	100		
151	21.7	0.0	54.7
153	13.4	0.0	48.2



#59
Acenaphthene
Concen: 7.66 ppm
RT: 6.446 min Scan# 948
Delta R.T. -0.049 min
Lab File: p123379.D
Acq: 7 Jun 2018 2:58 pm

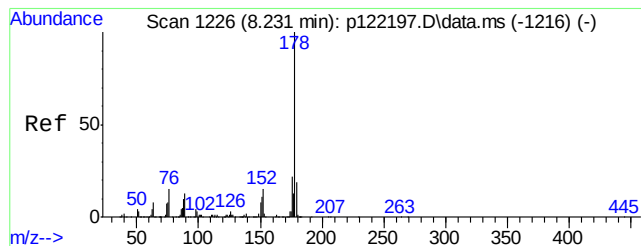
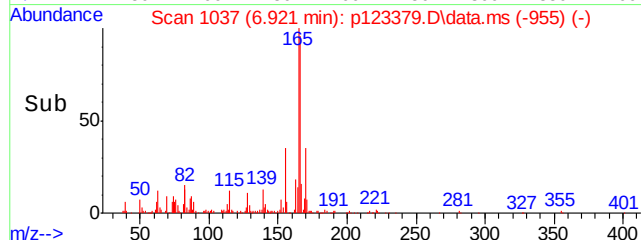
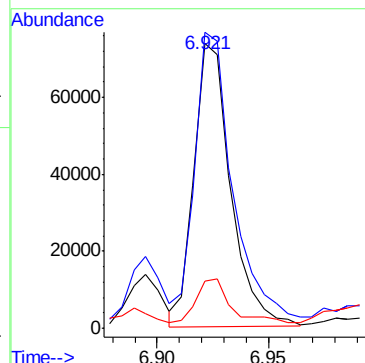
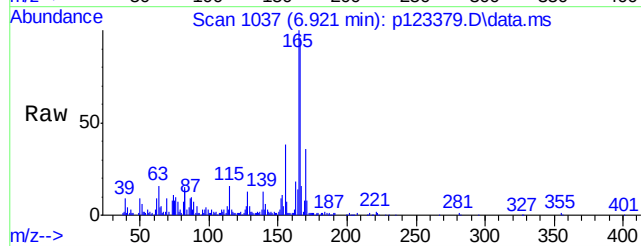
Tgt Ion:	153	Resp:	56472
Ion Ratio	Lower	Upper	
153	100		
152	42.9	20.7	80.7
154	86.3	55.9	115.9





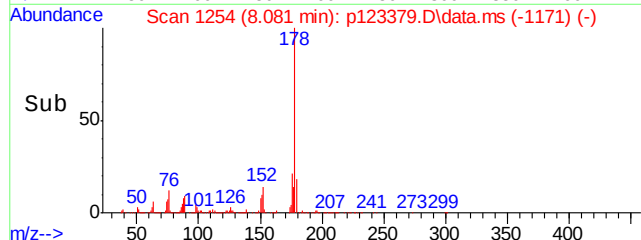
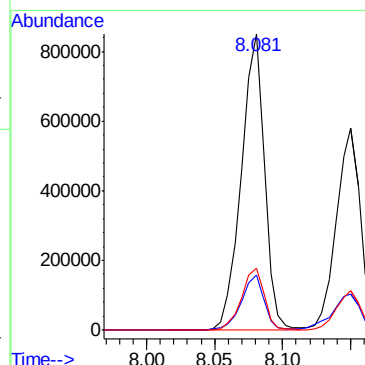
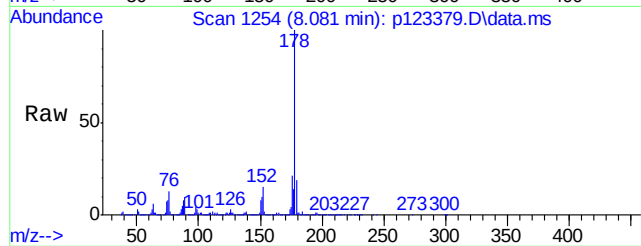
#66
Fluorene
Concen: 9.39 ppm
RT: 6.921 min Scan# 1037
Delta R.T. -0.062 min
Lab File: p123379.D
Acq: 7 Jun 2018 2:58 pm

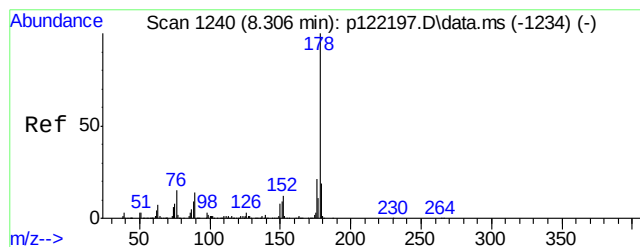
Tgt Ion:	166	Resp:	84785
Ion Ratio	Lower	Upper	
166	100		
165	101.3	57.9	117.9
167	15.4	0.0	46.7



#77
Phenanthrene
Concen: 80.70 ppm
RT: 8.081 min Scan# 1254
Delta R.T. -0.059 min
Lab File: p123379.D
Acq: 7 Jun 2018 2:58 pm

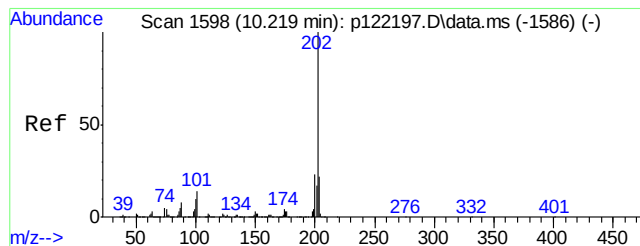
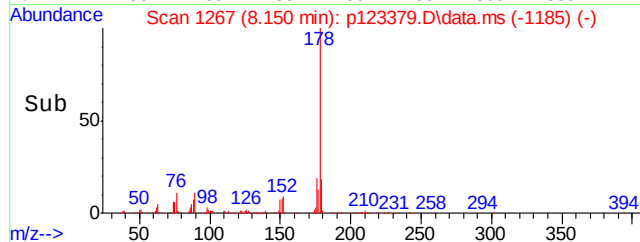
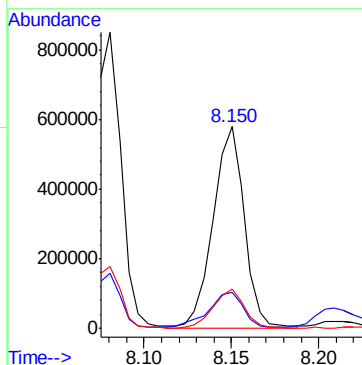
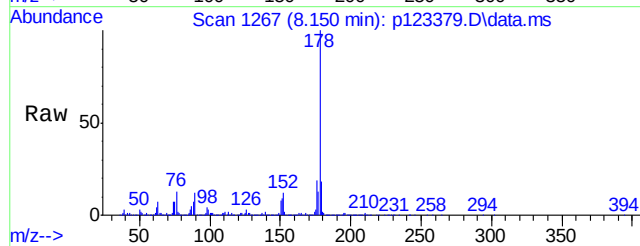
Tgt Ion:	178	Resp:	1017089
Ion Ratio	Lower	Upper	
178	100		
179	18.4	0.0	49.4
176	21.0	0.0	51.7





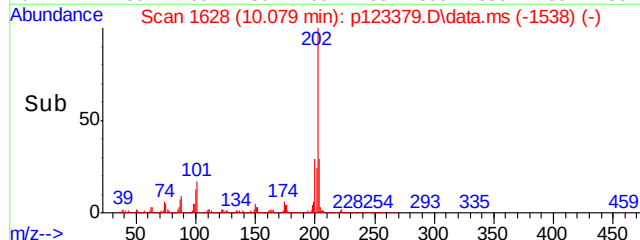
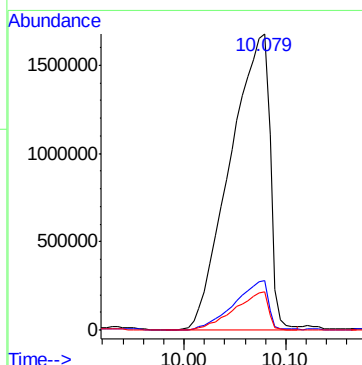
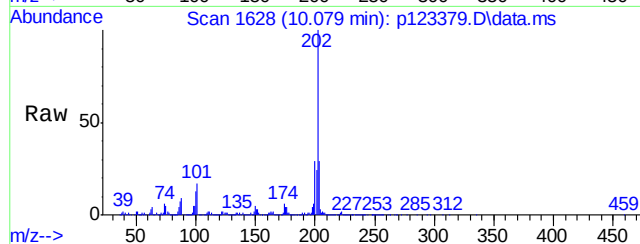
#78
 Anthracene
 Concen: 54.96 ppm
 RT: 8.150 min Scan# 1267
 Delta R.T. -0.063 min
 Lab File: p123379.D
 Acq: 7 Jun 2018 2:58 pm

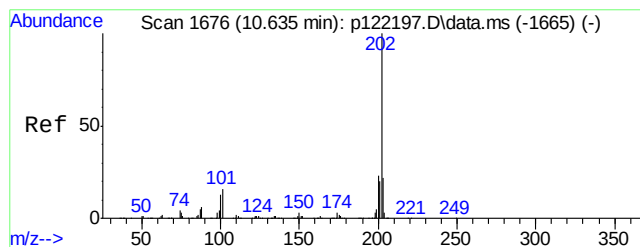
Tgt Ion	Ratio	Lower	Upper
178	100		
179	17.5	0.0	49.2
176	19.4	0.0	51.3



#81
 Fluoranthene
 Concen: 287.14 ppm
 RT: 10.079 min Scan# 1628
 Delta R.T. -0.019 min
 Lab File: p123379.D
 Acq: 7 Jun 2018 2:58 pm

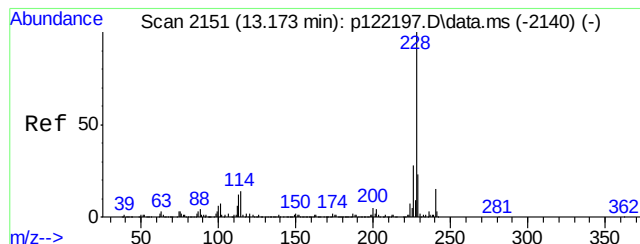
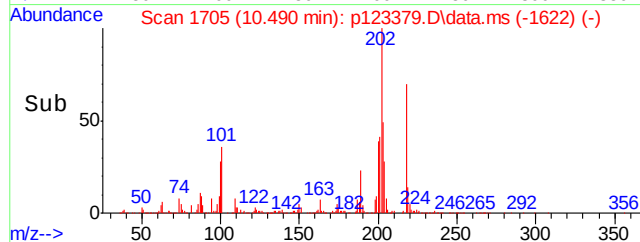
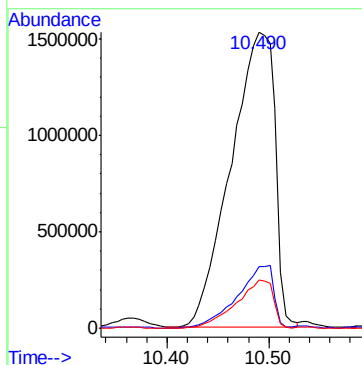
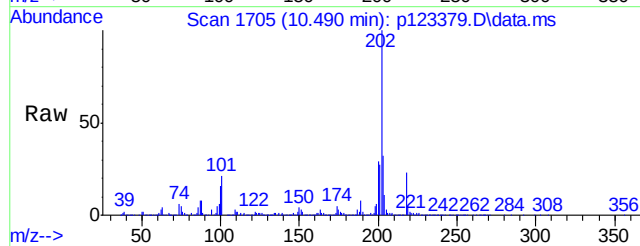
Tgt Ion	Ratio	Lower	Upper
202	100		
101	16.8	0.0	43.9
100	13.1	0.0	40.4





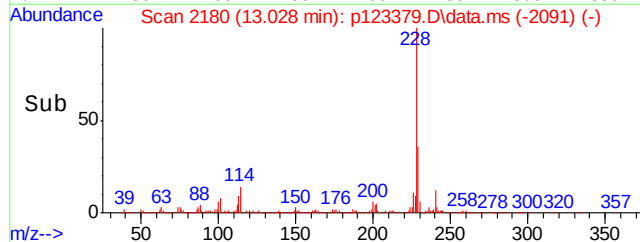
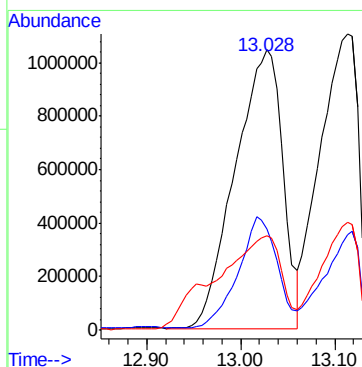
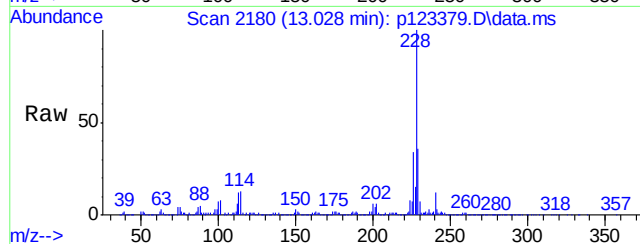
#84
Pyrene
Concen: 236.44 ppm
RT: 10.490 min Scan# 1705
Delta R.T. -0.054 min
Lab File: p123379.D
Acq: 7 Jun 2018 2:58 pm

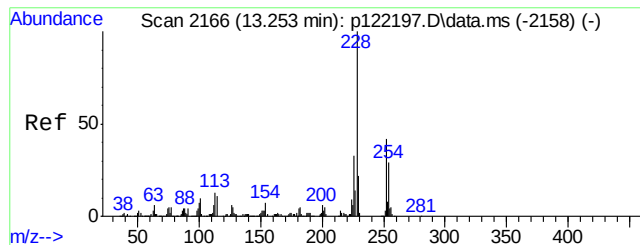
Tgt Ion:	202	Resp:	4611397
Ion Ratio	Lower	Upper	
202	100		
101	20.6	0.0	46.3
100	16.3	0.0	43.2



#87
Benzo[a]anthracene
Concen: 214.30 ppm
RT: 13.028 min Scan# 2180
Delta R.T. -0.023 min
Lab File: p123379.D
Acq: 7 Jun 2018 2:58 pm

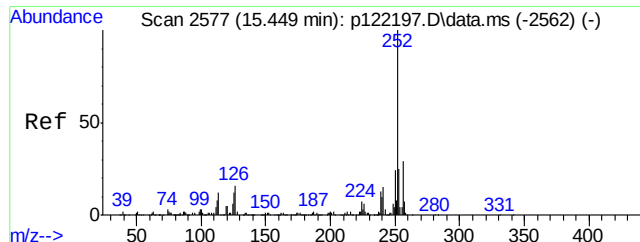
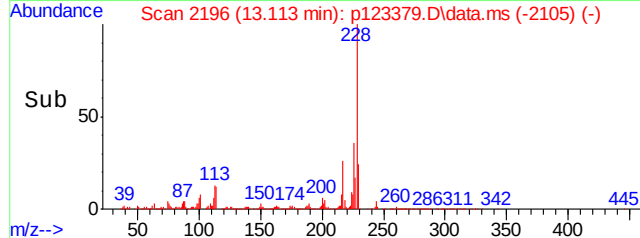
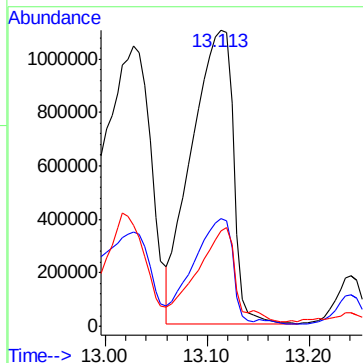
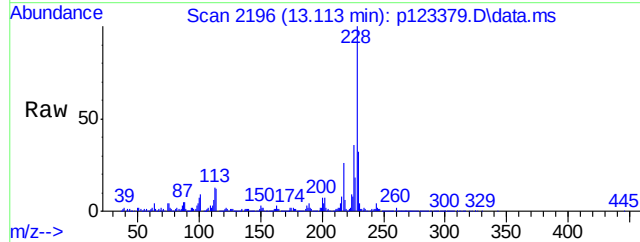
Tgt Ion:	228	Resp:	3676423
Ion Ratio	Lower	Upper	
228	100		
229	36.1	0.0	53.1
226	32.7	0.0	58.1





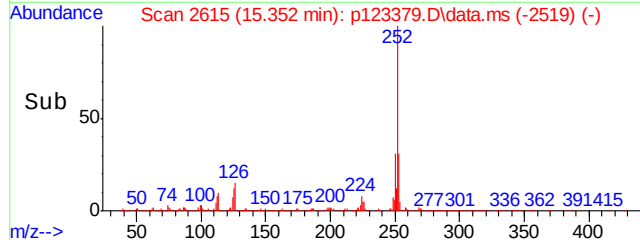
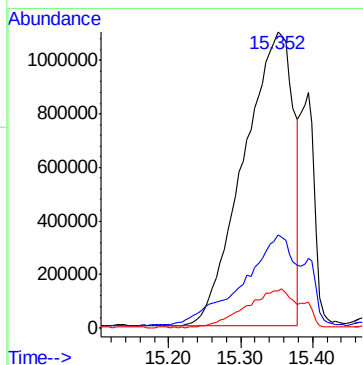
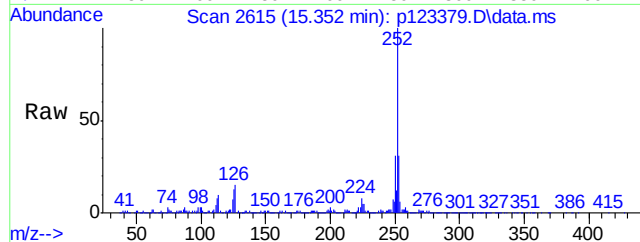
#89
 Chrysene
 Concen: 193.72 ppm
 RT: 13.113 min Scan# 2196
 Delta R.T. -0.016 min
 Lab File: p123379.D
 Acq: 7 Jun 2018 2:58 pm

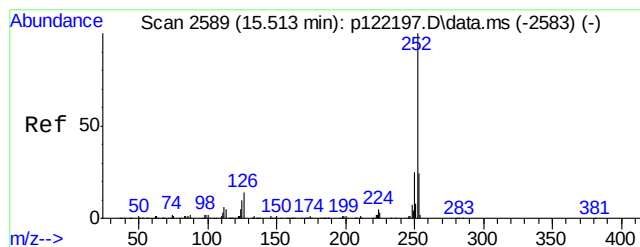
Tgt Ion:228 Resp: 3159452
 Ion Ratio Lower Upper
 228 100
 226 36.2 2.7 62.7
 229 31.3 0.0 52.1



#93
 Benzo[b]fluoranthene
 Concen: 339.28 ppm
 RT: 15.352 min Scan# 2615
 Delta R.T. 0.014 min
 Lab File: p123379.D
 Acq: 7 Jun 2018 2:58 pm

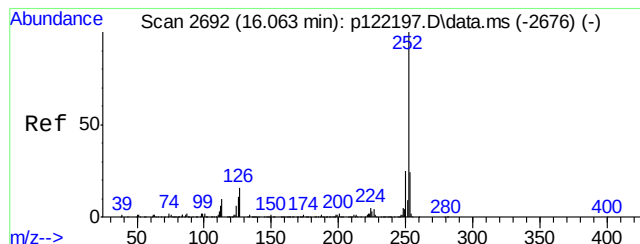
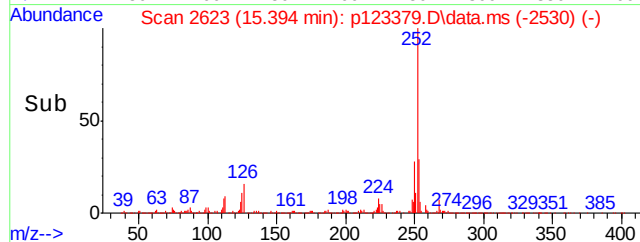
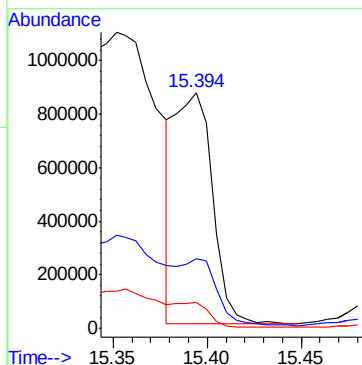
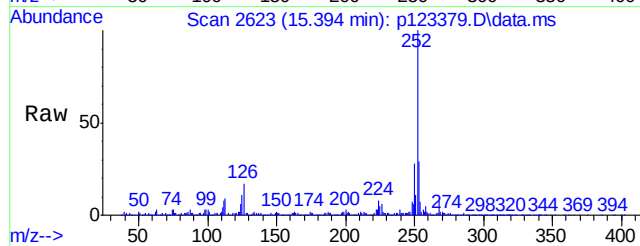
Tgt Ion:252 Resp: 5257054
 Ion Ratio Lower Upper
 252 100
 253 31.0 0.0 54.9
 125 13.1 0.0 38.3





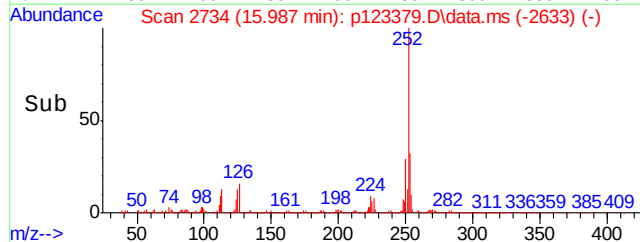
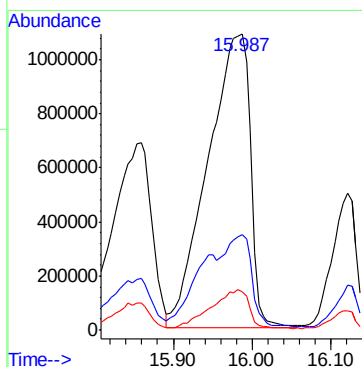
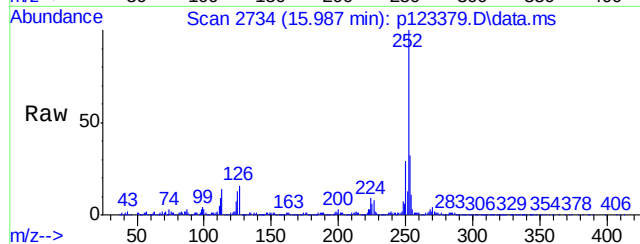
#94
Benzo[k]fluoranthene
Concen: 81.66 ppm
RT: 15.394 min Scan# 2623
Delta R.T. -0.002 min
Lab File: p123379.D
Acq: 7 Jun 2018 2:58 pm

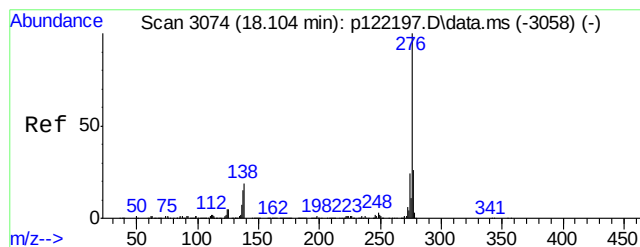
Tgt Ion:	252	Resp:	1191922
Ion Ratio	Lower	Upper	
252	100		
253	28.0	0.0	53.9
125	10.5	0.0	37.0



#95
Benzo[a]pyrene
Concen: 320.70 ppm
RT: 15.987 min Scan# 2734
Delta R.T. 0.041 min
Lab File: p123379.D
Acq: 7 Jun 2018 2:58 pm

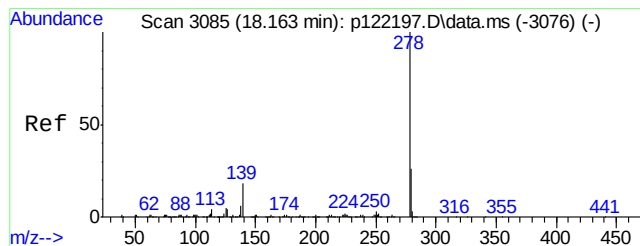
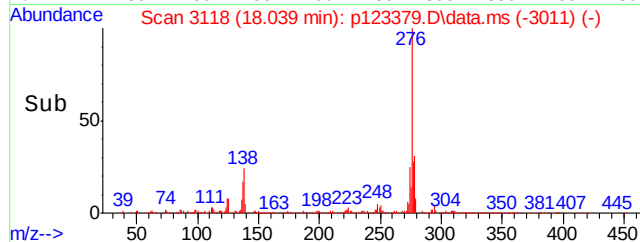
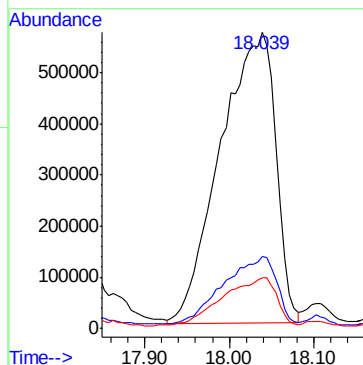
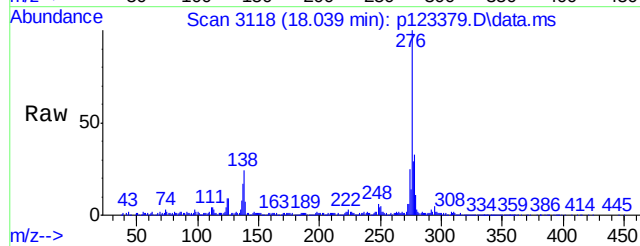
Tgt Ion:	252	Resp:	4098975
Ion Ratio	Lower	Upper	
252	100		
253	31.1	0.0	53.4
125	12.8	0.0	38.8





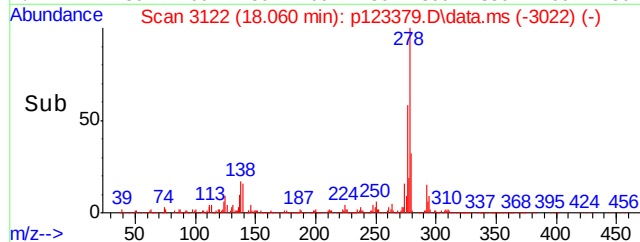
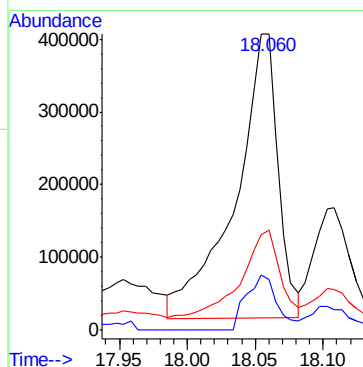
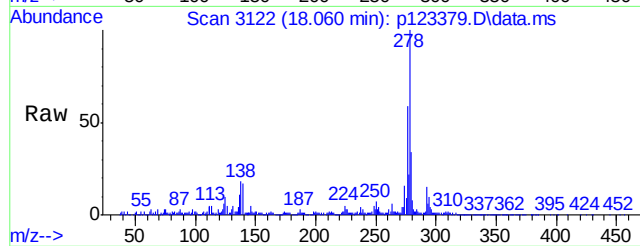
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 222.31 ppm
 RT: 18.039 min Scan# 3118
 Delta R.T. 0.070 min
 Lab File: p123379.D
 Acq: 7 Jun 2018 2:58 pm

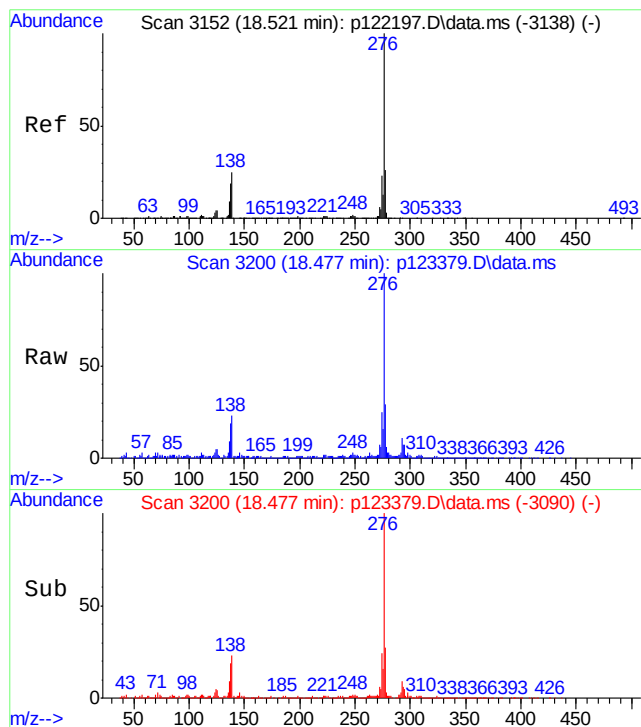
Tgt Ion	Ratio	Lower	Upper
276	100		
138	23.6	0.0	45.8
137	16.7	0.0	42.1



#98
 Dibenzo[a,h]anthracene
 Concen: 67.61 ppm
 RT: 18.060 min Scan# 3122
 Delta R.T. 0.033 min
 Lab File: p123379.D
 Acq: 7 Jun 2018 2:58 pm

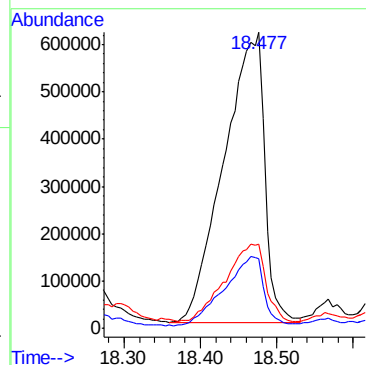
Tgt Ion	Ratio	Lower	Upper
278	100		
139	17.8	0.0	41.8
279	31.4	0.0	55.0





#100
Benzo[g,h,i]perylene
Concen: 183.04 ppm
RT: 18.477 min Scan# 3200
Delta R.T. 0.089 min
Lab File: p123379.D
Acq: 7 Jun 2018 2:58 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	22.8	0.0	47.6
277	26.6	0.0	56.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5540\
 Data File : p123452.D
 Acq On : 11 Jun 2018 12:35 pm
 Operator : angelar
 Sample : jc65799-5r
 Misc : op11971,ep5540,31.4,,,1,10
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 11 14:34:46 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Jun 05 15:39:45 2018
 Response via : Initial Calibration

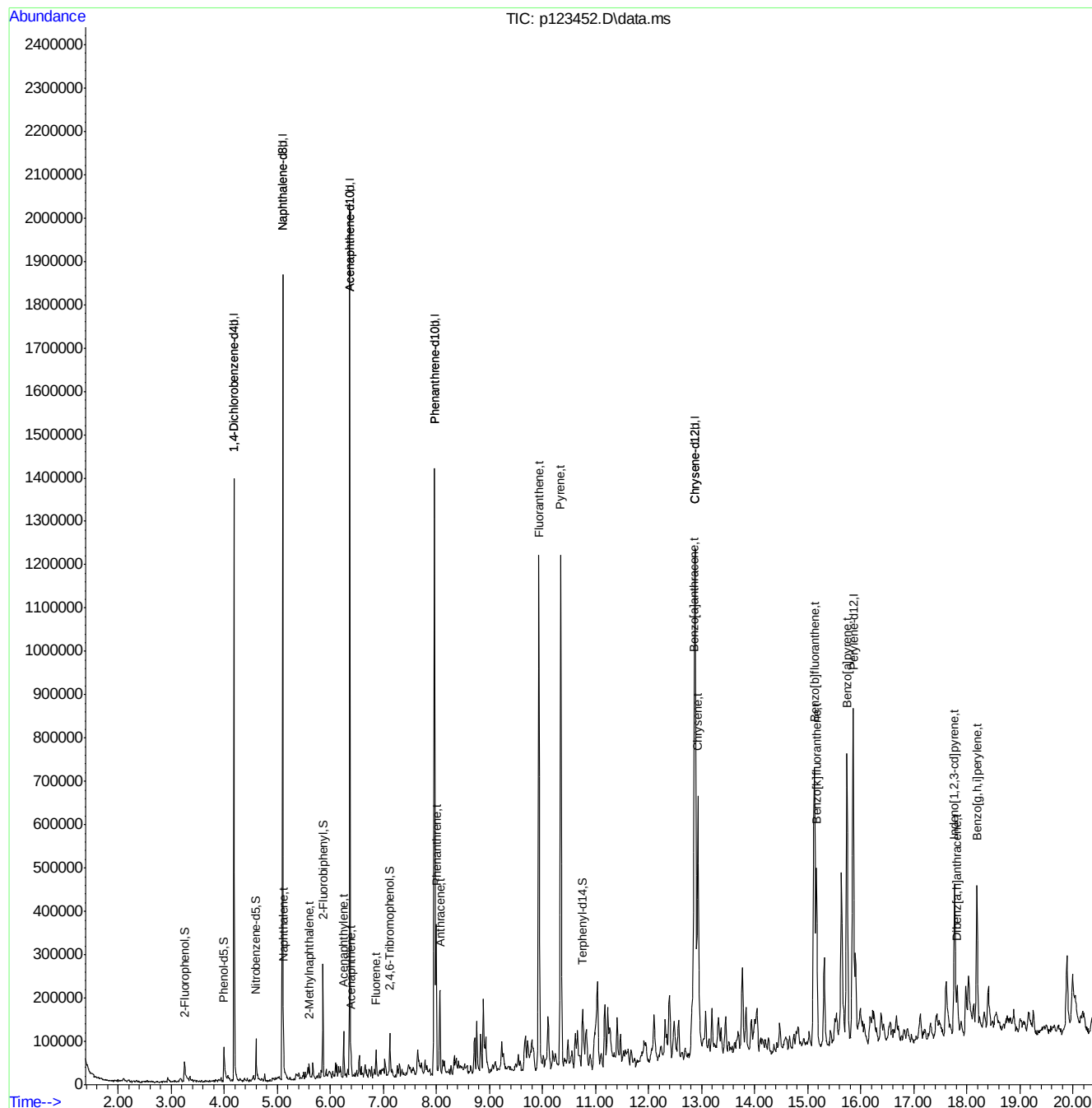
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.186	152	149905	40.00	ppm	-0.08
24) Naphthalene-d8	5.100	136	552582	40.00	ppm	-0.08
47) Acenaphthene-d10	6.366	164	302570	40.00	ppm	-0.10
69) Phenanthrene-d10	7.963	188	557290	40.00	ppm	-0.14
83) Chrysene-d12	12.878	240	527625	40.00	ppm	-0.20
91) Perylene-d12	15.859	264	494287	40.00	ppm	-0.20
101) 1,4-Dichlorobenzene-d4b	4.186	152	149905	40.00	ppm	-0.08
103) Phenanthrene-d10b	7.963	188	557290	40.00	ppm	-0.14
105) Chrysene-d12b	12.878	240	527625	40.00	ppm	-0.20
107) Naphthalene-d8b	5.100	136	552582	40.00	ppm	-0.08
109) Acenaphthene-d10b	6.366	164	302570	40.00	ppm	-0.10
System Monitoring Compounds						
5) 2-Fluorophenol	3.252	112	17923	3.13	ppm	-0.10
Spiked Amount	50.000		Recovery	=	6.26%	
8) Phenol-d5	3.994	99	28554	3.88	ppm	-0.07
Spiked Amount	50.000		Recovery	=	7.76%	
25) Nitrobenzene-d5	4.598	82	34065	3.39	ppm	-0.08
Spiked Amount	50.000		Recovery	=	6.78%	
51) 2-Fluorobiphenyl	5.859	172	42309	3.64	ppm	-0.08
Spiked Amount	50.000		Recovery	=	7.28%	
73) 2,4,6-Tribromophenol	7.125	330	5034	2.89	ppm	-0.11
Spiked Amount	50.000		Recovery	=	5.78%	
85) Terphenyl-d14	10.757	244	51227	3.76	ppm	-0.20
Spiked Amount	50.000		Recovery	=	7.52%	
Target Compounds						
						Qvalue
38) Naphthalene	5.111	128	22828	1.50	ppm	91
44) 2-Methylnaphthalene	5.602	141	5175	0.51	ppm	81
56) Acenaphthylene	6.254	152	29729	1.96	ppm	88
59) Acenaphthene	6.393	153	6488	0.71	ppm	90
66) Fluorene	6.863	166	10779	0.96	ppm	94
77) Phenanthrene	7.995	178	136267	9.05	ppm	90
78) Anthracene	8.065	178	87146	5.60	ppm	91
81) Fluoranthene	9.935	202	662398	35.19	ppm	92
84) Pyrene	10.341	202	646429m	34.82	ppm	
87) Benzo[a]anthracene	12.857	228	448513	27.46	ppm	95
89) Chrysene	12.926	228	383956	24.73	ppm	98
93) Benzo[b]fluoranthene	15.127	252	533327m	35.02	ppm	
94) Benzo[k]fluoranthene	15.165	252	216817	15.12	ppm	98
95) Benzo[a]pyrene	15.736	252	444416	35.38	ppm	96
96) Indeno[1,2,3-cd]pyrene	17.766	276	262943	23.13	ppm	95
98) Dibenz[a,h]anthracene	17.814	278	65648	5.26	ppm	98
100) Benzo[g,h,i]perylene	18.188	276	231018	19.01	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5540\
Data File : p123452.D
Acq On : 11 Jun 2018 12:35 pm
Operator : angelar
Sample : jc65799-5r
Misc : op11971,ep5540,31.4,,,1,10
ALS Vial : 9 Sample Multiplier: 1

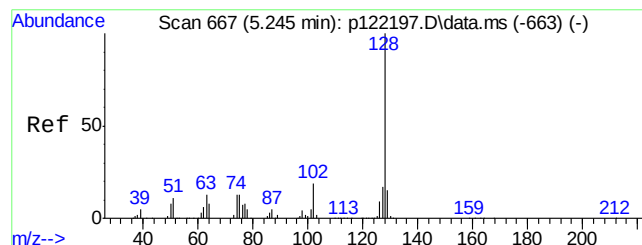
Quant Time: Jun 11 14:34:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Jun 05 15:39:45 2018
Response via : Initial Calibration



MP5484.M Mon Jun 11 14:34:54 2018 ACLIMS

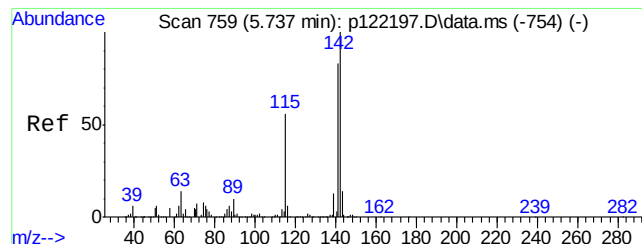
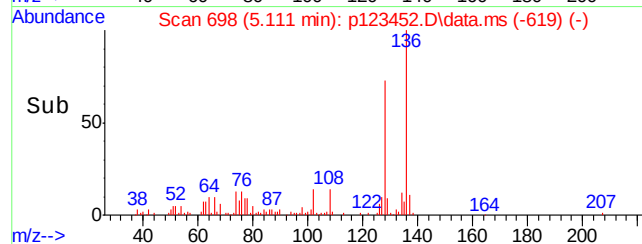
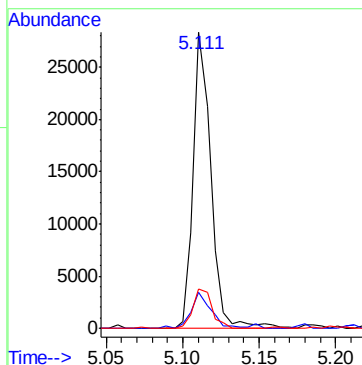
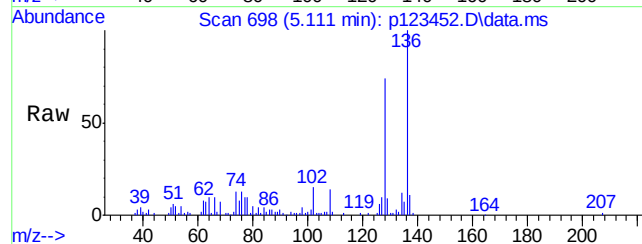
Page: 2

7.1.6



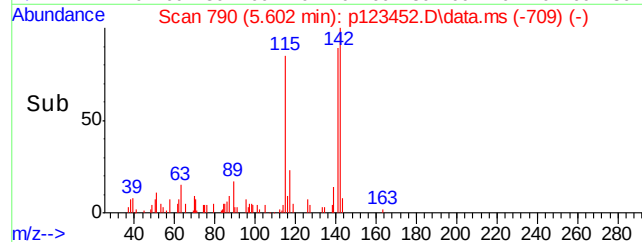
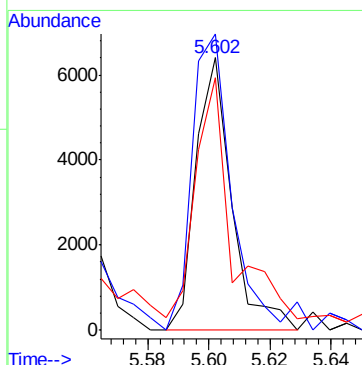
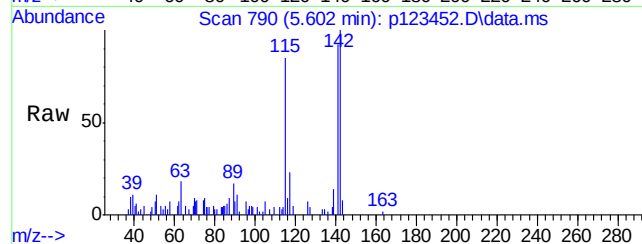
#38
Naphthalene
Concen: 1.50 ppm
RT: 5.111 min Scan# 698
Delta R.T. -0.075 min
Lab File: p123452.D
Acq: 11 Jun 2018 12:35 pm

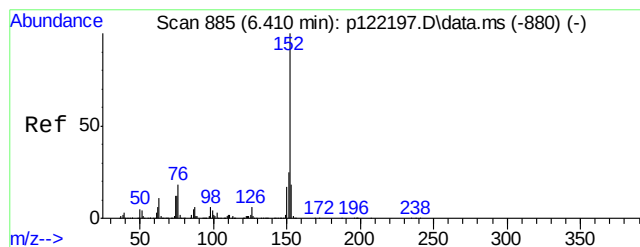
Tgt Ion	Ratio	Lower	Upper
128	100		
129	11.3	0.0	45.0
127	13.2	0.0	46.9



#44
2-Methylnaphthalene
Concen: 0.51 ppm
RT: 5.602 min Scan# 790
Delta R.T. -0.067 min
Lab File: p123452.D
Acq: 11 Jun 2018 12:35 pm

Tgt Ion	Ratio	Lower	Upper
141	100		
142	103.5	90.4	150.4
115	88.7	37.0	97.0





#56

Acenaphthylene

Concen: 1.96 ppm

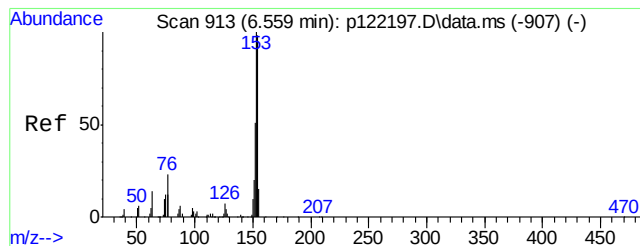
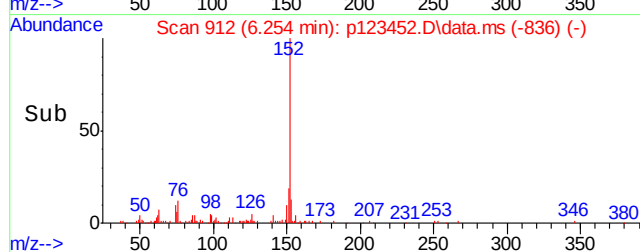
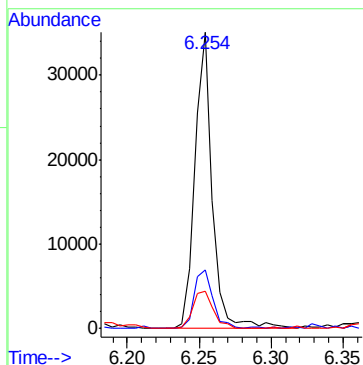
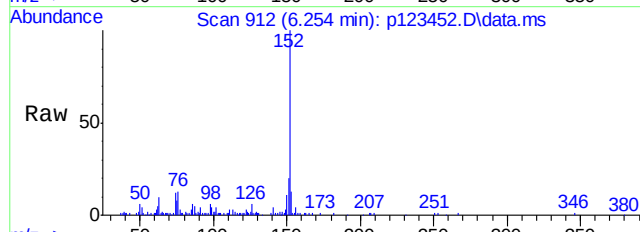
RT: 6.254 min Scan# 912

Delta R.T. -0.093 min

Lab File: p123452.D

Acq: 11 Jun 2018 12:35 pm

Tgt Ion:	152	Resp:	29729
Ion Ratio	Lower	Upper	
152	100		
151	19.4	0.0	54.7
153	12.4	0.0	48.2



#59

Acenaphthene

Concen: 0.71 ppm

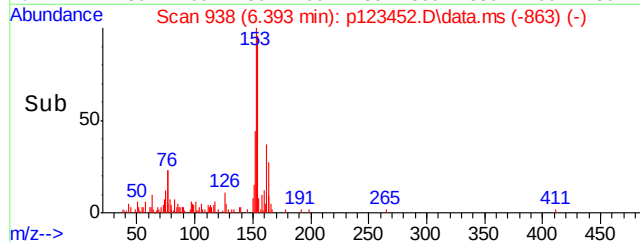
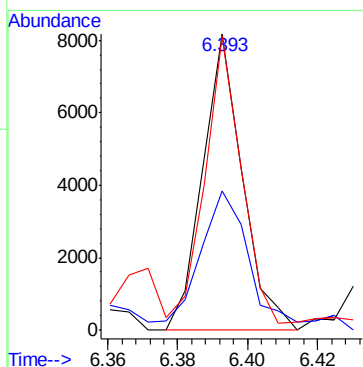
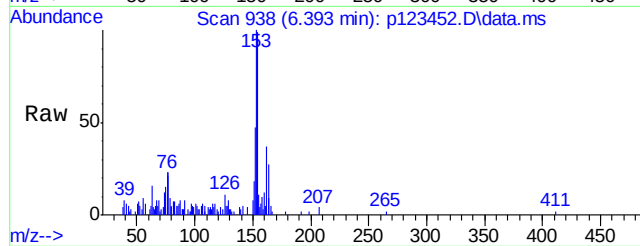
RT: 6.393 min Scan# 938

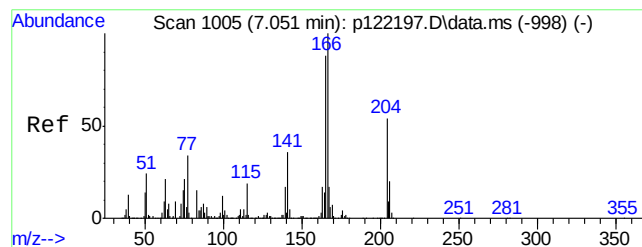
Delta R.T. -0.102 min

Lab File: p123452.D

Acq: 11 Jun 2018 12:35 pm

Tgt Ion:	153	Resp:	6488
Ion Ratio	Lower	Upper	
153	100		
152	44.4	20.7	80.7
154	95.9	55.9	115.9





#66

Fluorene

Concen: 0.96 ppm

RT: 6.863 min Scan# 1026

Delta R.T. -0.121 min

Lab File: p123452.D

Acq: 11 Jun 2018 12:35 pm

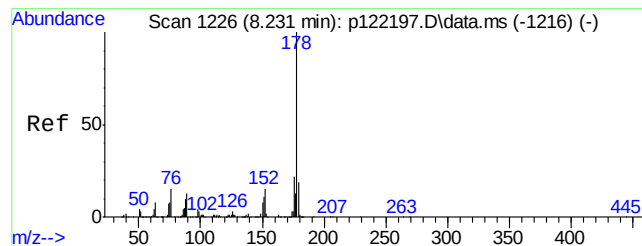
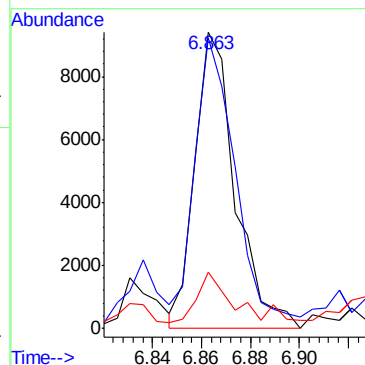
Tgt Ion:166 Resp: 10779

Ion Ratio Lower Upper

166 100

165 94.4 57.9 117.9

167 17.0 0.0 46.7



#77

Phenanthrene

Concen: 9.05 ppm

RT: 7.995 min Scan# 1238

Delta R.T. -0.144 min

Lab File: p123452.D

Acq: 11 Jun 2018 12:35 pm

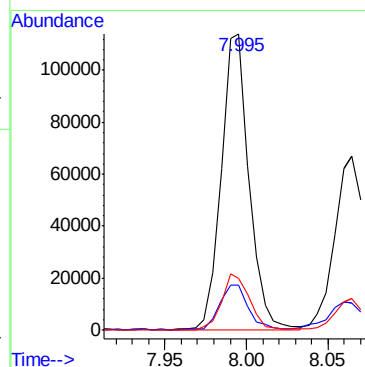
Tgt Ion:178 Resp: 136267

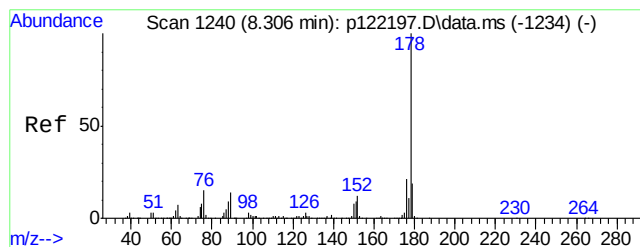
Ion Ratio Lower Upper

178 100

179 14.5 0.0 49.4

176 17.2 0.0 51.7





#78

Anthracene

Concen: 5.60 ppm

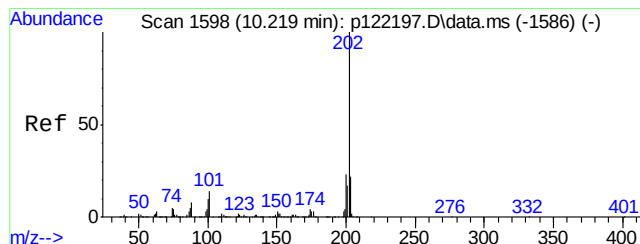
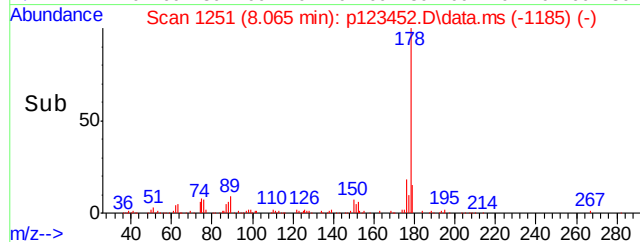
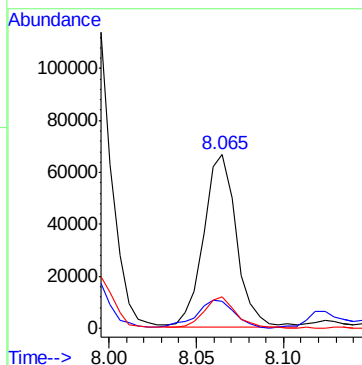
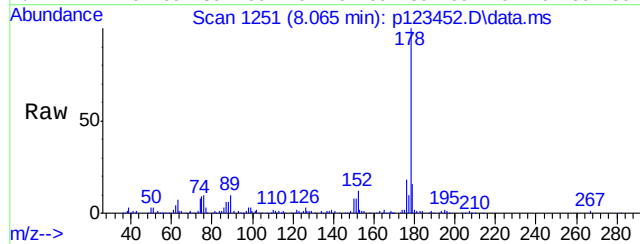
RT: 8.065 min Scan# 1251

Delta R.T. -0.148 min

Lab File: p123452.D

Acq: 11 Jun 2018 12:35 pm

Tgt	Ion:178	Resp:	87146
Ion	Ratio	Lower	Upper
178	100		
179	14.3	0.0	49.2
176	17.9	0.0	51.3



#81

Fluoranthene

Concen: 35.19 ppm

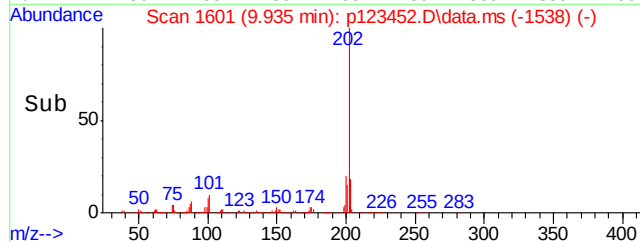
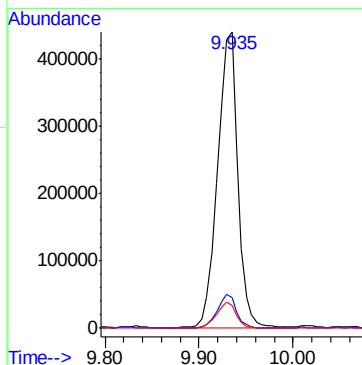
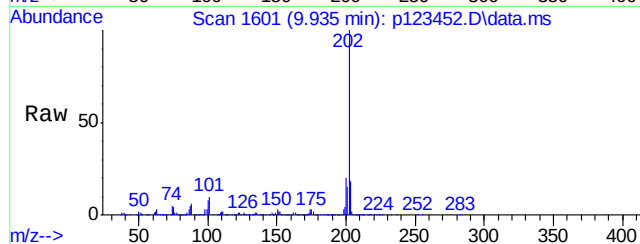
RT: 9.935 min Scan# 1601

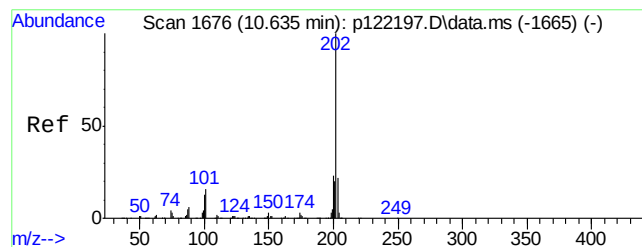
Delta R.T. -0.163 min

Lab File: p123452.D

Acq: 11 Jun 2018 12:35 pm

Tgt	Ion:202	Resp:	662398
Ion	Ratio	Lower	Upper
202	100		
101	10.2	0.0	43.9
100	7.6	0.0	40.4





#84

Pyrene

Concen: 34.82 ppm m

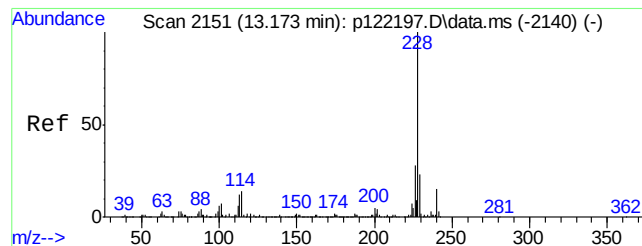
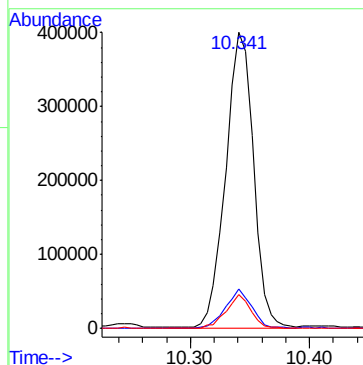
RT: 10.341 min Scan# 1677

Delta R.T. -0.204 min

Lab File: p123452.D

Acq: 11 Jun 2018 12:35 pm

Tgt Ion:	202	Resp:	646429
Ion Ratio	Lower	Upper	
202	100		
101	13.5	0.0	46.3
100	11.3	0.0	43.2



#87

Benzo[a]anthracene

Concen: 27.46 ppm

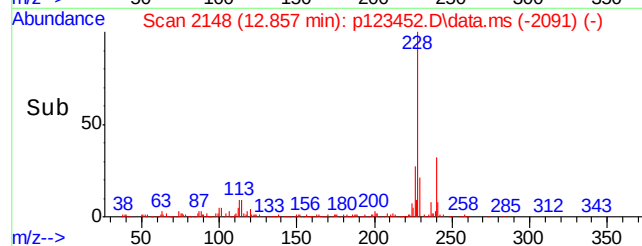
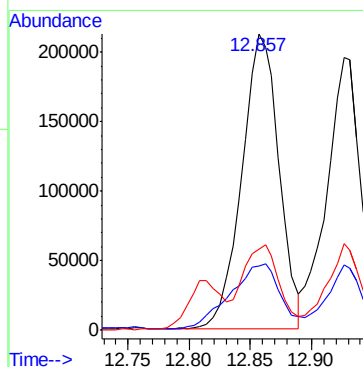
RT: 12.857 min Scan# 2148

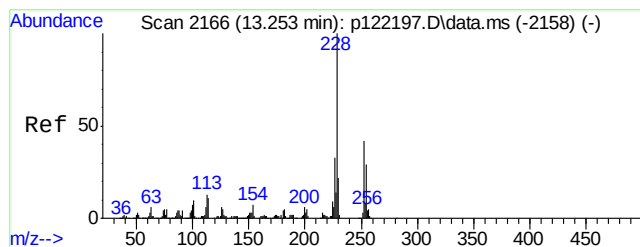
Delta R.T. -0.194 min

Lab File: p123452.D

Acq: 11 Jun 2018 12:35 pm

Tgt Ion:	228	Resp:	448513
Ion Ratio	Lower	Upper	
228	100		
229	20.1	0.0	53.1
226	26.3	0.0	58.1





#89

Chrysene

Concen: 24.73 ppm

RT: 12.926 min Scan# 2161

Delta R.T. -0.203 min

Lab File: p123452.D

Acq: 11 Jun 2018 12:35 pm

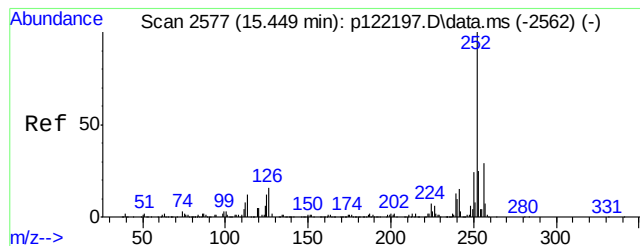
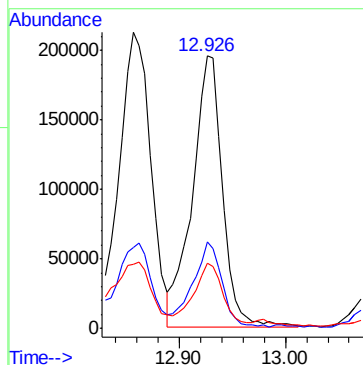
Tgt Ion: 228 Resp: 383956

Ion Ratio Lower Upper

228 100

226 30.8 2.7 62.7

229 22.1 0.0 52.1



#93

Benzo[b]fluoranthene

Concen: 35.02 ppm m

RT: 15.127 min Scan# 2573

Delta R.T. -0.210 min

Lab File: p123452.D

Acq: 11 Jun 2018 12:35 pm

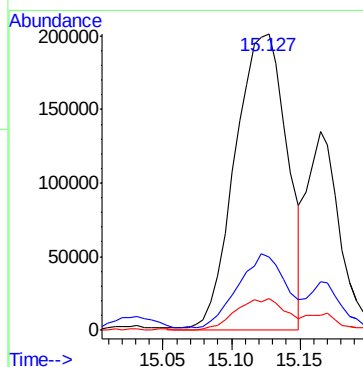
Tgt Ion: 252 Resp: 533327

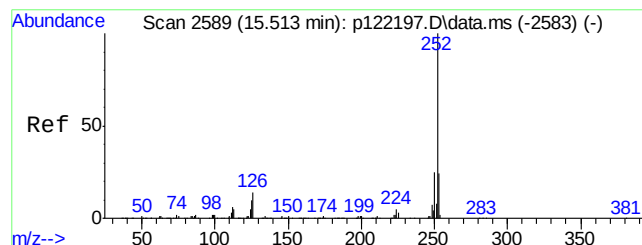
Ion Ratio Lower Upper

252 100

253 24.7 0.0 54.9

125 10.7 0.0 38.3





#94

Benzo[k]fluoranthene

Concen: 15.12 ppm

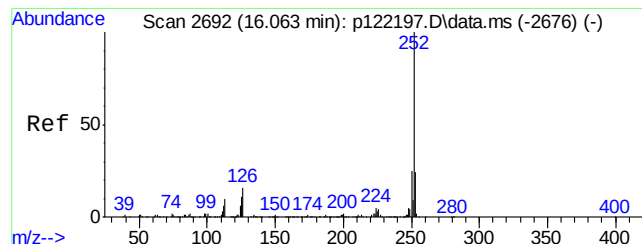
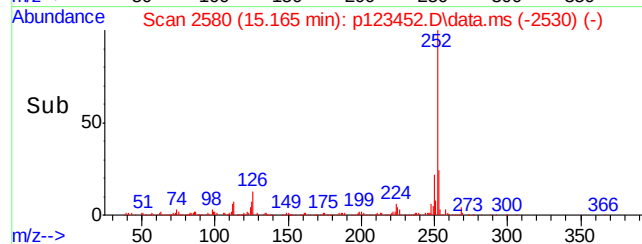
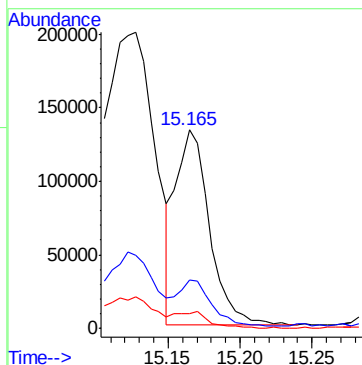
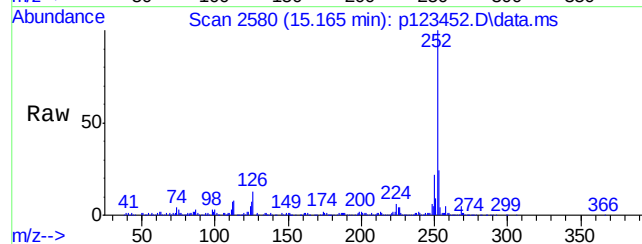
RT: 15.165 min Scan# 2580

Delta R.T. -0.231 min

Lab File: p123452.D

Acq: 11 Jun 2018 12:35 pm

Tgt	Ion:252	Resp:	216817
Ion	Ratio	Lower	Upper
252	100		
253	22.9	0.0	53.9
125	6.3	0.0	37.0



#95

Benzo[a]pyrene

Concen: 35.38 ppm

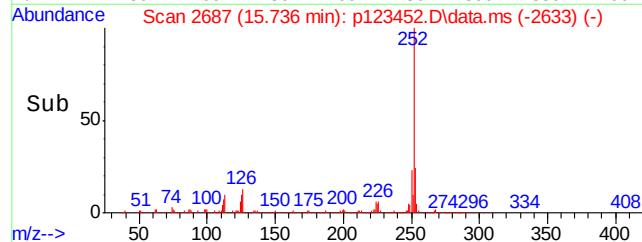
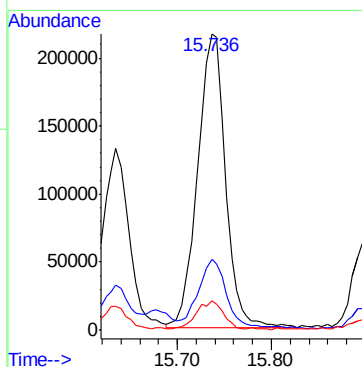
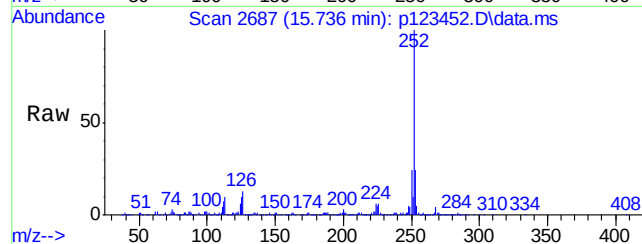
RT: 15.736 min Scan# 2687

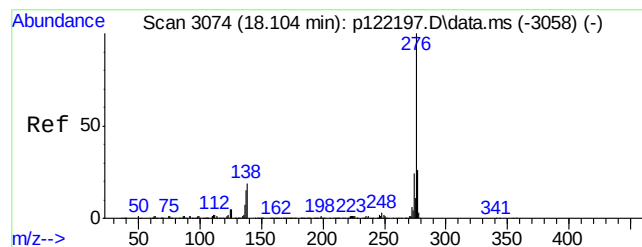
Delta R.T. -0.210 min

Lab File: p123452.D

Acq: 11 Jun 2018 12:35 pm

Tgt	Ion:252	Resp:	444416
Ion	Ratio	Lower	Upper
252	100		
253	21.0	0.0	53.4
125	9.7	0.0	38.8





#96

Indeno[1,2,3-cd]pyrene

Concen: 23.13 ppm

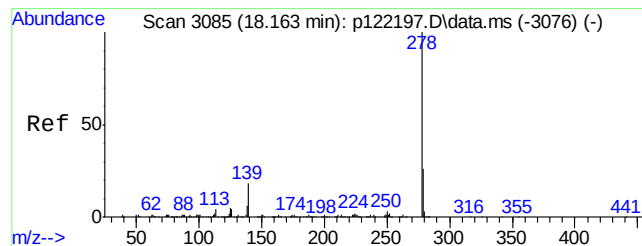
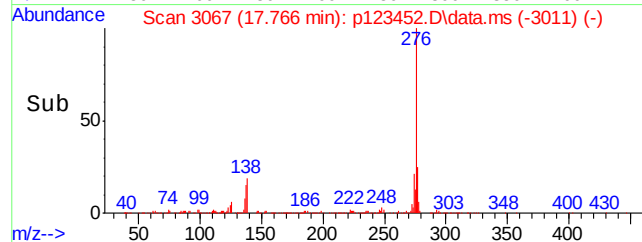
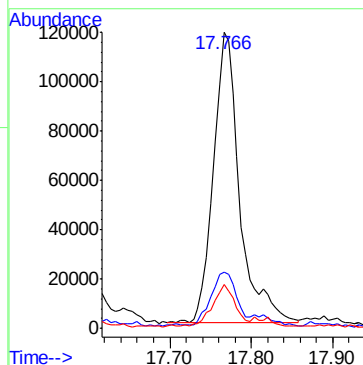
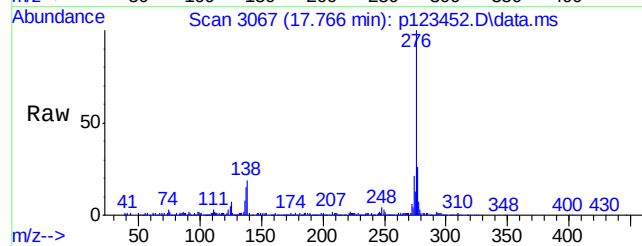
RT: 17.766 min Scan# 3067

Delta R.T. -0.203 min

Lab File: p123452.D

Acq: 11 Jun 2018 12:35 pm

Tgt Ion:	276	Resp:	262943
Ion Ratio	Lower	Upper	
276	100		
138	17.7	0.0	45.8
137	14.2	0.0	42.1



#98

Dibenz[a,h]anthracene

Concen: 5.26 ppm

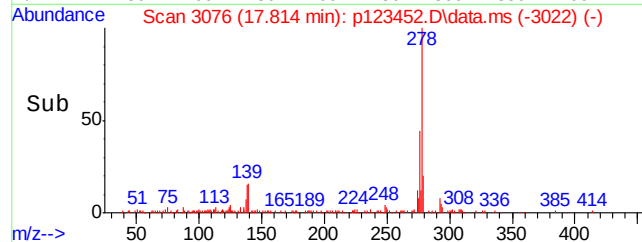
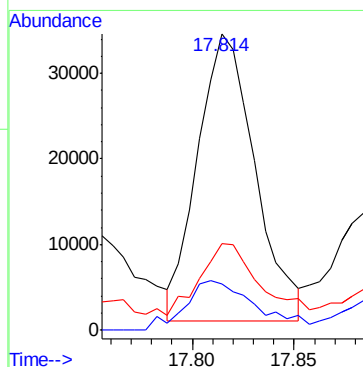
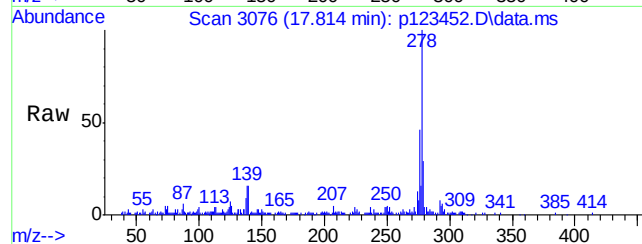
RT: 17.814 min Scan# 3076

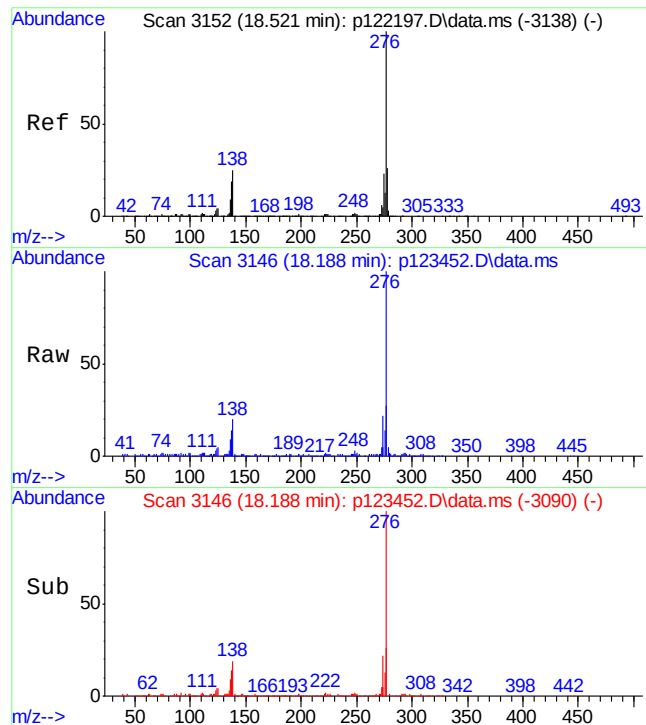
Delta R.T. -0.213 min

Lab File: p123452.D

Acq: 11 Jun 2018 12:35 pm

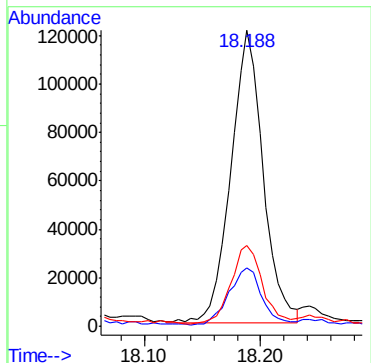
Tgt Ion:	278	Resp:	65648
Ion Ratio	Lower	Upper	
278	100		
139	14.0	0.0	41.8
279	24.9	0.0	55.0





#100
Benzo[g,h,i]perylene
Concen: 19.01 ppm
RT: 18.188 min Scan# 3146
Delta R.T. -0.199 min
Lab File: p123452.D
Acq: 11 Jun 2018 12:35 pm

Tgt Ion:	276	Resp:	231018
Ion Ratio	Lower	Upper	
276	100		
138	19.1	0.0	47.6
277	26.1	0.0	56.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6453\
 Data File : z130878.D
 Acq On : 22 May 2018 5:17 am
 Operator : chriss2
 Sample : jc65799-7
 Misc : op12146,ez6453,30.2,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 22 17:16:41 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 QLast Update : Mon May 21 13:38:40 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.721	152	196235	40.00	ppm	0.00
24) Naphthalene-d8	5.634	136	809837	40.00	ppm	0.00
47) Acenaphthene-d10	7.002	164	419622	40.00	ppm	0.00
69) Phenanthrene-d10	8.589	188	773607	40.00	ppm	0.00
83) Chrysene-d12	12.392	240	553113	40.00	ppm	0.00
91) Perylene-d12	14.470	264	516527	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.721	152	196235	40.00	ppm	0.00
103) Phenanthrene-d10a	8.589	188	773607	40.00	ppm	0.00
107) Chrysene-d12a	12.392	240	553113	40.00	ppm	0.00
109) Acenaphthene-d10a	7.002	164	419622	40.00	ppm	0.00
111) Naphthalene-d8a	5.634	136	809837	40.00	ppm	0.00
113) Phenanthrene-d10b	8.589	188	773607	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.754	112	217505	29.75	ppm	0.00
Spiked Amount 50.000			Recovery	=	59.50%	
8) Phenol-d5	4.464	99	286881	32.70	ppm	0.00
Spiked Amount 50.000			Recovery	=	65.40%	
25) Nitrobenzene-d5	5.122	82	231935	32.99	ppm	0.00
Spiked Amount 50.000			Recovery	=	65.98%	
51) 2-Fluorobiphenyl	6.425	172	463209	31.50	ppm	0.00
Spiked Amount 50.000			Recovery	=	63.00%	
73) 2,4,6-Tribromophenol	7.787	330	84740	35.50	ppm	0.00
Spiked Amount 50.000			Recovery	=	71.00%	
85) Terphenyl-d14	10.816	244	503479	38.37	ppm	0.00
Spiked Amount 50.000			Recovery	=	76.74%	
104) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
105) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						
						Qvalue
38) Naphthalene	5.650	128	35043	1.70	ppm	98
44) 2-Methylnaphthalene	6.147	141	7968	0.64	ppm	89
56) Acenaphthylene	6.879	152	25208	1.22	ppm	99
59) Acenaphthene	7.034	153	16480	1.33	ppm	96
66) Fluorene	7.531	166	16150	1.16	ppm	92
77) Phenanthrene	8.621	178	198463	9.60	ppm	98
78) Anthracene	8.679	178	67680	3.24	ppm	92
81) Fluoranthene	10.223	202	452366	20.04	ppm	97
84) Pyrene	10.549	202	407459	21.62	ppm	96
87) Benzo[a]anthracene	12.376	228	296833	17.08	ppm	98
89) Chrysene	12.424	228	256140	15.68	ppm	98
93) Benzo[b]fluoranthene	13.958	252	400513	22.84	ppm	97
94) Benzo[k]fluoranthene	13.990	252	135746	8.33	ppm	96
95) Benzo[a]pyrene	14.396	252	319887	20.57	ppm	94
96) Indeno[1,2,3-cd]pyrene	15.833	276	223786	16.39	ppm	89
98) Dibenz[a,h]anthracene	15.854	278	57027m	4.08	ppm	
100) Benzo[g,h,i]perylene	16.185	276	207661	14.97	ppm	88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6453\
Data File : z130878.D
Acq On : 22 May 2018 5:17 am
Operator : chriss2
Sample : jc65799-7
Misc : op12146,eZ6453,30.2,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 22 17:16:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Mon May 21 13:38:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
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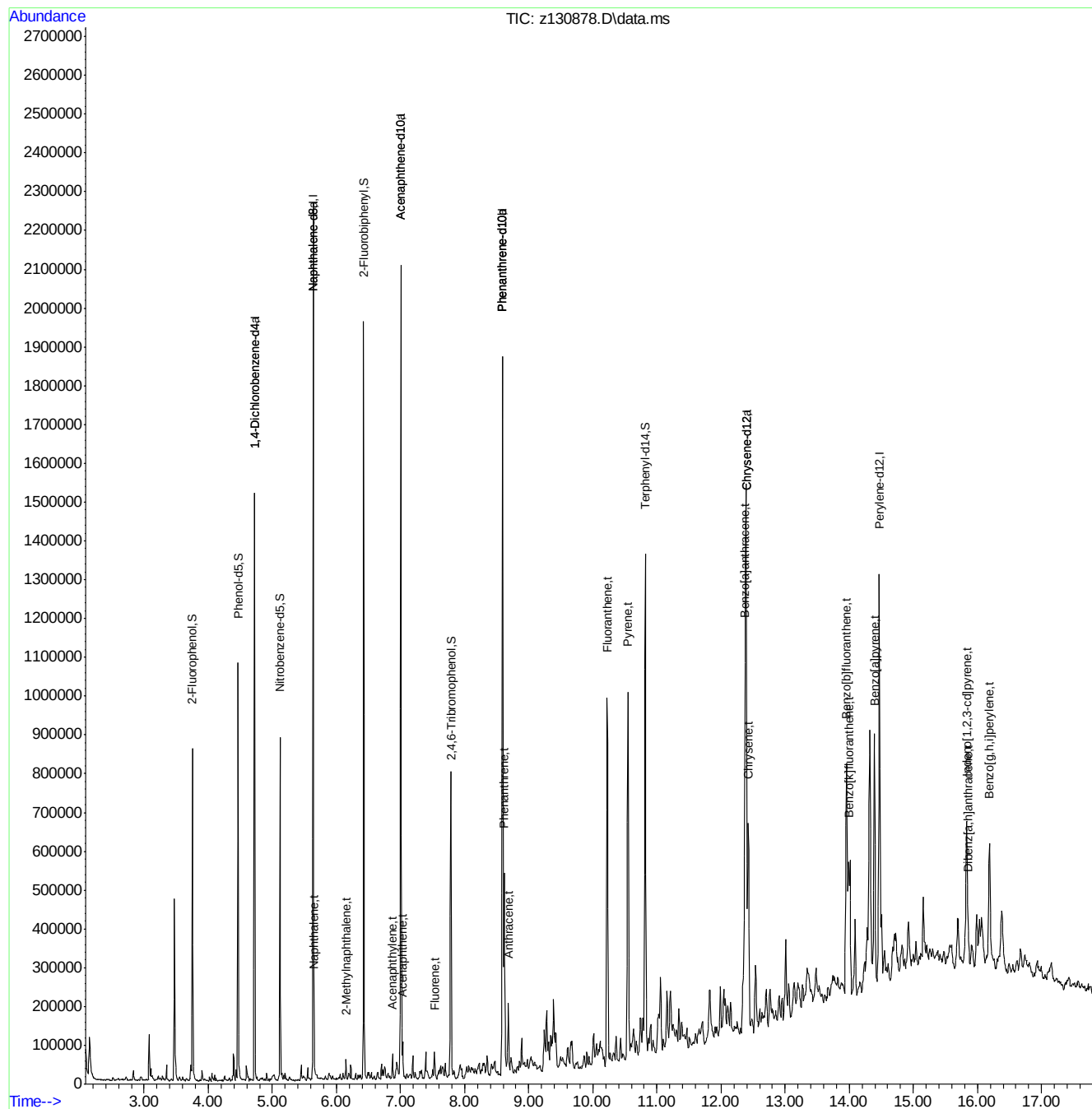
(#) = qualifier out of range (m) = manual integration (+) = signals summed

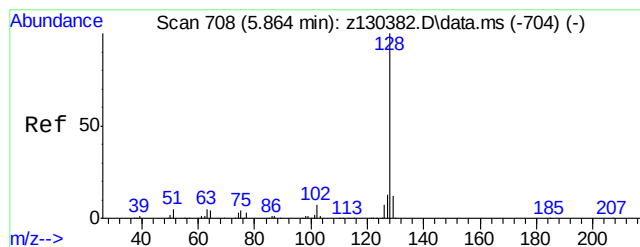
7.1.7
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6453\
Data File : z130878.D
Acq On : 22 May 2018 5:17 am
Operator : chriss2
Sample : jc65799-7
Misc : op12146,eZ6453,30.2,,,1,1
ALS Vial : 10 Sample Multiplier: 1

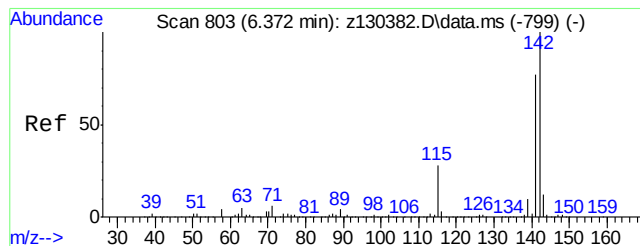
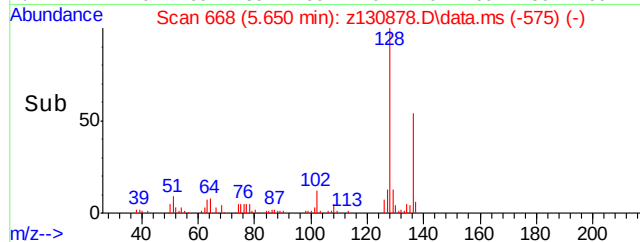
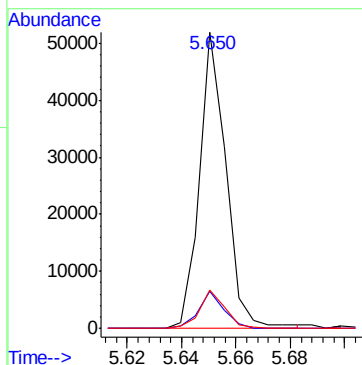
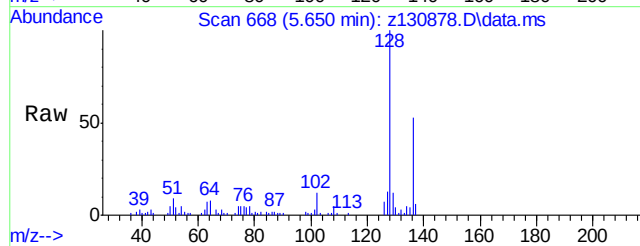
Quant Time: May 22 17:16:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Mon May 21 13:38:40 2018
Response via : Initial Calibration





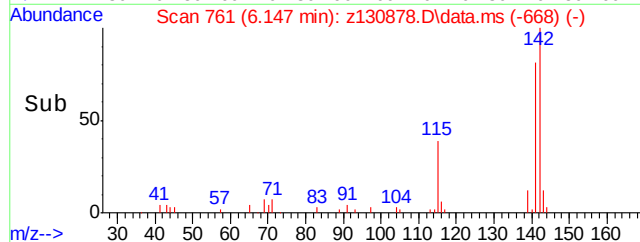
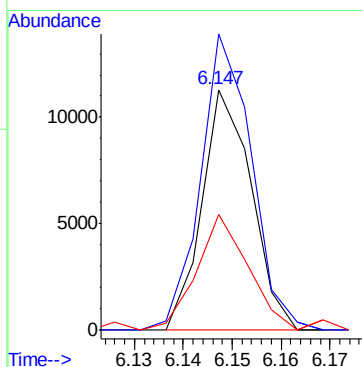
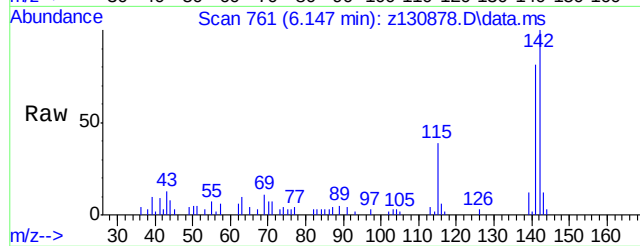
#38
Naphthalene
Concen: 1.70 ppm
RT: 5.650 min Scan# 668
Delta R.T. -0.005 min
Lab File: z130878.D
Acq: 22 May 2018 5:17 am

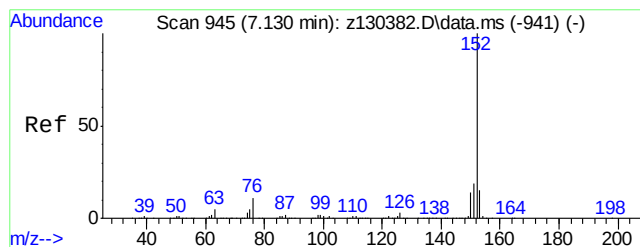
Tgt Ion:	128	Resp:	35043
Ion Ratio	Lower	Upper	
128	100		
129	12.5	0.0	42.1
127	12.9	0.0	41.9



#44
2-Methylnaphthalene
Concen: 0.64 ppm
RT: 6.147 min Scan# 761
Delta R.T. -0.005 min
Lab File: z130878.D
Acq: 22 May 2018 5:17 am

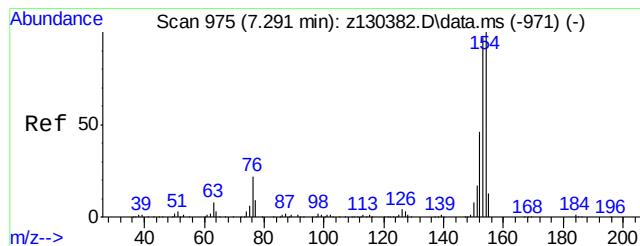
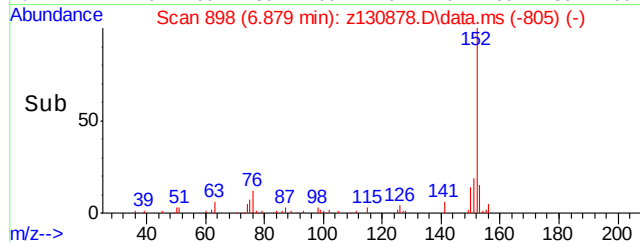
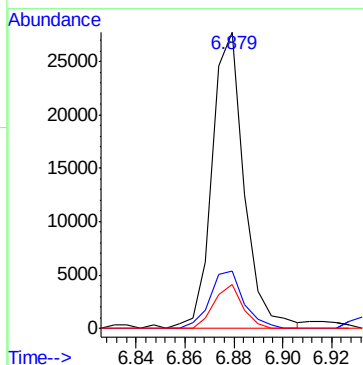
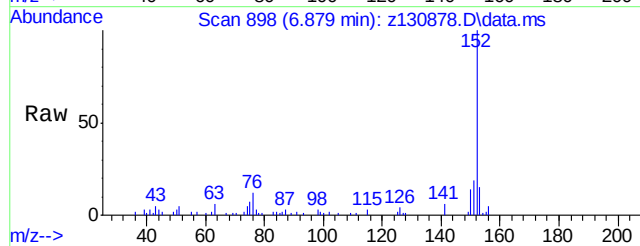
Tgt Ion:	141	Resp:	7968
Ion Ratio	Lower	Upper	
141	100		
142	119.8	99.8	159.8
115	46.6	6.1	66.1





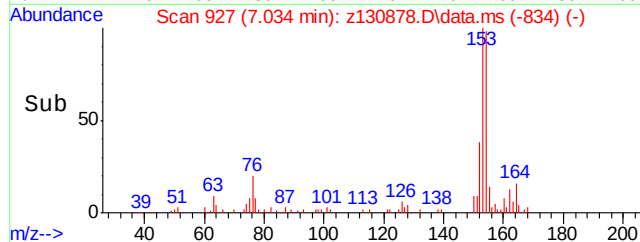
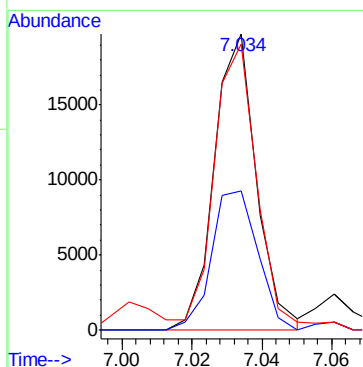
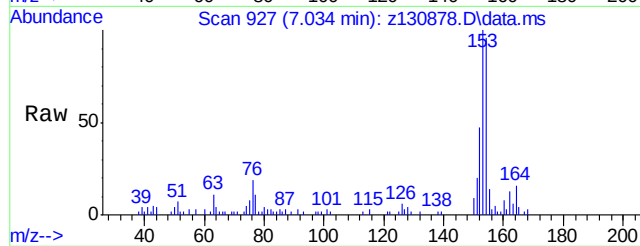
#56
Acenaphthylene
Concen: 1.22 ppm
RT: 6.879 min Scan# 898
Delta R.T. -0.005 min
Lab File: z130878.D
Acq: 22 May 2018 5:17 am

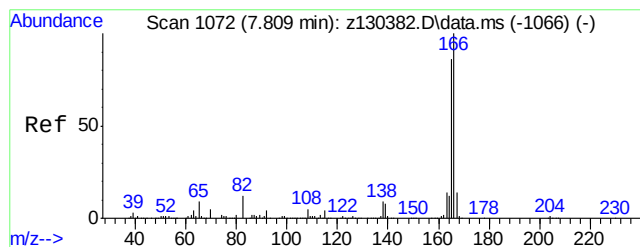
Tgt Ion:	152	Resp:	25208
Ion Ratio	Lower	Upper	
152	100		
151	19.6	0.0	49.4
153	14.8	0.0	44.5



#59
Acenaphthene
Concen: 1.33 ppm
RT: 7.034 min Scan# 927
Delta R.T. -0.005 min
Lab File: z130878.D
Acq: 22 May 2018 5:17 am

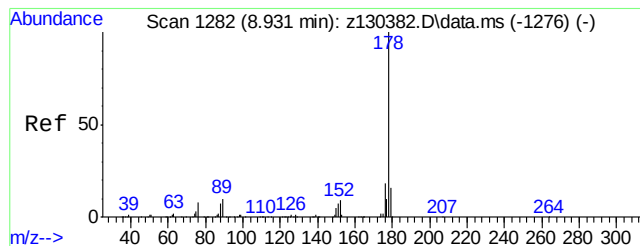
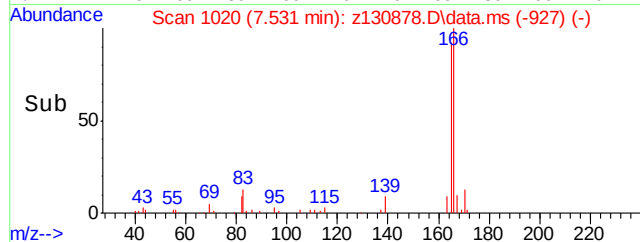
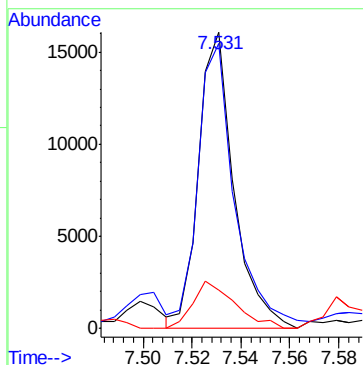
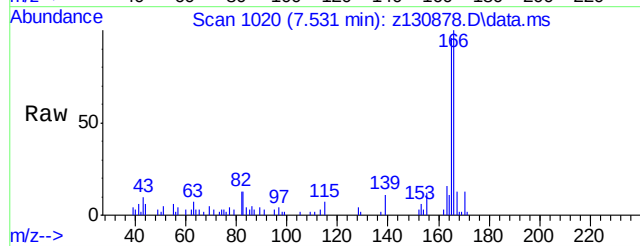
Tgt Ion:	153	Resp:	16480
Ion Ratio	Lower	Upper	
153	100		
152	48.1	16.8	76.8
154	95.2	69.7	129.7





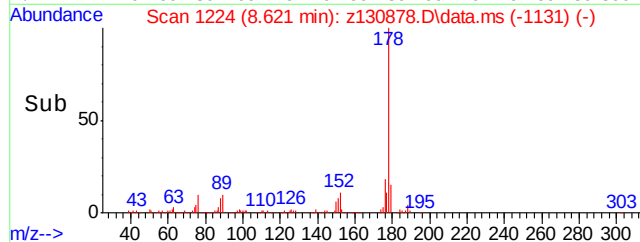
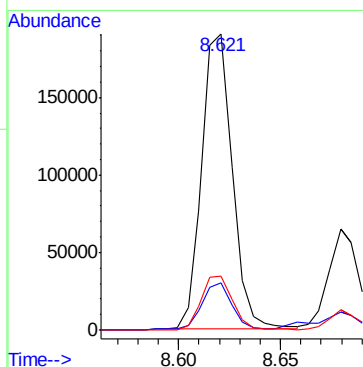
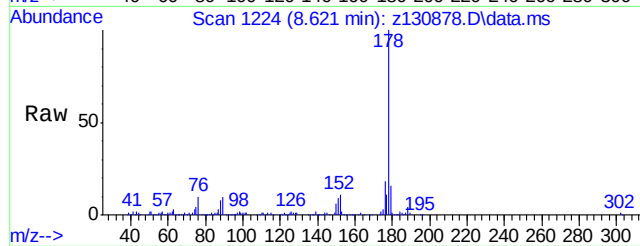
#66
 Fluorene
 Concen: 1.16 ppm
 RT: 7.531 min Scan# 1020
 Delta R.T. -0.005 min
 Lab File: z130878.D
 Acq: 22 May 2018 5:17 am

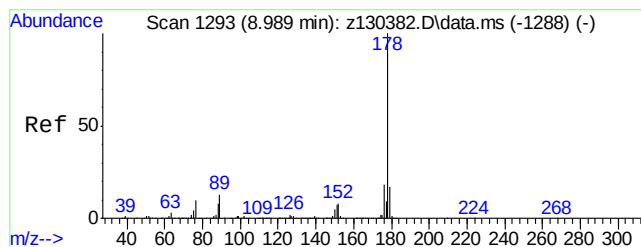
Tgt Ion:	166	Resp:	16150
Ion Ratio	Lower	Upper	
166	100		
165	94.2	56.3	116.3
167	13.3	0.0	44.1



#77
 Phenanthrene
 Concen: 9.60 ppm
 RT: 8.621 min Scan# 1224
 Delta R.T. -0.005 min
 Lab File: z130878.D
 Acq: 22 May 2018 5:17 am

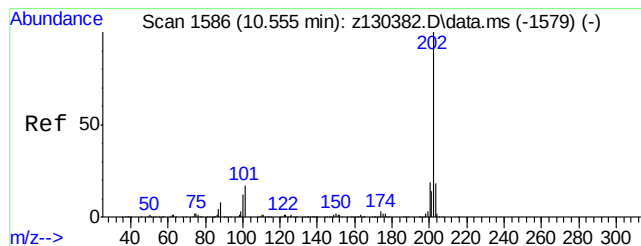
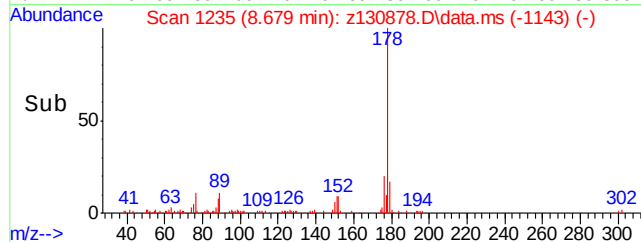
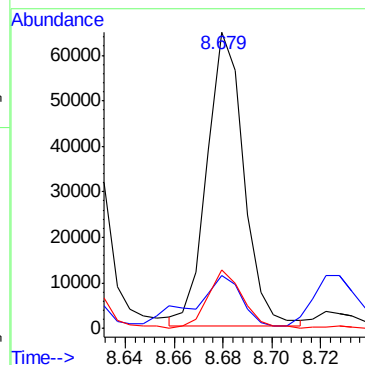
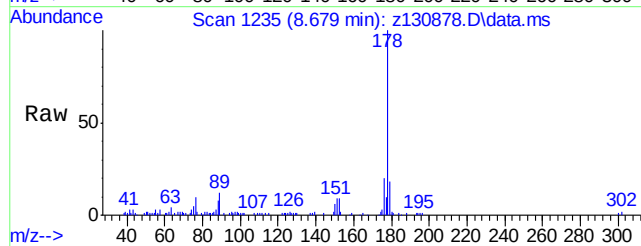
Tgt Ion:	178	Resp:	198463
Ion Ratio	Lower	Upper	
178	100		
179	14.5	0.0	46.3
176	18.3	0.0	48.1





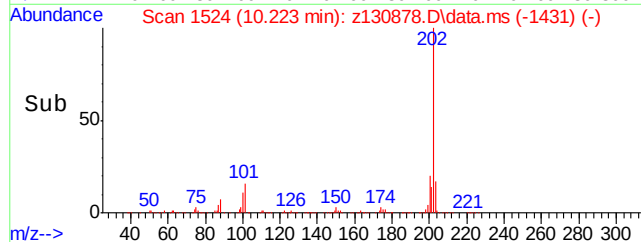
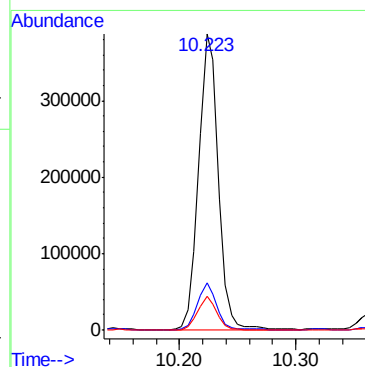
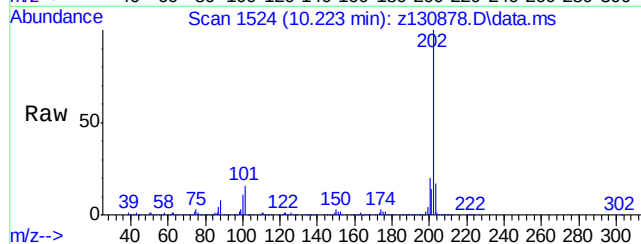
#78
 Anthracene
 Concen: 3.24 ppm
 RT: 8.679 min Scan# 1235
 Delta R.T. -0.011 min
 Lab File: z130878.D
 Acq: 22 May 2018 5:17 am

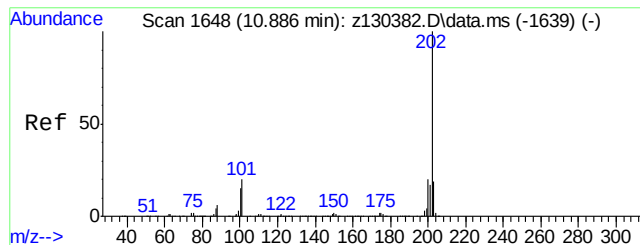
Tgt Ion	Ratio	Lower	Upper
178	100		
179	12.7	0.0	46.9
176	20.5	0.0	48.0



#81
 Fluoranthene
 Concen: 20.04 ppm
 RT: 10.223 min Scan# 1524
 Delta R.T. -0.005 min
 Lab File: z130878.D
 Acq: 22 May 2018 5:17 am

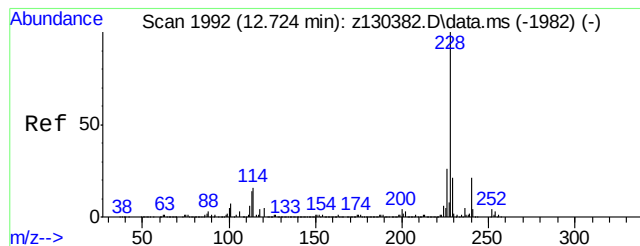
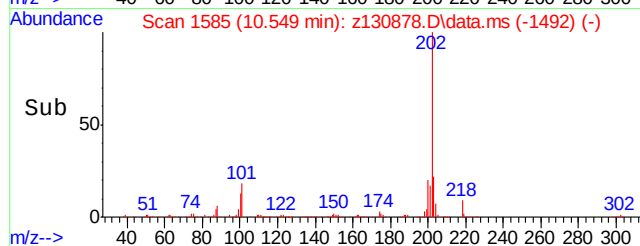
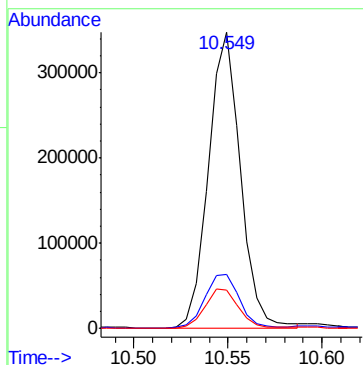
Tgt Ion	Ratio	Lower	Upper
202	100		
101	15.9	0.0	47.2
100	11.4	0.0	42.3





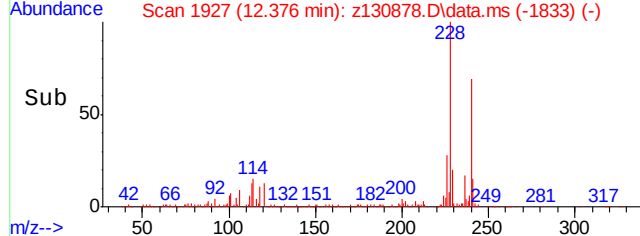
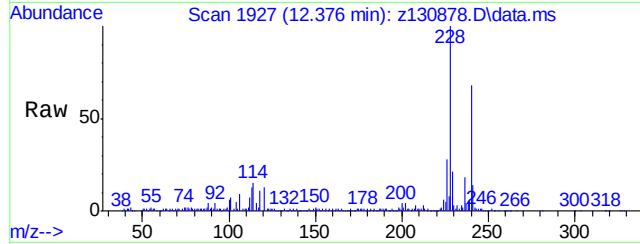
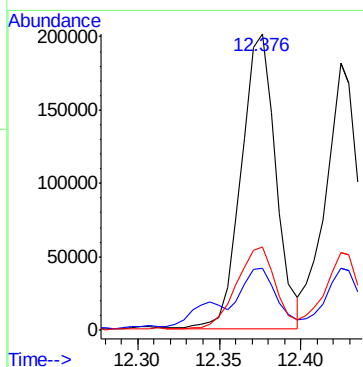
#84
Pyrene
Concen: 21.62 ppm
RT: 10.549 min Scan# 1585
Delta R.T. -0.005 min
Lab File: z130878.D
Acq: 22 May 2018 5:17 am

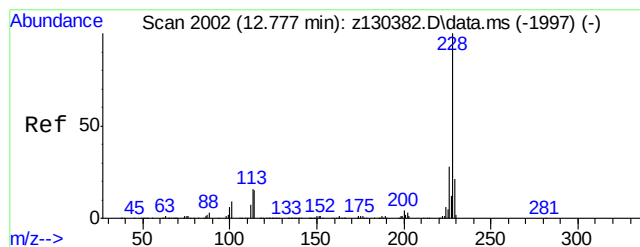
Tgt Ion:	202	Resp:	407459
Ion Ratio	Lower	Upper	
202	100		
101	18.0	0.0	49.8
100	12.9	0.0	44.6



#87
Benzo[a]anthracene
Concen: 17.08 ppm
RT: 12.376 min Scan# 1927
Delta R.T. 0.000 min
Lab File: z130878.D
Acq: 22 May 2018 5:17 am

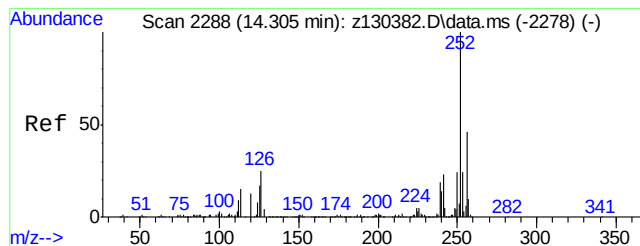
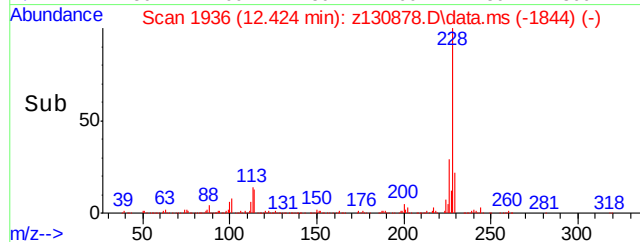
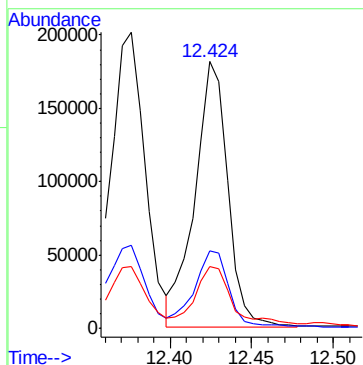
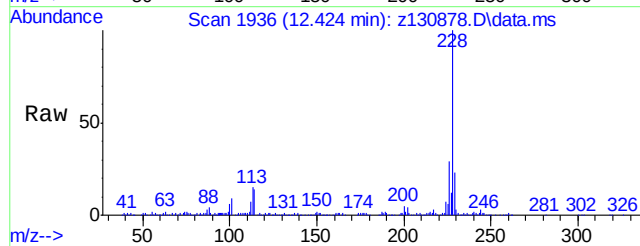
Tgt Ion:	228	Resp:	296833
Ion Ratio	Lower	Upper	
228	100		
229	19.7	0.0	50.7
226	27.6	0.0	56.2





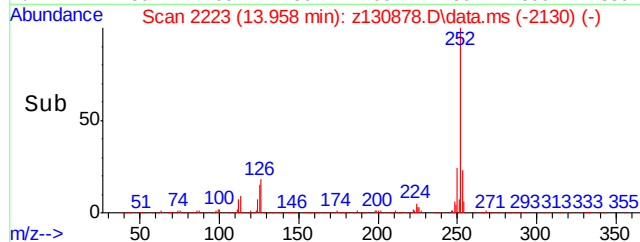
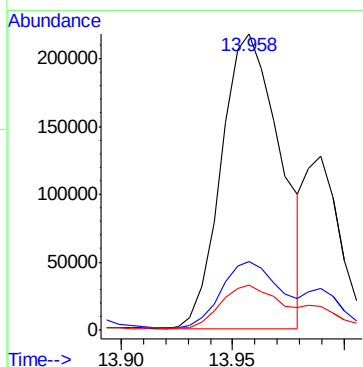
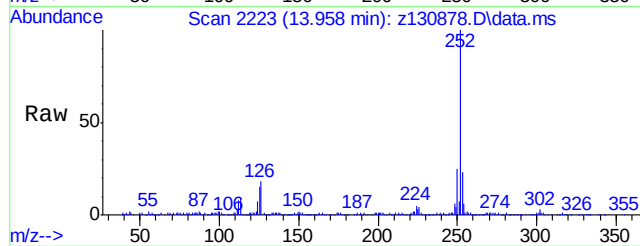
#89
Chrysene
Concen: 15.68 ppm
RT: 12.424 min Scan# 1936
Delta R.T. -0.011 min
Lab File: z130878.D
Acq: 22 May 2018 5:17 am

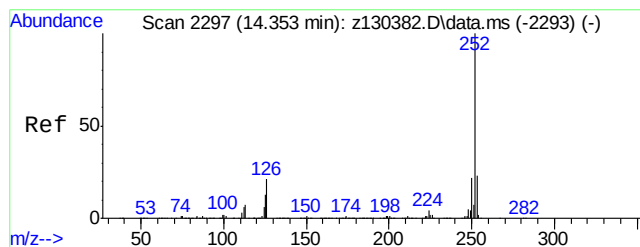
Tgt Ion:	228	Resp:	256140
Ion Ratio	100	Lower	Upper
226	28.8	0.0	58.0
229	21.9	0.0	50.8



#93
Benzo[b]fluoranthene
Concen: 22.84 ppm
RT: 13.958 min Scan# 2223
Delta R.T. -0.005 min
Lab File: z130878.D
Acq: 22 May 2018 5:17 am

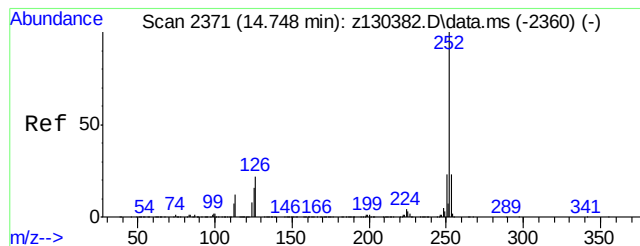
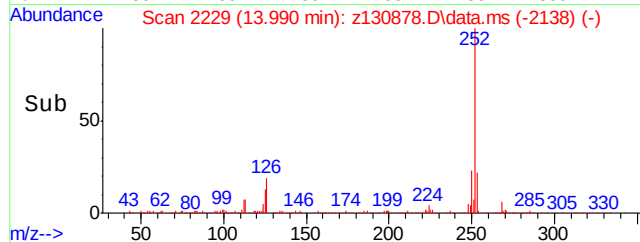
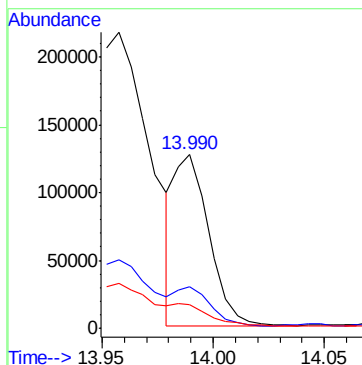
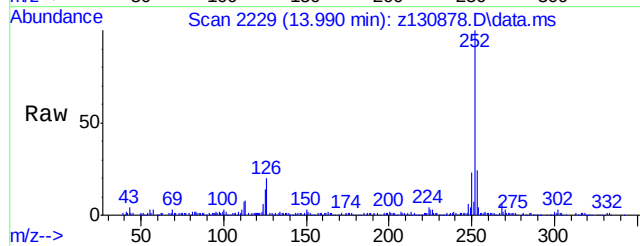
Tgt Ion:	252	Resp:	400513
Ion Ratio	100	Lower	Upper
253	22.4	0.0	52.0
125	14.5	0.0	47.1





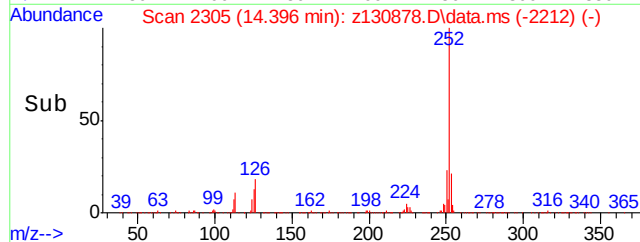
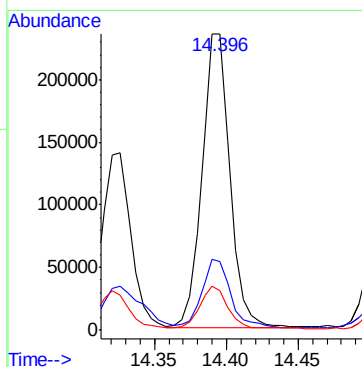
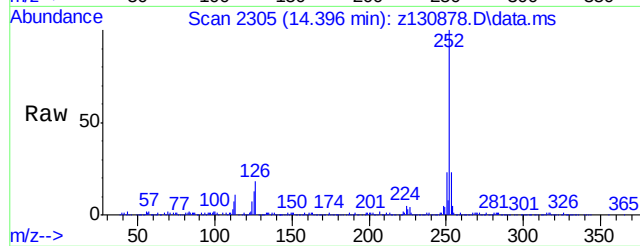
#94
Benzo[k]fluoranthene
Concen: 8.33 ppm
RT: 13.990 min Scan# 2229
Delta R.T. -0.016 min
Lab File: z130878.D
Acq: 22 May 2018 5:17 am

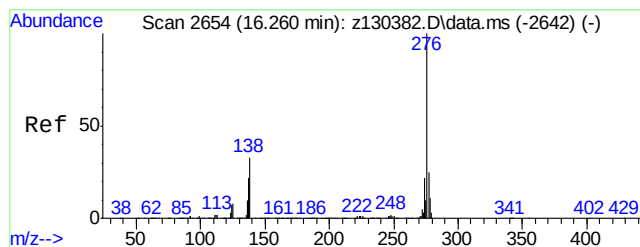
Tgt Ion	Ratio	Lower	Upper
252	100		
253	22.6	0.0	52.1
125	11.1	0.0	44.9



#95
Benzo[a]pyrene
Concen: 20.57 ppm
RT: 14.396 min Scan# 2305
Delta R.T. -0.005 min
Lab File: z130878.D
Acq: 22 May 2018 5:17 am

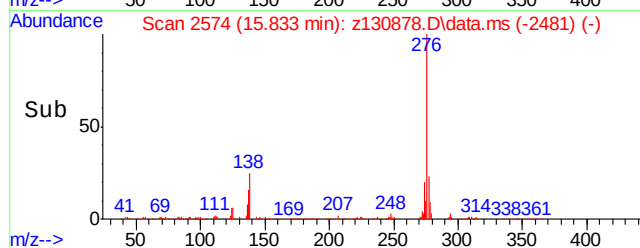
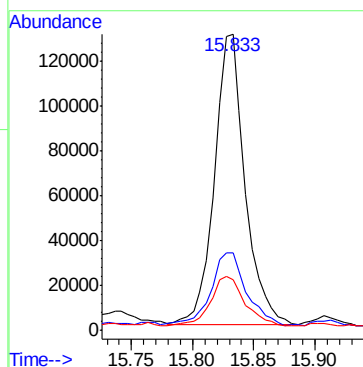
Tgt Ion	Ratio	Lower	Upper
252	100		
253	21.8	0.0	51.1
125	12.7	0.0	47.3





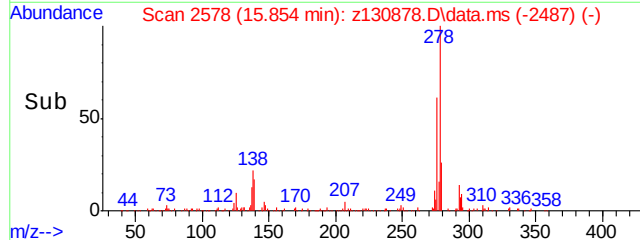
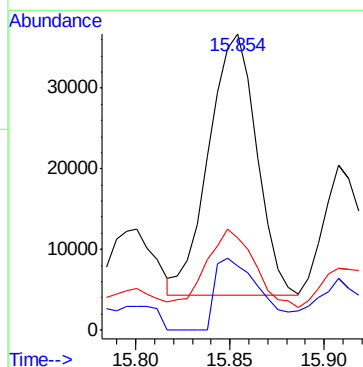
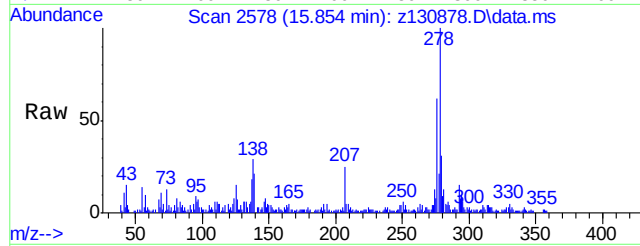
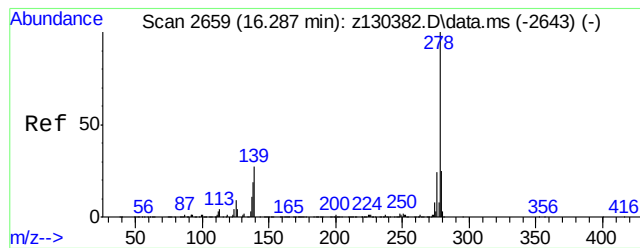
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 16.39 ppm
 RT: 15.833 min Scan# 2574
 Delta R.T. -0.005 min
 Lab File: z130878.D
 Acq: 22 May 2018 5:17 am

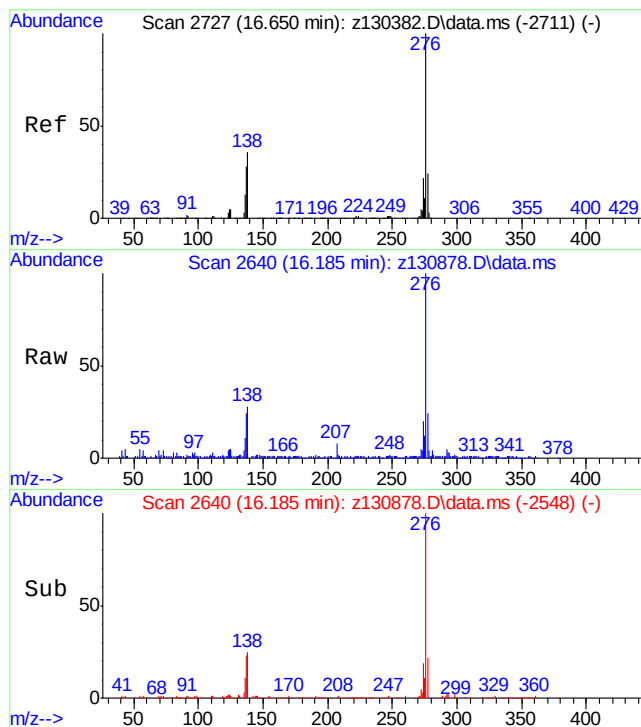
Tgt Ion:	276	Resp:	223786
Ion Ratio	Lower	Upper	
276	100		
138	24.5	1.5	61.5
137	16.0	0.0	50.0



#98
 Dibenz[a,h]anthracene
 Concen: 4.08 ppm m
 RT: 15.854 min Scan# 2578
 Delta R.T. -0.016 min
 Lab File: z130878.D
 Acq: 22 May 2018 5:17 am

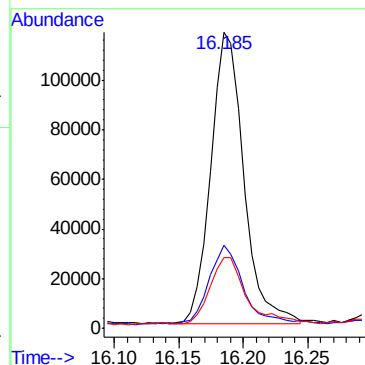
Tgt Ion:	278	Resp:	57027
Ion Ratio	Lower	Upper	
278	100		
139	21.5	0.0	55.8
279	31.2	0.0	53.0





#100
Benzo[g,h,i]perylene
Concen: 14.97 ppm
RT: 16.185 min Scan# 2640
Delta R.T. -0.011 min
Lab File: z130878.D
Acq: 22 May 2018 5:17 am

Tgt Ion	Ratio	Lower	Upper
276	100		
138	26.4	7.0	67.0
277	22.6	0.0	54.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6455\
 Data File : z130940.D
 Acq On : 23 May 2018 5:14 pm
 Operator : johnb1
 Sample : jc65799-8
 Misc : op11924,eZ6455,31.6,,,1,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 23 17:43:20 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 QLast Update : Mon May 21 13:38:40 2018
 Response via : Initial Calibration

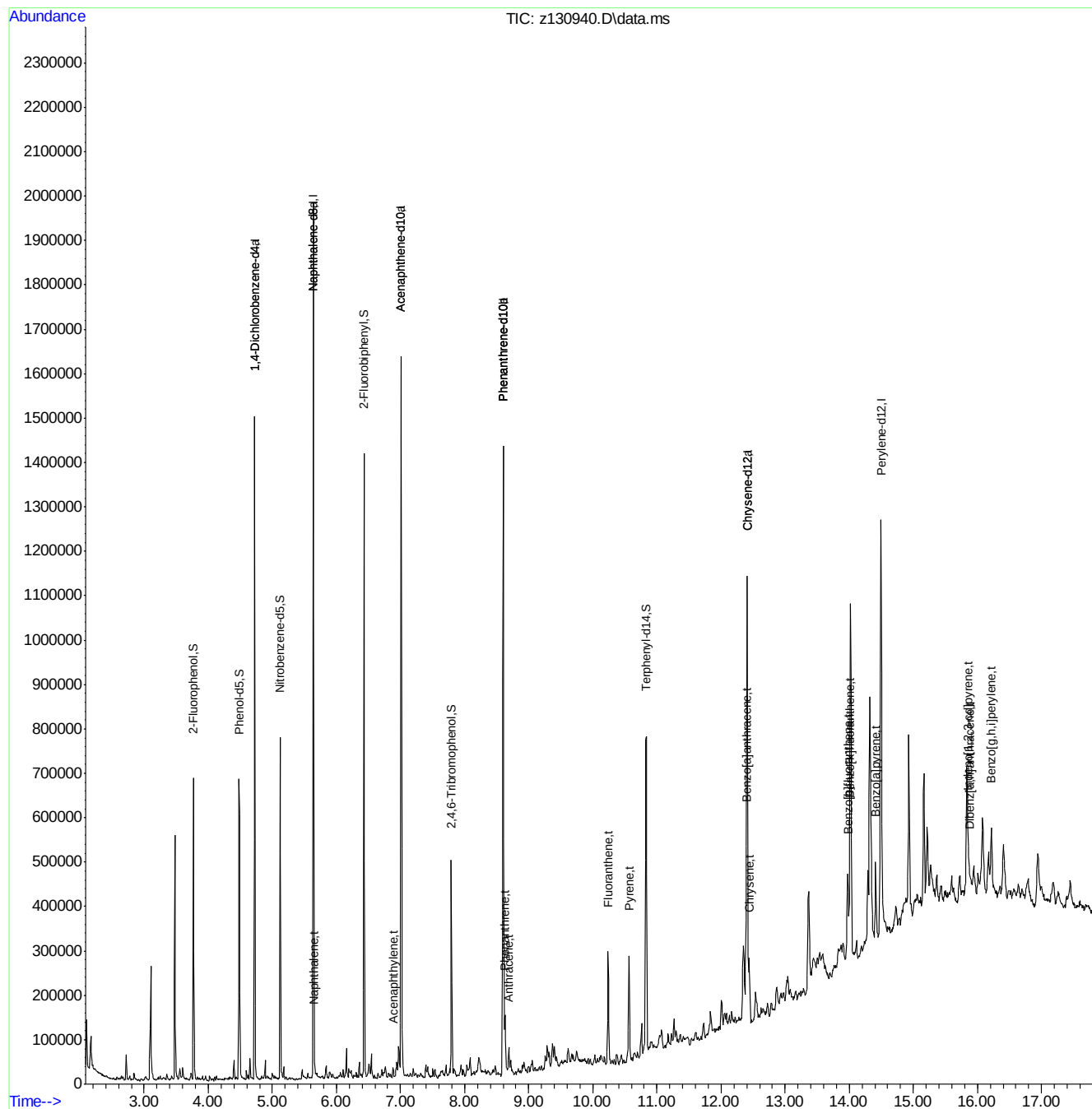
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.721	152	170772	40.00	ppm	0.00
24) Naphthalene-d8	5.640	136	671199	40.00	ppm	0.00
47) Acenaphthene-d10	7.007	164	320572	40.00	ppm	0.00
69) Phenanthrene-d10	8.599	188	560845	40.00	ppm	0.00
83) Chrysene-d12	12.408	240	420799	40.00	ppm	0.01
91) Perylene-d12	14.497	264	438922	40.00	ppm	0.02
101) 1,4-Dichlorobenzene-d4a	4.721	152	170772	40.00	ppm	0.00
103) Phenanthrene-d10a	8.599	188	560845	40.00	ppm	0.00
107) Chrysene-d12a	12.408	240	420799	40.00	ppm	0.01
109) Acenaphthene-d10a	7.007	164	320572	40.00	ppm	0.00
111) Naphthalene-d8a	5.640	136	671199	40.00	ppm	0.00
113) Phenanthrene-d10b	8.599	188	560845	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.770	112	159288	25.04	ppm	0.02
Spiked Amount 50.000			Recovery	=	50.08%	
8) Phenol-d5	4.480	99	205932	26.97	ppm	0.01
Spiked Amount 50.000			Recovery	=	53.94%	
25) Nitrobenzene-d5	5.121	82	186975	32.09	ppm	0.00
Spiked Amount 50.000			Recovery	=	64.18%	
51) 2-Fluorobiphenyl	6.430	172	339841	30.25	ppm	0.00
Spiked Amount 50.000			Recovery	=	60.50%	
73) 2,4,6-Tribromophenol	7.798	330	53304	30.80	ppm	0.00
Spiked Amount 50.000			Recovery	=	61.60%	
85) Terphenyl-d14	10.832	244	279257	27.97	ppm	0.01
Spiked Amount 50.000			Recovery	=	55.94%	
104) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
105) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						
						Qvalue
38) Naphthalene	5.656	128	7108	0.42	ppm	96
56) Acenaphthylene	6.884	152	9103	0.58	ppm	95
77) Phenanthrene	8.631	178	44814	2.99	ppm	96
78) Anthracene	8.690	178	15733	1.04	ppm	91
81) Fluoranthene	10.239	202	116518	7.12	ppm	92
84) Pyrene	10.565	202	99928	6.97	ppm	94
87) Benzo[a]anthracene	12.392	228	69758	5.28	ppm	97
89) Chrysene	12.440	228	68044	5.47	ppm	96
93) Benzo[b]fluoranthene	13.979	252	115980	7.78	ppm	92
94) Benzo[k]fluoranthene	14.006	252	36591	2.64	ppm	95
95) Benzo[a]pyrene	14.412	252	85237	6.45	ppm	93
96) Indeno[1,2,3-cd]pyrene	15.854	276	62616	5.40	ppm	82
98) Dibenz[a,h]anthracene	15.875	278	17623	1.48	ppm	84
100) Benzo[g,h,i]perylene	16.217	276	60572	5.14	ppm	85

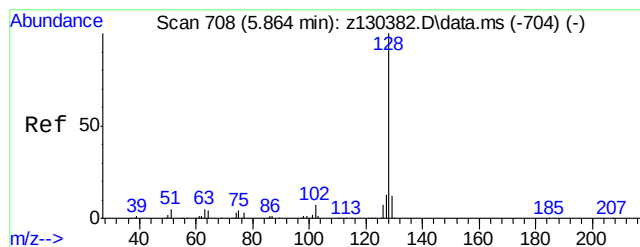
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

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Data Path   : C:\msdchem\1\DATA\EZ6455\  
Data File   : z130940.D  
Acq On      : 23 May 2018      5:14 pm  
Operator    : johnb1  
Sample      : jc65799-8  
Misc        : op11924,eZ6455,31.6,,,1,1  
ALS Vial    : 16      Sample Multiplier: 1
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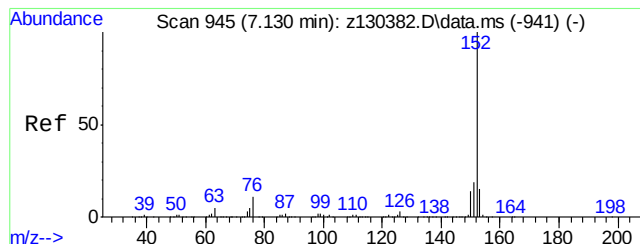
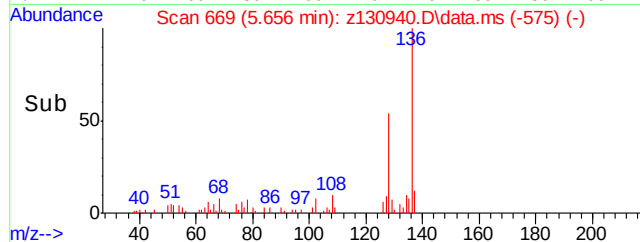
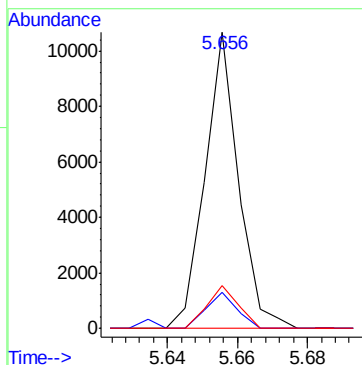
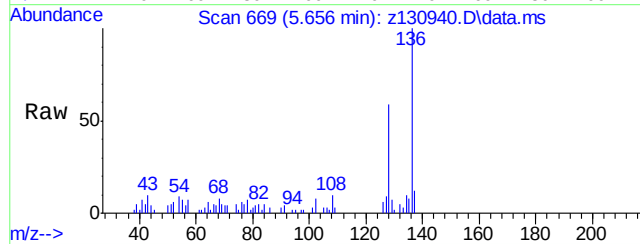
Quant Time: May 23 17:43:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Mon May 21 13:38:40 2018
Response via : Initial Calibration





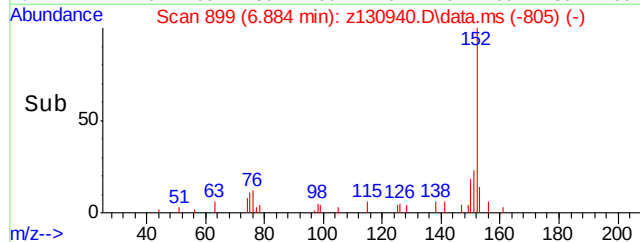
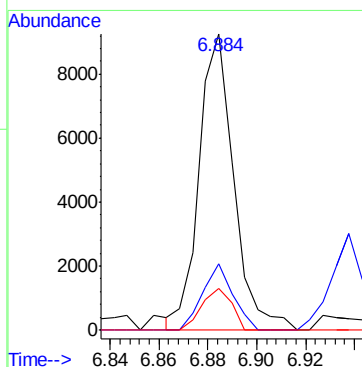
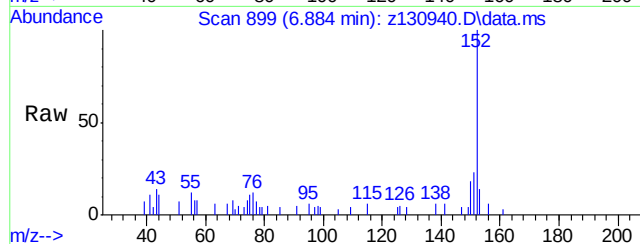
#38
Naphthalene
Concen: 0.42 ppm
RT: 5.656 min Scan# 669
Delta R.T. 0.000 min
Lab File: z130940.D
Acq: 23 May 2018 5:14 pm

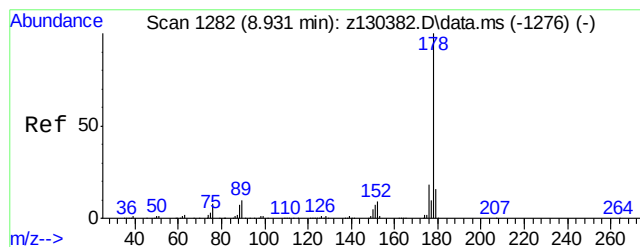
Tgt Ion:	128	Resp:	7108
Ion Ratio	Lower	Upper	
128	100		
129	12.3	0.0	42.1
127	14.5	0.0	41.9



#56
Acenaphthylene
Concen: 0.58 ppm
RT: 6.884 min Scan# 899
Delta R.T. 0.000 min
Lab File: z130940.D
Acq: 23 May 2018 5:14 pm

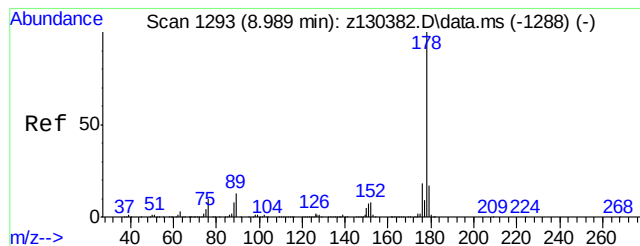
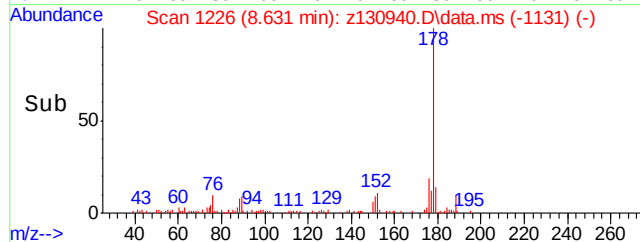
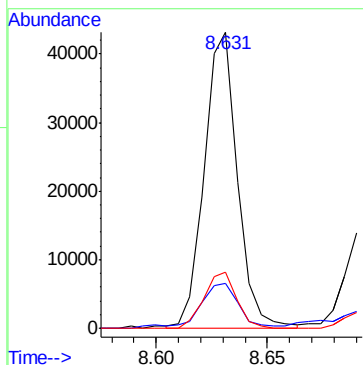
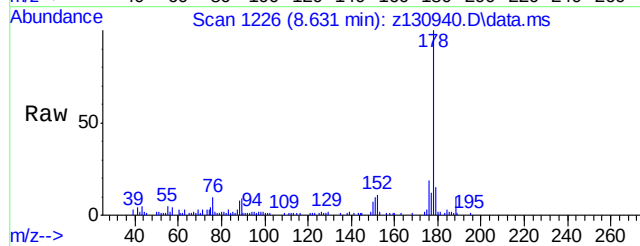
Tgt Ion:	152	Resp:	9103
Ion Ratio	Lower	Upper	
152	100		
151	23.0	0.0	49.4
153	14.3	0.0	44.5





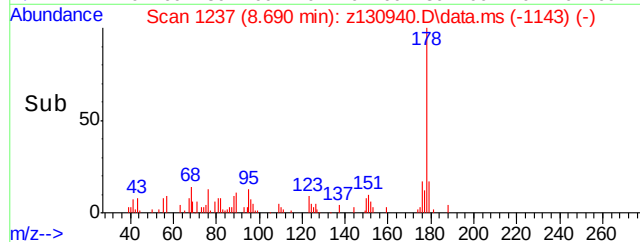
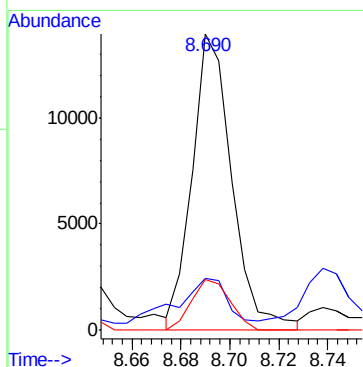
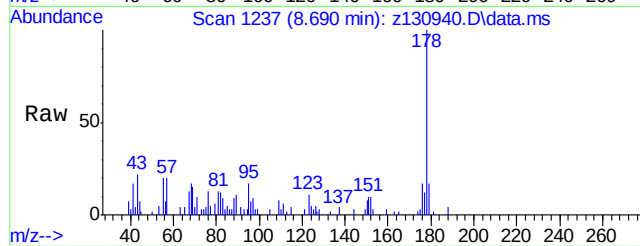
#77
Phenanthrene
Concen: 2.99 ppm
RT: 8.631 min Scan# 1226
Delta R.T. 0.005 min
Lab File: z130940.D
Acq: 23 May 2018 5:14 pm

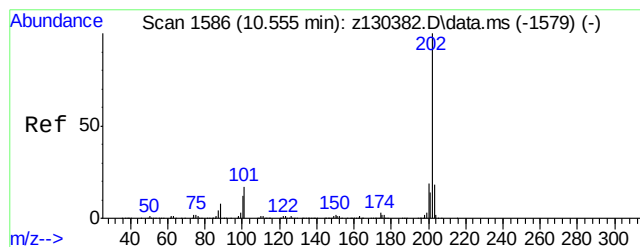
Tgt Ion	Ratio	Lower	Upper
178	100		
179	14.0	0.0	46.3
176	19.3	0.0	48.1



#78
Anthracene
Concen: 1.04 ppm
RT: 8.690 min Scan# 1237
Delta R.T. 0.000 min
Lab File: z130940.D
Acq: 23 May 2018 5:14 pm

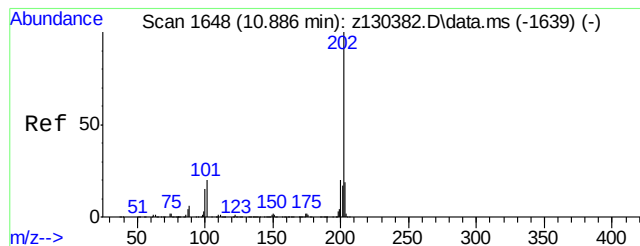
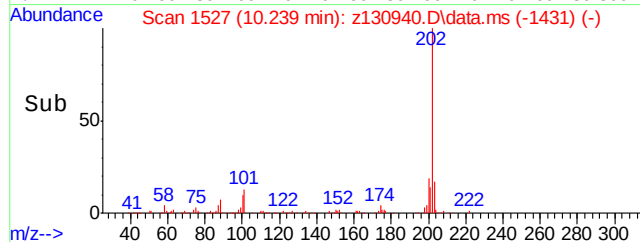
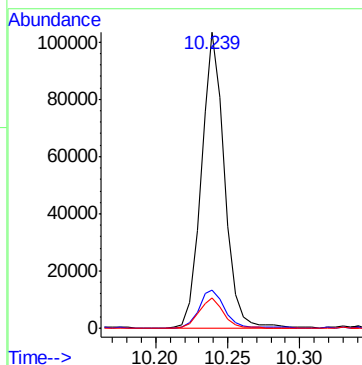
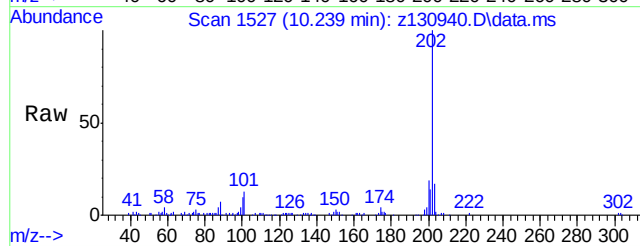
Tgt Ion	Ratio	Lower	Upper
178	100		
179	9.5	0.0	46.9
176	17.5	0.0	48.0





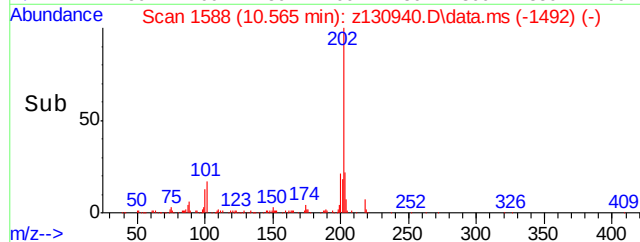
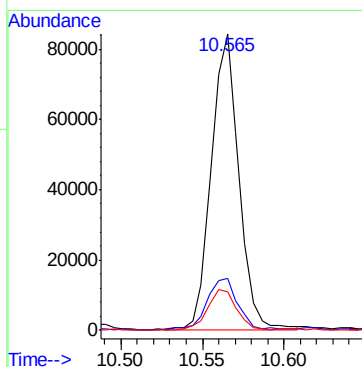
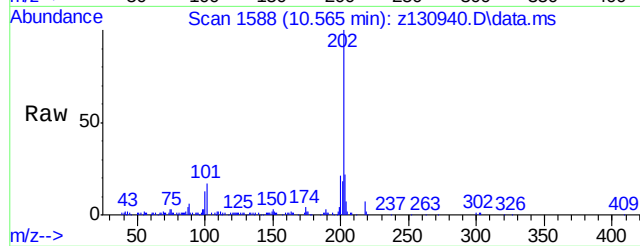
#81
Fluoranthene
Concen: 7.12 ppm
RT: 10.239 min Scan# 1527
Delta R.T. 0.011 min
Lab File: z130940.D
Acq: 23 May 2018 5:14 pm

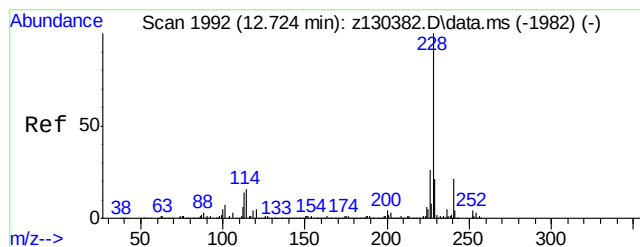
Tgt	Ion:202	Resp:	116518
Ion	Ratio	Lower	Upper
202	100		
101	13.1	0.0	47.2
100	10.3	0.0	42.3



#84
Pyrene
Concen: 6.97 ppm
RT: 10.565 min Scan# 1588
Delta R.T. 0.011 min
Lab File: z130940.D
Acq: 23 May 2018 5:14 pm

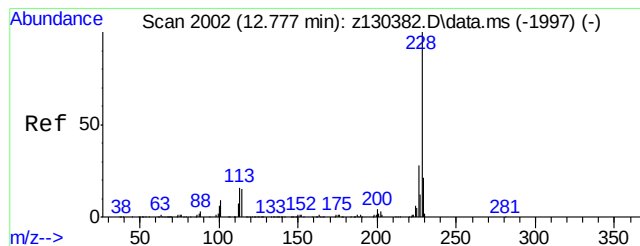
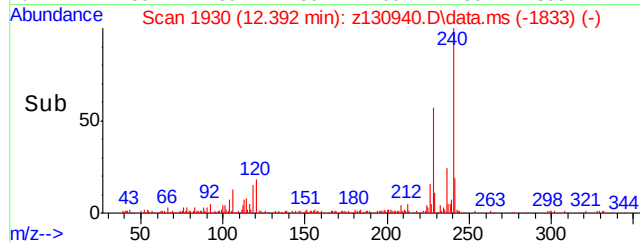
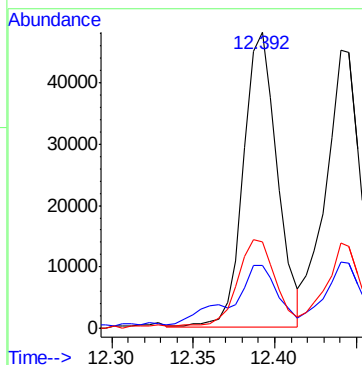
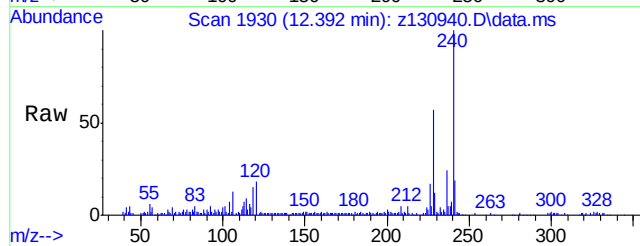
Tgt	Ion:202	Resp:	99928
Ion	Ratio	Lower	Upper
202	100		
101	16.9	0.0	49.8
100	12.7	0.0	44.6





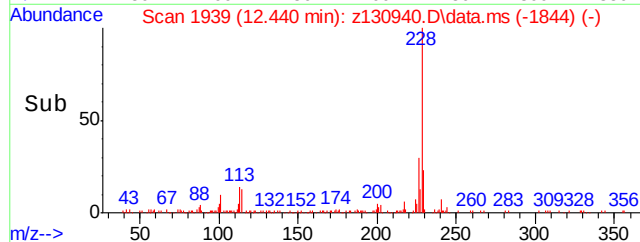
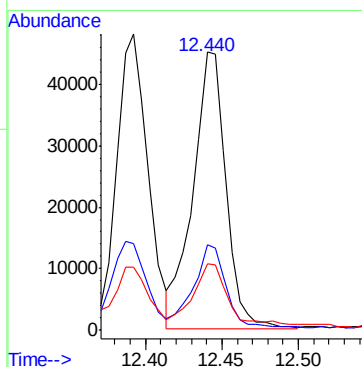
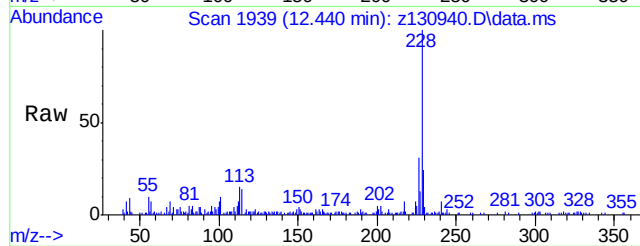
#87
Benzo[a]anthracene
Concen: 5.28 ppm
RT: 12.392 min Scan# 1930
Delta R.T. 0.016 min
Lab File: z130940.D
Acq: 23 May 2018 5:14 pm

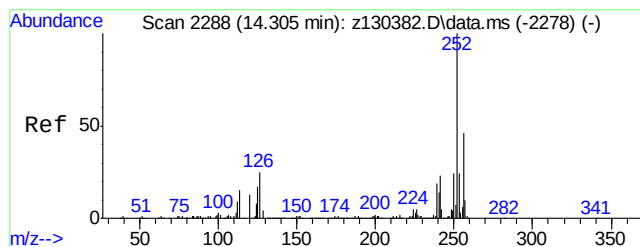
Tgt Ion:	228	Resp:	69758
Ion Ratio	Lower	Upper	
228	100		
229	20.2	0.0	50.7
226	28.6	0.0	56.2



#89
Chrysene
Concen: 5.47 ppm
RT: 12.440 min Scan# 1939
Delta R.T. 0.005 min
Lab File: z130940.D
Acq: 23 May 2018 5:14 pm

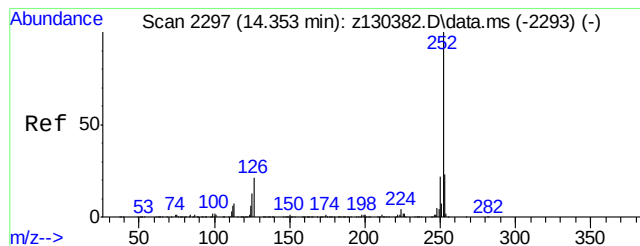
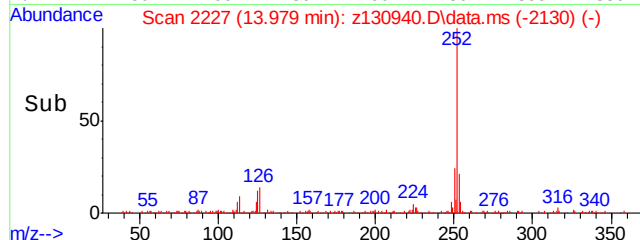
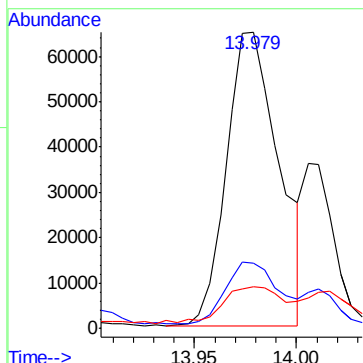
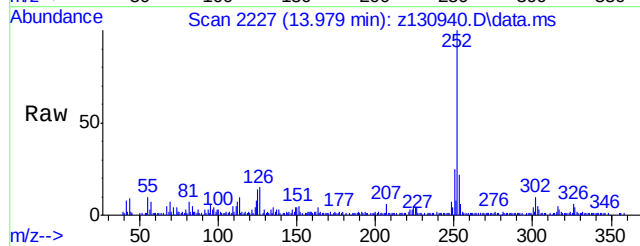
Tgt Ion:	228	Resp:	68044
Ion Ratio	Lower	Upper	
228	100		
226	30.1	0.0	58.0
229	22.6	0.0	50.8





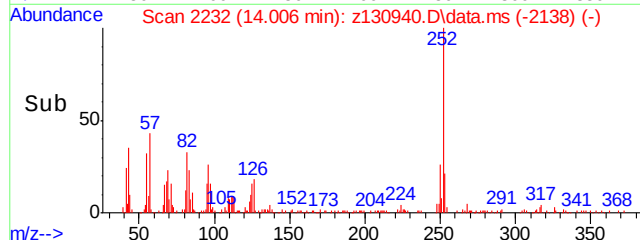
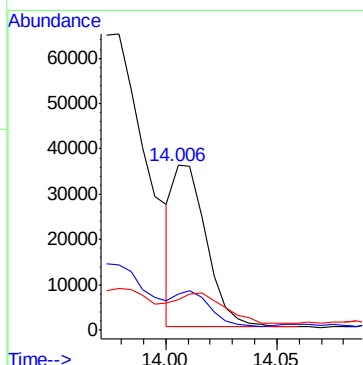
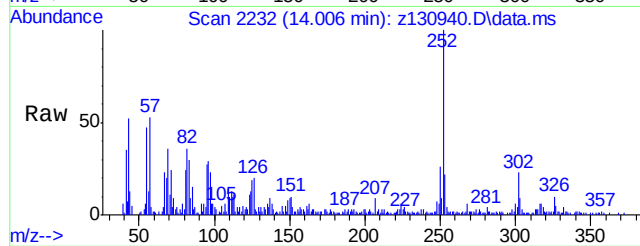
#93
 Benzo[b]fluoranthene
 Concen: 7.78 ppm
 RT: 13.979 min Scan# 2227
 Delta R.T. 0.016 min
 Lab File: z130940.D
 Acq: 23 May 2018 5:14 pm

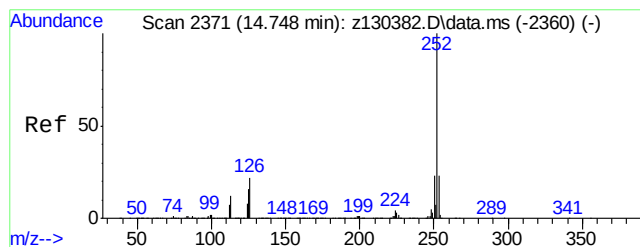
Tgt	Ion:252	Resp:	115980
Ion	Ratio	Lower	Upper
252	100		
253	20.7	0.0	52.0
125	10.7	0.0	47.1



#94
 Benzo[k]fluoranthene
 Concen: 2.64 ppm
 RT: 14.006 min Scan# 2232
 Delta R.T. 0.000 min
 Lab File: z130940.D
 Acq: 23 May 2018 5:14 pm

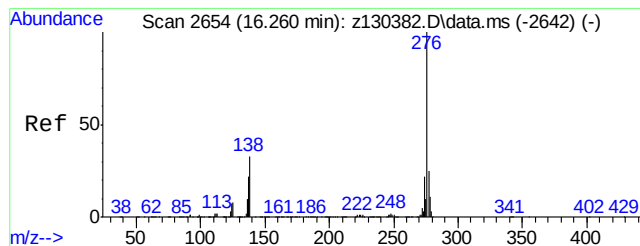
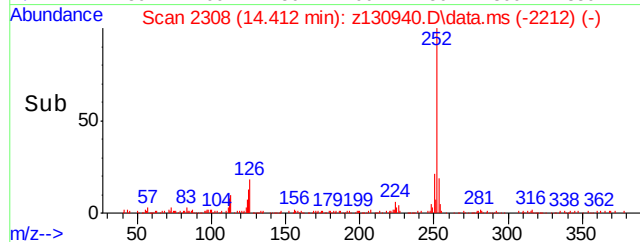
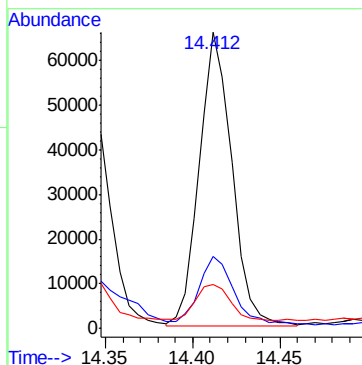
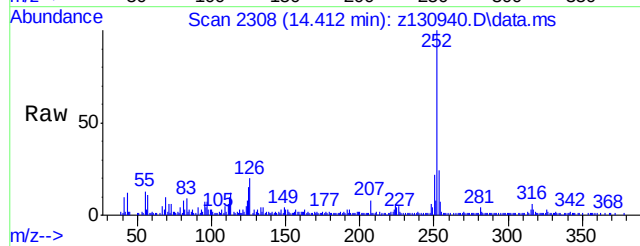
Tgt	Ion:252	Resp:	36591
Ion	Ratio	Lower	Upper
252	100		
253	19.2	0.0	52.1
125	13.6	0.0	44.9





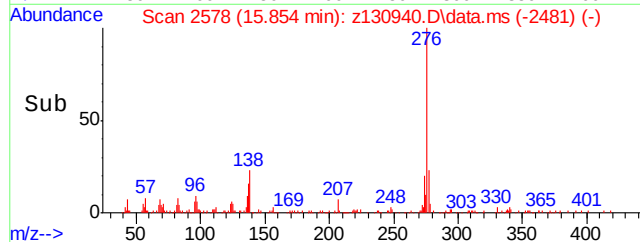
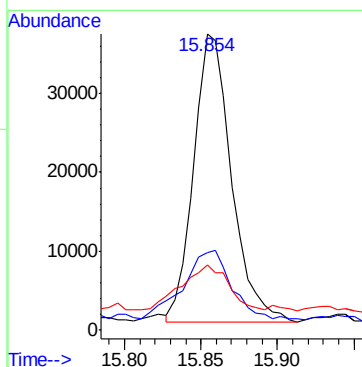
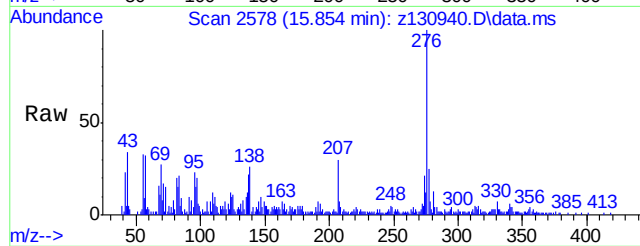
#95
Benzo[a]pyrene
Concen: 6.45 ppm
RT: 14.412 min Scan# 2308
Delta R.T. 0.011 min
Lab File: z130940.D
Acq: 23 May 2018 5:14 pm

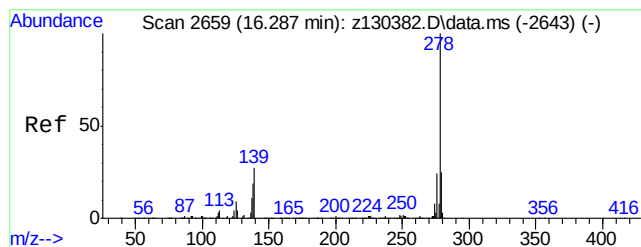
Tgt Ion	Ratio	Lower	Upper
252	100		
253	22.4	0.0	51.1
125	12.2	0.0	47.3



#96
Indeno[1,2,3-cd]pyrene
Concen: 5.40 ppm
RT: 15.854 min Scan# 2578
Delta R.T. 0.016 min
Lab File: z130940.D
Acq: 23 May 2018 5:14 pm

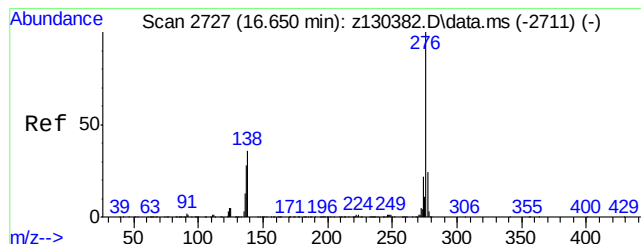
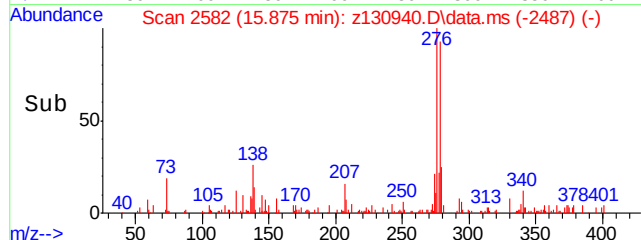
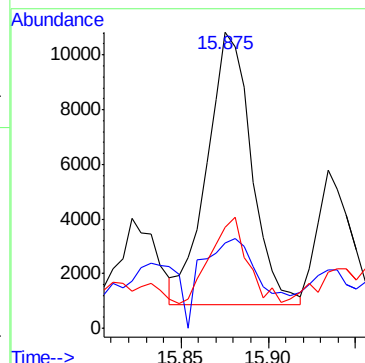
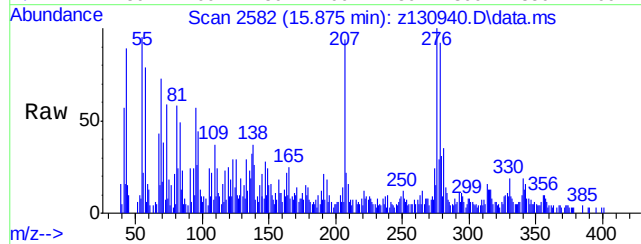
Tgt Ion	Ratio	Lower	Upper
276	100		
138	19.9	1.5	61.5
137	13.7	0.0	50.0





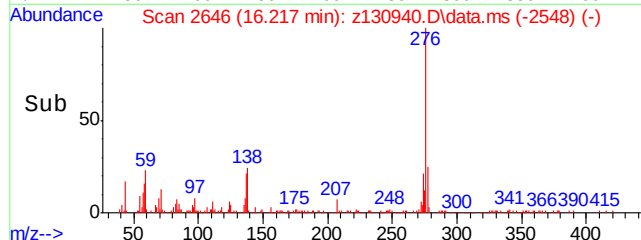
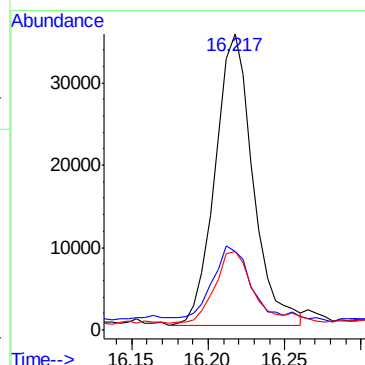
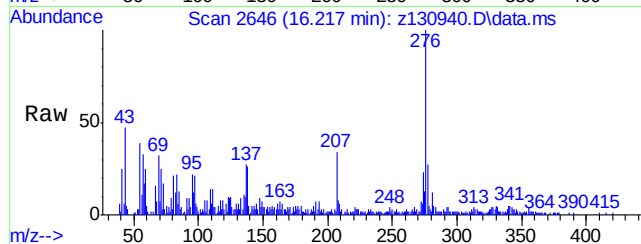
#98
Dibenzo[a,h]anthracene
Concen: 1.48 ppm
RT: 15.875 min Scan# 2582
Delta R.T. 0.005 min
Lab File: z130940.D
Acq: 23 May 2018 5:14 pm

Tgt Ion:	278	Resp:	17623
Ion Ratio	Lower	Upper	
278	100		
139	14.1	0.0	55.8
279	26.7	0.0	53.0



#100
Benzo[g,h,i]perylene
Concen: 5.14 ppm
RT: 16.217 min Scan# 2646
Delta R.T. 0.021 min
Lab File: z130940.D
Acq: 23 May 2018 5:14 pm

Tgt Ion:	276	Resp:	60572
Ion Ratio	Lower	Upper	
276	100		
138	23.0	7.0	67.0
277	23.8	0.0	54.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6455\
 Data File : z130934.D
 Acq On : 23 May 2018 2:27 pm
 Operator : johnb1
 Sample : jc65799-10
 Misc : op11924,eZ6455,32.6,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 23 16:49:33 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 QLast Update : Mon May 21 13:38:40 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.721	152	189001	40.00	ppm	0.00
24) Naphthalene-d8	5.640	136	750803	40.00	ppm	0.00
47) Acenaphthene-d10	7.007	164	354233	40.00	ppm	0.00
69) Phenanthrene-d10	8.594	188	616268	40.00	ppm	0.00
83) Chrysene-d12	12.398	240	441579	40.00	ppm	0.00
91) Perylene-d12	14.481	264	453560	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.721	152	189001	40.00	ppm	0.00
103) Phenanthrene-d10a	8.594	188	616268	40.00	ppm	0.00
107) Chrysene-d12a	12.398	240	441579	40.00	ppm	0.00
109) Acenaphthene-d10a	7.007	164	354233	40.00	ppm	0.00
111) Naphthalene-d8a	5.640	136	750803	40.00	ppm	0.00
113) Phenanthrene-d10b	8.594	188	616268	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.759	112	196537	27.92	ppm	0.00
Spiked Amount	50.000		Recovery	=	55.84%	
8) Phenol-d5	4.475	99	246675	29.19	ppm	0.00
Spiked Amount	50.000		Recovery	=	58.38%	
25) Nitrobenzene-d5	5.122	82	216160	33.17	ppm	0.00
Spiked Amount	50.000		Recovery	=	66.34%	
51) 2-Fluorobiphenyl	6.425	172	402964	32.46	ppm	0.00
Spiked Amount	50.000		Recovery	=	64.92%	
73) 2,4,6-Tribromophenol	7.793	330	59880	31.49	ppm	0.00
Spiked Amount	50.000		Recovery	=	62.98%	
85) Terphenyl-d14	10.822	244	363087	34.66	ppm	0.00
Spiked Amount	50.000		Recovery	=	69.32%	
104) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
105) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
						Qvalue
38) Naphthalene	5.651	128	120433	6.31	ppm	97
44) 2-Methylnaphthalene	6.153	141	18575	1.60	ppm	92
59) Acenaphthene	7.034	153	4309	0.41	ppm	96
66) Fluorene	7.531	166	6693	0.57	ppm	95
77) Phenanthrene	8.626	178	29424	1.79	ppm	96
78) Anthracene	8.685	178	9436	0.57	ppm	95
81) Fluoranthene	10.234	202	41497	2.31	ppm	93
84) Pyrene	10.555	202	37385	2.48	ppm	96
87) Benzo[a]anthracene	12.382	228	24157	1.74	ppm	92
89) Chrysene	12.435	228	22012	1.69	ppm	95
93) Benzo[b]fluoranthene	13.963	252	36928	2.40	ppm	93
94) Benzo[k]fluoranthene	13.995	252	11323	0.79	ppm	89
95) Benzo[a]pyrene	14.401	252	24172	1.77	ppm	92
96) Indeno[1,2,3-cd]pyrene	15.844	276	18200	1.52	ppm	78
98) Dibenz[a,h]anthracene	15.865	278	4392m	0.36	ppm	
100) Benzo[g,h,i]perylene	16.196	276	15883	1.30	ppm	83

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6455\
Data File : z130934.D
Acq On : 23 May 2018 2:27 pm
Operator : johnb1
Sample : jc65799-10
Misc : op11924,eZ6455,32.6,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 23 16:49:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Mon May 21 13:38:40 2018
Response via : Initial Calibration

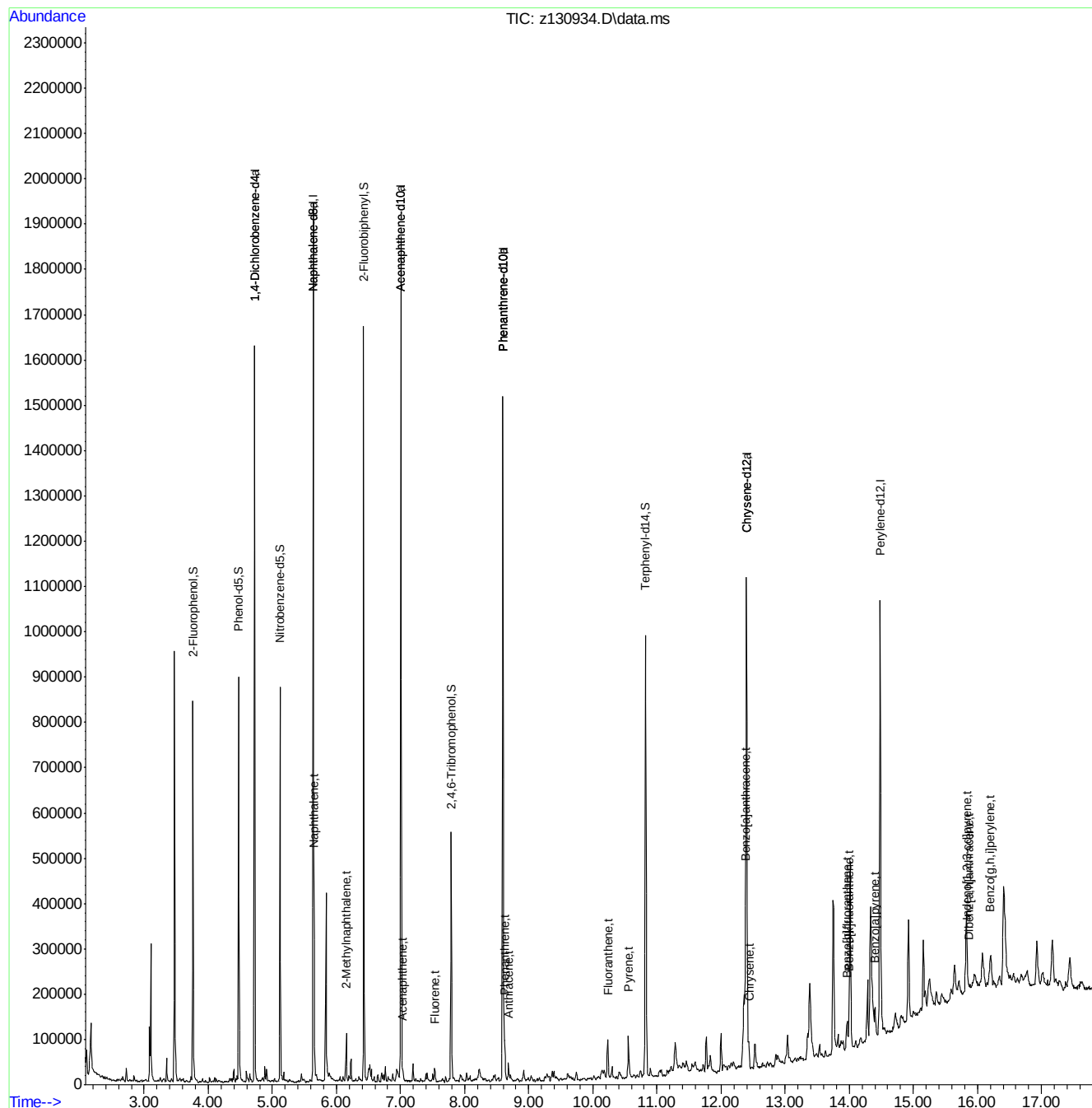
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

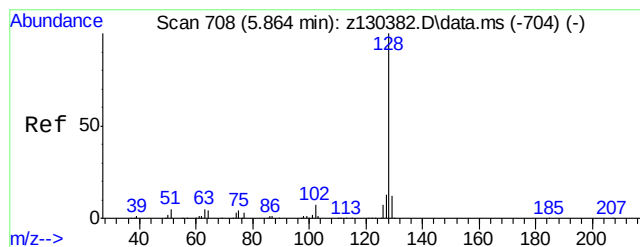
(#) = qualifier out of range (m) = manual integration (+) = signals summed						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6455\
Data File : z130934.D
Acq On : 23 May 2018 2:27 pm
Operator : johnb1
Sample : jc65799-10
Misc : op11924, ez6455, 32.6, , , 1, 1
ALS Vial : 10 Sample Multiplier: 1

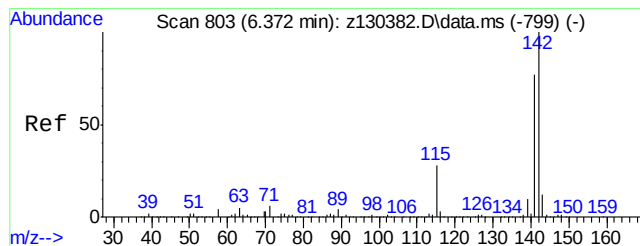
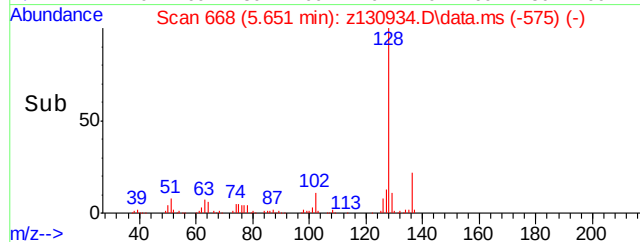
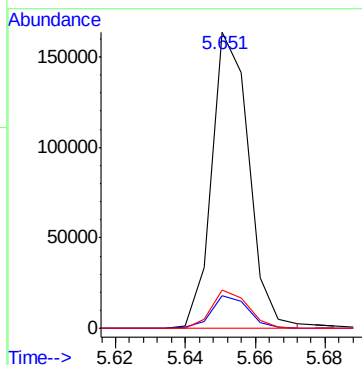
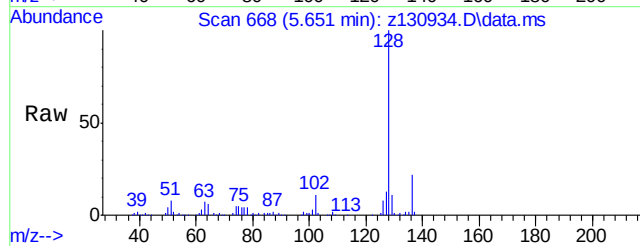
Quant Time: May 23 16:49:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Mon May 21 13:38:40 2018
Response via : Initial Calibration





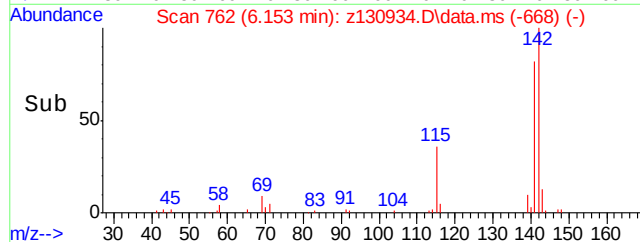
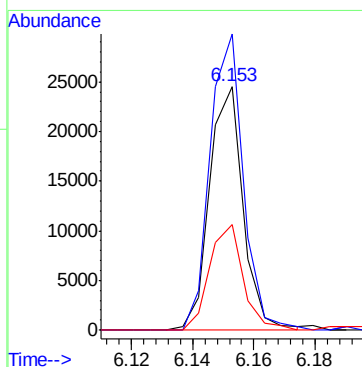
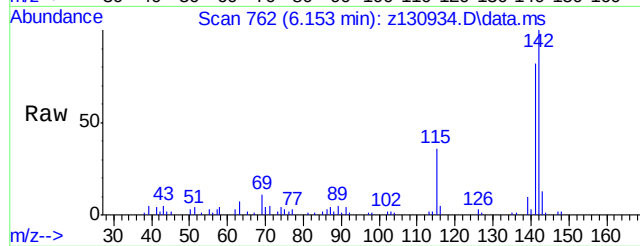
#38
Naphthalene
Concen: 6.31 ppm
RT: 5.651 min Scan# 668
Delta R.T. -0.005 min
Lab File: z130934.D
Acq: 23 May 2018 2:27 pm

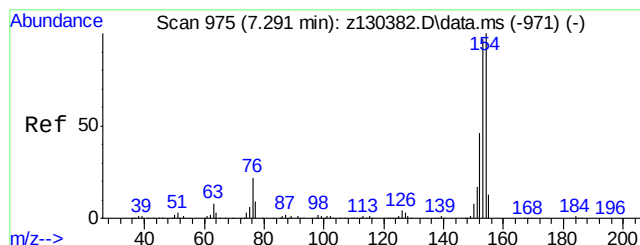
Tgt Ion:	128	Resp:	120433
Ion Ratio	Lower	Upper	
128	100		
129	11.1	0.0	42.1
127	12.9	0.0	41.9



#44
2-Methylnaphthalene
Concen: 1.60 ppm
RT: 6.153 min Scan# 762
Delta R.T. 0.000 min
Lab File: z130934.D
Acq: 23 May 2018 2:27 pm

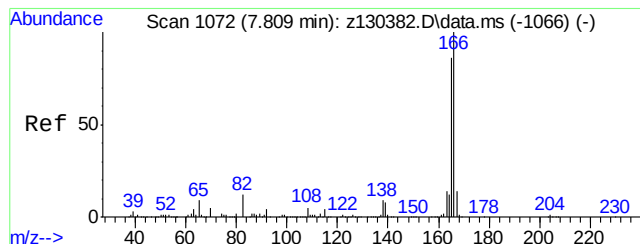
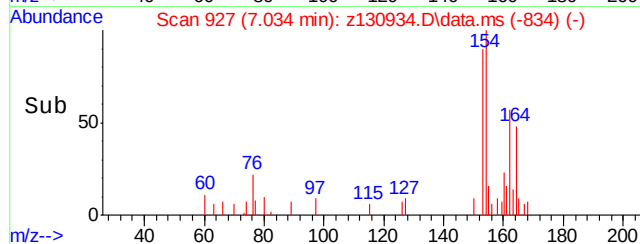
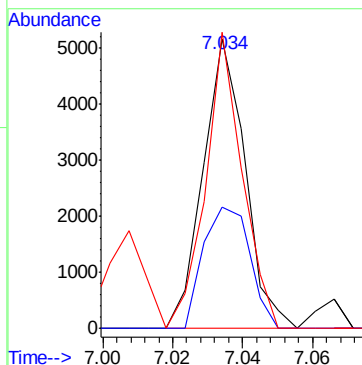
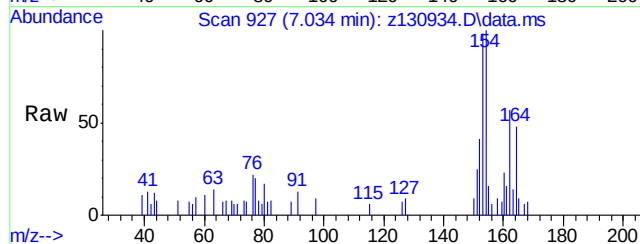
Tgt Ion:	141	Resp:	18575
Ion Ratio	Lower	Upper	
141	100		
142	121.7	99.8	159.8
115	43.8	6.1	66.1





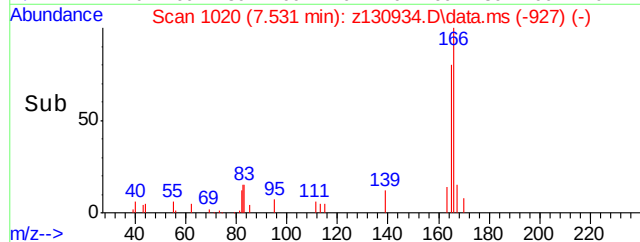
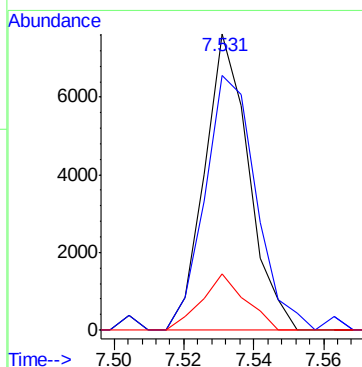
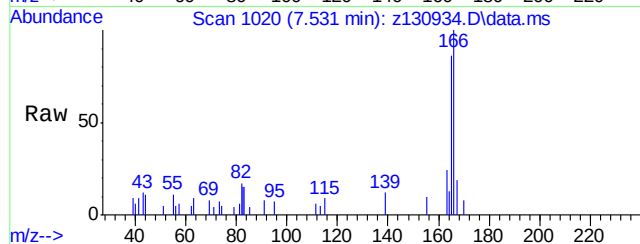
#59
Acenaphthene
Concen: 0.41 ppm
RT: 7.034 min Scan# 927
Delta R.T. -0.005 min
Lab File: z130934.D
Acq: 23 May 2018 2:27 pm

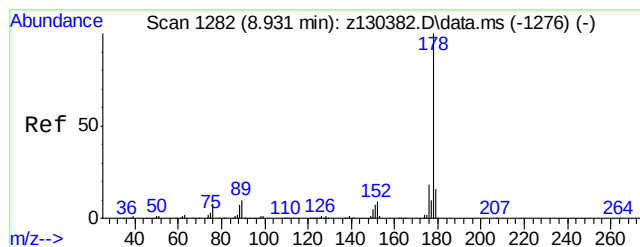
Tgt Ion	Ratio	Lower	Upper
153	100		
152	42.0	16.8	76.8
154	102.3	69.7	129.7



#66
Fluorene
Concen: 0.57 ppm
RT: 7.531 min Scan# 1020
Delta R.T. -0.005 min
Lab File: z130934.D
Acq: 23 May 2018 2:27 pm

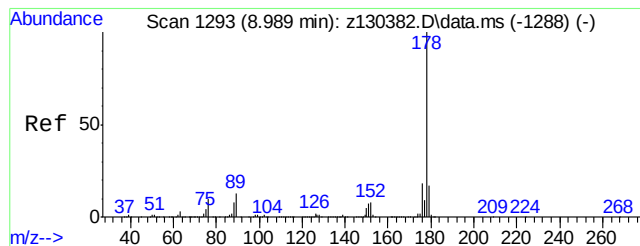
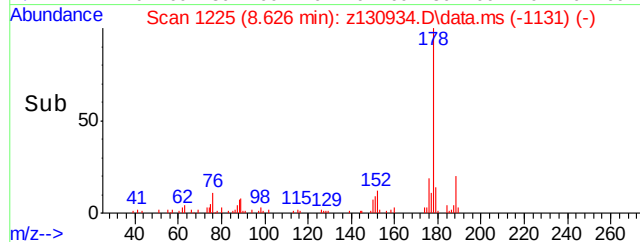
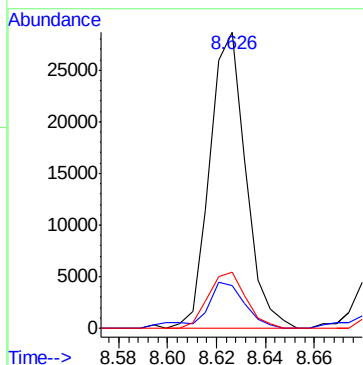
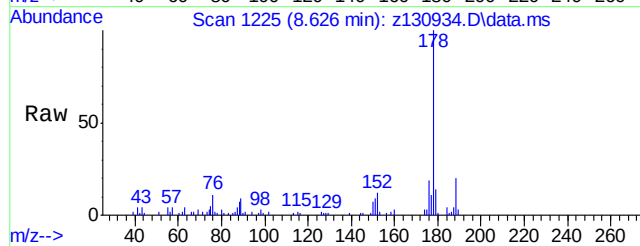
Tgt Ion	Ratio	Lower	Upper
166	100		
165	83.0	56.3	116.3
167	19.1	0.0	44.1





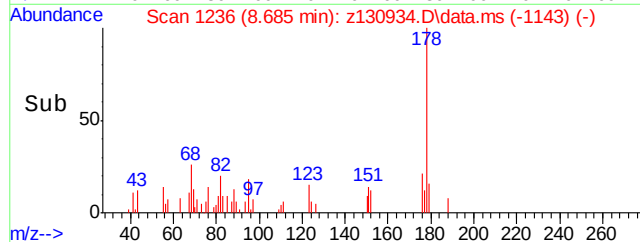
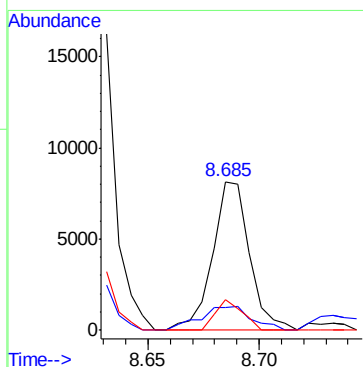
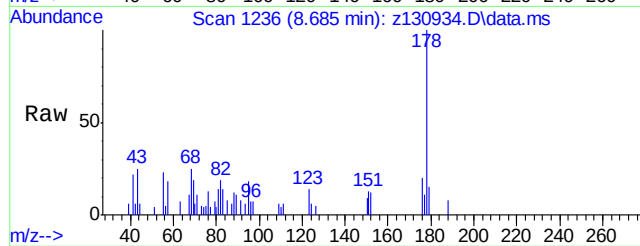
#77
 Phenanthrene
 Concen: 1.79 ppm
 RT: 8.626 min Scan# 1225
 Delta R.T. 0.000 min
 Lab File: z130934.D
 Acq: 23 May 2018 2:27 pm

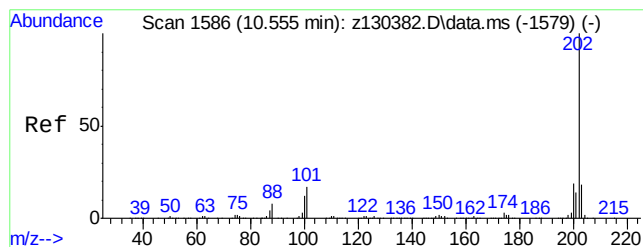
Tgt Ion	Ratio	Lower	Upper
178	100		
179	13.3	0.0	46.3
176	19.1	0.0	48.1



#78
 Anthracene
 Concen: 0.57 ppm
 RT: 8.685 min Scan# 1236
 Delta R.T. -0.005 min
 Lab File: z130934.D
 Acq: 23 May 2018 2:27 pm

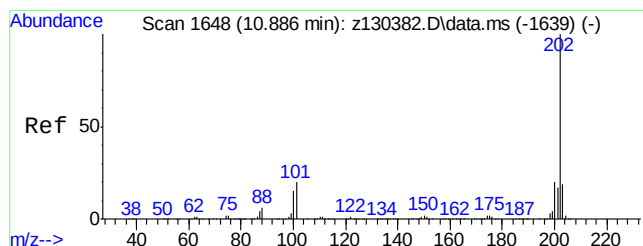
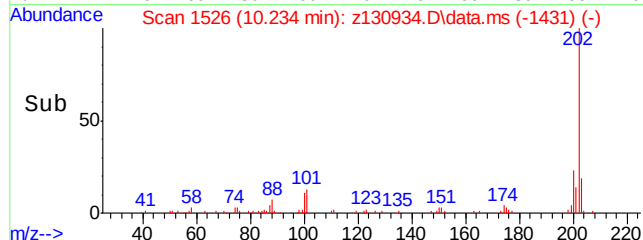
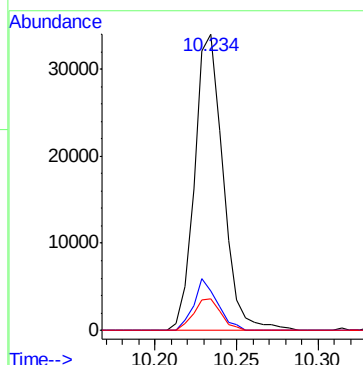
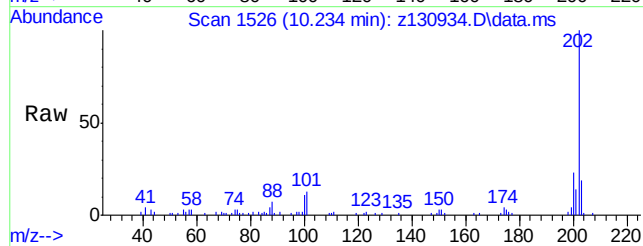
Tgt Ion	Ratio	Lower	Upper
178	100		
179	15.2	0.0	46.9
176	20.5	0.0	48.0





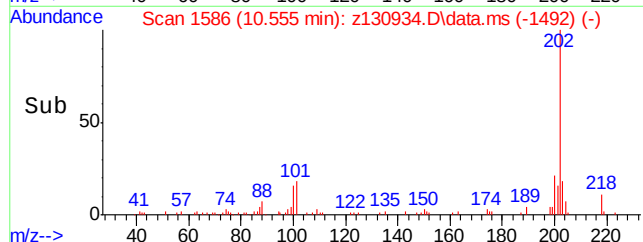
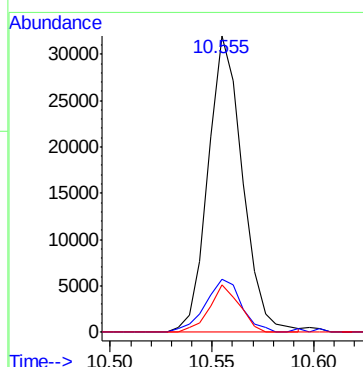
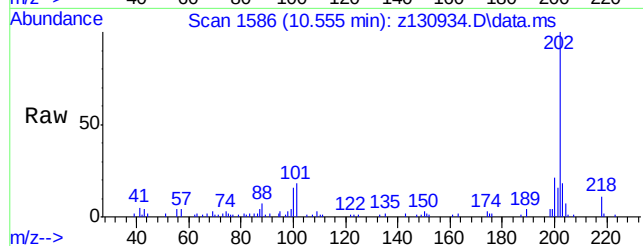
#81
Fluoranthene
Concen: 2.31 ppm
RT: 10.234 min Scan# 1526
Delta R.T. 0.006 min
Lab File: z130934.D
Acq: 23 May 2018 2:27 pm

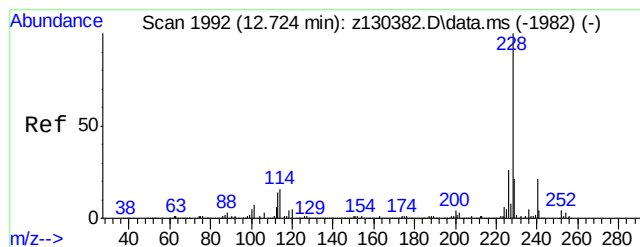
Tgt	Ion:202	Resp:	41497
Ion	Ratio	Lower	Upper
202	100		
101	13.4	0.0	47.2
100	10.5	0.0	42.3



#84
Pyrene
Concen: 2.48 ppm
RT: 10.555 min Scan# 1586
Delta R.T. 0.000 min
Lab File: z130934.D
Acq: 23 May 2018 2:27 pm

Tgt	Ion:202	Resp:	37385
Ion	Ratio	Lower	Upper
202	100		
101	17.5	0.0	49.8
100	15.9	0.0	44.6





#87

Benzo[a]anthracene

Concen: 1.74 ppm

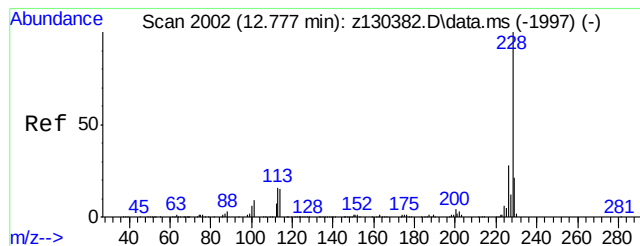
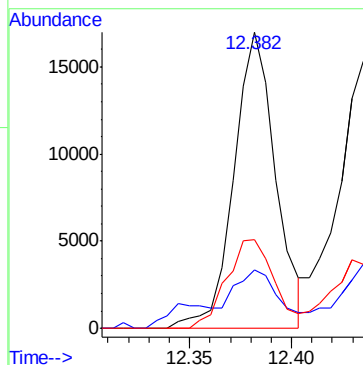
RT: 12.382 min Scan# 1928

Delta R.T. 0.006 min

Lab File: z130934.D

Acq: 23 May 2018 2:27 pm

Tgt	Ion:228	Resp:	24157
Ion	Ratio	Lower	Upper
228	100		
229	16.4	0.0	50.7
226	30.2	0.0	56.2



#89

Chrysene

Concen: 1.69 ppm

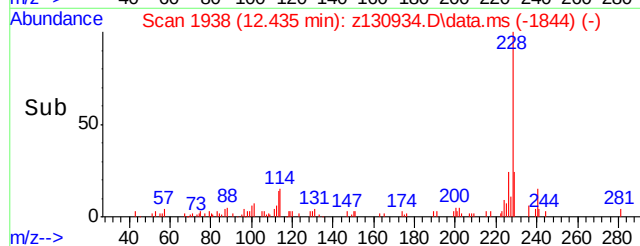
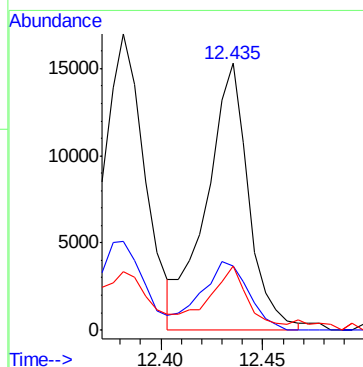
RT: 12.435 min Scan# 1938

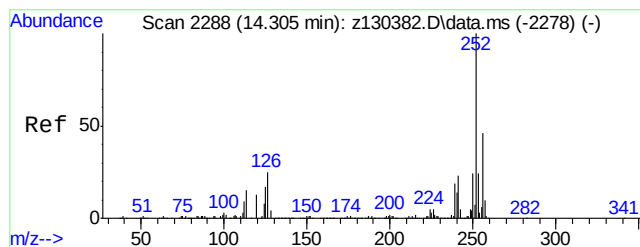
Delta R.T. 0.000 min

Lab File: z130934.D

Acq: 23 May 2018 2:27 pm

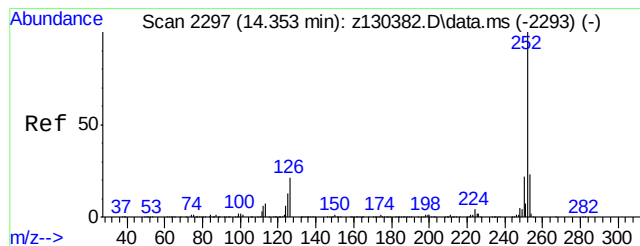
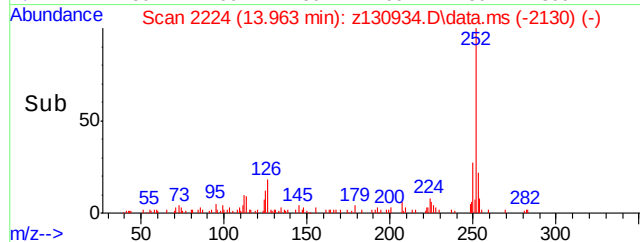
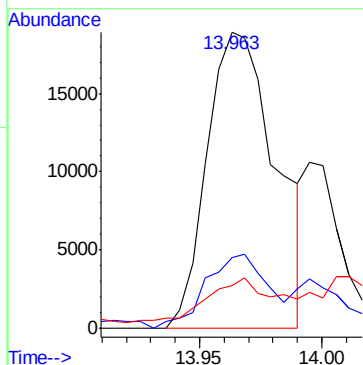
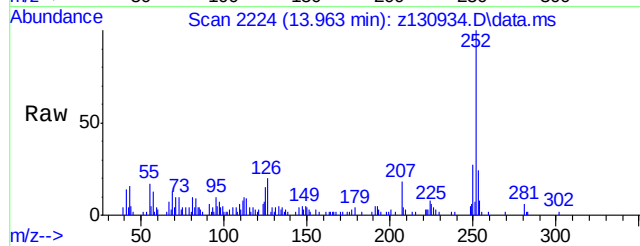
Tgt	Ion:228	Resp:	22012
Ion	Ratio	Lower	Upper
228	100		
226	23.6	0.0	58.0
229	21.2	0.0	50.8





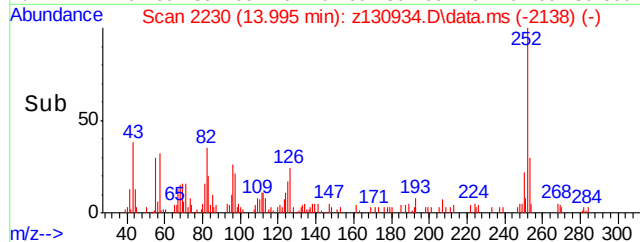
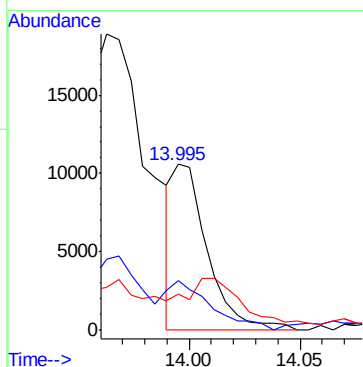
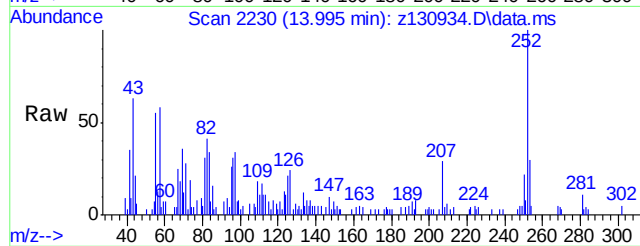
#93
Benzo[b]fluoranthene
Concen: 2.40 ppm
RT: 13.963 min Scan# 2224
Delta R.T. 0.000 min
Lab File: z130934.D
Acq: 23 May 2018 2:27 pm

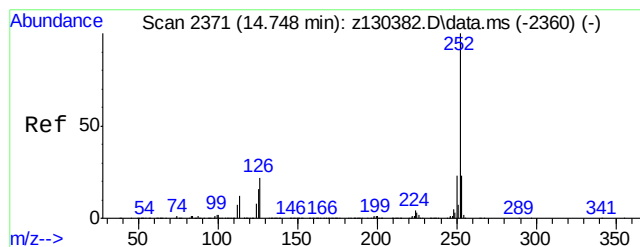
Tgt Ion	Ratio	Lower	Upper
252	100		
253	21.4	0.0	52.0
125	10.6	0.0	47.1



#94
Benzo[k]fluoranthene
Concen: 0.79 ppm
RT: 13.995 min Scan# 2230
Delta R.T. -0.010 min
Lab File: z130934.D
Acq: 23 May 2018 2:27 pm

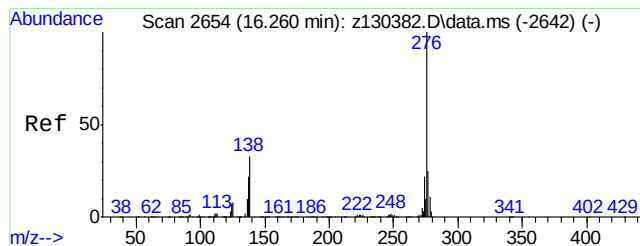
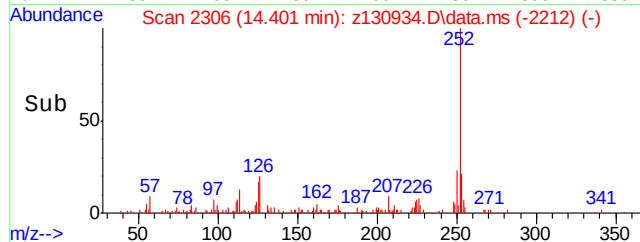
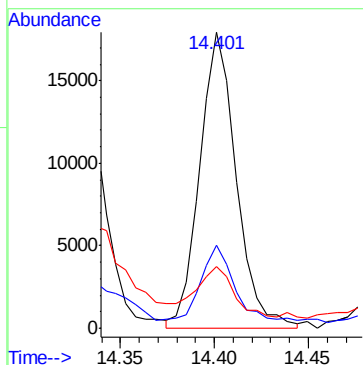
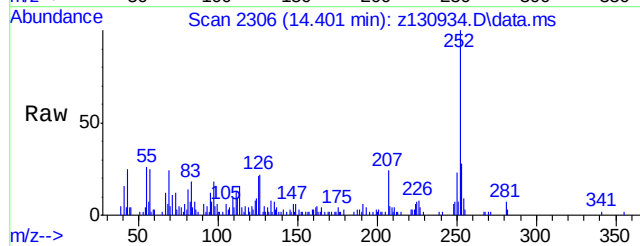
Tgt Ion	Ratio	Lower	Upper
252	100		
253	29.0	0.0	52.1
125	17.5	0.0	44.9





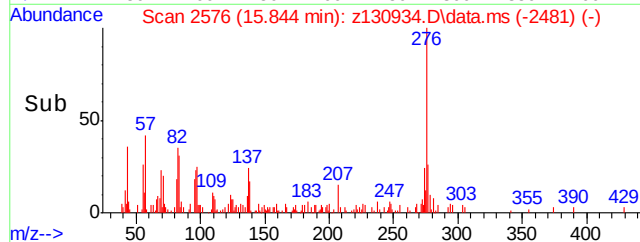
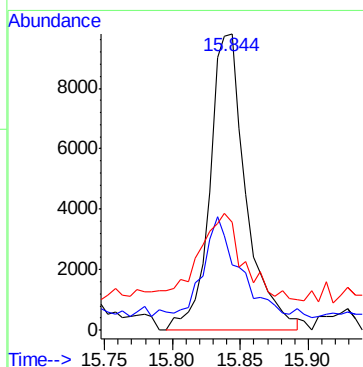
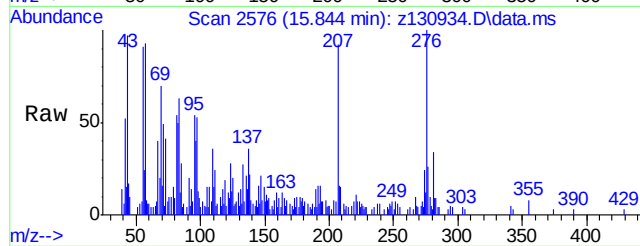
#95
 Benzo[a]pyrene
 Concen: 1.77 ppm
 RT: 14.401 min Scan# 2306
 Delta R.T. 0.000 min
 Lab File: z130934.D
 Acq: 23 May 2018 2:27 pm

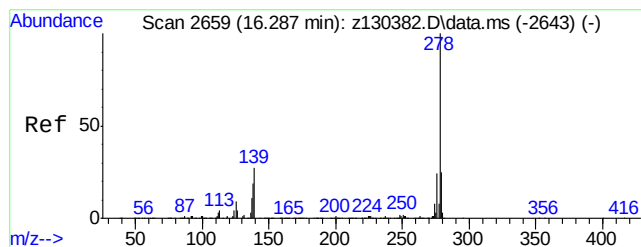
Tgt Ion:	252	Resp:	24172
Ion Ratio	Lower	Upper	
252	100		
253	25.5	0.0	51.1
125	14.9	0.0	47.3



#96
 Indeno[1,2,3-cd]pyrene
 Concen: 1.52 ppm
 RT: 15.844 min Scan# 2576
 Delta R.T. 0.006 min
 Lab File: z130934.D
 Acq: 23 May 2018 2:27 pm

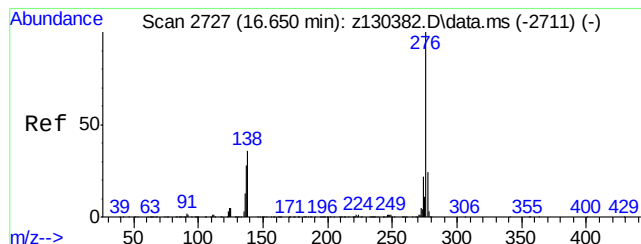
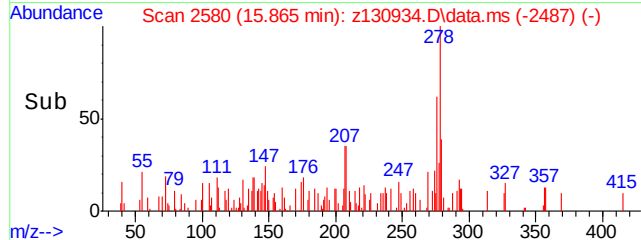
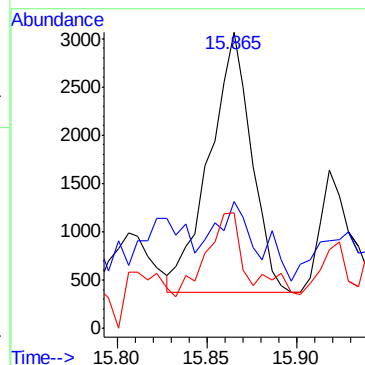
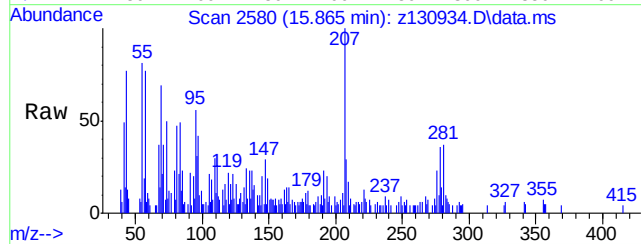
Tgt Ion:	276	Resp:	18200
Ion Ratio	Lower	Upper	
276	100		
138	15.7	1.5	61.5
137	25.0	0.0	50.0





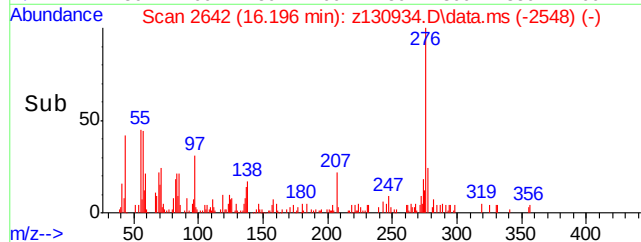
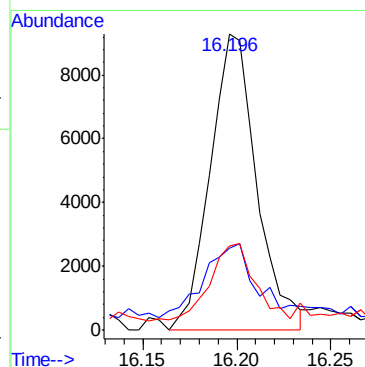
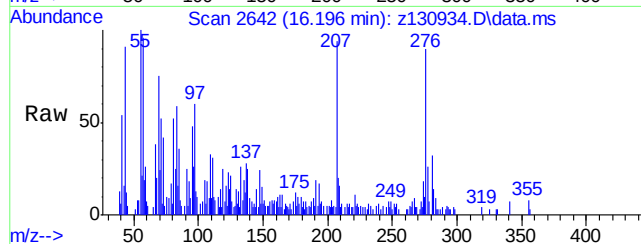
#98
Dibenzo[a,h]anthracene
Concen: 0.36 ppm
RT: 15.865 min Scan# 2580
Delta R.T. -0.005 min
Lab File: z130934.D
Acq: 23 May 2018 2:27 pm

Tgt Ion	Ratio	Lower	Upper
278	100		
139	42.7	0.0	55.8
279	39.1	0.0	53.0



#100
Benzo[g,h,i]perylene
Concen: 1.30 ppm
RT: 16.196 min Scan# 2642
Delta R.T. 0.000 min
Lab File: z130934.D
Acq: 23 May 2018 2:27 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	21.0	7.0	67.0
277	22.9	0.0	54.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4624\
 Data File : 2m104020.D
 Acq On : 15 May 2018 2:30 am
 Operator : georges
 Sample : op11971-mb1
 Misc : op11971,e2m4624,30,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 25 11:53:06 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
 Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 QLast Update : Fri May 11 12:53:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	481526	40.00	ppm	-0.03
24) Naphthalene-d8	5.723	136	1880541	40.00	ppm	-0.04
47) Acenaphthene-d10	7.783	164	918142	40.00	ppm	-0.04
69) Phenanthrene-d10	9.943	188	1721023	40.00	ppm	-0.04
83) Chrysene-d12	14.105	240	1603888	40.00	ppm	-0.06
91) Perylene-d12	16.212	264	1670391	40.00	ppm	-0.06
101) 1,4-Dichlorobenzene-d4a	4.643	152	481526	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.783	164	918142	40.00	ppm	-0.04
105) Chrysene-d12a	14.105	240	1603888	40.00	ppm	-0.05
108) Phenanthrene-d10a	9.943	188	1721023	40.00	ppm	-0.04
112) Naphthalene-d8a	5.723	136	1880541	40.00	ppm	-0.03
114) Chrysene-d12b	14.105	240	1603888	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	3.659	112	709051	45.19	ppm	-0.01
Spiked Amount	50.000		Recovery	=	90.38%	
8) Phenol-d5	4.375	99	877266	44.57	ppm	-0.02
Spiked Amount	50.000		Recovery	=	89.14%	
25) Nitrobenzene-d5	5.076	82	747030	43.46	ppm	-0.03
Spiked Amount	50.000		Recovery	=	86.92%	
51) 2-Fluorobiphenyl	6.916	172	1543211	46.01	ppm	-0.04
Spiked Amount	50.000		Recovery	=	92.02%	
73) 2,4,6-Tribromophenol	8.900	330	229753	44.13	ppm	-0.04
Spiked Amount	50.000		Recovery	=	88.26%	
85) Terphenyl-d14	12.495	244	1828790	51.99	ppm	-0.05
Spiked Amount	50.000		Recovery	=	103.98%	
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
56) Acenaphthylene	7.585	152	24160	0.54	ppm	91
77) Phenanthrene	9.976	178	19957	0.41	ppm	96
81) Fluoranthene	11.826	202	13122	0.26	ppm	85
87) Benzo[a]anthracene	14.094	228	13981	0.29	ppm	65
89) Chrysene	14.137	228	8930	0.19	ppm	81
93) Benzo[b]fluoranthene	15.688	252	156756	3.07	ppm	95
94) Benzo[k]fluoranthene	15.725	252	79787	1.68	ppm	90
95) Benzo[a]pyrene	16.126	252	229322	5.17	ppm	98
96) Indeno[1,2,3-cd]pyrene	17.694	276	142904	3.24	ppm	96
98) Dibenz[a,h]anthracene	17.731	278	31291m	0.69	ppm	
100) Benzo[g,h,i]perylene	18.105	276	99655	2.34	ppm	96

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

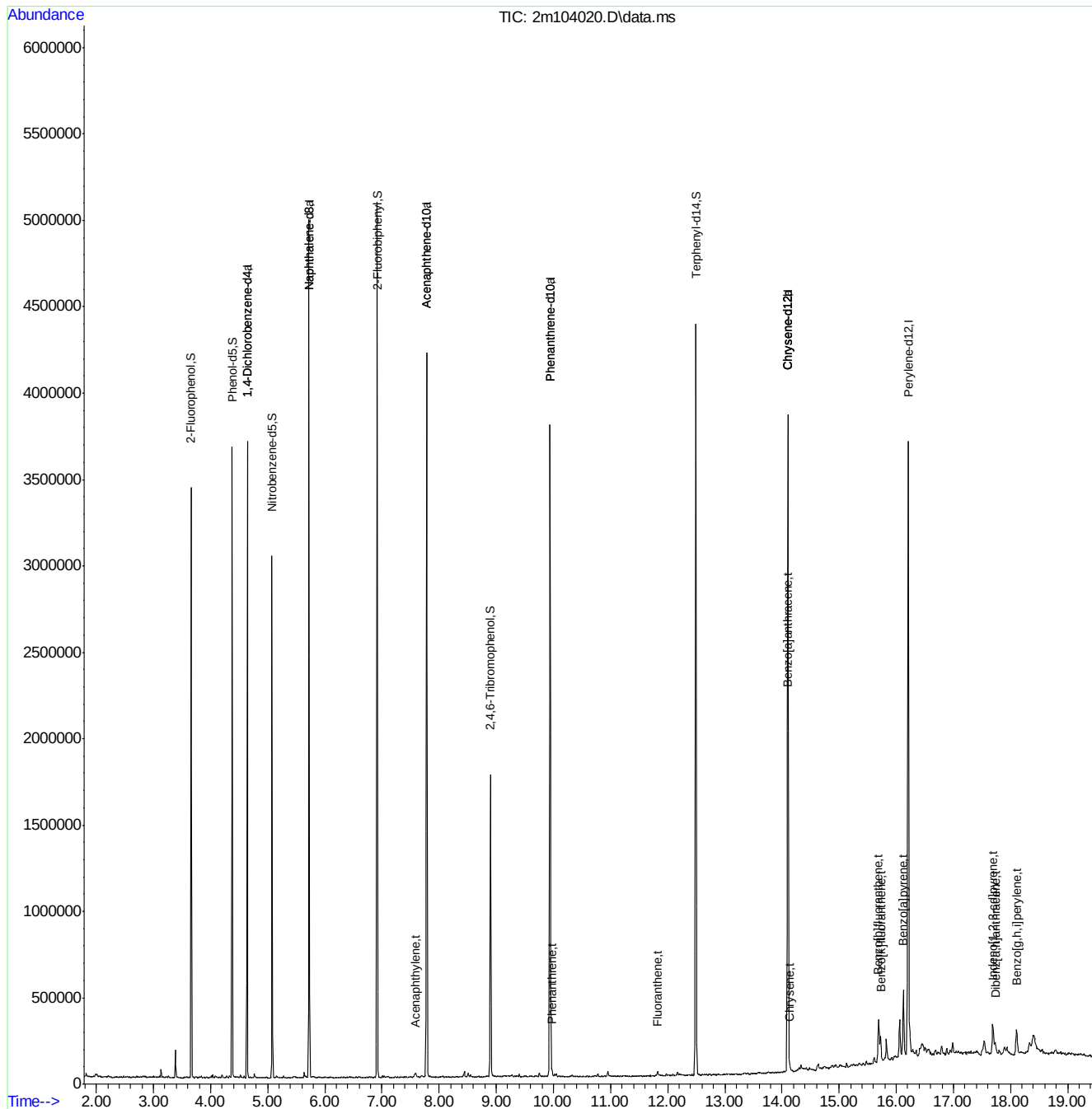
7.2.1

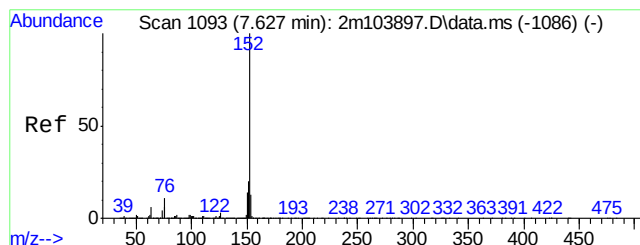
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4624\
Data File : 2m104020.D
Acq On : 15 May 2018 2:30 am
Operator : georges
Sample : op11971-mb1
Misc : op11971,e2m4624,30,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 25 11:53:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration





#56

Acenaphthylene

Concen: 0.54 ppm

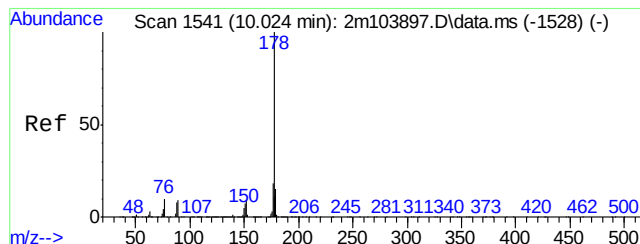
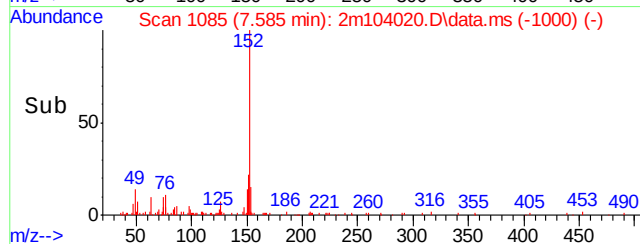
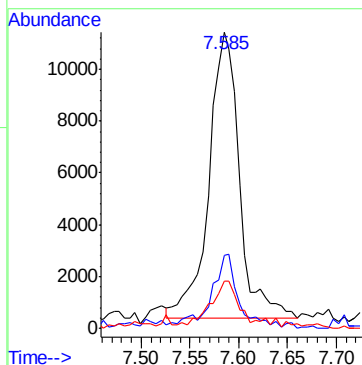
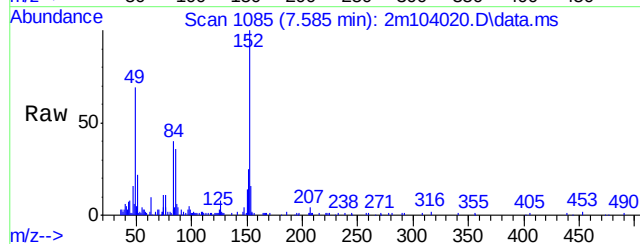
RT: 7.585 min Scan# 1085

Delta R.T. -0.043 min

Lab File: 2m104020.D

Acq: 15 May 2018 2:30 am

Tgt Ion:	152	Resp:	24160
Ion Ratio	Lower	Upper	
152	100		
151	25.5	0.0	49.6
153	13.5	0.0	42.8



#77

Phenanthrene

Concen: 0.41 ppm

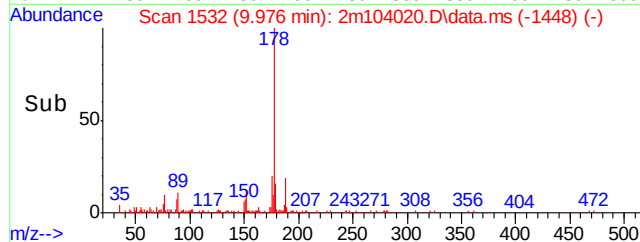
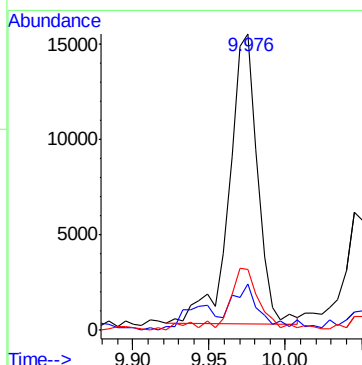
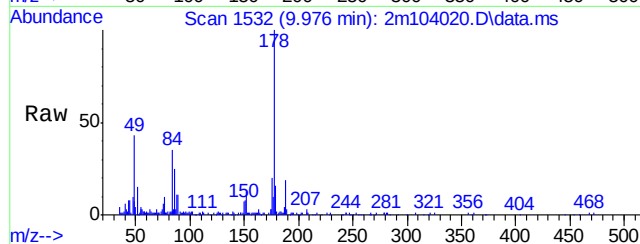
RT: 9.976 min Scan# 1532

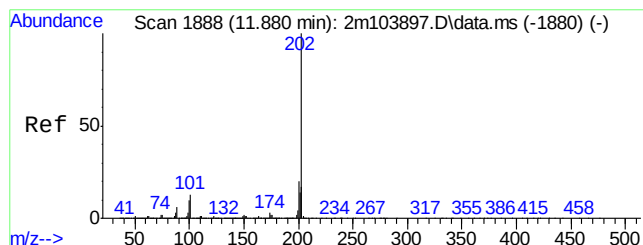
Delta R.T. -0.048 min

Lab File: 2m104020.D

Acq: 15 May 2018 2:30 am

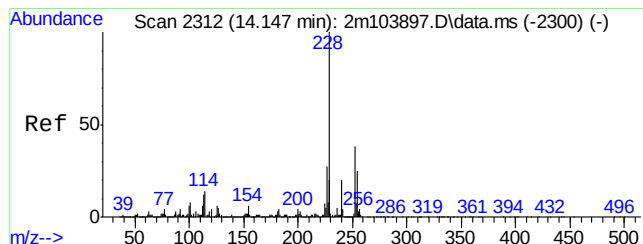
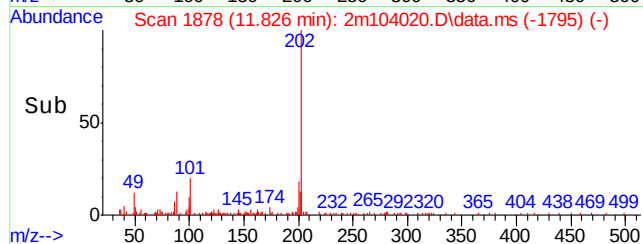
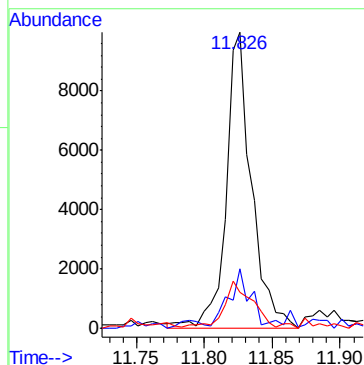
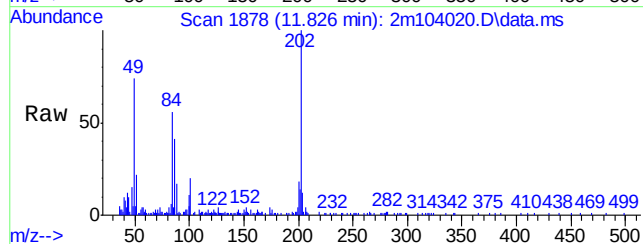
Tgt Ion:	178	Resp:	19957
Ion Ratio	Lower	Upper	
178	100		
179	13.8	0.0	45.2
176	20.6	0.0	48.5





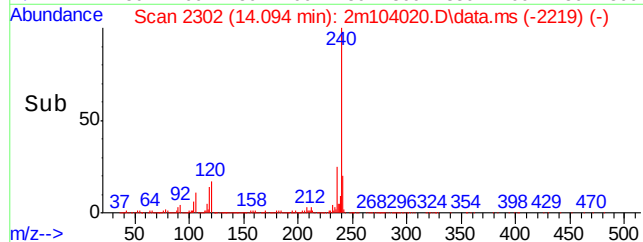
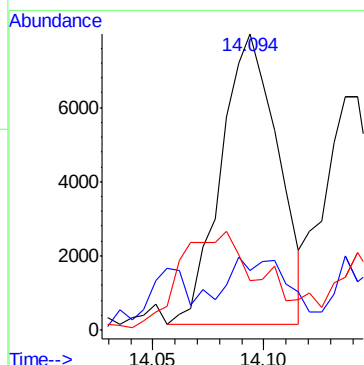
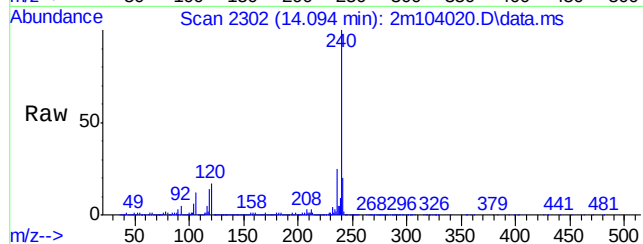
#81
Fluoranthene
Concen: 0.26 ppm
RT: 11.826 min Scan# 1878
Delta R.T. -0.053 min
Lab File: 2m104020.D
Acq: 15 May 2018 2:30 am

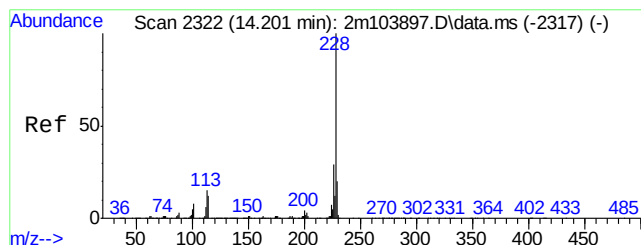
Tgt Ion	Ratio	Lower	Upper
202	100		
101	20.0	0.0	43.1
203	11.3	0.0	47.0



#87
Benzo[a]anthracene
Concen: 0.29 ppm
RT: 14.094 min Scan# 2302
Delta R.T. -0.053 min
Lab File: 2m104020.D
Acq: 15 May 2018 2:30 am

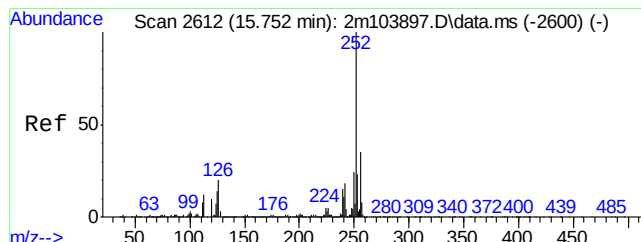
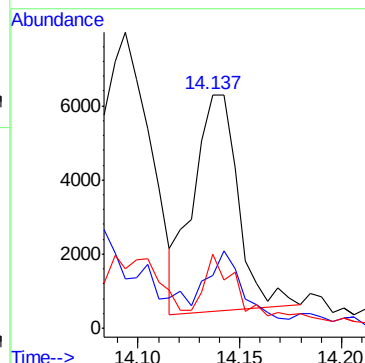
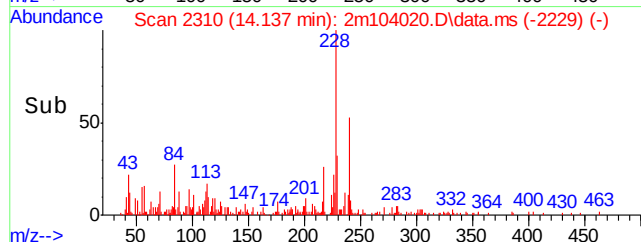
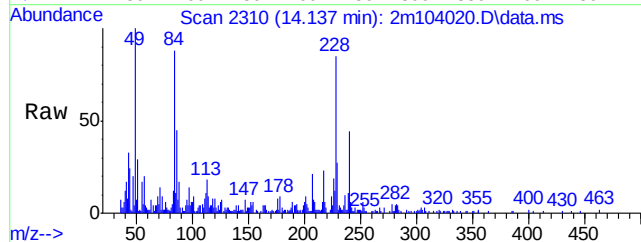
Tgt Ion	Ratio	Lower	Upper
228	100		
229	3.9	0.0	49.8
226	8.7	0.0	56.6





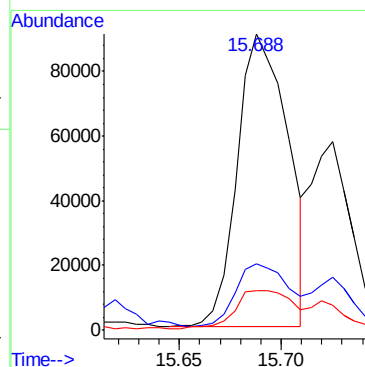
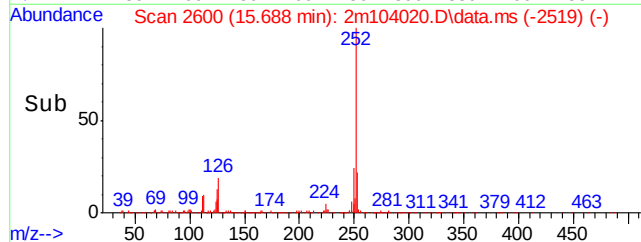
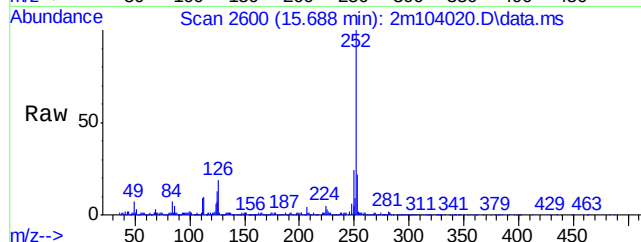
#89
Chrysene
Concen: 0.19 ppm
RT: 14.137 min Scan# 2310
Delta R.T. -0.064 min
Lab File: 2m104020.D
Acq: 15 May 2018 2:30 am

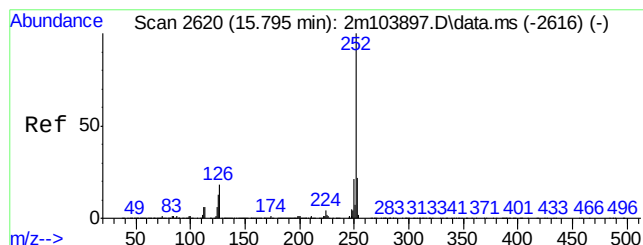
Tgt Ion:	228	Resp:	8930
Ion Ratio	Lower	Upper	
228	100		
226	17.0	0.0	58.8
229	25.9	0.0	49.8



#93
Benzo[b]fluoranthene
Concen: 3.07 ppm
RT: 15.688 min Scan# 2600
Delta R.T. -0.064 min
Lab File: 2m104020.D
Acq: 15 May 2018 2:30 am

Tgt Ion:	252	Resp:	156756
Ion Ratio	Lower	Upper	
252	100		
253	19.9	0.0	52.5
125	12.5	0.0	44.3

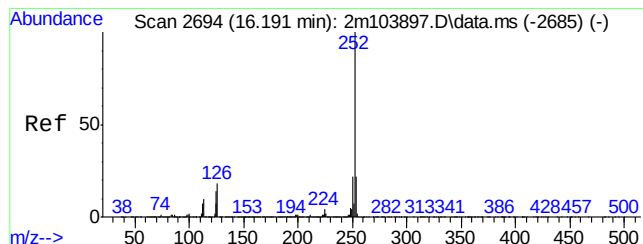
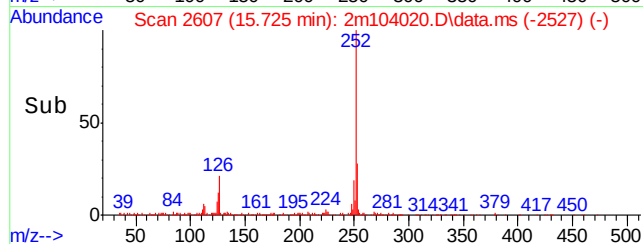
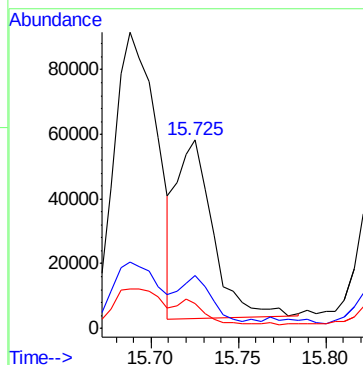
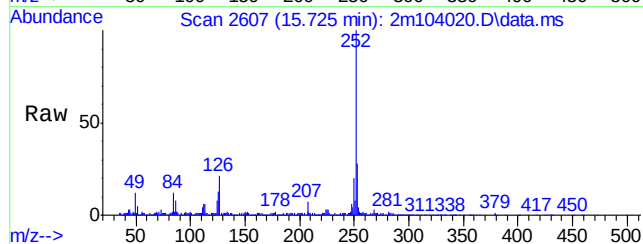




#94

Benzo[k]fluoranthene
 Concen: 1.68 ppm
 RT: 15.725 min Scan# 2607
 Delta R.T. -0.069 min
 Lab File: 2m104020.D
 Acq: 15 May 2018 2:30 am

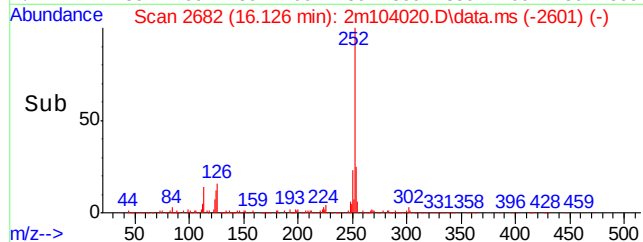
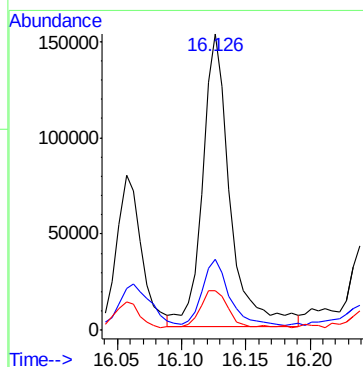
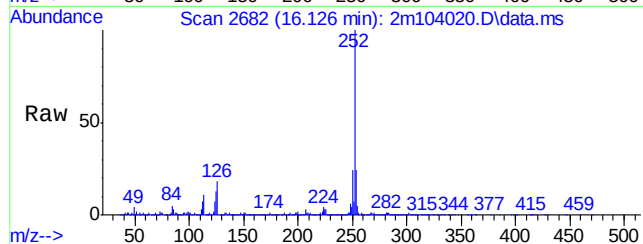
Tgt Ion	Ratio	Lower	Upper
252	100		
253	27.5	0.0	51.8
125	10.6	0.0	42.9

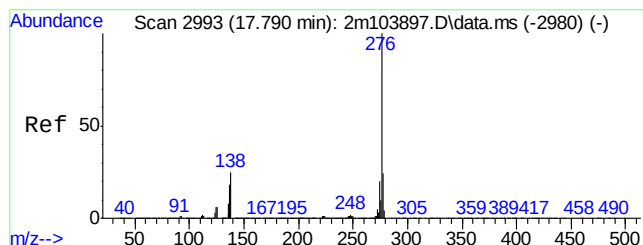


#95

Benzo[a]pyrene
 Concen: 5.17 ppm
 RT: 16.126 min Scan# 2682
 Delta R.T. -0.064 min
 Lab File: 2m104020.D
 Acq: 15 May 2018 2:30 am

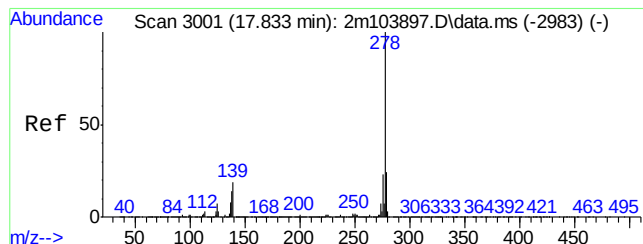
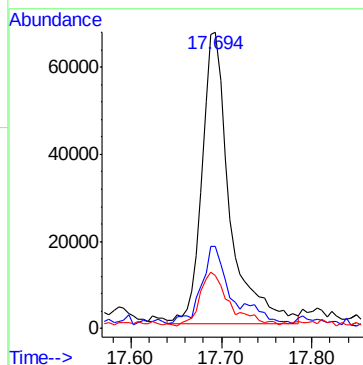
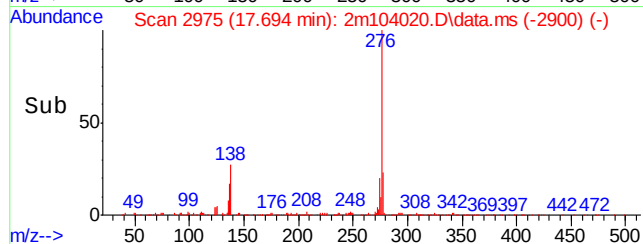
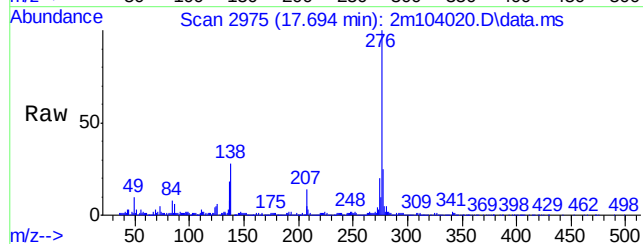
Tgt Ion	Ratio	Lower	Upper
252	100		
253	22.5	0.0	51.6
125	13.0	0.0	44.0





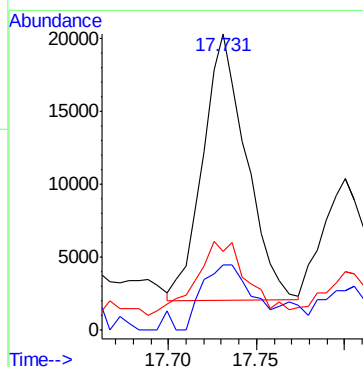
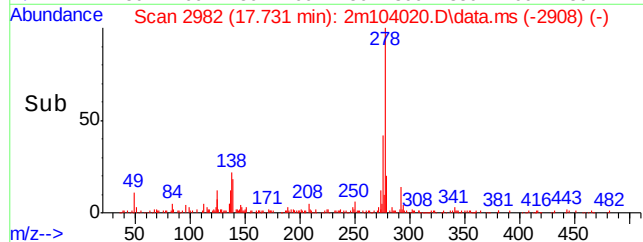
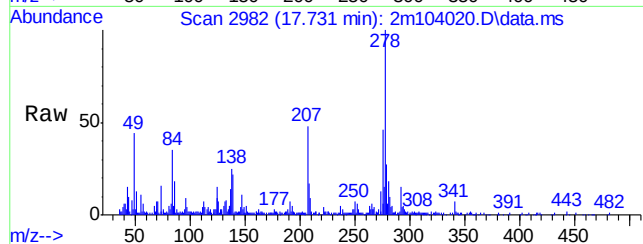
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 3.24 ppm
 RT: 17.694 min Scan# 2975
 Delta R.T. -0.096 min
 Lab File: 2m104020.D
 Acq: 15 May 2018 2:30 am

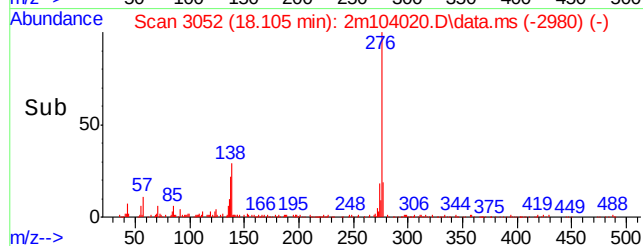
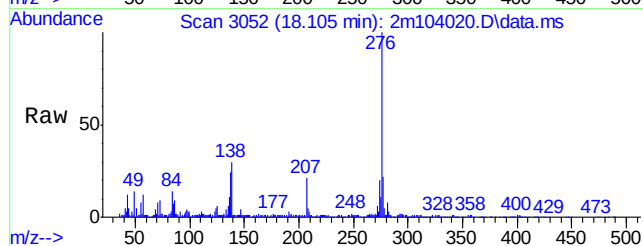
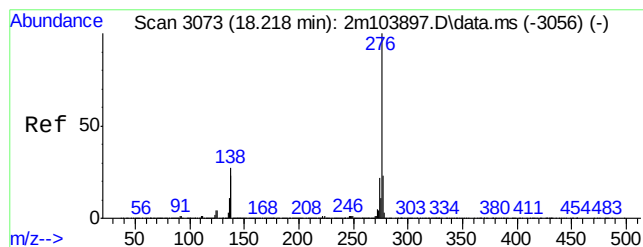
Tgt Ion	Ratio	Lower	Upper
276	100		
138	25.7	0.0	52.7
137	16.4	0.0	46.8



#98
 Dibenz[a,h]anthracene
 Concen: 0.69 ppm
 RT: 17.731 min Scan# 2982
 Delta R.T. -0.102 min
 Lab File: 2m104020.D
 Acq: 15 May 2018 2:30 am

Tgt Ion	Ratio	Lower	Upper
278	100		
139	22.1	0.0	48.9
279	26.6	0.0	53.6





#100

Benzo[g,h,i]perylene

Concen: 2.34 ppm

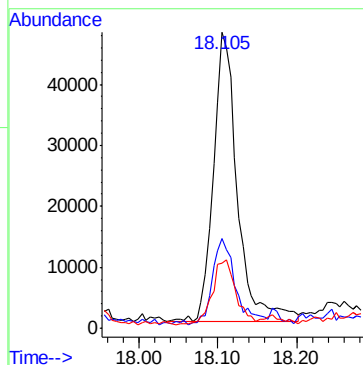
RT: 18.105 min Scan# 3052

Delta R.T. -0.112 min

Lab File: 2m104020.D

Acq: 15 May 2018 2:30 am

Tgt	Ion: 276	Resp:	99655
Ion	Ratio	Lower	Upper
276	100		
138	28.3	0.0	57.0
277	21.1	0.0	53.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5535\
 Data File : p123378.D
 Acq On : 7 Jun 2018 12:40 pm
 Operator : angelar
 Sample : op11971-mb1
 Misc : op11971,ep5535,30.0,,,1,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 07 13:54:58 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Jun 05 15:39:45 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.229	152	117069	40.00	ppm	-0.03
24) Naphthalene-d8	5.143	136	448535	40.00	ppm	-0.03
47) Acenaphthene-d10	6.419	164	260356	40.00	ppm	-0.04
69) Phenanthrene-d10	8.038	188	521837	40.00	ppm	-0.06
83) Chrysene-d12	12.969	240	504467	40.00	ppm	-0.11
91) Perylene-d12	15.955	264	427022	40.00	ppm	-0.10
101) 1,4-Dichlorobenzene-d4b	4.229	152	117069	40.00	ppm	-0.03
103) Phenanthrene-d10b	8.038	188	521837	40.00	ppm	-0.06
105) Chrysene-d12b	12.969	240	504467	40.00	ppm	-0.11
107) Naphthalene-d8b	5.143	136	448535	40.00	ppm	-0.03
109) Acenaphthene-d10b	6.419	164	260356	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	3.284	112	171802	38.45	ppm	-0.07
Spiked Amount 50.000			Recovery =	76.90%		
8) Phenol-d5	4.026	99	260985	45.44	ppm	-0.04
Spiked Amount 50.000			Recovery =	90.88%		
25) Nitrobenzene-d5	4.640	82	315586	38.74	ppm	-0.04
Spiked Amount 50.000			Recovery =	77.48%		
51) 2-Fluorobiphenyl	5.901	172	425723	42.57	ppm	-0.04
Spiked Amount 50.000			Recovery =	85.14%		
73) 2,4,6-Tribromophenol	7.183	330	50017	30.64	ppm	-0.05
Spiked Amount 50.000			Recovery =	61.28%		
85) Terphenyl-d14	10.853	244	585279	44.88	ppm	-0.10
Spiked Amount 50.000			Recovery =	89.76%		

Target Compounds Qvalue

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

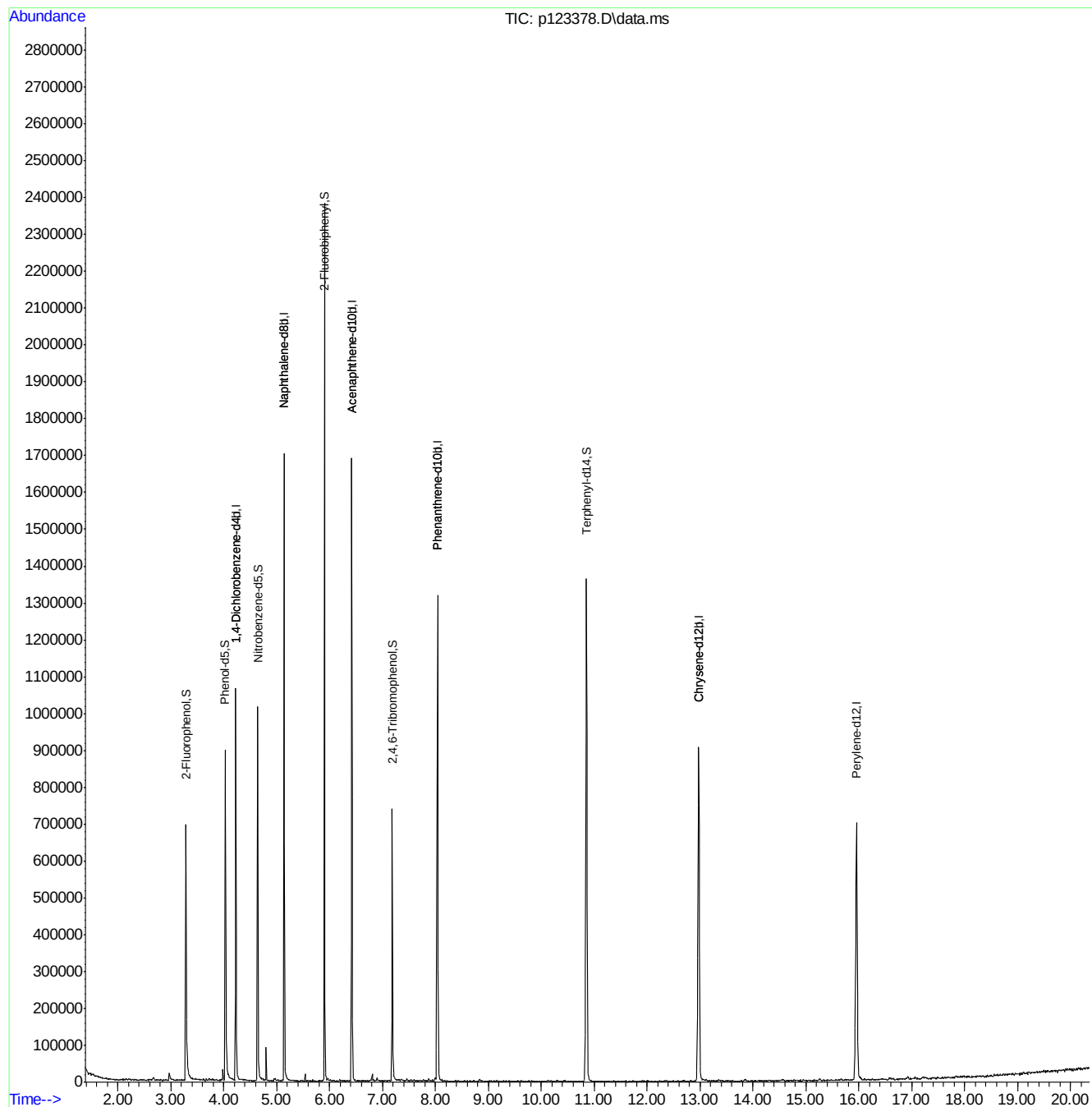
7.2.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5535\
Data File : p123378.D
Acq On : 7 Jun 2018 12:40 pm
Operator : angelar
Sample : op11971-mb1
Misc : op11971,ep5535,30.0,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 07 13:54:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Jun 05 15:39:45 2018
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data Path : Z:\svoa\completed\05-14-18\jonkm\ez6441\
 Data File : z130566.d
 Acq On : 11 May 2018 6:03 pm
 Operator : christc2
 Sample : op11924-mb1
 Misc : op11924,ez6441,30.0,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 13 22:07:53 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 QLast Update : Sun May 13 21:35:59 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.860	152	238693	40.00	ppm	0.00
24) Naphthalene-d8	5.779	136	936899	40.00	ppm	0.00
47) Acenaphthene-d10	7.173	164	457157	40.00	ppm	0.00
69) Phenanthrene-d10	8.797	188	822506	40.00	ppm	0.00
83) Chrysene-d12	12.617	240	693023	40.00	ppm	-0.01
91) Perylene-d12	14.705	264	656837	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.860	152	238693	40.00	ppm	0.00
103) Phenanthrene-d10a	8.797	188	822506	40.00	ppm	0.00
107) Chrysene-d12a	12.617	240	693023	40.00	ppm	-0.01
109) Acenaphthene-d10a	7.173	164	457157	40.00	ppm	0.00
111) Naphthalene-d8a	5.779	136	936899	40.00	ppm	0.00
113) Phenanthrene-d10b	8.797	188	822506	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.882	112	377566	42.46	ppm	-0.01
Spiked Amount 50.000			Recovery	=	84.92%	
8) Phenol-d5	4.587	99	455547	42.69	ppm	0.00
Spiked Amount 50.000			Recovery	=	85.38%	
25) Nitrobenzene-d5	5.255	82	355662	43.73	ppm	0.00
Spiked Amount 50.000			Recovery	=	87.46%	
51) 2-Fluorobiphenyl	6.580	172	718242	44.83	ppm	0.00
Spiked Amount 50.000			Recovery	=	89.66%	
73) 2,4,6-Tribromophenol	7.974	330	113684	44.79	ppm	0.00
Spiked Amount 50.000			Recovery	=	89.58%	
85) Terphenyl-d14	11.041	244	778155	47.33	ppm	0.00
Spiked Amount 50.000			Recovery	=	94.66%	
104) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
105) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	

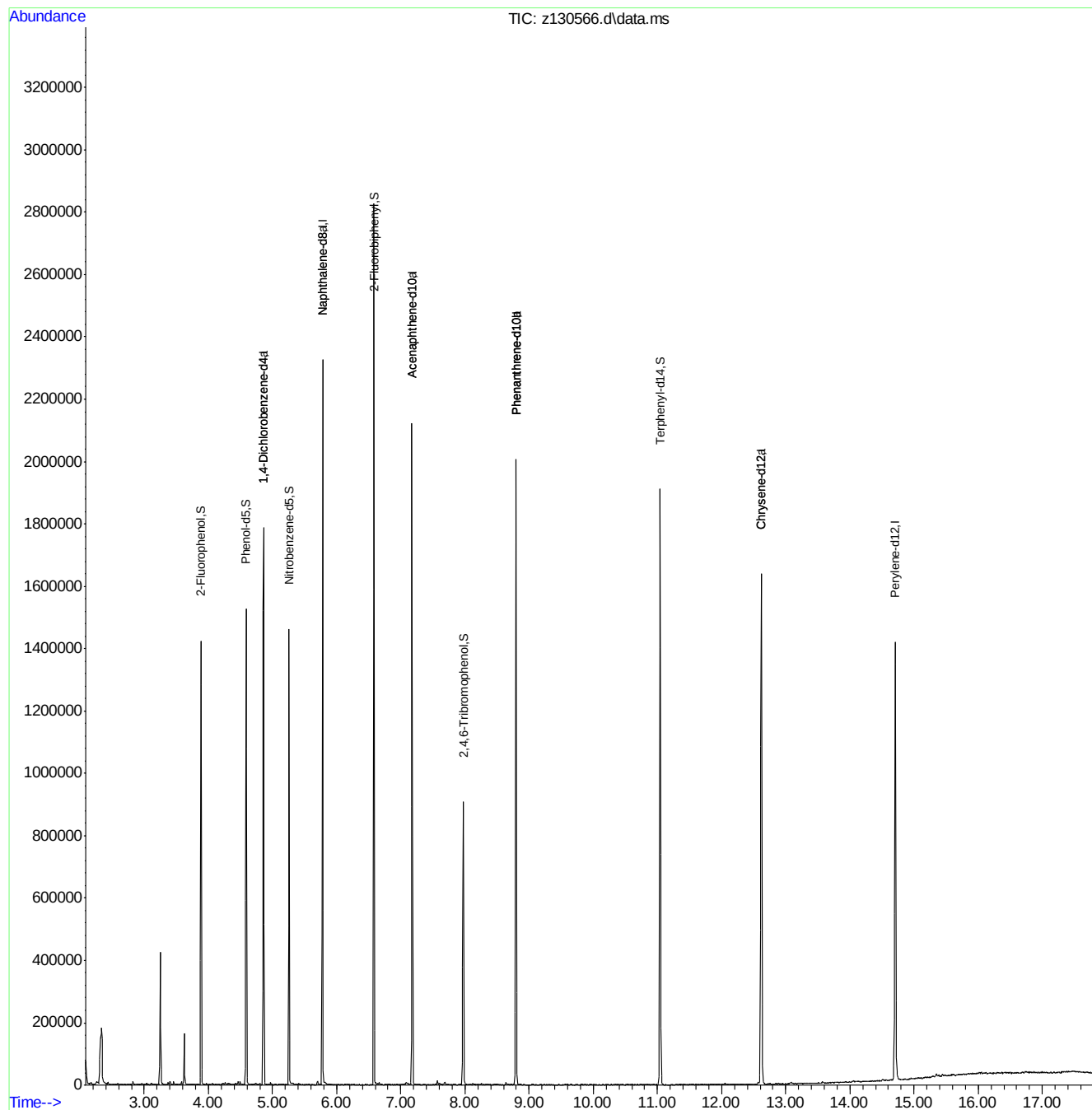
Target Compounds Qvalue

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

Quantitation Report (QT/LSC Reviewed)

Data Path : Z:\svoa\completed\05-14-18\jonkm\ez6441\
Data File : z130566.d
Acq On : 11 May 2018 6:03 pm
Operator : christc2
Sample : op11924-mb1
Misc : op11924,ez6441,30.0,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 13 22:07:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Sun May 13 21:35:59 2018
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6453\
 Data File : z130872.D
 Acq On : 22 May 2018 2:31 am
 Operator : sufiyana
 Sample : op12146-mb1
 Misc : op12146,eZ6453,30.0,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 22 17:03:55 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 QLast Update : Mon May 21 13:38:40 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.716	152	154980	40.00	ppm	0.00
24) Naphthalene-d8	5.635	136	652516	40.00	ppm	0.00
47) Acenaphthene-d10	7.002	164	352148	40.00	ppm	0.00
69) Phenanthrene-d10	8.589	188	701039	40.00	ppm	0.00
83) Chrysene-d12	12.382	240	734996	40.00	ppm	-0.02
91) Perylene-d12	14.465	264	798178	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.716	152	154980	40.00	ppm	0.00
103) Phenanthrene-d10a	8.589	188	701039	40.00	ppm	0.00
107) Chrysene-d12a	12.382	240	734996	40.00	ppm	-0.02
109) Acenaphthene-d10a	7.002	164	352148	40.00	ppm	0.00
111) Naphthalene-d8a	5.635	136	652516	40.00	ppm	0.00
113) Phenanthrene-d10b	8.589	188	701039	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.749	112	261533	45.30	ppm	0.00
Spiked Amount 50.000			Recovery	=	90.60%	
8) Phenol-d5	4.459	99	345360	49.84	ppm	-0.01
Spiked Amount 50.000			Recovery	=	99.68%	
25) Nitrobenzene-d5	5.116	82	274517	48.46	ppm	-0.01
Spiked Amount 50.000			Recovery	=	96.92%	
51) 2-Fluorobiphenyl	6.425	172	504735	40.90	ppm	0.00
Spiked Amount 50.000			Recovery	=	81.80%	
73) 2,4,6-Tribromophenol	7.782	330	96900	44.79	ppm	-0.01
Spiked Amount 50.000			Recovery	=	89.58%	
85) Terphenyl-d14	10.811	244	687508	39.43	ppm	-0.01
Spiked Amount 50.000			Recovery	=	78.86%	
104) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
105) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	

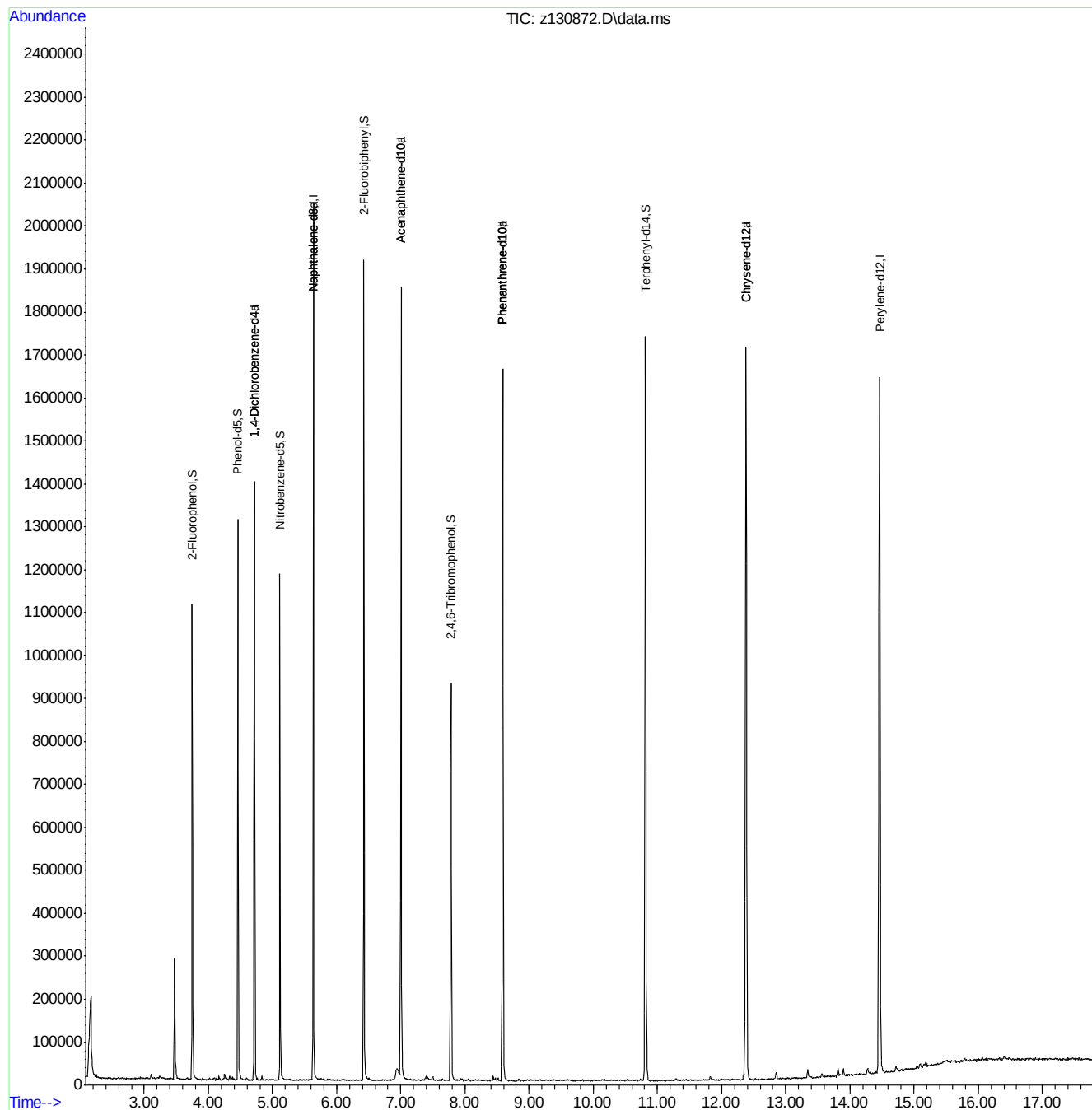
Target Compounds Qvalue

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

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6453\
Data File : z130872.D
Acq On : 22 May 2018 2:31 am
Operator : sufiyana
Sample : op12146-mb1
Misc : op12146,eZ6453,30.0,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 22 17:03:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Mon May 21 13:38:40 2018
Response via : Initial Calibration



General Chemistry

QC Data Summaries

∞

Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Page 1 of 2

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: JC65799-1 **Analyzed:** 15-MAY-18 by LV **Method:** SM2540 G-97
ClientID: SS-100

Wet Weight (Total)	33.37	g
Tare Weight	28.27	g
Dry Weight (Total)	32.51	g
Solids, Percent	83.1	%

Sample: JC65799-2 **Analyzed:** 15-MAY-18 by LV **Method:** SM2540 G-97
ClientID: SS-101

Wet Weight (Total)	26.69	g
Tare Weight	20.61	g
Dry Weight (Total)	25.78	g
Solids, Percent	85	%

Sample: JC65799-3 **Analyzed:** 15-MAY-18 by LV **Method:** SM2540 G-97
ClientID: SS-102

Wet Weight (Total)	29.56	g
Tare Weight	23.06	g
Dry Weight (Total)	28.79	g
Solids, Percent	88.2	%

Sample: JC65799-4 **Analyzed:** 15-MAY-18 by LV **Method:** SM2540 G-97
ClientID: SS-103

Wet Weight (Total)	31.06	g
Tare Weight	25.5	g
Dry Weight (Total)	29.83	g
Solids, Percent	77.9	%

Sample: JC65799-7 **Analyzed:** 15-MAY-18 by LV **Method:** SM2540 G-97
ClientID: SS-106

Wet Weight (Total)	29.74	g
Tare Weight	23.86	g
Dry Weight (Total)	28.95	g
Solids, Percent	86.6	%

Sample: JC65799-8 **Analyzed:** 15-MAY-18 by LV **Method:** SM2540 G-97
ClientID: SS-107

Wet Weight (Total)	34.29	g
Tare Weight	26.65	g
Dry Weight (Total)	33.17	g
Solids, Percent	85.3	%

8.1
8

Percent Solids Raw Data Summary

Job Number: JC65799
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: JC65799-10		Analyzed: 15-MAY-18 by LV		Method: SM2540 G-97
ClientID: DUP-050818				
Wet Weight (Total)	31.35	g		
Tare Weight	23.72	g		
Dry Weight (Total)	30.55	g		
Solids, Percent	89.5	%		
Sample: JC65799-5R		Analyzed: 01-JUN-18 by SF		Method: SM2540 G-97
ClientID: SS-104				
Wet Weight (Total)	24.22	g		
Tare Weight	18.02	g		
Dry Weight (Total)	23.47	g		
Solids, Percent	87.9	%		

8.1
8

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

e-Hardcopy 2.0
Automated Report

Technical Report for

Arcadis

NYSEG - Lyons MGP Site, Lyons NY

B0013143.0000

SGS Job Number: JC65800

Sampling Date: 05/08/18

Report to:

Arcadis
295 Woodcliff Drive Suite 301
Fairport, NY 14450
matt.hysell@arcadis.com; Nicholas.Beyrle@arcadis.com

ATTN: Matthew Hysell

Total number of pages in report: **715**



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

A handwritten signature in black ink that reads 'Nancy Cole'.

Nancy Cole
Laboratory Director

Client Service contact: Diane Komar 732-329-0200

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

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Test results relate only to samples analyzed.

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Sample Summary

Arcadis

Job No: JC65800

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.0000

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JC65800-1	05/08/18	09:30 RDC	05/09/18	SO	Soil	WC-2
JC65800-1A	05/08/18	09:30 RDC	05/09/18	SO	Soil	WC-2
JC65800-2	05/08/18	15:00 RDC	05/09/18	SO	Soil	WC-1
JC65800-2A	05/08/18	15:00 RDC	05/09/18	SO	Soil	WC-1

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

2

Client: Arcadis

Job No JC65800

Site: NYSEG - Lyons MGP Site, Lyons NY

Report Date 5/24/2018 12:38:51 P

On 05/09/2018, 4 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 5.3 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC65800 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Please refer to certification exceptions summary for additional certification information.

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

MS Volatiles By Method SW846 8260C

Matrix: LEACHATE

Batch ID: VA9208

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65741-2LS, JC65741-2MS, JC65741-2MSD were used as the QC samples indicated.

Matrix: SO

Batch ID: V3V1685

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65800-1DUP, JC65802-1MS were used as the QC samples indicated.
- JC65800-1 for Cyclohexane: This compound in BS is outside in house QC limits bias high.
- JC65800-1 for Dichlorodifluoromethane: Associated CCV and BS outside of control limits high, sample was ND.
- JC65800-2 for Methylene chloride: This compound in BS is outside in house QC limits bias high.
- V3V1685-BS for Carbon disulfide: High percent recoveries and no associated positive reported in the QC batch.
- V3V1685-BS for Cyclohexane: High percent recoveries and no associated positive reported in the QC batch.
- V3V1685-BS for Methylene chloride: High percent recoveries and no associated positive reported in the QC batch.
- JC65800-1 for Carbon disulfide: This compound in BS is outside in house QC limits bias high.
- JC65800-1 for Methylene chloride: This compound in BS is outside in house QC limits bias high.
- JC65800-2 for Dichlorodifluoromethane: Associated CCV and BS outside of control limits high, sample was ND.
- JC65800-2 for 1,2-Dichloroethane: Associated CCV outside of control limits low.
- JC65800-2 for Cyclohexane: This compound in BS is outside in house QC limits bias high.
- V3V1685-BS for Dichlorodifluoromethane: High percent recoveries and no associated positive reported in the QC batch.
- JC65800-2 for Carbon disulfide: This compound in BS is outside in house QC limits bias high.
- JC65800-1 for 1,2-Dichloroethane: Associated CCV outside of control limits low.

Thursday, May 24, 2018

Page 1 of 5

MS Semi-volatiles By Method SW846 8270D

Matrix: LEACHATE

Batch ID: OP12025

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65724-2LS, JC65724-2MS, JC65724-2MSD were used as the QC samples indicated.
- JC65800-1A for Pyridine: Associated CCV outside of control limits low.
- JC65800-2A for Pyridine: Associated CCV outside of control limits low.

Matrix: SO

Batch ID: OP11923

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65784-4MS, JC65784-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC65800-2 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC65800-2 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC65800-1 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC65800-2 for Hexachlorobutadiene: Associated CCV outside of control limits high, sample was ND.
- JC65800-1 for Benzaldehyde: Associated CCV outside of control limits low.
- JC65800-1 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC65800-1 for Hexachlorobutadiene: Associated CCV outside of control limits high, sample was ND.
- JC65800-2 for Benzaldehyde: Associated CCV outside of control limits low.
- JC65800-1 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC65800-2 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.

GC Volatiles By Method SW846 8015C

Matrix: SO

Batch ID: GPF4612

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65979-2MS, JC65979-2MSD were used as the QC samples indicated.

GC/LC Semi-volatiles By Method SW846 8015C

Matrix: SO

Batch ID: OP11925

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65751-10MS, JC65751-10MSD were used as the QC samples indicated.

GC/LC Semi-volatiles By Method SW846 8081B

Matrix: LEACHATE

Batch ID: OP11974

- All samples were extracted within the recommended method holding time.
- Sample(s) LA43799-1BMS, LA43799-1BMSD, OP11974-MSMSD, LA43799-1BLS were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for gamma-BHC (Lindane), Heptachlor epoxide are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for gamma-BHC (Lindane), Heptachlor epoxide are outside control limits. Outside control limits due to matrix interference.
- OP11974-BS1 for Methoxychlor: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

Thursday, May 24, 2018

Page 2 of 5

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO

Batch ID: OP11916

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65751-15MS, JC65751-15MSD were used as the QC samples indicated.

GC/LC Semi-volatiles By Method SW846 8151A

Matrix: LEACHATE

Batch ID: OP11975

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) LA43799-1BLS, LA43799-1BMS, LA43799-1BMSD were used as the QC samples indicated.

Metals Analysis By Method SW846 6010C

Matrix: LEACHATE

Batch ID: MP7122

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65764-1AMS, JC65764-1AMSD, JC65764-1ASDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Lead are outside control limits for sample MP7122-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Samples(s) JC65800-1A, JC65800-2A: New York does not offer 3010A certification for antimony and silver. The laboratory is certified for method 3010A (Acid Digestion for Total Metals) for all other metals and is certified for the associated analytical methods of 6010C (ICP Analysis) and 6020A (ICP-MS Analysis). New York does certify for method 3005A (Acid Digestion for Total Recoverable or Dissolved Metals) for antimony and silver and the laboratory holds that certification, but that provides total recoverable rather than total metals results.

Matrix: SO

Batch ID: MP7070

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TD20701-1MS, TD20701-1MSD, TD20701-1PS, TD20701-1SDL, TD20701-1DUP were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Copper, Lead, Nickel, Zinc, Calcium are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike Duplicate Recovery(s) for Silver are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike Recovery(s) for Barium, Iron, Manganese are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for Duplicate for Antimony, Cadmium, Silver, Zinc are outside control limits for sample MP7070-D1. RPD acceptable due to low duplicate and sample concentrations.
- RPD(s) for MSD for Nickel are outside control limits for sample MP7070-S2. High rpd due to possible sample nonhomogeneity.
- RPD(s) for Serial Dilution for Antimony, Cadmium, Silver, Potassium, Magnesium are outside control limits for sample MP7070-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP7070-PS1 for Zinc: Spike recovery indicates possible matrix interference.
- MP7070-PS1 for Copper: Spike recovery indicates possible matrix interference.

Metals Analysis By Method SW846 7470A

Matrix: LEACHATE **Batch ID:** MP7148

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65764-1AMS, JC65764-1AMSD were used as the QC samples for metals.

Metals Analysis By Method SW846 7471B

Matrix: SO **Batch ID:** MP7106

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65813-1DUP, JC65813-1MS, JC65813-1MSD were used as the QC samples for metals.

General Chemistry By Method ASTM D129-95

Matrix: SO **Batch ID:** GP13154

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64996-7DUP were used as the QC samples for Percent Sulfur.

General Chemistry By Method ASTM D240-92

Matrix: SO **Batch ID:** GP13163

- Sample(s) JC64996-7DUP were used as the QC samples for Heat Content, BTU.

General Chemistry By Method SM2540 G-97

Matrix: SO **Batch ID:** GN80007

- The data for SM2540 G-97 meets quality control requirements.

General Chemistry By Method SW846 1010A/ASTM D93

Matrix: SO **Batch ID:** GN80261

- Sample(s) JC65751-16DUP were used as the QC samples for Ignitability (Flashpoint).

General Chemistry By Method SW846 9012B/LACHAT

Matrix: SO **Batch ID:** GP13030

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66031-1DUP, JC66031-1MS were used as the QC samples for Cyanide.

General Chemistry By Method SW846 9045D

Matrix: SO **Batch ID:** GN80265

- Sample(s) JC65814-2ABDUP were used as the QC samples for Corrosivity as pH.

General Chemistry By Method SW846 CHAP7/9012 B**Matrix:** SO**Batch ID:** GP12980

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65724-2DUP were used as the QC samples for Cyanide Reactivity.

General Chemistry By Method SW846 CHAP7/9034**Matrix:** SO**Batch ID:** GP12981

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65724-2DUP, JC65724-2MS were used as the QC samples for Sulfide Reactivity.

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

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

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

Summary of Hits

Job Number: JC65800
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/08/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

JC65800-1 WC-2

Anthracene	25.5 J	35	22	ug/kg	SW846 8270D
Benzo(a)anthracene	122	35	10	ug/kg	SW846 8270D
Benzo(a)pyrene	142	35	16	ug/kg	SW846 8270D
Benzo(b)fluoranthene	170	35	16	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	88.5	35	18	ug/kg	SW846 8270D
Benzo(k)fluoranthene	60.4	35	16	ug/kg	SW846 8270D
Butyl benzyl phthalate	50.1 J	71	8.6	ug/kg	SW846 8270D
Chrysene	112	35	11	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	28.1 J	35	16	ug/kg	SW846 8270D
Fluoranthene	116	35	16	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	82.0	35	17	ug/kg	SW846 8270D
Phenanthrene	64.2	35	12	ug/kg	SW846 8270D
Pyrene	138	35	11	ug/kg	SW846 8270D
TPH-DRO (C10-C28)	12.1	9.5	2.3	mg/kg	SW846 8015C
Aluminum	8860	57		mg/kg	SW846 6010C
Arsenic	4.8	2.3		mg/kg	SW846 6010C
Barium	42.1	23		mg/kg	SW846 6010C
Beryllium	0.38	0.23		mg/kg	SW846 6010C
Calcium	90100	2900		mg/kg	SW846 6010C
Chromium	11.1	1.1		mg/kg	SW846 6010C
Cobalt	6.6	5.7		mg/kg	SW846 6010C
Copper	25.8	2.9		mg/kg	SW846 6010C
Iron	15400	57		mg/kg	SW846 6010C
Lead	9.2	2.3		mg/kg	SW846 6010C
Magnesium	32200	570		mg/kg	SW846 6010C
Manganese	615	1.7		mg/kg	SW846 6010C
Nickel	14.8	4.6		mg/kg	SW846 6010C
Potassium	2340	1100		mg/kg	SW846 6010C
Vanadium	16.9	5.7		mg/kg	SW846 6010C
Zinc	78.7	5.7		mg/kg	SW846 6010C
Heat Content, BTU	277	100		BTU/lb	ASTM D240-92

JC65800-1A WC-2

Corrosivity as pH	8.51 NC		su	SW846 9045D
Ignitability (Flashpoint)	> 200		Deg. F	SW846 1010A/ASTM D93

JC65800-2 WC-1

Acenaphthene	14.7 J	37	13	ug/kg	SW846 8270D
Acenaphthylene	27.5 J	37	19	ug/kg	SW846 8270D
Anthracene	61.2	37	23	ug/kg	SW846 8270D
Benzo(a)anthracene	351	37	10	ug/kg	SW846 8270D

Summary of Hits

Job Number: JC65800
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/08/18

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Benzo(a)pyrene		433	37	17	ug/kg	SW846 8270D
Benzo(b)fluoranthene		431	37	16	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		276	37	19	ug/kg	SW846 8270D
Benzo(k)fluoranthene		204	37	17	ug/kg	SW846 8270D
Benzaldehyde ^a		18.2 J	190	9.2	ug/kg	SW846 8270D
Carbazole		25.0 J	74	5.4	ug/kg	SW846 8270D
Chrysene		332	37	12	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		82.3	37	16	ug/kg	SW846 8270D
Fluoranthene		363	37	17	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		250	37	17	ug/kg	SW846 8270D
Naphthalene		19.3 J	37	10	ug/kg	SW846 8270D
Phenanthrene		162	37	12	ug/kg	SW846 8270D
Pyrene		478	37	12	ug/kg	SW846 8270D
TPH-DRO (C10-C28)		25.6	11	2.6	mg/kg	SW846 8015C
Aluminum		7890	59		mg/kg	SW846 6010C
Arsenic		4.8	2.4		mg/kg	SW846 6010C
Barium		44.8	24		mg/kg	SW846 6010C
Beryllium		0.33	0.24		mg/kg	SW846 6010C
Calcium		15300	590		mg/kg	SW846 6010C
Chromium		9.5	1.2		mg/kg	SW846 6010C
Copper		14.7	3.0		mg/kg	SW846 6010C
Iron		14000	59		mg/kg	SW846 6010C
Lead		56.3	2.4		mg/kg	SW846 6010C
Magnesium		8570	590		mg/kg	SW846 6010C
Manganese		533	1.8		mg/kg	SW846 6010C
Mercury		3.3	0.34		mg/kg	SW846 7471B
Nickel		9.0	4.7		mg/kg	SW846 6010C
Vanadium		16.6	5.9		mg/kg	SW846 6010C
Zinc		83.8	5.9		mg/kg	SW846 6010C
Cyanide		0.71	0.23		mg/kg	SW846 9012B/LACHAT
Heat Content, BTU		793	100		BTU/lb	ASTM D240-92

JC65800-2A WC-1

Corrosivity as pH	7.21 NC	su	SW846 9045D
Ignitability (Flashpoint)	> 200	Deg. F	SW846 1010A/ASTM D93

(a) Associated CCV outside of control limits low.



Dayton, NJ

Section 4

4

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-2	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-1	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	91.1
Method:	SW846 8260C		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V41954.D	1	05/14/18 12:23	TDN	n/a	n/a	V3V1685
Run #2							

	Initial Weight
Run #1	6.0 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.1	5.9	ug/kg	
71-43-2	Benzene	ND	0.46	0.098	ug/kg	
74-97-5	Bromochloromethane	ND	4.6	0.40	ug/kg	
75-27-4	Bromodichloromethane	ND	1.8	0.22	ug/kg	
75-25-2	Bromoform	ND	4.6	0.29	ug/kg	
74-83-9	Bromomethane	ND	4.6	0.64	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.1	4.8	ug/kg	
75-15-0	Carbon disulfide ^a	ND	1.8	0.56	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.8	0.59	ug/kg	
108-90-7	Chlorobenzene	ND	1.8	0.26	ug/kg	
75-00-3	Chloroethane	ND	4.6	0.83	ug/kg	
67-66-3	Chloroform	ND	1.8	0.30	ug/kg	
74-87-3	Chloromethane	ND	4.6	0.90	ug/kg	
110-82-7	Cyclohexane ^a	ND	1.8	0.31	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.8	0.62	ug/kg	
124-48-1	Dibromochloromethane	ND	1.8	0.35	ug/kg	
106-93-4	1,2-Dibromoethane	ND	0.91	0.22	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.91	0.47	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.91	0.26	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.91	0.44	ug/kg	
75-71-8	Dichlorodifluoromethane ^b	ND	4.6	0.56	ug/kg	
75-34-3	1,1-Dichloroethane	ND	0.91	0.24	ug/kg	
107-06-2	1,2-Dichloroethane ^c	ND	0.91	0.16	ug/kg	
75-35-4	1,1-Dichloroethene	ND	0.91	0.65	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	0.91	0.37	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.91	0.53	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.8	0.36	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	0.35	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	0.22	ug/kg	
100-41-4	Ethylbenzene	ND	0.91	0.26	ug/kg	
76-13-1	Freon 113	ND	4.6	0.62	ug/kg	
591-78-6	2-Hexanone	ND	4.6	2.6	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-2	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-1	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	91.1
Method:	SW846 8260C		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.8	0.23	ug/kg	
79-20-9	Methyl Acetate	ND	4.6	2.3	ug/kg	
108-87-2	Methylcyclohexane	ND	1.8	0.50	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.91	0.39	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	4.6	1.6	ug/kg	
75-09-2	Methylene chloride ^a	ND	4.6	2.3	ug/kg	
100-42-5	Styrene	ND	1.8	0.45	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.8	0.23	ug/kg	
127-18-4	Tetrachloroethene	ND	1.8	0.58	ug/kg	
108-88-3	Toluene	ND	0.91	0.50	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.6	0.91	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.6	0.91	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.8	0.53	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.8	0.38	ug/kg	
79-01-6	Trichloroethene	ND	0.91	0.50	ug/kg	
75-69-4	Trichlorofluoromethane	ND	4.6	0.44	ug/kg	
75-01-4	Vinyl chloride	ND	1.8	0.70	ug/kg	
	m,p-Xylene	ND	0.91	0.50	ug/kg	
95-47-6	o-Xylene	ND	0.91	0.23	ug/kg	
1330-20-7	Xylene (total)	ND	0.91	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		75-127%
17060-07-0	1,2-Dichloroethane-D4	92%		75-130%
2037-26-5	Toluene-D8	90%		80-120%
460-00-4	4-Bromofluorobenzene	97%		79-127%

- (a) This compound in BS is outside in house QC limits bias high.
 (b) Associated CCV and BS outside of control limits high, sample was ND.
 (c) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-2	
Lab Sample ID:	JC65800-1	Date Sampled: 05/08/18
Matrix:	SO - Soil	Date Received: 05/09/18
Method:	SW846 8270D SW846 3546	Percent Solids: 91.1
Project:	NYSEG - Lyons MGP Site, Lyons NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P79499.D	1	05/12/18 08:50	GS	05/11/18 06:45	OP11923	E2P3500
Run #2							

Run #	Initial Weight	Final Volume
Run #1	31.1 g	1.0 ml
Run #2		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	71	17	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	180	22	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	180	30	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	180	63	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	180	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	180	38	ug/kg	
95-48-7	2-Methylphenol	ND	71	23	ug/kg	
	3&4-Methylphenol	ND	71	29	ug/kg	
88-75-5	2-Nitrophenol	ND	180	23	ug/kg	
100-02-7	4-Nitrophenol	ND	350	94	ug/kg	
87-86-5	Pentachlorophenol ^a	ND	140	33	ug/kg	
108-95-2	Phenol	ND	71	18	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	180	23	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	180	26	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	180	21	ug/kg	
83-32-9	Acenaphthene	ND	35	12	ug/kg	
208-96-8	Acenaphthylene	ND	35	18	ug/kg	
98-86-2	Acetophenone	ND	180	7.6	ug/kg	
120-12-7	Anthracene	25.5	35	22	ug/kg	J
1912-24-9	Atrazine	ND	71	15	ug/kg	
56-55-3	Benzo(a)anthracene	122	35	10	ug/kg	
50-32-8	Benzo(a)pyrene	142	35	16	ug/kg	
205-99-2	Benzo(b)fluoranthene	170	35	16	ug/kg	
191-24-2	Benzo(g,h,i)perylene	88.5	35	18	ug/kg	
207-08-9	Benzo(k)fluoranthene	60.4	35	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	71	14	ug/kg	
85-68-7	Butyl benzyl phthalate	50.1	71	8.6	ug/kg	J
92-52-4	1,1'-Biphenyl	ND	71	4.8	ug/kg	
100-52-7	Benzaldehyde ^b	ND	180	8.8	ug/kg	
91-58-7	2-Chloronaphthalene	ND	71	8.4	ug/kg	
106-47-8	4-Chloroaniline	ND	180	13	ug/kg	
86-74-8	Carbazole	ND	71	5.1	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-2	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-1	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	91.1
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	71	14	ug/kg	
218-01-9	Chrysene	112	35	11	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	71	7.6	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	71	15	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	71	13	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	71	11	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	35	11	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	35	18	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	71	29	ug/kg	
123-91-1	1,4-Dioxane ^a	ND	35	23	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	28.1	35	16	ug/kg	J
132-64-9	Dibenzofuran	ND	71	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	71	5.8	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	71	8.8	ug/kg	
84-66-2	Diethyl phthalate	ND	71	7.5	ug/kg	
131-11-3	Dimethyl phthalate	ND	71	6.3	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	71	8.3	ug/kg	
206-44-0	Fluoranthene	116	35	16	ug/kg	
86-73-7	Fluorene	ND	35	16	ug/kg	
118-74-1	Hexachlorobenzene	ND	71	8.9	ug/kg	
87-68-3	Hexachlorobutadiene ^a	ND	35	14	ug/kg	
77-47-4	Hexachlorocyclopentadiene ^a	ND	350	14	ug/kg	
67-72-1	Hexachloroethane	ND	180	17	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	82.0	35	17	ug/kg	
78-59-1	Isophorone	ND	71	7.6	ug/kg	
91-57-6	2-Methylnaphthalene	ND	35	8.0	ug/kg	
88-74-4	2-Nitroaniline	ND	180	8.3	ug/kg	
99-09-2	3-Nitroaniline	ND	180	8.8	ug/kg	
100-01-6	4-Nitroaniline	ND	180	9.1	ug/kg	
91-20-3	Naphthalene	ND	35	10	ug/kg	
98-95-3	Nitrobenzene	ND	71	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	71	10	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	180	13	ug/kg	
85-01-8	Phenanthrene	64.2	35	12	ug/kg	
129-00-0	Pyrene	138	35	11	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	180	9.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		23-115%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-2	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-1	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	91.1
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	51%		27-114%
118-79-6	2,4,6-Tribromophenol	83%		19-152%
4165-60-0	Nitrobenzene-d5	60%		26-134%
321-60-8	2-Fluorobiphenyl	74%		39-124%
1718-51-0	Terphenyl-d14	80%		36-134%

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

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

4.1
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SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-2						
Lab Sample ID:	JC65800-1					Date Sampled:	05/08/18
Matrix:	SO - Soil					Date Received:	05/09/18
Method:	SW846 8015C					Percent Solids:	91.1
Project:	NYSEG - Lyons MGP Site, Lyons NY						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	PF145800.D	1	05/15/18 11:01	KC	n/a	n/a	GPF4612
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	10.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	23	12	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	87%		70-116%

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

4.1
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SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-2		
Lab Sample ID:	JC65800-1	Date Sampled:	05/08/18
Matrix:	SO - Soil	Date Received:	05/09/18
Method:	SW846 8082A SW846 3546	Percent Solids:	91.1
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G164072.D	1	05/23/18 11:59	TR	05/10/18 08:00	OP11916	G2G4342
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	35	14	ug/kg	
11104-28-2	Aroclor 1221	ND	35	14	ug/kg	
11141-16-5	Aroclor 1232	ND	35	9.3	ug/kg	
53469-21-9	Aroclor 1242	ND	35	5.5	ug/kg	
12672-29-6	Aroclor 1248	ND	35	20	ug/kg	
11097-69-1	Aroclor 1254	ND	35	8.5	ug/kg	
11096-82-5	Aroclor 1260	ND	35	11	ug/kg	
11100-14-4	Aroclor 1268	ND	35	5.2	ug/kg	
37324-23-5	Aroclor 1262	ND	35	2.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	100%		24-152%
877-09-8	Tetrachloro-m-xylene	96%		24-152%
2051-24-3	Decachlorobiphenyl	75%		10-166%
2051-24-3	Decachlorobiphenyl	88%		10-166%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-2		
Lab Sample ID:	JC65800-1	Date Sampled:	05/08/18
Matrix:	SO - Soil	Date Received:	05/09/18
Method:	SW846 8015C SW846 3546	Percent Solids:	91.1
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Z69087.D	1	05/14/18 11:02	TL	05/10/18 17:45	OP11925	G2Z2597
Run #2							

	Initial Weight	Final Volume
Run #1	11.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	12.1	9.5	2.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	55%		18-132%
16416-32-3	Tetracosane-d50	76%		25-137%
438-22-2	5a-Androstane	70%		22-134%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-2	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-1	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	91.1
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	8860	57	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Antimony	< 2.3	2.3	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Arsenic	4.8	2.3	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Barium	42.1	23	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Beryllium	0.38	0.23	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Cadmium	< 0.57	0.57	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Calcium	90100	2900	mg/kg	5	05/10/18	05/16/18	EAL	SW846 6010C ³
Chromium	11.1	1.1	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Cobalt	6.6	5.7	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Copper	25.8	2.9	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Iron	15400	57	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Lead	9.2	2.3	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Magnesium	32200	570	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Manganese	615	1.7	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Mercury	< 0.034	0.034	mg/kg	1	05/11/18	05/11/18	MS	SW846 7471B ¹
Nickel	14.8	4.6	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Potassium	2340	1100	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Selenium	< 2.3	2.3	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Silver	< 0.57	0.57	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Sodium	< 1100	1100	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Thallium	< 1.1	1.1	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Vanadium	16.9	5.7	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²
Zinc	78.7	5.7	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ²

(1) Instrument QC Batch: MA44380

(2) Instrument QC Batch: MA44386

(3) Instrument QC Batch: MA44427

(4) Prep QC Batch: MP7070

(5) Prep QC Batch: MP7106

RL = Reporting Limit

Report of Analysis

Client Sample ID:	WC-2	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-1	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	91.1
Project:	NYSEG - Lyons MGP Site, Lyons NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.19	0.19	mg/kg	1	05/16/18 14:49	BM	SW846 9012B/LACHAT
Heat Content, BTU	277	100	BTU/lb	1	05/20/18 14:00	JOO	ASTM D240-92
Percent Sulfur	< 0.10	0.10	%	1	05/20/18	JOO	ASTM D129-95
Solids, Percent	91.1		%	1	05/15/18 16:40	LV	SM2540 G-97

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-2	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-1A	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	91.1
Method:	SW846 8260C SW846 1311		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A241596.D	5	05/14/18 17:15	OI	05/11/18 10:00	GP12985	VA9208
Run #2							

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

VOA TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.0025	0.00087	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.024	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0017	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0012	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0014	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.00087	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0010	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0024	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0025	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0013	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0031	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		76-120%
17060-07-0	1,2-Dichloroethane-D4	99%		64-135%
2037-26-5	Toluene-D8	95%		76-117%
460-00-4	4-Bromofluorobenzene	95%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-2		
Lab Sample ID:	JC65800-1A	Date Sampled:	05/08/18
Matrix:	SO - Soil	Date Received:	05/09/18
Method:	SW846 8270D SW846 3510C	Percent Solids:	91.1
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6P473095.D	1	05/18/18 22:45	SA	05/18/18 15:00	OP12025	E6P2215
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine ^a	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	41%		14-88%
4165-62-2	Phenol-d5	26%		10-110%
118-79-6	2,4,6-Tribromophenol	65%		39-149%
4165-60-0	Nitrobenzene-d5	73%		32-128%
321-60-8	2-Fluorobiphenyl	76%		35-119%
1718-51-0	Terphenyl-d14	100%		10-126%

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-2							
Lab Sample ID:	JC65800-1A					Date Sampled:	05/08/18	
Matrix:	SO - Soil					Date Received:	05/09/18	
Method:	SW846 8151A SW846 8151/3510C					Percent Solids:	91.1	
Project:	NYSEG - Lyons MGP Site, Lyons NY							

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G116528.D	1	05/20/18 17:31	VDT	05/18/18 14:55	OP11975	G3G4048
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.5 ml
Run #2		

Herbicide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0042	0.0012	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0012	0.00025	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	75%		50-142%
19719-28-9	2,4-DCAA	57%		50-142%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-2		
Lab Sample ID:	JC65800-1A	Date Sampled:	05/08/18
Matrix:	SO - Soil	Date Received:	05/09/18
Method:	SW846 8081B SW846 3510C	Percent Solids:	91.1
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G56362.D	1	05/21/18 04:22	CP	05/12/18 08:00	OP11974	G6G1687
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.0 ml
Run #2		

Pesticide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.000067	0.000040	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0033	0.0014	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.000067	0.000040	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.000067	0.000030	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.000067	0.000040	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00013	0.000045	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0017	0.0011	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	62%		30-137%
877-09-8	Tetrachloro-m-xylene	61%		30-137%
2051-24-3	Decachlorobiphenyl	67%		10-137%
2051-24-3	Decachlorobiphenyl	69%		10-137%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-2	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-1A	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	91.1
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 1.0	D005	100	1.0	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.025	D006	1.0	0.025	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.050	D007	5.0	0.050	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Lead	< 0.50	D008	5.0	0.50	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	05/14/18	05/14/18 DP	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.50	D010	1.0	0.50	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.050	D011	5.0	0.050	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA44394
- (2) Instrument QC Batch: MA44405
- (3) Prep QC Batch: MP7122
- (4) Prep QC Batch: MP7148

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

Report of Analysis

Client Sample ID:	WC-2	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-1A	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	91.1
Project:	NYSEG - Lyons MGP Site, Lyons NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	8.51 NC		su	1	05/21/18 16:30	RI	SW846 9045D
Cyanide Reactivity	< 11	11	mg/kg	1	05/14/18 11:14	BM	SW846 CHAP7/9012 B
Ignitability (Flashpoint)	> 200		Deg. F	1	05/21/18 16:30	RI	SW846 1010A/ASTM D93
Sulfide Reactivity	< 110	110	mg/kg	1	05/11/18 09:00	MP	SW846 CHAP7/9034

RL = Reporting Limit

4.2
4

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Report of Analysis

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Client Sample ID:	WC-1	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-2	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	85.2
Method:	SW846 8260C		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V41955.D	1	05/14/18 12:50	TDN	n/a	n/a	V3V1685
Run #2							

	Initial Weight
Run #1	5.6 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.7	ug/kg	
71-43-2	Benzene	ND	0.52	0.11	ug/kg	
74-97-5	Bromochloromethane	ND	5.2	0.46	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.25	ug/kg	
75-25-2	Bromoform	ND	5.2	0.33	ug/kg	
74-83-9	Bromomethane	ND	5.2	0.74	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	5.5	ug/kg	
75-15-0	Carbon disulfide ^a	ND	2.1	0.64	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.68	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.30	ug/kg	
75-00-3	Chloroethane	ND	5.2	0.95	ug/kg	
67-66-3	Chloroform	ND	2.1	0.34	ug/kg	
74-87-3	Chloromethane	ND	5.2	1.0	ug/kg	
110-82-7	Cyclohexane ^a	ND	2.1	0.36	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.1	0.71	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.40	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.0	0.26	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.54	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/kg	
75-71-8	Dichlorodifluoromethane ^b	ND	5.2	0.64	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane ^c	ND	1.0	0.19	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.0	0.74	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.42	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.61	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.42	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.40	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.25	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/kg	
76-13-1	Freon 113	ND	5.2	0.71	ug/kg	
591-78-6	2-Hexanone	ND	5.2	2.9	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-1	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-2	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	85.2
Method:	SW846 8260C		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.1	0.26	ug/kg	
79-20-9	Methyl Acetate	ND	5.2	2.7	ug/kg	
108-87-2	Methylcyclohexane	ND	2.1	0.57	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.45	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.2	1.9	ug/kg	
75-09-2	Methylene chloride ^a	ND	5.2	2.6	ug/kg	
100-42-5	Styrene	ND	2.1	0.52	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.27	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.67	ug/kg	
108-88-3	Toluene	ND	1.0	0.57	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.2	1.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.2	1.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.61	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.44	ug/kg	
79-01-6	Trichloroethene	ND	1.0	0.57	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.2	0.50	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.80	ug/kg	
	m,p-Xylene	ND	1.0	0.57	ug/kg	
95-47-6	o-Xylene	ND	1.0	0.26	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		75-127%
17060-07-0	1,2-Dichloroethane-D4	94%		75-130%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	98%		79-127%

- (a) This compound in BS is outside in house QC limits bias high.
 (b) Associated CCV and BS outside of control limits high, sample was ND.
 (c) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-1	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-2	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	85.2
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P79500.D	1	05/12/18 09:12	GS	05/11/18 06:45	OP11923	E2P3500
Run #2							

Run #	Initial Weight	Final Volume
Run #1	31.7 g	1.0 ml
Run #2		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	74	18	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	190	23	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	190	32	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	190	66	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	190	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	190	40	ug/kg	
95-48-7	2-Methylphenol	ND	74	24	ug/kg	
	3&4-Methylphenol	ND	74	30	ug/kg	
88-75-5	2-Nitrophenol	ND	190	24	ug/kg	
100-02-7	4-Nitrophenol	ND	370	99	ug/kg	
87-86-5	Pentachlorophenol ^a	ND	150	35	ug/kg	
108-95-2	Phenol	ND	74	19	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	190	25	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	190	28	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	190	22	ug/kg	
83-32-9	Acenaphthene	14.7	37	13	ug/kg	J
208-96-8	Acenaphthylene	27.5	37	19	ug/kg	J
98-86-2	Acetophenone	ND	190	8.0	ug/kg	
120-12-7	Anthracene	61.2	37	23	ug/kg	
1912-24-9	Atrazine	ND	74	16	ug/kg	
56-55-3	Benzo(a)anthracene	351	37	10	ug/kg	
50-32-8	Benzo(a)pyrene	433	37	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	431	37	16	ug/kg	
191-24-2	Benzo(g,h,i)perylene	276	37	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	204	37	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	74	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	74	9.0	ug/kg	
92-52-4	1,1'-Biphenyl	ND	74	5.1	ug/kg	
100-52-7	Benzaldehyde ^b	18.2	190	9.2	ug/kg	J
91-58-7	2-Chloronaphthalene	ND	74	8.8	ug/kg	
106-47-8	4-Chloroaniline	ND	190	13	ug/kg	
86-74-8	Carbazole	25.0	74	5.4	ug/kg	J

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-1	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-2	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	85.2
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	74	15	ug/kg	
218-01-9	Chrysene	332	37	12	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	74	7.9	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	74	16	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	74	13	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	74	12	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	37	11	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	37	19	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	74	31	ug/kg	
123-91-1	1,4-Dioxane ^a	ND	37	24	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	82.3	37	16	ug/kg	
132-64-9	Dibenzofuran	ND	74	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	74	6.0	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	74	9.2	ug/kg	
84-66-2	Diethyl phthalate	ND	74	7.9	ug/kg	
131-11-3	Dimethyl phthalate	ND	74	6.6	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	74	8.7	ug/kg	
206-44-0	Fluoranthene	363	37	17	ug/kg	
86-73-7	Fluorene	ND	37	17	ug/kg	
118-74-1	Hexachlorobenzene	ND	74	9.4	ug/kg	
87-68-3	Hexachlorobutadiene ^a	ND	37	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene ^a	ND	370	15	ug/kg	
67-72-1	Hexachloroethane	ND	190	18	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	250	37	17	ug/kg	
78-59-1	Isophorone	ND	74	7.9	ug/kg	
91-57-6	2-Methylnaphthalene	ND	37	8.4	ug/kg	
88-74-4	2-Nitroaniline	ND	190	8.7	ug/kg	
99-09-2	3-Nitroaniline	ND	190	9.3	ug/kg	
100-01-6	4-Nitroaniline	ND	190	9.6	ug/kg	
91-20-3	Naphthalene	19.3	37	10	ug/kg	J
98-95-3	Nitrobenzene	ND	74	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	74	11	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	190	14	ug/kg	
85-01-8	Phenanthrene	162	37	12	ug/kg	
129-00-0	Pyrene	478	37	12	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	190	9.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	36%		23-115%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-1	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-2	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	85.2
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	38%		27-114%
118-79-6	2,4,6-Tribromophenol	66%		19-152%
4165-60-0	Nitrobenzene-d5	45%		26-134%
321-60-8	2-Fluorobiphenyl	58%		39-124%
1718-51-0	Terphenyl-d14	64%		36-134%

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

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

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SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-1						
Lab Sample ID:	JC65800-2				Date Sampled:	05/08/18	
Matrix:	SO - Soil				Date Received:	05/09/18	
Method:	SW846 8015C				Percent Solids:	85.2	
Project:	NYSEG - Lyons MGP Site, Lyons NY						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	PF145801.D	1	05/15/18 11:27	KC	n/a	n/a	GPF4612
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.3 g	10.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	29	14	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	88%		70-116%

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-1		
Lab Sample ID:	JC65800-2	Date Sampled:	05/08/18
Matrix:	SO - Soil	Date Received:	05/09/18
Method:	SW846 8082A SW846 3546	Percent Solids:	85.2
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G163280.D	1	05/11/18 04:18	TR	05/10/18 08:00	OP11916	G2G4329
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	37	15	ug/kg	
11104-28-2	Aroclor 1221	ND	37	15	ug/kg	
11141-16-5	Aroclor 1232	ND	37	10	ug/kg	
53469-21-9	Aroclor 1242	ND	37	6.0	ug/kg	
12672-29-6	Aroclor 1248	ND	37	22	ug/kg	
11097-69-1	Aroclor 1254	ND	37	9.2	ug/kg	
11096-82-5	Aroclor 1260	ND	37	12	ug/kg	
11100-14-4	Aroclor 1268	ND	37	5.6	ug/kg	
37324-23-5	Aroclor 1262	ND	37	2.8	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		24-152%
877-09-8	Tetrachloro-m-xylene	92%		24-152%
2051-24-3	Decachlorobiphenyl	94%		10-166%
2051-24-3	Decachlorobiphenyl	103%		10-166%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-1		
Lab Sample ID:	JC65800-2	Date Sampled:	05/08/18
Matrix:	SO - Soil	Date Received:	05/09/18
Method:	SW846 8015C SW846 3546	Percent Solids:	85.2
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Z69088.D	1	05/14/18 11:57	TL	05/10/18 17:45	OP11925	G2Z2597
Run #2							

	Initial Weight	Final Volume
Run #1	11.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	25.6	11	2.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	58%		18-132%
16416-32-3	Tetracosane-d50	80%		25-137%
438-22-2	5a-Androstane	75%		22-134%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-1	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-2	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	85.2
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	7890	59	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Antimony	< 2.4	2.4	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Arsenic	4.8	2.4	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Barium	44.8	24	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Beryllium	0.33	0.24	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Cadmium	< 0.59	0.59	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Calcium	15300	590	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Chromium	9.5	1.2	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Cobalt	< 5.9	5.9	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Copper	14.7	3.0	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Iron	14000	59	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Lead	56.3	2.4	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Magnesium	8570	590	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Manganese	533	1.8	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Mercury	3.3	0.34	mg/kg	10	05/11/18	05/11/18	MS	SW846 7471B ¹ SW846 7471B ⁴
Nickel	9.0	4.7	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Potassium	< 1200	1200	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Selenium	< 2.4	2.4	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Silver	< 0.59	0.59	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Sodium	< 1200	1200	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Thallium	< 1.2	1.2	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Vanadium	16.6	5.9	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³
Zinc	83.8	5.9	mg/kg	1	05/10/18	05/11/18	ND	SW846 6010C ² SW846 3050B ³

(1) Instrument QC Batch: MA44380

(2) Instrument QC Batch: MA44386

(3) Prep QC Batch: MP7070

(4) Prep QC Batch: MP7106

RL = Reporting Limit

Report of Analysis

Client Sample ID:	WC-1	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-2	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	85.2
Project:	NYSEG - Lyons MGP Site, Lyons NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.71	0.23	mg/kg	1	05/16/18 14:51	BM	SW846 9012B/LACHAT
Heat Content, BTU	793	100	BTU/lb	1	05/20/18 14:00	JOO	ASTM D240-92
Percent Sulfur	< 0.10	0.10	%	1	05/20/18	JOO	ASTM D129-95
Solids, Percent	85.2		%	1	05/15/18 16:40	LV	SM2540 G-97

RL = Reporting Limit

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Report of Analysis

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Client Sample ID:	WC-1		
Lab Sample ID:	JC65800-2A	Date Sampled:	05/08/18
Matrix:	SO - Soil	Date Received:	05/09/18
Method:	SW846 8260C SW846 1311	Percent Solids:	85.2
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A241597.D	5	05/14/18 17:45	OI	05/11/18 10:00	GP12985	VA9208
Run #2							

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

VOA TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.0025	0.00087	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.024	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0017	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0012	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0014	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.00087	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0010	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0024	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0025	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0013	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0031	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		76-120%
17060-07-0	1,2-Dichloroethane-D4	99%		64-135%
2037-26-5	Toluene-D8	95%		76-117%
460-00-4	4-Bromofluorobenzene	95%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-1		
Lab Sample ID:	JC65800-2A	Date Sampled:	05/08/18
Matrix:	SO - Soil	Date Received:	05/09/18
Method:	SW846 8270D SW846 3510C	Percent Solids:	85.2
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6P473096.D	1	05/18/18 23:10	SA	05/18/18 15:00	OP12025	E6P2215
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine ^a	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	43%		14-88%
4165-62-2	Phenol-d5	28%		10-110%
118-79-6	2,4,6-Tribromophenol	69%		39-149%
4165-60-0	Nitrobenzene-d5	78%		32-128%
321-60-8	2-Fluorobiphenyl	84%		35-119%
1718-51-0	Terphenyl-d14	101%		10-126%

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-1							
Lab Sample ID:	JC65800-2A					Date Sampled:	05/08/18	
Matrix:	SO - Soil					Date Received:	05/09/18	
Method:	SW846 8151A SW846 8151/3510C					Percent Solids:	85.2	
Project:	NYSEG - Lyons MGP Site, Lyons NY							

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G116529.D	1	05/20/18 17:59	VDT	05/18/18 14:55	OP11975	G3G4048
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.5 ml
Run #2		

Herbicide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0042	0.0012	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0012	0.00025	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	91%		50-142%
19719-28-9	2,4-DCAA	68%		50-142%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-1		
Lab Sample ID:	JC65800-2A	Date Sampled:	05/08/18
Matrix:	SO - Soil	Date Received:	05/09/18
Method:	SW846 8081B SW846 3510C	Percent Solids:	85.2
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G56363.D	1	05/21/18 04:40	CP	05/12/18 08:00	OP11974	G6G1687
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.0 ml
Run #2		

Pesticide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.000067	0.000040	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0033	0.0014	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.000067	0.000040	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.000067	0.000030	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.000067	0.000040	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00013	0.000045	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0017	0.0011	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	51%		30-137%
877-09-8	Tetrachloro-m-xylene	51%		30-137%
2051-24-3	Decachlorobiphenyl	51%		10-137%
2051-24-3	Decachlorobiphenyl	54%		10-137%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-1	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-2A	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	85.2
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 1.0	D005	100	1.0	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.025	D006	1.0	0.025	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.050	D007	5.0	0.050	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Lead	< 0.50	D008	5.0	0.50	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	05/14/18	05/14/18 DP	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.50	D010	1.0	0.50	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.050	D011	5.0	0.050	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA44394

(2) Instrument QC Batch: MA44405

(3) Prep QC Batch: MP7122

(4) Prep QC Batch: MP7148

RL = Reporting Limit

MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

Report of Analysis

Client Sample ID:	WC-1	Date Sampled:	05/08/18
Lab Sample ID:	JC65800-2A	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	85.2
Project:	NYSEG - Lyons MGP Site, Lyons NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.21 NC		su	1	05/21/18 16:33	RI	SW846 9045D
Cyanide Reactivity	< 12	12	mg/kg	1	05/14/18 11:15	BM	SW846 CHAP7/9012 B
Ignitability (Flashpoint)	> 200		Deg. F	1	05/21/18 16:30	RI	SW846 1010A/ASTM D93
Sulfide Reactivity	< 120	120	mg/kg	1	05/11/18 09:00	MP	SW846 CHAP7/9034

RL = Reporting Limit

4.4
4

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

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

Parameter Certification Exceptions

Page 1 of 1

Job Number: JC65800

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

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

Parameter	CAS#	Method	Mat	Certification Status
Cyanide Reactivity		SW846 CHAP7/9012 B	SO	SGS is not certified for this parameter. ^a
Percent Sulfur		ASTM D129-95	SO	SGS is not certified for this parameter. ^b
Sulfide Reactivity		SW846 CHAP7/9034	SO	SGS is not certified for this parameter. ^a

(a) Reactivity analyzed following SW846 Chapter 7 is no longer recognized by regulatory agencies. Use of results should be verified through the program to which the data is being submitted.

(b) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

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



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

FED-EX Tracking # 6357-6344-7800	Bottle Order Control # DK-05118-28
SGS Quote #	SGS Job # JC65800

[illegible]

Form:SM088-03C (revised 2/12/18)

<http://www.sqs.com/en/terms-and-conditions>

JC65800: Chain of Custody

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SGS

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JC65800

SGS Sample Receipt Summary

Job Number: JC65800

Client: ARCADIS

Project: NYSEG - LYONS MGP SITE, LYONS NY - LTDD

Date / Time Received: 5/9/2018 9:50:00 AM

Delivery Method:
Airbill #s:
Cooler Temps (Raw Measured) °C: Cooler 1: (3.8);

Cooler Temps (Corrected) °C: Cooler 1: (5.3);

Cooler Security
Y or N
Y or N

- | | |
|--|---|
| 1. Custody Seals Present: ☒ ☐ | 3. COC Present: ☒ ☐ |
| 2. Custody Seals Intact: ☒ ☐ | 4. Smpl Dates/Time OK: ☒ ☐ |

Cooler Temperature
Y or N

- | | |
|---|-----------|
| 1. Temp criteria achieved: ☒ ☐ | IR Gun |
| 2. Cooler temp verification: | |
| 3. Cooler media: | Ice (Bag) |
| 4. No. Coolers: | 1 |

Quality Control Preservation
Y or N
N/A

- | | |
|---|--|
| 1. Trip Blank present / cooler: ☐ ☒ ☐ | |
| 2. Trip Blank listed on COC: ☐ ☒ ☐ | |
| 3. Samples preserved properly: ☒ ☐ | |
| 4. VOCs headspace free: ☐ ☐ ☒ | |

Sample Integrity - Documentation
Y or N

- | | |
|---|--|
| 1. Sample labels present on bottles: ☒ ☐ | |
| 2. Container labeling complete: ☒ ☐ | |
| 3. Sample container label / COC agree: ☒ ☐ | |

Sample Integrity - Condition
Y or N

- | | |
|---|--------|
| 1. Sample recvd within HT: ☒ ☐ | |
| 2. All containers accounted for: ☒ ☐ | |
| 3. Condition of sample: | Intact |

Sample Integrity - Instructions
Y or N
N/A

- | | |
|--|--|
| 1. Analysis requested is clear: ☒ ☐ | |
| 2. Bottles received for unspecified tests: ☐ ☒ | |
| 3. Sufficient volume recvd for analysis: ☒ ☐ | |
| 4. Compositing instructions clear: ☐ ☐ ☒ | |
| 5. Filtering instructions clear: ☐ ☐ ☒ | |

Test Strip Lot #s:

pH 1-12: 216017

pH 12+: 208717

Other: (Specify)

Comments

 SM089-03
Rev. Date 12/7/17

JC65800: Chain of Custody

Page 2 of 4

Job Change Order: JC65800

Requested Date: 5/14/2018 Received Date: 5/9/2018
Account Name: Arcadis Due Date: 5/23/2018
Project Description: NYSEG - Lyons MGP Site, Lyons NY REDT2
C/O Initiated By: DIANEK PM: DK TAT (Days): 14

Sample #: JC65800-1 Change:
Remove SICP and replace with SULFUR

Dept:

TAT: 14

WC-2

Sample #: JC65800-2 Change:
Remove SICP and replace with SULFUR

Dept:

TAT: 14

WC-1

Above Changes Per: Ryan Clare Date/Time: 5/14/2018 5:18:06 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Job Change Order: JC65800

Requested Date: 5/14/2018 Received Date: 5/9/2018
Account Name: Arcadis Due Date: 5/23/2018
Project Description: NYSEG - Lyons MGP Site, Lyons NY REDT2
C/O Initiated By: DIANEK PM: DK TAT (Days): 14

Sample #: JC65800-1 Change:
Dept: Remove SICP and replace with SULFUR

TAT: 14

WC-2

Above Changes Per:

Date/Time: 5/14/2018 5:19:01 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Page 1 of 1

Internal Sample Tracking Chronicle

Arcadis

Job No: JC65800

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.0000

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC65800-1 Collected: 08-MAY-18 09:30 By: RDC Received: 09-MAY-18 By: DG WC-2						
JC65800-1	SW846 7471B	11-MAY-18 13:42	MS	11-MAY-18 MS		HG
JC65800-1	SW846 6010C	11-MAY-18 19:06	ND	10-MAY-18 CH		AG, AL, AS, BA, BE, CD, CO, CR, CU, FE, K, MG, MN, NA, NI, PB, SB, SE, TL, V, ZN
JC65800-1	SW846 8270D	12-MAY-18 08:50	GS	11-MAY-18 SA		AB8270TCL20
JC65800-1	SW846 8015C	14-MAY-18 11:02	TL	10-MAY-18 LL		B8015DRO
JC65800-1	SW846 8260C	14-MAY-18 12:23	TDN			V8260TCL20
JC65800-1	SW846 8015C	15-MAY-18 11:01	KC			V8015GRO
JC65800-1	SM2540 G-97	15-MAY-18 16:40	LV			SOL104
JC65800-1	SW846 9012B/LACHAT	16-MAY-18 14:49	BM	14-MAY-18 FO		CN
JC65800-1	SW846 6010C	16-MAY-18 18:05	EAL	10-MAY-18 CH		CA
JC65800-1	ASTM D129-95	20-MAY-18	JOO	18-MAY-18 JOO		SULFUR
JC65800-1	ASTM D240-92	20-MAY-18 14:00	JOO	18-MAY-18 JOO		BTU
JC65800-1	SW846 8082A	23-MAY-18 11:59	TR	10-MAY-18 SA		P8082PCB11
JC65800-2 Collected: 08-MAY-18 15:00 By: RDC Received: 09-MAY-18 By: DG WC-1						
JC65800-2	SW846 8082A	11-MAY-18 04:18	TR	10-MAY-18 SA		P8082PCB11
JC65800-2	SW846 7471B	11-MAY-18 14:57	MS	11-MAY-18 MS		HG
JC65800-2	SW846 6010C	11-MAY-18 19:09	ND	10-MAY-18 CH		AG, AL, AS, BA, BE, CA, CD, CO, CR, CU, FE, K, MG, MN, NA, NI, PB, SB, SE, TL, V, ZN
JC65800-2	SW846 8270D	12-MAY-18 09:12	GS	11-MAY-18 SA		AB8270TCL20
JC65800-2	SW846 8015C	14-MAY-18 11:57	TL	10-MAY-18 LL		B8015DRO
JC65800-2	SW846 8260C	14-MAY-18 12:50	TDN			V8260TCL20
JC65800-2	SW846 8015C	15-MAY-18 11:27	KC			V8015GRO
JC65800-2	SM2540 G-97	15-MAY-18 16:40	LV			SOL104
JC65800-2	SW846 9012B/LACHAT	16-MAY-18 14:51	BM	14-MAY-18 FO		CN
JC65800-2	ASTM D129-95	20-MAY-18	JOO	18-MAY-18 JOO		SULFUR
JC65800-2	ASTM D240-92	20-MAY-18 14:00	JOO	18-MAY-18 JOO		BTU
JC65800-1A Collected: 08-MAY-18 09:30 By: RDC Received: 09-MAY-18 By: DG WC-2						
JC65800-1A	SW846 CHAP7/9034	11-MAY-18 09:00	MP	11-MAY-18 FO		SREAC
JC65800-1A	SW846 CHAP7/9012 B	14-MAY-18 11:14	BM	11-MAY-18 FO		CREAC

Internal Sample Tracking Chronicle

Arcadis

Job No: JC65800

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.0000

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC65800-1ASW846 7470A		14-MAY-18 13:27	DP	14-MAY-18 DP		EHG
JC65800-1ASW846 6010C		14-MAY-18 15:09	EAL	13-MAY-18 CH		EAG,EAS,EBA,ECD,ECR,EPB,ESE
JC65800-1ASW846 8260C		14-MAY-18 17:15	OI	11-MAY-18 AC		V8260TCLP
JC65800-1ASW846 8270D		18-MAY-18 22:45	SA	18-MAY-18 VP		AB8270TCLP
JC65800-1ASW846 8151A		20-MAY-18 17:31	VDT	18-MAY-18 YB		H8151TCLP
JC65800-1ASW846 8081B		21-MAY-18 04:22	CP	12-MAY-18 RB		P8081TCLP
JC65800-1ASW846 9045D		21-MAY-18 16:30	RI			CORR
JC65800-1ASW846 1010A/ASTM D2048		21-MAY-18 16:30	RI			IGN
JC65800-2A Collected: 08-MAY-18 15:00 By: RDC Received: 09-MAY-18 By: DG WC-1						
JC65800-2ASW846 CHAP7/9034		11-MAY-18 09:00	MP	11-MAY-18 FO		SREAC
JC65800-2ASW846 CHAP7/9012 B		14-MAY-18 11:15	BM	11-MAY-18 FO		CREAC
JC65800-2ASW846 7470A		14-MAY-18 13:28	DP	14-MAY-18 DP		EHG
JC65800-2ASW846 6010C		14-MAY-18 15:13	EAL	13-MAY-18 CH		EAG,EAS,EBA,ECD,ECR,EPB,ESE
JC65800-2ASW846 8260C		14-MAY-18 17:45	OI	11-MAY-18 AC		V8260TCLP
JC65800-2ASW846 8270D		18-MAY-18 23:10	SA	18-MAY-18 VP		AB8270TCLP
JC65800-2ASW846 8151A		20-MAY-18 17:59	VDT	18-MAY-18 YB		H8151TCLP
JC65800-2ASW846 8081B		21-MAY-18 04:40	CP	12-MAY-18 RB		P8081TCLP
JC65800-2ASW846 1010A/ASTM D2048		21-MAY-18 16:30	RI			IGN
JC65800-2ASW846 9045D		21-MAY-18 16:33	RI			CORR

SGS Internal Chain of Custody

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/09/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65800-1.1	Secured Storage	Dave Hunkele	05/10/18 07:04	Retrieve from Storage
JC65800-1.1	Dave Hunkele	Secured Staging Area	05/10/18 07:05	Return to Storage
JC65800-1.1	Secured Staging Area	Sauvelson Auguste	05/10/18 07:10	Retrieve from Storage
JC65800-1.1	Sauvelson Auguste	Lindsey Lee	05/10/18 15:03	Custody Transfer
JC65800-1.1	Lindsey Lee	Secured Storage	05/10/18 18:56	Return to Storage
JC65800-1.1	Secured Storage	Dave Hunkele	05/11/18 07:23	Retrieve from Storage
JC65800-1.1	Dave Hunkele	Secured Staging Area	05/11/18 07:23	Return to Storage
JC65800-1.1	Secured Staging Area	Sauvelson Auguste	05/11/18 08:06	Retrieve from Storage
JC65800-1.1	Sauvelson Auguste	Secured Storage	05/11/18 10:24	Return to Storage
JC65800-1.1	Secured Storage	Dwayne Johnson	05/18/18 09:29	Retrieve from Storage
JC65800-1.1	Dwayne Johnson	Secured Staging Area	05/18/18 09:29	Return to Storage
JC65800-1.1	Secured Staging Area	Jared O. Onindo	05/18/18 13:13	Retrieve from Storage
JC65800-1.1	Jared O. Onindo	Secured Storage	05/18/18 18:54	Return to Storage
JC65800-1.1.1	Sauvelson Auguste	Organics Prep	05/10/18 07:18	Extract from JC65800-1.1
JC65800-1.1.1	Organics Prep	Lindsey Lee	05/10/18 21:39	Extract from JC65800-1.1
JC65800-1.1.1	Lindsey Lee	Extract Storage	05/10/18 21:39	Return to Storage
JC65800-1.1.1	Extract Storage	Christine Phillips	05/10/18 23:36	Retrieve from Storage
JC65800-1.1.1	Christine Phillips	GC2G	05/10/18 23:36	Load on Instrument
JC65800-1.1.1	GC2G	Edouard Adrian Lee	05/12/18 14:55	Unload from Instrument
JC65800-1.1.1	Edouard Adrian Lee	Extract Freezer	05/12/18 14:55	Return to Storage
JC65800-1.1.2	Lindsey Lee	Organics Prep	05/10/18 15:06	Extract from JC65800-1.1
JC65800-1.1.2	Organics Prep	Lindsey Lee	05/10/18 21:38	Extract from JC65800-1.1
JC65800-1.1.2	Lindsey Lee	Extract Storage	05/10/18 21:38	Return to Storage
JC65800-1.1.2	Extract Storage	Thomas Lally	05/13/18 16:12	Retrieve from Storage
JC65800-1.1.2	Thomas Lally	GC2Z	05/13/18 16:12	Load on Instrument
JC65800-1.1.2	GC2Z	Rebecca Krug	05/14/18 14:23	Unload from Instrument
JC65800-1.1.2	Rebecca Krug	Extract Freezer	05/14/18 14:23	Return to Storage
JC65800-1.1.3	Sauvelson Auguste	Organics Prep	05/11/18 08:10	Extract from JC65800-1.1
JC65800-1.1.3	Organics Prep	Christopher Sowa	05/12/18 02:40	Extract from JC65800-1.1
JC65800-1.1.3	Christopher Sowa	GCMS2P	05/12/18 02:40	Load on Instrument
JC65800-1.1.3	GCMS2P	John Boudreau	05/14/18 11:14	Unload from Instrument
JC65800-1.1.3	John Boudreau	Extract Freezer	05/14/18 11:14	Return to Storage
JC65800-1.2	Secured Storage	Todd Shoemaker	05/10/18 10:20	Retrieve from Storage
JC65800-1.2	Todd Shoemaker	Secured Staging Area	05/10/18 10:20	Return to Storage
JC65800-1.2	Secured Staging Area	Jessica Adametz	05/10/18 14:13	Retrieve from Storage
JC65800-1.2	Jessica Adametz	Secured Storage	05/10/18 14:57	Return to Storage
JC65800-1.2	Secured Storage	Luis Villanueva	05/10/18 17:49	Retrieve from Storage
JC65800-1.2	Luis Villanueva	Secured Staging Area	05/10/18 17:49	Return to Storage
JC65800-1.2	Secured Staging Area	Christopher Hall	05/11/18 06:09	Retrieve from Storage
JC65800-1.2	Secured Storage	Dwayne Johnson	05/14/18 09:30	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/09/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
Bottle was returned to secure storage, but inadvertently not scanned.				
JC65800-1.2	Dwayne Johnson	Secured Staging Area	05/14/18 09:31	Return to Storage
JC65800-1.2	Secured Staging Area	Faraja Ombwayo	05/14/18 11:06	Retrieve from Storage
JC65800-1.2	Faraja Ombwayo	Secured Storage	05/14/18 15:05	Return to Storage
JC65800-1.2	Secured Storage	Christopher Hall	05/15/18 18:25	Retrieve from Storage
JC65800-1.2	Christopher Hall	Secured Staging Area	05/15/18 18:25	Return to Storage
JC65800-1.2	Secured Staging Area	Hans Seignon	05/16/18 17:08	Retrieve from Storage
JC65800-1.2	Shirley Grzybowski	Secured Storage	05/17/18 07:12	Return to Storage
Analyst unavailable for custody transfer.				
JC65800-1.2	Secured Storage	Sahara Feliciano	05/20/18 13:43	Retrieve from Storage
JC65800-1.2	Sahara Feliciano	Secured Staging Area	05/20/18 13:43	Return to Storage
JC65800-1.2	Secured Staging Area	Rie Iwasaki	05/21/18 08:30	Retrieve from Storage
JC65800-1.2	Rie Iwasaki	Secured Storage	05/21/18 16:30	Return to Storage
JC65800-1.2.1	Christopher Hall	TCLP	05/11/18 06:09	Leachate from JC65800-1.2
JC65800-1.2.1	TCLP	Robert Bandstra	05/12/18 08:30	Leachate from JC65800-1.2
JC65800-1.2.1	Robert Bandstra	Secured Storage	05/12/18 09:33	Return to Storage
JC65800-1.2.1	Secured Storage	Vikas Parikh	05/18/18 06:31	Retrieve from Storage
JC65800-1.2.1	Vikas Parikh	Jonathan Stanley	05/18/18 07:55	Custody Transfer
JC65800-1.2.1	Jonathan Stanley	Secured Storage	05/18/18 16:01	Return to Storage
JC65800-1.2.2	TCLP	Robert Bandstra	05/12/18 08:30	Leachate from JC65800-1.2
JC65800-1.2.2	Robert Bandstra	Secured Storage	05/12/18 09:33	Return to Storage
JC65800-1.2.2	Secured Storage	Colleen Hill	05/13/18 10:48	Retrieve from Storage
JC65800-1.2.2	Colleen Hill	Secured Storage	05/13/18 10:49	Return to Storage
JC65800-1.2.3	Colleen Hill	Metals Digestion	05/13/18 10:49	Digestate from JC65800-1.2.2
JC65800-1.2.3	Metals Digestion	Colleen Hill	05/13/18 10:49	Digestate from JC65800-1.2.2
JC65800-1.2.3	Colleen Hill	Metals Digestate Storage	05/13/18 10:49	Return to Storage
JC65800-1.2.4	Vikas Parikh	Organics Prep	05/18/18 06:36	Extract from JC65800-1.2.1
JC65800-1.2.4	Organics Prep	Vikas Parikh	05/18/18 15:04	Extract from JC65800-1.2.1
JC65800-1.2.4	Vikas Parikh	Extract Storage	05/18/18 15:04	Return to Storage
JC65800-1.2.4	Extract Storage	Sufiyanu Ahmed	05/18/18 22:14	Retrieve from Storage
JC65800-1.2.4	Sufiyanu Ahmed	GCMS6P	05/18/18 22:14	Load on Instrument
JC65800-1.2.4	GCMS6P	John Boudreau	05/21/18 13:11	Unload from Instrument
JC65800-1.2.4	John Boudreau	Extract Freezer	05/21/18 13:11	Return to Storage
JC65800-1.2.5	Jonathan Stanley	Organics Prep	05/18/18 07:58	Extract from JC65800-1.2.1
JC65800-1.2.5	Organics Prep	Naisha Torres	05/18/18 22:36	Extract from JC65800-1.2.1
JC65800-1.2.5	Naisha Torres	Extract Storage	05/18/18 22:36	Return to Storage
JC65800-1.2.5	Extract Storage	Christine Phillips	05/21/18 00:41	Retrieve from Storage
JC65800-1.2.5	Christine Phillips	GC6G	05/21/18 00:41	Load on Instrument

SGS Internal Chain of Custody

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/09/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65800-1.2.6	Jonathan Stanley	Organics Prep	05/18/18 14:05	Extract from JC65800-1.2.1
JC65800-1.2.6	Organics Prep	Yaw Britwum	05/19/18 15:39	Extract from JC65800-1.2.1
JC65800-1.2.6	Yaw Britwum	Extract Storage	05/19/18 15:39	Return to Storage
JC65800-1.2.6	Extract Storage	Vincent Drago	05/20/18 11:10	Retrieve from Storage
JC65800-1.2.6	Vincent Drago	GC3G	05/20/18 11:10	Load on Instrument
JC65800-1.3	Secured Storage	Dave Hunkele	05/10/18 09:09	Retrieve from Storage
JC65800-1.3	Dave Hunkele	Secured Staging Area	05/10/18 09:09	Return to Storage
JC65800-1.3	Secured Staging Area	Faraja Ombwayo	05/10/18 09:24	Retrieve from Storage
JC65800-1.3	Faraja Ombwayo	Secured Storage	05/10/18 14:39	Return to Storage
JC65800-1.3	Secured Storage	Dwayne Johnson	05/10/18 15:28	Retrieve from Storage
JC65800-1.3	Dwayne Johnson	Secured Staging Area	05/10/18 15:29	Return to Storage
JC65800-1.3	Secured Staging Area	Colleen Hill	05/10/18 16:01	Retrieve from Storage
JC65800-1.3	Colleen Hill	Secured Storage	05/10/18 16:49	Return to Storage
JC65800-1.3	Secured Storage	Luis Villanueva	05/10/18 17:49	Retrieve from Storage
JC65800-1.3	Luis Villanueva	Secured Staging Area	05/10/18 17:49	Return to Storage
JC65800-1.3	Secured Staging Area	Christopher Hall	05/11/18 06:09	Retrieve from Storage
JC65800-1.3	Christopher Hall	Faraja Ombwayo	05/11/18 07:48	Custody Transfer
JC65800-1.3	Faraja Ombwayo	Secured Storage	05/11/18 13:41	Return to Storage
JC65800-1.3	Secured Storage	Dwayne Johnson	05/15/18 13:59	Retrieve from Storage
JC65800-1.3	Dwayne Johnson	Secured Staging Area	05/15/18 13:59	Return to Storage
JC65800-1.3	Secured Staging Area	Luis Villanueva	05/15/18 16:09	Retrieve from Storage
JC65800-1.3	Luis Villanueva	Secured Storage	05/17/18 14:08	Return to Storage
JC65800-1.3.1	Colleen Hill	Metals Digestion	05/10/18 16:46	Digestate from JC65800-1.3
JC65800-1.3.1	Metals Digestion	Colleen Hill	05/10/18 16:46	Digestate from JC65800-1.3
JC65800-1.3.1	Colleen Hill	Metals Digestate Storage	05/10/18 16:46	Return to Storage
JC65800-1.3.2	Christopher Hall	TCLP	05/11/18 06:09	Leachate from JC65800-1.3
JC65800-1.3.2	TCLP	Robert Bandstra	05/12/18 09:35	Leachate from JC65800-1.3
JC65800-1.3.2	Robert Bandstra	Secured Storage	05/12/18 09:46	Return to Storage
JC65800-1.3.2	Secured Storage	Jessica Potts	05/14/18 13:09	Retrieve from Storage
JC65800-1.3.2	Jessica Potts	GCMSA	05/14/18 13:09	Load on Instrument
JC65800-1.3.2	GCMSA	Oyinade Ifaturoti	05/15/18 06:23	Unload from Instrument
JC65800-1.3.2	Oyinade Ifaturoti	Secured Storage	05/15/18 06:23	Return to Storage
JC65800-1.3.3	TCLP	Robert Bandstra	05/12/18 09:35	Leachate from JC65800-1.3
JC65800-1.3.3	Robert Bandstra	Secured Storage	05/12/18 09:46	Return to Storage
JC65800-1.4	Secured Storage	Krizhka Cuenta	05/15/18 10:18	Retrieve from Storage
JC65800-1.4	Krizhka Cuenta	Secured Storage	05/15/18 16:32	Return to Storage
JC65800-1.6	Secured Storage	Thien Nguyen	05/14/18 13:05	Retrieve from Storage
JC65800-1.6	Thien Nguyen	GCMS3V	05/14/18 13:05	Load on Instrument

SGS Internal Chain of Custody

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/09/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65800-1.6	GCMS3V	Thien Nguyen	05/24/18 08:19	Unload from Instrument
JC65800-1.6	Thien Nguyen		05/24/18 08:19	Depleted
JC65800-1.7	Secured Storage	Thien Nguyen	05/14/18 10:43	Retrieve from Storage
JC65800-1.7	Thien Nguyen	GCMS3V	05/14/18 10:43	Load on Instrument
JC65800-1.7	GCMS3V	Thien Nguyen	05/24/18 08:19	Unload from Instrument
JC65800-1.7	Thien Nguyen		05/24/18 08:19	Depleted
JC65800-2.1	Secured Storage	Dave Hunkele	05/10/18 07:04	Retrieve from Storage
JC65800-2.1	Dave Hunkele	Secured Staging Area	05/10/18 07:05	Return to Storage
JC65800-2.1	Secured Staging Area	Sauvelson Auguste	05/10/18 07:10	Retrieve from Storage
JC65800-2.1	Sauvelson Auguste	Lindsey Lee	05/10/18 15:03	Custody Transfer
JC65800-2.1	Lindsey Lee	Secured Storage	05/10/18 18:56	Return to Storage
JC65800-2.1	Secured Storage	Dave Hunkele	05/11/18 07:23	Retrieve from Storage
JC65800-2.1	Dave Hunkele	Secured Staging Area	05/11/18 07:23	Return to Storage
JC65800-2.1	Secured Staging Area	Sauvelson Auguste	05/11/18 08:06	Retrieve from Storage
JC65800-2.1	Sauvelson Auguste	Secured Storage	05/11/18 10:24	Return to Storage
JC65800-2.1	Secured Storage	Dwayne Johnson	05/18/18 09:29	Retrieve from Storage
JC65800-2.1	Dwayne Johnson	Secured Staging Area	05/18/18 09:29	Return to Storage
JC65800-2.1	Secured Staging Area	Jared O. Onindo	05/18/18 13:13	Retrieve from Storage
JC65800-2.1	Jared O. Onindo	Secured Storage	05/18/18 18:54	Return to Storage
JC65800-2.1.1	Sauvelson Auguste	Organics Prep	05/10/18 07:18	Extract from JC65800-2.1
JC65800-2.1.1	Organics Prep	Lindsey Lee	05/10/18 21:39	Extract from JC65800-2.1
JC65800-2.1.1	Lindsey Lee	Extract Storage	05/10/18 21:39	Return to Storage
JC65800-2.1.1	Extract Storage	Christine Phillips	05/10/18 23:36	Retrieve from Storage
JC65800-2.1.1	Christine Phillips	GC2G	05/10/18 23:36	Load on Instrument
JC65800-2.1.1	GC2G	Edouard Adrian Lee	05/12/18 14:55	Unload from Instrument
JC65800-2.1.1	Edouard Adrian Lee	Extract Freezer	05/12/18 14:55	Return to Storage
JC65800-2.1.2	Lindsey Lee	Organics Prep	05/10/18 15:06	Extract from JC65800-2.1
JC65800-2.1.2	Organics Prep	Lindsey Lee	05/10/18 21:38	Extract from JC65800-2.1
JC65800-2.1.2	Lindsey Lee	Extract Storage	05/10/18 21:38	Return to Storage
JC65800-2.1.2	Extract Storage	Thomas Lally	05/13/18 16:12	Retrieve from Storage
JC65800-2.1.2	Thomas Lally	GC2Z	05/13/18 16:12	Load on Instrument
JC65800-2.1.2	GC2Z	Rebecca Krug	05/14/18 14:23	Unload from Instrument
JC65800-2.1.2	Rebecca Krug	Extract Freezer	05/14/18 14:23	Return to Storage
JC65800-2.1.3	Sauvelson Auguste	Organics Prep	05/11/18 08:10	Extract from JC65800-2.1
JC65800-2.1.3	Organics Prep	Christopher Sowa	05/12/18 02:40	Extract from JC65800-2.1
JC65800-2.1.3	Christopher Sowa	GCMS2P	05/12/18 02:40	Load on Instrument
JC65800-2.1.3	GCMS2P	John Boudreau	05/14/18 11:14	Unload from Instrument
JC65800-2.1.3	John Boudreau	Extract Freezer	05/14/18 11:14	Return to Storage

SGS Internal Chain of Custody

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/09/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65800-2.2	Secured Storage	Todd Shoemaker	05/10/18 10:20	Retrieve from Storage
JC65800-2.2	Todd Shoemaker	Secured Staging Area	05/10/18 10:20	Return to Storage
JC65800-2.2	Secured Staging Area	Jessica Adametz	05/10/18 14:13	Retrieve from Storage
JC65800-2.2	Jessica Adametz	Secured Storage	05/10/18 14:57	Return to Storage
JC65800-2.2	Secured Storage	Luis Villanueva	05/10/18 17:49	Retrieve from Storage
JC65800-2.2	Luis Villanueva	Secured Staging Area	05/10/18 17:49	Return to Storage
JC65800-2.2	Secured Staging Area	Christopher Hall	05/11/18 06:09	Retrieve from Storage
JC65800-2.2	Christopher Hall	Faraja Ombwayo	05/11/18 07:48	Custody Transfer
JC65800-2.2	Faraja Ombwayo	Secured Storage	05/11/18 13:41	Return to Storage
JC65800-2.2	Secured Storage	Dwayne Johnson	05/14/18 09:30	Retrieve from Storage
JC65800-2.2	Dwayne Johnson	Secured Staging Area	05/14/18 09:31	Return to Storage
JC65800-2.2	Secured Staging Area	Faraja Ombwayo	05/14/18 11:06	Retrieve from Storage
JC65800-2.2	Faraja Ombwayo	Secured Storage	05/14/18 15:05	Return to Storage
JC65800-2.2	Secured Storage	Christopher Hall	05/15/18 18:25	Retrieve from Storage
JC65800-2.2	Christopher Hall	Secured Staging Area	05/15/18 18:25	Return to Storage
JC65800-2.2	Secured Staging Area	Hans Seignon	05/16/18 17:08	Retrieve from Storage
JC65800-2.2	Shirley Grzybowski	Secured Storage	05/17/18 07:12	Return to Storage
Analyst unavailable for custody transfer.				
JC65800-2.2	Secured Storage	Sahara Feliciano	05/20/18 13:43	Retrieve from Storage
JC65800-2.2	Sahara Feliciano	Secured Staging Area	05/20/18 13:43	Return to Storage
JC65800-2.2	Secured Staging Area	Rie Iwasaki	05/21/18 08:30	Retrieve from Storage
JC65800-2.2	Rie Iwasaki	Secured Storage	05/21/18 16:30	Return to Storage
JC65800-2.2.1	Christopher Hall	TCLP	05/11/18 06:09	Leachate from JC65800-2.2
JC65800-2.2.1	TCLP	Robert Bandstra	05/12/18 08:30	Leachate from JC65800-2.2
JC65800-2.2.1	Robert Bandstra	Secured Storage	05/12/18 09:33	Return to Storage
JC65800-2.2.1	Secured Storage	Vikas Parikh	05/18/18 06:31	Retrieve from Storage
JC65800-2.2.1	Vikas Parikh	Jonathan Stanley	05/18/18 07:55	Custody Transfer
JC65800-2.2.1	Jonathan Stanley	Secured Storage	05/18/18 16:01	Return to Storage
JC65800-2.2.2	TCLP	Robert Bandstra	05/12/18 08:30	Leachate from JC65800-2.2
JC65800-2.2.2	Robert Bandstra	Secured Storage	05/12/18 09:33	Return to Storage
JC65800-2.2.2	Secured Storage	Colleen Hill	05/13/18 10:48	Retrieve from Storage
JC65800-2.2.2	Colleen Hill	Secured Storage	05/13/18 10:49	Return to Storage
JC65800-2.2.3	Colleen Hill	Metals Digestion	05/13/18 10:49	Digestate from JC65800-2.2.2
JC65800-2.2.3	Metals Digestion	Colleen Hill	05/13/18 10:49	Digestate from JC65800-2.2.2
JC65800-2.2.3	Colleen Hill	Metals Digestate Storage	05/13/18 10:49	Return to Storage
JC65800-2.2.4	Vikas Parikh	Organics Prep	05/18/18 06:36	Extract from JC65800-2.2.1
JC65800-2.2.4	Organics Prep	Vikas Parikh	05/18/18 15:04	Extract from JC65800-2.2.1
JC65800-2.2.4	Vikas Parikh	Extract Storage	05/18/18 15:04	Return to Storage
JC65800-2.2.4	Extract Storage	Sufiyanu Ahmed	05/18/18 22:14	Retrieve from Storage
JC65800-2.2.4	Sufiyanu Ahmed	GCMS6P	05/18/18 22:14	Load on Instrument

SGS Internal Chain of Custody

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/09/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65800-2.2.4	GCMS6P	John Boudreau	05/21/18 13:11	Unload from Instrument
JC65800-2.2.4	John Boudreau	Extract Freezer	05/21/18 13:11	Return to Storage
JC65800-2.2.5	Jonathan Stanley	Organics Prep	05/18/18 07:58	Extract from JC65800-2.2.1
JC65800-2.2.5	Organics Prep	Naisha Torres	05/18/18 22:36	Extract from JC65800-2.2.1
JC65800-2.2.5	Naisha Torres	Extract Storage	05/18/18 22:36	Return to Storage
JC65800-2.2.5	Extract Storage	Christine Phillips	05/21/18 00:41	Retrieve from Storage
JC65800-2.2.5	Christine Phillips	GC6G	05/21/18 00:41	Load on Instrument
JC65800-2.2.6	Jonathan Stanley	Organics Prep	05/18/18 14:05	Extract from JC65800-2.2.1
JC65800-2.2.6	Organics Prep	Yaw Britwum	05/19/18 15:39	Extract from JC65800-2.2.1
JC65800-2.2.6	Yaw Britwum	Extract Storage	05/19/18 15:39	Return to Storage
JC65800-2.2.6	Extract Storage	Vincent Drago	05/20/18 11:10	Retrieve from Storage
JC65800-2.2.6	Vincent Drago	GC3G	05/20/18 11:10	Load on Instrument
JC65800-2.3	Secured Storage	Dave Hunkele	05/10/18 09:09	Retrieve from Storage
JC65800-2.3	Dave Hunkele	Secured Staging Area	05/10/18 09:09	Return to Storage
JC65800-2.3	Secured Staging Area	Faraja Ombwayo	05/10/18 09:24	Retrieve from Storage
JC65800-2.3	Faraja Ombwayo	Secured Storage	05/10/18 14:39	Return to Storage
JC65800-2.3	Secured Storage	Dwayne Johnson	05/10/18 15:28	Retrieve from Storage
JC65800-2.3	Dwayne Johnson	Secured Staging Area	05/10/18 15:29	Return to Storage
JC65800-2.3	Secured Staging Area	Colleen Hill	05/10/18 16:01	Retrieve from Storage
JC65800-2.3	Colleen Hill	Secured Storage	05/10/18 16:49	Return to Storage
JC65800-2.3	Secured Storage	Luis Villanueva	05/10/18 17:49	Retrieve from Storage
JC65800-2.3	Luis Villanueva	Secured Staging Area	05/10/18 17:49	Return to Storage
JC65800-2.3	Secured Staging Area	Christopher Hall	05/11/18 06:09	Retrieve from Storage
JC65800-2.3	Christopher Hall	Secured Storage	05/14/18 16:05	Return to Storage
JC65800-2.3	Secured Storage	Dwayne Johnson	05/15/18 13:59	Retrieve from Storage
JC65800-2.3	Dwayne Johnson	Secured Staging Area	05/15/18 13:59	Return to Storage
JC65800-2.3	Secured Staging Area	Luis Villanueva	05/15/18 16:09	Retrieve from Storage
JC65800-2.3	Luis Villanueva	Secured Storage	05/17/18 14:08	Return to Storage
JC65800-2.3.1	Colleen Hill	Metals Digestion	05/10/18 16:46	Digestate from JC65800-2.3
JC65800-2.3.1	Metals Digestion	Colleen Hill	05/10/18 16:46	Digestate from JC65800-2.3
JC65800-2.3.1	Colleen Hill	Metals Digestate Storage	05/10/18 16:46	Return to Storage
JC65800-2.3.2	Christopher Hall	TCLP	05/11/18 06:09	Leachate from JC65800-2.3
JC65800-2.3.2	TCLP	Robert Bandstra	05/12/18 09:35	Leachate from JC65800-2.3
JC65800-2.3.2	Robert Bandstra	Secured Storage	05/12/18 09:46	Return to Storage
JC65800-2.3.2	Secured Storage	Jessica Potts	05/14/18 13:09	Retrieve from Storage
JC65800-2.3.2	Jessica Potts	GCMSA	05/14/18 13:09	Load on Instrument
JC65800-2.3.2	GCMSA	Oyinade Ifaturoti	05/15/18 06:23	Unload from Instrument
JC65800-2.3.2	Oyinade Ifaturoti	Secured Storage	05/15/18 06:23	Return to Storage

SGS Internal Chain of Custody

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/09/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65800-2.3.3	TCLP	Robert Bandstra	05/12/18 09:35	Leachate from JC65800-2.3
JC65800-2.3.3	Robert Bandstra	Secured Storage	05/12/18 09:46	Return to Storage
JC65800-2.4	Secured Storage	Krizhka Cuenta	05/15/18 10:18	Retrieve from Storage
JC65800-2.4	Krizhka Cuenta	Secured Storage	05/15/18 16:32	Return to Storage
JC65800-2.6	Secured Storage	Thien Nguyen	05/14/18 13:05	Retrieve from Storage
JC65800-2.6	Thien Nguyen	GCMS3V	05/14/18 13:05	Load on Instrument
JC65800-2.6	GCMS3V	Thien Nguyen	05/14/18 14:22	Unload from Instrument
JC65800-2.6	Thien Nguyen	Secured Storage	05/14/18 14:22	Return to Storage
JC65800-2.7	Secured Storage	Thien Nguyen	05/14/18 10:43	Retrieve from Storage
JC65800-2.7	Thien Nguyen	GCMS3V	05/14/18 10:43	Load on Instrument
JC65800-2.7	GCMS3V	Thien Nguyen	05/24/18 08:19	Unload from Instrument
JC65800-2.7	Thien Nguyen		05/24/18 08:19	Depleted

MS Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA9208-MB	A241580.D	1	05/14/18	OI	n/a	n/a	VA9208

The QC reported here applies to the following samples: Method: SW846 8260C
JC65800-1A, JC65800-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.17	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	100% 76-120%
17060-07-0	1,2-Dichloroethane-D4	98% 64-135%
2037-26-5	Toluene-D8	94% 76-117%
460-00-4	4-Bromofluorobenzene	94% 72-122%

Method Blank Summary

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Job Number: JC65800**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V1685-MB	3V41950.D	1	05/14/18	TDN	n/a	n/a	V3V1685

The QC reported here applies to the following samples:**Method:** SW846 8260C

JC65800-1, JC65800-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.4	ug/kg	
71-43-2	Benzene	ND	0.50	0.11	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.44	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.24	ug/kg	
75-25-2	Bromoform	ND	5.0	0.31	ug/kg	
74-83-9	Bromomethane	ND	5.0	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	5.2	ug/kg	
75-15-0	Carbon disulfide	ND	2.0	0.61	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.65	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.29	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.90	ug/kg	
67-66-3	Chloroform	ND	2.0	0.32	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.99	ug/kg	
110-82-7	Cyclohexane	ND	2.0	0.34	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.38	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.0	0.25	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.52	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.29	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.48	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.61	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.0	0.71	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.40	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.58	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.40	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.38	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.24	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/kg	
76-13-1	Freon 113	ND	5.0	0.67	ug/kg	
591-78-6	2-Hexanone	ND	5.0	2.8	ug/kg	
98-82-8	Isopropylbenzene	ND	2.0	0.25	ug/kg	
79-20-9	Methyl Acetate	ND	5.0	2.5	ug/kg	
108-87-2	Methylcyclohexane	ND	2.0	0.55	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/kg	

Method Blank Summary

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Job Number: JC65800

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V1685-MB	3V41950.D	1	05/14/18	TDN	n/a	n/a	V3V1685

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65800-1, JC65800-2

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.8	ug/kg	
75-09-2	Methylene chloride	ND	5.0	2.5	ug/kg	
100-42-5	Styrene	ND	2.0	0.50	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.25	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.64	ug/kg	
108-88-3	Toluene	ND	1.0	0.55	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.58	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.42	ug/kg	
79-01-6	Trichloroethene	ND	1.0	0.55	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	0.48	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.77	ug/kg	
	m,p-Xylene	ND	1.0	0.55	ug/kg	
95-47-6	o-Xylene	ND	1.0	0.25	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.25	ug/kg	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	100% 75-127%
17060-07-0	1,2-Dichloroethane-D4	93% 75-130%
2037-26-5	Toluene-D8	90% 80-120%
460-00-4	4-Bromofluorobenzene	97% 79-127%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

Leachate Blank Summary

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Job Number: JC65800

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GP12985-LB8	A241582.D	5	05/14/18	OI	05/11/18	GP12985	VA9208

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65800-1A, JC65800-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.5	0.87	ug/l	
78-93-3	2-Butanone (MEK)	ND	50	24	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	1.7	ug/l	
108-90-7	Chlorobenzene	ND	5.0	1.2	ug/l	
67-66-3	Chloroform	ND	5.0	1.4	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	0.87	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	5.0	2.4	ug/l	
127-18-4	Tetrachloroethene	ND	5.0	2.5	ug/l	
79-01-6	Trichloroethene	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	5.0	3.1	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	103% 76-120%
17060-07-0	1,2-Dichloroethane-D4	98% 64-135%
2037-26-5	Toluene-D8	96% 76-117%
460-00-4	4-Bromofluorobenzene	96% 72-122%

Blank Spike Summary

Page 1 of 1

Job Number: JC65800

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA9208-BS	A241578.D	1	05/14/18	OI	n/a	n/a	VA9208

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65800-1A, JC65800-2A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	46.6	93	75-122
78-93-3	2-Butanone (MEK)	200	189	95	64-130
56-23-5	Carbon tetrachloride	50	51.6	103	75-148
108-90-7	Chlorobenzene	50	51.0	102	76-124
67-66-3	Chloroform	50	45.7	91	77-124
106-46-7	1,4-Dichlorobenzene	50	50.4	101	71-123
107-06-2	1,2-Dichloroethane	50	45.3	91	66-150
75-35-4	1,1-Dichloroethene	50	53.6	107	61-132
127-18-4	Tetrachloroethene	50	51.6	103	70-136
79-01-6	Trichloroethene	50	50.4	101	79-126
75-01-4	Vinyl chloride	50	54.0	108	56-146

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	76-120%
17060-07-0	1,2-Dichloroethane-D4	95%	64-135%
2037-26-5	Toluene-D8	95%	76-117%
460-00-4	4-Bromofluorobenzene	99%	72-122%

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: JC65800**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V1685-BS	3V41948.D	1	05/14/18	TDN	n/a	n/a	V3V1685

The QC reported here applies to the following samples:**Method:** SW846 8260C

JC65800-1, JC65800-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	200	229	115	48-149
71-43-2	Benzene	50	53.2	106	74-117
74-97-5	Bromochloromethane	50	53.6	107	82-121
75-27-4	Bromodichloromethane	50	47.2	94	78-119
75-25-2	Bromoform	50	54.1	108	76-130
74-83-9	Bromomethane	50	39.8	80	58-137
78-93-3	2-Butanone (MEK)	200	227	114	65-143
75-15-0	Carbon disulfide	50	72.7	145* a	66-140
56-23-5	Carbon tetrachloride	50	57.2	114	69-136
108-90-7	Chlorobenzene	50	49.7	99	79-117
75-00-3	Chloroethane	50	47.2	94	62-139
67-66-3	Chloroform	50	50.6	101	76-119
74-87-3	Chloromethane	50	47.3	95	52-144
110-82-7	Cyclohexane	50	71.6	143* a	64-136
96-12-8	1,2-Dibromo-3-chloropropane	50	52.1	104	72-124
124-48-1	Dibromochloromethane	50	46.9	94	78-122
106-93-4	1,2-Dibromoethane	50	48.9	98	80-116
95-50-1	1,2-Dichlorobenzene	50	47.9	96	77-117
541-73-1	1,3-Dichlorobenzene	50	48.1	96	75-117
106-46-7	1,4-Dichlorobenzene	50	47.7	95	76-115
75-71-8	Dichlorodifluoromethane	50	78.5	157* a	43-156
75-34-3	1,1-Dichloroethane	50	57.8	116	75-124
107-06-2	1,2-Dichloroethane	50	41.1	82	74-124
75-35-4	1,1-Dichloroethene	50	57.5	115	64-129
156-59-2	cis-1,2-Dichloroethene	50	51.2	102	74-118
156-60-5	trans-1,2-Dichloroethene	50	57.6	115	71-125
78-87-5	1,2-Dichloropropane	50	52.9	106	80-119
10061-01-5	cis-1,3-Dichloropropene	50	51.1	102	80-119
10061-02-6	trans-1,3-Dichloropropene	50	46.0	92	78-119
100-41-4	Ethylbenzene	50	49.0	98	75-118
76-13-1	Freon 113	50	64.0	128	60-181
591-78-6	2-Hexanone	200	216	108	63-138
98-82-8	Isopropylbenzene	50	50.5	101	74-122
79-20-9	Methyl Acetate	50	56.4	113	61-140
108-87-2	Methylcyclohexane	50	66.5	133	67-136
1634-04-4	Methyl Tert Butyl Ether	50	54.4	109	75-123

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: JC65800

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V1685-BS	3V41948.D	1	05/14/18	TDN	n/a	n/a	V3V1685

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65800-1, JC65800-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	220	110	73-136
75-09-2	Methylene chloride	50	63.9	128* a	73-120
100-42-5	Styrene	50	51.7	103	78-120
79-34-5	1,1,2,2-Tetrachloroethane	50	48.2	96	72-120
127-18-4	Tetrachloroethene	50	49.2	98	69-128
108-88-3	Toluene	50	47.1	94	74-117
87-61-6	1,2,3-Trichlorobenzene	50	49.5	99	72-133
120-82-1	1,2,4-Trichlorobenzene	50	51.7	103	73-132
71-55-6	1,1,1-Trichloroethane	50	56.8	114	73-131
79-00-5	1,1,2-Trichloroethane	50	46.4	93	79-117
79-01-6	Trichloroethene	50	52.2	104	80-120
75-69-4	Trichlorofluoromethane	50	52.3	105	63-141
75-01-4	Vinyl chloride	50	53.1	106	55-145
	m,p-Xylene	100	98.8	99	75-120
95-47-6	o-Xylene	50	48.8	98	75-119
1330-20-7	Xylene (total)	150	148	99	76-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	75-127%
17060-07-0	1,2-Dichloroethane-D4	92%	75-130%
2037-26-5	Toluene-D8	90%	80-120%
460-00-4	4-Bromofluorobenzene	101%	79-127%

(a) High percent recoveries and no associated positive reported in the QC batch.

* = Outside of Control Limits.

Matrix Spike Summary

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65802-1MS	3V41958.D	1	05/14/18	TDN	n/a	n/a	V3V1685
JC65802-1	3V41956.D	1	05/14/18	TDN	n/a	n/a	V3V1685

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65800-1, JC65800-2

CAS No.	Compound	JC65802-1 ug/kg	Spike Q	MS ug/kg	MS %	Limits
67-64-1	Acetone	ND	196	149	76	10-157
71-43-2	Benzene	ND	49	47.9	98	58-125
74-97-5	Bromochloromethane	ND	49	44.7	91	60-127
75-27-4	Bromodichloromethane	ND	49	41.3	84	57-128
75-25-2	Bromoform	ND	49	43.5	89	48-133
74-83-9	Bromomethane	ND	49	33.1	68	31-141
78-93-3	2-Butanone (MEK)	ND	196	166	85	29-146
75-15-0	Carbon disulfide	ND	49	61.0	124	47-145
56-23-5	Carbon tetrachloride	ND	49	49.3	101	51-143
108-90-7	Chlorobenzene	ND	49	44.7	91	54-130
75-00-3	Chloroethane	ND	49	39.8	81	22-153
67-66-3	Chloroform	ND	49	43.4	89	61-125
74-87-3	Chloromethane	ND	49	40.7	83	43-142
110-82-7	Cyclohexane	ND	49	58.2	119	37-148
96-12-8	1,2-Dibromo-3-chloropropane	ND	49	38.7	79	41-127
124-48-1	Dibromochloromethane	ND	49	41.0	84	56-127
106-93-4	1,2-Dibromoethane	ND	49	40.2	82	54-121
95-50-1	1,2-Dichlorobenzene	ND	49	41.4	84	41-134
541-73-1	1,3-Dichlorobenzene	ND	49	41.6	85	41-135
106-46-7	1,4-Dichlorobenzene	ND	49	41.7	85	41-133
75-71-8	Dichlorodifluoromethane	ND	49	57.1	116	30-153
75-34-3	1,1-Dichloroethane	ND	49	51.1	104	61-131
107-06-2	1,2-Dichloroethane	ND	49	35.4	72	56-126
75-35-4	1,1-Dichloroethene	ND	49	44.3	90	53-132
156-59-2	cis-1,2-Dichloroethene	ND	49	43.8	89	57-125
156-60-5	trans-1,2-Dichloroethene	ND	49	50.7	103	56-130
78-87-5	1,2-Dichloropropane	ND	49	48.1	98	63-126
10061-01-5	cis-1,3-Dichloropropene	ND	49	43.5	89	55-126
10061-02-6	trans-1,3-Dichloropropene	ND	49	38.3	78	51-126
100-41-4	Ethylbenzene	ND	49	44.2	90	49-132
76-13-1	Freon 113	ND	49	48.8	100	42-179
591-78-6	2-Hexanone	ND	196	161	82	25-150
98-82-8	Isopropylbenzene	ND	49	44.4	91	43-141
79-20-9	Methyl Acetate	ND	49	44.2	90	32-158
108-87-2	Methylcyclohexane	ND	49	53.7	110	22-158
1634-04-4	Methyl Tert Butyl Ether	ND	49	43.4	89	58-123

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65802-1MS	3V41958.D	1	05/14/18	TDN	n/a	n/a	V3V1685
JC65802-1	3V41956.D	1	05/14/18	TDN	n/a	n/a	V3V1685

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65800-1, JC65800-2

CAS No.	Compound	JC65802-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		196	169	86	40-140
75-09-2	Methylene chloride	ND		49	52.3	107	57-123
100-42-5	Styrene	ND		49	45.2	92	46-139
79-34-5	1,1,2,2-Tetrachloroethane	ND		49	39.4	80	44-127
127-18-4	Tetrachloroethene	ND		49	44.4	91	39-154
108-88-3	Toluene	ND		49	43.4	89	54-127
87-61-6	1,2,3-Trichlorobenzene	ND		49	38.5	79	17-151
120-82-1	1,2,4-Trichlorobenzene	ND		49	41.3	84	19-153
71-55-6	1,1,1-Trichloroethane	ND		49	48.3	99	57-138
79-00-5	1,1,2-Trichloroethane	ND		49	40.2	82	53-127
79-01-6	Trichloroethene	ND		49	46.1	94	52-140
75-69-4	Trichlorofluoromethane	ND		49	41.0	84	46-142
75-01-4	Vinyl chloride	ND		49	44.0	90	43-146
	m,p-Xylene	ND		98	88.7	90	45-137
95-47-6	o-Xylene	ND		49	43.8	89	48-135
1330-20-7	Xylene (total)	ND		147	132	90	46-137

CAS No.	Surrogate Recoveries	MS	JC65802-1	Limits
1868-53-7	Dibromofluoromethane	94%	96%	75-127%
17060-07-0	1,2-Dichloroethane-D4	84%	89%	75-130%
2037-26-5	Toluene-D8	95%	92%	80-120%
460-00-4	4-Bromofluorobenzene	99%	97%	79-127%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65741-2MS	A241591.D	5	05/14/18	OI	n/a	n/a	VA9208
JC65741-2MSD	A241592.D	5	05/14/18	OI	n/a	n/a	VA9208
JC65741-2	A241586.D	5	05/14/18	OI	05/11/18	GP12985	VA9208

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65800-1A, JC65800-2A

CAS No.	Compound	JC65741-2 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	250	245	98	250	256	102	4	38-139/13
78-93-3	2-Butanone (MEK)	ND	1000	1020	102	1000	1030	103	1	58-140/14
56-23-5	Carbon tetrachloride	ND	250	274	110	250	285	114	4	50-161/18
108-90-7	Chlorobenzene	ND	250	259	104	250	268	107	3	65-128/12
67-66-3	Chloroform	ND	250	251	100	250	256	102	2	66-132/14
106-46-7	1,4-Dichlorobenzene	ND	250	255	102	250	265	106	4	63-126/13
107-06-2	1,2-Dichloroethane	ND	250	236	94	250	247	99	5	59-153/15
75-35-4	1,1-Dichloroethene	ND	250	265	106	250	279	112	5	41-144/17
127-18-4	Tetrachloroethene	ND	250	258	103	250	264	106	2	48-145/15
79-01-6	Trichloroethene	ND	250	257	103	250	270	108	5	53-141/15
75-01-4	Vinyl chloride	ND	250	263	105	250	275	110	4	34-151/20

CAS No.	Surrogate Recoveries	MS	MSD	JC65741-2	Limits
1868-53-7	Dibromofluoromethane	107%	106%	108%	76-120%
17060-07-0	1,2-Dichloroethane-D4	96%	97%	100%	64-135%
2037-26-5	Toluene-D8	97%	96%	94%	76-117%
460-00-4	4-Bromofluorobenzene	100%	100%	94%	72-122%

* = Outside of Control Limits.

Leachate Spike Summary

Page 1 of 1

Job Number: JC65800

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GP12985-LS4	A241591A.D	5	05/14/18	OI	05/11/18	GP12985	VA9208
JC65741-2	A241586.D	5	05/14/18	OI	05/11/18	GP12985	VA9208

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65800-1A, JC65800-2A

CAS No.	Compound	JC65741-2 ug/l	Spike Q	ug/l	LS ug/l	LS %	Limits
71-43-2	Benzene	ND	250	245	98		38-139
78-93-3	2-Butanone (MEK)	ND	1000	1020	102		58-140
56-23-5	Carbon tetrachloride	ND	250	274	110		50-161
108-90-7	Chlorobenzene	ND	250	259	104		65-128
67-66-3	Chloroform	ND	250	251	100		66-132
106-46-7	1,4-Dichlorobenzene	ND	250	255	102		63-126
107-06-2	1,2-Dichloroethane	ND	250	236	94		59-153
75-35-4	1,1-Dichloroethene	ND	250	265	106		41-144
127-18-4	Tetrachloroethene	ND	250	258	103		48-145
79-01-6	Trichloroethene	ND	250	257	103		53-141
75-01-4	Vinyl chloride	ND	250	263	105		34-151

CAS No.	Surrogate Recoveries	LS	JC65741-2	Limits
1868-53-7	Dibromofluoromethane	107%	108%	76-120%
17060-07-0	1,2-Dichloroethane-D4	96%	100%	64-135%
2037-26-5	Toluene-D8	97%	94%	76-117%
460-00-4	4-Bromofluorobenzene	100%	94%	72-122%

* = Outside of Control Limits.

Duplicate Summary

Page 1 of 2

Job Number: JC65800**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65800-1DUP	3V41957.D	1	05/14/18	TDN	n/a	n/a	V3V1685
JC65800-1	3V41954.D	1	05/14/18	TDN	n/a	n/a	V3V1685

The QC reported here applies to the following samples:**Method:** SW846 8260C

JC65800-1, JC65800-2

CAS No.	Compound	JC65800-1 ug/kg	DUP Q ug/kg	Q	RPD	Limits
67-64-1	Acetone	ND	ND		nc	40
71-43-2	Benzene	ND	ND		nc	30
74-97-5	Bromochloromethane	ND	ND		nc	30
75-27-4	Bromodichloromethane	ND	ND		nc	30
75-25-2	Bromoform	ND	ND		nc	30
74-83-9	Bromomethane	ND	ND		nc	30
78-93-3	2-Butanone (MEK)	ND	ND		nc	30
75-15-0	Carbon disulfide	ND	ND		nc	30
56-23-5	Carbon tetrachloride	ND	ND		nc	30
108-90-7	Chlorobenzene	ND	ND		nc	30
75-00-3	Chloroethane	ND	ND		nc	30
67-66-3	Chloroform	ND	ND		nc	30
74-87-3	Chloromethane	ND	ND		nc	30
110-82-7	Cyclohexane	ND	ND		nc	30
96-12-8	1,2-Dibromo-3-chloropropane	ND	ND		nc	30
124-48-1	Dibromochloromethane	ND	ND		nc	30
106-93-4	1,2-Dibromoethane	ND	ND		nc	30
95-50-1	1,2-Dichlorobenzene	ND	ND		nc	30
541-73-1	1,3-Dichlorobenzene	ND	ND		nc	30
106-46-7	1,4-Dichlorobenzene	ND	ND		nc	30
75-71-8	Dichlorodifluoromethane	ND	ND		nc	30
75-34-3	1,1-Dichloroethane	ND	ND		nc	30
107-06-2	1,2-Dichloroethane	ND	ND		nc	30
75-35-4	1,1-Dichloroethene	ND	ND		nc	30
156-59-2	cis-1,2-Dichloroethene	ND	ND		nc	30
156-60-5	trans-1,2-Dichloroethene	ND	ND		nc	30
78-87-5	1,2-Dichloropropane	ND	ND		nc	30
10061-01-5	cis-1,3-Dichloropropene	ND	ND		nc	30
10061-02-6	trans-1,3-Dichloropropene	ND	ND		nc	30
100-41-4	Ethylbenzene	ND	ND		nc	30
76-13-1	Freon 113	ND	ND		nc	30
591-78-6	2-Hexanone	ND	ND		nc	30
98-82-8	Isopropylbenzene	ND	ND		nc	30
79-20-9	Methyl Acetate	ND	ND		nc	30
108-87-2	Methylcyclohexane	ND	ND		nc	30
1634-04-4	Methyl Tert Butyl Ether	ND	ND		nc	30

* = Outside of Control Limits.

Duplicate Summary

Page 2 of 2

Job Number: JC65800

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65800-1DUP	3V41957.D	1	05/14/18	TDN	n/a	n/a	V3V1685
JC65800-1	3V41954.D	1	05/14/18	TDN	n/a	n/a	V3V1685

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65800-1, JC65800-2

CAS No.	Compound	JC65800-1 ug/kg	DUP Q	ug/kg	Q	RPD	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	30
75-09-2	Methylene chloride	ND		ND		nc	36
100-42-5	Styrene	ND		ND		nc	30
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	30
127-18-4	Tetrachloroethene	ND		ND		nc	30
108-88-3	Toluene	ND		ND		nc	24
87-61-6	1,2,3-Trichlorobenzene	ND		ND		nc	30
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	30
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	30
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	30
79-01-6	Trichloroethene	ND		ND		nc	30
75-69-4	Trichlorofluoromethane	ND		ND		nc	30
75-01-4	Vinyl chloride	ND		ND		nc	30
	m,p-Xylene	ND		ND		nc	32
95-47-6	o-Xylene	ND		ND		nc	30
1330-20-7	Xylene (total)	ND		ND		nc	33

CAS No.	Surrogate Recoveries	DUP	JC65800-1	Limits
1868-53-7	Dibromofluoromethane	100%	98%	75-127%
17060-07-0	1,2-Dichloroethane-D4	92%	92%	75-130%
2037-26-5	Toluene-D8	93%	90%	80-120%
460-00-4	4-Bromofluorobenzene	97%	97%	79-127%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JC65800**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY**Sample:** V3V1673-BFB**Injection Date:** 04/24/18**Lab File ID:** 3V41630.D**Injection Time:** 11:25**Instrument ID:** GCMS3V

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	16938	20.2	Pass
75	30.0 - 60.0% of mass 95	42085	50.1	Pass
95	Base peak, 100% relative abundance	84056	100.0	Pass
96	5.0 - 9.0% of mass 95	5679	6.76	Pass
173	Less than 2.0% of mass 174	629	0.75 (0.85) ^a	Pass
174	50.0 - 120.0% of mass 95	74128	88.2	Pass
175	5.0 - 9.0% of mass 174	5719	6.80 (7.72) ^a	Pass
176	95.0 - 101.0% of mass 174	70576	84.0 (95.2) ^a	Pass
177	5.0 - 9.0% of mass 176	4682	5.57 (6.63) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3V1673-IC1673	3V41632.D	04/24/18	12:37	01:12	Initial cal 0.5
V3V1673-IC1673	3V41633.D	04/24/18	13:03	01:38	Initial cal 1
V3V1673-IC1673	3V41634.D	04/24/18	13:28	02:03	Initial cal 2
V3V1673-IC1673	3V41635.D	04/24/18	13:54	02:29	Initial cal 4
V3V1673-IC1673	3V41636.D	04/24/18	14:20	02:55	Initial cal 8
V3V1673-IC1673	3V41637.D	04/24/18	14:46	03:21	Initial cal 20
V3V1673-ICC1673	3V41638.D	04/24/18	15:12	03:47	Initial cal 50
V3V1673-IC1673	3V41639.D	04/24/18	15:38	04:13	Initial cal 100
V3V1673-IC1673	3V41640.D	04/24/18	16:04	04:39	Initial cal 200

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1673-BFB2 **Injection Date:** 04/25/18
Lab File ID: 3V41643.D **Injection Time:** 08:13
Instrument ID: GCMS3V

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	26016	20.1	Pass
75	30.0 - 60.0% of mass 95	62720	48.5	Pass
95	Base peak, 100% relative abundance	129427	100.0	Pass
96	5.0 - 9.0% of mass 95	8605	6.65	Pass
173	Less than 2.0% of mass 174	1252	0.97 (1.12) ^a	Pass
174	50.0 - 120.0% of mass 95	111832	86.4	Pass
175	5.0 - 9.0% of mass 174	8507	6.57 (7.61) ^a	Pass
176	95.0 - 101.0% of mass 174	108291	83.7 (96.8) ^a	Pass
177	5.0 - 9.0% of mass 176	7316	5.65 (6.76) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3V1673-ICV1673	3V41644.D	04/25/18	08:49	00:36	Initial cal verification 50
V3V1673-ICV1673	3V41645.D	04/25/18	09:33	01:20	Initial cal verification 50
V3V1673-ICV1673	3V41646.D	04/25/18	09:59	01:46	Initial cal verification 50

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1685-BFB **Injection Date:** 05/14/18
Lab File ID: 3V41946.D **Injection Time:** 08:19
Instrument ID: GCMS3V

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	28752	17.1	Pass
75	30.0 - 60.0% of mass 95	76283	45.4	Pass
95	Base peak, 100% relative abundance	168043	100.0	Pass
96	5.0 - 9.0% of mass 95	11301	6.73	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	149355	88.9	Pass
175	5.0 - 9.0% of mass 174	11266	6.70 (7.54) ^a	Pass
176	95.0 - 101.0% of mass 174	147544	87.8 (98.8) ^a	Pass
177	5.0 - 9.0% of mass 176	9558	5.69 (6.48) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3V1685-CC1673	3V41946.D	05/14/18	08:19	00:00	Continuing cal 20
V3V1685-BS	3V41948.D	05/14/18	09:36	01:17	Blank Spike
V3V1685-MB	3V41950.D	05/14/18	10:30	02:11	Method Blank
ZZZZZZ	3V41951.D	05/14/18	11:05	02:46	(unrelated sample)
JC65800-1	3V41954.D	05/14/18	12:23	04:04	WC-2
JC65800-2	3V41955.D	05/14/18	12:50	04:31	WC-1
JC65802-1	3V41956.D	05/14/18	13:16	04:57	(used for QC only; not part of job JC65800)
JC65800-1DUP	3V41957.D	05/14/18	13:42	05:23	Duplicate
JC65802-1MS	3V41958.D	05/14/18	14:39	06:20	Matrix Spike
ZZZZZZ	3V41960.D	05/14/18	15:31	07:12	(unrelated sample)
ZZZZZZ	3V41961.D	05/14/18	15:57	07:38	(unrelated sample)
ZZZZZZ	3V41962.D	05/14/18	16:23	08:04	(unrelated sample)
ZZZZZZ	3V41963.D	05/14/18	16:49	08:30	(unrelated sample)
ZZZZZZ	3V41964.D	05/14/18	17:16	08:57	(unrelated sample)
ZZZZZZ	3V41965.D	05/14/18	17:42	09:23	(unrelated sample)

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-BFB	Injection Date: 04/03/18
Lab File ID: A240801.D	Injection Time: 17:23
Instrument ID: GCMSA	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	14.95 - 40.0% of mass 95	10680	17.4	Pass
75	30.0 - 60.0% of mass 95	27821	45.2	Pass
95	Base peak, 100% relative abundance	61501	100.0	Pass
96	5.0 - 9.0% of mass 95	4068	6.61	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	51685	84.0	Pass
175	5.0 - 9.0% of mass 174	4265	6.93 (8.25) ^a	Pass
176	95.0 - 101.0% of mass 174	50666	82.4 (98.0) ^a	Pass
177	5.0 - 9.0% of mass 176	3509	5.71 (6.93) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VA9165-IC9165	A240802.D	04/03/18	17:52	00:29	Initial cal 0.2
VA9165-IC9165	A240803.D	04/03/18	18:21	00:58	Initial cal 0.5
VA9165-IC9165	A240804.D	04/03/18	18:50	01:27	Initial cal 1
VA9165-IC9165	A240805.D	04/03/18	19:19	01:56	Initial cal 2
VA9165-IC9165	A240806.D	04/03/18	19:48	02:25	Initial cal 5
VA9165-IC9165	A240807.D	04/03/18	20:17	02:54	Initial cal 10
VA9165-IC9165	A240808.D	04/03/18	20:46	03:23	Initial cal 20
VA9165-ICC9165	A240809.D	04/03/18	21:15	03:52	Initial cal 50
VA9165-IC9165	A240810.D	04/03/18	21:44	04:21	Initial cal 100
VA9165-IC9165	A240811.D	04/03/18	22:13	04:50	Initial cal 200
VA9165-ICV9165	A240814.D	04/03/18	23:40	06:17	Initial cal verification 50
VA9165-ICV9165	A240815.D	04/04/18	00:09	06:46	Initial cal verification 50

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9208-BFB
Lab File ID: A241577.D
Instrument ID: GCMSA
Injection Date: 05/14/18
Injection Time: 06:52

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	14.95 - 40.0% of mass 95	10045	15.2	Pass
75	30.0 - 60.0% of mass 95	28485	43.1	Pass
95	Base peak, 100% relative abundance	66067	100.0	Pass
96	5.0 - 9.0% of mass 95	4234	6.41	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	61552	93.2	Pass
175	5.0 - 9.0% of mass 174	4762	7.21 (7.74) ^a	Pass
176	95.0 - 101.0% of mass 174	59981	90.8 (97.4) ^a	Pass
177	5.0 - 9.0% of mass 176	3752	5.68 (6.26) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VA9208-CC9165	A241577.D	05/14/18	06:52	00:00	Continuing cal 20
VA9208-BS	A241578.D	05/14/18	07:46	00:54	Blank Spike
VA9208-MB	A241580.D	05/14/18	08:47	01:55	Method Blank
GP12870-LB7	A241581.D	05/14/18	09:50	02:58	Leachate Blank
GP12985-LB8	A241582.D	05/14/18	10:21	03:29	Leachate Blank
GP12924-LB4	A241583.D	05/14/18	10:52	04:00	Leachate Blank
ZZZZZZ	A241584.D	05/14/18	11:22	04:30	(unrelated sample)
ZZZZZZ	A241585.D	05/14/18	11:51	04:59	(unrelated sample)
JC65741-2	A241586.D	05/14/18	12:21	05:29	(used for QC only; not part of job JC65800)
ZZZZZZ	A241587.D	05/14/18	12:50	05:58	(unrelated sample)
ZZZZZZ	A241588.D	05/14/18	13:20	06:28	(unrelated sample)
ZZZZZZ	A241589.D	05/14/18	13:49	06:57	(unrelated sample)
JC65741-2MS	A241591.D	05/14/18	14:48	07:56	Matrix Spike
GP12985-LS4	A241591A.D	05/14/18	14:48	07:56	Leachate Spike
JC65741-2MSD	A241592.D	05/14/18	15:18	08:26	Matrix Spike Duplicate
ZZZZZZ	A241594.D	05/14/18	16:17	09:25	(unrelated sample)
ZZZZZZ	A241595.D	05/14/18	16:46	09:54	(unrelated sample)
JC65800-1A	A241596.D	05/14/18	17:15	10:23	WC-2
JC65800-2A	A241597.D	05/14/18	17:45	10:53	WC-1
ZZZZZZ	A241598.D	05/14/18	18:15	11:23	(unrelated sample)

Internal Standard Area Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: V3V1685-CC1673	Injection Date: 05/14/18
Lab File ID: 3V41946.D	Injection Time: 08:19
Instrument ID: GCMS3V	Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	261869	7.17	434242	9.68	600158	10.64	524037	13.87	300165	16.24
Upper Limit ^a	523738	7.67	868484	10.18	1200316	11.14	1048074	14.37	600330	16.74
Lower Limit ^b	130935	6.67	217121	9.18	300079	10.14	262019	13.37	150083	15.74

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V3V1685-BS	221021	7.16	398355	9.68	544679	10.63	504146	13.87	283110	16.24
V3V1685-MB	242705	7.15	404949	9.68	550637	10.63	530489	13.87	313521	16.24
ZZZZZZ	232962	7.17	443834	9.68	606217	10.63	553794	13.87	313803	16.24
JC65800-1	245225	7.18	470669	9.68	637067	10.64	600621	13.87	353757	16.24
JC65800-2	223857	7.18	446549	9.68	602076	10.63	557677	13.87	318285	16.24
JC65802-1	154284	7.16	401039	9.68	536548	10.63	513790	13.87	295934	16.24
JC65800-1DUP	232747	7.17	459371	9.68	627587	10.63	581920	13.87	331962	16.24
JC65802-1MS	166804	7.18	428731	9.68	573837	10.64	515751	13.87	285840	16.24
ZZZZZZ	188663	7.17	424056	9.68	572267	10.63	509820	13.87	275360	16.24
ZZZZZZ	188481	7.17	430061	9.68	571861	10.63	552101	13.87	315835	16.24
ZZZZZZ	194658	7.17	440747	9.68	592924	10.63	553950	13.87	323265	16.24
ZZZZZZ	212923	7.17	447066	9.68	601022	10.63	535995	13.87	304678	16.24
ZZZZZZ	223469	7.19	441994	9.68	602674	10.64	575652	13.87	331899	16.24
ZZZZZZ	175778	7.17	418359	9.68	570551	10.63	537165	13.87	312798	16.24

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

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

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

Internal Standard Area Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: VA9208-CC9165	Injection Date: 05/14/18
Lab File ID: A241577.D	Injection Time: 06:52
Instrument ID: GCMSA	Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	341719	7.81	231825	10.17	332171	11.11	281873	14.51	155513	17.11
Upper Limit ^a	683438	8.31	463650	10.67	664342	11.61	563746	15.01	311026	17.61
Lower Limit ^b	170860	7.31	115913	9.67	166086	10.61	140937	14.01	77757	16.61

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VA9208-BS	350926	7.81	237216	10.18	353745	11.11	296700	14.51	160922	17.12
VA9208-MB	330455	7.81	221760	10.18	319894	11.11	271421	14.51	161732	17.11
GP12870-LB7	356417	7.81	231860	10.17	338233	11.11	278337	14.51	161491	17.11
GP12985-LB8	334957	7.81	221154	10.18	321536	11.11	267102	14.51	157168	17.12
GP12924-LB4	335365	7.81	219213	10.17	319242	11.11	269960	14.51	158575	17.11
ZZZZZZ	334542	7.81	213101	10.17	314108	11.11	261956	14.51	162009	17.12
ZZZZZZ	331590	7.80	206783	10.17	300556	11.11	260914	14.51	156517	17.11
JC65741-2	336714	7.80	207265	10.17	302761	11.11	260344	14.51	158179	17.11
ZZZZZZ	334274	7.81	204039	10.17	300834	11.11	261991	14.51	159434	17.11
ZZZZZZ	332530	7.81	205661	10.17	302806	11.11	257955	14.51	155207	17.11
ZZZZZZ	321071	7.80	196657	10.17	291962	11.11	247726	14.51	151499	17.11
JC65741-2MS	310306	7.81	212560	10.18	336280	11.11	293056	14.51	158509	17.11
GP12985-LS4	310306	7.81	212560	10.18	336280	11.11	293056	14.51	158509	17.11
JC65741-2MSD	320564	7.81	214364	10.17	332024	11.11	294314	14.51	155932	17.11
ZZZZZZ	322467	7.81	214859	10.17	312154	11.11	260741	14.51	155282	17.11
ZZZZZZ	314538	7.80	204470	10.17	302263	11.11	252003	14.51	154619	17.11
JC65800-1A	305648	7.81	207315	10.17	304788	11.11	255976	14.51	154329	17.11
JC65800-2A	316193	7.80	206700	10.17	296262	11.11	252508	14.51	152280	17.11
ZZZZZZ	313284	7.80	214565	10.17	307605	11.11	253285	14.51	154351	17.11

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

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

Surrogate Recovery Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8260C	Matrix: LEACHATE
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC65800-1A	A241596.D	104	99	95	95
JC65800-2A	A241597.D	103	99	95	95
GP12985-LB8	A241582.D	103	98	96	96
GP12985-LS4	A241591A.D	107	96	97	100
JC65741-2MS	A241591.D	107	96	97	100
JC65741-2MSD	A241592.D	106	97	96	100
VA9208-BS	A241578.D	99	95	95	99
VA9208-MB	A241580.D	100	98	94	94

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	76-120%
S2 = 1,2-Dichloroethane-D4	64-135%
S3 = Toluene-D8	76-117%
S4 = 4-Bromofluorobenzene	72-122%

6.10.1
6

Surrogate Recovery Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8260C	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC65800-1	3V41954.D	98	92	90	97
JC65800-2	3V41955.D	100	94	92	98
JC65800-1DUP	3V41957.D	100	92	93	97
JC65802-1MS	3V41958.D	94	84	95	99
V3V1685-BS	3V41948.D	101	92	90	101
V3V1685-MB	3V41950.D	100	93	90	97

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	75-127%
S2 = 1,2-Dichloroethane-D4	75-130%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	79-127%

6.10.2
6

Initial Calibration Summary

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1673-ICC1673
Lab FileID: 3V41638.D

Response Factor Report MS3V

Method : C:\MSDCHEM\1\METHODS\M3V1673.M (RTE Integrator)
Title : SW-846 Method 8260C, column DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Wed Apr 25 10:59:43 2018
Response via : Initial Calibration

Calibration Files

4 =3V41635.D 0.5 =3V41632.D 8 =3V41636.D 50 =3V41638.D
100 =3V41639.D 1 =3V41633.D 200 =3V41640.D 20 =3V41637.D
2 =3V41634.D =

Compound	4	0.5	8	50	100	1	200	20	2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 -----ISTD-----											
2) ethanol											
0.134										0.134	0.00
3) tertiary butyl alcohol											
1.150		1.178	1.249	1.231		1.219	1.214	1.054		1.185	5.63
4) 1,4-dioxane											
0.080		0.096	0.109	0.110		0.104	0.102			0.100	10.88
5) I pentafluorobenzene -----ISTD-----											
6) chlorodifluoromethane											
0.885		0.855	0.919	0.960		0.837	0.862	0.916		0.890	4.87
7) dichlorodifluoromethane											
0.737		0.836	0.923	0.915	0.698	0.843	0.875	0.632		0.807	13.20
8) chloromethane											
1.193		1.027	1.066	1.054		0.998	1.048	1.243		1.090	8.39
9) vinyl chloride											
0.884	0.870	0.912	1.013	0.992	0.936	0.893	0.943	0.896		0.927	5.33
10) bromomethane											
0.852		0.809	0.816	0.809		0.719	0.762	0.979		0.821	9.96
11) chloroethane											
0.484	0.502	0.451	0.473	0.476	0.510	0.455	0.457	0.448		0.473	4.75
12) trichlorofluoromethane											
0.903	0.970	0.997	1.061	1.063	0.994	1.021	1.069	0.857		0.993	7.42
13) vinyl bromide											
0.644	0.560	0.656	0.703	0.705	0.661	0.708	0.680	0.622		0.660	7.22
14) ethyl ether											
0.234	0.270	0.230	0.230	0.222	0.304	0.232	0.225	0.245		0.244	11.00
15) 2-chloropropane											
0.770		0.778	0.757	0.741		0.757	0.780	0.790		0.768	2.19
16) acrolein											
		0.100	0.082	0.078		0.082	0.086			0.086	10.15
17) freon 113											
0.432		0.417	0.440	0.420	0.366	0.398	0.436	0.402		0.414	5.96
18) 1,1-dichloroethene											
0.545		0.458	0.474	0.463	0.622	0.476	0.484	0.391		0.489	13.94
19) acetone											
0.036		0.037	0.032	0.029		0.031	0.032	0.038		0.033	9.89
20) acetoneitrile											
0.054		0.053	0.045	0.040		0.041	0.041			0.046	13.37
21) iodomethane											
0.787		0.798	0.802	0.792	0.731	0.822	0.809	0.834		0.797	3.84
22) carbon disulfide											
1.396	1.316	1.358	1.387	1.354	1.314	1.381	1.408	1.350		1.363	2.45
23) methylene chloride											

Initial Calibration Summary

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Job Number: JC65800
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1673-ICC1673
 Lab FileID: 3V41638.D

	0.484	0.498	0.481	0.474	0.554	0.493	0.489	0.502	0.497	4.97
24)	methyl acetate									
	0.304	0.284	0.244	0.224		0.230	0.238		0.254	12.74
25)	methyl tert butyl ether									
	1.063	1.331	1.110	1.168	1.116	1.270	1.126	1.112	1.128	7.48
26)	trans-1,2-dichloroethene									
	0.466	0.462	0.431	0.422	0.544	0.430	0.444	0.495	0.462	8.87
27)	hexane									
	0.503	0.578	0.483	0.497	0.494	0.537	0.466	0.509	0.510	6.37
28)	di-isopropyl ether									
	1.338	1.602	1.400	1.445	1.436	1.552	1.430	1.409	1.395	5.67
29)	ethyl tert-butyl ether									
	1.198	1.276	1.283	1.319	1.298	1.326	1.310	1.277	1.242	3.15
30)	2-butanone									
	0.030	0.033	0.035	0.034		0.035	0.032	0.023	0.032	13.18
31)	1,1-dichloroethane									
	0.798	0.816	0.795	0.805	0.791	0.829	0.790	0.805	0.782	1.80
32)	chloroprene									
	0.603	0.571	0.602	0.621	0.606	0.623	0.593	0.615	0.608	2.63
33)	acrylonitrile									
	0.085	0.102	0.115	0.107		0.111	0.108		0.105	9.98
34)	vinyl acetate									
		0.043	0.055	0.054		0.055	0.048		0.051	10.22
35)	ethyl acetate									
	0.048	0.048	0.049	0.045		0.046	0.047		0.047	2.97
36)	2,2-dichloropropane									
	0.774	0.907	0.763	0.759	0.743	0.898	0.727	0.761	0.783	8.29
37)	cis-1,2-dichloroethene									
	0.527	0.519	0.508	0.502	0.663	0.495	0.521	0.600	0.542	10.83
38)	propionitrile									
	0.044	0.044	0.050	0.051	0.046	0.046	0.047	0.046	0.046	4.67
39)	methyl acrylate									
	0.025	0.041	0.048	0.045		0.045	0.039		0.041	20.01
	----- Linear regression ----- Coefficient = 0.9995									
	Response Ratio = -0.00087 + 0.04567 *A									
40)	bromochloromethane									
	0.227	0.243	0.247	0.239	0.241	0.237	0.242	0.223	0.237	3.42
41)	tetrahydrofuran									
		0.043	0.045	0.043		0.044	0.043		0.043	2.29
42)	chloroform									
	0.879	0.900	0.881	0.855	1.000	0.843	0.879	0.911	0.894	5.40
43)	dibromofluoromethane (s)									
	0.538	0.528	0.537	0.532	0.521	0.528	0.528	0.529	0.529	1.00
44)	methacrylonitrile									
	0.107	0.116	0.124	0.114	0.092	0.115	0.111	0.108	0.111	8.29
45)	1,1,1-trichloroethane									
	0.797	0.832	0.810	0.817	0.795	0.859	0.784	0.809	0.809	2.71
46)	cyclohexane									
	0.575	0.513	0.560	0.566	0.555	0.529	0.539	0.557	0.512	4.19
47)	1,1-dichloropropene									
	0.557	0.556	0.556	0.568	0.545	0.534	0.522	0.558	0.549	2.60
48)	carbon tetrachloride									
	0.697	0.686	0.690	0.704	0.686	0.724	0.668	0.700	0.653	2.99
49)	isobutyl alcohol									
	0.019	0.019	0.016	0.015		0.016	0.014		0.017	12.16
50)	tert-amyl alcohol									
	0.032	0.029	0.026	0.022		0.023	0.024		0.026	14.77
51) I	1,4-difluorobenzene	-----ISTD-----								

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Initial Calibration Summary

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1673-ICC1673
Lab FileID: 3V41638.D

52)	1,2-dichloroethane-d4 (s)	0.363	0.363	0.364	0.345	0.345	0.355	0.342	0.349	0.358	0.354	2.46
53)	iso-octane	0.918	0.888	0.889	0.952	0.975	0.824	0.962	0.978	0.843	0.914	6.22
54)	benzene	1.169	1.317	1.172	1.159	1.149	1.245	1.113	1.177	1.181	1.187	5.03
55)	tert-amyl methyl ether	0.838		0.847	0.849	0.830	0.994	0.836	0.848	0.872	0.864	6.25
56)	heptane	0.194	0.165	0.189	0.185	0.182	0.203	0.165	0.193	0.187	0.185	6.84
57)	isopropyl acetate	0.034		0.041	0.046	0.045		0.046	0.043		0.043	10.50
58)	1,2-dichloroethane	0.423	0.593	0.436	0.432	0.428	0.505	0.419	0.425	0.453	0.457	12.58
59)	n-butyl alcohol	0.006	0.007	0.007	0.008	0.007	0.006	0.008	0.007	0.007	0.007	7.85
60)	ethyl acrylate	0.207		0.225	0.242	0.240	0.254	0.241	0.225	0.211	0.231	7.05
61)	trichloroethene	0.322	0.310	0.318	0.321	0.321	0.299	0.311	0.320	0.310	0.315	2.48
62)	2-nitropropane	0.061		0.063	0.059	0.056		0.056	0.057		0.059	5.03
63)	2-chloroethyl vinyl ether	0.113	0.129	0.122	0.134	0.133	0.122	0.135	0.128	0.114	0.125	6.77
64)	methyl methacrylate	0.037		0.039	0.048	0.047		0.047	0.044	0.035	0.042	12.62
65)	1,2-dichloropropane	0.281	0.307	0.296	0.310	0.310	0.302	0.306	0.305	0.284	0.300	3.62
66)	methylcyclohexane	0.506	0.465	0.485	0.501	0.491	0.487	0.465	0.511	0.479	0.488	3.36
67)	dibromomethane	0.179	0.198	0.205	0.208	0.203	0.194	0.196	0.202	0.188	0.197	4.64
68)	bromodichloromethane	0.416	0.477	0.437	0.464	0.466	0.444	0.462	0.454	0.424	0.449	4.61
69)	epichlorohydrin	0.019		0.020	0.021	0.020		0.020	0.020	0.019	0.020	3.88
70)	cis-1,3-dichloropropene	0.399	0.436	0.415	0.453	0.460	0.443	0.458	0.439	0.400	0.434	5.47
71)	4-methyl-2-pentanone	0.077	0.088	0.089	0.095	0.092	0.082	0.093	0.087	0.081	0.087	7.02
72)	3-methyl-1-butanol	0.006		0.007	0.008	0.007		0.007	0.007	0.006	0.007	10.32
73)	I chlorobenzene-d5	-----ISTD-----										
74)	toluene-d8 (s)	1.287	1.298	1.306	1.364	1.354	1.319	1.353	1.324	1.299	1.322	2.13
75)	toluene	0.736	0.796	0.761	0.819	0.808	0.790	0.778	0.783	0.732	0.778	3.88
76)	ethyl methacrylate	0.294	0.297	0.319	0.350	0.340	0.272	0.336	0.316	0.287	0.312	8.43
77)	trans-1,3-dichloropropene	0.393	0.420	0.407	0.462	0.458	0.460	0.446	0.438	0.387	0.430	6.78
78)	1,1,2-trichloroethane	0.211	0.214	0.233	0.248	0.240	0.241	0.235	0.233	0.221	0.231	5.47
79)	tetrachloroethene	0.358	0.318	0.365	0.386	0.379	0.364	0.360	0.371	0.362	0.363	5.22
80)	2-hexanone	0.076	0.079	0.088	0.092	0.087	0.078	0.087	0.086	0.076	0.083	6.87
81)	1,3-dichloropropane	0.378	0.390	0.386	0.420	0.410	0.385	0.402	0.398	0.376	0.394	3.80

Initial Calibration Summary

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1673-ICC1673
Lab FileID: 3V41638.D

82)	butyl acetate	0.168	0.170	0.160	0.148	0.143	0.152	0.157	6.95			
83)	dibromochloromethane	0.307	0.318	0.335	0.371	0.365	0.323	0.361	0.344	0.309	0.337	7.30
84)	1,2-dibromoethane	0.270	0.249	0.285	0.302	0.295	0.302	0.286	0.292	0.260	0.282	6.70
85)	n-butyl ether	1.336	1.435	1.409	1.450	1.437	1.349	1.378	1.414	1.349	1.395	3.09
86)	chlorobenzene	0.837	0.838	0.875	0.894	0.900	0.847	0.868	0.881	0.854	0.866	2.70
87)	1,1,1,2-tetrachloroethane	0.393	0.379	0.409	0.462	0.452	0.397	0.436	0.425	0.385	0.415	7.19
88)	ethylbenzene	1.518	1.631	1.560	1.564	1.524	1.581	1.423	1.560	1.507	1.541	3.76
89)	m,p-xylene	0.552	0.599	0.566	0.574	0.565	0.567	0.540	0.569	0.560	0.566	2.84
90)	o-xylene	0.588	0.607	0.614	0.647	0.642	0.565	0.620	0.620	0.595	0.611	4.25
91)	styrene	0.843	0.865	0.931	0.937	0.929	0.870	0.907	0.918	0.858	0.895	4.03
92)	bromoform	0.193	0.196	0.220	0.232	0.225	0.187	0.225	0.215	0.207	0.211	7.66
93)	butyl acrylate	0.481	0.575	0.542	0.558	0.532	0.533	0.528	0.520	0.501	0.530	5.30
94)	isopropylbenzene	1.572	1.625	1.626	1.738	1.707	1.536	1.605	1.663	1.560	1.626	4.14
95)	cis-1,4-dichloro-2-butene	0.129	0.136	0.136	0.127	0.106	0.124	0.128	0.133	0.128	7.62	
96)	I 1,4-dichlorobenzene-d -----ISTD-----											
97)	4-bromofluorobenzene (s)	0.872	0.884	0.880	0.883	0.909	0.891	0.925	0.897	0.875	0.891	1.92
98)	bromobenzene	0.715	0.721	0.762	0.801	0.822	0.792	0.813	0.795	0.713	0.770	5.68
99)	1,1,2,2-tetrachloroethane	0.661	0.739	0.727	0.784	0.772	0.671	0.779	0.729	0.709	0.730	6.11
100)	trans-1,4-dichloro-2-butene	0.132	0.147	0.166	0.164	0.147	0.168	0.153	0.148	0.153	8.14	
101)	1,2,3-trichloropropane	0.142	0.169	0.176	0.173	0.140	0.175	0.163	0.133	0.159	11.00	
102)	n-propylbenzene	3.494	3.547	3.512	3.683	3.756	3.502	3.593	3.633	3.319	3.560	3.56
103)	2-chlorotoluene	0.724	0.670	0.742	0.794	0.819	0.695	0.803	0.773	0.675	0.744	7.58
104)	4-chlorotoluene	1.970	2.104	2.017	2.059	2.095	2.080	2.019	2.086	1.988	2.047	2.40
105)	1,3,5-trimethylbenzene	2.436	2.536	2.481	2.835	2.945	2.544	2.848	2.691	2.310	2.625	8.20
106)	tert-butylbenzene	1.855	1.896	2.397	2.507	1.936	2.502	2.162	1.747	2.125	14.53	
107)	1,2,4-trimethylbenzene	2.531	2.918	2.583	2.805	2.911	2.658	2.802	2.715	2.496	2.713	5.80
108)	sec-butylbenzene	3.107	3.027	3.150	3.683	3.833	3.169	3.669	3.476	2.984	3.344	9.64
109)	1,3-dichlorobenzene	1.436	1.484	1.467	1.513	1.541	1.534	1.489	1.508	1.401	1.486	3.07
110)	p-isopropyltoluene	2.571	2.669	2.629	3.002	3.135	2.668	3.057	2.853	2.449	2.781	8.61
111)	1,4-dichlorobenzene	1.401	1.517	1.453	1.473	1.508	1.488	1.456	1.485	1.415	1.466	2.68

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Initial Calibration Summary

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1673-ICC1673
Lab FileID: 3V41638.D

112)	1,2-dichlorobenzene	1.419	1.465	1.473	1.549	1.585	1.506	1.545	1.518	1.360	1.491	4.70
113)	n-butylbenzene	1.432	1.343	1.486	1.616	1.651	1.524	1.574	1.583	1.414	1.514	6.79
114)	1,2-dibromo-3-chloropropane	0.143	0.161	0.187	0.181	0.153	0.191	0.165	0.136	0.165	12.34	
115)	1,3,5-trichlorobenzene	1.447	1.474	1.470	1.632	1.753	1.419	1.714	1.577	1.424	1.545	8.29
116)	2-ethylhexyl acrylate	0.924	0.879	1.038	1.096		1.119	0.924		0.997	10.13	
117)	nitrobenzene	0.064	0.051	0.046	0.046		0.051	0.042		0.050	15.91	
118)	1,2,4-trichlorobenzene	1.267	1.230	1.281	1.472	1.581	1.277	1.549	1.377	1.219	1.361	10.26
119)	hexachlorobutadiene	0.631	0.643	0.757	0.811	0.610	0.777	0.719	0.591	0.693	12.13	
120)	naphthalene	2.354	2.721	2.528	2.870	2.867	2.640	2.823	2.611	2.378	2.644	7.42
121)	1,2,3-trichlorobenzene	1.216	1.343	1.259	1.466	1.525	1.303	1.497	1.343	1.208	1.351	8.85
122)	hexachloroethane	0.562	0.580	0.737	0.771	0.684	0.764	0.651	0.524	0.659	14.52	
123)	benzyl chloride	1.128	1.425	1.216	1.292	1.286	1.309	1.283	1.213	1.204	1.262	6.66
124)	2-methylnaphthalene	1.550	1.639	1.955	2.051		2.030	1.683	1.692	1.800	11.43	

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

M3V1673.M

Wed Apr 25 11:05:00 2018

GCMS3V

Initial Calibration Verification

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Job Number: JC65800
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1673-ICV1673
 Lab FileID: 3V41644.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\3V41644.D
 Acq On : 25 Apr 2018 8:49 am
 Sample : icv1673-50
 Misc : MS25602,V3V1673,5,,100,5,1
 MS Integration Params: rteint.p

Vial: 15
 Operator: ThienN
 Inst : MS3V
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M3V1673.M (RTE Integrator)
 Title : SW-846 Method 8260C, column DB-624 60 m x 0.25 mm x 1.4 um
 Last Update : Wed Apr 25 10:59:43 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	103	0.00	7.16
2	ethanol			-----NA-----			
3 M	tertiary butyl alcohol	1.185	1.242	-4.8	103	-0.02	7.28
4	1,4-dioxane	0.100	0.108	-8.0	103	0.00	11.38
5 I	pentafluorobenzene	1.000	1.000	0.0	98	0.00	9.69
6	chlorodifluoromethane	0.890	0.744	16.4	80	0.00	3.70
7	dichlorodifluoromethane	0.807	1.257	-55.8#	134	0.00	3.71
8	chloromethane	1.090	1.270	-16.5	117	0.00	4.04
9	vinyl chloride	0.927	1.135	-22.4	110	0.00	4.26
10	bromomethane	0.821	0.887	-8.0	107	0.00	4.88
11	chloroethane	0.473	0.597	-26.2	124	0.00	5.03
12	trichlorofluoromethane	0.993	1.192	-20.0	111	0.00	5.55
13	vinyl bromide	0.660	0.725	-9.8	101	0.00	5.40
14	ethyl ether	0.244	0.211	13.5	90	0.00	5.98
15	2-chloropropane	0.768	0.792	-3.1	103	0.00	6.15
16	acrolein	0.086	0.092	-7.0	110	0.00	6.17
17	freon 113	0.414	0.470	-13.5	105	0.00	6.44
18	1,1-dichloroethene	0.489	0.439	10.2	91	0.00	6.39
19	acetone	0.033	0.034	-3.0	103	-0.01	6.42
20	acetonitrile			-----NA-----			
21	iodomethane	0.797	1.024	-28.5	126	0.00	6.65
22	carbon disulfide	1.363	1.596	-17.1	113	-0.01	6.78
23	methylene chloride	0.497	0.467	6.0	95	0.00	7.14
24	methyl acetate	0.254	0.220	13.4	89	0.00	6.96
25	methyl tert butyl ether	1.158	1.150	0.7	97	0.00	7.61
26	trans-1,2-dichloroethene	0.462	0.421	8.9	96	0.00	7.60
27	hexane	0.509	0.498	2.2	99	0.00	8.04
28	di-isopropyl ether	1.445	1.419	1.8	97	-0.01	8.33
29	ethyl tert-butyl ether	1.281	1.308	-2.1	98	0.00	8.85
30	2-butanone	0.032	0.036	-12.5	99	0.00	9.03
31 M	1,1-dichloroethane	0.801	0.784	2.1	96	0.00	8.22
32	chloroprene	0.605	0.636	-5.1	101	0.00	8.37
33	acrylonitrile	0.105	0.133	-26.7	113	0.00	7.48
34	vinyl acetate	0.051	0.058	-13.7	103	-0.02	8.26
35	ethyl acetate	0.047	0.046	2.1	93	-0.01	9.10
36	2,2-dichloropropane	0.791	0.829	-4.8	108	0.00	9.08
37	cis-1,2-dichloroethene	0.542	0.503	7.2	97	0.00	9.04
38	propionitrile	0.047	0.049	-4.3	96	-0.01	9.08
	----- True						
39	methyl acrylate	50.000	49.764	0.5	92	-0.02	9.16
	----- Calc.						
				% Drift			

Initial Calibration Verification

Job Number: JC65800
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1673-ICV1673
 Lab FileID: 3V41644.D

		AvgRF	CCRF	% Dev			
40	bromochloromethane	0.237	0.238	-0.4	95	0.00	9.36
41	tetrahydrofuran	0.043	0.045	-4.7	97	0.00	9.45
42	chloroform	0.894	0.868	2.9	97	0.00	9.45
43 S	dibromofluoromethane (s)	0.530	0.528	0.4	98	0.00	9.66
44	methacrylonitrile	0.111	0.116	-4.5	92	-0.01	9.31
45	1,1,1-trichloroethane	0.812	0.829	-2.1	100	0.00	9.76
46	cyclohexane	0.545	0.652	-19.6	113	0.00	9.86
47	1,1-dichloropropene	0.549	0.565	-2.9	98	0.00	9.96
48	carbon tetrachloride	0.690	0.749	-8.6	105	0.00	9.99
49	isobutyl alcohol	0.017	0.017	0.0	104	-0.01	9.98
50	tert-amyl alcohol	0.026	0.027	-3.8	106	0.00	10.14
51 I	1,4-difluorobenzene	1.000	1.000	0.0	93	0.00	10.64
52 S	1,2-dichloroethane-d4 (s)	0.354	0.353	0.3	95	0.00	10.11
53	iso-octane	0.914	1.109	-21.3	109	0.00	10.33
54 M	benzene	1.187	1.164	1.9	94	0.00	10.22
55	tert-amyl methyl ether	0.864	0.891	-3.1	98	0.00	10.33
56	heptane	0.185	0.229	-23.8	116	0.00	10.52
57	isopropyl acetate	0.043	0.048	-11.6	97	0.00	10.22
58	1,2-dichloroethane	0.457	0.425	7.0	92	0.00	10.21
59	n-butyl alcohol	0.007	0.008	-14.3	99	0.00	10.79
60	ethyl acrylate	0.231	0.246	-6.5	95	0.00	11.04
61	trichloroethene	0.315	0.330	-4.8	96	0.00	10.99
62	2-nitropropane	0.059	0.062	-5.1	98	0.00	11.77
63	2-chloroethyl vinyl ether	0.125	0.139	-11.2	97	0.00	11.83
64	methyl methacrylate	0.042	0.048	-14.3	94	0.00	11.32
65	1,2-dichloropropane	0.300	0.301	-0.3	91	0.00	11.25
66	methylcyclohexane	0.488	0.556	-13.9	104	0.00	11.27
67	dibromomethane	0.197	0.205	-4.1	92	0.00	11.38
68	bromodichloromethane	0.449	0.450	-0.2	90	0.00	11.54
69	epichlorohydrin	0.020	0.021	-5.0	92	0.00	11.92
70	cis-1,3-dichloropropene	0.434	0.441	-1.6	91	0.00	12.03
71	4-methyl-2-pentanone	0.087	0.100	-14.9	98	0.00	12.17
72	3-methyl-1-butanol	0.007	0.008	-14.3	99	0.00	12.20
73 I	chlorobenzene-d5	1.000	1.000	0.0	98	0.00	13.88
74 S	toluene-d8 (s)	1.322	1.290	2.4	93	0.00	12.35
75	toluene	0.778	0.790	-1.5	94	0.00	12.43
76	ethyl methacrylate	0.312	0.330	-5.8	92	0.00	12.67
77	trans-1,3-dichloropropene	0.430	0.427	0.7	91	0.00	12.60
78	1,1,2-trichloroethane	0.231	0.235	-1.7	93	0.00	12.81
79	tetrachloroethene			-----NA-----			
80	2-hexanone	0.083	0.095	-14.5	101	0.00	13.04
81	1,3-dichloropropane	0.394	0.410	-4.1	96	0.00	13.00
82	butyl acetate	0.157	0.168	-7.0	103	0.00	13.14
83	dibromochloromethane	0.337	0.371	-10.1	98	0.00	13.25
84	1,2-dibromoethane	0.282	0.301	-6.7	98	0.00	13.40
85	n-butyl ether	1.395	1.445	-3.6	98	0.00	13.93
86	chlorobenzene	0.866	0.895	-3.3	98	0.00	13.91
87	1,1,1,2-tetrachloroethane	0.415	0.465	-12.0	99	0.00	13.98
88	ethylbenzene	1.541	1.602	-4.0	100	0.00	14.00
89	m,p-xylene	0.566	0.596	-5.3	102	0.00	14.12
90	o-xylene	0.611	0.647	-5.9	98	0.00	14.54
91	styrene	0.895	0.970	-8.4	101	0.00	14.54
92	bromoform	0.211	0.255	-20.9	108	0.00	14.76
93	butyl acrylate	0.530	0.582	-9.8	102	0.00	14.40
94	isopropylbenzene	1.626	1.800	-10.7	101	0.00	14.91
95	cis-1,4-dichloro-2-butene	0.128	0.141	-10.2	101	0.00	14.94

Initial Calibration Verification

Page 3 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1673-ICV1673
Lab FileID: 3V41644.D

96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	16.25
97	S	4-bromofluorobenzene (s)	0.891	0.877	1.6	102	0.00	15.08
98		bromobenzene	0.770	0.804	-4.4	103	0.00	15.27
99		1,1,2,2-tetrachloroethane	0.730	0.749	-2.6	98	0.00	15.17
100		trans-1,4-dichloro-2-bute	0.153	0.190	-24.2	118	0.00	15.23
101		1,2,3-trichloropropane	0.159	0.173	-8.8	101	0.00	15.24
102		n-propylbenzene	3.560	3.755	-5.5	105	0.00	15.33
103		2-chlorotoluene	0.744	0.775	-4.2	100	0.00	15.45
104		4-chlorotoluene	2.047	2.160	-5.5	108	0.00	15.55
105		1,3,5-trimethylbenzene	2.625	2.752	-4.8	100	0.00	15.49
106		tert-butylbenzene	2.125	2.339	-10.1	100	0.00	15.83
107		1,2,4-trimethylbenzene	2.713	2.867	-5.7	105	0.00	15.88
108		sec-butylbenzene	3.344	3.650	-9.2	102	0.00	16.05
109		1,3-dichlorobenzene	1.486	1.536	-3.4	104	0.00	16.19
110		p-isopropyltoluene	2.781	3.009	-8.2	103	0.00	16.18
111		1,4-dichlorobenzene	1.466	1.509	-2.9	105	0.00	16.27
112		1,2-dichlorobenzene	1.491	1.533	-2.8	102	0.00	16.65
113		n-butylbenzene	1.514	1.662	-9.8	106	0.00	16.57
114		1,2-dibromo-3-chloropropa	0.165	0.184	-11.5	101	0.00	17.37
115		1,3,5-trichlorobenzene	1.545	1.672	-8.2	105	0.00	17.57
116		2-ethylhexyl acrylate	0.997	1.032	-3.5	102	0.00	18.18
117		nitrobenzene	0.050	0.048	4.0	108	0.00	17.56
118		1,2,4-trichlorobenzene	1.361	1.521	-11.8	106	0.00	18.15
119		hexachlorobutadiene	0.693	0.742	-7.1	101	0.00	18.28
120		naphthalene	2.644	2.854	-7.9	102	0.00	18.39
121		1,2,3-trichlorobenzene	1.351	1.441	-6.7	101	0.00	18.61
122		hexachloroethane	0.659	0.713	-8.2	99	0.00	16.92
123		benzyl chloride	1.262	1.225	2.9	97	0.00	16.38
124		2-methylnaphthalene	1.800	1.785	0.8	94	0.00	19.47

(#) = Out of Range
3V41638.D M3V1673.M

SPCC's out = 0 CCC's out = 0
Wed Apr 25 11:04:46 2018 GCMS3V

Initial Calibration Verification

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1673-ICV1673
Lab FileID: 3V41645.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\3V41645.D Vial: 16
Acq On : 25 Apr 2018 9:33 am Operator: ThienN
Sample : icv1673-50 Inst : MS3V
Misc : MS25602,V3V1673,5,,100,5,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3V1673.M (RTE Integrator)
Title : SW-846 Method 8260C, column DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Wed Apr 25 10:59:43 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	115	0.03	7.19
2	ethanol			NA			
3 M	tertiary butyl alcohol			NA			
4	1,4-dioxane			NA			
5 I	pentafluorobenzene	1.000	1.000	0.0	109	0.00	9.69
6	chlorodifluoromethane			NA			
7	dichlorodifluoromethane			NA			
8	chloromethane			NA			
9	vinyl chloride			NA			
10	bromomethane			NA			
11	chloroethane			NA			
12	trichlorofluoromethane			NA			
13	vinyl bromide			NA			
14	ethyl ether			NA			
15	2-chloropropane			NA			
16	acrolein			NA			
17	freon 113			NA			
18	1,1-dichloroethene			NA			
19	acetone			NA			
20	acetonitrile	0.046	0.049	-6.5	119	0.00	6.85
21	iodomethane			NA			
22	carbon disulfide			NA			
23	methylene chloride			NA			
24	methyl acetate			NA			
25	methyl tert butyl ether			NA			
26	trans-1,2-dichloroethene			NA			
27	hexane			NA			
28	di-isopropyl ether			NA			
29	ethyl tert-butyl ether			NA			
30	2-butanone			NA			
31 M	1,1-dichloroethane			NA			
32	chloroprene			NA			
33	acrylonitrile			NA			
34	vinyl acetate			NA			
35	ethyl acetate			NA			
36	2,2-dichloropropane			NA			
37	cis-1,2-dichloroethene			NA			
38	propionitrile			NA			
39	----- True	Calc.	% Drift	-----			
	methyl acrylate			NA			

Initial Calibration Verification

Page 2 of 3

Job Number: JC65800
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1673-ICV1673
 Lab FileID: 3V41645.D

		AvgRF	CCRF	% Dev			
40	bromochloromethane			NA			
41	tetrahydrofuran			NA			
42	chloroform			NA			
43 S	dibromofluoromethane (s)	0.530	0.535	-0.9	110	0.00	9.66
44	methacrylonitrile			NA			
45	1,1,1-trichloroethane			NA			
46	cyclohexane			NA			
47	1,1-dichloropropene			NA			
48	carbon tetrachloride			NA			
49	isobutyl alcohol			NA			
50	tert-amyl alcohol			NA			
51 I	1,4-difluorobenzene	1.000	1.000	0.0	101	0.00	10.64
52 S	1,2-dichloroethane-d4 (s)	0.354	0.367	-3.7	107	0.00	10.11
53	iso-octane			NA			
54 M	benzene			NA			
55	tert-amyl methyl ether			NA			
56	heptane			NA			
57	isopropyl acetate			NA			
58	1,2-dichloroethane			NA			
59	n-butyl alcohol			NA			
60	ethyl acrylate			NA			
61	trichloroethene			NA			
62	2-nitropropane			NA			
63	2-chloroethyl vinyl ether			NA			
64	methyl methacrylate			NA			
65	1,2-dichloropropane			NA			
66	methylcyclohexane			NA			
67	dibromomethane			NA			
68	bromodichloromethane			NA			
69	epichlorohydrin			NA			
70	cis-1,3-dichloropropene			NA			
71	4-methyl-2-pentanone			NA			
72	3-methyl-1-butanol			NA			
73 I	chlorobenzene-d5	1.000	1.000	0.0	107	0.00	13.88
74 S	toluene-d8 (s)	1.322	1.298	1.8	102	0.00	12.35
75	toluene			NA			
76	ethyl methacrylate			NA			
77	trans-1,3-dichloropropene			NA			
78	1,1,2-trichloroethane			NA			
79	tetrachloroethene	0.363	0.372	-2.5	103	0.00	13.02
80	2-hexanone			NA			
81	1,3-dichloropropane			NA			
82	butyl acetate			NA			
83	dibromochloromethane			NA			
84	1,2-dibromoethane			NA			
85	n-butyl ether			NA			
86	chlorobenzene			NA			
87	1,1,1,2-tetrachloroethane			NA			
88	ethylbenzene			NA			
89	m,p-xylene			NA			
90	o-xylene			NA			
91	styrene			NA			
92	bromoform			NA			
93	butyl acrylate			NA			
94	isopropylbenzene			NA			
95	cis-1,4-dichloro-2-butene			NA			

6.11.3

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Initial Calibration Verification

Page 3 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1673-ICV1673
Lab FileID: 3V41645.D

96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	115	0.00	16.25
97	S	4-bromofluorobenzene (s)	0.891	0.877	1.6	114	0.00	15.08
98		bromobenzene					-----NA-----	
99		1,1,2,2-tetrachloroethane					-----NA-----	
100		trans-1,4-dichloro-2-bute					-----NA-----	
101		1,2,3-trichloropropane					-----NA-----	
102		n-propylbenzene					-----NA-----	
103		2-chlorotoluene					-----NA-----	
104		4-chlorotoluene					-----NA-----	
105		1,3,5-trimethylbenzene					-----NA-----	
106		tert-butylbenzene					-----NA-----	
107		1,2,4-trimethylbenzene					-----NA-----	
108		sec-butylbenzene					-----NA-----	
109		1,3-dichlorobenzene					-----NA-----	
110		p-isopropyltoluene					-----NA-----	
111		1,4-dichlorobenzene					-----NA-----	
112		1,2-dichlorobenzene					-----NA-----	
113		n-butylbenzene					-----NA-----	
114		1,2-dibromo-3-chloropropa					-----NA-----	
115		1,3,5-trichlorobenzene					-----NA-----	
116		2-ethylhexyl acrylate					-----NA-----	
117		nitrobenzene					-----NA-----	
118		1,2,4-trichlorobenzene					-----NA-----	
119		hexachlorobutadiene					-----NA-----	
120		naphthalene					-----NA-----	
121		1,2,3-trichlorobenzene					-----NA-----	
122		hexachloroethane					-----NA-----	
123		benzyl chloride					-----NA-----	
124		2-methylnaphthalene					-----NA-----	

(#) = Out of Range
3V41638.D M3V1673.M

SPCC's out = 0 CCC's out = 0
Wed Apr 25 11:04:48 2018 GCMS3V

6.11.3

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Initial Calibration Verification

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1673-ICV1673
Lab FileID: 3V41646.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\3V41646.D Vial: 17
Acq On : 25 Apr 2018 9:59 am Operator: ThienN
Sample : icv1673-50 Inst : MS3V
Misc : MS25602,V3V1673,5,,100,5,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3V1673.M (RTE Integrator)
Title : SW-846 Method 8260C, column DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Wed Apr 25 10:59:43 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	109	0.00	7.16
2	ethanol			NA			
3 M	tertiary butyl alcohol			NA			
4	1,4-dioxane			NA			
5 I	pentafluorobenzene	1.000	1.000	0.0	104	0.00	9.69
6	chlorodifluoromethane			NA			
7	dichlorodifluoromethane	0.807	0.945	-17.1	107	0.00	3.71
8	chloromethane			NA			
9	vinyl chloride			NA			
10	bromomethane			NA			
11	chloroethane			NA			
12	trichlorofluoromethane			NA			
13	vinyl bromide			NA			
14	ethyl ether			NA			
15	2-chloropropane			NA			
16	acrolein			NA			
17	freon 113			NA			
18	1,1-dichloroethene			NA			
19	acetone			NA			
20	acetonitrile			NA			
21	iodomethane			NA			
22	carbon disulfide			NA			
23	methylene chloride			NA			
24	methyl acetate			NA			
25	methyl tert butyl ether			NA			
26	trans-1,2-dichloroethene			NA			
27	hexane			NA			
28	di-isopropyl ether			NA			
29	ethyl tert-butyl ether			NA			
30	2-butanone			NA			
31 M	1,1-dichloroethane			NA			
32	chloroprene			NA			
33	acrylonitrile			NA			
34	vinyl acetate			NA			
35	ethyl acetate			NA			
36	2,2-dichloropropane			NA			
37	cis-1,2-dichloroethene			NA			
38	propionitrile			NA			
39	----- True	Calc.	% Drift	-----			
	methyl acrylate			NA			

Initial Calibration Verification

Page 2 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1673-ICV1673
Lab FileID: 3V41646.D

		AvgRF	CCRF	% Dev			
40	bromochloromethane			NA			
41	tetrahydrofuran			NA			
42	chloroform			NA			
43 S	dibromofluoromethane (s)	0.530	0.541	-2.1	106	0.00	9.66
44	methacrylonitrile			NA			
45	1,1,1-trichloroethane			NA			
46	cyclohexane			NA			
47	1,1-dichloropropene			NA			
48	carbon tetrachloride			NA			
49	isobutyl alcohol			NA			
50	tert-amyl alcohol			NA			
51 I	1,4-difluorobenzene	1.000	1.000	0.0	99	0.00	10.64
52 S	1,2-dichloroethane-d4 (s)	0.354	0.369	-4.2	105	0.00	10.11
53	iso-octane			NA			
54 M	benzene			NA			
55	tert-amyl methyl ether			NA			
56	heptane			NA			
57	isopropyl acetate			NA			
58	1,2-dichloroethane			NA			
59	n-butyl alcohol			NA			
60	ethyl acrylate			NA			
61	trichloroethene			NA			
62	2-nitropropane			NA			
63	2-chloroethyl vinyl ether			NA			
64	methyl methacrylate			NA			
65	1,2-dichloropropane			NA			
66	methylcyclohexane			NA			
67	dibromomethane			NA			
68	bromodichloromethane			NA			
69	epichlorohydrin			NA			
70	cis-1,3-dichloropropene			NA			
71	4-methyl-2-pentanone			NA			
72	3-methyl-1-butanol			NA			
73 I	chlorobenzene-d5	1.000	1.000	0.0	104	0.00	13.88
74 S	toluene-d8 (s)	1.322	1.272	3.8	97	0.00	12.35
75	toluene			NA			
76	ethyl methacrylate			NA			
77	trans-1,3-dichloropropene			NA			
78	1,1,2-trichloroethane			NA			
79	tetrachloroethene			NA			
80	2-hexanone			NA			
81	1,3-dichloropropane			NA			
82	butyl acetate			NA			
83	dibromochloromethane			NA			
84	1,2-dibromoethane			NA			
85	n-butyl ether			NA			
86	chlorobenzene			NA			
87	1,1,1,2-tetrachloroethane			NA			
88	ethylbenzene			NA			
89	m,p-xylene			NA			
90	o-xylene			NA			
91	styrene			NA			
92	bromoform			NA			
93	butyl acrylate			NA			
94	isopropylbenzene			NA			
95	cis-1,4-dichloro-2-butene			NA			

Initial Calibration Verification

Page 3 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1673-ICV1673
Lab FileID: 3V41646.D

96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	113	0.00	16.25
97	S	4-bromofluorobenzene (s)	0.891	0.873	2.0	112	0.00	15.08
98		bromobenzene					-----NA-----	
99		1,1,2,2-tetrachloroethane					-----NA-----	
100		trans-1,4-dichloro-2-bute					-----NA-----	
101		1,2,3-trichloropropane					-----NA-----	
102		n-propylbenzene					-----NA-----	
103		2-chlorotoluene					-----NA-----	
104		4-chlorotoluene					-----NA-----	
105		1,3,5-trimethylbenzene					-----NA-----	
106		tert-butylbenzene					-----NA-----	
107		1,2,4-trimethylbenzene					-----NA-----	
108		sec-butylbenzene					-----NA-----	
109		1,3-dichlorobenzene					-----NA-----	
110		p-isopropyltoluene					-----NA-----	
111		1,4-dichlorobenzene					-----NA-----	
112		1,2-dichlorobenzene					-----NA-----	
113		n-butylbenzene					-----NA-----	
114		1,2-dibromo-3-chloropropa					-----NA-----	
115		1,3,5-trichlorobenzene					-----NA-----	
116		2-ethylhexyl acrylate					-----NA-----	
117		nitrobenzene					-----NA-----	
118		1,2,4-trichlorobenzene					-----NA-----	
119		hexachlorobutadiene					-----NA-----	
120		naphthalene					-----NA-----	
121		1,2,3-trichlorobenzene					-----NA-----	
122		hexachloroethane					-----NA-----	
123		benzyl chloride					-----NA-----	
124		2-methylnaphthalene					-----NA-----	

(#) = Out of Range
3V41638.D M3V1673.M

SPCC's out = 0 CCC's out = 0
Wed Apr 25 11:04:50 2018 GCMS3V

6.11.4

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1685-CC1673
Lab FileID: 3V41946.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\3V41946.D Vial: 2
Acq On : 14 May 2018 8:19 am Operator: ThienN
Sample : cc1673-20 Inst : MS3V
Misc : MS26184,V3V1685,5,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3V1673.M (RTE Integrator)
Title : SW-846 Method 8260C, column DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Wed Apr 25 10:59:43 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	196	0.00	7.17
2	ethanol			-----NA-----			
3 M	tertiary butyl alcohol	1.185	1.078	9.0	174	0.02	7.31
4	1,4-dioxane	0.100	0.089	11.0	171	0.00	11.38
5 I	pentafluorobenzene	1.000	1.000	0.0	127	-0.01	9.68
6	chlorodifluoromethane	0.890	0.607	31.8#	89	0.00	3.71
7	dichlorodifluoromethane	0.807	1.099	-36.2#	159	0.00	3.72
8	chloromethane	1.090	0.992	9.0	120	0.02	4.05
9	vinyl chloride	0.927	0.860	7.2	116	0.01	4.27
10	bromomethane	0.821	0.661	19.5	110	0.01	4.89
11	chloroethane	0.473	0.432	8.7	120	0.00	5.04
12	trichlorofluoromethane	0.993	0.918	7.6	109	0.00	5.56
13	vinyl bromide	0.660	0.620	6.1	116	0.02	5.42
14	ethyl ether	0.244	0.190	22.1#	107	0.00	5.98
15	2-chloropropane	0.768	0.621	19.1	101	0.00	6.14
16	acrolein	0.086	0.081	5.8	120	0.01	6.18
17	freon 113	0.414	0.376	9.2	110	0.00	6.44
18	1,1-dichloroethene	0.489	0.446	8.8	117	0.00	6.39
19	acetone	0.033	0.036	-9.1	145	0.00	6.43
20	acetonitrile	0.046	0.059	-28.3#	180	0.00	6.86
21	iodomethane	0.797	0.814	-2.1	128	0.00	6.65
22	carbon disulfide	1.363	1.535	-12.6	138	0.00	6.80
23	methylene chloride	0.497	0.581	-16.9	151	0.00	7.14
24	methyl acetate	0.254	0.302	-18.9	161	0.00	6.97
25	methyl tert butyl ether	1.158	1.144	1.2	131	0.00	7.61
26	trans-1,2-dichloroethene	0.462	0.440	4.8	126	0.00	7.60
27	hexane	0.509	0.475	6.7	118	0.00	8.03
28	di-isopropyl ether	1.445	1.362	5.7	123	-0.01	8.33
29	ethyl tert-butyl ether	1.281	1.244	2.9	124	0.00	8.83
30	2-butanone	0.032	0.037	-15.6	148	-0.01	9.02
31 M	1,1-dichloroethane	0.801	0.783	2.2	123	0.00	8.22
32	chloroprene	0.605	0.535	11.6	110	-0.01	8.37
33	acrylonitrile	0.105	0.128	-21.9#	150	0.00	7.49
34	vinyl acetate	0.051	0.044	13.7	115	-0.02	8.26
35	ethyl acetate	0.047	0.048	-2.1	129	-0.01	9.10
36	2,2-dichloropropane	0.791	0.703	11.1	117	-0.01	9.07
37	cis-1,2-dichloroethene	0.542	0.486	10.3	118	-0.01	9.03
38	propionitrile	0.047	0.059	-25.5#	161	-0.01	9.08
39	methyl acrylate	20.000	20.957	-4.8	148	0.00	9.17

Continuing Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1685-CC1673
Lab FileID: 3V41946.D

		AvgRF	CCRF	% Dev			
40	bromochloromethane	0.237	0.231	2.5	121	-0.01	9.36
41	tetrahydrofuran	0.043	0.047	-9.3	137	-0.01	9.45
42	chloroform	0.894	0.784	12.3	113	-0.01	9.45
43 S	dibromofluoromethane (s)	0.530	0.529	0.2	127	-0.02	9.65
44	methacrylonitrile	0.111	0.125	-12.6	142	-0.02	9.31
45	1,1,1-trichloroethane	0.812	0.716	11.8	112	-0.02	9.75
46	cyclohexane	0.545	0.558	-2.4	127	-0.01	9.86
47	1,1-dichloropropene	0.549	0.488	11.1	111	-0.01	9.95
48	carbon tetrachloride	0.690	0.617	10.6	112	-0.01	9.98
49	isobutyl alcohol	0.017	0.020	-17.6	176	-0.01	9.98
50	tert-amyl alcohol	0.026	0.030	-15.4	158	-0.01	10.13
51 I	1,4-difluorobenzene	1.000	1.000	0.0	128	-0.01	10.64
52 S	1,2-dichloroethane-d4 (s)	0.354	0.330	6.8	121	-0.01	10.10
53	iso-octane	0.914	1.024	-12.0	135	0.00	10.32
54 M	benzene	1.187	1.092	8.0	119	-0.01	10.22
55	tert-amyl methyl ether	0.864	0.845	2.2	128	0.00	10.33
56	heptane	0.185	0.178	3.8	118	-0.01	10.52
57	isopropyl acetate	0.043	0.047	-9.3	141	0.00	10.22
58	1,2-dichloroethane	0.457	0.356	22.1#	107	-0.02	10.20
59	n-butyl alcohol	0.007	0.009	-28.6#	170	-0.01	10.78
60	ethyl acrylate	0.231	0.235	-1.7	134	0.00	11.04
61	trichloroethene	0.315	0.272	13.7	109	-0.01	10.99
62	2-nitropropane	0.059	0.051	13.6	115	0.00	11.76
63	2-chloroethyl vinyl ether	0.125	0.126	-0.8	127	-0.01	11.83
64	methyl methacrylate	0.042	0.048	-14.3	140	-0.01	11.31
65	1,2-dichloropropane	0.300	0.279	7.0	117	-0.01	11.25
66	methylcyclohexane	0.488	0.462	5.3	116	0.00	11.26
67	dibromomethane	0.197	0.179	9.1	114	-0.01	11.38
68	bromodichloromethane	0.449	0.378	15.8	107	-0.01	11.53
69	epichlorohydrin	0.020	0.021	-5.0	138	-0.01	11.91
70	cis-1,3-dichloropropene	0.434	0.386	11.1	113	0.00	12.03
71	4-methyl-2-pentanone	0.087	0.096	-10.3	143	0.00	12.16
72	3-methyl-1-butanol	0.007	0.008	-14.3	156	0.00	12.19
73 I	chlorobenzene-d5	1.000	1.000	0.0	137	0.00	13.87
74 S	toluene-d8 (s)	1.322	1.273	3.7	132	0.00	12.35
75	toluene	0.778	0.655	15.8	115	0.00	12.42
76	ethyl methacrylate	0.312	0.293	6.1	127	0.00	12.66
77	trans-1,3-dichloropropene	0.430	0.366	14.9	115	0.00	12.60
78	1,1,2-trichloroethane	0.231	0.211	8.7	124	0.00	12.81
79	tetrachloroethene	0.363	0.315	13.2	116	0.00	13.02
80	2-hexanone	0.083	0.092	-10.8	145	0.00	13.03
81	1,3-dichloropropane	0.394	0.353	10.4	122	0.00	12.99
82	butyl acetate	0.157	0.153	2.5	138	0.00	13.14
83	dibromochloromethane	0.337	0.298	11.6	119	0.00	13.25
84	1,2-dibromoethane	0.282	0.264	6.4	124	0.00	13.40
85	n-butyl ether	1.395	1.167	16.3	113	0.00	13.93
86	chlorobenzene	0.866	0.746	13.9	116	0.00	13.90
87	1,1,1,2-tetrachloroethane	0.415	0.348	16.1	112	0.00	13.97
88	ethylbenzene	1.541	1.315	14.7	116	0.00	14.00
89	m,p-xylene	0.566	0.487	14.0	118	-0.01	14.11
90	o-xylene	0.611	0.530	13.3	117	-0.01	14.53
91	styrene	0.895	0.790	11.7	118	0.00	14.54
92	bromoform	0.211	0.218	-3.3	139	0.00	14.76
93	butyl acrylate	0.530	0.474	10.6	125	0.00	14.40
94	isopropylbenzene	1.626	1.379	15.2	114	0.00	14.91
95	cis-1,4-dichloro-2-butene	0.128	0.134	-4.7	143	0.00	14.93

Continuing Calibration Summary

Page 3 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V3V1685-CC1673
Lab FileID: 3V41946.D

96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	149	0.00	16.24
97	S	4-bromofluorobenzene (s)	0.891	0.870	2.4	144	0.00	15.07
98		bromobenzene	0.770	0.650	15.6	121	0.00	15.26
99		1,1,2,2-tetrachloroethane	0.730	0.695	4.8	142	0.00	15.17
100		trans-1,4-dichloro-2-bute	0.153	0.140	8.5	137	0.00	15.22
101		1,2,3-trichloropropane	0.159	0.156	1.9	143	0.00	15.24
102		n-propylbenzene	3.560	2.877	19.2	118	0.00	15.32
103		2-chlorotoluene	0.744	0.614	17.5	118	0.00	15.44
104		4-chlorotoluene	2.047	1.682	17.8	120	0.00	15.54
105		1,3,5-trimethylbenzene	2.625	2.063	21.4#	114	0.00	15.48
106		tert-butylbenzene	2.125	1.568	26.2#	108	0.00	15.83
107		1,2,4-trimethylbenzene	2.713	2.155	20.6#	118	0.00	15.87
108		sec-butylbenzene	3.344	2.648	20.8#	113	0.00	16.04
109		1,3-dichlorobenzene	1.486	1.238	16.7	122	0.00	16.19
110		p-isopropyltoluene	2.781	2.189	21.3#	114	0.00	16.17
111		1,4-dichlorobenzene	1.466	1.221	16.7	122	0.00	16.27
112		1,2-dichlorobenzene	1.491	1.265	15.2	124	0.00	16.64
113		n-butylbenzene	1.514	1.219	19.5	114	0.00	16.57
114		1,2-dibromo-3-chloropropa	0.165	0.168	-1.8	151	0.00	17.36
115		1,3,5-trichlorobenzene	1.545	1.291	16.4	122	0.00	17.57
116		2-ethylhexyl acrylate	0.997	0.667	33.1#	107	0.00	18.18
117		nitrobenzene	0.050	0.063	-26.0#	225#	-0.01	17.55
118		1,2,4-trichlorobenzene	1.361	1.192	12.4	129	0.00	18.14
119		hexachlorobutadiene	0.693	0.600	13.4	124	0.00	18.28
120		naphthalene	2.644	2.478	6.3	141	0.00	18.38
121		1,2,3-trichlorobenzene	1.351	1.197	11.4	132	0.00	18.60
122		hexachloroethane	0.659	0.468	29.0#	107	0.00	16.91
123		benzyl chloride	1.262	1.231	2.5	151	0.00	16.38
124		2-methylnaphthalene	1.800	1.726	4.1	152	-0.01	19.46

(#) = Out of Range
 3V41637.D M3V1673.M

SPCC's out = 0 CCC's out = 0
 Mon May 14 11:41:18 2018 GCMS3V

6.11.5
 6

Initial Calibration Summary

Page 1 of 5

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
Lab FileID: A240809.D

Response Factor Report MSA

Method : C:\msdchem\1\METHODS\MA9165.M (RTE Integrator)
Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
Last Update : Thu Apr 05 12:19:04 2018
Response via : Initial Calibration

Calibration Files

5 =A240806.D 2 =A240805.D 20 =A240808.D 50 =A240809.D
100 =A240810.D 1 =A240804.D 200 =A240811.D 0.5 =A240803.D
10 =A240807.D 0.2 =A240802.D = =

Compound	5	2	20	50	100	1	200	0.5	10	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 -----ISTD-----												
2) ethanol											0.000#	-1.00
3) tertiary butyl alcohol												
	0.880	0.876	0.899	0.874	0.887	0.891	0.857	0.923		0.886		2.21
4) 1,4-dioxane												
	0.060		0.052	0.055	0.057		0.057	0.053		0.056		5.00
5) I pentafluorobenzene -----ISTD-----												
6) chlorodifluoromethane												
	0.798	0.787	0.773	0.755	0.738		0.743	0.799		0.771		3.31
7) dichlorodifluoromethane												
	0.850	0.932	0.852	0.867	0.801	0.773	0.806	0.867		0.844		5.89
8) freon 114											0.000#	-1.00
9) freon 142b											0.000#	-1.00
10) chloromethane												
	0.937	1.055	0.882	0.910	0.912	1.165	0.941	0.897		0.962		10.16
11) vinyl chloride												
	1.008	1.050	0.981	0.999	0.983	0.928	1.000	0.978		0.991		3.47
12) 1,3-butadiene											0.000#	-1.00
13) bromomethane												
	0.577	0.632	0.543	0.540	0.531	0.569	0.516	0.554		0.558		6.43
14) chloroethane												
	0.535	0.611	0.473	0.456	0.426	0.746		0.495		0.534		20.78
----- Linear regression ----- Coefficient = 0.9985												
Response Ratio = 0.00739 + 0.43515 *A												
15) vinyl bromide												
	0.511	0.503	0.512	0.511	0.514	0.471	0.514	0.514		0.506		2.94
16) trichlorofluoromethane												
	0.794	0.833	0.790	0.790	0.781	0.751	0.779	0.793		0.789		2.85
17) ethyl ether												
	0.267	0.260	0.270	0.255	0.254	0.235	0.237	0.282		0.258		6.27
18) acrolein												
	0.158	0.171	0.152	0.141	0.140		0.137	0.148		0.150		8.09
19) freon 113												
	0.399	0.379	0.396	0.385	0.384	0.407	0.376	0.409		0.392		3.21
20) 1,1-dichloroethene												
	0.496	0.465	0.464	0.441	0.463	0.466	0.438	0.478		0.464		3.98
21) acetone												
	0.075	0.075	0.078	0.075	0.077	0.060	0.073	0.084		0.075		9.16

Initial Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
Lab FileID: A240809.D

22)	acetonitrile	0.132	0.121	0.117	0.113		0.109		0.125		0.120	6.94	
23)	iodomethane	0.949	0.945	0.912	0.878	0.914	1.085	0.864		0.939	0.936	7.24	
24)	carbon disulfide	1.848	1.825	1.722	1.624	1.715	2.190	1.618		1.784	1.791	10.16	
25)	methylene chloride	0.561	0.520	0.534	0.507	0.518	0.613	0.496		0.531	0.535	6.90	
26)	methyl acetate	0.599	0.616	0.533	0.529	0.526		0.501		0.573	0.554	7.67	
27)	methyl tert butyl ether	1.564	1.572	1.608	1.585	1.533	1.768	1.512	1.687	1.600		4.95	
28)	trans-1,2-dichloroethene	0.488	0.447	0.469	0.439	0.449	0.551	0.425	0.431	0.482	0.465	8.41	
29)	hexane	0.675	0.690	0.641	0.618	0.616	0.831	0.591		0.674	0.667	11.20	
30)	di-isopropyl ether	1.742	1.727	1.741	1.687	1.645	1.993	1.589	1.853	1.753	2.053	1.778	8.28
31)	ethyl tert-butyl ether	1.598	1.555	1.621	1.623	1.608	1.674	1.584	1.490	1.668	1.675	1.610	3.60
32)	2-butanone	0.080	0.066	0.081	0.083	0.083	0.080	0.084		0.082	0.080	7.19	
33)	1,1-dichloroethane	0.929	0.950	0.897	0.842	0.842	1.136	0.797		0.934	0.916	11.34	
34)	chloroprene	0.706	0.683	0.714	0.671	0.691	0.775	0.659		0.720	0.702	5.14	
35)	acrylonitrile	0.293	0.243	0.283	0.274	0.271		0.259		0.292	0.274	6.62	
36)	vinyl acetate	0.091		0.093	0.095	0.093		0.092		0.091	0.093	1.83	
37)	ethyl acetate	0.100	0.094	0.101	0.105	0.104		0.102		0.101	0.101	3.55	
38)	2,2-dichloropropane	0.749	0.967	0.734	0.696	0.680	1.027	0.661		0.764	0.785	17.38	
39)	cis-1,2-dichloroethene	0.548	0.513	0.532	0.508	0.515	0.571	0.497	0.572	0.548		5.19	
40)	methyl acrylate	0.088		0.097	0.093	0.097		0.096		0.086	0.093	4.94	
41)	propionitrile	0.166	0.168	0.173	0.175	0.169	0.176	0.166		0.173	0.171	2.45	
42)	bromochloromethane	0.299	0.344	0.275	0.259	0.257	0.367	0.251		0.281	0.292	14.67	
43)	tetrahydrofuran	0.329	0.310	0.298	0.294	0.285		0.279		0.306	0.300	5.65	
44)	chloroform	0.839	0.798	0.813	0.769	0.774	0.890	0.740	0.858	0.812	1.009	0.830	9.25
45)	tert-butyl formate	0.515	0.507	0.523	0.505	0.482	0.567	0.473		0.515	0.511	5.59	
46)	dibromofluoromethane (s)	0.505	0.498	0.498	0.496	0.495	0.502	0.505	0.499	0.497	0.490	0.498	0.92
47)	methacrylonitrile	0.255	0.227	0.258	0.259	0.262		0.256		0.260	0.254	4.79	
48)	cyclohexane	0.751	0.800	0.773	0.743	0.738	0.810	0.730	0.801	0.781		0.770	3.91
49)	1,1,1-trichloroethane	0.755	0.785	0.741	0.719	0.715	0.854	0.702	0.731	0.747		0.750	6.14
50)	iso-butyl alcohol	0.044	0.055	0.046	0.044	0.047		0.046		0.046	0.047		8.06
51)	1,1-dichloropropene	0.623	0.589	0.619	0.612	0.620	0.681	0.607	0.646	0.629		0.625	4.15

Initial Calibration Summary

Page 3 of 5

Job Number: JC65800
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
 Lab FileID: A240809.D

52)	carbon tetrachloride	0.629	0.629	0.650	0.621	0.624	0.727	0.614	0.660	0.637		0.643	5.35
53)	tert-amyl alcohol	0.069	0.068	0.067	0.069	0.066		0.066		0.070		0.068	2.23
54)	I 1,4-difluorobenzene	-----ISTD-----											
55)	1,2-dichloroethane-d4 (s)	0.357	0.356	0.366	0.352	0.346	0.355	0.343	0.366	0.365	0.355	0.356	2.20
56)	benzene	1.270	1.255	1.238	1.184	1.183	1.383	1.120	1.377	1.279		1.254	6.95
57)	iso-octane	1.203	1.185	1.194	1.175	1.245	1.342	1.203	1.330	1.229		1.234	4.99
58)	tert-amyl methyl ether	1.087	1.089	1.071	1.028	1.012	1.173	0.963	1.140	1.099	1.255	1.092	7.68
59)	heptane	0.237	0.258	0.231	0.222	0.221	0.235	0.217	0.257	0.243		0.236	6.31
60)	isopropyl acetate	0.075		0.079	0.080	0.078		0.075		0.078		0.078	2.80
61)	1,2-dichloroethane	0.402	0.395	0.387	0.372	0.372	0.493	0.356		0.403		0.397	10.56
62)	n-butyl alcohol	0.019	0.019	0.019	0.019	0.019	0.021	0.019	0.020	0.020		0.019	3.42
63)	ethyl acrylate	0.385	0.442	0.413	0.418	0.431	0.525	0.421		0.410		0.431	9.63
64)	trichloroethene	0.280	0.279	0.287	0.275	0.284	0.314	0.274	0.259	0.298	0.282	0.283	5.16
65)	2-nitropropane	0.166	0.162	0.141	0.151	0.147		0.142		0.156		0.152	6.45
66)	methylcyclohexane	0.627	0.628	0.625	0.589	0.591	0.734	0.561	0.696	0.653		0.634	8.55
67)	2-chloroethyl vinyl ether	0.172	0.177	0.178	0.186	0.188	0.198	0.184	0.208	0.182		0.186	5.97
68)	methyl methacrylate	0.080		0.084	0.086	0.092		0.089		0.082		0.086	5.04
69)	1,2-dichloropropane	0.333	0.360	0.322	0.312	0.316	0.400	0.302		0.330		0.334	9.50
70)	dibromomethane	0.190	0.193	0.190	0.190	0.190	0.194	0.183	0.191	0.194		0.191	1.77
71)	bromodichloromethane	0.392	0.380	0.392	0.384	0.386	0.405	0.374	0.402	0.398	0.371	0.388	2.97
72)	epichlorohydrin	0.047	0.046	0.046	0.047	0.046	0.055	0.045		0.047		0.047	6.74
73)	cis-1,3-dichloropropene	0.449	0.457	0.447	0.461	0.475	0.480	0.467	0.505	0.465		0.467	3.83
74)	4-methyl-2-pentanone	0.177	0.183	0.178	0.180	0.176	0.197	0.166	0.185	0.180	0.174	0.180	4.44
75)	3-methyl-1-butanol	0.032	0.032	0.031	0.032	0.031	0.040	0.029		0.033		0.032	9.51
76)	I chlorobenzene-d5	-----ISTD-----											
77)	toluene-d8 (s)	1.351	1.339	1.357	1.332	1.285	1.341	1.243	1.383	1.398	1.332	1.336	3.36
78)	toluene	0.820	0.838	0.827	0.791	0.790	0.896	0.726	0.911	0.890	0.960	0.845	8.18
79)	trans-1,3-dichloropropene	0.458	0.463	0.473	0.462	0.454	0.491	0.420	0.507	0.495		0.469	5.56
80)	ethyl methacrylate	0.475	0.484	0.486	0.463	0.452	0.490	0.422		0.520		0.474	6.16
81)	1,1,2-trichloroethane	0.265	0.252	0.258	0.249	0.242	0.279	0.228	0.234	0.276		0.254	6.97

6.11.6

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Initial Calibration Summary

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Job Number: JC65800
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
 Lab FileID: A240809.D

82)	2-hexanone	0.186	0.184	0.182	0.173	0.169	0.189	0.157	0.184	0.200	0.194	0.182	6.92
83)	tetrachloroethene	0.348	0.314	0.340	0.327	0.325	0.362	0.302	0.311	0.364		0.333	6.76
84)	1,3-dichloropropane	0.475	0.502	0.481	0.475	0.465	0.558	0.437	0.551	0.489		0.492	7.99
85)	butyl acetate	0.417		0.303	0.263	0.255		0.237		0.352		0.305	22.53
	----- Linear regression -----	Coefficient = 0.9987											
	Response Ratio = 0.02077 + 0.23792 *A												
86)	3,3-dimethyl-1-butanol											0.000#	-1.00
87)	dibromochloromethane	0.341	0.333	0.326	0.327	0.320	0.403	0.303		0.356		0.339	8.98
88)	1,2-dibromoethane	0.316	0.293	0.306	0.299	0.299	0.313	0.283	0.264	0.324		0.300	6.07
89)	n-butyl ether	1.606	1.596	1.619	1.478	1.411	1.748	1.271		1.644		1.547	9.79
90)	chlorobenzene	0.819	0.810	0.807	0.804	0.808	0.883	0.773	0.822	0.832	0.838	0.820	3.48
91)	1,1,1,2-tetrachloroethane	0.407	0.397	0.409	0.381	0.365	0.388	0.337	0.445	0.429		0.395	8.23
92)	ethylbenzene	1.441	1.441	1.474	1.379	1.386	1.588	1.282	1.599	1.508	1.719	1.482	8.56
93)	m,p-xylene	0.554	0.534	0.561	0.535	0.537	0.568	0.505	0.574	0.588	0.658	0.561	7.41
94)	o-xylene	0.618	0.602	0.644	0.596	0.587	0.674	0.544	0.630	0.657	0.549	0.610	7.11
95)	styrene	0.906	0.901	0.896	0.831	0.847	0.961	0.803	1.055	0.923	0.935	0.906	7.91
96)	butyl acrylate	0.797	0.797	0.757	0.665	0.624		0.568		0.813		0.717	13.63
97)	bromoform	0.231	0.210	0.229	0.215	0.211	0.251	0.202	0.184	0.234		0.219	9.04
98)	isopropylbenzene	1.648	1.647	1.755	1.632	1.556	1.768	1.410	1.707	1.839		1.662	7.65
99)	cis-1,4-dichloro-2-butene	0.179	0.178	0.173	0.156	0.148		0.138		0.190		0.166	11.33
100)	I 1,4-dichlorobenzene-d	-----ISTD-----											
101)	4-bromofluorobenzene (s)	0.797	0.801	0.808	0.834	0.868	0.792	0.877	0.785	0.784	0.798	0.814	4.15
102)	bromobenzene	0.641	0.643	0.656	0.653	0.701	0.695	0.681	0.667	0.644		0.664	3.43
103)	1,1,2,2-tetrachloroethane	0.930	0.933	0.964	0.981	0.967	1.035	0.902	0.991	0.963		0.963	4.04
104)	trans-1,4-dichloro-2-butene	0.209	0.191	0.190	0.184	0.177		0.163		0.190		0.186	7.67
105)	1,2,3-trichloropropane	0.227	0.230	0.229	0.230	0.237	0.225	0.221		0.233		0.229	2.17
106)	n-propylbenzene	3.183	3.254	3.369	3.392	3.451	3.561	3.186	3.335	3.412	3.933	3.408	6.42
107)	2-chlorotoluene	0.648	0.656	0.708	0.726	0.754	0.726	0.731	0.622	0.695		0.696	6.41
108)	4-chlorotoluene	1.716	1.788	1.776	1.754	1.817	1.923	1.761	1.841	1.803		1.798	3.32
109)	4-ethyltoluene											0.000#	-1.00
110)	1,3,5-trimethylbenzene												

Initial Calibration Summary

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
Lab FileID: A240809.D

111)	2.498	2.398	2.635	2.758	2.765	2.656	2.604	2.584	2.642	2.953	2.649	5.77
	tert-butylbenzene											
	0.471	0.443	0.552	0.596	0.616	0.530	0.579		0.536		0.540	11.00
112)	1,2,4-trimethylbenzene											
	2.417	2.338	2.605	2.632	2.698	2.628	2.490	2.518	2.590	2.927	2.584	6.28
113)	sec-butylbenzene											
	3.263	3.111	3.598	3.716	3.757	3.476	3.394	3.110	3.532	3.574	3.453	6.68
114)	1,3-dichlorobenzene											
	1.217	1.201	1.281	1.260	1.244	1.391	1.173	1.229	1.285	1.423	1.270	6.31
115)	p-isopropyltoluene											
	2.721	2.628	2.939	3.008	3.052	2.859	2.807	2.738	2.939	2.907	2.860	4.73
116)	1,4-dichlorobenzene											
	1.302	1.219	1.289	1.266	1.252	1.373	1.182	1.427	1.312		1.291	5.82
117)	1,2-dichlorobenzene											
	1.315	1.342	1.382	1.358	1.332	1.496	1.248	1.573	1.422	1.436	1.390	6.79
118)	1,4-diethylbenzene											
											0.000#	-1.00
119)	n-butylbenzene											
	1.428	1.440	1.528	1.453	1.458	1.559	1.359	1.585	1.518	1.697	1.503	6.40
120)	1,2,4,5-tetramethylbenzene											
											0.000#	-1.00
121)	1,2-dibromo-3-chloropropane											
	0.271	0.260	0.259	0.258	0.248	0.284	0.226	0.259	0.275		0.260	6.45
122)	1,3,5-trichlorobenzene											
	1.305	1.184	1.313	1.300	1.239	1.480	1.159	1.327	1.365	1.488	1.316	8.30
123)	2-ethylhexyl acrylate											
	0.965	1.043	0.984	0.984	0.938	1.093	0.886		1.080		0.997	7.14
124)	1,2,4-trichlorobenzene											
	1.119	1.060	1.152	1.123	1.060	1.208	0.987	1.202	1.214	1.284	1.141	7.82
125)	hexachlorobutadiene											
	0.469	0.441	0.489	0.503	0.505	0.503	0.492	0.401	0.498		0.478	7.45
126)	naphthalene											
	3.027	3.144	2.923	2.833	2.713		2.448		3.167		2.894	8.82
127)	1,2,3-trichlorobenzene											
	1.006	0.975	1.043	1.033	0.993	1.080	0.924	1.120	1.078	1.059	1.031	5.62
128)	hexachloroethane											
	0.431	0.413	0.494	0.555	0.564		0.542		0.498		0.500	11.91
129)	2-methylnaphthalene											
	1.105	1.133	1.144	1.094	1.169		1.101		1.195		1.134	3.33

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

MA9165.M

Thu Apr 05 12:23:06 2018 RPT1

Initial Calibration Verification

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Job Number: JC65800
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
 Lab FileID: A240814.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VA9165\A240814.D Vial: 14
 Acq On : 3 Apr 2018 11:40 pm Operator: JessicaP
 Sample : icv9165-50 Inst : MSA
 Misc : MS25128,VA9165,5,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\MA9165.M (RTE Integrator)
 Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
 Last Update : Thu Apr 05 11:21:49 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	107	0.00	7.81
2	ethanol			-----NA-----			
3 M	tertiary butyl alcohol	0.886	0.904	-2.0	110	0.03	7.97
4	1,4-dioxane	0.056	0.056	0.0	108	0.00	11.86
5 I	pentafluorobenzene	1.000	1.000	0.0	109	0.00	10.18
6 M	chlorodifluoromethane	0.771	0.713	7.5	103	0.02	4.20
7 M	dichlorodifluoromethane	0.844	0.760	10.0	96	0.02	4.20
8	freon 114			-----NA-----			
9	freon 142b			-----NA-----			
10 M	chloromethane	0.962	0.842	12.5	101	0.01	4.54
11 M	vinyl chloride	0.991	0.867	12.5	95	0.02	4.83
12	1,3-butadiene			-----NA-----			
13 M	bromomethane	0.558	0.515	7.7	104	0.00	5.52
	----- True						
14 M	chloroethane	50.000	48.193	3.6	102	0.00	5.71
	----- AvgRF						
15	vinyl bromide	0.506	0.532	-5.1	114	0.00	6.09
16 M	trichlorofluoromethane	0.789	0.726	8.0	100	0.02	6.24
17 M	ethyl ether	0.258	0.261	-1.2	112	0.00	6.68
18 M	acrolein	0.150	0.189	-26.0	147	0.00	6.91
19	freon 113	0.392	0.452	-15.3	128	0.01	7.11
20 M	1,1-dichloroethene	0.464	0.424	8.6	105	0.01	7.11
21 M	acetone	0.075	0.068	9.3	99	0.01	7.16
22 M	acetonitrile	0.120	0.141	-17.5	132	0.07	7.67
23 M	iodomethane	0.936	0.876	6.4	109	0.01	7.40
24 M	carbon disulfide	1.791	1.682	6.1	113	0.00	7.53
25 M	methylene chloride	0.535	0.520	2.8	112	0.00	7.86
26 M	methyl acetate	0.554	0.511	7.8	105	0.00	7.66
27 M	methyl tert butyl ether	1.603	1.564	2.4	108	0.00	8.25
28 M	trans-1,2-dichloroethene	0.465	0.436	6.2	108	0.00	8.27
29	hexane	0.667	0.532	20.2	94	0.00	8.63
30 M	di-isopropyl ether	1.778	1.665	6.4	108	0.00	8.88
31 M	ethyl tert-butyl ether	1.610	1.598	0.7	107	0.00	9.36
32 M	2-butanone	0.080	0.080	0.0	104	0.01	9.59
33 M	1,1-dichloroethane	0.916	0.836	8.7	108	0.00	8.86
34 M	chloroprene	0.702	0.695	1.0	113	0.00	8.99
35 M	acrylonitrile	0.274	0.293	-6.9	116	0.00	8.20
36 M	vinyl acetate	0.093	0.097	-4.3	111	0.00	8.86
37 M	ethyl acetate	0.101	0.108	-6.9	112	0.00	9.62

Initial Calibration Verification

Job Number: JC65800
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
 Lab FileID: A240814.D

38	M	2,2-dichloropropane	0.785	0.659	16.1	103	0.00	9.66
39	M	cis-1,2-dichloroethene	0.534	0.519	2.8	111	0.00	9.63
40		methyl acrylate	0.093	0.088	5.4	104	0.00	9.70
41	M	propionitrile	0.171	0.175	-2.3	109	0.00	9.68
42	M	bromochloromethane	0.292	0.257	12.0	108	0.00	9.94
43	M	tetrahydrofuran	0.300	0.385	-28.3	143	0.00	9.99
44	M	chloroform	0.830	0.777	6.4	110	0.00	10.00
45		tert-butyl formate	0.511	0.427	16.4	92	0.00	10.07
46	S	dibromofluoromethane (s)	0.498	0.499	-0.2	110	0.00	10.21
47	M	methacrylonitrile	0.254	0.251	1.2	106	0.00	9.88
48		cyclohexane	0.770	0.941	-22.2	138	0.00	10.38
49	M	1,1,1-trichloroethane	0.750	0.685	8.7	104	0.00	10.29
50		iso-butyl alcohol	0.047	0.046	2.1	114	0.00	10.45
51		1,1-dichloropropene	0.625	0.602	3.7	107	0.00	10.47
52		carbon tetrachloride	0.643	0.603	6.2	106	0.00	10.51
53		tert-amyl alcohol	0.068	0.069	-1.5	109	0.00	10.60
54	I	1,4-difluorobenzene	1.000	1.000	0.0	108	0.00	11.12
55	S	1,2-dichloroethane-d4 (s)	0.356	0.353	0.8	108	0.00	10.64
56	M	benzene	1.254	1.177	6.1	107	0.00	10.74
57	M	iso-octane	1.234	1.174	4.9	108	0.00	10.79
58		tert-amyl methyl ether	1.092	1.025	6.1	108	0.00	10.80
59	M	heptane	0.236	0.240	-1.7	117	0.00	10.95
60	M	isopropyl acetate	0.078	0.078	0.0	106	0.00	10.67
61	M	1,2-dichloroethane	0.397	0.373	6.0	108	0.00	10.73
62		n-butyl alcohol	0.019	0.019	0.0	107	0.00	11.22
63		ethyl acrylate	0.431	0.411	4.6	106	0.00	11.48
64	M	trichloroethene	0.283	0.275	2.8	108	0.00	11.47
65	M	2-nitropropane	0.152	0.190	-25.0	136	0.00	12.27
66	m	methylcyclohexane	0.634	0.568	10.4	104	0.00	11.74
67	M	2-chloroethyl vinyl ether	0.186	0.192	-3.2	112	0.00	12.30
68	M	methyl methacrylate	0.086	0.083	3.5	105	0.00	11.75
69	M	1,2-dichloropropane	0.334	0.309	7.5	107	0.00	11.74
70	M	dibromomethane	0.191	0.192	-0.5	109	0.00	11.90
71	M	bromodichloromethane	0.388	0.376	3.1	106	0.00	12.03
72		epichlorohydrin	0.047	0.044	6.4	102	0.00	12.42
73	M	cis-1,3-dichloropropene	0.467	0.451	3.4	106	0.00	12.53
74	M	4-methyl-2-pentanone	0.180	0.176	2.2	106	0.00	12.65
75	M	3-methyl-1-butanol	0.032	0.032	0.0	107	0.00	12.65
76	I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	14.52
77	S	toluene-d8 (s)	1.336	1.356	-1.5	104	0.00	12.86
78		toluene	0.845	0.830	1.8	107	0.00	12.94
79		trans-1,3-dichloropropene	0.469	0.442	5.8	98	0.00	13.13
80		ethyl methacrylate	0.474	0.449	5.3	99	0.00	13.15
81		1,1,2-trichloroethane	0.254	0.256	-0.8	105	0.00	13.36
82		2-hexanone	0.182	0.173	4.9	102	0.00	13.57
83	M	tetrachloroethene	0.333	0.380	-14.1	119	0.00	13.58
84	M	1,3-dichloropropane	0.492	0.490	0.4	105	0.00	13.57
		----- True	Calc.	% Drift	-----			
85	M	butyl acetate	50.000	53.430	-6.9	107	0.00	13.66
		----- AvgRF	CCRF	% Dev	-----			
86		3,3-dimethyl-1-butanol		NA				
87	M	dibromochloromethane	0.339	0.339	0.0	106	0.00	13.85
88	M	1,2-dibromoethane	0.300	0.307	-2.3	105	0.00	14.02
89	M	n-butyl ether	1.547	1.430	7.6	99	0.00	14.49
90	M	chlorobenzene	0.820	0.785	4.3	100	0.00	14.55
91	M	1,1,1,2-tetrachloroethane	0.395	0.392	0.8	105	0.00	14.61

Initial Calibration Verification

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Job Number: JC65800
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
 Lab FileID: A240814.D

92	M	ethylbenzene	1.482	1.388	6.3	103	0.00	14.63
93	M	m,p-xylene	0.561	0.534	4.8	102	0.00	14.75
94	M	o-xylene	0.610	0.604	1.0	104	0.00	15.21
95	M	styrene	0.906	0.839	7.4	103	0.00	15.22
96		butyl acrylate	0.717	0.682	4.9	105	0.00	15.02
97	M	bromoform	0.219	0.226	-3.2	107	0.00	15.48
98		isopropylbenzene	1.662	1.652	0.6	103	0.00	15.60
99		cis-1,4-dichloro-2-butene	0.166	0.156	6.0	102	0.00	15.65
100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	17.12
101	S	4-bromofluorobenzene (s)	0.814	0.829	-1.8	103	0.00	15.81
102	M	bromobenzene	0.664	0.656	1.2	104	0.00	16.03
103	M	1,1,2,2-tetrachloroethane	0.963	0.973	-1.0	103	0.00	15.91
104	M	trans-1,4-dichloro-2-bute	0.186	0.232	-24.7	131	0.00	15.96
105	M	1,2,3-trichloropropane	0.229	0.240	-4.8	108	0.00	16.00
106	M	n-propylbenzene	3.408	3.373	1.0	103	0.00	16.06
107	M	2-chlorotoluene	0.696	0.704	-1.1	101	0.00	16.22
108	M	4-chlorotoluene	1.798	1.815	-0.9	107	0.00	16.32
109		4-ethyltoluene			-----NA-----			
110	M	1,3,5-trimethylbenzene	2.649	2.700	-1.9	102	0.00	16.23
111	M	tert-butylbenzene	0.540	0.603	-11.7	105	0.00	16.63
112	M	1,2,4-trimethylbenzene	2.584	2.673	-3.4	105	0.00	16.67
113	M	sec-butylbenzene	3.453	3.733	-8.1	104	0.00	16.87
114	M	1,3-dichlorobenzene	1.270	1.261	0.7	104	0.00	17.06
115	M	p-isopropyltoluene	2.860	2.997	-4.8	103	0.00	17.00
116	M	1,4-dichlorobenzene	1.291	1.264	2.1	104	0.00	17.15
117	M	1,2-dichlorobenzene	1.390	1.355	2.5	104	0.00	17.59
118		1,4-diethylbenzene			-----NA-----			
119	M	n-butylbenzene	1.503	1.467	2.4	105	0.00	17.46
120		1,2,4,5-tetramethylbenzen			-----NA-----			
121	M	1,2-dibromo-3-chloropropa	0.260	0.259	0.4	104	0.00	18.43
122	M	1,3,5-trichlorobenzene	1.316	1.290	2.0	103	0.00	18.65
123		2-ethylhexyl acrylate	0.997	1.003	-0.6	106	0.00	19.36
124	M	1,2,4-trichlorobenzene	1.141	1.142	-0.1	106	0.00	19.37
125	M	hexachlorobutadiene	0.478	0.485	-1.5	100	0.00	19.53
126	M	naphthalene	2.894	2.957	-2.2	108	0.00	19.70
127	M	1,2,3-trichlorobenzene	1.031	1.033	-0.2	104	0.00	19.97
128	M	hexachloroethane	0.500	0.575	-15.0	108	0.00	17.89
129		2-methylnaphthalene	1.134	1.054	7.1	100	0.00	20.99

(#) = Out of Range
 A240809.D MA9165.M

SPCC's out = 0 CCC's out = 0
 Thu Apr 05 11:39:45 2018 RPT1

6.11.7
6

Initial Calibration Verification

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
Lab FileID: A240815.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VA9165\A240815.D Vial: 15
Acq On : 4 Apr 2018 12:09 am Operator: JessicaP
Sample : icv9165-50 Inst : MSA
Misc : MS25128,VA9165,5,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\MA9165.M (RTE Integrator)
Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
Last Update : Thu Apr 05 12:19:04 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	105	0.00	7.81
2	ethanol			NA			
3 M	tertiary butyl alcohol			NA			
4	1,4-dioxane			NA			
5 I	pentafluorobenzene	1.000	1.000	0.0	104	0.00	10.18
6 M	chlorodifluoromethane			NA			
7 M	dichlorodifluoromethane			NA			
8	freon 114			NA			
9	freon 142b			NA			
10 M	chloromethane			NA			
11 M	vinyl chloride			NA			
12	1,3-butadiene			NA			
13 M	bromomethane			NA			
	----- True		Calc.	% Drift			
14 M	chloroethane			NA			
	----- AvgRF		CCRF	% Dev			
15	vinyl bromide			NA			
16 M	trichlorofluoromethane			NA			
17 M	ethyl ether			NA			
18 M	acrolein			NA			
19	freon 113			NA			
20 M	1,1-dichloroethene			NA			
21 M	acetone			NA			
22 M	acetonitrile	0.120	0.114	5.0	102	0.02	7.62
23 M	iodomethane			NA			
24 M	carbon disulfide			NA			
25 M	methylene chloride			NA			
26 M	methyl acetate			NA			
27 M	methyl tert butyl ether			NA			
28 M	trans-1,2-dichloroethene			NA			
29	hexane			NA			
30 M	di-isopropyl ether			NA			
31 M	ethyl tert-butyl ether			NA			
32 M	2-butanone			NA			
33 M	1,1-dichloroethane			NA			
34 M	chloroprene			NA			
35 M	acrylonitrile			NA			
36 M	vinyl acetate			NA			
37 M	ethyl acetate			NA			

Initial Calibration Verification

Page 2 of 3

Job Number: JC65800
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
 Lab FileID: A240815.D

38	M	2,2-dichloropropane							
39	M	cis-1,2-dichloroethene							
40		methyl acrylate							
41	M	propionitrile							
42	M	bromochloromethane							
43	M	tetrahydrofuran							
44	M	chloroform							
45		tert-butyl formate							
46	S	dibromofluoromethane (s)	0.498	0.503	-1.0	105	0.00	10.20	
47	M	methacrylonitrile							
48		cyclohexane							
49	M	1,1,1-trichloroethane							
50		iso-butyl alcohol							
51		1,1-dichloropropene							
52		carbon tetrachloride							
53		tert-amyl alcohol							
54	I	1,4-difluorobenzene	1.000	1.000	0.0	98	0.00	11.12	
55	S	1,2-dichloroethane-d4 (s)	0.356	0.363	-2.0	101	0.00	10.64	
56	M	benzene							
57	M	iso-octane							
58		tert-amyl methyl ether							
59	M	heptane							
60	M	isopropyl acetate							
61	M	1,2-dichloroethane							
62		n-butyl alcohol							
63		ethyl acrylate							
64	M	trichloroethene							
65	M	2-nitropropane							
66	m	methylcyclohexane							
67	M	2-chloroethyl vinyl ether							
68	M	methyl methacrylate							
69	M	1,2-dichloropropane							
70	M	dibromomethane							
71	M	bromodichloromethane							
72		epichlorohydrin							
73	M	cis-1,3-dichloropropene							
74	M	4-methyl-2-pentanone							
75	M	3-methyl-1-butanol							
76	I	chlorobenzene-d5	1.000	1.000	0.0	89	0.00	14.52	
77	S	toluene-d8 (s)	1.336	1.348	-0.9	90	0.00	12.86	
78		toluene							
79		trans-1,3-dichloropropene							
80		ethyl methacrylate							
81		1,1,2-trichloroethane							
82		2-hexanone							
83	M	tetrachloroethene	0.333	0.309	7.2	84	0.00	13.58	
84	M	1,3-dichloropropane							
85	M	butyl acetate							
86		3,3-dimethyl-1-butanol							
87	M	dibromochloromethane							
88	M	1,2-dibromoethane							
89	M	n-butyl ether							
90	M	chlorobenzene							
91	M	1,1,1,2-tetrachloroethane							

----- True Calc. % Drift -----

----- AvgRF CCRF % Dev -----

6.11.8

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Initial Calibration Verification

Page 3 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
Lab FileID: A240815.D

92	M	ethylbenzene							-----NA-----
93	M	m,p-xylene							-----NA-----
94	M	o-xylene							-----NA-----
95	M	styrene							-----NA-----
96		butyl acrylate							-----NA-----
97	M	bromoform							-----NA-----
98		isopropylbenzene							-----NA-----
99		cis-1,4-dichloro-2-butene							-----NA-----
100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	108	0.00	17.12	
101	S	4-bromofluorobenzene (s)	0.814	0.775	4.8	100	0.00	15.81	
102	M	bromobenzene							-----NA-----
103	M	1,1,2,2-tetrachloroethane							-----NA-----
104	M	trans-1,4-dichloro-2-bute							-----NA-----
105	M	1,2,3-trichloropropane							-----NA-----
106	M	n-propylbenzene							-----NA-----
107	M	2-chlorotoluene							-----NA-----
108	M	4-chlorotoluene							-----NA-----
109		4-ethyltoluene							-----NA-----
110	M	1,3,5-trimethylbenzene							-----NA-----
111	M	tert-butylbenzene							-----NA-----
112	M	1,2,4-trimethylbenzene							-----NA-----
113	M	sec-butylbenzene							-----NA-----
114	M	1,3-dichlorobenzene							-----NA-----
115	M	p-isopropyltoluene							-----NA-----
116	M	1,4-dichlorobenzene							-----NA-----
117	M	1,2-dichlorobenzene							-----NA-----
118		1,4-diethylbenzene							-----NA-----
119	M	n-butylbenzene							-----NA-----
120		1,2,4,5-tetramethylbenzen							-----NA-----
121	M	1,2-dibromo-3-chloropropa							-----NA-----
122	M	1,3,5-trichlorobenzene							-----NA-----
123		2-ethylhexyl acrylate							-----NA-----
124	M	1,2,4-trichlorobenzene							-----NA-----
125	M	hexachlorobutadiene							-----NA-----
126	M	naphthalene							-----NA-----
127	M	1,2,3-trichlorobenzene							-----NA-----
128	M	hexachloroethane							-----NA-----
129		2-methylnaphthalene							-----NA-----

(#) = Out of Range
A240809.D MA9165.M

SPCC's out = 0 CCC's out = 0
Thu Apr 05 12:22:15 2018 RPT1

6.11.8

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Continuing Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9208-CC9165
Lab FileID: A241577.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ni...5-18\va9208\va241577.d Vial: 2
 Acq On : 14 May 2018 6:52 am Operator: oyinadei
 Sample : cc9165-20 Inst : MSA
 Misc : MS26219,VA9208,5,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MA9165.M (RTE Integrator)
 Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
 Last Update : Tue Apr 17 15:31:13 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	98	0.00	7.81
2	ethanol			NA			
3 M	tertiary butyl alcohol	0.886	0.925	-4.4	100	0.00	7.94
4	1,4-dioxane	0.056	0.067	-19.6	125	0.00	11.85
5 I	pentafluorobenzene	1.000	1.000	0.0	96	0.00	10.17
6 M	chlorodifluoromethane	0.771	0.527	31.6#	65	0.02	4.21
7 M	dichlorodifluoromethane	0.844	0.898	-6.4	101	0.02	4.20
8	freon 114			NA			
9	freon 142b			NA			
10 M	chloromethane	0.962	0.951	1.1	103	0.02	4.54
11 M	vinyl chloride	0.991	1.032	-4.1	101	0.02	4.84
12	1,3-butadiene			NA			
13 M	bromomethane	0.558	0.623	-11.6	110	0.01	5.53
	----- True						
14 M	chloroethane	20.000	20.970	-4.8	96	0.00	5.71
	----- AvgRF						
15	vinyl bromide	0.506	0.635	-25.5#	119	0.00	6.10
16 M	trichlorofluoromethane	0.789	0.866	-9.8	105	0.04	6.26
17 M	ethyl ether			NA			
18 M	acrolein	0.150	0.118	21.3#	75	0.00	6.90
19	freon 113	0.392	0.455	-16.1	110	0.02	7.12
20 M	1,1-dichloroethene	0.464	0.499	-7.5	103	0.00	7.11
21 M	acetone	0.075	0.062	17.3	77	-0.01	7.14
22 M	acetonitrile	0.120	0.104	13.3	82	0.00	7.60
23 M	iodomethane			NA			
24 M	carbon disulfide			NA			
25 M	methylene chloride	0.535	0.571	-6.7	103	0.00	7.84
26 M	methyl acetate	0.554	0.445	19.7	80	-0.01	7.65
27 M	methyl tert butyl ether			NA			
28 M	trans-1,2-dichloroethene	0.465	0.444	4.5	91	0.00	8.26
29	hexane	0.667	0.521	21.9#	78	0.00	8.62
30 M	di-isopropyl ether	1.778	1.451	18.4	80	0.00	8.88
31 M	ethyl tert-butyl ether	1.610	1.596	0.9	94	0.00	9.37
32 M	2-butanone	0.080	0.075	6.3	89	0.00	9.58
33 M	1,1-dichloroethane	0.916	0.782	14.6	84	-0.01	8.85
34 M	chloroprene	0.702	0.572	18.5	77	-0.01	8.97
35 M	acrylonitrile			NA			
36 M	vinyl acetate	0.093	0.078	16.1	81	0.00	8.86
37 M	ethyl acetate	0.101	0.082	18.8	77	-0.01	9.61

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9208-CC9165
Lab FileID: A241577.D

38 M	2,2-dichloropropane	0.785	0.744	5.2	97	-0.01	9.64
39 M	cis-1,2-dichloroethene	0.534	0.519	2.8	93	0.00	9.61
40	methyl acrylate						
41 M	propionitrile						
42 M	bromochloromethane	0.292	0.261	10.6	91	0.00	9.93
43 M	tetrahydrofuran						
44 M	chloroform	0.830	0.765	7.8	90	0.00	9.99
45	tert-butyl formate	0.511	0.475	7.0	87	0.00	10.06
46 S	dibromofluoromethane (s)	0.498	0.498	0.0	96	0.00	10.19
47 M	methacrylonitrile						
48	cyclohexane	0.770	0.725	5.8	90	0.00	10.38
49 M	1,1,1-trichloroethane	0.750	0.760	-1.3	98	0.00	10.29
50	iso-butyl alcohol	0.047	0.042	10.6	88	-0.01	10.44
51	1,1-dichloropropene	0.625	0.567	9.3	88	0.00	10.46
52	carbon tetrachloride	0.643	0.638	0.8	94	0.00	10.50
53	tert-amyl alcohol	0.068	0.068	0.0	97	0.00	10.59
54 I	1,4-difluorobenzene	1.000	1.000	0.0	91	0.00	11.11
55 S	1,2-dichloroethane-d4 (s)	0.356	0.343	3.7	85	-0.01	10.63
56 M	benzene	1.254	1.208	3.7	89	0.00	10.73
57 M	iso-octane	1.234	1.251	-1.4	95	0.00	10.78
58	tert-amyl methyl ether	1.092	1.123	-2.8	95	0.00	10.79
59 M	heptane	0.236	0.208	11.9	82	0.00	10.95
60 M	isopropyl acetate	0.078	0.077	1.3	88	0.00	10.67
61 M	1,2-dichloroethane	0.397	0.380	4.3	89	0.00	10.73
62	n-butyl alcohol	0.019	0.020	-5.3	97	0.00	11.21
63	ethyl acrylate	0.431	0.364	15.5	80	0.00	11.47
64 M	trichloroethene	0.283	0.285	-0.7	90	0.00	11.47
65 M	2-nitropropane						
66 m	methylcyclohexane	0.634	0.611	3.6	89	0.00	11.73
67 M	2-chloroethyl vinyl ether	0.186	0.105	43.5#	54	0.00	12.30
68 M	methyl methacrylate						
69 M	1,2-dichloropropane	0.334	0.293	12.3	83	0.00	11.74
70 M	dibromomethane	0.191	0.196	-2.6	93	-0.01	11.88
71 M	bromodichloromethane	0.388	0.391	-0.8	91	0.00	12.02
72	epichlorohydrin	0.047	0.041	12.8	82	0.00	12.41
73 M	cis-1,3-dichloropropene	0.467	0.453	3.0	92	0.00	12.53
74 M	4-methyl-2-pentanone	0.180	0.168	6.7	85	0.00	12.65
75 M	3-methyl-1-butanol	0.032	0.032	0.0	92	0.00	12.64
76 I	chlorobenzene-d5	1.000	1.000	0.0	98	0.00	14.51
77 S	toluene-d8 (s)	1.336	1.272	4.8	92	0.00	12.86
78	toluene	0.845	0.767	9.2	91	0.00	12.93
79	trans-1,3-dichloropropene	0.469	0.462	1.5	96	0.00	13.12
80	ethyl methacrylate						
81	1,1,2-trichloroethane	0.254	0.246	3.1	93	0.00	13.36
82	2-hexanone	0.182	0.170	6.6	91	0.00	13.57
83 M	tetrachloroethene	0.333	0.329	1.2	95	0.00	13.58
84 M	1,3-dichloropropane	0.492	0.472	4.1	96	0.00	13.56
85 M	butyl acetate	20.000	16.728	16.4	81	0.00	13.66
86	3,3-dimethyl-1-butanol						
87 M	dibromochloromethane	0.339	0.342	-0.9	103	0.00	13.84
88 M	1,2-dibromoethane	0.300	0.328	-9.3	105	0.00	14.02
89 M	n-butyl ether	1.547	1.361	12.0	82	0.00	14.48
90 M	chlorobenzene	0.820	0.838	-2.2	102	0.00	14.54
91 M	1,1,1,2-tetrachloroethane	0.395	0.403	-2.0	96	0.00	14.61

6.11.9
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Continuing Calibration Summary

Page 3 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9208-CC9165
Lab FileID: A241577.D

92 M	ethylbenzene	1.482	1.414	4.6	94	0.00	14.62
93 M	m,p-xylene	0.561	0.554	1.2	97	0.00	14.74
94 M	o-xylene	0.610	0.604	1.0	92	0.00	15.20
95 M	styrene	0.906	0.892	1.5	98	0.00	15.21
96	butyl acrylate	0.717	0.631	12.0	82	0.00	15.01
97 M	bromoform	0.219	0.250	-14.2	107	0.00	15.48
98	isopropylbenzene	1.662	1.629	2.0	91	0.00	15.60
99	cis-1,4-dichloro-2-butene	0.166	0.149	10.2	84	0.00	15.64
100 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	100	0.00	17.11
101 S	4-bromofluorobenzene (s)	0.814	0.797	2.1	98	0.00	15.80
102 M	bromobenzene	0.664	0.685	-3.2	104	0.00	16.02
103 M	1,1,2,2-tetrachloroethane	0.963	0.947	1.7	98	0.00	15.90
104 M	trans-1,4-dichloro-2-bute			-----NA-----			
105 M	1,2,3-trichloropropane	0.229	0.238	-3.9	103	0.00	15.99
106 M	n-propylbenzene	3.408	3.195	6.3	94	-0.01	16.05
107 M	2-chlorotoluene	0.696	0.697	-0.1	98	0.00	16.21
108 M	4-chlorotoluene	1.798	1.768	1.7	99	0.00	16.32
109	4-ethyltoluene			-----NA-----			
110 M	1,3,5-trimethylbenzene	2.649	2.485	6.2	94	0.00	16.22
111 M	tert-butylbenzene	0.540	0.536	0.7	97	0.00	16.62
112 M	1,2,4-trimethylbenzene	2.584	2.447	5.3	94	0.00	16.66
113 M	sec-butylbenzene	3.453	3.383	2.0	94	0.00	16.86
114 M	1,3-dichlorobenzene	1.270	1.294	-1.9	101	0.00	17.05
115 M	p-isopropyltoluene	2.860	2.775	3.0	94	-0.01	16.99
116 M	1,4-dichlorobenzene	1.291	1.338	-3.6	103	0.00	17.14
117 M	1,2-dichlorobenzene	1.390	1.394	-0.3	100	0.00	17.58
118	1,4-diethylbenzene	0.000	0.029	0.0	0#	0.04	17.45
119 M	n-butylbenzene	1.503	1.404	6.6	91	0.00	17.46
120	1,2,4,5-tetramethylbenzen	0.000	0.025	0.0	0#	0.13	18.41
121 M	1,2-dibromo-3-chloropropa	0.260	0.296	-13.8	114	-0.01	18.42
122 M	1,3,5-trichlorobenzene	1.316	1.318	-0.2	100	0.00	18.64
123	2-ethylhexyl acrylate	0.997	0.636	36.2#	64	-0.01	19.35
124 M	1,2,4-trichlorobenzene	1.141	1.255	-10.0	108	0.00	19.37
125 M	hexachlorobutadiene	0.478	0.523	-9.4	106	0.00	19.52
126 M	naphthalene	2.894	3.593	-24.2#	122	0.00	19.69
127 M	1,2,3-trichlorobenzene	1.031	1.291	-25.2#	123	-0.01	19.96
128 M	hexachloroethane			-----NA-----			
129	2-methylnaphthalene	1.134	1.974	-74.1#	172	-0.01	20.97
130	ethylenimine			-----NA-----			
131	bis(chloromethyl)ether			-----NA-----			

(#) = Out of Range
A240808.D MA9165.M

SPCC's out = 0 CCC's out = 0
Tue May 15 04:14:53 2018



MS Volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-16-18\v3v1685\
 Data File : 3v41954.d
 Acq On : 14 May 2018 12:23 pm
 Operator : ThienN
 Sample : jc65800-1 Inst : MS3V
 Misc : MS26190,V3V1685,6,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3V1673.M
 Quant Results File: M3V1673.RES
 Quant Time: May 16 04:12:42 2018
 Quant Title : SW-846 Method 8260C, column DB-624 60 m x 0.25 mm x 1.4 um
 QLast Update : Wed Apr 25 07:54:15 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.183	65	245225	500.00	ug/L	0.02
5) pentafluorobenzene	9.684	168	470669	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	10.638	114	637067	50.00	ug/L	-0.01
73) chlorobenzene-d5	13.873	117	600621	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	16.243	152	353757	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	9.653	113	245171	49.14	ug/L	-0.02
Spiked Amount	50.000	Range	72 - 129	Recovery	=	98.28%
52) 1,2-dichloroethane-d4 (s)	10.103	65	207650	46.06	ug/L	-0.01
Spiked Amount	50.000	Range	73 - 132	Recovery	=	92.12%
74) toluene-d8 (s)	12.347	98	716414	45.10	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	90.20%
97) 4-bromofluorobenzene (s)	15.074	95	305641	48.50	ug/L	0.00
Spiked Amount	50.000	Range	77 - 125	Recovery	=	97.00%
Target Compounds						
19) acetone	6.423	58	1146	3.64	ug/L	26
23) methylene chloride	7.136	84	1970	0.42	ug/L	80

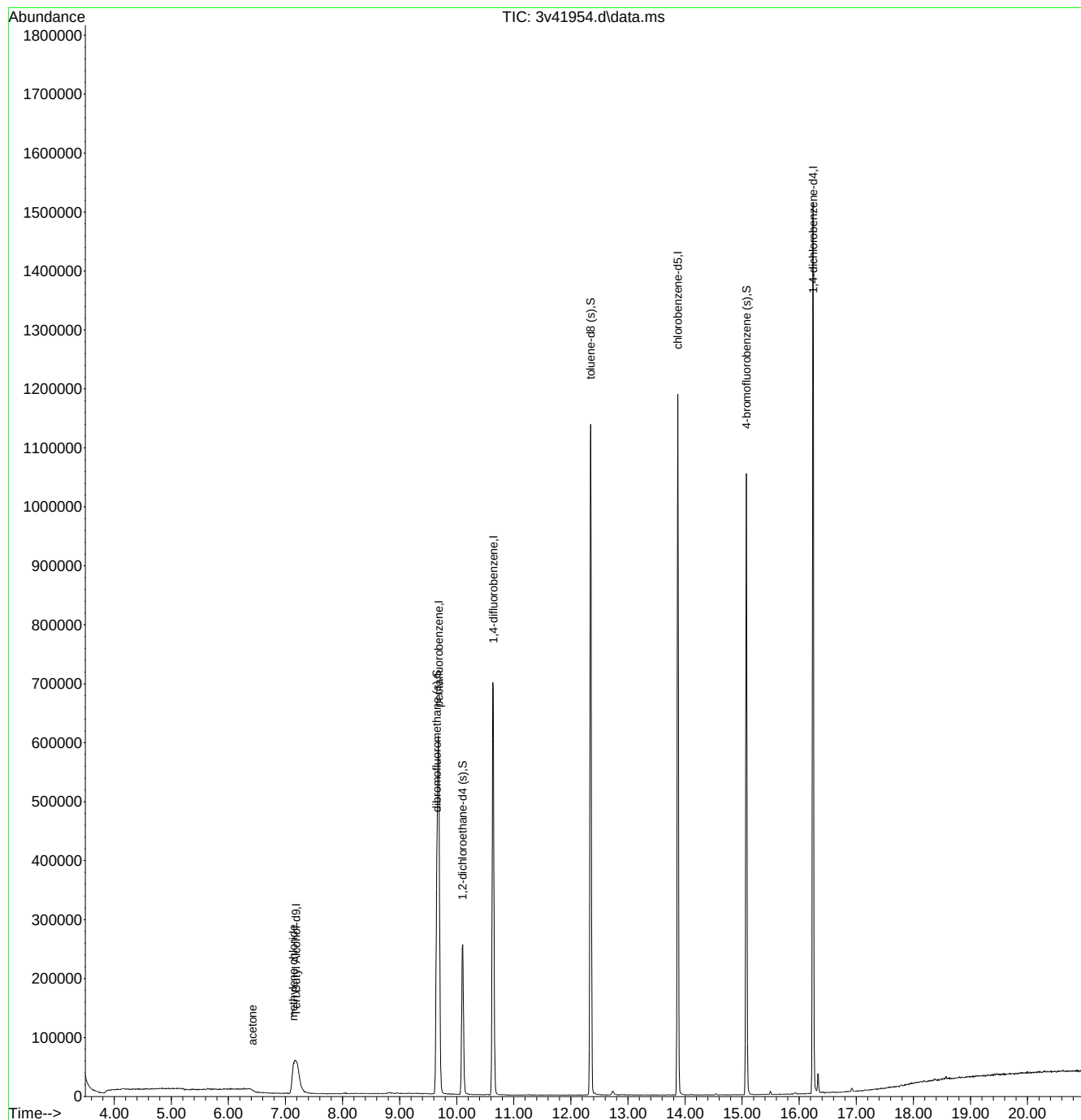
(#) = qualifier out of range (m) = manual integration (+) = signals summed

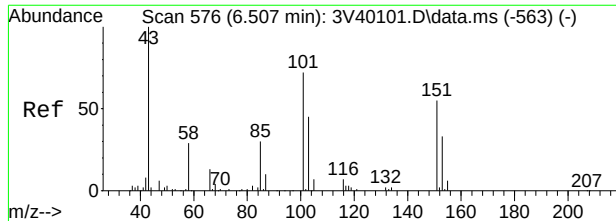
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-16-18\v3v1685\
Data File : 3v41954.d
Acq On : 14 May 2018 12:23 pm
Operator : ThienN
Sample : jc65800-1
Misc : MS26190,V3V1685,6,,,,,1
ALS Vial : 10 Sample Multiplier: 1

Inst : MS3V

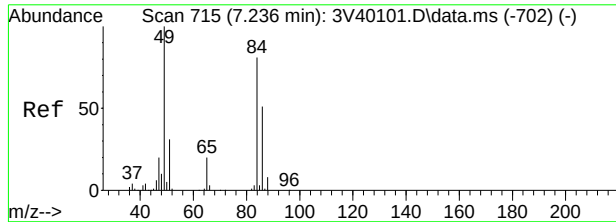
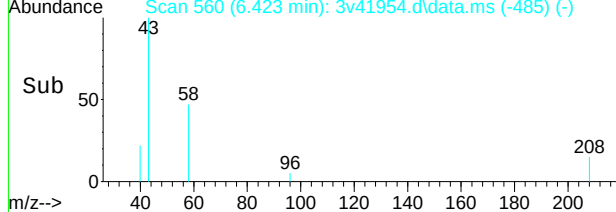
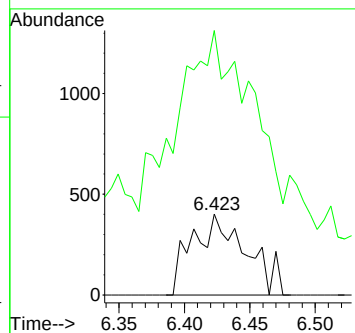
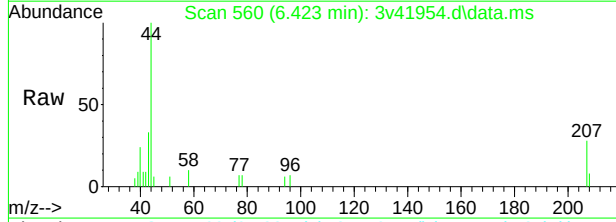
Quant Method : C:\MSDCHEM\1\METHODS\M3V1673.M
Quant Results File: M3V1673.RES
Quant Time: May 16 04:12:42 2018
Quant Title : SW-846 Method 8260C, column DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Wed Apr 25 07:54:15 2018
Response via : Initial Calibration





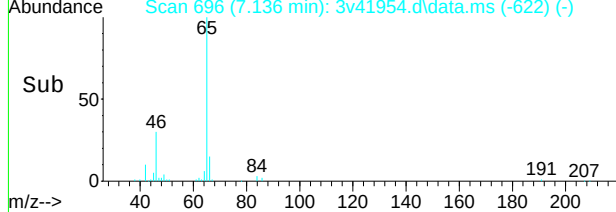
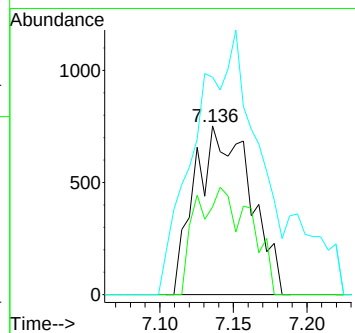
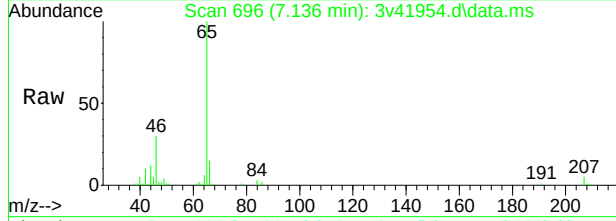
#19
acetone
Concen: 3.64 ug/L
RT: 6.423 min Scan# 560
Delta R.T. -0.005 min
Lab File: 3v41954.d
Acq: 14 May 2018 12:23 pm

Tgt Ion: 58 Resp: 1146
Ion Ratio Lower Upper
58 100
43 179.3 306.9 366.9#



#23
methylene chloride
Concen: 0.42 ug/L
RT: 7.136 min Scan# 696
Delta R.T. -0.010 min
Lab File: 3v41954.d
Acq: 14 May 2018 12:23 pm

Tgt Ion: 84 Resp: 1970
Ion Ratio Lower Upper
84 100
86 52.0 33.4 93.4
49 102.9 99.0 159.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-15-18\va9208\
Data File : a241596.d
Acq On : 14 May 2018 5:15 pm
Operator : oyinadei
Sample : JC65800-1A Inst : MSA
Misc : MS26275,VA9208,5,,,,,5
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
Quant Results File: MA9165.RES
Quant Time: May 15 04:43:02 2018
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 17 15:31:13 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.807	65	305648	500.00	ug/L	0.00
5) pentafluorobenzene	10.171	168	207315	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.108	114	304788	50.00	ug/L	0.00
76) chlorobenzene-d5	14.507	117	255976	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.112	152	154329	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.192	113	107410	51.98	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	103.96%
55) 1,2-dichloroethane-d4 (s)	10.632	65	107203	49.38	ug/L	-0.01
Spiked Amount	50.000	Range	81 - 124	Recovery	=	98.76%
77) toluene-d8 (s)	12.855	98	325786	47.63	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	95.26%
101) 4-bromofluorobenzene (s)	15.804	95	119313	47.46	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	94.92%

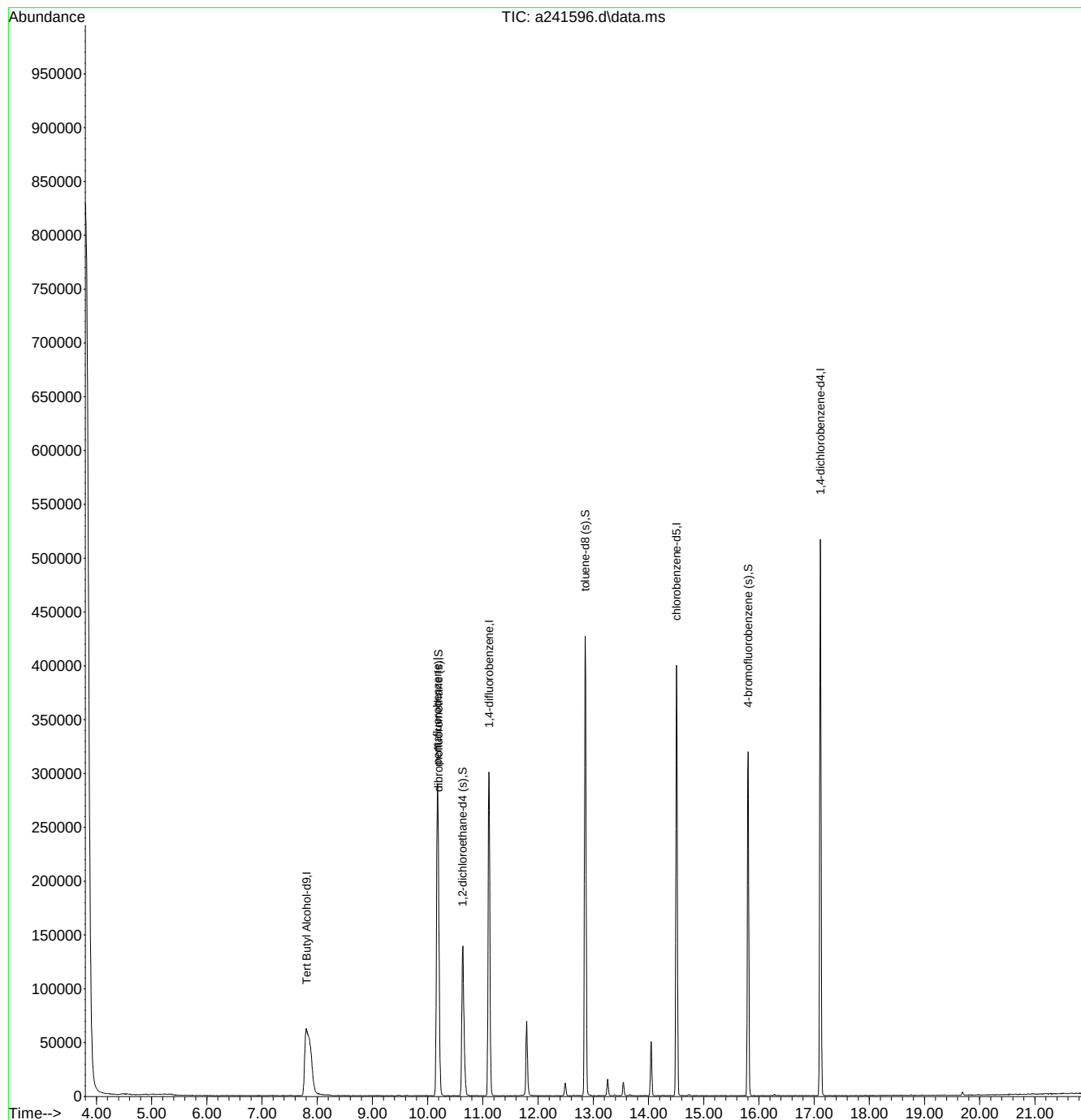
Target Compounds	Qvalue
------------------	--------

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-15-18\va9208\
Data File : a241596.d
Acq On : 14 May 2018 5:15 pm
Operator : ovinadei
Sample : JC65800-1A Inst : MSA
Misc : MS26275,VA9208,5,,,,,5
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
Quant Results File: MA9165.RES
Quant Time: May 15 04:43:02 2018
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 17 15:31:13 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-16-18\v3v1685\
 Data File : 3v41955.d
 Acq On : 14 May 2018 12:50 pm
 Operator : ThienN
 Sample : jc65800-2 Inst : MS3V
 Misc : MS26190,V3V1685,5.6,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3V1673.M
 Quant Results File: M3V1673.RES
 Quant Time: May 16 04:13:51 2018
 Quant Title : SW-846 Method 8260C, column DB-624 60 m x 0.25 mm x 1.4 um
 QLast Update : Wed Apr 25 07:54:15 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.183	65	223857	500.00	ug/L	0.02
5) pentafluorobenzene	9.684	168	446549	50.00	ug/L	-0.01
51) 1,4-difluorobenzene	10.633	114	602076	50.00	ug/L	-0.02
73) chlorobenzene-d5	13.873	117	557677	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	16.243	152	318285	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	9.653	113	237002	50.07	ug/L	-0.02
Spiked Amount	50.000	Range	72 - 129	Recovery	=	100.14%
52) 1,2-dichloroethane-d4 (s)	10.098	65	200397	47.04	ug/L	-0.02
Spiked Amount	50.000	Range	73 - 132	Recovery	=	94.08%
74) toluene-d8 (s)	12.342	98	681309	46.19	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.38%
97) 4-bromofluorobenzene (s)	15.074	95	279025	49.21	ug/L	0.00
Spiked Amount	50.000	Range	77 - 125	Recovery	=	98.42%
Target Compounds						
23) methylene chloride	7.147	84	1962	0.44	ug/L	Qvalue # 75

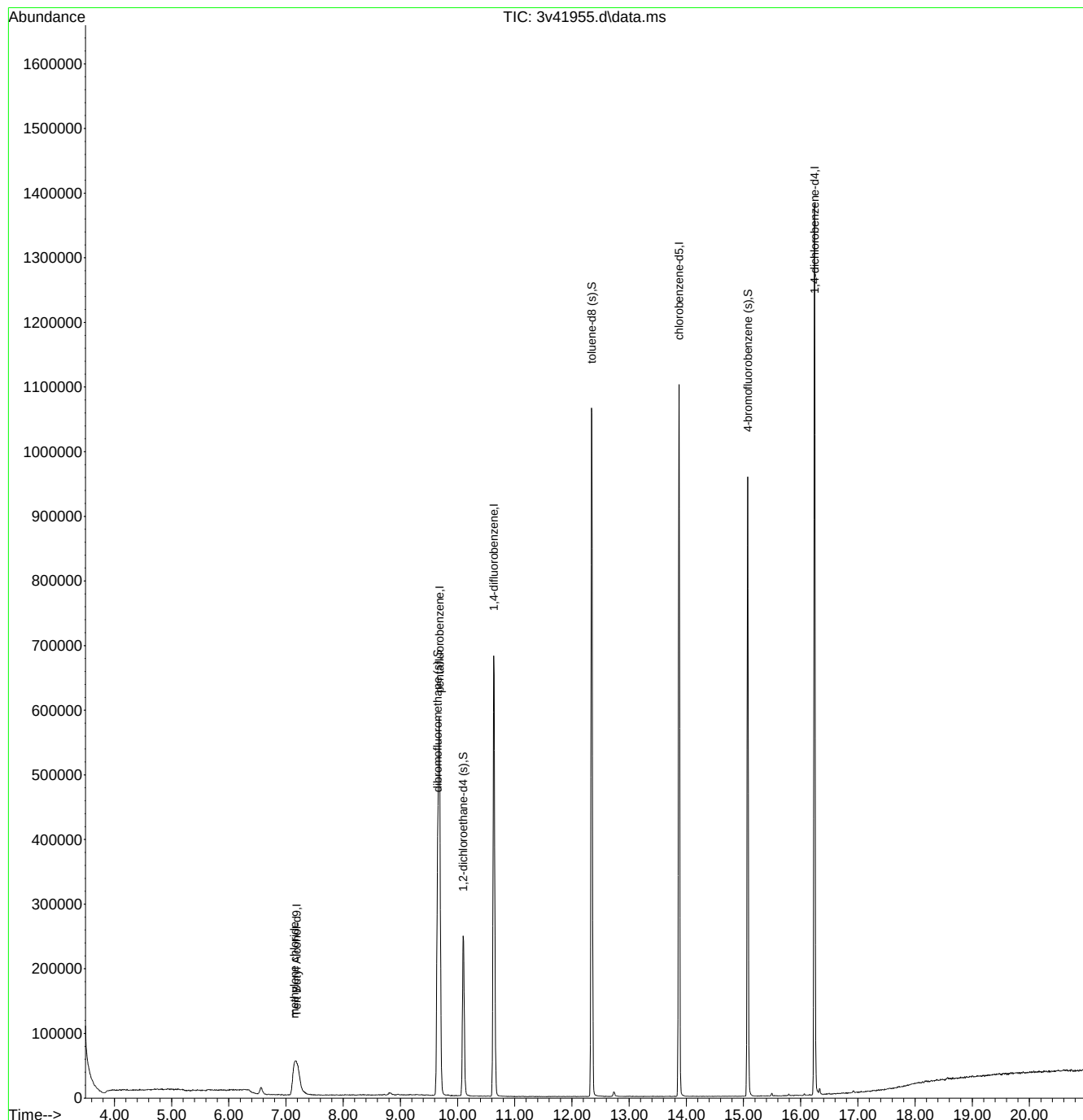
(#) = qualifier out of range (m) = manual integration (+) = signals summed

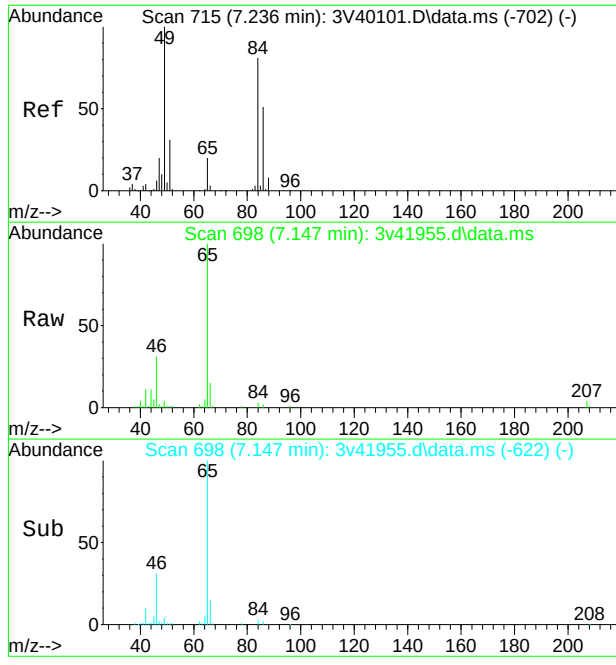
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-16-18\v3v1685\
 Data File : 3v41955.d
 Acq On : 14 May 2018 12:50 pm
 Operator : ThienN
 Sample : jc65800-2
 Misc : MS26190,V3V1685,5.6,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Inst : MS3V

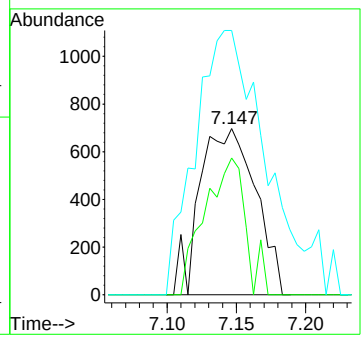
Quant Method : C:\MSDCHEM\1\METHODS\M3V1673.M
 Quant Results File: M3V1673.RES
 Quant Time: May 16 04:13:51 2018
 Quant Title : SW-846 Method 8260C, column DB-624 60 m x 0.25 mm x 1.4 um
 QLast Update : Wed Apr 25 07:54:15 2018
 Response via : Initial Calibration





#23
methylene chloride
Concen: 0.44 ug/L
RT: 7.147 min Scan# 698
Delta R.T. 0.001 min
Lab File: 3v41955.d
Acq: 14 May 2018 12:50 pm

Tgt Ion	Ratio	Lower	Upper
84	100		
86	82.4	33.4	93.4
49	159.1	99.0	159.0#



7.1.3
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-15-18\va9208\
 Data File : a241597.d
 Acq On : 14 May 2018 5:45 pm
 Operator : oyinadei
 Sample : JC65800-2A Inst : MSA
 Misc : MS26275,VA9208,5,,,,,5
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
 Quant Results File: MA9165.RES
 Quant Time: May 15 04:44:14 2018
 Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Apr 17 15:31:13 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.800	65	316193	500.00	ug/L	0.00
5) pentafluorobenzene	10.174	168	206700	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.110	114	296262	50.00	ug/L	0.00
76) chlorobenzene-d5	14.510	117	252508	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.115	152	152280	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.195	113	105614	51.26	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.52%
55) 1,2-dichloroethane-d4 (s)	10.629	65	104933	49.72	ug/L	-0.01
Spiked Amount	50.000	Range	81 - 124	Recovery	=	99.44%
77) toluene-d8 (s)	12.852	98	321563	47.66	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	95.32%
101) 4-bromofluorobenzene (s)	15.802	95	117307	47.29	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	94.58%

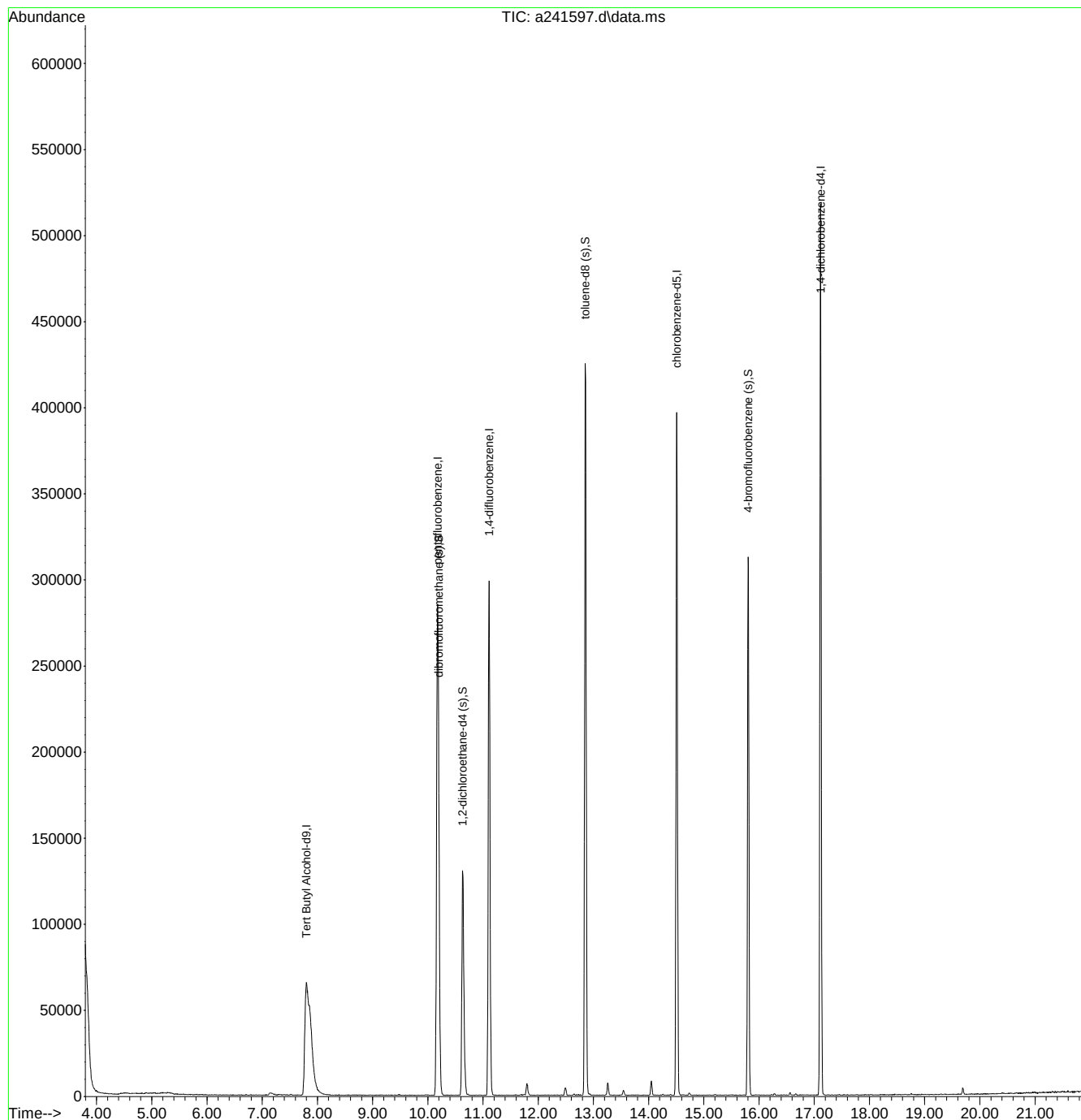
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-15-18\va9208\
Data File : a241597.d
Acq On : 14 May 2018 5:45 pm
Operator : oyinadei
Sample : JC65800-2A Inst : MSA
Misc : MS26275,VA9208,5,,,,,5
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
Quant Results File: MA9165.RES
Quant Time: May 15 04:44:14 2018
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 17 15:31:13 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3V41950.D
Acq On : 14 May 2018 10:30 am
Operator : ThienN
Sample : mb
Misc : MS26248,V3V1685,5,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 14 11:46:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3V1673.M
Quant Title : SW-846 Method 8260C, column DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Wed Apr 25 10:59:43 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Tert Butyl Alcohol-d9	7.152	65	242705	500.00	ug/L	-0.02
5) pentafluorobenzene	9.679	168	404949	50.00	ug/L	-0.02
51) 1,4-difluorobenzene	10.633	114	550637	50.00	ug/L	-0.02
73) chlorobenzene-d5	13.873	117	530489	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	16.243	152	313521	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	9.647	113	214240	49.91	ug/L	-0.02
Spiked Amount 50.000	Range 72 - 129		Recovery	=	99.82%	
52) 1,2-dichloroethane-d4 (s)	10.098	65	181214	46.51	ug/L	-0.02
Spiked Amount 50.000	Range 73 - 132		Recovery	=	93.02%	
74) toluene-d8 (s)	12.347	98	629419	44.86	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	89.72%	
97) 4-bromofluorobenzene (s)	15.074	95	270561	48.44	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery	=	96.88%	

Target Compounds Qvalue

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

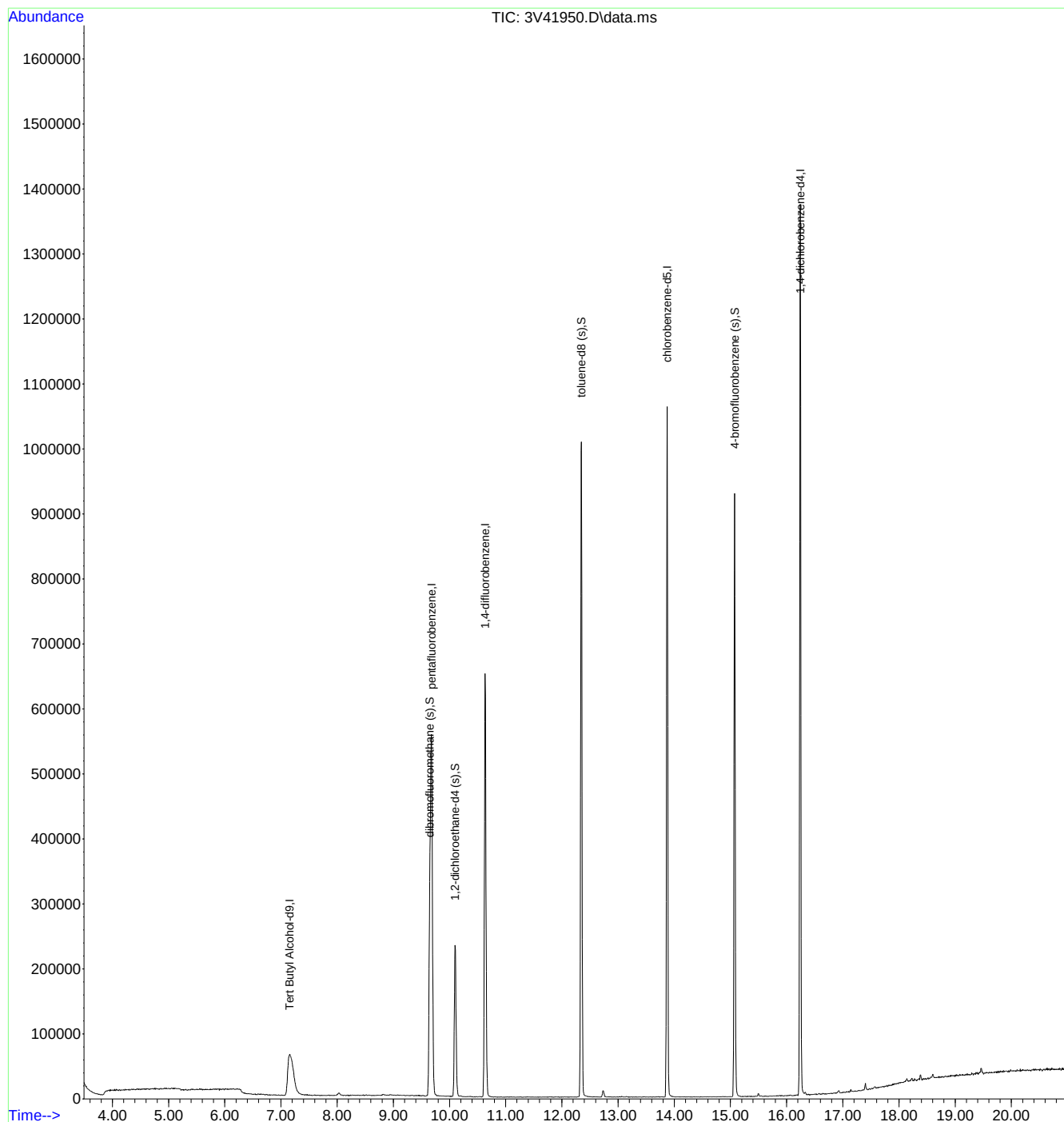
7.2.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3V41950.D
Acq On : 14 May 2018 10:30 am
Operator : ThienN
Sample : mb
Misc : MS26248,V3V1685,5,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 14 11:46:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3V1673.M
Quant Title : SW-846 Method 8260C, column DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Wed Apr 25 10:59:43 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-15-18\va9208\
Data File : a241580.d
Acq On : 14 May 2018 8:47 am
Operator : oyinadei
Sample : mb Inst : MSA
Misc : MS26219,VA9208,5,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
Quant Results File: MA9165.RES
Quant Time: May 15 04:22:02 2018
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 17 15:31:13 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.813	65	330455	500.00	ug/L	0.00
5) pentafluorobenzene	10.177	168	221760	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.113	114	319894	50.00	ug/L	0.00
76) chlorobenzene-d5	14.507	117	271421	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.112	152	161732	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.198	113	110935	50.19	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.38%
55) 1,2-dichloroethane-d4 (s)	10.637	65	111367	48.87	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	97.74%
77) toluene-d8 (s)	12.855	98	339175	46.77	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.54%
101) 4-bromofluorobenzene (s)	15.804	95	123206	46.77	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.54%

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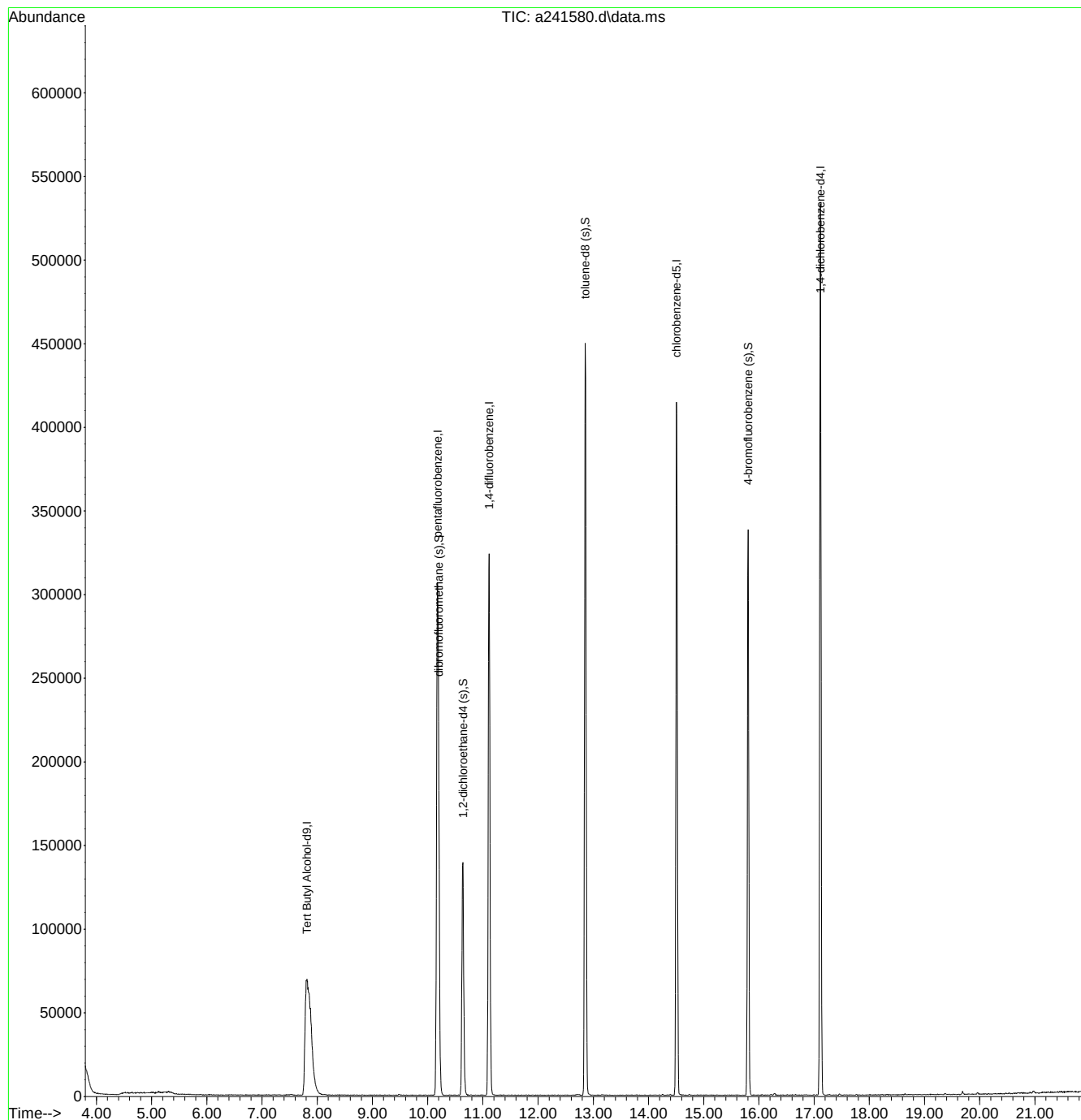
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-15-18\va9208\
Data File : a241580.d
Acq On : 14 May 2018 8:47 am
Operator : oyinadei
Sample : mb
Misc : MS26219,VA9208,5,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Inst : MSA

Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
Quant Results File: MA9165.RES
Quant Time: May 15 04:22:02 2018
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 17 15:31:13 2018
Response via : Initial Calibration



MS Semi-volatiles

QC Data Summaries

∞

Includes the following where applicable:

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

Method Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11923-MB1	2P79480.D	1	05/12/18	GS	05/11/18	OP11923	E2P3500

The QC reported here applies to the following samples: Method: SW846 8270D

JC65800-1, JC65800-2

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	67	16	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	20	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	28	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	59	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	170	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	36	ug/kg	
95-48-7	2-Methylphenol	ND	67	21	ug/kg	
	3&4-Methylphenol	ND	67	27	ug/kg	
88-75-5	2-Nitrophenol	ND	170	22	ug/kg	
100-02-7	4-Nitrophenol	ND	330	89	ug/kg	
87-86-5	Pentachlorophenol	ND	130	31	ug/kg	
108-95-2	Phenol	ND	67	17	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	170	22	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	25	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	20	ug/kg	
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
98-86-2	Acetophenone	ND	170	7.2	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
1912-24-9	Atrazine	ND	67	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	67	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	67	8.1	ug/kg	
92-52-4	1,1'-Biphenyl	ND	67	4.6	ug/kg	
100-52-7	Benzaldehyde	ND	170	8.3	ug/kg	
91-58-7	2-Chloronaphthalene	ND	67	7.9	ug/kg	
106-47-8	4-Chloroaniline	ND	170	12	ug/kg	
86-74-8	Carbazole	ND	67	4.8	ug/kg	
105-60-2	Caprolactam	ND	67	13	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	67	7.1	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	67	14	ug/kg	

8.1.1
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Method Blank Summary

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Job Number: JC65800

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11923-MB1	2P79480.D	1	05/12/18	GS	05/11/18	OP11923	E2P3500

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65800-1, JC65800-2

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	67	12	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	67	11	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	33	10	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	33	17	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	67	28	ug/kg	
123-91-1	1,4-Dioxane	ND	33	22	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
132-64-9	Dibenzofuran	ND	67	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	67	5.4	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	67	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	67	7.1	ug/kg	
131-11-3	Dimethyl phthalate	ND	67	5.9	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	67	7.8	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	67	8.4	ug/kg	
87-68-3	Hexachlorobutadiene	ND	33	13	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	330	13	ug/kg	
67-72-1	Hexachloroethane	ND	170	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
78-59-1	Isophorone	ND	67	7.1	ug/kg	
91-57-6	2-Methylnaphthalene	ND	33	7.5	ug/kg	
88-74-4	2-Nitroaniline	ND	170	7.9	ug/kg	
99-09-2	3-Nitroaniline	ND	170	8.3	ug/kg	
100-01-6	4-Nitroaniline	ND	170	8.6	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
98-95-3	Nitrobenzene	ND	67	13	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	67	9.6	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	12	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	170	8.5	ug/kg	

8.1.1

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Method Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11923-MB1	2P79480.D	1	05/12/18	GS	05/11/18	OP11923	E2P3500

The QC reported here applies to the following samples: Method: SW846 8270D

JC65800-1, JC65800-2

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	63% 23-115%
4165-62-2	Phenol-d5	66% 27-114%
118-79-6	2,4,6-Tribromophenol	94% 19-152%
4165-60-0	Nitrobenzene-d5	75% 26-134%
321-60-8	2-Fluorobiphenyl	90% 39-124%
1718-51-0	Terphenyl-d14	92% 36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	1.87	140	ug/kg	J
	system artifact	2.73	290	ug/kg	J
	Total TIC, Semi-Volatile		0	ug/kg	

Method Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12025-MB2	6P473090.D	1	05/18/18	SA	05/18/18	OP12025	E6P2215

The QC reported here applies to the following samples: Method: SW846 8270D

JC65800-1A, JC65800-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.17	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.0	0.55	ug/l	
118-74-1	Hexachlorobenzene	ND	2.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.39	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
110-86-1	Pyridine	ND	2.0	0.39	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	42% 14-88%
4165-62-2	Phenol-d5	25% 10-110%
118-79-6	2,4,6-Tribromophenol	63% 39-149%
4165-60-0	Nitrobenzene-d5	69% 32-128%
321-60-8	2-Fluorobiphenyl	73% 35-119%
1718-51-0	Terphenyl-d14	93% 10-126%

8.1.2
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Method Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12025-MB1	2M104090.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627

The QC reported here applies to the following samples: Method: SW846 8270D

OP12025-LB10, OP12025-LB11, OP12025-LB13, OP12025-LS6, OP12025-MS, OP12025-MSD

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.17	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.0	0.55	ug/l	
118-74-1	Hexachlorobenzene	ND	2.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.39	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
110-86-1	Pyridine	ND	2.0	0.39	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	46% 14-88%
4165-62-2	Phenol-d5	31% 10-110%
118-79-6	2,4,6-Tribromophenol	95% 39-149%
4165-60-0	Nitrobenzene-d5	93% 32-128%
321-60-8	2-Fluorobiphenyl	95% 35-119%
1718-51-0	Terphenyl-d14	99% 10-126%

8.1.3
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Leachate Blank Summary

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Job Number: JC65800

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12025-LB10	2M104091.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65800-1A, JC65800-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	20	8.9	ug/l	
	3&4-Methylphenol	ND	20	8.8	ug/l	
87-86-5	Pentachlorophenol	ND	100	14	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	50	13	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	50	9.2	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	20	1.7	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	20	5.5	ug/l	
118-74-1	Hexachlorobenzene	ND	20	3.3	ug/l	
87-68-3	Hexachlorobutadiene	ND	10	4.9	ug/l	
67-72-1	Hexachloroethane	ND	50	3.9	ug/l	
98-95-3	Nitrobenzene	ND	20	6.4	ug/l	
110-86-1	Pyridine	ND	20	3.9	ug/l	

CAS No.	Surrogate Recoveries	Limits	
367-12-4	2-Fluorophenol	47%	14-88%
4165-62-2	Phenol-d5	32%	10-110%
118-79-6	2,4,6-Tribromophenol	90%	39-149%
4165-60-0	Nitrobenzene-d5	85%	32-128%
321-60-8	2-Fluorobiphenyl	89%	35-119%
1718-51-0	Terphenyl-d14	95%	10-126%

8.2.1

8

Leachate Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12025-LB11	2M104092.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627

The QC reported here applies to the following samples: Method: SW846 8270D
JC65800-1A, JC65800-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	20	8.9	ug/l	
	3&4-Methylphenol	ND	20	8.8	ug/l	
87-86-5	Pentachlorophenol	ND	100	14	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	50	13	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	50	9.2	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	20	1.7	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	20	5.5	ug/l	
118-74-1	Hexachlorobenzene	ND	20	3.3	ug/l	
87-68-3	Hexachlorobutadiene	ND	10	4.9	ug/l	
67-72-1	Hexachloroethane	ND	50	3.9	ug/l	
98-95-3	Nitrobenzene	ND	20	6.4	ug/l	
110-86-1	Pyridine	ND	20	3.9	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	48% 14-88%
4165-62-2	Phenol-d5	31% 10-110%
118-79-6	2,4,6-Tribromophenol	87% 39-149%
4165-60-0	Nitrobenzene-d5	85% 32-128%
321-60-8	2-Fluorobiphenyl	88% 35-119%
1718-51-0	Terphenyl-d14	96% 10-126%

8.2.2
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Leachate Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12025-LB13	2M104093.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627

The QC reported here applies to the following samples: Method: SW846 8270D
JC65800-1A, JC65800-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	20	8.9	ug/l	
	3&4-Methylphenol	ND	20	8.8	ug/l	
87-86-5	Pentachlorophenol	ND	100	14	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	50	13	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	50	9.2	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	20	1.7	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	20	5.5	ug/l	
118-74-1	Hexachlorobenzene	ND	20	3.3	ug/l	
87-68-3	Hexachlorobutadiene	ND	10	4.9	ug/l	
67-72-1	Hexachloroethane	ND	50	3.9	ug/l	
98-95-3	Nitrobenzene	ND	20	6.4	ug/l	
110-86-1	Pyridine	ND	20	3.9	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	47% 14-88%
4165-62-2	Phenol-d5	32% 10-110%
118-79-6	2,4,6-Tribromophenol	93% 39-149%
4165-60-0	Nitrobenzene-d5	87% 32-128%
321-60-8	2-Fluorobiphenyl	90% 35-119%
1718-51-0	Terphenyl-d14	104% 10-126%

8.2.3
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Blank Spike Summary

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Job Number: JC65800

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11923-BS1	2P79481.D	1	05/12/18	GS	05/11/18	OP11923	E2P3500

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65800-1, JC65800-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-57-8	2-Chlorophenol	1670	1140	68	44-122
59-50-7	4-Chloro-3-methyl phenol	1670	1320	79	50-123
120-83-2	2,4-Dichlorophenol	1670	1440	86	48-122
105-67-9	2,4-Dimethylphenol	1670	1260	76	48-124
51-28-5	2,4-Dinitrophenol	3330	2750	83	34-146
534-52-1	4,6-Dinitro-o-cresol	1670	1430	86	49-140
95-48-7	2-Methylphenol	1670	1120	67	40-126
	3&4-Methylphenol	1670	1080	65	40-127
88-75-5	2-Nitrophenol	1670	1440	86	44-133
100-02-7	4-Nitrophenol	1670	1510	91	35-153
87-86-5	Pentachlorophenol	1670	1420	85	15-149
108-95-2	Phenol	1670	1150	69	50-109
58-90-2	2,3,4,6-Tetrachlorophenol	1670	1630	98	44-132
95-95-4	2,4,5-Trichlorophenol	1670	1380	83	45-124
88-06-2	2,4,6-Trichlorophenol	1670	1660	100	57-122
83-32-9	Acenaphthene	1670	1460	88	53-119
208-96-8	Acenaphthylene	1670	1330	80	41-125
98-86-2	Acetophenone	1670	1120	67	52-112
120-12-7	Anthracene	1670	1390	83	51-120
1912-24-9	Atrazine	1670	1520	91	49-139
56-55-3	Benzo(a)anthracene	1670	1500	90	54-118
50-32-8	Benzo(a)pyrene	1670	1460	88	55-121
205-99-2	Benzo(b)fluoranthene	1670	1400	84	57-116
191-24-2	Benzo(g,h,i)perylene	1670	1410	85	40-124
207-08-9	Benzo(k)fluoranthene	1670	1350	81	59-116
101-55-3	4-Bromophenyl phenyl ether	1670	1700	102	60-122
85-68-7	Butyl benzyl phthalate	1670	1450	87	51-134
92-52-4	1,1'-Biphenyl	1670	1290	77	46-122
100-52-7	Benzaldehyde	1670	1110	67	14-139
91-58-7	2-Chloronaphthalene	1670	1280	77	49-120
106-47-8	4-Chloroaniline	1670	651	39	10-115
86-74-8	Carbazole	1670	1450	87	52-124
105-60-2	Caprolactam	1670	1210	73	16-139
218-01-9	Chrysene	1670	1320	79	51-115
111-91-1	bis(2-Chloroethoxy)methane	1670	1220	73	36-131
111-44-4	bis(2-Chloroethyl)ether	1670	1240	74	41-131

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: JC65800

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11923-BS1	2P79481.D	1	05/12/18	GS	05/11/18	OP11923	E2P3500

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65800-1, JC65800-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
108-60-1	2,2'-Oxybis(1-chloropropane)	1670	1150	69	22-134
7005-72-3	4-Chlorophenyl phenyl ether	1670	1610	97	56-118
121-14-2	2,4-Dinitrotoluene	1670	1560	94	57-131
606-20-2	2,6-Dinitrotoluene	1670	1540	92	57-132
91-94-1	3,3'-Dichlorobenzidine	3330	2570	77	10-129
123-91-1	1,4-Dioxane	1670	811	49	10-110
53-70-3	Dibenzo(a,h)anthracene	1670	1420	85	48-121
132-64-9	Dibenzofuran	1670	1450	87	51-119
84-74-2	Di-n-butyl phthalate	1670	1580	95	59-125
117-84-0	Di-n-octyl phthalate	1670	1290	77	47-147
84-66-2	Diethyl phthalate	1670	1510	91	57-116
131-11-3	Dimethyl phthalate	1670	1470	88	56-116
117-81-7	bis(2-Ethylhexyl)phthalate	1670	1480	89	53-133
206-44-0	Fluoranthene	1670	1560	94	58-117
86-73-7	Fluorene	1670	1490	89	56-114
118-74-1	Hexachlorobenzene	1670	1610	97	50-128
87-68-3	Hexachlorobutadiene	1670	1750	105	43-129
77-47-4	Hexachlorocyclopentadiene	3330	3540	106	15-140
67-72-1	Hexachloroethane	1670	1350	81	43-123
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1460	88	49-124
78-59-1	Isophorone	1670	1220	73	38-128
91-57-6	2-Methylnaphthalene	1670	1360	82	37-124
88-74-4	2-Nitroaniline	1670	1300	78	45-144
99-09-2	3-Nitroaniline	1670	984	59	10-134
100-01-6	4-Nitroaniline	1670	1420	85	41-130
91-20-3	Naphthalene	1670	1250	75	44-116
98-95-3	Nitrobenzene	1670	1120	67	36-132
621-64-7	N-Nitroso-di-n-propylamine	1670	1040	62	38-125
86-30-6	N-Nitrosodiphenylamine	1670	1320	79	51-122
85-01-8	Phenanthrene	1670	1400	84	53-119
129-00-0	Pyrene	1670	1340	80	54-124
95-94-3	1,2,4,5-Tetrachlorobenzene	1670	1090	65	45-128

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11923-BS1	2P79481.D	1	05/12/18	GS	05/11/18	OP11923	E2P3500

The QC reported here applies to the following samples: Method: SW846 8270D

JC65800-1, JC65800-2

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	79%	23-115%
4165-62-2	Phenol-d5	67%	27-114%
118-79-6	2,4,6-Tribromophenol	107%	19-152%
4165-60-0	Nitrobenzene-d5	72%	26-134%
321-60-8	2-Fluorobiphenyl	78%	39-124%
1718-51-0	Terphenyl-d14	90%	36-134%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12025-BS2	6P473091.D	1	05/18/18	SA	05/18/18	OP12025	E6P2215

The QC reported here applies to the following samples: Method: SW846 8270D

JC65800-1A, JC65800-2A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-48-7	2-Methylphenol	500	338	68	42-103
	3&4-Methylphenol	500	318	64	39-110
87-86-5	Pentachlorophenol	500	361	72	30-136
95-95-4	2,4,5-Trichlorophenol	500	418	84	55-116
88-06-2	2,4,6-Trichlorophenol	500	458	92	56-115
106-46-7	1,4-Dichlorobenzene	500	357	71	39-110
121-14-2	2,4-Dinitrotoluene	500	511	102	57-122
118-74-1	Hexachlorobenzene	500	403	81	49-122
87-68-3	Hexachlorobutadiene	500	343	69	24-112
67-72-1	Hexachloroethane	500	330	66	31-107
98-95-3	Nitrobenzene	500	410	82	44-116
110-86-1	Pyridine	500	152	30	10-110

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	46%	14-88%
4165-62-2	Phenol-d5	33%	10-110%
118-79-6	2,4,6-Tribromophenol	72%	39-149%
4165-60-0	Nitrobenzene-d5	80%	32-128%
321-60-8	2-Fluorobiphenyl	85%	35-119%
1718-51-0	Terphenyl-d14	95%	10-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11923-MS	2P79490.D	1	05/12/18	GS	05/11/18	OP11923	E2P3500
OP11923-MSD	2P79491.D	1	05/12/18	GS	05/11/18	OP11923	E2P3500
JC65784-4	2P79492.D	1	05/12/18	GS	05/11/18	OP11923	E2P3500

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65800-1, JC65800-2

CAS No.	Compound	JC65784-4 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND		1910	59	1850	1060	57	6	10-137/34
59-50-7	4-Chloro-3-methyl phenol	ND		1910	66	1850	1210	66	3	11-147/35
120-83-2	2,4-Dichlorophenol	ND		1910	72	1850	1320	71	4	15-140/34
105-67-9	2,4-Dinitrophenol	ND		1910	60	1850	1190	64	3	10-151/34
51-28-5	2,4-Dinitrophenol	ND		3810	33	3690	1180	32	6	10-148/49
534-52-1	4,6-Dinitro-o-cresol	ND		1910	54	1850	964	52	7	10-150/48
95-48-7	2-Methylphenol	ND		1910	56	1850	1040	56	2	10-138/33
	3&4-Methylphenol	ND		1910	52	1850	952	52	4	10-143/33
88-75-5	2-Nitrophenol	ND		1910	72	1850	1300	70	5	10-150/39
100-02-7	4-Nitrophenol	ND		1910	74	1850	1400	76	1	10-163/38
87-86-5	Pentachlorophenol	ND		1910	62	1850	1170	63	1	10-148/39
108-95-2	Phenol	ND		1910	57	1850	1040	56	5	24-114/32
58-90-2	2,3,4,6-Tetrachlorophenol	ND		1910	83	1850	1460	79	8	14-140/38
95-95-4	2,4,5-Trichlorophenol	ND		1910	72	1850	1310	71	4	10-146/36
88-06-2	2,4,6-Trichlorophenol	ND		1910	85	1850	1530	83	6	16-148/36
83-32-9	Acenaphthene	ND		1910	72	1850	1280	69	7	21-136/34
208-96-8	Acenaphthylene	ND		1910	69	1850	1210	66	8	10-143/36
98-86-2	Acetophenone	ND		1910	57	1850	1010	55	8	24-127/31
120-12-7	Anthracene	ND		1910	69	1850	1230	67	7	10-147/39
1912-24-9	Atrazine	ND		1910	72	1850	1290	70	6	10-161/38
56-55-3	Benzo(a)anthracene	78.2		1910	68	1850	1300	66	5	10-151/41
50-32-8	Benzo(a)pyrene	82.8		1910	67	1850	1270	64	7	10-149/40
205-99-2	Benzo(b)fluoranthene	89.6		1910	66	1850	1220	61	9	10-147/42
191-24-2	Benzo(g,h,i)perylene	56.0		1910	72	1850	1280	66	10	10-150/41
207-08-9	Benzo(k)fluoranthene	41.8		1910	69	1850	1310	69	4	12-142/41
101-55-3	4-Bromophenyl phenyl ether	ND		1910	83	1850	1470	80	7	26-138/37
85-68-7	Butyl benzyl phthalate	ND		1910	70	1850	1270	69	5	24-143/36
92-52-4	1,1'-Biphenyl	ND		1910	67	1850	1170	63	9	18-138/32
100-52-7	Benzaldehyde	25.8	J	1910	54	1850	1030	54	3	10-149/37
91-58-7	2-Chloronaphthalene	ND		1910	67	1850	1160	63	9	24-130/31
106-47-8	4-Chloroaniline	ND		1910	33	1850	478	26	28	10-111/52
86-74-8	Carbazole	ND		1910	71	1850	1250	68	8	12-146/39
105-60-2	Caprolactam	ND		1910	50	1850	967	52	1	10-147/40
218-01-9	Chrysene	93.5		1910	65	1850	1280	64	5	10-151/41
111-91-1	bis(2-Chloroethoxy)methane	ND		1910	60	1850	1090	59	4	10-144/35
111-44-4	bis(2-Chloroethyl)ether	ND		1910	60	1850	1060	57	8	12-142/35

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11923-MS	2P79490.D	1	05/12/18	GS	05/11/18	OP11923	E2P3500
OP11923-MSD	2P79491.D	1	05/12/18	GS	05/11/18	OP11923	E2P3500
JC65784-4	2P79492.D	1	05/12/18	GS	05/11/18	OP11923	E2P3500

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65800-1, JC65800-2

CAS No.	Compound	JC65784-4 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
108-60-1	2,2'-Oxybis(1-chloropropane)	ND		1910	58	1850	1030	56	7	10-137/33
7005-72-3	4-Chlorophenyl phenyl ether	ND		1910	78	1850	1410	76	6	21-136/35
121-14-2	2,4-Dinitrotoluene	ND		1910	77	1850	1360	74	7	14-148/41
606-20-2	2,6-Dinitrotoluene	ND		1910	77	1850	1350	73	8	14-152/40
91-94-1	3,3'-Dichlorobenzidine	ND		3810	48	3690	1550	42	17	10-137/47
123-91-1	1,4-Dioxane	ND		1910	40	1850	733	40	3	10-110/40
53-70-3	Dibenzo(a,h)anthracene	ND		1910	71	1850	1240	67	8	10-152/38
132-64-9	Dibenzofuran	ND		1910	78	1850	1360	74	9	17-141/36
84-74-2	Di-n-butyl phthalate	ND		1910	75	1850	1330	72	7	26-137/35
117-84-0	Di-n-octyl phthalate	ND		1910	62	1850	1130	61	5	23-145/36
84-66-2	Diethyl phthalate	ND		1910	76	1850	1330	72	8	25-133/35
131-11-3	Dimethyl phthalate	ND		1910	73	1850	1310	71	7	21-134/36
117-81-7	bis(2-Ethylhexyl)phthalate	ND		1910	77	1850	1400	76	5	26-144/39
206-44-0	Fluoranthene	116		1910	70	1850	1340	66	9	10-151/44
86-73-7	Fluorene	ND		1910	74	1850	1330	72	7	19-133/36
118-74-1	Hexachlorobenzene	ND		1910	79	1850	1440	78	4	18-142/37
87-68-3	Hexachlorobutadiene	ND		1910	86	1850	1560	84	5	16-137/32
77-47-4	Hexachlorocyclopentadiene	ND		3810	69	3690	2290	62	14	10-150/50
67-72-1	Hexachloroethane	ND		1910	67	1850	1170	63	9	10-131/38
193-39-5	Indeno(1,2,3-cd)pyrene	43.4		1910	70	1850	1250	65	9	10-148/41
78-59-1	Isophorone	ND		1910	59	1850	1070	58	5	11-142/33
91-57-6	2-Methylnaphthalene	ND		1910	69	1850	1250	68	5	10-141/35
88-74-4	2-Nitroaniline	ND		1910	68	1850	1180	64	10	14-156/38
99-09-2	3-Nitroaniline	ND		1910	52	1850	853	46	14	10-144/45
100-01-6	4-Nitroaniline	ND		1910	62	1850	1060	57	11	10-156/44
91-20-3	Naphthalene	ND		1910	61	1850	1120	61	4	10-136/36
98-95-3	Nitrobenzene	ND		1910	56	1850	1000	54	6	10-142/34
621-64-7	N-Nitroso-di-n-propylamine	ND		1910	53	1850	961	52	5	10-142/31
86-30-6	N-Nitrosodiphenylamine	ND		1910	66	1850	1160	63	7	10-156/37
85-01-8	Phenanthrene	55.3		1910	68	1850	1260	65	7	11-145/45
129-00-0	Pyrene	154		1910	69	1850	1420	69	3	11-155/44
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		1910	59	1850	977	53	14	23-136/32

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11923-MS	2P79490.D	1	05/12/18	GS	05/11/18	OP11923	E2P3500
OP11923-MSD	2P79491.D	1	05/12/18	GS	05/11/18	OP11923	E2P3500
JC65784-4	2P79492.D	1	05/12/18	GS	05/11/18	OP11923	E2P3500

The QC reported here applies to the following samples: Method: SW846 8270D

JC65800-1, JC65800-2

CAS No.	Surrogate Recoveries	MS	MSD	JC65784-4	Limits
367-12-4	2-Fluorophenol	63%	62%	54%	23-115%
4165-62-2	Phenol-d5	59%	59%	58%	27-114%
118-79-6	2,4,6-Tribromophenol	90%	89%	104%	19-152%
4165-60-0	Nitrobenzene-d5	61%	61%	68%	26-134%
321-60-8	2-Fluorobiphenyl	70%	68%	87%	39-124%
1718-51-0	Terphenyl-d14	77%	79%	95%	36-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12025-MS	2M104097.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627
OP12025-MSD	2M104098.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627
JC65724-2	2M104099.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627

The QC reported here applies to the following samples: Method: SW846 8270D

JC65800-1A, JC65800-2A

CAS No.	Compound	JC65724-2 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-48-7	2-Methylphenol	ND	500	343	69	500	348	70	1	47-112/18
	3&4-Methylphenol	ND	500	324	65	500	317	63	2	44-113/19
87-86-5	Pentachlorophenol	ND	500	495	99	500	540	108	9	25-151/25
95-95-4	2,4,5-Trichlorophenol	ND	500	492	98	500	524	105	6	51-124/20
88-06-2	2,4,6-Trichlorophenol	ND	500	508	102	500	525	105	3	53-120/21
106-46-7	1,4-Dichlorobenzene	ND	500	407	81	500	406	81	0	40-105/22
121-14-2	2,4-Dinitrotoluene	ND	500	519	104	500	553	111	6	54-123/27
118-74-1	Hexachlorobenzene	ND	500	438	88	500	472	94	7	46-125/24
87-68-3	Hexachlorobutadiene	ND	500	439	88	500	443	89	1	26-121/24
67-72-1	Hexachloroethane	ND	500	406	81	500	406	81	0	35-111/26
98-95-3	Nitrobenzene	ND	500	426	85	500	429	86	1	35-130/25
110-86-1	Pyridine	ND	500	220	44	500	236	47	7	12-102/41

CAS No.	Surrogate Recoveries	MS	MSD	JC65724-2	Limits
367-12-4	2-Fluorophenol	50%	50%	46%	14-88%
4165-62-2	Phenol-d5	36%	35%	31%	10-110%
118-79-6	2,4,6-Tribromophenol	95%	100%	91%	39-149%
4165-60-0	Nitrobenzene-d5	89%	90%	85%	32-128%
321-60-8	2-Fluorobiphenyl	93%	95%	89%	35-119%
1718-51-0	Terphenyl-d14	92%	99%	101%	10-126%

* = Outside of Control Limits.

Leachate Spike Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12025-LS6	2M104097.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627
JC65724-2	2M104099.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627

The QC reported here applies to the following samples: Method: SW846 8270D

JC65800-1A, JC65800-2A

CAS No.	Compound	JC65724-2 ug/l	Spike Q ug/l	LS ug/l	LS %	Limits
95-48-7	2-Methylphenol	ND	500	343	69	47-112
	3&4-Methylphenol	ND	500	324	65	44-113
87-86-5	Pentachlorophenol	ND	500	495	99	25-151
95-95-4	2,4,5-Trichlorophenol	ND	500	492	98	51-124
88-06-2	2,4,6-Trichlorophenol	ND	500	508	102	53-120
106-46-7	1,4-Dichlorobenzene	ND	500	407	81	40-105
121-14-2	2,4-Dinitrotoluene	ND	500	519	104	54-123
118-74-1	Hexachlorobenzene	ND	500	438	88	46-125
87-68-3	Hexachlorobutadiene	ND	500	439	88	26-121
67-72-1	Hexachloroethane	ND	500	406	81	35-111
98-95-3	Nitrobenzene	ND	500	426	85	35-130
110-86-1	Pyridine	ND	500	220	44	12-102

CAS No.	Surrogate Recoveries	LS	JC65724-2	Limits
367-12-4	2-Fluorophenol	50%	46%	14-88%
4165-62-2	Phenol-d5	36%	31%	10-110%
118-79-6	2,4,6-Tribromophenol	95%	91%	39-149%
4165-60-0	Nitrobenzene-d5	89%	85%	32-128%
321-60-8	2-Fluorobiphenyl	93%	89%	35-119%
1718-51-0	Terphenyl-d14	92%	101%	10-126%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-DFTPP
Lab File ID: 2M103893.D
Instrument ID: GCMS2M
Injection Date: 05/09/18
Injection Time: 10:22

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	176008	35.4	Pass
68	Less than 2.0% of mass 69	2989	0.60 (1.53) ^a	Pass
69	Mass 69 relative abundance	194999	39.2	Pass
70	Less than 2.0% of mass 69	895	0.18 (0.46) ^a	Pass
127	40.0 - 60.0% of mass 198	246965	49.6	Pass
197	Less than 1.0% of mass 198	4345	0.87	Pass
198	Base peak, 100% relative abundance	497856	100.0	Pass
199	5.0 - 9.0% of mass 198	32775	6.58	Pass
275	10.0 - 30.0% of mass 198	122106	24.5	Pass
365	1.0 - 100.0% of mass 198	14865	2.99	Pass
441	Present, but less than mass 443	46565	9.35 (78.6) ^b	Pass
442	40.0 - 100.0% of mass 198	323541	65.0	Pass
443	17.0 - 23.0% of mass 442	59280	11.9 (18.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4618-IC4618	2M103895.D	05/09/18	11:56	01:34	Initial cal 100
E2M4618-IC4618	2M103896.D	05/09/18	12:22	02:00	Initial cal 80
E2M4618-ICC4618	2M103897.D	05/09/18	12:47	02:25	Initial cal 50
E2M4618-IC4618	2M103898.D	05/09/18	13:13	02:51	Initial cal 25
E2M4618-IC4618	2M103899.D	05/09/18	13:38	03:16	Initial cal 10
E2M4618-IC4618	2M103900.D	05/09/18	14:04	03:42	Initial cal 5
E2M4618-IC4618	2M103901.D	05/09/18	14:29	04:07	Initial cal 2
E2M4618-IC4618	2M103902.D	05/09/18	14:55	04:33	Initial cal 1

Instrument Performance Check (DFTPP)

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-DFTPP
Lab File ID: 2M103903.D
Instrument ID: GCMS2M
Injection Date: 05/09/18
Injection Time: 18:30

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	205172	37.4	Pass
68	Less than 2.0% of mass 69	3087	0.56 (1.34) ^a	Pass
69	Mass 69 relative abundance	230153	42.0	Pass
70	Less than 2.0% of mass 69	1679	0.31 (0.73) ^a	Pass
127	40.0 - 60.0% of mass 198	288469	52.6	Pass
197	Less than 1.0% of mass 198	4778	0.87	Pass
198	Base peak, 100% relative abundance	548117	100.0	Pass
199	5.0 - 9.0% of mass 198	37624	6.86	Pass
275	10.0 - 30.0% of mass 198	131669	24.0	Pass
365	1.0 - 100.0% of mass 198	14986	2.73	Pass
441	Present, but less than mass 443	45789	8.35 (75.2) ^b	Pass
442	40.0 - 100.0% of mass 198	314570	57.4	Pass
443	17.0 - 23.0% of mass 442	60857	11.1 (19.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4619-IC4619	2M103904.D	05/09/18	18:59	00:29	Initial cal 100
E2M4619-IC4619	2M103905.D	05/09/18	19:25	00:55	Initial cal 80
E2M4619-ICC4619	2M103906.D	05/09/18	19:50	01:20	Initial cal 50
E2M4619-IC4619	2M103907.D	05/09/18	20:16	01:46	Initial cal 25
E2M4619-IC4619	2M103908.D	05/09/18	20:41	02:11	Initial cal 10
E2M4619-IC4619	2M103909.D	05/09/18	21:06	02:36	Initial cal 5
E2M4619-IC4619	2M103910.D	05/09/18	21:32	03:02	Initial cal 2
E2M4619-IC4619	2M103911.D	05/09/18	21:57	03:27	Initial cal 1
E2M4619-ICV4618	2M103912.D	05/09/18	22:23	03:53	Initial cal verification 50
E2M4619-ICV4618	2M103913.D	05/09/18	22:48	04:18	Initial cal verification 50
E2M4619-ICV4619	2M103915A.D	05/09/18	23:38	05:08	Initial cal verification 50
E2M4619-ICV4618	2M103915.D	05/09/18	23:38	05:08	Initial cal verification 50
E2M4619-ICV4618	2M103916.D	05/10/18	00:04	05:34	Initial cal verification 50
E2M4619-ICV4619	2M103916A.D	05/10/18	00:04	05:34	Initial cal verification 50
E2M4619-ICV4618	2M103917.D	05/10/18	00:29	05:59	Initial cal verification 50
E2M4619-ICV4619	2M103918.D	05/10/18	02:14	07:44	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4620-DFTPP
Lab File ID: 2M103920.D
Instrument ID: GCMS2M
Injection Date: 05/11/18
Injection Time: 13:43

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	130877	34.6	Pass
68	Less than 2.0% of mass 69	2584	0.68 (1.71) ^a	Pass
69	Mass 69 relative abundance	151216	40.0	Pass
70	Less than 2.0% of mass 69	823	0.22 (0.54) ^a	Pass
127	40.0 - 60.0% of mass 198	189864	50.2	Pass
197	Less than 1.0% of mass 198	3129	0.83	Pass
198	Base peak, 100% relative abundance	378218	100.0	Pass
199	5.0 - 9.0% of mass 198	24697	6.53	Pass
275	10.0 - 30.0% of mass 198	90376	23.9	Pass
365	1.0 - 100.0% of mass 198	11279	2.98	Pass
441	Present, but less than mass 443	34077	9.01 (76.5) ^b	Pass
442	40.0 - 100.0% of mass 198	230490	60.9	Pass
443	17.0 - 23.0% of mass 442	44552	11.8 (19.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4620-ICV4619	2M103921A.D	05/11/18	13:55	00:12	Initial cal verification 50
E2M4620-ICV4618	2M103921.D	05/11/18	13:55	00:12	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4627-DFTPP
Lab File ID: 2M104087.D
Instrument ID: GCMS2M
Injection Date: 05/16/18
Injection Time: 23:18

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	109748	36.0	Pass
68	Less than 2.0% of mass 69	2087	0.68 (1.67) ^a	Pass
69	Mass 69 relative abundance	124621	40.9	Pass
70	Less than 2.0% of mass 69	1013	0.33 (0.81) ^a	Pass
127	40.0 - 60.0% of mass 198	156373	51.3	Pass
197	Less than 1.0% of mass 198	2716	0.89	Pass
198	Base peak, 100% relative abundance	304768	100.0	Pass
199	5.0 - 9.0% of mass 198	21249	6.97	Pass
275	10.0 - 30.0% of mass 198	73189	24.0	Pass
365	1.0 - 100.0% of mass 198	8867	2.91	Pass
441	Present, but less than mass 443	25858	8.48 (82.7) ^b	Pass
442	40.0 - 100.0% of mass 198	167098	54.8	Pass
443	17.0 - 23.0% of mass 442	31275	10.3 (18.7) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4627-CC4618	2M104088.D	05/16/18	23:32	00:14	Continuing cal 25
E2M4627-CC4619	2M104089.D	05/16/18	23:57	00:39	Continuing cal 25
OP12025-MB1	2M104090.D	05/17/18	00:23	01:05	Method Blank
OP11878-MB2	2M104090.D	05/17/18	00:23	01:05	Method Blank
OP12026-MB1	2M104090.D	05/17/18	00:23	01:05	Method Blank
OP12025-LB10	2M104091.D	05/17/18	00:48	01:30	Leachate Blank
OP12025-LB11	2M104092.D	05/17/18	01:13	01:55	Leachate Blank
OP12025-LB13	2M104093.D	05/17/18	01:39	02:21	Leachate Blank
OP12026-LB15	2M104094.D	05/17/18	02:04	02:46	Leachate Blank
OP11878-LB16	2M104095.D	05/17/18	02:30	03:12	Leachate Blank
OP11878-BS2	2M104096.D	05/17/18	02:55	03:37	Blank Spike
OP12026-BS1	2M104096.D	05/17/18	02:55	03:37	Blank Spike
OP12025-BS1	2M104096.D	05/17/18	02:55	03:37	Blank Spike
OP12025-MS	2M104097.D	05/17/18	03:20	04:02	Matrix Spike
OP12025-LS6	2M104097.D	05/17/18	03:20	04:02	Leachate Spike
OP12025-MSD	2M104098.D	05/17/18	03:46	04:28	Matrix Spike Duplicate
JC65724-2	2M104099.D	05/17/18	04:11	04:53	(used for QC only; not part of job JC65800)
ZZZZZZ	2M104100.D	05/17/18	04:37	05:19	(unrelated sample)
ZZZZZZ	2M104101.D	05/17/18	05:02	05:44	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	E2M4627-DFTPP	Injection Date:	05/16/18
Lab File ID:	2M104087.D	Injection Time:	23:18
Instrument ID:	GCMS2M		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	2M104102.D	05/17/18	05:27	06:09	(unrelated sample)
ZZZZZZ	2M104103.D	05/17/18	05:52	06:34	(unrelated sample)
ZZZZZZ	2M104104.D	05/17/18	06:18	07:00	(unrelated sample)
OP12026-MS	2M104105.D	05/17/18	06:43	07:25	Matrix Spike
OP12026-LS7	2M104105.D	05/17/18	06:43	07:25	Leachate Spike
OP12026-MSD	2M104106.D	05/17/18	07:08	07:50	Matrix Spike Duplicate
JC65923-1	2M104107.D	05/17/18	07:34	08:16	(used for QC only; not part of job JC65800)
ZZZZZZ	2M104108.D	05/17/18	07:59	08:41	(unrelated sample)
ZZZZZZ	2M104109.D	05/17/18	08:24	09:06	(unrelated sample)
ZZZZZZ	2M104110.D	05/17/18	08:50	09:32	(unrelated sample)
ZZZZZZ	2M104111.D	05/17/18	09:15	09:57	(unrelated sample)
ZZZZZZ	2M104112.D	05/17/18	09:41	10:23	(unrelated sample)
ZZZZZZ	2M104113.D	05/17/18	10:06	10:48	(unrelated sample)
ZZZZZZ	2M104114.D	05/17/18	10:31	11:13	(unrelated sample)
ZZZZZZ	2M104115.D	05/17/18	10:57	11:39	(unrelated sample)

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Instrument Performance Check (DFTPP)

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-DFTPP
Lab File ID: 2P79036.D
Instrument ID: GCMS2P
Injection Date: 05/01/18
Injection Time: 20:08

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	100824	37.2	Pass
68	Less than 2.0% of mass 69	1207	0.45 (0.86) ^a	Pass
69	Mass 69 relative abundance	140923	52.0	Pass
70	Less than 2.0% of mass 69	673	0.25 (0.48) ^a	Pass
127	40.0 - 60.0% of mass 198	151036	55.8	Pass
197	Less than 1.04% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	270763	100.0	Pass
199	5.0 - 9.0% of mass 198	19261	7.11	Pass
275	10.0 - 30.0% of mass 198	64885	24.0	Pass
365	1.0 - 100.0% of mass 198	8152	3.01	Pass
441	Present, but less than mass 443	33955	12.5 (83.8) ^b	Pass
442	40.0 - 100.0% of mass 198	216021	79.8	Pass
443	17.0 - 23.0% of mass 442	40507	15.0 (18.8) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3481-IC3481	2P79037.D	05/01/18	20:33	00:25	Initial cal 100
E2P3481-IC3481	2P79038.D	05/01/18	20:55	00:47	Initial cal 80
E2P3481-ICC3481	2P79039.D	05/01/18	21:16	01:08	Initial cal 50
E2P3481-IC3481	2P79040.D	05/01/18	21:38	01:30	Initial cal 25
E2P3481-IC3481	2P79041.D	05/01/18	22:00	01:52	Initial cal 10
E2P3481-IC3481	2P79042.D	05/01/18	22:22	02:14	Initial cal 5
E2P3481-IC3481	2P79043.D	05/01/18	22:44	02:36	Initial cal 2
E2P3481-IC3481	2P79044.D	05/01/18	23:05	02:57	Initial cal 1
E2P3481-ICV3479	2P79045.D	05/01/18	23:27	03:19	Initial cal verification 50
E2P3481-ICV3481	2P79046.D	05/01/18	23:49	03:41	Initial cal verification 50
E2P3481-ICV3481	2P79047.D	05/02/18	00:11	04:03	Initial cal verification 50
E2P3481-ICV3481	2P79048.D	05/02/18	00:32	04:24	Initial cal verification 50
E2P3481-ICV3481	2P79049.D	05/02/18	00:54	04:46	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-DFTPP
Lab File ID: 2P79079.D
Instrument ID: GCMS2P
Injection Date: 05/03/18
Injection Time: 02:24

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	47513	40.1	Pass
68	Less than 2.0% of mass 69	1010	0.85 (1.56) ^a	Pass
69	Mass 69 relative abundance	64706	54.6	Pass
70	Less than 2.0% of mass 69	314	0.26 (0.49) ^a	Pass
127	40.0 - 60.0% of mass 198	69344	58.5	Pass
197	Less than 1.04% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	118616	100.0	Pass
199	5.0 - 9.0% of mass 198	8351	7.04	Pass
275	10.0 - 30.0% of mass 198	28589	24.1	Pass
365	1.0 - 100.0% of mass 198	4437	3.74	Pass
441	Present, but less than mass 443	15602	13.2 (80.2) ^b	Pass
442	40.0 - 100.0% of mass 198	100016	84.3	Pass
443	17.0 - 23.0% of mass 442	19461	16.4 (19.5) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3484-IC3484	2P79081.D	05/03/18	03:21	00:57	Initial cal 100
E2P3484-IC3484	2P79082.D	05/03/18	03:43	01:19	Initial cal 80
E2P3484-ICC3484	2P79083.D	05/03/18	04:05	01:41	Initial cal 50
E2P3484-IC3484	2P79084.D	05/03/18	04:26	02:02	Initial cal 25
E2P3484-IC3484	2P79085.D	05/03/18	04:48	02:24	Initial cal 10
E2P3484-IC3484	2P79086.D	05/03/18	05:10	02:46	Initial cal 5
E2P3484-IC3484	2P79087.D	05/03/18	05:31	03:07	Initial cal 2
E2P3484-IC3484	2P79088.D	05/03/18	05:53	03:29	Initial cal 1
E2P3484-ICV3484	2P79089.D	05/03/18	06:14	03:50	Initial cal verification 50
E2P3484-ICV3484	2P79090.D	05/03/18	06:36	04:12	Initial cal verification 50
E2P3484-ICV3484	2P79091.D	05/03/18	06:58	04:34	Initial cal verification 50
E2P3484-ICV3484	2P79092.D	05/03/18	07:19	04:55	Initial cal verification 50
E2P3484-ICV3484	2P79093.D	05/03/18	07:41	05:17	Initial cal verification 50
E2P3484-ICV3484	2P79094.D	05/03/18	08:02	05:38	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3500-DFTPP
Lab File ID: 2P79475.D
Instrument ID: GCMS2P
Injection Date: 05/12/18
Injection Time: 00:00

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	69185	36.0	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	93410	48.6	Pass
70	Less than 2.0% of mass 69	651	0.34 (0.70) ^a	Pass
127	40.0 - 60.0% of mass 198	103371	53.8	Pass
197	Less than 1.04% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	192064	100.0	Pass
199	5.0 - 9.0% of mass 198	12814	6.67	Pass
275	10.0 - 30.0% of mass 198	50469	26.3	Pass
365	1.0 - 100.0% of mass 198	7891	4.11	Pass
441	Present, but less than mass 443	24149	12.6 (88.8) ^b	Pass
442	40.0 - 100.0% of mass 198	138533	72.1	Pass
443	17.0 - 23.0% of mass 442	27205	14.2 (19.6) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2P3500-CC3484	2P79476.D	05/12/18	00:35	00:35	Continuing cal 25
E2P3500-CC3481	2P79477.D	05/12/18	00:57	00:57	Continuing cal 25
OP11923-MB1	2P79480.D	05/12/18	02:03	02:03	Method Blank
OP11923-BS1	2P79481.D	05/12/18	02:24	02:24	Blank Spike
ZZZZZZ	2P79482.D	05/12/18	02:46	02:46	(unrelated sample)
ZZZZZZ	2P79483.D	05/12/18	03:07	03:07	(unrelated sample)
ZZZZZZ	2P79484.D	05/12/18	03:29	03:29	(unrelated sample)
ZZZZZZ	2P79485.D	05/12/18	03:50	03:50	(unrelated sample)
ZZZZZZ	2P79486.D	05/12/18	04:12	04:12	(unrelated sample)
ZZZZZZ	2P79487.D	05/12/18	04:34	04:34	(unrelated sample)
ZZZZZZ	2P79488.D	05/12/18	04:55	04:55	(unrelated sample)
ZZZZZZ	2P79489.D	05/12/18	05:16	05:16	(unrelated sample)
OP11923-MS	2P79490.D	05/12/18	05:38	05:38	Matrix Spike
OP11923-MSD	2P79491.D	05/12/18	05:59	05:59	Matrix Spike Duplicate
JC65784-4	2P79492.D	05/12/18	06:21	06:21	(used for QC only; not part of job JC65800)
ZZZZZZ	2P79493.D	05/12/18	06:42	06:42	(unrelated sample)
ZZZZZZ	2P79494.D	05/12/18	07:03	07:03	(unrelated sample)
ZZZZZZ	2P79495.D	05/12/18	07:25	07:25	(unrelated sample)
ZZZZZZ	2P79496.D	05/12/18	07:46	07:46	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	E2P3500-DFTPP	Injection Date:	05/12/18
Lab File ID:	2P79475.D	Injection Time:	00:00
Instrument ID:	GCMS2P		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	2P79497.D	05/12/18	08:08	08:08	(unrelated sample)
JC65800-1	2P79499.D	05/12/18	08:50	08:50	WC-2
JC65800-2	2P79500.D	05/12/18	09:12	09:12	WC-1
ZZZZZZ	2P79501.D	05/12/18	09:33	09:33	(unrelated sample)
ZZZZZZ	2P79502.D	05/12/18	09:54	09:54	(unrelated sample)
ZZZZZZ	2P79503.D	05/12/18	10:16	10:16	(unrelated sample)

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Instrument Performance Check (DFTPP)

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-DFTPP
Lab File ID: 6P471774.D
Instrument ID: GCMS6P
Injection Date: 04/13/18
Injection Time: 23:44

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	185492	46.4	Pass
68	Less than 2.0% of mass 69	2655	0.66 (1.65) ^a	Pass
69	Mass 69 relative abundance	161241	40.4	Pass
70	Less than 2.0% of mass 69	1012	0.25 (0.63) ^a	Pass
127	40.0 - 60.0% of mass 198	182858	45.8	Pass
197	Less than 1.0% of mass 198	2777	0.70	Pass
198	Base peak, 100% relative abundance	399552	100.0	Pass
199	5.0 - 9.0% of mass 198	25358	6.35	Pass
275	10.0 - 30.0% of mass 198	109442	27.4	Pass
365	1.0 - 100.0% of mass 198	15577	3.90	Pass
441	Present, but less than mass 443	49568	12.4 (82.7) ^b	Pass
442	40.0 - 100.0% of mass 198	312832	78.3	Pass
443	17.0 - 23.0% of mass 442	59968	15.0 (19.2) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P2164-IC2164	6P471775.D	04/14/18	00:24	00:40	Initial cal 100
E6P2164-IC2164	6P471776.D	04/14/18	00:49	01:05	Initial cal 80
E6P2164-ICC2164	6P471777.D	04/14/18	01:14	01:30	Initial cal 50
E6P2164-IC2164	6P471778.D	04/14/18	01:39	01:55	Initial cal 25
E6P2164-IC2164	6P471779.D	04/14/18	02:04	02:20	Initial cal 10
E6P2164-IC2164	6P471780.D	04/14/18	02:28	02:44	Initial cal 5
E6P2164-IC2164	6P471781.D	04/14/18	02:53	03:09	Initial cal 2
E6P2164-IC2164	6P471782.D	04/14/18	03:18	03:34	Initial cal 1
E6P2164-ICV2164	6P471783.D	04/14/18	03:43	03:59	Initial cal verification 50
E6P2164-ICV2164	6P471784.D	04/14/18	04:08	04:24	Initial cal verification 50
E6P2164-ICV2164	6P471785.D	04/14/18	04:32	04:48	Initial cal verification 50
E6P2164-ICV2164	6P471786.D	04/14/18	04:57	05:13	Initial cal verification 50
E6P2164-ICV2164	6P471787.D	04/14/18	05:22	05:38	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-DFTPP
Lab File ID: 6P471788.D
Instrument ID: GCMS6P
Injection Date: 04/14/18
Injection Time: 05:42

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	227605	42.3	Pass
68	Less than 2.0% of mass 69	3266	0.61 (1.61) ^a	Pass
69	Mass 69 relative abundance	202318	37.6	Pass
70	Less than 2.0% of mass 69	676	0.13 (0.33) ^a	Pass
127	40.0 - 60.0% of mass 198	235221	43.7	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	538005	100.0	Pass
199	5.0 - 9.0% of mass 198	34632	6.44	Pass
275	10.0 - 30.0% of mass 198	154754	28.8	Pass
365	1.0 - 100.0% of mass 198	23029	4.28	Pass
441	Present, but less than mass 443	79578	14.8 (81.5) ^b	Pass
442	40.0 - 100.0% of mass 198	501653	93.2	Pass
443	17.0 - 23.0% of mass 442	97586	18.1 (19.5) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P2165-IC2165	6P471789.D	04/14/18	05:55	00:13	Initial cal 100
E6P2165-IC2165	6P471790.D	04/14/18	06:20	00:38	Initial cal 80
E6P2165-ICC2165	6P471791.D	04/14/18	06:44	01:02	Initial cal 50
E6P2165-IC2165	6P471792.D	04/14/18	07:09	01:27	Initial cal 25
E6P2165-IC2165	6P471793.D	04/14/18	07:34	01:52	Initial cal 10
E6P2165-IC2165	6P471794.D	04/14/18	07:58	02:16	Initial cal 5
E6P2165-IC2165	6P471795.D	04/14/18	08:23	02:41	Initial cal 2
E6P2165-IC2165	6P471796.D	04/14/18	08:48	03:06	Initial cal 1
E6P2165-ICV2165	6P471797A.D	04/14/18	09:12	03:30	Initial cal verification 50
E6P2165-ICV2164	6P471797.D	04/14/18	09:12	03:30	Initial cal verification 50
E6P2165-ICV2165	6P471798.D	04/14/18	09:37	03:55	Initial cal verification 50
E6P2165-ICV2165	6P471799.D	04/14/18	10:02	04:20	Initial cal verification 50
E6P2165-ICV2165	6P471800.D	04/14/18	10:26	04:44	Initial cal verification 50
E6P2165-ICV2165	6P471801.D	04/14/18	10:51	05:09	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2215-DFTPP
Lab File ID: 6P473086.D
Instrument ID: GCMS6P
Injection Date: 05/18/18
Injection Time: 19:06

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	137600	52.2	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	144676	54.9	Pass
70	Less than 2.0% of mass 69	1127	0.43 (0.78) ^a	Pass
127	40.0 - 60.0% of mass 198	150527	57.1	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	263765	100.0	Pass
199	5.0 - 9.0% of mass 198	20702	7.85	Pass
275	10.0 - 30.0% of mass 198	69560	26.4	Pass
365	1.0 - 100.0% of mass 198	7684	2.91	Pass
441	Present, but less than mass 443	31830	12.1 (87.5) ^b	Pass
442	40.0 - 100.0% of mass 198	202018	76.6	Pass
443	17.0 - 23.0% of mass 442	36360	13.8 (18.0) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P2215-CC2164	6P473087.D	05/18/18	19:25	00:19	Continuing cal 50
E6P2215-CC2165	6P473088.D	05/18/18	19:49	00:43	Continuing cal 50
OP12062-MB1	6P473090.D	05/18/18	20:42	01:36	Method Blank
OP12025-MB2	6P473090.D	05/18/18	20:42	01:36	Method Blank
OP12063-MB1	6P473090.D	05/18/18	20:42	01:36	Method Blank
OP12062-BS1	6P473091.D	05/18/18	21:06	02:00	Blank Spike
OP12025-BS2	6P473091.D	05/18/18	21:06	02:00	Blank Spike
OP12063-BS1	6P473091.D	05/18/18	21:06	02:00	Blank Spike
OP12062-LB19	6P473092.D	05/18/18	21:31	02:25	Leachate Blank
OP12063-LB20	6P473093.D	05/18/18	21:56	02:50	Leachate Blank
ZZZZZZ	6P473094.D	05/18/18	22:20	03:14	(unrelated sample)
JC65800-1A	6P473095.D	05/18/18	22:45	03:39	WC-2
JC65800-2A	6P473096.D	05/18/18	23:10	04:04	WC-1
ZZZZZZ	6P473098.D	05/18/18	23:59	04:53	(unrelated sample)
ZZZZZZ	6P473099.D	05/19/18	00:24	05:18	(unrelated sample)
ZZZZZZ	6P473100.D	05/19/18	00:48	05:42	(unrelated sample)
ZZZZZZ	6P473101.D	05/19/18	01:13	06:07	(unrelated sample)
ZZZZZZ	6P473102.D	05/19/18	01:37	06:31	(unrelated sample)
ZZZZZZ	6P473103.D	05/19/18	02:02	06:56	(unrelated sample)

Instrument Performance Check (DFTPP)

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	E6P2215-DFTPP	Injection Date:	05/18/18
Lab File ID:	6P473086.D	Injection Time:	19:06
Instrument ID:	GCMS6P		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	6P473104.D	05/19/18	02:27	07:21	(unrelated sample)
ZZZZZZ	6P473105.D	05/19/18	02:51	07:45	(unrelated sample)
ZZZZZZ	6P473106.D	05/19/18	03:16	08:10	(unrelated sample)
ZZZZZZ	6P473107.D	05/19/18	03:40	08:34	(unrelated sample)
ZZZZZZ	6P473108.D	05/19/18	04:05	08:59	(unrelated sample)
ZZZZZZ	6P473109.D	05/19/18	04:29	09:23	(unrelated sample)
ZZZZZZ	6P473110.D	05/19/18	04:54	09:48	(unrelated sample)
OP12062-MS	6P473111.D	05/19/18	05:19	10:13	Matrix Spike
OP12062-LS9	6P473111.D	05/19/18	05:19	10:13	Leachate Spike
OP12062-MSD	6P473112.D	05/19/18	05:43	10:37	Matrix Spike Duplicate
JC66031-1A	6P473113.D	05/19/18	06:08	11:02	(used for QC only; not part of job JC65800)
OP12063-MS	6P473114.D	05/19/18	06:33	11:27	Matrix Spike
OP12063-LS10	6P473114.D	05/19/18	06:33	11:27	Leachate Spike
OP12063-MSD	6P473115.D	05/19/18	06:57	11:51	Matrix Spike Duplicate

8.6.10

8

Internal Standard Area Summary

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E2M4627-CC4618	Injection Date: 05/16/18
Lab File ID: 2M104088.D	Injection Time: 23:32
Instrument ID: GCMS2M	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	450248	4.63	1728575	5.72	961360	7.77	1677732	9.94	1571448	14.12	1563673	16.23
Upper Limit ^a	900496	5.13	3457150	6.22	1922720	8.27	3355464	10.44	3142896	14.62	3127346	16.73
Lower Limit ^b	225124	4.13	864288	5.22	480680	7.27	838866	9.44	785724	13.62	781837	15.73

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP12026-MB1	402487	4.63	1558250	5.71	776436	7.77	1442785	9.93	1313494	14.11	1318956	16.22
OP11878-MB2	402487	4.63	1558250	5.71	776436	7.77	1442785	9.93	1313494	14.11	1318956	16.22
OP12025-MB1	402487	4.63	1558250	5.71	776436	7.77	1442785	9.93	1313494	14.11	1318956	16.22
OP12025-LB10	401123	4.63	1551860	5.71	774992	7.77	1439446	9.93	1336442	14.11	1326965	16.22
OP12025-LB11	407526	4.63	1610765	5.71	799103	7.77	1487855	9.93	1372510	14.10	1399790	16.22
OP12025-LB13	413264	4.63	1620665	5.71	811787	7.77	1510266	9.93	1391364	14.11	1405023	16.22
OP12026-LB15	432693	4.63	1668645	5.71	836196	7.77	1572924	9.93	1427944	14.11	1429942	16.22
OP11878-LB16	382887	4.63	1473662	5.71	743748	7.77	1377348	9.93	1265439	14.10	1282358	16.22
OP12026-BS1	418983	4.63	1624409	5.71	799012	7.77	1475596	9.94	1338380	14.12	1336404	16.22
OP12025-BS1	418983	4.63	1624409	5.71	799012	7.77	1475596	9.94	1338380	14.12	1336404	16.22
OP11878-BS2	418983	4.63	1624409	5.71	799012	7.77	1475596	9.94	1338380	14.12	1336404	16.22
OP12025-LS6	472330	4.63	1835767	5.72	916744	7.77	1672302	9.94	1474682	14.12	1464010	16.22
OP12025-MS	472330	4.63	1835767	5.72	916744	7.77	1672302	9.94	1474682	14.12	1464010	16.22
OP12025-MSD	426867	4.63	1643128	5.72	810944	7.77	1470723	9.94	1318735	14.11	1307245	16.22
JC65724-2	408179	4.63	1595753	5.71	804989	7.77	1515337	9.93	1367694	14.10	1404231	16.22
ZZZZZZ	434865	4.63	1695410	5.71	857008	7.77	1604162	9.93	1462493	14.10	1478216	16.22
ZZZZZZ	412529	4.63	1605915	5.71	797740	7.77	1496108	9.93	1390604	14.10	1429015	16.22
ZZZZZZ	405271	4.63	1555297	5.71	784655	7.77	1508201	9.93	1380449	14.10	1377781	16.22
ZZZZZZ	392296	4.63	1538944	5.71	784872	7.77	1458846	9.93	1348925	14.10	1364928	16.22
ZZZZZZ	397113	4.63	1541837	5.71	781724	7.77	1457208	9.93	1334614	14.10	1354453	16.22
OP12026-MS	438815	4.63	1706674	5.72	822374	7.77	1477465	9.93	1311674	14.11	1331264	16.22
OP12026-LS7	438815	4.63	1706674	5.72	822374	7.77	1477465	9.93	1311674	14.11	1331264	16.22
OP12026-MSD	417702	4.63	1616947	5.71	795573	7.77	1431668	9.93	1258156	14.11	1293316	16.22
JC65923-1	415378	4.63	1610293	5.71	794424	7.77	1478574	9.93	1359764	14.10	1385473	16.22
ZZZZZZ	425585	4.63	1656744	5.71	815022	7.77	1512077	9.93	1377855	14.10	1414260	16.22
ZZZZZZ	440614	4.63	1701074	5.71	840014	7.77	1550858	9.93	1431734	14.10	1448382	16.22
ZZZZZZ	421524	4.63	1632607	5.71	808816	7.77	1480152	9.93	1372889	14.10	1379716	16.22
ZZZZZZ	413352	4.63	1580401	5.71	786293	7.77	1428855	9.93	1331027	14.10	1332907	16.22
ZZZZZZ	424488	4.63	1651171	5.71	825752	7.77	1524680	9.93	1390203	14.10	1421950	16.22
ZZZZZZ	408323	4.63	1579832	5.71	786301	7.77	1433094	9.93	1336793	14.10	1371992	16.22
ZZZZZZ	399143	4.63	1531237	5.71	763038	7.77	1421827	9.93	1307641	14.10	1334841	16.22
ZZZZZZ	385441	4.63	1503495	5.71	751636	7.77	1375147	9.93	1279476	14.10	1301481	16.22

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8

Internal Standard Area Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	E2M4627-CC4618	Injection Date:	05/16/18
Lab File ID:	2M104088.D	Injection Time:	23:32
Instrument ID:	GCMS2M	Method:	SW846 8270D

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
IS 3	= Acenaphthene-D10											
IS 4	= Phenanthrene-d10											
IS 5	= Chrysene-d12											
IS 6	= Perylene-d12											

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

Internal Standard Area Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E2P3500-CC3484	Injection Date: 05/12/18
Lab File ID: 2P79476.D	Injection Time: 00:35
Instrument ID: GCMS2P	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	794742	4.53	2389251	5.58	1375086	7.02	2329287	8.28	2500707	11.46	2174696	13.43
Upper Limit ^a	1589484	5.03	4778502	6.08	2750172	7.52	4658574	8.78	5001414	11.96	4349392	13.93
Lower Limit ^b	397371	4.03	1194626	5.08	687543	6.52	1164644	7.78	1250354	10.96	1087348	12.93

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP11923-MB1	1105450	4.53	3725700	5.58	1842909	7.02	3297292	8.28	3072388	11.45	2700406	13.43
OP11923-BS1	826756	4.53	2577920	5.59	1333899	7.02	2398904	8.28	2475407	11.45	2219232	13.43
ZZZZZZ	1173261	4.53	3861840	5.58	1865620	7.02	3195298	8.27	2809599	11.45	2410357	13.43
ZZZZZZ	1036418	4.53	3572365	5.58	1784441	7.02	3064945	8.27	2651445	11.45	2211758	13.42
ZZZZZZ	1132658	4.53	3691275	5.58	1740814	7.02	2964519	8.27	2581058	11.45	2216937	13.42
ZZZZZZ	1173747	4.53	3900563	5.58	1874816	7.02	3390086	8.27	3021791	11.45	2530679	13.42
ZZZZZZ	1062140	4.53	3654210	5.58	1734990	7.02	2967986	8.28	2461281	11.45	2167181	13.43
ZZZZZZ	1073016	4.53	3650101	5.58	1786261	7.02	3076861	8.27	2790206	11.45	2250095	13.42
ZZZZZZ	1125172	4.53	3792596	5.58	1825214	7.02	3148761	8.28	2831227	11.45	2256222	13.43
ZZZZZZ	993338	4.53	3511967	5.58	1681374	7.02	2853429	8.28	2260243	11.45	2008517	13.43
OP11923-MS	828554	4.53	2638080	5.59	1276930	7.02	2240930	8.28	2190369	11.46	1848336	13.43
OP11923-MSD	807693	4.53	2530894	5.59	1293724	7.02	2288226	8.28	2157107	11.46	1794720	13.43
JC65784-4	1095237	4.53	3687758	5.59	1738169	7.02	3005884	8.28	2346879	11.45	1909858	13.43
ZZZZZZ	1106141	4.53	3633343	5.59	1686034	7.02	2871518	8.28	2209539	11.46	1851489	13.43
ZZZZZZ	1030338	4.53	3480012	5.59	1642218	7.02	2887433	8.28	2221792	11.46	1784613	13.43
ZZZZZZ	1051591	4.53	3557769	5.59	1684120	7.02	2945080	8.28	2269785	11.46	1814667	13.43
ZZZZZZ	1054428	4.53	3468203	5.59	1591413	7.02	2745856	8.28	2087993	11.46	1734163	13.44
ZZZZZZ	1054232	4.53	3466341	5.59	1653369	7.02	2782614	8.28	2066584	11.46	1719463	13.43
JC65800-1	1063420	4.53	3437575	5.59	1684092	7.02	2911068	8.28	2155369	11.46	1795368	13.44
JC65800-2	1051625	4.53	3456100	5.59	1640746	7.02	2769023	8.28	1926663	11.46	1729344	13.44
ZZZZZZ	952079	4.53	3138180	5.59	1375516	7.02	2100837	8.28	1605570	11.47	1539342	13.46
ZZZZZZ	816654	4.53	2694878	5.59	1176326	7.02	1741045	8.29	1312336	11.48	1284157	13.47
ZZZZZZ	939118	4.53	3194541	5.59	1505072	7.02	2395921	8.29	1521643	11.48	1411792	13.46

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

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

Internal Standard Area Summary

Page 1 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E6P2215-CC2164	Injection Date: 05/18/18
Lab File ID: 6P473087.D	Injection Time: 19:25
Instrument ID: GCMS6P	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	438966	4.49	1769839	5.50	1002716	7.23	1686492	8.91	1549712	12.09	1599046	13.69
Upper Limit ^a	877932	4.99	3539678	6.00	2005432	7.73	3372984	9.41	3099424	12.59	3198092	14.19
Lower Limit ^b	219483	3.99	884920	5.00	501358	6.73	843246	8.41	774856	11.59	799523	13.19

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP12062-MB1	408558	4.49	1660269	5.50	869678	7.22	1560834	8.92	1394722	12.09	1492249	13.69
OP12063-MB1	408558	4.49	1660269	5.50	869678	7.22	1560834	8.92	1394722	12.09	1492249	13.69
OP12025-MB2	408558	4.49	1660269	5.50	869678	7.22	1560834	8.92	1394722	12.09	1492249	13.69
OP12062-BS1	437872	4.49	1754560	5.50	876340	7.22	1555882	8.91	1378380	12.09	1359833	13.69
OP12063-BS1	437872	4.49	1754560	5.50	876340	7.22	1555882	8.91	1378380	12.09	1359833	13.69
OP12025-BS2	437872	4.49	1754560	5.50	876340	7.22	1555882	8.91	1378380	12.09	1359833	13.69
OP12062-LB19	377497	4.49	1560681	5.50	797515	7.22	1449535	8.91	1346728	12.08	1400158	13.69
OP12063-LB20	405681	4.49	1689184	5.50	846782	7.22	1584159	8.91	1397674	12.08	1486565	13.69
ZZZZZZ	420110	4.49	1681666	5.50	854578	7.22	1544973	8.92	1388225	12.08	1448852	13.69
JC65800-1A	383049	4.49	1549401	5.50	809585	7.22	1491645	8.92	1332167	12.08	1371365	13.69
JC65800-2A	378737	4.49	1613052	5.50	819445	7.22	1476317	8.91	1329641	12.08	1402899	13.69
ZZZZZZ	394019	4.49	1596993	5.50	826594	7.22	1542553	8.91	1439889	12.09	1495578	13.69
ZZZZZZ	393580	4.49	1627967	5.50	829246	7.22	1535805	8.91	1388214	12.08	1448828	13.69
ZZZZZZ	427505	4.49	1815574	5.50	917346	7.22	1649537	8.91	1485178	12.08	1602252	13.69
ZZZZZZ	412661	4.49	1675291	5.50	846173	7.22	1543016	8.91	1404352	12.08	1426540	13.69
ZZZZZZ	401103	4.49	1596353	5.50	824723	7.22	1523839	8.92	1326112	12.09	1431387	13.69
ZZZZZZ	410657	4.49	1731271	5.50	883956	7.22	1581297	8.91	1398533	12.09	1475307	13.69
ZZZZZZ	362264	4.49	1507208	5.50	780913	7.22	1371251	8.91	1236674	12.08	1339147	13.69
ZZZZZZ	374034	4.49	1539089	5.50	771446	7.22	1441624	8.92	1372775	12.09	1470446	13.69
ZZZZZZ	401272	4.49	1605611	5.50	834354	7.22	1468600	8.91	1311884	12.08	1393049	13.69
ZZZZZZ	438545	4.49	1684914	5.50	883388	7.22	1571492	8.91	1417424	12.08	1476445	13.69
ZZZZZZ	399185	4.49	1631461	5.50	847180	7.22	1484986	8.91	1315510	12.08	1394619	13.69
ZZZZZZ	378162	4.49	1576579	5.50	822120	7.22	1461523	8.91	1333954	12.08	1389208	13.69
ZZZZZZ	395133	4.49	1572754	5.50	796634	7.22	1447877	8.91	1314530	12.08	1345367	13.69
OP12062-MS	386440	4.49	1525184	5.50	785968	7.22	1401125	8.91	1288164	12.09	1254389	13.69
OP12062-LS9	386440	4.49	1525184	5.50	785968	7.22	1401125	8.91	1288164	12.09	1254389	13.69
OP12062-MSD	428693	4.49	1730236	5.50	867260	7.23	1541160	8.91	1372940	12.09	1346635	13.69
JC66031-1A	399885	4.49	1651521	5.50	845576	7.22	1501472	8.91	1384138	12.08	1469335	13.69
OP12063-MS	406429	4.49	1571736	5.50	803332	7.22	1451966	8.92	1293978	12.09	1260272	13.69
OP12063-LS10	406429	4.49	1571736	5.50	803332	7.22	1451966	8.92	1293978	12.09	1260272	13.69
OP12063-MSD	414806	4.49	1676229	5.50	831153	7.22	1509349	8.91	1335970	12.09	1310842	13.69

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10

8.7.3
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Internal Standard Area Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	E6P2215-CC2164	Injection Date:	05/18/18
Lab File ID:	6P473087.D	Injection Time:	19:25
Instrument ID:	GCMS6P	Method:	SW846 8270D

Lab	IS 1	IS 2	IS 3	IS 4	IS 5	IS 6
Sample ID	AREA RT	AREA RT	AREA RT	AREA RT	AREA RT	AREA RT

IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

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

8.7.3
8

Surrogate Recovery Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8270D	Matrix: LEACHATE
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC65800-1A	6P473095.D	41	26	65	73	76	100
JC65800-2A	6P473096.D	43	28	69	78	84	101
OP12025-BS2	6P473091.D	46	33	72	80	85	95
OP12025-LB10	2M104091.D	47	32	90	85	89	95
OP12025-LB11	2M104092.D	48	31	87	85	88	96
OP12025-LB13	2M104093.D	47	32	93	87	90	104
OP12025-LS6	2M104097.D	50	36	95	89	93	92
OP12025-MB2	6P473090.D	42	25	63	69	73	93
OP12025-MS	2M104097.D	50	36	95	89	93	92
OP12025-MSD	2M104098.D	50	35	100	90	95	99
OP12025-MB1	2M104090.D	46	31	95	93	95	99

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	14-88%
S2 = Phenol-d5	10-110%
S3 = 2,4,6-Tribromophenol	39-149%
S4 = Nitrobenzene-d5	32-128%
S5 = 2-Fluorobiphenyl	35-119%
S6 = Terphenyl-d14	10-126%

8.8.1
8

Surrogate Recovery Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8270D	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC65800-1	2P79499.D	48	51	83	60	74	80
JC65800-2	2P79500.D	36	38	66	45	58	64
OP11923-BS1	2P79481.D	79	67	107	72	78	90
OP11923-MB1	2P79480.D	63	66	94	75	90	92
OP11923-MS	2P79490.D	63	59	90	61	70	77
OP11923-MSD	2P79491.D	62	59	89	61	68	79

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	23-115%
S2 = Phenol-d5	27-114%
S3 = 2,4,6-Tribromophenol	19-152%
S4 = Nitrobenzene-d5	26-134%
S5 = 2-Fluorobiphenyl	39-124%
S6 = Terphenyl-d14	36-134%

8.8.2
8

Initial Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-ICC4618
Lab FileID: 2M103897.D

Response Factor Report MS2M

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

Calibration Files

2 =2m103901.D 5 =2m103900.D 25 =2m103898.D 80 =2m103896.D
100 =2m103895.D 50 =2m103897.D 1 =2m103902.D 10 =2m103899.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	-----ISTD-----									
2) 1,4-Dioxane	0.629	0.598	0.596	0.576	0.591	0.598	0.637	0.615	0.605	3.36
3) Pyridine	1.526	1.559	1.597	1.500	1.499	1.488	1.575	1.674	1.552	4.06
4) N-Nitrosodim	0.914	0.887	0.926	0.908	0.919	0.926	0.933	0.953	0.921	2.09
5) 2-Fluorophen	1.326	1.258	1.311	1.293	1.319	1.322	1.241	1.356	1.303	2.90
6) Indene	2.170	2.166	2.226	2.234	2.233	2.285	2.221	2.299	2.229	2.12
7) Cumene	3.250	3.242	3.325	3.249	3.272	3.374	3.448	3.387	3.318	2.34
8) Phenol-d5	1.620	1.595	1.625	1.627	1.667	1.663	1.622	1.662	1.635	1.57
9) Phenol	1.883	1.787	1.854	1.867	1.899	1.894	1.877	1.959	1.877	2.56
10) Aniline	2.130	2.106	2.037	1.920	1.913	1.981	2.225	2.172	2.061	5.66
11) bis(2-Chloro	1.278	1.274	1.290	1.271	1.281	1.299	1.342	1.346	1.298	2.32
12) 2-Chlorophen	1.403	1.415	1.401	1.397	1.408	1.417	1.356	1.473	1.409	2.30
13) Decane	1.512	1.436	1.429	1.366	1.348	1.426	1.587	1.500	1.450	5.45
14) 1,3-Dichloro	1.585	1.573	1.574	1.545	1.547	1.589	1.621	1.666	1.588	2.51
15) 1,4-Dichloro	1.577	1.595	1.609	1.567	1.567	1.616	1.654	1.677	1.608	2.52
16) Benzyl alcoh	0.854	0.828	0.856	0.885	0.890	0.885	0.927	0.875	0.875	3.37
17) 1,2-Dichloro	1.482	1.435	1.491	1.464	1.456	1.508	1.624	1.553	1.502	4.07
18) Acetophenone	1.832	1.819	1.885	1.847	1.819	1.898	1.873	1.932	1.863	2.19
19) 2-Methylphen	1.240	1.193	1.215	1.239	1.227	1.253	1.221	1.264	1.231	1.83
20) 2,2'-oxybis(	1.624	1.552	1.558	1.504	1.488	1.552	1.685	1.624	1.573	4.22
21) 3&4-Methylph	1.268	1.252	1.293	1.334	1.322	1.328	1.233	1.315	1.293	2.93
22) n-Nitroso-di	0.963	0.956	0.999	0.994	0.980	1.024	1.032	1.034	0.998	3.05
23) Hexachloroet	0.505	0.502	0.510	0.506	0.503	0.516	0.535	0.554	0.516	3.60
24) I Naphthalene-d8	-----ISTD-----									
25) Nitrobenzene	0.369	0.357	0.366	0.366	0.360	0.367	0.357	0.382	0.366	2.19
26) Nitrobenzene	0.367	0.366	0.363	0.360	0.355	0.364	0.364	0.379	0.365	1.87
27) Quinoline	0.672	0.671	0.677	0.684	0.676	0.675	0.681	0.699	0.679	1.35
28) Isophorone	0.641	0.636	0.636	0.640	0.631	0.639	0.659	0.664	0.643	1.84
29) 2-Nitropheno	0.188	0.189	0.196	0.199	0.197	0.197	0.188	0.202	0.195	2.86
30) 2,4-Dimethyl	0.309	0.303	0.309	0.319	0.316	0.311	0.303	0.323	0.312	2.35
31) Benzoic acid	0.182	0.204	0.242	0.266	0.268	0.258		0.234	0.236	13.79
32) bis(2-Chloro	0.370	0.369	0.372	0.366	0.360	0.366	0.381	0.390	0.372	2.50
33) 2,4-Dichloro	0.297	0.290	0.289	0.291	0.290	0.290	0.293	0.294	0.292	0.90
34) 2,6-Dichloro	0.277	0.277	0.287	0.286	0.283	0.286	0.294	0.294	0.286	2.27
35) 1,3,5-Trichl	0.361	0.345	0.342	0.333	0.330	0.338	0.361	0.359	0.346	3.64
36) 1,2,4-Trichl	0.320	0.324	0.314	0.312	0.307	0.317	0.342	0.331	0.321	3.54
37) 1,2,3-Trichl	0.318	0.319	0.318	0.307	0.299	0.310	0.350	0.328	0.319	4.78
38) Naphthalene	1.046	1.023	1.024	1.016	1.003	1.021	1.081	1.070	1.036	2.66
39) 4-Chloroanil	0.438	0.445	0.439	0.440	0.427	0.435	0.445	0.456	0.441	1.96
40) 2,3-Dichloro	0.359	0.362	0.360	0.370	0.366	0.365	0.359	0.378	0.365	1.77
41) Caprolactam	0.140	0.148	0.150	0.155	0.152	0.152	0.145	0.157	0.150	3.58
42) Hexachlorobu	0.175	0.164	0.167	0.164	0.161	0.165	0.171	0.174	0.168	3.00
43) 4-Chloro-3-m	0.279	0.273	0.280	0.286	0.287	0.282	0.268	0.289	0.281	2.58
44) 2-Methylnaph	0.597	0.595	0.596	0.600	0.599	0.601	0.622	0.616	0.603	1.69
45) 1-Methylnaph	0.625	0.625	0.623	0.627	0.625	0.626	0.630	0.651	0.629	1.43

Initial Calibration Summary

Page 2 of 3

Job Number: JC65800
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-ICC4618
 Lab FileID: 2M103897.D

46)	Dimethylnaph	0.626	0.636	0.638	0.647	0.645	0.641	0.655	0.666	0.644	1.89
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.301	0.323	0.357	0.369	0.369	0.370	0.273	0.358	0.340	10.84
49)	2,4,6-Trichl	0.394	0.365	0.395	0.393	0.389	0.395	0.388	0.407	0.391	3.01
50)	2,4,5-Trichl	0.392	0.405	0.417	0.411	0.406	0.417	0.406	0.432	0.411	2.82
51)	2-Fluorobiph	1.434	1.477	1.454	1.421	1.415	1.462	1.477	1.549	1.461	2.93
52)	2-Chloronaph	1.255	1.234	1.209	1.182	1.168	1.213	1.265	1.275	1.225	3.18
53)	Biphenyl	1.673	1.612	1.627	1.628	1.617	1.652	1.639	1.718	1.646	2.14
54)	2-Nitroanili	0.323	0.319	0.344	0.345	0.348	0.349	0.328	0.350	0.338	3.77
55)	Dimethylphth	1.338	1.307	1.309	1.306	1.295	1.311	1.384	1.382	1.329	2.68
56)	Acenaphthyle	1.936	1.916	1.954	1.922	1.919	1.973	1.978	2.042	1.955	2.17
57)	2,6-Dinitrot	0.273	0.290	0.310	0.311	0.309	0.307	0.266	0.311	0.297	6.24
58)	3-Nitroanili	0.309	0.327	0.356	0.364	0.358	0.367	0.318	0.361	0.345	6.66
59)	Acenaphthene	1.268	1.268	1.277	1.267	1.261	1.283	1.306	1.334	1.283	1.95
60)	2,4-Dinitrop	0.076	0.110	0.156	0.187	0.190	0.178	0.069	0.134	0.137	35.30
---- Quadratic regression ---- Coefficient = 0.9997											
Response Ratio = -0.01252 + 0.16728 *A + 0.00532 *A^2											
61)	4-Nitropheno	0.125	0.142	0.161	0.160	0.164	0.162	0.123	0.155	0.149	11.15
62)	Dibenzofuran	1.712	1.715	1.724	1.715	1.695	1.733	1.727	1.783	1.725	1.50
63)	2,4-Dinitrot	0.367	0.362	0.416	0.431	0.430	0.428	0.331	0.407	0.396	9.61
64)	2,3,4,6-Tetr	0.327	0.333	0.344	0.348	0.349	0.347	0.317	0.350	0.339	3.56
65)	Diethylphtha	1.280	1.279	1.319	1.325	1.322	1.331	1.301	1.364	1.315	2.14
66)	Fluorene	1.405	1.379	1.394	1.398	1.399	1.411	1.367	1.432	1.398	1.41
67)	4-Chlorophen	0.643	0.628	0.641	0.619	0.608	0.625	0.658	0.661	0.635	2.93
68)	4-Nitroanili	0.317	0.345	0.345	0.353	0.350	0.358	0.306	0.369	0.343	6.15
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.093	0.099	0.135	0.149	0.148	0.145	0.083	0.123	0.122	21.91
---- Quadratic regression ---- Coefficient = 0.9990											
Response Ratio = -0.00195 + 0.13467 *A + 0.00646 *A^2											
71)	n-Nitrosodip	0.576	0.580	0.599	0.581	0.582	0.585	0.572	0.597	0.584	1.63
72)	1,2-Diphenyl	0.747	0.768	0.786	0.768	0.768	0.774	0.782	0.797	0.774	1.95
73)	2,4,6-Tribo	0.117	0.116	0.127	0.123	0.123	0.122	0.122	0.119	0.121	3.07
74)	4-Bromopheny	0.217	0.219	0.221	0.216	0.215	0.219	0.226	0.229	0.220	2.18
75)	Hexachlorobe	0.247	0.248	0.252	0.243	0.239	0.247	0.275	0.262	0.252	4.55
76)	Pentachlorop	0.136	0.147	0.162	0.167	0.169	0.166	0.122	0.157	0.153	11.07
77)	Phenanthrene	1.168	1.124	1.141	1.120	1.104	1.125	1.185	1.165	1.141	2.49
78)	Anthracene	1.136	1.145	1.158	1.133	1.127	1.151	1.139	1.184	1.147	1.57
79)	Carbazole	1.042	1.037	1.091	1.081	1.077	1.076	1.060	1.102	1.071	2.13
80)	Di-n-butylph	1.233	1.257	1.331	1.351	1.346	1.344	1.264	1.344	1.309	3.72
81)	Fluoranthene	1.150	1.117	1.184	1.191	1.182	1.189	1.166	1.190	1.171	2.22
82)	Octadecane	0.505	0.499	0.531	0.527	0.524	0.522	0.510	0.537	0.519	2.56
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.338	1.361	1.344	1.313	1.258	1.342	1.318	1.413	1.336	3.30
85)	Terphenyl-d1	0.862	0.876	0.880	0.875	0.844	0.883	0.861	0.936	0.877	3.08
86)	Butylbenzylp	0.622	0.595	0.615	0.624	0.606	0.628	0.611	0.635	0.617	2.09
87)	Benzo[a]anth	1.221	1.194	1.176	1.181	1.156	1.184	1.337	1.233	1.210	4.68
88)	3,3'-Dichlor	0.416	0.432	0.454	0.452	0.436	0.454	0.402	0.466	0.439	4.99
89)	Chrysene	1.170	1.145	1.148	1.130	1.093	1.136	1.188	1.190	1.150	2.81
90)	bis(2-Ethylh	0.816	0.833	0.850	0.876	0.848	0.876	0.828	0.879	0.851	2.87
91)	I Perylene-d12	-----ISTD-----									
92)	Di-n-octylph	1.353	1.387	1.463	1.495	1.469	1.495	1.396	1.499	1.445	3.96
93)	Benzo[b]fluo	1.181	1.196	1.248	1.232	1.213	1.266	1.170	1.288	1.224	3.39
94)	Benzo[k]fluo	1.120	1.165	1.124	1.119	1.079	1.123	1.166	1.198	1.137	3.26
95)	Benzo[a]pyre	1.028	1.053	1.070	1.069	1.041	1.089	1.014	1.126	1.061	3.36

Initial Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-ICC4618
Lab FileID: 2M103897.D

96)	Indeno[1,2,3	1.020	1.014	1.080	1.067	1.073	1.064	1.057	1.077	1.056	2.42
97)	Dibenz(a,h)a	0.927	0.941	0.966	0.961	0.944	0.977	0.929	0.999	0.956	2.60
98)	Dibenz[a,h]a	1.050	1.081	1.107	1.086	1.060	1.106	1.062	1.132	1.086	2.59
99)	7,12-Dimethy	0.505	0.517	0.538	0.549	0.532	0.553	0.517	0.554	0.533	3.51
100)	Benzo[g,h,i]	0.991	1.023	1.039	1.008	0.998	1.027	0.993	1.064	1.018	2.51

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

M2M4618.M Fri May 11 15:20:21 2018

8.9.1
8

Initial Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICC4619
Lab FileID: 2M103906.D

Response Factor Report MS2M

Method : C:\MSDCHEM\1\METHODS\M2M4619.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

Calibration Files

2 =2m103910.D 5 =2m103909.D 25 =2m103907.D 80 =2m103905.D
100 =2m103904.D 50 =2m103906.D 1 =2m103911.D 10 =2m103908.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
101) 1,4-Dichlorobenzene-d	-----ISTD-----									
102) Benzaldehyde	1.101	1.014	0.930	0.874	0.860	0.882	1.137	1.003	0.975	10.87
103) Acenaphthene-d10a	-----ISTD-----									
104) 1,2,4,5-Tetr	0.599	0.577	0.580	0.583	0.578	0.579	0.607	0.596	0.587	1.99
105) Chrysene-d12a	-----ISTD-----									
106) Benzidine	0.349	0.441	0.364	0.366	0.372	0.385		0.450	0.389	10.24
107) 1-chloroocta	0.315	0.310	0.318	0.328	0.340	0.319	0.319	0.313	0.320	2.99
108) Phenanthrene-d10a	-----ISTD-----									
109) Atrazine	0.106	0.108	0.112	0.111	0.112	0.113	0.104	0.108	0.109	3.06
110) o-terphenyl	0.556	0.534	0.552	0.554	0.554	0.550	0.553	0.551	0.550	1.28
111) Pentachloron	0.038	0.040	0.043	0.044	0.045	0.043	0.044	0.042	0.042#	5.75
112) Naphthalene-d8a	-----ISTD-----									
113) Hydroquinone	0.208	0.235	0.305	0.314	0.322	0.333		0.258	0.282	17.13

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

M2M4618.M

Fri May 11 15:21:52 2018

8.9.2

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103912.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103912.D Vial: 10
Acq On : 9 May 2018 10:23 pm Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	137	0.00	4.66
5 S	2-Fluorophenol	1.303	1.284	1.5	133	0.00	3.67
8 S	Phenol-d5	1.635	1.564	4.3	129	0.00	4.39
24 I	Naphthalene-d8	1.000	1.000	0.0	129	0.00	5.76
25 S	Nitrobenzene-d5	0.366	0.370	-1.1	130	0.00	5.10
47 I	Acenaphthene-d10	1.000	1.000	0.0	131	0.00	7.82
51 S	2-Fluorobiphenyl	1.461	1.365	6.6	123	0.00	6.95
69 I	Phenanthrene-d10	1.000	1.000	0.0	119	0.00	9.98
73 S	2,4,6-Tribromophenol	0.121	0.118	2.5	115	0.00	8.94
83 I	Chrysene-d12	1.000	1.000	0.0	109	-0.01	14.15
85 S	Terphenyl-d14	0.877	0.971	-10.7	119	0.00	12.54

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:36 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103913.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103913.D Vial: 11
Acq On : 9 May 2018 10:48 pm Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	135	0.00	4.66
9 t	Phenol	1.877	1.676	10.7	119	0.00	4.40
12 t	2-Chlorophenol	1.409	1.407	0.1	134	0.00	4.51
19 t	2-Methylphenol	1.231	1.174	4.6	126	0.00	4.86
21 t	3&4-Methylphenol	1.293	1.256	2.9	128	0.00	4.98
24 I	Naphthalene-d8	1.000	1.000	0.0	128	0.00	5.76
29 t	2-Nitrophenol	0.195	0.195	0.0	126	0.00	5.40
30 t	2,4-Dimethylphenol	0.312	0.299	4.2	123	0.00	5.43
31 t	Benzoic acid	0.236	0.229	3.0	113	0.00	5.55
33 t	2,4-Dichlorophenol	0.292	0.290	0.7	128	0.00	5.62
34 t	2,6-Dichlorophenol	0.286	0.288	-0.7	128	0.00	5.84
43 t	4-Chloro-3-methylphenol	0.281	0.276	1.8	125	-0.01	6.33
47 I	Acenaphthene-d10	1.000	1.000	0.0	116	0.00	7.82
49 t	2,4,6-Trichlorophenol	0.391	0.419	-7.2	124	0.00	6.85
50 t	2,4,5-Trichlorophenol	0.411	0.437	-6.3	122	-0.01	6.88
60 t	2,4-Dinitrophenol	50.000	45.968	8.1	111	-0.01	7.91
61 t	4-Nitrophenol	0.149	0.149	0.0	107	0.00	8.02
64	2,3,4,6-Tetrachlorophenol	0.339	0.346	-2.1	116	0.00	8.29
69 I	Phenanthrene-d10	1.000	1.000	0.0	116	0.00	9.98
70 t	4,6-Dinitro-2-methylpheno	50.000	48.080	3.8	108	0.00	8.68
76 t	Pentachlorophenol	0.153	0.179	-17.0	131	-0.01	9.71

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:38 2018

Initial Calibration Verification

Page 1 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103915.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103915.D Vial: 13
Acq On : 9 May 2018 11:38 pm Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	138	0.00	4.66
4 t	N-Nitrosodimethylamine	0.921	0.735	20.2	109	0.02	2.50
11 t	bis(2-Chloroethyl)ether	1.298	1.311	-1.0	139	0.00	4.46
14 t	1,3-Dichlorobenzene	1.588	1.518	4.4	132	0.00	4.63
15 t	1,4-Dichlorobenzene	1.608	1.533	4.7	131	0.00	4.68
17 t	1,2-Dichlorobenzene	1.502	1.446	3.7	132	0.00	4.80
20 t	2,2'-oxybis(1-Chloropropa	1.573	1.647	-4.7	146	0.00	4.88
22 t	n-Nitroso-di-n-propylamin	0.998	0.915	8.3	123	0.00	4.98
23 t	Hexachloroethane	0.516	0.493	4.5	132	0.00	5.08
24 I	Naphthalene-d8	1.000	1.000	0.0	131	0.00	5.76
26 t	Nitrobenzene	0.365	0.337	7.7	122	0.00	5.12
28 t	Isophorone	0.643	0.623	3.1	128	-0.01	5.32
32 t	bis(2-Chloroethoxy)methan	0.372	0.379	-1.9	136	0.00	5.52
36 t	1,2,4-Trichlorobenzene	0.321	0.311	3.1	129	0.00	5.70
38 t	Naphthalene	1.036	1.004	3.1	129	0.00	5.78
42 t	Hexachlorobutadiene	0.168	0.169	-0.6	134	0.00	5.91
47 I	Acenaphthene-d10	1.000	1.000	0.0	129	0.00	7.82
48 t	Hexachlorocyclopentadiene	0.340	0.320	5.9	115	0.00	6.71
52 t	2-Chloronaphthalene	1.225	1.166	4.8	124	0.00	7.09
55 t	Dimethylphthalate	1.329	1.259	5.3	124	0.00	7.48
56 t	Acenaphthylene	1.955	1.831	6.3	120	0.00	7.62
57 t	2,6-Dinitrotoluene	0.297	0.275	7.4	116	0.00	7.55
59 t	Acenaphthene	1.283	1.229	4.2	124	0.00	7.86
63 t	2,4-Dinitrotoluene	0.396	0.338	14.6	102	0.00	8.10
65 t	Diethylphthalate	1.315	1.243	5.5	120	-0.01	8.47
66 t	Fluorene	1.398	1.320	5.6	121	0.00	8.59
67 t	4-Chlorophenyl-phenylethe	0.635	0.594	6.5	123	0.00	8.61
69 I	Phenanthrene-d10	1.000	1.000	0.0	122	0.00	9.98
71 t	n-Nitrosodiphenylamine	0.584	0.544	6.8	113	0.00	8.79
72 t	1,2-Diphenylhydrazine	0.774	0.775	-0.1	122	0.00	8.84
74 t	4-Bromophenyl-phenylether	0.220	0.215	2.3	120	0.00	9.33
75 t	Hexachlorobenzene	0.252	0.241	4.4	119	0.00	9.41
77 t	Phenanthrene	1.141	1.104	3.2	120	0.00	10.02
78 t	Anthracene	1.147	1.097	4.4	116	0.00	10.10
80 t	Di-n-butylphthalate	1.309	1.269	3.1	115	0.00	11.00
81 t	Fluoranthene	1.171	1.091	6.8	112	0.00	11.87
83 I	Chrysene-d12	1.000	1.000	0.0	109	0.00	14.16
84 t	Pyrene	1.336	1.336	0.0	108	0.00	12.22

Initial Calibration Verification

Page 2 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103915.D

86	t	Butylbenzylphthalate	0.617	0.615	0.3	107	0.00	13.38
87	t	Benzo[a]anthracene	1.210	1.122	7.3	103	0.00	14.14
89	t	Chrysene	1.150	1.068	7.1	102	0.00	14.20
90	t	bis(2-Ethylhexyl)phthalat	0.851	0.843	0.9	105	0.00	14.35
91	I	Perylene-d12	1.000	1.000	0.0	102	0.00	16.27
92	t	Di-n-octylphthalate	1.445	1.507	-4.3	103	0.00	15.33
93	t	Benzo[b]fluoranthene	1.224	1.103	9.9	89	0.00	15.75
94	t	Benzo[k]fluoranthene	1.137	1.114	2.0	101	-0.01	15.78
95	t	Benzo[a]pyrene	1.061	1.024	3.5	96	0.00	16.19
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.006	4.7	96	-0.01	17.78
98	t	Dibenz[a,h]anthracene	1.086	1.010	7.0	93	-0.01	17.82
100	t	Benzo[g,h,i]perylene	1.018	1.026	-0.8	102	-0.01	18.21

(#) = Out of Range
 2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
 Fri May 11 15:09:40 2018

8.9.5

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4619
Lab FileID: 2M103915A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103915a.D Vial: 13
Acq On : 9 May 2018 11:38 pm Operator: sufiyana
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
103	Acenaphthene-d10a	1.000	1.000	0.0	146	0.00	7.82
104	1,2,4,5-Tetrachlorobenzen	0.587	0.655	-11.6	166	0.00	6.71
105	Chrysene-d12a	1.000	1.000	0.0	110	0.00	14.16
106	Benzidine	0.389	0.291	25.2	95	0.00	12.13

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:42 2018

8.9.6
8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103916.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103916.D Vial: 14
Acq On : 10 May 2018 12:04 am Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	125	0.00	4.66
2 t	1,4-Dioxane	0.605	0.545	9.9	114	0.02	2.21
6 t	Indene	2.229	2.368	-6.2	130	0.00	4.87
7 t	Cumene	3.318	3.144	5.2	117	0.00	4.07
13 t	Decane	1.450	1.334	8.0	117	0.00	4.55
18 t	Acetophenone	1.863	1.748	6.2	115	0.00	4.98
24 I	Naphthalene-d8	1.000	1.000	0.0	121	0.00	5.76
27 t	Quinoline	0.679	0.660	2.8	119	-0.02	6.11
40 t	2,3-Dichloroaniline	0.365	0.303	17.0	101	0.00	6.84
41 t	Caprolactam	0.150	0.130	13.3	104	-0.03	6.16
45 t	1-Methylnaphthalene	0.629	0.558	11.3	108	0.00	6.62
46 t	Dimethylnaphthalene	0.644	0.603	6.4	114	0.00	7.27
47 I	Acenaphthene-d10	1.000	1.000	0.0	109	0.00	7.82
53 t	Biphenyl	1.646	1.721	-4.6	114	0.00	7.07
69 I	Phenanthrene-d10	1.000	1.000	0.0	111	0.00	9.98
82 t	Octadecane	0.519	0.524	-1.0	111	0.00	9.95

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:44 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4619
Lab FileID: 2M103916A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103916a.D Vial: 14
Acq On : 10 May 2018 12:04 am Operator: sufiyana
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	131	0.00	4.66
102	Benzaldehyde	0.975	0.943	3.3	140	0.00	4.33
108	Phenanthrene-d10a	1.000	1.000	0.0	120	0.00	9.98
109	Atrazine	0.109	0.120	-10.1	127	0.00	9.63

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:46 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103917.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103917.D Vial: 15
Acq On : 10 May 2018 12:29 am Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	106	-0.01	14.15
88 t	3,3'-Dichlorobenzidine	0.439	0.447	-1.8	105	0.00	14.15

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:48 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4619
Lab FileID: 2M103918.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103918.D Vial: 16
Acq On : 10 May 2018 2:14 am Operator: chriss2
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
112	Naphthalene-d8a	1.000	1.000	0.0	143	0.00	5.76
113	Hydroquinone	0.282	0.320	-13.5	138	0.00	6.17

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103906a.D M2M4618.M Fri May 11 15:09:50 2018

8.9.10

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4620-ICV4618
Lab FileID: 2M103921.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4620\2m103921.D Vial: 2
Acq On : 11 May 2018 1:55 pm Operator: christc2
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4620,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	4.67
3 t	Pyridine	1.552	1.520	2.1	112	0.10	2.61
10	Aniline	2.061	2.201	-6.8	122	0.00	4.42
16 t	Benzyl alcohol	0.875	0.939	-7.3	117	0.00	4.78
24 I	Naphthalene-d8	1.000	1.000	0.0	112	0.00	5.76
39 t	4-Chloroaniline	0.441	0.407	7.7	105	0.00	5.83
44 t	2-Methylnaphthalene	0.603	0.585	3.0	109	0.00	6.52
47 I	Acenaphthene-d10	1.000	1.000	0.0	114	0.00	7.82
54 t	2-Nitroaniline	0.338	0.323	4.4	105	0.00	7.22
58 t	3-Nitroaniline	0.345	0.342	0.9	106	0.00	7.77
62 t	Dibenzofuran	1.725	1.699	1.5	112	0.00	8.10
68 t	4-Nitroaniline	0.343	0.311	9.3	99	-0.01	8.63
69 I	Phenanthrene-d10	1.000	1.000	0.0	112	0.00	9.99
79 t	Carbazole	1.071	1.031	3.7	107	0.00	10.37

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:19:12 2018

8.9.11

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4620-ICV4619
Lab FileID: 2M103921A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4620\2m103921a.D Vial: 2
Acq On : 11 May 2018 1:55 pm Operator: christc2
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4620,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
108	Phenanthrene-d10a	1.000	1.000	0.0	122	0.00	9.99
111	Pentachloronitrobenzene	0.042	0.041#	2.4	114	0.00	9.74

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103906a.D M2M4618.M Fri May 11 16:40:21 2018

8.9.12

8

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4627-CC4618
Lab FileID: 2M104088.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4627\2m104088.D Vial: 2
Acq On : 16 May 2018 11:32 pm Operator: georges
Sample : cc4618-25 Inst : MS2M
Misc : op10486,e2m4627,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	71	-0.04	4.63
2 t	1,4-Dioxane	0.605	0.541	10.6	65	-0.05	2.15
3 t	Pyridine	1.552	1.490	4.0	67	-0.03	2.48
4 t	N-Nitrosodimethylamine	0.921	0.853	7.4	66	-0.04	2.44
5 S	2-Fluorophenol	1.303	1.263	3.1	69	-0.02	3.65
6 t	Indene	2.229	2.130	4.4	68	-0.04	4.83
7 t	Cumene	3.318	3.221	2.9	69	-0.04	4.03
8 S	Phenol-d5	1.635	1.587	2.9	70	-0.02	4.38
9 t	Phenol	1.877	1.823	2.9	70	-0.02	4.39
10	Aniline	2.061	1.833	11.1	64	-0.04	4.38
11 t	bis(2-Chloroethyl)ether	1.298	1.265	2.5	70	-0.04	4.43
12 t	2-Chlorophenol	1.409	1.366	3.1	69	-0.03	4.48
13 t	Decane	1.450	1.355	6.6	68	-0.04	4.51
14 t	1,3-Dichlorobenzene	1.588	1.525	4.0	69	-0.04	4.59
15 t	1,4-Dichlorobenzene	1.608	1.546	3.9	68	-0.04	4.64
16 t	Benzyl alcohol	0.875	0.844	3.5	70	-0.03	4.74
17 t	1,2-Dichlorobenzene	1.502	1.465	2.5	70	-0.04	4.76
18 t	Acetophenone	1.863	1.829	1.8	69	-0.04	4.94
19 t	2-Methylphenol	1.231	1.196	2.8	70	-0.03	4.84
20 t	2,2'-oxybis(1-Chloropropa	1.573	1.496	4.9	68	-0.04	4.84
21 t	3&4-Methylphenol	1.293	1.240	4.1	68	-0.03	4.96
22 t	n-Nitroso-di-n-propylamin	0.998	0.995	0.3	71	-0.04	4.95
23 t	Hexachloroethane	0.516	0.500	3.1	70	-0.04	5.03
24 I	Naphthalene-d8	1.000	1.000	0.0	72	-0.04	5.72
25 S	Nitrobenzene-d5	0.366	0.365	0.3	71	-0.04	5.07
26 t	Nitrobenzene	0.365	0.358	1.9	71	-0.04	5.09
27 t	Quinoline	0.679	0.686	-1.0	73	-0.05	6.07
28 t	Isophorone	0.643	0.628	2.3	71	-0.04	5.29
29 t	2-Nitrophenol	0.195	0.202	-3.6	74	-0.04	5.36
30 t	2,4-Dimethylphenol	0.312	0.292	6.4	68	-0.03	5.41
31 t	Benzoic acid	0.236	0.271	-14.8	80	-0.04	5.50
32 t	bis(2-Chloroethoxy)methan	0.372	0.365	1.9	70	-0.04	5.48
33 t	2,4-Dichlorophenol	0.292	0.295	-1.0	73	-0.03	5.59
34 t	2,6-Dichlorophenol	0.286	0.287	-0.3	72	-0.04	5.80
35	1,3,5-Trichlorobenzene	0.346	0.335	3.2	70	-0.04	5.38
36 t	1,2,4-Trichlorobenzene	0.321	0.316	1.6	72	-0.04	5.66
37	1,2,3-Trichlorobenzene	0.319	0.309	3.1	70	-0.04	5.88
38 t	Naphthalene	1.036	1.009	2.6	71	-0.05	5.73
39 t	4-Chloroaniline	0.441	0.426	3.4	70	-0.04	5.79
40 t	2,3-Dichloroaniline	0.365	0.370	-1.4	74	-0.04	6.80
41 t	Caprolactam	0.150	0.152	-1.3	73	-0.05	6.14

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4627-CC4618
Lab FileID: 2M104088.D

42 t	Hexachlorobutadiene	0.168	0.170	-1.2	73	-0.05	5.86
43 t	4-Chloro-3-methylphenol	0.281	0.290	-3.2	74	-0.03	6.32
44 t	2-Methylnaphthalene	0.603	0.597	1.0	72	-0.05	6.47
45 t	1-Methylnaphthalene	0.629	0.631	-0.3	73	-0.05	6.58
46 t	Dimethylnaphthalene	0.644	0.656	-1.9	74	-0.05	7.23
47 I	Acenaphthene-d10	1.000	1.000	0.0	75	-0.05	7.77
48 t	Hexachlorocyclopentadiene	0.340	0.331	2.6	70	-0.05	6.66
49 t	2,4,6-Trichlorophenol	0.391	0.384	1.8	73	-0.04	6.81
50 t	2,4,5-Trichlorophenol	0.411	0.411	0.0	74	-0.03	6.86
51 S	2-Fluorobiphenyl	1.461	1.419	2.9	74	-0.05	6.91
52 t	2-Chloronaphthalene	1.225	1.186	3.2	74	-0.05	7.04
53 t	Biphenyl	1.646	1.600	2.8	74	-0.05	7.03
54 t	2-Nitroaniline	0.338	0.338	0.0	74	-0.05	7.18
55 t	Dimethylphthalate	1.329	1.315	1.1	76	-0.05	7.43
56 t	Acenaphthylene	1.955	1.899	2.9	73	-0.05	7.58
57 t	2,6-Dinitrotoluene	0.297	0.317	-6.7	77	-0.04	7.50
58 t	3-Nitroaniline	0.345	0.362	-4.9	77	-0.05	7.72
59 t	Acenaphthene	1.283	1.248	2.7	74	-0.05	7.81
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	50.000	56.915	-13.8	91	-0.04	7.88
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.149	0.159	-6.7	75	-0.01	8.01
62 t	Dibenzofuran	1.725	1.707	1.0	75	-0.05	8.06
63 t	2,4-Dinitrotoluene	0.396	0.441	-11.4	80	-0.04	8.06
64	2,3,4,6-Tetrachlorophenol	0.339	0.341	-0.6	75	-0.04	8.25
65 t	Diethylphthalate	1.315	1.324	-0.7	76	-0.05	8.43
66 t	Fluorene	1.398	1.379	1.4	75	-0.05	8.54
67 t	4-Chlorophenyl-phenylethe	0.635	0.635	0.0	75	-0.05	8.56
68 t	4-Nitroaniline	0.343	0.357	-4.1	78	-0.05	8.59
69 I	Phenanthrene-d10	1.000	1.000	0.0	78	-0.05	9.94
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	25.000	27.578	-10.3	87	-0.04	8.65
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.584	0.575	1.5	75	-0.05	8.74
72 t	1,2-Diphenylhydrazine	0.774	0.738	4.7	73	-0.05	8.79
73 S	2,4,6-Tribromophenol	0.121	0.120	0.8	74	-0.04	8.90
74 t	4-Bromophenyl-phenylether	0.220	0.217	1.4	77	-0.05	9.29
75 t	Hexachlorobenzene	0.252	0.242	4.0	75	-0.05	9.37
76 t	Pentachlorophenol	0.153	0.143	6.5	69	-0.04	9.68
77 t	Phenanthrene	1.141	1.126	1.3	77	-0.05	9.97
78 t	Anthracene	1.147	1.116	2.7	75	-0.05	10.05
79 t	Carbazole	1.071	1.080	-0.8	77	-0.04	10.32
80 t	Di-n-butylphthalate	1.309	1.325	-1.2	78	-0.05	10.95
81 t	Fluoranthene	1.171	1.187	-1.4	78	-0.05	11.83
82 t	Octadecane	0.519	0.508	2.1	75	-0.05	9.90
83 I	Chrysene-d12	1.000	1.000	0.0	78	-0.05	14.12
84 t	Pyrene	1.336	1.322	1.0	77	-0.05	12.17
85 S	Terphenyl-d14	0.877	0.871	0.7	78	-0.05	12.49
86 t	Butylbenzylphthalate	0.617	0.619	-0.3	79	-0.05	13.32
87 t	Benzo[a]anthracene	1.210	1.184	2.1	79	-0.05	14.10
88 t	3,3'-Dichlorobenzidine	0.439	0.458	-4.3	79	-0.05	14.10
89 t	Chrysene	1.150	1.144	0.5	78	-0.05	14.15
90 t	bis(2-Ethylhexyl)phthalat	0.851	0.856	-0.6	79	-0.05	14.30

8.9.13

8

Continuing Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4627-CC4618
Lab FileID: 2M104088.D

91	I	Perylene-d12	1.000	1.000	0.0	77	-0.04	16.23
92	t	Di-n-octylphthalate	1.445	1.499	-3.7	79	-0.05	15.28
93	t	Benzo[b]fluoranthene	1.224	1.225	-0.1	76	-0.04	15.71
94	t	Benzo[k]fluoranthene	1.137	1.142	-0.4	79	-0.05	15.75
95	t	Benzo[a]pyrene	1.061	1.071	-0.9	78	-0.04	16.15
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.088	-3.0	78	-0.06	17.73
97	t	Dibenz(a,h)acridine	0.956	0.947	0.9	76	-0.05	17.39
98	t	Dibenz[a,h]anthracene	1.086	1.086	0.0	76	-0.06	17.77
99	t	7,12-Dimethylbenz(a)anthr	0.533	0.505	5.3	73	-0.05	15.71
100	t	Benzo[g,h,i]perylene	1.018	1.012	0.6	75	-0.06	18.15

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103907a.D M2M4618.M Thu May 17 12:13:21 2018

8.9.13
8

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4627-CC4619
Lab FileID: 2M104089.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4627\2m104089.D Vial: 3
Acq On : 16 May 2018 11:57 pm Operator: georges
Sample : cc4619-25 Inst : MS2M
Misc : op10486,e2m4627,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	77	-0.03	4.63
102	Benzaldehyde	0.975	0.958	1.7	79	-0.03	4.30
103	Acenaphthene-d10a	1.000	1.000	0.0	83	-0.05	7.77
104	1,2,4,5-Tetrachlorobenzen	0.587	0.575	2.0	82	-0.05	6.66
105	Chrysene-d12a	1.000	1.000	0.0	82	-0.04	14.11
106	Benzidine	0.389	0.531	-36.5#	120	-0.04	12.09
107 s	1-chlorooctadecane	0.320	0.331	-3.4	85	-0.05	11.79
108	Phenanthrene-d10a	1.000	1.000	0.0	84	-0.05	9.94
109	Atrazine	0.109	0.114	-4.6	85	-0.05	9.58
110 s	o-terphenyl	0.550	0.558	-1.5	85	-0.05	10.58
111	Pentachloronitrobenzene	0.042	0.045#	-7.1	89	-0.04	9.70
112	Naphthalene-d8a	1.000	1.000	0.0	78	-0.04	5.71
113	Hydroquinone	0.282	0.367	-30.1#	93	-0.02	6.14

(#) = Out of Range
2m103907a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Thu May 17 12:16:51 2018

8.9.14

8

Initial Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-ICC3481
Lab FileID: 2P79039.D

Response Factor Report MS2P

Method : C:\MSDCHEM\1\METHODS\M2P3481.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed May 02 11:50:31 2018
Response via : Initial Calibration

Calibration Files

2 =2p79043.D 5 =2p79042.D 25 =2p79040.D 80 =2p79038.D
100 =2p79037.D 50 =2p79039.D 1 =2p79044.D 10 =2p79041.D

Compound	2	5	25	80	100	50	1	10	Avg %RSD
101) I 1,4-Dichlorobenzene-d									
102) Benzaldehyde	1.115	1.081	1.036	1.024	1.044	1.038	1.056	1.066	2.79
103) I Naphthalene-d8a									
104) Hydroquinone	0.289	0.310	0.347	0.329	0.312	0.345	0.229	0.334	12.37
105) I Acenaphthene-d10a									
106) Atrazine	0.172	0.177	0.176	0.169	0.156	0.178	0.173	0.173	4.10
107) 1,2,4,5-Tetr	0.659	0.629	0.576	0.507	0.483	0.539	0.633	0.595	10.94
108) I Chrysene-d12a									
109) Benzidine	0.331	0.474	0.558	0.508	0.488	0.551	0.227	0.601	27.02
----- Quadratic regression -----									Coefficient = 0.9998
Response Ratio = -0.01140 + 0.61773 *A + -0.05046 *A^2									
110) I Phenanthrene-d10a									
111) 1-Chloroocta	0.291	0.300	0.294	0.277	0.271	0.295	0.273	0.309	4.71
112) o-terphenyl	0.546	0.547	0.535	0.511	0.499	0.537	0.553	0.561	3.94
113) Pentachloron	0.040	0.044	0.047	0.047	0.045	0.047	0.040	0.046	6.91

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

M2P3479.M

Wed May 02 11:58:44 2018

RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-ICV3481
Lab FileID: 2P79046.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79046.D Vial: 11
Acq On : 1 May 2018 11:49 pm Operator: chriss2
Sample : icv3481-50 Inst : MS2P
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed May 02 11:50:31 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105 I	Acenaphthene-d10a	1.000	1.000	0.0	100	0.00	7.11
107	1,2,4,5-Tetrachlorobenzen	0.577	0.708	-22.7	132	0.00	6.39
108 I	Chrysene-d12a	1.000	1.000	0.0	84	0.00	11.59
	----- True Calc. % Drift -----						
109	Benzidine	100.000	82.100	17.9	128	0.00	9.91

(#) = Out of Range
2p79039a.D M2P3479.M

SPCC's out = 0 CCC's out = 0
Wed May 02 11:56:41 2018 RPT1

8.9.16

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-ICV3481
Lab FileID: 2P79047.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79047.D Vial: 12
Acq On : 2 May 2018 12:11 am Operator: chriss2
Sample : icv3481-50 Inst : MS2P
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed May 02 11:50:31 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	118	0.00	4.62
102	Benzaldehyde	1.057	0.996	5.8	113	0.00	4.28
105 I	Acenaphthene-d10a	1.000	1.000	0.0	105	0.00	7.11
106	Atrazine	0.172	0.218	-26.7	129	0.00	8.14

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p79039a.D M2P3479.M Wed May 02 11:56:43 2018 RPT1

8.9.17

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-ICV3481
Lab FileID: 2P79048.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79048.D Vial: 13
Acq On : 2 May 2018 12:32 am Operator: chriss2
Sample : icv3481-50 Inst : MS2P
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed May 02 11:50:31 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
110 I	Phenanthrene-d10a	1.000	1.000	0.0	116	0.00	8.38
113	Pentachloronitrobenzene	0.044	0.048#	-9.1	118	0.00	8.22

(#) = Out of Range
2p79039a.D M2P3479.M

SPCC's out = 0 CCC's out = 0
Wed May 02 11:56:45 2018 RPT1

89.18

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3481-ICV3481
Lab FileID: 2P79049.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79049.D Vial: 14
Acq On : 2 May 2018 12:54 am Operator: chriss2
Sample : icv3481-50 Inst : MS2P
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed May 02 11:50:31 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
103 I	Naphthalene-d8a	1.000	1.000	0.0	134	0.00	5.67
104	Hydroquinone	0.312	0.353	-13.1	138	-0.02	6.13

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2p79039a.D M2P3479.M Wed May 02 11:56:47 2018 RPT1

89.19

8

Initial Calibration Summary

Page 1 of 3

Job Number: JC65800
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICC3484
 Lab FileID: 2P79083.D

Response Factor Report MS2P

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu May 03 12:30:09 2018
 Response via : Initial Calibration

Calibration Files

2 =2p79087.D 5 =2p79086.D 25 =2p79084.D 80 =2p79082.D
 100 =2p79081.D 50 =2p79083.D 1 =2p79088.D 10 =2p79085.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD

1) I 1,4-Dichlorobenzene-d	-----ISTD-----									
2) 1,4-Dioxane	0.559	0.542	0.656	0.782	0.943	0.662	0.339	0.613	0.637	27.84
----- Quadratic regression -----										
Coefficient = 0.9974										
Response Ratio = 0.02544 + 0.37596 *A + 0.21544 *A^2										
3) Pyridine	1.381	1.345	1.578	1.740	2.026	1.670	1.495	1.302	1.567	15.45
4) N-Nitrosodim	0.694	0.699	0.952	1.106	1.158	0.961	0.614	0.855	0.880	22.69
----- Linear regression -----										
Coefficient = 0.9948										
Response Ratio = -0.07189 + 1.14713 *A										
5) 2-Fluorophen	1.291	1.363	1.649	1.887		1.773		1.510	1.579	14.77
6) Indene	2.056	2.057	2.089	2.046	1.969	2.057	2.057	2.157	2.061	2.51
7) Cumene	3.433	3.540	3.999	4.094	4.067	4.020	3.617	3.825	3.824	6.83
8) Phenol-d5	1.540	1.599	1.737	1.701	1.660	1.689	1.476	1.687	1.636	5.48
9) Phenol	1.575	1.674	1.745	1.651	1.644	1.675	1.687	1.733	1.673	3.18
10) Aniline	1.838	1.955	2.321	2.428	2.318	2.373	1.877	2.137	2.156	11.01
11) bis(2-Chloro	1.283	1.342	1.370	1.315	1.360	1.300	1.202	1.356	1.316	4.21
12) 2-Chlorophen	1.461	1.485	1.411	1.310	1.267	1.326	1.469	1.476	1.401	6.20
13) Decane	1.357	1.268	1.236	1.131	1.101	1.135	1.324	1.289	1.230	7.85
14) 1,3-Dichloro	1.674	1.649	1.593	1.555	1.508	1.532	1.699	1.658	1.609	4.45
15) 1,4-Dichloro	1.493	1.474	1.466	1.471	1.447	1.445	1.526	1.505	1.478	1.90
16) Benzyl alcoh	0.478	0.607	0.700	0.707	0.691	0.708		0.677	0.652	12.98
17) 1,2-Dichloro	1.380	1.450	1.495	1.546	1.504	1.492	1.464	1.521	1.481	3.43
18) Acetophenone	1.730	1.705	1.714	1.686	1.635	1.666	1.698	1.811	1.706	3.04
19) 2-Methylphen	1.112	1.079	1.163	1.158	1.102	1.137	1.042	1.229	1.128	5.11
20) 2,2'-oxybis(	0.265	0.324	0.317	0.295	0.289	0.299	0.340	0.343	0.309	8.67
21) 3&4-Methylph	1.108	1.144	1.149	1.103	1.097	1.128	1.018	1.227	1.122	5.25
22) n-Nitroso-di	0.796	0.806	0.805	0.766	0.737	0.774	0.779	0.852	0.790	4.32
23) Hexachloroet	0.464	0.450	0.457	0.467	0.452	0.453	0.486	0.480	0.464	2.90

24) I Naphthalene-d8	-----ISTD-----									
25) Nitrobenzene	0.353	0.371	0.372	0.366	0.366	0.374	0.360	0.387	0.369	2.78
26) Nitrobenzene	0.361	0.369	0.352	0.339	0.335	0.351	0.386	0.376	0.359	4.95
27) Quinoline	0.659	0.700	0.721	0.764	0.767	0.756	0.665	0.747	0.722	6.03
28) Isophorone	0.560	0.598	0.632	0.654	0.663	0.665	0.547	0.633	0.619	7.44
29) 2-Nitropheno		0.189	0.206	0.203	0.202	0.207		0.206	0.202	3.32
30) 2,4-Dimethyl	0.342	0.358	0.361	0.358	0.352	0.365	0.320	0.376	0.354	4.81
31) Benzoic acid	0.074	0.093	0.168	0.207	0.217	0.207		0.133	0.157	36.86
----- Quadratic regression -----										
Coefficient = 0.9990										
Response Ratio = -0.01219 + 0.19449 *A + 0.01053 *A^2										
32) bis(2-Chloro	0.362	0.363	0.347	0.342	0.339	0.354	0.364	0.369	0.355	3.21
33) 2,4-Dichloro	0.287	0.300	0.317	0.329	0.330	0.329	0.264	0.315	0.309	7.67
34) 2,6-Dichloro	0.250	0.266	0.290	0.304	0.306	0.301	0.236	0.287	0.280	9.35
35) 1,3,5-Trichl	0.364	0.362	0.362	0.364	0.357	0.367	0.373	0.373	0.365	1.48
36) 1,2,4-Trichl	0.336	0.338	0.319	0.317	0.317	0.323	0.362	0.345	0.332	4.86

Initial Calibration Summary

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICC3484
Lab FileID: 2P79083.D

37)	1,2,3-Trichl	0.301	0.291	0.287	0.278	0.276	0.287	0.300	0.307	0.291	3.77
38)	Naphthalene	0.974	0.951	0.955	0.954	0.935	0.968	1.002	1.001	0.968	2.47
39)	4-Chloroanil	0.403	0.419	0.435	0.432	0.421	0.444	0.425	0.459	0.430	3.93
40)	2,3-Dichloro	0.364	0.374	0.370	0.376	0.375	0.377	0.359	0.386	0.373	2.21
41)	Caprolactam	0.075	0.092	0.112	0.123	0.122	0.118		0.110	0.107	16.51
42)	Hexachlorobu	0.158	0.162	0.157	0.156	0.153	0.160	0.158	0.166	0.159	2.53
43)	4-Chloro-3-m	0.278	0.296	0.327	0.340	0.338	0.340	0.264	0.326	0.314	9.59
44)	2-Methylnaph	0.608	0.608	0.616	0.598	0.589	0.619	0.600	0.645	0.611	2.78
45)	1-Methylnaph	0.650	0.640	0.641	0.619	0.616	0.640	0.662	0.675	0.643	3.09
46)	Dimethylnaph	0.621	0.596	0.587	0.608	0.612	0.609	0.623	0.630	0.611	2.30
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.243	0.273	0.331	0.331	0.324	0.336		0.317	0.308	11.53
49)	2,4,6-Trichl	0.339	0.364	0.402	0.394	0.389	0.400	0.335	0.392	0.377	7.20
50)	2,4,5-Trichl	0.367	0.385	0.394	0.368	0.354	0.383	0.329	0.405	0.373	6.42
51)	2-Fluorobiph	1.485	1.450	1.358	1.212	1.151	1.262	1.601	1.458	1.372	11.20
52)	2-Chloronaph	1.258	1.200	1.079	0.954	0.931	1.005	1.254	1.216	1.112	12.27
53)	Biphenyl	1.713	1.650	1.529	1.404	1.367	1.445	1.716	1.632	1.557	8.97
54)	2-Nitroanili	0.291	0.328	0.332	0.303	0.288	0.315	0.279	0.355	0.311	8.32
55)	Dimethylphth	1.331	1.334	1.302	1.247	1.225	1.277	1.335	1.385	1.305	4.02
56)	Acenaphthyle	1.957	2.009	1.905	1.711	1.664	1.810	1.899	2.030	1.873	7.15
57)	2,6-Dinitrot	0.242	0.272	0.302	0.289	0.291	0.297	0.211	0.304	0.276	12.03
58)	3-Nitroanili	0.267	0.297	0.333	0.320	0.307	0.335	0.238	0.334	0.304	11.62
59)	Acenaphthene	1.129	1.138	1.156	1.131	1.110	1.165	1.199	1.189	1.152	2.68
60)	2,4-Dinitrop	0.042	0.069	0.134	0.162	0.161	0.152	0.030	0.101	0.106	50.75
----- Quadratic regression -----										Coefficient =	0.9993
Response Ratio = -0.01619 + 0.14975 *A + 0.00329 *A^2											
61)	4-Nitropheno	0.161	0.196	0.186	0.183	0.188		0.189	0.184		6.42
62)	Dibenzofuran	1.582	1.619	1.645	1.556	1.527	1.600	1.600	1.689	1.602	3.16
63)	2,4-Dinitrot	0.306	0.340	0.373	0.352	0.341	0.364	0.234	0.375	0.336	13.97
64)	2,3,4,6-Tetr	0.268	0.278	0.319	0.330	0.327	0.325	0.233	0.314	0.299	11.87
65)	Diethylphtha	1.308	1.343	1.344	1.239	1.210	1.268	1.274	1.411	1.300	5.00
66)	Fluorene	1.313	1.330	1.304	1.197	1.139	1.271	1.336	1.396	1.286	6.40
67)	4-Chlorophen	0.586	0.577	0.592	0.584	0.565	0.594	0.574	0.623	0.587	2.94
68)	4-Nitroanili	0.296	0.338	0.361	0.347	0.336	0.350	0.266	0.374	0.333	10.65
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.043	0.067	0.109	0.123	0.125	0.120	0.036	0.091	0.089	40.74
----- Quadratic regression -----										Coefficient =	0.9997
Response Ratio = -0.00500 + 0.11879 *A + 0.00328 *A^2											
71)	n-Nitrosodip	0.569	0.561	0.521	0.504	0.489	0.511	0.576	0.567	0.537	6.42
72)	1,2-Diphenyl	0.822	0.815	0.745	0.643	0.620	0.690	0.807	0.833	0.747	11.51
73)	2,4,6-Tribo	0.107	0.113	0.125	0.136	0.140	0.134	0.097	0.124	0.122	12.39
74)	4-Bromopheny	0.199	0.206	0.215	0.226	0.231	0.225	0.199	0.220	0.215	5.93
75)	Hexachlorobe	0.259	0.266	0.267	0.271	0.271	0.270	0.281	0.278	0.270	2.59
76)	Pentachlorop	0.055	0.081	0.112	0.134	0.136	0.130	0.048	0.099	0.099	35.16
----- Quadratic regression -----										Coefficient =	0.9995
Response Ratio = -0.00956 + 0.12388 *A + 0.00287 *A^2											
77)	Phenanthrene	1.022	1.003	0.991	1.008	0.993	1.021	1.070	1.035	1.018	2.54
78)	Anthracene	0.978	1.009	1.007	0.974	0.959	1.001	0.948	1.052	0.991	3.37
79)	Carbazole	1.018	1.061	1.082	1.079	1.064	1.108	1.012	1.118	1.068	3.56
80)	Di-n-butylph	1.135	1.299	1.465	1.460	1.444	1.497	1.034	1.453	1.348	13.01
81)	Fluoranthene	1.201	1.266	1.407	1.411	1.397	1.435	1.174	1.381	1.334	7.78
82)	Octadecane	0.317	0.333	0.332	0.311	0.299	0.328	0.296	0.349	0.320	5.70
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.365	1.385	1.317	1.266	1.266	1.327	1.363	1.440	1.341	4.45

8.9.20

8

Initial Calibration Summary

Page 3 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICC3484
Lab FileID: 2P79083.D

85)	Terphenyl-d1	0.853	0.846	0.844	0.889	0.878	0.873	0.874	0.901	0.870	2.36
86)	Butylbenzylp	0.520	0.607	0.701	0.748	0.744	0.746		0.700	0.681	12.67
87)	Benzo[a]anth	1.164	1.185	1.258	1.336	1.323	1.324	1.130	1.278	1.250	6.40
88)	3,3'-Dichlor	0.292	0.330	0.378	0.408	0.412	0.403		0.373	0.371	12.09
89)	Chrysene	1.025	1.006	0.971	0.928	0.915	0.965	1.043	1.034	0.986	4.92
90)	bis(2-Ethylh	0.546	0.636	0.714	0.703	0.692	0.717	0.465	0.731	0.650	14.82
91)	I Perylene-d12	-----ISTD-----									
92)	Di-n-octylph	0.934	1.253	1.742	1.851	1.823	1.835	0.761	1.583	1.473	29.55
	----- Quadratic regression -----	Coefficient = 0.9998									
	Response Ratio = -0.06116 + 1.89887 *A + -0.01697 *A^2										
93)	Benzo[b]fluo	1.323	1.293	1.359	1.332	1.348	1.350	1.276	1.419	1.338	3.28
94)	Benzo[k]fluo	1.119	1.136	1.067	0.975	0.927	1.031	1.128	1.157	1.068	7.82
95)	Benzo[a]pyre	0.951	1.031	1.156	1.173	1.162	1.175	0.964	1.137	1.094	8.78
96)	Indeno[1,2,3	1.019	1.102	1.264	1.325	1.317	1.320	0.992	1.234	1.197	11.59
97)	Dibenz(a,h)a	0.717	0.810	0.952	1.052	1.055	1.017	0.668	0.894	0.896	16.84
98)	Dibenz(a,h)a	0.846	0.909	1.006	1.025	1.025	1.023	0.850	1.004	0.961	8.29
99)	7,12-Dimethy	0.498	0.549	0.614	0.620	0.629	0.624	0.473	0.620	0.578	10.93
100)	Benzo[g,h,i]	0.860	0.858	0.994	1.047	1.038	1.044	0.845	0.970	0.957	9.28

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

M2P3484.M

Thu May 03 12:47:05 2018

RPT1

8.9.20

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
Lab FileID: 2P79089.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79089.D Vial: 11
Acq On : 3 May 2018 6:14 am Operator: chriss2
Sample : icv3484-50 Inst : MS2P
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	173	0.00	4.61
5 S	2-Fluorophenol	1.579	1.555	1.5	151	0.00	3.59
8 S	Phenol-d5	1.636	1.614	1.3	165	0.00	4.42
24 I	Naphthalene-d8	1.000	1.000	0.0	187	0.00	5.66
25 S	Nitrobenzene-d5	0.369	0.380	-3.0	190	0.00	5.10
47 I	Acenaphthene-d10	1.000	1.000	0.0	173	0.00	7.09
51 S	2-Fluorobiphenyl	1.372	1.371	0.1	188	0.00	6.55
69 I	Phenanthrene-d10	1.000	1.000	0.0	161	0.00	8.36
73 S	2,4,6-Tribromophenol	0.122	0.127	-4.1	153	0.00	7.75
83 I	Chrysene-d12	1.000	1.000	0.0	149	0.00	11.56
85 S	Terphenyl-d14	0.870	0.915	-5.2	156	0.00	10.14

(#) = Out of Range
2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
Thu May 03 12:39:22 2018 RPT1

8.9.21
8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
Lab FileID: 2P79090.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79090.D Vial: 12
Acq On : 3 May 2018 6:36 am Operator: chriss2
Sample : icv3484-50 Inst : MS2P
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	152	0.00	4.61
9 t	Phenol	1.673	1.903	-13.7	173	0.00	4.43
12 t	2-Chlorophenol	1.401	1.531	-9.3	176	0.00	4.47
19 t	2-Methylphenol	1.128	1.161	-2.9	155	0.00	4.90
21 t	3&4-Methylphenol	1.122	1.176	-4.8	159	0.00	5.03
24 I	Naphthalene-d8	1.000	1.000	0.0	135	0.00	5.66
29 t	2-Nitrophenol	0.202	0.240	-18.8	157	0.00	5.37
30 t	2,4-Dimethylphenol	0.354	0.369	-4.2	136	0.00	5.44
31 t	Benzoic acid	50.000	27.287	45.4#	66	0.00	5.60
33 t	2,4-Dichlorophenol	0.309	0.320	-3.6	131	0.00	5.58
34 t	2,6-Dichlorophenol	0.280	0.304	-8.6	137	0.00	5.76
43 t	4-Chloro-3-methylphenol	0.314	0.331	-5.4	132	-0.01	6.20
47 I	Acenaphthene-d10	1.000	1.000	0.0	134	0.00	7.09
49 t	2,4,6-Trichlorophenol	0.377	0.403	-6.9	135	0.00	6.50
50 t	2,4,5-Trichlorophenol	0.373	0.380	-1.9	133	-0.01	6.54
60 t	2,4-Dinitrophenol	50.000	48.263	3.5	122	0.00	7.18
61 t	4-Nitrophenol	0.184	0.196	-6.5	140	0.00	7.32
64	2,3,4,6-Tetrachlorophenol	0.299	0.302	-1.0	125	0.00	7.38
69 I	Phenanthrene-d10	1.000	1.000	0.0	132	0.00	8.36
70 t	4,6-Dinitro-2-methylpheno	50.000	52.365	-4.7	137	0.00	7.60
76 t	Pentachlorophenol	50.000	59.284	-18.6	151	0.00	8.21

(#) = Out of Range
2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
Thu May 03 12:39:24 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
Lab FileID: 2P79091.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79091.D Vial: 13
Acq On : 3 May 2018 6:58 am Operator: chriss2
Sample : icv3484-50 Inst : MS2P
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	141	0.00	4.61
3 t	Pyridine	1.567	1.173	25.1	99	0.14	2.49
10	Aniline	2.156	2.116	1.9	125	0.01	4.39
16 t	Benzyl alcohol	0.652	0.721	-10.6	143	0.00	4.78
24 I	Naphthalene-d8	1.000	1.000	0.0	165	0.00	5.66
39 t	4-Chloroaniline	0.430	0.371	13.7	138	0.00	5.77
44 t	2-Methylnaphthalene	0.611	0.517	15.4	138	0.00	6.24
47 I	Acenaphthene-d10	1.000	1.000	0.0	145	0.00	7.09
54 t	2-Nitroaniline	0.311	0.343	-10.3	157	0.00	6.78
58 t	3-Nitroaniline	0.304	0.306	-0.7	132	0.00	7.12
62 t	Dibenzofuran	1.602	1.452	9.4	131	0.00	7.26
68 t	4-Nitroaniline	0.333	0.329	1.2	136	0.00	7.64
69 I	Phenanthrene-d10	1.000	1.000	0.0	138	0.00	8.36
79 t	Carbazole	1.068	1.029	3.7	128	0.00	8.63

(#) = Out of Range
2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
Thu May 03 12:39:26 2018 RPT1

8.9.23

8

Initial Calibration Verification

Page 1 of 2

Job Number: JC65800
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
 Lab FileID: 2P79092.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79092.D Vial: 14
 Acq On : 3 May 2018 7:19 am Operator: chriss2
 Sample : icv3484-50 Inst : MS2P
 Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu May 03 12:30:09 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	146	0.00	4.61
----- True Calc. % Drift -----							
4 t	N-Nitrosodimethylamine	50.000	27.362	45.3#	86	0.01	2.30
----- AvgRF CCRF % Dev -----							
11 t	bis(2-Chloroethyl)ether	1.316	1.389	-5.5	156	0.00	4.41
14 t	1,3-Dichlorobenzene	1.609	1.690	-5.0	161	0.00	4.56
15 t	1,4-Dichlorobenzene	1.478	1.358	8.1	137	0.00	4.62
17 t	1,2-Dichlorobenzene	1.481	1.347	9.0	131	0.00	4.75
20 t	2,2'-oxybis(1-Chloropropa	0.309	0.314	-1.6	153	0.00	4.84
22 t	n-Nitroso-di-n-propylamin	0.790	0.732	7.3	138	-0.01	4.96
23 t	Hexachloroethane	0.464	0.447	3.7	144	0.00	5.03
24 I	Naphthalene-d8	1.000	1.000	0.0	140	0.00	5.66
26 t	Nitrobenzene	0.359	0.336	6.4	134	0.00	5.11
28 t	Isophorone	0.619	0.592	4.4	125	0.00	5.29
32 t	bis(2-Chloroethoxy)methan	0.355	0.388	-9.3	153	0.00	5.48
36 t	1,2,4-Trichlorobenzene	0.332	0.344	-3.6	149	0.00	5.61
38 t	Naphthalene	0.968	0.909	6.1	131	0.00	5.68
42 t	Hexachlorobutadiene	0.159	0.171	-7.5	149	0.00	5.78
47 I	Acenaphthene-d10	1.000	1.000	0.0	130	0.00	7.10
48 t	Hexachlorocyclopentadiene	0.308	0.361	-17.2	127	0.00	6.37
52 t	2-Chloronaphthalene	1.112	1.271	-14.3	165	0.00	6.64
55 t	Dimethylphthalate	1.305	1.374	-5.3	140	0.00	6.90
56 t	Acenaphthylene	1.873	1.768	5.6	127	0.00	6.98
57 t	2,6-Dinitrotoluene	0.276	0.283	-2.5	124	0.00	6.95
59 t	Acenaphthene	1.152	1.079	6.3	121	0.00	7.12
63 t	2,4-Dinitrotoluene	0.336	0.361	-7.4	129	0.00	7.28
65 t	Diethylphthalate	1.300	1.340	-3.1	137	0.00	7.46
66 t	Fluorene	1.286	1.206	6.2	123	0.00	7.54
67 t	4-Chlorophenyl-phenylethe	0.587	0.572	2.6	125	0.00	7.53
69 I	Phenanthrene-d10	1.000	1.000	0.0	140	0.00	8.36
71 t	n-Nitrosodiphenylamine	0.537	0.449	16.4	123	0.00	7.65
72 t	1,2-Diphenylhydrazine	0.747	0.612	18.1	124	0.00	7.67
74 t	4-Bromophenyl-phenylether	0.215	0.199	7.4	124	0.00	7.95
75 t	Hexachlorobenzene	0.270	0.236	12.6	122	0.00	8.01
77 t	Phenanthrene	1.018	0.921	9.5	126	0.00	8.39
78 t	Anthracene	0.991	0.857	13.5	120	0.00	8.44
80 t	Di-n-butylphthalate	1.348	1.282	4.9	120	0.00	8.95

Initial Calibration Verification

Page 2 of 2

Job Number: JC65800
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
 Lab FileID: 2P79092.D

81 t	Fluoranthene	1.334	1.206	9.6	117	0.00	9.66
83 I	Chrysene-d12	1.000	1.000	0.0	117	0.00	11.56
84 t	Pyrene	1.341	1.268	5.4	112	0.00	9.94
86 t	Butylbenzylphthalate	0.681	0.746	-9.5	117	0.00	10.81
87 t	Benzo[a]anthracene	1.250	1.285	-2.8	113	0.00	11.54
89 t	Chrysene	0.986	0.877	11.1	106	0.00	11.60
90 t	bis(2-Ethylhexyl)phthalat	0.650	0.647	0.5	105	0.00	11.60
91 I	Perylene-d12	1.000	1.000	0.0	119	0.00	13.54
----- True Calc. % Drift -----							
92 t	Di-n-octylphthalate	50.000	46.822	6.4	111	0.00	12.51
----- AvgRF CCRF % Dev -----							
93 t	Benzo[b]fluoranthene	1.338	1.276	4.6	113	0.00	13.03
94 t	Benzo[k]fluoranthene	1.068	1.073	-0.5	124	0.00	13.07
95 t	Benzo[a]pyrene	1.094	1.126	-2.9	114	0.00	13.46
96 t	Indeno[1,2,3-cd]pyrene	1.197	1.361	-13.7	123	0.00	14.86
98 t	Dibenz[a,h]anthracene	0.961	1.025	-6.7	120	0.00	14.88
100 t	Benzo[g,h,i]perylene	0.957	1.092	-14.1	125	0.00	15.23

(#) = Out of Range
 2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
 Thu May 03 12:39:28 2018 RPT1

8.9.24
 8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
Lab FileID: 2P79093.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79093.D Vial: 15
Acq On : 3 May 2018 7:41 am Operator: chriss2
Sample : icv3484-50 Inst : MS2P
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	151	0.00	4.61
	----- True		Calc.	% Drift	-----		
2 t	1,4-Dioxane	50.000	51.921	-3.8	160	0.01	1.96
	----- AvgRF		CCRF	% Dev	-----		
6 t	Indene	2.061	2.197	-6.6	162	0.00	4.82
7 t	Cumene	3.824	3.688	3.6	139	0.00	3.92
13 t	Decane	1.230	1.136	7.6	151	0.00	4.45
18 t	Acetophenone	1.706	1.554	8.9	141	0.00	4.96
24 I	Naphthalene-d8	1.000	1.000	0.0	174	0.00	5.66
27 t	Quinoline	0.722	0.618	14.4	142	-0.01	5.97
40 t	2,3-Dichloroaniline	0.373	0.267	28.4	123	0.00	6.51
41 t	Caprolactam	0.107	0.081	24.3	120	-0.03	6.06
45 t	1-Methylnaphthalene	0.643	0.470	26.9	128	0.00	6.32
46 t	Dimethylnaphthalene	0.611	0.451	26.2	129	0.00	6.74
47 I	Acenaphthene-d10	1.000	1.000	0.0	129	0.00	7.09
53 t	Biphenyl	1.557	1.517	2.6	136	0.00	6.63
69 I	Phenanthrene-d10	1.000	1.000	0.0	129	0.00	8.36
82 t	Octadecane	0.320	0.310	3.1	122	0.00	8.20
91 I	Perylene-d12	1.000	1.000	0.0	125	0.00	13.53
99 t	7,12-Dimethylbenz(a)anthr	0.578	0.378	34.6#	76	-0.01	13.02

(#) = Out of Range
2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
Thu May 03 12:39:30 2018 RPT1

8.9.25

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3484-ICV3484
Lab FileID: 2P79094.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79094.D Vial: 16
Acq On : 3 May 2018 8:02 am Operator: chriss2
Sample : icv3484-50 Inst : MS2P
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	152	0.00	11.56
88 t	3,3'-Dichlorobenzidine	0.371	0.353	4.9	133	0.00	11.58

(#) = Out of Range
2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
Thu May 03 12:39:32 2018 RPT1

8.9.26

8

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3500-CC3484
Lab FileID: 2P79476.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3500\2p79476.D Vial: 2
Acq On : 12 May 2018 12:35 am Operator: georges
Sample : cc3484-25 Inst : MS2P
Misc : op10929,e2p3500,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	127	0.05	4.53
	----- True	Calc.	% Drift	-----			
2 t	1,4-Dioxane	25.000	30.376	-21.5#	135	0.06	1.84
	----- AvgRF	CCRF	% Dev	-----			
3 t	Pyridine	1.567	1.400	10.7	113	0.07	2.22
	----- True	Calc.	% Drift	-----			
4 t	N-Nitrosodimethylamine	25.000	20.467	18.1	110	0.06	2.19
	----- AvgRF	CCRF	% Dev	-----			
5 S	2-Fluorophenol	1.579	1.496	5.3	116	0.03	3.51
6 t	Indene	2.061	1.906	7.5	116	0.05	4.74
7 t	Cumene	3.824	3.817	0.2	122	0.02	3.83
8 S	Phenol-d5	1.636	1.429	12.7	105	0.06	4.35
9 t	Phenol	1.673	1.460	12.7	107	0.06	4.36
10	Aniline	2.156	1.782	17.3	98	0.04	4.30
11 t	bis(2-Chloroethyl)ether	1.316	1.163	11.6	108	0.05	4.33
12 t	2-Chlorophenol	1.401	1.282	8.5	116	0.05	4.39
13 t	Decane	1.230	1.182	3.9	122	0.04	4.36
14 t	1,3-Dichlorobenzene	1.609	1.564	2.8	125	0.05	4.48
15 t	1,4-Dichlorobenzene	1.478	1.435	2.9	125	0.05	4.54
16 t	Benzyl alcohol	0.652	0.296	54.6#	54	0.06	4.71
17 t	1,2-Dichlorobenzene	1.481	1.451	2.0	124	0.05	4.67
18 t	Acetophenone	1.706	1.528	10.4	114	0.06	4.89
19 t	2-Methylphenol	1.128	1.033	8.4	113	0.07	4.83
20 t	2,2'-oxybis(1-Chloropropa	0.309	0.268	13.3	108	0.05	4.76
21 t	3&4-Methylphenol	1.122	0.996	11.2	110	0.07	4.96
22 t	n-Nitroso-di-n-propylamin	0.790	0.693	12.3	110	0.06	4.89
23 t	Hexachloroethane	0.464	0.481	-3.7	134	0.05	4.94
	----- True	Calc.	% Drift	-----			
24 I	Naphthalene-d8	1.000	1.000	0.0	114	0.04	5.58
25 S	Nitrobenzene-d5	0.369	0.362	1.9	111	0.04	5.02
26 t	Nitrobenzene	0.359	0.349	2.8	113	0.04	5.04
27 t	Quinoline	0.722	0.703	2.6	111	0.05	5.90
28 t	Isophorone	0.619	0.587	5.2	106	0.03	5.21
29 t	2-Nitrophenol	0.202	0.206	-2.0	114	0.04	5.29
30 t	2,4-Dimethylphenol	0.354	0.302	14.7	96	0.05	5.37
	----- True	Calc.	% Drift	-----			
31 t	Benzoic acid	25.000	32.725	-30.9#	167	0.05	5.53

Continuing Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3500-CC3484
Lab FileID: 2P79476.D

Page 2 of 3

		AvgRF	CCRF	% Dev			
32 t	bis(2-Chloroethoxy)methan	0.355	0.306	13.8	101	0.04	5.40
33 t	2,4-Dichlorophenol	0.309	0.325	-5.2	118	0.05	5.51
34 t	2,6-Dichlorophenol	0.280	0.294	-5.0	116	0.05	5.69
35	1,3,5-Trichlorobenzene	0.365	0.394	-7.9	124	0.04	5.27
36 t	1,2,4-Trichlorobenzene	0.332	0.357	-7.5	128	0.04	5.53
37	1,2,3-Trichlorobenzene	0.291	0.305	-4.8	122	0.05	5.73
38 t	Naphthalene	0.968	0.941	2.8	113	0.04	5.60
39 t	4-Chloroaniline	0.430	0.409	4.9	108	0.05	5.69
40 t	2,3-Dichloroaniline	0.373	0.400	-7.2	123	0.06	6.43
41 t	Caprolactam	0.107	0.102	4.7	104	0.05	6.00
42 t	Hexachlorobutadiene	0.159	0.206	-29.6#	150	0.05	5.70
43 t	4-Chloro-3-methylphenol	0.314	0.307	2.2	108	0.07	6.14
44 t	2-Methylnaphthalene	0.611	0.666	-9.0	124	0.06	6.16
45 t	1-Methylnaphthalene	0.643	0.652	-1.4	116	0.06	6.25
46 t	Dimethylnaphthalene	0.611	0.629	-2.9	123	0.07	6.67
47 I	Acenaphthene-d10	1.000	1.000	0.0	124	0.04	7.02
48 t	Hexachlorocyclopentadiene	0.308	0.380	-23.4#	143	0.02	6.29
49 t	2,4,6-Trichlorophenol	0.377	0.380	-0.8	117	0.04	6.43
50 t	2,4,5-Trichlorophenol	0.373	0.364	2.4	115	0.04	6.48
51 S	2-Fluorobiphenyl	1.372	1.325	3.4	121	0.03	6.47
52 t	2-Chloronaphthalene	1.112	1.044	6.1	120	0.03	6.56
53 t	Biphenyl	1.557	1.450	6.9	118	0.03	6.54
54 t	2-Nitroaniline	0.311	0.290	6.8	109	0.04	6.71
55 t	Dimethylphthalate	1.305	1.274	2.4	122	0.03	6.82
56 t	Acenaphthylene	1.873	1.812	3.3	118	0.04	6.90
57 t	2,6-Dinitrotoluene	0.276	0.289	-4.7	119	0.04	6.88
58 t	3-Nitroaniline	0.304	0.285	6.3	107	0.04	7.05
59 t	Acenaphthene	1.152	1.137	1.3	122	0.04	7.04
		True	Calc.	% Drift			
60 t	2,4-Dinitrophenol	50.000	48.637	2.7	127	0.05	7.12
		AvgRF	CCRF	% Dev			
61 t	4-Nitrophenol	0.184	0.184	0.0	117	0.06	7.27
62 t	Dibenzofuran	1.602	1.600	0.1	121	0.04	7.18
63 t	2,4-Dinitrotoluene	0.336	0.369	-9.8	123	0.06	7.21
64	2,3,4,6-Tetrachlorophenol	0.299	0.334	-11.7	130	0.05	7.32
65 t	Diethylphthalate	1.300	1.295	0.4	120	0.04	7.38
66 t	Fluorene	1.286	1.298	-0.9	124	0.04	7.46
67 t	4-Chlorophenyl-phenylethe	0.587	0.626	-6.6	131	0.04	7.45
68 t	4-Nitroaniline	0.333	0.314	5.7	108	0.05	7.57
69 I	Phenanthrene-d10	1.000	1.000	0.0	120	0.05	8.28
		True	Calc.	% Drift			
70 t	4,6-Dinitro-2-methylpheno	25.000	26.000	-4.0	130	0.07	7.55
		AvgRF	CCRF	% Dev			
71 t	n-Nitrosodiphenylamine	0.537	0.531	1.1	123	0.05	7.57
72 t	1,2-Diphenylhydrazine	0.747	0.674	9.8	109	0.05	7.59
73 S	2,4,6-Tribromophenol	0.122	0.138	-13.1	133	0.05	7.67
74 t	4-Bromophenyl-phenylether	0.215	0.245	-14.0	137	0.05	7.86
75 t	Hexachlorobenzene	0.270	0.294	-8.9	132	0.05	7.92
		True	Calc.	% Drift			
76 t	Pentachlorophenol	50.000	60.342	-20.7#	159	0.06	8.14

8.9.27

8

Continuing Calibration Summary

Page 3 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3500-CC3484
Lab FileID: 2P79476.D

		AvgRF	CCRF	% Dev			
77 t	Phenanthrene	1.018	0.984	3.3	120	0.05	8.30
78 t	Anthracene	0.991	1.008	-1.7	120	0.05	8.34
79 t	Carbazole	1.068	1.028	3.7	114	0.05	8.54
80 t	Di-n-butylphthalate	1.348	1.445	-7.2	119	0.05	8.84
81 t	Fluoranthene	1.334	1.427	-7.0	122	0.05	9.56
82 t	Octadecane	0.320	0.308	3.8	112	0.05	8.11
83 I	Chrysene-d12	1.000	1.000	0.0	128	0.07	11.46
84 t	Pyrene	1.341	1.278	4.7	124	0.04	9.83
85 S	Terphenyl-d14	0.870	0.872	-0.2	133	0.05	10.03
86 t	Butylbenzylphthalate	0.681	0.659	3.2	120	0.05	10.69
87 t	Benzo[a]anthracene	1.250	1.280	-2.4	131	0.06	11.43
88 t	3,3'-Dichlorobenzidine	0.371	0.384	-3.5	130	0.06	11.47
89 t	Chrysene	0.986	0.944	4.3	125	0.06	11.49
90 t	bis(2-Ethylhexyl)phthalat	0.650	0.686	-5.5	123	0.06	11.48
91 I	Perylene-d12	1.000	1.000	0.0	128	0.07	13.43
		True	Calc.	% Drift			
92 t	Di-n-octylphthalate	25.000	23.150	7.4	121	0.05	12.39
		AvgRF	CCRF	% Dev			
93 t	Benzo[b]fluoranthene	1.338	1.318	1.5	124	0.07	12.93
94 t	Benzo[k]fluoranthene	1.068	1.107	-3.7	133	0.06	12.96
95 t	Benzo[a]pyrene	1.094	1.134	-3.7	126	0.07	13.34
96 t	Indeno[1,2,3-cd]pyrene	1.197	1.220	-1.9	124	0.08	14.74
97 t	Dibenz(a,h)acridine	0.896	0.931	-3.9	125	0.08	14.45
98 t	Dibenz[a,h]anthracene	0.961	0.999	-4.0	127	0.07	14.76
99 t	7,12-Dimethylbenz(a)anthr	0.578	0.622	-7.6	130	0.06	12.91
100 t	Benzo[g,h,i]perylene	0.957	0.927	3.1	119	0.08	15.10

(#) = Out of Range
 2p79084a.D M2P3484.M

SPCC's out = 0 CCC's out = 0
 Thu May 17 17:15:34 2018 RPT1

8.9.27

8

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2P3500-CC3481
Lab FileID: 2P79477.D

Evaluate Continuing Calibration Report

```

Data File   : C:\msdchem\1\DATA\2P3500\2p79477.D          Vial: 3
Acq On      : 12 May 2018  12:57 am                      Operator: georges
Sample      : cc3481-25                                    Inst  : MS2P
Misc        : op10929,e2p3500,1000,,,1,1                Multiplr: 1.00
MS Integration Params: lscint.p

```

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu May 03 12:30:09 2018
Response via : Multiple Level Calibration

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

Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	I 1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	75	0.05	4.53
102	Benzaldehyde	1.057	0.844	20.2#	61	0.05	4.19
103	I Naphthalene-d8a	1.000	1.000	0.0	70	0.04	5.58
104	Hydroquinone	0.312	0.261	16.3	52	0.04	6.06
105	I Acenaphthene-d10a	1.000	1.000	0.0	73	0.05	7.02
106	Atrazine	0.172	0.164	4.7	68	0.05	8.04
107	1,2,4,5-Tetrachlorobenzen	0.577	0.564	2.3	72	0.04	6.30
108	I Chrysene-d12a	1.000	1.000	0.0	71	0.07	11.45
109	----- True Benzidine 25.000	Calc. 13.973	% Drift 44.1#	----- 40	0.06	9.79	
	----- AvgRF	CCRF	% Dev	-----			
110	I Phenanthrene-d10a	1.000	1.000	0.0	72	0.05	8.27
111	S 1-Chlorooctadecane	0.289	0.236	18.3	57	0.05	9.36
112	S o-terphenyl	0.536	0.569	-6.2	76	0.05	8.64
113	Pentachloronitrobenzene	0.044	0.054	-22.7#	82	0.05	8.12

```
(#) = Out of Range
2p79084a.D M2P3484.M
```

```
SPCC's out = 0 CCC's out = 0
Thu May 17 17:15:36 2018 RPT1
```

Initial Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICC2164
Lab FileID: 6P471777.D

Response Factor Report MS6P

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Initial Calibration

Calibration Files

2 =6p471781.D 5 =6p471780.D 25 =6p471778.D 80 =6p471776.D
100 =6p471775.D 50 =6p471777.D 1 =6p471782.D 10 =6p471779.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD

1) I 1,4-Dichlorobenzene-d	-----ISTD-----									
2) 1,4-Dioxane	0.769	0.686	0.657	0.621	0.646	0.636	0.780	0.674	0.684	8.74
3) Pyridine	1.975	1.991	1.818	1.697	1.775	1.725	2.124	1.767	1.859	8.19
4) N-Nitrosodim	1.184	1.134	1.030	0.973	1.011	1.003	1.239	1.052	1.078	8.90
5) 2-Fluorophen	1.606	1.528	1.419	1.310	1.309	1.351	1.684	1.455	1.458	9.52
6) Indene	2.744	2.696	2.316	1.881	1.783	2.080	2.819	2.463	2.348	17.05
7) Cumene	4.126	3.939	3.482	3.052	2.971	3.194	4.235	3.585	3.573	13.65
8) Phenol-d5	2.103	2.014	1.808	1.665	1.641	1.705	2.048	1.872	1.857	9.78
9) Phenol	2.430	2.335	2.060	1.777	1.686	1.876	2.399	2.187	2.094	13.85
10) Aniline	2.707	2.630	2.162	1.913	1.829	1.970	2.818	2.345	2.297	16.81
11) bis(2-Chloro	1.640	1.567	1.397	1.271	1.289	1.318	1.756	1.449	1.461	12.15
12) 2-Chlorophen	1.732	1.632	1.463	1.300	1.295	1.368	1.769	1.507	1.508	12.38
13) Decane	2.238	2.131	1.884	1.567	1.532	1.711	2.292	1.997	1.919	15.38
14) 1,3-Dichloro	1.931	1.869	1.649	1.459	1.449	1.536	1.990	1.710	1.699	12.52
15) 1,4-Dichloro	1.941	1.824	1.649	1.453	1.422	1.532	2.152	1.732	1.713	14.75
16) Benzyl alcoh	1.101	1.059	1.006	0.895	0.882	0.930	1.175	1.014	1.008	10.20
17) 1,2-Dichloro	1.837	1.767	1.556	1.341	1.290	1.429	2.014	1.633	1.608	15.76
18) Acetophenone	2.329	2.221	1.856	1.506	1.467	1.639	2.413	2.015	1.931	19.27
19) 2-Methylphen	1.562	1.545	1.332	1.097	1.059	1.189	1.635	1.390	1.351	16.32
20) 2,2'-oxybis(	0.518	0.482	0.434	0.398	0.396	0.409	0.537	0.451	0.453	11.98
21) 3&4-Methylph	1.695	1.610	1.339	1.082	1.046	1.194	1.723	1.478	1.396	19.40
22) n-Nitroso-di	1.302	1.223	1.030	0.865	0.872	0.912	1.351	1.118	1.084	17.95
23) Hexachloroet	0.648	0.633	0.587	0.541	0.534	0.565	0.686	0.597	0.599	8.91
24) I Naphthalene-d8	-----ISTD-----									
25) Nitrobenzene	0.474	0.471	0.429	0.393	0.385	0.402	0.489	0.429	0.434	9.17
26) Nitrobenzene	0.459	0.450	0.403	0.366	0.358	0.375	0.474	0.409	0.412	10.86
27) Quinoline	0.802	0.765	0.692	0.646	0.640	0.657	0.798	0.690	0.712	9.47
28) Isophorone	0.778	0.767	0.690	0.621	0.616	0.641	0.811	0.698	0.703	10.72
29) 2-Nitropheno	0.223	0.216	0.205	0.184	0.181	0.191	0.206	0.202	0.201	7.36
30) 2,4-Dimethyl	0.369	0.375	0.324	0.309	0.304	0.311	0.381	0.341	0.339	9.40
31) Benzoic acid	0.194	0.258	0.286	0.290	0.298	0.293	0.181	0.260	0.257	17.82
32) bis(2-Chloro	0.458	0.452	0.396	0.352	0.340	0.363	0.463	0.396	0.403	12.39
33) 2,4-Dichloro	0.340	0.347	0.307	0.278	0.267	0.290	0.364	0.314	0.313	11.08
34) 2,6-Dichloro	0.355	0.338	0.300	0.265	0.252	0.275	0.358	0.301	0.306	13.35
35) 1,3,5-Trichl	0.400	0.390	0.348	0.299	0.282	0.312	0.405	0.357	0.349	13.60
36) 1,2,4-Trichl	0.384	0.382	0.335	0.299	0.290	0.310	0.393	0.342	0.342	11.90
37) 1,2,3-Trichl	0.369	0.370	0.323	0.284	0.274	0.296	0.385	0.330	0.329	12.84
38) Naphthalene	1.216	1.181	1.017	0.866	0.834	0.923	1.287	1.062	1.048	16.08
39) 4-Chloroanil	0.526	0.508	0.442	0.378	0.356	0.396	0.537	0.452	0.449	15.51
40) 2,3-Dichloro	0.416	0.418	0.361	0.315	0.302	0.328	0.420	0.369	0.366	13.15
41) Caprolactam	0.220	0.213	0.193	0.184	0.185	0.184	0.204	0.191	0.197	6.99
42) Hexachlorobu	0.215	0.211	0.191	0.170	0.166	0.178	0.218	0.194	0.193	10.58
43) 4-Chloro-3-m	0.336	0.335	0.307	0.281	0.279	0.287	0.340	0.307	0.309	8.26
44) 2-Methylnaph	0.694	0.688	0.604	0.518	0.505	0.548	0.728	0.623	0.613	13.87
45) 1-Methylnaph	0.720	0.712	0.620	0.538	0.516	0.562	0.774	0.635	0.635	14.77

Initial Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICC2164
Lab FileID: 6P471777.D

46)	Dimethylnaph	0.767	0.771	0.670	0.583	0.557	0.621	0.786	0.680	0.680	13.06
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.382	0.395	0.376	0.347	0.345	0.357	0.383	0.378	0.370	4.97
49)	2,4,6-Trichl	0.410	0.426	0.371	0.329	0.329	0.348	0.417	0.377	0.376	10.36
50)	2,4,5-Trichl	0.440	0.465	0.416	0.383	0.381	0.400	0.492	0.409	0.423	9.32
51)	2-Fluorobiph	1.768	1.709	1.491	1.318	1.286	1.388	1.827	1.556	1.543	13.47
52)	2-Chloronaph	1.489	1.401	1.232	1.084	1.053	1.138	1.494	1.247	1.267	13.89
53)	Biphenyl	1.987	1.929	1.681	1.432	1.389	1.522	2.040	1.719	1.712	14.81
54)	2-Nitroanili	0.408	0.428	0.403	0.376	0.378	0.390	0.433	0.405	0.403	5.22
55)	Dimethylphth	1.554	1.503	1.344	1.232	1.225	1.273	1.580	1.342	1.382	10.45
56)	Acenaphthyle	2.217	2.148	1.892	1.660	1.657	1.765	2.295	1.945	1.947	12.83
57)	2,6-Dinitrot	0.319	0.317	0.318	0.294	0.303	0.298	0.301	0.302	0.307	3.23
58)	3-Nitroanili	0.418	0.411	0.385	0.359	0.365	0.367	0.379	0.382	0.383	5.54
59)	Acenaphthene	1.575	1.509	1.326	1.151	1.133	1.218	1.593	1.355	1.357	13.63
60)	2,4-Dinitrop	0.085	0.115	0.175	0.189	0.195	0.183	0.135	0.154		27.44
	----- Quadratic regression -----	Coefficient = 0.9999									
	Response Ratio = -0.01506 + 0.17969 *A + 0.00352 *A^2										
61)	4-Nitropheno	0.177	0.186	0.192	0.185	0.192	0.189	0.190	0.180	0.186	3.00
62)	Dibenzofuran	2.038	1.951	1.703	1.467	1.423	1.568	2.099	1.792	1.755	14.75
63)	2,4-Dinitrot	0.405	0.445	0.428	0.377	0.378	0.405	0.382	0.410	0.404	6.04
64)	2,3,4,6-Tetr	0.374	0.397	0.391	0.361	0.365	0.369	0.376	0.370	0.375	3.31
65)	Diethylphtha	1.485	1.431	1.296	1.159	1.157	1.225	1.520	1.319	1.324	10.73
66)	Fluorene	1.672	1.593	1.374	1.150	1.112	1.249	1.686	1.439	1.409	16.16
67)	4-Chlorophen	0.786	0.779	0.661	0.566	0.552	0.602	0.810	0.684	0.680	15.08
68)	4-Nitroanili	0.409	0.425	0.389	0.372	0.384	0.380	0.423	0.387	0.396	5.11
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.089	0.119	0.146	0.157	0.155	0.151	0.124	0.135		18.50
71)	n-Nitrosodip	0.622	0.609	0.543	0.501	0.483	0.511	0.623	0.564	0.557	10.10
72)	1,2-Diphenyl	0.967	0.938	0.832	0.727	0.698	0.754	0.985	0.862	0.845	13.21
73)	2,4,6-Tribro	0.153	0.158	0.153	0.148	0.146	0.145	0.151	0.149	0.150	2.82
74)	4-Bromopheny	0.266	0.268	0.239	0.226	0.217	0.225	0.280	0.246	0.246	9.45
75)	Hexachlorobe	0.324	0.310	0.278	0.264	0.258	0.269	0.345	0.292	0.292	10.66
76)	Pentachlorop	0.152	0.171	0.169	0.167	0.163	0.163	0.146	0.168	0.162	5.39
77)	Phenanthrene	1.404	1.338	1.174	1.055	1.000	1.064	1.479	1.214	1.216	14.47
78)	Anthracene	1.375	1.371	1.197	1.088	1.030	1.106	1.442	1.235	1.231	12.38
79)	Carbazole	1.321	1.272	1.121	1.013	0.970	1.033	1.269	1.156	1.145	11.63
80)	Di-n-butylph	1.388	1.354	1.251	1.122	1.079	1.158	1.414	1.275	1.255	10.03
81)	Fluoranthene	1.452	1.441	1.293	1.173	1.153	1.213	1.487	1.337	1.318	10.01
82)	Octadecane	0.657	0.641	0.588	0.493	0.466	0.522	0.649	0.612	0.579	12.96
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.460	1.469	1.301	1.185	1.152	1.237	1.548	1.343	1.337	10.79
85)	Terphenyl-d1	1.071	1.027	0.925	0.887	0.851	0.882	1.064	0.938	0.956	9.07
86)	Butylbenzylp	0.549	0.567	0.536	0.500	0.492	0.508	0.556	0.529	0.529	5.19
87)	Benzo[a]anth	1.409	1.357	1.195	1.102	1.067	1.135	1.512	1.250	1.253	12.69
88)	3,3'-Dichlor	0.512	0.528	0.467	0.440	0.429	0.453	0.516	0.473	0.477	7.81
89)	Chrysene	1.356	1.354	1.184	1.115	1.079	1.148	1.468	1.210	1.239	11.10
90)	bis(2-Ethylh	0.780	0.817	0.749	0.689	0.664	0.706	0.784	0.761	0.744	7.07
91)	I Perylene-d12	-----ISTD-----									
92)	Di-n-octylph	1.303	1.344	1.264	1.112	1.038	1.183	1.270	1.258	1.221	8.44
93)	Benzo[b]fluo	1.383	1.395	1.244	1.144	1.180	1.157	1.376	1.255	1.267	8.28
94)	Benzo[k]fluo	1.332	1.235	1.131	1.038	0.900	1.084	1.377	1.166	1.158	13.51
95)	Benzo[a]pyre	1.239	1.225	1.090	1.027	0.991	1.039	1.248	1.116	1.122	9.19
96)	Indeno[1,2,3	1.629	1.561	1.438	1.361	1.341	1.386	1.639	1.460	1.477	8.02
97)	Dibenz(a,h)a	1.187	1.181	1.094	1.044	1.016	1.059	1.214	1.092	1.111	6.64
98)	Dibenz[a,h]a	1.400	1.372	1.243	1.180	1.144	1.192	1.386	1.269	1.273	7.93

Initial Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICC2164
Lab FileID: 6P471777.D

99)	7,12-Dimethy	0.538	0.544	0.523	0.508	0.488	0.505	0.545	0.534	0.523	3.97
100)	Benzo[g,h,i]	1.265	1.255	1.149	1.102	1.086	1.119	1.330	1.155	1.183	7.52

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

M6P2164.M Mon Apr 16 09:48:59 2018 ACLIMS

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471783.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471783.D Vial: 10
Acq On : 14 Apr 2018 3:43 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.00	4.66
5 S	2-Fluorophenol	1.458	1.381	5.3	96	0.00	3.68
8 S	Phenol-d5	1.857	1.752	5.7	97	0.00	4.39
24 I	Naphthalene-d8	1.000	1.000	0.0	92	0.00	5.70
25 S	Nitrobenzene-d5	0.434	0.393	9.4	90	0.00	5.09
47 I	Acenaphthene-d10	1.000	1.000	0.0	93	0.00	7.45
51 S	2-Fluorobiphenyl	1.543	1.298	15.9	87	0.00	6.73
69 I	Phenanthrene-d10	1.000	1.000	0.0	83	0.00	9.14
73 S	2,4,6-Tribromophenol	0.150	0.149	0.7	86	0.00	8.33
83 I	Chrysene-d12	1.000	1.000	0.0	85	0.00	12.32
85 S	Terphenyl-d14	0.956	0.867	9.3	83	0.00	11.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471777.D M6P2164.M Mon Apr 16 09:49:20 2018 ACLIMS

8.9.30

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Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471784.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471784.D Vial: 11
Acq On : 14 Apr 2018 4:08 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Multiple Level Calibration

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

Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	4.66
9 t	Phenol	2.094	1.828	12.7	89	0.00	4.40
12 t	2-Chlorophenol	1.508	1.402	7.0	94	0.00	4.50
19 t	2-Methylphenol	1.351	1.260	6.7	97	0.00	4.85
21 t	3&4-Methylphenol	1.396	1.359	2.7	104	0.00	4.97
24 I	Naphthalene-d8	1.000	1.000	0.0	89	0.00	5.70
29 t	2-Nitrophenol	0.201	0.199	1.0	93	0.00	5.37
30 t	2,4-Dimethylphenol	0.339	0.326	3.8	93	0.00	5.40
31 t	Benzoic acid	0.257	0.268	-4.3	81	0.06	5.50
33 t	2,4-Dichlorophenol	0.313	0.295	5.8	91	0.00	5.57
34 t	2,6-Dichlorophenol	0.306	0.294	3.9	95	0.00	5.77
43 t	4-Chloro-3-methylphenol	0.309	0.292	5.5	91	0.00	6.21
47 I	Acenaphthene-d10	1.000	1.000	0.0	81	0.00	7.45
49 t	2,4,6-Trichlorophenol	0.376	0.394	-4.8	91	0.00	6.64
50 t	2,4,5-Trichlorophenol	0.423	0.406	4.0	82	0.00	6.68
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	50.000	44.062	11.9	67	0.00	7.51
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.186	0.186	0.0	79	0.00	7.59
64	2,3,4,6-Tetrachlorophenol	0.375	0.369	1.6	81	0.00	7.82
69 I	Phenanthrene-d10	1.000	1.000	0.0	79	0.00	9.14
70 t	4,6-Dinitro-2-methylpheno	0.135	0.145	-7.4	75	0.00	8.12
76 t	Pentachlorophenol	0.162	0.195	-20.4	90	0.00	8.93

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471777.D M6P2164.M Mon Apr 16 09:49:22 2018 ACLIMS

Initial Calibration Verification

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471785.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471785.D Vial: 12
Acq On : 14 Apr 2018 4:32 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	0.00	4.66
3 t	Pyridine	1.859	1.805	2.9	104	0.10	2.64
10	Aniline	2.297	2.441	-6.3	123	0.01	4.42
16 t	Benzyl alcohol	1.008	1.025	-1.7	109	0.00	4.77
24 I	Naphthalene-d8	1.000	1.000	0.0	106	0.00	5.69
39 t	4-Chloroaniline	0.449	0.396	11.8	106	0.00	5.76
44 t	2-Methylnaphthalene	0.613	0.589	3.9	114	0.00	6.36
47 I	Acenaphthene-d10	1.000	1.000	0.0	110	0.00	7.45
54 t	2-Nitroaniline	0.403	0.351	12.9	99	0.01	6.96
58 t	3-Nitroaniline	0.383	0.309	19.3	92	0.00	7.40
62 t	Dibenzofuran	1.755	1.566	10.8	110	0.00	7.67
68 t	4-Nitroaniline	0.396	0.298	24.7	86	0.01	8.08
69 I	Phenanthrene-d10	1.000	1.000	0.0	100	0.00	9.15
79 t	Carbazole	1.145	1.020	10.9	98	0.00	9.43

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471777.D M6P2164.M Mon Apr 16 09:49:24 2018 ACLIMS

8.9.32

8

Initial Calibration Verification

Page 1 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471786.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471786.D Vial: 13
Acq On : 14 Apr 2018 4:57 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	4.66
4 t	N-Nitrosodimethylamine	1.078	0.861	20.1	79	0.01	2.50
11 t	bis(2-Chloroethyl)ether	1.461	1.376	5.8	96	0.00	4.46
14 t	1,3-Dichlorobenzene	1.699	1.505	11.4	90	0.00	4.62
15 t	1,4-Dichlorobenzene	1.713	1.493	12.8	89	0.00	4.68
17 t	1,2-Dichlorobenzene	1.608	1.413	12.1	91	0.00	4.79
20 t	2,2'-oxybis(1-Chloropropa	0.453	0.442	2.4	99	0.00	4.87
22 t	n-Nitroso-di-n-propylamin	1.084	1.019	6.0	103	0.00	4.97
23 t	Hexachloroethane	0.599	0.522	12.9	85	0.00	5.06
24 I	Naphthalene-d8	1.000	1.000	0.0	87	0.00	5.70
26 t	Nitrobenzene	0.412	0.367	10.9	85	0.00	5.10
28 t	Isophorone	0.703	0.643	8.5	87	0.00	5.30
32 t	bis(2-Chloroethoxy)methan	0.403	0.387	4.0	93	0.00	5.48
36 t	1,2,4-Trichlorobenzene	0.342	0.311	9.1	87	0.00	5.65
38 t	Naphthalene	1.048	0.945	9.8	89	0.00	5.72
42 t	Hexachlorobutadiene	0.193	0.186	3.6	91	0.00	5.83
47 I	Acenaphthene-d10	1.000	1.000	0.0	85	0.00	7.45
48 t	Hexachlorocyclopentadiene	0.370	0.337	8.9	74	0.00	6.53
52 t	2-Chloronaphthalene	1.267	1.130	10.8	84	0.00	6.85
55 t	Dimethylphthalate	1.382	1.227	11.2	82	0.01	7.16
56 t	Acenaphthylene	1.947	1.745	10.4	84	0.00	7.29
57 t	2,6-Dinitrotoluene	0.307	0.275	10.4	78	0.01	7.22
59 t	Acenaphthene	1.357	1.191	12.2	83	0.00	7.48
63 t	2,4-Dinitrotoluene	0.404	0.349	13.6	73	0.00	7.66
65 t	Diethylphthalate	1.324	1.162	12.2	81	0.00	7.95
66 t	Fluorene	1.409	1.212	14.0	82	0.00	8.06
67 t	4-Chlorophenyl-phenylethe	0.680	0.583	14.3	82	0.00	8.07
69 I	Phenanthrene-d10	1.000	1.000	0.0	80	0.00	9.15
71 t	n-Nitrosodiphenylamine	0.557	0.509	8.6	80	0.00	8.20
72 t	1,2-Diphenylhydrazine	0.845	0.782	7.5	83	0.00	8.25
74 t	4-Bromophenyl-phenylether	0.246	0.224	8.9	80	0.00	8.63
75 t	Hexachlorobenzene	0.292	0.265	9.2	79	0.00	8.70
77 t	Phenanthrene	1.216	1.087	10.6	82	0.00	9.17
78 t	Anthracene	1.231	1.093	11.2	79	0.00	9.23
80 t	Di-n-butylphthalate	1.255	1.138	9.3	79	0.00	9.89
81 t	Fluoranthene	1.318	1.155	12.4	76	0.00	10.59
83 I	Chrysene-d12	1.000	1.000	0.0	75	0.00	12.32
84 t	Pyrene	1.337	1.235	7.6	75	0.00	10.86

Initial Calibration Verification

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471786.D

86	t	Butylbenzylphthalate	0.529	0.507	4.2	75	0.00	11.69
87	t	Benzo[a]anthracene	1.253	1.104	11.9	73	0.00	12.31
89	t	Chrysene	1.239	1.115	10.0	73	0.00	12.36
90	t	bis(2-Ethylhexyl)phthalat	0.744	0.697	6.3	74	0.00	12.41
91	I	Perylene-d12	1.000	1.000	0.0	71	0.00	13.92
92	t	Di-n-octylphthalate	1.221	1.210	0.9	73	0.00	13.15
93	t	Benzo[b]fluoranthene	1.267	1.122	11.4	69	0.01	13.53
94	t	Benzo[k]fluoranthene	1.158	1.069	7.7	70	0.01	13.56
95	t	Benzo[a]pyrene	1.122	1.030	8.2	71	0.01	13.87
96	t	Indeno[1,2,3-cd]pyrene	1.477	1.379	6.6	71	0.01	15.09
98	t	Dibenz[a,h]anthracene	1.273	1.169	8.2	70	0.02	15.12
100	t	Benzo[g,h,i]perylene	1.183	1.183	0.0	75	0.02	15.42

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471777.D M6P2164.M Mon Apr 16 09:49:26 2018 ACLIMS

8.9.33
8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471787.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471787.D Vial: 14
Acq On : 14 Apr 2018 5:22 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	4.66
2 t	1,4-Dioxane	0.684	0.643	6.0	93	0.02	2.23
6 t	Indene	2.348	2.446	-4.2	108	0.00	4.86
7 t	Cumene	3.573	3.235	9.5	93	0.00	4.07
13 t	Decane	1.919	1.732	9.7	93	0.00	4.55
18 t	Acetophenone	1.931	1.923	0.4	108	0.00	4.96
24 I	Naphthalene-d8	1.000	1.000	0.0	91	0.00	5.70
27 t	Quinoline	0.712	0.650	8.7	90	0.00	6.01
40 t	2,3-Dichloroaniline	0.366	0.303	17.2	84	0.00	6.64
41 t	Caprolactam	0.197	0.168	14.7	83	0.02	6.07
45 t	1-Methylnaphthalene	0.635	0.534	15.9	87	0.00	6.46
46 t	Dimethylnaphthalene	0.680	0.605	11.0	89	0.00	7.00
47 I	Acenaphthene-d10	1.000	1.000	0.0	81	0.00	7.45
53 t	Biphenyl	1.712	1.721	-0.5	92	0.00	6.83
69 I	Phenanthrene-d10	1.000	1.000	0.0	79	0.00	9.14
82 t	Octadecane	0.579	0.588	-1.6	89	0.00	9.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471777.D M6P2164.M Mon Apr 16 09:49:28 2018 ACLIMS

8.9.34

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Initial Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICC2165
Lab FileID: 6P471791.D

Response Factor Report MS6P

Method : C:\MSDCHEM\1\METHODS\M6P2165.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Initial Calibration

Calibration Files

2 =6p471795.D 5 =6p471794.D 25 =6p471792.D 80 =6p471790.D
100 =6p471789.D 50 =6p471791.D 1 =6p471796.D 10 =6p471793.D

Compound	2	5	25	80	100	50	1	10	Avg %RSD
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101)	1,4-Dichlorobenzene-d	-----ISTD-----							
102)	Benzaldehyde	1.519	1.446	1.278	1.098	1.018	1.156	1.541	1.308 1.295 15.14
103)	Acenaphthene-d10a	-----ISTD-----							
104)	1,2,4,5-Tetr	0.802	0.783	0.658	0.615	0.588	0.621	0.778	0.674 0.690 12.40
105)	Phenanthrene-d10a	-----ISTD-----							
106)	1-chloroocta	0.412	0.453	0.414	0.371	0.355	0.380	0.386	0.405 0.397 7.74
107)	o-terphenyl	0.787	0.779	0.676	0.622	0.590	0.613	0.763	0.685 0.689 11.42
108)	Atrazine	0.132	0.138	0.130	0.120	0.116	0.122	0.128	0.131 0.127 5.80
109)	I Chrysene-d12a	-----ISTD-----							
110)	benzidine	0.814	0.939	0.795	0.579		0.624	0.689	0.864 0.758 17.34
111)	I Naphthalene-d8a	-----ISTD-----							
112)	Hydroquinone	0.341	0.395	0.378	0.366	0.354	0.363	0.276	0.366 0.355 10.00
113)	Phenanthrene-d10b	-----ISTD-----							
114)	Pentachloron	0.041	0.051	0.048	0.047	0.046	0.046	0.038	0.046 0.045# 8.83

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

M6P2164.M Mon Apr 16 10:21:59 2018 ACLIMS

8.9.35

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2164
Lab FileID: 6P471797.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471797.D Vial: 23
Acq On : 14 Apr 2018 9:12 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

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

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I Chrysene-d12	1.000	1.000	0.0	147	0.00	12.32
88 t 3,3'-Dichlorobenzidine	0.477	0.435	8.8	141	0.00	12.30

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:45 2018 ACLIMS

8.9.36

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Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2165
Lab FileID: 6P471797A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471797a.D Vial: 23
Acq On : 14 Apr 2018 9:12 am Operator: sufiyana
Sample : icv2165-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
109 I	Chrysene-d12a	1.000	1.000	0.0	156	0.00	12.32
110 T	benzidine	0.758	0.737	2.8	185	0.01	10.78

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:47 2018 ACLIMS

8.9.37

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2165
Lab FileID: 6P471798.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471798.D Vial: 24
Acq On : 14 Apr 2018 9:37 am Operator: sufiyana
Sample : icv2165-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
111 I	Naphthalene-d8a	1.000	1.000	0.0	94	0.00	5.70
112 T	Hydroquinone	0.355	0.357	-0.6	92	-0.02	6.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:49 2018 ACLIMS

8.9.38

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2165
Lab FileID: 6P471799.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471799.D Vial: 13
Acq On : 14 Apr 2018 10:02 am Operator: sufiyana
Sample : icv2165-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
103	Acenaphthene-d10a	1.000	1.000	0.0	92	0.00	7.45
104	1,2,4,5-Tetrachlorobenzen	0.690	0.613	11.2	91	0.00	6.53

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:51 2018 ACLIMS

8.9.39

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2165
Lab FileID: 6P471800.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471800.D Vial: 14
Acq On : 14 Apr 2018 10:26 am Operator: sufiyana
Sample : icv2165-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	89	0.00	4.66
102	Benzaldehyde	1.295	1.018	21.4	78	0.00	4.33
105	Phenanthrene-d10a	1.000	1.000	0.0	84	0.00	9.14
108	Atrazine	0.127	0.121	4.7	84	0.00	8.84

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:53 2018 ACLIMS

8.9.40

8

Initial Calibration Verification

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2165
Lab FileID: 6P471801.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471801.D Vial: 12
Acq On : 14 Apr 2018 10:51 am Operator: sufiyana
Sample : icv2165-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

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

Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.

113	Phenanthrene-d10b	1.000	1.000	0.0	113	0.00	9.15
114	Pentachloronitrobenzene	0.045	0.047#	-4.4	115	0.00	8.95

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:55 2018 ACLIMS

8.9.41
8

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2215-CC2164
Lab FileID: 6P473087.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2215\6p473087.D Vial: 2
Acq On : 18 May 2018 7:25 pm Operator: sufiyana
Sample : cc2164-50 Inst : MS6P
Misc : op8717,e6p2215,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuSat May 19 11:02:18 2018
Last Update : Sat May 19 11:02:18 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	60	-0.04	4.49
2 t	1,4-Dioxane	0.684	0.563	17.7	53	-0.04	1.98
3 t	Pyridine	1.859	1.414	23.9#	49#	-0.13	2.33
4 t	N-Nitrosodimethylamine	1.078	0.801	25.7#	48#	-0.11	2.29
5 S	2-Fluorophenol	1.458	1.300	10.8	58	-0.06	3.52
6 t	Indene	2.348	2.439	-3.9	70	-0.04	4.68
7 t	Cumene	3.573	3.707	-3.8	70	-0.05	3.89
8 S	Phenol-d5	1.857	1.686	9.2	59	-0.04	4.25
9 t	Phenol	2.094	1.986	5.2	64	-0.04	4.26
10	Aniline	2.297	1.801	21.6#	55	-0.02	4.25
11 t	bis(2-Chloroethyl)ether	1.461	1.288	11.8	59	-0.04	4.29
12 t	2-Chlorophenol	1.508	1.430	5.2	63	-0.04	4.34
13 t	Decane	1.919	1.523	20.6#	53	-0.04	4.37
14 t	1,3-Dichlorobenzene	1.699	1.571	7.5	61	-0.04	4.44
15 t	1,4-Dichlorobenzene	1.713	1.622	5.3	64	-0.04	4.50
16 t	Benzyl alcohol	1.008	0.898	10.9	58	-0.04	4.60
17 t	1,2-Dichlorobenzene	1.608	1.530	4.9	64	-0.04	4.61
18 t	Acetophenone	1.931	2.127	-10.2	78	-0.03	4.80
19 t	2-Methylphenol	1.351	1.321	2.2	67	-0.03	4.71
20 t	2,2'-oxybis(1-Chloropropa	0.453	0.418	7.7	61	-0.03	4.69
21 t	3&4-Methylphenol	1.396	1.397	-0.1	70	-0.03	4.82
22 t	n-Nitroso-di-n-propylamin	1.084	1.188	-9.6	78	-0.03	4.80
23 t	Hexachloroethane	0.599	0.506	15.5	54	-0.04	4.87
24 I	Naphthalene-d8	1.000	1.000	0.0	59	-0.04	5.50
25 S	Nitrobenzene-d5	0.434	0.412	5.1	61	-0.04	4.91
26 t	Nitrobenzene	0.412	0.419	-1.7	66	-0.03	4.93
27 t	Quinoline	0.712	0.709	0.4	64	-0.02	5.84
28 t	Isophorone	0.703	0.709	-0.9	66	-0.04	5.12
29 t	2-Nitrophenol	0.201	0.195	3.0	61	-0.04	5.19
30 t	2,4-Dimethylphenol	0.339	0.368	-8.6	70	-0.04	5.24
31 t	Benzoic acid	0.257	0.284	-10.5	58	0.00	5.38
32 t	bis(2-Chloroethoxy)methan	0.403	0.349	13.4	57	-0.04	5.30
33 t	2,4-Dichlorophenol	0.313	0.287	8.3	59	-0.03	5.40
34 t	2,6-Dichlorophenol	0.306	0.287	6.2	62	-0.04	5.59
35	1,3,5-Trichlorobenzene	0.349	0.334	4.3	64	-0.04	5.19
36 t	1,2,4-Trichlorobenzene	0.342	0.303	11.4	58	-0.04	5.45
37	1,2,3-Trichlorobenzene	0.329	0.309	6.1	62	-0.04	5.65
38 t	Naphthalene	1.048	1.085	-3.5	70	-0.04	5.52
39 t	4-Chloroaniline	0.449	0.408	9.1	61	-0.04	5.58
40 t	2,3-Dichloroaniline	0.366	0.360	1.6	65	-0.04	6.44
41 t	Caprolactam	0.197	0.161	18.3	52	-0.02	5.91

Continuing Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2215-CC2164
Lab FileID: 6P473087.D

42	t	Hexachlorobutadiene	0.193	0.162	16.1	54	-0.04	5.63
43	t	4-Chloro-3-methylphenol	0.309	0.348	-12.6	72	-0.02	6.05
44	t	2-Methylnaphthalene	0.613	0.632	-3.1	69	-0.04	6.16
45	t	1-Methylnaphthalene	0.635	0.658	-3.6	70	-0.04	6.25
46	t	Dimethylnaphthalene	0.680	0.657	3.4	63	-0.04	6.79
47	I	Acenaphthene-d10	1.000	1.000	0.0	62	-0.05	7.23
48	t	Hexachlorocyclopentadiene	0.370	0.226	38.9#	39#	-0.05	6.32
49	t	2,4,6-Trichlorophenol	0.376	0.355	5.6	63	-0.04	6.45
50	t	2,4,5-Trichlorophenol	0.423	0.384	9.2	60	-0.04	6.50
51	S	2-Fluorobiphenyl	1.543	1.419	8.0	64	-0.05	6.52
52	t	2-Chloronaphthalene	1.267	1.159	8.5	63	-0.05	6.64
53	t	Biphenyl	1.712	1.590	7.1	65	-0.04	6.63
54	t	2-Nitroaniline	0.403	0.415	-3.0	66	-0.04	6.76
55	t	Dimethylphthalate	1.382	1.351	2.2	66	-0.05	6.95
56	t	Acenaphthylene	1.947	1.920	1.4	68	-0.05	7.08
57	t	2,6-Dinitrotoluene	0.307	0.315	-2.6	66	-0.03	7.02
58	t	3-Nitroaniline	0.383	0.319	16.7	54	-0.04	7.20
59	t	Acenaphthene	1.357	1.237	8.8	63	-0.05	7.26
----- True			Calc.	% Drift	-----			
60	t	2,4-Dinitrophenol	100.000	76.888	23.1#	47	-0.07	7.33
----- AvgRF			CCRF	% Dev	-----			
61	t	4-Nitrophenol	0.186	0.180	3.2	59	-0.04	7.44
62	t	Dibenzofuran	1.755	1.669	4.9	66	-0.05	7.45
63	t	2,4-Dinitrotoluene	0.404	0.431	-6.7	66	-0.03	7.47
64	t	2,3,4,6-Tetrachlorophenol	0.375	0.275	26.7#	46#	-0.04	7.61
65	t	Diethylphthalate	1.324	1.414	-6.8	72	-0.04	7.74
66	t	Fluorene	1.409	1.383	1.8	69	-0.04	7.84
67	t	4-Chlorophenyl-phenylethe	0.680	0.639	6.0	66	-0.04	7.85
68	t	4-Nitroaniline	0.396	0.281	29.0#	46#	-0.03	7.89
69	I	Phenanthrene-d10	1.000	1.000	0.0	58	-0.05	8.91
70	t	4,6-Dinitro-2-methylpheno	0.135	0.139	-3.0	54	-0.03	7.94
71	t	n-Nitrosodiphenylamine	0.557	0.588	-5.6	67	-0.05	7.99
72	t	1,2-Diphenylhydrazine	0.845	0.887	-5.0	69	-0.05	8.03
73	S	2,4,6-Tribromophenol	0.150	0.114	24.0#	46#	-0.05	8.12
74	t	4-Bromophenyl-phenylether	0.246	0.210	14.6	54	-0.05	8.40
75	t	Hexachlorobenzene	0.292	0.241	17.5	52	-0.04	8.48
76	t	Pentachlorophenol	0.162	0.130	19.8	46#	-0.04	8.72
77	t	Phenanthrene	1.216	1.100	9.5	60	-0.04	8.95
78	t	Anthracene	1.231	1.170	5.0	62	-0.05	9.01
79	t	Carbazole	1.145	1.042	9.0	59	-0.04	9.21
80	t	Di-n-butylphthalate	1.255	1.387	-10.5	70	-0.04	9.66
81	t	Fluoranthene	1.318	1.204	8.6	58	-0.04	10.36
82	t	Octadecane	0.579	0.582	-0.5	65	-0.04	8.85
83	I	Chrysene-d12	1.000	1.000	0.0	52	-0.05	12.09
84	t	Pyrene	1.337	1.380	-3.2	57	-0.06	10.63
85	S	Terphenyl-d14	0.956	0.909	4.9	53	-0.06	10.84
86	t	Butylbenzylphthalate	0.529	0.682	-28.9#	69	-0.05	11.46
87	t	Benzo[a]anthracene	1.253	1.167	6.9	53	-0.05	12.08
88	t	3,3'-Dichlorobenzidine	0.477	0.449	5.9	51	-0.05	12.07
89	t	Chrysene	1.239	1.151	7.1	52	-0.05	12.12
90	t	bis(2-Ethylhexyl)phthalat	0.744	0.908	-22.0#	66	-0.05	12.17
91	I	Perylene-d12	1.000	1.000	0.0	50	-0.06	13.69
92	t	Di-n-octylphthalate	1.221	1.570	-28.6#	67	-0.06	12.91
93	t	Benzo[b]fluoranthene	1.267	1.206	4.8	53	-0.06	13.30

8.9.42
8

Continuing Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2215-CC2164
Lab FileID: 6P473087.D

94	t	Benzo[k]fluoranthene	1.158	1.185	-2.3	55	-0.06	13.33
95	t	Benzo[a]pyrene	1.122	1.052	6.2	51	-0.06	13.63
96	t	Indeno[1,2,3-cd]pyrene	1.477	1.374	7.0	50#	-0.09	14.79
97	t	Dibenz(a,h)acridine	1.111	1.028	7.5	49#	-0.08	14.54
98	t	Dibenz[a,h]anthracene	1.273	1.219	4.2	52	-0.09	14.81
99	t	7,12-Dimethylbenz(a)anthr	0.523	0.580	-10.9	58	-0.06	13.29
100	t	Benzo[g,h,i]perylene	1.183	1.095	7.4	49#	-0.10	15.10

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Sat May 19 11:04:15 2018 ACLIMS

8.9.42
8

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2215-CC2165
Lab FileID: 6P473088.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2215\6p473088.D Vial: 3
Acq On : 18 May 2018 7:49 pm Operator: sufiyana
Sample : cc2165-50 Inst : MS6P
Misc : op8717,e6p2215,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuSat May 19 11:02:18 2018
Last Update : Sat May 19 11:02:18 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	59	-0.04	4.49
102	Benzaldehyde	1.295	0.902	30.3#	46#	-0.04	4.17
103	Acenaphthene-d10a	1.000	1.000	0.0	67	-0.05	7.22
104	1,2,4,5-Tetrachlorobenzen	0.690	0.527	23.6#	57	-0.05	6.33
105	Phenanthrene-d10a	1.000	1.000	0.0	65	-0.05	8.92
106 S	1-chlorooctadecane	0.397	0.360	9.3	62	-0.04	10.28
107 S	o-terphenyl	0.689	0.559	18.9	59	-0.05	9.39
108	Atrazine	0.127	0.111	12.6	60	-0.05	8.63
109 I	Chrysene-d12a	1.000	1.000	0.0	60	-0.06	12.08
110 T	benzidine	0.758	0.303	60.0#	29#	-0.07	10.55
111 I	Naphthalene-d8a	1.000	1.000	0.0	61	-0.04	5.50
112 T	Hydroquinone	0.355	0.301	15.2	50	-0.02	5.91
113	Phenanthrene-d10b	1.000	1.000	0.0	65	-0.05	8.92
114	Pentachloronitrobenzene	0.045	0.043#	4.4	61	-0.05	8.73

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Sat May 19 11:05:31 2018 ACLIMS

8.9.43

8



MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3500\
 Data File : 2p79499.D
 Acq On : 12 May 2018 8:50 am
 Operator : georges
 Sample : jc65800-1
 Misc : op11923,e2p3500,31.1,,,1,1
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: May 17 17:55:08 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu May 10 09:07:01 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

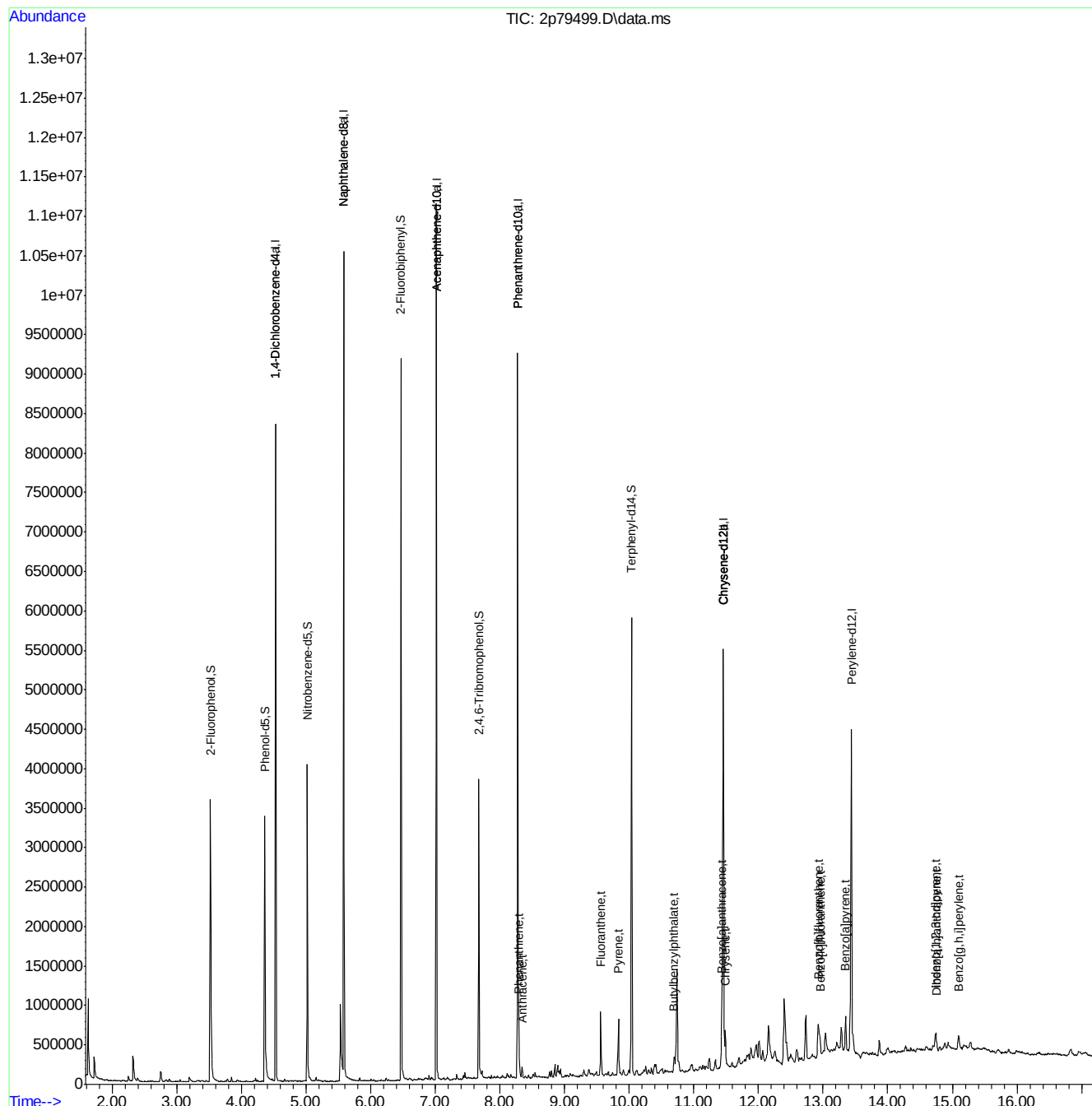
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.529	152	1063420	40.00	ppm	0.00
24) Naphthalene-d8	5.588	136	3437575	40.00	ppm	0.00
47) Acenaphthene-d10	7.016	164	1684092	40.00	ppm	0.00
69) Phenanthrene-d10	8.278	188	2911068	40.00	ppm	0.00
83) Chrysene-d12	11.455	240	2155369	40.00	ppm	0.01
91) Perylene-d12	13.439	264	1795368	40.00	ppm	0.03
101) 1,4-Dichlorobenzene-d4a	4.529	152	1063420	40.00	ppm	0.00
103) Naphthalene-d8a	5.588	136	3437575	40.00	ppm	# 0.00
105) Acenaphthene-d10a	7.016	164	1684092	40.00	ppm	0.00
108) Chrysene-d12a	11.455	240	2155369	40.00	ppm	0.01
110) Phenanthrene-d10a	8.278	188	2911068	40.00	ppm	0.00
114) Chrysene-d12b	11.455	240	2155369	40.00	ppm	0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.523	112	1003205	23.90	ppm	0.00
Spiked Amount	50.000	Range	11 - 58	Recovery	=	47.80%
8) Phenol-d5	4.363	99	1100252	25.30	ppm	0.02
Spiked Amount	50.000	Range	10 - 59	Recovery	=	50.60%
25) Nitrobenzene-d5	5.021	82	957733	30.23	ppm	0.00
Spiked Amount	50.000	Range	19 - 61	Recovery	=	60.46%
51) 2-Fluorobiphenyl	6.470	172	2138963	37.02	ppm	-0.01
Spiked Amount	50.000	Range	21 - 58	Recovery	=	74.04%#
73) 2,4,6-Tribromophenol	7.674	330	367696	41.36	ppm	0.00
Spiked Amount	50.000	Range	12 - 68	Recovery	=	82.72%#
85) Terphenyl-d14	10.038	244	1874890	40.01	ppm	0.00
Spiked Amount	50.000	Range	16 - 65	Recovery	=	80.02%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
Target Compounds						
						Qvalue
77) Phenanthrene	8.299	178	134781	1.82	ppm	98
78) Anthracene	8.348	178	52139	0.72	ppm	97
81) Fluoranthene	9.562	202	320190	3.30	ppm	95
84) Pyrene	9.834	202	282779	3.91	ppm	98
86) Butylbenzylphthalate	10.696	149	52079	1.42	ppm	95
87) Benzo[a]anthracene	11.434	228	233432	3.47	ppm	94
89) Chrysene	11.487	228	168951	3.18	ppm	96
93) Benzo[b]fluoranthene	12.926	252	289786m	4.83	ppm	
94) Benzo[k]fluoranthene	12.953	252	81949m	1.71	ppm	
95) Benzo[a]pyrene	13.348	252	197113	4.02	ppm	95
96) Indeno[1,2,3-cd]pyrene	14.739	276	124705	2.32	ppm	90
98) Dibenz[a,h]anthracene	14.755	278	34287m	0.79	ppm	
100) Benzo[g,h,i]perylene	15.097	276	107710	2.51	ppm	88

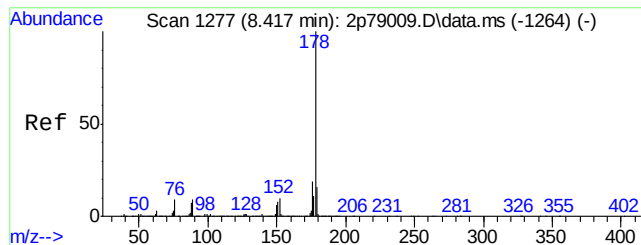
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3500\
 Data File : 2p79499.D
 Acq On : 12 May 2018 8:50 am
 Operator : georges
 Sample : jc65800-1
 Misc : op11923,e2p3500,31.1,,,1,1
 ALS Vial : 25 Sample Multiplier: 1

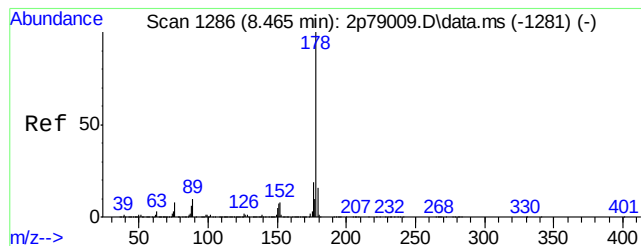
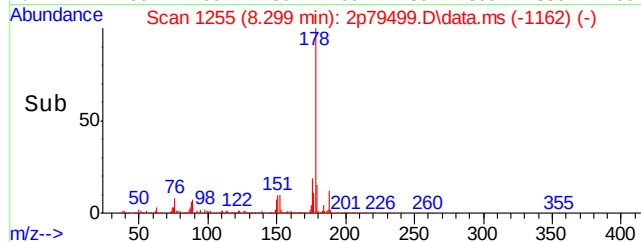
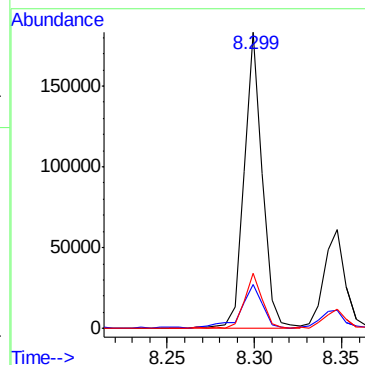
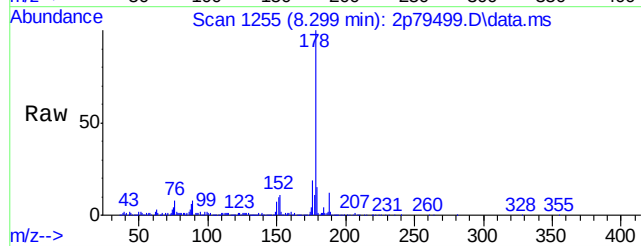
Quant Time: May 17 17:55:08 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu May 10 09:07:01 2018
 Response via : Initial Calibration





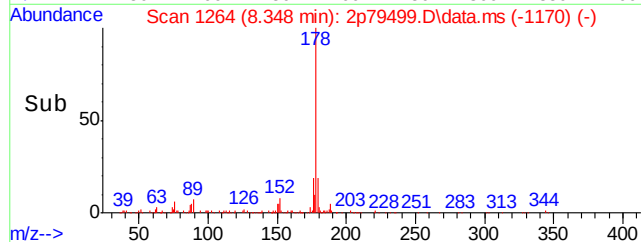
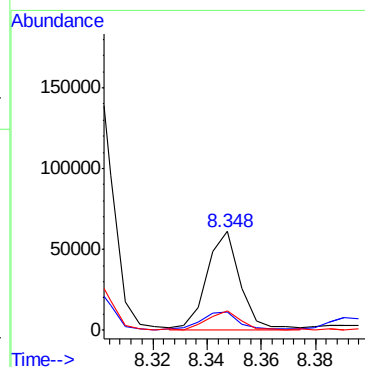
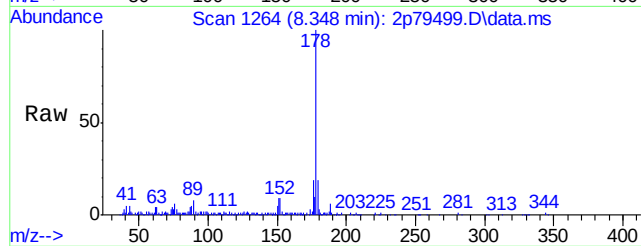
#77
Phenanthrene
Concen: 1.82 ppm
RT: 8.299 min Scan# 1255
Delta R.T. -0.005 min
Lab File: 2p79499.D
Acq: 12 May 2018 8:50 am

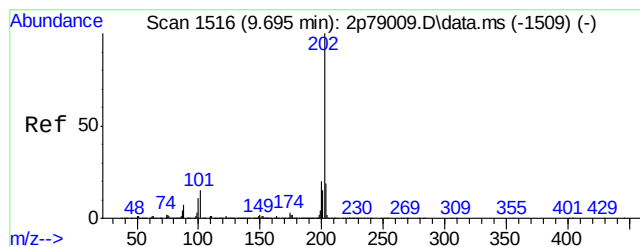
Tgt	Ion:178	Resp:	134781
Ion	Ratio	Lower	Upper
178	100		
179	14.6	0.0	45.6
176	18.3	0.0	49.1



#78
Anthracene
Concen: 0.72 ppm
RT: 8.348 min Scan# 1264
Delta R.T. 0.001 min
Lab File: 2p79499.D
Acq: 12 May 2018 8:50 am

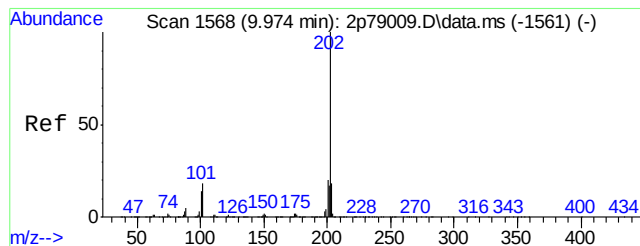
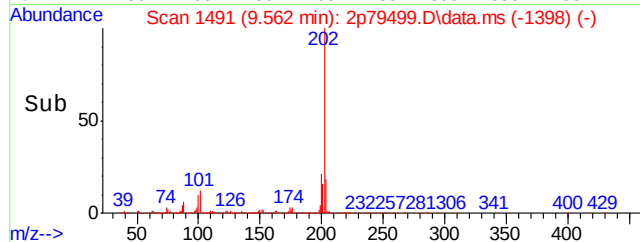
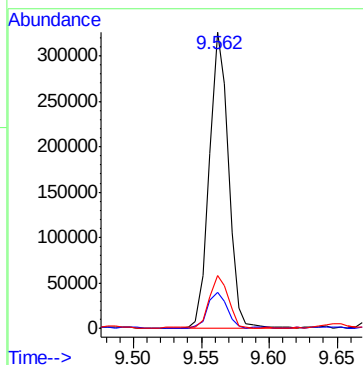
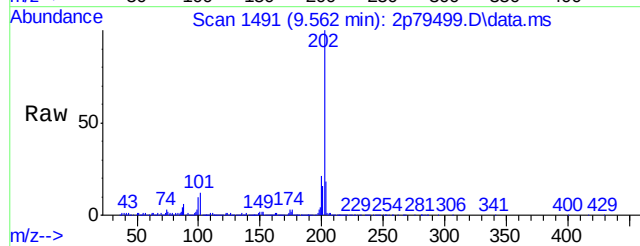
Tgt	Ion:178	Resp:	52139
Ion	Ratio	Lower	Upper
178	100		
179	17.4	0.0	45.7
176	18.1	0.0	48.8





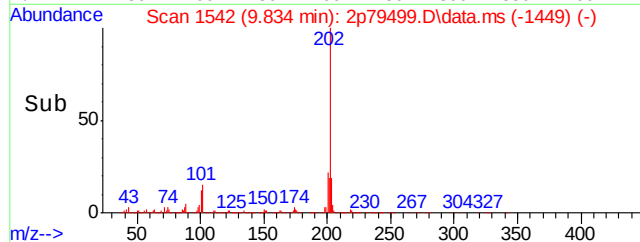
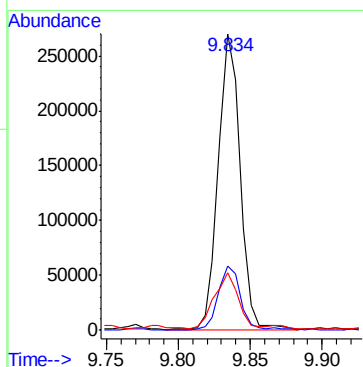
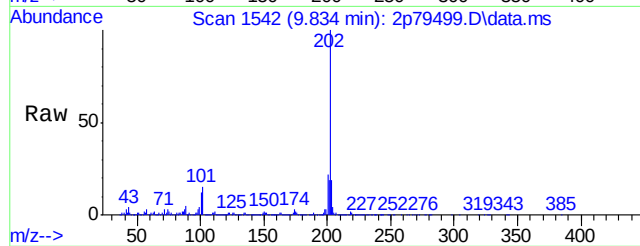
#81
 Fluoranthene
 Concen: 3.30 ppm
 RT: 9.562 min Scan# 1491
 Delta R.T. -0.003 min
 Lab File: 2p79499.D
 Acq: 12 May 2018 8:50 am

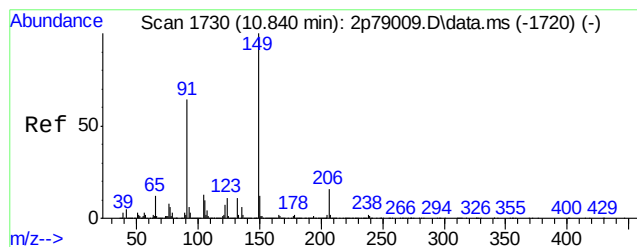
Tgt	Ion:202	Resp:	320190
Ion	Ratio	Lower	Upper
202	100		
101	11.9	0.0	45.6
203	17.5	0.0	48.4



#84
 Pyrene
 Concen: 3.91 ppm
 RT: 9.834 min Scan# 1542
 Delta R.T. -0.001 min
 Lab File: 2p79499.D
 Acq: 12 May 2018 8:50 am

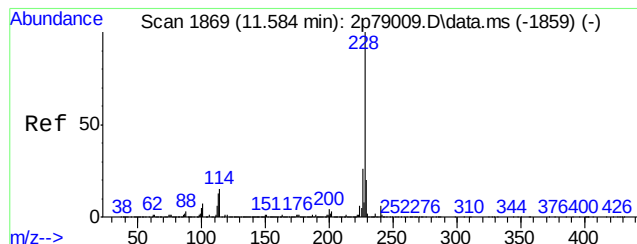
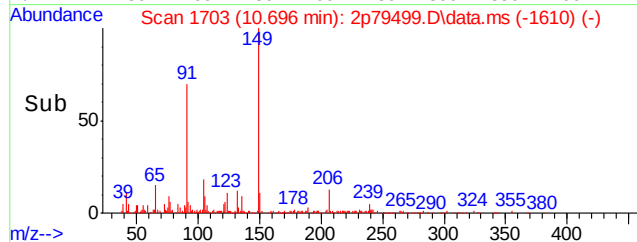
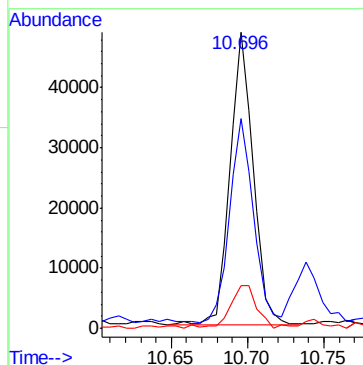
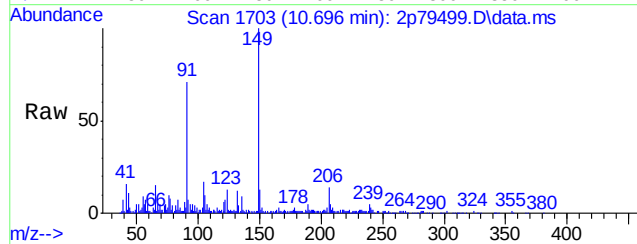
Tgt	Ion:202	Resp:	282779
Ion	Ratio	Lower	Upper
202	100		
200	21.3	0.0	50.7
203	18.7	0.0	47.7





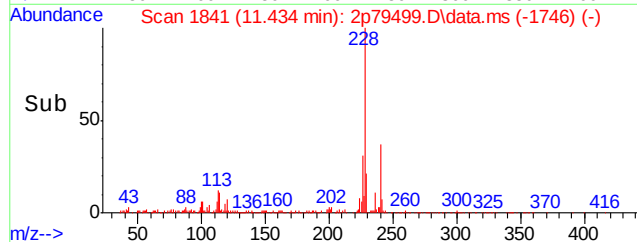
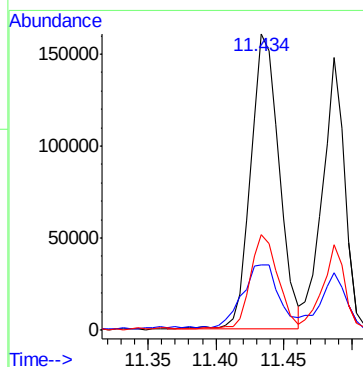
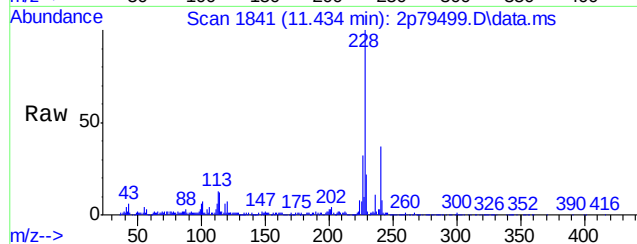
#86
Butylbenzylphthalate
Concen: 1.42 ppm
RT: 10.696 min Scan# 1703
Delta R.T. -0.002 min
Lab File: 2p79499.D
Acq: 12 May 2018 8:50 am

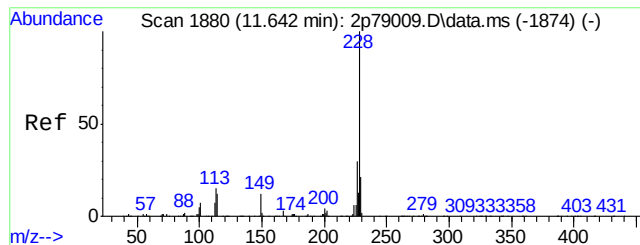
Tgt Ion:	149	Resp:	52079
Ion Ratio	Lower	Upper	
149	100		
91	62.3	36.9	96.9
206	13.7	0.0	45.3



#87
Benzo[a]anthracene
Concen: 3.47 ppm
RT: 11.434 min Scan# 1841
Delta R.T. 0.010 min
Lab File: 2p79499.D
Acq: 12 May 2018 8:50 am

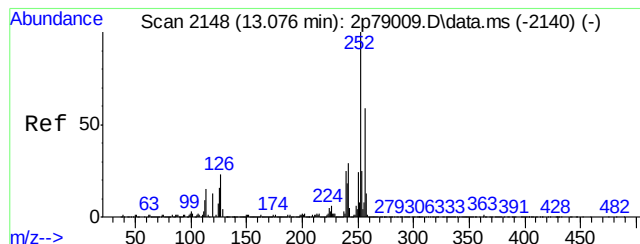
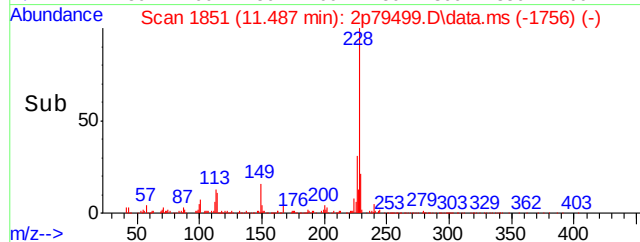
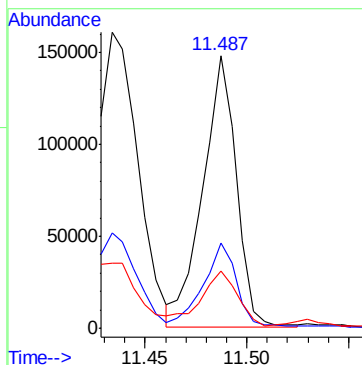
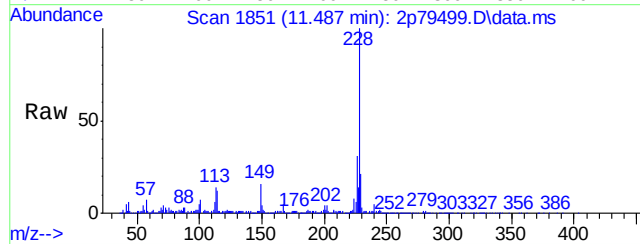
Tgt Ion:	228	Resp:	233432
Ion Ratio	Lower	Upper	
228	100		
229	20.3	0.0	50.2
226	32.2	0.0	56.8





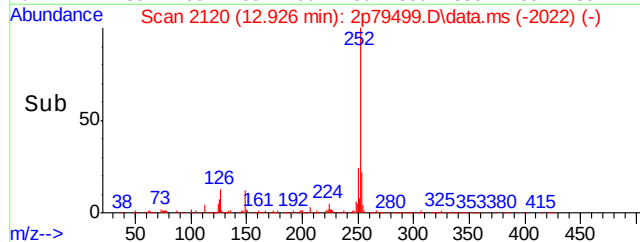
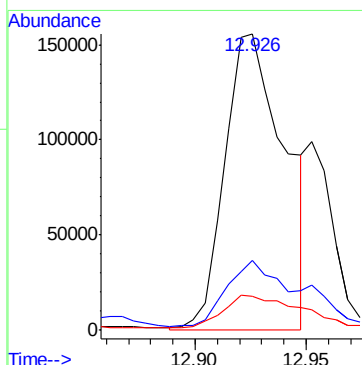
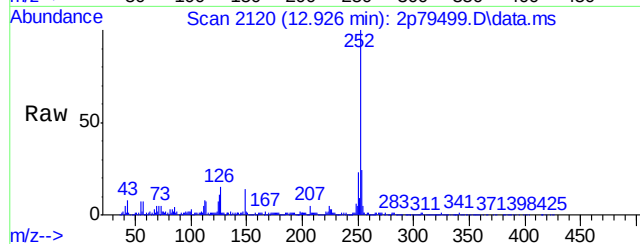
#89
 Chrysene
 Concen: 3.18 ppm
 RT: 11.487 min Scan# 1851
 Delta R.T. 0.006 min
 Lab File: 2p79499.D
 Acq: 12 May 2018 8:50 am

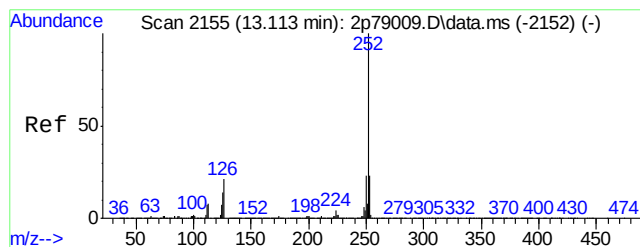
Tgt Ion:	228	Resp:	168951
Ion Ratio	Lower	Upper	
228	100		
226	31.5	0.0	59.4
229	18.3	0.0	49.9



#93
 Benzo[b]fluoranthene
 Concen: 4.83 ppm m
 RT: 12.926 min Scan# 2120
 Delta R.T. 0.022 min
 Lab File: 2p79499.D
 Acq: 12 May 2018 8:50 am

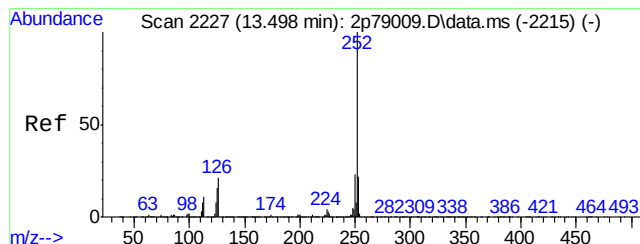
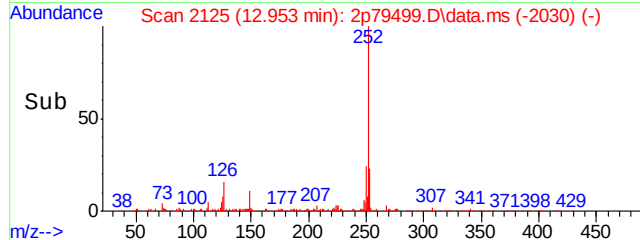
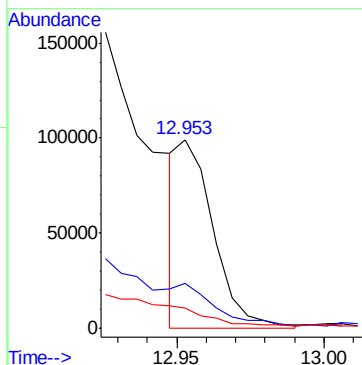
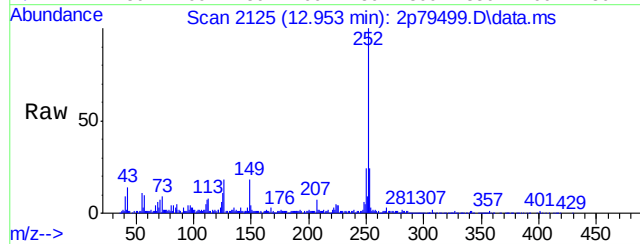
Tgt Ion:	252	Resp:	289786
Ion Ratio	Lower	Upper	
252	100		
253	23.7	0.0	55.5
125	11.5	0.0	49.6





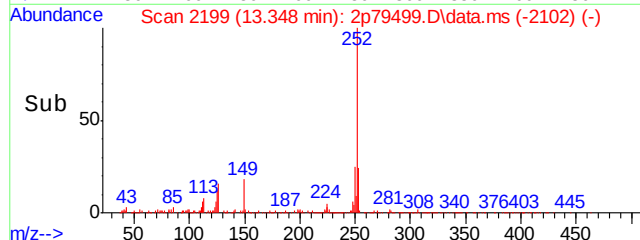
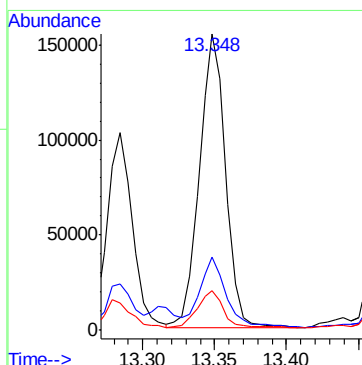
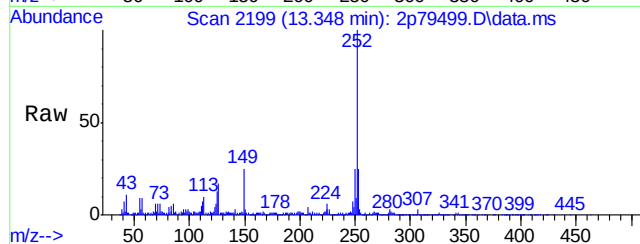
#94
Benzo[k]fluoranthene
Concen: 1.71 ppm
RT: 12.953 min Scan# 2125
Delta R.T. 0.006 min
Lab File: 2p79499.D
Acq: 12 May 2018 8:50 am

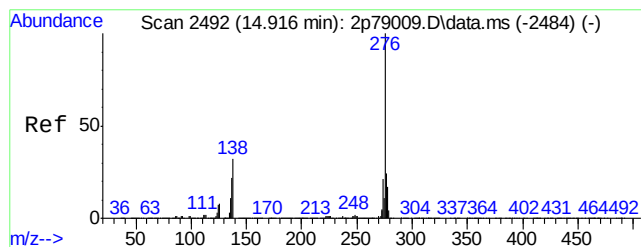
Tgt Ion	Ratio	Lower	Upper
252	100		
253	23.9	0.0	52.6
125	10.5	0.0	45.2



#95
Benzo[a]pyrene
Concen: 4.02 ppm
RT: 13.348 min Scan# 2199
Delta R.T. 0.021 min
Lab File: 2p79499.D
Acq: 12 May 2018 8:50 am

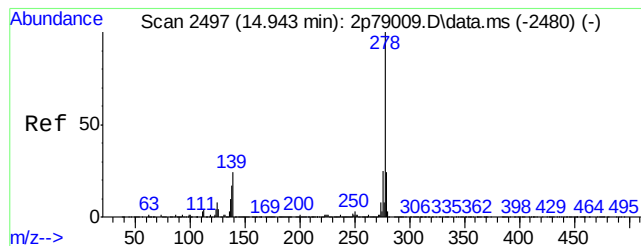
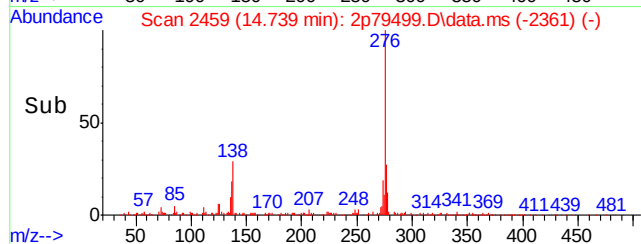
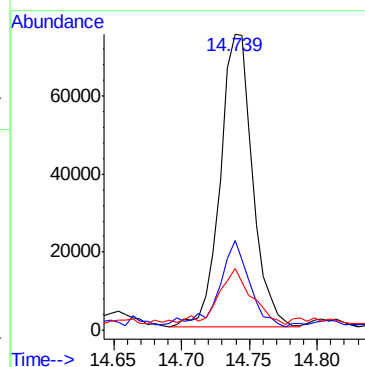
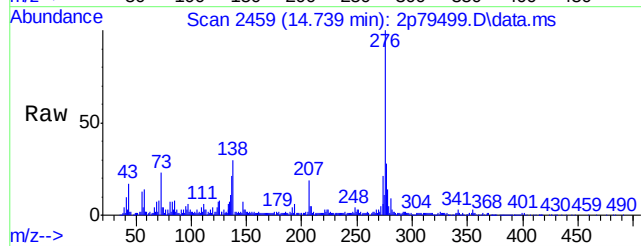
Tgt Ion	Ratio	Lower	Upper
252	100		
253	20.5	0.0	51.5
125	12.7	0.0	46.4





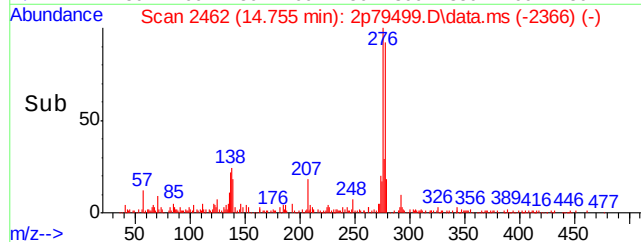
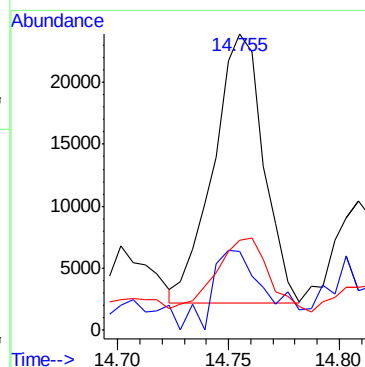
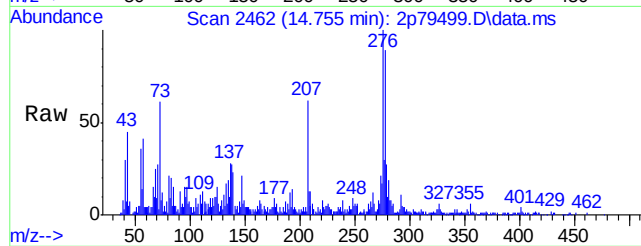
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 2.32 ppm
 RT: 14.739 min Scan# 2459
 Delta R.T. 0.023 min
 Lab File: 2p79499.D
 Acq: 12 May 2018 8:50 am

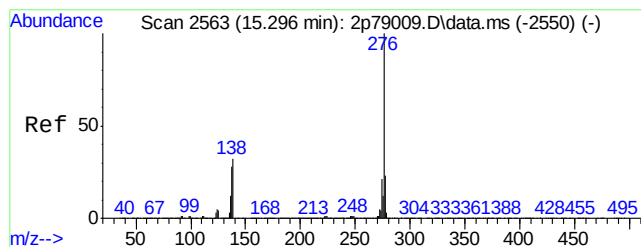
Tgt Ion:	276	Resp:	124705
Ion Ratio	Lower	Upper	
276	100		
138	28.4	3.3	63.3
137	17.4	0.0	53.5



#98
 Dibenzo[a,h]anthracene
 Concen: 0.79 ppm m
 RT: 14.755 min Scan# 2462
 Delta R.T. 0.013 min
 Lab File: 2p79499.D
 Acq: 12 May 2018 8:50 am

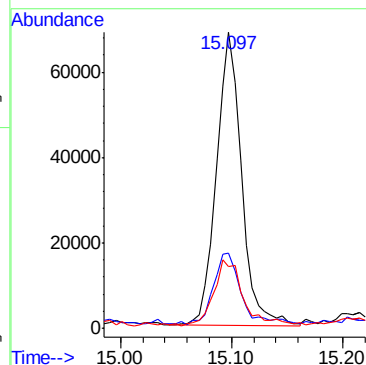
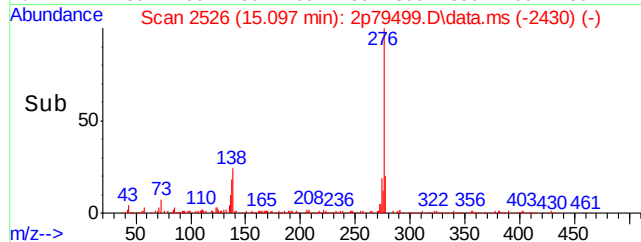
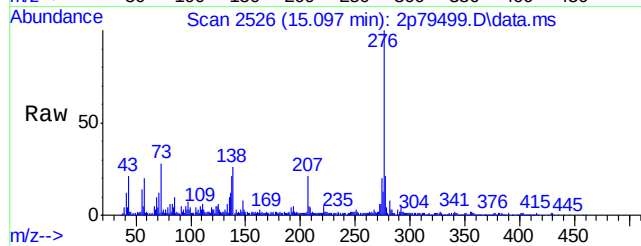
Tgt Ion:	278	Resp:	34287
Ion Ratio	Lower	Upper	
278	100		
139	26.4	0.0	55.1
279	30.2	0.0	54.3





#100
Benzo[g,h,i]perylene
Concen: 2.51 ppm
RT: 15.097 min Scan# 2526
Delta R.T. 0.016 min
Lab File: 2p79499.D
Acq: 12 May 2018 8:50 am

Tgt Ion	Ratio	Lower	Upper
276	100		
138	24.5	2.9	62.9
277	19.8	0.0	53.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2215\
 Data File : 6p473095.D
 Acq On : 18 May 2018 10:45 pm
 Operator : sufiyana
 Sample : jc65800-1a
 Misc : op12025,e6p2215,100,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 19 11:27:48 2018

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuSat May 19 11:17:06 2018

QLast Update : Sat May 19 11:17:06 2018

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.486	152	383049	40.00	ppm	-0.04
24) Naphthalene-d8	5.503	136	1549401	40.00	ppm	-0.04
47) Acenaphthene-d10	7.225	164	809585	40.00	ppm	-0.05
69) Phenanthrene-d10	8.915	188	1491645	40.00	ppm	-0.05
83) Chrysene-d12	12.081	240	1332167	40.00	ppm	-0.06
91) Perylene-d12	13.686	264	1371365	40.00	ppm	-0.07
101) 1,4-Dichlorobenzene-d4a	4.486	152	383049	40.00	ppm	-0.04
103) Acenaphthene-d10a	7.225	164	809585	40.00	ppm	-0.05
105) Phenanthrene-d10a	8.915	188	1491645	40.00	ppm	-0.05
109) Chrysene-d12a	12.081	240	1332167	40.00	ppm	-0.06
111) Naphthalene-d8a	5.503	136	1549401	40.00	ppm	-0.04
113) Phenanthrene-d10b	8.915	188	1491645	40.00	ppm	-0.05
115) Chrysene-d12b	12.081	240	1331698	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.524	112	286679	20.53	ppm	-0.06
Spiked Amount 50.000			Recovery	=	41.06%	
8) Phenol-d5	4.251	99	234228	13.17	ppm	-0.04
Spiked Amount 50.000			Recovery	=	26.34%	
25) Nitrobenzene-d5	4.914	82	610344	36.28	ppm	-0.04
Spiked Amount 50.000			Recovery	=	72.56%	
51) 2-Fluorobiphenyl	6.519	172	1182112	37.85	ppm	-0.05
Spiked Amount 50.000			Recovery	=	75.70%	
73) 2,4,6-Tribromophenol	8.113	330	182790	32.58	ppm	-0.05
Spiked Amount 50.000			Recovery	=	65.16%	
85) Terphenyl-d14	10.841	244	1588479	49.91	ppm	-0.06
Spiked Amount 50.000			Recovery	=	99.82%	
106) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
107) o-terphenyl	0.000	230	0	0.00	ppm	

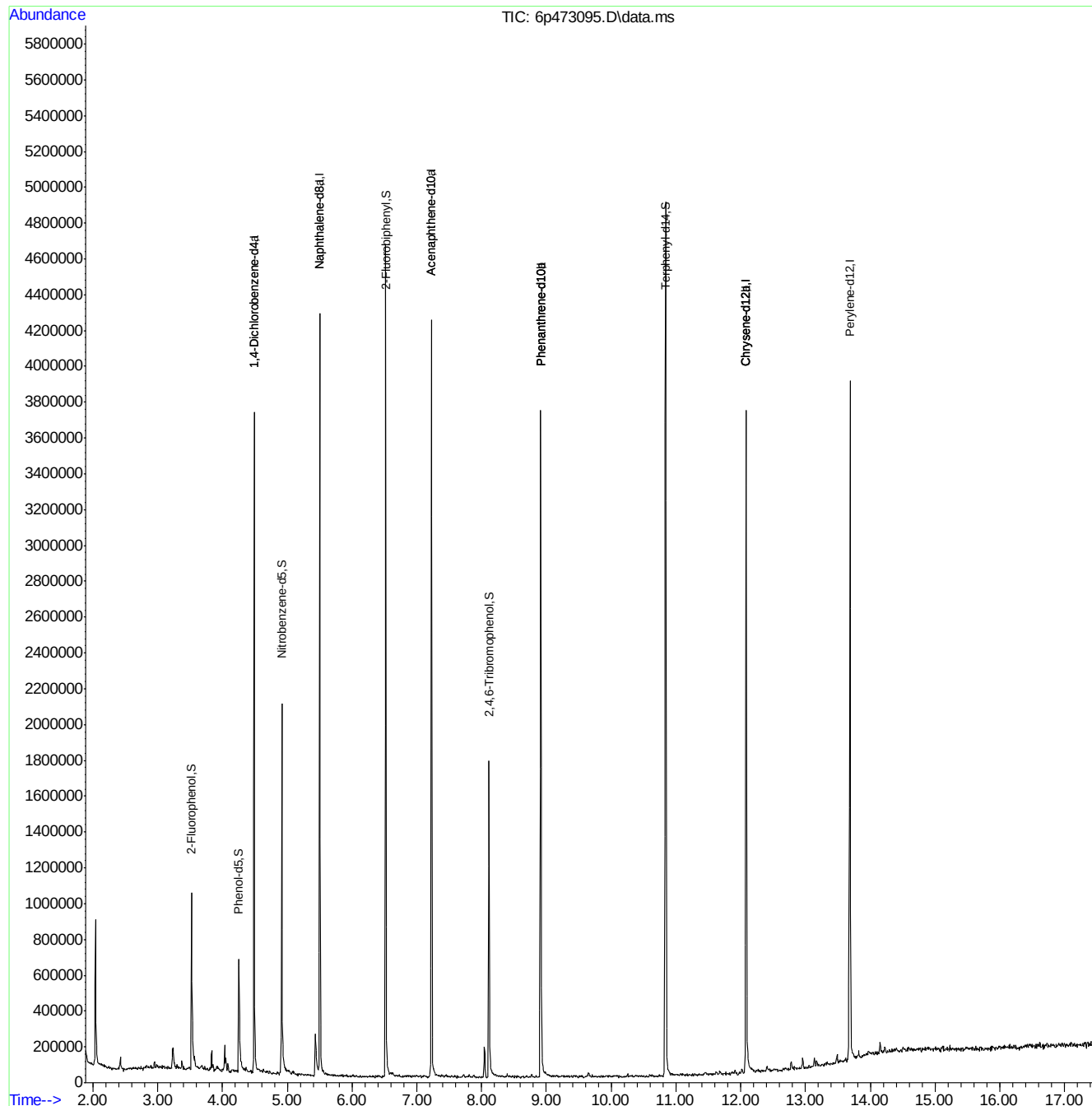
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2215\
 Data File : 6p473095.D
 Acq On : 18 May 2018 10:45 pm
 Operator : sufiyana
 Sample : jc65800-1a
 Misc : op12025,e6p2215,100,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 19 11:27:48 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuSat May 19 11:17:06 2018
 QLast Update : Sat May 19 11:17:06 2018
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3500\
 Data File : 2p79500.D
 Acq On : 12 May 2018 9:12 am
 Operator : georges
 Sample : jc65800-2
 Misc : op11923,e2p3500,31.7,,,1,1
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 17 17:57:14 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu May 10 09:07:01 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.534	152	1051625	40.00	ppm	0.00
24) Naphthalene-d8	5.588	136	3456100	40.00	ppm	0.00
47) Acenaphthene-d10	7.016	164	1640746	40.00	ppm	0.00
69) Phenanthrene-d10	8.278	188	2769023	40.00	ppm	0.00
83) Chrysene-d12	11.460	240	1926663	40.00	ppm	0.02
91) Perylene-d12	13.439	264	1729344	40.00	ppm	0.03
101) 1,4-Dichlorobenzene-d4a	4.534	152	1051625	40.00	ppm	0.00
103) Naphthalene-d8a	5.588	136	3456100	40.00	ppm	# 0.00
105) Acenaphthene-d10a	7.016	164	1640746	40.00	ppm	0.00
108) Chrysene-d12a	11.460	240	1926663	40.00	ppm	0.02
110) Phenanthrene-d10a	8.278	188	2769023	40.00	ppm	0.00
114) Chrysene-d12b	11.460	240	1926663	40.00	ppm	0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.523	112	738359	17.79	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery =	35.58%		
8) Phenol-d5	4.363	99	809695	18.82	ppm	0.02
Spiked Amount 50.000	Range 10 - 59		Recovery =	37.64%		
25) Nitrobenzene-d5	5.021	82	721419	22.65	ppm	0.00
Spiked Amount 50.000	Range 19 - 61		Recovery =	45.30%		
51) 2-Fluorobiphenyl	6.470	172	1642812	29.19	ppm	-0.01
Spiked Amount 50.000	Range 21 - 58		Recovery =	58.38%#		
73) 2,4,6-Tribromophenol	7.673	330	278318	32.91	ppm	0.00
Spiked Amount 50.000	Range 12 - 68		Recovery =	65.82%		
85) Terphenyl-d14	10.038	244	1347024	32.15	ppm	0.00
Spiked Amount 50.000	Range 16 - 65		Recovery =	64.30%		
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
Target Compounds						
38) Naphthalene	5.604	128	43602	0.52	ppm	99
56) Acenaphthylene	6.903	152	57030	0.74	ppm	93
59) Acenaphthene	7.042	153	18792m	0.40	ppm	
77) Phenanthrene	8.299	178	308290	4.38	ppm	98
78) Anthracene	8.347	178	113472	1.65	ppm	98
79) Carbazole	8.545	167	49880	0.67	ppm	97
81) Fluoranthene	9.567	202	905507	9.81	ppm	95
84) Pyrene	9.840	202	834372	12.92	ppm	99
87) Benzo[a]anthracene	11.439	228	571310	9.49	ppm	88
89) Chrysene	11.492	228	425210	8.96	ppm	98
93) Benzo[b]fluoranthene	12.931	252	673890m	11.65	ppm	
94) Benzo[k]fluoranthene	12.958	252	254554m	5.52	ppm	
95) Benzo[a]pyrene	13.354	252	552358	11.68	ppm	93
96) Indeno[1,2,3-cd]pyrene	14.750	276	348765	6.74	ppm	85
98) Dibenz[a,h]anthracene	14.760	278	92301m	2.22	ppm	
100) Benzo[g,h,i]perylene	15.108	276	308002	7.44	ppm	89
102) Benzaldehyde	4.202	105	13670	0.49	ppm	# 66

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3500\
Data File : 2p79500.D
Acq On : 12 May 2018 9:12 am
Operator : georges
Sample : jc65800-2
Misc : op11923,e2p3500,31.7,,,1,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 17 17:57:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 10 09:07:01 2018
Response via : Initial Calibration

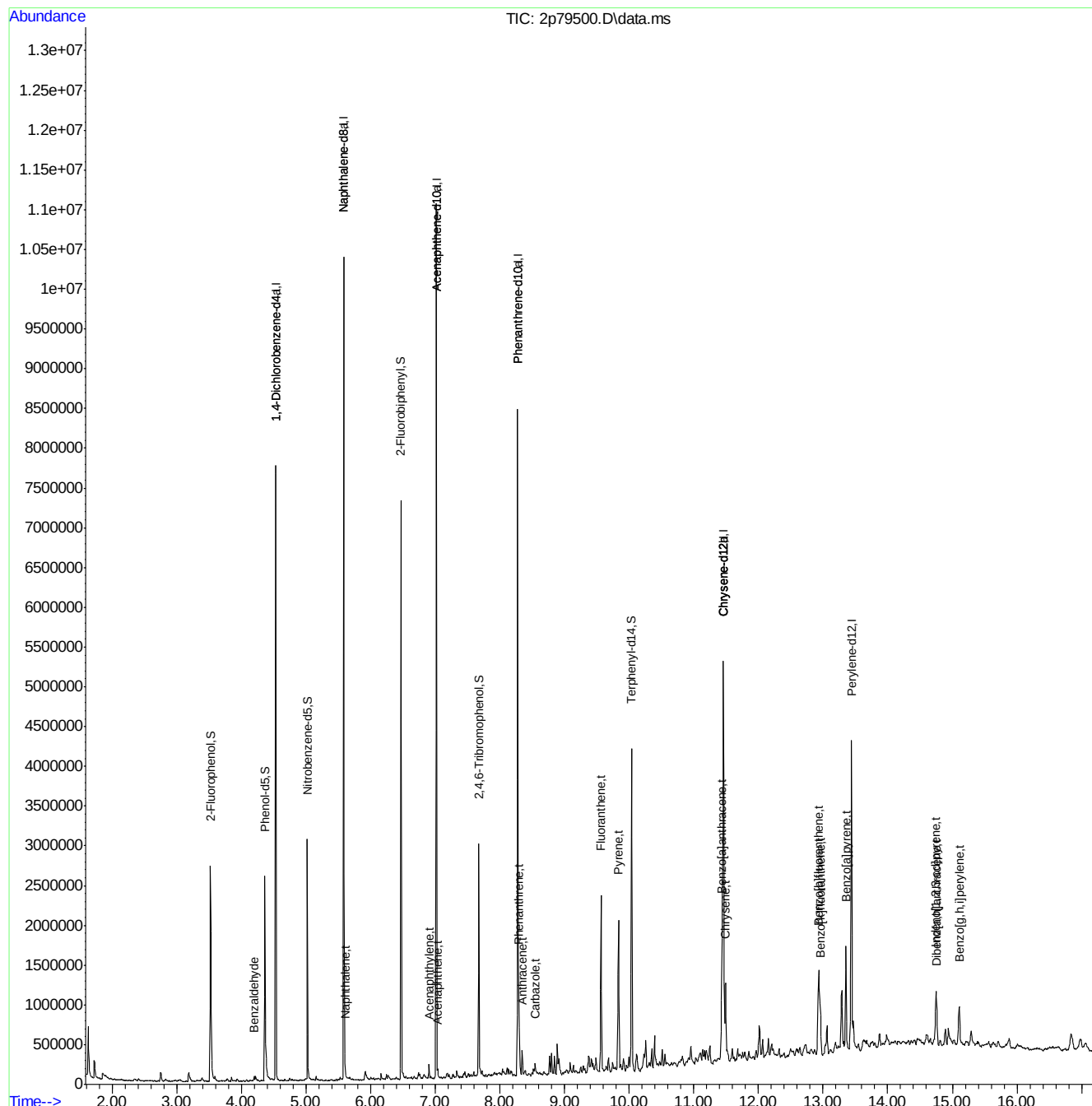
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
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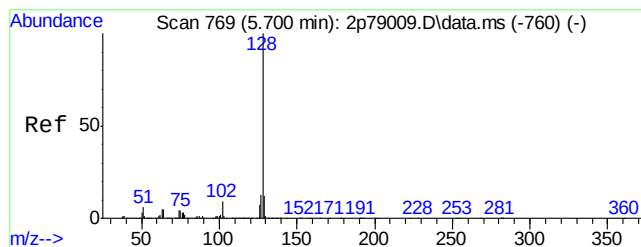
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3500\
 Data File : 2p79500.D
 Acq On : 12 May 2018 9:12 am
 Operator : georges
 Sample : jc65800-2
 Misc : op11923,e2p3500,31.7,,,1,1
 ALS Vial : 26 Sample Multiplier: 1

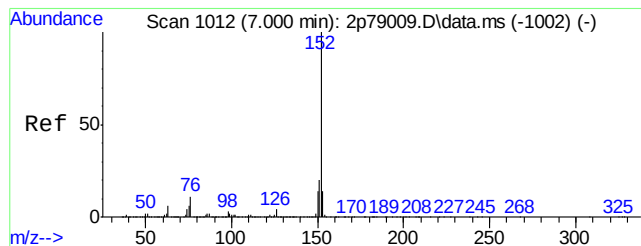
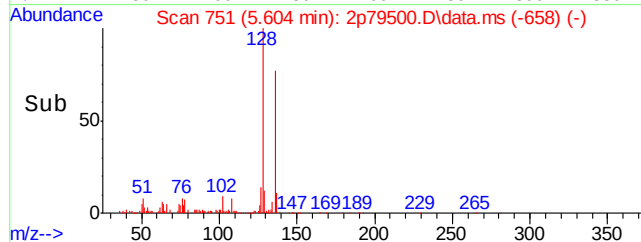
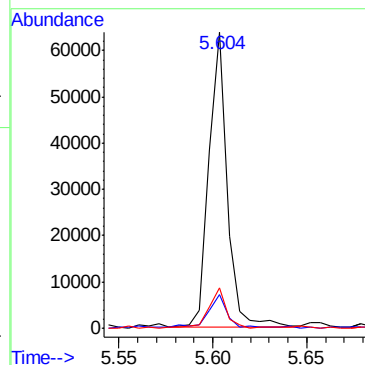
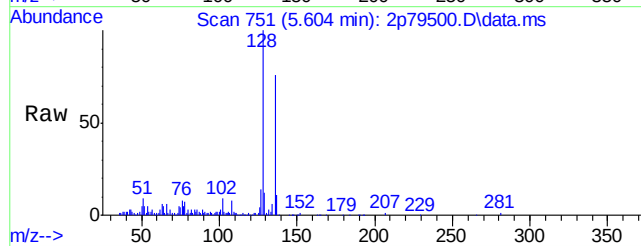
Quant Time: May 17 17:57:14 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu May 10 09:07:01 2018
 Response via : Initial Calibration





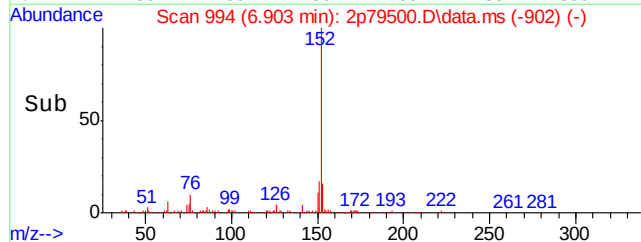
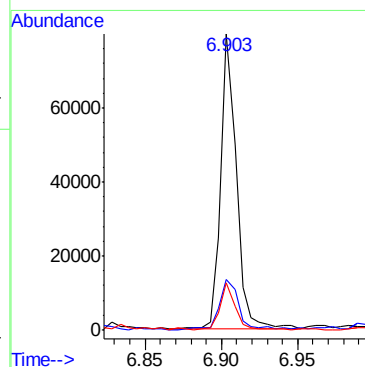
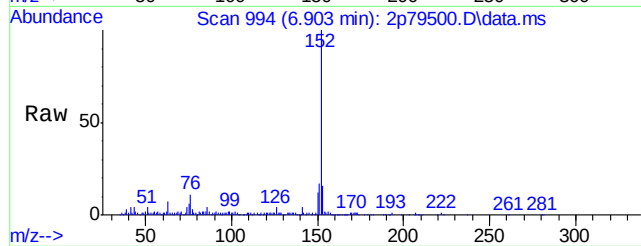
#38
Naphthalene
Concen: 0.52 ppm
RT: 5.604 min Scan# 751
Delta R.T. 0.000 min
Lab File: 2p79500.D
Acq: 12 May 2018 9:12 am

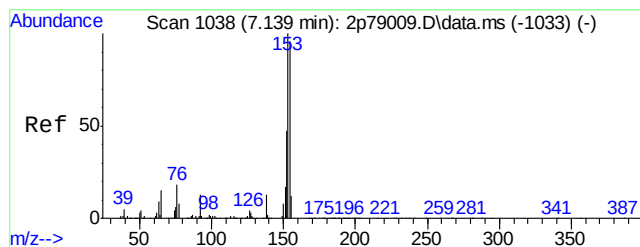
Tgt Ion:	128	Resp:	43602
Ion Ratio	Lower	Upper	
128	100		
129	11.3	0.0	41.8
127	13.1	0.0	43.2



#56
Acenaphthylene
Concen: 0.74 ppm
RT: 6.903 min Scan# 994
Delta R.T. -0.007 min
Lab File: 2p79500.D
Acq: 12 May 2018 9:12 am

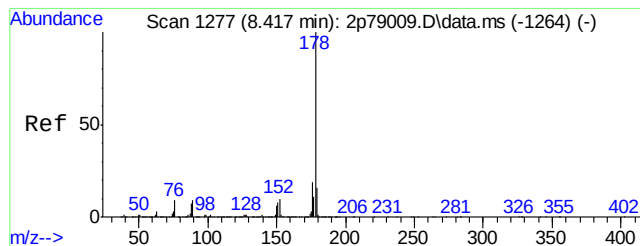
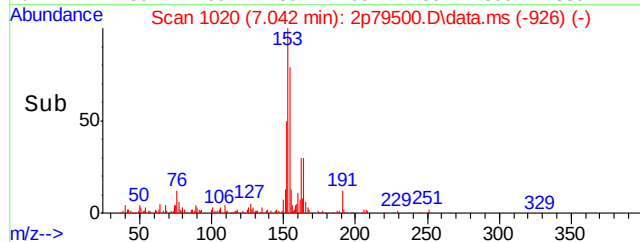
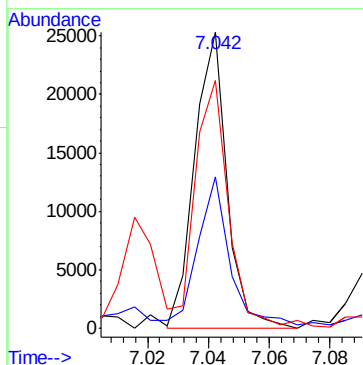
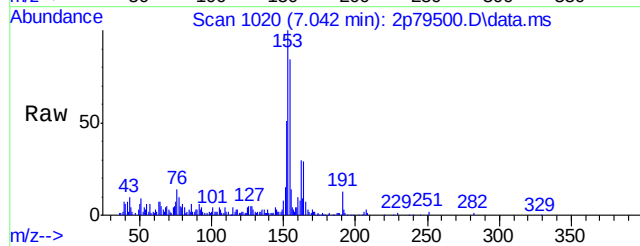
Tgt Ion:	152	Resp:	57030
Ion Ratio	Lower	Upper	
152	100		
151	16.8	0.0	50.2
153	15.7	0.0	43.3





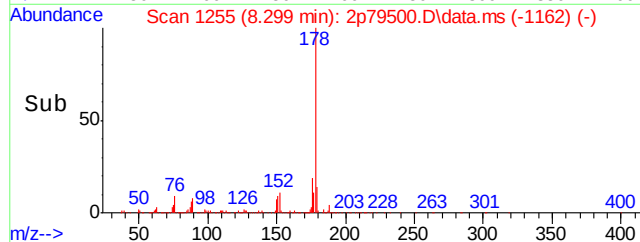
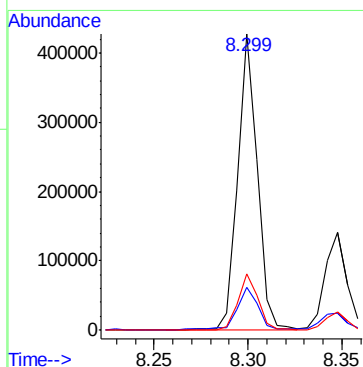
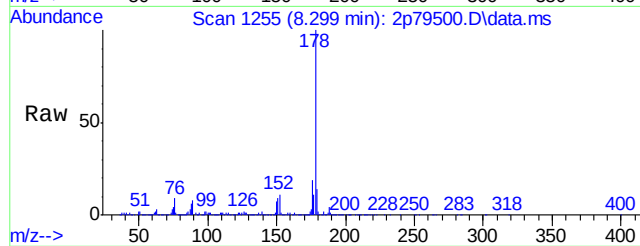
#59
Acenaphthene
Concen: 0.40 ppm
RT: 7.042 min Scan# 1020
Delta R.T. 0.000 min
Lab File: 2p79500.D
Acq: 12 May 2018 9:12 am

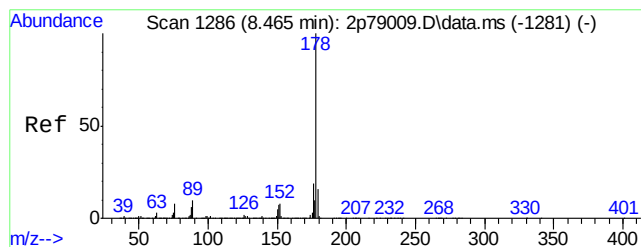
Tgt Ion:	153	Resp:	18792
Ion Ratio	Lower	Upper	
153	100		
152	51.3	17.5	77.5
154	83.8	65.6	125.6



#77
Phenanthrene
Concen: 4.38 ppm
RT: 8.299 min Scan# 1255
Delta R.T. -0.005 min
Lab File: 2p79500.D
Acq: 12 May 2018 9:12 am

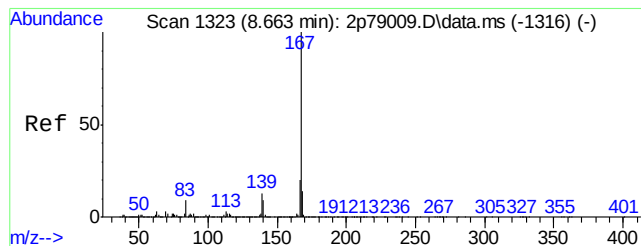
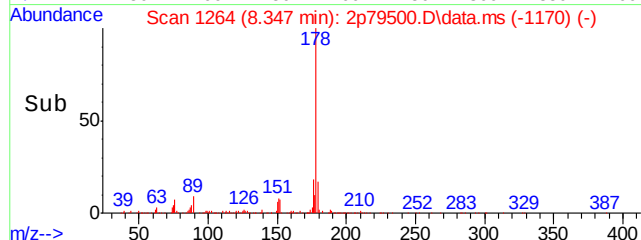
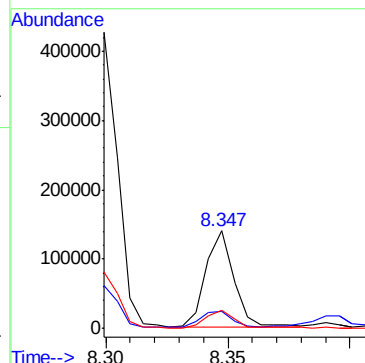
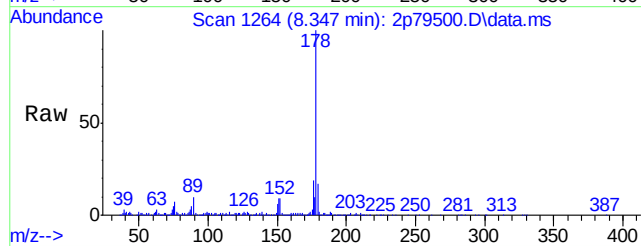
Tgt Ion:	178	Resp:	308290
Ion Ratio	Lower	Upper	
178	100		
179	14.0	0.0	45.6
176	18.8	0.0	49.1





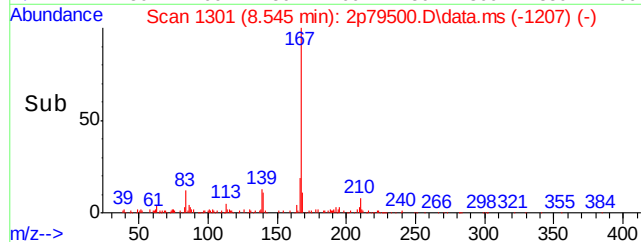
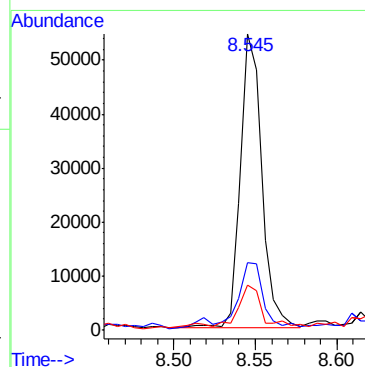
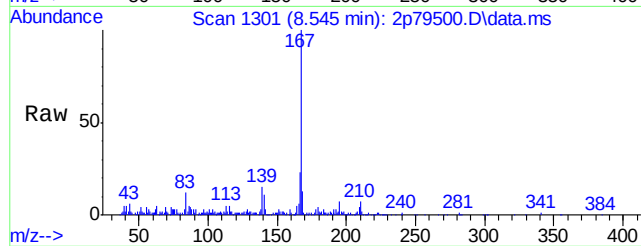
#78
 Anthracene
 Concen: 1.65 ppm
 RT: 8.347 min Scan# 1264
 Delta R.T. 0.001 min
 Lab File: 2p79500.D
 Acq: 12 May 2018 9:12 am

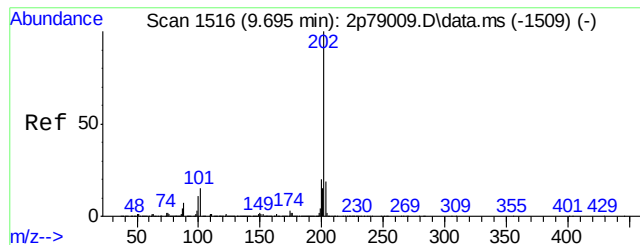
Tgt Ion:	178	Resp:	113472
Ion Ratio	Lower	Upper	
178	100		
179	14.2	0.0	45.7
176	18.5	0.0	48.8



#79
 Carbazole
 Concen: 0.67 ppm
 RT: 8.545 min Scan# 1301
 Delta R.T. 0.003 min
 Lab File: 2p79500.D
 Acq: 12 May 2018 9:12 am

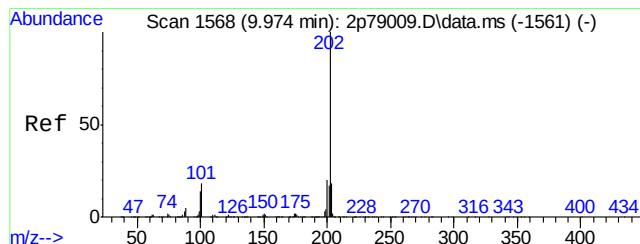
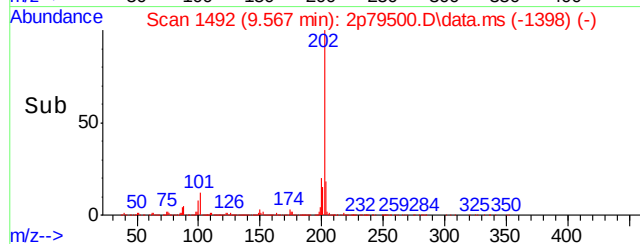
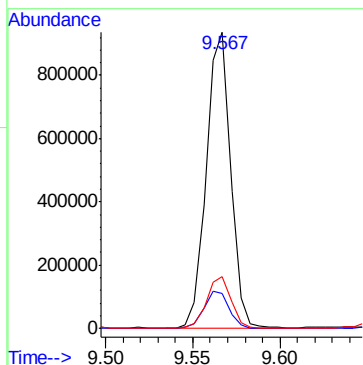
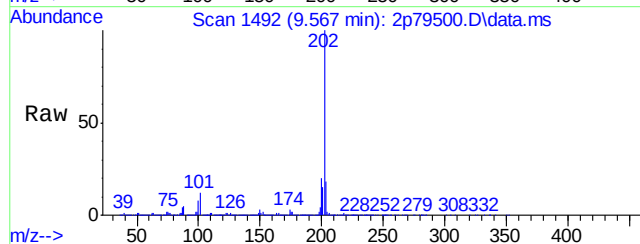
Tgt Ion:	167	Resp:	49880
Ion Ratio	Lower	Upper	
167	100		
166	21.9	0.0	50.6
139	13.9	0.0	42.9





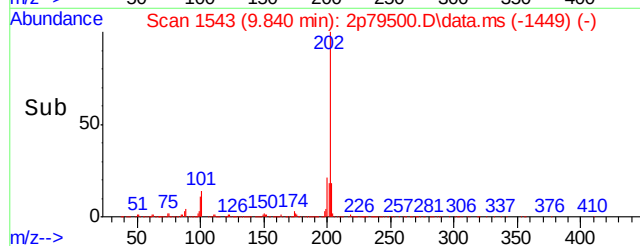
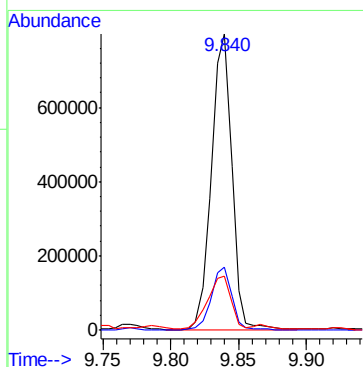
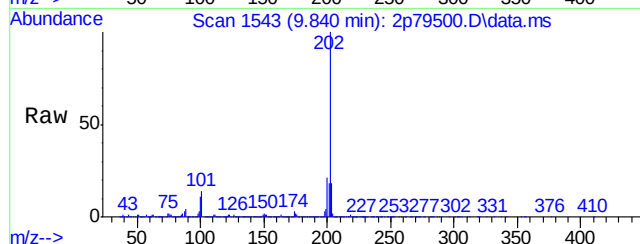
#81
 Fluoranthene
 Concen: 9.81 ppm
 RT: 9.567 min Scan# 1492
 Delta R.T. 0.002 min
 Lab File: 2p79500.D
 Acq: 12 May 2018 9:12 am

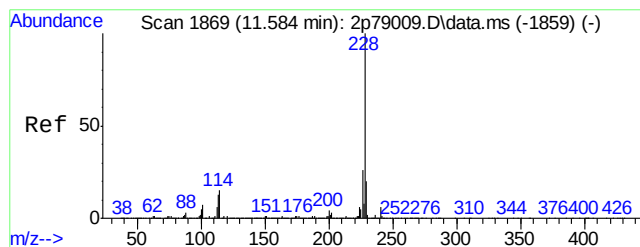
Tgt	Ion:202	Resp:	905507
Ion	Ratio	Lower	Upper
202	100		
101	11.8	0.0	45.6
203	17.6	0.0	48.4



#84
 Pyrene
 Concen: 12.92 ppm
 RT: 9.840 min Scan# 1543
 Delta R.T. 0.005 min
 Lab File: 2p79500.D
 Acq: 12 May 2018 9:12 am

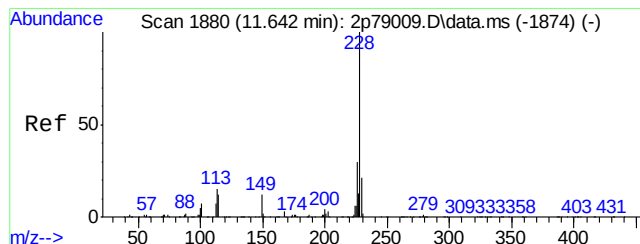
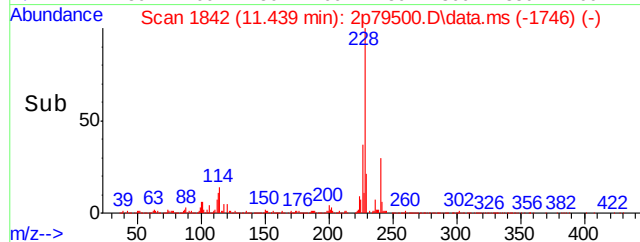
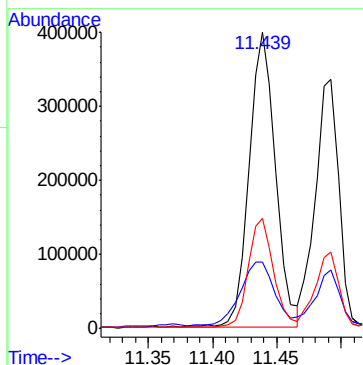
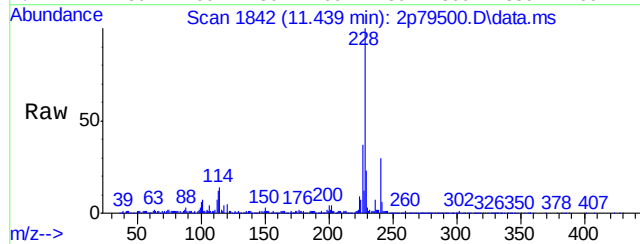
Tgt	Ion:202	Resp:	834372
Ion	Ratio	Lower	Upper
202	100		
200	21.3	0.0	50.7
203	17.7	0.0	47.7





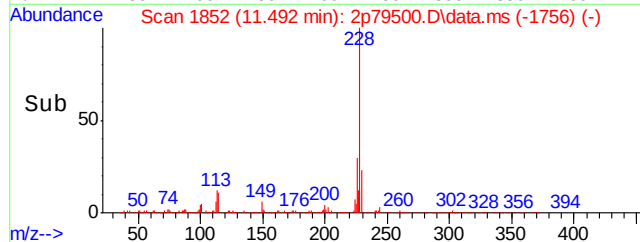
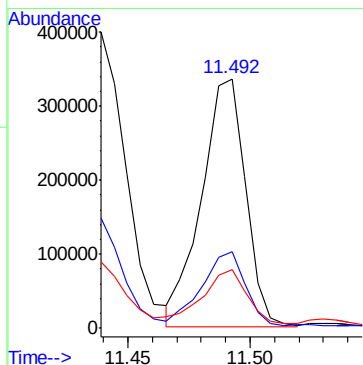
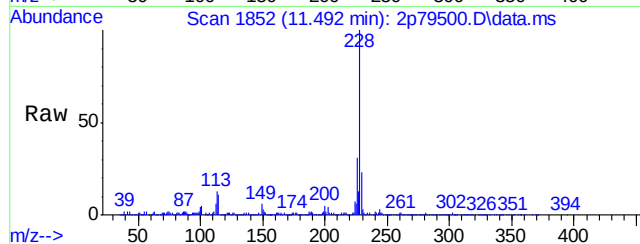
#87
Benzo[a]anthracene
Concen: 9.49 ppm
RT: 11.439 min Scan# 1842
Delta R.T. 0.016 min
Lab File: 2p79500.D
Acq: 12 May 2018 9:12 am

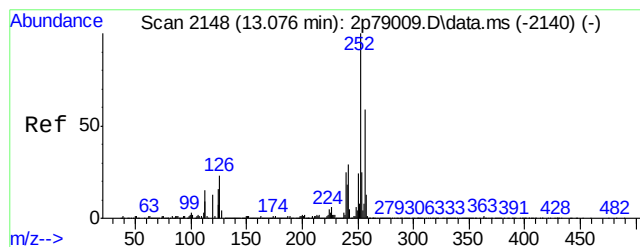
Tgt Ion	Ratio	Lower	Upper
228	100		
229	20.8	0.0	50.2
226	37.2	0.0	56.8



#89
Chrysene
Concen: 8.96 ppm
RT: 11.492 min Scan# 1852
Delta R.T. 0.011 min
Lab File: 2p79500.D
Acq: 12 May 2018 9:12 am

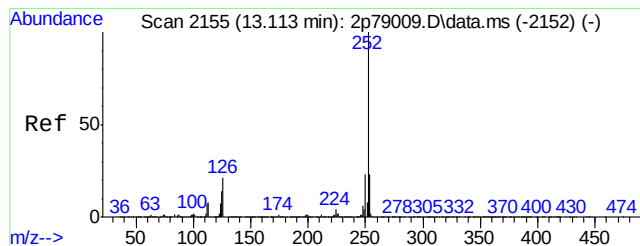
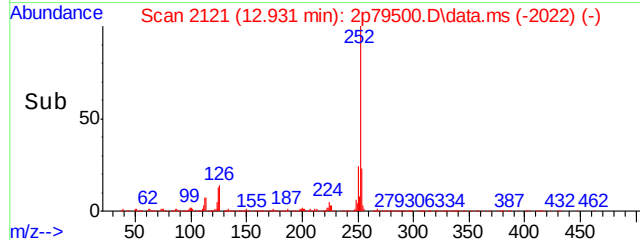
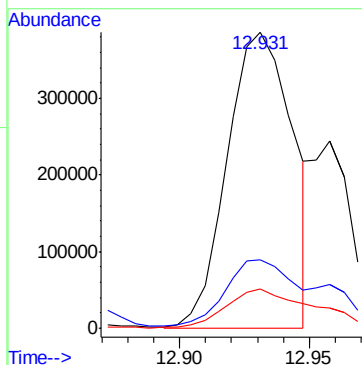
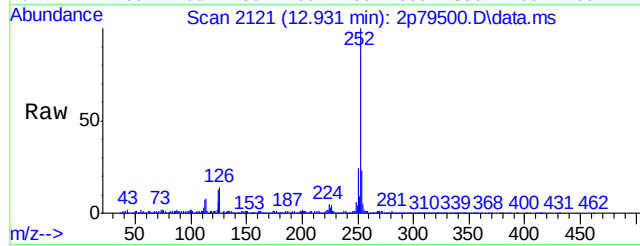
Tgt Ion	Ratio	Lower	Upper
228	100		
226	30.0	0.0	59.4
229	21.1	0.0	49.9





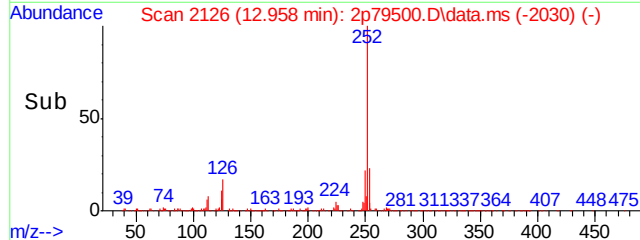
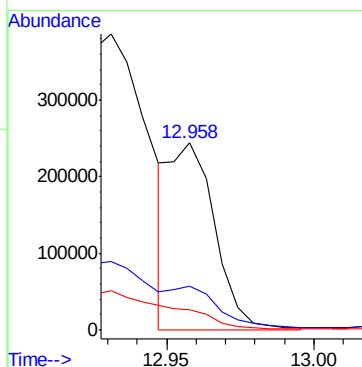
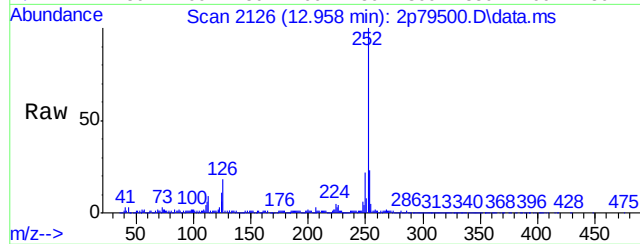
#93
Benzo[b]fluoranthene
Concen: 11.65 ppm m
RT: 12.931 min Scan# 2121
Delta R.T. 0.027 min
Lab File: 2p79500.D
Acq: 12 May 2018 9:12 am

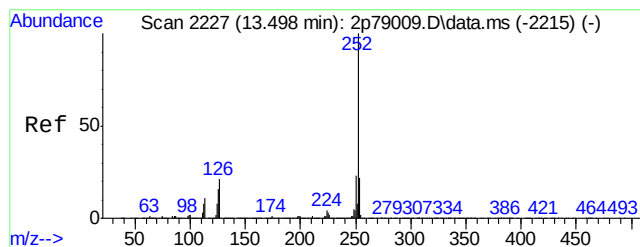
Tgt Ion:	252	Resp:	673890
Ion Ratio	Lower	Upper	
252	100		
253	23.0	0.0	55.5
125	13.4	0.0	49.6



#94
Benzo[k]fluoranthene
Concen: 5.52 ppm m
RT: 12.958 min Scan# 2126
Delta R.T. 0.011 min
Lab File: 2p79500.D
Acq: 12 May 2018 9:12 am

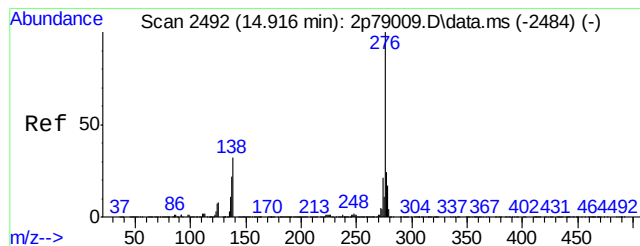
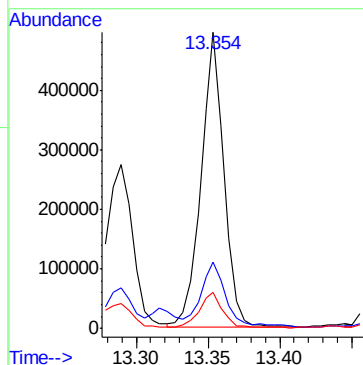
Tgt Ion:	252	Resp:	254554
Ion Ratio	Lower	Upper	
252	100		
253	23.3	0.0	52.6
125	11.1	0.0	45.2





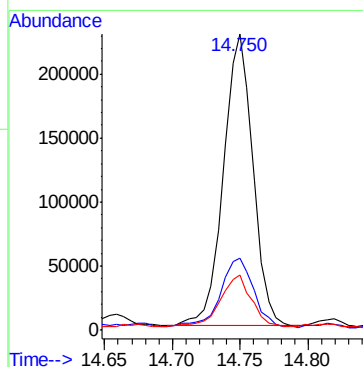
#95
Benzo[a]pyrene
Concen: 11.68 ppm
RT: 13.354 min Scan# 2200
Delta R.T. 0.026 min
Lab File: 2p79500.D
Acq: 12 May 2018 9:12 am

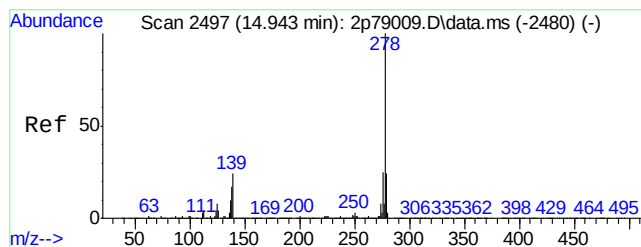
Tgt Ion:	252	Resp:	552358
Ion Ratio	Lower	Upper	
252	100		
253	19.7	0.0	51.5
125	11.8	0.0	46.4



#96
Indeno[1,2,3-cd]pyrene
Concen: 6.74 ppm
RT: 14.750 min Scan# 2461
Delta R.T. 0.034 min
Lab File: 2p79500.D
Acq: 12 May 2018 9:12 am

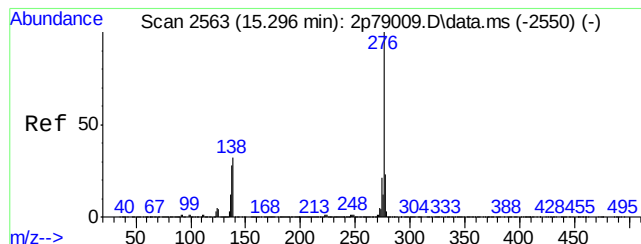
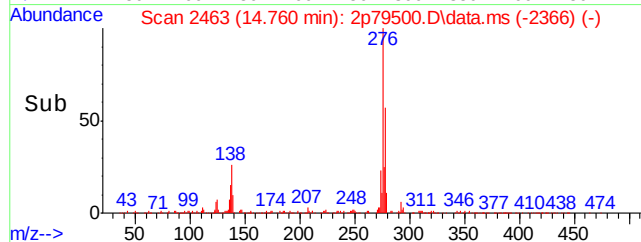
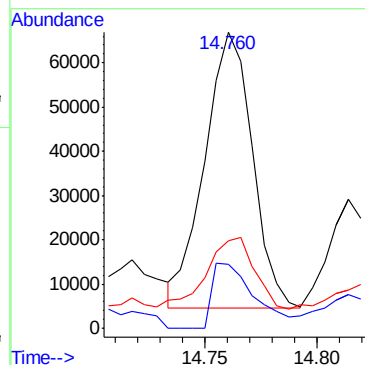
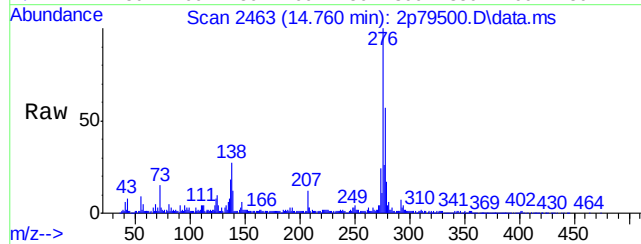
Tgt Ion:	276	Resp:	348765
Ion Ratio	Lower	Upper	
276	100		
138	23.4	3.3	63.3
137	17.5	0.0	53.5





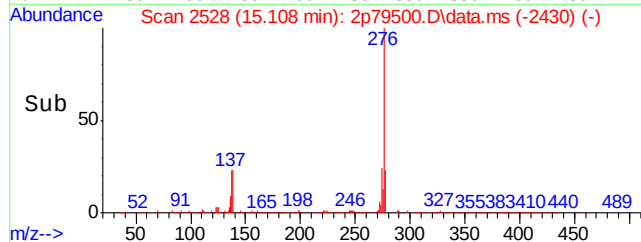
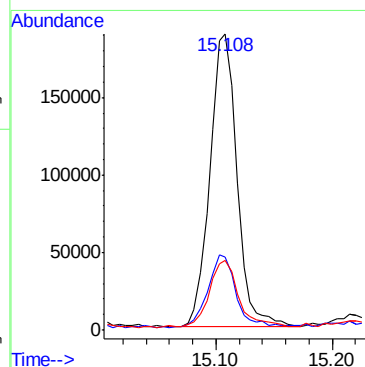
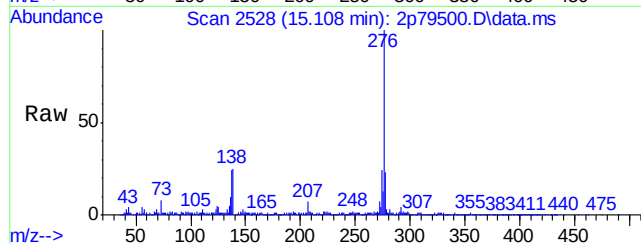
#98
Dibenz[a,h]anthracene
Concen: 2.22 ppm
RT: 14.760 min Scan# 2463
Delta R.T. 0.018 min
Lab File: 2p79500.D
Acq: 12 May 2018 9:12 am

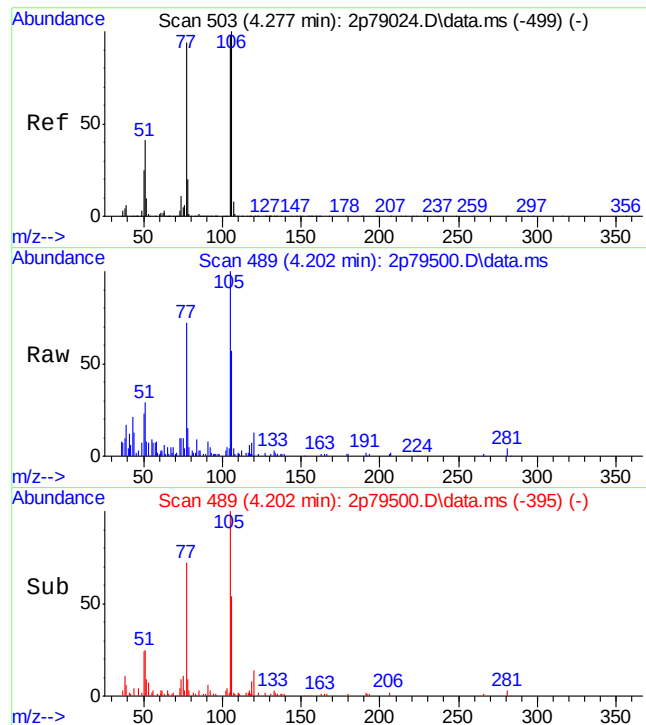
Tgt Ion	Ratio	Lower	Upper
278	100		
139	21.5	0.0	55.1
279	29.4	0.0	54.3



#100
Benzo[g,h,i]perylene
Concen: 7.44 ppm
RT: 15.108 min Scan# 2528
Delta R.T. 0.027 min
Lab File: 2p79500.D
Acq: 12 May 2018 9:12 am

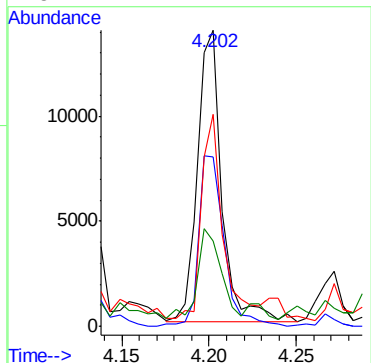
Tgt Ion	Ratio	Lower	Upper
276	100		
138	23.7	2.9	62.9
277	22.3	0.0	53.6





#102
Benzaldehyde
Concen: 0.49 ppm
RT: 4.202 min Scan# 489
Delta R.T. 0.004 min
Lab File: 2p79500.D
Acq: 12 May 2018 9:12 am

Tgt Ion:	105	Resp:	13670
Ion Ratio	Lower	Upper	
105	100		
106	57.3	71.8	131.8#
77	69.6	66.1	126.1
51	24.4	11.7	71.7



9.1.3
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2215\
 Data File : 6p473096.D
 Acq On : 18 May 2018 11:10 pm
 Operator : sufiyana
 Sample : jc65800-2a
 Misc : op12025,e6p2215,100,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 19 11:31:21 2018

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuSat May 19 11:17:06 2018

QLast Update : Sat May 19 11:17:06 2018

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.486	152	378737	40.00	ppm	-0.04
24) Naphthalene-d8	5.502	136	1613052	40.00	ppm	-0.04
47) Acenaphthene-d10	7.225	164	819445	40.00	ppm	-0.05
69) Phenanthrene-d10	8.915	188	1476317	40.00	ppm	-0.05
83) Chrysene-d12	12.081	240	1329641	40.00	ppm	-0.06
91) Perylene-d12	13.686	264	1402899	40.00	ppm	-0.07
101) 1,4-Dichlorobenzene-d4a	4.486	152	378737	40.00	ppm	-0.04
103) Acenaphthene-d10a	7.225	164	819445	40.00	ppm	-0.05
105) Phenanthrene-d10a	8.915	188	1476317	40.00	ppm	-0.05
109) Chrysene-d12a	12.081	240	1329641	40.00	ppm	-0.06
111) Naphthalene-d8a	5.502	136	1613052	40.00	ppm	-0.04
113) Phenanthrene-d10b	8.915	188	1476317	40.00	ppm	-0.05
115) Chrysene-d12b	12.081	240	1329484	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.523	112	299637	21.70	ppm	-0.06
Spiked Amount 50.000			Recovery	=	43.40%	
8) Phenol-d5	4.251	99	249269	14.18	ppm	-0.04
Spiked Amount 50.000			Recovery	=	28.36%	
25) Nitrobenzene-d5	4.914	82	680620	38.87	ppm	-0.04
Spiked Amount 50.000			Recovery	=	77.74%	
51) 2-Fluorobiphenyl	6.519	172	1322386	41.83	ppm	-0.05
Spiked Amount 50.000			Recovery	=	83.66%	
73) 2,4,6-Tribromophenol	8.112	330	191618	34.51	ppm	-0.05
Spiked Amount 50.000			Recovery	=	69.02%	
85) Terphenyl-d14	10.840	244	1610335	50.69	ppm	-0.06
Spiked Amount 50.000			Recovery	=	101.38%	
106) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
107) o-terphenyl	0.000	230	0	0.00	ppm	

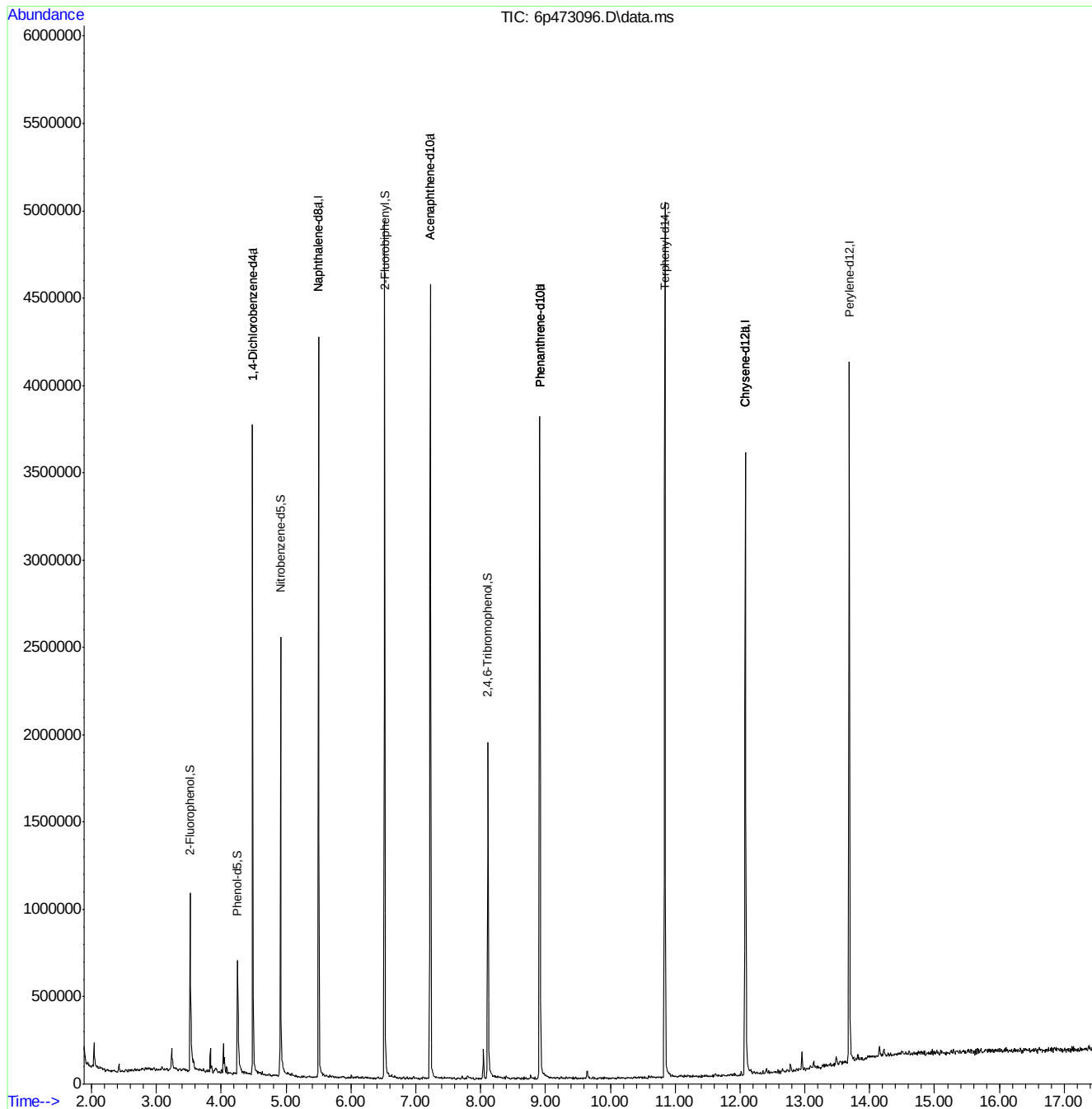
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2215\
Data File : 6p473096.D
Acq On : 18 May 2018 11:10 pm
Operator : sufiyana
Sample : jc65800-2a
Misc : op12025,e6p2215,100,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 19 11:31:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuSat May 19 11:17:06 2018
QLast Update : Sat May 19 11:17:06 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3500\
 Data File : 2p79480.D
 Acq On : 12 May 2018 2:03 am
 Operator : georges
 Sample : op11923-mb1
 Misc : op11923,e2p3500,30.0,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 17 17:21:55 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu May 10 09:07:01 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.529	152	1105450	40.00	ppm	0.00
24) Naphthalene-d8	5.582	136	3725700	40.00	ppm	0.00
47) Acenaphthene-d10	7.016	164	1842909	40.00	ppm	0.00
69) Phenanthrene-d10	8.278	188	3297292	40.00	ppm	0.00
83) Chrysene-d12	11.450	240	3072388	40.00	ppm	0.00
91) Perylene-d12	13.429	264	2700406	40.00	ppm	0.02
101) 1,4-Dichlorobenzene-d4a	4.529	152	1105450	40.00	ppm	0.00
103) Naphthalene-d8a	5.582	136	3725700	40.00	ppm	0.00
105) Acenaphthene-d10a	7.016	164	1842909	40.00	ppm	0.00
108) Chrysene-d12a	11.450	240	3072388	40.00	ppm	0.00
110) Phenanthrene-d10a	8.278	188	3297292	40.00	ppm	0.00
114) Chrysene-d12b	11.450	240	3072388	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.518	112	1366078	31.31	ppm	0.00
Spiked Amount 50.000	Range 11 - 58		Recovery =	62.62%#		
8) Phenol-d5	4.357	99	1488095	32.91	ppm	0.01
Spiked Amount 50.000	Range 10 - 59		Recovery =	65.82%#		
25) Nitrobenzene-d5	5.021	82	1288262	37.52	ppm	0.00
Spiked Amount 50.000	Range 19 - 61		Recovery =	75.04%#		
51) 2-Fluorobiphenyl	6.470	172	2855363	45.16	ppm	-0.01
Spiked Amount 50.000	Range 21 - 58		Recovery =	90.32%#		
73) 2,4,6-Tribromophenol	7.674	330	471281	46.80	ppm	0.00
Spiked Amount 50.000	Range 12 - 68		Recovery =	93.60%#		
85) Terphenyl-d14	10.032	244	3070072	45.96	ppm	0.00
Spiked Amount 50.000	Range 16 - 65		Recovery =	91.92%#		
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000	Range 20 - 70		Recovery =	0.00%#		

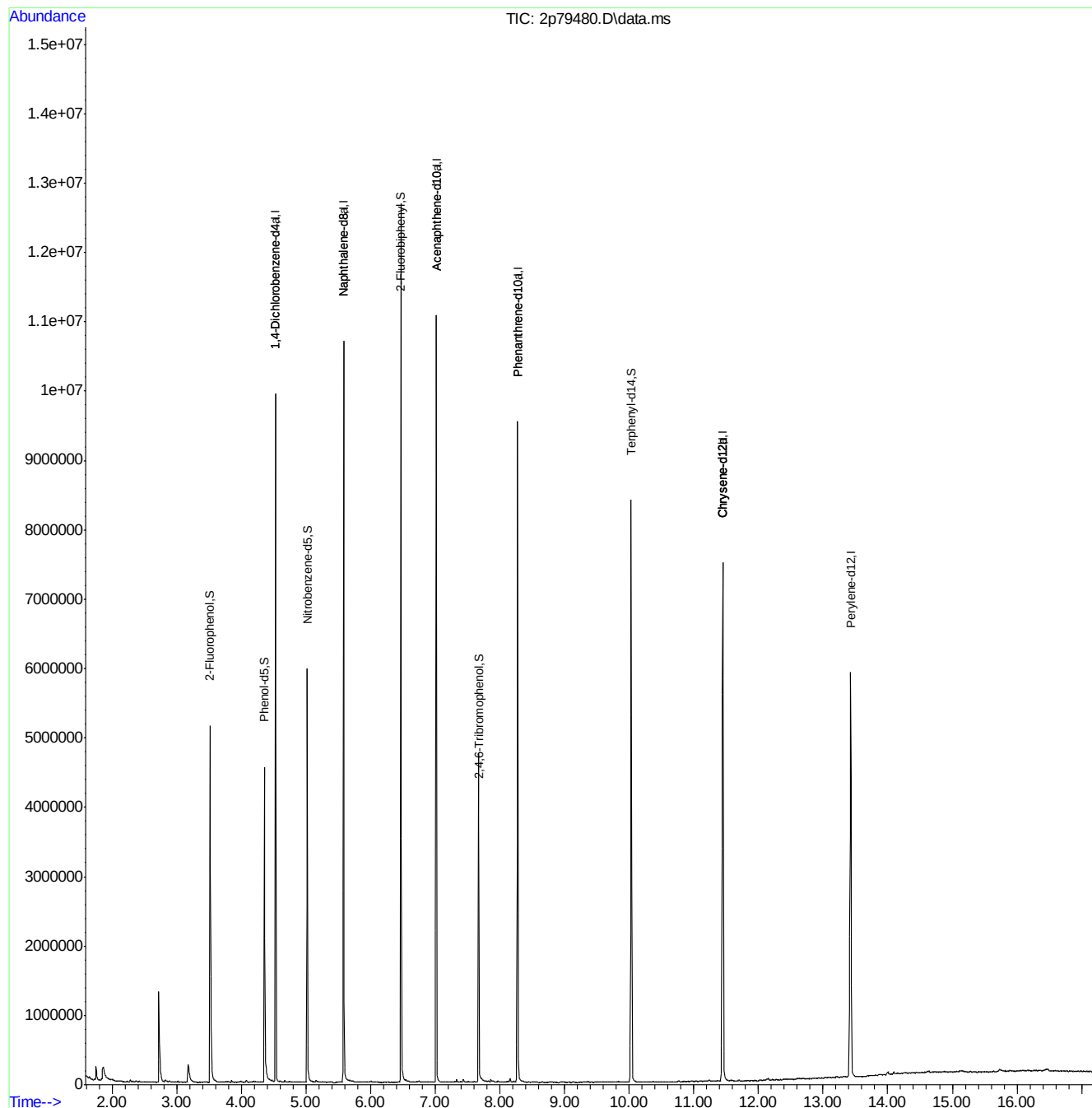
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3500\
Data File : 2p79480.D
Acq On : 12 May 2018 2:03 am
Operator : georges
Sample : op11923-mb1
Misc : op11923,e2p3500,30.0,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 17 17:21:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu May 10 09:07:01 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2215\
 Data File : 6p473090.D
 Acq On : 18 May 2018 8:42 pm
 Operator : sufiyana
 Sample : op12025-mb2
 Misc : op12025,e6p2215,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 19 11:16:20 2018

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuThu May 17 23:52:21 2018

QLast Update : Thu May 17 23:52:21 2018

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.486	152	408558	40.00	ppm	-0.04
24) Naphthalene-d8	5.503	136	1660269	40.00	ppm	-0.04
47) Acenaphthene-d10	7.225	164	869678	40.00	ppm	-0.05
69) Phenanthrene-d10	8.915	188	1560834	40.00	ppm	-0.05
83) Chrysene-d12	12.087	240	1394722	40.00	ppm	-0.06
91) Perylene-d12	13.686	264	1492249	40.00	ppm	-0.07
101) 1,4-Dichlorobenzene-d4a	4.486	152	408558	40.00	ppm	-0.04
103) Acenaphthene-d10a	7.225	164	869678	40.00	ppm	-0.05
105) Phenanthrene-d10a	8.915	188	1560834	40.00	ppm	-0.05
109) Chrysene-d12a	12.087	240	1394722	40.00	ppm	-0.06
111) Naphthalene-d8a	5.503	136	1660269	40.00	ppm	-0.04
113) Phenanthrene-d10b	8.915	188	1560834	40.00	ppm	-0.05
115) Chrysene-d12b	12.087	240	1394722	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.518	112	309057	20.75	ppm	-0.06
Spiked Amount	50.000		Recovery	=	41.50%	
8) Phenol-d5	4.256	99	241136	12.71	ppm	-0.04
Spiked Amount	50.000		Recovery	=	25.42%	
25) Nitrobenzene-d5	4.914	82	620972	34.45	ppm	-0.04
Spiked Amount	50.000		Recovery	=	68.90%	
51) 2-Fluorobiphenyl	6.519	172	1221319	36.41	ppm	-0.05
Spiked Amount	50.000		Recovery	=	72.82%	
73) 2,4,6-Tribromophenol	8.113	330	184403	31.41	ppm	-0.05
Spiked Amount	50.000		Recovery	=	62.82%	
85) Terphenyl-d14	10.841	244	1552497	46.59	ppm	-0.06
Spiked Amount	50.000		Recovery	=	93.18%	
106) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
107) o-terphenyl	0.000	230	0	0.00	ppm	

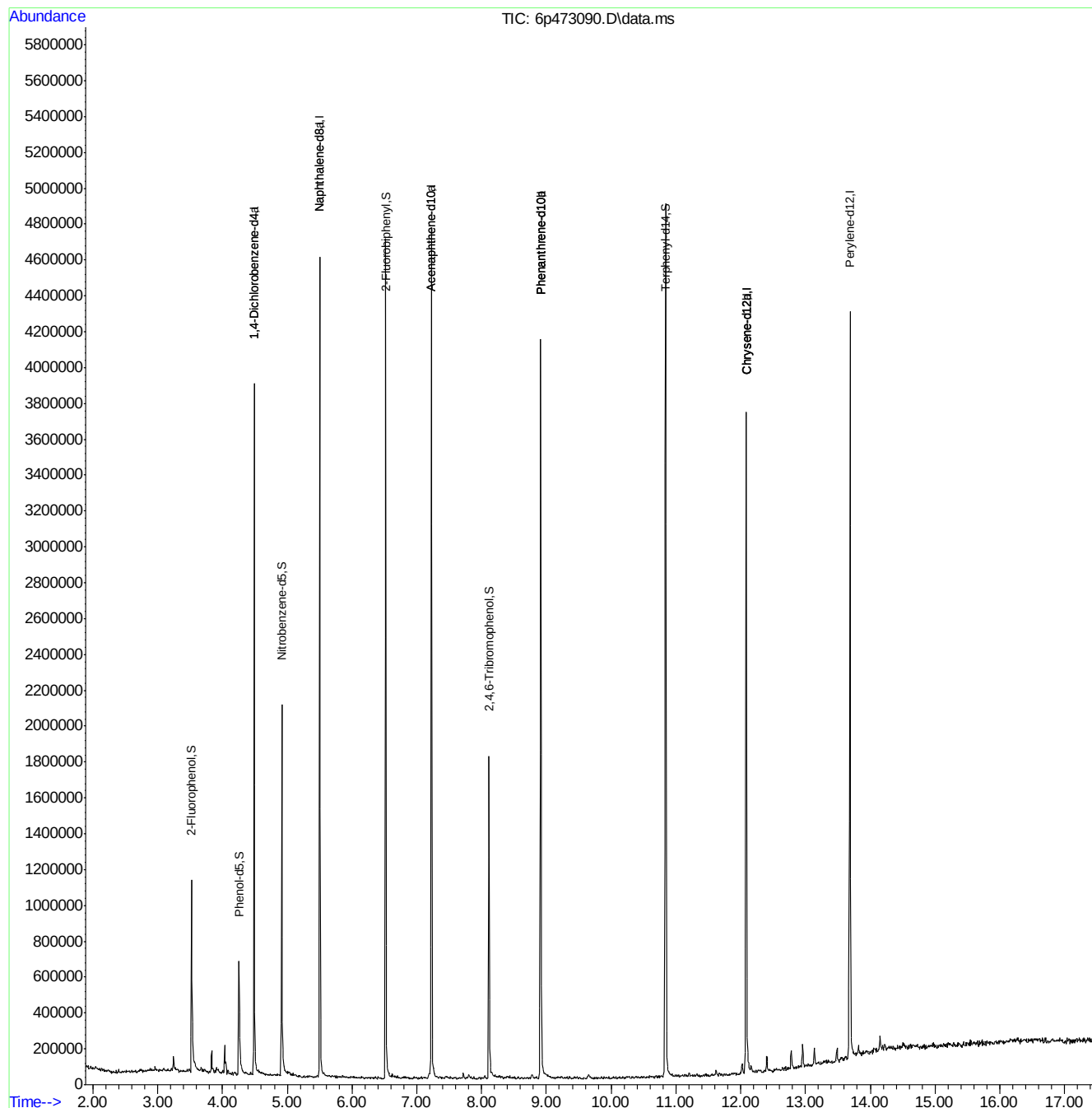
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2215\
Data File : 6p473090.D
Acq On : 18 May 2018 8:42 pm
Operator : sufiyana
Sample : op12025-mb2
Misc : op12025,e6p2215,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 19 11:16:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuThu May 17 23:52:21 2018
QLast Update : Thu May 17 23:52:21 2018
Response via : Initial Calibration



GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GPF4612-MB1	PF145797.D	1	05/15/18	KC	n/a	n/a	GPF4612

The QC reported here applies to the following samples: Method: SW846 8015C
JC65800-1, JC65800-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
98-08-8	aaa-Trifluorotoluene	88% 70-116%

10.1.1
10

Blank Spike Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GPF4612-BS	PF145804.D	1	05/15/18	KC	n/a	n/a	GPF4612

The QC reported here applies to the following samples: Method: SW846 8015C

JC65800-1, JC65800-2

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	400	371	93	75-126

CAS No.	Surrogate Recoveries	BSP	Limits
98-08-8	aaa-Trifluorotoluene	103%	70-116%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65979-2MS	PF145802.D	1	05/15/18	KC	n/a	n/a	GPF4612
JC65979-2MSD	PF145803.D	1	05/15/18	KC	n/a	n/a	GPF4612
JC65979-2	PF145798.D	1	05/15/18	KC	n/a	n/a	GPF4612

The QC reported here applies to the following samples: Method: SW846 8015C

JC65800-1, JC65800-2

CAS No.	Compound	JC65979-2 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	7.40	J	474	443	92	474	462	96	4	68-128/11

CAS No.	Surrogate Recoveries	MS	MSD	JC65979-2	Limits
98-08-8	aaa-Trifluorotoluene	97%	97%	87%	70-116%

* = Outside of Control Limits.

Surrogate Recovery Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8015C	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a
JC65800-1	PF145800.D	87
JC65800-2	PF145801.D	88
GPF4612-BS	PF145804.D	103
GPF4612-MB1	PF145797.D	88
JC65979-2MS	PF145802.D	97
JC65979-2MSD	PF145803.D	97

Surrogate Compounds	Recovery Limits
S1 = aaa-Trifluorotoluene	70-116%

(a) Recovery from GC signal #1

10.4.1
10

GC Surrogate Retention Time Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GPF4611-CC4589	Injection Date:	05/14/18
Lab File ID:	PF145789.D	Injection Time:	17:24
Instrument ID:	GCPF	Method:	SW846 8015C

S1 ^a
RT

Check Std	11.09
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Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT
GPF4612-RT	PF145794.D	05/15/18	07:28	11.09

Surrogate
Compounds

S1 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GPF4612-CC4589	Injection Date:	05/15/18
Lab File ID:	PF145795.D	Injection Time:	08:31
Instrument ID:	GCPF	Method:	SW846 8015C

S1 ^a
RT

Check Std	11.12
-----------	-------

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT
GPF4612-MB1	PF145797.D	05/15/18	09:30	11.09
JC65979-2	PF145798.D	05/15/18	10:08	11.11
ZZZZZZ	PF145799.D	05/15/18	10:35	11.10
JC65800-1	PF145800.D	05/15/18	11:01	11.09
JC65800-2	PF145801.D	05/15/18	11:27	11.09
JC65979-2MS	PF145802.D	05/15/18	11:53	11.10
JC65979-2MSD	PF145803.D	05/15/18	12:19	11.11
GPF4612-BS	PF145804.D	05/15/18	12:46	11.10

Surrogate
Compounds

S1 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

10.5.2
10

Initial Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GPF4589-ICC4589
Lab FileID: PF145432.D

Response Factor Report GCPF

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)
Title : Method SW846 8015C (GR0)
Last Update : Tue Apr 24 09:10:18 2018
Response via : Initial Calibration

Calibration Files

0.2 =PF145429.d 0.8 =PF145430.d 4 =PF145431.d 8 =PF145432.d
20 =PF145433.d 40 =PF145435.d 30 =PF145434.d

Compound	0.2	0.8	4	8	20	40	30	Avg	%RSD
1)H TPH-GR0 (C6-C10)	2.740	2.369	2.659	2.692	2.680	2.564	2.763	2.638	E5 5.10
2)H TPH-GR0 (C6-C12)	2.750	2.290	2.535	2.573	2.504	2.384	2.599	2.519	E5 5.93
3)S a,a,a-Trifluoroto	2.247	2.207	2.472	2.834	3.042	3.316	3.273	2.770	E5 16.86

(#) = Out of Range

MPF4589.M Tue Apr 24 09:12:15 2018

10.6.1
10

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GPF4589-ICV4589
Lab FileID: PF145456.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\PF145456.d Vial: 5
Acq On : 19 Apr 2018 11:36 am Operator: KRIZHKAC
Sample : ICV4589-8000 Inst : GCPF
Misc : GC52331,GPF4589,10.0,,100,10,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)
Title : Method SW846 8015C (GR0)
Last Update : Tue Apr 24 09:10:18 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 H	TPH-GR0 (C6-C10)	263.810	275.420 E3	-4.4	102	0.00	8.04	13.97
2 H	TPH-GR0 (C6-C12)	251.923	265.226 E3	-5.3	103	0.00	7.72	14.28
3 S	a,a,a-Trifluorotoluene	277.007	318.961 E3	-15.1	113	0.00	11.01	11.16

(#) = Out of Range SPCC's out = 0 CCC's out = 0
PF145432.d MPF4589.M Tue Apr 24 09:16:15 2018

10.6.2
10

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GPF4611-CC4589
Lab FileID: PF145789.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\PF145789.d Vial: 23
Acq On : 14 May 2018 17:24 pm Operator: KRIZHKAC
Sample : CC4589-4000 Inst : GCPF
Misc : GC52501,GPF4611,10.0,,100,10,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)
Title : Method SW846 8015C (GR0)
Last Update : Tue Apr 24 09:10:18 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 H	TPH-GR0 (C6-C10)	263.810	231.239 E3	12.3	87	0.00	8.04	13.97
2 H	TPH-GR0 (C6-C12)	251.923	221.246 E3	12.2	87	0.00	7.72	14.28
3 S	a,a,a-Trifluorotoluene	277.007	277.841 E3	-0.3	112	0.00	11.01	11.16

(#) = Out of Range SPCC's out = 0 CCC's out = 0
PF145431.d MPF4589.M Tue May 15 10:21:46 2018

10.6.3
10

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GPF4612-CC4589
Lab FileID: PF145795.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\PF145795.d Vial: 4
Acq On : 15 May 2018 8:31 am Operator: KRIZHKAC
Sample : CC4589-4000 Inst : GCPF
Misc : GC52501,GPF4612,10.0,,100,10,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)
Title : Method SW846 8015C (GR0)
Last Update : Tue Apr 24 09:10:18 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-GR0 (C6-C10)	263.810	251.281 E3	4.7	95	0.00	8.04-13.97
2 H	TPH-GR0 (C6-C12)	251.923	242.430 E3	3.8	96	0.00	7.72-14.28
3 S	a,a,a-Trifluorotoluene	277.007	282.854 E3	-2.1	114	0.03	11.04-11.19

(#) = Out of Range SPCC's out = 0 CCC's out = 0
PF145431.d MPF4589.M Wed May 16 09:02:11 2018

10.6.4
10

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GPF4612-CC4589
Lab FileID: PF145805.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\PF145805.d Vial: 14
Acq On : 15 May 2018 13:12 pm Operator: KRIZHKAC
Sample : CC4589-8000 Inst : GCPF
Misc : GC52516,GPF4612,10.0,,100,10,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)
Title : Method SW846 8015C (GR0)
Last Update : Tue Apr 24 09:10:18 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-GR0 (C6-C10)	263.810	233.393 E3	11.5	87	0.00	8.04-13.97
2 H	TPH-GR0 (C6-C12)	251.923	221.763 E3	12.0	86	0.00	7.72-14.28
3 S	a,a,a-Trifluorotoluene	277.007	295.547 E3	-6.7	104	0.00	11.02-11.17

(#) = Out of Range SPCC's out = 0 CCC's out = 0
PF145432.d MPF4589.M Wed May 16 09:03:46 2018

10.6.5
10

GC Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : PF145800.d
 Signal(s) : FID1A.CH
 Acq On : 15 May 2018 11:01 am
 Operator : KRIZHKAC
 Sample : JC65800-1
 Misc : GC52499,GPF4612,4.98,,100,10,1
 ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: May 16 09:07:56 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M
 Quant Title : Method SW846 8015C (GRO)
 QLast Update : Tue Apr 24 09:10:18 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
 Signal Phase : crossbond phenylmethyl polysiloxane
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
3) S a,a,a-Trifluorotoluene	11.094	72281301	260.937 ug/l
Spiked Amount 300.000		Recovery	= 86.98%

Target Compounds

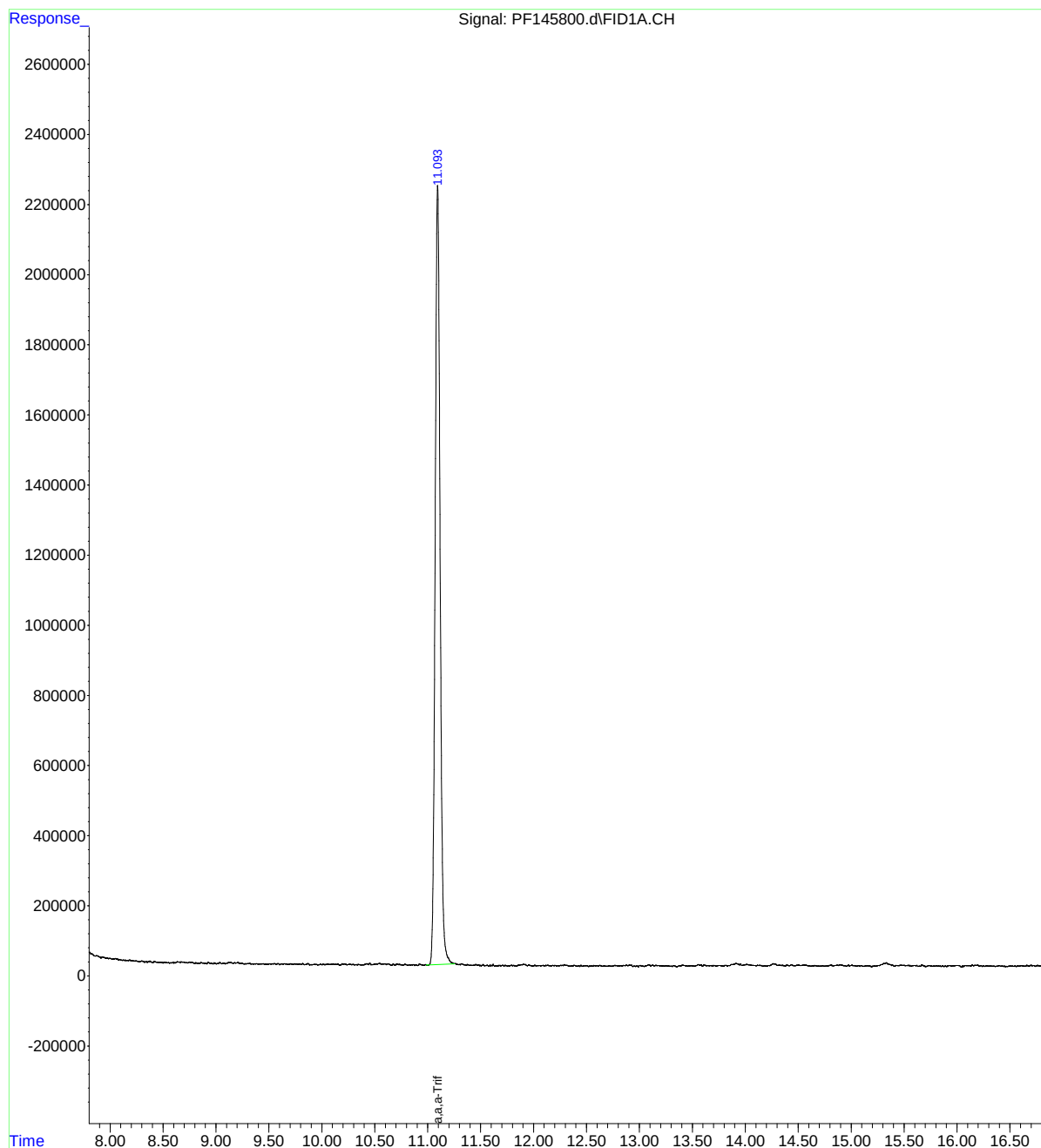
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\msdchem\1\data\
 Data File : PF145800.d
 Signal(s) : FID1A.CH
 Acq On : 15 May 2018 11:01 am
 Operator : KRIZHKAC
 Sample : JC65800-1
 Misc : GC52499,6PF4612,4.98,,100,10,1
 ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: May 16 09:07:56 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M
 Quant Title : Method SW846 8015C (GR0)
 QLast Update : Tue Apr 24 09:10:18 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
 Signal Phase : crossbond phenylmethyl polysiloxane
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : PF145801.d
Signal(s) : FID1A.CH
Acq On : 15 May 2018 11:27 am
Operator : KRIZHKAC
Sample : JC65800-2
Misc : GC52499,GPF4612,4.33,,100,10,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 16 09:08:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M
Quant Title : Method SW846 8015C (GRO)
QLast Update : Tue Apr 24 09:10:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase : crossbond phenylmethyl polysiloxane
Signal Info : HP-VOC 105m x 0.53mm x 3.0um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
3) S a,a,a-Trifluorotoluene	11.088	72749989	262.629 ug/l
Spiked Amount 300.000		Recovery	= 87.54%

Target Compounds

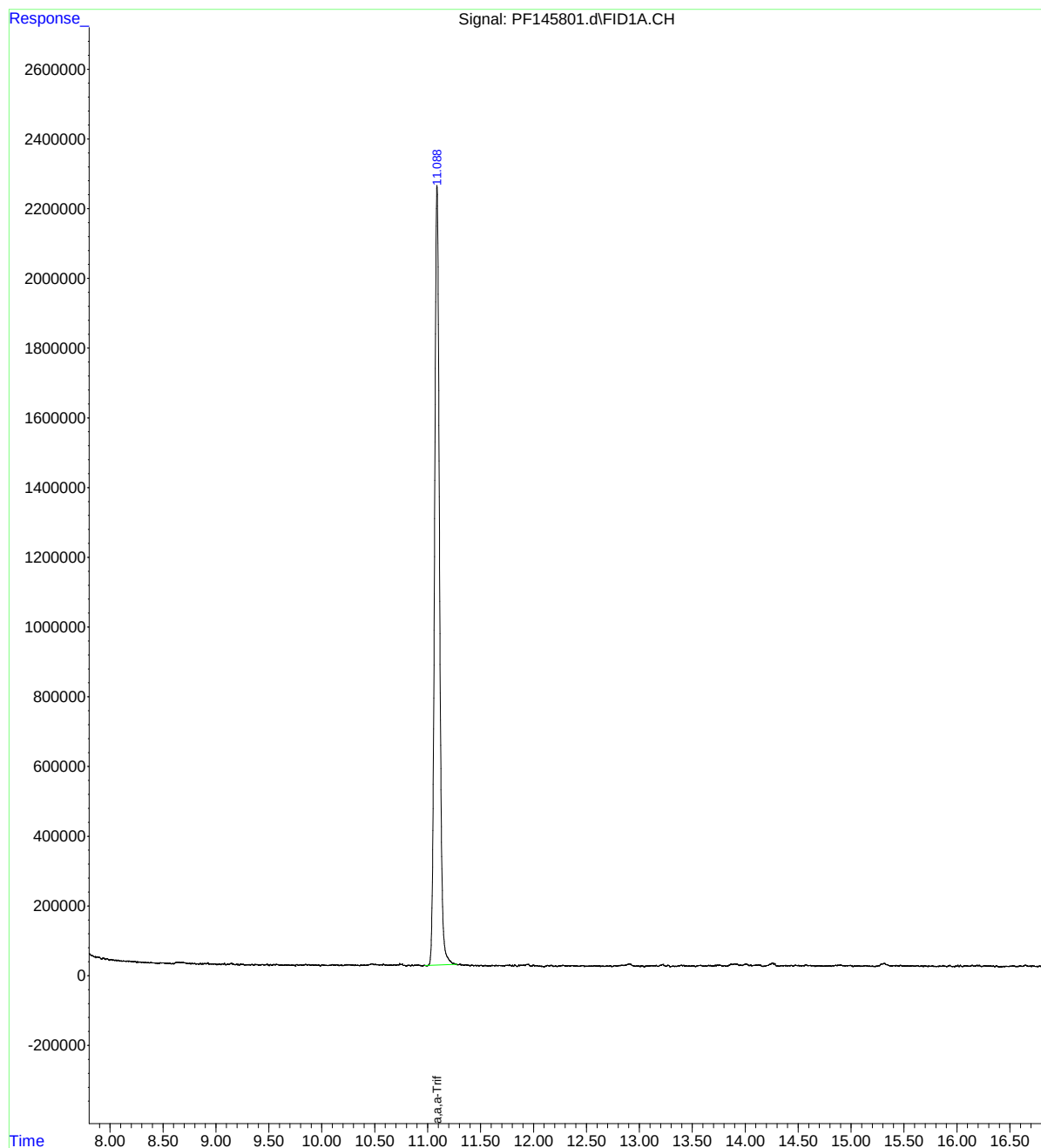
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\msdchem\1\data\
Data File : PF145801.d
Signal(s) : FID1A.CH
Acq On : 15 May 2018 11:27 am
Operator : KRIZHKAC
Sample : JC65800-2
Misc : GC52499,6PF4612,4.33,,100,10,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 16 09:08:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M
Quant Title : Method SW846 8015C (GR0)
QLast Update : Tue Apr 24 09:10:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase : crossbond phenylmethyl polysiloxane
Signal Info : HP-VOC 105m x 0.53mm x 3.0um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : PF145797.d
Signal(s) : FID1A.CH
Acq On : 15 May 2018 9:30 am
Operator : KRIZHKAC
Sample : MB1
Misc : GC52501,GPF4612,10.0,,100,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 16 09:06:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M
Quant Title : Method SW846 8015C (GRO)
QLast Update : Tue Apr 24 09:10:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase : crossbond phenylmethyl polysiloxane
Signal Info : HP-VOC 105m x 0.53mm x 3.0um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
3) S a,a,a-Trifluorotoluene	11.094	72793279	262.785 ug/l
Spiked Amount 300.000		Recovery	= 87.60%

Target Compounds

(f)=RT Delta > 1/2 Window

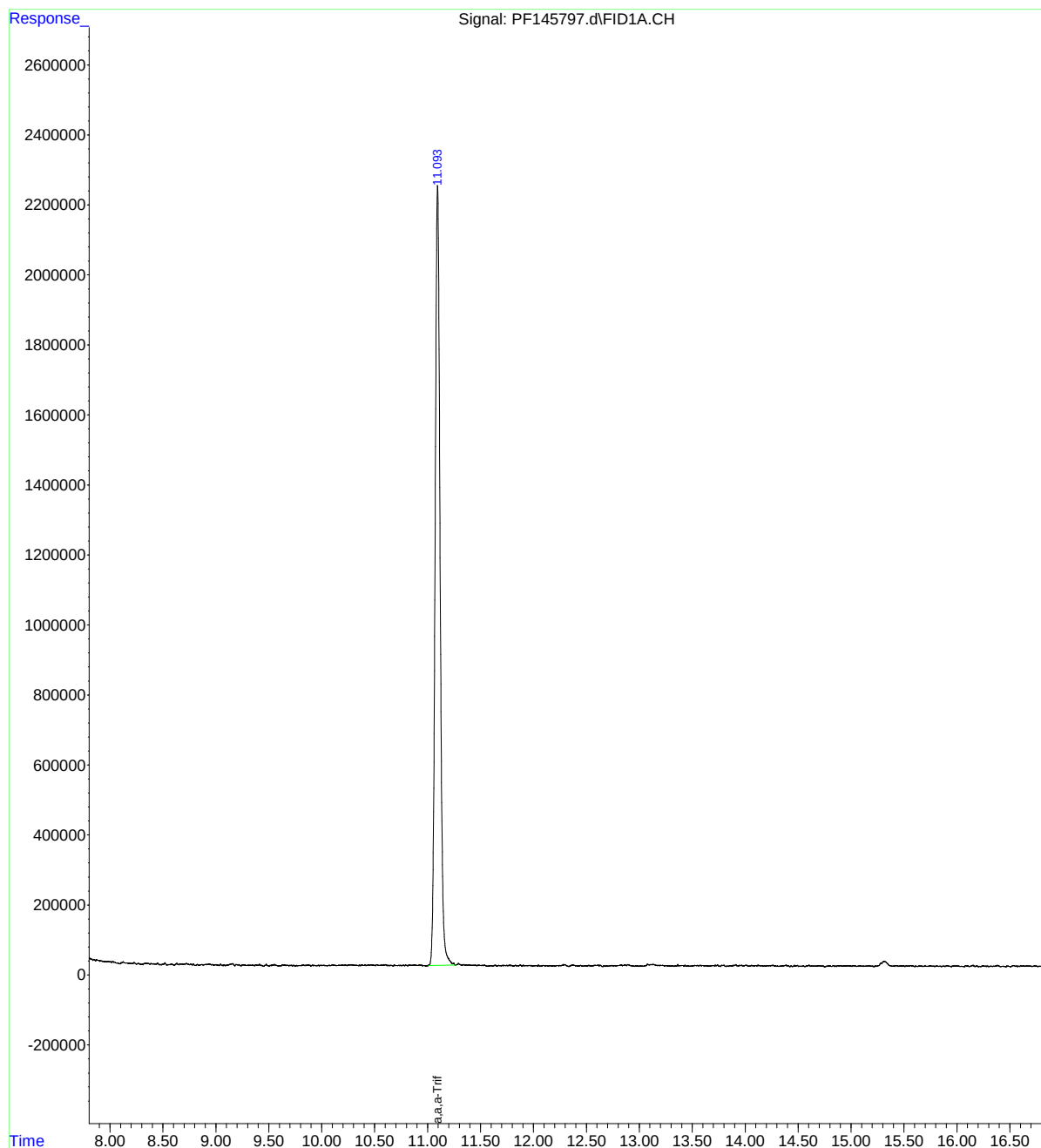
(m)=manual int.

11.2.1
11

Data Path : C:\msdchem\1\data\
Data File : PF145797.d
Signal(s) : FID1A.CH
Acq On : 15 May 2018 9:30 am
Operator : KRIZHKAC
Sample : MB1
Misc : GC52501,GPF4612,10.0,,100,10,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 16 09:06:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M
Quant Title : Method SW846 8015C (GRO)
QLast Update : Tue Apr 24 09:10:18 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase : crossbond phenylmethyl polysiloxane
Signal Info : HP-VOC 105m x 0.53mm x 3.0um



GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- DDT/Endrin Breakdown Checks
- GC Identification Summaries (Hits)
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-MB3	3G116516.D	1	05/20/18	VDT	05/18/18	OP11975	G3G4048

The QC reported here applies to the following samples: Method: SW846 8151A
JC65800-1A, JC65800-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	0.42	0.12	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	0.12	0.025	ug/l	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	110% 50-142%
19719-28-9	2,4-DCAA	72% 50-142%

Method Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-MB1	OA133321.D	1	05/14/18	VDT	05/13/18	OP11975	GOA4568

The QC reported here applies to the following samples: Method: SW846 8151A
OP11975-LS6, OP11975-MS, OP11975-MSD

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	0.42	0.12	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	0.12	0.025	ug/l	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	63% 50-142%
19719-28-9	2,4-DCAA	74% 50-142%

12.1.2
12

Method Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-MB2	3G116498.D	1	05/17/18	VDT	05/16/18	OP11975	G3G4047

The QC reported here applies to the following samples: Method: SW846 8151A
OP11975-LB10, OP11975-LB13

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	0.42	0.12	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	0.12	0.025	ug/l	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	102% 50-142%
19719-28-9	2,4-DCAA	87% 50-142%

Method Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11974-MB1	1G146111.D	1	05/13/18	CP	05/11/18	OP11974	G1G4644

The QC reported here applies to the following samples: Method: SW846 8081B
JC65800-1A, JC65800-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	0.0067	0.0040	ug/l	
12789-03-6	Chlordane	ND	0.33	0.14	ug/l	
72-20-8	Endrin	ND	0.0067	0.0040	ug/l	
76-44-8	Heptachlor	ND	0.0067	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0067	0.0040	ug/l	
72-43-5	Methoxychlor	ND	0.013	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	82% 30-137%
877-09-8	Tetrachloro-m-xylene	81% 30-137%
2051-24-3	Decachlorobiphenyl	46% 10-137%
2051-24-3	Decachlorobiphenyl	35% 10-137%

12.1.4
12

Method Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11916-MB1	2G163263.D	1	05/10/18	TR	05/10/18	OP11916	G2G4329

The QC reported here applies to the following samples: Method: SW846 8082A
JC65800-1, JC65800-2

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	13	ug/kg	
11104-28-2	Aroclor 1221	ND	33	14	ug/kg	
11141-16-5	Aroclor 1232	ND	33	8.9	ug/kg	
53469-21-9	Aroclor 1242	ND	33	5.3	ug/kg	
12672-29-6	Aroclor 1248	ND	33	20	ug/kg	
11097-69-1	Aroclor 1254	ND	33	8.2	ug/kg	
11096-82-5	Aroclor 1260	ND	33	11	ug/kg	
11100-14-4	Aroclor 1268	ND	33	5.0	ug/kg	
37324-23-5	Aroclor 1262	ND	33	2.5	ug/kg	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	96% 24-152%
877-09-8	Tetrachloro-m-xylene	103% 24-152%
2051-24-3	Decachlorobiphenyl	97% 10-166%
2051-24-3	Decachlorobiphenyl	96% 10-166%

12.1.5
12

Method Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11916-MB1	2G163523.D	1	05/15/18	RK	05/10/18	OP11916	G2G4333

The QC reported here applies to the following samples: Method: SW846 8082A

JC65800-1, JC65800-2

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	13	ug/kg	
11104-28-2	Aroclor 1221	ND	33	14	ug/kg	
11141-16-5	Aroclor 1232	ND	33	8.9	ug/kg	
53469-21-9	Aroclor 1242	ND	33	5.3	ug/kg	
12672-29-6	Aroclor 1248	ND	33	20	ug/kg	
11097-69-1	Aroclor 1254	ND	33	8.2	ug/kg	
11096-82-5	Aroclor 1260	ND	33	11	ug/kg	
11100-14-4	Aroclor 1268	ND	33	5.0	ug/kg	
37324-23-5	Aroclor 1262	ND	33	2.5	ug/kg	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	98% 24-152%
877-09-8	Tetrachloro-m-xylene	104% 24-152%
2051-24-3	Decachlorobiphenyl	97% 10-166%
2051-24-3	Decachlorobiphenyl	92% 10-166%

12.1.6
12

Method Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11925-MB	2Z69071.D	1	05/14/18	TL	05/10/18	OP11925	G2Z2597

The QC reported here applies to the following samples: Method: SW846 8015C
JC65800-1, JC65800-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	10	2.4	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	57% 18-132%
16416-32-3	Tetracosane-d50	78% 25-137%
438-22-2	5a-Androstane	72% 22-134%

12.1.7
12

Leachate Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-LB10	3G116508.D	1	05/17/18	VDT	05/16/18	OP11975	G3G4047

The QC reported here applies to the following samples: Method: SW846 8151A
JC65800-1A, JC65800-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	4.2	1.2	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	1.2	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	98% 50-142%
19719-28-9	2,4-DCAA	74% 50-142%

12.2.1
12

Leachate Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-LB13	3G116509.D	1	05/17/18	VDT	05/16/18	OP11975	G3G4047

The QC reported here applies to the following samples: Method: SW846 8151A

JC65800-1A, JC65800-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	4.2	1.2	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	1.2	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	97% 50-142%
19719-28-9	2,4-DCAA	75% 50-142%

12.2.2
12

Leachate Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-LB11	OA133357.D	1	05/15/18	VDT	05/13/18	OP11975	GOA4568

The QC reported here applies to the following samples: Method: SW846 8151A
OP11975-LS6, OP11975-MS, OP11975-MSD

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	4.2	1.2	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	1.2	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	56% 50-142%
19719-28-9	2,4-DCAA	55% 50-142%

Leachate Blank Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11974-LB11	1G146129.D	1	05/14/18	CP	05/12/18	OP11974	G1G4644

The QC reported here applies to the following samples: Method: SW846 8081B
JC65800-1A, JC65800-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	0.067	0.040	ug/l	
12789-03-6	Chlordane	ND	3.3	1.4	ug/l	
72-20-8	Endrin	ND	0.067	0.040	ug/l	
76-44-8	Heptachlor	ND	0.067	0.030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.067	0.040	ug/l	
72-43-5	Methoxychlor	ND	0.13	0.045	ug/l	
8001-35-2	Toxaphene	ND	1.7	1.1	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	89% 30-137%
877-09-8	Tetrachloro-m-xylene	78% 30-137%
2051-24-3	Decachlorobiphenyl	70% 10-137%
2051-24-3	Decachlorobiphenyl	56% 10-137%

12.2.4
12

Blank Spike Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-BS3	3G116517.D	1	05/20/18	VDT	05/18/18	OP11975	G3G4048

The QC reported here applies to the following samples: Method: SW846 8151A
JC65800-1A, JC65800-2A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
94-75-7	2,4-D	13.3	11.4	86	46-153
93-72-1	2,4,5-TP (Silvex)	2.67	2.3	86	57-151

CAS No.	Surrogate Recoveries	BSP	Limits
19719-28-9	2,4-DCAA	82%	50-142%
19719-28-9	2,4-DCAA	65%	50-142%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11974-BS1	1G146112.D	1	05/13/18	CP	05/11/18	OP11974	G1G4644

The QC reported here applies to the following samples: Method: SW846 8081B

JC65800-1A, JC65800-2A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
58-89-9	gamma-BHC (Lindane)	1.67	1.3	78	37-178
72-20-8	Endrin	1.67	1.3	78	45-182
76-44-8	Heptachlor	1.67	1.2	72	26-172
1024-57-3	Heptachlor epoxide	1.67	1.2	72	43-173
72-43-5	Methoxychlor	1.67	1.3	78 ^a	40-192

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	69%	30-137%
877-09-8	Tetrachloro-m-xylene	69%	30-137%
2051-24-3	Decachlorobiphenyl	41%	10-137%
2051-24-3	Decachlorobiphenyl	35%	10-137%

(a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11916-BS1	2G163264.D	1	05/10/18	TR	05/10/18	OP11916	G2G4329

The QC reported here applies to the following samples: Method: SW846 8082A

JC65800-1, JC65800-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	133	165	124	61-146
11104-28-2	Aroclor 1221		ND		70-130
11141-16-5	Aroclor 1232		ND		70-130
53469-21-9	Aroclor 1242		ND		70-130
12672-29-6	Aroclor 1248		ND		70-130
11097-69-1	Aroclor 1254		ND		70-130
11096-82-5	Aroclor 1260	133	155	116	62-148
11100-14-4	Aroclor 1268		ND		50-150 ^a
37324-23-5	Aroclor 1262		ND		50-150 ^a

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	102%	24-152%
877-09-8	Tetrachloro-m-xylene	105%	24-152%
2051-24-3	Decachlorobiphenyl	98%	10-166%
2051-24-3	Decachlorobiphenyl	96%	10-166%

(a) Advisory control limits.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11925-BS	2Z69072.D	1	05/14/18	TL	05/10/18	OP11925	G2Z2597

The QC reported here applies to the following samples: Method: SW846 8015C

JC65800-1, JC65800-2

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	100	62.6	63	44-120

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	64%	18-132%
16416-32-3	Tetracosane-d50	80%	25-137%
438-22-2	5a-Androstane	75%	22-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-MS	OA133324.D	1	05/14/18	VDT	05/13/18	OP11975	GOA4568
OP11975-MSD	OA133325.D	1	05/14/18	VDT	05/13/18	OP11975	GOA4568
LA43799-1B	OA133323.D	1	05/14/18	VDT	05/13/18	OP11975	GOA4568

The QC reported here applies to the following samples: Method: SW846 8151A

JC65800-1A, JC65800-2A

CAS No.	Compound	LA43799-1B Spike		MS	MS	Spike	MSD	MSD	RPD	Limits
		ug/l	Q ug/l	ug/l	%	ug/l	ug/l	%		Rec/RPD
94-75-7	2,4-D	ND	13.3	13.7	103	13.3	12.4	93	10	43-136/44
93-72-1	2,4,5-TP (Silvex)	ND	2.67	2.2	83	2.67	3.2	120	37	47-141/41

CAS No.	Surrogate Recoveries	MS	MSD	LA43799-1B Limits	
19719-28-9	2,4-DCAA	48%* a	65%	50%	50-142%
19719-28-9	2,4-DCAA	52%	76%	54%	50-142%

(a) Outside the QC limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11974-MS	1G146114.D	1	05/14/18	CP	05/11/18	OP11974	G1G4644
OP11974-MSD	1G146115.D	1	05/14/18	CP	05/12/18	OP11974	G1G4644
LA43799-1B	1G146113.D	1	05/14/18	CP	05/12/18	OP11974	G1G4644

The QC reported here applies to the following samples: Method: SW846 8081B

JC65800-1A, JC65800-2A

CAS No.	Compound	LA43799-1B Spike ug/l	Q	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
58-89-9	gamma-BHC (Lindane)	ND	1.67	2.8	168* a	1.67	2.7	162* a	4	39-160/97
12789-03-6	Chlordane	ND		ND			ND		nc	81-123/10
72-20-8	Endrin	ND	1.67	2.7	162	1.67	2.4	144	12	43-169/95
76-44-8	Heptachlor	ND	1.67	1.3	78	1.67	1.3	78	0	35-152/102
1024-57-3	Heptachlor epoxide	ND	1.67	2.7	162* a	1.67	2.7	162* a	0	42-159/96
72-43-5	Methoxychlor	ND	1.67	1.3	78	1.67	1.6	96	21	47-170/99
8001-35-2	Toxaphene	ND		ND			ND		nc	50-150/8

CAS No.	Surrogate Recoveries	MS	MSD	LA43799-1B Limits
877-09-8	Tetrachloro-m-xylene	114%	120%	75% 30-137%
877-09-8	Tetrachloro-m-xylene	79%	72%	65% 30-137%
2051-24-3	Decachlorobiphenyl	108%	94%	76% 10-137%
2051-24-3	Decachlorobiphenyl	53%	42%	35% 10-137%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11916-MS	2G163511.D	1	05/15/18	RK	05/10/18	OP11916	G2G4333
OP11916-MSD	2G163588.D	1	05/16/18	TR	05/10/18	OP11916	G2G4334
JC65751-15	2G163510.D	1	05/15/18	RK	05/10/18	OP11916	G2G4333

The QC reported here applies to the following samples: Method: SW846 8082A

JC65800-1, JC65800-2

CAS No.	Compound	JC65751-15 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	146	202	139	139	178	128	13	24-178/46
11104-28-2	Aroclor 1221	ND		ND			ND		nc	70-130/50
11141-16-5	Aroclor 1232	ND		ND			ND		nc	70-130/50
53469-21-9	Aroclor 1242	ND		ND			ND		nc	70-130/50
12672-29-6	Aroclor 1248	ND		ND			ND		nc	70-130/50
11097-69-1	Aroclor 1254	ND		ND			ND		nc	70-130/50
11096-82-5	Aroclor 1260	ND	146	156	107	139	143	103	9	15-185/45
11100-14-4	Aroclor 1268	ND		ND			ND		nc	-/50
37324-23-5	Aroclor 1262	ND		ND			ND		nc	-/50

CAS No.	Surrogate Recoveries	MS	MSD	JC65751-15	Limits
877-09-8	Tetrachloro-m-xylene	86%	83%	72%	24-152%
877-09-8	Tetrachloro-m-xylene	76%	72%	67%	24-152%
2051-24-3	Decachlorobiphenyl	91%	88%	85%	10-166%
2051-24-3	Decachlorobiphenyl	85%	80%	77%	10-166%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11925-MS	2Z69082.D	1	05/14/18	TL	05/10/18	OP11925	G2Z2597
OP11925-MSD	2Z69083.D	1	05/14/18	TL	05/10/18	OP11925	G2Z2597
JC65751-10	2Z69081.D	1	05/14/18	TL	05/10/18	OP11925	G2Z2597

The QC reported here applies to the following samples: Method: SW846 8015C

JC65800-1, JC65800-2

CAS No.	Compound	JC65751-10 mg/kg	Spike Q	mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	325		96.5	447	126	99.1	432	108	3	10-145/50

CAS No.	Surrogate Recoveries	MS	MSD	JC65751-10	Limits
84-15-1	o-Terphenyl	63%	66%	61%	18-132%
16416-32-3	Tetracosane-d50	78%	81%	81%	25-137%
438-22-2	5a-Androstane	76%	79%	78%	22-134%

* = Outside of Control Limits.

Leachate Spike Summary

Page 1 of 1

Job Number: JC65800

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-LS6	OA133324.D	1	05/14/18	VDT	05/13/18	OP11975	GOA4568
LA43799-1B	OA133323.D	1	05/14/18	VDT	05/13/18	OP11975	GOA4568

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65800-1A, JC65800-2A

CAS No.	Compound	LA43799-1B Spike		LS	LS	Limits
		ug/l	Q ug/l	ug/l	%	
94-75-7	2,4-D	ND	13.3	13.7	103	43-136
93-72-1	2,4,5-TP (Silvex)	ND	2.67	2.2	83	47-141

CAS No.	Surrogate Recoveries	LS	LA43799-1B Limits
19719-28-9	2,4-DCAA	48%* ^a	50% 50-142%
19719-28-9	2,4-DCAA	52%	54% 50-142%

(a) Outside the QC limits.

* = Outside of Control Limits.

Leachate Spike Summary

Page 1 of 1

Job Number: JC65800

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11974-LS6	1G146114.D	1	05/14/18	CP	05/12/18	OP11974	G1G4644
LA43799-1B	1G146113.D	1	05/14/18	CP	05/12/18	OP11974	G1G4644

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65800-1A, JC65800-2A

CAS No.	Compound	LA43799-1B Spike ug/l	Q	ug/l	LS ug/l	LS %	Limits
58-89-9	gamma-BHC (Lindane)	ND		1.67	2.8	168* a	39-160
12789-03-6	Chlordane	ND			ND		81-123
72-20-8	Endrin	ND		1.67	2.7	162	43-169
76-44-8	Heptachlor	ND		1.67	1.3	78	35-152
1024-57-3	Heptachlor epoxide	ND		1.67	2.7	162* a	42-159
72-43-5	Methoxychlor	ND		1.67	1.3	78	47-170
8001-35-2	Toxaphene	ND			ND		50-150

CAS No.	Surrogate Recoveries	LS	LA43799-1B Limits
877-09-8	Tetrachloro-m-xylene	114%	75% 30-137%
877-09-8	Tetrachloro-m-xylene	79%	65% 30-137%
2051-24-3	Decachlorobiphenyl	108%	76% 10-137%
2051-24-3	Decachlorobiphenyl	53%	35% 10-137%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Internal Standard Area Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G1G4644-CC4628	Injection Date:	05/13/18
Lab File ID:	1G146109.D	Injection Time:	22:49
Instrument ID:	GC1G	Method:	SW846 8081B

	IS 1		IS 2	
	AREA	RT	AREA	RT
Check Std	106227419	2.30	736666133	1.99
Upper Limit ^a	212454838	2.80	1473332266	2.49
Lower Limit ^b	53113710	1.80	368333067	1.49

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT
OP11875-MB2	108378507	2.30	780381902	1.99
OP11974-MB1	108378507	2.30	780381902	1.99
OP11950-MB1	108378507	2.30	780381902	1.99
OP11974-BS1	111843766	2.30	843724198	1.99
OP11875-BS2	111843766	2.30	843724198	1.99
OP11950-BS1	111843766	2.30	843724198	1.99
LA43799-1B	128342440	2.30	461705991	1.98
OP11974-LS6	125377535	2.30	454924932	1.98
OP11974-MS	125377535	2.30	454924932	1.98
OP11974-MSD	122302559	2.30	431389970	1.98
DA5034-1	107573480	2.30	529168761	1.97
ZZZZZZ	108333564	2.30	783724240	1.98
ZZZZZZ	106954957	2.30	783017046	1.98
ZZZZZZ	107127186	2.30	759416157	1.98
ZZZZZZ	109462928	2.30	780047129	1.98
ZZZZZZ	114399564	2.30	823704723	1.98
ZZZZZZ	107489926	2.30	753086608	1.98
JC65677-3	108641923	2.30	755994453	1.98
OP11950-LS5	117119748	2.30	937503076	1.98
OP11950-MS	117119748	2.30	937503076	1.98
OP11950-MSD	113303565	2.30	863442255	1.98
ZZZZZZ	114682472	2.30	831321048	1.99
ZZZZZZ	111644368	2.30	864752426	1.98
OP11950-LB7	115995306	2.30	884532494	1.99
OP11974-LB11	119707352	2.30	807847965	1.98

IS 1 = 1-Bromo-2-nitrobenzene (Signal #2)
IS 2 = 1-Bromo-2-nitrobenzene (Signal #1)

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

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

12.6.1
12

Internal Standard Area Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G6G1687-CC1671	Injection Date:	05/20/18
Lab File ID:	6G56346.D	Injection Time:	23:32
Instrument ID:	GC6G	Method:	SW846 8081B

	IS 1		IS 2	
	AREA	RT	AREA	RT
Check Std	252082069	2.16	365756020	1.96
Upper Limit ^a	504164138	2.66	731512040	2.46
Lower Limit ^b	126041035	1.66	182878010	1.46

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT
OP11974-MB3	253079823	2.16	356577682	1.96
OP12065-MB1	253079823	2.16	356577682	1.96
OP11974-BS3	245874963	2.16	343435805	1.96
OP12065-BS1	245874963	2.16	343435805	1.96
ZZZZZZ	261401493	2.16	375383944	1.96
ZZZZZZ	263718500	2.16	368945380	1.96
ZZZZZZ	260008427	2.16	373120104	1.96
JC65996-1	251440737	2.16	352446149	1.96
OP12065-MS	250590819	2.16	356640749	1.96
OP12065-LS9	250590819	2.16	356640749	1.96
OP12065-MSD	251383357	2.16	355452865	1.96
ZZZZZZ	247885798	2.15	345292288	1.96
ZZZZZZ	250455137	2.16	351022198	1.96
ZZZZZZ	256959458	2.16	361916168	1.96
ZZZZZZ	260657368	2.16	374628679	1.96
ZZZZZZ	261017325	2.16	363203526	1.96
ZZZZZZ	209574814	2.16	334726211	1.97
JC65800-1A	241742705	2.16	334978067	1.96
JC65800-2A	250960355	2.16	350010714	1.96
ZZZZZZ	269198521	2.16	374778879	1.96
OP11974-LB10	240238832	2.16	338809565	1.96
OP12065-LB19	251550658	2.16	351978160	1.96

IS 1 = 1-Bromo-2-nitrobenzene (Signal #2)

IS 2 = 1-Bromo-2-nitrobenzene (Signal #1)

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

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

12.6.2
12

DDT/Endrin Breakdown Check

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	G1G4628-DDT	Injection Date:	04/25/18
Lab File ID:	1G145465.D	Injection Time:	11:55
Instrument ID:	GC1G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	19117068	3242526
4,4'-DDE	17540271	2426192
4,4'-DDT	1139549834	151721138

DDT Breakdown ^a	3.1 %	3.6 %
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Endrin aldehyde	6205253	869695
Endrin ketone	16073186	1914397
Endrin	736751809	103748583

Endrin Breakdown ^b	2.9 %	2.6 %
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(a) Calculated as: $(\text{DDD} + \text{DDE}) / (\text{DDD} + \text{DDE} + \text{DDT}) \times 100$

(b) Calculated as: $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G1G4628-IC4628	1G145467.D	04/25/18	12:29	00:34	Initial cal 1
G1G4628-IC4628	1G145468.D	04/25/18	12:46	00:51	Initial cal 2
G1G4628-IC4628	1G145469.D	04/25/18	13:04	01:09	Initial cal 5
G1G4628-IC4628	1G145470.D	04/25/18	13:21	01:26	Initial cal 10
G1G4628-IC4628	1G145471.D	04/25/18	13:38	01:44	Initial cal 25
G1G4628-IC4628	1G145472.D	04/25/18	13:55	02:01	Initial cal 50
G1G4628-IC4628	1G145473.D	04/25/18	14:13	02:18	Initial cal 75
G1G4628-IC4628	1G145474.D	04/25/18	14:30	02:35	Initial cal 100
G1G4628-IC4628	1G145475.D	04/25/18	14:47	02:53	Initial cal 500
G1G4628-IC4628	1G145476.D	04/25/18	15:05	03:10	Initial cal 500
G1G4628-ICV4628	1G145478.D	04/25/18	15:39	03:45	Initial cal verification 500
G1G4628-ICV4628	1G145479.D	04/25/18	15:56	04:02	Initial cal verification 500
G1G4628-ICV4628	1G145481.D	04/25/18	16:31	04:36	Initial cal verification 50

DDT/Endrin Breakdown Check

Page 1 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4644-DDT	Injection Date: 05/13/18
Lab File ID: 1G146108.D	Injection Time: 22:32
Instrument ID: GC1G	

Compound	Response Signal 1	Response Signal 2
4,4' -DDD	25201970	3700756
4,4' -DDE	18824575	4223385
4,4' -DDT	1164227366	120725639

DDT Breakdown ^a	3.6 %	6.2 %
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Endrin aldehyde	3628172	527978
Endrin ketone	4177532	663851
Endrin	804541378	108070177

Endrin Breakdown ^b	1 %	1.1 %
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(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100

(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G1G4644-CC4628	1G146109.D	05/13/18	22:49	00:17	Continuing cal 25
OP11875-MB2	1G146111.D	05/13/18	23:25	00:53	Method Blank
OP11950-MB1	1G146111.D	05/13/18	23:25	00:53	Method Blank
OP11974-MB1	1G146111.D	05/13/18	23:25	00:53	Method Blank
OP11974-BS1	1G146112.D	05/13/18	23:42	01:10	Blank Spike
OP11875-BS2	1G146112.D	05/13/18	23:42	01:10	Blank Spike
OP11950-BS1	1G146112.D	05/13/18	23:42	01:10	Blank Spike
LA43799-1B	1G146113.D	05/14/18	00:00	01:28	(used for QC only; not part of job JC65800)
OP11974-LS6	1G146114.D	05/14/18	00:18	01:46	Leachate Spike
OP11974-MS	1G146114.D	05/14/18	00:18	01:46	Matrix Spike
OP11974-MSD	1G146115.D	05/14/18	00:36	02:04	Matrix Spike Duplicate
DA5034-1	1G146116.D	05/14/18	00:54	02:22	(used for QC only; not part of job JC65800)
ZZZZZZ	1G146117.D	05/14/18	01:11	02:40	(unrelated sample)
ZZZZZZ	1G146118.D	05/14/18	01:29	02:57	(unrelated sample)
ZZZZZZ	1G146119.D	05/14/18	01:47	03:15	(unrelated sample)
ZZZZZZ	1G146120.D	05/14/18	02:04	03:32	(unrelated sample)
ZZZZZZ	1G146121.D	05/14/18	02:21	03:49	(unrelated sample)
ZZZZZZ	1G146122.D	05/14/18	02:38	04:07	(unrelated sample)
JC65677-3	1G146123.D	05/14/18	02:55	04:24	(used for QC only; not part of job JC65800)
OP11950-MS	1G146124.D	05/14/18	03:13	04:41	Matrix Spike
OP11950-LS5	1G146124.D	05/14/18	03:13	04:41	Leachate Spike
OP11950-MSD	1G146125.D	05/14/18	03:30	04:58	Matrix Spike Duplicate
ZZZZZZ	1G146126.D	05/14/18	03:47	05:15	(unrelated sample)
ZZZZZZ	1G146127.D	05/14/18	04:04	05:33	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	G1G4644-DDT	Injection Date:	05/13/18
Lab File ID:	1G146108.D	Injection Time:	22:32
Instrument ID:	GC1G		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
OP11950-LB7	1G146128.D	05/14/18	04:22	05:50	Leachate Blank
OP11974-LB11	1G146129.D	05/14/18	04:39	06:07	Leachate Blank
G1G4644-CC4628	1G146130.D	05/14/18	04:56	06:24	Continuing cal 50
ZZZZZZ	1G146132.D	05/14/18	05:30	06:59	(unrelated sample)
ZZZZZZ	1G146133.D	05/14/18	05:47	07:16	(unrelated sample)
ZZZZZZ	1G146134.D	05/14/18	06:04	07:33	(unrelated sample)
ZZZZZZ	1G146135.D	05/14/18	06:21	07:50	(unrelated sample)
ZZZZZZ	1G146136.D	05/14/18	06:39	08:07	(unrelated sample)

12.7.2
12

DDT/Endrin Breakdown Check

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	G6G1671-DDT	Injection Date:	04/30/18
Lab File ID:	6G55778.D	Injection Time:	10:46
Instrument ID:	GC6G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	11318971	7536013
4,4'-DDE	11688813	6661386
4,4'-DDT	697113892	431734229

DDT Breakdown ^a	3.2 %	3.2 %
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Endrin aldehyde	0	0
Endrin ketone	3648777	6453656
Endrin	397383387	243111166

Endrin Breakdown ^b	0.9 %	2.6 %
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(a) Calculated as: $(\text{DDD} + \text{DDE}) / (\text{DDD} + \text{DDE} + \text{DDT}) \times 100$

(b) Calculated as: $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G6G1671-IC1671	6G55780.D	04/30/18	11:25	00:39	Initial cal 1
G6G1671-IC1671	6G55781.D	04/30/18	11:43	00:57	Initial cal 2
G6G1671-IC1671	6G55782.D	04/30/18	12:01	01:15	Initial cal 5
G6G1671-IC1671	6G55783.D	04/30/18	12:18	01:33	Initial cal 10
G6G1671-ICC1671	6G55784.D	04/30/18	12:36	01:50	Initial cal 25
G6G1671-IC1671	6G55785.D	04/30/18	12:54	02:08	Initial cal 50
G6G1671-IC1671	6G55786.D	04/30/18	13:12	02:26	Initial cal 75
G6G1671-IC1671	6G55787.D	04/30/18	13:29	02:44	Initial cal 100
G6G1671-IC1671	6G55788.D	04/30/18	13:47	03:02	Initial cal 500
G6G1671-IC1671	6G55789.D	04/30/18	14:05	03:19	Initial cal 500
G6G1671-ICV1671	6G55790.D	04/30/18	14:23	03:37	Initial cal verification 25
G6G1671-ICV1671	6G55791.D	04/30/18	14:41	03:55	Initial cal verification 500
G6G1671-ICV1671	6G55792.D	04/30/18	14:58	04:13	Initial cal verification 500
G6G1671-ICV1671	6G55793.D	04/30/18	15:16	04:31	Initial cal verification 50
G6G1671-ICV1671	6G55794.D	04/30/18	15:34	04:48	Initial cal verification 50

DDT/Endrin Breakdown Check

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1687-DDT	Injection Date: 05/20/18
Lab File ID: 6G56345.D	Injection Time: 23:15
Instrument ID: GC6G	

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	10600488	7019390
4,4'-DDE	8773442	5792842
4,4'-DDT	602388985	406717816

DDT Breakdown ^a	3.1 %	3.1 %
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Endrin aldehyde	461410	321060
Endrin ketone	2543771	2117467
Endrin	361685811	237972338

Endrin Breakdown ^b	0.8 %	1 %
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(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100

(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G6G1687-CC1671	6G56346.D	05/20/18	23:32	00:18	Continuing cal 25
OP11974-MB3	6G56348.D	05/21/18	00:12	00:58	Method Blank
OP12065-MB1	6G56348.D	05/21/18	00:12	00:58	Method Blank
OP11974-BS3	6G56349.D	05/21/18	00:30	01:16	Blank Spike
OP12065-BS1	6G56349.D	05/21/18	00:30	01:16	Blank Spike
ZZZZZZ	6G56350.D	05/21/18	00:48	01:33	(unrelated sample)
ZZZZZZ	6G56351.D	05/21/18	01:06	01:51	(unrelated sample)
ZZZZZZ	6G56352.D	05/21/18	01:24	02:09	(unrelated sample)
JC65996-1	6G56353.D	05/21/18	01:42	02:27	(used for QC only; not part of job JC65800)
OP12065-LS9	6G56354.D	05/21/18	01:59	02:45	Leachate Spike
OP12065-MS	6G56354.D	05/21/18	01:59	02:45	Matrix Spike
OP12065-MSD	6G56355.D	05/21/18	02:17	03:03	Matrix Spike Duplicate
ZZZZZZ	6G56356.D	05/21/18	02:35	03:21	(unrelated sample)
ZZZZZZ	6G56357.D	05/21/18	02:53	03:38	(unrelated sample)
ZZZZZZ	6G56358.D	05/21/18	03:11	03:56	(unrelated sample)
ZZZZZZ	6G56359.D	05/21/18	03:29	04:14	(unrelated sample)
ZZZZZZ	6G56360.D	05/21/18	03:47	04:32	(unrelated sample)
ZZZZZZ	6G56361.D	05/21/18	04:04	04:50	(unrelated sample)
JC65800-1A	6G56362.D	05/21/18	04:22	05:08	WC-2
JC65800-2A	6G56363.D	05/21/18	04:40	05:26	WC-1
ZZZZZZ	6G56364.D	05/21/18	04:58	05:43	(unrelated sample)
OP11974-LB10	6G56365.D	05/21/18	05:16	06:01	Leachate Blank
OP12065-LB19	6G56366.D	05/21/18	05:34	06:19	Leachate Blank
G6G1687-CC1671	6G56367.D	05/21/18	05:51	06:37	Continuing cal 50

GC Identification Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4048-CC4044	Injection Date:	05/20/18
Lab File ID:	3G116514.D	Injection Time:	10:49
Instrument ID:	GC3G	Method:	SW846 8151A
Sample ID:	OP11975-BS3	Injection Date:	05/20/18
Lab File ID:	3G116517.D	Injection Time:	12:17
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
2,4-D	1 ^a	8.90	8.90	11.4		ug/l	14.6
2,4-D	2	9.71	9.71	13.2		ug/l	
2,4,5-TP (Silvex)	1 ^a	10.22	10.22	2.3		ug/l	12.2
2,4,5-TP (Silvex)	2	11.11	11.11	2.6		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GOA4568-CC4559	Injection Date:	05/14/18
Lab File ID:	OA133319.D	Injection Time:	08:55
Instrument ID:	GCOA	Method:	SW846 8151A
Sample ID:	OP11975-MS	Injection Date:	05/14/18
Lab File ID:	OA133324.D	Injection Time:	11:27
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
2,4-D	1 ^a	8.87	8.89	13.7		ug/l	42.5
2,4-D	2	10.56	10.57	8.9		ug/l	
2,4,5-TP (Silvex)	1 ^a	10.18	10.19	2.2		ug/l	31.6
2,4,5-TP (Silvex)	2	12.08	12.09	1.6		ug/l	

(a) QC results reported from this column.

12.8.2
12

GC Identification Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GOA4568-CC4559	Injection Date:	05/14/18
Lab File ID:	OA133319.D	Injection Time:	08:55
Instrument ID:	GCOA	Method:	SW846 8151A

Sample ID:	OP11975-MSD	Injection Date:	05/14/18
Lab File ID:	OA133325.D	Injection Time:	11:55
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
2,4-D	1 ^a	8.87	8.89	12.4		ug/l	8.4
2,4-D	2	10.56	10.57	11.4		ug/l	
2,4,5-TP (Silvex)	1 ^a	10.18	10.19	3.2		ug/l	41.5
2,4,5-TP (Silvex)	2	12.07	12.09	2.1		ug/l	

(a) QC results reported from this column.

12.8.3
12

GC Identification Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G1G4644-CC4628	Injection Date:	05/13/18
Lab File ID:	1G146109.D	Injection Time:	22:49
Instrument ID:	GC1G	Method:	SW846 8081B

Sample ID:	OP11974-BS1	Injection Date:	05/13/18
Lab File ID:	1G146112.D	Injection Time:	23:42
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
gamma-BHC (Lindane)	1	3.30	3.29	1.4		ug/l	7.4
gamma-BHC (Lindane)	2 ^a	4.27	4.27	1.3		ug/l	
Endrin	1	5.99	5.99	1.4		ug/l	7.4
Endrin	2 ^a	7.78	7.78	1.3		ug/l	
Heptachlor	1 ^a	3.79	3.78	1.2		ug/l	0.0
Heptachlor	2	4.87	4.87	1.2		ug/l	
Heptachlor epoxide	1	4.83	4.82	1.3		ug/l	8.0
Heptachlor epoxide	2 ^a	6.18	6.18	1.2		ug/l	
Methoxychlor ^b	1 ^a	7.35	7.35	1.3		ug/l	16.7
Methoxychlor ^b	2	9.68	9.68	1.1		ug/l	

(a) QC results reported from this column.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

12.8.4
12

GC Identification Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G1G4644-CC4628	Injection Date:	05/13/18
Lab File ID:	1G146109.D	Injection Time:	22:49
Instrument ID:	GC1G	Method:	SW846 8081B

Sample ID:	OP11974-MS	Injection Date:	05/14/18
Lab File ID:	1G146114.D	Injection Time:	00:18
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
gamma-BHC (Lindane)	1 ^a	3.30	3.29	2.8		ug/l	94.7
gamma-BHC (Lindane)	2	4.26	4.27	1.0		ug/l	
Endrin	1 ^a	5.98	5.99	2.7		ug/l	84.2
Endrin	2	7.77	7.78	1.1		ug/l	
Heptachlor	1 ^a	3.78	3.78	1.3		ug/l	7.4
Heptachlor	2	4.87	4.87	1.4		ug/l	
Heptachlor epoxide	1 ^a	4.82	4.82	2.7		ug/l	91.9
Heptachlor epoxide	2	6.18	6.18	1.0		ug/l	
Methoxychlor	1 ^a	7.31	7.35	1.3		ug/l	26.1
Methoxychlor	2	9.66	9.68	1.0		ug/l	

(a) QC results reported from this column.

12.8.5
12

GC Identification Summary

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G1G4644-CC4628	Injection Date:	05/13/18
Lab File ID:	1G146109.D	Injection Time:	22:49
Instrument ID:	GC1G	Method:	SW846 8081B

Sample ID:	OP11974-MSD	Injection Date:	05/14/18
Lab File ID:	1G146115.D	Injection Time:	00:36
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
gamma-BHC (Lindane)	1 ^a	3.30	3.29	2.7		ug/l	95.9
gamma-BHC (Lindane)	2	4.26	4.27	0.95		ug/l	
Endrin	1 ^a	5.98	5.99	2.4		ug/l	74.3
Endrin	2	7.77	7.78	1.1		ug/l	
Heptachlor	1 ^a	3.78	3.78	1.3		ug/l	7.4
Heptachlor	2	4.87	4.87	1.4		ug/l	
Heptachlor epoxide	1 ^a	4.82	4.82	2.7		ug/l	84.2
Heptachlor epoxide	2	6.18	6.18	1.1		ug/l	
Methoxychlor	1 ^a	7.31	7.35	1.6		ug/l	28.6
Methoxychlor	2	9.66	9.68	1.2		ug/l	

(a) QC results reported from this column.

12.8.6
12

GC Identification Summary

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2G4329-CC4311	Injection Date:	05/10/18
Lab File ID:	2G163261.D	Injection Time:	22:33
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	OP11916-BS1	Injection Date:	05/10/18
Lab File ID:	2G163264.D	Injection Time:	23:47
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 ^a			165		ug/kg	0.6
Aroclor 1016	2			166		ug/kg	
AR1016-A	1	3.15	3.15	200		ug/kg	
AR1016-A	2	4.08	4.09	222		ug/kg	
AR1016-B	1	3.55	3.55	163		ug/kg	
AR1016-B	2	4.62	4.62	165		ug/kg	
AR1016-C	1	4.10	4.10	149		ug/kg	
AR1016-C	2	5.27	5.26	144		ug/kg	
AR1016-D	1	4.25	4.26	156		ug/kg	
AR1016-D	2	5.45	5.45	150		ug/kg	
AR1016-E	1	4.76	4.76	156		ug/kg	
AR1016-E	2	6.09	6.09	152		ug/kg	
Aroclor 1260	1			160		ug/kg	3.2
Aroclor 1260	2 ^a			155		ug/kg	
AR1260-A	1	7.12	7.12	127		ug/kg	
AR1260-A	2	8.69	8.69	127		ug/kg	
AR1260-B	1	7.28	7.28	175		ug/kg	
AR1260-B	2	8.80	8.80	163		ug/kg	
AR1260-C	1	7.62	7.62	174		ug/kg	
AR1260-C	2	9.23	9.23	159		ug/kg	
AR1260-D	1	8.05	8.04	159		ug/kg	
AR1260-D	2	9.58	9.58	159		ug/kg	
AR1260-E	1	8.44	8.44	164		ug/kg	
AR1260-E	2	10.12	10.12	165		ug/kg	

(a) QC results reported from this column.

12.8.7
12

GC Identification Summary

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2G4333-CC4311	Injection Date:	05/15/18
Lab File ID:	2G163502.D	Injection Time:	11:09
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	OP11916-MS	Injection Date:	05/15/18
Lab File ID:	2G163511.D	Injection Time:	14:12
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 ^a			202		ug/kg	24.7
Aroclor 1016	2			259		ug/kg	
AR1016-A	1	3.16	3.14	257		ug/kg	
AR1016-A	2	4.06	4.07	573		ug/kg	
AR1016-B	1	3.54	3.54	213		ug/kg	
AR1016-B	2	4.61	4.61	152		ug/kg	
AR1016-C	1	4.09	4.08	155		ug/kg	
AR1016-C	2	5.25	5.25	198		ug/kg	
AR1016-D	1	4.25	4.24	186		ug/kg	
AR1016-D	2	5.44	5.44	154		ug/kg	
AR1016-E	1	4.76	4.75	199		ug/kg	
AR1016-E	2	6.09	6.08	217		ug/kg	
Aroclor 1260	1 ^a			156		ug/kg	10.8
Aroclor 1260	2			140		ug/kg	
AR1260-A	1	7.11	7.11	130		ug/kg	
AR1260-A	2	8.68	8.68	112		ug/kg	
AR1260-B	1	7.27	7.27	170		ug/kg	
AR1260-B	2	8.80	8.80	157		ug/kg	
AR1260-C	1	7.61	7.61	168		ug/kg	
AR1260-C	2	9.23	9.23	152		ug/kg	
AR1260-D	1	8.04	8.03	153		ug/kg	
AR1260-D	2	9.58	9.57	140		ug/kg	
AR1260-E	1	8.42	8.42	160		ug/kg	
AR1260-E	2	10.12	10.11	139		ug/kg	

(a) QC results reported from this column.

12.8.8
12

GC Identification Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2G4333-CC4311	Injection Date:	05/16/18
Lab File ID:	2G163580.D	Injection Time:	09:34
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	OP11916-MSD	Injection Date:	05/16/18
Lab File ID:	2G163588.D	Injection Time:	11:34
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 ^a			178		ug/kg	6.5
Aroclor 1016	2			190		ug/kg	
AR1016-A	1	3.16	3.15	226		ug/kg	
AR1016-A	2	4.06	4.08	393		ug/kg	
AR1016-B	1	3.54	3.54	189		ug/kg	
AR1016-B	2	4.61	4.62	135		ug/kg	
AR1016-C	1	4.09	4.09	142		ug/kg	
AR1016-C	2	5.25	5.26	149		ug/kg	
AR1016-D	1	4.25	4.25	170		ug/kg	
AR1016-D	2	5.43	5.44	119		ug/kg	
AR1016-E	1	4.76	4.76	163		ug/kg	
AR1016-E	2	6.08	6.09	155		ug/kg	
Aroclor 1260	1 ^a			143		ug/kg	17.5
Aroclor 1260	2			120		ug/kg	
AR1260-A	1	7.11	7.11	123		ug/kg	
AR1260-A	2	8.68	8.68	91.6		ug/kg	
AR1260-B	1	7.28	7.28	157		ug/kg	
AR1260-B	2	8.80	8.80	114		ug/kg	
AR1260-C	1	7.61	7.61	149		ug/kg	
AR1260-C	2	9.23	9.23	108		ug/kg	
AR1260-D	1	8.04	8.04	143		ug/kg	
AR1260-D	2	9.57	9.58	166		ug/kg	
AR1260-E	1	8.43	8.43	141		ug/kg	
AR1260-E	2	10.11	10.12	122		ug/kg	

(a) QC results reported from this column.

12.8.9
12

Surrogate Recovery Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8151A	Matrix: LEACHATE
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b
JC65800-1A	3G116528.D	75	57
JC65800-2A	3G116529.D	91	68
OP11975-BS3	3G116517.D	82	65
OP11975-LB10	3G116508.D	98	74
OP11975-LB13	3G116509.D	97	75
OP11975-LS6	OA133324.D	48* ^c	52
OP11975-MB3	3G116516.D	110	72
OP11975-MS	OA133324.D	48* ^c	52
OP11975-MSD	OA133325.D	65	76
OP11975-LB11	OA133357.D	56	55
OP11975-MB1	OA133321.D	63	74
OP11975-MB2	3G116498.D	102	87

Surrogate Compounds	Recovery Limits
S1 = 2,4-DCAA	50-142%

- (a) Recovery from GC signal #2
- (b) Recovery from GC signal #1
- (c) Outside the QC limits.

12.9.1
12

Surrogate Recovery Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8081B	Matrix: LEACHATE
---------------------	------------------

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a	S2 ^b
JC65800-1A	6G56362.D	62	61	67	69
JC65800-2A	6G56363.D	51	51	51	54
OP11974-BS1	1G146112.D	69	69	41	35
OP11974-LB11	1G146129.D	89	78	70	56
OP11974-LS6	1G146114.D	114	79	108	53
OP11974-MB1	1G146111.D	82	81	46	35
OP11974-MS	1G146114.D	114	79	108	53
OP11974-MSD	1G146115.D	120	72	94	42

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	30-137%
S2 = Decachlorobiphenyl	10-137%

- (a) Recovery from GC signal #1
(b) Recovery from GC signal #2

12.9.2
12

Surrogate Recovery Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8082A	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a	S2 ^b
JC65800-1	2G164072.D	100	96	75	88
JC65800-2	2G163280.D	92	92	94	103
OP11916-BS1	2G163264.D	102	105	98	96
OP11916-MB1	2G163263.D	96	103	97	96
OP11916-MB1	2G163523.D	98	104	97	92
OP11916-MS	2G163511.D	86	76	91	85
OP11916-MSD	2G163588.D	83	72	88	80

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	24-152%
S2 = Decachlorobiphenyl	10-166%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

Surrogate Recovery Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8015C	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S2 ^a	S3 ^a
JC65800-1	2Z69087.D	55	76	70
JC65800-2	2Z69088.D	58	80	75
OP11925-BS	2Z69072.D	64	80	75
OP11925-MB	2Z69071.D	57	78	72
OP11925-MS	2Z69082.D	63	78	76
OP11925-MSD	2Z69083.D	66	81	79

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	18-132%
S2 = Tetracosane-d50	25-137%
S3 = 5a-Androstane	22-134%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4047-CC4044	Injection Date:	05/17/18
Lab File ID:	3G116496.D	Injection Time:	09:05
Instrument ID:	GC3G	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	7.90	7.38

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
OP12024-MB1	3G116498.D	05/17/18	10:01	7.90	7.38
OP11975-MB2	3G116498.D	05/17/18	10:01	7.90	7.38
OP11871-MB2	3G116498.D	05/17/18	10:01	7.90	7.38
OP12024-BS1	3G116499.D	05/17/18	10:30	7.90	7.38
OP11871-BS2	3G116499.D	05/17/18	10:30	7.90	7.38
OP11975-BS2	3G116499.D	05/17/18	10:30	7.90	7.38
ZZZZZZ	3G116500.D	05/17/18	10:58	7.90	7.38
ZZZZZZ	3G116501.D	05/17/18	11:26	7.90	7.38
ZZZZZZ	3G116502.D	05/17/18	11:55	7.90	7.38
JC65918-1	3G116503.D	05/17/18	12:23	7.90	7.38
OP12024-LS7	3G116504.D	05/17/18	12:51	7.90	7.38
OP12024-MS	3G116504.D	05/17/18	12:51	7.90	7.38
OP12024-MSD	3G116505.D	05/17/18	13:20	7.90	7.38

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.1
12

GC Surrogate Retention Time Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4047-CC4044	Injection Date:	05/17/18
Lab File ID:	3G116506.D	Injection Time:	13:48
Instrument ID:	GC3G	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	7.90	7.38

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
OP11975-LB10	3G116508.D	05/17/18	14:45	7.90	7.38
OP11975-LB13	3G116509.D	05/17/18	15:13	7.90	7.38
OP12024-LB15	3G116510.D	05/17/18	15:42	7.90	7.38
OP11871-LB16	3G116511.D	05/17/18	16:11	7.90	7.38
G3G4047-ECC4043	3G116512.D	05/17/18	16:39	7.90	7.38

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.2
12

GC Surrogate Retention Time Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4048-CC4044	Injection Date:	05/20/18
Lab File ID:	3G116514.D	Injection Time:	10:49
Instrument ID:	GC3G	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	7.90	7.38

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
OP12064-MB1	3G116516.D	05/20/18	11:48	7.90	7.38
OP11975-MB3	3G116516.D	05/20/18	11:48	7.90	7.38
OP11975-BS3	3G116517.D	05/20/18	12:17	7.90	7.38
OP12064-BS1	3G116517.D	05/20/18	12:17	7.90	7.38
ZZZZZZ	3G116518.D	05/20/18	12:45	7.90	7.38
ZZZZZZ	3G116519.D	05/20/18	13:14	7.90	7.38
ZZZZZZ	3G116520.D	05/20/18	13:42	7.90	7.38
ZZZZZZ	3G116521.D	05/20/18	14:11	7.90	7.38
ZZZZZZ	3G116522.D	05/20/18	14:39	7.90	7.38
ZZZZZZ	3G116523.D	05/20/18	15:08	7.90	7.38

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.3
12

GC Surrogate Retention Time Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4048-CC4044	Injection Date:	05/20/18
Lab File ID:	3G116524.D	Injection Time:	15:37
Instrument ID:	GC3G	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	7.90	7.38

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
JC66034-1A	3G116526.D	05/20/18	16:34	7.90	7.38
ZZZZZZ	3G116527.D	05/20/18	17:02	7.90	7.38
JC65800-1A	3G116528.D	05/20/18	17:31	7.90	7.38
JC65800-2A	3G116529.D	05/20/18	17:59	7.90	7.38
ZZZZZZ	3G116530.D	05/20/18	18:28	7.90	7.38
OP12064-LS9	3G116531.D	05/20/18	18:57	7.90	7.38
OP12064-MS	3G116531.D	05/20/18	18:57	7.90	7.38
OP12064-MSD	3G116532.D	05/20/18	19:25	7.90	7.38
OP12064-LB19	3G116533.D	05/20/18	19:54	7.90	7.38
OP12136-MB1	3G116534.D	05/20/18	20:22	7.90	7.38
OP12135-MB1	3G116534.D	05/20/18	20:22	7.90	7.38

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.4
12

GC Surrogate Retention Time Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GOA4568-CC4559	Injection Date:	05/14/18
Lab File ID:	OA133319.D	Injection Time:	08:55
Instrument ID:	GCOA	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	8.55	7.35

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
OP11951-MB1	OA133321.D	05/14/18	10:00	8.56	7.36
OP11975-MB1	OA133321.D	05/14/18	10:00	8.56	7.36
OP11951-BS1	OA133322.D	05/14/18	10:29	8.55	7.35
OP11975-BS1	OA133322.D	05/14/18	10:29	8.55	7.35
LA43799-1B	OA133323.D	05/14/18	10:58	8.55	7.35
OP11975-LS6	OA133324.D	05/14/18	11:27	8.55	7.35
OP11975-MS	OA133324.D	05/14/18	11:27	8.55	7.35
OP11975-MSD	OA133325.D	05/14/18	11:55	8.54	7.34
ZZZZZZ	OA133326.D	05/14/18	12:24	8.56	7.33
OP11920-MS	OA133327.D	05/14/18	12:53	8.55	7.34
OP11920-MSD	OA133329.D	05/14/18	14:01	8.55	7.36
GOA4568-ECC4559	OA133330.D	05/14/18	14:53	8.55	7.35

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.5
12

GC Surrogate Retention Time Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GOA4568-CC4559	Injection Date:	05/15/18
Lab File ID:	OA133347.D	Injection Time:	00:04
Instrument ID:	GCOA	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	8.55	7.35

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
ZZZZZZ	OA133349.D	05/15/18	01:01	8.56	7.37
ZZZZZZ	OA133350.D	05/15/18	01:30	8.56	7.36
ZZZZZZ	OA133351.D	05/15/18	01:58	8.56	7.36
ZZZZZZ	OA133352.D	05/15/18	02:27	8.56	7.37
ZZZZZZ	OA133353.D	05/15/18	02:56	8.56	7.36
ZZZZZZ	OA133354.D	05/15/18	03:24	8.56	7.36
ZZZZZZ	OA133355.D	05/15/18	03:53	8.56	7.36
ZZZZZZ	OA133356.D	05/15/18	04:21	8.56	7.36
OP11975-LB11	OA133357.D	05/15/18	04:50	8.56	7.37
GOA4568-ECC4559	OA133358.D	05/15/18	05:19	8.55	7.35

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.6
12

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G1G4644-CC4628	Injection Date:	05/13/18
Lab File ID:	1G146109.D	Injection Time:	22:49
Instrument ID:	GC1G	Method:	SW846 8081B

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.55	3.14	9.80	11.67

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP11875-MB2	1G146111.D	05/13/18	23:25	2.55	3.14	9.80	11.67
OP11974-MB1	1G146111.D	05/13/18	23:25	2.55	3.14	9.80	11.67
OP11950-MB1	1G146111.D	05/13/18	23:25	2.55	3.14	9.80	11.67
OP11974-BS1	1G146112.D	05/13/18	23:42	2.55	3.14	9.80	11.67
OP11875-BS2	1G146112.D	05/13/18	23:42	2.55	3.14	9.80	11.67
OP11950-BS1	1G146112.D	05/13/18	23:42	2.55	3.14	9.80	11.67
LA43799-1B	1G146113.D	05/14/18	00:00	2.55	3.13	9.79	11.66
OP11974-LS6	1G146114.D	05/14/18	00:18	2.55	3.14	9.79	11.67
OP11974-MS	1G146114.D	05/14/18	00:18	2.55	3.14	9.79	11.67
OP11974-MSD	1G146115.D	05/14/18	00:36	2.55	3.14	9.79	11.66
DA5034-1	1G146116.D	05/14/18	00:54	2.56	3.13	9.79	11.66
ZZZZZZ	1G146117.D	05/14/18	01:11	2.54	3.14	9.80	11.67
ZZZZZZ	1G146118.D	05/14/18	01:29	2.54	3.14	9.80	11.67
ZZZZZZ	1G146119.D	05/14/18	01:47	2.54	3.14	9.80	11.67
ZZZZZZ	1G146120.D	05/14/18	02:04	2.54	3.14	9.79	11.66
ZZZZZZ	1G146121.D	05/14/18	02:21	2.54	3.14	9.80	11.67
ZZZZZZ	1G146122.D	05/14/18	02:38	2.54	3.14	9.80	11.67
JC65677-3	1G146123.D	05/14/18	02:55	2.54	3.14	9.80	11.67
OP11950-LS5	1G146124.D	05/14/18	03:13	2.54	3.14	9.80	11.67
OP11950-MS	1G146124.D	05/14/18	03:13	2.54	3.14	9.80	11.67
OP11950-MSD	1G146125.D	05/14/18	03:30	2.54	3.14	9.80	11.67
ZZZZZZ	1G146126.D	05/14/18	03:47	2.55	3.14	9.80	11.67
ZZZZZZ	1G146127.D	05/14/18	04:04	2.55	3.14	9.80	11.67
OP11950-LB7	1G146128.D	05/14/18	04:22	2.55	3.14	9.79	11.66
OP11974-LB11	1G146129.D	05/14/18	04:39	2.54	3.14	9.80	11.67

Surrogate Compounds

S1 = Tetrachloro-m-xylene

S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1

(b) Retention time from GC signal #2

12.10.7
12

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G6G1687-CC1671	Injection Date:	05/20/18
Lab File ID:	6G56346.D	Injection Time:	23:32
Instrument ID:	GC6G	Method:	SW846 8081B

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.54	2.93	9.83	11.72

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP11974-MB3	6G56348.D	05/21/18	00:12	2.54	2.93	9.83	11.72
OP12065-MB1	6G56348.D	05/21/18	00:12	2.54	2.93	9.83	11.72
OP11974-BS3	6G56349.D	05/21/18	00:30	2.54	2.93	9.83	11.72
OP12065-BS1	6G56349.D	05/21/18	00:30	2.54	2.93	9.83	11.72
ZZZZZZ	6G56350.D	05/21/18	00:48	2.54	2.93	9.83	11.72
ZZZZZZ	6G56351.D	05/21/18	01:06	2.54	2.93	9.83	11.72
ZZZZZZ	6G56352.D	05/21/18	01:24	2.54	2.93	9.83	11.72
JC65996-1	6G56353.D	05/21/18	01:42	2.54	2.93	9.83	11.72
OP12065-MS	6G56354.D	05/21/18	01:59	2.54	2.93	9.83	11.72
OP12065-LS9	6G56354.D	05/21/18	01:59	2.54	2.93	9.83	11.72
OP12065-MSD	6G56355.D	05/21/18	02:17	2.54	2.93	9.83	11.72
ZZZZZZ	6G56356.D	05/21/18	02:35	2.54	2.93	9.83	11.72
ZZZZZZ	6G56357.D	05/21/18	02:53	2.54	2.93	9.83	11.72
ZZZZZZ	6G56358.D	05/21/18	03:11	2.54	2.93	9.83	11.72
ZZZZZZ	6G56359.D	05/21/18	03:29	2.54	2.93	9.83	11.72
ZZZZZZ	6G56360.D	05/21/18	03:47	2.54	2.93	9.83	11.72
ZZZZZZ	6G56361.D	05/21/18	04:04	2.55	2.94	9.83	11.72
JC65800-1A	6G56362.D	05/21/18	04:22	2.54	2.93	9.83	11.72
JC65800-2A	6G56363.D	05/21/18	04:40	2.54	2.93	9.83	11.72
ZZZZZZ	6G56364.D	05/21/18	04:58	2.54	2.93	9.83	11.72
OP11974-LB10	6G56365.D	05/21/18	05:16	2.54	2.93	9.83	11.72
OP12065-LB19	6G56366.D	05/21/18	05:34	2.54	2.93	9.83	11.72

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

12.10.8
12

GC Surrogate Retention Time Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2G4329-CC4311	Injection Date:	05/10/18
Lab File ID:	2G163261.D	Injection Time:	22:33
Instrument ID:	GC2G	Method:	SW846 8082A

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.78	3.43	9.97	11.78

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP11916-MB1	2G163263.D	05/10/18	23:30	2.79	3.43	9.98	11.78
OP11916-BS1	2G163264.D	05/10/18	23:47	2.78	3.43	9.97	11.78

Surrogate
Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2G4329-CC4311	Injection Date:	05/11/18
Lab File ID:	2G163272.D	Injection Time:	02:02
Instrument ID:	GC2G	Method:	SW846 8082A

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.78	3.43	9.97	11.78

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
JC65800-2	2G163280.D	05/11/18	04:18	2.78	3.43	9.97	11.78

Surrogate
Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2G4333-CC4311	Injection Date:	05/15/18
Lab File ID:	2G163502.D	Injection Time:	11:09
Instrument ID:	GC2G	Method:	SW846 8082A

	S1 ^a	S1 ^b	S2 ^a	S2 ^b
	RT	RT	RT	RT
Check Std	2.77	3.42	9.96	11.77

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP12027-MB1	2G163504.D	05/15/18	11:43	2.77	3.42	9.97	11.77
OP12027-BS1	2G163505.D	05/15/18	12:00	2.77	3.42	9.97	11.77
JC65916-2	2G163506.D	05/15/18	12:17	2.78	3.42	9.96	11.77
OP12027-MS	2G163507.D	05/15/18	12:34	2.78	3.42	9.96	11.77
OP12027-MSD	2G163508.D	05/15/18	12:51	2.78	3.42	9.96	11.77
ZZZZZZ	2G163509.D	05/15/18	13:08	2.83	3.46	9.95	11.79
JC65751-15	2G163510.D	05/15/18	13:55	2.77	3.42	9.96	11.77
OP11916-MS	2G163511.D	05/15/18	14:12	2.77	3.42	9.96	11.77

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2G4333-CC4311	Injection Date:	05/15/18
Lab File ID:	2G163513.D	Injection Time:	15:12
Instrument ID:	GC2G	Method:	SW846 8082A

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.77	3.42	9.96	11.77

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
ZZZZZZ	2G163517.D	05/15/18	15:46	2.78	3.42	9.96	11.77
JC66093-21	2G163518.D	05/15/18	16:03	0.00	0.00	0.00	0.00
ZZZZZZ	2G163519.D	05/15/18	16:20	2.78	3.42	9.96	11.77
ZZZZZZ	2G163520.D	05/15/18	16:37	2.78	3.42	9.96	11.77
ZZZZZZ	2G163521.D	05/15/18	16:54	2.78	3.42	9.97	11.77
OP11916-MB1	2G163523.D	05/15/18	17:28	2.78	3.42	9.97	11.77

Surrogate
Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
(b) Retention time from GC signal #2

12.10.12
12

GC Surrogate Retention Time Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2G4333-CC4311	Injection Date:	05/16/18
Lab File ID:	2G163580.D	Injection Time:	09:34
Instrument ID:	GC2G	Method:	SW846 8082A

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.78	3.42	9.97	11.77

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
ZZZZZZ	2G163587.D	05/16/18	11:17	2.78	3.42	9.96	11.77
OP11916-MSD	2G163588.D	05/16/18	11:34	2.78	3.42	9.96	11.77
ZZZZZZ	2G163589.D	05/16/18	11:51	2.78	3.42	9.97	11.77

Surrogate
Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2G4341-CC4311	Injection Date:	05/23/18
Lab File ID:	2G164070.D	Injection Time:	11:25
Instrument ID:	GC2G	Method:	SW846 8082A

	S1 ^a	S1 ^b	S2 ^a	S2 ^b
	RT	RT	RT	RT
Check Std	2.79	3.44	9.96	11.77

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
JC65800-1	2G164072.D	05/23/18	11:59	2.79	3.44	9.96	11.77
ZZZZZZ	2G164074.D	05/23/18	12:36	2.79	3.44	9.97	11.77
ZZZZZZ	2G164075.D	05/23/18	12:53	2.79	3.44	9.96	11.77
ZZZZZZ	2G164076.D	05/23/18	13:09	2.79	3.44	9.97	11.77
ZZZZZZ	2G164077.D	05/23/18	13:26	2.79	3.44	9.97	11.77
ZZZZZZ	2G164078.D	05/23/18	13:43	2.79	3.43	9.96	11.77

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
(b) Retention time from GC signal #2

12.10.14
12

GC Surrogate Retention Time Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2Z2597-CC2570	Injection Date:	05/13/18
Lab File ID:	2Z69067.D	Injection Time:	23:39
Instrument ID:	GC2Z	Method:	SW846 8015C

	S1 ^a	S2 ^a	S3 ^a
	RT	RT	RT
Check Std	9.78	11.59	10.47

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT	S3 ^a RT
ZZZZZZ	2Z69069.D	05/14/18	00:46	9.79	11.59	10.48
ZZZZZZ	2Z69070.D	05/14/18	01:20	9.79	11.59	10.48
OP11925-MB	2Z69071.D	05/14/18	01:53	9.79	11.60	10.48
OP11925-BS	2Z69072.D	05/14/18	02:27	9.79	11.60	10.48
ZZZZZZ	2Z69073.D	05/14/18	03:00	9.79	11.60	10.48
ZZZZZZ	2Z69074.D	05/14/18	03:34	9.79	11.60	10.48
ZZZZZZ	2Z69075.D	05/14/18	04:08	9.79	11.60	10.48
ZZZZZZ	2Z69076.D	05/14/18	04:42	9.79	11.60	10.48
ZZZZZZ	2Z69077.D	05/14/18	05:15	9.79	11.60	10.48

Surrogate Compounds

S1 = o-Terphenyl
S2 = Tetracosane-d50
S3 = 5a-Androstane

(a) Retention time from GC signal #1

12.10.15
12

GC Surrogate Retention Time Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2Z2597-CC2570	Injection Date:	05/14/18
Lab File ID:	2Z69078.D	Injection Time:	05:49
Instrument ID:	GC2Z	Method:	SW846 8015C

	S1 ^a	S2 ^a	S3 ^a
	RT	RT	RT
Check Std	9.78	11.59	10.47

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT	S3 ^a RT
G2Z2597-RT	2Z69080.D	05/14/18	06:56			
JC65751-10	2Z69081.D	05/14/18	07:30	9.79	11.60	10.48
OP11925-MS	2Z69082.D	05/14/18	08:04	9.79	11.60	10.48
OP11925-MSD	2Z69083.D	05/14/18	08:38	9.79	11.60	10.48
ZZZZZZ	2Z69084.D	05/14/18	09:12	9.79	11.60	10.48
ZZZZZZ	2Z69085.D	05/14/18	09:46	9.79	11.60	10.48
ZZZZZZ	2Z69086.D	05/14/18	10:29	9.79	11.60	10.48
JC65800-1	2Z69087.D	05/14/18	11:02	9.79	11.59	10.48
JC65800-2	2Z69088.D	05/14/18	11:57	9.79	11.59	10.48

Surrogate Compounds

S1 = o-Terphenyl
S2 = Tetracosane-d50
S3 = 5a-Androstane

(a) Retention time from GC signal #1

12.10.16
12

Initial Calibration Summary

Page 1 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICC4628
Lab FileID: 1G145471.D

Response Factor Report GC1G

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Initial Calibration

Calibration Files

2 =1G145468.D 5 =1G145469.D 10 =1G145470.D 25 =1G145471.D
50 =1G145472.D 100 =1G145474.D 1 =1G145467.D 75 =1G145473.D

Compound	2	5	10	25	50	100	1	75	Avg %RSD
1) I 1-bromo-2-nitrobenzen -----ISTD-----									
2) Tetrachloro-	0.891	0.950	0.938	0.944	1.066	0.950	0.834	0.969	0.943 7.02
3) Hexachlorobe	1.639	1.655	1.700	1.633	1.820	1.624	1.792	1.641	1.688 4.53
4) alpha-BHC	1.118	1.306	1.304	1.329	1.545	1.476	1.219	1.447	1.343 10.48
5) gamma-BHC	1.115	1.188	1.201	1.193	1.371	1.288	1.221	1.288	1.233 6.43
6) Heptachlor	1.112	1.193	1.215	1.254	1.435	1.321	1.411	1.328	1.284 8.61
7) beta-BHC	0.547	0.591	0.534	0.563	0.613	0.570	0.511	0.574	0.563 5.72
8) delta-BHC	0.776	0.904	0.999	1.151	1.315	1.249	1.044	1.247	1.086 17.32
9) Aldrin	1.029	1.126	1.180	1.153	1.329	1.243	1.241	1.239	1.192 7.68
10) Alachlor	0.155	0.126	0.127	0.127	0.139	0.135	0.196	0.135	0.142 16.60
11) Heptachlor E	0.980	1.076	1.111	1.092	1.258	1.145	1.110	1.158	1.116 7.07
12) gamma-Chlord	1.010	1.054	1.110	1.101	1.274	1.186	1.228	1.188	1.144 7.86
13) alpha-Chlord	0.960	1.049	1.079	1.063	1.220	1.131	1.108	1.135	1.093 6.94
14) Endosulfan I	1.053	1.180	1.206	1.151	1.319	1.197	1.223	1.209	1.192 6.22
15) 4,4'-DDE	0.893	0.914	0.919	0.925	1.065	1.001	1.178	0.999	0.987 9.83
16) Dieldrin	1.027	1.059	1.081	1.093	1.270	1.182	1.057	1.177	1.118 7.41
17) Endrin	0.923	0.972	1.009	1.019	1.176	1.090	1.012	1.091	1.036 7.65
18) 4,4'-DDD	0.716	0.717	0.760	0.772	0.919	0.857	0.794	0.855	0.799 9.08
19) Endosulfan I	0.861	0.959	0.996	0.972	1.120	1.023	1.076	1.030	1.005 7.81
20) 4,4'-DDT	0.622	0.648	0.693	0.764	0.890	0.875	0.528	0.857	0.735 18.15
21) Endrin Aldeh	0.729	0.812	0.817	0.808	0.866	0.845	0.765	0.842	0.811 5.53
22) Endosulfan S	0.656	0.759	0.790	0.802	0.912	0.853	0.731	0.848	0.794 10.05
23) Methoxychlor	0.210	0.239	0.289	0.332	0.407	0.395	0.161	0.390	0.303 30.77
----- Quadratic regression ----- Coefficient = 0.9984									
Response Ratio = -0.01368 + 0.39702 *A + 0.00297 *A^2									
24) Mirex	0.747	0.807	0.826	0.805	0.878	0.793	0.818	0.802	0.810 4.51
25) Endrin Keton	0.835	0.878	0.917	0.932	1.066	0.986	0.890	0.991	0.937 7.91
26) Decachlorobi	0.948	0.953	0.978	0.951	1.045	0.940	0.985	0.956	0.970 3.52
27) I 1-bromo-2-nitrobenzen -----ISTD-----									
28) Toxaphene{A}					0.018			0.018	0.00
29) Toxaphene{B}					0.044			0.044	0.00
30) Toxaphene{C}					0.037			0.037	0.00
31) Toxaphene{D}					0.025			0.025	0.00
32) Toxaphene{E}					0.027			0.027	0.00
33) I 1-bromo-2-nitrobenzen -----ISTD-----									
34) Chlordane {A}					0.062			0.062	0.00
35) Chlordane {B}					0.026			0.026	0.00
36) Chlordane {C}					0.153			0.153	0.00
37) Chlordane {D}					0.239			0.239	0.00
38) Chlordane {E}					0.027			0.027	0.00

Signal #2

Initial Calibration Summary

Page 2 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICC4628
Lab FileID: 1G145471.D

1)	I	1-bromo-2-nitrobenzen	-----	ISTD-----							
2)	Tetrachloro-	1.015	1.010	1.030	1.009	1.140	0.987	1.062	1.012	1.033	4.67
3)	Hexachlorobe	1.367	1.308	1.308	1.271	1.437	1.246	1.840	1.282	1.382	14.08
4)	alpha-BHC	1.299	1.331	1.346	1.385	1.643	1.493	1.355	1.516	1.421	8.31
5)	gamma-BHC	1.214	1.241	1.259	1.276	1.487	1.322	1.188	1.347	1.292	7.33
6)	Heptachlor	1.186	1.248	1.276	1.278	1.484	1.314	1.351	1.337	1.309	6.72
7)	beta-BHC	0.528	0.562	0.592	0.582	0.663	0.567	0.626	0.587	0.588	7.00
8)	delta-BHC	1.026	1.112	1.135	1.157	1.374	1.237	1.098	1.249	1.173	9.27
9)	Aldrin	1.296	1.267	1.269	1.267	1.464	1.302	1.243	1.319	1.303	5.31
10)	Alachlor	0.189	0.179	0.180	0.164	0.180	0.152	0.191	0.158	0.174	8.26
11)	Heptachlor E	1.224	1.197	1.195	1.183	1.349	1.184	1.129	1.209	1.209	5.22
12)	gamma-Chlord	1.201	1.193	1.202	1.180	1.365	1.204	1.266	1.226	1.229	4.94
13)	alpha-Chlord	1.148	1.160	1.165	1.150	1.316	1.154	1.159	1.175	1.178	4.76
14)	Endosulfan I	1.144	1.101	1.102	1.085	1.237	1.084	1.175	1.106	1.129	4.73
15)	4,4'-DDE	0.999	1.040	1.050	1.051	1.231	1.113	0.956	1.124	1.070	7.95
16)	Dieldrin	1.186	1.190	1.201	1.189	1.379	1.227	1.281	1.247	1.237	5.36
17)	Endrin	1.039	1.049	1.051	1.044	1.209	1.079	1.080	1.090	1.080	5.12
18)	4,4'-DDD	0.791	0.767	0.791	0.791	0.933	0.854	0.877	0.848	0.831	6.76
19)	Endosulfan I	1.050	1.038	1.058	1.029	1.181	1.046	1.186	1.056	1.081	5.94
20)	4,4'-DDT	0.512	0.568	0.608	0.669	0.816	0.774	0.520	0.763	0.654	18.32
21)	Endrin Aldeh	0.848	0.843	0.803	0.823	0.887	0.822	0.927	0.836	0.848	4.71
22)	Endosulfan S	0.780	0.799	0.747	0.809	0.929	0.831	0.780	0.840	0.814	6.76
23)	Methoxychlor	0.317	0.361	0.316	0.348	0.406	0.359	0.315	0.362	0.348	9.07
24)	Mirex	0.709	0.760	0.715	0.737	0.814	0.699	0.852	0.717	0.750	7.35
25)	Endrin Keton	0.791	0.826	0.822	0.858	1.014	0.906	0.879	0.919	0.877	8.05
26)	Decachlorobi	0.971	0.934	0.897	0.916	1.025	0.882	0.876	0.907	0.926	5.42
27)	I	1-bromo-2-nitrobenzen	-----	ISTD-----							
28)	Toxaphene{A}					0.020				0.020	0.00
29)	Toxaphene{B}					0.025				0.025	0.00
30)	Toxaphene{C}					0.042				0.042	0.00
31)	Toxaphene{D}					0.025				0.025	0.00
32)	Toxaphene{E}					0.021				0.021	0.00
33)	I	1-bromo-2-nitrobenzen	-----	ISTD-----							
34)	Chlordane {A					0.057				0.057	0.00
35)	Chlordane {B					0.026				0.026	0.00
36)	Chlordane {C					0.143				0.143	0.00
37)	Chlordane {D					0.238				0.238	0.00
38)	Chlordane {E					0.025				0.025	0.00

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

1PST4628.M

Thu Apr 26 09:15:45 2018

RPT1

12.11.1
12

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145478.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145478.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145478.D\ECD2B.CH
Acq On : 4-25-18 03:39:32 PM Operator: dharas
Sample : icv4628-500 Inst : GC1G
Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.00	1.95- 2.01
2 SAB	Tetrachloro-m-xylene	0.943	0.964	-2.2	93	0.00	2.52- 2.58
26 SA	Decachlorobiphenyl	0.970	1.009	-4.0	100	0.00	9.79- 9.85
33 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	93	0.00	1.88- 2.08
34	Chlordane {A}	0.062	0.071	-14.5	107	0.00	3.70- 3.90
35	Chlordane {B}	0.026	0.026	0.0	93	0.00	4.66- 4.86
36	Chlordane {C}	0.153	0.154	-0.7	94	0.00	4.91- 5.11
37	Chlordane {D}	0.239	0.245	-2.5	95	0.00	5.07- 5.27
38	Chlordane {E}	0.027	0.030	-11.1	103	0.00	5.97- 6.17

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	110	0.00	2.27- 2.33
2 SAB	Tetrachloro-m-xylene	1.033	0.916	11.3	88	0.00	3.11- 3.17
26 SA	Decachlorobiphenyl	0.926	0.922	0.4	99	0.00	11.68-11.74
33 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	95	0.00	2.20- 2.40
34	Chlordane {A}	0.057	0.067	-17.5	111	0.00	4.78- 4.98
35	Chlordane {B}	0.026	0.030	-15.4	108	0.00	6.04- 6.24
36	Chlordane {C}	0.143	0.144	-0.7	96	0.00	6.40- 6.60
37	Chlordane {D}	0.238	0.239	-0.4	96	0.00	6.63- 6.83
38	Chlordane {E}	0.025	0.027	-8.0	104	0.00	7.82- 8.02

(#) = Out of Range
1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
Thu Apr 26 09:08:59 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145479.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145479.D\ECD1A.CH Vial: 15
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145479.D\ECD2B.CH
Acq On : 4-25-18 03:56:45 PM Operator: dharas
Sample : icv4628-500 Inst : GC1G
Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	110	0.00	1.95- 2.01
2 SAB	Tetrachloro-m-xylene	0.943	0.840	10.9	87	0.00	2.52- 2.58
26 SA	Decachlorobiphenyl	0.970	0.955	1.5	101	0.00	9.79- 9.85
27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	97	0.00	1.88- 2.08
28 L8	Toxaphene{A}	0.018	0.019	-5.6	104	0.00	5.59- 5.79
29 L8	Toxaphene{B}	0.044	0.046	-4.5	101	0.00	6.22- 6.42
30 L8	Toxaphene{C}	0.037	0.039	-5.4	102	0.00	6.39- 6.59
31 L8	Toxaphene{D}	0.025	0.030	-20.0	118	0.00	6.74- 6.94
32 L8	Toxaphene{E}	0.027	0.029	-7.4	105	0.00	7.39- 7.59

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	112	0.00	2.27- 2.33
2 SAB	Tetrachloro-m-xylene	1.033	0.909	12.0	89	0.00	3.11- 3.17
26 SA	Decachlorobiphenyl	0.926	0.900	2.8	98	0.00	11.68-11.74
27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	0.00	2.20- 2.40
28 L8	Toxaphene{A}	0.020	0.020	0.0	100	0.00	7.14- 7.34
29 L8	Toxaphene{B}	0.025	0.026	-4.0	100	0.00	8.03- 8.23
30 L8	Toxaphene{C}	0.042	0.043	-2.4	100	0.00	8.20- 8.40
31 L8	Toxaphene{D}	0.025	0.026	-4.0	101	0.00	8.63- 8.83
32 L8	Toxaphene{E}	0.021	0.021	0.0	99	0.00	9.53- 9.73

(#) = Out of Range
1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
Thu Apr 26 09:09:00 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145481.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145481.D\ECD1A.CH Vial: 17
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145481.D\ECD2B.CH
Acq On : 4-25-18 04:31:21 PM Operator: dharas
Sample : icv4628-50 Inst : GC1G
Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	1.95-	2.01
3	Hexachlorobenzene	1.688	1.743	-3.3	100	0.00	2.85-	2.91

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	113	0.00	2.27-	2.33
3	Hexachlorobenzene	1.382	1.329	3.8	104	0.00	3.65-	3.71

(#) = Out of Range
1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
Thu Apr 26 09:09:01 2018 RPT1

12.11.4
12

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145508.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145508.D\ECD1A.CH Vial: 25
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145508.D\ECD2B.CH
Acq On : 4-25-18 06:53:01 PM Operator: dharas
Sample : icv4628-50 Inst : GC1G
Misc : op11477,g1g4628,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	116	0.00	1.95- 2.01
10	Alachlor	0.142	0.126	11.3	105	0.00	4.22- 4.28
*****	Signal #2	*****					
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	121	0.00	2.27- 2.33
10	Alachlor	0.174	0.151	13.2	101	0.00	5.09- 5.15

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1G145472.D 1PST4628.M Thu Apr 26 09:09:02 2018 RPT1

12.11.5
12

Initial Calibration Verification

Page 1 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145488.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145488.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145488.D\ECD2B.CH
Acq On : 4-25-18 07:10:15 PM Operator: dharas
Sample : icv4628-25 Inst : GC1G
Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	97	0.00	1.95-	2.01
2 SAB	Tetrachloro-m-xylene	0.943	0.835	11.5	86	0.00	2.52-	2.58
4 A	alpha-BHC	1.343	1.359	-1.2	99	0.00	2.98-	3.04
5 MA	gamma-BHC	1.233	1.293	-4.9	105	0.00	3.27-	3.33
6 MA	Heptachlor	1.284	1.312	-2.2	101	0.00	3.77-	3.83
7 B	beta-BHC	0.563	0.571	-1.4	98	0.00	3.35-	3.41
8 B	delta-BHC	1.086	1.141	-5.1	96	0.00	3.54-	3.61
9 MB	Aldrin	1.192	1.191	0.1	100	0.00	4.11-	4.17
11 B	Heptachlor Epoxide	1.116	1.105	1.0	98	0.00	4.81-	4.87
12 B	gamma-Chlordane	1.144	1.151	-0.6	101	0.00	4.98-	5.04
13 B	alpha-Chlordane	1.093	1.152	-5.4	105	0.00	5.15-	5.21
14 A	Endosulfan I	1.192	1.184	0.7	100	0.00	5.33-	5.39
15 B	4,4'-DDE	0.987	1.094	-10.8	115	0.00	5.26-	5.32
16 MA	Dieldrin	1.118	1.150	-2.9	102	0.00	5.65-	5.71
17 MA	Endrin	1.036	1.103	-6.5	105	0.00	5.98-	6.04
18 A	4,4'-DDD	0.799	0.839	-5.0	105	0.00	6.10-	6.17
19 B	Endosulfan II	1.005	0.989	1.6	99	0.00	6.30-	6.36
20 MA	4,4'-DDT	0.735	0.836	-13.7	106	0.00	6.52-	6.58
21 B	Endrin Aldehyde	0.811	0.790	2.6	95	0.00	6.93-	6.99
22 B	Endosulfan Sulfate	0.794	0.862	-8.6	104	0.00	7.61-	7.67
----- True Calc. % Drift -----								
23 A	Methoxychlor	25.000	26.181	-4.7	114	0.00	7.30-	7.36
----- AvgRF CCRF % Dev -----								
24	Mirex	0.810	0.766	5.4	92	0.00	7.48-	7.54
25 B	Endrin Ketone	0.937	0.876	6.5	91	0.00	8.06-	8.12
26 SA	Decachlorobiphenyl	0.970	0.868	10.5	88	0.00	9.79-	9.85

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	2.27-	2.33
2 SAB	Tetrachloro-m-xylene	1.033	0.893	13.6	89	0.00	3.11-	3.17
4 A	alpha-BHC	1.421	1.409	0.8	103	0.00	3.80-	3.86
5 MA	gamma-BHC	1.292	1.263	2.2	100	0.00	4.25-	4.31
6 MA	Heptachlor	1.309	1.318	-0.7	104	0.00	4.85-	4.91

Initial Calibration Verification

Page 2 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145488.D

7	B	beta-BHC	0.588	0.545	7.3	95	0.00	4.34-	4.40
8	B	delta-BHC	1.173	1.168	0.4	102	0.00	4.76-	4.82
9	MB	Aldrin	1.303	1.264	3.0	101	0.00	5.33-	5.39
11	B	Heptachlor Epoxide	1.209	1.183	2.2	101	0.00	6.17-	6.23
12	B	gamma-Chlordane	1.229	1.184	3.7	101	0.00	6.47-	6.53
13	B	alpha-Chlordane	1.178	1.142	3.1	100	0.00	6.70-	6.76
14	A	Endosulfan I	1.129	1.103	2.3	103	0.00	6.80-	6.86
15	B	4,4'-DDE	1.070	1.126	-5.2	108	0.00	6.95-	7.01
16	MA	Dieldrin	1.237	1.190	3.8	101	0.00	7.25-	7.31
17	MA	Endrin	1.080	1.104	-2.2	107	0.00	7.77-	7.83
18	A	4,4'-DDD	0.831	0.851	-2.4	109	0.00	7.93-	7.99
19	B	Endosulfan II	1.081	1.018	5.8	100	0.00	8.13-	8.19
20	MA	4,4'-DDT	0.654	0.753	-15.1	114	0.00	8.47-	8.53
21	B	Endrin Aldehyde	0.848	0.801	5.5	98	0.00	8.71-	8.77
22	B	Endosulfan Sulfate	0.814	0.891	-9.5	111	0.00	9.19-	9.25
23	A	Methoxychlor	0.348	0.342	1.7	99	0.00	9.66-	9.72
24		Mirex	0.750	0.686	8.5	94	0.00	9.98-	10.04
25	B	Endrin Ketone	0.877	0.831	5.2	98	0.00	10.03-	10.09
26	SA	Decachlorobiphenyl	0.926	0.898	3.0	99	0.00	11.68-	11.74

(#) = Out of Range
1G145471.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
Thu Apr 26 09:08:10 2018 RPT1

12.11.6

12

Continuing Calibration Summary

Page 1 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4644-CC4628
Lab FileID: 1G146109.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4644\1G146109.D\ECD1A.CH Vial: 2
 Signal #2 : C:\MSDCHEM\1\DATA\1G4644\1G146109.D\ECD2B.CH
 Acq On : 13 May 2018 10:49 pm Operator: christp
 Sample : cc4628-25 Inst : GC1G
 Misc : op11897,g1g4644,15.9,,,10,1 Multiplr: 1.00
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
 Title : PEST/PCB
 Last Update : Sun May 13 23:05:19 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	86	0.00	1.96-	2.02
2 SAB	Tetrachloro-m-xylene	0.943	0.937	0.6	85	0.00	2.52-	2.58
3	Hexachlorobenzene	1.688	1.553	8.0	81	0.00	2.85-	2.91
4 A	alpha-BHC	1.343	1.293	3.7	83	0.00	2.97-	3.03
5 MA	gamma-BHC	1.233	1.141	7.5	82	0.00	3.26-	3.32
6 MA	Heptachlor	1.284	1.114	13.2	76	-0.01	3.75-	3.81
7 B	beta-BHC	0.563	0.451	19.9	69	0.01	3.37-	3.43
8 B	delta-BHC	1.086	0.881	18.9	66	0.02	3.56-	3.62
9 MB	Aldrin	1.192	1.125	5.6	84	-0.01	4.09-	4.15
10	Alachlor	0.142	0.121	14.8	82	0.00	4.22-	4.28
11 B	Heptachlor Epoxide	1.116	1.071	4.0	84	-0.01	4.79-	4.85
12 B	gamma-Chlordane	1.144	0.991	13.4	77	-0.01	4.96-	5.02
13 B	alpha-Chlordane	1.093	0.956	12.5	77	-0.01	5.13-	5.19
14 A	Endosulfan I	1.192	1.317	-10.5	98	-0.01	5.31-	5.37
15 B	4,4'-DDE	0.987	0.644	34.8#	60	0.02	5.26-	5.32
16 MA	Dieldrin	1.118	1.097	1.9	86	-0.01	5.63-	5.69
17 MA	Endrin	1.036	1.070	-3.3	90	-0.01	5.96-	6.02
18 A	4,4'-DDD	0.799	0.598	25.2#	66	0.04	6.12-	6.19
19 B	Endosulfan II	1.005	1.035	-3.0	91	0.00	6.29-	6.35
20 MA	4,4'-DDT	0.735	0.700	4.8	78	0.01	6.51-	6.57
21 B	Endrin Aldehyde	0.811	0.823	-1.5	87	0.00	6.91-	6.97
22 B	Endosulfan Sulfate	0.794	0.854	-7.6	91	0.00	7.59-	7.65
----- True Calc. % Drift -----								
23 A	Methoxychlor	25.000	22.302	10.8	85	0.03	7.32-	7.38
----- AvgRF CCRF % Dev -----								
24	Mirex	0.810	0.870	-7.4	92	-0.01	7.45-	7.51
25 B	Endrin Ketone	0.937	0.868	7.4	80	0.00	8.04-	8.10
26 SA	Decachlorobiphenyl	0.970	1.069	-10.2	96	0.00	9.77-	9.83

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.01	2.27-	2.33
2 SAB	Tetrachloro-m-xylene	1.033	0.953	7.7	97	0.00	3.11-	3.17
3	Hexachlorobenzene	1.382	1.451	-5.0	117	0.00	3.64-	3.70
4 A	alpha-BHC	1.421	1.240	12.7	92	0.00	3.79-	3.85
5 MA	gamma-BHC	1.292	1.139	11.8	92	0.00	4.24-	4.30
6 MA	Heptachlor	1.309	1.160	11.4	93	0.00	4.84-	4.90

Continuing Calibration Summary

Page 2 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4644-CC4628
Lab FileID: 1G146109.D

7	B	beta-BHC	0.588	0.485	17.5	86	0.02	4.34-	4.40
8	B	delta-BHC	1.173	0.916	21.9#	81	0.02	4.75-	4.81
9	MB	Aldrin	1.303	1.174	9.9	95	0.00	5.31-	5.37
10		Alachlor	0.174	0.139	20.1#	87	0.00	5.08-	5.14
11	B	Heptachlor Epoxide	1.209	1.024	15.3	89	0.00	6.15-	6.21
12	B	gamma-Chlordane	1.229	1.048	14.7	91	0.00	6.45-	6.51
13	B	alpha-Chlordane	1.178	1.032	12.4	92	0.00	6.67-	6.73
14	A	Endosulfan I	1.129	0.955	15.4	90	0.00	6.78-	6.84
15	B	4,4'-DDE	1.070	0.904	15.5	88	0.01	6.94-	7.00
16	MA	Dieldrin	1.237	1.025	17.1	89	0.00	7.23-	7.29
17	MA	Endrin	1.080	0.944	12.6	93	0.00	7.75-	7.81
18	A	4,4'-DDD	0.831	0.582	30.0#	76	0.03	7.92-	7.98
19	B	Endosulfan II	1.081	0.896	17.1	89	0.00	8.11-	8.17
20	MA	4,4'-DDT	0.654	0.447	31.7#	69	0.01	8.45-	8.51
21	B	Endrin Aldehyde	0.848	0.668	21.2#	83	0.00	8.68-	8.74
22	B	Endosulfan Sulfate	0.814	0.632	22.4#	80	0.00	9.16-	9.22
23	A	Methoxychlor	0.348	0.270	22.4#	79	0.02	9.65-	9.71
24		Mirex	0.750	0.660	12.0	92	0.00	9.96-	10.02
25	B	Endrin Ketone	0.877	0.692	21.1#	83	0.00	10.00-	10.06
26	SA	Decachlorobiphenyl	0.926	0.853	7.9	96	0.00	11.64-	11.70

(#) = Out of Range
1G145471.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
Mon May 14 09:18:28 2018 RPT1

12.11.7
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Continuing Calibration Summary

Page 1 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4644-CC4628
Lab FileID: 1G146130.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4644\1G146130.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4644\1G146130.D\ECD2B.CH
Acq On : 5-14-18 04:56:18 AM Operator: christp
Sample : cc4628-50 Inst : GC1G
Misc : op11974,g1g4644,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Sun May 13 23:05:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	0.00	1.96-	2.02
2 SAB	Tetrachloro-m-xylene	0.943	0.995	-5.5	91	0.00	2.52-	2.58
3	Hexachlorobenzene	1.688	1.674	0.8	90	0.00	2.85-	2.91
4 A	alpha-BHC	1.343	1.471	-9.5	93	0.00	2.97-	3.03
5 MA	gamma-BHC	1.233	1.259	-2.1	90	0.00	3.27-	3.33
6 MA	Heptachlor	1.284	1.398	-8.9	95	-0.01	3.75-	3.81
7 B	beta-BHC	0.563	0.565	-0.4	90	0.02	3.37-	3.43
8 B	delta-BHC	1.086	0.866	20.3#	64	0.02	3.56-	3.62
9 MB	Aldrin	1.192	1.316	-10.4	97	-0.01	4.09-	4.15
10	Alachlor	0.142	0.142	0.0	100	0.00	4.21-	4.27
11 B	Heptachlor Epoxide	1.116	1.241	-11.2	96	-0.01	4.79-	4.85
12 B	gamma-Chlordane	1.144	1.264	-10.5	97	-0.01	4.96-	5.02
13 B	alpha-Chlordane	1.093	1.185	-8.4	95	-0.01	5.13-	5.19
14 A	Endosulfan I	1.192	1.659	-39.2#	123	-0.01	5.31-	5.37
15 B	4,4'-DDE	0.987	0.714	27.7#	66	0.02	5.27-	5.33
16 MA	Dieldrin	1.118	1.297	-16.0	100	-0.01	5.63-	5.69
17 MA	Endrin	1.036	1.241	-19.8	103	-0.01	5.96-	6.02
18 A	4,4'-DDD	0.799	0.752	5.9	80	0.03	6.12-	6.19
19 B	Endosulfan II	1.005	1.194	-18.8	104	0.00	6.29-	6.35
20 MA	4,4'-DDT	0.735	0.785	-6.8	86	0.01	6.51-	6.57
21 B	Endrin Aldehyde	0.811	0.927	-14.3	105	0.00	6.91-	6.97
22 B	Endosulfan Sulfate	0.794	0.836	-5.3	90	0.00	7.59-	7.65
----- True Calc. % Drift -----								
23 A	Methoxychlor	50.000	55.244	-10.5	103	0.03	7.32-	7.38
----- AvgRF CCRF % Dev -----								
24	Mirex	0.810	0.943	-16.4	105	-0.01	7.45-	7.51
25 B	Endrin Ketone	0.937	0.933	0.4	86	0.00	8.03-	8.09
26 SA	Decachlorobiphenyl	0.970	1.135	-17.0	106	0.00	9.77-	9.83

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	122	0.01	2.27-	2.33
2 SAB	Tetrachloro-m-xylene	1.033	0.990	4.2	106	0.00	3.11-	3.17
3	Hexachlorobenzene	1.382	1.544	-11.7	131	0.00	3.64-	3.70
4 A	alpha-BHC	1.421	1.411	0.7	105	0.00	3.79-	3.85
5 MA	gamma-BHC	1.292	1.211	6.3	100	0.00	4.24-	4.30
6 MA	Heptachlor	1.309	1.325	-1.2	109	0.00	4.84-	4.90

Continuing Calibration Summary

Page 2 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4644-CC4628
Lab FileID: 1G146130.D

7 B	beta-BHC	0.588	0.562	4.4	104	0.02	4.34- 4.40
8 B	delta-BHC	1.173	0.748	36.2#	67	0.02	4.76- 4.82
9 MB	Aldrin	1.303	1.266	2.8	106	0.00	5.31- 5.37
10	Alachlor	0.174	0.148	14.9	100	0.00	5.08- 5.14
11 B	Heptachlor Epoxide	1.209	1.146	5.2	104	0.00	6.15- 6.21
12 B	gamma-Chlordane	1.229	1.176	4.3	105	0.00	6.45- 6.51
13 B	alpha-Chlordane	1.178	1.140	3.2	106	0.00	6.67- 6.73
14 A	Endosulfan I	1.129	1.050	7.0	104	0.00	6.78- 6.84
15 B	4,4'-DDE	1.070	0.985	7.9	98	0.02	6.94- 7.00
16 MA	Dieldrin	1.237	1.143	7.6	101	0.00	7.23- 7.29
17 MA	Endrin	1.080	1.026	5.0	104	0.00	7.75- 7.81
18 A	4,4'-DDD	0.831	0.657	20.9#	86	0.03	7.92- 7.98
19 B	Endosulfan II	1.081	0.978	9.5	101	0.00	8.11- 8.17
20 MA	4,4'-DDT	0.654	0.503	23.1#	75	0.01	8.45- 8.51
21 B	Endrin Aldehyde	0.848	0.709	16.4	98	0.00	8.68- 8.74
22 B	Endosulfan Sulfate	0.814	0.585	28.1#	77	0.00	9.16- 9.22
23 A	Methoxychlor	0.348	0.308	11.5	93	0.01	9.65- 9.71
24	Mirex	0.750	0.689	8.1	104	0.00	9.95-10.01
25 B	Endrin Ketone	0.877	0.704	19.7	85	0.00	10.00-10.06
26 SA	Decachlorobiphenyl	0.926	0.850	8.2	101	0.00	11.64-11.70

(#) = Out of Range
 1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
 Mon May 14 09:18:57 2018 RPT1

12.11.8
 12

Initial Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICC4311
Lab FileID: 2G162099.D

Response Factor Report HP G1530A

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 2PCB4311.M
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response Via : Initial Calibration

Calibration Files

50 =2G162102a.D 250 =2G162097.D 500 =2G162098.D
1000 =2G162099.D 2000 =2G162100.D 3000 =2G162101.D

	Compound	50	250	500	1000	2000	3000	Avg		%RSD
1)	S Tetrachloro-m...	3.853	3.487	3.538	3.692	3.667	3.785	3.670	E6	3.81
2)	AR1221-A				2.897			2.897	E4	0.00
3)	AR1221-B				4.202			4.202	E4	0.00
4)	AR1221-C				1.288			1.288	E5	0.00
5)	AR1221-D				1.466			1.466	E4	0.00
6)	AR1221-E				1.436			1.436	E4	0.00
7)	AR1232-A				9.734			9.734	E4	0.00
8)	AR1232-B				6.684			6.684	E4	0.00
9)	AR1232-C				1.305			1.305	E5	0.00
10)	AR1232-D				5.447			5.447	E4	0.00
11)	AR1232-E				5.149			5.149	E4	0.00
12)	AR1242-A				1.198			1.198	E5	0.00
13)	AR1242-B				2.525			2.525	E5	0.00
14)	AR1242-C				1.054			1.054	E5	0.00
15)	AR1242-D				1.090			1.090	E5	0.00
16)	AR1242-E				9.298			9.298	E4	0.00
17)	AR1248-A				5.917			5.917	E4	0.00
18)	AR1248-B				1.544			1.544	E5	0.00
19)	AR1248-C				1.652			1.652	E5	0.00
20)	AR1248-D				1.598			1.598	E5	0.00
21)	AR1248-E				1.421			1.421	E5	0.00
22)	AR1248-F				1.402			1.402	E5	0.00
23)	AR1248-G				1.572			1.572	E5	0.00
24)	AR1254-A				1.234			1.234	E5	0.00
25)	AR1254-B				2.588			2.588	E5	0.00
26)	AR1254-C				1.370			1.370	E5	0.00
27)	AR1254-D				2.459			2.459	E5	0.00
28)	AR1254-E				1.825			1.825	E5	0.00
29)	AR1254-F				1.712			1.712	E5	0.00
30)	AR1254-G				2.518			2.518	E5	0.00
31)	AR1016-A	9.451	7.869	7.627	7.558	7.126	7.105	7.789	E4	11.13
32)	AR1016-B	1.685	1.361	1.324	1.304	1.242	1.247	1.361	E5	12.16
33)	AR1016-C	3.261	2.840	2.792	2.854	2.797	2.854	2.900	E5	6.18
34)	AR1016-D	1.360	1.162	1.156	1.157	1.119	1.140	1.182	E5	7.49
35)	AR1016-E	1.424	1.227	1.184	1.176	1.145	1.161	1.219	E5	8.51
36)	AR1260-A	3.759	3.397	3.078	3.178	3.473	3.566	3.408	E5	7.36
37)	AR1260-B	1.602	1.368	1.501	1.530	1.316	1.349	1.444	E5	8.00
38)	AR1260-C	1.676	1.539	1.642	1.690	1.480	1.527	1.592	E5	5.54
39)	AR1260-D	3.627	3.372	3.743	3.953	3.621	3.712	3.671	E5	5.17
40)	AR1260-E	3.931	3.596	3.895	4.026	3.611	3.668	3.788	E5	4.88
41)	AR1262-A				1.935			1.935	E5	0.00
42)	AR1262-B				2.424			2.424	E5	0.00
43)	AR1262-C				2.270			2.270	E5	0.00
44)	AR1262-D				4.854			4.854	E5	0.00
45)	AR1262-E				5.588			5.588	E5	0.00
46)	AR1268-A				5.754			5.754	E5	0.00

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Initial Calibration Summary

Page 2 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICC4311
Lab FileID: 2G162099.D

47)	AR1268-B				5.673			5.673	E5	0.00
48)	AR1268-C				4.730			4.730	E5	0.00
49)	AR1268-D				1.992			1.992	E5	0.00
50)	AR1268-E				1.615			1.615	E6	0.00
51) S	Decachlorobip...	4.697	4.061	3.924	3.931	3.825	3.897	4.056	E6	7.97

Signal #2 Calibration Files

50	=2G162102a.D	250	=2G162097.D	500	=2G162098.D
1000	=2G162099.D	2000	=2G162100.D	3000	=2G162101.D

	Compound	50	250	500	1000	2000	3000	Avg		%RSD
1) S	Tetrachloro-m...	2.359	2.161	2.233	2.322	2.300	2.354	2.288	E7	3.37
2)	AR1221-A				1.409			1.409	E5	0.00
3)	AR1221-B				2.507			2.507	E5	0.00
4)	AR1221-C				6.558			6.558	E5	0.00
5)	AR1221-D				1.222			1.222	E5	0.00
6)	AR1221-E				8.849			8.849	E4	0.00
7)	AR1232-A				5.020			5.020	E5	0.00
8)	AR1232-B				3.935			3.935	E5	0.00
9)	AR1232-C				8.152			8.152	E5	0.00
10)	AR1232-D				3.615			3.615	E5	0.00
11)	AR1232-E				2.173			2.173	E5	0.00
12)	AR1242-A				7.054			7.054	E5	0.00
13)	AR1242-B				1.548			1.548	E6	0.00
14)	AR1242-C				6.668			6.668	E5	0.00
15)	AR1242-D				4.564			4.564	E5	0.00
16)	AR1242-E				6.343			6.343	E5	0.00
17)	AR1248-A				3.627			3.627	E5	0.00
18)	AR1248-B				9.548			9.548	E5	0.00
19)	AR1248-C				5.697			5.697	E5	0.00
20)	AR1248-D				7.271			7.271	E5	0.00
21)	AR1248-E				8.799			8.799	E5	0.00
22)	AR1248-F				1.097			1.097	E6	0.00
23)	AR1248-G				1.220			1.220	E6	0.00
24)	AR1254-A				9.925			9.925	E5	0.00
25)	AR1254-B				9.839			9.839	E5	0.00
26)	AR1254-C				7.977			7.977	E5	0.00
27)	AR1254-D				1.634			1.634	E6	0.00
28)	AR1254-E				1.089			1.089	E6	0.00
29)	AR1254-F				1.181			1.181	E6	0.00
30)	AR1254-G				1.511			1.511	E6	0.00
31)	AR1016-A	4.464	3.663	3.554	3.667	3.532	3.597	3.746	E5	9.50
32)	AR1016-B	1.008	0.785	0.781	0.777	0.734	0.721	0.801	E6	13.07
33)	AR1016-C	1.870	1.661	1.687	1.744	1.719	1.721	1.734	E6	4.20
34)	AR1016-D	8.979	7.276	7.297	7.378	7.117	7.090	7.523	E5	9.59
35)	AR1016-E	5.760	4.925	4.923	5.029	5.023	5.124	5.131	E5	6.19
36)	AR1260-A	2.222	1.949	1.820	1.882	2.043	2.081	2.000	E6	7.30
37)	AR1260-B	1.009	0.803	0.897	0.917	0.804	0.816	0.874	E6	9.41
38)	AR1260-C	1.124	0.949	1.023	1.051	0.980	1.006	1.022	E6	5.98
39)	AR1260-D	2.347	1.930	2.170	2.256	2.063	2.114	2.146	E6	6.84
40)	AR1260-E	2.219	1.874	2.089	2.144	1.933	1.971	2.038	E6	6.55
41)	AR1262-A				1.044			1.044	E6	0.00
42)	AR1262-B				1.428			1.428	E6	0.00
43)	AR1262-C				1.336			1.336	E6	0.00
44)	AR1262-D				2.732			2.732	E6	0.00
45)	AR1262-E				3.034			3.034	E6	0.00
46)	AR1268-A				3.086			3.086	E6	0.00
47)	AR1268-B				3.099			3.099	E6	0.00
48)	AR1268-C				2.498			2.498	E6	0.00

12.11.9
12

Initial Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICC4311
Lab FileID: 2G162099.D

49)	AR1268-D					1.038				1.038	E6	0.00
50)	AR1268-E					8.238				8.238	E6	0.00
51) S	Decachlorobip...	2.219	1.845	1.796	1.874	1.841	1.884	1.910	E7	8.10		

(#) = Out of Range												

2PCB4311.M Thu Apr 19 15:44:17 2018 RPT1

Initial Calibration Verification

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD1A.CH Vial: 13
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	3.975 E6	-8.3	108	0.00	2.75-	2.81
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	76.686 E3	1.5	101	0.00	3.12-	3.18
32	AR1016-B	136.058	141.949 E3	-4.3	109	0.00	3.53-	3.59
33	AR1016-C	289.965	305.729 E3	-5.4	107	0.00	4.08-	4.14
34	AR1016-D	118.235	126.283 E3	-6.8	109	0.00	4.24-	4.30
35	AR1016-E	121.934	124.361 E3	-2.0	106	0.00	4.75-	4.81
36	AR1260-A	340.850	344.355 E3	-1.0	108	0.00	7.12-	7.18
37	AR1260-B	144.444	147.854 E3	-2.4	97	0.00	7.28-	7.34
38	AR1260-C	159.229	170.106 E3	-6.8	101	0.00	7.62-	7.68
39	AR1260-D	367.146	387.161 E3	-5.5	98	0.00	8.05-	8.11
40	AR1260-E	378.788	394.757 E3	-4.2	98	0.00	8.39-	8.55
41	AR1262-A			-----NA-----				

Page 2 of 3

Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

```
***** Signal #2 *****
```

12.11.10 12

Initial Calibration Verification

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	18.717	E6	2.0	100	0.00		11.78-11.84	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162099.D 2PCB4311.M Thu Apr 19 15:43:22 2018 RPT1

12.11.10
12

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162107.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD1A.CH Vial: 14
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
2	AR1221-A	28.967	30.231 E3	-4.4	104	0.00	2.18-	2.38
3	AR1221-B	42.023	40.285 E3	4.1	96	0.00	2.85-	3.05
4	AR1221-C	128.795	122.705 E3	4.7	95	0.00	3.05-	3.25
5	AR1221-D	14.657	11.965 E3	18.4	82	0.00	3.46-	3.66
6	AR1221-E	14.364	14.535 E3	-1.2	101	0.00	3.60-	3.80
24	AR1254-A	123.364	129.470 E3	-4.9	105	0.00	4.78-	5.78
25	AR1254-B	258.753	268.829 E3	-3.9	104	0.00	5.52-	5.72
26	AR1254-C	136.952	143.562 E3	-4.8	105	0.00	5.88-	6.08
27	AR1254-D	245.908	257.604 E3	-4.8	105	0.00	6.04-	6.24
28	AR1254-E	182.509	189.827 E3	-4.0	104	0.00	6.42-	6.62
29	AR1254-F	171.196	179.789 E3	-5.0	105	0.00	6.67-	6.87
30	AR1254-G	251.778	263.449 E3	-4.6	105	0.00	7.05-	7.25

***** Signal #2 *****

2	AR1221-A	140.927	146.033 E3	-3.6	104	0.00	2.77-	2.97
3	AR1221-B	250.670	252.257 E3	-0.6	101	0.00	3.72-	3.92
4	AR1221-C	655.831	636.187 E3	3.0	97	0.00	3.99-	4.19
5	AR1221-D	122.166	105.889 E3	13.3	87	0.00	4.55-	4.75
6	AR1221-E	88.492	89.522 E3	-1.2	101	0.00	4.67-	4.87
24	AR1254-A	992.497	1051.994 E3	-6.0	106	0.00	6.20-	7.20
25	AR1254-B	983.915	1037.386 E3	-5.4	105	0.00	6.86-	7.06
26	AR1254-C	797.725	839.207 E3	-5.2	105	0.00	7.37-	7.56
27	AR1254-D	1.634	1.719 E6	-5.2	105	0.00	7.53-	7.73
28	AR1254-E	1.089	1.136 E6	-4.3	104	0.00	7.86-	8.06
29	AR1254-F	1.181	1.231 E6	-4.2	104	0.00	8.32-	8.52
30	AR1254-G	1.511	1.615 E6	-6.9	107	0.00	8.62-	8.82

(#) = Out of Range
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 16:15:57 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162108.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD1A.CH Vial: 15
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD2B.CH
Acq On : 19 Apr 2018 3:51 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
7	AR1232-A	97.343	98.365 E3	-1.0	101	0.00	3.05-	3.25
8	AR1232-B	66.843	68.498 E3	-2.5	102	0.00	3.46-	3.66
9	AR1232-C	130.487	135.897 E3	-4.1	104	0.00	4.01-	4.21
10	AR1232-D	54.474	56.766 E3	-4.2	104	0.00	4.17-	4.37
11	AR1232-E	51.489	53.116 E3	-3.2	103	0.00	4.68-	4.88
41	AR1262-A	193.481	203.733 E3	-5.3	105	0.00	6.67-	6.87
42	AR1262-B	242.383	258.534 E3	-6.7	107	0.00	7.21-	7.41
43	AR1262-C	227.005	238.593 E3	-5.1	105	0.00	7.55-	7.75
44	AR1262-D	485.357	514.218 E3	-5.9	106	0.00	7.98-	8.18
45	AR1262-E	558.779	598.920 E3	-7.2	107	0.00	8.43-	8.63

***** Signal #2 *****

7	AR1232-A	501.961	512.204 E3	-2.0	102	0.00	4.00-	4.20
8	AR1232-B	393.517	401.624 E3	-2.1	102	0.00	4.54-	4.74
9	AR1232-C	815.235	827.075 E3	-1.5	101	0.00	5.18-	5.38
10	AR1232-D	361.545	372.004 E3	-2.9	103	0.00	5.37-	5.57
11	AR1232-E	217.324	220.012 E3	-1.2	101	0.00	6.02-	6.22
41	AR1262-A	1.044	1.084 E6	-3.8	104	0.00	8.09-	8.29
42	AR1262-B	1.428	1.495 E6	-4.7	105	0.00	8.73-	8.93
43	AR1262-C	1.336	1.393 E6	-4.3	104	0.00	9.16-	9.36
44	AR1262-D	2.732	2.841 E6	-4.0	104	0.00	9.51-	9.71
45	AR1262-E	3.034	3.169 E6	-4.4	104	0.00	10.02-	10.22

(#) = Out of Range
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 16:15:59 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162109.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD1A.CH Vial: 16
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD2B.CH
Acq On : 19 Apr 2018 4:08 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
12	AR1242-A	119.785	114.904 E3	4.1	96	0.00	3.46-	3.66
13	AR1242-B	252.484	244.856 E3	3.0	97	0.00	4.01-	4.21
14	AR1242-C	105.443	101.790 E3	3.5	97	0.00	4.17-	4.37
15	AR1242-D	108.979	102.543 E3	5.9	94	0.00	4.68-	4.88
16	AR1242-E	92.981	87.846 E3	5.5	94	0.00	5.27-	5.47
46	AR1268-A	575.351	581.914 E3	-1.1	101	0.00	8.42-	8.62
47	AR1268-B	567.310	583.888 E3	-2.9	103	0.00	8.48-	8.68
48	AR1268-C	473.024	486.973 E3	-2.9	103	0.00	8.75-	8.95
49	AR1268-D	199.180	204.671 E3	-2.8	103	0.00	9.24-	9.44
50	AR1268-E	1.615	1.646 E6	-1.9	102	0.00	9.64-	9.84

***** Signal #2 *****

12	AR1242-A	705.391	679.662 E3	3.6	96	0.00	4.53-	4.73
13	AR1242-B	1.548	1.499 E6	3.2	97	0.00	5.18-	5.38
14	AR1242-C	666.761	667.573 E3	-0.1	100	0.00	5.37-	5.57
15	AR1242-D	456.404	438.896 E3	3.8	96	0.00	6.01-	6.21
16	AR1242-E	634.341	601.296 E3	5.2	95	0.00	6.63-	6.83
46	AR1268-A	3.086	3.010 E6	2.5	98	0.00	10.02-	10.22
47	AR1268-B	3.099	3.068 E6	1.0	99	0.00	10.09-	10.29
48	AR1268-C	2.498	2.444 E6	2.2	98	0.00	10.46-	10.66
49	AR1268-D	1.038	1.042 E6	-0.4	100	0.00	10.86-	11.06
50	AR1268-E	8.238	7.835 E6	4.9	95	0.00	11.33-	11.53

(#) = Out of Range
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 16:23:22 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162110.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD1A.CH Vial: 17
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
17	AR1248-A	59.174	55.493 E3	6.2	94	0.00	3.45-	3.65
18	AR1248-B	154.398	154.781 E3	-0.2	100	0.00	4.01-	4.21
19	AR1248-C	165.207	165.431 E3	-0.1	100	0.00	4.40-	4.60
20	AR1248-D	159.827	163.966 E3	-2.6	103	0.00	4.68-	4.88
21	AR1248-E	142.066	146.330 E3	-3.0	103	0.00	4.79-	4.99
22	AR1248-F	140.157	154.154 E3	-10.0	110	0.00	5.26-	5.46
23	AR1248-G	157.220	168.971 E3	-7.5	107	0.00	5.12-	6.12

***** Signal #2 *****

17	AR1248-A	362.749	338.780 E3	6.6	93	0.00	4.53-	4.73
18	AR1248-B	954.786	932.709 E3	2.3	98	0.00	5.18-	5.38
19	AR1248-C	569.681	572.997 E3	-0.6	101	0.00	5.63-	5.83
20	AR1248-D	727.117	735.665 E3	-1.2	101	0.00	6.01-	6.21
21	AR1248-E	879.894	914.038 E3	-3.9	104	0.00	6.19-	6.39
22	AR1248-F	1.097	1.158 E6	-5.6	106	0.00	6.62-	6.82
23	AR1248-G	1.220	1.306 E6	-7.0	107	0.00	6.55-	7.55

(#) = Out of Range
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 16:41:13 2018 RPT1

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4329-CC4311
Lab FileID: 2G163261.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4329\2G163261.D\ECD1A.CH Vial: 6
Signal #2 : C:\msdchem\1\DATA\2G4329\2G163261.D\ECD2B.CH
Acq On : 10 May 2018 10:33 pm Operator: tianweir
Sample : cc4311-500 Inst : HP G1530A
Misc : OP11863,G2G4329,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu May 10 09:36:48 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	4.235 E6	-15.4	120	0.00	2.75-	2.81
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	91.065 E3	-16.9	119	0.00	3.12-	3.18
32	AR1016-B	136.058	155.156 E3	-14.0	117	0.00	3.52-	3.58
33	AR1016-C	289.965	317.584 E3	-9.5	114	0.00	4.07-	4.13
34	AR1016-D	118.235	133.085 E3	-12.6	115	0.00	4.23-	4.29
35	AR1016-E	121.934	138.633 E3	-13.7	117	0.00	4.73-	4.79
36	AR1260-A	340.850	352.388 E3	-3.4	114	0.00	7.09-	7.15
37	AR1260-B	144.444	173.157 E3	-19.9	115	0.00	7.25-	7.31
38	AR1260-C	159.229	190.780 E3	-19.8	116	0.00	7.59-	7.65
39	AR1260-D	367.146	410.011 E3	-11.7	110	0.00	8.01-	8.07
40	AR1260-E	378.788	439.187 E3	-15.9	113	0.00	8.36-	8.51
41	AR1262-A			-----NA-----				

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Continuing Calibration Summary

Page 2 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4329-CC4311
Lab FileID: 2G163261.D

42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								
48	AR1268-C								
49	AR1268-D								
50	AR1268-E								
51 S	Decachlorobiphenyl	4.056	4.173	E6	-2.9	106	0.00	9.94-10.00	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	25.857	E6	-13.0	116	0.00	3.40- 3.46	
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1016-A	374.605	459.875	E3	-22.8#	129	0.00	4.06- 4.12	
32	AR1016-B	0.801	0.900	E6	-12.4	115	0.00	4.59- 4.65	
33	AR1016-C	1.734	1.937	E6	-11.7	115	0.00	5.23- 5.29	
34	AR1016-D	752.270	887.887	E3	-18.0	122	0.00	5.42- 5.48	
35	AR1016-E	513.080	590.356	E3	-15.1	120	0.00	6.06- 6.12	
36	AR1260-A	2.000	2.098	E6	-4.9	115	0.00	8.66- 8.72	
37	AR1260-B	0.874	1.042	E6	-19.2	116	0.00	8.77- 8.83	
38	AR1260-C	1.022	1.173	E6	-14.8	115	0.00	9.20- 9.26	
39	AR1260-D	2.146	2.387	E6	-11.2	110	0.00	9.55- 9.61	
40	AR1260-E	2.038	2.333	E6	-14.5	112	0.00	10.09-10.15	
41	AR1262-A								
42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								

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Continuing Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4329-CC4311
Lab FileID: 2G163261.D

48	AR1268-C								-----NA-----
49	AR1268-D								-----NA-----
50	AR1268-E								-----NA-----
51 S	Decachlorobiphenyl	19.099	19.292 E6	-1.0	107	0.00	11.75-11.81		

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162098.D 2PCB4311.M Fri May 11 11:33:31 2018 RPT1

12.11.15
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Continuing Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4329-CC4311
Lab FileID: 2G163272.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4329\2G163272.D\ECD1A.CH Vial: 23
Signal #2 : C:\msdchem\1\DATA\2G4329\2G163272.D\ECD2B.CH
Acq On : 11 May 2018 2:02 am Operator: christp
Sample : cc4311-1000 Inst : HP G1530A
Misc : OP11916,G2G4329,15.1,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu May 10 09:36:48 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	4.102 E6	-11.8	111	0.00	2.75-	2.81
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	83.473 E3	-7.2	110	0.00	3.12-	3.18
32	AR1016-B	136.058	144.916 E3	-6.5	111	0.00	3.52-	3.58
33	AR1016-C	289.965	307.628 E3	-6.1	108	0.00	4.07-	4.13
34	AR1016-D	118.235	125.646 E3	-6.3	109	0.00	4.22-	4.28
35	AR1016-E	121.934	130.416 E3	-7.0	111	0.00	4.73-	4.79
36	AR1260-A	340.850	344.026 E3	-0.9	108	0.00	7.09-	7.15
37	AR1260-B	144.444	166.207 E3	-15.1	109	0.00	7.25-	7.31
38	AR1260-C	159.229	184.799 E3	-16.1	109	0.00	7.59-	7.65
39	AR1260-D	367.146	403.682 E3	-10.0	102	0.00	8.01-	8.07
40	AR1260-E	378.788	425.056 E3	-12.2	106	0.00	8.35-	8.51
41	AR1262-A			-----NA-----				

Continuing Calibration Summary

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4329-CC4311
Lab FileID: 2G163272.D

42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								
48	AR1268-C								
49	AR1268-D								
50	AR1268-E								
51 S	Decachlorobiphenyl	4.056	3.956 E6	2.5	101	0.00		9.94-10.00	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	25.903 E6	-13.2	112	0.00		3.40- 3.46	
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1016-A	374.605	433.439 E3	-15.7	118	0.00		4.05- 4.11	
32	AR1016-B	0.801	0.849 E6	-6.0	109	0.00		4.59- 4.65	
33	AR1016-C	1.734	1.901 E6	-9.6	109	0.00		5.23- 5.29	
34	AR1016-D	752.270	842.815 E3	-12.0	114	0.00		5.42- 5.48	
35	AR1016-E	513.080	574.625 E3	-12.0	114	0.00		6.06- 6.12	
36	AR1260-A	2.000	2.099 E6	-5.0	112	0.00		8.66- 8.72	
37	AR1260-B	0.874	1.036 E6	-18.5	113	0.00		8.77- 8.83	
38	AR1260-C	1.022	1.179 E6	-15.4	112	0.00		9.20- 9.26	
39	AR1260-D	2.146	2.433 E6	-13.4	108	0.00		9.55- 9.61	
40	AR1260-E	2.038	2.360 E6	-15.8	110	0.00		10.09-10.15	
41	AR1262-A								
42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								

12.11.16
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Continuing Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4329-CC4311
Lab FileID: 2G163272.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	19.321	E6	-1.2	103	0.00		11.75-11.81	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G163207.D 2PCB4311.M Fri May 11 11:34:09 2018 RPT1

12.11.16
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Continuing Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4329-CC4311
Lab FileID: 2G163283.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4329\2G163283.D\ECD1A.CH Vial: 31
Signal #2 : C:\msdchem\1\DATA\2G4329\2G163283.D\ECD2B.CH
Acq On : 11 May 2018 5:09 am Operator: christp
Sample : cc4311-500 Inst : HP G1530A
Misc : OP11916,G2G4329,15.7,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu May 10 09:36:48 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	4.086 E6	-11.3	115	0.00	2.75-	2.81
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	87.687 E3	-12.6	115	0.00	3.12-	3.18
32	AR1016-B	136.058	150.240 E3	-10.4	113	0.00	3.52-	3.58
33	AR1016-C	289.965	302.957 E3	-4.5	108	0.00	4.06-	4.12
34	AR1016-D	118.235	132.169 E3	-11.8	114	0.00	4.23-	4.29
35	AR1016-E	121.934	134.119 E3	-10.0	113	0.00	4.73-	4.79
36	AR1260-A	340.850	338.121 E3	0.8	110	0.00	7.09-	7.15
37	AR1260-B	144.444	165.017 E3	-14.2	110	0.00	7.25-	7.31
38	AR1260-C	159.229	183.289 E3	-15.1	112	0.00	7.59-	7.65
39	AR1260-D	367.146	391.344 E3	-6.6	105	0.00	8.02-	8.08
40	AR1260-E	378.788	411.333 E3	-8.6	106	0.00	8.36-	8.51
41	AR1262-A			-----NA-----				

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4329-CC4311
Lab FileID: 2G163283.D

42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								
48	AR1268-C								
49	AR1268-D								
50	AR1268-E								
51 S	Decachlorobiphenyl	4.056	3.780 E6	6.8	96	0.00		9.94-10.00	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	25.590 E6	-11.8	115	0.00		3.40- 3.46	
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1016-A	374.605	453.940 E3	-21.2#	128	0.00		4.06- 4.12	
32	AR1016-B	0.801	0.891 E6	-11.2	114	0.00		4.59- 4.65	
33	AR1016-C	1.734	1.915 E6	-10.4	113	0.00		5.23- 5.29	
34	AR1016-D	752.270	874.586 E3	-16.3	120	0.00		5.42- 5.48	
35	AR1016-E	513.080	579.961 E3	-13.0	118	0.00		6.06- 6.12	
36	AR1260-A	2.000	2.030 E6	-1.5	112	0.00		8.66- 8.72	
37	AR1260-B	0.874	1.031 E6	-18.0	115	0.00		8.77- 8.83	
38	AR1260-C	1.022	1.162 E6	-13.7	114	0.00		9.20- 9.26	
39	AR1260-D	2.146	2.363 E6	-10.1	109	0.00		9.55- 9.61	
40	AR1260-E	2.038	2.373 E6	-16.4	114	0.00		10.09-10.15	
41	AR1262-A								
42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								

12.11.17
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Continuing Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4329-CC4311
Lab FileID: 2G163283.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	19.087	E6	0.1	106	0.00	11.75-11.81		

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162098.D 2PCB4311.M Fri May 11 11:08:22 2018 RPT1

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4333-CC4311
Lab FileID: 2G163502.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4333\2G163502.D\ECD1A.CH Vial: 6
Signal #2 : C:\msdchem\1\DATA\2G4333\2G163502.D\ECD2B.CH
Acq On : 15 May 2018 11:09 am Operator: rebeccak
Sample : cc4311-1000 Inst : HP G1530A
Misc : OP11948,G2G4333,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Mon May 14 13:05:01 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	3.783 E6	-3.1	102	-0.02	2.74-	2.80
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	77.968 E3	-0.1	103	-0.02	3.11-	3.17
32	AR1016-B	136.058	133.410 E3	1.9	102	-0.02	3.51-	3.57
33	AR1016-C	289.965	272.899 E3	5.9	96	-0.01	4.05-	4.11
34	AR1016-D	118.235	115.894 E3	2.0	100	-0.01	4.21-	4.27
35	AR1016-E	121.934	114.172 E3	6.4	97	-0.01	4.72-	4.78
36	AR1260-A	340.850	320.751 E3	5.9	101	-0.01	7.08-	7.14
37	AR1260-B	144.444	150.701 E3	-4.3	98	-0.01	7.24-	7.30
38	AR1260-C	159.229	167.641 E3	-5.3	99	-0.01	7.58-	7.64
39	AR1260-D	367.146	373.855 E3	-1.8	95	-0.01	8.00-	8.06
40	AR1260-E	378.788	395.852 E3	-4.5	98	-0.01	8.34-	8.50
41	AR1262-A			-----NA-----				

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4333-CC4311
Lab FileID: 2G163502.D

42	AR1262-B												
43	AR1262-C												
44	AR1262-D												
45	AR1262-E												
46	AR1268-A												
47	AR1268-B												
48	AR1268-C												
49	AR1268-D												
50	AR1268-E												
51 S	Decachlorobiphenyl	4.056	3.708	E6	8.6	94	0.00	9.93-	9.99				

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	22.211	E6	2.9	96	-0.02	3.39-	3.45				
2	AR1221-A												
3	AR1221-B												
4	AR1221-C												
5	AR1221-D												
6	AR1221-E												
7	AR1232-A												
8	AR1232-B												
9	AR1232-C												
10	AR1232-D												
11	AR1232-E												
12	AR1242-A												
13	AR1242-B												
14	AR1242-C												
15	AR1242-D												
16	AR1242-E												
17	AR1248-A												
18	AR1248-B												
19	AR1248-C												
20	AR1248-D												
21	AR1248-E												
22	AR1248-F												
23	AR1248-G												
24	AR1254-A												
25	AR1254-B												
26	AR1254-C												
27	AR1254-D												
28	AR1254-E												
29	AR1254-F												
30	AR1254-G												
31	AR1016-A	374.605	377.519	E3	-0.8	103	-0.02	4.04-	4.10				
32	AR1016-B	0.801	0.688	E6	14.1	89	0.00	4.58-	4.64				
33	AR1016-C	1.734	1.603	E6	7.6	92	-0.01	5.22-	5.28				
34	AR1016-D	752.270	663.923	E3	11.7	90	-0.01	5.41-	5.47				
35	AR1016-E	513.080	495.684	E3	3.4	99	0.00	6.05-	6.11				
36	AR1260-A	2.000	1.648	E6	17.6	88	0.00	8.65-	8.71				
37	AR1260-B	0.874	0.825	E6	5.6	90	0.00	8.77-	8.83				
38	AR1260-C	1.022	0.976	E6	4.5	93	0.00	9.20-	9.26				
39	AR1260-D	2.146	2.120	E6	1.2	94	0.00	9.54-	9.60				
40	AR1260-E	2.038	1.975	E6	3.1	92	0.00	10.08-	10.14				
41	AR1262-A												
42	AR1262-B												
43	AR1262-C												
44	AR1262-D												
45	AR1262-E												
46	AR1268-A												
47	AR1268-B												

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Continuing Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4333-CC4311
Lab FileID: 2G163502.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	17.261	E6	9.6	92	0.00	11.74	11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G163402.D 2PCB4311.M Tue May 15 11:47:35 2018 RPT1

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Continuing Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4333-CC4311
Lab FileID: 2G163513.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4333\2G163513.D\ECD1A.CH Vial: 16
 Signal #2 : C:\msdchem\1\DATA\2G4333\2G163513.D\ECD2B.CH
 Acq On : 15 May 2018 3:12 pm Operator: rebeccak
 Sample : cc4311-500 Inst : HP G1530A
 Misc : OP11916,G2G4333,15.0,,,10,1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
 Title :
 Last Update : Mon May 14 13:05:01 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	4.016 E6	-9.4	114	-0.01	2.74-	2.80
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	87.059 E3	-11.8	114	-0.01	3.11-	3.17
32	AR1016-B	136.058	149.295 E3	-9.7	113	-0.01	3.51-	3.57
33	AR1016-C	289.965	299.302 E3	-3.2	107	-0.01	4.06-	4.12
34	AR1016-D	118.235	129.271 E3	-9.3	112	-0.01	4.22-	4.28
35	AR1016-E	121.934	129.335 E3	-6.1	109	0.00	4.73-	4.79
36	AR1260-A	340.850	325.853 E3	4.4	106	0.00	7.09-	7.15
37	AR1260-B	144.444	162.966 E3	-12.8	109	0.00	7.24-	7.30
38	AR1260-C	159.229	175.180 E3	-10.0	107	0.00	7.58-	7.64
39	AR1260-D	367.146	384.271 E3	-4.7	103	0.00	8.01-	8.07
40	AR1260-E	378.788	407.694 E3	-7.6	105	0.00	8.35-	8.51
41	AR1262-A			-----NA-----				

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Continuing Calibration Summary

Page 2 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4333-CC4311
Lab FileID: 2G163513.D

42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								
48	AR1268-C								
49	AR1268-D								
50	AR1268-E								
51 S	Decachlorobiphenyl	4.056	3.984 E6	1.8	102	0.00	9.93-	9.99	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	24.776 E6	-8.3	111	-0.01	3.39-	3.45	
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1016-A	374.605	448.510 E3	-19.7	126	0.00	4.05-	4.11	
32	AR1016-B	0.801	0.875 E6	-9.2	112	0.00	4.59-	4.65	
33	AR1016-C	1.734	1.846 E6	-6.5	109	0.00	5.23-	5.29	
34	AR1016-D	752.270	863.804 E3	-14.8	118	0.00	5.41-	5.47	
35	AR1016-E	513.080	559.053 E3	-9.0	114	0.00	6.06-	6.12	
36	AR1260-A	2.000	1.956 E6	2.2	107	0.00	8.65-	8.71	
37	AR1260-B	0.874	1.006 E6	-15.1	112	0.00	8.77-	8.83	
38	AR1260-C	1.022	1.112 E6	-8.8	109	0.00	9.20-	9.26	
39	AR1260-D	2.146	2.321 E6	-8.2	107	0.00	9.55-	9.61	
40	AR1260-E	2.038	2.261 E6	-10.9	108	0.00	10.09-	10.15	
41	AR1262-A								
42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								

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Continuing Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4333-CC4311
Lab FileID: 2G163513.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	19.025	E6	0.4	106	0.00	11.74	11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162098.D 2PCB4311.M Tue May 15 15:29:55 2018 RPT1

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Continuing Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4333-CC4311
Lab FileID: 2G163525.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4333\2G163525.D\ECD1A.CH Vial: 25
Signal #2 : C:\msdchem\1\DATA\2G4333\2G163525.D\ECD2B.CH
Acq On : 15 May 2018 6:02 pm Operator: rebeccak
Sample : cc4311-1000 Inst : HP G1530A
Misc : OP11916,G2G4333,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Mon May 14 13:05:01 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	3.979 E6	-8.4	108	-0.01	2.75-	2.81
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	80.578 E3	-3.4	107	0.00	3.12-	3.18
32	AR1016-B	136.058	136.721 E3	-0.5	105	0.00	3.52-	3.58
33	AR1016-C	289.965	268.079 E3	7.5	94	0.00	4.06-	4.12
34	AR1016-D	118.235	116.607 E3	1.4	101	0.00	4.22-	4.28
35	AR1016-E	121.934	119.490 E3	2.0	102	0.00	4.73-	4.79
36	AR1260-A	340.850	329.216 E3	3.4	104	0.00	7.08-	7.14
37	AR1260-B	144.444	154.802 E3	-7.2	101	0.00	7.24-	7.30
38	AR1260-C	159.229	172.192 E3	-8.1	102	0.00	7.58-	7.64
39	AR1260-D	367.146	396.796 E3	-8.1	100	0.00	8.01-	8.07
40	AR1260-E	378.788	393.686 E3	-3.9	98	0.00	8.35-	8.51
41	AR1262-A			-----NA-----				

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4333-CC4311
Lab FileID: 2G163525.D

42	AR1262-B												
43	AR1262-C												
44	AR1262-D												
45	AR1262-E												
46	AR1268-A												
47	AR1268-B												
48	AR1268-C												
49	AR1268-D												
50	AR1268-E												
51 S	Decachlorobiphenyl	4.056	3.750 E6	7.5	95	0.00					9.93-	9.99	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	23.750 E6	-3.8	102	-0.01					3.39-	3.45	
2	AR1221-A												
3	AR1221-B												
4	AR1221-C												
5	AR1221-D												
6	AR1221-E												
7	AR1232-A												
8	AR1232-B												
9	AR1232-C												
10	AR1232-D												
11	AR1232-E												
12	AR1242-A												
13	AR1242-B												
14	AR1242-C												
15	AR1242-D												
16	AR1242-E												
17	AR1248-A												
18	AR1248-B												
19	AR1248-C												
20	AR1248-D												
21	AR1248-E												
22	AR1248-F												
23	AR1248-G												
24	AR1254-A												
25	AR1254-B												
26	AR1254-C												
27	AR1254-D												
28	AR1254-E												
29	AR1254-F												
30	AR1254-G												
31	AR1016-A	374.605	417.050 E3	-11.3	114	-0.01					4.05-	4.11	
32	AR1016-B	0.801	0.705 E6	12.0	91	0.00					4.59-	4.65	
33	AR1016-C	1.734	1.787 E6	-3.1	102	0.00					5.22-	5.28	
34	AR1016-D	752.270	608.688 E3	19.1	83	0.00					5.41-	5.47	
35	AR1016-E	513.080	522.899 E3	-1.9	104	0.00					6.06-	6.12	
36	AR1260-A	2.000	1.723 E6	13.8	92	0.00					8.65-	8.71	
37	AR1260-B	0.874	0.894 E6	-2.3	97	0.00					8.77-	8.83	
38	AR1260-C	1.022	1.111 E6	-8.7	106	0.00					9.20-	9.26	
39	AR1260-D	2.146	2.364 E6	-10.2	105	0.00					9.55-	9.61	
40	AR1260-E	2.038	2.191 E6	-7.5	102	0.00					10.09-	10.15	
41	AR1262-A												
42	AR1262-B												
43	AR1262-C												
44	AR1262-D												
45	AR1262-E												
46	AR1268-A												
47	AR1268-B												

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Continuing Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4333-CC4311
Lab FileID: 2G163525.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	17.947	E6	6.0	96	0.00	11.74	11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G163402.D 2PCB4311.M Wed May 16 08:22:38 2018 RPT1

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Continuing Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4333-CC4311
Lab FileID: 2G163580.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4333\2G163580.D\ECD1A.CH Vial: 65
 Signal #2 : C:\msdchem\1\DATA\2G4333\2G163580.D\ECD2B.CH
 Acq On : 16 May 2018 9:34 am Operator: rebeccak
 Sample : cc4311-500 Inst : HP G1530A
 Misc : OP12027,G2G4333,1000,,,5,1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
 Title :
 Last Update : Mon May 14 13:05:01 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	4.113 E6	-12.1	116	-0.01	2.75-	2.81
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	89.735 E3	-15.2	118	-0.01	3.12-	3.18
32	AR1016-B	136.058	151.710 E3	-11.5	115	0.00	3.51-	3.57
33	AR1016-C	289.965	301.996 E3	-4.1	108	0.00	4.06-	4.12
34	AR1016-D	118.235	128.498 E3	-8.7	111	0.00	4.22-	4.28
35	AR1016-E	121.934	131.754 E3	-8.1	111	0.00	4.73-	4.79
36	AR1260-A	340.850	342.751 E3	-0.6	111	0.00	7.08-	7.14
37	AR1260-B	144.444	165.852 E3	-14.8	111	0.00	7.25-	7.31
38	AR1260-C	159.229	184.105 E3	-15.6	112	0.00	7.58-	7.64
39	AR1260-D	367.146	393.621 E3	-7.2	105	0.00	8.01-	8.07
40	AR1260-E	378.788	422.260 E3	-11.5	108	0.00	8.35-	8.51
41	AR1262-A			-----NA-----				

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Continuing Calibration Summary

Page 2 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4333-CC4311
Lab FileID: 2G163580.D

42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								
48	AR1268-C								
49	AR1268-D								
50	AR1268-E								
51 S	Decachlorobiphenyl	4.056	4.118 E6	-1.5	105	0.00		9.94-10.00	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	24.823 E6	-8.5	111	-0.01		3.39- 3.45	
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1016-A	374.605	448.437 E3	-19.7	126	0.00		4.05- 4.11	
32	AR1016-B	0.801	0.835 E6	-4.2	107	0.00		4.59- 4.65	
33	AR1016-C	1.734	1.883 E6	-8.6	112	0.00		5.23- 5.29	
34	AR1016-D	752.270	820.699 E3	-9.1	112	0.00		5.41- 5.47	
35	AR1016-E	513.080	564.628 E3	-10.0	115	0.00		6.06- 6.12	
36	AR1260-A	2.000	1.917 E6	4.1	105	0.00		8.65- 8.71	
37	AR1260-B	0.874	0.913 E6	-4.5	102	0.00		8.77- 8.83	
38	AR1260-C	1.022	1.068 E6	-4.5	104	0.00		9.20- 9.26	
39	AR1260-D	2.146	2.017 E6	6.0	93	0.00		9.55- 9.61	
40	AR1260-E	2.038	2.137 E6	-4.9	102	0.00		10.09-10.15	
41	AR1262-A								
42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								

12.11.21
12

Continuing Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4333-CC4311
Lab FileID: 2G163580.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	17.439	E6	8.7	97	0.00	11.74	11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162098.D 2PCB4311.M Wed May 16 09:51:25 2018 RPT1

12.11.21
12

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4334-CC4311
Lab FileID: 2G163592.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4334\2G163592.D\ECD1A.CH Vial: 9
 Signal #2 : C:\msdchem\1\DATA\2G4334\2G163592.D\ECD2B.CH
 Acq On : 16 May 2018 12:48 pm Operator: tianweir
 Sample : cc4311-1000 Inst : HP G1530A
 Misc : OP12027,G2G4334,1000,,,5,1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
 Title :
 Last Update : Mon May 14 13:05:01 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	4.029 E6	-9.8	109	-0.01	2.75-	2.81
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	83.746 E3	-7.5	111	0.00	3.12-	3.18
32	AR1016-B	136.058	141.708 E3	-4.2	109	0.00	3.51-	3.57
33	AR1016-C	289.965	293.103 E3	-1.1	103	0.00	4.06-	4.12
34	AR1016-D	118.235	120.980 E3	-2.3	105	0.00	4.22-	4.28
35	AR1016-E	121.934	125.457 E3	-2.9	107	0.00	4.73-	4.79
36	AR1260-A	340.850	335.995 E3	1.4	106	0.00	7.08-	7.14
37	AR1260-B	144.444	161.411 E3	-11.7	105	0.00	7.25-	7.31
38	AR1260-C	159.229	177.175 E3	-11.3	105	0.00	7.58-	7.64
39	AR1260-D	367.146	390.002 E3	-6.2	99	0.00	8.01-	8.07
40	AR1260-E	378.788	416.608 E3	-10.0	103	0.00	8.35-	8.51
41	AR1262-A			-----NA-----				

12.11.22
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Continuing Calibration Summary

Page 2 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4334-CC4311
Lab FileID: 2G163592.D

42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								
48	AR1268-C								
49	AR1268-D								
50	AR1268-E								
51 S	Decachlorobiphenyl	4.056	4.043 E6	0.3	103	0.00		9.94-10.00	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	24.506 E6	-7.1	106	0.00		3.40- 3.46	
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1016-A	374.605	419.851 E3	-12.1	114	0.00		4.05- 4.11	
32	AR1016-B	0.801	0.782 E6	2.4	101	0.00		4.59- 4.65	
33	AR1016-C	1.734	1.811 E6	-4.4	104	0.00		5.23- 5.29	
34	AR1016-D	752.270	791.637 E3	-5.2	107	0.00		5.41- 5.47	
35	AR1016-E	513.080	541.070 E3	-5.5	108	0.00		6.06- 6.12	
36	AR1260-A	2.000	1.978 E6	1.1	105	0.00		8.65- 8.71	
37	AR1260-B	0.874	0.953 E6	-9.0	104	0.00		8.77- 8.83	
38	AR1260-C	1.022	1.108 E6	-8.4	105	0.00		9.20- 9.26	
39	AR1260-D	2.146	2.056 E6	4.2	91	0.00		9.55- 9.61	
40	AR1260-E	2.038	2.229 E6	-9.4	104	0.00		10.09-10.15	
41	AR1262-A								
42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								

12.11.22
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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4334-CC4311
Lab FileID: 2G163592.D

48	AR1268-C					-----NA-----	
49	AR1268-D					-----NA-----	
50	AR1268-E					-----NA-----	
51 S	Decachlorobiphenyl	19.099	18.622	E6	2.5	99	0.00 11.74-11.80

```
(#) = Out of Range          SPCC's out = 0   CCC's out = 0
2G163402.D 2PCB4311.M      Wed May 16 13:33:47 2018   RPT1
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12.11.22

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Continuing Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4341-CC4311
Lab FileID: 2G164070.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4341\2G164070.D\ECD1A.CH Vial: 12
Signal #2 : C:\msdchem\1\DATA\2G4341\2G164070.D\ECD2B.CH
Acq On : 23 May 2018 11:25 am Operator: tianweir
Sample : cc4311-1000 Inst : HP G1530A
Misc : OP12116,G2G4341,1040,,,5,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Wed May 23 09:25:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	3.862 E6	-5.2	105	0.00	2.76-	2.82
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	80.615 E3	-3.5	107	0.00	3.13-	3.19
32	AR1016-B	136.058	136.943 E3	-0.7	105	0.00	3.52-	3.58
33	AR1016-C	289.965	275.298 E3	5.1	96	0.00	4.06-	4.12
34	AR1016-D	118.235	120.691 E3	-2.1	104	0.00	4.22-	4.28
35	AR1016-E	121.934	119.266 E3	2.2	101	0.00	4.73-	4.79
36	AR1260-A	340.850	317.006 E3	7.0	100	0.00	7.08-	7.14
37	AR1260-B	144.444	152.916 E3	-5.9	100	0.00	7.24-	7.30
38	AR1260-C	159.229	169.716 E3	-6.6	100	0.00	7.58-	7.64
39	AR1260-D	367.146	379.640 E3	-3.4	96	0.00	8.01-	8.07
40	AR1260-E	378.788	378.715 E3	0.0	94	-0.01	8.35-	8.50
41	AR1262-A			-----NA-----				

12.11.23
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Continuing Calibration Summary

Page 2 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4341-CC4311
Lab FileID: 2G164070.D

42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								
48	AR1268-C								
49	AR1268-D								
50	AR1268-E								
51 S	Decachlorobiphenyl	4.056	3.244 E6	20.0#	83	0.00	9.93-	9.99	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	22.396 E6	2.1	96	0.00	3.41-	3.47	
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1016-A	374.605	372.764 E3	0.5	102	0.00	4.06-	4.12	
32	AR1016-B	0.801	0.718 E6	10.4	92	0.00	4.59-	4.65	
33	AR1016-C	1.734	1.627 E6	6.2	93	0.00	5.23-	5.29	
34	AR1016-D	752.270	730.398 E3	2.9	99	0.00	5.42-	5.48	
35	AR1016-E	513.080	499.167 E3	2.7	99	0.00	6.06-	6.12	
36	AR1260-A	2.000	1.853 E6	7.4	98	0.00	8.65-	8.71	
37	AR1260-B	0.874	0.946 E6	-8.2	103	0.00	8.77-	8.83	
38	AR1260-C	1.022	1.066 E6	-4.3	101	0.00	9.20-	9.26	
39	AR1260-D	2.146	2.262 E6	-5.4	100	0.00	9.54-	9.60	
40	AR1260-E	2.038	2.127 E6	-4.4	99	0.00	10.09-	10.15	
41	AR1262-A								
42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								

12.11.23
12

Continuing Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4341-CC4311
Lab FileID: 2G164070.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	17.321	E6	9.3	92	0.00	11.74	11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G164021.D 2PCB4311.M Wed May 23 11:51:06 2018 RPT1

12.11.23
12

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4342-CC4311
Lab FileID: 2G164079.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4342\2G164079.D\ECD1A.CH Vial: 33
Signal #2 : C:\msdchem\1\DATA\2G4342\2G164079.D\ECD2B.CH
Acq On : 23 May 2018 2:17 pm Operator: tianweir
Sample : cc4311-1000 Inst : HP G1530A
Misc : OP11916,G2G4342,15.8,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Wed May 23 09:25:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	4.002 E6	-9.0	108	0.00	2.76-	2.82
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	83.568 E3	-7.3	111	0.00	3.13-	3.19
32	AR1016-B	136.058	142.426 E3	-4.7	109	0.00	3.52-	3.58
33	AR1016-C	289.965	283.318 E3	2.3	99	0.00	4.07-	4.13
34	AR1016-D	118.235	120.755 E3	-2.1	104	0.00	4.23-	4.29
35	AR1016-E	121.934	125.381 E3	-2.8	107	0.00	4.73-	4.79
36	AR1260-A	340.850	322.816 E3	5.3	102	0.00	7.09-	7.15
37	AR1260-B	144.444	155.371 E3	-7.6	102	0.00	7.25-	7.31
38	AR1260-C	159.229	170.254 E3	-6.9	101	0.00	7.58-	7.64
39	AR1260-D	367.146	375.066 E3	-2.2	95	0.00	8.01-	8.07
40	AR1260-E	378.788	386.213 E3	-2.0	96	0.00	8.35-	8.51
41	AR1262-A			-----NA-----				

12.11.24
12

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4342-CC4311
Lab FileID: 2G164079.D

42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								
48	AR1268-C								
49	AR1268-D								
50	AR1268-E								
51 S	Decachlorobiphenyl	4.056	3.352 E6	17.4	85	0.00	9.93-	9.99	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	22.541 E6	1.5	97	0.00	3.41-	3.47	
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1016-A	374.605	390.080 E3	-4.1	106	0.00	4.06-	4.12	
32	AR1016-B	0.801	0.728 E6	9.1	94	0.00	4.59-	4.65	
33	AR1016-C	1.734	1.661 E6	4.2	95	0.00	5.23-	5.29	
34	AR1016-D	752.270	737.354 E3	2.0	100	0.00	5.42-	5.48	
35	AR1016-E	513.080	508.951 E3	0.8	101	0.00	6.06-	6.12	
36	AR1260-A	2.000	1.878 E6	6.1	100	0.00	8.65-	8.71	
37	AR1260-B	0.874	0.953 E6	-9.0	104	0.00	8.77-	8.83	
38	AR1260-C	1.022	1.080 E6	-5.7	103	0.00	9.20-	9.26	
39	AR1260-D	2.146	2.213 E6	-3.1	98	0.00	9.55-	9.61	
40	AR1260-E	2.038	2.166 E6	-6.3	101	0.00	10.09-	10.15	
41	AR1262-A								
42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								

12.11.24
12

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4342-CC4311
Lab FileID: 2G164079.D

48	AR1268-C					-----NA-----		
49	AR1268-D					-----NA-----		
50	AR1268-E					-----NA-----		
51 S	Decachlorobiphenyl	19.099	16.937	E6	11.3	90	0.00	11.74-11.80

```
(#) = Out of Range          SPCC's out = 0   CCC's out = 0
2G164021.D 2PCB4311.M      Wed May 23 14:35:38 2018   RPT1
```

Initial Calibration Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2Z2570-ICC2570
Lab FileID: Z268414.D

Response Factor Report GC2Y2Z

Method : C:\MSDCHEM\1\METHODS\DR02Z2570.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 02 11:34:09 2018
Response via : Initial Calibration

Calibration Files
250 =2z68412.D 500 =2z68413.D 1000=2z68414.D 2500=2z68415.D
5000=2z68416.D 100 =2z68411.D 10k =2z68417.D 50k =2z68418.D 25 =2z68409.D 50 =2z68410.D

Compound	250	500	1000	2500	5000	100	10k	50k	25	50	Avg	%RSD
1) TPH-DRO	1.551	1.702	1.785	1.689	1.669	1.716	1.621	1.697	2.149	1.892	1.747	E6 9.60
2) TPH-DRO (C10	1.551	1.702	1.785	1.689	1.669	1.716	1.621	1.697	2.149	1.892	1.747	E6 9.60
3) TPH (C12-C40	1.551	1.702	1.785	1.689	1.669	1.716	1.621	1.697	2.149	1.892	1.747	E6 9.60
4) TPH-ORO (>C2	1.551	1.702	1.785	1.689	1.669	1.716	1.621	1.697	2.149	1.892	1.747	E6 9.60
5) TPH-HRO (C18	1.551	1.702	1.785	1.689	1.669	1.716	1.621	1.697	2.149	1.892	1.747	E6 9.60
6) TPH-DRO (C10	1.551	1.702	1.785	1.689	1.669	1.716	1.621	1.697	2.149	1.892	1.747	E6 9.60
7) TPH-ORO (C20	1.551	1.702	1.785	1.689	1.669	1.716	1.621	1.697	2.149	1.892	1.747	E6 9.60
8) o-Terphenyl	2.622	2.894	3.023	2.885	2.866	2.989			3.281	3.016	2.947	E6 6.32
9) 5a-Androstan	1.905	2.128	2.186	2.086	2.063	2.113			2.388	2.211	2.135	E6 6.47
10) Tetracosane-	1.555	1.724	1.804	1.693	1.684	1.705			1.917	1.794	1.734	E6 6.13

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

DR02Z2570.M Mon Apr 02 11:34:40 2018 RPT1

12.11.25
12

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2Z2570-ICV2570
Lab FileID: 2Z68419.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Z2570\2Z68419.D Vial: 62
Acq On : 01 Apr 2018 7:44 pm Operator: thomasl
Sample : icv2570-1000 Inst : GC2Y2Z
Misc : op10911,g2z2570,300,,,1,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DR02Z2570.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 02 11:28:39 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-DRO	1.747	1.566 E6	10.4	88	0.00	3.90-13.30
2 H	TPH-DRO (C10-C44)			-----NA-----			
3 H	TPH (C12-C40)			-----NA-----			
4 H	TPH-ORO (>C28-C40)			-----NA-----			
5 H	TPH-HRO (C18-C36)			-----NA-----			
6 H	TPH-DRO (C10-C20)			-----NA-----			
7 H	TPH-ORO (C20-C34)			-----NA-----			
8 S	o-Terphenyl			-----NA-----			
9 S	5a-Androstane			-----NA-----			
10 S	Tetracosane-d50			-----NA-----			

(#) = Out of Range

2z68414.D DR02Z2570.M

SPCC's out = 0 CCC's out = 0

Mon Apr 02 11:29:16 2018 RPT1

12.11.26
12

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2Z2597-CC2570
Lab FileID: 2Z69067.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Z2597\2Z69067.D Vial: 4
Acq On : 13 May 2018 11:39 pm Operator: thomasl
Sample : cc2570-1000 Inst : GC2Y2Z
Misc : op11946,g2z2597,10.0,,,1,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DR02Z2570.M (Chemstation Integrator)
Title :
Last Update : Mon May 14 09:42:09 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-DR0	1.747	1.637 E6	6.3	92	0.00	3.90-13.30
2 H	TPH-DR0 (C10-C44)			-----NA-----			
3 H	TPH (C12-C40)			-----NA-----			
4 H	TPH-OR0 (>C28-C40)			-----NA-----			
5 H	TPH-HR0 (C18-C36)			-----NA-----			
6 H	TPH-DR0 (C10-C20)			-----NA-----			
7 H	TPH-OR0 (C20-C34)			-----NA-----			
8 S	o-Terphenyl	2.947	2.845 E6	3.5	94	0.00	9.75- 9.81
9 S	5a-Androstane	2.135	2.032 E6	4.8	93	0.00	10.44-10.50
10 S	Tetracosane-d50	1.734	1.693 E6	2.4	94	0.00	11.56-11.62

(#) = Out of Range

2z68414.D DR02Z2570.M

SPCC's out = 0 CCC's out = 0
Mon May 14 09:45:01 2018 RPT1

12.11.27
12

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2Z2597-CC2570
Lab FileID: 2Z69078.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Z2597\2Z69078.D Vial: 3
Acq On : 14 May 2018 5:49 am Operator: thomasl
Sample : cc2570-500 Inst : GC2Y2Z
Misc : op11925,g2z2597,10.0,,,1,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DR02Z2570.M (Chemstation Integrator)
Title :
Last Update : Mon May 14 09:42:09 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-DR0	1.747	1.722 E6	1.4	101	0.00	3.90-13.30
2 H	TPH-DR0 (C10-C44)			-----NA-----			
3 H	TPH (C12-C40)			-----NA-----			
4 H	TPH-OR0 (>C28-C40)			-----NA-----			
5 H	TPH-HR0 (C18-C36)			-----NA-----			
6 H	TPH-DR0 (C10-C20)			-----NA-----			
7 H	TPH-OR0 (C20-C34)			-----NA-----			
8 S	o-Terphenyl	2.947	2.947 E6	0.0	102	0.00	9.75- 9.81
9 S	5a-Androstane	2.135	2.159 E6	-1.1	101	0.00	10.44-10.50
10 S	Tetracosane-d50	1.734	1.723 E6	0.6	100	0.00	11.56-11.62

(#) = Out of Range

2z68413.D DR02Z2570.M

SPCC's out = 0 CCC's out = 0
Mon May 14 09:45:23 2018 RPT1

12.11.28
12

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2Z2597-CC2570
Lab FileID: 2Z69089.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Z2597\2Z69089.D Vial: 4
Acq On : 14 May 2018 12:30 pm Operator: thomasl
Sample : cc2570-1000 Inst : GC2Y2Z
Misc : op11925,g2z2597,10.0,,,1,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DR02Z2570.M (Chemstation Integrator)
Title :
Last Update : Mon May 14 09:48:40 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-DR0	1.747	1.681 E6	3.8	94	0.00	3.90-13.30
2 H	TPH-DR0 (C10-C44)			-----NA-----			
3 H	TPH (C12-C40)			-----NA-----			
4 H	TPH-OR0 (>C28-C40)			-----NA-----			
5 H	TPH-HR0 (C18-C36)			-----NA-----			
6 H	TPH-DR0 (C10-C20)			-----NA-----			
7 H	TPH-OR0 (C20-C34)			-----NA-----			
8 S	o-Terphenyl	2.947	2.888 E6	2.0	96	0.00	9.75- 9.81
9 S	5a-Androstane	2.135	2.101 E6	1.6	96	0.00	10.44-10.50
10 S	Tetracosane-d50	1.734	1.722 E6	0.7	95	0.00	11.56-11.62

(#) = Out of Range

2z68414.D DR02Z2570.M

SPCC's out = 0 CCC's out = 0
Mon May 14 13:51:44 2018 RPT1

12.11.29
12

Initial Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4044-ICC4044
Lab FileID: 3G116471.D

Response Factor Report GC3G

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Initial Calibration

Calibration Files

500 =3G116473.D 400 =3G116472.D 300 =3G116471.D 200 =3G116470.D
100 =3G116469.D 50 =3G116468.D

	Compound	500	400	300	200	100	50	Avg	%RSD
1)	Dalapon	8.040	8.239	8.702	9.079	9.619	9.930	8.935 E6	8.40
2) S	2,4-DCAA	4.007	4.096	4.334	4.703	5.227	5.977	4.724 E6	16.07
3)	Dicamba	2.039	2.115	2.263	2.366	2.515	2.748	2.341 E7	11.21
4)	MCPD	9.961	9.720	9.698	9.279	7.271		9.186 E3	11.96
5)	MCPA	1.593	1.665	1.705	1.716	1.547		1.645 E4	4.44
6)	Dichloroprop	4.617	4.792	5.158	5.790	6.827	8.591	5.963 E6	25.45
7)	2,4-D	6.067	6.274	6.723	7.268	7.941	8.515	7.132 E6	13.48
8)	Pentachlorophenol	8.400	8.604	8.819	9.280	9.400	9.660	9.027 E7	5.47
9)	2,4,5-TP	3.353	3.396	3.553	3.815	3.907	4.255	3.713 E7	9.31
10)	2,4,5-T	3.485	3.558	3.722	3.899	4.086	4.098	3.808 E7	6.89
11)	2,4-DB	3.534	3.638	4.085	4.238	4.775	5.033	4.217 E6	14.22
12)	Dinoseb	1.789	1.791	1.956	2.100	2.257	2.422	2.052 E7	12.47
13)	Picloram	3.674	3.736	3.874	4.021	4.121	4.218	3.941 E7	5.48

Signal #2

1)	Dalapon	1.883	1.903	2.017	2.106	2.176	2.212	2.050 E6	6.75
2) S	2,4-DCAA	0.964	0.963	0.971	1.057	1.055	0.967	0.996 E6	4.64
3)	Dicamba	5.743	5.532	5.719	6.031	6.280	6.312	5.936 E6	5.41
4)	MCPD	2.010	1.957	1.943	1.867	1.443		1.844 E3	12.46
5)	MCPA	3.317	3.267	3.294	3.247	2.706		3.166 E3	8.16
6)	Dichloroprop	1.262	1.272	1.333	1.414	1.475	1.599	1.392 E6	9.36
7)	2,4-D	1.553	1.573	1.640	1.747	1.819	1.849	1.697 E6	7.45
8)	Pentachlorophenol	2.935	2.935	2.929	3.004	2.887	2.706	2.899 E7	3.52
9)	2,4,5-TP	1.139	1.136	1.165	1.183	1.110	1.138	1.145 E7	2.23
10)	2,4,5-T	1.095	1.092	1.125	1.168	1.192	0.959	1.105 E7	7.42
11)	2,4-DB	0.851	0.859	0.887	0.929	0.944	1.040	0.918 E6	7.64
12)	Dinoseb	6.573	6.572	6.798	7.033	7.008	7.029	6.835 E6	3.24
13)	Picloram	1.495	1.492	1.500	1.494	1.414	1.284	1.447 E7	5.94

(#) = Out of Range

3H4044.M

Tue May 15 14:24:18 2018

GC3G

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4044-ICV4044
Lab FileID: 3G116474.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4044\3G116474.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\3G4044\3G116474.D\ECD2B.CH
Acq On : 15 May 2018 12:35 pm Operator: vinced
Sample : icv4044-300 Inst : GC3G
Misc : op11937,g3g4044,15.0,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.583 E6	3.9	99	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.462 E6	5.5	103	0.00	7.35-	7.42
3	Dicamba	23.412	23.941 E6	-2.3	106	0.00	7.56-	7.63
4	MCPD	9.186	10.165 E3	-10.7	105	0.00	7.84-	7.91
5	MCPA	16.451	17.089 E3	-3.9	100	0.00	8.03-	8.10
6	Dichloroprop	5.963	5.145 E6	13.7	100	0.00	8.55-	8.62
7	2,4-D	7.132	6.440 E6	9.7	96	0.00	8.87-	8.94
8	Pentachlorophenol	90.271	99.241 E6	-9.9	113	0.00	9.16-	9.23
9	2,4,5-TP	37.131	36.667 E6	1.2	103	0.00	10.19-	10.26
10	2,4,5-T	38.080	38.682 E6	-1.6	104	0.00	10.65-	10.72
11	2,4-DB	4.217	4.119 E6	2.3	101	0.00	11.60-	11.69
12	Dinoseb	20.525	20.454 E6	0.3	105	0.00	13.54-	13.61
13	Picloram	39.407	37.677 E6	4.4	97	0.00	13.19-	13.26

***** Signal #2 *****

1	Dalapon	2.050	1.984 E6	3.2	98	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	994.933 E3	0.1	103	0.00	7.87-	7.93
3	Dicamba	5.936	6.012 E6	-1.3	105	0.00	8.11-	8.18
4	MCPD	1.844	2.033 E3	-10.2	105	0.00	8.29-	8.36
5	MCPA	3.166	3.291 E3	-3.9	100	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.301 E6	6.5	98	0.00	9.16-	9.23
7	2,4-D	1.697	1.681 E6	0.9	102	0.00	9.68-	9.75
8	Pentachlorophenol	28.995	33.090 E6	-14.1	113	0.00	10.24-	10.31
9	2,4,5-TP	11.452	11.500 E6	-0.4	99	0.00	11.08-	11.15
10	2,4,5-T	11.051	11.496 E6	-4.0	102	0.00	11.79-	11.89
11	2,4-DB	918.292	890.981 E3	3.0	100	0.00	12.80-	12.87
12	Dinoseb	6.835	6.968 E6	-1.9	102	0.00	13.33-	13.40
13	Picloram	14.467	14.316 E6	1.0	95	0.00	15.37-	15.44

(#) = Out of Range
3G116471.D 3H4044.M

SPCC's out = 0 CCC's out = 0
Tue May 15 14:24:04 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4047-CC4044
Lab FileID: 3G116496.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4047\3G116496.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\3G4047\3G116496.D\ECD2B.CH
Acq On : 5-17-2018 09:05:16 AM Operator: vinced
Sample : cc4044-200 Inst : GC3G
Misc : op11993,g3g4047,1000,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.701 E6	2.6	96	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.380 E6	7.3	93	0.00	7.35-	7.42
3	Dicamba	23.412	21.120 E6	9.8	89	0.00	7.56-	7.63
4	MCPD	9.186	8.268 E3	10.0	89	0.00	7.84-	7.91
5	MCPA	16.451	14.746 E3	10.4	86	0.00	8.04-	8.11
6	Dichloroprop	5.963	5.314 E6	10.9	92	0.00	8.55-	8.62
7	2,4-D	7.132	6.672 E6	6.4	92	0.00	8.87-	8.94
8	Pentachlorophenol	90.271	87.112 E6	3.5	94	0.00	9.16-	9.23
9	2,4,5-TP	37.131	34.135 E6	8.1	89	0.00	10.19-	10.26
10	2,4,5-T	38.080	35.387 E6	7.1	91	0.00	10.65-	10.72
11	2,4-DB	4.217	3.702 E6	12.2	87	0.00	11.60-	11.69
12	Dinoseb	20.525	18.627 E6	9.2	89	0.00	13.54-	13.61
13	Picloram	39.407	36.892 E6	6.4	92	0.00	13.19-	13.26

***** Signal #2 *****

1	Dalapon	2.050	2.205 E6	-7.6	105	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	998.628 E3	-0.3	95	0.00	7.87-	7.93
3	Dicamba	5.936	5.808 E6	2.2	96	0.00	8.11-	8.18
4	MCPD	1.844	1.821 E3	1.2	98	0.00	8.29-	8.36
5	MCPA	3.166	3.090 E3	2.4	95	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.437 E6	-3.2	102	0.00	9.16-	9.23
7	2,4-D	1.697	1.792 E6	-5.6	103	0.00	9.68-	9.75
8	Pentachlorophenol	28.995	30.719 E6	-5.9	102	0.00	10.24-	10.31
9	2,4,5-TP	11.452	11.737 E6	-2.5	99	0.00	11.07-	11.14
10	2,4,5-T	11.051	12.300 E6	-11.3	105	0.00	11.79-	11.88
11	2,4-DB	918.292	883.570 E3	3.8	95	0.00	12.80-	12.87
12	Dinoseb	6.835	7.066 E6	-3.4	100	0.00	13.33-	13.40
13	Picloram	14.467	14.862 E6	-2.7	99	0.00	15.37-	15.44

(#) = Out of Range
3G116470.D 3H4044.M

SPCC's out = 0 CCC's out = 0
Thu May 17 13:48:19 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4047-CC4044
Lab FileID: 3G116506.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4047\3G116506.D\ECD1A.CH Vial: 3
 Signal #2 : C:\MSDCHEM\1\DATA\3G4047\3G116506.D\ECD2B.CH
 Acq On : 5-17-2018 01:48:41 PM Operator: vinced
 Sample : cc4044-300 Inst : GC3G
 Misc : op12024,g3g4047,30,,,2.5,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
 Title : HERB
 Last Update : Tue May 15 14:11:36 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.230 E6	7.9	95	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.159 E6	12.0	96	0.00	7.35-	7.42
3	Dicamba	23.412	21.206 E6	9.4	94	0.00	7.56-	7.63
4	MCPD	9.186	9.094 E3	1.0	94	0.00	7.84-	7.91
5	MCPA	16.451	15.991 E3	2.8	94	0.00	8.04-	8.11
6	Dichloroprop	5.963	4.874 E6	18.3	94	0.00	8.55-	8.62
7	2,4-D	7.132	6.475 E6	9.2	96	0.00	8.87-	8.94
8	Pentachlorophenol	90.271	86.838 E6	3.8	98	0.00	9.16-	9.23
9	2,4,5-TP	37.131	34.268 E6	7.7	96	0.00	10.19-	10.26
10	2,4,5-T	38.080	35.896 E6	5.7	96	0.00	10.65-	10.72
11	2,4-DB	4.217	3.641 E6	13.7	89	0.00	11.60-	11.69
12	Dinoseb	20.525	18.670 E6	9.0	95	0.00	13.55-	13.62
13	Picloram	39.407	37.058 E6	6.0	96	0.00	13.19-	13.26

***** Signal #2 *****

1	Dalapon	2.050	1.936 E6	5.6	96	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	968.619 E3	2.8	100	0.00	7.87-	7.93
3	Dicamba	5.936	5.416 E6	8.8	95	0.00	8.11-	8.18
4	MCPD	1.844	1.867 E3	-1.2	96	0.00	8.29-	8.36
5	MCPA	3.166	3.255 E3	-2.8	99	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.289 E6	7.4	97	0.00	9.16-	9.23
7	2,4-D	1.697	1.637 E6	3.5	100	0.00	9.68-	9.75
8	Pentachlorophenol	28.995	28.950 E6	0.2	99	0.00	10.24-	10.31
9	2,4,5-TP	11.452	10.914 E6	4.7	94	0.00	11.08-	11.15
10	2,4,5-T	11.051	10.564 E6	4.4	94	0.00	11.80-	11.89
11	2,4-DB	918.292	862.654 E3	6.1	97	0.00	12.80-	12.87
12	Dinoseb	6.835	6.613 E6	3.2	97	0.00	13.33-	13.40
13	Picloram	14.467	14.423 E6	0.3	96	0.00	15.37-	15.44

(#) = Out of Range
 3G116471.D 3H4044.M

SPCC's out = 0 CCC's out = 0
 Thu May 17 14:14:58 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4047-ECC4044
Lab FileID: 3G116512.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4047\3G116512.D\ECD1A.CH Vial: 2
 Signal #2 : C:\MSDCHEM\1\DATA\3G4047\3G116512.D\ECD2B.CH
 Acq On : 5-17-2018 04:39:30 PM Operator: vinced
 Sample : ecc4044-200 Inst : GC3G
 Misc : op11871,g3g4047,30,,,2.5,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
 Title : HERB
 Last Update : Tue May 15 14:11:36 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.905 E6	0.3	98	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.567 E6	3.3	97	0.00	7.35-	7.42
3	Dicamba	23.412	22.525 E6	3.8	95	0.00	7.56-	7.63
4	MCP	9.186	8.948 E3	2.6	96	0.00	7.84-	7.91
5	MCPA	16.451	16.905 E3	-2.8	99	0.00	8.03-	8.10
6	Dichloroprop	5.963	5.436 E6	8.8	94	0.00	8.55-	8.62
7	2,4-D	7.132	7.104 E6	0.4	98	0.00	8.88-	8.95
8	Pentachlorophenol	90.271	92.694 E6	-2.7	100	0.00	9.16-	9.23
9	2,4,5-TP	37.131	36.496 E6	1.7	96	0.00	10.19-	10.26
10	2,4,5-T	38.080	38.108 E6	-0.1	98	0.00	10.65-	10.72
11	2,4-DB	4.217	3.969 E6	5.9	94	0.00	11.60-	11.69
12	Dinoseb	20.525	19.122 E6	6.8	91	0.00	13.54-	13.61
13	Picloram	39.407	39.033 E6	0.9	97	0.00	13.19-	13.26

***** Signal #2 *****

1	Dalapon	2.050	2.042 E6	0.4	97	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	1007.232 E3	-1.1	95	0.00	7.87-	7.93
3	Dicamba	5.936	5.551 E6	6.5	92	0.00	8.11-	8.18
4	MCP	1.844	1.894 E3	-2.7	101	0.00	8.29-	8.36
5	MCPA	3.166	3.268 E3	-3.2	101	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.358 E6	2.4	96	0.00	9.16-	9.23
7	2,4-D	1.697	1.753 E6	-3.3	100	0.00	9.68-	9.75
8	Pentachlorophenol	28.995	28.911 E6	0.3	96	0.00	10.24-	10.31
9	2,4,5-TP	11.452	11.015 E6	3.8	93	0.00	11.08-	11.15
10	2,4,5-T	11.051	10.588 E6	4.2	91	0.00	11.80-	11.89
11	2,4-DB	918.292	889.934 E3	3.1	96	0.00	12.81-	12.88
12	Dinoseb	6.835	6.710 E6	1.8	95	0.00	13.33-	13.40
13	Picloram	14.467	14.507 E6	-0.3	97	0.00	15.37-	15.44

(#) = Out of Range
 3G116470.D 3H4044.M

SPCC's out = 0 CCC's out = 0
 Thu May 17 17:04:00 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4048-CC4044
Lab FileID: 3G116514.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4048\3G116514.D\ECD1A.CH Vial: 2
 Signal #2 : C:\MSDCHEM\1\DATA\3G4048\3G116514.D\ECD2B.CH
 Acq On : 20 May 2018 10:49 am Operator: vinced
 Sample : cc4044-200 Inst : GC3G
 Misc : op11871,g3g4048,30,,,2.5,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
 Title : HERB
 Last Update : Tue May 15 14:11:36 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.290 E6	7.2	91	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.410 E6	6.6	94	0.00	7.35-	7.42
3	Dicamba	23.412	19.865 E6	15.2	84	0.00	7.56-	7.63
4	MCPD	9.186	8.331 E3	9.3	90	0.00	7.84-	7.91
5	MCPA	16.451	15.184 E3	7.7	89	0.00	8.03-	8.10
6	Dichloroprop	5.963	5.109 E6	14.3	88	0.00	8.55-	8.62
7	2,4-D	7.132	6.500 E6	8.9	89	0.00	8.87-	8.94
8	Pentachlorophenol	90.271	83.303 E6	7.7	90	0.00	9.16-	9.23
9	2,4,5-TP	37.131	32.875 E6	11.5	86	0.00	10.18-	10.25
10	2,4,5-T	38.080	33.517 E6	12.0	86	0.00	10.64-	10.71
11	2,4-DB	4.217	3.654 E6	13.4	86	0.00	11.60-	11.69
12	Dinoseb	20.525	18.536 E6	9.7	88	0.00	13.54-	13.61
13	Picloram	39.407	35.187 E6	10.7	88	0.00	13.18-	13.25

***** Signal #2 *****

1	Dalapon	2.050	2.211 E6	-7.9	105	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	1049.160 E3	-5.3	99	0.00	7.87-	7.93
3	Dicamba	5.936	5.619 E6	5.3	93	0.00	8.11-	8.18
4	MCPD	1.844	1.786 E3	3.1	96	0.00	8.29-	8.36
5	MCPA	3.166	3.062 E3	3.3	94	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.439 E6	-3.4	102	0.00	9.16-	9.23
7	2,4-D	1.697	1.771 E6	-4.4	101	0.00	9.67-	9.74
8	Pentachlorophenol	28.995	30.673 E6	-5.8	102	0.00	10.23-	10.30
9	2,4,5-TP	11.452	11.836 E6	-3.4	100	0.00	11.07-	11.14
10	2,4,5-T	11.051	11.185 E6	-1.2	96	0.00	11.79-	11.88
11	2,4-DB	918.292	919.675 E3	-0.2	99	0.00	12.80-	12.87
12	Dinoseb	6.835	7.155 E6	-4.7	102	0.00	13.33-	13.40
13	Picloram	14.467	14.486 E6	-0.1	97	0.00	15.36-	15.43

(#) = Out of Range
 3G116470.D 3H4044.M

SPCC's out = 0 CCC's out = 0
 Mon May 21 09:38:13 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4048-CC4044
Lab FileID: 3G116524.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4048\3G116524.D\ECD1A.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\3G4048\3G116524.D\ECD2B.CH
Acq On : 5-20-2018 03:37:00 PM Operator: vinced
Sample : cc4044-300 Inst : GC3G
Misc : op12064,g3g4048,30,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.202 E6	8.2	94	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.276 E6	9.5	99	0.00	7.35-	7.42
3	Dicamba	23.412	21.130 E6	9.7	93	0.00	7.56-	7.63
4	MCPD	9.186	9.477 E3	-3.2	98	0.00	7.84-	7.91
5	MCPA	16.451	16.242 E3	1.3	95	0.00	8.03-	8.10
6	Dichloroprop	5.963	4.853 E6	18.6	94	0.00	8.55-	8.62
7	2,4-D	7.132	6.521 E6	8.6	97	0.00	8.87-	8.94
8	Pentachlorophenol	90.271	85.651 E6	5.1	97	0.00	9.16-	9.23
9	2,4,5-TP	37.131	33.804 E6	9.0	95	0.00	10.19-	10.26
10	2,4,5-T	38.080	35.241 E6	7.5	95	0.00	10.65-	10.72
11	2,4-DB	4.217	3.669 E6	13.0	90	0.00	11.60-	11.69
12	Dinoseb	20.525	17.659 E6	14.0	90	0.00	13.54-	13.61
13	Picloram	39.407	35.488 E6	9.9	92	0.00	13.19-	13.26

***** Signal #2 *****

1	Dalapon	2.050	1.979 E6	3.5	98	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	971.307 E3	2.5	100	0.00	7.87-	7.93
3	Dicamba	5.936	5.390 E6	9.2	94	0.00	8.11-	8.18
4	MCPD	1.844	1.928 E3	-4.6	99	0.00	8.29-	8.36
5	MCPA	3.166	3.309 E3	-4.5	100	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.315 E6	5.5	99	0.00	9.16-	9.23
7	2,4-D	1.697	1.625 E6	4.2	99	0.00	9.68-	9.75
8	Pentachlorophenol	28.995	28.839 E6	0.5	98	0.00	10.24-	10.31
9	2,4,5-TP	11.452	10.936 E6	4.5	94	0.00	11.07-	11.14
10	2,4,5-T	11.051	10.505 E6	4.9	93	0.00	11.79-	11.89
11	2,4-DB	918.292	851.738 E3	7.2	96	0.00	12.80-	12.87
12	Dinoseb	6.835	6.574 E6	3.8	97	0.00	13.33-	13.40
13	Picloram	14.467	14.278 E6	1.3	95	0.00	15.37-	15.44

(#) = Out of Range
3G116471.D 3H4044.M

SPCC's out = 0 CCC's out = 0
Mon May 21 09:38:38 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4048-CC4044
Lab FileID: 3G116535.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4048\3G116535.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\3G4048\3G116535.D\ECD2B.CH
Acq On : 5-20-2018 08:51:06 PM Operator: vinced
Sample : cc4044-200 Inst : GC3G
Misc : op12135,g3g4048,1.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.747 E6	2.1	96	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.619 E6	2.2	98	0.00	7.35-	7.42
3	Dicamba	23.412	21.885 E6	6.5	92	0.00	7.56-	7.63
4	MCPD	9.186	9.193 E3	-0.1	99	0.00	7.84-	7.91
5	MCPA	16.451	16.245 E3	1.3	95	0.00	8.03-	8.10
6	Dichloroprop	5.963	5.308 E6	11.0	92	0.00	8.55-	8.62
7	2,4-D	7.132	7.020 E6	1.6	97	0.00	8.88-	8.95
8	Pentachlorophenol	90.271	89.453 E6	0.9	96	0.00	9.16-	9.23
9	2,4,5-TP	37.131	34.491 E6	7.1	90	0.00	10.19-	10.26
10	2,4,5-T	38.080	36.575 E6	4.0	94	0.00	10.65-	10.72
11	2,4-DB	4.217	3.947 E6	6.4	93	0.00	11.60-	11.70
12	Dinoseb	20.525	18.363 E6	10.5	87	0.00	13.54-	13.61
13	Picloram	39.407	36.709 E6	6.8	91	0.00	13.19-	13.26

***** Signal #2 *****

1	Dalapon	2.050	2.055 E6	-0.2	98	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	985.138 E3	1.1	93	0.00	7.87-	7.93
3	Dicamba	5.936	5.220 E6	12.1	87	0.00	8.11-	8.18
4	MCPD	1.844	1.893 E3	-2.7	101	0.00	8.29-	8.36
5	MCPA	3.166	3.285 E3	-3.8	101	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.365 E6	1.9	97	0.00	9.16-	9.23
7	2,4-D	1.697	1.697 E6	0.0	97	0.00	9.68-	9.75
8	Pentachlorophenol	28.995	28.810 E6	0.6	96	0.00	10.24-	10.31
9	2,4,5-TP	11.452	10.819 E6	5.5	91	0.00	11.08-	11.15
10	2,4,5-T	11.051	10.298 E6	6.8	88	0.00	11.80-	11.89
11	2,4-DB	918.292	878.906 E3	4.3	95	0.00	12.81-	12.88
12	Dinoseb	6.835	6.442 E6	5.7	92	0.00	13.33-	13.40
13	Picloram	14.467	14.053 E6	2.9	94	0.00	15.37-	15.44

(#) = Out of Range
3G116470.D 3H4044.M

SPCC's out = 0 CCC's out = 0
Mon May 21 09:38:14 2018 GC3G

Initial Calibration Summary

Page 1 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICC1671
Lab FileID: 6G55784.D

Response Factor Report GC6G

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration

Calibration Files

5 =6g55782.d 10 =6g55783.d 25 =6g55784.d 50 =6g55785.d
100 =6g55787.d 1 =6g55780.d 75 =6g55786.d 2 =6g55781.d
= =

Compound	5	10	25	50	100	1	75	2	Avg	%RSD
1) I 1-bromo-2-nitrobenzen -----ISTD-----										
2) Tetrachloro-m-xylene	0.937	0.914	0.936	0.973	1.007	1.084	0.982	0.943	0.972	5.57
3) hexachlorobenzene	1.022	1.033	1.042	1.079	1.085	1.271	1.095	1.053	1.085	7.34
4) alpha-BHC	1.184	1.208	1.340	1.459	1.524	1.314	1.516	1.163	1.338	11.04
5) gamma-BHC	1.132	1.137	1.236	1.325	1.368	1.415	1.374	1.152	1.267	9.25
6) Heptachlor	1.099	1.099	1.172	1.249	1.270	1.305	1.276	1.109	1.197	7.32
7) beta-BHC	0.560	0.531	0.543	0.559	0.560	0.645	0.568	0.567	0.567	6.05
8) delta-BHC	0.969	1.003	1.123	1.228	1.293	1.083	1.279	0.962	1.117	12.18
9) Aldrin	1.052	1.060	1.150	1.238	1.265	1.222	1.274	1.047	1.164	8.51
10) alachlor	0.145	0.140	0.140	0.142	0.134		0.140		0.140	2.52
11) Heptachlor Epoxide	1.019	0.991	1.060	1.124	1.145	1.121	1.155	0.991	1.076	6.40
12) gamma-Chlordane	0.964	0.976	1.051	1.129	1.174	1.059	1.174	0.952	1.060	8.65
13) alpha-Chlordane	1.019	0.982	1.040	1.103	1.136	1.224	1.139	1.039	1.085	7.33
14) Endosulfan I	0.944	0.924	0.979	1.039	1.058	1.118	1.068	0.963	1.012	6.79
15) 4,4'-DDE	0.934	0.922	1.009	1.096	1.140	1.095	1.140	0.931	1.033	9.24
16) Dieldrin	0.993	0.994	1.079	1.165	1.187	1.144	1.206	0.997	1.096	8.36
17) Endrin	0.953	0.899	0.964	1.033	1.049	1.054	1.068	0.913	0.992	6.79
18) 4,4'-DDD	0.797	0.774	0.836	0.900	0.920	0.899	0.934	0.788	0.856	7.56
19) Endosulfan II	0.970	0.933	0.963	1.012	1.017	1.406	1.039	1.074	1.052	14.27
20) 4,4'-DDT	0.737	0.743	0.802	0.870	0.903	0.844	0.914	0.751	0.821	8.84
21) Endrin Aldehyde	0.803	0.770	0.796	0.836	0.833	0.945	0.855	0.824	0.833	6.32
22) Endosulfan Sulfate	0.791	0.758	0.792	0.833	0.841	0.925	0.858	0.801	0.825	6.29
23) Methoxychlor										

Initial Calibration Summary

Page 2 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICC1671
Lab FileID: 6G55784.D

	0.516	0.458	0.468	0.480	0.473	0.552	0.487	0.482	0.490	6.24
24) Mirex	0.833	0.792	0.774	0.785	0.773	1.050	0.798	0.858	0.833	11.13
25) Endrin Ketone	0.924	0.912	0.956	1.006	1.005	1.086	1.029	0.931	0.981	6.17
26) Decachlorobiphenyl	0.983	0.929	0.914	0.922	0.892	1.300	0.929	1.055	0.991	13.66
27) I 1-bromo-2-nitrobenzen	-----ISTD-----									
28) Toxaphene{A}				0.016					0.016	0.00
29) Toxaphene{B}				0.041					0.041	0.00
30) Toxaphene{C}				0.033					0.033	0.00
31) Toxaphene{D}				0.026					0.026	0.00
32) Toxaphene{E}				0.027					0.027	0.00
33) I 1-bromo-2-nitrobenzen	-----ISTD-----									
34) Chlordane {A}				0.054					0.054	0.00
35) Chlordane {B}				0.045					0.045	0.00
36) Chlordane {C}				0.145					0.145	0.00
37) Chlordane {D}				0.228					0.228	0.00
38) Chlordane {E}				0.026					0.026	0.00

Signal #2

1) I 1-bromo-2-nitrobenzen	-----ISTD-----									
2) Tetrachloro-m-xylene	0.878	0.885	0.907	0.945	1.004	0.981	0.968	0.882	0.931	5.35
3) hexachlorobenzene	1.120	1.130	1.119	1.146	1.192	1.299	1.165	1.172	1.168	5.06
4) alpha-BHC	1.073	1.128	1.243	1.360	1.490	1.146	1.430	1.045	1.239	13.63
5) gamma-BHC	1.031	1.065	1.150	1.242	1.352	1.136	1.298	1.023	1.162	10.67
6) Heptachlor	1.093	1.097	1.153	1.225	1.303	1.223	1.267	1.097	1.182	7.06
7) beta-BHC	0.513	0.510	0.515	0.527	0.550	0.604	0.537	0.514	0.534	5.92
8) delta-BHC	0.923	0.964	1.051	1.160	1.279	1.110	1.225	0.921	1.079	12.73
9) Aldrin	0.939	0.957	1.022	1.101	1.190	1.050	1.147	0.919	1.041	9.61
10) alachlor	0.152	0.138	0.135	0.135	0.133		0.134		0.138	5.09
11) Heptachlor Epoxide	0.953	0.942	0.979	1.034	1.098	1.030	1.065	0.948	1.006	5.86
12) gamma-Chlordane	0.951	0.927	0.976	1.036	1.112	0.910	1.074	0.902	0.986	8.03
13) alpha-Chlordane	0.936	0.896	0.970	1.012	1.066	0.939	1.032	0.827	0.960	8.08

Initial Calibration Summary

Page 3 of 3

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICC1671
Lab FileID: 6G55784.D

14)	Endosulfan I	0.892	0.845	0.882	0.932	0.994	0.993	0.955	0.844	0.917	6.61
15)	4,4'-DDE	0.839	0.863	0.923	0.997	1.085	0.903	1.044	0.802	0.932	10.82
16)	Dieldrin	0.884	0.904	0.959	1.034	1.124	0.978	1.078	0.912	0.984	8.86
17)	Endrin	0.872	0.882	0.909	0.976	1.050	1.138	1.020	0.881	0.966	10.03
18)	4,4'-DDD	0.736	0.733	0.765	0.820	0.889	0.891	0.858	0.731	0.803	8.76
19)	Endosulfan II	0.900	0.876	0.885	0.926	0.978	1.323	0.951	0.983	0.978	14.84
20)	4,4'-DDT	0.670	0.708	0.760	0.820	0.901	0.776	0.863	0.703	0.775	10.51
21)	Endrin Aldehyde	0.703	0.697	0.710	0.734	0.774	0.847	0.755	0.721	0.743	6.71
22)	Endosulfan Sulfate	0.687	0.695	0.715	0.747	0.796	0.836	0.774	0.700	0.744	7.26
23)	Methoxychlor	0.423	0.429	0.438	0.449	0.467	0.431	0.460	0.426	0.440	3.73
24)	Mirex	0.734	0.730	0.711	0.712	0.735	0.885	0.725	0.736	0.746	7.67
25)	Endrin Ketone	0.879	0.850	0.879	0.915	0.975	1.451	0.953	0.981	0.985	19.70
26)	Decachlorobiphenyl	0.924	0.908	0.866	0.875	0.893	1.128	0.885	0.952	0.929	9.16
27)	I 1-bromo-2-nitrobenzen	-----ISTD-----									
28)	Toxaphene{A}	0.019								0.019	0.00
29)	Toxaphene{B}	0.025								0.025	0.00
30)	Toxaphene{C}	0.047								0.047	0.00
31)	Toxaphene{D}	0.026								0.026	0.00
32)	Toxaphene{E}	0.023								0.023	0.00
33)	I 1-bromo-2-nitrobenzen	-----ISTD-----									
34)	Chlordane {A}	0.054								0.054	0.00
35)	Chlordane {B}	0.040								0.040	0.00
36)	Chlordane {C}	0.126								0.126	0.00
37)	Chlordane {D}	0.206								0.206	0.00
38)	Chlordane {E}	0.021								0.021	0.00

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

6PST1671.M

Mon Apr 30 17:43:44 2018

12.11.38
12

Initial Calibration Verification

Page 1 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55790.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55790.d\ECD1A.CH Vial: 13
Signal #2 : C:\msdchem\1\data\G6G1671\6g55790.d\ECD2B.CH
Acq On : 30-Apr-18, 14:23:25 Operator: dharas
Sample : icv1671-25 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	-0.02	1.44-	2.44
2 SAB	Tetrachloro-m-xylene	0.972	1.010	-3.9	110	-0.02	2.50-	2.56
4 A	alpha-BHC	1.338	1.571	-17.4	119	-0.01	2.97-	3.03
5 MA	gamma-BHC	1.267	1.426	-12.5	117	-0.01	3.26-	3.32
6 MA	Heptachlor	1.197	1.362	-13.8	118	-0.01	3.75-	3.81
7 B	beta-BHC	0.567	0.628	-10.8	118	-0.01	3.33-	3.39
8 B	delta-BHC	1.117	1.334	-19.4	121	-0.01	3.51-	3.57
9 MB	Aldrin	1.164	1.327	-14.0	117	-0.01	4.08-	4.14
11 B	Heptachlor Epoxide	1.076	1.233	-14.6	118	-0.01	4.78-	4.84
12 B	gamma-Chlordane	1.060	1.261	-19.0	122	-0.01	4.95-	5.01
13 B	alpha-Chlordane	1.085	1.229	-13.3	120	-0.01	5.12-	5.18
14 A	Endosulfan I	1.012	1.180	-16.6	123	-0.01	5.29-	5.35
15 B	4,4'-DDE	1.033	1.198	-16.0	121	-0.01	5.23-	5.29
16 MA	Dieldrin	1.096	1.269	-15.8	120	-0.01	5.61-	5.67
17 MA	Endrin	0.992	1.152	-16.1	122	-0.01	5.93-	5.99
18 A	4,4'-DDD	0.856	0.999	-16.7	122	-0.01	6.06-	6.12
19 B	Endosulfan II	1.052	1.107	-5.2	117	-0.01	6.25-	6.31
20 MA	4,4'-DDT	0.821	0.930	-13.3	118	-0.01	6.47-	6.53
21 B	Endrin Aldehyde	0.833	0.937	-12.5	120	-0.01	6.88-	6.94
22 B	Endosulfan Sulfate	0.825	0.962	-16.6	124	-0.01	7.56-	7.62
23 A	Methoxychlor	0.490	0.535	-9.2	116	-0.01	7.26-	7.32
24	Mirex	0.833	0.886	-6.4	117	-0.01	7.41-	7.47
25 B	Endrin Ketone	0.981	1.108	-12.9	118	-0.01	8.00-	8.06
26 SA	Decachlorobiphenyl	0.991	1.025	-3.4	114	-0.01	9.81-	9.87

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	-0.01	1.65-	2.65
2 SAB	Tetrachloro-m-xylene	0.931	0.973	-4.5	107	0.00	2.90-	2.96
4 A	alpha-BHC	1.239	1.459	-17.8	117	0.00	3.53-	3.59
5 MA	gamma-BHC	1.162	1.337	-15.1	116	0.00	3.94-	4.00
6 MA	Heptachlor	1.182	1.342	-13.5	116	0.00	4.50-	4.56
7 B	beta-BHC	0.534	0.593	-11.0	115	0.00	4.02-	4.08
8 B	delta-BHC	1.079	1.250	-15.8	118	0.00	4.40-	4.46
9 MB	Aldrin	1.041	1.180	-13.4	115	0.00	4.93-	4.99
11 B	Heptachlor Epoxide	1.006	1.143	-13.6	116	0.00	5.73-	5.79
12 B	gamma-Chlordane	0.986	1.164	-18.1	119	0.00	6.01-	6.07
13 B	alpha-Chlordane	0.960	1.122	-16.9	115	0.00	6.23-	6.29

Initial Calibration Verification

Page 2 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55790.D

14	A	Endosulfan I	0.917	1.067	-16.4	120	0.00	6.32-	6.38
15	B	4,4'-DDE	0.932	1.097	-17.7	118	0.00	6.49-	6.55
16	MA	Dieldrin	0.984	1.136	-15.4	118	0.00	6.75-	6.81
17	MA	Endrin	0.966	1.101	-14.0	120	-0.01	7.24-	7.30
18	A	4,4'-DDD	0.803	0.923	-14.9	120	0.00	7.42-	7.48
19	B	Endosulfan II	0.978	1.021	-4.4	115	0.00	7.58-	7.64
20	MA	4,4'-DDT	0.775	0.887	-14.5	116	-0.01	7.95-	8.01
21	B	Endrin Aldehyde	0.743	0.843	-13.5	118	-0.01	8.15-	8.21
22	B	Endosulfan Sulfate	0.744	0.875	-17.6	122	-0.01	8.61-	8.67
23	A	Methoxychlor	0.440	0.516	-17.3	117	-0.02	9.18-	9.24
24		Mirex	0.746	0.824	-10.5	115	-0.02	9.49-	9.55
25	B	Endrin Ketone	0.985	1.028	-4.4	116	-0.02	9.56-	9.62
26	SA	Decachlorobiphenyl	0.929	0.998	-7.4	115	-0.02	11.69-	11.75

(#) = Out of Range
6g55784.d 6PST1671.M

SPCC's out = 0 CCC's out = 0
Mon Apr 30 17:38:40 2018

12.11.39

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Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55791.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55791.d\ECD1A.CH Vial: 14
Signal #2 : C:\msdchem\1\data\G6G1671\6g55791.d\ECD2B.CH
Acq On : 30-Apr-18, 14:41:11 Operator: dharas
Sample : icv1671-500 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
33 I 1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	-0.02	1.44-	2.44
34 Chlordane {A}	0.054	0.063	-16.7	117	-0.01	3.68-	3.88
35 Chlordane {B}	0.045	0.039	13.3	88	-0.01	4.15-	4.35
36 Chlordane {C}	0.145	0.145	0.0	99	-0.01	4.87-	5.07
37 Chlordane {D}	0.228	0.230	-0.9	101	-0.01	5.04-	5.24
38 Chlordane {E}	0.026	0.028	-7.7	110	-0.01	5.92-	6.12

***** Signal #2 *****

33 I 1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	-0.01	1.65-	2.65
34 Chlordane {A}	0.054	0.064	-18.5	116	0.00	4.43-	4.63
35 Chlordane {B}	0.040	0.036	10.0	89	0.00	5.05-	5.25
36 Chlordane {C}	0.126	0.128	-1.6	100	0.00	5.94-	6.14
37 Chlordane {D}	0.206	0.208	-1.0	100	0.00	6.16-	6.36
38 Chlordane {E}	0.021	0.023	-9.5	108	0.00	7.30-	7.50

(#) = Out of Range
6g55785.d 6PST1671.M

SPCC's out = 0 CCC's out = 0
Mon Apr 30 17:38:57 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55792.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\G6G1671\6g55792.d\ECD1A.CH Vial: 15
Acq On : 30-Apr-18, 14:58:58 Operator: dharas
Sample : icv1671-500 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\msdchem\1\data\G6G1671\6g55792.d\ECD2B.CH Vial: 0
Acq On : 30-Apr-18, 14:58:59 Operator: dharas
Sample : icv1671-500 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	-0.02	1.44-	2.44
28 L8	Toxaphene{A}	0.016	0.017	-6.3	107	-0.01	5.55-	5.75
29 L8	Toxaphene{B}	0.041	0.044	-7.3	108	-0.01	6.17-	6.37
30 L8	Toxaphene{C}	0.033	0.035	-6.1	107	0.00	6.35-	6.55
31 L8	Toxaphene{D}	0.026	0.026	0.0	103	-0.01	6.69-	6.89
32 L8	Toxaphene{E}	0.027	0.029	-7.4	110	-0.01	7.33-	7.53

***** Signal #2 *****

27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.65-	2.65
28 L8	Toxaphene{A}	0.019	0.021	-10.5	108	0.00	6.64-	6.84
29 L8	Toxaphene{B}	0.025	0.026	-4.0	102	-0.01	7.48-	7.68
30 L8	Toxaphene{C}	0.047	0.046	2.1	98	-0.01	7.64-	7.84
31 L8	Toxaphene{D}	0.026	0.027	-3.8	104	-0.01	8.08-	8.28
32 L8	Toxaphene{E}	0.023	0.024	-4.3	101	-0.02	8.97-	9.17

(#) = Out of Range
6g55785.d 6PST1671.M

SPCC's out = 0 CCC's out = 0
Mon Apr 30 17:38:59 2018

Initial Calibration Verification

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Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55793.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55793.d\ECD1A.CH Vial: 16
Signal #2 : C:\msdchem\1\data\G6G1671\6g55793.d\ECD2B.CH
Acq On : 30-Apr-18, 15:16:44 Operator: dharas
Sample : icv1671-50 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	-0.02	1.44-	2.44
10	alachlor	0.140	0.155	-10.7	109	-0.01	4.22-	4.28

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	-0.01	1.65-	2.65
10	alachlor	0.138	0.150	-8.7	109	0.00	4.75-	4.81

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Mon Apr 30 17:39:01 2018

12.11.42
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Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55794.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55794.d\ECD1A.CH Vial: 17
Signal #2 : C:\msdchem\1\data\G6G1671\6g55794.d\ECD2B.CH
Acq On : 30-Apr-18, 15:34:38 Operator: dharas
Sample : icv1671-50 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	-0.02	1.44-	2.44
3	hexachlorobenzene	1.085	1.076	0.8	102	-0.01	2.83-	2.89

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	-0.01	1.65-	2.65
3	hexachlorobenzene	1.168	1.139	2.5	99	0.00	3.38-	3.44

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Mon Apr 30 17:39:03 2018

12.11.43
12

Continuing Calibration Summary

Page 1 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1687-CC1671
Lab FileID: G656346.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1687\6g56346.d\ECD1A.CH Vial: 2
 Signal #2 : C:\msdchem\1\data\G6G1687\6g56346.d\ECD2B.CH
 Acq On : 20-May-18, 23:32:50 Operator: christp
 Sample : cc1671-25 Inst : GC6G
 Misc : OP12048,g6g1687,16.0,,,10,5 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
 Title : PEST/PCB
 Last Update : Thu May 17 23:56:16 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	91	0.01	1.46-	2.46
2 SAB	Tetrachloro-m-xylene	0.972	0.892	8.2	86	0.00	2.51-	2.57
3	hexachlorobenzene	1.085	1.009	7.0	88	0.00	2.83-	2.89
4 A	alpha-BHC	1.338	1.195	10.7	81	0.00	2.97-	3.03
5 MA	gamma-BHC	1.267	1.029	18.8	75	0.00	3.26-	3.32
6 MA	Heptachlor	1.197	1.032	13.8	80	0.00	3.75-	3.81
7 B	beta-BHC	0.567	0.456	19.6	76	0.00	3.33-	3.39
8 B	delta-BHC	1.117	0.942	15.7	76	0.00	3.52-	3.58
9 MB	Aldrin	1.164	1.011	13.1	80	0.00	4.08-	4.14
10	alachlor	0.140	0.143	-2.1	92	0.00	4.21-	4.27
11 B	Heptachlor Epoxide	1.076	0.883	17.9	75	0.00	4.78-	4.84
12 B	gamma-Chlordane	1.060	0.879	17.1	76	0.00	4.94-	5.00
13 B	alpha-Chlordane	1.085	0.894	17.6	78	0.00	5.11-	5.17
14 A	Endosulfan I	1.012	0.870	14.0	80	0.00	5.29-	5.35
15 B	4,4'-DDE	1.033	0.848	17.9	76	0.00	5.22-	5.28
16 MA	Dieldrin	1.096	0.946	13.7	79	0.00	5.61-	5.67
17 MA	Endrin	0.992	0.891	10.2	84	0.00	5.93-	5.99
18 A	4,4'-DDD	0.856	0.703	17.9	76	0.00	6.05-	6.11
19 B	Endosulfan II	1.052	0.857	18.5	81	0.00	6.25-	6.31
20 MA	4,4'-DDT	0.821	0.690	16.0	78	0.00	6.47-	6.53
21 B	Endrin Aldehyde	0.833	0.706	15.2	80	0.00	6.87-	6.93
22 B	Endosulfan Sulfate	0.825	0.774	6.2	89	0.00	7.55-	7.61
23 A	Methoxychlor	0.490	0.412	15.9	80	0.00	7.25-	7.31
24	Mirex	0.833	0.705	15.4	82	0.00	7.40-	7.46
25 B	Endrin Ketone	0.981	0.896	8.7	85	0.00	7.99-	8.05
26 SA	Decachlorobiphenyl	0.991	0.817	17.6	81	0.00	9.80-	9.86

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.01	1.66-	2.66
2 SAB	Tetrachloro-m-xylene	0.931	0.880	5.5	97	0.00	2.90-	2.96
3	hexachlorobenzene	1.168	1.143	2.1	102	0.00	3.38-	3.44
4 A	alpha-BHC	1.239	1.147	7.4	92	0.00	3.53-	3.59
5 MA	gamma-BHC	1.162	1.056	9.1	91	0.00	3.93-	3.99
6 MA	Heptachlor	1.182	1.073	9.2	93	0.00	4.49-	4.55
7 B	beta-BHC	0.534	0.475	11.0	92	0.00	4.02-	4.08
8 B	delta-BHC	1.079	0.952	11.8	90	0.00	4.39-	4.45
9 MB	Aldrin	1.041	0.916	12.0	89	0.00	4.92-	4.98
10	alachlor	0.138	0.129	6.5	95	0.00	4.74-	4.80
11 B	Heptachlor Epoxide	1.006	0.882	12.3	90	0.00	5.72-	5.78
12 B	gamma-Chlordane	0.986	0.895	9.2	91	0.00	5.99-	6.05

Continuing Calibration Summary

Page 2 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1687-CC1671
Lab FileID: 6G56346.D

13	B	alpha-Chlordane	0.960	0.860	10.4	88	0.00	6.22-	6.28
14	A	Endosulfan I	0.917	0.805	12.2	91	0.00	6.31-	6.37
15	B	4,4'-DDE	0.932	0.824	11.6	89	0.00	6.48-	6.54
16	MA	Dieldrin	0.984	0.872	11.4	91	0.00	6.73-	6.79
17	MA	Endrin	0.966	0.848	12.2	93	0.00	7.23-	7.29
18	A	4,4'-DDD	0.803	0.679	15.4	88	0.00	7.41-	7.47
19	B	Endosulfan II	0.978	0.812	17.0	91	0.00	7.57-	7.63
20	MA	4,4'-DDT	0.775	0.670	13.5	88	0.00	7.94-	8.00
21	B	Endrin Aldehyde	0.743	0.648	12.8	91	0.00	8.14-	8.20
22	B	Endosulfan Sulfate	0.744	0.725	2.6	101	0.00	8.60-	8.66
23	A	Methoxychlor	0.440	0.394	10.5	90	0.00	9.18-	9.24
24		Mirex	0.746	0.672	9.9	94	0.00	9.48-	9.54
25	B	Endrin Ketone	0.985	0.835	15.2	95	0.00	9.55-	9.61
26	SA	Decachlorobiphenyl	0.929	0.835	10.1	96	0.00	11.69-	11.75

(#) = Out of Range
6g55784.d 6PST1671.M

SPCC's out = 0 CCC's out = 0
Mon May 21 03:59:01 2018

12.11.44
12

Continuing Calibration Summary

Page 1 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1687-CC1671
Lab FileID: 6G56367.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1687\6g56367.d\ECD1A.CH Vial: 4
Signal #2 : C:\msdchem\1\data\G6G1687\6g56367.d\ECD2B.CH
Acq On : 21-May-18, 05:51:47 Operator: christp
Sample : cc1671-50 Inst : GC6G
Misc : OP12065,g6g1687,30,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Thu May 17 23:56:16 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	89	0.02	1.46-	2.46
2 SAB	Tetrachloro-m-xylene	0.972	0.932	4.1	86	0.00	2.51-	2.57
3	hexachlorobenzene	1.085	1.040	4.1	86	0.00	2.84-	2.90
4 A	alpha-BHC	1.338	1.306	2.4	80	0.00	2.97-	3.03
5 MA	gamma-BHC	1.267	1.202	5.1	81	0.00	3.26-	3.32
6 MA	Heptachlor	1.197	1.158	3.3	83	0.00	3.75-	3.81
7 B	beta-BHC	0.567	0.512	9.7	82	0.00	3.34-	3.40
8 B	delta-BHC	1.117	1.114	0.3	81	0.00	3.52-	3.58
9 MB	Aldrin	1.164	1.132	2.7	82	0.00	4.08-	4.14
10	alachlor	0.140	0.151	-7.9	95	0.00	4.22-	4.28
11 B	Heptachlor Epoxide	1.076	1.060	1.5	84	0.00	4.78-	4.84
12 B	gamma-Chlordane	1.060	1.030	2.8	81	0.00	4.94-	5.00
13 B	alpha-Chlordane	1.085	1.001	7.7	81	0.00	5.11-	5.17
14 A	Endosulfan I	1.012	0.977	3.5	84	0.00	5.29-	5.35
15 B	4,4'-DDE	1.033	0.943	8.7	77	0.00	5.22-	5.28
16 MA	Dieldrin	1.096	1.073	2.1	82	0.00	5.61-	5.67
17 MA	Endrin	0.992	0.963	2.9	83	0.00	5.93-	5.99
18 A	4,4'-DDD	0.856	0.775	9.5	77	0.00	6.05-	6.11
19 B	Endosulfan II	1.052	0.934	11.2	82	0.00	6.25-	6.31
20 MA	4,4'-DDT	0.821	0.740	9.9	76	0.00	6.47-	6.53
21 B	Endrin Aldehyde	0.833	0.777	6.7	83	0.00	6.87-	6.93
22 B	Endosulfan Sulfate	0.825	0.836	-1.3	90	0.00	7.55-	7.61
23 A	Methoxychlor	0.490	0.419	14.5	78	0.00	7.25-	7.31
24	Mirex	0.833	0.743	10.8	85	0.00	7.40-	7.46
25 B	Endrin Ketone	0.981	0.976	0.5	87	0.00	7.99-	8.05
26 SA	Decachlorobiphenyl	0.991	0.845	14.7	82	0.00	9.80-	9.86

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	0.01	1.66-	2.66
2 SAB	Tetrachloro-m-xylene	0.931	0.917	1.5	96	0.00	2.90-	2.96
3	hexachlorobenzene	1.168	1.186	-1.5	102	0.00	3.38-	3.44
4 A	alpha-BHC	1.239	1.260	-1.7	91	0.00	3.53-	3.59
5 MA	gamma-BHC	1.162	1.158	0.3	92	0.00	3.93-	3.99
6 MA	Heptachlor	1.182	1.171	0.9	94	0.00	4.49-	4.55
7 B	beta-BHC	0.534	0.497	6.9	93	0.00	4.02-	4.08
8 B	delta-BHC	1.079	1.073	0.6	91	0.00	4.39-	4.45
9 MB	Aldrin	1.041	1.047	-0.6	94	0.00	4.92-	4.98

Continuing Calibration Summary

Page 2 of 2

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1687-CC1671
Lab FileID: 6G56367.D

10	alachlor	0.138	0.138	0.0	100	0.00	4.74-	4.80
11 B	Heptachlor Epoxide	1.006	0.998	0.8	95	0.00	5.72-	5.78
12 B	gamma-Chlordane	0.986	1.001	-1.5	95	0.00	5.99-	6.05
13 B	alpha-Chlordane	0.960	0.963	-0.3	94	0.00	6.21-	6.27
14 A	Endosulfan I	0.917	0.897	2.2	95	0.00	6.31-	6.37
15 B	4,4'-DDE	0.932	0.940	-0.9	93	0.00	6.48-	6.54
16 MA	Dieldrin	0.984	0.997	-1.3	95	0.00	6.73-	6.79
17 MA	Endrin	0.966	0.920	4.8	93	0.00	7.22-	7.28
18 A	4,4'-DDD	0.803	0.755	6.0	91	0.00	7.41-	7.47
19 B	Endosulfan II	0.978	0.899	8.1	96	0.00	7.57-	7.63
20 MA	4,4'-DDT	0.775	0.718	7.4	86	0.00	7.94-	8.00
21 B	Endrin Aldehyde	0.743	0.722	2.8	97	0.00	8.13-	8.19
22 B	Endosulfan Sulfate	0.744	0.782	-5.1	103	0.00	8.60-	8.66
23 A	Methoxychlor	0.440	0.412	6.4	90	0.00	9.17-	9.23
24	Mirex	0.746	0.717	3.9	99	0.00	9.48-	9.54
25 B	Endrin Ketone	0.985	0.914	7.2	98	0.00	9.55-	9.61
26 SA	Decachlorobiphenyl	0.929	0.884	4.8	99	0.00	11.69-	11.75

(#) = Out of Range
6g55785.d 6PST1671.M

SPCC's out = 0 CCC's out = 0
Mon May 21 11:08:20 2018

12.11.45

12

Initial Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4559-ICC4559
Lab FileID: OA133102.D

Response Factor Report SVOA0A

Method : C:\MSDCHEM\1\METHODS\H0A4559.M (ChemStation Integrator)
Title : HERB
Last Update : Thu May 03 09:51:17 2018
Response via : Initial Calibration

Calibration Files

500 =oa133104.d 400 =oa133103.d 300 =oa133102.d 200 =oa133101.d
100 =oa133100.d 50 =oa133099.d

	Compound	500	400	300	200	100	50	Avg	%RSD
1)	Dalapon	0.879	0.891	0.915	0.957	1.044	1.104	0.965	E6 9.38
2) S	2,4-DCAA	5.066	5.108	5.284	5.352	6.015	6.645	5.578	E5 11.20
3)	Dicamba	2.394	2.407	2.479	2.409	2.611	2.853	2.526	E6 7.11
4)	MCPD	1.472	1.507	1.511	1.512	1.506		1.502	E3 1.11
5)	MCPA	2.638	2.730	2.748	2.877	3.025		2.804	E3 5.35
6)	Dichloroprop	6.003	6.108	6.378	6.606	7.324	8.217	6.773	E5 12.54
7)	2,4-D	7.450	7.618	7.880	8.223	8.964	9.568	8.284	E5 9.98
8)	Pentachlorophenol	1.127	1.130	1.116	1.123	1.134	1.098	1.121	E7 1.16
9)	2,4,5-TP	4.300	4.307	4.332	4.320	4.391	4.511	4.360	E6 1.86
10)	2,4,5-T	4.168	4.277	4.308	4.315	4.378	4.553	4.333	E6 2.95
11)	2,4-DB	4.144	4.302	4.448	4.625	4.800	5.487	4.635	E5 10.31
12)	Dinoseb	2.716	2.826	2.952	2.911	3.152	3.449	3.001	E6 8.77
13)	Picloram	5.114	5.127	5.205	5.110	5.027	5.019	5.100	E6 1.36

Signal #2

1)	Dalapon	1.054	1.076	1.110	1.169	1.260	1.353	1.170	E7 9.92
2) S	2,4-DCAA	0.769	0.798	0.852	0.912	1.079	1.235	0.941	E7 19.27
3)	Dicamba	3.365	3.524	3.766	3.882	4.386	4.492	3.903	E7 11.65
4)	MCPD	2.714	2.796	2.809	2.828	2.584		2.746	E4 3.66
5)	MCPA	5.757	6.054	6.408	6.741	6.904		6.373	E4 7.45
6)	Dichloroprop	0.763	0.790	0.845	0.898	1.060	1.227	0.930	E7 19.27
7)	2,4-D	1.055	1.066	1.161	1.237	1.358	1.537	1.236	E7 15.05
8)	Pentachlorophenol	1.313	1.354	1.375	1.430	1.525	1.610	1.434	E8 7.87
9)	2,4,5-TP	4.878	4.992	5.212	5.398	5.663	6.258	5.400	E7 9.37
10)	2,4,5-T	5.176	5.342	5.558	5.728	5.887	6.352	5.674	E7 7.39
11)	2,4-DB	6.568	6.741	7.050	7.420	7.949	8.558	7.381	E6 10.30
12)	Dinoseb	2.420	2.534	2.714	2.861	3.258	3.641	2.905	E7 15.98
13)	Picloram	3.970	4.133	4.291	4.448	4.769	5.057	4.445	E7 9.14

(#) = Out of Range

H0A4559.M

Thu May 03 10:03:01 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4559-ICV4559
Lab FileID: OA133105.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4559\oa133105.d\ECD1A.CH Vial: 0
Signal #2 : C:\msdchem\1\data\OA4559\oa133105.d\ECD2B.CH
Acq On : 02-May-18, 18:42:11 Operator: vinced
Sample : icv4559-300 Inst : SV0A0A
Misc : op11359,goa4559,30,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Thu May 03 09:51:17 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	964.956	945.953 E3	2.0	103	0.00	2.32-	2.38
2 S	2,4-DCAA	557.841	561.020 E3	-0.6	106	0.00	7.32-	7.38
3	Dicamba	2.526	2.760 E6	-9.3	111	0.00	7.53-	7.59
4	MCPD	1.502	1.579 E3	-5.1	104	0.00	7.81-	7.87
5	MCPA	2.804	2.875 E3	-2.5	105	0.00	8.00-	8.06
6	Dichloroprop	677.279	676.760 E3	0.1	106	0.00	8.53-	8.59
7	2,4-D	828.384	843.668 E3	-1.8	107	0.00	8.86-	8.93
8	Pentachlorophenol	11.215	12.796 E6	-14.1	115	0.00	9.13-	9.19
9	2,4,5-TP	4.360	4.566 E6	-4.7	105	0.00	10.17-	10.23
10	2,4,5-T	4.333	4.550 E6	-5.0	106	0.00	10.63-	10.70
11	2,4-DB	463.455	479.684 E3	-3.5	108	0.01	11.58-	11.67
12	Dinoseb	3.001	3.161 E6	-5.3	107	0.00	13.50-	13.56
13	Picloram	5.100	5.288 E6	-3.7	102	0.00	13.17-	13.23

***** Signal #2 *****

1	Dalapon	11.702	11.136 E6	4.8	100	0.00	2.63-	2.69
2 S	2,4-DCAA	9.409	9.102 E6	3.3	107	0.00	8.52-	8.58
3	Dicamba	39.025	41.326 E6	-5.9	110	0.00	8.80-	8.86
4	MCPD	27.463	31.252 E3	-13.8	111	0.00	8.99-	9.05
5	MCPA	63.726	74.907 E3	-17.5	117	0.00	9.38-	9.44
6	Dichloroprop	9.304	8.672 E6	6.8	103	0.00	9.97-	10.03
7	2,4-D	12.358	12.382 E6	-0.2	107	0.00	10.55-	10.61
8	Pentachlorophenol	143.443	155.279 E6	-8.3	113	0.00	11.18-	11.24
9	2,4,5-TP	54.001	54.765 E6	-1.4	105	0.00	12.06-	12.12
10	2,4,5-T	56.738	59.311 E6	-4.5	107	0.00	12.82-	12.94
11	2,4-DB	7.381	7.534 E6	-2.1	107	0.00	13.88-	13.98
12	Dinoseb	29.046	28.284 E6	2.6	104	0.00	14.45-	14.52
13	Picloram	44.447	43.644 E6	1.8	102	0.00	16.62-	16.68

(#) = Out of Range
oa133102.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Thu May 03 10:02:29 2018

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4568-CC4559
Lab FileID: OA133319.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4568\oa133319.d\ECD1A.CH Vial: 0
Signal #2 : C:\msdchem\1\data\OA4568\oa133319.d\ECD2B.CH
Acq On : 14-May-18, 08:55:06 Operator: vinced
Sample : cc4559-200 Inst : SV0A0A
Misc : op11920,goa4568,15.0,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Mon May 14 15:39:56 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	964.956	1000.105 E3	-3.6	104	0.00	2.32-	2.38
2 S	2,4-DCAA	557.841	469.228 E3	15.9	88	0.00	7.32-	7.38
3	Dicamba	2.526	2.263 E6	10.4	94	0.00	7.53-	7.59
4	MCPD	1.502	1.246 E3	17.0	82	0.00	7.81-	7.87
5	MCPA	2.804	2.279 E3	18.7	79	0.00	8.01-	8.07
6	Dichloroprop	677.279	583.057 E3	13.9	88	0.00	8.53-	8.59
7	2,4-D	828.384	655.786 E3	20.8#	80	0.00	8.85-	8.92
8	Pentachlorophenol	11.215	9.848 E6	12.2	88	0.00	9.14-	9.20
9	2,4,5-TP	4.360	3.749 E6	14.0	87	0.00	10.16-	10.22
10	2,4,5-T	4.333	3.465 E6	20.0#	80	0.00	10.62-	10.69
11	2,4-DB	463.455	379.737 E3	18.1	82	0.00	11.57-	11.66
12	Dinoseb	3.001	2.783 E6	7.3	96	0.00	13.49-	13.55
13	Picloram	5.100	4.120 E6	19.2	81	0.00	13.15-	13.21

***** Signal #2 *****

1	Dalapon	11.702	11.298 E6	3.5	97	0.00	2.63-	2.69
2 S	2,4-DCAA	9.409	8.953 E6	4.8	98	0.00	8.52-	8.58
3	Dicamba	39.025	36.807 E6	5.7	95	0.00	8.80-	8.86
4	MCPD	27.463	27.318 E3	0.5	97	0.00	8.99-	9.05
5	MCPA	63.726	62.430 E3	2.0	93	0.00	9.39-	9.45
6	Dichloroprop	9.304	8.463 E6	9.0	94	0.00	9.97-	10.03
7	2,4-D	12.358	10.889 E6	11.9	88	0.00	10.54-	10.60
8	Pentachlorophenol	143.443	130.254 E6	9.2	91	0.00	11.18-	11.26
9	2,4,5-TP	54.001	46.168 E6	14.5	86	0.00	12.06-	12.12
10	2,4,5-T	56.738	45.964 E6	19.0	80	0.00	12.81-	12.93
11	2,4-DB	7.381	6.171 E6	16.4	83	0.00	13.88-	13.97
12	Dinoseb	29.046	27.907 E6	3.9	98	0.00	14.45-	14.52
13	Picloram	44.447	31.609 E6	28.9#	71	0.00	16.60-	16.66

(#) = Out of Range
oa133101.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Mon May 14 15:40:03 2018

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4568-ECC4559
Lab FileID: OA133330.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\OA4568\oa133330.d\ECD1A.CH Vial: 0
Acq On : 14-May-18, 14:53:04 Operator: vinced
Sample : ecc4559-300 Inst : SVOA0A
Misc : op11920,goa4568,16.0,,,5,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\msdchem\1\data\OA4568\oa133330.d\ECD2B.CH Vial: 3
Acq On : 14-May-18, 14:53:04 Operator: vinced
Sample : cc4559-300 Inst : SVOA0A
Misc : op11920,goa4568,16.0,,,5,1 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Mon May 14 15:39:56 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	964.956	875.244 E3	9.3	96	0.00	2.32-	2.38
2 S	2,4-DCAA	557.841	514.842 E3	7.7	97	0.00	7.32-	7.38
3	Dicamba	2.526	2.423 E6	4.1	98	0.00	7.53-	7.59
4	MCP	1.502	1.457 E3	3.0	96	0.00	7.81-	7.87
5	MCPA	2.804	2.688 E3	4.1	98	0.00	8.01-	8.07
6	Dichloroprop	677.279	620.159 E3	8.4	97	0.00	8.52-	8.58
7	2,4-D	828.384	768.948 E3	7.2	98	0.00	8.86-	8.93
8	Pentachlorophenol	11.215	10.862 E6	3.1	97	0.00	9.14-	9.20
9	2,4,5-TP	4.360	4.232 E6	2.9	98	0.00	10.17-	10.23
10	2,4,5-T	4.333	4.069 E6	6.1	94	0.00	10.63-	10.70
11	2,4-DB	463.455	415.519 E3	10.3	93	0.00	11.58-	11.67
12	Dinoseb	3.001	2.584 E6	13.9	88	0.00	13.50-	13.56
13	Picloram	5.100	4.975 E6	2.5	96	0.02	13.17-	13.23

***** Signal #2 *****

1	Dalapon	11.702	10.952 E6	6.4	99	0.00	2.63-	2.69
2 S	2,4-DCAA	9.409	9.183 E6	2.4	108	0.00	8.52-	8.58
3	Dicamba	39.025	37.615 E6	3.6	100	0.00	8.80-	8.86
4	MCP	27.463	24.447 E3	11.0	87	0.00	8.99-	9.05
5	MCPA	63.726	53.523 E3	16.0	84	0.00	9.38-	9.44
6	Dichloroprop	9.304	8.645 E6	7.1	102	0.00	9.97-	10.03
7	2,4-D	12.358	11.811 E6	4.4	102	0.00	10.55-	10.61
8	Pentachlorophenol	143.443	137.284 E6	4.3	100	0.00	11.18-	11.26
9	2,4,5-TP	54.001	52.977 E6	1.9	102	0.00	12.06-	12.12
10	2,4,5-T	56.738	54.677 E6	3.6	98	0.00	12.82-	12.94
11	2,4-DB	7.381	6.912 E6	6.4	98	0.00	13.88-	13.97
12	Dinoseb	29.046	21.726 E6	25.2#	80	0.00	14.45-	14.52
13	Picloram	44.447	41.046 E6	7.7	96	0.01	16.62-	16.68

(#) = Out of Range
oa133102.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Mon May 14 15:40:19 2018

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4568-CC4559
Lab FileID: OA133347.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4568\oa133347.d\ECD1A.CH Vial: 0
Signal #2 : C:\msdchem\1\data\OA4568\oa133347.d\ECD2B.CH
Acq On : 15-May-18, 00:04:32 Operator: vinced
Sample : cc4559-300 Inst : SVOA0A
Misc : op11937,goa4568,15.7,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Tue May 15 11:51:37 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	964.956	899.290 E3	6.8	98	0.00	2.32-	2.38
2 S	2,4-DCAA	557.841	532.966 E3	4.5	101	0.00	7.32-	7.38
3	Dicamba	2.526	2.503 E6	0.9	101	0.00	7.53-	7.59
4	MCPD	1.502	1.499 E3	0.2	99	0.00	7.81-	7.87
5	MCPA	2.804	2.731 E3	2.6	99	0.00	8.01-	8.07
6	Dichloroprop	677.279	641.929 E3	5.2	101	0.00	8.53-	8.59
7	2,4-D	828.384	795.597 E3	4.0	101	0.00	8.86-	8.93
8	Pentachlorophenol	11.215	11.234 E6	-0.2	101	0.00	9.14-	9.20
9	2,4,5-TP	4.360	4.384 E6	-0.6	101	0.00	10.17-	10.23
10	2,4,5-T	4.333	4.271 E6	1.4	99	0.01	10.63-	10.70
11	2,4-DB	463.455	439.780 E3	5.1	99	0.01	11.58-	11.67
12	Dinoseb	3.001	2.950 E6	1.7	100	0.00	13.50-	13.56
13	Picloram	5.100	5.049 E6	1.0	97	0.02	13.18-	13.24

***** Signal #2 *****

1	Dalapon	11.702	11.592 E6	0.9	104	0.00	2.63-	2.69
2 S	2,4-DCAA	9.409	9.287 E6	1.3	109	0.00	8.52-	8.58
3	Dicamba	39.025	41.791 E6	-7.1	111	0.00	8.80-	8.86
4	MCPD	27.463	24.522 E3	10.7	87	0.00	8.99-	9.05
5	MCPA	63.726	51.697 E3	18.9	81	0.00	9.38-	9.44
6	Dichloroprop	9.304	9.013 E6	3.1	107	0.00	9.97-	10.03
7	2,4-D	12.358	12.334 E6	0.2	106	0.00	10.55-	10.61
8	Pentachlorophenol	143.443	141.269 E6	1.5	103	0.00	11.17-	11.25
9	2,4,5-TP	54.001	54.925 E6	-1.7	105	0.00	12.06-	12.12
10	2,4,5-T	56.738	56.590 E6	0.3	102	0.00	12.82-	12.94
11	2,4-DB	7.381	6.974 E6	5.5	99	0.00	13.88-	13.98
12	Dinoseb	29.046	27.670 E6	4.7	102	0.00	14.45-	14.52
13	Picloram	44.447	43.037 E6	3.2	100	0.01	16.62-	16.68

(#) = Out of Range
oa133102.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Tue May 15 11:52:04 2018

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4568-ECC4559
Lab FileID: OA133358.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\OA4568\oa133358.d\ECD1A.CH Vial: 0
Acq On : 15-May-18, 05:19:11 Operator: vinced
Sample : ecc4559-200 Inst : SVOA0A
Misc : op11975,goa4568,30,,,2.5,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\msdchem\1\data\OA4568\oa133358.d\ECD2B.CH Vial: 2
Acq On : 15-May-18, 05:19:11 Operator: vinced
Sample : cc4559-200 Inst : SVOA0A
Misc : op11975,goa4568,30,,,2.5,1 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Tue May 15 11:51:37 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	964.956	1059.995 E3	-9.8	111	0.00	2.33-	2.39
2 S	2,4-DCAA	557.841	528.893 E3	5.2	99	0.00	7.32-	7.38
3	Dicamba	2.526	2.446 E6	3.2	102	0.00	7.53-	7.59
4	MCP	1.502	1.438 E3	4.3	95	0.00	7.81-	7.87
5	MCPA	2.804	2.756 E3	1.7	96	0.00	8.01-	8.07
6	Dichloroprop	677.279	648.613 E3	4.2	98	0.00	8.53-	8.59
7	2,4-D	828.384	771.682 E3	6.8	94	0.01	8.87-	8.94
8	Pentachlorophenol	11.215	10.296 E6	8.2	92	0.00	9.14-	9.20
9	2,4,5-TP	4.360	4.198 E6	3.7	97	0.01	10.18-	10.24
10	2,4,5-T	4.333	4.127 E6	4.8	96	0.02	10.64-	10.71
11	2,4-DB	463.455	436.614 E3	5.8	94	0.02	11.59-	11.69
12	Dinoseb	3.001	2.789 E6	7.1	96	0.00	13.50-	13.56
13	Picloram	5.100	4.793 E6	6.0	94	0.03	13.19-	13.25

***** Signal #2 *****

1	Dalapon	11.702	13.818 E6	-18.1	118	0.00	2.63-	2.69
2 S	2,4-DCAA	9.409	9.606 E6	-2.1	105	0.00	8.52-	8.58
3	Dicamba	39.025	39.355 E6	-0.8	101	0.00	8.80-	8.86
4	MCP	27.463	20.577 E3	25.1#	73	0.00	8.99-	9.05
5	MCPA	63.726	48.137 E3	24.5#	71	0.00	9.39-	9.45
6	Dichloroprop	9.304	9.841 E6	-5.8	110	0.00	9.97-	10.03
7	2,4-D	12.358	12.871 E6	-4.2	104	0.00	10.55-	10.61
8	Pentachlorophenol	143.443	143.852 E6	-0.3	101	0.00	11.18-	11.26
9	2,4,5-TP	54.001	56.506 E6	-4.6	105	0.00	12.07-	12.13
10	2,4,5-T	56.738	57.252 E6	-0.9	100	0.01	12.82-	12.94
11	2,4-DB	7.381	7.195 E6	2.5	97	0.01	13.89-	13.98
12	Dinoseb	29.046	28.858 E6	0.6	101	0.00	14.45-	14.52
13	Picloram	44.447	46.628 E6	-4.9	105	0.02	16.62-	16.68

(#) = Out of Range
oa133101.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Tue May 15 11:53:59 2018



Dayton, NJ

Section 13

GC/LC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4048\3G116528.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\3G4048\3G116528.D\ECD2B.CH
Acq On : 5-20-2018 05:31:20 PM Operator: vinced
Sample : jc65800-1A Inst : GC3G
Misc : op11975,g3g4048,30,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 21 09:11:04 2018 Quant Results File: 3H4044.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Initial Calibration
DataAcq Meth : 3H4044.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2
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System Monitoring Compounds

2) S	2,4-DCAA	7.38	7.90	1354.0E6	375.6E6	286.614m	377.092 #
Spiked Amount		500.000	Recovery		=	57.32%	75.42%

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
3G116528.D 3H4044.M Mon May 21 09:11:46 2018 GC3G

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4048\3G116528.D\ECD1A.CH Vial: 14
 Signal #2 : C:\MSDCHEM\1\DATA\3G4048\3G116528.D\ECD2B.CH
 Acq On : 5-20-2018 05:31:20 PM Operator: vined
 Sample : jc65800-1A Inst : GC3G
 Misc : op11975,g3g4048,30,,,2.5,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
 Quant Time: May 21 9:11 2018 Quant Results File: 3H4044.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
 Title : HERB
 Last Update : Tue May 15 14:11:36 2018
 Response via : Multiple Level Calibration
 DataAcq Meth : 3H4044.M

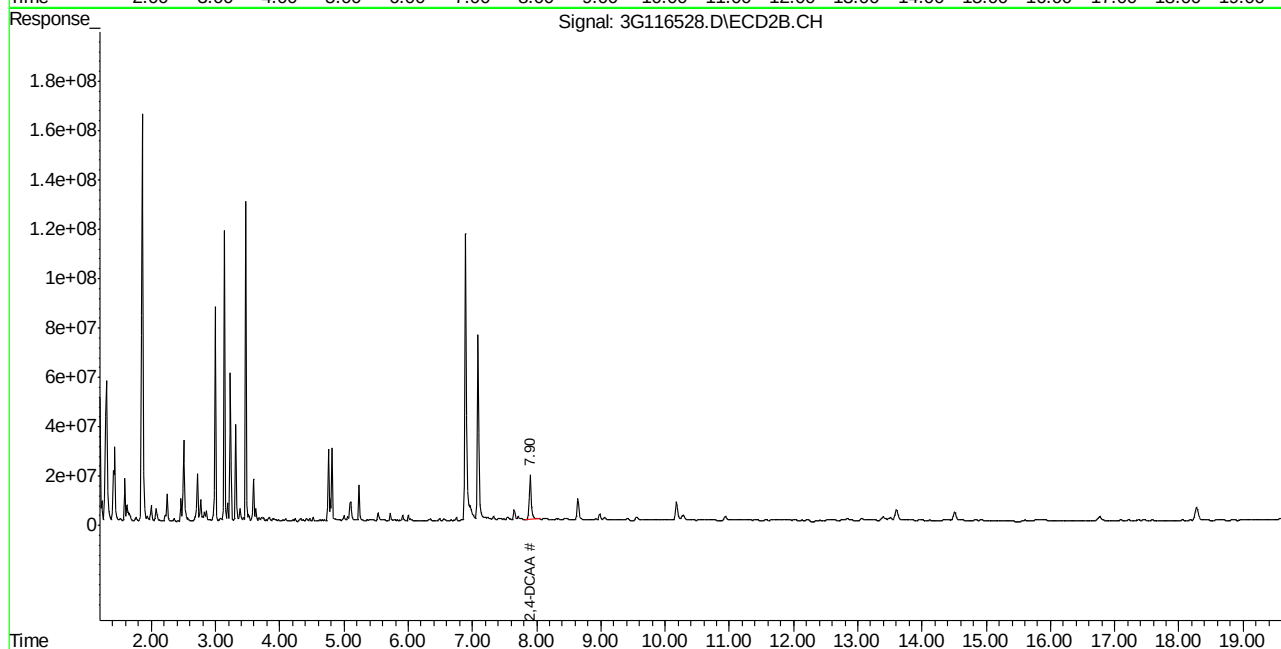
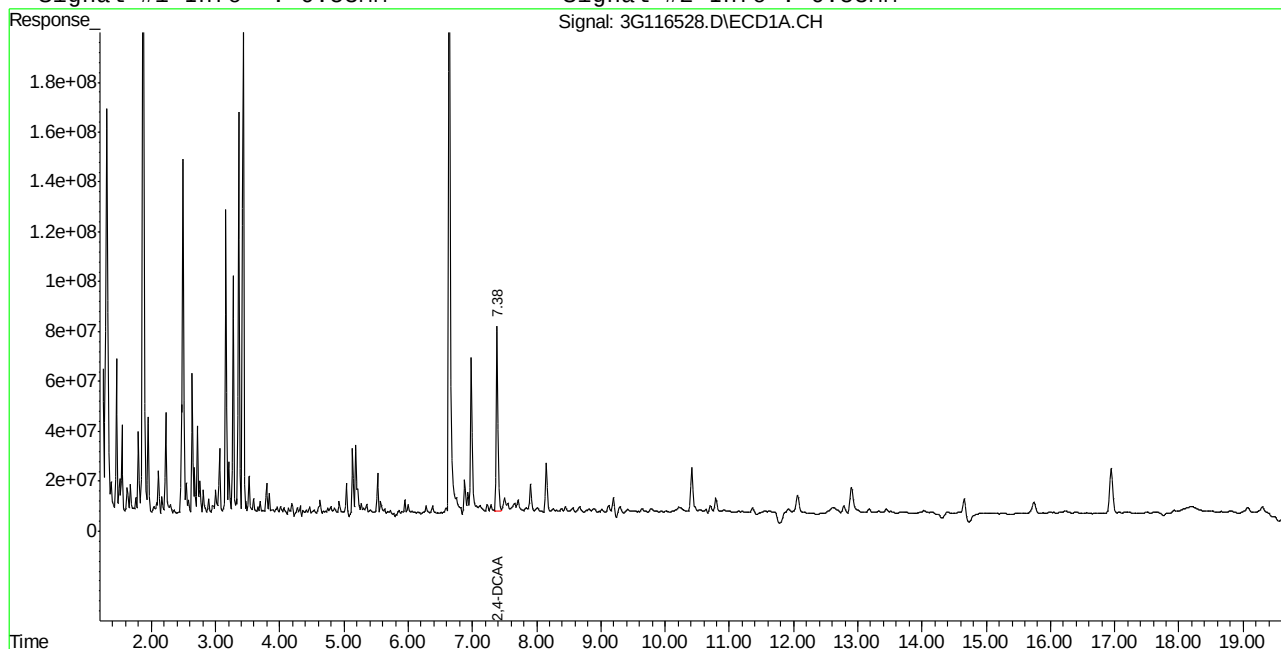
Volume Inj. : 1ul/column

Signal #1 Phase : RTX-CLP I

Signal #2 Phase: RTX-CLP II

Signal #1 Info : 0.53MM

Signal #2 Info : 0.53MM



Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4048\3G116529.D\ECD1A.CH Vial: 15
 Signal #2 : C:\MSDCHEM\1\DATA\3G4048\3G116529.D\ECD2B.CH
 Acq On : 5-20-2018 05:59:50 PM Operator: vinced
 Sample : jc65800-2A Inst : GC3G
 Misc : op11975,g3g4048,30,,,2.5,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
 Quant Time: May 21 09:12:41 2018 Quant Results File: 3H4044.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
 Title : HERB
 Last Update : Tue May 15 14:11:36 2018
 Response via : Initial Calibration
 DataAcq Meth : 3H4044.M

Volume Inj. : 1ul/column
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2
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System Monitoring Compounds

2) S	2,4-DCAA	7.38	7.90	1596.9E6	450.7E6	338.020	452.501 #
Spiked Amount		500.000		Recovery	=	67.60%	90.50%

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
 3G116529.D 3H4044.M Mon May 21 09:15:59 2018 GC3G

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4048\3G116529.D\ECD1A.CH Vial: 15
 Signal #2 : C:\MSDCHEM\1\DATA\3G4048\3G116529.D\ECD2B.CH
 Acq On : 5-20-2018 05:59:50 PM Operator: vinced
 Sample : jc65800-2A Inst : GC3G
 Misc : op11975,g3g4048,30,,,2.5,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
 Quant Time: May 21 9:15 2018 Quant Results File: 3H4044.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
 Title : HERB
 Last Update : Tue May 15 14:11:36 2018
 Response via : Multiple Level Calibration
 DataAcq Meth : 3H4044.M

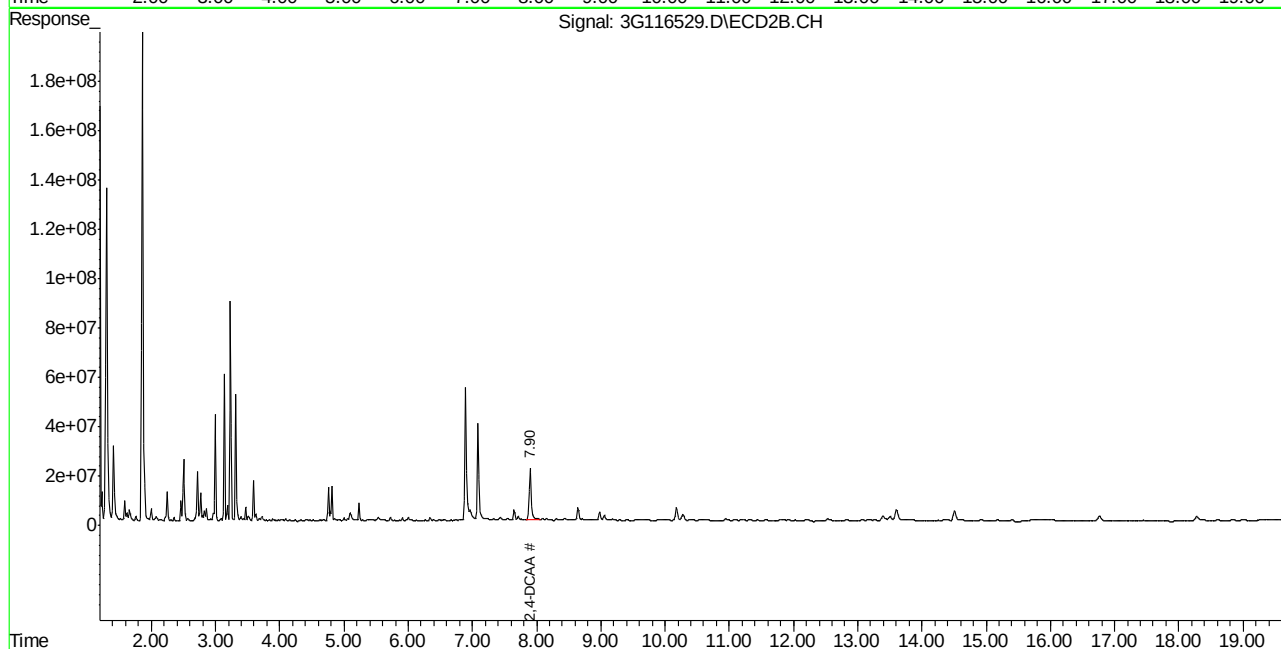
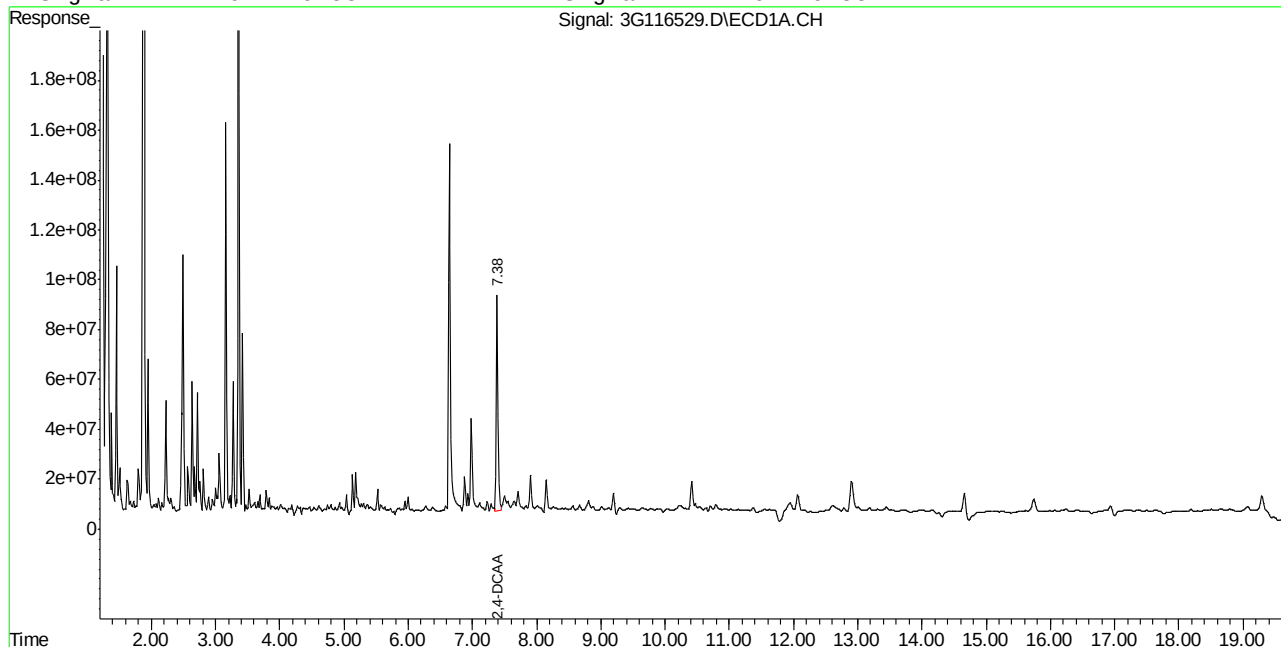
Volume Inj. : 1ul/column

Signal #1 Phase : RTX-CLP I

Signal #2 Phase: RTX-CLP II

Signal #1 Info : 0.53MM

Signal #2 Info : 0.53MM



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1687\
 Data File : 6g56362.d
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 21-May-18, 04:22:42
 Operator : christp
 Sample : jc65800-1a
 Misc : OP11974,g6g1687,30,,,2,1
 ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: May 21 08:53:15 2018
 Quant Method : C:\msdchem\1\methods\6PST1671.M
 Quant Title : PEST/PCB
 QLast Update : Thu May 17 23:56:16 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1)	I 1-bromo-2...	1.961	2.159	335.0E6	241.7E6	50.000	50.000
27)	I 1-bromo-2...	1.961	2.159	335.0E6	241.7E6	50.000	50.000
33)	I 1-bromo-2...	1.961	2.159	335.0E6	241.7E6	50.000	50.000
System Monitoring Compounds							
2)	SAB Tetrachlo...	2.542	2.934	161.6E6	110.3E6	24.820	24.486
	Spiked Amount	40.000	Range 30 - 150	Recovery	=	62.05%	61.21%
26)	SA Decachlor...	9.828	11.718	176.9E6	123.6E6	26.654	27.519
	Spiked Amount	40.000		Recovery	=	66.64%	68.80%
Target Compounds							
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

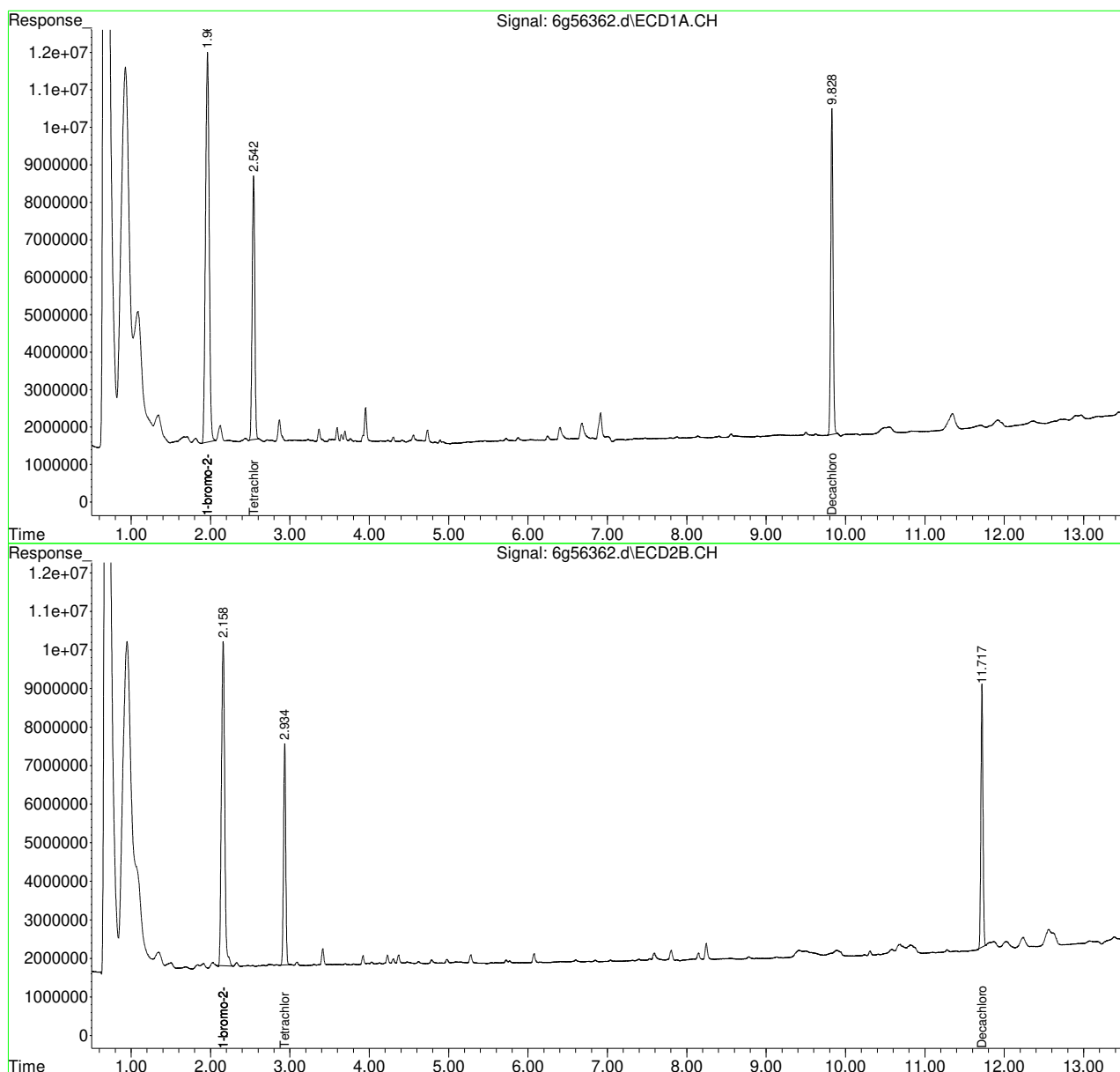
13.13
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1687\
Data File : 6g56362.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21-May-18, 04:22:42
Operator : christp
Sample : jc65800-1a
Misc : OP11974,g6g1687,30,,,2,1
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 21 08:53:15 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Thu May 17 23:56:16 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1687\
Data File : 6g56363.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21-May-18, 04:40:31
Operator : christp
Sample : jc65800-2a
Misc : OP11974,g6g1687,30,,,2,1
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 21 08:54:26 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Thu May 17 23:56:16 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1)	I 1-bromo-2...	1.960	2.158	350.0E6	251.0E6	50.000	50.000
27)	I 1-bromo-2...	1.960	2.158	350.0E6	251.0E6	50.000	50.000
33)	I 1-bromo-2...	1.960	2.158	350.0E6	251.0E6	50.000	50.000
System Monitoring Compounds							
2)	SAB Tetrachlo...	2.541	2.933	139.6E6	95591512	20.513	20.449
	Spiked Amount	40.000	Range 30 - 150	Recovery	=	51.28%	51.12%
26)	SA Decachlor...	9.830	11.719	141.6E6	99811651	20.418m	21.408
	Spiked Amount	40.000		Recovery	=	51.04%	53.52%
Target Compounds							
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

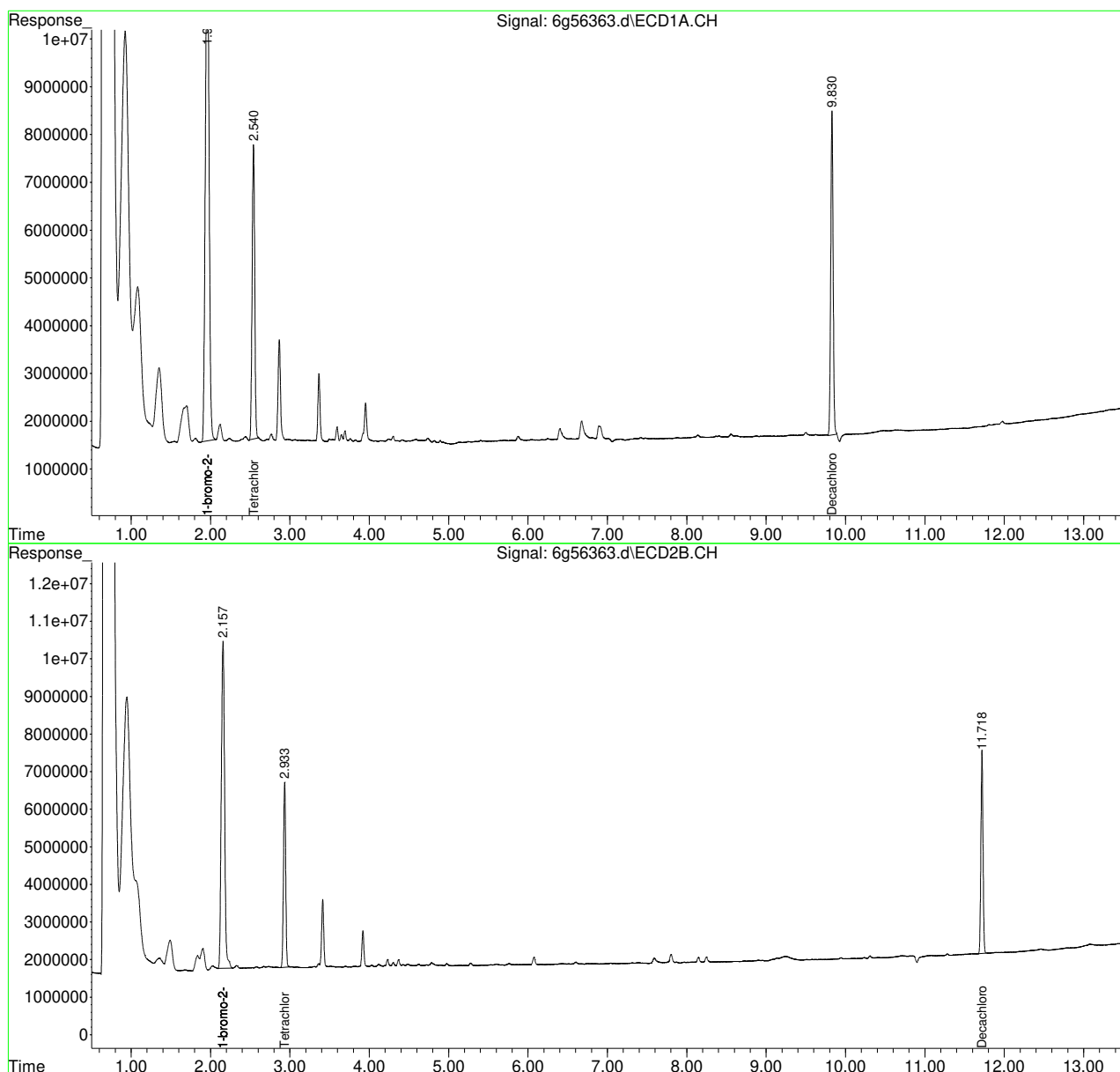
13.14
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1687\
Data File : 6g56363.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21-May-18, 04:40:31
Operator : christp
Sample : jc65800-2a
Misc : OP11974,g6g1687,30,,,2,1
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 21 08:54:26 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Thu May 17 23:56:16 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4342\
Data File : 2G164072.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 May 2018 11:59 am
Operator : tianweir
Sample : jc65800-1
Misc : OP11916,G2G4342,15.8,,,10,1
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 23 12:36:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Wed May 23 09:25:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds							
1)	S Tetrachlo...	2.789	3.436	147.3E6	879.2E6	40.122	38.421
	Spiked Amount	40.000		Recovery	=	100.31%	96.05%
51)	S Decachlor...	9.960	11.768	122.2E6	672.4E6	30.135m	35.207m
	Spiked Amount	40.000		Recovery	=	75.34%	88.02%

Target Compounds

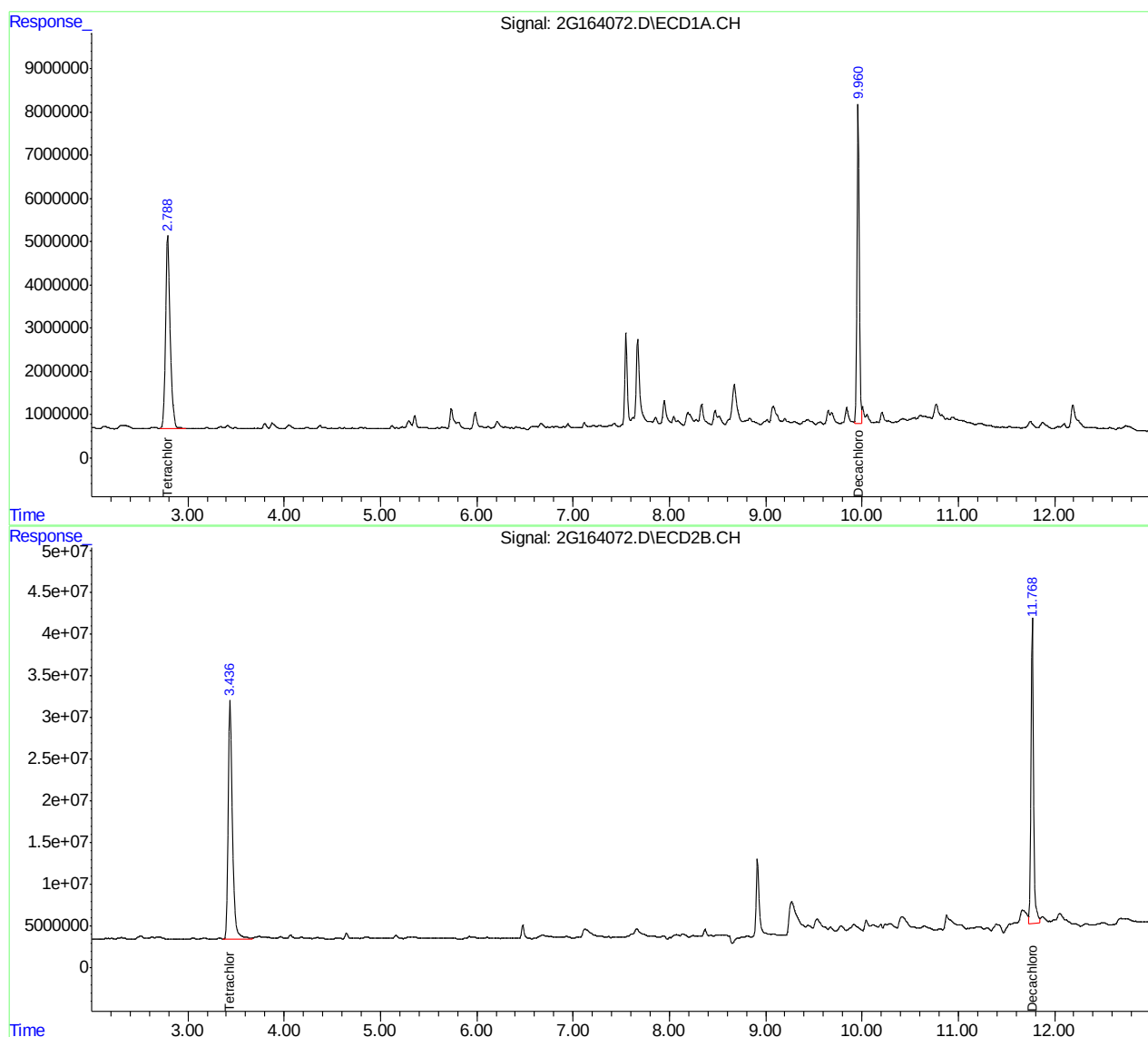
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4342\
Data File : 2G164072.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 May 2018 11:59 am
Operator : tianweir
Sample : jc65800-1
Misc : OP11916,G2G4342,15.8,,,10,1
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 23 12:36:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Wed May 23 09:25:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4329\
 Data File : 2G163280.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 11 May 2018 4:18 am
 Operator : christp
 Sample : jc65800-2
 Misc : OP11916,G2G4329,15.7,,,10,1
 ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: May 11 10:13:55 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu May 10 09:36:48 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.782	3.427	135.2E6	844.0E6	36.837	36.882
Spiked Amount	40.000		Recovery	=	92.09%	92.20%
51) S Decachlor...	9.967	11.776	152.0E6	785.9E6	37.467	41.145
Spiked Amount	40.000		Recovery	=	93.67%	102.86%

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

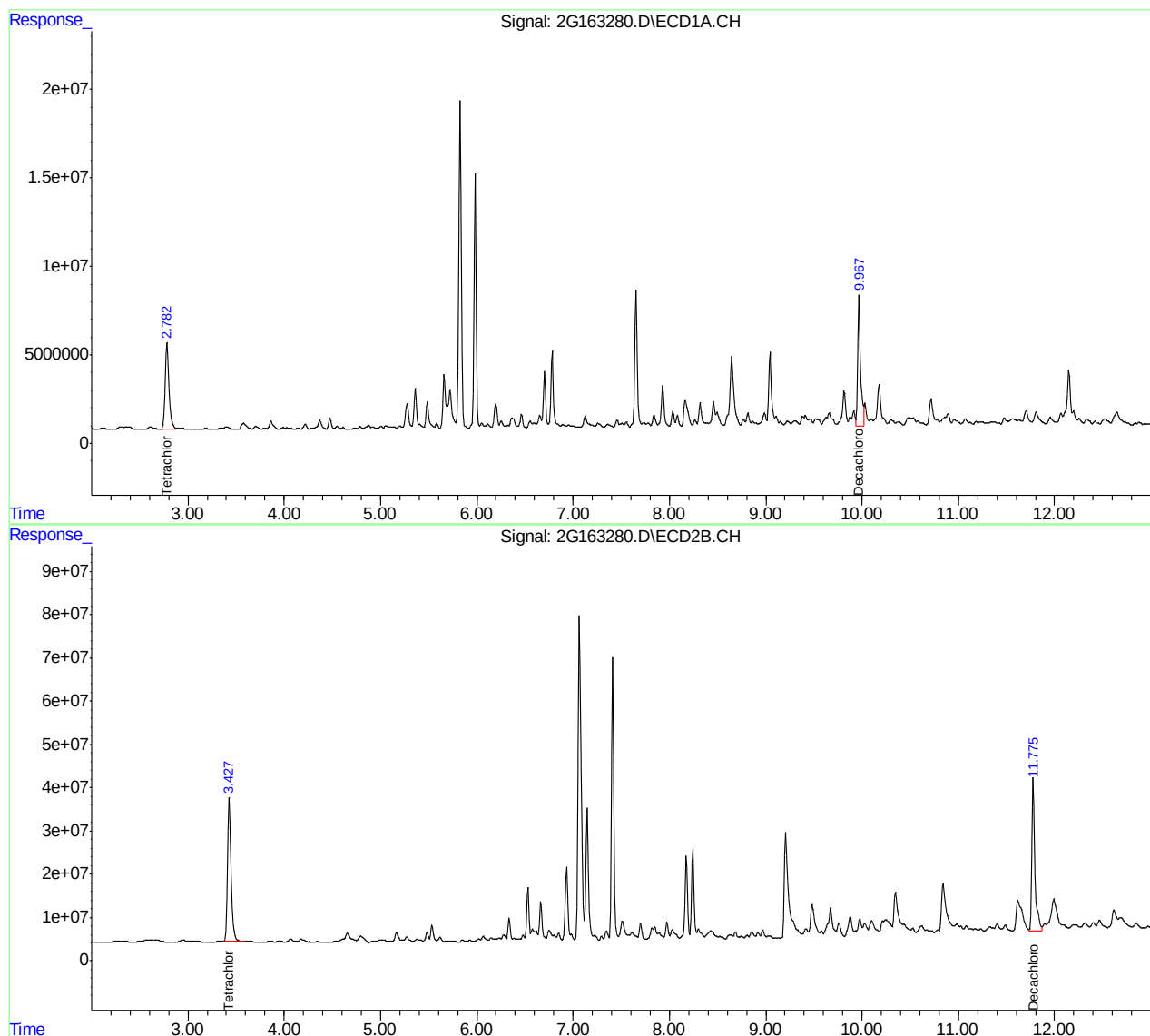
13.1.6
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4329\
 Data File : 2G163280.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 11 May 2018 4:18 am
 Operator : christp
 Sample : jc65800-2
 Misc : OP11916,G2G4329,15.7,,,10,1
 ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: May 11 10:13:55 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu May 10 09:36:48 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



13.1.6
13

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\G2Z2597\
Data File : 2z69087.D
Signal(s) : FID2B.CH
Acq On : 14 May 2018 11:02 am
Operator : thomasl
Sample : jc65800-1
Misc : op11925,g2z2597,11.6,,,1,1
ALS Vial : 88 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 14 13:50:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\DR02Z2570.M
Quant Title :
QLast Update : Mon May 14 09:48:40 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL
Signal Phase : RTX-1
Signal Info : 30mX0.25mmX0.25um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
8) S o-Terphenyl	9.79	81092118	27.518 PPM
Spiked Amount 50.000		Recovery =	55.04%
9) S 5a-Androstane	10.48	74402955	34.847 PPM
Spiked Amount 50.000		Recovery =	69.69%
10) S Tetracosane-d50	11.59	66182277	38.157 PPM
Spiked Amount 50.000		Recovery =	76.31%
Target Compounds			
1) H TPH-DRO	8.60	223572888	127.969 PPM
2) H TPH-DRO (C10-C44)	14.00	375145869	214.727 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

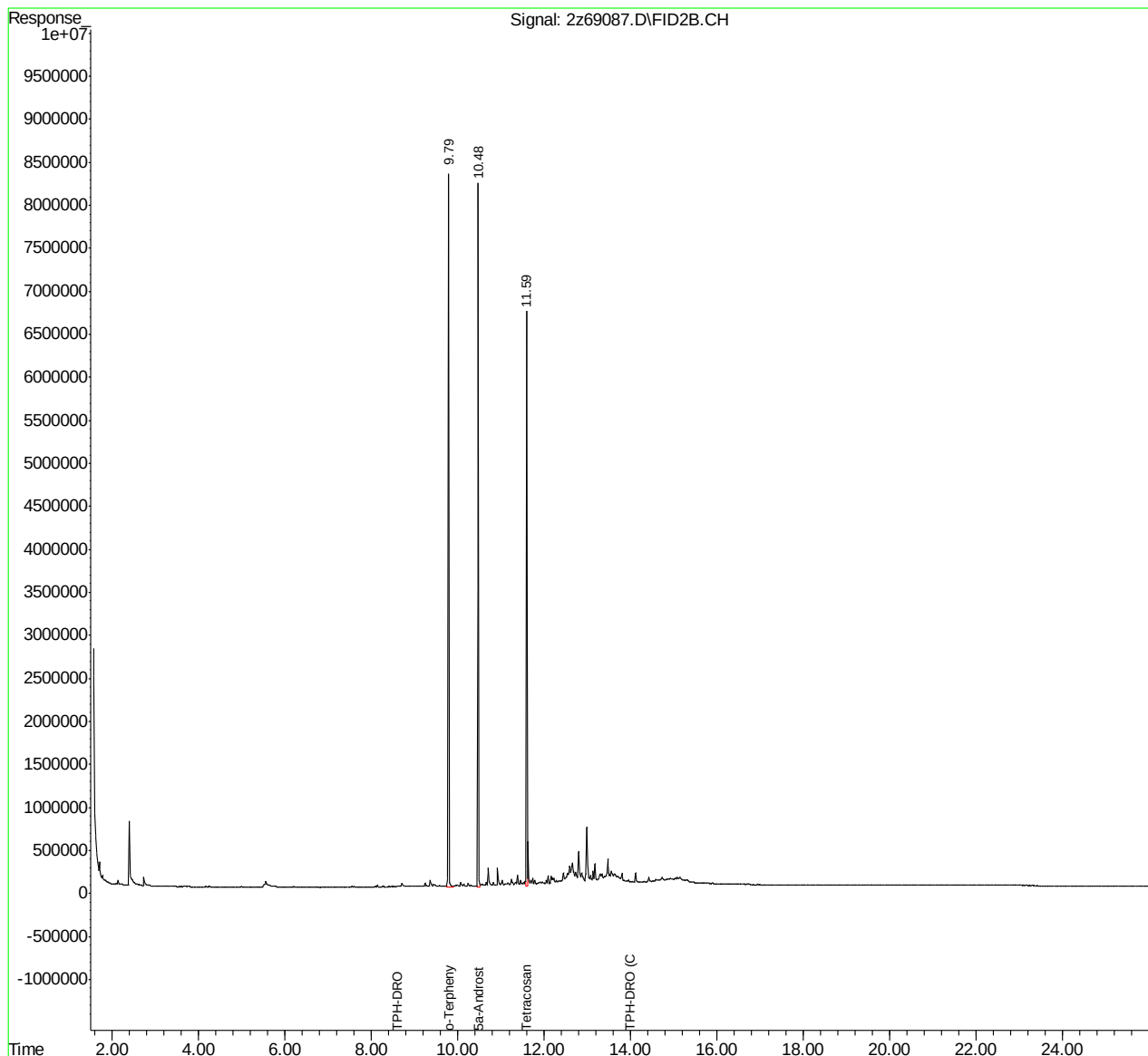
13.1.7
13

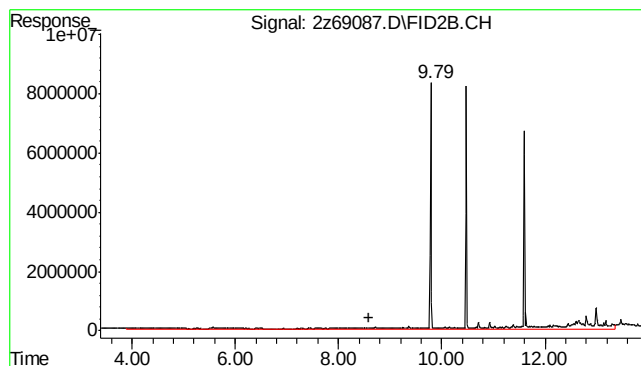
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\G2Z2597\
Data File : 2z69087.D
Signal(s) : FID2B.CH
Acq On : 14 May 2018 11:02 am
Operator : thomasl
Sample : jc65800-1
Misc : op11925,g2z2597,11.6,,,1,1
ALS Vial : 88 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 14 13:50:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\DR02Z2570.M
Quant Title :
QLast Update : Mon May 14 09:48:40 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

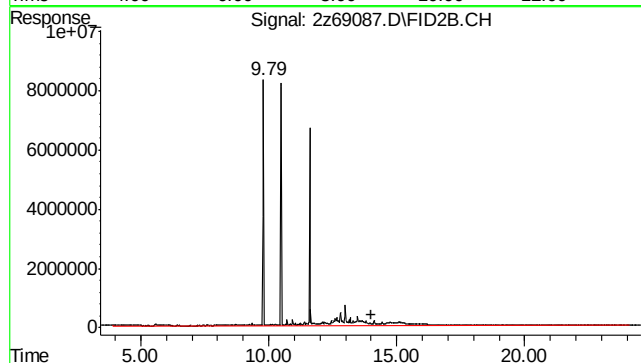
Volume Inj. : 1UL
Signal Phase : RTX-1
Signal Info : 30mX0.25mmX0.25um





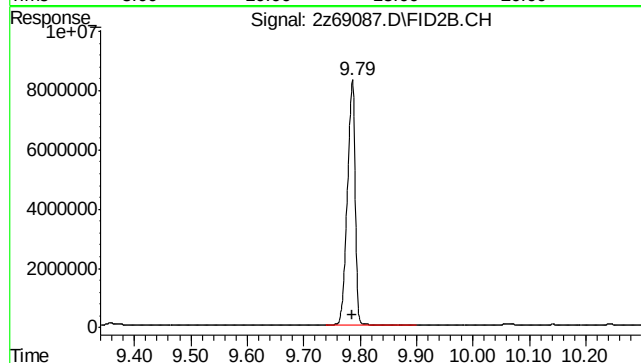
#1 TPH-DRO

R.T.: 8.600 min
Delta R.T.: 0.000 min
Response: 223572888
Conc: 127.97 PPM m



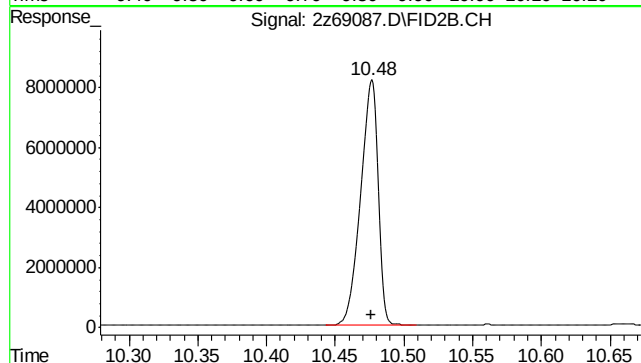
#2 TPH-DRO (C10-C44)

R.T.: 14.000 min
Delta R.T.: 0.000 min
Response: 375145869
Conc: 214.73 PPM m



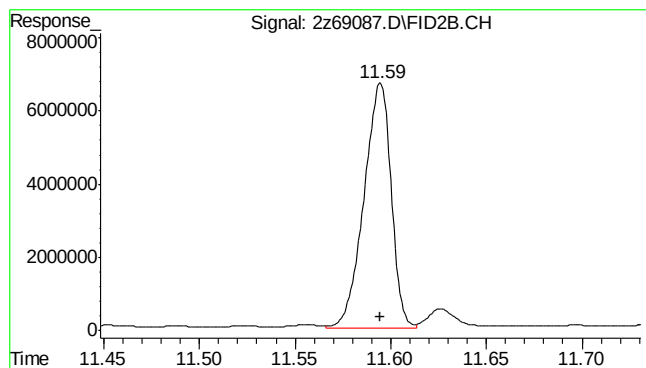
#8 o-Terphenyl

R.T.: 9.786 min
Delta R.T.: 0.000 min
Response: 81092118
Conc: 27.52 PPM



#9 5a-Androstane

R.T.: 10.477 min
Delta R.T.: 0.000 min
Response: 74402955
Conc: 34.85 PPM



#10 Tetracosane-d50

R.T.: 11.595 min
Delta R.T.: 0.000 min
Response: 66182277
Conc: 38.16 PPM

13.1.7
13

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\G2Z2597\
Data File : 2z69088.D
Signal(s) : FID2B.CH
Acq On : 14 May 2018 11:57 am
Operator : thomasl
Sample : jc65800-2
Misc : op11925,g2z2597,11.0,,,1,1
ALS Vial : 89 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 14 13:51:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\DR02Z2570.M
Quant Title :
QLast Update : Mon May 14 09:48:40 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL
Signal Phase : RTX-1
Signal Info : 30mX0.25mmX0.25um

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
8) S o-Terphenyl	9.79	85957226	29.169 PPM	m
Spiked Amount 50.000		Recovery =	58.34%	
9) S 5a-Androstane	10.48	79716908	37.336 PPM	m
Spiked Amount 50.000		Recovery =	74.67%	
10) S Tetracosane-d50	11.59	68966879	39.762 PPM	m
Spiked Amount 50.000		Recovery =	79.52%	
Target Compounds				
1) H TPH-DRO	8.60	419315829	240.009 PPM	
2) H TPH-DRO (C10-C44)	14.00	678493533	388.358 PPM	

(f)=RT Delta > 1/2 Window

(m)=manual int.

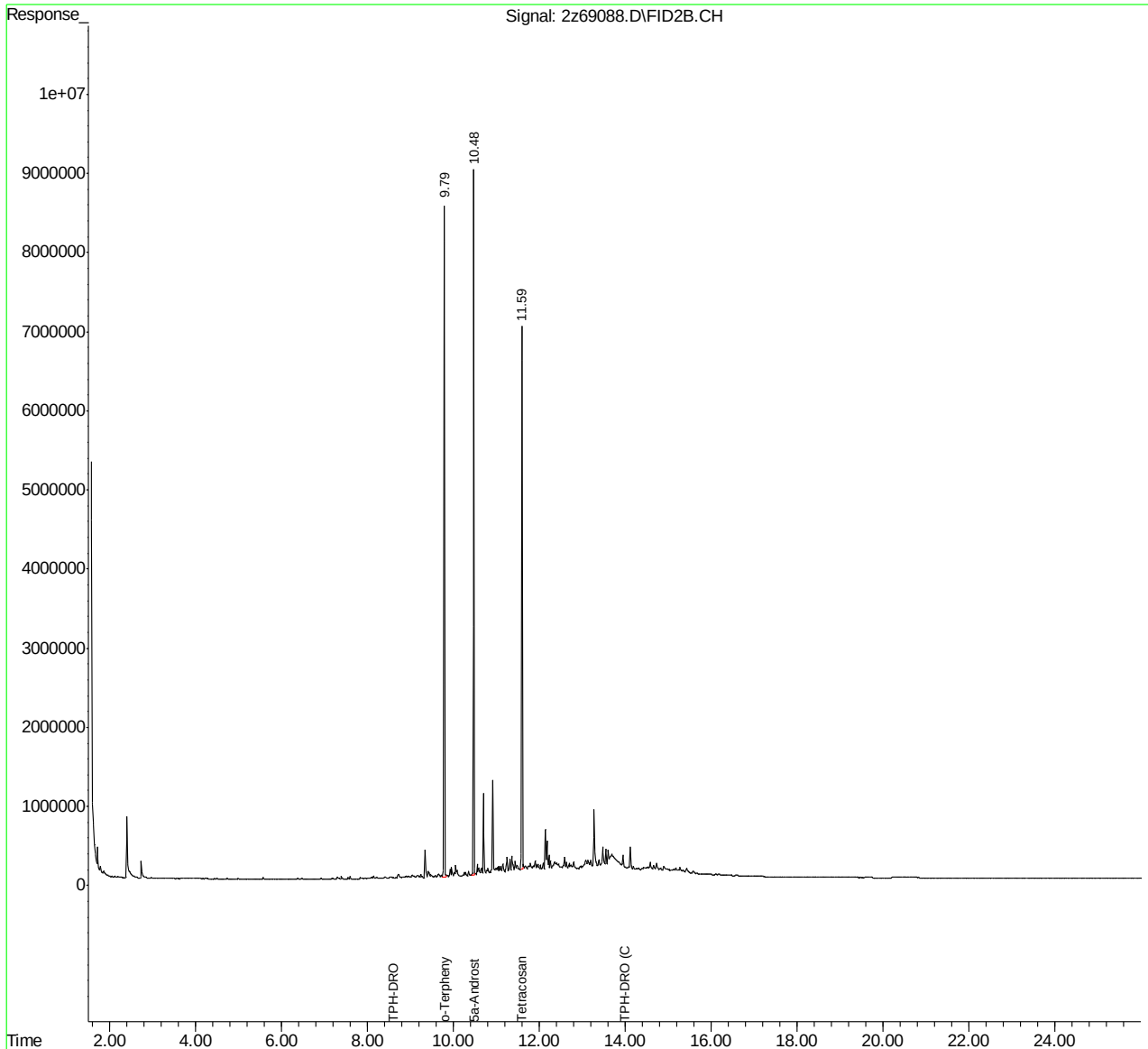
13.1.8
13

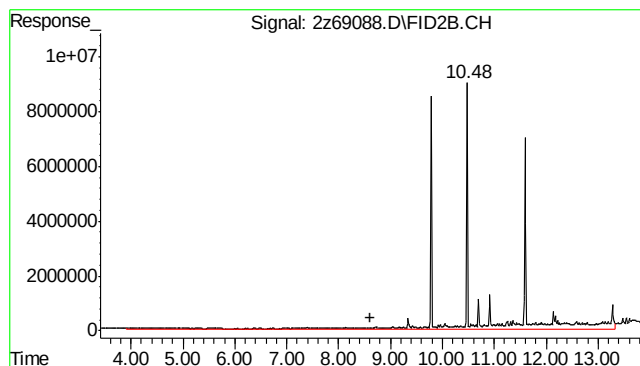
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\G2Z2597\
Data File : 2z69088.D
Signal(s) : FID2B.CH
Acq On : 14 May 2018 11:57 am
Operator : thomasl
Sample : jc65800-2
Misc : op11925,g2z2597,11.0,,,1,1
ALS Vial : 89 Sample Multiplier: 1

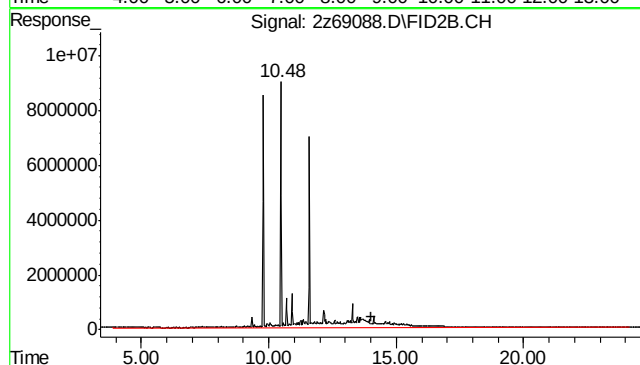
Integration File: autoint1.e
Quant Time: May 14 13:51:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\DR02Z2570.M
Quant Title :
QLast Update : Mon May 14 09:48:40 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL
Signal Phase : RTX-1
Signal Info : 30mX0.25mmX0.25um

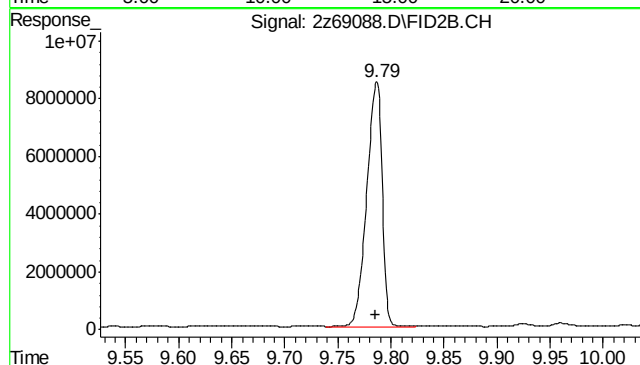




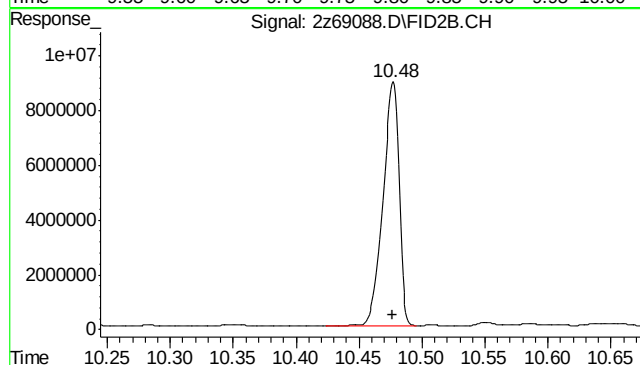
#1 TPH-DRO
R.T.: 8.600 min
Delta R.T.: 0.000 min
Response: 419315829
Conc: 240.01 PPM m



#2 TPH-DRO (C10-C44)
R.T.: 14.000 min
Delta R.T.: 0.000 min
Response: 678493533
Conc: 388.36 PPM m

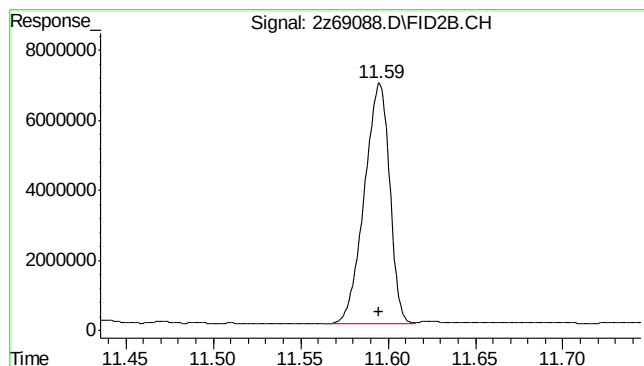


#8 o-Terphenyl
R.T.: 9.786 min
Delta R.T.: 0.000 min
Response: 85957226
Conc: 29.17 PPM m



#9 5a-Androstane
R.T.: 10.477 min
Delta R.T.: 0.000 min
Response: 79716908
Conc: 37.34 PPM m

13.1.8
13



#10 Tetracosane-d50

R.T.: 11.595 min
Delta R.T.: 0.000 min
Response: 68966879
Conc: 39.76 PPM m

13.1.8
13

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4644\1G146111.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4644\1G146111.D\ECD2B.CH
Acq On : 13 May 2018 11:25 pm Operator: christp
Sample : op11950-mb1 Inst : GC1G
Misc : op11950,g1g4644,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: May 14 8:19 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Sun May 13 23:05:19 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2-nitrob	1.99	2.30	780.4E6	108.4E6	50.000	50.000
27) I 1-bromo-2-nitrob	1.99	2.30	780.4E6	108.4E6	50.000	50.000
33) I 1-bromo-2-nitrob	1.99	2.30	780.4E6	108.4E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachloro-m-xy	2.55	3.14	483.4E6	72898341	32.850	32.549
Spiked Amount	40.000	Range	30 - 150	Recovery	=	82.13% 81.37%
26) SA Decachlorobiphen	9.80	11.67	275.7E6	28295542	18.218	14.094
Spiked Amount	40.000			Recovery	=	45.55% 35.23%

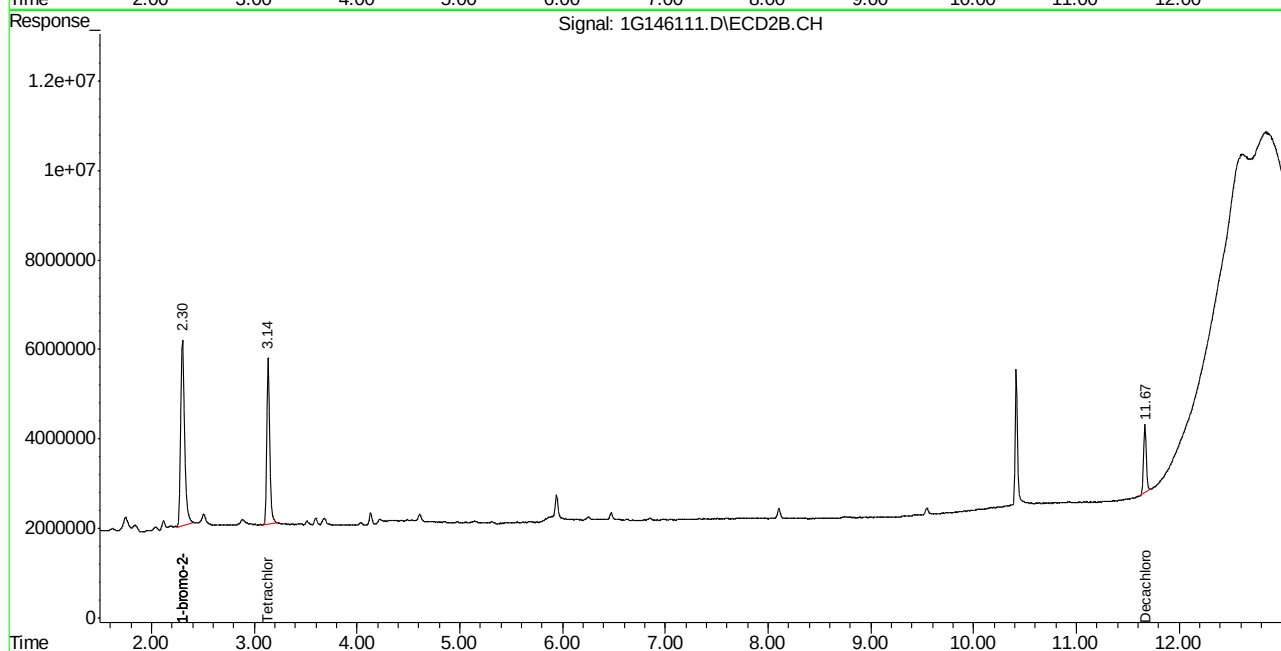
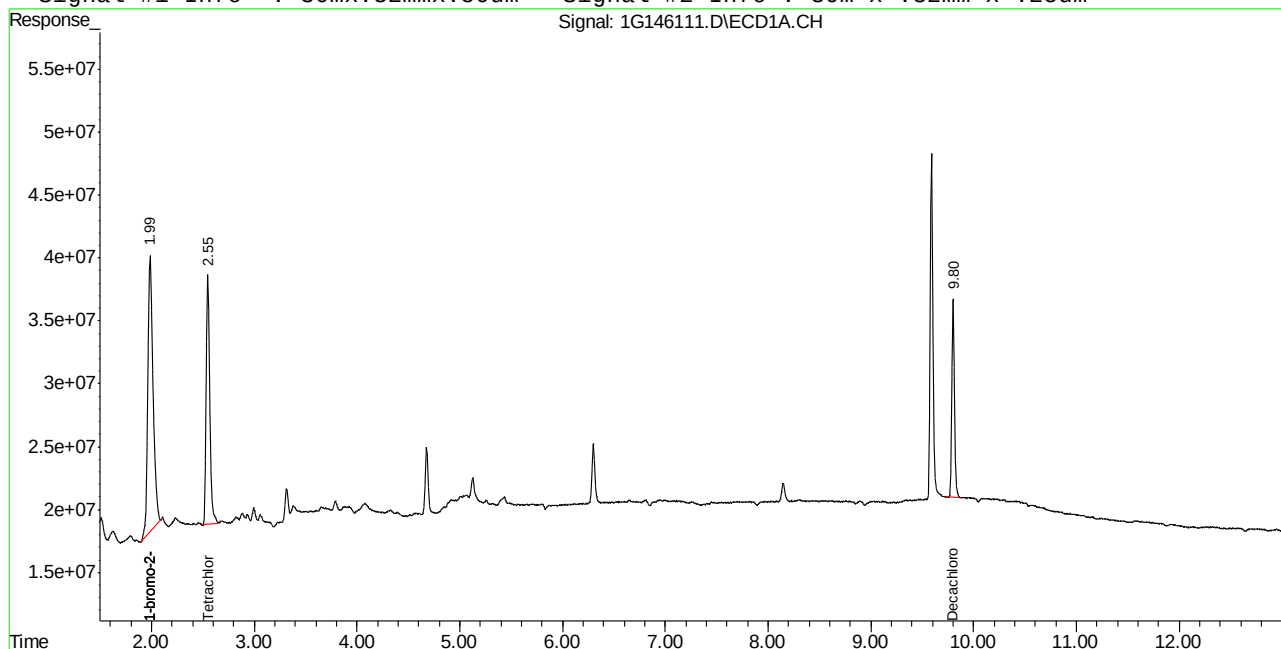
Target Compounds

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4644\1G146111.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4644\1G146111.D\ECD2B.CH
Acq On : 13 May 2018 11:25 pm Operator: christp
Sample : op11950-mb1 Inst : GC1G
Misc : op11950,g1g4644,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: May 14 8:19 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Sun May 13 23:05:19 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4329\
Data File : 2G163263.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 May 2018 11:30 pm
Operator : christp
Sample : op11916-mb1
Misc : OP11916,G2G4329,15.0,,,10,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 11 10:09:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 10 09:36:48 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds							
1) S	Tetrachlo...	2.788	3.431	141.6E6	945.0E6	38.582	41.299
	Spiked Amount	40.000		Recovery	=	96.45%	103.25%
51) S	Decachlor...	9.980	11.779	157.8E6	733.4E6	38.917	38.399
	Spiked Amount	40.000		Recovery	=	97.29%	96.00%

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

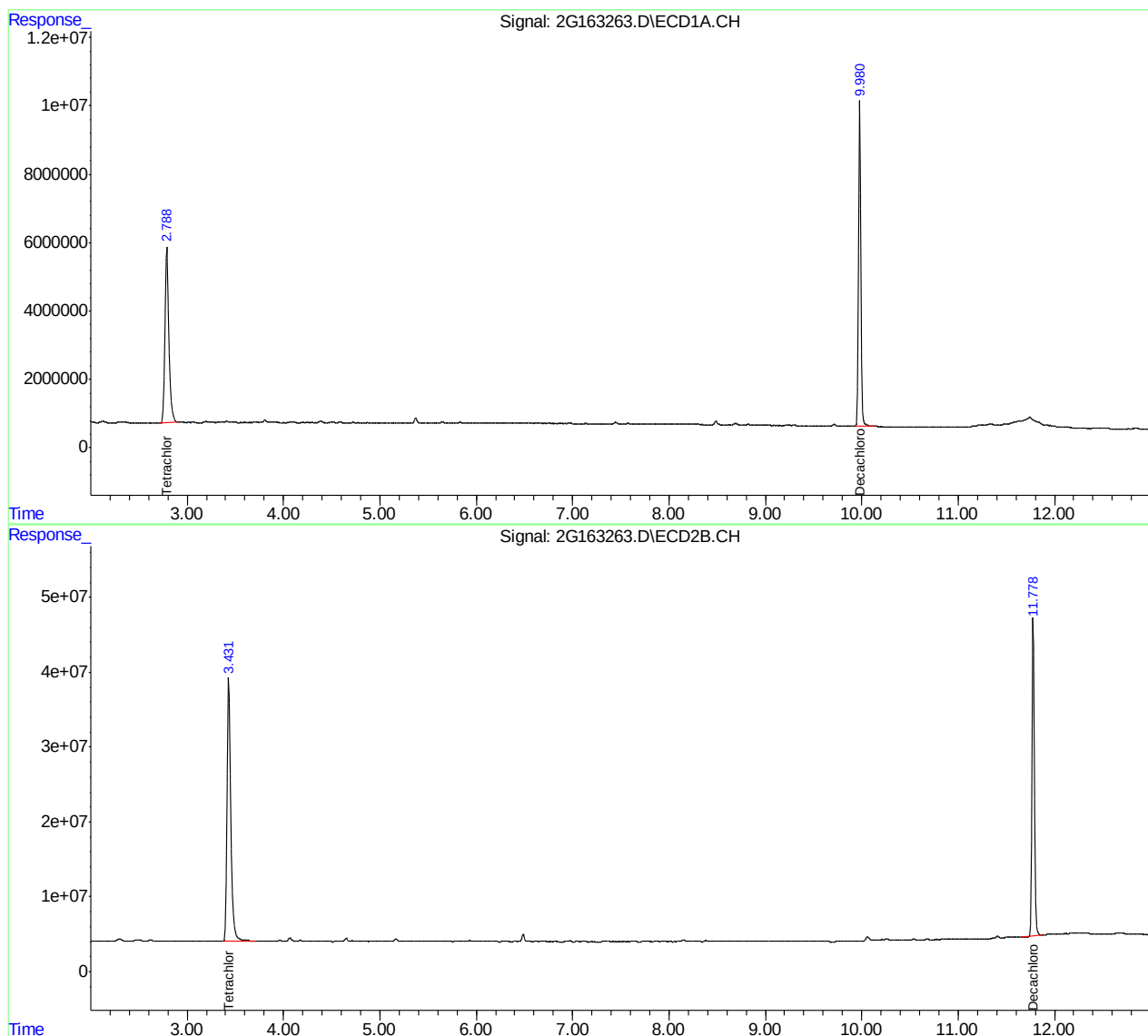
13.22
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4329\
Data File : 2G163263.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 May 2018 11:30 pm
Operator : christp
Sample : op11916-mb1
Misc : OP11916,G2G4329,15.0,,,10,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 11 10:09:35 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu May 10 09:36:48 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4333\
Data File : 2G163523.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 May 2018 5:28 pm
Operator : rebeccak
Sample : op11916-mb1
Misc : OP11916,G2G4333,15.0,,,10,1
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 16 08:25:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.776	3.425	143.4E6	949.1E6	39.068	41.476
Spiked Amount	40.000		Recovery	=	97.67%	103.69%
51) S Decachlor...	9.967	11.775	157.3E6	705.1E6	38.793	36.917
Spiked Amount	40.000		Recovery	=	96.98%	92.29%

Target Compounds

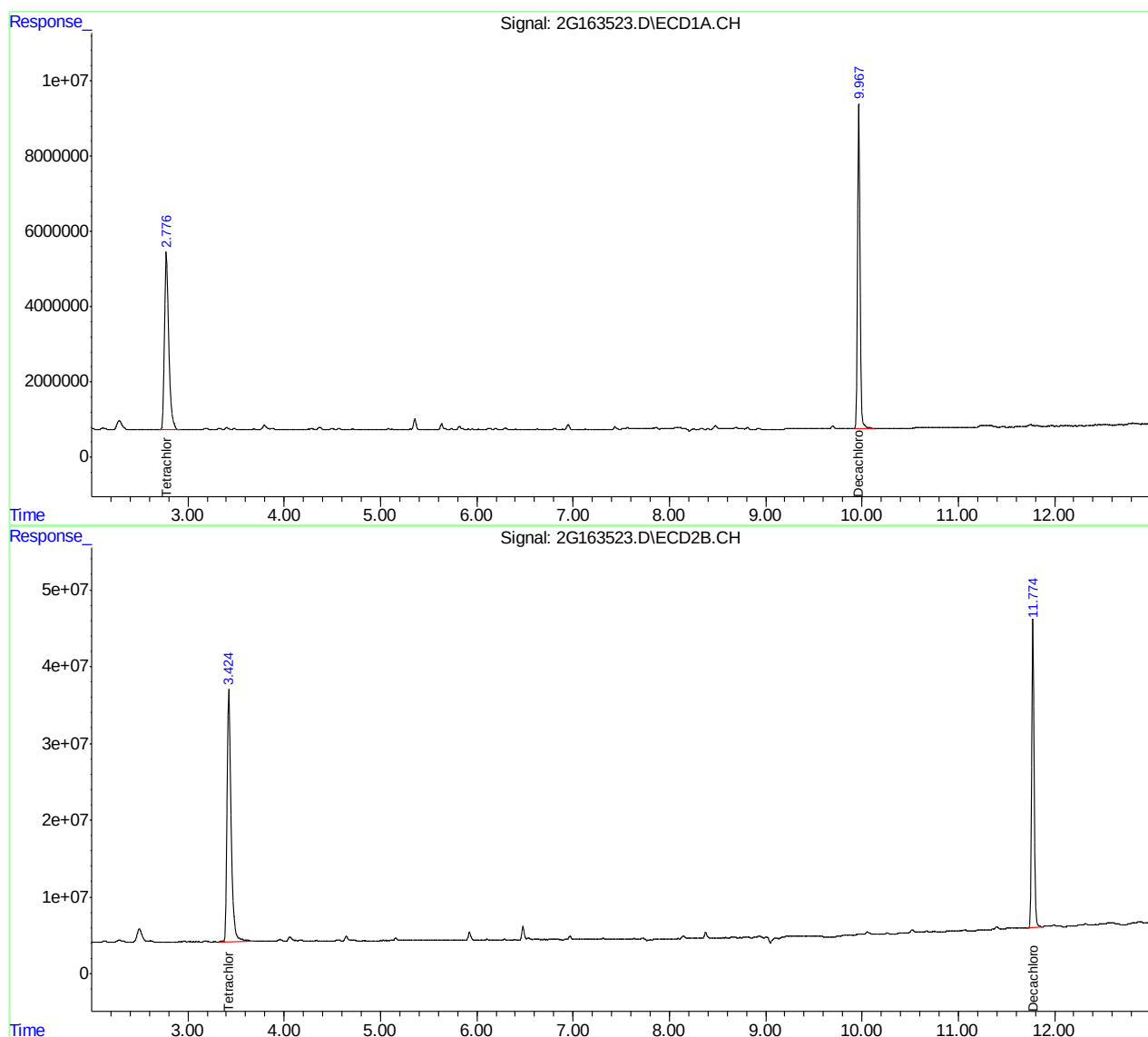
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4333\
Data File : 2G163523.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 May 2018 5:28 pm
Operator : rebeccak
Sample : op11916-mb1
Misc : OP11916,G2G4333,15.0,,,10,1
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 16 08:25:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\G2Z2597\
Data File : 2z69071.D
Signal(s) : FID2B.CH
Acq On : 14 May 2018 1:53 am
Operator : thomasl
Sample : op11925-mb
Misc : op11925,g2z2597,10.0,,,1,1
ALS Vial : 75 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 14 10:10:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\DR02Z2570.M
Quant Title :
QLast Update : Mon May 14 09:48:40 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL
Signal Phase : RTX-1
Signal Info : 30mX0.25mmX0.25um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
8) S o-Terphenyl	9.79	83972419	28.496 PPM
Spiked Amount 50.000		Recovery =	56.99%
9) S 5a-Androstane	10.48	77224577	36.169 PPM
Spiked Amount 50.000		Recovery =	72.34%
10) S Tetracosane-d50	11.60	68074590	39.248 PPM
Spiked Amount 50.000		Recovery =	78.50%
Target Compounds			

(f)=RT Delta > 1/2 Window

(m)=manual int.

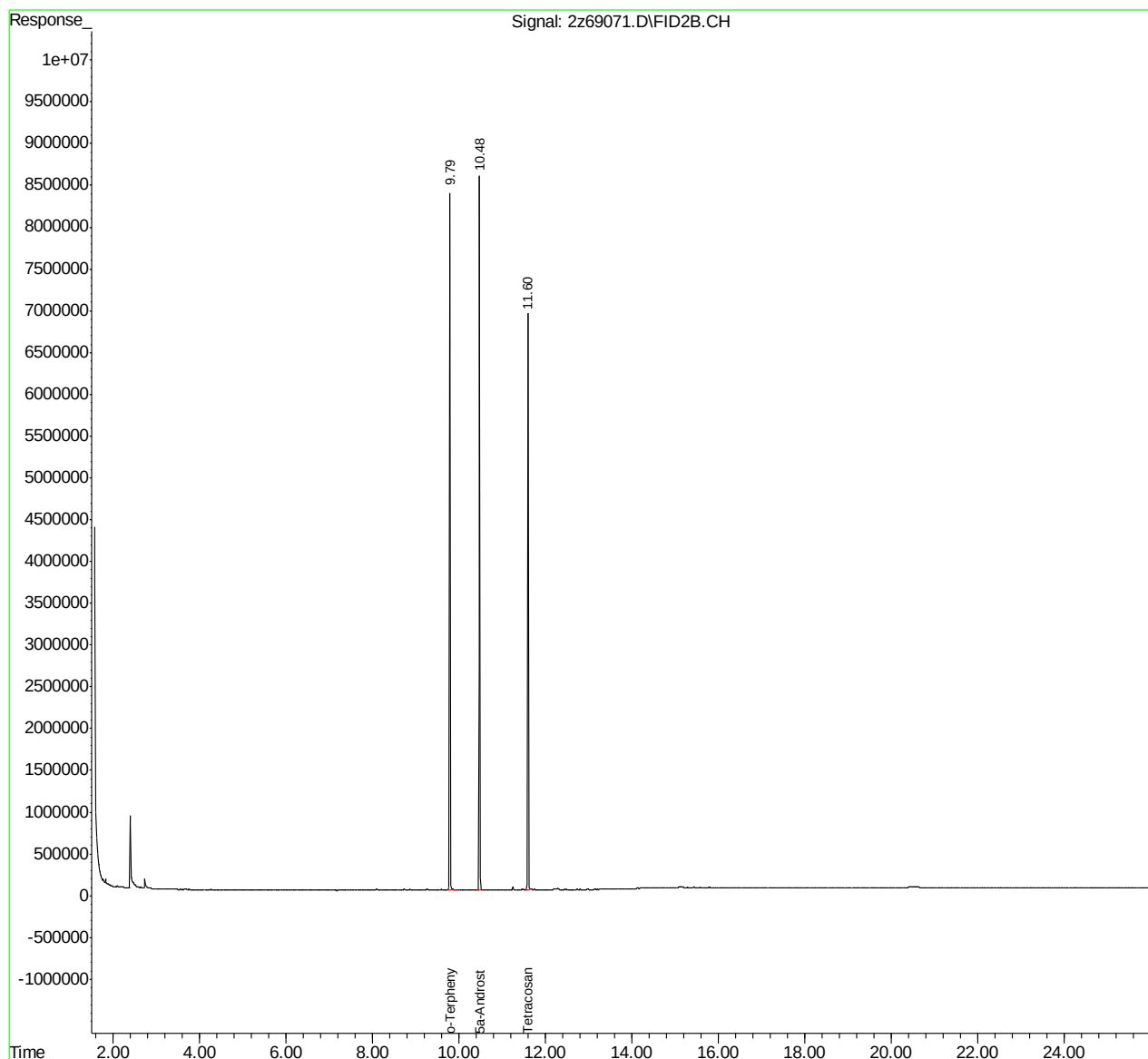
13.24
13

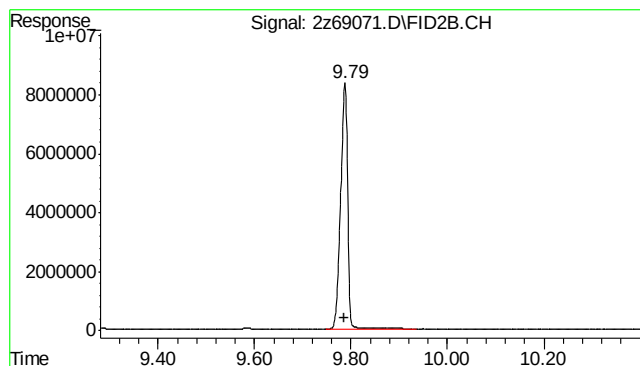
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\G2Z2597\
Data File : 2z69071.D
Signal(s) : FID2B.CH
Acq On : 14 May 2018 1:53 am
Operator : thomasl
Sample : op11925-mb
Misc : op11925,g2z2597,10.0,,,1,1
ALS Vial : 75 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 14 10:10:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\DR02Z2570.M
Quant Title :
QLast Update : Mon May 14 09:48:40 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

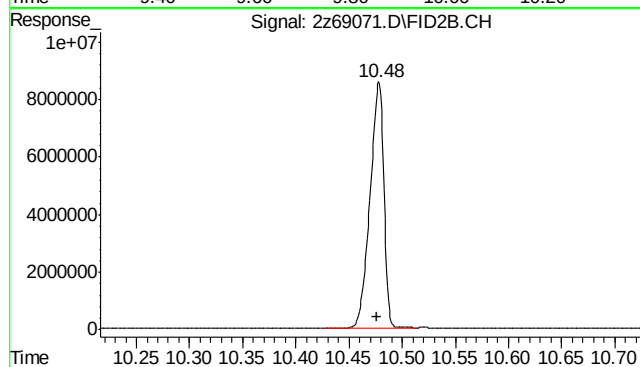
Volume Inj. : 1UL
Signal Phase : RTX-1
Signal Info : 30mX0.25mmX0.25um





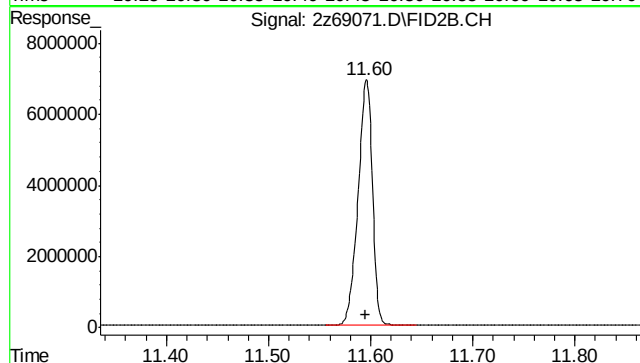
#8 o-Terphenyl

R.T.: 9.788 min
Delta R.T.: 0.002 min
Response: 83972419
Conc: 28.50 PPM



#9 5a-Androstane

R.T.: 10.478 min
Delta R.T.: 0.002 min
Response: 77224577
Conc: 36.17 PPM



#10 Tetracosane-d50

R.T.: 11.596 min
Delta R.T.: 0.001 min
Response: 68074590
Conc: 39.25 PPM

Gwendolyn Burns
05/21/18 10:31

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4048\3G116516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\3G4048\3G116516.D\ECD2B.CH
Acq On : 20 May 2018 11:48 am Operator: vinced
Sample : op12064-mb1 Inst : GC3G
Misc : op12064,g3g4048,300,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 20 12:11:50 2018 Quant Results File: 3H4044.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Initial Calibration
DataAcq Meth : 3H4044.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2

System Monitoring Compounds						
2) S 2,4-DCAA	7.38	7.90	1689.2E6	547.7E6	357.562	549.807m#
Spiked Amount	500.000		Recovery	=	71.51%	109.96%

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
3G116516.D 3H4044.M Mon May 21 09:02:06 2018 GC3G

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4048\3G116516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\3G4048\3G116516.D\ECD2B.CH
Acq On : 20 May 2018 11:48 am Operator: vined
Sample : op12064-mb1 Inst : GC3G
Misc : op12064,g3g4048,300,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 21 9:01 2018 Quant Results File: 3H4044.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : 3H4044.M

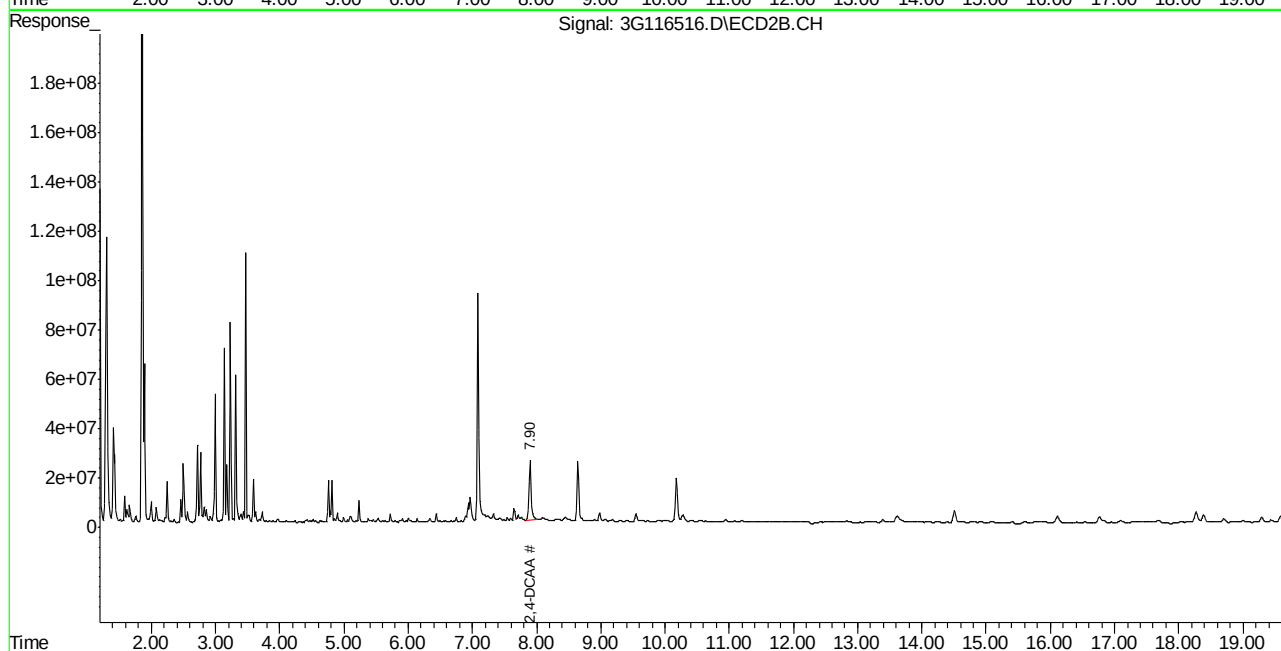
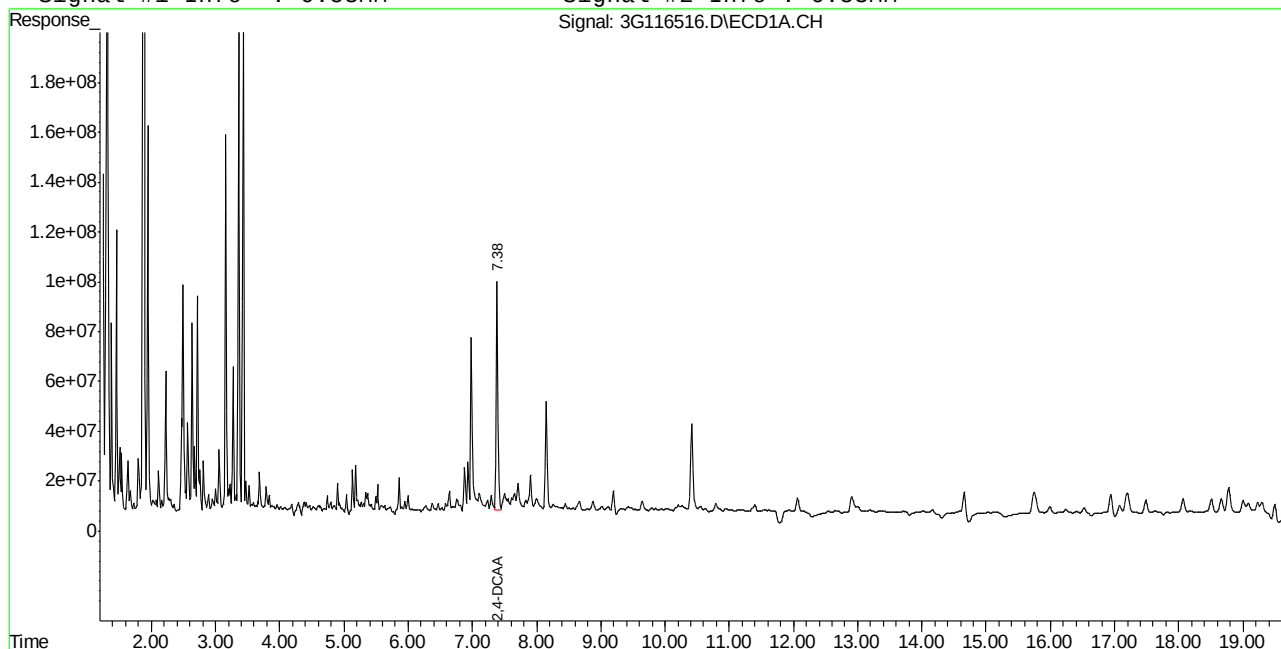
Volume Inj. : 1ul/column

Signal #1 Phase : RTX-CLP I

Signal #2 Phase: RTX-CLP II

Signal #1 Info : 0.53MM

Signal #2 Info : 0.53MM



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
 Data File : 6g55784.d
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 30-Apr-18, 12:36:33
 Operator : dharas
 Sample : icc1671-25
 Misc : OP11619,g6g1671,1000,,,5,1
 ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Apr 30 12:52:37 2018
 Quant Method : C:\msdchem\1\methods\6PST1671.M
 Quant Title : PEST/PCB
 QLast Update : Mon Apr 30 12:31:07 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1) I	1-bromo-2...	1.943	2.148	403.9E6	253.2E6	50.000	50.000
27) I	1-bromo-2...	1.943	2.148	403.9E6	253.2E6	50.000	50.000
33) I	1-bromo-2...	1.943	2.148	403.9E6	253.2E6	50.000	50.000
System Monitoring Compounds							
2) SAB	Tetrachlo...	2.530	2.932	189.1E6	114.8E6	23.658	23.388
Spiked Amount		40.000	Range	30 - 150	Recovery	=	59.15%
26) SA	Decachlor...	9.838	11.722	184.6E6	109.7E6	24.257	25.672
Spiked Amount		40.000		Recovery	=	60.64%	64.18%
Target Compounds							
3)	hexachlor...	2.857	3.415	210.3E6	141.6E6	21.917	22.707
4) A	alpha-BHC	2.996	3.563	270.6E6	157.3E6	22.926	22.462
5) MA	gamma-BHC	3.287	3.971	249.6E6	145.6E6	23.359	22.563
6) MA	Heptachlor	3.776	4.526	236.7E6	146.0E6	25.037	24.415
7) B	beta-BHC	3.359	4.051	109.6E6	65204342	24.369	24.037
8) B	delta-BHC	3.542	4.431	226.7E6	133.1E6	23.687	22.873
9) MB	Aldrin	4.107	4.962	232.3E6	129.4E6	24.904	22.686
10)	alachlor	4.246	4.780	28340673	17039946	23.696	23.431
11) B	Heptachlo...	4.813	5.760	214.1E6	124.0E6	25.673	24.804
12) B	gamma-Chl...	4.975	6.037	212.2E6	123.6E6	25.903	25.235
13) B	alpha-Chl...	5.145	6.257	210.1E6	122.8E6	25.048	25.615
14) A	Endosulfan I	5.322	6.349	197.6E6	111.7E6	24.765	24.460
15) B	4,4'-DDE	5.256	6.521	203.7E6	116.9E6	24.678	22.598
16) MA	Dieldrin	5.642	6.775	217.8E6	121.4E6	23.209	22.770
17) MA	Endrin	5.964	7.268	194.6E6	115.1E6	25.344	24.911
18) A	4,4'-DDD	6.085	7.452	168.7E6	96890160	24.374	24.290
19) B	Endosulfa...	6.283	7.612	194.5E6	112.1E6	25.092	24.729
20) MA	4,4'-DDT	6.503	7.980	162.0E6	96232017	24.375	23.954
21) B	Endrin Al...	6.907	8.177	160.7E6	89850605	25.017	24.937
22) B	Endosulfa...	7.588	8.641	159.9E6	90465081	25.757	25.546
23) A	Methoxychlor	7.285	9.213	94604672	55394201	26.255	27.313
24)	Mirex	7.436	9.520	156.3E6	89970523	24.892	24.562
25) B	Endrin Ke...	8.028	9.587	193.0E6	111.2E6	25.635	23.298
Sum Toxaphene				0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000

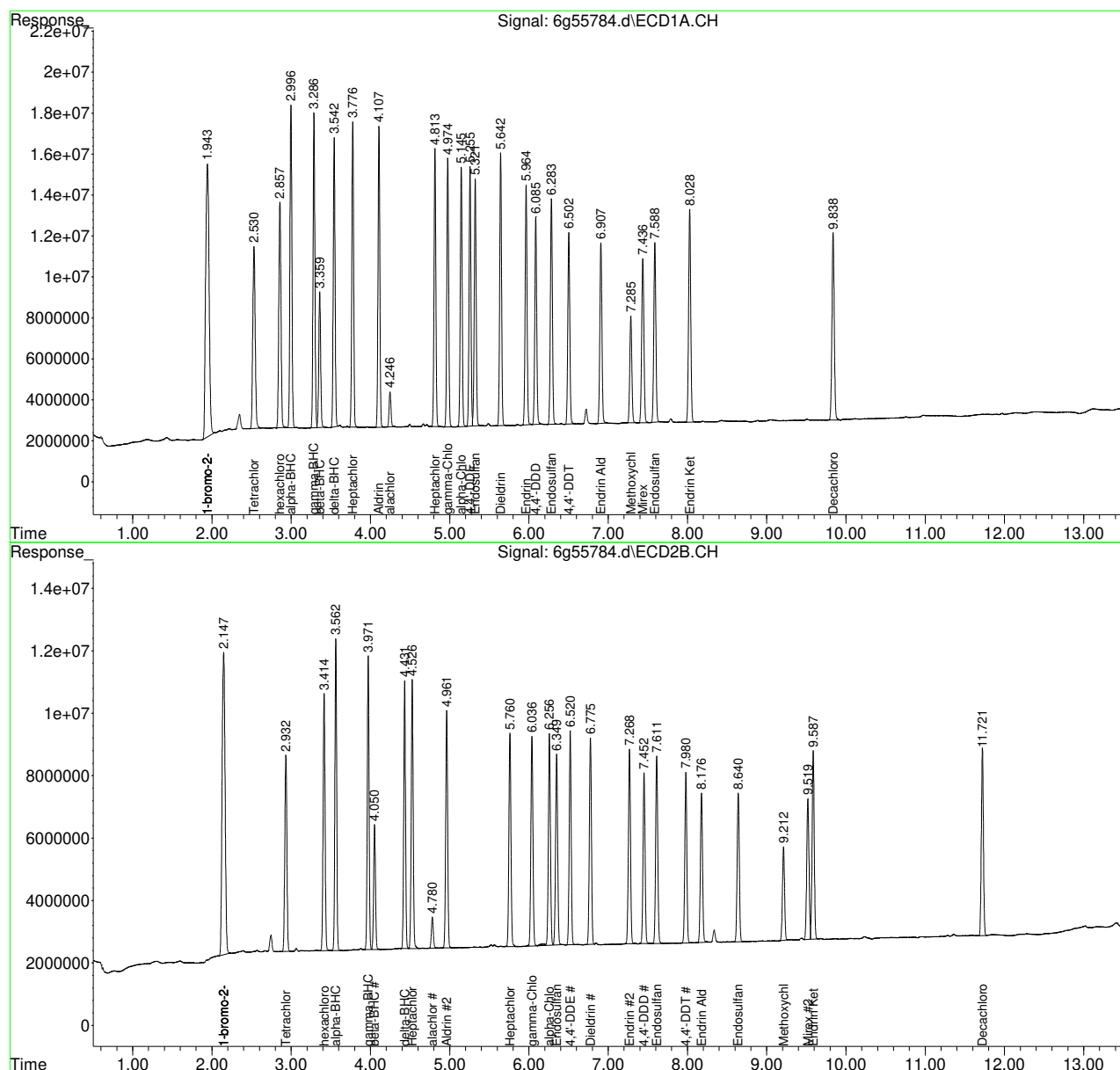
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55784.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:36:33
Operator : dharas
Sample : icc1671-25
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 12:52:37 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55788.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)
Operator : dharas
Sample : ic1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:25:49 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound		RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1) I	1-bromo-2...	1.944	2.148	409.6E6	252.6E6	50.000	50.000
27) I	1-bromo-2...	1.944	2.148	409.6E6	252.6E6	50.000	50.000
33) I	1-bromo-2...	1.944	2.148	409.6E6	252.6E6	50.000	50.000
System Monitoring Compounds							
2) SAB	Tetrachlo...	2.531f	2.933	389.1E6	228.0E6	47.992	46.540
Spiked Amount		40.000	Range 30 - 150	Recovery	=	119.98%	116.35%
26) SA	Decachlor...	9.838	11.722f	351.2E6	206.2E6	45.509	48.373
Spiked Amount		40.000		Recovery	=	113.77%	120.93%
Target Compounds							
Sum Toxaphene				0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000
34)	Chlordane...	3.776	4.526	220.7E6	136.8E6	497.720	487.961
35)	Chlordane...	4.250	5.150	183.3E6	100.4E6	481.316	486.126
36)	Chlordane...	4.975	6.037	592.7E6	319.3E6	506.778	487.790
37)	Chlordane...	5.139	6.258	932.0E6	520.1E6	496.185	488.099m
38)	Chlordane...	6.024	7.396	105.2E6	54285316	450.659	528.699

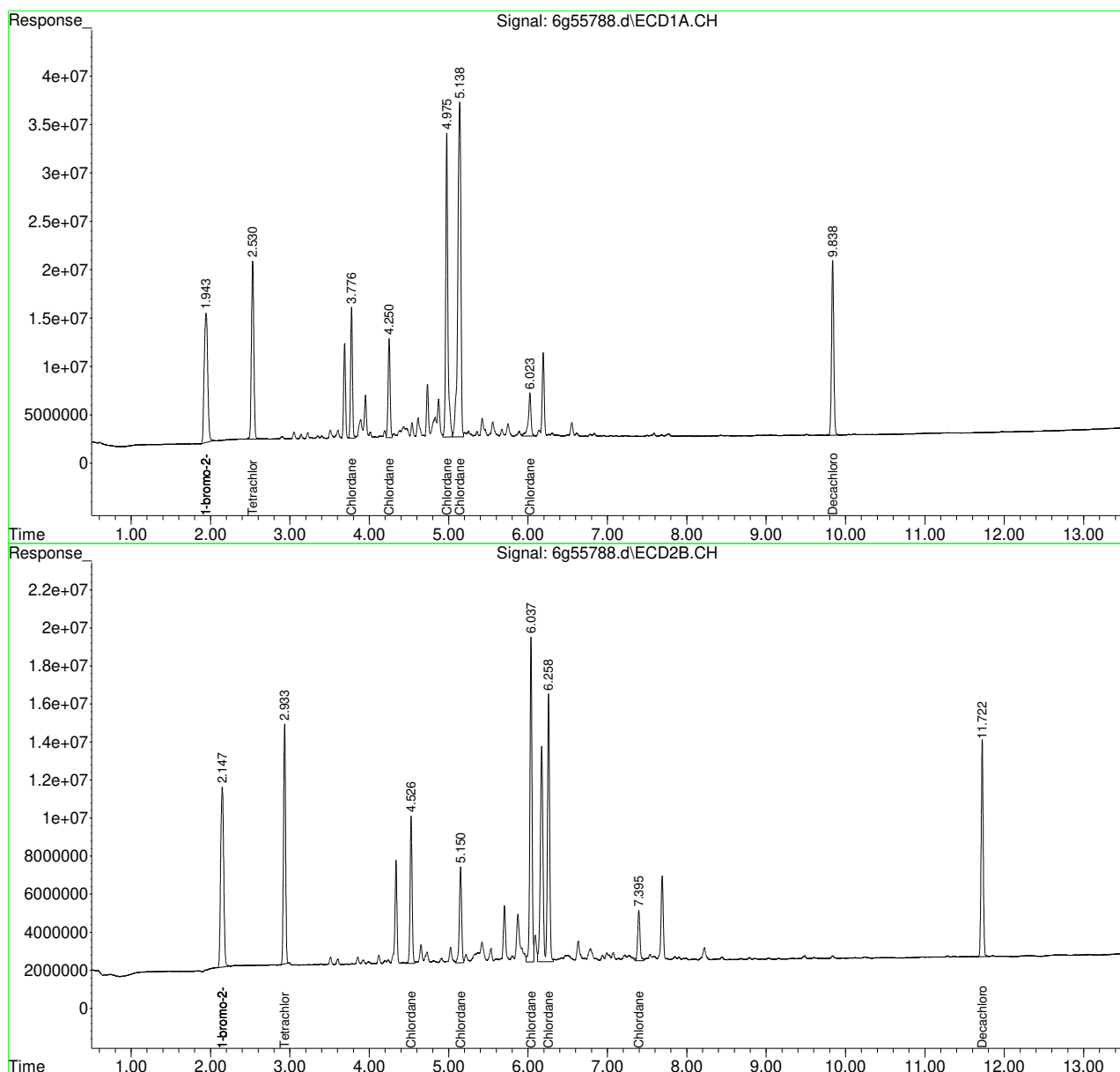
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55788.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)
Operator : dharas
Sample : ic1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:25:49 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
 Data File : 6g55789.d
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 30-Apr-18, 14:05:32
 Operator : dharas
 Sample : ic1671-500
 Misc : OP11619,g6g1671,1000,,,5,1
 ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Apr 30 17:26:17 2018
 Quant Method : C:\msdchem\1\methods\6PST1671.M
 Quant Title : PEST/PCB
 QLast Update : Mon Apr 30 12:31:07 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1)	I 1-bromo-2...	1.940	2.144	402.5E6	250.1E6	50.000	50.000
27)	I 1-bromo-2...	1.940	2.144	402.5E6	250.1E6	50.000	50.000
33)	I 1-bromo-2...	1.940	2.144	402.5E6	250.1E6	50.000	50.000
System Monitoring Compounds							
2)	SAB Tetrachlo...	2.528f	2.931	385.1E6	233.3E6	48.334	48.108
	Spiked Amount	40.000	Range 30 - 150	Recovery	=	120.84%	120.27%
26)	SA Decachlor...	9.837	11.722f	358.9E6	213.2E6	47.319	50.528
	Spiked Amount	40.000		Recovery	=	118.30%	126.32%
Target Compounds							
28)	L8 Toxaphene{A}	5.652	6.741	63726000	48141894	470.271	486.445
29)	L8 Toxaphene{B}	6.272	7.583	164.9E6	62990732	478.558	515.469
30)	L8 Toxaphene{C}	6.447	7.744	133.5E6	117.7E6	480.051	512.531
31)	L8 Toxaphene{D}	6.787	8.178	104.7E6	65399372	492.281	529.767
32)	L8 Toxaphene{E}	7.434	9.066	107.3E6	58569705	475.346	551.126
	Sum Toxaphene			574.1E6	352.8E6	2396.507	2595.337
	Average Toxaphene					479.301	519.067

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

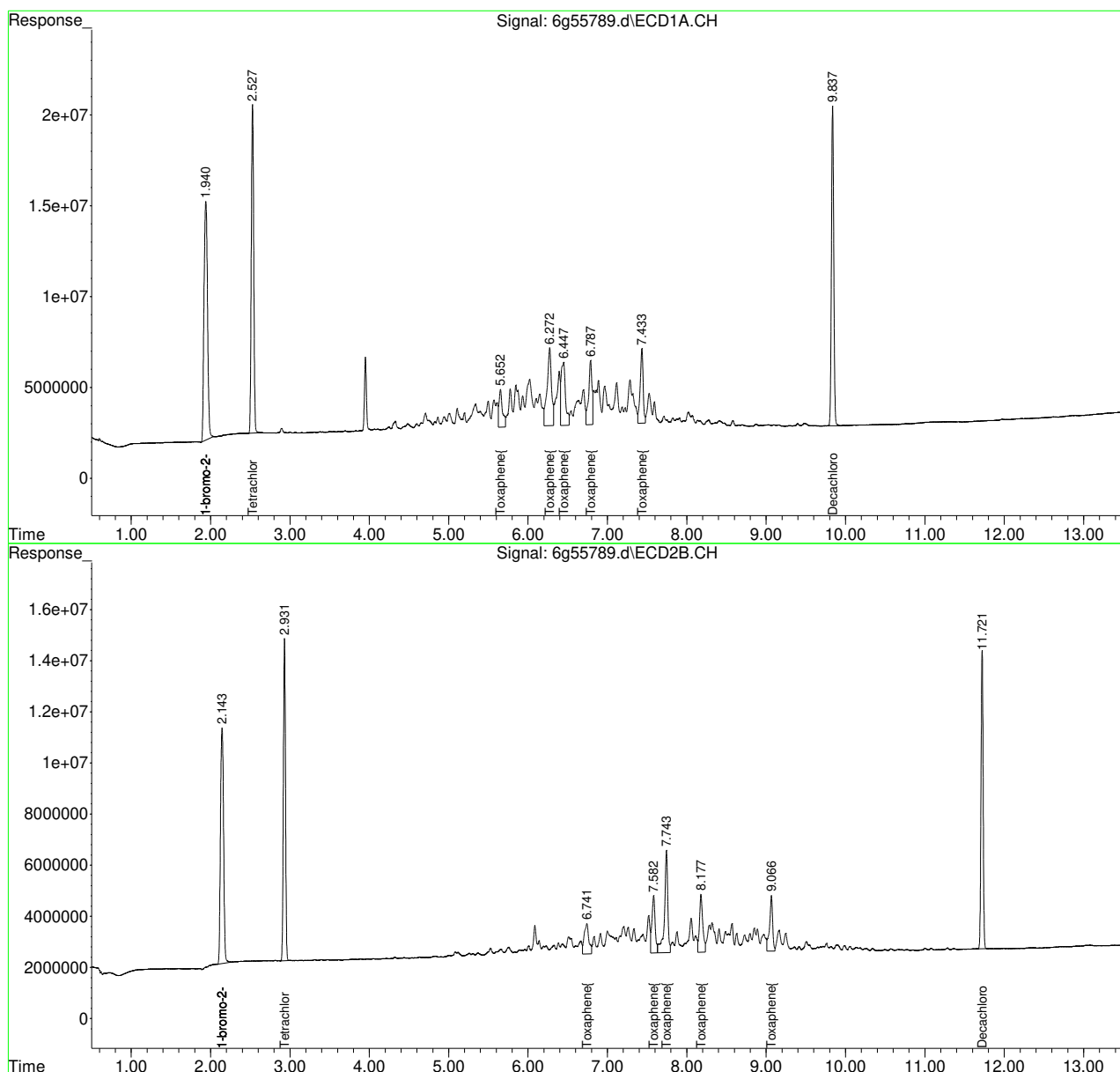
13.33
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
 Data File : 6g55789.d
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 30-Apr-18, 14:05:32
 Operator : dharas
 Sample : ic1671-500
 Misc : OP11619,g6g1671,1000,,,5,1
 ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Apr 30 17:26:17 2018
 Quant Method : C:\msdchem\1\methods\6PST1671.M
 Quant Title : PEST/PCB
 QLast Update : Mon Apr 30 12:31:07 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:33:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.778	3.432	147.7E6	928.7E6	33.797	30.364
Spiked Amount	40.000		Recovery	=	84.49%	75.91%
51) S Decachlor...	10.013	11.809	157.2E6	749.6E6	34.886	39.555
Spiked Amount	40.000		Recovery	=	87.22%	98.89%
Target Compounds						
31) AR1016-A	3.155	4.092	75576037	366.7E6	827.627	761.652
32) AR1016-B	3.557	4.630	130.4E6	777.2E6	1133.202	804.122 #
33) AR1016-C	4.107	5.275	285.4E6	1744.2E6	773.001	833.586
34) AR1016-D	4.268	5.461	115.7E6	737.8E6	860.556	953.596
35) AR1016-E	4.782	6.112	117.6E6	502.9E6	835.629m	883.134
36) AR1260-A	7.151	8.712	317.8E6	1882.4E6	835.813	1010.865m
37) AR1260-B	7.312	8.828	153.0E6	917.3E6	895.825	941.444
38) AR1260-C	7.650	9.260	169.0E6	1051.3E6	1020.047	1122.233
39) AR1260-D	8.080	9.610	395.3E6	2256.3E6	855.811	959.373
40) AR1260-E	8.472	10.153	402.6E6	2144.0E6	925.282m	1047.495m

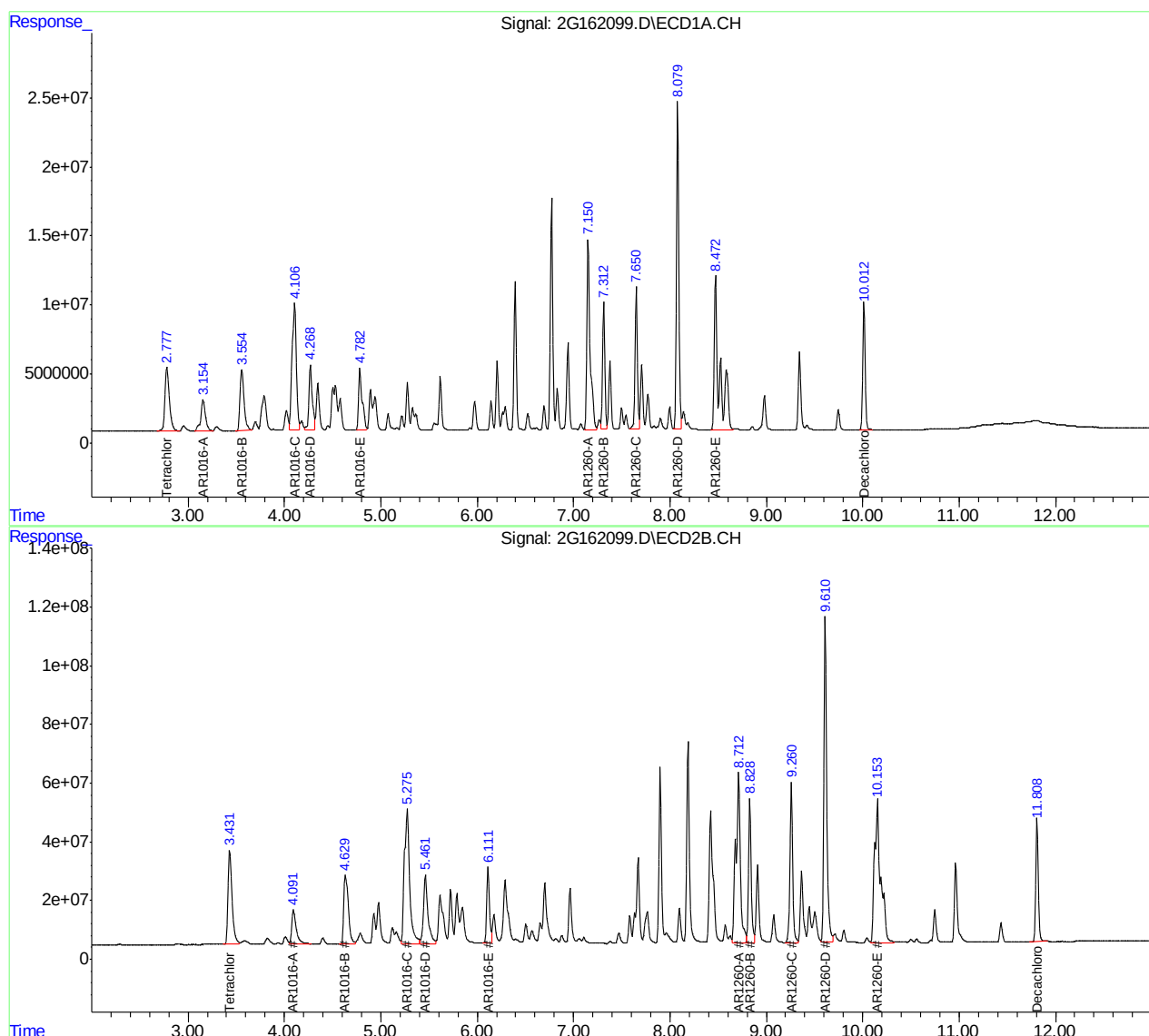
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
 Data File : 2G162099.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Apr 2018 1:02 pm
 Operator : tianweir
 Sample : icc4311-1000
 Misc : OP11095,G2G4311,15.0,,,10.0,1
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Apr 19 13:33:24 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu Apr 19 13:32:09 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.779	3.431	163.8E6	987.2E6	47.199	46.623
Spiked Amount	40.000		Recovery	=	118.00%	116.56%
51) S Decachlor...	10.013	11.809	165.0E6	806.7E6	44.682	46.281
Spiked Amount	40.000		Recovery	=	111.71%	115.70%
Target Compounds						
2) AR1221-A	2.282	2.875	28967496	140.9E6	1023.276	1085.901
3) AR1221-B	2.954	3.821	42022816	250.7E6	983.648	970.364
4) AR1221-C	3.153	4.091	128.8E6	655.8E6	950.947m	1092.099
5) AR1221-D	3.558	4.650	14656903	122.2E6	1190.489	1041.062
6) AR1221-E	3.699	4.770	14363624	88492068	1222.278	1236.269
24) AR1254-A	5.275	6.700	123.4E6	992.5E6	961.679	1070.842
25) AR1254-B	5.616	6.960	258.8E6	983.9E6	1032.998m	1051.674
26) AR1254-C	5.981	7.464	137.0E6	797.7E6	999.447	1078.993
27) AR1254-D	6.143	7.630	245.9E6	1634.3E6	996.318	1197.753
28) AR1254-E	6.519	7.955	182.5E6	1088.9E6	1178.826	1169.607
29) AR1254-F	6.772	8.419	171.2E6	1181.2E6	1099.087	1059.697m
30) AR1254-G	7.152	8.714	251.8E6	1510.8E6	1013.161	1105.727

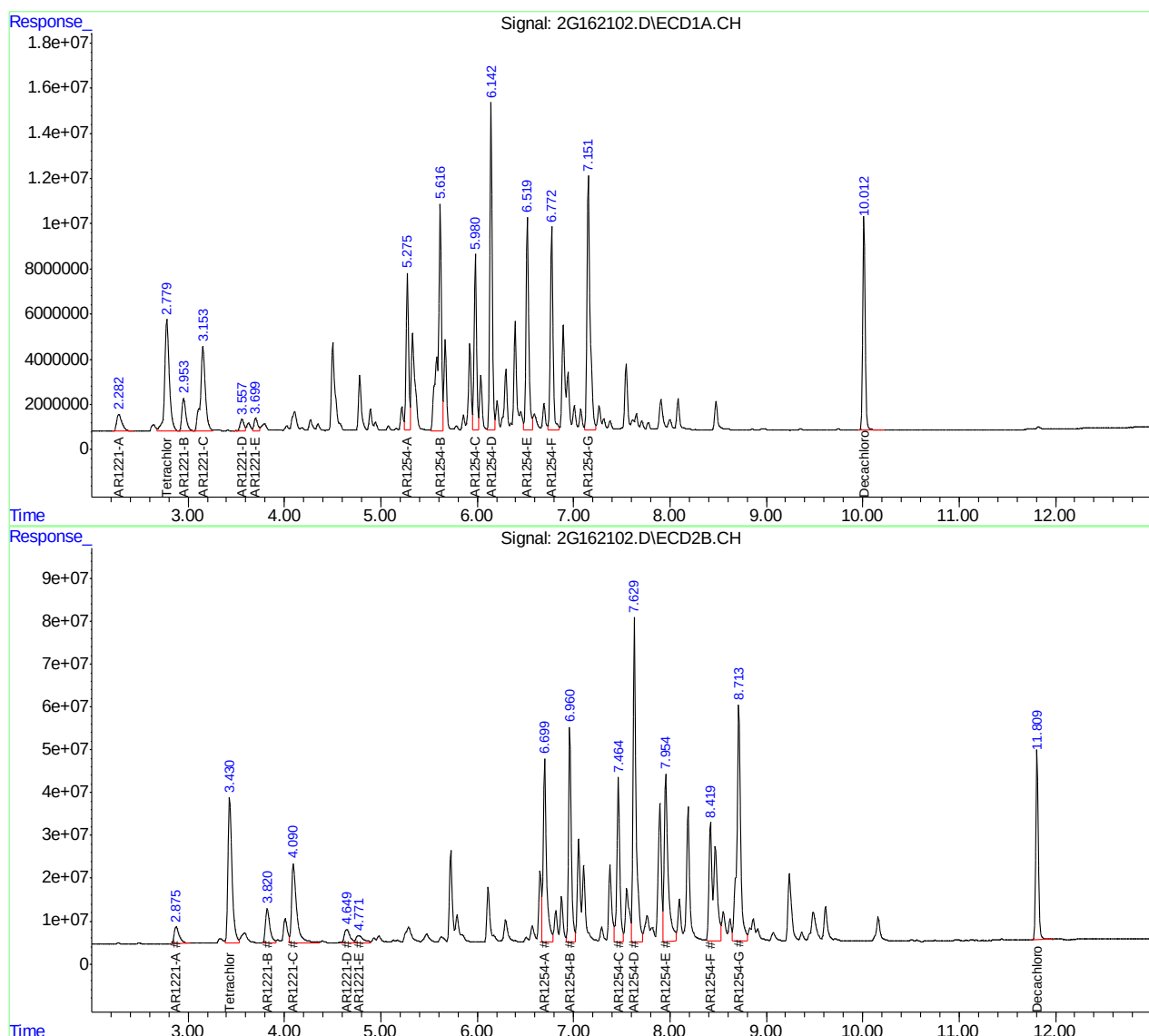
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
 Data File : 2G162102.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Apr 2018 1:52 pm
 Operator : tianweir
 Sample : ic4311-1000
 Misc : OP11095,G2G4311,15.0,,,10.0,1
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Apr 19 14:24:01 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu Apr 19 14:23:00 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.780	3.431	169.1E6	1049.9E6	9.839	9.841
Spiked Amount	40.000		Recovery	=	24.60%	24.60%
51) S Decachlor...	10.014	11.809	173.1E6	864.6E6	9.763	9.860
Spiked Amount	40.000		Recovery	=	24.41%	24.65%
Target Compounds						
7) AR1232-A	3.155	4.093	97343092	502.0E6	807.139m	801.687
8) AR1232-B	3.559	4.634	66842636	393.5E6	814.432	795.791
9) AR1232-C	4.109	5.281	130.5E6	815.2E6	748.996	817.807
10) AR1232-D	4.271	5.467	54473697	361.5E6	844.210	954.940
11) AR1232-E	4.785	6.115	51489431	217.3E6	836.532	879.986
41) AR1262-A	6.772	8.187	193.5E6	1044.2E6	608.178	987.107 #
42) AR1262-B	7.314	8.828	242.4E6	1428.2E6	818.303	912.354
43) AR1262-C	7.651	9.260	227.0E6	1336.0E6	936.108	1081.334
44) AR1262-D	8.081	9.610	485.4E6	2732.2E6	759.581	918.956
45) AR1262-E	8.525	10.123	558.8E6	3034.4E6	795.650m	942.420m

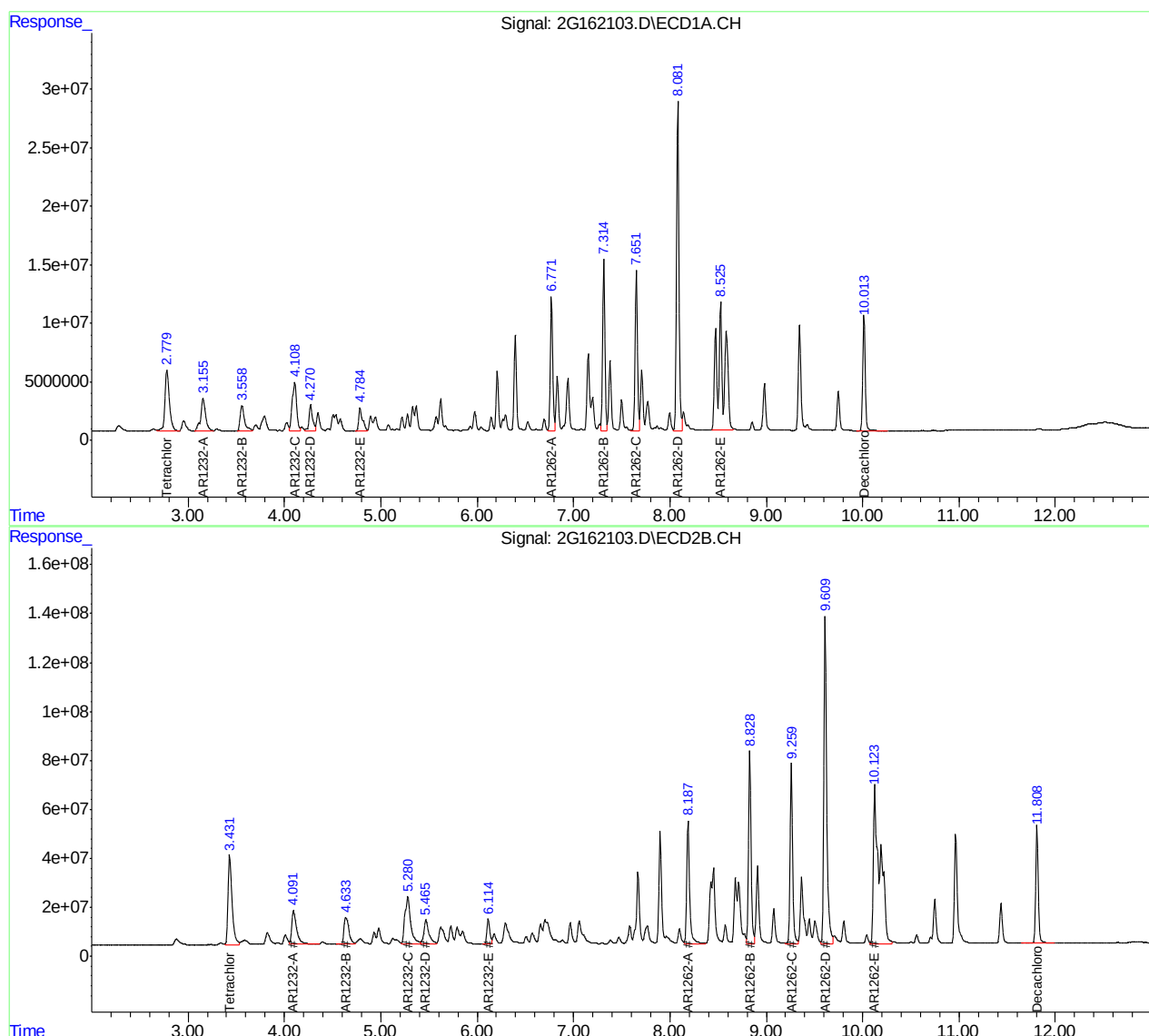
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
 Data File : 2G162103.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Apr 2018 2:27 pm
 Operator : tianweir
 Sample : ic4311-1000
 Misc : OP11095,G2G4311,15.0,,,10.0,1
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Apr 19 14:52:49 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu Apr 19 14:51:59 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
 Data File : 2G162104.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Apr 2018 2:44 pm
 Operator : tianweir
 Sample : ic4311-1000
 Misc : OP11095,G2G4311,15.0,,,10.0,1
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Apr 19 15:35:12 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu Apr 19 15:34:50 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.779	3.432	164.4E6	1042.8E6	9.788	9.829
Spiked Amount	40.000		Recovery	=	24.47%	24.57%
51) S Decachlor...	10.010	11.807	482.0E6	2362.8E6	11.088	11.117
Spiked Amount	40.000		Recovery	=	27.72%	27.79%
Target Compounds						
12) AR1242-A	3.557	4.630	119.8E6	705.4E6	833.841	769.896
13) AR1242-B	4.106	5.276	252.5E6	1547.7E6	766.774	823.562
14) AR1242-C	4.268	5.463	105.4E6	666.8E6	881.574	956.816
15) AR1242-D	4.782	6.113	109.0E6	456.4E6	869.789	894.747
16) AR1242-E	5.364	6.725	92980758	634.3E6	872.039	977.929
46) AR1268-A	8.523	10.121	575.4E6	3085.9E6	840.878	938.864
47) AR1268-B	8.578	10.189	567.3E6	3099.0E6	712.876	817.926
48) AR1268-C	8.851	10.557	473.0E6	2498.5E6	752.872	873.269
49) AR1268-D	9.340	10.962	199.2E6	1037.7E6	826.458	946.346
50) AR1268-E	9.742	11.430	1615.1E6	8238.1E6	809.035	1044.134 #

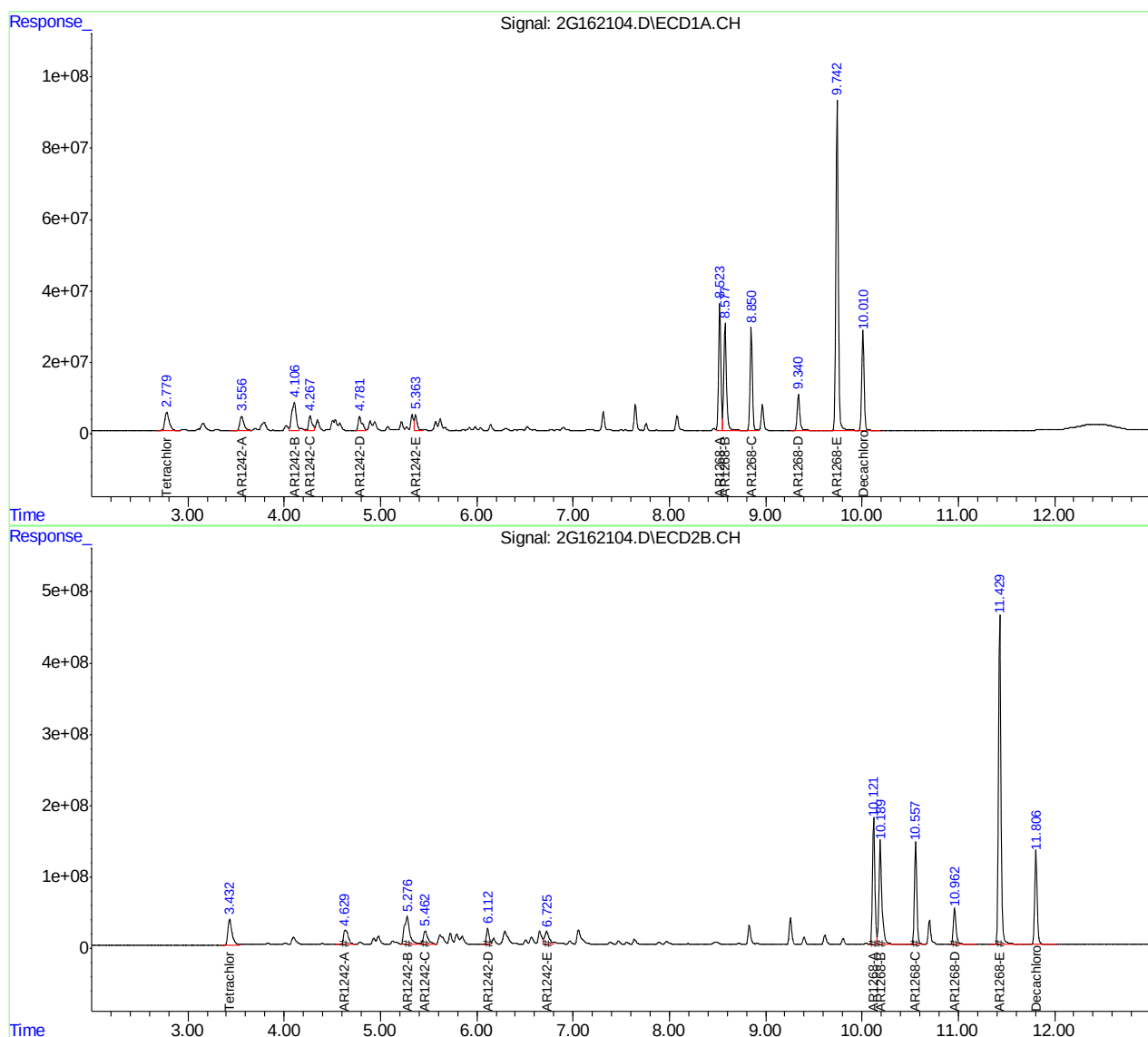
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
 Data File : 2G162104.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Apr 2018 2:44 pm
 Operator : tianweir
 Sample : ic4311-1000
 Misc : OP11095,G2G4311,15.0,,,10.0,1
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Apr 19 15:35:12 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu Apr 19 15:34:50 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:38:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.778	3.432	160.3E6	1054.2E6	9.743	9.848
Spiked Amount	40.000		Recovery	=	24.36%	24.62%
51) S Decachlor...	10.014	11.810	174.1E6	851.3E6	9.773	9.833
Spiked Amount	40.000		Recovery	=	24.43%	24.58%
Target Compounds						
17) AR1248-A	3.555	4.632	59173660	362.7E6	826.748	812.103
18) AR1248-B	4.105	5.281	154.4E6	954.8E6	820.696	837.930m
19) AR1248-C	4.501	5.724	165.2E6	569.7E6	812.299m	907.464
20) AR1248-D	4.782	6.112	159.8E6	727.1E6	860.353	930.188
21) AR1248-E	4.892	6.291	142.1E6	879.9E6	855.462m	1021.118
22) AR1248-F	5.364	6.722	140.2E6	1097.1E6	782.480	1016.890 #
23) AR1248-G	5.620	7.053	157.2E6	1220.2E6	600.449m	1102.458m#

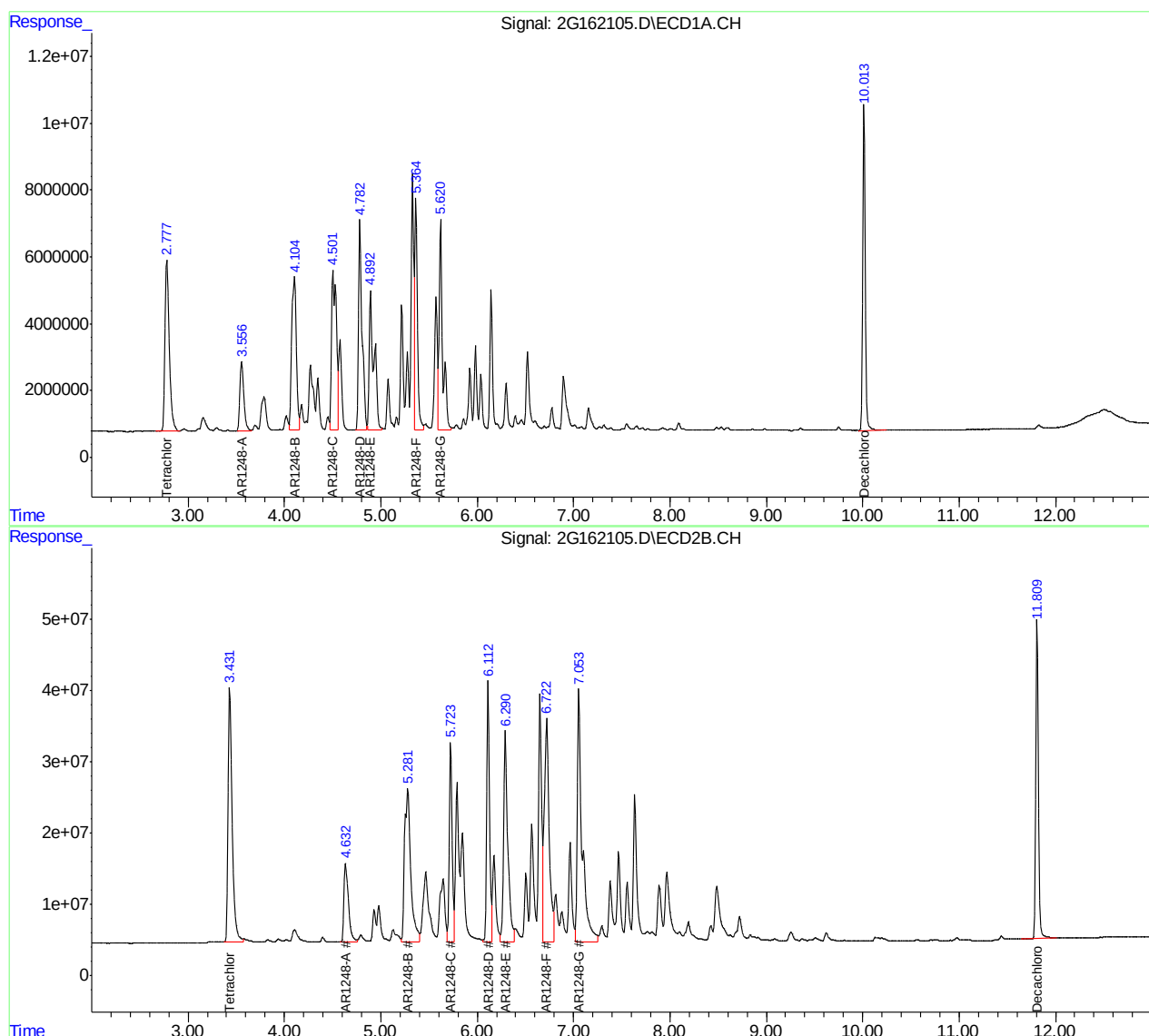
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
 Data File : 2G162105.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Apr 2018 3:00 pm
 Operator : tianweir
 Sample : ic4311-1000
 Misc : OP11095,G2G4311,15.0,,,10.0,1
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Apr 19 15:38:22 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu Apr 19 15:36:57 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Metals Analysis

QC Data Summaries

Includes the following where applicable:

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

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051118S1.CSV
Analyst: MS
Parameters: Hg

Date Analyzed: 05/11/18 Methods: SW846 7471B
Run ID: MA44380

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:54	MA44380-STD1	1		B=1.0929e-004,C=5.8935e-003,R=0.9996875
11:55	MA44380-STD2	1		STDB
11:56	MA44380-STD3	1		STDC
11:58	MA44380-STD4	1		STDD
11:59	MA44380-STD5	1		STDE
12:01	MA44380-STD6	1		STDF
12:07	MA44380-ICV1	1		
12:09	MA44380-ICB1	1		
12:10	MA44380-CCV1	1		
12:12	MA44380-CCB1	1		
12:13	MA44380-CRI1	1		
12:18	MP7114-MB1	1		
12:19	ZZZZZZ	1		
12:21	MA44380-CCV2	1		
12:23	MA44380-CCB2	1		
12:24	MP7105-MB1	1		
12:26	MP7105-B1	1		
12:27	MP7105-S1	1		%Sol
12:29	MP7105-S2	1		%Sol
12:30	JC65784-11	1		(sample used for QC only; not part of login JC65800)
12:32	ZZZZZZ	1		
12:33	ZZZZZZ	1		
12:36	ZZZZZZ	1		
12:39	ZZZZZZ	1		
12:40	MA44380-CCV3	1		
12:42	MA44380-CCB3	1		
12:43	ZZZZZZ	1		
12:45	ZZZZZZ	1		
12:46	ZZZZZZ	1		
12:48	ZZZZZZ	1		
12:49	ZZZZZZ	1		
12:50	ZZZZZZ	1		
12:52	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051118S1.CSV
Analyst: MS
Parameters: Hg

Date Analyzed: 05/11/18 Methods: SW846 7471B
Run ID: MA44380

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:53	ZZZZZZ	1		
12:55	ZZZZZZ	1		
12:56	ZZZZZZ	1		
12:57	MA44380-CCV4	1		
12:59	MA44380-CCB4	1		
13:00	ZZZZZZ	1		
13:02	ZZZZZZ	1		
13:03	ZZZZZZ	1		
13:05	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:07	MP7106-MB1	1		
13:09	MA44380-CCV5	1		
13:10	MA44380-CCB5	1		
13:12	MP7106-B1	1		
13:13	MP7106-S1	1		
13:15	MP7106-S2	1		
13:16	JC65813-1	1		(sample used for QC only; not part of login JC65800)
13:18	MP7106-D1	1		
13:21	MP7114-B1	1		
13:22	MA44380-CRI2	1		
13:24	MA44380-CCV6	1		
13:26	MA44380-CCB6	1		
13:27	ZZZZZZ	1		
13:29	ZZZZZZ	1		
13:30	ZZZZZZ	1		
13:31	ZZZZZZ	1		
13:33	ZZZZZZ	1		
13:34	ZZZZZZ	1		
13:35	ZZZZZZ	1		
13:37	ZZZZZZ	1		
13:38	ZZZZZZ	1		
13:39	MA44380-CCV7	1		
13:41	MA44380-CCB7	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051118S1.CSV
Analyst: MS
Parameters: Hg

Date Analyzed: 05/11/18 Methods: SW846 7471B
Run ID: MA44380

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:42	JC65800-1	1		%Sol
13:44	JC65800-2	1		%Sol
13:45	ZZZZZZ	1		
13:47	ZZZZZZ	1		
13:49	ZZZZZZ	1		
13:50	ZZZZZZ	1		
13:52	ZZZZZZ	1		
13:53	ZZZZZZ	1		
13:56	MA44380-CCV8	1		
13:58	MA44380-CCB8	1		
14:00	MP7107-MB1	1		
14:01	MP7107-B1	1		
14:02	MP7107-S1	1		%Sol
14:04	MP7107-S2	1		%Sol
14:06	JC65784-32	1		(sample used for QC only; not part of login JC65800)
14:08	ZZZZZZ	1		
14:09	ZZZZZZ	1		
14:10	ZZZZZZ	1		
14:12	ZZZZZZ	1		
14:13	MA44380-CCV9	1		
14:14	MA44380-CCB9	1		
14:16	ZZZZZZ	1		
14:18	ZZZZZZ	1		
14:19	ZZZZZZ	1		
14:20	ZZZZZZ	1		
14:22	ZZZZZZ	1		
14:23	ZZZZZZ	1		
14:24	ZZZZZZ	1		
14:26	ZZZZZZ	1		
14:27	ZZZZZZ	1		
14:29	MA44380-CCV10	1		
14:30	MA44380-CCB10	1		
14:32	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051118S1.CSV
Analyst: MS
Parameters: Hg

Date Analyzed: 05/11/18 Methods: SW846 7471B
Run ID: MA44380

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:33	ZZZZZZ	1		
14:35	ZZZZZZ	1		
14:37	ZZZZZZ	1		
14:38	ZZZZZZ	1		
14:40	ZZZZZZ	1		
14:41	MA44380-CCV11	1		
14:43	MA44380-CCB11	1		
14:52	ZZZZZZ	25		
14:53	ZZZZZZ	25		
14:55	ZZZZZZ	25		
14:57	JC65800-2	10		%Sol
----->	Last reportable sample/prep for job JC65800			
14:59	ZZZZZZ	10		
15:00	ZZZZZZ	10		
15:02	ZZZZZZ	10		
15:08	ZZZZZZ	100		
15:09	ZZZZZZ	100		
15:12	MA44380-CCV12	1		
15:13	MA44380-CCB12	1		
----->	Last reportable CCB for job JC65800			
	Refer to raw data for calibration curve and standards.			

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051118S1.CSV Date Analyzed: 05/11/18 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA44380 Units: ug/l

Time:			12:09		12:12		12:23		12:42	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.025	0.0370	<0.20	0.00270	<0.20	0.00450	<0.20	0.0274	<0.20

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

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051118S1.CSV Date Analyzed: 05/11/18 Methods: SW846 7471B
 QC Limits: result < RL Run ID: MA44380 Units: ug/l

Time: Sample ID:			12:59 CCB4		13:10 CCB5		13:26 CCB6		13:41 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.025	0.0164	<0.20	0.00780	<0.20	0.00230	<0.20	-0.00310	<0.20

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051118S1.CSV Date Analyzed: 05/11/18 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA44380 Units: ug/l

Time: Sample ID:			13:58 CCB8		14:14 CCB9		14:30 CCB10		14:43 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.025	0.0315	<0.20	0.00970	<0.20	0.0116	<0.20	0.0184	<0.20

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051118S1.CSV Date Analyzed: 05/11/18 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA44380 Units: ug/l

Time:		15:13		
Sample ID:		CCB12		
Metal	RL	IDL	raw	final
Mercury	0.20	.025	0.0436	<0.20

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051118S1.CSV Date Analyzed: 05/11/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44380 Units: ug/l

Time:		12:07			12:10			12:21		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	
Mercury	3	2.97	99.0	2.5	2.61	104.4	2.5	2.58	103.2	

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051118S1.CSV Date Analyzed: 05/11/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44380 Units: ug/l

Time:		12:40		12:57		13:09			
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.60	104.0	2.5	2.64	105.6	2.5	2.66	106.4

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051118S1.CSV Date Analyzed: 05/11/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44380 Units: ug/l

Time:		13:24		13:39		13:56			
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.67	106.8	2.5	2.58	103.2	2.5	2.62	104.8

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051118S1.CSV Date Analyzed: 05/11/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44380 Units: ug/l

Time:		14:13		14:29		14:41	
Sample ID:	CCV	CCV9	CCV	CCV10	CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True
Mercury	2.5	2.58	103.2	2.5	2.61	104.4	2.5
							2.60
							104.0

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051118S1.CSV Date Analyzed: 05/11/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44380 Units: ug/l

Time:		15:12	
Sample ID:	CCV	CCV12	
Metal	True	Results	% Rec
Mercury	2.5	2.76	110.4

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051118S1.CSV Date Analyzed: 05/11/18 Methods: SW846 7471B
 QC Limits: 70 to 130 % Recovery Run ID: MA44380 Units: ug/l

Time:				12:13		13:22	
Sample ID:	CRI	CRIA	CRI1		CRI2		
Metal	True	True	Results	% Rec	Results	% Rec	
Mercury	0.20		0.226	113.0	0.233	116.5	

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

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:10	MA44386-STD1	1		STDA
15:13	MA44386-STD2	1		STDB
15:16	ZZZZZZ	1		
15:19	ZZZZZZ	1		
15:23	MA44386-ICV1	1		
15:30	MA44386-ICB1	1		
15:36	MA44386-ICCV1	1		
15:45	MA44386-CCB1	1		
15:48	MA44386-CRI1	1		
15:51	MA44386-CRID1	1		
15:54	MA44386-ICSA1	1		
15:57	MA44386-ICSAB1	1		
16:00	MA44386-HSTD1	1		
16:03	MA44386-HSTD2	1		
16:07	ZZZZZZ	1		
16:10	ZZZZZZ	1		
16:13	ZZZZZZ	1		
16:16	MA44386-CCV1	1		
16:19	MA44386-CCB2	1		
16:22	ZZZZZZ	1		
16:25	ZZZZZZ	1		
16:27	MP7035-PS1	1		
16:30	ZZZZZZ	1		
16:34	ZZZZZZ	1		
16:36	MP7044-S1	1		
16:39	MP7044-S2	1		
16:42	JC65337-1	1		(sample used for QC only; not part of login JC65800)
16:45	MP7044-SD1	5		
16:48	MA44386-CCV2	1		
16:51	MA44386-CCB3	1		
16:54	ZZZZZZ	3		
16:57	ZZZZZZ	3		
17:00	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:03	ZZZZZZ	5		
17:06	ZZZZZZ	1		
17:09	ZZZZZZ	3		
17:12	ZZZZZZ	2		
17:15	ZZZZZZ	2		
17:18	ZZZZZZ	2		
17:21	MA44386-CCV3	1		
17:24	MA44386-CCB4	1		
17:27	ZZZZZZ	2		
17:30	ZZZZZZ	2		
17:33	ZZZZZZ	2		
17:36	ZZZZZZ	2		
17:39	ZZZZZZ	2		
17:42	ZZZZZZ	1		
17:45	ZZZZZZ	2		
17:48	ZZZZZZ	2		
17:51	ZZZZZZ	2		
17:54	MA44386-CCV4	1		
17:57	MA44386-CCB5	1		
18:00	MP7070-MB1	1		
18:03	MP7070-B1	1		
18:06	MP7070-S1	1		FE>4000ppm. Post straight for Ca
18:09	MP7070-S2	1		FE>4000ppm
18:12	MP7070-D1	1		FE>4000ppm
18:15	TD20701-1	1		(sample used for QC only; not part of login JC65800)
18:18	MP7070-SD1	5		FE>4000ppm
18:21	ZZZZZZ	1		
18:25	ZZZZZZ	1		
18:28	MA44386-CCV5	1		
18:31	MA44386-CCB6	1		
18:34	ZZZZZZ	1		
18:37	ZZZZZZ	1		
18:39	ZZZZZZ	1		

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:42	ZZZZZZ	1		
18:45	ZZZZZZ	1		
18:48	ZZZZZZ	1		
18:51	ZZZZZZ	1		
18:54	ZZZZZZ	1		
18:57	ZZZZZZ	1		
19:00	MA44386-CCV6	1		
19:03	MA44386-CCB7	1		
19:06	JC65800-1	1		%sol Ca high
19:09	JC65800-2	1		%sol
----->	Last reportable sample/			prep for job JC65800
19:12	ZZZZZZ	1		
19:15	ZZZZZZ	1		
19:18	ZZZZZZ	1		
19:21	ZZZZZZ	1		
19:24	ZZZZZZ	1		
19:27	ZZZZZZ	1		
19:30	MP7049-S1	5		
19:33	MA44386-CCV7	1		
19:36	MA44386-CCB8	1		
19:39	MP7049-S2	5		
19:42	JC65371-2	5		(sample used for QC only; not part of login JC65800)
19:45	MP7049-SD1	25		
19:48	MP7049-S1	25		
19:51	MP7049-S2	25		
19:54	JC65371-2	25		(sample used for QC only; not part of login JC65800)
19:57	MP7049-SD1	125		
20:00	ZZZZZZ	1		
20:03	ZZZZZZ	1		
20:06	MA44386-CCV8	1		
20:09	MA44386-CCB9	1		
20:12	ZZZZZZ	1		
20:15	ZZZZZZ	1		
20:18	ZZZZZZ	3		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:21	ZZZZZZ	2		
20:24	ZZZZZZ	1		
20:27	ZZZZZZ	1		
20:30	ZZZZZZ	1		
20:33	MP7043-S1	5		
20:36	MP7043-S2	5		
20:39	JC65257-12	5		(sample used for QC only; not part of login JC65800)
20:42	MA44386-CCV9	1		
20:45	MA44386-CCB10	1		
20:48	MP7043-SD1	25		
20:51	ZZZZZZ	10		
20:54	ZZZZZZ	25		
20:57	ZZZZZZ	5		
21:00	ZZZZZZ	5		
21:03	ZZZZZZ	20		
21:06	ZZZZZZ	20		
21:09	ZZZZZZ	10		
21:12	ZZZZZZ	25		
21:15	MA44386-CCV10	1		
21:17	MA44386-CCB11	1		
21:21	ZZZZZZ	5		
21:24	ZZZZZZ	5		
21:27	ZZZZZZ	20		
21:30	ZZZZZZ	20		
21:33	ZZZZZZ	1		
21:36	ZZZZZZ	1		
21:39	ZZZZZZ	1		
21:42	ZZZZZZ	1		
21:45	ZZZZZZ	1		
21:48	MA44386-CCV11	1		
21:51	MA44386-CCB12	1		
21:54	ZZZZZZ	1		
21:57	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:59	MP7048-S1	2		
22:03	MP7048-S2	2		
22:06	JC65331-2F	2		(sample used for QC only; not part of login JC65800)
22:09	MP7048-SD1	10		
22:12	ZZZZZZ	5		
22:15	ZZZZZZ	5		
22:18	ZZZZZZ	10		
22:21	MA44386-CCV12	1		
22:24	MA44386-CCB13	1		
22:27	ZZZZZZ	10		
22:30	ZZZZZZ	10		
22:33	ZZZZZZ	5		
22:36	ZZZZZZ	5		
22:39	ZZZZZZ	5		
22:42	ZZZZZZ	10		
22:45	ZZZZZZ	10		
22:48	ZZZZZZ	10		
22:51	ZZZZZZ	5		
22:54	MA44386-CCV13	1		
22:57	MA44386-CCB14	1		
23:00	MA44386-CRI2	1		
23:03	MA44386-CRID2	1		
23:07	MA44386-ICSA2	1		
23:10	MA44386-ICSAB2	1		
23:13	MA44386-CCV14	1		
23:16	MA44386-CCB15	1		
----->	Last reportable CCB for job JC65800			
23:19	ZZZZZZ	1		
23:24	ZZZZZZ	1		
23:27	ZZZZZZ	1		
23:30	ZZZZZZ	1		
23:34	ZZZZZZ	1		
23:37	ZZZZZZ	1		
23:40	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
23:43	ZZZZZZ	1		
23:46	ZZZZZZ	1		
23:52	ZZZZZZ	1		
23:55	ZZZZZZ	1		
23:58	MA44386-CCV15	1		
00:01	MA44386-CCB16	1		
00:04	ZZZZZZ	1		
00:07	ZZZZZZ	1		
00:10	MP7057-S1	1		
00:13	MP7057-S2	1		
00:15	ZZZZZZ	5		
00:19	ZZZZZZ	1		
00:19	MP7059-MB1	1		Batch to reanalyze for MN, ICV out
00:22	ZZZZZZ	1		
00:22	MP7059-B1	1		
00:24	MP7059-S1	1		
00:27	MP7059-S2	1		
00:30	MA44386-CCV16	1		
00:33	MA44386-CCB17	1		
00:36	JC65577-1	1		(sample used for QC only; not part of login JC65800)
00:39	MP7059-SD1	5		
00:42	ZZZZZZ	1		
00:45	MP7071-B1	1		
00:48	MP7071-MB1	1		
00:51	MP7071-S1	1		Fe, Mn , CR high, Rerun straihgt for Be, neg
00:54	MP7071-S2	1		Fe, Mn , CR high, Rerun straihgt for Be, neg
00:57	JC65783-1	1		(sample used for QC only; not part of login JC65800)
01:00	MP7071-SD1	5		Ni, CR high.Be neg
01:03	MA44386-CCV17	1		
01:06	MA44386-CCB18	1		
01:09	ZZZZZZ	1		
01:12	ZZZZZZ	1		
01:16	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
01:19	ZZZZZZ	1		
01:22	ZZZZZZ	1		
01:25	ZZZZZZ	1		
01:28	ZZZZZZ	1		
01:31	ZZZZZZ	1		
01:34	ZZZZZZ	1		
01:37	MA44386-CCV18	1		
01:40	MA44386-CCB19	1		
01:43	ZZZZZZ	1		
01:46	ZZZZZZ	1		
01:49	ZZZZZZ	1		
01:52	ZZZZZZ	1		
01:55	ZZZZZZ	1		
01:59	ZZZZZZ	1		
02:02	ZZZZZZ	1		
02:05	ZZZZZZ	1		
02:08	ZZZZZZ	1		
02:11	ZZZZZZ	1		
02:14	MA44386-CCV19	1		
02:17	MA44386-CCB20	1		
02:20	MP7086-B1	1		
02:23	MP7086-MB1	1		
02:26	MP7086-S1	1		Fe, Ni, Mn high. rerun straihgt for confirmation
02:29	MP7086-S2	1		Fe, Ni, Mn high. rerun straihgt for confirmation
02:32	JC65784-11	1		(sample used for QC only; not part of login JC65800)
02:35	MP7086-SD1	5		Fe, Ni, Mn high. rerun straihgt for confirmation
02:38	ZZZZZZ	1		
02:41	ZZZZZZ	1		
02:44	ZZZZZZ	1		
02:48	MA44386-CCV20	1		
02:50	MA44386-CCB21	1		
02:53	ZZZZZZ	1		
02:57	ZZZZZZ	1		

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
03:00	ZZZZZZ	1		
03:03	ZZZZZZ	1		
03:06	ZZZZZZ	1		
03:09	ZZZZZZ	1		
03:12	ZZZZZZ	1		
03:15	ZZZZZZ	1		
06:01	MA44386-CCV21	1		
06:06	MA44386-CCB22	1		
06:09	MA44386-CRI3	1		
06:14	MA44386-CRID3	1		
06:18	MA44386-CCV22	1		
06:31	MA44386-CCB23	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:10	MA44386-STD1	6664 R	157750 R	22186 R	10300 R
15:13	MA44386-STD2	6383	150840	21524	9545
15:16	ZZZZZZ	6477	151840	21673	9705
15:19	ZZZZZZ	6682	158670	22141	10305
15:23	MA44386-ICV1	6533	153450	21658	9762
15:30	MA44386-ICB1	6683	157360	21983	10303
15:36	MA44386-ICCV1	6563	153380	21773	9809
15:45	MA44386-CCB1	6777	159370	22268	10426
15:48	MA44386-CRI1	6700	157690	21959	10268
15:51	MA44386-CRID1	6741	157540	22088	10354
15:54	MA44386-ICSA1	6147	142830	21149	9028
15:57	MA44386-ICSAB1	6158	143030	21160	9068
16:00	MA44386-HSTD1	6644	158630	21994	10298
16:03	MA44386-HSTD2	6308	146320	21265	9170
16:07	ZZZZZZ	6694	156430	21823	10487
16:10	ZZZZZZ	6639	158500	22152	10403
16:13	ZZZZZZ	6769	159100	21828	10416
16:16	MA44386-CCV1	6558	154590	21697	9813
16:19	MA44386-CCB2	6723	158480	21963	10358
16:22	ZZZZZZ	6764	160390	22296	10410
16:25	ZZZZZZ	6614	156890	22137	9947
16:27	MP7035-PS1	6265	150110	21642	9524
16:30	ZZZZZZ	6792	161110	22461	10424
16:34	ZZZZZZ	6616	157330	22039	9965
16:36	MP7044-S1	7086	163930	23929	9941
16:39	MP7044-S2	6930	161550	23315	9984
16:42	JC65337-1	7121	167240	23823	10186
16:45	MP7044-SD1	6828	161040	22428	10240
16:48	MA44386-CCV2	6608	154200	21774	9863
16:51	MA44386-CCB3	6822	159060	22350	10492
16:54	ZZZZZZ	6770	158490	22284	10358
16:57	ZZZZZZ	6843	159300	22357	10429
17:00	ZZZZZZ	6924	160770	22576	10343

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
17:03	ZZZZZZ	6777	158590	22431	10458
17:06	ZZZZZZ	7000	164000	23229	10291
17:09	ZZZZZZ	6862	160790	22664	10484
17:12	ZZZZZZ	6776	158510	22424	10284
17:15	ZZZZZZ	6975	163430	23085	10299
17:18	ZZZZZZ	6708	158270	22450	9932
17:21	MA44386-CCV3	6621	154800	21701	9890
17:24	MA44386-CCB4	6801	159930	22070	10464
17:27	ZZZZZZ	6971	162980	22755	10323
17:30	ZZZZZZ	6913	162840	22954	10208
17:33	ZZZZZZ	6874	160870	22511	10437
17:36	ZZZZZZ	6787	158140	22397	10149
17:39	ZZZZZZ	6847	159300	22496	10168
17:42	ZZZZZZ	8006	185220	26290	10141
17:45	ZZZZZZ	7285	169080	23888	10141
17:48	ZZZZZZ	6854	158940	22311	10478
17:51	ZZZZZZ	6867	160450	22722	10384
17:54	MA44386-CCV4	6592	153900	21862	9867
17:57	MA44386-CCB5	6963	159070	21918	10708
18:00	MP7070-MB1	6830	160850	22292	10487
18:03	MP7070-B1	6660	157720	21832	10020
18:06	MP7070-S1	5918	144570	21232	12259
18:09	MP7070-S2	5858	144520	21316	12417
18:12	MP7070-D1	5887	144450	21266	12610
18:15	TD20701-1	5859	144210	21040	12510
18:18	MP7070-SD1	6596	156420	21915	11046
18:21	ZZZZZZ	6387	150270	21714	8933
18:25	ZZZZZZ	6373	151380	22022	8880
18:28	MA44386-CCV5	6669	156640	21798	9955
18:31	MA44386-CCB6	6838	160190	22057	10513
18:34	ZZZZZZ	6887	161370	22575	10138
18:37	ZZZZZZ	6922	161410	22418	10208
18:39	ZZZZZZ	6806	160370	22709	9999

INTERNAL STANDARD SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
 Analyst: ND Run ID: MA44386
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:42	ZZZZZZ	6894	161070	22323	10154
18:45	ZZZZZZ	6836	160250	22332	10073
18:48	ZZZZZZ	6846	159960	22326	10048
18:51	ZZZZZZ	6983	161270	22561	10232
18:54	ZZZZZZ	6838	160430	22356	10052
18:57	ZZZZZZ	6862	160800	22555	10103
19:00	MA44386-CCV6	6606	154530	21415	9882
19:03	MA44386-CCB7	6806	158810	21684	10478
19:06	JC65800-1	6467	152180	21619	9030
19:09	JC65800-2	6840	159190	22442	9870
19:12	ZZZZZZ	6861	160360	22347	10158
19:15	ZZZZZZ	6918	162260	22436	10265
19:18	ZZZZZZ	7149	166190	23127	10323
19:21	ZZZZZZ	6918	163690	22607	10601
19:24	ZZZZZZ	6994	164970	22482	10823
19:27	ZZZZZZ	6778	157390	22239	10215
19:30	MP7049-S1	6353	148900	21148	9342
19:33	MA44386-CCV7	6618	153950	21438	9881
19:36	MA44386-CCB8	6795	158710	21854	10463
19:39	MP7049-S2	6400	150030	21033	9426
19:42	JC65371-2	6374	148050	20940	9378
19:45	MP7049-SD1	6634	155320	21358	10021
19:48	MP7049-S1	No results reported for the elements associated with this internal standard.			
19:51	MP7049-S2	No results reported for the elements associated with this internal standard.			
19:54	JC65371-2	No results reported for the elements associated with this internal standard.			
19:57	MP7049-SD1	No results reported for the elements associated with this internal standard.			
20:00	ZZZZZZ	No results reported for the elements associated with this internal standard.			
20:03	ZZZZZZ	6832	161900	22072	10480
20:06	MA44386-CCV8	6635	155610	21451	9927
20:09	MA44386-CCB9	6803	158980	21879	10480
20:12	ZZZZZZ	6933	162000	22499	10344
20:15	ZZZZZZ	7273	168580	24036	10084
20:18	ZZZZZZ	6958	160570	22458	10168

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:21	ZZZZZZ	6941	162410	22460	10144
20:24	ZZZZZZ	6690	157320	21836	10145
20:27	ZZZZZZ	6873	160990	22189	10568
20:30	ZZZZZZ	6704	157350	22043	10092
20:33	MP7043-S1	6606	154340	21611	9907
20:36	MP7043-S2	6603	154230	21467	9910
20:39	JC65257-12	6633	155230	21647	9985
20:42	MA44386-CCV9	6670	155500	21591	9977
20:45	MA44386-CCB10	6838	159520	21772	10547
20:48	MP7043-SD1	6795	159140	21821	10449
20:51	ZZZZZZ	6703	158560	21740	10312
20:54	ZZZZZZ	6722	159960	21896	10421
20:57	ZZZZZZ	6653	155140	21748	9993
21:00	ZZZZZZ	6731	159070	21898	10362
21:03	ZZZZZZ	6770	158940	21523	10453
21:06	ZZZZZZ	6774	159690	21731	10470
21:09	ZZZZZZ	6673	157030	21823	10274
21:12	ZZZZZZ	6736	159720	21750	10411
21:15	MA44386-CCV10	6664	154980	21594	9966
21:17	MA44386-CCB11	6855	160860	21579	10570
21:21	ZZZZZZ	6657	155740	21562	9991
21:24	ZZZZZZ	6738	159320	21727	10378
21:27	ZZZZZZ	6782	161180	21951	10487
21:30	ZZZZZZ	6794	161150	21956	10504
21:33	ZZZZZZ	6946	163430	22345	10649
21:36	ZZZZZZ	7000	163570	22716	10293
21:39	ZZZZZZ	6967	161800	22484	10251
21:42	ZZZZZZ	6986	163320	22597	10345
21:45	ZZZZZZ	6984	163000	22486	10310
21:48	MA44386-CCV11	6762	157580	21645	10140
21:51	MA44386-CCB12	6910	161870	22003	10667
21:54	ZZZZZZ	6923	163050	22253	10689
21:57	ZZZZZZ	6773	160420	22154	10236

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:59	MP7048-S1	6216	150290	21369	9220
22:03	MP7048-S2	6404	149550	21239	9478
22:06	JC65331-2F	6410	150630	21230	9510
22:09	MP7048-SD1	6701	157600	21811	10229
22:12	ZZZZZZ	6719	159510	21832	10464
22:15	ZZZZZZ	6751	161140	21759	10459
22:18	ZZZZZZ	6694	159880	21636	10435
22:21	MA44386-CCV12	6678	155770	21514	10043
22:24	MA44386-CCB13	6878	161320	21796	10673
22:27	ZZZZZZ	6746	161990	21755	10549
22:30	ZZZZZZ	6769	160020	21972	10552
22:33	ZZZZZZ	6793	161550	21987	10552
22:36	ZZZZZZ	6777	161150	21882	10554
22:39	ZZZZZZ	6826	161670	22006	10568
22:42	ZZZZZZ	6722	161070	21621	10486
22:45	ZZZZZZ	6741	159710	21901	10535
22:48	ZZZZZZ	6741	161770	21709	10523
22:51	ZZZZZZ	6838	161670	21955	10602
22:54	MA44386-CCV13	6766	157340	21946	10166
22:57	MA44386-CCB14	6874	162150	21964	10657
23:00	MA44386-CRI2	6897	162670	21844	10628
23:03	MA44386-CRID2	6975	162820	22436	10816
23:07	MA44386-ICSA2	6313	146590	21196	9363
23:10	MA44386-ICSAB2	6323	147400	21259	9415
23:13	MA44386-CCV14	6738	158110	21902	10187
23:16	MA44386-CCB15	6957	163740	22027	10817
23:19	ZZZZZZ	6945	162980	22216	10793
23:24	ZZZZZZ	6698	158380	21488	10479
23:27	ZZZZZZ	6761	160840	21470	10556
23:30	ZZZZZZ	6731	158240	21536	10501
23:34	ZZZZZZ	6759	159860	21830	10553
23:37	ZZZZZZ	6704	159030	21688	10521
23:40	ZZZZZZ	6364	150910	20813	9614

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
23:43	ZZZZZZ	6347	999999 !	21068	9671
23:46	ZZZZZZ	6780	151610	21685	9944
23:52	ZZZZZZ	6773	160720	21807	10657
23:55	ZZZZZZ	6331	152170	21273	9665
23:58	MA44386-CCV15	6604	155710	21520	10073
00:01	MA44386-CCB16	6787	161010	21912	10666
00:04	ZZZZZZ	6959	165970	22795	10981
00:07	ZZZZZZ	6779	161430	22298	10454
00:10	MP7057-S1	6681	160150	22407	10158
00:13	MP7057-S2	6677	160010	22657	10145
00:15	ZZZZZZ	6456	152940	21363	9778
00:19	ZZZZZZ	6948	166280	22546	10972
00:19	MP7059-MB1	6948	166280	22546	10972
00:22	ZZZZZZ	6732	160040	22285	10372
00:22	MP7059-B1	6732	160040	22285	10372
00:24	MP7059-S1	6896	999999 !a	22212	10392
00:27	MP7059-S2	6567	999999 !a	21907	9940
00:30	MA44386-CCV16	6572	155800	21818	10056
00:33	MA44386-CCB17	6742	159570	21679	10640
00:36	JC65577-1	6640	158660	22146	10149
00:39	MP7059-SD1	6680	158630	21682	10435
00:42	ZZZZZZ	6627	157140	22234	10063
00:45	MP7071-B1	6586	158390	21663	10176
00:48	MP7071-MB1	6810	163120	22179	10712
00:51	MP7071-S1	6624	162380	22720	10424
00:54	MP7071-S2	6603	161520	22703	10418
00:57	JC65783-1	6784	163880	22922	10700
01:00	MP7071-SD1	6799	162000	22100	10590
01:03	MA44386-CCV17	6588	156280	21518	10105
01:06	MA44386-CCB18	6740	161390	21635	10643
01:09	ZZZZZZ	6894	164930	22843	10578
01:12	ZZZZZZ	6698	163980	23080	10854
01:16	ZZZZZZ	6789	165840	23033	10686

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
01:19	ZZZZZZ	6929	166700	23250	10601
01:22	ZZZZZZ	6935	166870	23217	10506
01:25	ZZZZZZ	6892	165060	23083	10636
01:28	ZZZZZZ	6891	166800	23071	10545
01:31	ZZZZZZ	6454	158470	22331	9794
01:34	ZZZZZZ	6861	164560	23105	10414
01:37	MA44386-CCV18	6577	157450	21561	10065
01:40	MA44386-CCB19	6654	160100	21989	10489
01:43	ZZZZZZ	6904	166980	23677	10588
01:46	ZZZZZZ	6802	167430	23360	10767
01:49	ZZZZZZ	6967	167570	23391	10599
01:52	ZZZZZZ	6757	161490	22967	10446
01:55	ZZZZZZ	6763	163550	22850	10343
01:59	ZZZZZZ	6558	162430	23007	10140
02:02	ZZZZZZ	6926	167850	23745	10568
02:05	ZZZZZZ	6801	166530	23437	10773
02:08	ZZZZZZ	6944	166960	23180	10610
02:11	ZZZZZZ	6716	165020	23160	10765
02:14	MA44386-CCV19	6612	157360	21508	10114
02:17	MA44386-CCB20	6776	161850	22098	10677
02:20	MP7086-B1	6626	158790	21616	10198
02:23	MP7086-MB1	6810	164060	22099	10681
02:26	MP7086-S1	No results reported for the elements associated with this internal standard.			
02:29	MP7086-S2	No results reported for the elements associated with this internal standard.			
02:32	JC65784-11	No results reported for the elements associated with this internal standard.			
02:35	MP7086-SD1	No results reported for the elements associated with this internal standard.			
02:38	ZZZZZZ	6961	166540	23111	10644
02:41	ZZZZZZ	6933	165730	22865	10608
02:44	ZZZZZZ	6889	165700	23026	10370
02:48	MA44386-CCV20	6595	157470	21503	10115
02:50	MA44386-CCB21	6788	161910	21934	10693
02:53	ZZZZZZ	6945	166180	23247	10399
02:57	ZZZZZZ	6925	999999 !	23058	10489

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
Analyst: ND Run ID: MA44386
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
03:00	ZZZZZZ	6901	164210	22721	10501
03:03	ZZZZZZ	6950	164130	23020	10513
03:06	ZZZZZZ	7021	168830	23822	10578
03:09	ZZZZZZ	7069	166490	23627	10568
03:12	ZZZZZZ	7081	169960	23821	10544
03:15	ZZZZZZ	7011	169360	23375	10495
06:01	MA44386-CCV21	6685	158050	21634	10209
06:06	MA44386-CCB22	6868	163110	21667	10798
06:09	MA44386-CRI3	6847	163330	21651	10711
06:14	MA44386-CRID3	6900	162570	22045	10815
06:18	MA44386-CCV22	6694	158120	21372	10198
06:31	MA44386-CCB23	6972	162810	21742	10930

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

LEGEND:

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

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP
QC Limits: result < RL

Date Analyzed: 05/11/18
Run ID: MA44386

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	RL	IDL	15:30 ICB1 raw	final	15:45 CCB1 raw	final	16:19 CCB2 raw	final	16:51 CCB3 raw	final
Metal										
Aluminum	200	19	-3.00	<200	-1.70	<200	5.30	<200	-7.30	<200
Antimony	6.0	2.4	1.30	<6.0	0.100	<6.0	0.500	<6.0	-1.00	<6.0
Arsenic	3.0	1.2	-0.200	<3.0	1.10	<3.0	0.00	<3.0	0.500	<3.0
Barium	200	.6	0.400	<200	0.400	<200	0.00	<200	0.100	<200
Beryllium	1.0	.2	0.100	<1.0	0.00	<1.0	0.100	<1.0	0.300	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	-0.100	<3.0	-0.300	<3.0	-0.100	<3.0	-0.200	<3.0
Calcium	5000	5.5	1.80	<5000	1.60	<5000	3.00	<5000	-1.40	<5000
Chromium	10	.7	-0.800	<10	-0.300	<10	-0.400	<10	-0.400	<10
Cobalt	50	.4	-0.100	<50	0.00	<50	-0.100	<50	-0.200	<50
Copper	10	1.1	-0.200	<10	-0.900	<10	0.00	<10	-0.600	<10
Iron	100	3.5	2.00	<100	1.70	<100	1.80	<100	3.20	<100
Lead	3.0	2.2	0.300	<3.0	-0.600	<3.0	0.300	<3.0	-1.10	<3.0
Lithium	50	3.4								
Magnesium	5000	25	5.40	<5000	-1.00	<5000	12.1	<5000	14.6	<5000
Manganese	15	.14	0.100	<15	0.100	<15	0.100	<15	0.100	<15
Molybdenum	20	.4								
Nickel	10	.5	0.00	<10	0.00	<10	0.500	<10	0.400	<10
Phosphorus	50	2								
Potassium	10000	60	-60.7	<10000	-47.5	<10000	-9.40	<10000	3.80	<10000
Selenium	10	3.7	-0.300	<10	-0.400	<10	0.500	<10	1.60	<10
Silicon	200	1.8								
Silver	10	.7	-0.300	<10	-0.100	<10	0.100	<10	-0.100	<10
Sodium	10000	35	-15.4	<10000	-14.5	<10000	-0.900	<10000	-16.1	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	-0.800	<2.0	0.600	<2.0	0.200	<2.0	0.500	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.100	<50	0.300	<50	0.00	<50	0.00	<50
Zinc	20	.2	0.300	<20	0.300	<20	0.100	<20	0.00	<20

14.2.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44386 Units: ug/l

Time: Sample ID:			15:30 ICB1		15:45 CCB1		16:19 CCB2		16:51 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.2.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP
QC Limits: result < RL

Date Analyzed: 05/11/18
Run ID: MA44386

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	RL	IDL	17:24 CCB4 raw	final	17:57 CCB5 raw	final	18:31 CCB6 raw	final	19:03 CCB7 raw	final
Metal										
Aluminum	200	19	-1.50	<200	6.20	<200	5.30	<200	6.30	<200
Antimony	6.0	2.4	-0.600	<6.0	-0.700	<6.0	0.600	<6.0	-0.200	<6.0
Arsenic	3.0	1.2	0.900	<3.0	0.100	<3.0	0.900	<3.0	-0.700	<3.0
Barium	200	.6	0.500	<200	0.600	<200	0.600	<200	0.700	<200
Beryllium	1.0	.2	0.100	<1.0	0.200	<1.0	0.100	<1.0	0.200	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	-0.300	<3.0	-0.300	<3.0	-0.200	<3.0	0.00	<3.0
Calcium	5000	5.5	2.10	<5000	1.00	<5000	0.400	<5000	2.80	<5000
Chromium	10	.7	-0.400	<10	-0.400	<10	-0.400	<10	-0.400	<10
Cobalt	50	.4	0.00	<50	0.00	<50	0.00	<50	0.100	<50
Copper	10	1.1	-0.400	<10	0.200	<10	-0.400	<10	0.00	<10
Iron	100	3.5	3.70	<100	4.00	<100	3.10	<100	5.40	<100
Lead	3.0	2.2	0.500	<3.0	0.100	<3.0	1.20	<3.0	-1.10	<3.0
Lithium	50	3.4								
Magnesium	5000	25	1.90	<5000	6.50	<5000	3.10	<5000	0.00	<5000
Manganese	15	.14	0.100	<15	0.100	<15	0.100	<15	0.100	<15
Molybdenum	20	.4								
Nickel	10	.5	0.100	<10	0.300	<10	0.100	<10	0.200	<10
Phosphorus	50	2								
Potassium	10000	60	-42.3	<10000	-39.3	<10000	-10.5	<10000	-37.9	<10000
Selenium	10	3.7	-0.900	<10	0.100	<10	-0.700	<10	1.30	<10
Silicon	200	1.8								
Silver	10	.7	0.200	<10	-0.100	<10	0.100	<10	-0.300	<10
Sodium	10000	35	-17.6	<10000	-20.3	<10000	-27.2	<10000	-35.2	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	0.300	<2.0	-0.300	<2.0	1.20	<2.0	1.00	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.200	<50	-0.100	<50	-0.100	<50	-0.100	<50
Zinc	20	.2	0.200	<20	0.200	<20	0.200	<20	0.200	<20

14.2.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44386 Units: ug/l

Time: Sample ID:			17:24 CCB4		17:57 CCB5		18:31 CCB6		19:03 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.2.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP
QC Limits: result < RL

Date Analyzed: 05/11/18
Run ID: MA44386

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:			19:36 CCB8		20:09 CCB9		20:45 CCB10		21:17 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	2.40	<200	9.90	<200	1.30	<200	6.40	<200
Antimony	6.0	2.4	1.00	<6.0	-0.100	<6.0	0.300	<6.0	-0.900	<6.0
Arsenic	3.0	1.2	0.100	<3.0	-0.200	<3.0	0.700	<3.0	-0.100	<3.0
Barium	200	.6	0.600	<200	0.400	<200	0.500	<200	0.200	<200
Beryllium	1.0	.2	0.100	<1.0	0.100	<1.0	0.200	<1.0	0.200	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	-0.200	<3.0	-0.300	<3.0	0.00	<3.0	-0.100	<3.0
Calcium	5000	5.5	0.700	<5000	-0.900	<5000	3.30	<5000	2.90	<5000
Chromium	10	.7	-0.600	<10	-0.300	<10	-0.100	<10	-0.400	<10
Cobalt	50	.4	-0.200	<50	0.00	<50	-0.100	<50	0.00	<50
Copper	10	1.1	-0.300	<10	-0.100	<10	0.00	<10	-0.800	<10
Iron	100	3.5	3.20	<100	3.50	<100	2.60	<100	4.40	<100
Lead	3.0	2.2	-0.100	<3.0	1.50	<3.0	-0.300	<3.0	-0.100	<3.0
Lithium	50	3.4								
Magnesium	5000	25	-3.70	<5000	13.9	<5000	8.30	<5000	-0.200	<5000
Manganese	15	.14	0.100	<15	0.100	<15	0.100	<15	0.00	<15
Molybdenum	20	.4								
Nickel	10	.5	0.200	<10	0.100	<10	0.400	<10	0.400	<10
Phosphorus	50	2								
Potassium	10000	60	-39.6	<10000	-17.9	<10000	-68.8	<10000	-23.2	<10000
Selenium	10	3.7	0.100	<10	-1.20	<10	0.500	<10	0.700	<10
Silicon	200	1.8								
Silver	10	.7	-0.400	<10	-0.100	<10	-0.800	<10	-0.300	<10
Sodium	10000	35	-24.2	<10000	-15.3	<10000	-12.1	<10000	-26.3	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	-0.100	<2.0	-0.800	<2.0	-0.500	<2.0	1.40	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.100	<50	0.100	<50	0.300	<50	0.400	<50
Zinc	20	.2	0.100	<20	0.200	<20	0.300	<20	0.200	<20

14.2.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44386 Units: ug/l

Time: Sample ID:			19:36 CCB8		20:09 CCB9		20:45 CCB10		21:17 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.2.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP
QC Limits: result < RL

Date Analyzed: 05/11/18
Run ID: MA44386

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:			21:51 CCB12		22:24 CCB13		22:57 CCB14		23:16 CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	-5.80	<200	-2.70	<200	-4.20	<200	0.200	<200
Antimony	6.0	2.4	-0.100	<6.0	0.400	<6.0	-0.500	<6.0	1.80	<6.0
Arsenic	3.0	1.2	-0.400	<3.0	-0.700	<3.0	0.600	<3.0	-0.500	<3.0
Barium	200	.6	0.300	<200	0.100	<200	0.300	<200	-0.200	<200
Beryllium	1.0	.2	0.200	<1.0	0.100	<1.0	0.200	<1.0	0.200	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	-0.100	<3.0	-0.100	<3.0	0.100	<3.0	-0.100	<3.0
Calcium	5000	5.5	2.00	<5000	2.90	<5000	5.30	<5000	3.10	<5000
Chromium	10	.7	-0.300	<10	-0.200	<10	-0.300	<10	-0.400	<10
Cobalt	50	.4	-0.100	<50	-0.100	<50	0.00	<50	-0.300	<50
Copper	10	1.1	-0.300	<10	0.00	<10	-0.100	<10	-0.100	<10
Iron	100	3.5	3.30	<100	3.50	<100	4.00	<100	4.80	<100
Lead	3.0	2.2	0.400	<3.0	0.300	<3.0	1.00	<3.0	0.300	<3.0
Lithium	50	3.4								
Magnesium	5000	25	2.80	<5000	8.50	<5000	24.7	<5000	5.80	<5000
Manganese	15	.14	0.100	<15	0.00	<15	0.100	<15	0.100	<15
Molybdenum	20	.4								
Nickel	10	.5	0.300	<10	0.200	<10	0.300	<10	0.00	<10
Phosphorus	50	2								
Potassium	10000	60	-6.10	<10000	-21.5	<10000	-33.6	<10000	-59.8	<10000
Selenium	10	3.7	0.300	<10	1.00	<10	-0.700	<10	-0.700	<10
Silicon	200	1.8								
Silver	10	.7	0.100	<10	0.100	<10	0.00	<10	0.100	<10
Sodium	10000	35	-17.4	<10000	2.50	<10000	-12.6	<10000	-4.50	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	1.00	<2.0	0.00	<2.0	-0.900	<2.0	-0.800	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	-0.100	<50	0.200	<50	0.100	<50	-0.200	<50
Zinc	20	.2	9.30	<20	9.30	<20	9.50	<20	0.200	<20

14.2.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44386 Units: ug/l

Time: Sample ID:			21:51 CCB12		22:24 CCB13		22:57 CCB14		23:16 CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.2.2
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time: Sample ID:	ICCV	15:36 ICCV1	
Metal	True	Results	% Rec
Aluminum	40000	39900	99.8
Antimony	2000	2030	101.5
Arsenic	2000	2020	101.0
Barium	2000	2020	101.0
Beryllium	2000	2040	102.0
Bismuth			
Boron			
Cadmium	2000	2010	100.5
Calcium	40000	40500	101.3
Chromium	2000	2070	103.5
Cobalt	2000	2040	102.0
Copper	2000	2030	101.5
Iron	40000	40400	101.0
Lead	2000	2050	102.5
Lithium			
Magnesium	40000	40600	101.5
Manganese	2000	2140	107.0*(a
Molybdenum			
Nickel	2000	2050	102.5
Phosphorus			
Potassium	40000	40400	101.0
Selenium	2000	2010	100.5
Silicon			
Silver	250	255	102.0
Sodium	40000	40500	101.3
Strontium			
Sulfur	anr		
Thallium	2000	2050	102.5
Tin			
Titanium			
Tungsten			
Vanadium	2000	2070	103.5
Zinc	2000	2050	102.5

14.2.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time:	15:36
Sample ID: ICCV	ICCV1
Metal	True
Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested
(a) Within 90 to 110 percent limits required for SW846 6010. No EPA 200.7 samples reported for this element in the area bracketed by this QC.

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time: Sample ID:	ICV	15:23 ICV1		CCV	16:16 CCV1		CCV	16:48 CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40000	100.0	40000	39200	98.0	40000	39300	98.3
Antimony	2000	2050	102.5	2000	1990	99.5	2000	1990	99.5
Arsenic	2000	2050	102.5	2000	1990	99.5	2000	1990	99.5
Barium	2000	2030	101.5	2000	2000	100.0	2000	2010	100.5
Beryllium	2000	2050	102.5	2000	2020	101.0	2000	2020	101.0
Bismuth									
Boron									
Cadmium	2000	2030	101.5	2000	1970	98.5	2000	1970	98.5
Calcium	40000	40400	101.0	40000	39900	99.8	40000	40000	100.0
Chromium	2000	2050	102.5	2000	2000	100.0	2000	2020	101.0
Cobalt	2000	2070	103.5	2000	2010	100.5	2000	2010	100.5
Copper	2000	2020	101.0	2000	1950	97.5	2000	1970	98.5
Iron	40000	40100	100.3	40000	39800	99.5	40000	39800	99.5
Lead	2000	2070	103.5	2000	2020	101.0	2000	2020	101.0
Lithium									
Magnesium	40000	40600	101.5	40000	40200	100.5	40000	40400	101.0
Manganese	2000	2120	106.0*(a	2000	2070	103.5	2000	2080	104.0
Molybdenum									
Nickel	2000	2060	103.0	2000	2020	101.0	2000	2020	101.0
Phosphorus									
Potassium	40000	40600	101.5	40000	39800	99.5	40000	40000	100.0
Selenium	2000	2050	102.5	2000	1980	99.0	2000	1980	99.0
Silicon									
Silver	250	256	102.4	250	245	98.0	250	248	99.2
Sodium	40000	41000	102.5	40000	39900	99.8	40000	40100	100.3
Strontium									
Sulfur	anr								
Thallium	2000	2070	103.5	2000	2020	101.0	2000	2020	101.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	2050	102.5	2000	2000	100.0	2000	2020	101.0
Zinc	2000	2070	103.5	2000	2020	101.0	2000	2020	101.0

14.2.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time:		15:23			16:16			16:48		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

- (*) Outside of QC limits
(anr) Analyte not requested
(a) Within 90 to 110 percent limits required for SW846 6010. No EPA 200.7 samples reported for this element in the area bracketed by this QC.

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time: Sample ID:	CCV	17:21 CCV3 Results	% Rec	CCV	17:54 CCV4 Results	% Rec	CCV	18:28 CCV5 Results	% Rec
Metal	True			True			True		
Aluminum	40000	38500	96.3	40000	38800	97.0	40000	38800	97.0
Antimony	2000	1950	97.5	2000	1990	99.5	2000	1970	98.5
Arsenic	2000	1950	97.5	2000	1990	99.5	2000	1970	98.5
Barium	2000	1960	98.0	2000	1980	99.0	2000	1990	99.5
Beryllium	2000	1980	99.0	2000	1990	99.5	2000	2000	100.0
Bismuth									
Boron									
Cadmium	2000	1940	97.0	2000	1970	98.5	2000	1960	98.0
Calcium	40000	39100	97.8	40000	39400	98.5	40000	39400	98.5
Chromium	2000	1990	99.5	2000	2010	100.5	2000	1990	99.5
Cobalt	2000	1980	99.0	2000	2000	100.0	2000	2000	100.0
Copper	2000	1930	96.5	2000	1950	97.5	2000	1930	96.5
Iron	40000	39000	97.5	40000	39200	98.0	40000	39100	97.8
Lead	2000	1990	99.5	2000	2010	100.5	2000	2010	100.5
Lithium									
Magnesium	40000	39400	98.5	40000	39700	99.3	40000	39700	99.3
Manganese	2000	2050	102.5	2000	2080	104.0	2000	2060	103.0
Molybdenum									
Nickel	2000	1990	99.5	2000	2010	100.5	2000	2010	100.5
Phosphorus									
Potassium	40000	38800	97.0	40000	39500	98.8	40000	40000	100.0
Selenium	2000	1940	97.0	2000	1980	99.0	2000	1960	98.0
Silicon									
Silver	250	242	96.8	250	246	98.4	250	244	97.6
Sodium	40000	39000	97.5	40000	39500	98.8	40000	39800	99.5
Strontium									
Sulfur	anr								
Thallium	2000	1980	99.0	2000	2020	101.0	2000	2000	100.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1980	99.0	2000	2000	100.0	2000	1980	99.0
Zinc	2000	1990	99.5	2000	2020	101.0	2000	2010	100.5

14.2.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time:		17:21			17:54			18:28		
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time: Sample ID: Metal	CCV True	19:00 CCV6 Results	% Rec	CCV True	19:33 CCV7 Results	% Rec	CCV True	20:06 CCV8 Results	% Rec
Aluminum	40000	39300	98.3	40000	39500	98.8	40000	39300	98.3
Antimony	2000	1980	99.0	2000	1970	98.5	2000	1960	98.0
Arsenic	2000	1980	99.0	2000	1970	98.5	2000	1960	98.0
Barium	2000	2000	100.0	2000	1990	99.5	2000	1990	99.5
Beryllium	2000	2010	100.5	2000	1990	99.5	2000	2000	100.0
Bismuth									
Boron									
Cadmium	2000	1970	98.5	2000	1960	98.0	2000	1950	97.5
Calcium	40000	39800	99.5	40000	40000	100.0	40000	39700	99.3
Chromium	2000	2010	100.5	2000	2020	101.0	2000	2000	100.0
Cobalt	2000	2000	100.0	2000	1990	99.5	2000	1990	99.5
Copper	2000	1950	97.5	2000	1950	97.5	2000	1940	97.0
Iron	40000	39600	99.0	40000	39700	99.3	40000	39500	98.8
Lead	2000	2010	100.5	2000	2000	100.0	2000	2000	100.0
Lithium									
Magnesium	40000	40200	100.5	40000	40100	100.3	40000	40100	100.3
Manganese	2000	2070	103.5	2000	2060	103.0	2000	2060	103.0
Molybdenum									
Nickel	2000	2010	100.5	2000	2000	100.0	2000	2000	100.0
Phosphorus									
Potassium	40000	39800	99.5	40000	39500	98.8	40000	39500	98.8
Selenium	2000	1970	98.5	2000	1960	98.0	2000	1950	97.5
Silicon									
Silver	250	246	98.4	250	245	98.0	250	243	97.2
Sodium	40000	39800	99.5	40000	39600	99.0	40000	39700	99.3
Strontium									
Sulfur	anr								
Thallium	2000	2010	100.5	2000	2000	100.0	2000	1990	99.5
Tin									
Titanium									
Tungsten									
Vanadium	2000	2000	100.0	2000	2000	100.0	2000	1990	99.5
Zinc	2000	2020	101.0	2000	2010	100.5	2000	2010	100.5

14.2.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time: Sample ID: Metal	CCV	20:42 CCV9 Results	% Rec	CCV	21:15 CCV10 Results	% Rec	CCV	21:48 CCV11 Results	% Rec
Aluminum	40000	38600	96.5	40000	38700	96.8	40000	38700	96.8
Antimony	2000	1940	97.0	2000	1970	98.5	2000	1920	96.0
Arsenic	2000	1940	97.0	2000	1970	98.5	2000	1920	96.0
Barium	2000	1960	98.0	2000	1960	98.0	2000	1960	98.0
Beryllium	2000	1970	98.5	2000	1960	98.0	2000	1970	98.5
Bismuth									
Boron									
Cadmium	2000	1930	96.5	2000	1960	98.0	2000	1910	95.5
Calcium	40000	39000	97.5	40000	39200	98.0	40000	39100	97.8
Chromium	2000	1980	99.0	2000	2010	100.5	2000	1980	99.0
Cobalt	2000	1960	98.0	2000	2000	100.0	2000	1940	97.0
Copper	2000	1910	95.5	2000	1940	97.0	2000	1900	95.0
Iron	40000	38800	97.0	40000	38800	97.0	40000	38900	97.3
Lead	2000	1970	98.5	2000	2000	100.0	2000	1950	97.5
Lithium									
Magnesium	40000	39300	98.3	40000	39400	98.5	40000	39500	98.8
Manganese	2000	2040	102.0	2000	2060	103.0	2000	2030	101.5
Molybdenum									
Nickel	2000	1970	98.5	2000	2000	100.0	2000	1950	97.5
Phosphorus									
Potassium	40000	38700	96.8	40000	38900	97.3	40000	38800	97.0
Selenium	2000	1930	96.5	2000	1960	98.0	2000	1900	95.0
Silicon									
Silver	250	240	96.0	250	245	98.0	250	240	96.0
Sodium	40000	38900	97.3	40000	39100	97.8	40000	39000	97.5
Strontium									
Sulfur	anr								
Thallium	2000	1970	98.5	2000	1990	99.5	2000	1930	96.5
Tin									
Titanium									
Tungsten									
Vanadium	2000	1960	98.0	2000	1990	99.5	2000	1950	97.5
Zinc	2000	1980	99.0	2000	2020	101.0	2000	1970	98.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time: Sample ID:	CCV	22:21 CCV12		CCV	22:54 CCV13		CCV	23:13 CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	38700	96.8	40000	37900	94.8	40000	39000	97.5
Antimony	2000	1940	97.0	2000	1930	96.5	2000	1970	98.5
Arsenic	2000	1940	97.0	2000	1930	96.5	2000	1970	98.5
Barium	2000	1970	98.5	2000	1940	97.0	2000	1990	99.5
Beryllium	2000	1980	99.0	2000	1950	97.5	2000	2000	100.0
Bismuth									
Boron									
Cadmium	2000	1940	97.0	2000	1910	95.5	2000	1970	98.5
Calcium	40000	39000	97.5	40000	38100	95.3	40000	39100	97.8
Chromium	2000	1990	99.5	2000	1960	98.0	2000	2000	100.0
Cobalt	2000	1970	98.5	2000	1960	98.0	2000	1990	99.5
Copper	2000	1920	96.0	2000	1890	94.5	2000	1940	97.0
Iron	40000	38900	97.3	40000	38100	95.3	40000	39100	97.8
Lead	2000	1980	99.0	2000	1950	97.5	2000	2000	100.0
Lithium									
Magnesium	40000	39300	98.3	40000	38500	96.3	40000	39400	98.5
Manganese	2000	2060	103.0	2000	2030	101.5	2000	2080	104.0
Molybdenum									
Nickel	2000	1970	98.5	2000	1950	97.5	2000	1990	99.5
Phosphorus									
Potassium	40000	39100	97.8	40000	38300	95.8	40000	39700	99.3
Selenium	2000	1930	96.5	2000	1910	95.5	2000	1960	98.0
Silicon									
Silver	250	243	97.2	250	238	95.2	250	245	98.0
Sodium	40000	39100	97.8	40000	38300	95.8	40000	39500	98.8
Strontium									
Sulfur	anr								
Thallium	2000	1960	98.0	2000	1950	97.5	2000	1980	99.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1970	98.5	2000	1940	97.0	2000	1970	98.5
Zinc	2000	1990	99.5	2000	1970	98.5	2000	2030	101.5

14.2.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44386 Units: ug/l

Time:		22:21			22:54			23:13		
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

HIGH STANDARD CHECK SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP
QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/11/18
Run ID: MA44386

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	HSTD	16:00 HSTD1	% Rec	HSTD	16:03 HSTD2	% Rec
Metal	True	Results		True	Results	
Aluminum				300000	293000	97.7
Antimony	5000	5140	102.8			
Arsenic	5000	5080	101.6			
Barium	5000	5180	103.6			
Beryllium	5000	5230	104.6			
Bismuth						
Boron						
Cadmium	5000	5130	102.6			
Calcium				150000	148000	98.7
Chromium	5000	5220	104.4			
Cobalt	5000	5190	103.8			
Copper	5000	5120	102.4			
Iron				150000	151000	100.7
Lead	5000	5240	104.8			
Lithium						
Magnesium				300000	299000	99.7
Manganese	5000	5250	105.0			
Molybdenum						
Nickel	5000	5220	104.4			
Phosphorus						
Potassium				150000	146000	97.3
Selenium	5000	5080	101.6			
Silicon						
Silver	625	648	103.7			
Sodium				150000	153000	102.0
Strontium						
Sulfur	anr					
Thallium	5000	5200	104.0			
Tin						
Titanium						
Tungsten						
Vanadium	5000	5140	102.8			
Zinc	5000	5330	106.6			

HIGH STANDARD CHECK SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: 90 to 110 % Recovery Run ID: MA44386 Units: ug/l

Time:		16:00			16:03		
Sample ID:	HSTD	HSTD1		HSTD	HSTD2		
Metal	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP
QC Limits: 70 to 130 % Recovery

Date Analyzed: 05/11/18
Run ID: MA44386

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	15:48 CRI1	% Rec	15:51 CRID1	% Rec	23:00 CRI2	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	202	101.0	116	116.0	200	100.0
Antimony	6.0	20	3.0	6.20	103.3			4.60	76.7
Arsenic	8.0	20	3.0	6.90	86.3	2.80	93.3	8.80	110.0
Barium	200		4.0	206	103.0	4.40	110.0	205	102.5
Beryllium	2.0		1.0	2.10	105.0	1.10	110.0	2.10	105.0
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	3.00	100.0	1.00	100.0	2.80	93.3
Calcium	5000	2000	1000	5250	105.0	1080	108.0	5120	102.4
Chromium	10		2.0	10.5	105.0	1.60	80.0	10.0	100.0
Cobalt	50		3.0	52.2	104.4	3.20	106.7	50.8	101.6
Copper	10		2.0	9.90	99.0			9.50	95.0
Iron	100	500		108	108.0			106	106.0
Lead	3.0	20	2.5	2.60	86.7			2.80	93.3
Lithium	50								
Magnesium	5000	2000	100	5330	106.6	117	117.0	5220	104.4
Manganese	15		3.0	16.8	112.0	3.50	116.7	16.4	109.3
Molybdenum	20								
Nickel	10		4.0	10.8	108.0	4.60	115.0	10.6	106.0
Phosphorus	50								
Potassium	5000		2000	5040	100.8	2040	102.0	5040	100.8
Selenium	10	20	5.0	12.0	120.0			9.40	94.0
Silicon	200								
Silver	5.0		2.0	5.20	104.0			5.60	112.0
Sodium	5000		1000	5200	104.0	1070	107.0	5140	102.8
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	8.90	89.0	2.90	145.0*(a	9.60	96.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	52.6	105.2	2.30	115.0	50.7	101.4
Zinc	20		10	21.4	107.0	11.4	114.0	21.9	109.5

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44386 Units: ug/l

Time:					15:48		15:51		23:00	
Sample ID:	CRI	CRIA	CRID	CRI1			CRID1		CRI2	
Metal	True	True	True	Results	% Rec		Results	% Rec	Results	% Rec

Zirconium 10

(*) Outside of QC limits
(anr) Analyte not requested
(a) No AQ samples reported for this element in the area bracketed by this QC.

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP
QC Limits: 70 to 130 % Recovery

Date Analyzed: 05/11/18
Run ID: MA44386

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID: Metal	CRI True	CRIA True	CRID True	23:03 CRID2 Results	% Rec
Aluminum	200	500	100	92.6	92.6
Antimony	6.0	20	3.0		
Arsenic	8.0	20	3.0	3.60	120.0
Barium	200		4.0	4.30	107.5
Beryllium	2.0		1.0	1.10	110.0
Bismuth	20				
Boron	100		10		
Cadmium	3.0		1.0	0.900	90.0
Calcium	5000	2000	1000	1040	104.0
Chromium	10		2.0	1.70	85.0
Cobalt	50		3.0	3.10	103.3
Copper	10		2.0		
Iron	100	500			
Lead	3.0	20	2.5		
Lithium	50				
Magnesium	5000	2000	100	91.0	91.0
Manganese	15		3.0	3.40	113.3
Molybdenum	20				
Nickel	10		4.0	3.90	97.5
Phosphorus	50				
Potassium	5000		2000	2020	101.0
Selenium	10	20	5.0	5.10	102.0
Silicon	200				
Silver	5.0		2.0		
Sodium	5000		1000	1030	103.0
Strontium	10				
Sulfur	50				
Thallium	10		2.0	2.90	145.0*(a
Tin	10				
Titanium	10				
Tungsten	50				
Vanadium	50		2.0	2.20	110.0
Zinc	20		10	11.6	116.0

14.2.6
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44386 Units: ug/l

Time:					23:03
Sample ID:	CRI	CRIA	CRID	CRID2	
Metal	True	True	True	Results	% Rec

Zirconium 10

(*) Outside of QC limits
(anr) Analyte not requested
(a) No AQ samples reported for this element in the area bracketed by this QC.

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44386 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	15:54 ICSA1 Results	% Rec	15:57 ICSAB1 Results	% Rec	23:07 ICSA2 Results	% Rec	23:10 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	518000	103.6	510000	102.0	503000	100.6	508000	101.6
Antimony		1000	-0.600		1030	103.0	-3.70		1010	101.0
Arsenic		1000	1.70		1060	106.0	1.50		1050	105.0
Barium		500	1.60		508	101.6	1.40		500	100.0
Beryllium		500	0.100		500	100.0	0.00		492	98.4
Bismuth		500	-4.80		507	101.4	-0.300		492	98.4
Boron		500	1.70		511	102.2	0.100		500	100.0
Cadmium		1000	0.500		1020	102.0	0.300		1010	101.0
Calcium	400000	400000	399000	99.8	392000	98.0	386000	96.5	386000	96.5
Chromium		500	-0.300		495	99.0	-0.300		484	96.8
Cobalt		500	0.200		498	99.6	0.100		490	98.0
Copper		500	2.50		512	102.4	1.00		496	99.2
Iron	200000	200000	198000	99.0	198000	99.0	192000	96.0	194000	97.0
Lead		1000	5.20		985	98.5	2.70		966	96.6
Lithium		500	1.90		522	104.4	3.80		507	101.4
Magnesium	500000	500000	514000	102.8	504000	100.8	495000	99.0	493000	98.6
Manganese		500	-0.300		519	103.8	-0.100		512	102.4
Molybdenum		500	0.300		487	97.4	0.500		475	95.0
Nickel		1000	0.00		984	98.4	0.00		959	95.9
Phosphorus		500	3.20		505	101.0	-2.00		498	99.6
Potassium			34.0		90.4		49.4		116	
Selenium		1000	-1.50		992	99.2	-3.80		977	97.7
Silicon		500	12.6		505	101.0	11.0		498	99.6
Silver		1000	1.40		972	97.2	3.40		952	95.2
Sodium			-17.7		-5.60		-20.8		2.30	
Strontium		500	-2.60		506	101.2	-2.90		498	99.6
Sulfur		500	-10.4		496	99.2	-15.3		495	99.0
Thallium		1000	-4.40*(a		985	98.5	-2.80		966	96.6
Tin		500	-3.20		473	94.6	-3.10		476	95.2
Titanium		500	-2.40		503	100.6	-2.40		489	97.8
Tungsten		500	5.00		484	96.8	2.30		474	94.8
Vanadium		500	0.200		505	101.0	0.700		489	97.8
Zinc		1000	5.20		967	96.7	5.20		967	96.7

14.2.7
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INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051118M2.ICP Date Analyzed: 05/11/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44386 Units: ug/l

Time:				15:54			15:57			23:07			23:10
Sample ID:	ICSAB	ICSAB	ICSAB	ICSAB1	% Rec	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec

Zirconium 500 -2.60 497 99.4 -2.70 488 97.6

(*) Outside of QC limits
(anr) Analyte not requested
(a) No AQ samples reported for this element in the area bracketed by this QC.

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:39	MA44393-STD1	1		STDA
12:43	MA44393-STD2	1		STDB
12:47	ZZZZZZ	1		
12:51	ZZZZZZ	1		
12:58	MA44393-ICV1	1		
13:10	MA44393-ICB1	1		
13:15	ZZZZZZ	1		
13:20	MA44393-ICCV1	1		
13:35	MA44393-CCB1	1		
13:40	MA44393-CRI1	1		
13:44	MA44393-CRID1	1		
13:49	MA44393-ICSA1	1		
13:53	MA44393-ICSAB1	1		
13:57	MA44393-HSTD1	1		
14:01	MA44393-HSTD2	1		
14:05	ZZZZZZ	1		
14:10	ZZZZZZ	1		
14:14	ZZZZZZ	1		
14:18	MA44393-CCV1	1		
14:22	MA44393-CCB2	1		
14:27	ZZZZZZ	1		
14:32	ZZZZZZ	1		
14:36	ZZZZZZ	25		
14:40	ZZZZZZ	1		
14:44	MP7120-MB1	1		
14:49	MP7120-MB2	1		
14:53	MP7120-MB2	1		
14:57	MP7120-B1	1		
15:01	MP7120-B2	1		
15:06	MA44393-CCV2	1		
15:10	MA44393-CCB3	1		
15:14	MP7120-S1	1		
15:18	MP7120-S2	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:22	JC65870-1A	1		(sample used for QC only; not part of login JC65800)
15:26	MP7120-SD1	5		
15:31	ZZZZZZ	1		
15:35	ZZZZZZ	1		
15:39	ZZZZZZ	5		
15:43	ZZZZZZ	1		
15:48	MA44393-CCV3	1		
15:52	MA44393-CCB4	1		
15:56	ZZZZZZ	1		
16:00	ZZZZZZ	1		
16:04	MP7070-S1	25		
16:09	MP7070-S2	25		
16:13	TD20701-1	25		(sample used for QC only; not part of login JC65800)
16:17	MP7070-SD1	125		
16:21	MP7070-PS1	1		
16:26	MP7070-PS1	5		
16:30	MP7070-PS1	25		
----->	Last reportable sample/prep for job JC65800			
16:34	MA44393-CCV4	1		
16:38	MA44393-CCB5	1		
16:43	ZZZZZZ	5		
16:47	ZZZZZZ	5		
16:52	MA44393-CRI2	1		
16:57	MA44393-CRID2	1		
17:01	MA44393-ICSA2	1		
17:05	MA44393-ICSAB2	1		
17:09	MA44393-CCV5	1		
17:13	MA44393-CCB6	1		
----->	Last reportable CCB for job JC65800			
17:18	ZZZZZZ	1		
17:22	ZZZZZZ	1		
17:26	ZZZZZZ	1		
17:31	ZZZZZZ	1		
17:35	ZZZZZZ	1		
17:39	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:44	ZZZZZZ	1		
17:48	ZZZZZZ	1		
17:52	ZZZZZZ	1		
17:56	MA44393-CCV6	1		
18:01	MA44393-CCB7	1		
18:05	ZZZZZZ	1		
18:09	ZZZZZZ	1		
18:14	ZZZZZZ	1		
18:18	ZZZZZZ	1		
18:22	ZZZZZZ	1		
18:27	ZZZZZZ	1		
18:31	ZZZZZZ	1		
18:36	ZZZZZZ	1		
18:40	MA44393-CCV7	1		
18:44	MA44393-CCB8	1		
18:48	MP7103-S1	10		
18:53	MP7103-S2	10		
18:57	JC65724-2	10		(sample used for QC only; not part of login JC65800)
19:01	MP7103-SD1	50		
19:05	ZZZZZZ	25		
19:10	ZZZZZZ	5		
19:14	ZZZZZZ	5		
19:18	ZZZZZZ	5		
19:23	ZZZZZZ	5		
19:27	ZZZZZZ	5		
19:31	MA44393-CCV8	1		
19:35	MA44393-CCB9	1		
19:40	ZZZZZZ	5		
19:44	ZZZZZZ	2		
19:48	ZZZZZZ	1		
19:53	ZZZZZZ	1		
19:57	ZZZZZZ	10		
20:01	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:05	ZZZZZZ	1		
20:09	ZZZZZZ	3		
20:14	ZZZZZZ	3		
20:18	ZZZZZZ	5		
20:22	MA44393-CCV9	1		
20:26	MA44393-CCB10	1		
20:31	ZZZZZZ	1		
20:35	ZZZZZZ	1		
20:39	ZZZZZZ	20		
20:43	ZZZZZZ	1		
20:48	ZZZZZZ	1		
20:52	ZZZZZZ	1		
20:56	ZZZZZZ	1		
21:00	ZZZZZZ	1		
21:04	ZZZZZZ	20		
21:09	ZZZZZZ	20		
21:13	MA44393-CCV10	1		
21:17	MA44393-CCB11	1		
21:22	ZZZZZZ	1		
21:26	ZZZZZZ	1		
21:30	MP7086-S1	3		wrong Df
21:34	MP7086-S2	3		wrong Df
21:38	JC65784-11	3		(sample used for QC only; not part of login JC65800)
21:42	MP7086-SD1	15		wrong Df
21:47	ZZZZZZ	5		
21:51	ZZZZZZ	2		
21:55	ZZZZZZ	3		
21:59	ZZZZZZ	2		
22:04	MA44393-CCV11	1		
22:08	MA44393-CCB12	1		
22:12	ZZZZZZ	5		
22:16	ZZZZZZ	3		
22:20	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:25	ZZZZZZ	5		
22:29	ZZZZZZ	3		
22:33	ZZZZZZ	3		
22:37	ZZZZZZ	3		
22:42	ZZZZZZ	1		
22:46	ZZZZZZ	1		
22:50	ZZZZZZ	1		
22:54	MA44393-CCV12	1		
22:58	MA44393-CCB13	1		
23:03	MA44393-CRI3	1		
23:07	MA44393-CRID3	1		
23:11	MA44393-ICSA3	1		
23:16	MA44393-ICSAB3	1		
23:20	MA44393-CCV13	1		
23:24	MA44393-CCB14	1		
23:28	ZZZZZZ	1		
23:32	ZZZZZZ	1		
23:37	ZZZZZZ	1		
23:41	ZZZZZZ	1		
23:45	ZZZZZZ	1		
23:50	ZZZZZZ	1		
23:54	ZZZZZZ	1		
23:58	MP7071-S1	1		
00:02	MP7071-S2	1		
00:06	MA44393-CCV14	1		
00:10	MA44393-CCB15	1		
00:15	JC65783-1	1		(sample used for QC only; not part of login JC65800)
00:19	MP7071-SD1	5		
00:23	MP7071-S1	2		Needs higher dilution for Ni
00:27	MP7071-S2	2		Needs higher dilution for Ni
00:31	JC65783-1	2		(sample used for QC only; not part of login JC65800)
00:36	MP7071-SD1	10		Needs higher dilution for Ni
00:40	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:44	ZZZZZZ	1		
00:49	ZZZZZZ	2		
00:53	ZZZZZZ	10		
00:57	MA44393-CCV15	1		
01:01	MA44393-CCB16	1		
01:06	ZZZZZZ	5		
01:10	ZZZZZZ	5		
01:14	ZZZZZZ	3		
01:18	ZZZZZZ	1		
01:22	ZZZZZZ	5		
01:27	ZZZZZZ	3		
01:31	ZZZZZZ	1		
01:35	ZZZZZZ	3		
01:39	ZZZZZZ	10		
01:44	ZZZZZZ	5		
01:48	MA44393-CCV16	1		
01:52	MA44393-CCB17	1		
01:56	ZZZZZZ	1		
02:01	ZZZZZZ	5		
02:05	ZZZZZZ	1		
02:09	ZZZZZZ	5		
02:13	ZZZZZZ	10		
02:18	ZZZZZZ	5		
02:22	ZZZZZZ	2		
02:26	ZZZZZZ	10		
02:30	ZZZZZZ	5		
02:34	ZZZZZZ	1		
02:39	MA44393-CCV17	1		
02:43	MA44393-CCB18	1		
02:47	ZZZZZZ	3		
02:51	ZZZZZZ	10		
02:56	ZZZZZZ	5		
03:00	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
03:04	ZZZZZZ	5		
03:08	ZZZZZZ	10		
03:13	ZZZZZZ	5		
03:17	ZZZZZZ	1		
03:21	ZZZZZZ	5		
03:25	ZZZZZZ	10		
03:30	MA44393-CCV18	1		
03:34	MA44393-CCB19	1		
03:38	MP7111-MB1	1		
03:43	MP7111-B1	1		
03:47	MP7111-S1	1		
03:51	MP7111-S2	1		
03:55	JC65750-3	1		(sample used for QC only; not part of login JC65800)
03:59	MP7111-SD1	5		
04:03	ZZZZZZ	1		
04:08	ZZZZZZ	1		
04:12	ZZZZZZ	1		
04:16	ZZZZZZ	1		
04:21	MA44393-CCV19	1		
04:25	MA44393-CCB20	1		
04:29	ZZZZZZ	1		
04:33	ZZZZZZ	1		
04:38	ZZZZZZ	1		
04:42	ZZZZZZ	1		
04:46	ZZZZZZ	1		
04:51	ZZZZZZ	1		
04:55	ZZZZZZ	1		
04:59	ZZZZZZ	1		
05:03	ZZZZZZ	1		
05:08	ZZZZZZ	1		
05:12	MA44393-CCV20	1		
05:16	MA44393-CCB21	1		
05:21	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
05:25	ZZZZZZ	1		
05:29	ZZZZZZ	1		
05:34	ZZZZZZ	1		
05:38	ZZZZZZ	1		
05:43	MA44393-CCV21	1		
05:47	MA44393-CCB22	1		
05:51	MA44393-CRI4	1		
05:55	MA44393-CRID4	1		
06:00	MA44393-CCV22	1		
06:04	MA44393-CCB23	1		
06:08	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:39	MA44393-STD1	3637 R	81495 R	5395 R	8907 R
12:43	MA44393-STD2	3389	75130	5262	7528
12:47	ZZZZZZ	3484	77885	5349	7886
12:51	ZZZZZZ	3615	81159	5363	8863
12:58	MA44393-ICV1	3473	76759	5281	7838
13:10	MA44393-ICB1	3618	81095	5352	8869
13:15	ZZZZZZ	4234	78120	5369	999999 !
13:20	MA44393-ICCV1	3508	77845	5338	7926
13:35	MA44393-CCB1	3637	81715	5390	8908
13:40	MA44393-CRI1	3582	80367	5322	8639
13:44	MA44393-CRID1	3645	81562	5380	8888
13:49	MA44393-ICSA1	3173	70507	5104	6788
13:53	MA44393-ICSAB1	3185	70783	5083	6817
13:57	MA44393-HSTD1	3558	79834	5364	8551
14:01	MA44393-HSTD2	3247	71993	5153	6944
14:05	ZZZZZZ	3518	79532	5316	8632
14:10	ZZZZZZ	3531	81276	5342	8808
14:14	ZZZZZZ	3610	81364	5346	8851
14:18	MA44393-CCV1	3454	76850	5285	7812
14:22	MA44393-CCB2	3587	80652	5284	8803
14:27	ZZZZZZ	3672	83358	5510	9135
14:32	ZZZZZZ	3528	79362	5469	8181
14:36	ZZZZZZ	3472	77512	5284	8113
14:40	ZZZZZZ	3646	82679	5547	9064
14:44	MP7120-MB1	3628	82304	5505	8996
14:49	MP7120-MB2	3580	80916	5339	8786
14:53	MP7120-MB2	3589	80734	5278	8799
14:57	MP7120-B1	3540	79450	5441	8193
15:01	MP7120-B2	3507	79142	5408	8125
15:06	MA44393-CCV2	3428	76441	5265	7757
15:10	MA44393-CCB3	3580	80442	5308	8778
15:14	MP7120-S1	3420	77194	5386	7729
15:18	MP7120-S2	3411	77114	5345	7703

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:22	JC65870-1A	3473	78258	5377	8047
15:26	MP7120-SD1	3552	80095	5325	8516
15:31	ZZZZZZ	3347	75055	5208	7528
15:35	ZZZZZZ	3402	75864	5262	7582
15:39	ZZZZZZ	3383	75753	5232	7652
15:43	ZZZZZZ	3585	80754	5430	8024
15:48	MA44393-CCV3	3456	76750	5226	7799
15:52	MA44393-CCB4	3604	81009	5252	8831
15:56	ZZZZZZ	3574	80973	5323	8763
16:00	ZZZZZZ	3490	78223	5253	8014
16:04	MP7070-S1	3560	80188	5297	8651
16:09	MP7070-S2	3542	79936	5294	8613
16:13	TD20701-1	3549	80144	5270	8653
16:17	MP7070-SD1	3611	81452	5303	8797
16:21	MP7070-PS1	2737	64579	4849	8244
16:26	MP7070-PS1	3343	76333	5162	8335
16:30	MP7070-PS1	3554	80442	5294	8571
16:34	MA44393-CCV4	3458	77010	5215	7794
16:38	MA44393-CCB5	3596	81323	5224	8800
16:43	ZZZZZZ	3420	76811	5166	7613
16:47	ZZZZZZ	3432	76752	5185	7670
16:52	MA44393-CRI2	3556	79804	5209	8553
16:57	MA44393-CRID2	3598	81108	5265	8762
17:01	MA44393-ICSA2	3170	70402	4988	6767
17:05	MA44393-ICSAB2	3168	70753	4996	6767
17:09	MA44393-CCV5	3454	77010	5133	7792
17:13	MA44393-CCB6	3608	81532	5199	8831
17:18	ZZZZZZ	3488	78530	5290	8083
17:22	ZZZZZZ	3162	72163	5164	6998
17:26	ZZZZZZ	3618	81929	5396	8839
17:31	ZZZZZZ	3614	82129	5394	8813
17:35	ZZZZZZ	3635	82227	5411	8865
17:39	ZZZZZZ	3622	82276	5395	8833

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
17:44	ZZZZZZ	3602	81599	5352	8800
17:48	ZZZZZZ	3630	82033	5350	8840
17:52	ZZZZZZ	3630	82081	5323	9018
17:56	MA44393-CCV6	3430	76531	5083	7740
18:01	MA44393-CCB7	3597	81765	5179	8790
18:05	ZZZZZZ	3592	80863	5170	8761
18:09	ZZZZZZ	3596	81453	5210	8765
18:14	ZZZZZZ	3603	81479	5209	8839
18:18	ZZZZZZ	3629	81487	5216	8882
18:22	ZZZZZZ	3603	80985	5166	8790
18:27	ZZZZZZ	3726	77136	5319	7774
18:31	ZZZZZZ	3623	81438	5211	8832
18:36	ZZZZZZ	3246	73817	4988	7389
18:40	MA44393-CCV7	3460	77520	5110	7789
18:44	MA44393-CCB8	3615	81191	5177	8843
18:48	MP7103-S1	3436	76893	5108	7787
18:53	MP7103-S2	3452	77023	5115	7818
18:57	JC65724-2	3429	76544	5101	7828
19:01	MP7103-SD1	3551	79667	5187	8427
19:05	ZZZZZZ	3512	78819	5179	8219
19:10	ZZZZZZ	3371	75478	5091	7541
19:14	ZZZZZZ	3387	75169	5051	7580
19:18	ZZZZZZ	3381	75323	5052	7557
19:23	ZZZZZZ	3361	74757	5043	7495
19:27	ZZZZZZ	3367	74898	5031	7511
19:31	MA44393-CCV8	3468	77271	5083	7808
19:35	MA44393-CCB9	3612	81070	5119	8821
19:40	ZZZZZZ	3312	74221	5022	7364
19:44	ZZZZZZ	3390	76283	5103	7743
19:48	ZZZZZZ	3692	83278	5298	9127
19:53	ZZZZZZ	3555	80094	5231	8197
19:57	ZZZZZZ	3580	80001	5115	8577
20:01	ZZZZZZ	3585	81129	5148	8750

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:05	ZZZZZZ	3515	78076	5106	8050
20:09	ZZZZZZ	3492	78141	5084	8061
20:14	ZZZZZZ	3490	78046	5071	8097
20:18	ZZZZZZ	3121	69012	4882	6500
20:22	MA44393-CCV9	3477	76699	5012	7810
20:26	MA44393-CCB10	3626	81427	5079	8838
20:31	ZZZZZZ	3596	80705	5092	8764
20:35	ZZZZZZ	3489	77634	4983	7974
20:39	ZZZZZZ	3467	77771	5027	8035
20:43	ZZZZZZ	3608	80699	5085	8793
20:48	ZZZZZZ	3495	77257	4970	7979
20:52	ZZZZZZ	3677	81687	5293	8164
20:56	ZZZZZZ	3635	82015	5155	8861
21:00	ZZZZZZ	3539	79054	5126	8074
21:04	ZZZZZZ	3600	80966	5082	8696
21:09	ZZZZZZ	3598	80137	5053	8684
21:13	MA44393-CCV10	3501	77392	5028	7849
21:17	MA44393-CCB11	3659	81653	5078	8893
21:22	ZZZZZZ	3597	80480	5041	8718
21:26	ZZZZZZ	3498	77375	4980	7955
21:30	MP7086-S1	No results reported for the elements associated with this internal standard.			
21:34	MP7086-S2	No results reported for the elements associated with this internal standard.			
21:38	JC65784-11	No results reported for the elements associated with this internal standard.			
21:42	MP7086-SD1	No results reported for the elements associated with this internal standard.			
21:47	ZZZZZZ	3670	81304	5127	8537
21:51	ZZZZZZ	3642	81005	5207	8290
21:55	ZZZZZZ	3633	80941	5148	8292
21:59	ZZZZZZ	3649	80845	5212	8181
22:04	MA44393-CCV11	3514	77260	4996	7858
22:08	MA44393-CCB12	3658	81954	5050	8878
22:12	ZZZZZZ	3663	81241	5140	8510
22:16	ZZZZZZ	3651	80686	5158	8400
22:20	ZZZZZZ	3658	81124	5124	8488

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:25	ZZZZZZ	3679	82013	5146	8469
22:29	ZZZZZZ	3692	81594	5170	8372
22:33	ZZZZZZ	3689	82024	5215	8373
22:37	ZZZZZZ	3678	81765	5207	8378
22:42	ZZZZZZ	3684	82247	5342	7934
22:46	ZZZZZZ	3679	82075	5369	7859
22:50	ZZZZZZ	3635	80034	5311	7731
22:54	MA44393-CCV12	3509	77745	4986	7841
22:58	MA44393-CCB13	3660	81770	5041	8881
23:03	MA44393-CRI3	3604	79863	5003	8593
23:07	MA44393-CRID3	3643	80984	4980	8787
23:11	MA44393-ICSA3	3219	70811	4764	6795
23:16	MA44393-ICSAB3	3210	70752	4763	6782
23:20	MA44393-CCV13	3523	78146	4960	7861
23:24	MA44393-CCB14	3640	81119	4951	8820
23:28	ZZZZZZ	3410	76539	5106	7077
23:32	ZZZZZZ	3550	79742	5150	7527
23:37	ZZZZZZ	3744	83985	5411	8034
23:41	ZZZZZZ	3777	84103	5416	8040
23:45	ZZZZZZ	3643	82669	5284	8059
23:50	ZZZZZZ	3494	77410	4899	7930
23:54	ZZZZZZ	3636	81290	4986	8812
23:58	MP7071-S1	No results reported for the elements associated with this internal standard.			
00:02	MP7071-S2	No results reported for the elements associated with this internal standard.			
00:06	MA44393-CCV14	3502	77666	4947	7821
00:10	MA44393-CCB15	3659	81454	4994	8858
00:15	JC65783-1	No results reported for the elements associated with this internal standard.			
00:19	MP7071-SD1	No results reported for the elements associated with this internal standard.			
00:23	MP7071-S1	3552	79505	5062	8004
00:27	MP7071-S2	3557	79467	5063	8047
00:31	JC65783-1	3610	81088	5146	8305
00:36	MP7071-SD1	3662	81983	5045	8612
00:40	ZZZZZZ	3630	80980	5079	8231

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:44	ZZZZZZ	3529	80736	5177	8048
00:49	ZZZZZZ	3585	80651	5060	8246
00:53	ZZZZZZ	3664	81179	4995	8586
00:57	MA44393-CCV15	3491	77456	4873	7799
01:01	MA44393-CCB16	3644	81456	4968	8820
01:06	ZZZZZZ	3637	81060	5041	8423
01:10	ZZZZZZ	3660	81060	5058	8441
01:14	ZZZZZZ	3633	80864	5040	8299
01:18	ZZZZZZ	3597	81813	5254	7930
01:22	ZZZZZZ	3632	80723	5006	8410
01:27	ZZZZZZ	3630	81020	5063	8308
01:31	ZZZZZZ	3345	76548	5010	7116
01:35	ZZZZZZ	3467	78010	4949	7672
01:39	ZZZZZZ	3567	79545	4942	8220
01:44	ZZZZZZ	3589	80239	4975	8279
01:48	MA44393-CCV16	3489	76986	4885	7778
01:52	MA44393-CCB17	3633	81217	4890	8794
01:56	ZZZZZZ	3636	81980	5258	7974
02:01	ZZZZZZ	3651	81178	4997	8435
02:05	ZZZZZZ	3577	82110	5241	7986
02:09	ZZZZZZ	3622	80820	4990	8396
02:13	ZZZZZZ	3657	81364	4978	8533
02:18	ZZZZZZ	3647	80861	4981	8398
02:22	ZZZZZZ	3551	79555	5006	7987
02:26	ZZZZZZ	3631	80711	4942	8498
02:30	ZZZZZZ	3606	80187	4922	8340
02:34	ZZZZZZ	3392	78023	5094	7274
02:39	MA44393-CCV17	3480	77255	4859	7763
02:43	MA44393-CCB18	3623	80828	4909	8757
02:47	ZZZZZZ	3503	78716	4962	7801
02:51	ZZZZZZ	3583	79419	4903	8270
02:56	ZZZZZZ	3635	80826	4986	8365
03:00	ZZZZZZ	3571	82568	5285	7978

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
03:04	ZZZZZZ	3615	81024	4985	8380
03:08	ZZZZZZ	3656	81286	4948	8535
03:13	ZZZZZZ	3646	80774	4969	8388
03:17	ZZZZZZ	3526	81052	5121	7975
03:21	ZZZZZZ	3610	80780	4962	8413
03:25	ZZZZZZ	3642	81285	4950	8521
03:30	MA44393-CCV18	3464	76960	4850	7716
03:34	MA44393-CCB19	3620	81108	4894	8760
03:38	MP7111-MB1	3609	81095	4906	8735
03:43	MP7111-B1	3506	77996	4902	7969
03:47	MP7111-S1	3415	75716	4814	7570
03:51	MP7111-S2	3402	75796	4805	7535
03:55	JC65750-3	3421	76713	4846	7853
03:59	MP7111-SD1	3560	79800	4859	8456
04:03	ZZZZZZ	3348	75423	4842	7567
04:08	ZZZZZZ	3371	76426	4833	7810
04:12	ZZZZZZ	3372	76884	4821	7813
04:16	ZZZZZZ	3394	76739	4825	7822
04:21	MA44393-CCV19	3461	76840	4840	7732
04:25	MA44393-CCB20	3608	81038	4886	8737
04:29	ZZZZZZ	3366	78244	4827	7747
04:33	ZZZZZZ	3385	76717	4833	7830
04:38	ZZZZZZ	3423	77550	4829	7955
04:42	ZZZZZZ	3370	76068	4828	7817
04:46	ZZZZZZ	3446	77870	4845	8006
04:51	ZZZZZZ	3375	76126	4849	7668
04:55	ZZZZZZ	3458	78434	4894	8077
04:59	ZZZZZZ	3340	74556	4807	7410
05:03	ZZZZZZ	3395	75666	4824	7521
05:08	ZZZZZZ	3115	70181	4699	6811
05:12	MA44393-CCV20	3462	76921	4798	7727
05:16	MA44393-CCB21	3613	80989	4845	8756
05:21	ZZZZZZ	3317	74138	4762	7374

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
Analyst: GT Run ID: MA44393
Parameters: Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
05:25	ZZZZZZ	3362	75157	4800	7480
05:29	ZZZZZZ	3115	70211	4724	6832
05:34	ZZZZZZ	3602	81581	4950	8740
05:38	ZZZZZZ	3278	73664	4774	7205
05:43	MA44393-CCV21	3453	76864	4789	7714
05:47	MA44393-CCB22	3613	80738	4828	8752
05:51	MA44393-CRI4	3554	79503	4834	8473
05:55	MA44393-CRID4	3587	80872	4888	8658
06:00	MA44393-CCV22	3464	77009	4797	7738
06:04	MA44393-CCB23	3603	81254	4846	8741
06:08	ZZZZZZ	12191 !	223240 !	10044 !	27606 !

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

LEGEND:

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP
QC Limits: result < RL

Date Analyzed: 05/13/18
Run ID: MA44393

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:			13:10 ICB1		13:35 CCB1		14:22 CCB2		15:10 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34	anr							
Antimony	6.0	1.4	0.800	<6.0	0.300	<6.0	1.00	<6.0	0.700	<6.0
Arsenic	3.0	1.4	0.200	<3.0	0.500	<3.0	0.00	<3.0	0.300	<3.0
Barium	200	.5	0.400	<200	0.00	<200	0.200	<200	0.100	<200
Beryllium	1.0	.2	anr							
Bismuth	20	2.5								
Boron	100	1.9								
Cadmium	3.0	.3	0.200	<3.0	0.300	<3.0	0.200	<3.0	0.00	<3.0
Calcium	5000	8.7	2.30	<5000	0.800	<5000	3.60	<5000	0.800	<5000
Chromium	10	.6	0.300	<10	0.00	<10	0.200	<10	-0.200	<10
Cobalt	50	.5	-0.100	<50	0.00	<50	-0.100	<50	-0.400	<50
Copper	10	1.2	-0.100	<10	-0.200	<10	0.500	<10	0.800	<10
Iron	100	4.6	-6.00	<100	-7.60	<100	-9.30	<100	-8.30	<100
Lead	3.0	1.4	0.500	<3.0	0.200	<3.0	1.00	<3.0	0.300	<3.0
Lithium	50	2.8								
Magnesium	5000	33	anr							
Manganese	15	.1	0.100	<15	0.100	<15	0.100	<15	0.00	<15
Molybdenum	20	.4								
Nickel	10	.5	-0.100	<10	0.100	<10	0.100	<10	0.00	<10
Phosphorus	50	1.7								
Potassium	10000	68	anr							
Selenium	10	3.8	0.200	<10	-1.90	<10	-0.200	<10	-0.200	<10
Silicon	200	2.1								
Silver	10	.5	-0.100	<10	0.300	<10	0.400	<10	0.300	<10
Sodium	10000	15	anr							
Strontium	10	.2								
Sulfur	50	20	anr							
Thallium	2.0	1.6	-0.800	<2.0	-0.500	<2.0	-0.900	<2.0	-0.200	<2.0
Tin	10	1								
Titanium	10	.7								
Tungsten	50	1.8								
Vanadium	50	.4	-0.100	<50	-0.300	<50	-0.500	<50	0.00	<50
Zinc	20	.3	0.300	<20	0.300	<20	0.400	<20	0.300	<20

14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44393 Units: ug/l

Time: Sample ID:			13:10 ICB1		13:35 CCB1		14:22 CCB2		15:10 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP
QC Limits: result < RL

Date Analyzed: 05/13/18
Run ID: MA44393

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:			15:52 CCB4		16:38 CCB5		17:13 CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	34	anr					
Antimony	6.0	1.4	2.40	<6.0	0.900	<6.0	0.500	<6.0
Arsenic	3.0	1.4	0.200	<3.0	1.30	<3.0	0.400	<3.0
Barium	200	.5	0.300	<200	0.300	<200	0.300	<200
Beryllium	1.0	.2	anr					
Bismuth	20	2.5						
Boron	100	1.9						
Cadmium	3.0	.3	0.100	<3.0	0.100	<3.0	0.300	<3.0
Calcium	5000	8.7	-0.300	<5000	4.80	<5000	7.10	<5000
Chromium	10	.6	0.00	<10	0.300	<10	0.500	<10
Cobalt	50	.5	-0.200	<50	-0.200	<50	0.100	<50
Copper	10	1.2	0.300	<10	-0.300	<10	-0.500	<10
Iron	100	4.6	-11.1	<100	-11.4	<100	6.00	<100
Lead	3.0	1.4	0.600	<3.0	1.40	<3.0	0.700	<3.0
Lithium	50	2.8						
Magnesium	5000	33	anr					
Manganese	15	.1	0.100	<15	0.200	<15	0.200	<15
Molybdenum	20	.4						
Nickel	10	.5	-0.200	<10	-0.100	<10	0.00	<10
Phosphorus	50	1.7						
Potassium	10000	68	anr					
Selenium	10	3.8	-0.600	<10	0.400	<10	0.400	<10
Silicon	200	2.1						
Silver	10	.5	0.00	<10	-0.100	<10	0.300	<10
Sodium	10000	15	anr					
Strontium	10	.2						
Sulfur	50	20	anr					
Thallium	2.0	1.6	0.00	<2.0	0.300	<2.0	0.200	<2.0
Tin	10	1						
Titanium	10	.7						
Tungsten	50	1.8						
Vanadium	50	.4	0.100	<50	-0.100	<50	-0.600	<50
Zinc	20	.3	0.300	<20	0.400	<20	0.400	<20

14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44393 Units: ug/l

Time:			15:52		16:38		17:13	
Sample ID:			CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final

Zirconium 10 .3

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44393 Units: ug/l

Time: Sample ID:	ICCV	13:20 ICCV1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	2000	1980	99.0
Arsenic	2000	1960	98.0
Barium	2000	1980	99.0
Beryllium	anr		
Bismuth			
Boron			
Cadmium	2000	1980	99.0
Calcium	40000	39800	99.5
Chromium	2000	1990	99.5
Cobalt	2000	1960	98.0
Copper	2000	1950	97.5
Iron	40000	39800	99.5
Lead	2000	2000	100.0
Lithium			
Magnesium	anr		
Manganese	2000	2000	100.0
Molybdenum			
Nickel	2000	1980	99.0
Phosphorus			
Potassium	anr		
Selenium	2000	1970	98.5
Silicon			
Silver	250	245	98.0
Sodium	anr		
Strontium			
Sulfur	anr		
Thallium	2000	2040	102.0
Tin			
Titanium			
Tungsten			
Vanadium	2000	1970	98.5
Zinc	2000	2010	100.5

14.3.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44393 Units: ug/l

Time:		13:20	
Sample ID:		ICCV1	
Metal	True	Results	% Rec

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44393 Units: ug/l

Time: Sample ID:	ICV	12:58 ICV1		CCV	14:18 CCV1		CCV	15:06 CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	2000	2010	100.5	2000	2020	101.0	2000	2030	101.5
Arsenic	2000	1990	99.5	2000	2000	100.0	2000	2000	100.0
Barium	2000	2010	100.5	2000	2010	100.5	2000	2020	101.0
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	2000	100.0	2000	2010	100.5	2000	2020	101.0
Calcium	40000	40400	101.0	40000	40100	100.3	40000	40100	100.3
Chromium	2000	2020	101.0	2000	2020	101.0	2000	2020	101.0
Cobalt	2000	1980	99.0	2000	1990	99.5	2000	1990	99.5
Copper	2000	1970	98.5	2000	1980	99.0	2000	1990	99.5
Iron	40000	40600	101.5	40000	40100	100.3	40000	39900	99.8
Lead	2000	2030	101.5	2000	2030	101.5	2000	2030	101.5
Lithium									
Magnesium	anr								
Manganese	2000	2030	101.5	2000	2030	101.5	2000	2030	101.5
Molybdenum									
Nickel	2000	2010	100.5	2000	2020	101.0	2000	2010	100.5
Phosphorus									
Potassium	anr								
Selenium	2000	1990	99.5	2000	2000	100.0	2000	2010	100.5
Silicon									
Silver	250	248	99.2	250	249	99.6	250	249	99.6
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	2000	2070	103.5	2000	2060	103.0	2000	2060	103.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1990	99.5	2000	2000	100.0	2000	2000	100.0
Zinc	2000	2030	101.5	2000	2040	102.0	2000	2040	102.0

14.3.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44393 Units: ug/l

Time:		12:58			14:18			15:06		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44393 Units: ug/l

Time: Sample ID:	CCV	15:48 CCV3		CCV	16:34 CCV4		CCV	17:09 CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	2000	2020	101.0	2000	2030	101.5	2000	2030	101.5
Arsenic	2000	1990	99.5	2000	2000	100.0	2000	2000	100.0
Barium	2000	2030	101.5	2000	2040	102.0	2000	2040	102.0
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	2010	100.5	2000	2020	101.0	2000	2020	101.0
Calcium	40000	40000	100.0	40000	40000	100.0	40000	40100	100.3
Chromium	2000	2010	100.5	2000	2030	101.5	2000	2020	101.0
Cobalt	2000	1980	99.0	2000	1990	99.5	2000	1990	99.5
Copper	2000	1980	99.0	2000	2000	100.0	2000	2000	100.0
Iron	40000	39700	99.3	40000	39500	98.8	40000	39700	99.3
Lead	2000	2020	101.0	2000	2030	101.5	2000	2030	101.5
Lithium									
Magnesium	anr								
Manganese	2000	2020	101.0	2000	2030	101.5	2000	2030	101.5
Molybdenum									
Nickel	2000	2020	101.0	2000	2020	101.0	2000	2030	101.5
Phosphorus									
Potassium	anr								
Selenium	2000	2010	100.5	2000	2010	100.5	2000	2020	101.0
Silicon									
Silver	250	248	99.2	250	250	100.0	250	250	100.0
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	2000	2040	102.0	2000	2060	103.0	2000	2060	103.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	2000	100.0	2000	2010	100.5	2000	2010	100.5
Zinc	2000	2030	101.5	2000	2040	102.0	2000	2050	102.5

14.3.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44393 Units: ug/l

Time:		15:48		16:34		17:09			
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zirconium

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

HIGH STANDARD CHECK SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP
 QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/13/18
 Run ID: MA44393

Methods: EPA 200.7, SW846 6010C
 Units: ug/l

Time: Sample ID:		13:57 HSTD1	% Rec	14:01 HSTD2		% Rec
Metal	HSTD True	Results		HSTD True	Results	
Aluminum						
Antimony	5000	5140	102.8			
Arsenic	5000	4990	99.8			
Barium	5000	5130	102.6			
Beryllium	anr					
Bismuth						
Boron						
Cadmium	5000	5070	101.4			
Calcium				150000	147000	98.0
Chromium	5000	5210	104.2			
Cobalt	5000	5020	100.4			
Copper	5000	5160	103.2			
Iron				150000	147000	98.0
Lead	5000	5100	102.0			
Lithium						
Magnesium						
Manganese	5000	5180	103.6			
Molybdenum						
Nickel	5000	5030	100.6			
Phosphorus						
Potassium						
Selenium	5000	5070	101.4			
Silicon						
Silver	625	640	102.4			
Sodium						
Strontium						
Sulfur	anr					
Thallium	5000	5330	106.6			
Tin						
Titanium						
Tungsten						
Vanadium	5000	5130	102.6			
Zinc	5000	5260	105.2			

HIGH STANDARD CHECK SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44393 Units: ug/l

Time:		13:57			14:01		
Sample ID:	HSTD	HSTD1		HSTD	HSTD2		
Metal	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP
QC Limits: 70 to 130 % Recovery

Date Analyzed: 05/13/18
Run ID: MA44393

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	13:40 CRI1	% Rec	13:44 CRID1	% Rec	16:52 CRI2	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	anr					
Antimony	6.0	20	3.0	6.50	108.3			6.80	113.3
Arsenic	8.0	20	3.0	9.80	122.5	3.50	116.7	9.60	120.0
Barium	200		4.0	211	105.5	4.60	115.0	215	107.5
Beryllium	2.0		1.0	anr					
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	3.30	110.0	1.20	120.0	3.30	110.0
Calcium	5000	2000	1000	5350	107.0	1070	107.0	5320	106.4
Chromium	10		2.0	10.9	109.0	2.60	130.0	10.6	106.0
Cobalt	50		3.0	50.3	100.6	2.90	96.7	50.8	101.6
Copper	10		2.0	11.4	114.0			10.3	103.0
Iron	100	500		101	101.0			105	105.0
Lead	3.0	20	2.5	2.20	73.3			3.90	130.0
Lithium	50								
Magnesium	5000	2000	100	anr					
Manganese	15		3.0	16.4	109.3	3.30	110.0	16.6	110.7
Molybdenum	20								
Nickel	10		4.0	10.3	103.0	3.90	97.5	10.2	102.0
Phosphorus	50								
Potassium	5000		2000	anr					
Selenium	10	20	5.0	11.1	111.0	4.50	90.0	11.5	115.0
Silicon	200								
Silver	5.0		2.0	5.60	112.0			6.00	120.0
Sodium	5000		1000	anr					
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	11.2	112.0	1.70	85.0	10.6	106.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	52.4	104.8	1.60	80.0	52.8	105.6
Zinc	20		10	21.6	108.0	10.8	108.0	22.0	110.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44393 Units: ug/l

Time:					13:40		13:44		16:52	
Sample ID:	CRI	CRIA	CRID	CRI1			CRID1		CRI2	
Metal	True	True	True	Results	% Rec		Results	% Rec	Results	% Rec

Zirconium 10

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP
QC Limits: 70 to 130 % Recovery

Date Analyzed: 05/13/18
Run ID: MA44393

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	16:57 CRID2	
Metal	True	True	True	Results	% Rec
Aluminum	200	500	100	anr	
Antimony	6.0	20	3.0		
Arsenic	8.0	20	3.0	3.60	120.0
Barium	200		4.0	4.40	110.0
Beryllium	2.0		1.0	anr	
Bismuth	20				
Boron	100		10		
Cadmium	3.0		1.0	1.10	110.0
Calcium	5000	2000	1000	1100	110.0
Chromium	10		2.0	2.10	105.0
Cobalt	50		3.0	2.90	96.7
Copper	10		2.0		
Iron	100	500			
Lead	3.0	20	2.5		
Lithium	50				
Magnesium	5000	2000	100		
Manganese	15		3.0	3.30	110.0
Molybdenum	20				
Nickel	10		4.0	3.80	95.0
Phosphorus	50				
Potassium	5000		2000	anr	
Selenium	10	20	5.0		
Silicon	200				
Silver	5.0		2.0		
Sodium	5000		1000	anr	
Strontium	10				
Sulfur	50				
Thallium	10		2.0	2.40	120.0
Tin	10				
Titanium	10				
Tungsten	50				
Vanadium	50		2.0	2.00	100.0
Zinc	20		10	11.0	110.0

14.3.6
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44393 Units: ug/l

Time:				16:57	
Sample ID:	CRI	CRIA	CRID	CRID2	
Metal	True	True	True	Results	% Rec

Zirconium 10

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

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44393 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	13:49 ICSA1 Results	% Rec	13:53 ICSAB1 Results	% Rec	17:01 ICSA2 Results	% Rec	17:05 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	525000	105.0	524000	104.8	529000	105.8	531000	106.2
Antimony		1000	-3.00		1020	102.0	0.200		1040	104.0
Arsenic		1000	-1.30		1060	106.0	-0.400		1070	107.0
Barium		500	0.400		521	104.2	0.200		530	106.0
Beryllium		500	0.400		509	101.8	0.400		503	100.6
Bismuth		500	0.800		505	101.0	2.10		509	101.8
Boron		500	-2.10		501	100.2	-0.100		504	100.8
Cadmium		1000	0.700		1040	104.0	0.600		1050	105.0
Calcium	400000	400000	404000	101.0	396000	99.0	402000	100.5	396000	99.0
Chromium		500	-2.20		493	98.6	-1.70		496	99.2
Cobalt		500	0.300		496	99.2	0.300		500	100.0
Copper		500	0.700		504	100.8	0.00		509	101.8
Iron	200000	200000	196000	98.0	195000	97.5	192000	96.0	192000	96.0
Lead		1000	0.900		984	98.4	3.10		991	99.1
Lithium		500	4.00		538	107.6	3.50		546	109.2
Magnesium	500000	500000	511000	102.2	505000	101.0	504000	100.8	503000	100.6
Manganese		500	-1.50		505	101.0	-1.80		504	100.8
Molybdenum		500	-1.90		484	96.8	-2.10		485	97.0
Nickel		1000	-1.00		993	99.3	-0.600		1010	101.0
Phosphorus		500	-2.00		501	100.2	0.400		509	101.8
Potassium			-438		-463		-417		-375	
Selenium		1000	-0.300		990	99.0	-0.400		1000	100.0
Silicon		500	-3.90		484	96.8	-6.20		485	97.0
Silver		1000	3.90		1050	105.0	2.20		1050	105.0
Sodium			30.2		59.2		7.10		19.4	
Strontium		500	5.00		527	105.4	5.30		534	106.8
Sulfur		500	-0.100		500	100.0	0.00		506	101.2
Thallium		1000	-1.50		989	98.9	-0.600		992	99.2
Tin		500	-2.80		466	93.2	-3.00		467	93.4
Titanium		500	-1.00		505	101.0	-0.600		506	101.2
Tungsten		500	6.20		486	97.2	9.30		493	98.6
Vanadium		500	-2.10		496	99.2	-1.90		501	100.2
Zinc		1000	5.50		970	97.0	5.30		980	98.0

14.3.7
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INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051318M1.ICP Date Analyzed: 05/13/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44393 Units: ug/l

Time:				13:49		13:53		17:01		17:05	
Sample ID:	ICSAB	ICSAB	ICSAB	ICSAB1	% Rec	ICSAB1	% Rec	ICSAB2	% Rec	ICSAB2	% Rec
Metal	True	True	True	Results		Results		Results		Results	

Zirconium 500 2.10 500 100.0 0.500 505 101.0

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

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV
Analyst: DP
Parameters: Hg

Date Analyzed: 05/14/18 Methods: SW846 7470A
Run ID: MA44394

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:59	MA44394-STD1	1		B=1.9125E-004, C=1.0349E-002, R=0.9999503
12:00	MA44394-STD2	1		STDB
12:02	MA44394-STD3	1		STDC
12:03	MA44394-STD4	1		STDD
12:05	MA44394-STD5	1		STDE
12:06	MA44394-STD6	1		STDF
12:12	MA44394-ICV1	1		
12:14	MA44394-ICB1	1		
12:15	ZZZZZZ	1		
12:17	ZZZZZZ	1		
12:18	ZZZZZZ	1		
12:21	MA44394-CCV1	1		
12:23	MA44394-CCB1	1		
12:25	MA44394-CRI1	1		
12:29	MP7147-MB1	1		
12:30	MP7147-B1	1		
12:31	MP7147-S1	1		
12:33	MP7147-S2	1		
12:35	JC65930-1	1		(sample used for QC only; not part of login JC65800)
12:36	ZZZZZZ	1		
12:38	ZZZZZZ	1		
12:39	MA44394-CCV2	1		
12:40	MA44394-CCB2	1		
12:44	ZZZZZZ	1		
12:45	ZZZZZZ	1		
12:46	ZZZZZZ	1		
12:48	ZZZZZZ	1		
12:49	ZZZZZZ	1		
12:50	ZZZZZZ	1		
12:52	ZZZZZZ	1		
12:53	ZZZZZZ	1		
12:54	MA44394-CCV3	1		
12:55	MA44394-CCB3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV
Analyst: DP
Parameters: Hg

Date Analyzed: 05/14/18 Methods: SW846 7470A
Run ID: MA44394

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:57	ZZZZZZ	1		
12:59	ZZZZZZ	1		
13:00	ZZZZZZ	1		
13:01	ZZZZZZ	1		
13:03	ZZZZZZ	1		
13:04	ZZZZZZ	1		
13:05	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:08	MA44394-CCV4	1		
13:09	MA44394-CCB4	1		
13:11	ZZZZZZ	1		
13:13	MP7148-MB1	1		
13:14	MP7148-B1	1		
13:15	MP7148-S1	1		
13:17	MP7148-S2	1		
13:18	JC65764-1A	1		(sample used for QC only; not part of login JC65800)
13:20	ZZZZZZ	1		
13:21	ZZZZZZ	1		
13:23	MA44394-CCV5	1		
13:24	MA44394-CCB5	1		
13:26	ZZZZZZ	1		
13:27	JC65800-1A	1		
13:28	JC65800-2A	1		
13:29	ZZZZZZ	1		
13:31	ZZZZZZ	1		
13:32	ZZZZZZ	1		
13:33	ZZZZZZ	1		
13:35	ZZZZZZ	1		
13:36	MA44394-CCV6	1		
13:37	MA44394-CCB6	1		
13:39	ZZZZZZ	1		
13:40	ZZZZZZ	1		
13:41	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV
Analyst: DP
Parameters: Hg

Date Analyzed: 05/14/18 Methods: SW846 7470A
Run ID: MA44394

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:43	ZZZZZZ	1		
13:44	ZZZZZZ	1		
13:45	ZZZZZZ	1		
13:47	ZZZZZZ	1		
13:48	ZZZZZZ	1		
13:49	MA44394-CCV7	1		
13:50	MA44394-CCB7	1		
13:52	ZZZZZZ	1		
13:53	MP7148-MB2	1		
13:55	MP7148-B2	1		
----->	Last reportable sample/prep for job JC65800			
13:56	MP7029-MB3	1		
13:58	MP7029-B3	1		
13:59	ZZZZZZ	1		
14:00	ZZZZZZ	1		
14:02	MP7149-MB1	1		
14:03	MA44394-CCV8	1		
14:04	MA44394-CCB8	1		
14:06	MP7149-B1	1		
14:07	MP7149-S1	1		
14:09	MP7149-S2	1		
14:11	JC65868-2B	1		(sample used for QC only; not part of login JC65800)
14:12	MA44394-CCV9	1		
14:13	MA44394-CCB9	1		
14:44	MA44394-CCV10	1		
14:45	MA44394-CCB10	1		
14:54	MA44394-CRI2	1		
14:56	MA44394-CCV11	1		
14:57	MA44394-CCB11	1		
----->	Last reportable CCB for job JC65800			
	Refer to raw data for calibration curve and standards.			

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV Date Analyzed: 05/14/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44394 Units: ug/l

Time: Sample ID:			12:14 ICB1		12:23 CCB1		12:40 CCB2		12:55 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.016	-0.0296	<0.20	-0.0526	<0.20	-0.0589	<0.20	-0.0476	<0.20

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV Date Analyzed: 05/14/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44394 Units: ug/l

Time: Sample ID:			13:09 CCB4		13:24 CCB5		13:37 CCB6		13:50 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.016	-0.0275	<0.20	-0.0367	<0.20	-0.0172	<0.20	-0.0246	<0.20

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV Date Analyzed: 05/14/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44394 Units: ug/l

Time: Sample ID:			14:04 CCB8		14:13 CCB9		14:45 CCB10		14:57 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.016	-0.0268	<0.20	-0.0426	<0.20	-0.0357	<0.20	-0.0348	<0.20

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV Date Analyzed: 05/14/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44394 Units: ug/l

Time:		12:12		12:21		12:39	
Sample ID:	ICV	ICV1	CCV	CCV1	CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True
Mercury	3	3.14	104.7	2.5	2.69	107.6	2.5
							2.69
							107.6

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV Date Analyzed: 05/14/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44394 Units: ug/l

Time:		12:54			13:08			13:23		
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	
Mercury	2.5	2.68	107.2	2.5	2.68	107.2	2.5	2.59	103.6	

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV Date Analyzed: 05/14/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44394 Units: ug/l

Time:		13:36		13:49		14:03			
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.61	104.4	2.5	2.55	102.0	2.5	2.57	102.8

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV Date Analyzed: 05/14/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44394 Units: ug/l

Time:		14:12		14:44		14:56	
Sample ID:	CCV	CCV9	CCV	CCV10	CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True
Mercury	2.5	2.54	101.6	2.5	2.62	104.8	2.5
							2.60
							104.0

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV Date Analyzed: 05/14/18 Methods: SW846 7470A
 QC Limits: 70 to 130 % Recovery Run ID: MA44394 Units: ug/l

Time:				12:25		14:54	
Sample ID:	CRI	CRIA	CRI1			CRI2	
Metal	True	True	Results	% Rec		Results	% Rec
Mercury	0.20		0.201	100.5		0.203	101.5

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

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:01	MA44405-STD1	1		STDA
11:04	MA44405-STD2	1		STDB
11:07	ZZZZZZ	1		
11:10	ZZZZZZ	1		
11:16	ZZZZZZ	1		
11:19	ZZZZZZ	1		
11:22	ZZZZZZ	1		
11:26	MA44405-ICV1	1		
11:30	MA44405-ICV2	1		
11:34	MA44405-ICB1	1		
11:37	MA44405-ICCV1	1		
11:42	MA44405-CCB1	1		
11:46	ZZZZZZ	1		
11:50	MA44405-CRI1	1		
11:53	MA44405-CRID1	1		
11:56	MA44405-ICSA1	1		
11:59	MA44405-ICSAB1	1		
12:02	MA44405-HSTD1	1		
12:05	MA44405-HSTD2	1		
12:08	ZZZZZZ	1		
12:12	ZZZZZZ	1		
12:15	ZZZZZZ	1		
12:18	MA44405-CCV1	1		
12:21	MA44405-CCB2	1		
12:24	MA44405-CRI2	1		
12:27	ZZZZZZ	1		
12:30	MA44405-CCV2	1		
12:35	MA44405-CCB3	1		
12:38	MP7122-MB1	5		
12:41	MP7122-MB2	5		
12:44	MP7122-B1	5		
12:47	MP7122-B2	5		
12:50	MP7122-S1	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:53	MP7122-S2	5		
12:56	JC65764-1A	5		(sample used for QC only; not part of login JC65800)
12:59	MP7122-SD1	25		
13:02	ZZZZZZ	5		
13:05	MA44405-CCV3	1		
13:08	MA44405-CCB4	1		
13:20	ZZZZZZ	1		
13:23	ZZZZZZ	1		
13:26	MP7086-S1	3		Not needed.
13:29	MP7086-S2	3		Not needed.
13:32	JC65784-11	3		(sample used for QC only; not part of login JC65800)
13:35	MP7086-SD1	15		Not needed.
13:38	ZZZZZZ	2		
13:41	ZZZZZZ	3		
13:44	ZZZZZZ	1		
13:47	MA44405-CCV4	1		
13:50	MA44405-CCB5	1		
13:53	ZZZZZZ	3		
13:56	ZZZZZZ	2		
13:59	ZZZZZZ	2		
14:02	ZZZZZZ	10		
14:05	ZZZZZZ	1		
14:08	ZZZZZZ	1		
14:11	MP7071-S1	10		
14:13	MP7071-S2	10		
14:16	JC65783-1	10		(sample used for QC only; not part of login JC65800)
14:19	MA44405-CCV5	1		
14:22	MA44405-CCB6	1		
14:25	MP7071-SD1	50		
14:28	ZZZZZZ	1		
14:31	ZZZZZZ	1		
14:34	ZZZZZZ	2		
14:37	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:40	ZZZZZZ	10		
14:43	ZZZZZZ	1		
14:46	ZZZZZZ	5		
14:49	MA44405-CCV6	1		
14:52	MA44405-CCB7	1		
14:55	ZZZZZZ	5		
14:58	ZZZZZZ	5		
15:03	ZZZZZZ	1		
15:06	ZZZZZZ	5		
15:09	JC65800-1A	5		
15:13	JC65800-2A	5		
----->	Last reportable sample/	5		prep for job JC65800
15:16	ZZZZZZ	5		
15:19	ZZZZZZ	5		
15:22	ZZZZZZ	5		
15:25	MA44405-CCV7	1		
15:31	MA44405-CCB8	1		
15:35	ZZZZZZ	5		
15:40	ZZZZZZ	1		
15:44	ZZZZZZ	5		
15:47	ZZZZZZ	5		
15:50	ZZZZZZ	5		
15:53	ZZZZZZ	5		
15:56	ZZZZZZ	5		
15:59	ZZZZZZ	5		
16:02	ZZZZZZ	5		
16:06	MA44405-CCV8	1		
16:09	MA44405-CCB9	1		
16:12	ZZZZZZ	5		
16:16	ZZZZZZ	5		
16:19	MP7112-B1	1		
16:21	MP7112-MB1	1		batch to reanalyze for Ag, Mb high
16:25	MP7112-S1	1		FE, MN high
16:28	MP7112-S2	1		FE, MN high

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:30	JC65784-21	1		(sample used for QC only; not part of login JC65800)
16:34	MP7112-SD1	5		FE, MN high
16:37	ZZZZZZ	1		
16:40	MA44405-CCV9	1		
16:43	MA44405-CCB10	1		
16:48	MA44405-CRI3	1		
16:51	MA44405-CRID2	1		
16:54	MA44405-ICSA2	1		
16:57	MA44405-ICSAB2	1		
17:00	MA44405-CCV10	1		
17:04	MA44405-CCB11	1		
----->	Last reportable CCB for job JC65800			
17:07	ZZZZZZ	1		
17:10	ZZZZZZ	1		
17:13	ZZZZZZ	1		
17:16	ZZZZZZ	1		
17:19	ZZZZZZ	1		
17:22	ZZZZZZ	1		
17:25	ZZZZZZ	1		
17:28	ZZZZZZ	1		
17:31	ZZZZZZ	1		
17:34	ZZZZZZ	1		
17:37	ZZZZZZ	1		
17:40	ZZZZZZ	1		
17:44	MA44405-CCV11	1		
17:46	MA44405-CCB12	1		
17:49	ZZZZZZ	1		
17:53	ZZZZZZ	1		
17:56	ZZZZZZ	1		
17:59	ZZZZZZ	1		
18:02	ZZZZZZ	1		
18:05	ZZZZZZ	1		
18:08	ZZZZZZ	1		
18:11	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:14	ZZZZZZ	1		
18:18	MA44405-CCV12	1		
18:20	MA44405-CCB13	1		
18:30	ZZZZZZ	1		
18:33	ZZZZZZ	1		
18:36	ZZZZZZ	1		
18:39	ZZZZZZ	1		
18:42	ZZZZZZ	1		
18:45	ZZZZZZ	1		
18:48	ZZZZZZ	1		
18:51	ZZZZZZ	1		
18:54	MA44405-CCV13	1		
18:57	MA44405-CCB14	1		
19:00	ZZZZZZ	1		
19:03	ZZZZZZ	1		
19:06	ZZZZZZ	1		
19:09	ZZZZZZ	1		
19:12	ZZZZZZ	1		
19:15	ZZZZZZ	2		
19:18	ZZZZZZ	10		
19:21	ZZZZZZ	10		
19:24	ZZZZZZ	2		
19:27	MA44405-CCV14	1		
19:30	MA44405-CCB15	1		
19:33	ZZZZZZ	1		
19:36	ZZZZZZ	1		
19:39	ZZZZZZ	1		
19:42	MP7084-MB1	1		
19:45	MP7084-B1	1		
19:47	MP7084-S1	1		Fe, Mn, Ni high
19:50	MP7084-S2	1		Fe, Mn, Ni high
19:53	JC65783-21	1		(sample used for QC only; not part of login JC65800)
19:57	MP7084-SD1	5		Fe, Mn, Ni high

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:00	MA44405-CCV15	1		
20:02	MA44405-CCB16	1		
20:05	ZZZZZZ	1		
20:08	ZZZZZZ	1		
20:11	ZZZZZZ	1		
20:14	ZZZZZZ	1		
20:17	ZZZZZZ	1		
20:20	ZZZZZZ	1		
20:23	ZZZZZZ	1		
20:27	ZZZZZZ	1		
20:30	ZZZZZZ	1		
20:33	MA44405-CCV16	1		
20:36	MA44405-CCB17	1		
20:39	ZZZZZZ	1		
20:42	ZZZZZZ	1		
20:45	ZZZZZZ	1		
20:48	ZZZZZZ	1		
20:51	ZZZZZZ	1		
20:54	ZZZZZZ	1		
20:57	ZZZZZZ	1		
21:01	ZZZZZZ	1		
21:04	ZZZZZZ	1		
21:07	ZZZZZZ	1		
21:10	MA44405-CCV17	1		
21:14	MA44405-CCB18	1		
21:20	MA44405-CRI4	1		
21:23	MA44405-CRID3	1		
21:26	MA44405-CCV18	1		
21:29	MA44405-CCB19	1		
21:32	MP7121-MB1	1		CCV out
21:35	MP7121-B1	1		CCV out
21:38	MP7121-S1	1		high elements. CCV out
21:41	MP7121-S2	1		high elements. CCV out

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:44	JC65784-44	1		(sample used for QC only; not part of login JC65800)
21:47	MP7121-SD1	5		CCV out
21:50	ZZZZZZ	1		
21:53	ZZZZZZ	1		
21:57	ZZZZZZ	1		
22:00	MA44405-CCV19	1		
22:02	MA44405-CCB20	1		
22:05	ZZZZZZ	1		
22:09	ZZZZZZ	1		
22:12	ZZZZZZ	1		
22:15	ZZZZZZ	1		
22:18	ZZZZZZ	1		
22:21	ZZZZZZ	1		
22:24	ZZZZZZ	1		
22:27	ZZZZZZ	1		
22:31	ZZZZZZ	1		
22:34	MA44405-CCV20	1		
22:37	MA44405-CCB21	1		
22:40	ZZZZZZ	1		
22:43	ZZZZZZ	1		
22:46	ZZZZZZ	1		
22:49	ZZZZZZ	1		
22:52	ZZZZZZ	1		
22:55	ZZZZZZ	1		
22:58	ZZZZZZ	1		
23:01	MA44405-CCV21	1		
23:04	MA44405-CCB22	1		
23:07	MA44405-CRI5	1		
23:10	MA44405-CRID4	1		
23:13	MA44405-CCV22	1		
23:16	MA44405-CCB23	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP
Analyst: EAL
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Date Analyzed: 05/14/18
Run ID: MA44405
Methods: SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
11:01	MA44405-STD1	6538 R	155060 R	24117 R	10473 R
11:04	MA44405-STD2	6170	144960	23417	9513
11:07	ZZZZZZ	6373	150500	23668	9830
11:10	ZZZZZZ	6560	156250	23953	10481
11:16	ZZZZZZ	6694	160500	25032	10743
11:19	ZZZZZZ	6566	157910	24650	10475
11:22	ZZZZZZ	6649	158650	24862	10602
11:26	MA44405-ICV1	No results reported for the elements associated with this internal standard.			
11:30	MA44405-ICV2	6407	150130	23848	9859
11:34	MA44405-ICB1	6619	155840	24360	10561
11:37	MA44405-ICCV1	6404	150110	23905	9858
11:42	MA44405-CCB1	6612	156450	24309	10547
11:46	ZZZZZZ	6747	160190	24818	10830
11:50	MA44405-CRI1	6597	156190	24399	10450
11:53	MA44405-CRID1	6619	156230	24152	10545
11:56	MA44405-ICSA1	5963	138390	23278	9024
11:59	MA44405-ICSAB1	5860	138230	23064	8912
12:02	MA44405-HSTD1	6513	155080	24370	10427
12:05	MA44405-HSTD2	6110	140980	23403	9107
12:08	ZZZZZZ	6571	155100	24391	10649
12:12	ZZZZZZ	6465	157210	24316	10507
12:15	ZZZZZZ	13884 !	294730 !	35701 !	21974 !
12:18	MA44405-CCV1	6465	151370	24186	9934
12:21	MA44405-CCB2	6629	157290	24316	10578
12:24	MA44405-CRI2	6574	156780	24334	10400
12:27	ZZZZZZ	6611	999999 !	24407	10546
12:30	MA44405-CCV2	6433	151310	24187	9879
12:35	MA44405-CCB3	6671	157220	24123	10618
12:38	MP7122-MB1	6383	148430	23764	9663
12:41	MP7122-MB2	6356	148930	24087	9658
12:44	MP7122-B1	6398	150090	24265	9634
12:47	MP7122-B2	6403	149420	24164	9652
12:50	MP7122-S1	6424	149980	24181	9652

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:53	MP7122-S2	6434	150850	24315	9669
12:56	JC65764-1A	6324	150190	24181	9550
12:59	MP7122-SD1	6576	155730	24347	10224
13:02	ZZZZZZ	6382	149130	23946	9668
13:05	MA44405-CCV3	6452	150270	23636	9897
13:08	MA44405-CCB4	6644	157540	24150	10568
13:20	ZZZZZZ	6629	157910	24066	10498
13:23	ZZZZZZ	6494	152320	23784	10000
13:26	MP7086-S1	No results reported for the elements associated with this internal standard.			
13:29	MP7086-S2	No results reported for the elements associated with this internal standard.			
13:32	JC65784-11	No results reported for the elements associated with this internal standard.			
13:35	MP7086-SD1	No results reported for the elements associated with this internal standard.			
13:38	ZZZZZZ	6781	157540	24578	10225
13:41	ZZZZZZ	6564	153260	23601	9797
13:44	ZZZZZZ	6720	155690	24663	9816
13:47	MA44405-CCV4	6545	150440	23223	9896
13:50	MA44405-CCB5	6582	157010	23570	10336
13:53	ZZZZZZ	6847	151460	24218	10335
13:56	ZZZZZZ	6926	161430	24548	10310
13:59	ZZZZZZ	6788	159450	24205	10387
14:02	ZZZZZZ	6798	158060	23742	10436
14:05	ZZZZZZ	6795	160150	23894	10596
14:08	ZZZZZZ	6606	153170	23145	9999
14:11	MP7071-S1	6797	157270	23739	10394
14:13	MP7071-S2	6791	157000	23473	10377
14:16	JC65783-1	6824	158000	23595	10472
14:19	MA44405-CCV5	6547	150530	22917	9806
14:22	MA44405-CCB6	6804	155780	23326	10578
14:25	MP7071-SD1	6706	156810	23429	10383
14:28	ZZZZZZ	6867	159000	23759	10651
14:31	ZZZZZZ	6675	153230	23475	10081
14:34	ZZZZZZ	6683	154980	23420	10093
14:37	ZZZZZZ	6588	150460	23187	10006

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP
Analyst: EAL
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Date Analyzed: 05/14/18
Run ID: MA44405
Methods: SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:40	ZZZZZZ	6677	153240	23003	10110
14:43	ZZZZZZ	6412	147430	22950	9392
14:46	ZZZZZZ	6652	153290	22775	10043
14:49	MA44405-CCV6	6617	151170	22863	9853
14:52	MA44405-CCB7	6825	157130	23120	10547
14:55	ZZZZZZ	6564	148950	22730	9644
14:58	ZZZZZZ	6578	149120	22815	9662
15:03	ZZZZZZ	6749	155460	22782	10361
15:06	ZZZZZZ	6482	148020	22650	9480
15:09	JC65800-1A	6434	147110	22537	9373
15:13	JC65800-2A	6473	147540	22701	9440
15:16	ZZZZZZ	6476	147430	22613	9410
15:19	ZZZZZZ	6618	149180	22836	9687
15:22	ZZZZZZ	6617	150060	22653	9686
15:25	MA44405-CCV7	6667	151700	22804	9877
15:31	MA44405-CCB8	6912	158230	23058	10651
15:35	ZZZZZZ	6667	150640	22830	9800
15:40	ZZZZZZ	7068	160160	23316	10824
15:44	ZZZZZZ	6211	135000	22434	8525
15:47	ZZZZZZ	6666	150260	22891	9780
15:50	ZZZZZZ	6663	149540	22903	9726
15:53	ZZZZZZ	6553	148060	22745	9500
15:56	ZZZZZZ	6689	151940	23025	9710
15:59	ZZZZZZ	6580	148960	21824	9549
16:02	ZZZZZZ	6528	148030	22780	9466
16:06	MA44405-CCV8	6599	151490	22836	9734
16:09	MA44405-CCB9	6940	158300	23121	10629
16:12	ZZZZZZ	6648	151870	22770	9704
16:16	ZZZZZZ	6486	148700	22815	9395
16:19	MP7112-B1	6752	154680	23050	10052
16:21	MP7112-MB1	6938	161390	23435	10606
16:25	MP7112-S1	6903	156000	23823	10082
16:28	MP7112-S2	6979	158110	24007	10159

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As, Ba, Cd, Cr, Pb, Se, Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:30	JC65784-21	7131	162640	24340	10378
16:34	MP7112-SD1	6994	157850	23216	10435
16:37	ZZZZZZ	6734	154330	23831	9771
16:40	MA44405-CCV9	6719	153120	22656	9902
16:43	MA44405-CCB10	6955	159020	22795	10653
16:48	MA44405-CRI3	6861	155900	22967	10453
16:51	MA44405-CRID2	6883	157830	22784	10539
16:54	MA44405-ICSA2	6255	138850	21866	9056
16:57	MA44405-ICSAB2	6228	138750	21818	9032
17:00	MA44405-CCV10	6689	150890	22423	9863
17:04	MA44405-CCB11	6907	158470	22726	10565
17:07	ZZZZZZ	6456	147250	21902	9461
17:10	ZZZZZZ	6962	148160	23149	9861
17:13	ZZZZZZ	13359 !	274180 !	33244 !	20502 !
17:16	ZZZZZZ	6898	158190	22958	10569
17:19	ZZZZZZ	6907	157690	23122	10525
17:22	ZZZZZZ	6886	158030	22832	10504
17:25	ZZZZZZ	6876	157970	22811	10543
17:28	ZZZZZZ	6904	157840	22873	10541
17:31	ZZZZZZ	6869	157140	23047	10481
17:34	ZZZZZZ	6887	158130	22586	10563
17:37	ZZZZZZ	6906	158010	22896	10622
17:40	ZZZZZZ	6887	158220	22750	10525
17:44	MA44405-CCV11	6702	152500	22604	9871
17:46	MA44405-CCB12	6998	158330	22885	10682
17:49	ZZZZZZ	6732	152340	23279	9642
17:53	ZZZZZZ	6908	156820	23719	9862
17:56	ZZZZZZ	6808	154860	23608	9658
17:59	ZZZZZZ	6801	153510	23467	9613
18:02	ZZZZZZ	6720	150680	23537	9370
18:05	ZZZZZZ	6908	154960	23830	9729
18:08	ZZZZZZ	6825	153640	23659	9553
18:11	ZZZZZZ	7099	161880	23778	10271

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP
Analyst: EAL
Parameters: As, Ba, Cd, Cr, Pb, Se, Ag

Date Analyzed: 05/14/18
Run ID: MA44405
Methods: SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:14	ZZZZZZ	7061	160460	24045	10240
18:18	MA44405-CCV12	6734	152280	22572	9892
18:20	MA44405-CCB13	6962	157460	22642	10611
18:30	ZZZZZZ	7020	159130	24123	10192
18:33	ZZZZZZ	7026	159530	24049	10188
18:36	ZZZZZZ	6936	159660	23810	10034
18:39	ZZZZZZ	6981	158160	23803	10055
18:42	ZZZZZZ	7167	159080	23513	10474
18:45	ZZZZZZ	6939	157830	23402	10261
18:48	ZZZZZZ	6918	157660	23056	10298
18:51	ZZZZZZ	6971	156730	23712	10026
18:54	MA44405-CCV13	6676	151830	22435	9794
18:57	MA44405-CCB14	6915	157870	22768	10540
19:00	ZZZZZZ	6898	158140	22606	10511
19:03	ZZZZZZ	6965	158840	23142	10127
19:06	ZZZZZZ	6926	158320	23190	10094
19:09	ZZZZZZ	6772	155010	22551	10022
19:12	ZZZZZZ	7023	157830	23666	10105
19:15	ZZZZZZ	6880	155640	23072	10123
19:18	ZZZZZZ	6845	157800	22945	10437
19:21	ZZZZZZ	6793	156280	22671	10366
19:24	ZZZZZZ	6814	155960	22712	10227
19:27	MA44405-CCV14	6751	151900	22529	9882
19:30	MA44405-CCB15	6920	158190	22646	10539
19:33	ZZZZZZ	7021	161890	23358	10686
19:36	ZZZZZZ	6987	159730	23151	10619
19:39	ZZZZZZ	6826	155470	22867	10074
19:42	MP7084-MB1	7021	162210	23027	10664
19:45	MP7084-B1	6753	154270	22665	10013
19:47	MP7084-S1	6829	156470	23724	10186
19:50	MP7084-S2	6834	156940	23613	10156
19:53	JC65783-21	6968	160880	23860	10449
19:57	MP7084-SD1	6979	159220	23116	10442

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP
Analyst: EAL
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Date Analyzed: 05/14/18
Run ID: MA44405
Methods: SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:00	MA44405-CCV15	6734	152340	22210	9864
20:02	MA44405-CCB16	6876	156590	22537	10482
20:05	ZZZZZZ	7036	159540	23443	10085
20:08	ZZZZZZ	7010	158720	23475	10357
20:11	ZZZZZZ	7126	159730	23901	10148
20:14	ZZZZZZ	6998	157030	23508	10039
20:17	ZZZZZZ	6886	159220	23995	10333
20:20	ZZZZZZ	7075	161910	24107	10304
20:23	ZZZZZZ	7156	163440	24210	10434
20:27	ZZZZZZ	7070	159750	23776	10206
20:30	ZZZZZZ	7245	999999	27563	10548
20:33	MA44405-CCV16	6914	159690	24186	10050
20:36	MA44405-CCB17	6937	166230	24299	10552
20:39	ZZZZZZ	7440	171280	26513	10590
20:42	ZZZZZZ	6851	160420	25302	9680
20:45	ZZZZZZ	7257	169980	25722	10421
20:48	ZZZZZZ	7153	166500	25786	10253
20:51	ZZZZZZ	7457	173890	26770	10669
20:54	ZZZZZZ	7023	164180	25646	9851
20:57	ZZZZZZ	7171	166750	25961	9950
21:01	ZZZZZZ	7357	173560	26609	10653
21:04	ZZZZZZ	7453	173040	26498	10637
21:07	ZZZZZZ	7309	173590	25748	10955
21:10	MA44405-CCV17	6841	164310	24779	9946
21:14	MA44405-CCB18	7280	170750	25005	11025
21:20	MA44405-CRI4	7239	171650	24861	10888
21:23	MA44405-CRID3	7307	173000	25483	11074
21:26	MA44405-CCV18	6811	151460	22237	9950
21:29	MA44405-CCB19	6905	158160	22716	10500
21:32	MP7121-MB1	6940	159240	21990	10524
21:35	MP7121-B1	6889	153660	22203	10170
21:38	MP7121-S1	6700	150180	23123	9476
21:41	MP7121-S2	6758	152540	23525	9617

INTERNAL STANDARD SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
 Analyst: EAL Run ID: MA44405
 Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:44	JC65784-44	6913	156580	23639	9842
21:47	MP7121-SD1	6889	157020	22972	10198
21:50	ZZZZZZ	7059	159270	24048	10265
21:53	ZZZZZZ	7015	158020	23786	10175
21:57	ZZZZZZ	7104	161280	24107	10245
22:00	MA44405-CCV19	6738	152850	22353	9899
22:02	MA44405-CCB20	6937	158770	22953	10591
22:05	ZZZZZZ	7045	160490	24100	10089
22:09	ZZZZZZ	7120	161010	24515	10190
22:12	ZZZZZZ	7121	163080	25493	10381
22:15	ZZZZZZ	7218	163760	24739	10390
22:18	ZZZZZZ	6649	153860	23850	9523
22:21	ZZZZZZ	7109	163210	24845	10374
22:24	ZZZZZZ	6092	158410	24614	11505
22:27	ZZZZZZ	6584	154910	24230	10195
22:31	ZZZZZZ	6626	159120	24477	11070
22:34	MA44405-CCV20	6727	154720	23362	9993
22:37	MA44405-CCB21	6954	160310	23856	10731
22:40	ZZZZZZ	6523	147580	24048	9241
22:43	ZZZZZZ	6667	153460	24275	9622
22:46	ZZZZZZ	7297	167180	25346	10427
22:49	ZZZZZZ	7198	165340	24946	10406
22:52	ZZZZZZ	7273	166980	25609	10340
22:55	ZZZZZZ	7297	167850	25708	10238
22:58	ZZZZZZ	7410	169650	26092	10356
23:01	MA44405-CCV21	6752	156050	23996	10072
23:04	MA44405-CCB22	6901	160770	23801	10710
23:07	MA44405-CRI5	6821	159010	23843	10523
23:10	MA44405-CRID4	6889	161110	23834	10674
23:13	MA44405-CCV22	6698	154400	23648	10002
23:16	MA44405-CCB23	6892	160840	23908	10691

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

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
 Analyst: EAL Run ID: MA44405
 Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Sample					
Time	Description	Istd#1	Istd#2	Istd#3	Istd#4
Istd#4	Yttrium (3600)		70-130 %		
Istd#3	Yttrium (3710)		70-130 %		
Istd#4	Indium		70-130 %		

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44405 Units: ug/l

Time: Sample ID:			11:34 ICB1		11:42 CCB1		12:21 CCB2		12:35 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	anr							
Antimony	6.0	2.4	anr							
Arsenic	3.0	1.2	0.100	<3.0	-0.200	<3.0	-0.600	<3.0	0.500	<3.0
Barium	200	.6	0.00	<200	0.400	<200	-0.100	<200	0.300	<200
Beryllium	1.0	.2	anr							
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	0.200	<3.0	0.300	<3.0	0.300	<3.0	0.100	<3.0
Calcium	5000	5.5	anr							
Chromium	10	.7	0.300	<10	0.200	<10	0.400	<10	0.00	<10
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	3.5	anr							
Lead	3.0	2.2	0.300	<3.0	0.400	<3.0	-0.100	<3.0	0.500	<3.0
Lithium	50	3.4								
Magnesium	5000	25	anr							
Manganese	15	.14	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	2								
Potassium	10000	60	anr							
Selenium	10	3.7	0.600	<10	1.00	<10	1.80	<10	1.70	<10
Silicon	200	1.8								
Silver	10	.7	-0.700	<10	0.100	<10	-0.200	<10	-0.400	<10
Sodium	10000	35	anr							
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	anr							
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	anr							
Zinc	20	.2	anr							

14.5.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44405 Units: ug/l

Time: Sample ID:			11:34 ICB1		11:42 CCB1		12:21 CCB2		12:35 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.5.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP
QC Limits: result < RL

Date Analyzed: 05/14/18
Run ID: MA44405

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			13:08 CCB4		13:50 CCB5		14:22 CCB6		14:52 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	anr							
Antimony	6.0	2.4	anr							
Arsenic	3.0	1.2	0.200	<3.0	0.300	<3.0	1.00	<3.0	0.800	<3.0
Barium	200	.6	0.400	<200	0.500	<200	0.500	<200	0.700	<200
Beryllium	1.0	.2	anr							
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	0.200	<3.0	0.100	<3.0	0.200	<3.0	0.200	<3.0
Calcium	5000	5.5	anr							
Chromium	10	.7	0.100	<10	0.400	<10	0.200	<10	0.200	<10
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	3.5	anr							
Lead	3.0	2.2	0.800	<3.0	1.40	<3.0	-0.200	<3.0	1.20	<3.0
Lithium	50	3.4								
Magnesium	5000	25	anr							
Manganese	15	.14	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	2								
Potassium	10000	60	anr							
Selenium	10	3.7	0.500	<10	0.200	<10	0.200	<10	1.10	<10
Silicon	200	1.8								
Silver	10	.7	-0.300	<10	-1.00	<10	-0.900	<10	-1.40	<10
Sodium	10000	35	anr							
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	anr							
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	anr							
Zinc	20	.2	anr							

14.5.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44405 Units: ug/l

Time: Sample ID:			13:08 CCB4		13:50 CCB5		14:22 CCB6		14:52 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.5.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP
QC Limits: result < RL

Date Analyzed: 05/14/18
Run ID: MA44405

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			15:31 CCB8		16:09 CCB9		16:43 CCB10		17:04 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	anr							
Antimony	6.0	2.4	anr							
Arsenic	3.0	1.2	0.100	<3.0	0.700	<3.0	0.700	<3.0	1.40	<3.0
Barium	200	.6	0.800	<200	0.900	<200	0.900	<200	0.600	<200
Beryllium	1.0	.2	anr							
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	0.100	<3.0	0.300	<3.0	0.100	<3.0	0.200	<3.0
Calcium	5000	5.5	anr							
Chromium	10	.7	0.200	<10	0.300	<10	0.400	<10	-0.200	<10
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	3.5	anr							
Lead	3.0	2.2	-0.800	<3.0	0.400	<3.0	0.600	<3.0	0.100	<3.0
Lithium	50	3.4								
Magnesium	5000	25	anr							
Manganese	15	.14	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	2								
Potassium	10000	60	anr							
Selenium	10	3.7	1.30	<10	1.20	<10	3.30	<10	0.700	<10
Silicon	200	1.8								
Silver	10	.7	-1.00	<10	-1.60	<10	-1.30	<10	-1.60	<10
Sodium	10000	35	anr							
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	anr							
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	anr							
Zinc	20	.2	anr							

14.5.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44405 Units: ug/l

Time:		15:31		16:09		16:43		17:04		
Sample ID:		CCB8		CCB9		CCB10		CCB11		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.5.2
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: to % Recovery Run ID: MA44405 Units: ug/l

Time: Sample ID: ICCV		11:37 ICCV1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	2000	2010	100.5
Barium	2000	2040	102.0
Beryllium	anr		
Bismuth			
Boron			
Cadmium	2000	2010	100.5
Calcium	anr		
Chromium	2000	2060	103.0
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	2000	2050	102.5
Lithium			
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Phosphorus			
Potassium	anr		
Selenium	2000	2010	100.5
Silicon			
Silver	250	255	102.0
Sodium	anr		
Strontium			
Sulfur	anr		
Thallium	anr		
Tin			
Titanium			
Tungsten			
Vanadium	anr		
Zinc	anr		

14.5.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: to % Recovery Run ID: MA44405 Units: ug/l

Time:	11:37
Sample ID:	ICCV
Metal	True
Results	% Rec

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time: Sample ID:	ICV	11:30 ICV2	% Rec	CCV	12:18 CCV1	% Rec	CCV	12:30 CCV2	% Rec
Metal	True	Results		True	Results		True	Results	
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2010	100.5	2000	1980	99.0	2000	2000	100.0
Barium	2000	2040	102.0	2000	2010	100.5	2000	2020	101.0
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	2010	100.5	2000	1980	99.0	2000	1990	99.5
Calcium	anr								
Chromium	2000	2030	101.5	2000	1990	99.5	2000	2010	100.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2060	103.0	2000	2030	101.5	2000	2040	102.0
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	2020	101.0	2000	1990	99.5	2000	2000	100.0
Silicon									
Silver	250	252	100.8	250	246	98.4	250	248	99.2
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.5.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time:		11:30			12:18			12:30		
Sample ID:	ICV	ICV2		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time: Sample ID:		13:05 CCV3		13:47 CCV4		14:19 CCV5			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1970	98.5	2000	1930	96.5	2000	1940	97.0
Barium	2000	2010	100.5	2000	2030	101.5	2000	2040	102.0
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	1970	98.5	2000	1920	96.0	2000	1920	96.0
Calcium	anr								
Chromium	2000	1990	99.5	2000	1970	98.5	2000	1980	99.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2020	101.0	2000	2000	100.0	2000	2020	101.0
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	1980	99.0	2000	1940	97.0	2000	1940	97.0
Silicon									
Silver	250	246	98.4	250	243	97.2	250	242	96.8
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.5.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time:		13:05			13:47			14:19		
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time: Sample ID:		14:49 CCV6			15:25 CCV7			16:06 CCV8		
Metal	CCV True	Results	% Rec	CCV True	Results	% Rec	CCV True	Results	% Rec	
Aluminum	anr									
Antimony	anr									
Arsenic	2000	1920	96.0	2000	1900	95.0	2000	1930	96.5	
Barium	2000	2020	101.0	2000	2010	100.5	2000	2010	100.5	
Beryllium	anr									
Bismuth										
Boron										
Cadmium	2000	1880	94.0	2000	1860	93.0	2000	1890	94.5	
Calcium	anr									
Chromium	2000	1960	98.0	2000	1940	97.0	2000	1960	98.0	
Cobalt	anr									
Copper	anr									
Iron	anr									
Lead	2000	2000	100.0	2000	1990	99.5	2000	2020	101.0	
Lithium										
Magnesium	anr									
Manganese	anr									
Molybdenum										
Nickel	anr									
Phosphorus										
Potassium	anr									
Selenium	2000	1910	95.5	2000	1910	95.5	2000	1940	97.0	
Silicon										
Silver	250	239	95.6	250	238	95.2	250	239	95.6	
Sodium	anr									
Strontium										
Sulfur	anr									
Thallium	anr									
Tin										
Titanium										
Tungsten										
Vanadium	anr									
Zinc	anr									

14.5.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time:		14:49			15:25			16:06		
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time: Sample ID:		16:40 CCV9		17:00 CCV10			
Metal	CCV	Results	% Rec	CCV	Results	% Rec	
Aluminum	anr						
Antimony	anr						
Arsenic	2000	1880	94.0	2000	1870	93.5	
Barium	2000	1990	99.5	2000	2000	100.0	
Beryllium	anr						
Bismuth							
Boron							
Cadmium	2000	1830	91.5	2000	1820	91.0	
Calcium	anr						
Chromium	2000	1920	96.0	2000	1930	96.5	
Cobalt	anr						
Copper	anr						
Iron	anr						
Lead	2000	1970	98.5	2000	1960	98.0	
Lithium							
Magnesium	anr						
Manganese	anr						
Molybdenum							
Nickel	anr						
Phosphorus							
Potassium	anr						
Selenium	2000	1870	93.5	2000	1870	93.5	
Silicon							
Silver	250	233	93.2	250	235	94.0	
Sodium	anr						
Strontium							
Sulfur	anr						
Thallium	anr						
Tin							
Titanium							
Tungsten							
Vanadium	anr						
Zinc	anr						

14.5.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time:		16:40			17:00		
Sample ID:	CCV	CCV9		CCV	CCV10		
Metal	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

HIGH STANDARD CHECK SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP
QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/14/18
Run ID: MA44405

Methods: SW846 6010C
Units: ug/l

Time:		12:02			12:05		
Sample ID:	HSTD	HSTD1	% Rec	HSTD	HSTD2	% Rec	
Metal	True	Results		True	Results		
Aluminum							
Antimony	anr						
Arsenic	5000	5030	100.6				
Barium	5000	5180	103.6				
Beryllium	anr						
Bismuth							
Boron							
Cadmium	5000	5110	102.2				
Calcium							
Chromium	5000	5200	104.0				
Cobalt	anr						
Copper	anr						
Iron							
Lead	5000	5240	104.8				
Lithium							
Magnesium							
Manganese	anr						
Molybdenum							
Nickel	anr						
Phosphorus							
Potassium							
Selenium	5000	5080	101.6				
Silicon							
Silver	625	628	100.5				
Sodium							
Strontium							
Sulfur	anr						
Thallium	anr						
Tin							
Titanium							
Tungsten							
Vanadium	anr						
Zinc	anr						

HIGH STANDARD CHECK SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
 QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time:		12:02			12:05		
Sample ID:	HSTD	HSTD1		HSTD	HSTD2		
Metal	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44405 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	11:50 CRI1	% Rec	11:53 CRID1	% Rec	12:24 CRI2	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	anr					
Antimony	6.0	20	3.0	anr					
Arsenic	8.0	20	3.0	7.70	96.3	3.00	100.0	8.60	107.5
Barium	200		4.0	207	103.5	4.30	107.5	209	104.5
Beryllium	2.0		1.0	anr					
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	3.30	110.0	1.30	130.0	3.40	113.3
Calcium	5000	2000	1000	anr					
Chromium	10		2.0	10.8	108.0	2.00	100.0	10.6	106.0
Cobalt	50		3.0	anr					
Copper	10		2.0	anr					
Iron	100	500		anr					
Lead	3.0	20	2.5	3.20	106.7			3.60	120.0
Lithium	50								
Magnesium	5000	2000	100	anr					
Manganese	15		3.0	anr					
Molybdenum	20								
Nickel	10		4.0	anr					
Phosphorus	50								
Potassium	5000		2000	anr					
Selenium	10	20	5.0	12.2	122.0	5.70	114.0	10.9	109.0
Silicon	200								
Silver	5.0		2.0	5.00	100.0			4.90	98.0
Sodium	5000		1000	anr					
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	anr					
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	anr					
Zinc	20		10	anr					

14.5.6
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44405 Units: ug/l

Time:					11:50		11:53		12:24	
Sample ID:	CRI	CRIA	CRID	CRI1	% Rec	CRID1	% Rec	CRI2	% Rec	
Metal	True	True	True	Results		Results		Results		

Zirconium 10

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44405 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	16:48 CRI3	% Rec	16:51 CRID2	% Rec
Metal	True	True	True	Results		Results	
Aluminum	200	500	100	anr			
Antimony	6.0	20	3.0	anr			
Arsenic	8.0	20	3.0	8.50	106.3	2.50	83.3
Barium	200		4.0	207	103.5	4.80	120.0
Beryllium	2.0		1.0	anr			
Bismuth	20						
Boron	100		10				
Cadmium	3.0		1.0	3.00	100.0	1.00	100.0
Calcium	5000	2000	1000	anr			
Chromium	10		2.0	10.4	104.0	2.10	105.0
Cobalt	50		3.0	anr			
Copper	10		2.0	anr			
Iron	100	500		anr			
Lead	3.0	20	2.5	3.70	123.3		
Lithium	50						
Magnesium	5000	2000	100	anr			
Manganese	15		3.0	anr			
Molybdenum	20						
Nickel	10		4.0	anr			
Phosphorus	50						
Potassium	5000		2000	anr			
Selenium	10	20	5.0	11.6	116.0	5.90	118.0
Silicon	200						
Silver	5.0		2.0	4.00	80.0		
Sodium	5000		1000	anr			
Strontium	10						
Sulfur	50			anr			
Thallium	10		2.0	anr			
Tin	10						
Titanium	10						
Tungsten	50						
Vanadium	50		2.0	anr			
Zinc	20		10	anr			

14.5.6
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44405 Units: ug/l

Time:				16:48		16:51	
Sample ID:	CRI	CRIA	CRID	CRI3		CRID2	
Metal	True	True	True	Results	% Rec	Results	% Rec

Zirconium 10

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

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44405 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	11:56 ICSA1 Results	% Rec	11:59 ICSAB1 Results	% Rec	16:54 ICSA2 Results	% Rec	16:57 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	513000	102.6	524000	104.8	499000	99.8	503000	100.6
Antimony		1000	-2.70		1080	108.0	-5.40		979	97.9
Arsenic		1000	0.300		1100	110.0	4.00		1030	103.0
Barium		500	1.80		524	104.8	2.10		518	103.6
Beryllium		500	-0.100		511	102.2	-0.300		491	98.2
Bismuth		500	-2.90		530	106.0	-9.30		490	98.0
Boron		500	-2.40		531	106.2	-5.10		491	98.2
Cadmium		1000	1.00		1070	107.0	0.600		971	97.1
Calcium	400000	400000	402000	100.5	393000	98.3	377000	94.3	375000	93.8
Chromium		500	0.500		502	100.4	1.10		488	97.6
Cobalt		500	1.20		517	103.4	0.800		483	96.6
Copper		500	0.700		525	105.0	2.60		511	102.2
Iron	200000	200000	199000	99.5	201000	100.5	196000	98.0	198000	99.0
Lead		1000	1.70		1010	101.0	4.10		976	97.6
Lithium		500	2.30		530	106.0	4.70		506	101.2
Magnesium	500000	500000	513000	102.6	510000	102.0	486000	97.2	485000	97.0
Manganese		500	0.300		526	105.2	-0.600		497	99.4
Molybdenum		500	0.800		505	101.0	1.00		438	87.6
Nickel		1000	-0.200		1020	102.0	0.400		983	98.3
Phosphorus		500	2.70		531	106.2	14.4		515	103.0
Potassium			144		158		182		245	
Selenium		1000	-0.200		1030	103.0	3.50		968	96.8
Silicon		500	13.6		530	106.0	12.8		482	96.4
Silver		1000	3.70		1010	101.0	-2.70		963	96.3
Sodium			-24.5		-9.50		126		132	
Strontium		500	-2.50		522	104.4	-2.70		484	96.8
Sulfur		500	-15.2		509	101.8	-10.9		457	91.4
Thallium		1000	-2.70		1020	102.0	-2.60		976	97.6
Tin		500	-4.50		490	98.0	-3.90		430	86.0
Titanium		500	-2.30		512	102.4	-1.70		500	100.0
Tungsten		500	2.10		506	101.2	2.80		473	94.6
Vanadium		500	3.70		517	103.4	6.10		485	97.0
Zinc		1000	4.90		1010	101.0	4.40		921	92.1

14.5.7
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Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 6010C
Units: ug/l

Zirconium	500	-2.60	504	100.8	-2.80	476	95.2
(*) Outside of QC limits (anr) Analyte not requested							

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

14.5.7 14

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
Analyst: EAL
Parameters: Ca

Date Analyzed: 05/16/18 Methods: SW846 6010C
Run ID: MA44427

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:19	MA44427-STD1	1		IEC 12/18/17 to 5/17/18
12:22	MA44427-STD2	1		STDB
12:25	ZZZZZZ	1		
12:27	ZZZZZZ	1		
12:31	ZZZZZZ	1		
12:34	ZZZZZZ	1		
12:37	MA44427-ICV1	1		
12:42	MA44427-ICB1	1		
12:46	MA44427-ICCV1	1		
12:51	MA44427-CCB1	1		
12:55	ZZZZZZ	1		
12:59	MA44427-CRI1	1		
13:02	MA44427-CRID1	1		
13:05	MA44427-ICSA1	1		
13:08	MA44427-ICSAB1	1		
13:11	MA44427-HSTD1	1		
13:14	MA44427-HSTD2	1		
13:18	ZZZZZZ	1		
13:21	ZZZZZZ	1		
13:24	ZZZZZZ	1		
13:27	MA44427-CCV1	1		
13:33	MA44427-CCB2	1		
13:36	ZZZZZZ	1		
13:39	ZZZZZZ	1		
13:42	ZZZZZZ	2		
13:45	ZZZZZZ	2		
13:48	ZZZZZZ	3		
13:51	ZZZZZZ	3		
13:54	ZZZZZZ	2		
13:57	ZZZZZZ	5		
14:00	ZZZZZZ	3		
14:03	MA44427-CCV2	1		
14:06	MA44427-CCB3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
Analyst: EAL
Parameters: Ca

Date Analyzed: 05/16/18 Methods: SW846 6010C
Run ID: MA44427

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:09	ZZZZZZ	2		
14:12	ZZZZZZ	3		
14:15	ZZZZZZ	2		
14:17	MP7158-MB1	1		
14:20	ZZZZZZ	1		
14:23	ZZZZZZ	1		
14:26	ZZZZZZ	1		
14:29	ZZZZZZ	1		
14:32	ZZZZZZ	1		
14:35	MA44427-CCV3	1		
14:38	MA44427-CCB4	1		
14:41	ZZZZZZ	1		
14:44	ZZZZZZ	1		
14:47	ZZZZZZ	1		
14:50	ZZZZZZ	1		
14:54	ZZZZZZ	1		
14:57	ZZZZZZ	1		
15:00	ZZZZZZ	1		
15:03	ZZZZZZ	1		
15:06	ZZZZZZ	1		
15:09	MA44427-CCV4	1		
15:12	MA44427-CCB5	1		
15:15	ZZZZZZ	2		
15:18	ZZZZZZ	1		
15:21	ZZZZZZ	1		
15:24	ZZZZZZ	1		
15:26	ZZZZZZ	1		
15:30	ZZZZZZ	1		
15:33	ZZZZZZ	1		
15:35	ZZZZZZ	1		
15:39	ZZZZZZ	1		
15:42	MA44427-CCV5	1		
15:46	MA44427-CCB6	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
Analyst: EAL
Parameters: Ca

Date Analyzed: 05/16/18 Methods: SW846 6010C
Run ID: MA44427

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:49	ZZZZZZ	5		
15:52	MP7168-MB1	1		
15:55	MP7168-B1	1		
15:58	MP7168-S1	1		high elements
16:01	MP7168-S2	1		High elements
16:05	MP7168-D1	1		High elements
16:08	TD20915-1	1		(sample used for QC only; not part of login JC65800)
16:11	MP7168-SD1	5		High elements
16:14	ZZZZZZ	1		
16:17	MA44427-CCV6	1		
16:20	MA44427-CCB7	1		
16:23	ZZZZZZ	1		
16:26	ZZZZZZ	1		
16:30	ZZZZZZ	1		
16:33	ZZZZZZ	1		
16:36	ZZZZZZ	1		
16:39	ZZZZZZ	1		
16:42	ZZZZZZ	1		
16:45	ZZZZZZ	1		
16:48	ZZZZZZ	1		
16:51	MA44427-CCV7	1		
16:54	MA44427-CCB8	1		
16:57	ZZZZZZ	5		
17:00	ZZZZZZ	3		
17:03	ZZZZZZ	5		
17:06	ZZZZZZ	1		
17:09	ZZZZZZ	1		
17:12	MP7158-B1	1		
17:15	MP7158-S1	1		
17:18	MP7158-S2	1		
17:20	JC65898-1	1		(sample used for QC only; not part of login JC65800)
17:23	MA44427-CCV8	1		
17:26	MA44427-CCB9	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
Analyst: EAL
Parameters: Ca

Date Analyzed: 05/16/18 Methods: SW846 6010C
Run ID: MA44427

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:29	MP7158-SD1	5		
17:32	ZZZZZZ	1		
17:35	ZZZZZZ	1		
17:38	ZZZZZZ	1		
17:41	ZZZZZZ	1		
17:44	ZZZZZZ	2		
17:47	ZZZZZZ	1		
17:50	ZZZZZZ	1		
17:53	ZZZZZZ	5		
17:56	MA44427-CCV9	1		
17:59	MA44427-CCB10	1		
18:02	ZZZZZZ	25		
18:05	JC65800-1	5		
----->	Last reportable sample/	prep for job JC65800		
18:08	ZZZZZZ	1		
18:11	ZZZZZZ	1		
18:14	MA44427-CRI2	1		
18:17	MA44427-CRID2	1		
18:20	MA44427-ICSA2	1		
18:23	MA44427-ICSAB2	1		
18:26	MA44427-CCV10	1		
18:29	MA44427-CCB11	1		
----->	Last reportable CCB for job JC65800			
18:32	ZZZZZZ	1		
18:35	ZZZZZZ	1		
18:38	ZZZZZZ	1		
18:41	ZZZZZZ	1		
18:54	ZZZZZZ	1		
18:57	ZZZZZZ	1		
19:00	ZZZZZZ	1		
19:04	ZZZZZZ	1		
19:07	ZZZZZZ	1		
19:10	ZZZZZZ	1		
19:13	ZZZZZZ	1		
19:16	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
Analyst: EAL
Parameters: Ca

Date Analyzed: 05/16/18 Methods: SW846 6010C
Run ID: MA44427

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:19	ZZZZZZ	1		
19:22	MA44427-CCV11	1		
19:25	MA44427-CCB12	1		
19:28	ZZZZZZ	1		
19:31	ZZZZZZ	1		
19:34	ZZZZZZ	1		
19:37	ZZZZZZ	1		
19:40	ZZZZZZ	1		
19:43	ZZZZZZ	1		
19:46	ZZZZZZ	1		
19:49	ZZZZZZ	1		
19:52	ZZZZZZ	1		
19:55	MA44427-CCV12	1		
19:58	MA44427-CCB13	1		
20:01	ZZZZZZ	1		
20:04	ZZZZZZ	1		
20:07	ZZZZZZ	1		
20:10	ZZZZZZ	1		
20:13	ZZZZZZ	1		
20:16	ZZZZZZ	1		
20:19	ZZZZZZ	1		
20:22	ZZZZZZ	1		
20:25	ZZZZZZ	1		
20:28	MA44427-CCV13	1		
20:31	MA44427-CCB14	1		
20:34	MP7175-MB1	1		
20:37	MP7175-B1	1		
20:40	MP7175-S1	1		FE, Cu, PB high
20:43	MP7175-S2	1		FE, Cu, PB high
20:46	JC65915-4	1		(sample used for QC only; not part of login JC65800)
20:49	MP7175-SD1	5		Cu, PB high
20:52	ZZZZZZ	1		
20:55	ZZZZZZ	1		

14.6
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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
Analyst: EAL
Parameters: Ca

Date Analyzed: 05/16/18 Methods: SW846 6010C
Run ID: MA44427

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:58	ZZZZZZ	1		
21:01	MA44427-CCV14	1		
21:04	MA44427-CCB15	1		
21:07	ZZZZZZ	1		
21:10	ZZZZZZ	1		
21:13	ZZZZZZ	1		
21:16	ZZZZZZ	1		
21:19	ZZZZZZ	1		
21:22	ZZZZZZ	1		
21:25	ZZZZZZ	1		
21:28	ZZZZZZ	1		
21:31	ZZZZZZ	1		
21:34	MA44427-CCV15	1		
21:37	MA44427-CCB16	1		
21:40	ZZZZZZ	1		
21:43	ZZZZZZ	1		
21:46	ZZZZZZ	1		
21:49	ZZZZZZ	1		
21:52	ZZZZZZ	1		
22:01	MA44427-CCV16	1		
22:04	MA44427-CCB17	1		
22:07	ZZZZZZ	1		
22:10	ZZZZZZ	1		
22:13	MP7176-B1	1		
22:16	MP7176-MB1	1		
22:19	MP7176-S1	1		
22:22	MP7176-S2	1		
22:25	JC65866-3	1		(sample used for QC only; not part of login JC65800)
22:28	MP7176-SD1	5		
22:31	ZZZZZZ	1		
22:34	MA44427-CCV17	1		
22:37	MA44427-CCB18	1		
22:40	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
Analyst: EAL
Parameters: Ca

Date Analyzed: 05/16/18 Methods: SW846 6010C
Run ID: MA44427

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:43	ZZZZZZ	1		
22:46	ZZZZZZ	1		
22:49	ZZZZZZ	1		
22:52	ZZZZZZ	1		
22:55	ZZZZZZ	1		
22:58	ZZZZZZ	1		
23:01	ZZZZZZ	1		
23:04	ZZZZZZ	1		
23:07	MA44427-CCV18	1		
23:13	MA44427-CCB19	1		
23:16	ZZZZZZ	1		
23:19	ZZZZZZ	1		
23:22	ZZZZZZ	1		
23:25	ZZZZZZ	1		
23:28	ZZZZZZ	1		
23:31	ZZZZZZ	1		
23:34	ZZZZZZ	1		
23:37	ZZZZZZ	1		
23:40	ZZZZZZ	1		
23:43	MA44427-CCV19	1		
23:46	MA44427-CCB20	1		
23:49	MP7177-MB1	1		
23:52	MP7177-MB2	1		
23:55	MP7177-B1	1		
23:58	MP7177-B2	1		
00:03	MA44427-CCV20	1		
00:06	MA44427-CCB21	1		
00:09	MP7177-MB1	1		GEQC to reanalysis, no ending ICSA
00:12	MP7177-MB2	1		
00:15	MP7177-B1	1		
00:18	MP7177-B2	1		
00:21	MP7177-S1	1		
00:24	MP7177-S2	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
Analyst: EAL
Parameters: Ca

Date Analyzed: 05/16/18 Methods: SW846 6010C
Run ID: MA44427

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:27	JC65928-1	1		(sample used for QC only; not part of login JC65800)
00:30	MP7177-SD1	5		
00:33	ZZZZZZ	1		
00:36	MP7177-B1	1		
00:39	MA44427-CCV21	1		
00:42	MA44427-CCB22	1		
00:45	ZZZZZZ	1		
00:48	ZZZZZZ	1		
00:51	ZZZZZZ	1		
00:54	ZZZZZZ	1		
00:58	ZZZZZZ	1		
01:01	ZZZZZZ	1		
01:04	ZZZZZZ	1		
01:07	ZZZZZZ	1		
01:10	ZZZZZZ	1		
01:13	MA44427-CCV22	1		
01:16	MA44427-CCB23	1		
01:19	ZZZZZZ	1		
01:22	ZZZZZZ	1		
01:25	ZZZZZZ	1		
01:28	ZZZZZZ	1		
01:31	ZZZZZZ	1		
01:34	ZZZZZZ	1		
01:37	ZZZZZZ	1		
01:40	ZZZZZZ	1		
01:43	ZZZZZZ	1		
01:46	MA44427-CCV23	1		
01:49	MA44427-CCB24	1		
01:52	MA44427-CRI3	1		
01:55	MA44427-CRID3	1		
01:58	MA44427-CCV24	1		
02:01	MA44427-CCB25	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
Analyst: EAL
Parameters: Ca

Date Analyzed: 05/16/18 Methods: SW846 6010C
Run ID: MA44427

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:19	MA44427-STD1	6846 R	133610 R	26695 R	11477 R
12:22	MA44427-STD2	6553	124610	26214	10389
12:25	ZZZZZZ	6649	128330	26433	10634
12:27	ZZZZZZ	6837	133730	26420	11465
12:31	ZZZZZZ	6795	132900	26699	11299
12:34	ZZZZZZ	6793	132580	26358	11392
12:37	MA44427-ICV1	6596	126450	25998	10603
12:42	MA44427-ICB1	6782	131640	26195	11443
12:46	MA44427-ICCV1	6587	125760	25833	10607
12:51	MA44427-CCB1	6718	130410	26132	11352
12:55	ZZZZZZ	6686	129420	25983	11287
12:59	MA44427-CRI1	6601	128970	25728	11099
13:02	MA44427-CRID1	6659	129600	26066	11270
13:05	MA44427-ICSA1	6023	114340	24682	9481
13:08	MA44427-ICSAB1	6025	113920	24503	9512
13:11	MA44427-HSTD1	6582	128720	25922	11142
13:14	MA44427-HSTD2	6135	117110	24757	9600
13:18	ZZZZZZ	6548	128630	25493	11277
13:21	ZZZZZZ	6504	129250	25613	11196
13:24	ZZZZZZ	6648	130460	25783	11338
13:27	MA44427-CCV1	6463	125220	25362	10504
13:33	MA44427-CCB2	6609	129870	25508	11270
13:36	ZZZZZZ	6636	131200	25885	11301
13:39	ZZZZZZ	6462	125870	25300	10624
13:42	ZZZZZZ	6667	129530	25763	10837
13:45	ZZZZZZ	6641	128180	25698	10821
13:48	ZZZZZZ	6705	128280	26094	10953
13:51	ZZZZZZ	6613	129180	25565	11060
13:54	ZZZZZZ	6549	129070	25441	11164
13:57	ZZZZZZ	6544	128160	25406	10999
14:00	ZZZZZZ	6671	129430	25360	11085
14:03	MA44427-CCV2	6422	123650	24898	10496
14:06	MA44427-CCB3	6587	129500	25167	11300

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
Analyst: EAL
Parameters: Ca

Date Analyzed: 05/16/18 Methods: SW846 6010C
Run ID: MA44427

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:09	ZZZZZZ	6641	128630	25750	11083
14:12	ZZZZZZ	6597	129720	25698	11054
14:15	ZZZZZZ	6593	129140	25485	10991
14:17	MP7158-MB1	6672	130550	25666	11456
14:20	ZZZZZZ	6695	130810	25562	11271
14:23	ZZZZZZ	6675	129730	25770	11218
14:26	ZZZZZZ	6690	132480	25612	11246
14:29	ZZZZZZ	6663	132170	25701	11307
14:32	ZZZZZZ	6188	119650	24905	9630
14:35	MA44427-CCV3	6445	123840	24758	10546
14:38	MA44427-CCB4	6619	131300	25207	11344
14:41	ZZZZZZ	6684	130370	26378	11055
14:44	ZZZZZZ	6759	133570	26575	11281
14:47	ZZZZZZ	6422	122550	26242	9589
14:50	ZZZZZZ	6430	122110	26052	9739
14:54	ZZZZZZ	6227	118230	25384	9303
14:57	ZZZZZZ	6331	122010	25958	9685
15:00	ZZZZZZ	6372	122810	25666	9713
15:03	ZZZZZZ	6738	132740	26543	11456
15:06	ZZZZZZ	6603	128980	25581	10832
15:09	MA44427-CCV4	6537	127240	25241	10652
15:12	MA44427-CCB5	6623	131440	25227	11335
15:15	ZZZZZZ	6745	130220	25942	10842
15:18	ZZZZZZ	6639	131940	25567	11352
15:21	ZZZZZZ	6545	127510	25226	10813
15:24	ZZZZZZ	6696	130130	25867	10940
15:26	ZZZZZZ	6722	127410	25997	10819
15:30	ZZZZZZ	6597	130480	25473	11309
15:33	ZZZZZZ	6370	125720	24775	10563
15:35	ZZZZZZ	6611	129200	25545	11110
15:39	ZZZZZZ	6565	126110	25426	10512
15:42	MA44427-CCV5	6353	123990	24095	10453
15:46	MA44427-CCB6	6548	129150	24697	11276

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
Analyst: EAL
Parameters: Ca

Date Analyzed: 05/16/18 Methods: SW846 6010C
Run ID: MA44427

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:49	ZZZZZZ	6545	129160	25407	11303
15:52	MP7168-MB1	6626	132500	25726	11382
15:55	MP7168-B1	6485	126750	25181	10761
15:58	MP7168-S1	6072	123340	25704	11533
16:01	MP7168-S2	6133	123140	25550	11580
16:05	MP7168-D1	6218	125960	25934	11763
16:08	TD20915-1	6270	126130	25874	11776
16:11	MP7168-SD1	6717	132760	26395	11586
16:14	ZZZZZZ	6301	125200	25351	11463
16:17	MA44427-CCV6	6540	126340	25474	10664
16:20	MA44427-CCB7	6726	132740	25770	11484
16:23	ZZZZZZ	6648	129660	26804	10747
16:26	ZZZZZZ	6889	133130	27111	11111
16:30	ZZZZZZ	6918	133120	26910	11147
16:33	ZZZZZZ	7091	138000	27881	11125
16:36	ZZZZZZ	7069	136330	27417	11190
16:39	ZZZZZZ	6960	133970	27381	11027
16:42	ZZZZZZ	6834	132910	27204	10666
16:45	ZZZZZZ	6839	133990	27426	10955
16:48	ZZZZZZ	6820	133580	27319	10812
16:51	MA44427-CCV7	6638	127570	25778	10733
16:54	MA44427-CCB8	6789	133460	26222	11492
16:57	ZZZZZZ	6808	131900	26858	11155
17:00	ZZZZZZ	6841	132450	26842	11127
17:03	ZZZZZZ	No results reported for the elements associated with this internal standard.			
17:06	ZZZZZZ	6692	129530	26285	10894
17:09	ZZZZZZ	6897	135190	27076	11645
17:12	MP7158-B1	6681	129290	26152	10865
17:15	MP7158-S1	6732	130170	26559	10924
17:18	MP7158-S2	6716	129800	26405	10913
17:20	JC65898-1	6938	135170	26995	11554
17:23	MA44427-CCV8	6704	127640	26226	10785
17:26	MA44427-CCB9	6845	133780	26407	11541

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
Analyst: EAL
Parameters: Ca

Date Analyzed: 05/16/18 Methods: SW846 6010C
Run ID: MA44427

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
17:29	MP7158-SD1	6867	133820	26356	11519
17:32	ZZZZZZ	7000	134660	26950	11560
17:35	ZZZZZZ	6924	133910	27461	11360
17:38	ZZZZZZ	6877	132430	27559	11216
17:41	ZZZZZZ	6896	134900	26877	11471
17:44	ZZZZZZ	6849	132030	27129	11414
17:47	ZZZZZZ	6946	135170	27210	11397
17:50	ZZZZZZ	6939	135090	27013	11468
17:53	ZZZZZZ	6859	133250	26444	11235
17:56	MA44427-CCV9	6673	127790	25950	10712
17:59	MA44427-CCB10	6856	133060	26449	11535
18:02	ZZZZZZ	6773	999999 !	26670	11496
18:05	JC65800-1	6650	129170	26312	10591
18:08	ZZZZZZ	6768	129960	26489	10995
18:11	ZZZZZZ	6863	135140	26946	11545
18:14	MA44427-CRI2	6810	132200	26428	11392
18:17	MA44427-CRID2	6910	131830	26432	11625
18:20	MA44427-ICSA2	6231	117020	25704	9720
18:23	MA44427-ICSAB2	6234	117170	25192	9737
18:26	MA44427-CCV10	6664	127360	26112	10695
18:29	MA44427-CCB11	6876	132490	26488	11546
18:32	ZZZZZZ	6441	999999 !	25580	10316
18:35	ZZZZZZ	7022	124970	27322	10717
18:38	ZZZZZZ	6374	124160	25793	10287
18:41	ZZZZZZ	6872	133740	26658	11597
18:54	ZZZZZZ	6304	121130	25286	10087
18:57	ZZZZZZ	6780	131300	26235	11372
19:00	ZZZZZZ	6725	131440	26089	11288
19:04	ZZZZZZ	6721	130620	26040	11363
19:07	ZZZZZZ	6701	122100	26484	11294
19:10	ZZZZZZ	6701	130280	25856	11263
19:13	ZZZZZZ	6750	130720	26509	11373
19:16	ZZZZZZ	6733	129860	25973	11333

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
Analyst: EAL
Parameters: Ca

Date Analyzed: 05/16/18 Methods: SW846 6010C
Run ID: MA44427

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:19	ZZZZZZ	6674	129010	26127	11047
19:22	MA44427-CCV11	6568	126150	25567	10558
19:25	MA44427-CCB12	6711	130890	25866	11315
19:28	ZZZZZZ	6441	123500	25951	9598
19:31	ZZZZZZ	6781	131620	27088	10857
19:34	ZZZZZZ	6884	132340	27024	10799
19:37	ZZZZZZ	6563	125420	26427	10160
19:40	ZZZZZZ	6697	128310	26411	11160
19:43	ZZZZZZ	No results reported for the elements associated with this internal standard.			
19:46	ZZZZZZ	6724	129490	26551	11066
19:49	ZZZZZZ	No results reported for the elements associated with this internal standard.			
19:52	ZZZZZZ	No results reported for the elements associated with this internal standard.			
19:55	MA44427-CCV12	6591	126300	25779	10604
19:58	MA44427-CCB13	6780	131340	26044	11433
20:01	ZZZZZZ	6902	131230	26864	11014
20:04	ZZZZZZ	No results reported for the elements associated with this internal standard.			
20:07	ZZZZZZ	No results reported for the elements associated with this internal standard.			
20:10	ZZZZZZ	6965	133330	27582	10816
20:13	ZZZZZZ	6890	132290	27172	10863
20:16	ZZZZZZ	6757	127990	26515	10778
20:19	ZZZZZZ	6838	129390	26941	10780
20:22	ZZZZZZ	6753	129470	26552	10842
20:25	ZZZZZZ	6809	129750	26444	10977
20:28	MA44427-CCV13	6580	126210	25773	10592
20:31	MA44427-CCB14	6745	130750	25839	11381
20:34	MP7175-MB1	6820	134040	26718	11499
20:37	MP7175-B1	6588	126940	25994	10712
20:40	MP7175-S1	6429	125510	26270	10579
20:43	MP7175-S2	6485	128680	26498	10692
20:46	JC65915-4	6593	125860	26242	10887
20:49	MP7175-SD1	6686	131630	26202	11103
20:52	ZZZZZZ	7221	136280	28084	11333
20:55	ZZZZZZ	6958	133070	27042	10970

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
Analyst: EAL
Parameters: Ca

Date Analyzed: 05/16/18 Methods: SW846 6010C
Run ID: MA44427

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:58	ZZZZZZ	7039	135230	27601	10903
21:01	MA44427-CCV14	6559	125280	25486	10583
21:04	MA44427-CCB15	6723	130500	25791	11364
21:07	ZZZZZZ	6817	131710	26690	11055
21:10	ZZZZZZ	6959	132500	27369	10942
21:13	ZZZZZZ	6952	132940	27225	10879
21:16	ZZZZZZ	No results reported for the elements associated with this internal standard.			
21:19	ZZZZZZ	6649	129050	26798	11050
21:22	ZZZZZZ	6724	129920	26331	11092
21:25	ZZZZZZ	6679	129670	26726	10952
21:28	ZZZZZZ	6430	126170	26131	10471
21:31	ZZZZZZ	6763	130000	26584	11009
21:34	MA44427-CCV15	6563	999999 !a	25742	10600
21:37	MA44427-CCB16	6741	132580	25990	11416
21:40	ZZZZZZ	6786	129400	26662	11124
21:43	ZZZZZZ	6699	130560	26885	11099
21:46	ZZZZZZ	6768	130420	26632	11104
21:49	ZZZZZZ	6747	130530	26908	10998
21:52	ZZZZZZ	6651	129930	26653	11085
22:01	MA44427-CCV16	6575	126960	25464	10621
22:04	MA44427-CCB17	6721	131330	25782	11397
22:07	ZZZZZZ	6550	129260	26413	10911
22:10	ZZZZZZ	6611	128950	26303	10875
22:13	MP7176-B1	6676	130450	26170	10918
22:16	MP7176-MB1	6757	133230	26270	11455
22:19	MP7176-S1	6572	127110	25920	10560
22:22	MP7176-S2	6602	128070	26195	10598
22:25	JC65866-3	6614	128400	25951	10920
22:28	MP7176-SD1	6715	130700	25796	11268
22:31	ZZZZZZ	6784	132740	26069	11225
22:34	MA44427-CCV17	6579	125150	25595	10606
22:37	MA44427-CCB18	6741	132040	25530	11397
22:40	ZZZZZZ	6645	130040	25921	10941

INTERNAL STANDARD SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
 Analyst: EAL
 Parameters: Ca

Date Analyzed: 05/16/18 Methods: SW846 6010C
 Run ID: MA44427

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:43	ZZZZZZ	6555	128440	25991	10863
22:46	ZZZZZZ	6454	129560	25977	10728
22:49	ZZZZZZ	6544	129960	25789	10807
22:52	ZZZZZZ	6566	128090	26078	10932
22:55	ZZZZZZ	6411	124600	25597	10343
22:58	ZZZZZZ	6552	128770	25814	10827
23:01	ZZZZZZ	6497	128400	25878	10750
23:04	ZZZZZZ	6772	132840	999999 !	11260
23:07	MA44427-CCV18	6603	126490	25513	10656
23:13	MA44427-CCB19	6747	131530	25683	11423
23:16	ZZZZZZ	6819	135370	26647	11551
23:19	ZZZZZZ	6482	127860	25854	10510
23:22	ZZZZZZ	6542	127930	26402	10544
23:25	ZZZZZZ	6459	127050	25981	10517
23:28	ZZZZZZ	6653	131480	26544	11018
23:31	ZZZZZZ	6638	131720	26097	10980
23:34	ZZZZZZ	6654	132020	26464	10956
23:37	ZZZZZZ	6240	122540	25569	10164
23:40	ZZZZZZ	6819	135020	26414	11592
23:43	MA44427-CCV19	6593	123430	25755	10666
23:46	MA44427-CCB20	6765	132260	25597	11498
23:49	MP7177-MB1	No results reported for the elements associated with this internal standard.			
23:52	MP7177-MB2	No results reported for the elements associated with this internal standard.			
23:55	MP7177-B1	No results reported for the elements associated with this internal standard.			
23:58	MP7177-B2	No results reported for the elements associated with this internal standard.			
00:03	MA44427-CCV20	6537	126940	25474	10604
00:06	MA44427-CCB21	6649	131430	25677	11338
00:09	MP7177-MB1	6695	132810	26253	11426
00:12	MP7177-MB2	6741	134530	26092	11495
00:15	MP7177-B1	No results reported for the elements associated with this internal standard.			
00:18	MP7177-B2	6642	129630	25930	10915
00:21	MP7177-S1	6455	126300	25734	10401
00:24	MP7177-S2	6448	127010	25547	10370

INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
Analyst: EAL
Parameters: Ca

Date Analyzed: 05/16/18 Methods: SW846 6010C
Run ID: MA44427

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:27	JC65928-1	6493	128790	25853	10649
00:30	MP7177-SD1	6612	131400	25604	11125
00:33	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:36	MP7177-B1	6609	129090	26063	10867
00:39	MA44427-CCV21	6492	126480	25259	10561
00:42	MA44427-CCB22	6647	131640	25481	11345
00:45	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:48	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:51	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:54	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:58	ZZZZZZ	No results reported for the elements associated with this internal standard.			
01:01	ZZZZZZ	6579	128900	26167	10794
01:04	ZZZZZZ	6596	130330	26033	10974
01:07	ZZZZZZ	6538	128180	26792	10841
01:10	ZZZZZZ	6368	125690	25567	10432
01:13	MA44427-CCV22	6552	126810	25639	10655
01:16	MA44427-CCB23	6663	132740	25550	11378
01:19	ZZZZZZ	6580	132100	26294	10973
01:22	ZZZZZZ	6739	135290	26282	11500
01:25	ZZZZZZ	6463	127690	25694	10632
01:28	ZZZZZZ	6570	131300	26443	10852
01:31	ZZZZZZ	6627	132460	25981	11087
01:34	ZZZZZZ	6519	129430	25954	10849
01:37	ZZZZZZ	6336	126140	25453	10390
01:40	ZZZZZZ	6636	131340	26177	11088
01:43	ZZZZZZ	6746	134960	26508	11547
01:46	MA44427-CCV23	6521	126430	25377	10620
01:49	MA44427-CCB24	6682	131680	25888	11427
01:52	MA44427-CRI3	6642	131630	25737	11271
01:55	MA44427-CRID3	6666	131490	25788	11395
01:58	MA44427-CCV24	6509	128750	25567	10630
02:01	MA44427-CCB25	6660	132770	25538	11396

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

INTERNAL STANDARD SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
 Analyst: EAL Run ID: MA44427
 Parameters: Ca

Sample					
Time	Description	Istd#1	Istd#2	Istd#3	Istd#4

LEGEND:

<u>Istd#</u>	<u>Parameter</u>	<u>Limits</u>
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44427 Units: ug/l

Time: Sample ID:			12:42 ICB1		12:51 CCB1		13:33 CCB2		14:06 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	anr							
Antimony	6.0	2.4	anr							
Arsenic	3.0	1.2	anr							
Barium	200	.6	anr							
Beryllium	1.0	.2	anr							
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	anr							
Calcium	5000	5.5	-1.00	<5000	0.200	<5000	-3.40	<5000	-5.00	<5000
Chromium	10	.7	anr							
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	3.5	anr							
Lead	3.0	2.2	anr							
Lithium	50	3.4								
Magnesium	5000	25	anr							
Manganese	15	.14	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	2								
Potassium	10000	60	anr							
Selenium	10	3.7	anr							
Silicon	200	1.8								
Silver	10	.7	anr							
Sodium	10000	35	anr							
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	anr							
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	anr							
Zinc	20	.2	anr							

14.6.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44427 Units: ug/l

Time:		12:42		12:51		13:33		14:06		
Sample ID:		ICB1		CCB1		CCB2		CCB3		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.6.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
QC Limits: result < RL

Date Analyzed: 05/16/18
Run ID: MA44427

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			14:38 CCB4		15:12 CCB5		15:46 CCB6		16:20 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	anr							
Antimony	6.0	2.4	anr							
Arsenic	3.0	1.2	anr							
Barium	200	.6	anr							
Beryllium	1.0	.2	anr							
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	anr							
Calcium	5000	5.5	-5.60	<5000	-6.70	<5000	-5.90	<5000	-4.20	<5000
Chromium	10	.7	anr							
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	3.5	anr							
Lead	3.0	2.2	anr							
Lithium	50	3.4								
Magnesium	5000	25	anr							
Manganese	15	.14	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	2								
Potassium	10000	60	anr							
Selenium	10	3.7	anr							
Silicon	200	1.8								
Silver	10	.7	anr							
Sodium	10000	35	anr							
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	anr							
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	anr							
Zinc	20	.2	anr							

14.6.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44427 Units: ug/l

Time: Sample ID:			14:38 CCB4		15:12 CCB5		15:46 CCB6		16:20 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.6.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
QC Limits: result < RL

Date Analyzed: 05/16/18
Run ID: MA44427

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:	RL	IDL	16:54 CCB8 raw	final	17:26 CCB9 raw	final	17:59 CCB10 raw	final	18:29 CCB11 raw	final
Metal										
Aluminum	200	19	anr							
Antimony	6.0	2.4	anr							
Arsenic	3.0	1.2	anr							
Barium	200	.6	anr							
Beryllium	1.0	.2	anr							
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	anr							
Calcium	5000	5.5	-3.10	<5000	0.400	<5000	5.60	<5000	4.60	<5000
Chromium	10	.7	anr							
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	3.5	anr							
Lead	3.0	2.2	anr							
Lithium	50	3.4								
Magnesium	5000	25	anr							
Manganese	15	.14	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	2								
Potassium	10000	60	anr							
Selenium	10	3.7	anr							
Silicon	200	1.8								
Silver	10	.7	anr							
Sodium	10000	35	anr							
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	anr							
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	anr							
Zinc	20	.2	anr							

14.6.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44427 Units: ug/l

Time: Sample ID:			16:54 CCB8		17:26 CCB9		17:59 CCB10		18:29 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
QC Limits: to % Recovery

Date Analyzed: 05/16/18
Run ID: MA44427

Methods: SW846 6010C
Units: ug/l

Time: Sample ID: ICCV		12:46 ICCV1		
Metal	True	Results	% Rec	
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Bismuth				
Boron				
Cadmium	anr			
Calcium	40000	41100	102.8	
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	anr			
Selenium	anr			
Silicon				
Silver	anr			
Sodium	anr			
Strontium				
Sulfur	anr			
Thallium	anr			
Tin				
Titanium				
Tungsten				
Vanadium	anr			
Zinc	anr			

14.6.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: to % Recovery Run ID: MA44427 Units: ug/l

Time:	12:46
Sample ID:	ICCV ICCV1
Metal	True Results % Rec

Zirconium

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

14.6.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time: Sample ID:		12:37 ICV1	% Rec	CCV	13:27 CCV1	% Rec	CCV	14:03 CCV2	% Rec
Metal	ICV	Results		True	Results		True	Results	
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	40000	40500	101.3	40000	40000	100.0	40000	39700	99.3
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.6.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time:		12:37			13:27			14:03		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time: Sample ID:		14:35 CCV3		15:09 CCV4		15:42 CCV5			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	40000	39200	98.0	40000	39700	99.3	40000	40700	101.8
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.6.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time: Sample ID:		16:17 CCV6		16:51 CCV7		17:23 CCV8			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	40000	39900	99.8	40000	40400	101.0	40000	40100	100.3
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.6.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time:		16:17			16:51			17:23		
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time: Sample ID: CCV		17:56 CCV9	% Rec	CCV	18:26 CCV10	% Rec
Metal	True	Results		True	Results	
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Bismuth						
Boron						
Cadmium	anr					
Calcium	40000	40600	101.5	40000	40000	100.0
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	anr					
Lithium						
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium	anr					
Selenium	anr					
Silicon						
Silver	anr					
Sodium	anr					
Strontium						
Sulfur	anr					
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium	anr					
Zinc	anr					

14.6.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time:		17:56			18:26		
Sample ID:		CCV	CCV9	CCV	CCV10		
Metal	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

HIGH STANDARD CHECK SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/16/18
Run ID: MA44427

Methods: SW846 6010C
Units: ug/l

Time:		13:11		13:14	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2
Metal	True	Results	% Rec	True	Results
Aluminum					
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Bismuth					
Boron					
Cadmium	anr				
Calcium				150000	148000
Chromium	anr				98.7
Cobalt	anr				
Copper	anr				
Iron					
Lead	anr				
Lithium					
Magnesium					
Manganese	anr				
Molybdenum					
Nickel	anr				
Phosphorus					
Potassium					
Selenium	anr				
Silicon					
Silver	anr				
Sodium					
Strontium					
Sulfur	anr				
Thallium	anr				
Tin					
Titanium					
Tungsten					
Vanadium	anr				
Zinc	anr				

HIGH STANDARD CHECK SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time:		13:11		13:14	
Sample ID:		HSTD1		HSTD2	
Metal	HSTD	Results	% Rec	Results	% Rec

Zirconium

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44427 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	12:59 CRI1		13:02 CRID1		18:14 CRI2	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	200	500	100	anr					
Antimony	6.0	20	3.0	anr					
Arsenic	8.0	20	3.0	anr					
Barium	200		4.0	anr					
Beryllium	2.0		1.0	anr					
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	anr					
Calcium	5000	2000	1000	5250	105.0	1070	107.0	5180	103.6
Chromium	10		2.0	anr					
Cobalt	50		3.0	anr					
Copper	10		2.0	anr					
Iron	100	500		anr					
Lead	3.0	20	2.5	anr					
Lithium	50								
Magnesium	5000	2000	100	anr					
Manganese	15		3.0	anr					
Molybdenum	20								
Nickel	10		4.0	anr					
Phosphorus	50								
Potassium	5000		2000	anr					
Selenium	10	20	5.0	anr					
Silicon	200								
Silver	5.0		2.0	anr					
Sodium	5000		1000	anr					
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	anr					
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	anr					
Zinc	20		10	anr					

14.6.6
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44427 Units: ug/l

Time:					12:59		13:02		18:14	
Sample ID:	CRI	CRIA	CRID	CRI1			CRID1		CRID2	
Metal	True	True	True	Results	%	Rec	Results	%	Results	%

Zirconium 10

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44427 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	18:17 CRID2	% Rec
Metal	True	True	True	Results	
Aluminum	200	500	100	anr	
Antimony	6.0	20	3.0		
Arsenic	8.0	20	3.0	anr	
Barium	200		4.0	anr	
Beryllium	2.0		1.0	anr	
Bismuth	20				
Boron	100		10		
Cadmium	3.0		1.0	anr	
Calcium	5000	2000	1000	1060	106.0
Chromium	10		2.0	anr	
Cobalt	50		3.0	anr	
Copper	10		2.0		
Iron	100	500			
Lead	3.0	20	2.5		
Lithium	50				
Magnesium	5000	2000	100	anr	
Manganese	15		3.0	anr	
Molybdenum	20				
Nickel	10		4.0	anr	
Phosphorus	50				
Potassium	5000		2000	anr	
Selenium	10	20	5.0	anr	
Silicon	200				
Silver	5.0		2.0		
Sodium	5000		1000	anr	
Strontium	10				
Sulfur	50				
Thallium	10		2.0	anr	
Tin	10				
Titanium	10				
Tungsten	50				
Vanadium	50		2.0	anr	
Zinc	20		10	anr	

14.6.6
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44427 Units: ug/l

Time:					18:17
Sample ID:	CRI	CRIA	CRID	CRID2	
Metal	True	True	True	Results	% Rec

Zirconium 10

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

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44427 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	13:05 ICSA1 Results	% Rec	13:08 ICSAB1 Results	% Rec	18:20 ICSA2 Results	% Rec	18:23 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	533000	106.6	534000	106.8	517000	103.4	526000	105.2
Antimony		1000	2.50		1080	108.0	4.00		1060	106.0
Arsenic		1000	-1.50		1110	111.0	-2.10		1080	108.0
Barium		500	1.90		500	100.0	1.70		502	100.4
Beryllium		500	0.00		507	101.4	0.100		500	100.0
Bismuth		500	4.90		520	104.0	7.60		517	103.4
Boron		500	0.500		513	102.6	-1.60		509	101.8
Cadmium		1000	0.800		1070	107.0	0.700		1040	104.0
Calcium	400000	400000	407000	101.8	403000	100.8	403000	100.8	395000	98.8
Chromium		500	0.400		511	102.2	-0.200		503	100.6
Cobalt		500	0.00		507	101.4	0.200		504	100.8
Copper		500	-0.400		517	103.4	-0.800		515	103.0
Iron	200000	200000	208000	104.0	207000	103.5	201000	100.5	202000	101.0
Lead		1000	4.90		1010	101.0	5.00		1000	100.0
Lithium		500	15.1		532	106.4	10.4		525	105.0
Magnesium	500000	500000	528000	105.6	520000	104.0	514000	102.8	513000	102.6
Manganese		500	0.00		528	105.6	-0.100		523	104.6
Molybdenum		500	0.300		498	99.6	0.300		492	98.4
Nickel		1000	-3.70		1000	100.0	-4.10		989	98.9
Phosphorus		500	11.8		523	104.6	10.0		519	103.8
Potassium			-111		-90.4		12.2		12.7	
Selenium		1000	0.400		1010	101.0	1.00		1010	101.0
Silicon		500	17.4		530	106.0	16.7		520	104.0
Silver		1000	5.10		1020	102.0	5.50		1000	100.0
Sodium			-46.2		-57.3		-43.5		-27.4	
Strontium		500	-2.80		512	102.4	-2.80		513	102.6
Sulfur		500	-16.7		507	101.4	-16.5		504	100.8
Thallium		1000	0.200		1020	102.0	-2.10		1020	102.0
Tin		500	-4.30		486	97.2	-4.10		480	96.0
Titanium		500	-1.90		511	102.2	-2.30		502	100.4
Tungsten		500	0.300		495	99.0	-3.50		488	97.6
Vanadium		500	-3.60		511	102.2	-3.80		509	101.8
Zinc		1000	5.50		1010	101.0	5.20		987	98.7

14.6.7
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INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44427 Units: ug/l

Time:				13:05			13:08			18:20			18:23
Sample ID:	ICSAB	ICSAB	ICSAB	ICSAB1	% Rec	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium		500	-2.80			510	102.0	-2.80		505	101.0		
(*) Outside of QC limits													
(anr) Analyte not requested													

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44444
Parameters: Sb,As,Ba,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:26	MA44444-STD1	1		STDA
10:33	MA44444-STD2	1		STDB
10:37	ZZZZZZ	1		
10:41	ZZZZZZ	1		
10:45	MA44444-ICV1	1		
10:52	MA44444-ICB1	1		
10:56	MA44444-ICCV1	1		
11:04	MA44444-CCB1	1		
11:08	MA44444-CRI1	1		
11:12	MA44444-CRID1	1		
11:16	MA44444-ICSA1	1		
11:21	MA44444-ICSAB1	1		
11:25	MA44444-HSTD1	1		
11:29	MA44444-HSTD2	1		
11:33	ZZZZZZ	1		
11:38	ZZZZZZ	1		
11:42	ZZZZZZ	1		
11:46	ZZZZZZ	5		
11:51	MA44444-CCV1	1		
11:57	MA44444-CCB2	1		
12:02	MA44444-CRID2	1		
12:06	MP7200-MB1	1		
12:10	MP7200-B1	1		
12:15	MP7200-S1	1		
12:19	MP7200-S2	1		
12:23	MP7200-D1	1		
12:27	JC66320-1	1		(sample used for QC only; not part of login JC65800)
12:31	MP7200-SD1	5		
12:35	ZZZZZZ	1		
12:40	MA44444-CCV2	1		
12:44	MA44444-CCB3	1		
12:48	ZZZZZZ	1		
12:52	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44444
Parameters: Sb,As,Ba,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:57	ZZZZZZ	1		
13:01	ZZZZZZ	1		
13:05	MP7168-S1	3		
13:09	MP7168-S2	3		
13:13	MP7168-D1	3		
13:18	TD20915-1	3		(sample used for QC only; not part of login JC65800)
13:22	MP7168-SD1	15		
13:26	MA44444-CCV3	1		
13:30	MA44444-CCB4	1		
13:34	MP7168-S1	10		
13:38	MP7168-S2	10		
13:43	MP7168-D1	10		
13:47	TD20915-1	10		(sample used for QC only; not part of login JC65800)
13:51	MP7168-SD1	50		
13:55	ZZZZZZ	1		
14:00	ZZZZZZ	1		
14:04	MP7070-D1	25		
----->	Last reportable sample/prep for job JC65800			
14:08	ZZZZZZ	1		
14:12	MA44444-CCV4	1		
14:16	MA44444-CCB5	1		
14:21	ZZZZZZ	1		
14:25	ZZZZZZ	1		
14:29	ZZZZZZ	1		
14:34	MA44444-CRID3	1		
14:38	MA44444-CRI2	1		
14:42	MA44444-ICSA2	1		
14:47	MA44444-ICSAB2	1		
14:51	MA44444-CCV5	1		
14:55	MA44444-CCB6	1		
----->	Last reportable CCB for job JC65800 Refer to raw data for calibration curve and standards.			

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INTERNAL STANDARD SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44444
Parameters: Sb,As,Ba,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
10:26	MA44444-STD1	2911 R	77083 R	11204 R	6078 R
10:33	MA44444-STD2	2736	71980	11119	5297
10:37	ZZZZZZ	2806	73256	11167	5470
10:41	ZZZZZZ	2927	77423	11282	6145
10:45	MA44444-ICV1	2826	74143	11306	5540
10:52	MA44444-ICB1	2935	77769	11408	6184
10:56	MA44444-ICCV1	2810	73972	11298	5523
11:04	MA44444-CCB1	2925	77785	11378	6161
11:08	MA44444-CRI1	2898	76819	11387	6015
11:12	MA44444-CRID1	No results reported for the elements associated with this internal standard.			
11:16	MA44444-ICSA1	2595	68052	11015	4902
11:21	MA44444-ICSAB1	2593	67884	10984	4921
11:25	MA44444-HSTD1	2885	76327	11387	6024
11:29	MA44444-HSTD2	2670	69101	11033	4990
11:33	ZZZZZZ	2894	76718	11420	6144
11:38	ZZZZZZ	2862	77813	11440	6161
11:42	ZZZZZZ	2951	77852	11458	6218
11:46	ZZZZZZ	2913	76944	11421	5932
11:51	MA44444-CCV1	2849	74684	11286	5555
11:57	MA44444-CCB2	2967	78461	11384	6228
12:02	MA44444-CRID2	2948	78251	11477	6168
12:06	MP7200-MB1	2964	78839	11548	6236
12:10	MP7200-B1	2877	75395	11395	5699
12:15	MP7200-S1	2810	73830	11287	5448
12:19	MP7200-S2	2829	74261	11322	5475
12:23	MP7200-D1	2859	75030	11413	5624
12:27	JC66320-1	2868	75479	11567	5649
12:31	MP7200-SD1	2932	77491	11470	5993
12:35	ZZZZZZ	2970	79367	11749	6221
12:40	MA44444-CCV2	2859	74936	11455	5589
12:44	MA44444-CCB3	2979	78187	11491	6249
12:48	ZZZZZZ	2954	78336	11517	6141
12:52	ZZZZZZ	3000	79717	11652	6330

INTERNAL STANDARD SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
 Analyst: EAL Run ID: MA44444
 Parameters: Sb,As,Ba,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:57	ZZZZZZ	No results reported for the elements associated with this internal standard.			
13:01	ZZZZZZ	2878	76045	11371	5726
13:05	MP7168-S1	2824	76052	11630	6028
13:09	MP7168-S2	2831	75329	11578	6040
13:13	MP7168-D1	2811	76012	11604	6049
13:18	TD20915-1	2824	75897	11557	6059
13:22	MP7168-SD1	2973	78341	11601	6202
13:26	MA44444-CCV3	2856	75118	11354	5588
13:30	MA44444-CCB4	2999	79153	11422	6275
13:34	MP7168-S1	2937	77649	11586	6097
13:38	MP7168-S2	2934	77711	11520	6096
13:43	MP7168-D1	2953	78236	11508	6140
13:47	TD20915-1	2936	77406	11508	6101
13:51	MP7168-SD1	2966	78113	11366	6168
13:55	ZZZZZZ	2960	78853	11429	6175
14:00	ZZZZZZ	2872	75422	11237	5675
14:04	MP7070-D1	2940	77187	11353	6163
14:08	ZZZZZZ	2974	77852	11670	5735
14:12	MA44444-CCV4	2874	75243	11319	5593
14:16	MA44444-CCB5	2991	79105	11406	6260
14:21	ZZZZZZ	2991	78875	11571	6079
14:25	ZZZZZZ	2978	78907	11458	6224
14:29	ZZZZZZ	2984	78565	11468	6242
14:34	MA44444-CRID3	2980	78690	11361	6208
14:38	MA44444-CRI2	2942	77917	11298	6061
14:42	MA44444-ICSA2	2636	69244	10911	4955
14:47	MA44444-ICSAB2	2631	69054	10938	4958
14:51	MA44444-CCV5	2880	74936	11234	5616
14:55	MA44444-CCB6	2986	78955	11409	6259

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

LEGEND:

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP
QC Limits: result < RL

Date Analyzed: 05/18/18
Run ID: MA44444

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			10:52 ICB1		11:04 CCB1		11:57 CCB2		12:44 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34								
Antimony	6.0	1.4	1.00	<6.0	0.500	<6.0	0.800	<6.0	-0.200	<6.0
Arsenic	3.0	1.4	0.900	<3.0	-0.500	<3.0	0.900	<3.0	-0.100	<3.0
Barium	200	.5	-0.200	<200	-0.100	<200	-0.200	<200	-0.400	<200
Beryllium	1.0	.2								
Bismuth	20	2.5								
Boron	100	1.9								
Cadmium	3.0	.3	-0.300	<3.0	0.00	<3.0	-0.200	<3.0	-0.100	<3.0
Calcium	5000	8.7	anr							
Chromium	10	.6	0.300	<10	-0.200	<10	-0.400	<10	0.100	<10
Cobalt	50	.5	0.00	<50	0.100	<50	0.100	<50	0.00	<50
Copper	10	1.2	0.100	<10	0.200	<10	0.200	<10	0.300	<10
Iron	100	4.6	5.10	<100	4.30	<100	4.20	<100	4.90	<100
Lead	3.0	1.4	-0.100	<3.0	-0.500	<3.0	0.400	<3.0	0.300	<3.0
Lithium	50	2.8								
Magnesium	5000	33								
Manganese	15	.1	0.200	<15	0.100	<15	0.100	<15	0.200	<15
Molybdenum	20	.4								
Nickel	10	.5	0.00	<10	0.300	<10	0.00	<10	0.200	<10
Phosphorus	50	1.7								
Potassium	10000	68								
Selenium	10	3.8	-1.00	<10	-1.20	<10	-2.70	<10	-1.60	<10
Silicon	200	2.1								
Silver	10	.5	0.100	<10	0.300	<10	-0.100	<10	0.100	<10
Sodium	10000	15								
Strontium	10	.2								
Sulfur	50	20	anr							
Thallium	2.0	1.6	-0.900	<2.0	0.300	<2.0	0.400	<2.0	-1.00	<2.0
Tin	10	1								
Titanium	10	.7								
Tungsten	50	1.8								
Vanadium	50	.4	anr							
Zinc	20	.3	-0.300	<20	-0.100	<20	-0.100	<20	-0.200	<20

14.7.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44444 Units: ug/l

Time:		10:52		11:04		11:57		12:44		
Sample ID:		ICB1		CCB1		CCB2		CCB3		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.7.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44444 Units: ug/l

Time: Sample ID:			13:30 CCB4		14:16 CCB5		14:55 CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	34						
Antimony	6.0	1.4	0.800	<6.0	1.60	<6.0	1.10	<6.0
Arsenic	3.0	1.4	-0.300	<3.0	0.100	<3.0	-0.100	<3.0
Barium	200	.5	-0.100	<200	-0.200	<200	-0.300	<200
Beryllium	1.0	.2						
Bismuth	20	2.5						
Boron	100	1.9						
Cadmium	3.0	.3	-0.200	<3.0	-0.100	<3.0	0.00	<3.0
Calcium	5000	8.7	anr					
Chromium	10	.6	0.00	<10	-0.200	<10	0.00	<10
Cobalt	50	.5	0.00	<50	0.100	<50	0.100	<50
Copper	10	1.2	0.100	<10	0.100	<10	0.200	<10
Iron	100	4.6	5.70	<100	7.50	<100	8.60	<100
Lead	3.0	1.4	0.700	<3.0	0.500	<3.0	-0.100	<3.0
Lithium	50	2.8						
Magnesium	5000	33						
Manganese	15	.1	0.200	<15	0.200	<15	0.100	<15
Molybdenum	20	.4						
Nickel	10	.5	-0.200	<10	0.200	<10	0.500	<10
Phosphorus	50	1.7						
Potassium	10000	68						
Selenium	10	3.8	-0.900	<10	-2.00	<10	-0.900	<10
Silicon	200	2.1						
Silver	10	.5	0.500	<10	0.100	<10	0.00	<10
Sodium	10000	15						
Strontium	10	.2						
Sulfur	50	20	anr					
Thallium	2.0	1.6	0.500	<2.0	-0.200	<2.0	-0.300	<2.0
Tin	10	1						
Titanium	10	.7						
Tungsten	50	1.8						
Vanadium	50	.4	anr					
Zinc	20	.3	-0.200	<20	0.00	<20	-0.300	<20

14.7.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

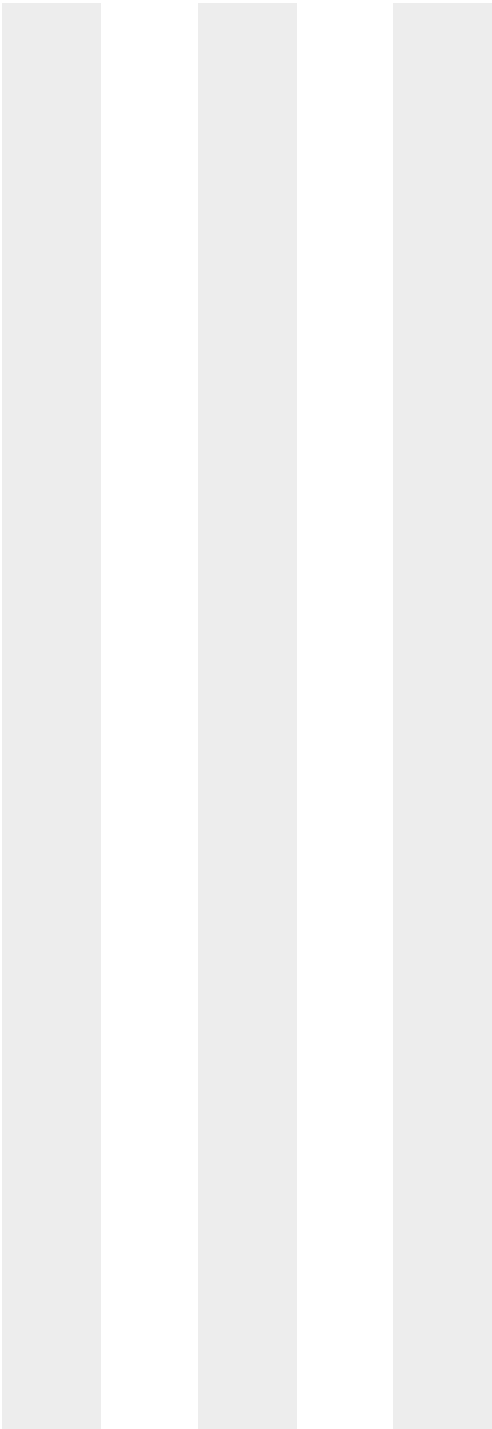
Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44444 Units: ug/l

Time:			13:30		14:16		14:55	
Sample ID:			CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final

Zirconium 10 .3

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



CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP
QC Limits: to % Recovery

Date Analyzed: 05/18/18
Run ID: MA44444

Methods: SW846 6010C
Units: ug/l

Time: Sample ID: ICCV		10:56 ICCV1	
Metal	True	Results	% Rec
Aluminum			
Antimony	2000	2000	100.0
Arsenic	2000	1980	99.0
Barium	2000	2000	100.0
Beryllium			
Bismuth			
Boron			
Cadmium	2000	2000	100.0
Calcium	anr		
Chromium	2000	2010	100.5
Cobalt	2000	1980	99.0
Copper	2000	1940	97.0
Iron	40000	40200	100.5
Lead	2000	2000	100.0
Lithium			
Magnesium			
Manganese	2000	2010	100.5
Molybdenum			
Nickel	2000	1990	99.5
Phosphorus			
Potassium			
Selenium	2000	1980	99.0
Silicon			
Silver	250	245	98.0
Sodium			
Strontium			
Sulfur	anr		
Thallium	2000	2040	102.0
Tin			
Titanium			
Tungsten			
Vanadium	anr		
Zinc	2000	2010	100.5

14.7.3
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CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: to % Recovery Run ID: MA44444 Units: ug/l

Time:	10:56
Sample ID: ICCV	ICCV1
Metal	True
Results	% Rec

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44444 Units: ug/l

Time: Sample ID:	ICV	10:45 ICV1	% Rec	CCV	11:51 CCV1	% Rec	CCV	12:40 CCV2	% Rec
Metal	True	Results		True	Results		True	Results	
Aluminum									
Antimony	2000	2000	100.0	2000	1960	98.0	2000	1980	99.0
Arsenic	2000	2020	101.0	2000	1940	97.0	2000	1960	98.0
Barium	2000	1990	99.5	2000	1980	99.0	2000	2000	100.0
Beryllium									
Bismuth									
Boron									
Cadmium	2000	1970	98.5	2000	1960	98.0	2000	1980	99.0
Calcium	anr								
Chromium	2000	1950	97.5	2000	1970	98.5	2000	2000	100.0
Cobalt	2000	2010	100.5	2000	1960	98.0	2000	1970	98.5
Copper	2000	1910	95.5	2000	1920	96.0	2000	1940	97.0
Iron	40000	38900	97.3	40000	39300	98.3	40000	39300	98.3
Lead	2000	1990	99.5	2000	1990	99.5	2000	2000	100.0
Lithium									
Magnesium									
Manganese	2000	1990	99.5	2000	1990	99.5	2000	2000	100.0
Molybdenum									
Nickel	2000	1950	97.5	2000	1980	99.0	2000	1990	99.5
Phosphorus									
Potassium									
Selenium	2000	2040	102.0	2000	1940	97.0	2000	1960	98.0
Silicon									
Silver	250	251	100.4	250	241	96.4	250	244	97.6
Sodium									
Strontium									
Sulfur	anr								
Thallium	2000	2020	101.0	2000	2030	101.5	2000	2040	102.0
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	2000	1980	99.0	2000	1980	99.0	2000	1990	99.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44444 Units: ug/l

Time:		10:45			11:51			12:40		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44444 Units: ug/l

Time: Sample ID:	CCV	13:26 CCV3	% Rec	CCV	14:12 CCV4	% Rec	CCV	14:51 CCV5	% Rec
Metal	True	Results		True	Results		True	Results	
Aluminum									
Antimony	2000	1970	98.5	2000	1970	98.5	2000	1960	98.0
Arsenic	2000	1950	97.5	2000	1950	97.5	2000	1940	97.0
Barium	2000	2000	100.0	2000	2020	101.0	2000	1990	99.5
Beryllium									
Bismuth									
Boron									
Cadmium	2000	1970	98.5	2000	1970	98.5	2000	1960	98.0
Calcium	anr								
Chromium	2000	1980	99.0	2000	1980	99.0	2000	1980	99.0
Cobalt	2000	1970	98.5	2000	1970	98.5	2000	1960	98.0
Copper	2000	1930	96.5	2000	1930	96.5	2000	1930	96.5
Iron	40000	39200	98.0	40000	39300	98.3	40000	38800	97.0
Lead	2000	2000	100.0	2000	2000	100.0	2000	1990	99.5
Lithium									
Magnesium									
Manganese	2000	2000	100.0	2000	2000	100.0	2000	1990	99.5
Molybdenum									
Nickel	2000	1980	99.0	2000	1990	99.5	2000	1980	99.0
Phosphorus									
Potassium									
Selenium	2000	1950	97.5	2000	1950	97.5	2000	1940	97.0
Silicon									
Silver	250	241	96.4	250	242	96.8	250	243	97.2
Sodium									
Strontium									
Sulfur	anr								
Thallium	2000	2030	101.5	2000	2040	102.0	2000	2030	101.5
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	2000	1990	99.5	2000	1990	99.5	2000	1980	99.0

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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44444 Units: ug/l

Time:		13:26			14:12			14:51		
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

HIGH STANDARD CHECK SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP
QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/18/18
Run ID: MA44444

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:	HSTD	11:25 HSTD1	% Rec	HSTD	11:29 HSTD2	% Rec
Metal	True	Results		True	Results	
Aluminum						
Antimony	5000	5040	100.8			
Arsenic	5000	4900	98.0			
Barium	5000	5040	100.8			
Beryllium						
Bismuth						
Boron						
Cadmium	5000	4950	99.0			
Calcium						
Chromium	5000	5110	102.2			
Cobalt	5000	4920	98.4			
Copper	5000	5020	100.4			
Iron				150000	150000	100.0
Lead	5000	4940	98.8			
Lithium						
Magnesium						
Manganese	5000	5060	101.2			
Molybdenum						
Nickel	5000	4890	97.8			
Phosphorus						
Potassium						
Selenium	5000	4930	98.6			
Silicon						
Silver	625	603	96.5			
Sodium						
Strontium						
Sulfur	anr					
Thallium	5000	5150	103.0			
Tin						
Titanium						
Tungsten						
Vanadium	anr					
Zinc	5000	5100	102.0			

HIGH STANDARD CHECK SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
 QC Limits: 90 to 110 % Recovery Run ID: MA44444 Units: ug/l

Time:		11:25			11:29		
Sample ID:	HSTD	HSTD1		HSTD	HSTD2		
Metal	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44444 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	11:08 CRI1	% Rec	12:02 CRID2	% Rec	14:34 CRID3	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100						
Antimony	6.0	20	3.0	7.50	125.0				
Arsenic	8.0	20	3.0	8.10	101.3	3.30	110.0	3.80	126.7
Barium	200		4.0	208	104.0	4.00	100.0	4.10	102.5
Beryllium	2.0		1.0						
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	3.10	103.3	0.900	90.0	0.900	90.0
Calcium	5000	2000	1000	anr					
Chromium	10		2.0	11.1	111.0	2.10	105.0	2.00	100.0
Cobalt	50		3.0	50.7	101.4	3.10	103.3	3.10	103.3
Copper	10		2.0	10.7	107.0				
Iron	100	500		118	118.0				
Lead	3.0	20	2.5	3.50	116.7				
Lithium	50								
Magnesium	5000	2000	100						
Manganese	15		3.0	16.4	109.3	3.40	113.3	3.40	113.3
Molybdenum	20								
Nickel	10		4.0	10.3	103.0	4.00	100.0	4.20	105.0
Phosphorus	50								
Potassium	5000		2000						
Selenium	10	20	5.0	9.60	96.0				
Silicon	200								
Silver	5.0		2.0	4.60	92.0				
Sodium	5000		1000						
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	10.2	102.0	2.00	100.0	1.90	95.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	anr					
Zinc	20		10	21.2	106.0	10.9	109.0	11.0	110.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44444 Units: ug/l

Time:					11:08		12:02		14:34	
Sample ID:	CRI	CRIA	CRID	CRI1			CRID2		CRID3	
Metal	True	True	True	Results	%	Rec	Results	%	Results	%

Zirconium 10

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44444 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	14:38 CRI2	% Rec
Metal	True	True	True	Results	
Aluminum	200	500	100		
Antimony	6.0	20	3.0	6.60	110.0
Arsenic	8.0	20	3.0	8.90	111.3
Barium	200		4.0	209	104.5
Beryllium	2.0		1.0		
Bismuth	20				
Boron	100		10		
Cadmium	3.0		1.0	2.90	96.7
Calcium	5000	2000	1000	anr	
Chromium	10		2.0	10.3	103.0
Cobalt	50		3.0	50.8	101.6
Copper	10		2.0	10.6	106.0
Iron	100	500		112	112.0
Lead	3.0	20	2.5	2.40	80.0
Lithium	50				
Magnesium	5000	2000	100		
Manganese	15		3.0	16.4	109.3
Molybdenum	20				
Nickel	10		4.0	10.3	103.0
Phosphorus	50				
Potassium	5000		2000		
Selenium	10	20	5.0	8.20	82.0
Silicon	200				
Silver	5.0		2.0	4.40	88.0
Sodium	5000		1000		
Strontium	10				
Sulfur	50			anr	
Thallium	10		2.0	10.6	106.0
Tin	10				
Titanium	10				
Tungsten	50				
Vanadium	50		2.0	anr	
Zinc	20		10	21.5	107.5

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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44444 Units: ug/l

Time:				14:38	
Sample ID:	CRI	CRIA	CRID	CRI2	
Metal	True	True	True	Results	% Rec

Zirconium 10

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

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44444 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	11:16 ICSA1 Results	% Rec	11:21 ICSAB1 Results	% Rec	14:42 ICSA2 Results	% Rec	14:47 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	518000	103.6	520000	104.0	515000	103.0	514000	102.8
Antimony		1000	-3.90		1030	103.0	-0.100		1020	102.0
Arsenic		1000	-0.400		1070	107.0	0.900		1060	106.0
Barium		500	-0.400		518	103.6	-0.300		522	104.4
Beryllium		500	0.200		500	100.0	0.100		495	99.0
Bismuth		500	-2.30		505	101.0	-1.50		502	100.4
Boron		500	0.00		507	101.4	0.200		501	100.2
Cadmium		1000	-0.100		1040	104.0	0.00		1030	103.0
Calcium	400000	400000	403000	100.8	394000	98.5	397000	99.3	393000	98.3
Chromium		500	-1.60		496	99.2	-2.10		490	98.0
Cobalt		500	0.600		493	98.6	0.900		490	98.0
Copper		500	0.00		511	102.2	-0.300		507	101.4
Iron	200000	200000	198000	99.0	199000	99.5	195000	97.5	196000	98.0
Lead		1000	1.20		974	97.4	1.20		975	97.5
Lithium		500	6.80		535	107.0	6.90		534	106.8
Magnesium	500000	500000	510000	102.0	507000	101.4	504000	100.8	503000	100.6
Manganese		500	15.8		522	104.4	15.4		519	103.8
Molybdenum		500	-1.50		488	97.6	-1.60		483	96.6
Nickel		1000	-1.00		981	98.1	-0.500		979	97.9
Phosphorus		500	-6.50		496	99.2	-8.00		493	98.6
Potassium			-384		-316		-405		-360	
Selenium		1000	3.50		993	99.3	1.40		973	97.3
Silicon		500	2.60		495	99.0	6.20		494	98.8
Silver		1000	1.20		1050	105.0	0.700		1040	104.0
Sodium			1.40		24.8		-3.50		1.60	
Strontium		500	4.90		524	104.8	5.00		524	104.8
Sulfur		500	-21.0		480	96.0	-17.2		477	95.4
Thallium		1000	-2.00		966	96.6	0.500		968	96.8
Tin		500	-5.60		469	93.8	-4.50		464	92.8
Titanium		500	-1.10		508	101.6	-0.500		504	100.8
Tungsten		500	10.4		491	98.2	10.0		487	97.4
Vanadium		500	-1.20		496	99.2	-1.40		490	98.0
Zinc		1000	4.60		968	96.8	4.50		964	96.4

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INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44444 Units: ug/l

Time:				11:16			11:21			14:42			14:47
Sample ID:	ICSAB	ICSAB	ICSAB	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Metal	True	True	True										

Zirconium 500 3.20 495 99.0 3.10 492 98.4

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

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BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/10/18

Metal	RL	IDL	MDL	MB raw	final
Aluminum	51	1.9	5.3	0.43	<51
Antimony	2.0	.24	.38	-0.010	<2.0
Arsenic	2.0	.12	.26	-0.13	<2.0
Barium	20	.061	.18	0.10	<20
Beryllium	0.20	.02	.05	0.051	<0.20
Bismuth	2.0	.33	.5		
Boron	10	.15	1.3		
Cadmium	0.51	.041	.058	0.031	<0.51
Calcium	510	.56	43	15.7	<510
Chromium	1.0	.071	.18	0.13	<1.0
Cobalt	5.1	.041	.071	0.041	<5.1
Copper	2.6	.11	.4	0.14	<2.6
Iron	51	.36	4.7	4.1	<51
Lead	2.0	.22	.35	0.22	<2.0
Lithium	5.1	.35	1.2		
Magnesium	510	2.5	14	3.4	<510
Manganese	1.5	.014	.089	0.10	<1.5
Molybdenum	2.0	.041	.16		
Nickel	4.1	.051	.25	0.14	<4.1
Phosphorus	10	.2	4.1		
Potassium	1000	6.1	31	3.9	<1000
Selenium	2.0	.38	.66	-0.031	<2.0
Silicon	20	.18	2.6		
Silver	0.51	.071	.29	-0.010	<0.51
Sodium	1000	3.5	14	12.5	<1000
Strontium	5.1	.02	.97		
Sulfur	10	.32	3		
Thallium	1.0	.18	.41	-0.031	<1.0
Tin	10	.092	2.6		
Titanium	1.0	.071	.27		
Tungsten	5.1	.22	1.2		
Vanadium	5.1	.082	.09	0.041	<5.1
Zinc	5.1	.02	3.9	0.54	<5.1

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/10/18

Metal	RL	IDL	MDL	MB raw	final
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Zirconium 2.0 .031 .25

Associated samples MP7070: JC65800-1, JC65800-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/10/18

Metal	TD20701-1 Original MS		Spike lot MPSPK2	% Rec	QC Limits
Aluminum	148	2360	2530	87.6	75-125
Antimony	7.7	180	202	85.3	75-125
Arsenic	131	295	202	81.2	75-125
Barium	1050	1500	202	222.8(a)	75-125
Beryllium	0.0	173	202	85.6	75-125
Bismuth					
Boron					
Cadmium	3.2	184	202	89.5	75-125
Calcium	2640	4470	2530	72.5N(b)	75-125
Chromium	243	443	202	99.0	75-125
Cobalt	41.8	205	202	80.8	75-125
Copper	753	873	202	59.4N(b)	75-125
Iron	394000	403000	2530	356.4(a)	75-125
Lead	248	393	202	71.8N(b)	75-125
Lithium					
Magnesium	280	2320	2530	80.8	75-125
Manganese	4110	4240	202	64.4 (a)	75-125
Molybdenum					
Nickel	656	765	202	54.0N(b)	75-125
Phosphorus					
Potassium	41.3	2450	2530	95.4	75-125
Selenium	0.0	168	202	83.2	75-125
Silicon					
Silver	5.3	26.5	25.3	84.0	75-125
Sodium	817	2980	2530	85.7	75-125
Strontium					
Sulfur	anr				
Thallium	0.0	176	202	87.1	75-125
Tin					
Titanium					
Tungsten					
Vanadium	48.0	229	202	89.6	75-125
Zinc	195	331	202	67.3N(b)	75-125

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/10/18

Metal	TD20701-1 Original MS	Spike lot MPSPK2	% Rec	QC Limits
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Zirconium

Associated samples MP7070: JC65800-1, JC65800-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

(b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/10/18 05/10/18

Metal	TD20701-1 Original	MSD	Spike lot MPSPK2	% Rec	MSD RPD	QC Limit	TD20701-1 Original	DUP	RPD	QC Limits
Aluminum	148	2380	2380	93.7	0.8	20	148	141	4.8	0-20
Antimony	7.7	197	190	99.4	3.6	20	7.7	12.8	49.8 (d)	0-20
Arsenic	131	332	190	105.5	9.8	20	131	140	6.6	0-20
Barium	1050	1310	190	136.5(a)	3.7	20	1050	1110	5.6	0-20
Beryllium	0.0	174	190	91.4	0.6	20	0.0	0.0	NC	0-20
Bismuth										
Boron										
Cadmium	3.2	199	190	102.8	7.8	20	3.2	2.3	32.7 (d)	0-20
Calcium	2640	4550	2380	80.2	1.8	20	2640	2500	5.4	0-20
Chromium	243	450	190	108.7	1.6	20	243	245	0.8	0-20
Cobalt	41.8	227	190	97.2	10.2	20	41.8	44.3	5.8	0-20
Copper	753	1010	190	134.9N(b)	14.6	20	753	785	4.2	0-20
Iron	394000	422000	2380	1176.0(a)	4.6	20	394000	436000	10.1	0-20
Lead	248	453	190	107.6	14.2	20	248	252	1.6	0-20
Lithium										
Magnesium	280	2310	2380	85.3	0.4	20	280	273	2.5	0-20
Manganese	4110	4580	190	246.8(a)	7.7	20	4110	4310	4.8	0-20
Molybdenum										
Nickel	656	957	190	158.0N(b)	22.3 (c)	20	656	638	2.8	0-20
Phosphorus										
Potassium	41.3	2480	2380	102.4	1.2	20	41.3	37.5	9.6	0-20
Selenium	0.0	182	190	95.6	8.0	20	0.0	0.0	NC	0-20
Silicon										
Silver	5.3	23.0	23.8	74.3N(b)	14.1	20	5.3	0.0	200.0(d)	0-20
Sodium	817	3030	2380	92.9	1.7	20	817	784	4.1	0-20
Strontium										
Sulfur	anr									
Thallium	0.0	191	190	100.3	8.2	20	0.0	0.0	NC	0-20
Tin										
Titanium										
Tungsten										
Vanadium	48.0	245	190	103.4	6.8	20				
Zinc	195	372	190	92.9	11.7	20	195	156	22.2 (d)	0-20

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/10/18 05/10/18

Metal	TD20701-1 Original MSD	Spike lot MPSPK2	% Rec	MSD RPD	QC Limit	TD20701-1 Original DUP	RPD	QC Limits
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Zirconium

Associated samples MP7070: JC65800-1, JC65800-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

(b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

(c) High rpd due to possible sample nonhomogeneity.

(d) RPD acceptable due to low duplicate and sample concentrations.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/10/18

Metal	BSP Result	Spike lot MPSPK2	% Rec	QC Limits
Aluminum	2300	2450	93.8	80-120
Antimony	188	196	95.9	80-120
Arsenic	188	196	95.9	80-120
Barium	189	196	96.4	80-120
Beryllium	191	196	97.4	80-120
Bismuth				
Boron				
Cadmium	186	196	94.9	80-120
Calcium	2360	2450	96.3	80-120
Chromium	190	196	96.9	80-120
Cobalt	190	196	96.9	80-120
Copper	185	196	94.4	80-120
Iron	2340	2450	95.5	80-120
Lead	191	196	97.4	80-120
Lithium				
Magnesium	2380	2450	97.1	80-120
Manganese	196	196	100.0	80-120
Molybdenum				
Nickel	191	196	97.4	80-120
Phosphorus				
Potassium	2330	2450	95.1	80-120
Selenium	184	196	93.8	80-120
Silicon				
Silver	22.5	24.5	91.8	80-120
Sodium	2360	2450	96.3	80-120
Strontium				
Sulfur	anr			
Thallium	190	196	96.9	80-120
Tin				
Titanium				
Tungsten				
Vanadium	189	196	96.4	80-120
Zinc	192	196	97.9	80-120

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 6010C
Units: mg/kg

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
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Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/10/18

Metal	TD20701-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum	1510	1520	0.5	0-10
Antimony	78.4	0.00	100.0(a)	0-10
Arsenic	1340	1410	5.4	0-10
Barium	10700	10900	1.3	0-10
Beryllium	0.00	0.00	NC	0-10
Bismuth				
Boron				
Cadmium	32.8	0.00	100.0(a)	0-10
Calcium	27000	28700	6.3	0-10
Chromium	2480	2540	2.5	0-10
Cobalt	426	427	0.2	0-10
Copper	7680	7820	1.8	0-10
Iron	4020000	4200000	4.3	0-10
Lead	2530	2520	0.1	0-10
Lithium				
Magnesium	2860	3150	10.3*(b)	0-10
Manganese	42000	42300	0.9	0-10
Molybdenum				
Nickel	6690	6790	1.5	0-10
Phosphorus				
Potassium	421	0.00	100.0(a)	0-10
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	53.7	72.7	35.4 (a)	0-10
Sodium	8330	8110	2.6	0-10
Strontium				
Sulfur	anr			
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Tungsten				
Vanadium	489	497	1.6	0-10
Zinc	1990	2160	8.3	0-10

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SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/10/18

Metal	TD20701-1		QC Limits
	Original	SDL 1:5 %DIF	

Zirconium

Associated samples MP7070: JC65800-1, JC65800-2

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

(b) Serial dilution indicates possible matrix interference.

POST DIGESTATE SPIKE SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

05/10/18

Metal	Sample ml	Final ml	TD20701-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Bismuth										
Boron										
Cadmium										
Calcium	9.0	10	26950	24255	114000	0.1	10000	100000	89.7	80-120
Chromium										
Cobalt										
Copper	9.0	10	7683	6914.7	7233	0.5	10	500	63.7*(a)	80-120
Iron										
Lead	9.0	10	2527	2274.3	2790	0.5	2	500	103.0	80-120
Lithium										
Magnesium										
Manganese										
Molybdenum										
Nickel	9.0	10	6688	6019.2	6477	0.5	10	500	91.6	80-120
Phosphorus										
Potassium										
Selenium										
Silicon										
Silver										
Sodium										
Strontium										
Sulfur										
Thallium										
Tin										
Titanium										
Tungsten										
Vanadium										
Zinc	9.0	10	1993	1793.7	2397	0.5	10	500	120.7*(a)	80-120

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POST DIGESTATE SPIKE SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7070
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date:

05/10/18

Metal	Sample ml	Final ml	TD20701-1 Raw	PS Corr.** ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
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Zirconium

Associated samples MP7070: JC65800-1, JC65800-2

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (**) Corr. sample result = Raw * (sample volume / final volume)
 (anr) Analyte not requested
 (a) Spike recovery indicates possible matrix interference.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7106
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/11/18

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0042	.015	0.00057	<0.033

Associated samples MP7106: JC65800-1, JC65800-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 7471B
Units: mg/kg

Metal	JC65813-1 Original MS	SpikeLot HGPWS1	% Rec	QC Limits
Mercury	0.0	0.30	0.326	92.1
				80-120

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 7471B
Units: mg/kg

05/11/18

05/11/18

Metal	JC65813-1 Original MSD		Spikelot HGPWS1 % Rec		MSD RPD	QC Limit	JC65813-1 Original DUP		RPD	QC Limits
Mercury	0.0	0.29	0.331	87.6	3.4	20	0.0	0.0	NC	0-20

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(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
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SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7106
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 05/11/18

Metal	BSP Result	Spike lot HGPWS1	% Rec	QC Limits
Mercury	0.35	0.333	105.0	80-120

Associated samples MP7106: JC65800-1, JC65800-2

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/13/18 05/13/18

Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	1.0	.095	.17				
Antimony	0.50	.012	.022				
Arsenic	0.50	.006	.014	0.0051	<0.50	-0.00060	<0.50
Barium	1.0	.003	.0063	0.0099	<1.0	0.0080	<1.0
Beryllium	0.025	.001	.002				
Bismuth	0.10	.016	.025				
Boron	0.50	.0075	.067				
Cadmium	0.025	.002	.0035	0.0014	<0.025	0.0011	<0.025
Calcium	10	.028	.14				
Chromium	0.050	.0035	.0043	0.0020	<0.050	0.0022	<0.050
Cobalt	0.25	.002	.0036				
Copper	0.050	.0055	.016				
Iron	0.50	.018	.16				
Lead	0.50	.011	.013	0.0046	<0.50	-0.0025	<0.50
Lithium	0.25	.017	.076				
Magnesium	10	.12	.32				
Manganese	0.075	.0007	.0021				
Molybdenum	0.10	.002	.007				
Nickel	0.050	.0025	.0067				
Potassium	10	.3	1.2				
Selenium	0.50	.019	.033	0.0	<0.50	0.0071	<0.50
Silicon	1.0	.009	.22				
Silver	0.050	.0035	.016	-0.0031	<0.050	-0.0033	<0.050
Strontium	0.050	.001	.0015				
Sulfur	0.25	.016	.075				
Thallium	0.50	.009	.0082				
Tin	0.050	.0045	.012				
Titanium	0.050	.0035	.0092				
Tungsten	0.25	.011	.071				
Vanadium	0.25	.004	.0064				
Zinc	0.50	.001	.002				
Zirconium	0.050	.0015	.01				

Associated samples MP7122: JC65800-1A, JC65800-2A

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/13/18 05/13/18

Metal	RL	IDL	MDL	MB raw	final	MB raw	final
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Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 05/13/18

Metal	JC65764-1A Original MS		SpikeLot MPSPK2	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.0	2.0	2.0	100.0	75-125
Barium	0.48	2.5	2.0	101.0	75-125
Beryllium					
Bismuth					
Boron					
Cadmium	0.0	2.0	2.0	100.0	75-125
Calcium					
Chromium	0.0	2.0	2.0	100.0	75-125
Cobalt					
Copper	anr				
Iron					
Lead	0.011	2.1	2.0	104.5	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Potassium					
Selenium	0.0	2.0	2.0	100.0	75-125
Silicon					
Silver	0.0	0.24	0.25	96.0	75-125
Strontium					
Sulfur					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium					
Zinc	anr				
Zirconium					

Associated samples MP7122: JC65800-1A, JC65800-2A

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MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/13/18

Metal	JC65764-1A Original MS	SpikeLot MPSPK2	% Rec	QC Limits
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Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 05/13/18

Metal	JC65764-1A Original	MSD	SpikeLot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.0	2.0	2.0	100.0	0.0	20
Barium	0.48	2.5	2.0	101.0	0.0	20
Beryllium						
Bismuth						
Boron						
Cadmium	0.0	2.0	2.0	100.0	0.0	20
Calcium						
Chromium	0.0	2.0	2.0	100.0	0.0	20
Cobalt						
Copper	anr					
Iron						
Lead	0.011	2.1	2.0	104.5	0.0	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium	0.0	2.1	2.0	105.0	4.9	20
Silicon						
Silver	0.0	0.24	0.25	96.0	0.0	20
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc	anr					
Zirconium						

Associated samples MP7122: JC65800-1A, JC65800-2A

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MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/13/18

Metal	JC65764-1A Original MSD	Spike lot MPSPK2	% Rec	MSD RPD	QC Limit
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Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 05/13/18 05/13/18

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum								
Antimony								
Arsenic	2.0	2.0	100.0	80-120	2.0	2.0	100.0	80-120
Barium	2.0	2.0	100.0	80-120	2.0	2.0	100.0	80-120
Beryllium								
Bismuth								
Boron								
Cadmium	2.0	2.0	100.0	80-120	2.0	2.0	100.0	80-120
Calcium								
Chromium	2.0	2.0	100.0	80-120	2.0	2.0	100.0	80-120
Cobalt								
Copper	anr							
Iron								
Lead	2.1	2.0	105.0	80-120	2.1	2.0	105.0	80-120
Lithium								
Magnesium								
Manganese								
Molybdenum								
Nickel	anr							
Potassium								
Selenium	2.1	2.0	105.0	80-120	2.1	2.0	105.0	80-120
Silicon								
Silver	0.24	0.25	96.0	80-120	0.24	0.25	96.0	80-120
Strontium								
Sulfur								
Thallium								
Tin								
Titanium								
Tungsten								
Vanadium								
Zinc	anr							
Zirconium								

Associated samples MP7122: JC65800-1A, JC65800-2A

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/13/18 05/13/18

Metal	BSP Result	SpikeLot MPSPK2	% Rec	QC Limits	BSP Result	SpikeLot MPSPK2	% Rec	QC Limits
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Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/13/18

Metal		JC65764-1A Original SDL 5:25 %DIF		QC Limits
Aluminum				
Antimony				
Arsenic	0.00	200	NC	0-10
Barium	477	498	4.4	0-10
Beryllium				
Bismuth				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper	anr			
Iron				
Lead	11.3	0.00	100.0(a)	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium	0.00	116	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	anr			
Zirconium				

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SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/13/18

Metal	JC65764-1A	QC
	Original SDL 5:25 %DIF	Limits

Associated samples MP7122: JC65800-1A, JC65800-2A

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7148
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 05/14/18 05/14/18

Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Mercury	0.00020	.000016	.00013	0.000015	<0.00020	0.000023	<0.00020

Associated samples MP7148: JC65800-1A, JC65800-2A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7148
 Matrix Type: LEACHATE

Methods: SW846 7470A
 Units: mg/l

Prep Date: 05/14/18

Metal	JC65764-1A Original MS	SpikeLot HGPW3	% Rec	QC Limits
Mercury	0.0	0.0022	0.0020	110.0 75-125

Associated samples MP7148: JC65800-1A, JC65800-2A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 7470A
Units: mg/l

Metal	JC65764-1A Original MSD	Spikelot HGPW3	% Rec	MSD RPD	QC Limit	
Mercury	0.0	0.0021	0.0020	105.0	4.7	20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65800
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7148
 Matrix Type: LEACHATE

Methods: SW846 7470A
 Units: mg/l

Prep Date: 05/14/18 05/14/18

Metal	BSP Result	Spike lot HGPW3	% Rec	QC Limits	BSP Result	Spike lot HGPW3	% Rec	QC Limits
Mercury	0.0019	0.0020	95.0	80-120	0.0021	0.0020	105.0	80-120

Associated samples MP7148: JC65800-1A, JC65800-2A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC
- Percent Solids Raw Data Summary

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Cyanide	GP13030/GN80064	0.24	0.0	mg/kg	2	2.17	108.5	90-110%
Cyanide Reactivity	GP12980/GN79946	10	0.0	mg/kg	100	4.26	4.3	.25-27%
Percent Sulfur	GP13154/GN80195	0.10	0.0	%	.667	0.77	114.8	80-120%
Percent Sulfur	GP13154/GN80242	0.10	0.0	%	0.667	0.62	93.4	80-120%
Sulfide Reactivity	GP12981/GN79882	100	0.0	mg/kg	500	310	62.0	42-107%

Associated Samples:

Batch GP12980: JC65800-1A, JC65800-2A

Batch GP12981: JC65800-1A, JC65800-2A

Batch GP13030: JC65800-1, JC65800-2

Batch GP13154: JC65800-1, JC65800-2

(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Corrosivity as pH	GN80265	JC65814-2AB	su	7.03	7	0.4	0-5%
Cyanide	GP13030/GN80064	JC66031-1	mg/kg	0.0	0.0	0.0	0-49%
Cyanide Reactivity	GP12980/GN79946	JC65724-2	mg/kg	0.0	0.0	0.0	0-20%
Heat Content, BTU	GP13163/GN80194	JC64996-7	BTU/lb	1950	1850	5.3	0-32%
Ignitability (Flashpoint)	GN80261	JC65751-16	Deg. F	>200	>200	0.0	0-10%
Percent Sulfur	GP13154/GN80195	JC64996-7	%	0.0	0.0	0.0	0-20%
Sulfide Reactivity	GP12981/GN79882	JC65724-2	mg/kg	0.0	0.0	0.0	0-20%

Associated Samples:

Batch GN80261: JC65800-1A, JC65800-2A
Batch GN80265: JC65800-1A, JC65800-2A
Batch GP12980: JC65800-1A, JC65800-2A
Batch GP12981: JC65800-1A, JC65800-2A
Batch GP13030: JC65800-1, JC65800-2
Batch GP13154: JC65800-1, JC65800-2
Batch GP13163: JC65800-1, JC65800-2
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Cyanide	GP13030/GN80064	JC66031-1	mg/kg	0.0	1.25	1.3	104.3	75-125%
Sulfide Reactivity	GP12981/GN79882	JC65724-2	mg/kg	0.0	737	156	21.2	20-82%

Associated Samples:

Batch GP12981: JC65800-1A, JC65800-2A

Batch GP13030: JC65800-1, JC65800-2

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051418W1.CN
Analyst: BM
Parameters: Cyanide Reactivity

Date Analyzed: 05/14/18 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Run ID: GN79946

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:51	GN79946-STD1	1		STDA
08:53	GN79946-STD2	1		STDB
08:54	GN79946-STD3	1		STDC
08:56	GN79946-STD4	1		STDD
08:57	GN79946-STD5	1		STDE
08:58	GN79946-STD6	1		STDF
09:00	GN79946-STD7	1		STDG
09:01	GN79946-ICV1	1		ICV failed, see rerun.
09:02	GN79946-ICB1	1		ICV failed, see rerun.
09:04	GN79946-CCV1	1		ICV failed, see rerun.
09:12	GN79946-ICV2	1		
09:13	GN79946-ICB2	1		
09:14	GN79946-CCV2	1		
09:16	GN79946-CCB1	1		
09:17	GP12999-MB1	1		
09:18	GP12999-B1	1		
09:20	GP12999-B2	1		
09:21	GP12999-S1	1		
09:22	GP12999-D1	1		
09:24	JC65733-1	1		(sample used for QC only; not part of login JC65800)
09:25	ZZZZZZ	1		
09:27	GP12998-MB1	1		
09:28	GP12998-B1	1		
09:29	GP12998-S1	1		
09:31	GN79946-CCV3	1		
09:32	GN79946-CCB2	1		
09:33	GP12998-S2	1		
09:35	GP12998-D1	1		
09:36	ZZZZZZ	1		
09:37	ZZZZZZ	1		
09:39	JC65868-1A	1		(sample used for QC only; not part of login JC65800)
09:40	JC65860-1	1		(sample used for QC only; not part of login JC65800)
09:42	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051418W1.CN
Analyst: BM
Parameters: Cyanide Reactivity

Date Analyzed: 05/14/18 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Run ID: GN79946

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:43	ZZZZZZ	1		
09:44	ZZZZZZ	1		
09:46	ZZZZZZ	1		
09:47	GN79946-CCV4	1		
09:48	GN79946-CCB3	1		
09:50	ZZZZZZ	1		
09:51	ZZZZZZ	1		
09:52	ZZZZZZ	1		
09:54	ZZZZZZ	1		
09:55	GP12997-MB1	1		
09:57	GP12997-B1	1		see rerun.
09:58	GP12997-S1	1		
09:59	GP12997-S2	1		
10:01	GP12997-D1	1		
10:02	ZZZZZZ	1		
10:03	GN79946-CCV5	1		
10:05	GN79946-CCB4	1		
10:06	ZZZZZZ	1		
10:07	JC65732-4	1		(sample used for QC only; not part of login JC65800)
10:09	ZZZZZZ	1		
10:10	ZZZZZZ	1		
10:11	ZZZZZZ	1		
10:13	ZZZZZZ	1		
10:14	ZZZZZZ	1		
10:16	ZZZZZZ	1		
10:17	ZZZZZZ	1		
10:18	ZZZZZZ	1		
10:20	GN79946-CCV6	1		
10:21	GN79946-CCB5	1		
10:22	ZZZZZZ	1		
10:24	JC65866-3	1		(sample used for QC only; not part of login JC65800)
10:25	ZZZZZZ	1		
10:26	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051418W1.CN
Analyst: BM
Parameters: Cyanide Reactivity

Date Analyzed: 05/14/18 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Run ID: GN79946

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:28	ZZZZZZ	1		
10:29	ZZZZZZ	1		
10:31	ZZZZZZ	1		
10:32	GP13001-MB1	1		
10:33	GP13001-B1	1		
10:35	GP13001-S1	1		
10:36	GN79946-CCV7	1		
10:37	GN79946-CCB6	1		
10:39	GP13001-D1	1		
10:40	JC65989-1	1		(sample used for QC only; not part of login JC65800)
10:41	GP12982-MB1	1		
10:43	GP12982-B1	1		
10:44	GP12982-D1	1		
10:46	ZZZZZZ	1		
10:47	JC65837-1	1		(sample used for QC only; not part of login JC65800)
10:48	ZZZZZZ	1		
10:50	ZZZZZZ	1		
10:51	ZZZZZZ	1		
10:52	GN79946-CCV8	1		
10:54	GN79946-CCB7	1		
10:55	ZZZZZZ	1		
10:56	ZZZZZZ	1		
10:58	GP12997-B1	1		
10:59	GP12980-MB1	1		
11:00	GP12980-B1	1		
11:02	GP12980-D1	1		
11:03	JC65724-2	1		(sample used for QC only; not part of login JC65800)
11:05	ZZZZZZ	1		
11:06	ZZZZZZ	1		
11:07	ZZZZZZ	1		
11:09	GN79946-CCV9	1		
11:10	GN79946-CCB8	1		
11:11	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051418W1.CN
Analyst: BM
Parameters: Cyanide Reactivity

Date Analyzed: 05/14/18
Run ID: GN79946

Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:13	ZZZZZZ	1		
11:14	JC65800-1A	1		
11:15	JC65800-2A	1		
11:17	ZZZZZZ	1		
11:18	ZZZZZZ	1		
11:20	ZZZZZZ	1		
11:21	ZZZZZZ	1		
11:22	ZZZZZZ	1		
11:24	ZZZZZZ	20		
11:25	GN79946-CCV10	1		
11:26	GN79946-CCB9	1		
11:28	ZZZZZZ	40		
11:31	GN79946-CCV11	1		
11:32	GN79946-CCB10	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051418W1.CN

Date Analyzed: 05/14/18
Run ID: GN79946

Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN79946-ICV1	Cyanide	0.0058 U	0.010	0.0058			
GN79946-ICB1	Cyanide	0.00800	0.010	0.0058			
GN79946-CCV1	Cyanide	0.395	0.010	0.0058	.4	98.8	90-110
GN79946-ICV2	Cyanide	0.291	0.010	0.0058	.3	97.0	90-110
GN79946-ICB2	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV2	Cyanide	0.397	0.010	0.0058	.4	99.3	90-110
GN79946-CCB1	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV3	Cyanide	0.396	0.010	0.0058	.4	99.0	90-110
GN79946-CCB2	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV4	Cyanide	0.396	0.010	0.0058	.4	99.0	90-110
GN79946-CCB3	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV5	Cyanide	0.397	0.010	0.0058	.4	99.3	90-110
GN79946-CCB4	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV6	Cyanide	0.396	0.010	0.0058	.4	99.0	90-110
GN79946-CCB5	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV7	Cyanide	0.392	0.010	0.0058	.4	98.0	90-110
GN79946-CCB6	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV8	Cyanide	0.391	0.010	0.0058	.4	97.8	90-110
GN79946-CCB7	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV9	Cyanide	0.389	0.010	0.0058	.4	97.3	90-110
GN79946-CCB8	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV10	Cyanide	0.387	0.010	0.0058	.4	96.8	90-110
GN79946-CCB9	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV11	Cyanide	0.388	0.010	0.0058	.4	97.0	90-110
GN79946-CCB10	Cyanide	0.0058 U	0.010	0.0058			

(!) Outside of QC limits

15.4
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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051618W1.CN
Analyst: BM
Parameters: Cyanide

Date Analyzed: 05/16/18
Run ID: GN80064

Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:07	GN80064-STD1	1		STDA
12:09	GN80064-STD2	1		STDB
12:10	GN80064-STD3	1		STDC
12:12	GN80064-STD4	1		STDD
12:13	GN80064-STD5	1		STDE
12:14	GN80064-STD6	1		STDF
12:16	GN80064-STD7	1		STDG
12:17	GN80064-ICV1	1		
12:18	GN80064-ICB1	1		
12:20	GN80064-CCV1	1		
12:21	GN80064-CCB1	1		
12:22	GP13086-MB1	1		
12:24	GP13086-B1	1		
12:25	GP13086-S1	1		
12:27	GP13086-D1	1		
12:28	JC65732-11	1		(sample used for QC only; not part of login JC65800)
12:29	ZZZZZZ	1		
12:31	ZZZZZZ	1		
12:32	ZZZZZZ	1		
12:33	ZZZZZZ	1		
12:35	ZZZZZZ	1		
12:36	GN80064-CCV2	1		
12:37	GN80064-CCB2	1		
12:39	GP13031-MB1	1		
12:40	GP13031-B1	1		
12:42	GP13031-S1	1		
12:43	GP13031-D1	1		
12:44	ZZZZZZ	1		
12:46	ZZZZZZ	1		
12:47	JC65890-4	1		(sample used for QC only; not part of login JC65800)
12:48	ZZZZZZ	1		
12:50	ZZZZZZ	1		
12:51	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051618W1.CN
Analyst: BM
Parameters: Cyanide

Date Analyzed: 05/16/18
Run ID: GN80064

Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:52	GN80064-CCV3	1		
12:54	GN80064-CCB3	1		
12:55	ZZZZZZ	1		
12:56	GP13029-MB1	1		
12:58	GP13029-B1	1		
12:59	GP13029-S1	1		
13:01	GP13029-S2	1		
13:02	GP13029-D1	1		
13:03	JC65839-1	1		(sample used for QC only; not part of login JC65800)
13:05	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:07	ZZZZZZ	1		
13:09	GN80064-CCV4	1		
13:10	GN80064-CCB4	1		
13:11	ZZZZZZ	1		
13:13	JC65988-4	1		(sample used for QC only; not part of login JC65800)
13:14	ZZZZZZ	1		
13:15	ZZZZZZ	1		
13:17	ZZZZZZ	1		
13:18	ZZZZZZ	1		
13:20	ZZZZZZ	1		
13:21	ZZZZZZ	1		
13:22	GP13060-MB1	1		
13:24	GP13060-B1	1		
13:25	GN80064-CCV5	1		
13:26	GN80064-CCB5	1		
13:28	GP13060-D1	1		
13:29	JC65969-1	1		(sample used for QC only; not part of login JC65800)
13:31	GP13051-MB1	1		
13:32	GP13051-B1	1		
13:33	GP13051-D1	1		
13:35	ZZZZZZ	1		
13:36	JC65918-1	1		(sample used for QC only; not part of login JC65800)

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051618W1.CN
Analyst: BM
Parameters: Cyanide

Date Analyzed: 05/16/18
Run ID: GN80064

Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:37	ZZZZZZ	1		
13:39	ZZZZZZ	1		
13:40	ZZZZZZ	1		
13:41	GN80064-CCV6	1		
13:43	GN80064-CCB6	1		
13:44	ZZZZZZ	1		
13:45	ZZZZZZ	1		
13:47	ZZZZZZ	1		
13:48	ZZZZZZ	1		
13:50	ZZZZZZ	1		
13:51	ZZZZZZ	1		
13:52	GP13077-MB1	1		
13:54	GP13077-B1	1		
13:55	GP13077-D1	1		
13:56	JC66110-1	1		(sample used for QC only; not part of login JC65800)
13:58	GN80064-CCV7	1		
13:59	GN80064-CCB7	1		
14:00	ZZZZZZ	1		
14:02	ZZZZZZ	1		
14:03	ZZZZZZ	1		
14:05	ZZZZZZ	1		
14:06	ZZZZZZ	1		
14:07	ZZZZZZ	1		
14:09	ZZZZZZ	1		
14:10	ZZZZZZ	1		
14:11	ZZZZZZ	1		
14:13	ZZZZZZ	1		
14:14	GN80064-CCV8	1		
14:15	GN80064-CCB8	1		
14:17	ZZZZZZ	1		
14:18	ZZZZZZ	1		
14:20	ZZZZZZ	1		
14:21	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051618W1.CN
Analyst: BM
Parameters: Cyanide

Date Analyzed: 05/16/18
Run ID: GN80064

Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:22	ZZZZZZ	1		
14:24	ZZZZZZ	1		
14:25	ZZZZZZ	1		
14:26	ZZZZZZ	1		
14:28	ZZZZZZ	1		
14:29	GP13030-MB1	1		
14:30	GN80064-CCV9	1		
14:32	GN80064-CCB9	1		
14:33	GP13030-B1	1		
14:35	GP13030-S1	1		
14:36	GP13030-S2	1		
14:37	GP13030-D1	1		
14:39	JC66031-1	1		(sample used for QC only; not part of login JC65800)
14:40	ZZZZZZ	1		
14:41	ZZZZZZ	1		
14:43	ZZZZZZ	1		
14:44	JC66034-1	1		(sample used for QC only; not part of login JC65800)
14:45	ZZZZZZ	1		
14:47	GN80064-CCV10	1		
14:48	GN80064-CCB10	1		
14:49	JC65800-1	1		
14:51	JC65800-2	1		
14:52	ZZZZZZ	1		
14:54	ZZZZZZ	1		
14:55	ZZZZZZ	1		
14:56	ZZZZZZ	1		
14:58	ZZZZZZ	1		
14:59	ZZZZZZ	1		
15:02	GN80064-CCV11	1		
15:03	GN80064-CCB11	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC65800
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051618W1.CN

Date Analyzed: 05/16/18
Run ID: GN80064

Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN80064-ICV1	Cyanide	0.290	0.010	0.0058	.3	96.7	90-110
GN80064-ICB1	Cyanide	0.0058 U	0.010	0.0058			
GN80064-CCV1	Cyanide	0.407	0.010	0.0058	.4	101.8	90-110
GN80064-CCB1	Cyanide	0.0058 U	0.010	0.0058			
GN80064-CCV2	Cyanide	0.408	0.010	0.0058	.4	102.0	90-110
GN80064-CCB2	Cyanide	0.0058 U	0.010	0.0058			
GN80064-CCV3	Cyanide	0.406	0.010	0.0058	.4	101.5	90-110
GN80064-CCB3	Cyanide	0.0058 U	0.010	0.0058			
GN80064-CCV4	Cyanide	0.406	0.010	0.0058	.4	101.5	90-110
GN80064-CCB4	Cyanide	0.0058 U	0.010	0.0058			
GN80064-CCV5	Cyanide	0.406	0.010	0.0058	.4	101.5	90-110
GN80064-CCB5	Cyanide	0.0058 U	0.010	0.0058			
GN80064-CCV6	Cyanide	0.406	0.010	0.0058	.4	101.5	90-110
GN80064-CCB6	Cyanide	0.0058 U	0.010	0.0058			
GN80064-CCV7	Cyanide	0.403	0.010	0.0058	.4	100.8	90-110
GN80064-CCB7	Cyanide	0.0058 U	0.010	0.0058			
GN80064-CCV8	Cyanide	0.392	0.010	0.0058	.4	98.0	90-110
GN80064-CCB8	Cyanide	0.0058 U	0.010	0.0058			
GN80064-CCV9	Cyanide	0.404	0.010	0.0058	.4	101.0	90-110
GN80064-CCB9	Cyanide	0.0058 U	0.010	0.0058			
GN80064-CCV10	Cyanide	0.403	0.010	0.0058	.4	100.8	90-110
GN80064-CCB10	Cyanide	0.0058 U	0.010	0.0058			
GN80064-CCV11	Cyanide	0.401	0.010	0.0058	.4	100.3	90-110
GN80064-CCB11	Cyanide	0.0058 U	0.010	0.0058			

(!) Outside of QC limits

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Percent Solids Raw Data Summary

Job Number: JC65800
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: JC65800-1	Analyzed: 15-MAY-18 by LV	Method: SM2540 G-97
ClientID: WC-2		
Wet Weight (Total)	33.88	g
Tare Weight	28.7	g
Dry Weight (Total)	33.42	g
Solids, Percent	91.1	%
Sample: JC65800-2	Analyzed: 15-MAY-18 by LV	Method: SM2540 G-97
ClientID: WC-1		
Wet Weight (Total)	33.46	g
Tare Weight	27.09	g
Dry Weight (Total)	32.52	g
Solids, Percent	85.2	%

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

e-Hardcopy 2.0
Automated Report

Technical Report for

Arcadis

NYSEG - Lyons MGP Site, Lyons NY

B0013143.0000

SGS Job Number: JC65860

Sampling Date: 05/09/18

Report to:

Arcadis
295 Woodcliff Drive Suite 301
Fairport, NY 14450
matt.hysell@arcadis.com; Nicholas.Beyrle@arcadis.com

ATTN: Matthew Hysell

Total number of pages in report: **660**



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

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

Nancy Cole
Laboratory Director

Client Service contact: Diane Komar 732-329-0200

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

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Test results relate only to samples analyzed.

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Sample Summary

Arcadis

Job No: JC65860

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.0000

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JC65860-1	05/09/18	11:20 RDC	05/10/18	SO	Soil	WC-2
JC65860-1A	05/09/18	11:20 RDC	05/10/18	SO	Soil	WC-2

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

2

Client: Arcadis

Job No JC65860

Site: NYSEG - Lyons MGP Site, Lyons NY

Report Date 5/29/2018 10:14:11 A

On 05/10/2018, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 3.6 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC65860 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Please refer to certification exceptions summary for additional certification information.

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

MS Volatiles By Method SW846 8260C

Matrix: LEACHATE

Batch ID: VA9208

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC65741-2LS, JC65741-2MS, JC65741-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: SO

Batch ID: V1C6913

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65878-1DUP, JC65878-2MS were used as the QC samples indicated.
- RPD(s) for Duplicate for Tetrachloroethene are outside control limits for sample JC65878-1DUP. Outside control limits due to sample non-homogeneity.
- JC65860-1 for Bromomethane: Associated CCV outside of control limits low.
- JC65860-1 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC65860-1 for Methyl Tert Butyl Ether: Associated CCV outside of control limits high, sample was ND.

MS Semi-volatiles By Method SW846 8270D

Matrix: LEACHATE

Batch ID: OP12025

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65724-2LS, JC65724-2MS, JC65724-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC65860-1A for Pyridine: Associated CCV outside of control limits low.

Matrix: SO

Batch ID: OP11966

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65784-44MS, JC65784-44MSD were used as the QC samples indicated.

GC Volatiles By Method SW846 8015C

Matrix: SO

Batch ID: GLM3857

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC65860-1MS, JC65860-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

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GC/LC Semi-volatiles By Method SW846 8015C

Matrix: SO

Batch ID: OP11954

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65741-2MS, JC65741-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

GC/LC Semi-volatiles By Method SW846 8081B

Matrix: LEACHATE

Batch ID: OP11974

- All samples were extracted within the recommended method holding time.
- Sample(s) LA43799-1BMS, LA43799-1BMSD, OP11974-MSMSD, LA43799-1BLS were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for gamma-BHC (Lindane), Heptachlor epoxide are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for gamma-BHC (Lindane), Heptachlor epoxide are outside control limits. Outside control limits due to matrix interference.
- OP11974-BS1 for Methoxychlor: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO

Batch ID: OP12110

- All samples were extracted within the recommended method holding time.
- Sample(s) JC66309-7MS, JC66309-7MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC65860-1 for Decachlorobiphenyl: Outside control limits due to matrix interference.

GC/LC Semi-volatiles By Method SW846 8151A

Matrix: LEACHATE

Batch ID: OP11975

- All samples were extracted within the recommended method holding time.
- Sample(s) LA43799-1BLS, LA43799-1BMS, LA43799-1BMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Metals Analysis By Method SW846 6010C

Matrix: LEACHATE

Batch ID: MP7122

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65764-1AMS, JC65764-1AMSD, JC65764-1ASDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Lead are outside control limits for sample MP7122-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Samples(s) JC65860-1A: New York does not offer 3010A certification for antimony and silver. The laboratory is certified for method 3010A (Acid Digestion for Total Metals) for all other metals and is certified for the associated analytical methods of 6010C (ICP Analysis) and 6020A (ICP-MS Analysis). New York does certify for method 3005A (Acid Digestion for Total Recoverable or Dissolved Metals) for antimony and silver and the laboratory holds that certification, but that provides total recoverable rather than total metals results.

Matrix: SO

Batch ID: MP7168

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TD20915-1DUP, TD20915-1MS, TD20915-1MSD, TD20915-1PS, TD20915-1SDL, TD20915-1DUP were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Chromium, Nickel are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike Recovery(s) for Barium, Iron are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for Duplicate for Aluminum are outside control limits for sample MP7168-D1. High rpd due to possible sample nonhomogeneity.
- RPD(s) for MSD for Barium, Chromium are outside control limits for sample MP7168-S2. High rpd due to possible sample nonhomogeneity.
- RPD(s) for Serial Dilution for Cadmium, Antimony, Potassium, Magnesium are outside control limits for sample MP7168-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP7168-D1 for Silver: RPD acceptable due to low duplicate and sample concentrations.

Metals Analysis By Method SW846 7470A

Matrix: LEACHATE

Batch ID: MP7148

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65764-1AMS, JC65764-1AMSD were used as the QC samples for metals.

Metals Analysis By Method SW846 7471B

Matrix: SO

Batch ID: MP7163

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65764-1MS, JC65764-1MSD were used as the QC samples for metals.

General Chemistry By Method ASTM D129-95

Matrix: SO

Batch ID: GP13154

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64996-7DUP were used as the QC samples for Percent Sulfur.

General Chemistry By Method ASTM D240-92

Matrix: SO

Batch ID: GP13163

- Sample(s) JC64996-7DUP were used as the QC samples for Heat Content, BTU.

General Chemistry By Method SM2540 G-97

Matrix: SO

Batch ID: GN80063

- The data for SM2540 G-97 meets quality control requirements.

General Chemistry By Method SW846 1010A/ASTM D93

Matrix: SO

Batch ID: GN80261

- Sample(s) JC65751-16DUP were used as the QC samples for Ignitability (Flashpoint).

General Chemistry By Method SW846 9012B/LACHAT

Matrix: SO

Batch ID: GP12998

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65860-1MS, JC65868-1ADUP were used as the QC samples for Cyanide.
- RPD(s) for Duplicate for Cyanide are outside control limits for sample GP12998-D1. RPD acceptable due to low duplicate and sample concentrations.

General Chemistry By Method SW846 9045D

Matrix: SO

Batch ID: GN80265

- Sample(s) JC65814-2ABDUP were used as the QC samples for Corrosivity as pH.

General Chemistry By Method SW846 CHAP7/9012 B

Matrix: SO

Batch ID: GP12980

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65724-2DUP were used as the QC samples for Cyanide Reactivity.

General Chemistry By Method SW846 CHAP7/9034

Matrix: SO

Batch ID: GP12981

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65724-2DUP, JC65724-2MS were used as the QC samples for Sulfide Reactivity.

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

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

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

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Summary of Hits

Job Number: JC65860
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/09/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC65860-1	WC-2					
Acetone		20.9	12	7.5	ug/kg	SW846 8260C
Benzene		2.0	0.58	0.12	ug/kg	SW846 8260C
Toluene		0.91 J	1.2	0.64	ug/kg	SW846 8260C
2,4-Dimethylphenol		224	180	64	ug/kg	SW846 8270D
2-Methylphenol		157	72	23	ug/kg	SW846 8270D
3&4-Methylphenol		453	72	30	ug/kg	SW846 8270D
Phenol		315	72	19	ug/kg	SW846 8270D
Acenaphthene		180	36	12	ug/kg	SW846 8270D
Acenaphthylene		4590	720	370	ug/kg	SW846 8270D
Anthracene		5880	720	440	ug/kg	SW846 8270D
Benzo(a)anthracene		28100	720	200	ug/kg	SW846 8270D
Benzo(a)pyrene		27000	720	330	ug/kg	SW846 8270D
Benzo(b)fluoranthene		30200	720	320	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		17100	720	360	ug/kg	SW846 8270D
Benzo(k)fluoranthene		12100	720	340	ug/kg	SW846 8270D
1,1'-Biphenyl		140	72	4.9	ug/kg	SW846 8270D
Carbazole		1000	72	5.2	ug/kg	SW846 8270D
Chrysene		24800	720	230	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		4120	720	320	ug/kg	SW846 8270D
Dibenzofuran		798	72	15	ug/kg	SW846 8270D
Fluoranthene		50300	720	320	ug/kg	SW846 8270D
Fluorene		589	36	17	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		18800	720	340	ug/kg	SW846 8270D
2-Methylnaphthalene		444	36	8.1	ug/kg	SW846 8270D
Naphthalene		1910	36	10	ug/kg	SW846 8270D
Phenanthrene		12600	720	240	ug/kg	SW846 8270D
Pyrene		45200	720	230	ug/kg	SW846 8270D
TPH-GRO (C6-C10)		20.9 J	23	12	mg/kg	SW846 8015C
TPH-DRO (C10-C28)		448	11	2.7	mg/kg	SW846 8015C
Aluminum		6980	57		mg/kg	SW846 6010C
Arsenic		5.5	2.3		mg/kg	SW846 6010C
Barium		39.8	23		mg/kg	SW846 6010C
Beryllium		0.37	0.23		mg/kg	SW846 6010C
Calcium		87500	2900		mg/kg	SW846 6010C
Chromium		8.7	1.1		mg/kg	SW846 6010C
Copper		23.1	2.9		mg/kg	SW846 6010C
Iron		11100	57		mg/kg	SW846 6010C
Lead		42.8	2.3		mg/kg	SW846 6010C
Magnesium		18500	570		mg/kg	SW846 6010C
Manganese		508	1.7		mg/kg	SW846 6010C
Mercury		0.35	0.037		mg/kg	SW846 7471B
Nickel		11.6	4.6		mg/kg	SW846 6010C
Potassium		1730	1100		mg/kg	SW846 6010C

Summary of Hits

Job Number: JC65860
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/09/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						
Vanadium		15.4	5.7		mg/kg	SW846 6010C
Zinc		70.5	5.7		mg/kg	SW846 6010C
Cyanide		7.1	0.21		mg/kg	SW846 9012B/LACHAT
Heat Content, BTU		766	100		BTU/lb	ASTM D240-92
JC65860-1A WC-2						
Corrosivity as pH		8.34 NC			su	SW846 9045D
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010A/ASTM D93
Benzene		0.0021 J	0.0025	0.00087	mg/l	SW846 8260C



Dayton, NJ

Section 4

4

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

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Client Sample ID:	WC-2	
Lab Sample ID:	JC65860-1	Date Sampled: 05/09/18
Matrix:	SO - Soil	Date Received: 05/10/18
Method:	SW846 8260C	Percent Solids: 85.9
Project:	NYSEG - Lyons MGP Site, Lyons NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1C156721.D	1	05/12/18 18:27	PS	n/a	n/a	V1C6913
Run #2							

	Initial Weight
Run #1	5.0 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	20.9	12	7.5	ug/kg	
71-43-2	Benzene	2.0	0.58	0.12	ug/kg	
74-97-5	Bromochloromethane	ND	5.8	0.51	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.28	ug/kg	
75-25-2	Bromoform	ND	5.8	0.36	ug/kg	
74-83-9	Bromomethane ^a	ND	5.8	0.82	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	6.1	ug/kg	
75-15-0	Carbon disulfide	ND	2.3	0.71	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.76	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.34	ug/kg	
75-00-3	Chloroethane	ND	5.8	1.1	ug/kg	
67-66-3	Chloroform	ND	2.3	0.38	ug/kg	
74-87-3	Chloromethane	ND	5.8	1.1	ug/kg	
110-82-7	Cyclohexane	ND	2.3	0.40	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.3	0.78	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.44	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.2	0.29	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.2	0.60	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.2	0.33	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.2	0.56	ug/kg	
75-71-8	Dichlorodifluoromethane ^b	ND	5.8	0.71	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.2	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.2	0.21	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.2	0.82	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.2	0.47	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.2	0.68	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.46	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.45	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.28	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.34	ug/kg	
76-13-1	Freon 113	ND	5.8	0.78	ug/kg	
591-78-6	2-Hexanone	ND	5.8	3.2	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-2	Date Sampled:	05/09/18
Lab Sample ID:	JC65860-1	Date Received:	05/10/18
Matrix:	SO - Soil	Percent Solids:	85.9
Method:	SW846 8260C		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.3	0.29	ug/kg	
79-20-9	Methyl Acetate	ND	5.8	2.9	ug/kg	
108-87-2	Methylcyclohexane	ND	2.3	0.64	ug/kg	
1634-04-4	Methyl Tert Butyl Ether ^b	ND	1.2	0.50	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.8	2.1	ug/kg	
75-09-2	Methylene chloride	ND	5.8	2.9	ug/kg	
100-42-5	Styrene	ND	2.3	0.58	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.30	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.74	ug/kg	
108-88-3	Toluene	0.91	1.2	0.64	ug/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	5.8	1.2	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.8	1.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.68	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.49	ug/kg	
79-01-6	Trichloroethene	ND	1.2	0.64	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.8	0.56	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	0.89	ug/kg	
	m,p-Xylene	ND	1.2	0.64	ug/kg	
95-47-6	o-Xylene	ND	1.2	0.29	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		75-127%
17060-07-0	1,2-Dichloroethane-D4	122%		75-130%
2037-26-5	Toluene-D8	108%		80-120%
460-00-4	4-Bromofluorobenzene	105%		79-127%

(a) Associated CCV outside of control limits low.

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

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 3

Client Sample ID:	WC-2	Date Sampled:	05/09/18
Lab Sample ID:	JC65860-1	Date Received:	05/10/18
Matrix:	SO - Soil	Percent Solids:	85.9
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M104086.D	1	05/16/18 15:12	CC	05/13/18 05:30	OP11966	E2M4626
Run #2	2M104144.D	20	05/18/18 00:03	CC	05/13/18 05:30	OP11966	E2M4628

	Initial Weight	Final Volume
Run #1	32.3 g	1.0 ml
Run #2	32.3 g	1.0 ml

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	72	18	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	180	22	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	180	31	ug/kg	
105-67-9	2,4-Dimethylphenol	224	180	64	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	180	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	180	39	ug/kg	
95-48-7	2-Methylphenol	157	72	23	ug/kg	
	3&4-Methylphenol	453	72	30	ug/kg	
88-75-5	2-Nitrophenol	ND	180	24	ug/kg	
100-02-7	4-Nitrophenol	ND	360	96	ug/kg	
87-86-5	Pentachlorophenol	ND	140	34	ug/kg	
108-95-2	Phenol	315	72	19	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	180	24	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	180	27	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	180	21	ug/kg	
83-32-9	Acenaphthene	180	36	12	ug/kg	
208-96-8	Acenaphthylene	4590 ^a	720	370	ug/kg	
98-86-2	Acetophenone	ND	180	7.7	ug/kg	
120-12-7	Anthracene	5880 ^a	720	440	ug/kg	
1912-24-9	Atrazine	ND	72	15	ug/kg	
56-55-3	Benzo(a)anthracene	28100 ^a	720	200	ug/kg	
50-32-8	Benzo(a)pyrene	27000 ^a	720	330	ug/kg	
205-99-2	Benzo(b)fluoranthene	30200 ^a	720	320	ug/kg	
191-24-2	Benzo(g,h,i)perylene	17100 ^a	720	360	ug/kg	
207-08-9	Benzo(k)fluoranthene	12100 ^a	720	340	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	72	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	72	8.8	ug/kg	
92-52-4	1,1'-Biphenyl	140	72	4.9	ug/kg	
100-52-7	Benzaldehyde	ND	180	8.9	ug/kg	
91-58-7	2-Chloronaphthalene	ND	72	8.6	ug/kg	
106-47-8	4-Chloroaniline	ND	180	13	ug/kg	
86-74-8	Carbazole	1000	72	5.2	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-2	Date Sampled:	05/09/18
Lab Sample ID:	JC65860-1	Date Received:	05/10/18
Matrix:	SO - Soil	Percent Solids:	85.9
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	72	14	ug/kg	
218-01-9	Chrysene	24800 ^a	720	230	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	72	7.7	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	72	16	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	72	13	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	72	12	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	36	11	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	36	18	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	72	30	ug/kg	
123-91-1	1,4-Dioxane	ND	36	24	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	4120 ^a	720	320	ug/kg	
132-64-9	Dibenzofuran	798	72	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	72	5.9	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	72	9.0	ug/kg	
84-66-2	Diethyl phthalate	ND	72	7.7	ug/kg	
131-11-3	Dimethyl phthalate	ND	72	6.4	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	72	8.4	ug/kg	
206-44-0	Fluoranthene	50300 ^a	720	320	ug/kg	
86-73-7	Fluorene	589	36	17	ug/kg	
118-74-1	Hexachlorobenzene	ND	72	9.1	ug/kg	
87-68-3	Hexachlorobutadiene	ND	36	14	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	360	14	ug/kg	
67-72-1	Hexachloroethane	ND	180	18	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	18800 ^a	720	340	ug/kg	
78-59-1	Isophorone	ND	72	7.7	ug/kg	
91-57-6	2-Methylnaphthalene	444	36	8.1	ug/kg	
88-74-4	2-Nitroaniline	ND	180	8.5	ug/kg	
99-09-2	3-Nitroaniline	ND	180	9.0	ug/kg	
100-01-6	4-Nitroaniline	ND	180	9.3	ug/kg	
91-20-3	Naphthalene	1910	36	10	ug/kg	
98-95-3	Nitrobenzene	ND	72	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	72	10	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	180	13	ug/kg	
85-01-8	Phenanthrene	12600 ^a	720	240	ug/kg	
129-00-0	Pyrene	45200 ^a	720	230	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	180	9.2	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	76%	83%	23-115%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-2	Date Sampled:	05/09/18
Lab Sample ID:	JC65860-1	Date Received:	05/10/18
Matrix:	SO - Soil	Percent Solids:	85.9
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	79%	89%	27-114%
118-79-6	2,4,6-Tribromophenol	88%	93%	19-152%
4165-60-0	Nitrobenzene-d5	77%	82%	26-134%
321-60-8	2-Fluorobiphenyl	89%	89%	39-124%
1718-51-0	Terphenyl-d14	93%	96%	36-134%

(a) Result is from Run# 2

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

4.1
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SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-2						
Lab Sample ID:	JC65860-1					Date Sampled:	05/09/18
Matrix:	SO - Soil					Date Received:	05/10/18
Method:	SW846 8015C					Percent Solids:	85.9
Project:	NYSEG - Lyons MGP Site, Lyons NY						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LM94854.D	1	05/17/18 10:48	KC	n/a	n/a	GLM3857
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.4 g	10.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	20.9	23	12	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	94%		70-116%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

4.1
4

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-2		
Lab Sample ID:	JC65860-1	Date Sampled:	05/09/18
Matrix:	SO - Soil	Date Received:	05/10/18
Method:	SW846 8082A SW846 3546	Percent Solids:	85.9
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G163845.D	1	05/20/18 02:34	EAL	05/19/18 05:00	OP12110	G2G4338
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	37	15	ug/kg	
11104-28-2	Aroclor 1221	ND	37	15	ug/kg	
11141-16-5	Aroclor 1232	ND	37	9.9	ug/kg	
53469-21-9	Aroclor 1242	ND	37	5.9	ug/kg	
12672-29-6	Aroclor 1248	ND	37	22	ug/kg	
11097-69-1	Aroclor 1254	ND	37	9.1	ug/kg	
11096-82-5	Aroclor 1260	ND	37	12	ug/kg	
11100-14-4	Aroclor 1268	ND	37	5.5	ug/kg	
37324-23-5	Aroclor 1262	ND	37	2.8	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		24-152%
877-09-8	Tetrachloro-m-xylene	55%		24-152%
2051-24-3	Decachlorobiphenyl	1092% ^a		10-166%
2051-24-3	Decachlorobiphenyl	1320% ^a		10-166%

(a) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-2						
Lab Sample ID:	JC65860-1					Date Sampled:	05/09/18
Matrix:	SO - Soil					Date Received:	05/10/18
Method:	SW846 8015C SW846 3546					Percent Solids:	85.9
Project:	NYSEG - Lyons MGP Site, Lyons NY						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Y91072.D	1	05/14/18 02:27	TL	05/11/18 14:30	OP11954	G2Y3470
Run #2							

	Initial Weight	Final Volume
Run #1	10.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	448	11	2.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	59%		18-132%
16416-32-3	Tetracosane-d50	80%		25-137%
438-22-2	5a-Androstane	75%		22-134%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-2	Date Sampled:	05/09/18
Lab Sample ID:	JC65860-1	Date Received:	05/10/18
Matrix:	SO - Soil	Percent Solids:	85.9
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6980	57	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Antimony	< 2.3	2.3	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Arsenic	5.5	2.3	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Barium	39.8	23	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Beryllium	0.37	0.23	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Cadmium	< 0.57	0.57	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Calcium	87500	2900	mg/kg	5	05/15/18	05/18/18	ND	SW846 6010C ³ SW846 3050B ⁵
Chromium	8.7	1.1	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Cobalt	< 5.7	5.7	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Copper	23.1	2.9	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Iron	11100	57	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Lead	42.8	2.3	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Magnesium	18500	570	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Manganese	508	1.7	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Mercury	0.35	0.037	mg/kg	1	05/15/18	05/15/18	DP	SW846 7471B ¹ SW846 7471B ⁴
Nickel	11.6	4.6	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Potassium	1730	1100	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Selenium	< 2.3	2.3	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Silver	< 0.57	0.57	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Sodium	< 1100	1100	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Thallium	< 1.1	1.1	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Vanadium	15.4	5.7	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵
Zinc	70.5	5.7	mg/kg	1	05/15/18	05/16/18	EAL	SW846 6010C ² SW846 3050B ⁵

(1) Instrument QC Batch: MA44402

(2) Instrument QC Batch: MA44427

(3) Instrument QC Batch: MA44445

(4) Prep QC Batch: MP7163

(5) Prep QC Batch: MP7168

RL = Reporting Limit

Report of Analysis

Client Sample ID:	WC-2	Date Sampled:	05/09/18
Lab Sample ID:	JC65860-1	Date Received:	05/10/18
Matrix:	SO - Soil	Percent Solids:	85.9
Project:	NYSEG - Lyons MGP Site, Lyons NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	7.1	0.21	mg/kg	1	05/14/18 09:40	BM	SW846 9012B/LACHAT
Heat Content, BTU	766	100	BTU/lb	1	05/20/18 14:00	JOO	ASTM D240-92
Percent Sulfur	< 0.10	0.10	%	1	05/20/18	JOO	ASTM D129-95
Solids, Percent	85.9		%	1	05/16/18 16:15	DJ	SM2540 G-97

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-2		
Lab Sample ID:	JC65860-1A	Date Sampled:	05/09/18
Matrix:	SO - Soil	Date Received:	05/10/18
Method:	SW846 8260C SW846 1311	Percent Solids:	85.9
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A241598.D	5	05/14/18 18:15	OI	05/11/18 10:00	GP12985	VA9208
Run #2							

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

VOA TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	0.0021	D018	0.50	0.0025	0.00087	mg/l	J
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.024	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0017	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0012	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0014	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.00087	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0010	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0024	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0025	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0013	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0031	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		76-120%
17060-07-0	1,2-Dichloroethane-D4	99%		64-135%
2037-26-5	Toluene-D8	97%		76-117%
460-00-4	4-Bromofluorobenzene	94%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-2		
Lab Sample ID:	JC65860-1A	Date Sampled:	05/09/18
Matrix:	SO - Soil	Date Received:	05/10/18
Method:	SW846 8270D SW846 3510C	Percent Solids:	85.9
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6P473094.D	1	05/18/18 22:20	SA	05/18/18 15:00	OP12025	E6P2215
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine ^a	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	39%		14-88%
4165-62-2	Phenol-d5	23%		10-110%
118-79-6	2,4,6-Tribromophenol	64%		39-149%
4165-60-0	Nitrobenzene-d5	68%		32-128%
321-60-8	2-Fluorobiphenyl	69%		35-119%
1718-51-0	Terphenyl-d14	88%		10-126%

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-2							
Lab Sample ID:	JC65860-1A					Date Sampled:	05/09/18	
Matrix:	SO - Soil					Date Received:	05/10/18	
Method:	SW846 8151A SW846 8151/3510C					Percent Solids:	85.9	
Project:	NYSEG - Lyons MGP Site, Lyons NY							

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G116530.D	1	05/20/18 18:28	VDT	05/18/18 14:55	OP11975	G3G4048
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.5 ml
Run #2		

Herbicide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0042	0.0012	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0012	0.00025	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	89%		50-142%
19719-28-9	2,4-DCAA	83%		50-142%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-2		
Lab Sample ID:	JC65860-1A	Date Sampled:	05/09/18
Matrix:	SO - Soil	Date Received:	05/10/18
Method:	SW846 8081B SW846 3510C	Percent Solids:	85.9
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G56364.D	1	05/21/18 04:58	CP	05/12/18 08:00	OP11974	G6G1687
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.0 ml
Run #2		

Pesticide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.000067	0.000040	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0033	0.0014	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.000067	0.000040	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.000067	0.000030	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.000067	0.000040	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00013	0.000045	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0017	0.0011	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	55%		30-137%
877-09-8	Tetrachloro-m-xylene	55%		30-137%
2051-24-3	Decachlorobiphenyl	58%		10-137%
2051-24-3	Decachlorobiphenyl	60%		10-137%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-2	Date Sampled:	05/09/18
Lab Sample ID:	JC65860-1A	Date Received:	05/10/18
Matrix:	SO - Soil	Percent Solids:	85.9
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 1.0	D005	100	1.0	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.025	D006	1.0	0.025	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.050	D007	5.0	0.050	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Lead	< 0.50	D008	5.0	0.50	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	05/14/18	05/14/18 DP	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.50	D010	1.0	0.50	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.050	D011	5.0	0.050	mg/l	5	05/13/18	05/14/18 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA44394
- (2) Instrument QC Batch: MA44405
- (3) Prep QC Batch: MP7122
- (4) Prep QC Batch: MP7148

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

4.2
4

Report of Analysis

Client Sample ID:	WC-2	Date Sampled:	05/09/18
Lab Sample ID:	JC65860-1A	Date Received:	05/10/18
Matrix:	SO - Soil	Percent Solids:	85.9
Project:	NYSEG - Lyons MGP Site, Lyons NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	8.34 NC		su	1	05/21/18 16:35	RI	SW846 9045D
Cyanide Reactivity	< 11	11	mg/kg	1	05/14/18 11:20	BM	SW846 CHAP7/9012 B
Ignitability (Flashpoint)	> 200		Deg. F	1	05/21/18 16:30	RI	SW846 1010A/ASTM D93
Sulfide Reactivity	< 110	110	mg/kg	1	05/11/18 09:00	MP	SW846 CHAP7/9034

RL = Reporting Limit

4.2
4

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

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

Parameter Certification Exceptions

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

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

Parameter	CAS#	Method	Mat	Certification Status
Cyanide Reactivity		SW846 CHAP7/9012 B	SO	SGS is not certified for this parameter. ^a
Percent Sulfur		ASTM D129-95	SO	SGS is not certified for this parameter. ^b
Sulfide Reactivity		SW846 CHAP7/9034	SO	SGS is not certified for this parameter. ^a

- (a) Reactivity analyzed following SW846 Chapter 7 is no longer recognized by regulatory agencies. Use of results should be verified through the program to which the data is being submitted.
- (b) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

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

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50
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CHAIN OF CUSTODY

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

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[illegible]

Form:SM088-03C (revised 2/12/18)

<http://www.sgs.com/en/terms-and-conditions>

JC65860: Chain of Custody

Page 1 of 2



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JC65860

SGS Sample Receipt Summary

Job Number: JC65860

Client: ARCADIS

Project: NYSEG - LYONS MGP SITE, LYONS NY - LTDD

Date / Time Received: 5/10/2018 9:50:00 AM

Delivery Method:
Airbill #s:
Cooler Temps (Raw Measured) °C: Cooler 1: (2.1);

Cooler Temps (Corrected) °C: Cooler 1: (3.6);

Cooler Security
Y or N
Y or N

- | | |
|--|---|
| 1. Custody Seals Present: ☒ ☐ | 3. COC Present: ☒ ☐ |
| 2. Custody Seals Intact: ☒ ☐ | 4. Smpl Dates/Time OK: ☒ ☐ |

Cooler Temperature
Y or N

- | | |
|---|-----------|
| 1. Temp criteria achieved: ☒ ☐ | IR Gun |
| 2. Cooler temp verification: | |
| 3. Cooler media: | Ice (Bag) |
| 4. No. Coolers: | 1 |

Quality Control Preservation
Y or N
N/A

- | | |
|---|--|
| 1. Trip Blank present / cooler: ☐ ☒ ☐ | |
| 2. Trip Blank listed on COC: ☐ ☒ ☐ | |
| 3. Samples preserved properly: ☒ ☐ | |
| 4. VOCs headspace free: ☐ ☐ ☒ | |

Sample Integrity - Documentation
Y or N

- | | |
|---|--|
| 1. Sample labels present on bottles: ☒ ☐ | |
| 2. Container labeling complete: ☒ ☐ | |
| 3. Sample container label / COC agree: ☒ ☐ | |

Sample Integrity - Condition
Y or N

- | | |
|---|--------|
| 1. Sample recvd within HT: ☒ ☐ | |
| 2. All containers accounted for: ☒ ☐ | |
| 3. Condition of sample: | Intact |

Sample Integrity - Instructions
Y or N
N/A

- | | |
|--|--|
| 1. Analysis requested is clear: ☒ ☐ | |
| 2. Bottles received for unspecified tests: ☐ ☒ | |
| 3. Sufficient volume recvd for analysis: ☒ ☐ | |
| 4. Compositing instructions clear: ☐ ☐ ☒ | |
| 5. Filtering instructions clear: ☐ ☐ ☒ | |

Test Strip Lot #s:

pH 1-12: 216017

pH 12+: 208717

Other: (Specify)

Comments

 SM089-03
Rev. Date 12/7/17

JC65860: Chain of Custody

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Internal Sample Tracking Chronicle

Arcadis

Job No: JC65860

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.0000

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC65860-1	Collected: 09-MAY-18 11:20	By: RDC	Received: 10-MAY-18	By: RL		
WC-2						
JC65860-1	SW846 8260C	12-MAY-18 18:27	PS			V8260TCL20
JC65860-1	SW846 8015C	14-MAY-18 02:27	TL	11-MAY-18 RG		B8015DRO
JC65860-1	SW846 9012B/LACHAT	14-MAY-18 09:40	BM	11-MAY-18 RP		CN
JC65860-1	SW846 7471B	15-MAY-18 13:18	DP	15-MAY-18 MS		HG
JC65860-1	SW846 8270D	16-MAY-18 15:12	CC	13-MAY-18 AA		AB8270TCL20
JC65860-1	SM2540 G-97	16-MAY-18 16:15	DJ			SOL104
JC65860-1	SW846 6010C	16-MAY-18 19:28	EAL	15-MAY-18 CH		AG,AL,AS,BA,BE,CD,CO,CR,CU, FE,K,MG,MN,NA,NI,PB,SB,SE, TL,V,ZN
JC65860-1	SW846 8015C	17-MAY-18 10:48	KC			V8015GRO
JC65860-1	SW846 8270D	18-MAY-18 00:03	CC	13-MAY-18 AA		AB8270TCL20
JC65860-1	SW846 6010C	18-MAY-18 19:58	ND	15-MAY-18 CH		CA
JC65860-1	ASTM D129-95	20-MAY-18	JOO	18-MAY-18 JOO		SULFUR
JC65860-1	SW846 8082A	20-MAY-18 02:34	EAL	19-MAY-18 NT		P8082PCB11
JC65860-1	ASTM D240-92	20-MAY-18 14:00	JOO	18-MAY-18 JOO		BTU
JC65860-1A	Collected: 09-MAY-18 11:20	By: RDC	Received: 10-MAY-18	By: RL		
WC-2						
JC65860-1A	SW846 CHAP7/9034	11-MAY-18 09:00	MP	11-MAY-18 FO		SREAC
JC65860-1A	SW846 CHAP7/9012 B	14-MAY-18 11:20	BM	11-MAY-18 FO		CREAC
JC65860-1A	SW846 7470A	14-MAY-18 13:31	DP	14-MAY-18 DP		EHG
JC65860-1A	SW846 6010C	14-MAY-18 15:16	EAL	13-MAY-18 CH		EAG,EAS,EBA,ECD,ECR,EPB,ESE
JC65860-1A	SW846 8260C	14-MAY-18 18:15	OI	11-MAY-18 AC		V8260TCLP
JC65860-1A	SW846 8270D	18-MAY-18 22:20	SA	18-MAY-18 VP		AB8270TCLP
JC65860-1A	SW846 8151A	20-MAY-18 18:28	VDT	18-MAY-18 YB		H8151TCLP
JC65860-1A	SW846 8081B	21-MAY-18 04:58	CP	12-MAY-18 RB		P8081TCLP
JC65860-1A	SW846 1010A/ASTM D200	21-MAY-18 16:30	RI			IGN
JC65860-1A	SW846 9045D	21-MAY-18 16:35	RI			CORR

SGS Internal Chain of Custody

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/10/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65860-1.1	Secured Storage	Sahara Feliciano	05/10/18 18:47	Retrieve from Storage
JC65860-1.1	Sahara Feliciano	Secured Staging Area	05/10/18 18:47	Return to Storage
JC65860-1.1	Secured Staging Area	Faraja Ombwayo	05/11/18 07:43	Retrieve from Storage
JC65860-1.1	Faraja Ombwayo	Chatiyah Canaday	05/11/18 13:14	Custody Transfer
JC65860-1.1	Chatiyah Canaday	Secured Storage	05/11/18 19:50	Return to Storage
JC65860-1.1	Secured Storage	Dave Hunkele	05/12/18 12:32	Retrieve from Storage
JC65860-1.1	Dave Hunkele	Secured Staging Area	05/12/18 12:32	Return to Storage
JC65860-1.1	Secured Staging Area	Sauvelson Auguste	05/13/18 05:58	Retrieve from Storage
JC65860-1.1	Sauvelson Auguste	Secured Storage	05/13/18 09:52	Return to Storage
JC65860-1.1	Secured Storage	Christopher Hall	05/15/18 18:25	Retrieve from Storage
JC65860-1.1	Christopher Hall	Secured Staging Area	05/15/18 18:25	Return to Storage
JC65860-1.1	Secured Staging Area	Hans Seignon	05/16/18 17:08	Retrieve from Storage
JC65860-1.1	Shirley Grzybowski	Secured Storage	05/17/18 07:12	Return to Storage
Analyst unavailable for custody transfer.				
JC65860-1.1	Secured Storage	Dwayne Johnson	05/18/18 09:29	Retrieve from Storage
JC65860-1.1	Dwayne Johnson	Secured Staging Area	05/18/18 09:29	Return to Storage
JC65860-1.1	Secured Staging Area	Jared O. Onindo	05/18/18 13:13	Retrieve from Storage
JC65860-1.1	Jared O. Onindo	Secured Storage	05/18/18 18:54	Return to Storage
JC65860-1.1.1	Chatiyah Canaday	Organics Prep	05/11/18 13:30	Extract from JC65860-1.1
JC65860-1.1.1	Organics Prep	Rebecca Gluckman	05/11/18 20:36	Extract from JC65860-1.1
JC65860-1.1.1	Rebecca Gluckman	Extract Storage	05/11/18 20:36	Return to Storage
JC65860-1.1.1	Extract Storage	Thomas Lally	05/13/18 16:11	Retrieve from Storage
JC65860-1.1.1	Thomas Lally	GC2Y	05/13/18 16:11	Load on Instrument
JC65860-1.1.1	GC2Y	Rebecca Krug	05/14/18 14:23	Unload from Instrument
JC65860-1.1.1	Rebecca Krug	Extract Freezer	05/14/18 14:23	Return to Storage
JC65860-1.1.2	Sauvelson Auguste	Organics Prep	05/13/18 06:02	Extract from JC65860-1.1
JC65860-1.1.2	Organics Prep	Alexander Arotin	05/13/18 12:38	Extract from JC65860-1.1
JC65860-1.1.2	Alexander Arotin	Extract Storage	05/13/18 12:38	Return to Storage
JC65860-1.1.2	Extract Storage	Christine Change	05/16/18 11:31	Retrieve from Storage
JC65860-1.1.2	Christine Change	GCMS2M	05/16/18 11:31	Load on Instrument
JC65860-1.1.2	GCMS2M	Christine Change	05/22/18 10:14	Unload from Instrument
JC65860-1.1.2	Christine Change	Extract Freezer	05/22/18 10:14	Return to Storage
JC65860-1.2	Secured Storage	Luis Villanueva	05/10/18 17:49	Retrieve from Storage
JC65860-1.2	Luis Villanueva	Secured Staging Area	05/10/18 17:49	Return to Storage
JC65860-1.2	Secured Staging Area	Christopher Hall	05/11/18 06:09	Retrieve from Storage
JC65860-1.2	Secured Storage	Jennifer Voitovitch	05/14/18 15:10	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC65860-1.2	Jennifer Voitovitch	Secured Staging Area	05/14/18 15:10	Return to Storage
JC65860-1.2	Secured Staging Area	Martin Serwatka	05/14/18 15:12	Retrieve from Storage
JC65860-1.2	Martin Serwatka	Secured Storage	05/14/18 16:55	Return to Storage
JC65860-1.2	Secured Storage	Dave Hunkele	05/15/18 13:59	Retrieve from Storage

SGS Internal Chain of Custody

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/10/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65860-1.2	Dave Hunkele	Secured Staging Area	05/15/18 13:59	Return to Storage
JC65860-1.2	Secured Staging Area	Colleen Hill	05/15/18 17:03	Retrieve from Storage
JC65860-1.2	Colleen Hill	Secured Storage	05/15/18 17:09	Return to Storage
JC65860-1.2	Secured Storage	Christopher Hall	05/18/18 22:46	Retrieve from Storage
JC65860-1.2	Christopher Hall	Secured Staging Area	05/18/18 22:46	Return to Storage
JC65860-1.2	Secured Staging Area	Lindsey Lee	05/19/18 03:56	Retrieve from Storage
JC65860-1.2	Lindsey Lee	Secured Storage	05/19/18 05:45	Return to Storage
JC65860-1.2	Secured Storage	Rie Iwasaki	05/21/18 11:44	Retrieve from Storage
JC65860-1.2	Rie Iwasaki	Secured Storage	05/21/18 16:30	Return to Storage
JC65860-1.2.1	Christopher Hall	TCLP	05/11/18 06:09	Leachate from JC65860-1.2
JC65860-1.2.1	TCLP	Robert Bandstra	05/12/18 09:35	Leachate from JC65860-1.2
JC65860-1.2.1	Robert Bandstra	Secured Storage	05/12/18 09:46	Return to Storage
JC65860-1.2.2	TCLP	Robert Bandstra	05/12/18 09:35	Leachate from JC65860-1.2
JC65860-1.2.2	Robert Bandstra	Secured Storage	05/12/18 09:46	Return to Storage
JC65860-1.2.2	Secured Storage	Jessica Potts	05/14/18 13:09	Retrieve from Storage
JC65860-1.2.2	Jessica Potts	GCMSA	05/14/18 13:09	Load on Instrument
JC65860-1.2.2	GCMSA	Oyinade Ifaturoti	05/15/18 06:23	Unload from Instrument
JC65860-1.2.2	Oyinade Ifaturoti	Secured Storage	05/15/18 06:23	Return to Storage
JC65860-1.2.3	Colleen Hill	Metals Digestion	05/15/18 17:04	Digestate from JC65860-1.2
JC65860-1.2.3	Metals Digestion	Colleen Hill	05/15/18 17:04	Digestate from JC65860-1.2
JC65860-1.2.3	Colleen Hill	Metals Digestate Storage	05/15/18 17:04	Return to Storage
JC65860-1.2.4	Colleen Hill	Metals Digestion	05/15/18 17:09	Digestate from JC65860-1.2
JC65860-1.2.4	Metals Digestion	Colleen Hill	05/15/18 17:09	Digestate from JC65860-1.2
JC65860-1.2.4	Colleen Hill	Metals Digestate Storage	05/15/18 17:09	Return to Storage
JC65860-1.2.5	Lindsey Lee	Organics Prep	05/19/18 03:57	Extract from JC65860-1.2
JC65860-1.2.5	Organics Prep	Natasha Torres	05/19/18 09:12	Extract from JC65860-1.2
JC65860-1.2.5	Natasha Torres	Extract Storage	05/19/18 09:12	Return to Storage
JC65860-1.2.5	Extract Storage	Edouard Adrian Lee	05/19/18 19:39	Retrieve from Storage
JC65860-1.2.5	Edouard Adrian Lee	GC2G	05/19/18 19:39	Load on Instrument
JC65860-1.3	Secured Storage	Luis Villanueva	05/10/18 17:49	Retrieve from Storage
JC65860-1.3	Luis Villanueva	Secured Staging Area	05/10/18 17:49	Return to Storage
JC65860-1.3	Secured Staging Area	Christopher Hall	05/11/18 06:09	Retrieve from Storage
JC65860-1.3	Christopher Hall	Secured Storage	05/14/18 16:05	Return to Storage
JC65860-1.3	Secured Storage	Sahara Feliciano	05/16/18 13:55	Retrieve from Storage
JC65860-1.3	Sahara Feliciano	Secured Staging Area	05/16/18 13:55	Return to Storage
JC65860-1.3	Secured Staging Area	Dwayne Johnson	05/16/18 14:48	Retrieve from Storage
JC65860-1.3	Dwayne Johnson	Secured Storage	05/16/18 16:00	Return to Storage

SGS Internal Chain of Custody

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/10/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65860-1.3.1	Christopher Hall	TCLP	05/11/18 06:09	Leachate from JC65860-1.3
JC65860-1.3.1	TCLP	Robert Bandstra	05/12/18 08:30	Leachate from JC65860-1.3
JC65860-1.3.1	Robert Bandstra	Secured Storage	05/12/18 09:33	Return to Storage
JC65860-1.3.1	Secured Storage	Vikas Parikh	05/18/18 06:31	Retrieve from Storage
JC65860-1.3.1	Vikas Parikh	Jonathan Stanley	05/18/18 07:55	Custody Transfer
JC65860-1.3.1	Jonathan Stanley	Secured Storage	05/18/18 16:01	Return to Storage
JC65860-1.3.2	TCLP	Robert Bandstra	05/12/18 08:30	Leachate from JC65860-1.3
JC65860-1.3.2	Robert Bandstra	Secured Storage	05/12/18 09:33	Return to Storage
JC65860-1.3.2	Secured Storage	Colleen Hill	05/13/18 10:48	Retrieve from Storage
JC65860-1.3.2	Colleen Hill	Secured Storage	05/13/18 10:49	Return to Storage
JC65860-1.3.3	Colleen Hill	Metals Digestion	05/13/18 10:49	Digestate from JC65860-1.3.2
JC65860-1.3.3	Metals Digestion	Colleen Hill	05/13/18 10:49	Digestate from JC65860-1.3.2
JC65860-1.3.3	Colleen Hill	Metals Digestate Storage	05/13/18 10:49	Return to Storage
JC65860-1.3.4	Vikas Parikh	Organics Prep	05/18/18 06:36	Extract from JC65860-1.3.1
JC65860-1.3.4	Organics Prep	Vikas Parikh	05/18/18 15:04	Extract from JC65860-1.3.1
JC65860-1.3.4	Vikas Parikh	Extract Storage	05/18/18 15:04	Return to Storage
JC65860-1.3.4	Extract Storage	Sufiyanu Ahmed	05/18/18 22:14	Retrieve from Storage
JC65860-1.3.4	Sufiyanu Ahmed	GCMS6P	05/18/18 22:14	Load on Instrument
JC65860-1.3.4	GCMS6P	John Boudreau	05/21/18 13:11	Unload from Instrument
JC65860-1.3.4	John Boudreau	Extract Freezer	05/21/18 13:11	Return to Storage
JC65860-1.3.5	Jonathan Stanley	Organics Prep	05/18/18 07:58	Extract from JC65860-1.3.1
JC65860-1.3.5	Organics Prep	Naisha Torres	05/18/18 22:36	Extract from JC65860-1.3.1
JC65860-1.3.5	Naisha Torres	Extract Storage	05/18/18 22:36	Return to Storage
JC65860-1.3.5	Extract Storage	Christine Phillips	05/21/18 00:41	Retrieve from Storage
JC65860-1.3.5	Christine Phillips	GC6G	05/21/18 00:41	Load on Instrument
JC65860-1.3.6	Jonathan Stanley	Organics Prep	05/18/18 14:05	Extract from JC65860-1.3.1
JC65860-1.3.6	Organics Prep	Yaw Britwum	05/19/18 15:39	Extract from JC65860-1.3.1
JC65860-1.3.6	Yaw Britwum	Extract Storage	05/19/18 15:39	Return to Storage
JC65860-1.3.6	Extract Storage	Vincent Drago	05/20/18 11:10	Retrieve from Storage
JC65860-1.3.6	Vincent Drago	GC3G	05/20/18 11:10	Load on Instrument
JC65860-1.3.6	GC3G	Vincent Drago	05/29/18 11:08	Unload from Instrument
JC65860-1.3.6	Vincent Drago	Extract Freezer	05/29/18 11:08	Return to Storage
JC65860-1.4	Secured Storage	Krizhka Cuenta	05/16/18 09:29	Retrieve from Storage
JC65860-1.4	Krizhka Cuenta	Secured Storage	05/16/18 16:50	Return to Storage
JC65860-1.4	Secured Storage	Krizhka Cuenta	05/17/18 10:55	Retrieve from Storage
JC65860-1.4	Krizhka Cuenta	Secured Storage	05/17/18 16:53	Return to Storage
JC65860-1.6	Secured Storage	Prashant Shukla	05/12/18 12:57	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/10/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC65860-1.6	Prashant Shukla	GCMS1C	05/12/18 12:57	Load on Instrument
JC65860-1.6	GCMS1C	Prashant Shukla	05/14/18 10:13	Unload from Instrument
JC65860-1.6	Prashant Shukla		05/14/18 10:14	Depleted

5.4
5

MS Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Page 1 of 2

Job Number: JC65860

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C6913-MB	1C156706.D	1	05/12/18	PS	n/a	n/a	V1C6913

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65860-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.4	ug/kg	
71-43-2	Benzene	ND	0.50	0.11	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.44	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.24	ug/kg	
75-25-2	Bromoform	ND	5.0	0.31	ug/kg	
74-83-9	Bromomethane	ND	5.0	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	5.2	ug/kg	
75-15-0	Carbon disulfide	ND	2.0	0.61	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.65	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.29	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.90	ug/kg	
67-66-3	Chloroform	ND	2.0	0.32	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.99	ug/kg	
110-82-7	Cyclohexane	ND	2.0	0.34	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.38	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.0	0.25	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.52	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.29	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.48	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.61	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.0	0.71	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.40	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.58	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.40	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.38	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.24	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/kg	
76-13-1	Freon 113	ND	5.0	0.67	ug/kg	
591-78-6	2-Hexanone	ND	5.0	2.8	ug/kg	
98-82-8	Isopropylbenzene	ND	2.0	0.25	ug/kg	
79-20-9	Methyl Acetate	ND	5.0	2.5	ug/kg	
108-87-2	Methylcyclohexane	ND	2.0	0.55	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/kg	

Method Blank Summary

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Job Number: JC65860**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C6913-MB	1C156706.D	1	05/12/18	PS	n/a	n/a	V1C6913

The QC reported here applies to the following samples:**Method:** SW846 8260C

JC65860-1

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.8	ug/kg	
75-09-2	Methylene chloride	ND	5.0	2.5	ug/kg	
100-42-5	Styrene	ND	2.0	0.50	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.25	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.64	ug/kg	
108-88-3	Toluene	ND	1.0	0.55	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.58	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.42	ug/kg	
79-01-6	Trichloroethene	ND	1.0	0.55	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	0.48	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.77	ug/kg	
	m,p-Xylene	ND	1.0	0.55	ug/kg	
95-47-6	o-Xylene	ND	1.0	0.25	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.25	ug/kg	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	95%
17060-07-0	1,2-Dichloroethane-D4	114%
2037-26-5	Toluene-D8	106%
460-00-4	4-Bromofluorobenzene	103%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

Method Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA9208-MB	A241580.D	1	05/14/18	OI	n/a	n/a	VA9208

The QC reported here applies to the following samples: Method: SW846 8260C

JC65860-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.17	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	100% 76-120%
17060-07-0	1,2-Dichloroethane-D4	98% 64-135%
2037-26-5	Toluene-D8	94% 76-117%
460-00-4	4-Bromofluorobenzene	94% 72-122%

Leachate Blank Summary

Page 1 of 1

Job Number: JC65860

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GP12985-LB8	A241582.D	5	05/14/18	OI	05/11/18	GP12985	VA9208

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65860-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.5	0.87	ug/l	
78-93-3	2-Butanone (MEK)	ND	50	24	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	1.7	ug/l	
108-90-7	Chlorobenzene	ND	5.0	1.2	ug/l	
67-66-3	Chloroform	ND	5.0	1.4	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	0.87	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	5.0	2.4	ug/l	
127-18-4	Tetrachloroethene	ND	5.0	2.5	ug/l	
79-01-6	Trichloroethene	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	5.0	3.1	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	103% 76-120%
17060-07-0	1,2-Dichloroethane-D4	98% 64-135%
2037-26-5	Toluene-D8	96% 76-117%
460-00-4	4-Bromofluorobenzene	96% 72-122%

Blank Spike Summary

Page 1 of 2

Job Number: JC65860**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C6913-BS	1C156704.D	1	05/12/18	PS	n/a	n/a	V1C6913

The QC reported here applies to the following samples:**Method:** SW846 8260C

JC65860-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	200	175	88	48-149
71-43-2	Benzene	50	50.0	100	74-117
74-97-5	Bromochloromethane	50	48.6	97	82-121
75-27-4	Bromodichloromethane	50	53.9	108	78-119
75-25-2	Bromoform	50	49.4	99	76-130
74-83-9	Bromomethane	50	33.6	67	58-137
78-93-3	2-Butanone (MEK)	200	200	100	65-143
75-15-0	Carbon disulfide	50	41.7	83	66-140
56-23-5	Carbon tetrachloride	50	55.5	111	69-136
108-90-7	Chlorobenzene	50	47.5	95	79-117
75-00-3	Chloroethane	50	48.4	97	62-139
67-66-3	Chloroform	50	50.6	101	76-119
74-87-3	Chloromethane	50	46.0	92	52-144
110-82-7	Cyclohexane	50	47.9	96	64-136
96-12-8	1,2-Dibromo-3-chloropropane	50	55.9	112	72-124
124-48-1	Dibromochloromethane	50	52.5	105	78-122
106-93-4	1,2-Dibromoethane	50	53.2	106	80-116
95-50-1	1,2-Dichlorobenzene	50	49.0	98	77-117
541-73-1	1,3-Dichlorobenzene	50	49.2	98	75-117
106-46-7	1,4-Dichlorobenzene	50	49.3	99	76-115
75-71-8	Dichlorodifluoromethane	50	57.5	115	43-156
75-34-3	1,1-Dichloroethane	50	50.0	100	75-124
107-06-2	1,2-Dichloroethane	50	55.7	111	74-124
75-35-4	1,1-Dichloroethene	50	46.0	92	64-129
156-59-2	cis-1,2-Dichloroethene	50	44.8	90	74-118
156-60-5	trans-1,2-Dichloroethene	50	44.7	89	71-125
78-87-5	1,2-Dichloropropane	50	51.6	103	80-119
10061-01-5	cis-1,3-Dichloropropene	50	55.7	111	80-119
10061-02-6	trans-1,3-Dichloropropene	50	55.4	111	78-119
100-41-4	Ethylbenzene	50	49.6	99	75-118
76-13-1	Freon 113	50	50.2	100	60-181
591-78-6	2-Hexanone	200	215	108	63-138
98-82-8	Isopropylbenzene	50	48.8	98	74-122
79-20-9	Methyl Acetate	50	58.4	117	61-140
108-87-2	Methylcyclohexane	50	51.7	103	67-136
1634-04-4	Methyl Tert Butyl Ether	50	57.6	115	75-123

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: JC65860

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C6913-BS	1C156704.D	1	05/12/18	PS	n/a	n/a	V1C6913

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65860-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	239	120	73-136
75-09-2	Methylene chloride	50	47.7	95	73-120
100-42-5	Styrene	50	49.0	98	78-120
79-34-5	1,1,2,2-Tetrachloroethane	50	57.0	114	72-120
127-18-4	Tetrachloroethene	50	47.0	94	69-128
108-88-3	Toluene	50	49.1	98	74-117
87-61-6	1,2,3-Trichlorobenzene	50	47.1	94	72-133
120-82-1	1,2,4-Trichlorobenzene	50	48.8	98	73-132
71-55-6	1,1,1-Trichloroethane	50	53.7	107	73-131
79-00-5	1,1,2-Trichloroethane	50	52.5	105	79-117
79-01-6	Trichloroethene	50	47.3	95	80-120
75-69-4	Trichlorofluoromethane	50	51.1	102	63-141
75-01-4	Vinyl chloride	50	49.1	98	55-145
	m,p-Xylene	100	97.8	98	75-120
95-47-6	o-Xylene	50	49.3	99	75-119
1330-20-7	Xylene (total)	150	147	98	76-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	75-127%
17060-07-0	1,2-Dichloroethane-D4	115%	75-130%
2037-26-5	Toluene-D8	103%	80-120%
460-00-4	4-Bromofluorobenzene	104%	79-127%

* = Outside of Control Limits.

Blank Spike Summary

Page 1 of 1

Job Number: JC65860

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA9208-BS	A241578.D	1	05/14/18	OI	n/a	n/a	VA9208

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65860-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	46.6	93	75-122
78-93-3	2-Butanone (MEK)	200	189	95	64-130
56-23-5	Carbon tetrachloride	50	51.6	103	75-148
108-90-7	Chlorobenzene	50	51.0	102	76-124
67-66-3	Chloroform	50	45.7	91	77-124
106-46-7	1,4-Dichlorobenzene	50	50.4	101	71-123
107-06-2	1,2-Dichloroethane	50	45.3	91	66-150
75-35-4	1,1-Dichloroethene	50	53.6	107	61-132
127-18-4	Tetrachloroethene	50	51.6	103	70-136
79-01-6	Trichloroethene	50	50.4	101	79-126
75-01-4	Vinyl chloride	50	54.0	108	56-146

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	76-120%
17060-07-0	1,2-Dichloroethane-D4	95%	64-135%
2037-26-5	Toluene-D8	95%	76-117%
460-00-4	4-Bromofluorobenzene	99%	72-122%

* = Outside of Control Limits.

Matrix Spike Summary

Page 1 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65878-2MS	1C156716.D	1	05/12/18	PS	n/a	n/a	V1C6913
JC65878-2	1C156708.D	1	05/12/18	PS	n/a	n/a	V1C6913

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65860-1

CAS No.	Compound	JC65878-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
67-64-1	Acetone	ND		181	123	68	10-157
71-43-2	Benzene	ND		45.1	40.5	90	58-125
74-97-5	Bromochloromethane	ND		45.1	38.5	85	60-127
75-27-4	Bromodichloromethane	ND		45.1	43.4	96	57-128
75-25-2	Bromoform	ND		45.1	38.6	86	48-133
74-83-9	Bromomethane	ND		45.1	26.5	59	31-141
78-93-3	2-Butanone (MEK)	ND		181	148	82	29-146
75-15-0	Carbon disulfide	ND		45.1	33.2	74	47-145
56-23-5	Carbon tetrachloride	ND		45.1	44.1	98	51-143
108-90-7	Chlorobenzene	ND		45.1	39.2	87	54-130
75-00-3	Chloroethane	ND		45.1	38.8	86	22-153
67-66-3	Chloroform	ND		45.1	42.2	93	61-125
74-87-3	Chloromethane	ND		45.1	31.2	69	43-142
110-82-7	Cyclohexane	ND		45.1	42.0	93	37-148
96-12-8	1,2-Dibromo-3-chloropropane	ND		45.1	42.9	95	41-127
124-48-1	Dibromochloromethane	ND		45.1	42.4	94	56-127
106-93-4	1,2-Dibromoethane	ND		45.1	42.2	93	54-121
95-50-1	1,2-Dichlorobenzene	ND		45.1	39.4	87	41-134
541-73-1	1,3-Dichlorobenzene	ND		45.1	39.5	88	41-135
106-46-7	1,4-Dichlorobenzene	ND		45.1	39.0	86	41-133
75-71-8	Dichlorodifluoromethane	ND		45.1	34.6	77	30-153
75-34-3	1,1-Dichloroethane	ND		45.1	41.6	92	61-131
107-06-2	1,2-Dichloroethane	ND		45.1	42.0	93	56-126
75-35-4	1,1-Dichloroethene	ND		45.1	36.2	80	53-132
156-59-2	cis-1,2-Dichloroethene	ND		45.1	35.9	80	57-125
156-60-5	trans-1,2-Dichloroethene	ND		45.1	36.2	80	56-130
78-87-5	1,2-Dichloropropane	ND		45.1	43.2	96	63-126
10061-01-5	cis-1,3-Dichloropropene	ND		45.1	43.7	97	55-126
10061-02-6	trans-1,3-Dichloropropene	ND		45.1	45.1	100	51-126
100-41-4	Ethylbenzene	ND		45.1	40.8	90	49-132
76-13-1	Freon 113	ND		45.1	36.8	82	42-179
591-78-6	2-Hexanone	ND		181	165	91	25-150
98-82-8	Isopropylbenzene	ND		45.1	39.7	88	43-141
79-20-9	Methyl Acetate	5.9		45.1	48.8	95	32-158
108-87-2	Methylcyclohexane	ND		45.1	39.9	88	22-158
1634-04-4	Methyl Tert Butyl Ether	ND		45.1	45.8	101	58-123

* = Outside of Control Limits.

Matrix Spike Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65878-2MS	1C156716.D	1	05/12/18	PS	n/a	n/a	V1C6913
JC65878-2	1C156708.D	1	05/12/18	PS	n/a	n/a	V1C6913

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65860-1

CAS No.	Compound	JC65878-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		181	178	99	40-140
75-09-2	Methylene chloride	ND		45.1	39.0	86	57-123
100-42-5	Styrene	ND		45.1	40.5	90	46-139
79-34-5	1,1,2,2-Tetrachloroethane	ND		45.1	44.7	99	44-127
127-18-4	Tetrachloroethene	1.6	J	45.1	38.1	81	39-154
108-88-3	Toluene	ND		45.1	41.5	92	54-127
87-61-6	1,2,3-Trichlorobenzene	ND		45.1	38.5	85	17-151
120-82-1	1,2,4-Trichlorobenzene	ND		45.1	37.7	84	19-153
71-55-6	1,1,1-Trichloroethane	ND		45.1	43.2	96	57-138
79-00-5	1,1,2-Trichloroethane	ND		45.1	44.4	98	53-127
79-01-6	Trichloroethene	ND		45.1	38.5	85	52-140
75-69-4	Trichlorofluoromethane	ND		45.1	37.9	84	46-142
75-01-4	Vinyl chloride	ND		45.1	36.9	82	43-146
	m,p-Xylene	ND		90.3	79.5	88	45-137
95-47-6	o-Xylene	ND		45.1	40.5	90	48-135
1330-20-7	Xylene (total)	ND		135	120	89	46-137

CAS No.	Surrogate Recoveries	MS	JC65878-2	Limits
1868-53-7	Dibromofluoromethane	100%	100%	75-127%
17060-07-0	1,2-Dichloroethane-D4	109%	124%	75-130%
2037-26-5	Toluene-D8	108%	106%	80-120%
460-00-4	4-Bromofluorobenzene	107%	100%	79-127%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65741-2MS	A241591.D	5	05/14/18	OI	n/a	n/a	VA9208
JC65741-2MSD	A241592.D	5	05/14/18	OI	n/a	n/a	VA9208
JC65741-2	A241586.D	5	05/14/18	OI	05/11/18	GP12985	VA9208

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65860-1A

CAS No.	Compound	JC65741-2 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	250	245	98	250	256	102	4	38-139/13
78-93-3	2-Butanone (MEK)	ND	1000	1020	102	1000	1030	103	1	58-140/14
56-23-5	Carbon tetrachloride	ND	250	274	110	250	285	114	4	50-161/18
108-90-7	Chlorobenzene	ND	250	259	104	250	268	107	3	65-128/12
67-66-3	Chloroform	ND	250	251	100	250	256	102	2	66-132/14
106-46-7	1,4-Dichlorobenzene	ND	250	255	102	250	265	106	4	63-126/13
107-06-2	1,2-Dichloroethane	ND	250	236	94	250	247	99	5	59-153/15
75-35-4	1,1-Dichloroethene	ND	250	265	106	250	279	112	5	41-144/17
127-18-4	Tetrachloroethene	ND	250	258	103	250	264	106	2	48-145/15
79-01-6	Trichloroethene	ND	250	257	103	250	270	108	5	53-141/15
75-01-4	Vinyl chloride	ND	250	263	105	250	275	110	4	34-151/20

CAS No.	Surrogate Recoveries	MS	MSD	JC65741-2	Limits
1868-53-7	Dibromofluoromethane	107%	106%	108%	76-120%
17060-07-0	1,2-Dichloroethane-D4	96%	97%	100%	64-135%
2037-26-5	Toluene-D8	97%	96%	94%	76-117%
460-00-4	4-Bromofluorobenzene	100%	100%	94%	72-122%

* = Outside of Control Limits.

Leachate Spike Summary

Page 1 of 1

Job Number: JC65860

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GP12985-LS4	A241591A.D	5	05/14/18	OI	05/11/18	GP12985	VA9208
JC65741-2	A241586.D	5	05/14/18	OI	05/11/18	GP12985	VA9208

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65860-1A

CAS No.	Compound	JC65741-2 ug/l	Spike Q ug/l	LS ug/l	LS %	Limits
71-43-2	Benzene	ND	250	245	98	38-139
78-93-3	2-Butanone (MEK)	ND	1000	1020	102	58-140
56-23-5	Carbon tetrachloride	ND	250	274	110	50-161
108-90-7	Chlorobenzene	ND	250	259	104	65-128
67-66-3	Chloroform	ND	250	251	100	66-132
106-46-7	1,4-Dichlorobenzene	ND	250	255	102	63-126
107-06-2	1,2-Dichloroethane	ND	250	236	94	59-153
75-35-4	1,1-Dichloroethene	ND	250	265	106	41-144
127-18-4	Tetrachloroethene	ND	250	258	103	48-145
79-01-6	Trichloroethene	ND	250	257	103	53-141
75-01-4	Vinyl chloride	ND	250	263	105	34-151

CAS No.	Surrogate Recoveries	LS	JC65741-2	Limits
1868-53-7	Dibromofluoromethane	107%	108%	76-120%
17060-07-0	1,2-Dichloroethane-D4	96%	100%	64-135%
2037-26-5	Toluene-D8	97%	94%	76-117%
460-00-4	4-Bromofluorobenzene	100%	94%	72-122%

* = Outside of Control Limits.

Duplicate Summary

Page 1 of 2

Job Number: JC65860**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65878-1DUP	1C156714.D	1	05/12/18	PS	n/a	n/a	V1C6913
JC65878-1	1C156707.D	1	05/12/18	PS	n/a	n/a	V1C6913

The QC reported here applies to the following samples:**Method:** SW846 8260C

JC65860-1

CAS No.	Compound	JC65878-1 ug/kg	DUP Q ug/kg	Q	RPD	Limits
67-64-1	Acetone	32.9	31.2		5	40
71-43-2	Benzene	ND	ND		nc	30
74-97-5	Bromochloromethane	ND	ND		nc	30
75-27-4	Bromodichloromethane	ND	ND		nc	30
75-25-2	Bromoform	ND	ND		nc	30
74-83-9	Bromomethane	ND	ND		nc	30
78-93-3	2-Butanone (MEK)	ND	ND		nc	30
75-15-0	Carbon disulfide	ND	ND		nc	30
56-23-5	Carbon tetrachloride	ND	ND		nc	30
108-90-7	Chlorobenzene	ND	ND		nc	30
75-00-3	Chloroethane	ND	ND		nc	30
67-66-3	Chloroform	ND	ND		nc	30
74-87-3	Chloromethane	ND	ND		nc	30
110-82-7	Cyclohexane	ND	ND		nc	30
96-12-8	1,2-Dibromo-3-chloropropane	ND	ND		nc	30
124-48-1	Dibromochloromethane	ND	ND		nc	30
106-93-4	1,2-Dibromoethane	ND	ND		nc	30
95-50-1	1,2-Dichlorobenzene	ND	ND		nc	30
541-73-1	1,3-Dichlorobenzene	ND	ND		nc	30
106-46-7	1,4-Dichlorobenzene	ND	ND		nc	30
75-71-8	Dichlorodifluoromethane	ND	ND		nc	30
75-34-3	1,1-Dichloroethane	ND	ND		nc	30
107-06-2	1,2-Dichloroethane	ND	ND		nc	30
75-35-4	1,1-Dichloroethene	ND	ND		nc	30
156-59-2	cis-1,2-Dichloroethene	ND	ND		nc	30
156-60-5	trans-1,2-Dichloroethene	ND	ND		nc	30
78-87-5	1,2-Dichloropropane	ND	ND		nc	30
10061-01-5	cis-1,3-Dichloropropene	ND	ND		nc	30
10061-02-6	trans-1,3-Dichloropropene	ND	ND		nc	30
100-41-4	Ethylbenzene	ND	ND		nc	30
76-13-1	Freon 113	ND	ND		nc	30
591-78-6	2-Hexanone	ND	ND		nc	30
98-82-8	Isopropylbenzene	ND	ND		nc	30
79-20-9	Methyl Acetate	ND	ND		nc	30
108-87-2	Methylcyclohexane	ND	ND		nc	30
1634-04-4	Methyl Tert Butyl Ether	ND	ND		nc	30

* = Outside of Control Limits.

Duplicate Summary

Page 2 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65878-1DUP	1C156714.D	1	05/12/18	PS	n/a	n/a	V1C6913
JC65878-1	1C156707.D	1	05/12/18	PS	n/a	n/a	V1C6913

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65860-1

CAS No.	Compound	JC65878-1 ug/kg	DUP Q	Q	RPD	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	ND		nc	30
75-09-2	Methylene chloride	ND	ND		nc	36
100-42-5	Styrene	ND	ND		nc	30
79-34-5	1,1,2,2-Tetrachloroethane	ND	ND		nc	30
127-18-4	Tetrachloroethene	2.6	5.3		68* a	30
108-88-3	Toluene	ND	ND		nc	24
87-61-6	1,2,3-Trichlorobenzene	ND	ND		nc	30
120-82-1	1,2,4-Trichlorobenzene	ND	ND		nc	30
71-55-6	1,1,1-Trichloroethane	ND	ND		nc	30
79-00-5	1,1,2-Trichloroethane	ND	ND		nc	30
79-01-6	Trichloroethene	ND	ND		nc	30
75-69-4	Trichlorofluoromethane	ND	ND		nc	30
75-01-4	Vinyl chloride	ND	ND		nc	30
	m,p-Xylene	ND	ND		nc	32
95-47-6	o-Xylene	ND	ND		nc	30
1330-20-7	Xylene (total)	ND	ND		nc	33

CAS No.	Surrogate Recoveries	DUP	JC65878-1	Limits
1868-53-7	Dibromofluoromethane	89%	80%	75-127%
17060-07-0	1,2-Dichloroethane-D4	125%	124%	75-130%
2037-26-5	Toluene-D8	105%	106%	80-120%
460-00-4	4-Bromofluorobenzene	100%	106%	79-127%

(a) Outside control limits due to sample non-homogeneity.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V1C6871-BFB
Lab File ID: 1C155647.D
Instrument ID: GCMS1C
Injection Date: 03/23/18
Injection Time: 11:38

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	14.99 - 40.0% of mass 95	24754	18.6	Pass
75	30.0 - 60.0% of mass 95	64941	48.7	Pass
95	Base peak, 100% relative abundance	133344	100.0	Pass
96	5.0 - 9.0% of mass 95	9047	6.78	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	130786	98.1	Pass
175	5.0 - 9.0% of mass 174	9889	7.42 (7.56) ^a	Pass
176	95.0 - 101.0% of mass 174	126797	95.1 (96.9) ^a	Pass
177	5.0 - 9.0% of mass 176	8329	6.25 (6.57) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1C6871-IC6871	1C155648.D	03/23/18	12:35	00:57	Initial cal 0.2
V1C6871-IC6871	1C155649.D	03/23/18	13:02	01:24	Initial cal 0.5
V1C6871-IC6871	1C155650.D	03/23/18	13:29	01:51	Initial cal 1
V1C6871-IC6871	1C155651.D	03/23/18	13:56	02:18	Initial cal 2
V1C6871-IC6871	1C155652.D	03/23/18	14:22	02:44	Initial cal 4
V1C6871-IC6871	1C155653.D	03/23/18	14:49	03:11	Initial cal 8
V1C6871-IC6871	1C155654.D	03/23/18	15:16	03:38	Initial cal 20
V1C6871-ICC6871	1C155655.D	03/23/18	15:43	04:05	Initial cal 50
V1C6871-IC6871	1C155656.D	03/23/18	16:10	04:32	Initial cal 100
V1C6871-IC6871	1C155657.D	03/23/18	16:37	04:59	Initial cal 200
V1C6871-ICV6871	1C155660.D	03/23/18	17:58	06:20	Initial cal verification 50
V1C6871-ICV6871	1C155661.D	03/23/18	18:24	06:46	Initial cal verification 50

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V1C6913-BFB **Injection Date:** 05/12/18
Lab File ID: 1C156702.D **Injection Time:** 09:35
Instrument ID: GCMS1C

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	14.99 - 40.0% of mass 95	29524	21.2	Pass
75	30.0 - 60.0% of mass 95	73570	52.8	Pass
95	Base peak, 100% relative abundance	139219	100.0	Pass
96	5.0 - 9.0% of mass 95	8768	6.30	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	123936	89.0	Pass
175	5.0 - 9.0% of mass 174	10033	7.21 (8.10) ^a	Pass
176	95.0 - 101.0% of mass 174	119939	86.2 (96.8) ^a	Pass
177	5.0 - 9.0% of mass 176	8144	5.85 (6.79) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1C6913-CC6871	1C156702.D	05/12/18	09:35	00:00	Continuing cal 50
V1C6913-BS	1C156704.D	05/12/18	10:45	01:10	Blank Spike
V1C6913-MB	1C156706.D	05/12/18	11:48	02:13	Method Blank
ZZZZZZ	1C156706A.D	05/12/18	11:48	02:13	(unrelated sample)
JC65878-1	1C156707.D	05/12/18	12:15	02:40	(used for QC only; not part of job JC65860)
JC65878-2	1C156708.D	05/12/18	12:41	03:06	(used for QC only; not part of job JC65860)
ZZZZZZ	1C156709.D	05/12/18	13:08	03:33	(unrelated sample)
ZZZZZZ	1C156710.D	05/12/18	13:34	03:59	(unrelated sample)
ZZZZZZ	1C156711.D	05/12/18	14:01	04:26	(unrelated sample)
ZZZZZZ	1C156712.D	05/12/18	14:28	04:53	(unrelated sample)
JC65878-1DUP	1C156714.D	05/12/18	15:21	05:46	Duplicate
JC65878-2MS	1C156716.D	05/12/18	16:14	06:39	Matrix Spike
ZZZZZZ	1C156718.D	05/12/18	17:07	07:32	(unrelated sample)
ZZZZZZ	1C156719.D	05/12/18	17:34	07:59	(unrelated sample)
ZZZZZZ	1C156720.D	05/12/18	18:00	08:25	(unrelated sample)
JC65860-1	1C156721.D	05/12/18	18:27	08:52	WC-2
ZZZZZZ	1C156723.D	05/12/18	19:20	09:45	(unrelated sample)
ZZZZZZ	1C156724.D	05/12/18	19:47	10:12	(unrelated sample)
ZZZZZZ	1C156725.D	05/12/18	20:13	10:38	(unrelated sample)
ZZZZZZ	1C156726.D	05/12/18	20:40	11:05	(unrelated sample)
ZZZZZZ	1C156727.D	05/12/18	21:07	11:32	(unrelated sample)

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-BFB	Injection Date: 04/03/18
Lab File ID: A240801.D	Injection Time: 17:23
Instrument ID: GCMSA	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	14.95 - 40.0% of mass 95	10680	17.4	Pass
75	30.0 - 60.0% of mass 95	27821	45.2	Pass
95	Base peak, 100% relative abundance	61501	100.0	Pass
96	5.0 - 9.0% of mass 95	4068	6.61	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	51685	84.0	Pass
175	5.0 - 9.0% of mass 174	4265	6.93 (8.25) ^a	Pass
176	95.0 - 101.0% of mass 174	50666	82.4 (98.0) ^a	Pass
177	5.0 - 9.0% of mass 176	3509	5.71 (6.93) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VA9165-IC9165	A240802.D	04/03/18	17:52	00:29	Initial cal 0.2
VA9165-IC9165	A240803.D	04/03/18	18:21	00:58	Initial cal 0.5
VA9165-IC9165	A240804.D	04/03/18	18:50	01:27	Initial cal 1
VA9165-IC9165	A240805.D	04/03/18	19:19	01:56	Initial cal 2
VA9165-IC9165	A240806.D	04/03/18	19:48	02:25	Initial cal 5
VA9165-IC9165	A240807.D	04/03/18	20:17	02:54	Initial cal 10
VA9165-IC9165	A240808.D	04/03/18	20:46	03:23	Initial cal 20
VA9165-ICC9165	A240809.D	04/03/18	21:15	03:52	Initial cal 50
VA9165-IC9165	A240810.D	04/03/18	21:44	04:21	Initial cal 100
VA9165-IC9165	A240811.D	04/03/18	22:13	04:50	Initial cal 200
VA9165-ICV9165	A240814.D	04/03/18	23:40	06:17	Initial cal verification 50
VA9165-ICV9165	A240815.D	04/04/18	00:09	06:46	Initial cal verification 50

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9208-BFB	Injection Date: 05/14/18
Lab File ID: A241577.D	Injection Time: 06:52
Instrument ID: GCMSA	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	14.95 - 40.0% of mass 95	10045	15.2	Pass
75	30.0 - 60.0% of mass 95	28485	43.1	Pass
95	Base peak, 100% relative abundance	66067	100.0	Pass
96	5.0 - 9.0% of mass 95	4234	6.41	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	61552	93.2	Pass
175	5.0 - 9.0% of mass 174	4762	7.21 (7.74) ^a	Pass
176	95.0 - 101.0% of mass 174	59981	90.8 (97.4) ^a	Pass
177	5.0 - 9.0% of mass 176	3752	5.68 (6.26) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VA9208-CC9165	A241577.D	05/14/18	06:52	00:00	Continuing cal 20
VA9208-BS	A241578.D	05/14/18	07:46	00:54	Blank Spike
VA9208-MB	A241580.D	05/14/18	08:47	01:55	Method Blank
GP12870-LB7	A241581.D	05/14/18	09:50	02:58	Leachate Blank
GP12985-LB8	A241582.D	05/14/18	10:21	03:29	Leachate Blank
GP12924-LB4	A241583.D	05/14/18	10:52	04:00	Leachate Blank
ZZZZZZ	A241584.D	05/14/18	11:22	04:30	(unrelated sample)
ZZZZZZ	A241585.D	05/14/18	11:51	04:59	(unrelated sample)
JC65741-2	A241586.D	05/14/18	12:21	05:29	(used for QC only; not part of job JC65860)
ZZZZZZ	A241587.D	05/14/18	12:50	05:58	(unrelated sample)
ZZZZZZ	A241588.D	05/14/18	13:20	06:28	(unrelated sample)
ZZZZZZ	A241589.D	05/14/18	13:49	06:57	(unrelated sample)
JC65741-2MS	A241591.D	05/14/18	14:48	07:56	Matrix Spike
GP12985-LS4	A241591A.D	05/14/18	14:48	07:56	Leachate Spike
JC65741-2MSD	A241592.D	05/14/18	15:18	08:26	Matrix Spike Duplicate
ZZZZZZ	A241594.D	05/14/18	16:17	09:25	(unrelated sample)
ZZZZZZ	A241595.D	05/14/18	16:46	09:54	(unrelated sample)
ZZZZZZ	A241596.D	05/14/18	17:15	10:23	(unrelated sample)
ZZZZZZ	A241597.D	05/14/18	17:45	10:53	(unrelated sample)
JC65860-1A	A241598.D	05/14/18	18:15	11:23	WC-2

Internal Standard Area Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: V1C6913-CC6871	Injection Date: 05/12/18
Lab File ID: 1C156702.D	Injection Time: 09:35
Instrument ID: GCMS1C	Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	148324	7.39	421572	9.62	630905	10.54	536027	13.68	282935	15.99
Upper Limit ^a	296648	7.89	843144	10.12	1261810	11.04	1072054	14.18	565870	16.49
Lower Limit ^b	74162	6.89	210786	9.12	315453	10.04	268014	13.18	141468	15.49

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V1C6913-BS	168782	7.39	447634	9.62	672686	10.54	574158	13.68	287567	15.99
V1C6913-MB	132554	7.38	455294	9.62	648901	10.54	546735	13.68	276523	15.99
ZZZZZZ	132554	7.38	455294	9.62	648901	10.54	546735	13.68	276523	15.99
JC65878-1	146040	7.38	402411	9.62	591189	10.54	504232	13.68	251224	15.99
JC65878-2	138657	7.38	396026	9.62	586646	10.54	491821	13.68	258964	15.99
ZZZZZZ	145788	7.38	392943	9.62	582583	10.54	494496	13.68	258319	15.99
ZZZZZZ	135659	7.39	380131	9.62	557678	10.54	471665	13.68	247136	15.99
ZZZZZZ	135418	7.38	375913	9.62	552441	10.54	473450	13.68	244500	15.99
ZZZZZZ	124418	7.38	358064	9.62	525842	10.54	434802	13.68	234870	15.99
JC65878-1DUP	123640	7.38	342267	9.62	514555	10.54	432880	13.68	222444	15.99
JC65878-2MS	136774	7.38	466994	9.62	722269	10.54	579847	13.68	292923	15.99
ZZZZZZ	179760	7.38	489667	9.62	736980	10.54	602091	13.68	305273	15.99
ZZZZZZ	167464	7.38	462573	9.62	683112	10.54	565917	13.68	287388	15.99
ZZZZZZ	160179	7.39	400303	9.62	577365	10.54	428472	13.68	162396	15.99
JC65860-1	136480	7.39	407869	9.62	595417	10.54	490421	13.68	242230	15.99
ZZZZZZ	129316	7.38	353003	9.62	527375	10.54	432564	13.68	202168	15.99
ZZZZZZ	127345	7.38	357513	9.62	520958	10.54	420416	13.68	197814	15.99
ZZZZZZ	115156	7.38	336413	9.62	513607	10.54	438870	13.68	184221	15.99
ZZZZZZ	176455	7.39	426172	9.62	701057	10.54	529037	13.68	131235 ^c	15.99
ZZZZZZ	184628	7.38	522424	9.62	816503	10.54	581839	13.68	156296	15.99

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

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

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

(c) Outside control limits due to matrix interference.

Internal Standard Area Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: VA9208-CC9165	Injection Date: 05/14/18
Lab File ID: A241577.D	Injection Time: 06:52
Instrument ID: GCMSA	Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	341719	7.81	231825	10.17	332171	11.11	281873	14.51	155513	17.11
Upper Limit ^a	683438	8.31	463650	10.67	664342	11.61	563746	15.01	311026	17.61
Lower Limit ^b	170860	7.31	115913	9.67	166086	10.61	140937	14.01	77757	16.61

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VA9208-BS	350926	7.81	237216	10.18	353745	11.11	296700	14.51	160922	17.12
VA9208-MB	330455	7.81	221760	10.18	319894	11.11	271421	14.51	161732	17.11
GP12870-LB7	356417	7.81	231860	10.17	338233	11.11	278337	14.51	161491	17.11
GP12985-LB8	334957	7.81	221154	10.18	321536	11.11	267102	14.51	157168	17.12
GP12924-LB4	335365	7.81	219213	10.17	319242	11.11	269960	14.51	158575	17.11
ZZZZZZ	334542	7.81	213101	10.17	314108	11.11	261956	14.51	162009	17.12
ZZZZZZ	331590	7.80	206783	10.17	300556	11.11	260914	14.51	156517	17.11
JC65741-2	336714	7.80	207265	10.17	302761	11.11	260344	14.51	158179	17.11
ZZZZZZ	334274	7.81	204039	10.17	300834	11.11	261991	14.51	159434	17.11
ZZZZZZ	332530	7.81	205661	10.17	302806	11.11	257955	14.51	155207	17.11
ZZZZZZ	321071	7.80	196657	10.17	291962	11.11	247726	14.51	151499	17.11
JC65741-2MS	310306	7.81	212560	10.18	336280	11.11	293056	14.51	158509	17.11
GP12985-LS4	310306	7.81	212560	10.18	336280	11.11	293056	14.51	158509	17.11
JC65741-2MSD	320564	7.81	214364	10.17	332024	11.11	294314	14.51	155932	17.11
ZZZZZZ	322467	7.81	214859	10.17	312154	11.11	260741	14.51	155282	17.11
ZZZZZZ	314538	7.80	204470	10.17	302263	11.11	252003	14.51	154619	17.11
ZZZZZZ	305648	7.81	207315	10.17	304788	11.11	255976	14.51	154329	17.11
ZZZZZZ	316193	7.80	206700	10.17	296262	11.11	252508	14.51	152280	17.11
JC65860-1A	313284	7.80	214565	10.17	307605	11.11	253285	14.51	154351	17.11

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

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

Surrogate Recovery Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8260C	Matrix: LEACHATE
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC65860-1A	A241598.D	103	99	97	94
GP12985-LB8	A241582.D	103	98	96	96
GP12985-LS4	A241591A.D	107	96	97	100
JC65741-2MS	A241591.D	107	96	97	100
JC65741-2MSD	A241592.D	106	97	96	100
VA9208-BS	A241578.D	99	95	95	99
VA9208-MB	A241580.D	100	98	94	94

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	76-120%
S2 = 1,2-Dichloroethane-D4	64-135%
S3 = Toluene-D8	76-117%
S4 = 4-Bromofluorobenzene	72-122%

6.10.1
6

Surrogate Recovery Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8260C	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC65860-1	1C156721.D	99	122	108	105
JC65878-1DUP	1C156714.D	89	125	105	100
JC65878-2MS	1C156716.D	100	109	108	107
V1C6913-BS	1C156704.D	98	115	103	104
V1C6913-MB	1C156706.D	95	114	106	103

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	75-127%
S2 = 1,2-Dichloroethane-D4	75-130%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	79-127%

6.10.2
6

Initial Calibration Summary

Page 1 of 5

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V1C6871-ICC6871
Lab FileID: 1C155655.D

Response Factor Report GCMS1C

Method : C:\MSDCHEM\1\METHODS\M1CS6871.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Tue Mar 27 15:36:36 2018
Response via : Initial Calibration

Calibration Files

1 =1C155650.D 0.5 =1C155649.D 100 =1C155656.D 50 =1C155655.D
20 =1C155654.D 200 =1C155657.D 4 =1C155652.D 2 =1C155651.D
8 =1C155653.D 0.2 =1C155648.D = =

Compound

	1	0.5	100	50	20	200	4	2	8	0.2	Avg	%RSD
1) tert butyl alcohol-d9 -----ISTD-----												
2) tertiary butyl alcohol												
	1.276	1.301	1.247	1.275	1.265	1.282	1.341			1.284		2.34
3) Ethanol												
0.101	0.117	0.128	0.118	0.123	0.133	0.128	0.126			0.122		8.11
4) 1,4-dioxane												
0.121	0.134	0.144	0.137	0.135	0.145	0.136	0.144			0.137		5.68
5) I pentafluorobenzene -----ISTD-----												
6) chlorodifluoromethane												
0.579	0.605	0.591	0.620	0.600	0.563	0.628	0.614	0.606		0.601		3.38
7) dichlorodifluoromethane												
0.740	0.770	0.766	0.796	0.771	0.725	0.794	0.786	0.794		0.771		3.24
8) Freon 114												
										0.000#		-1.00
9) freon 142b												
0.705	0.736	0.735	0.789	0.752	0.713	0.777	0.755	0.764		0.747		3.76
10) chloromethane												
0.992	0.824	0.865	0.846	0.817	0.960	0.943	0.916			0.895		7.40
11) vinyl chloride												
0.852	0.849	0.854	0.857	0.826	0.836	0.860	0.824	0.870		0.847		1.83
12) 1,3-Butadiene												
0.570	0.664	0.671	0.699	0.654	0.664	0.710	0.650	0.671		0.661		5.96
13) bromomethane												
0.545	0.439	0.440	0.446	0.441	0.504	0.497	0.466			0.472		8.30
14) chloroethane												
0.296	0.329	0.328	0.343	0.329	0.328	0.359	0.326	0.334		0.330		5.07
15) trichlorofluoromethane												
0.834	0.811	0.816	0.843	0.818	0.792	0.860	0.834	0.851		0.829		2.58
16) vinyl bromide												
0.547	0.489	0.573	0.582	0.569	0.574	0.596	0.540	0.580		0.561		5.68
17) ethyl ether												
0.209	0.224	0.229	0.215	0.229	0.218	0.220	0.208			0.219		3.71
18) acrolein												
0.072	0.073	0.068	0.075	0.070		0.071				0.072		3.41
19) freon 113												
0.342	0.352	0.349	0.342	0.357	0.334	0.333				0.344		2.61
20) 1,1-dichloroethene												
0.621	0.432	0.451	0.437	0.434	0.448	0.461	0.456			0.468		13.45
21) acetone												
0.038	0.032	0.033	0.032	0.032	0.034	0.035	0.034			0.034		6.11
22) acetonitrile												
0.050	0.043	0.045	0.043	0.045	0.046	0.044	0.046			0.045		5.25
23) iodomethane---The compound does not meet initial criteria.												

Initial Calibration Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V1C6871-ICC6871
Lab FileID: 1C155655.D

	0.279	0.524	0.469	0.350	0.512	0.247	0.230	0.268	0.360	34.30
	----- Linear regression ----- Coefficient = 0.9909									
	Response Ratio = -0.01172 + 0.50332 *A									
24)	carbon disulfide									
	1.890	1.538	1.574	1.531	1.561	1.735	1.674	1.566	1.634	7.69
25)	methylene chloride									
	0.490	0.569	0.480	0.491	0.477	0.495	0.502	0.470	0.493	6.16
26)	methyl acetate									
	0.205	0.245	0.254	0.237	0.255	0.250	0.223	0.239	0.238	7.19
27)	methyl tert butyl ether									
	0.998	0.933	1.149	1.163	1.088	1.173	1.104	0.950	1.045	8.50
28)	trans-1,2-dichloroethene									
	0.517	0.584	0.478	0.492	0.482	0.492	0.541	0.490	0.511	9.06
29)	di-isopropyl ether									
	1.142	1.056	1.348	1.376	1.264	1.405	1.313	1.138	1.236	9.60
30)	2-butanone									
	0.045	0.046	0.043	0.045	0.037	0.037	0.042		0.042	9.11
31)	1,1-dichloroethane									
	0.845	0.854	0.805	0.834	0.830	0.827	0.885	0.810	0.837	4.95
32)	chloroprene									
	0.590	0.572	0.697	0.722	0.690	0.698	0.689	0.602	0.682	8.45
33)	acrylonitrile									
	0.126	0.130	0.123	0.134	0.122	0.128	0.125		0.127	3.23
34)	hexane									
	0.299	0.325	0.333	0.325	0.335	0.306	0.296	0.302	0.315	5.09
35)	vinyl acetate									
	0.068	0.072	0.066	0.071	0.057		0.062		0.066	8.56
36)	ethyl tert-butyl ether									
	1.136	1.110	1.321	1.361	1.231	1.370	1.223	1.129	1.193	8.13
37)	ethyl acetate									
	0.051	0.053	0.047	0.052	0.050		0.050		0.051	4.72
38)	2,2-dichloropropane									
	0.755	0.761	0.717	0.749	0.733	0.724	0.784	0.716	0.745	3.06
39)	cis-1,2-dichloroethene									
	0.624	0.672	0.531	0.547	0.540	0.542	0.587	0.505	0.547	8.83
40)	methyl acrylate									
	0.059	0.060	0.051	0.061	0.045		0.045		0.053	14.23
41)	propionitrile									
	0.052	0.057	0.059	0.056	0.060	0.059	0.054	0.058	0.057	4.64
42)	bromochloromethane									
	0.253	0.211	0.229	0.240	0.235	0.231	0.236	0.243	0.241	4.81
43)	tetrahydrofuran									
	0.051	0.053	0.051	0.053	0.063		0.052		0.054	8.30
44)	chloroform									
	0.552	0.545	0.550	0.574	0.548	0.556	0.596	0.579	0.561	3.14
45)	t-butyl formate									
	0.275	0.329	0.333	0.306	0.344	0.282	0.255	0.296	0.303	10.28
46)	dibromofluoromethane (s)									
	0.441	0.447	0.466	0.468	0.461	0.474	0.462	0.453	0.459	2.96
47)	methacrylonitrile									
	0.159	0.163	0.147	0.167	0.141	0.145	0.144		0.152	6.92
48)	1,1,1-trichloroethane									
	0.727	0.764	0.765	0.803	0.777	0.767	0.817	0.760	0.795	3.99
49)	cyclohexane									
	0.629	0.612	0.675	0.702	0.687	0.694	0.709	0.632	0.683	5.31
50)	1,1-dichloropropene									
	0.605	0.581	0.654	0.677	0.650	0.674	0.639	0.590	0.662	5.66
51)	iso-butyl alcohol									
	0.016	0.015	0.014	0.017	0.013		0.014		0.015	9.48

Initial Calibration Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V1C6871-ICC6871
Lab FileID: 1C155655.D

52)	carbon tetrachloride	0.627	0.641	0.671	0.702	0.690	0.678	0.688	0.636	0.701	0.557	0.659	6.81
53)	tert amyl alcohol	0.014	0.015	0.013	0.015	0.013			0.014			0.014	6.29
54)	I 1,4-difluorobenzene	-----ISTD-----											
55)	1,2-dichloroethane-d4 (s)	0.312	0.312	0.295	0.304	0.302	0.293	0.313	0.315	0.309	0.282	0.304	3.59
56)	n-butyl alcohol	0.007	0.007	0.007	0.008	0.006			0.006			0.007#	10.68
57)	2,2,4-trimethylpentane	1.087	1.123	1.109	1.135	1.120	1.123	1.149	1.137	1.119		1.122	1.59
58)	benzene	1.251	1.232	1.221	1.248	1.221	1.221	1.283	1.224	1.238	1.342	1.248	3.06
59)	tert-amyl methyl ether	0.181		0.183	0.185	0.175	0.184	0.184	0.174	0.180		0.181	2.26
60)	heptane	0.234	0.234	0.253	0.261	0.259	0.256	0.257	0.263	0.259		0.253	4.42
61)	isopropyl acetate	0.049	0.049	0.047	0.048	0.047			0.045			0.048	3.00
62)	1,2-dichloroethane	0.458		0.364	0.376	0.372	0.354	0.425	0.445	0.398		0.399	9.86
63)	trichloroethene	0.327	0.303	0.332	0.343	0.340	0.326	0.336	0.314	0.330	0.399	0.335	7.65
64)	ethyl acrylate	0.258		0.282	0.292	0.271	0.288	0.268	0.251	0.266		0.272	5.34
65)	2-nitropropane	0.074		0.089	0.092	0.089	0.088	0.096	0.077	0.087		0.087	8.63
66)	2-chloroethyl vinyl ether	0.130	0.135	0.142	0.140	0.134	0.147	0.139	0.126	0.134	0.103	0.133	9.11
67)	methyl methacrylate	0.060	0.061	0.059	0.061	0.052	0.062	0.058				0.059	5.49
68)	1,2-dichloropropane	0.284	0.300	0.297	0.305	0.299	0.301	0.312	0.297	0.300	0.219	0.291	9.02
69)	dibromomethane	0.184	0.161	0.176	0.185	0.180	0.175	0.186	0.183	0.190	0.160	0.178	5.79
70)	methylcyclohexane	0.514	0.492	0.538	0.560	0.544	0.541	0.544	0.555	0.546		0.537	3.99
71)	bromodichloromethane	0.443	0.425	0.434	0.447	0.431	0.429	0.441	0.427	0.448	0.369	0.429	5.30
72)	epichlorohydrin	0.024	0.025	0.023	0.024	0.024	0.021	0.023				0.024	4.97
73)	cis-1,3-dichloropropene	0.450	0.431	0.491	0.503	0.482	0.500	0.487	0.449	0.483	0.375	0.465	8.48
74)	4-methyl-2-pentanone	0.072	0.067	0.080	0.083	0.076	0.083	0.076	0.074	0.079	0.067	0.076	7.51
75)	3-methyl-1-butanol	0.008		0.011	0.011	0.010	0.011	0.010	0.008	0.010		0.010#	13.11
76)	I chlorobenzene-d5	-----ISTD-----											
77)	toluene-d8 (s)	1.250	1.247	1.260	1.277	1.260	1.249	1.258	1.256	1.275	1.267	1.260	0.83
78)	toluene	0.826	0.839	0.856	0.879	0.853	0.866	0.902	0.847	0.856	1.036	0.876	6.87
79)	trans-1,3-dichloropropene	0.441	0.450	0.498	0.515	0.499	0.502	0.501	0.456	0.495	0.420	0.478	6.86
80)	ethyl methacrylate	0.351		0.349	0.361	0.342	0.349	0.365	0.341	0.342		0.350	2.57
81)	1,1,2-trichloroethane	0.218	0.213	0.251	0.263	0.246	0.253	0.247	0.223	0.237		0.239	7.24

Initial Calibration Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V1C6871-ICC6871
Lab FileID: 1C155655.D

82)	tetrachloroethene	0.321	0.290	0.323	0.332	0.327	0.320	0.333	0.313	0.331	0.337	0.323	4.20
83)	1,3-dichloropropane	0.373	0.383	0.436	0.454	0.430	0.446	0.454	0.425	0.428	0.395	0.422	6.85
84)	2-hexanone	0.090	0.089	0.095	0.100	0.094	0.093	0.096	0.097	0.095		0.094	3.77
85)	butyl acetate	0.137		0.154	0.159	0.151	0.157	0.174	0.163	0.156		0.156	6.69
86)	3,3-dimethyl-1-butanol											0.000#	-1.00
87)	dibromochloromethane	0.335	0.322	0.375	0.392	0.362	0.379	0.369	0.334	0.354	0.336	0.356	6.51
88)	1,2-dibromoethane	0.264	0.268	0.320	0.334	0.304	0.321	0.319	0.268	0.304		0.300	8.90
89)	n-butyl ether	1.312	1.311	1.350	1.375	1.322	1.376	1.386	1.321	1.327	1.559	1.364	5.43
90)	chlorobenzene	0.962	0.864	0.910	0.941	0.897	0.929	0.952	0.901	0.899	1.142	0.940	8.18
91)	1,1,1,2-tetrachloroethane	0.307	0.306	0.352	0.358	0.334	0.361	0.356	0.332	0.333	0.295	0.333	7.16
92)	ethylbenzene	1.636	1.619	1.606	1.659	1.618	1.616	1.684	1.661	1.651	1.911	1.666	5.37
93)	m,p-xylene	0.623	0.594	0.611	0.628	0.617	0.615	0.655	0.629	0.621	0.658	0.625	3.07
94)	o-xylene	0.570	0.582	0.596	0.607	0.597	0.608	0.628	0.606	0.602	0.559	0.595	3.38
95)	styrene	0.967	0.936	1.007	1.031	1.015	1.024	1.055	0.989	0.995	1.039	1.006	3.54
96)	bromoform	0.215		0.250	0.254	0.233	0.252	0.237	0.217	0.234		0.237	6.44
97)	butyl acrylate	0.466	0.447	0.521	0.521	0.499	0.524	0.507	0.496	0.498		0.498	5.24
98)	isopropylbenzene	1.556	1.592	1.588	1.642	1.625	1.584	1.729	1.600	1.620	1.846	1.638	5.29
99)	cis-1,4-dichloro-2-butene	0.131	0.135	0.126	0.132	0.119	0.115	0.117				0.125	6.36
100)	I 1,4-dichlorobenzene-d -----ISTD-----												
101)	4-bromofluorobenzene (s)	0.828	0.833	0.820	0.838	0.824	0.836	0.832	0.850	0.845	0.824	0.833	1.12
102)	bromobenzene	0.808	0.861	0.803	0.838	0.796	0.835	0.878	0.849	0.835	1.040	0.854	8.20
103)	1,1,1,2-tetrachloroethane	0.600	0.559	0.672	0.690	0.638	0.713	0.624	0.614	0.649	0.548	0.631	8.43
104)	trans-1,4-dichloro-2-butene---The compound does not meet initial criteria.	0.158	0.169	0.160	0.165	0.155			0.166			0.162	3.26
105)	1,2,3-trichloropropane	0.143		0.163	0.169	0.157	0.168	0.167	0.146	0.160		0.159	6.21
106)	n-propylbenzene	3.742	3.578	3.746	3.890	3.767	3.880	3.902	3.671	3.854	4.679	3.871	7.81
107)	4-Ethyltoluene											0.000#	-1.00
108)	2-chlorotoluene	0.718	0.760	0.746	0.770	0.735	0.765	0.787	0.787	0.768	0.857	0.769	4.88
109)	4-chlorotoluene	2.174	2.022	2.081	2.168	2.067	2.157	2.239	2.190	2.156	2.617	2.187	7.51
110)	1,3,5-trimethylbenzene	2.578	2.597	2.430	2.481	2.412	2.544	2.638	2.515	2.505	2.835	2.554	4.77
111)	tert-butylbenzene	0.470	0.425	0.470	0.488	0.463	0.479	0.478	0.523	0.485	0.539	0.482	6.53

Initial Calibration Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V1C6871-ICC6871
Lab FileID: 1C155655.D

112)	1,2,4-trimethylbenzene	2.607 2.455 2.386 2.489 2.414 2.486 2.617 2.556 2.530	2.504	3.21
113)	sec-butylbenzene	3.171 3.203 3.383 3.530 3.377 3.520 3.512 3.318 3.454 4.283	3.475	8.94
114)	1,3-dichlorobenzene	1.575 1.457 1.498 1.561 1.500 1.532 1.591 1.531 1.568	1.535	2.85
115)	p-isopropyltoluene	2.788 2.874 2.717 2.836 2.723 2.827 2.948 2.789 2.837 3.574	2.891	8.62
116)	1,4-dichlorobenzene	1.531 1.659 1.484 1.525 1.449 1.516 1.579 1.501 1.502	1.527	3.97
117)	benzyl chloride	1.291 1.383 1.323 1.382 1.310 1.340 1.427 1.332 1.365 1.447	1.360	3.73
118)	1,2-dichlorobenzene	1.398 1.420 1.419 1.485 1.396 1.456 1.502 1.389 1.432 1.763	1.466	7.57
119)	1,4-Diethylbenzene		0.000#	-1.00
120)	n-butylbenzene	1.426 1.517 1.452 1.502 1.465 1.513 1.504 1.518 1.490	1.488	2.20
121)	1,2-dibromo-3-chloropropane	0.153 0.122 0.130 0.126 0.123 0.136 0.131 0.140	0.133	7.75
122)	1,3,5-trichlorobenzene	1.359 1.381 1.194 1.295 1.230 1.221 1.351 1.272 1.280	1.287	5.12
123)	1,2,4,5-tetramethylbenzene		0.000#	-1.00
124)	2-ethylhexyl acrylate	0.762 0.776 0.722 0.793 0.884 0.755	0.782	7.05
125)	1,2,4-trichlorobenzene	1.115 1.215 1.000 1.076 1.052 1.029 1.151 1.095 1.083	1.090	5.93
126)	hexachlorobutadiene	0.707 0.636 0.650 0.700 0.677 0.642 0.738 0.683 0.706	0.682	5.04
127)	naphthalene	2.222 2.458 2.043 2.171 2.034 2.055 2.234 2.150 2.121	2.165	6.12
128)	1,2,3-trichlorobenzene	1.071 1.099 0.968 1.035 0.971 0.983 1.100 1.001 1.024	1.028	5.08
129)	hexachloroethane	0.503 0.547 0.563 0.578 0.549 0.584 0.557 0.510 0.554 0.557	0.550	4.68
130)	2-methylnaphthalene	1.705 1.552 1.651 1.545 1.533 1.682 1.733 1.602	1.625	4.80

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

M1CS6871.M Tue Mar 27 15:45:32 2018

Initial Calibration Verification

Page 1 of 3

Job Number: JC65860
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V1C6871-ICV6871
 Lab FileID: 1C155660.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V1C6871\1C155660.D Vial: 14
 Acq On : 23 Mar 2018 5:58 pm Operator: PrashanS
 Sample : ICV6871-50 Inst : GCMS1C
 Misc : MS24860,V1C6871,5.0,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1CS6871.M (RTE Integrator)
 Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
 Last Update : Tue Mar 27 15:36:36 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	tert butyl alcohol-d9	1.000	1.000	0.0	116	-0.01	7.39
2 M	tertiary butyl alcohol	1.284	1.346	-4.8	120	-0.01	7.50
3	Ethanol	0.122	0.136	-11.5	123	-0.02	6.14
4 M	1,4-dioxane	0.137	0.151	-10.2	122	0.00	11.27
5 I	pentafluorobenzene	1.000	1.000	0.0	113	0.00	9.62
6 M	chlorodifluoromethane	0.601	0.703	-17.0	129	0.00	3.90
7 M	dichlorodifluoromethane	0.771	0.827	-7.3	118	0.00	3.86
8	Freon 114			-----NA-----			
9	freon 142b			-----NA-----			
10 M	chloromethane	0.895	0.965	-7.8	127	0.00	4.29
11 M	vinyl chloride	0.847	0.849	-0.2	112	0.00	4.52
12	1,3-Butadiene			-----NA-----			
13 M	bromomethane	0.472	0.484	-2.5	125	0.03	5.20
14 M	chloroethane	0.330	0.361	-9.4	120	0.02	5.39
15 M	trichlorofluoromethane	0.829	0.802	3.3	108	0.01	5.83
16	vinyl bromide	0.561	0.572	-2.0	111	0.00	5.74
17 M	ethyl ether	0.219	0.257	-17.4	128	0.00	6.27
18 M	acrolein	0.072	0.084	-16.7	131	0.01	6.56
19	freon 113	0.344	0.443	-28.8	143	0.00	6.63
20 M	1,1-dichloroethene	0.468	0.482	-3.0	121	0.00	6.70
21 M	acetone	0.034	0.038	-11.8	129	0.00	6.77
22 M	acetonitrile	0.045	0.123	-173.3#	308#	0.00	7.24
	----- True		Calc.	% Drift	-----		
23 M	iodomethane	50.000	45.095	9.8	107	0.00	6.99
	----- AvgRF		CCRF	% Dev	-----		
24 M	carbon disulfide	1.634	1.876	-14.8	135	0.00	7.10
25 M	methylene chloride	0.493	0.541	-9.7	125	0.00	7.44
26 M	methyl acetate	0.238	0.269	-13.0	120	0.00	7.23
27 M	methyl tert butyl ether	1.067	1.248	-17.0	122	0.00	7.73
28 M	trans-1,2-dichloroethene	0.520	0.534	-2.7	123	0.00	7.80
29 M	di-isopropyl ether	1.253	1.470	-17.3	121	0.00	8.33
30 M	2-butanone	0.042	0.051	-21.4	126	0.00	9.09
31 M	1,1-dichloroethane	0.825	0.897	-8.7	122	0.00	8.38
32 M	chloroprene	0.660	0.801	-21.4	126	0.00	8.48
33 M	acrylonitrile	0.127	0.137	-7.9	119	0.00	7.79
34	hexane	0.315	0.324	-2.9	110	0.00	8.08
35 M	vinyl acetate	0.066	0.081	-22.7	128	0.00	8.36
36 M	ethyl tert-butyl ether	1.231	1.405	-14.1	117	0.00	8.79
37 M	ethyl acetate	0.051	0.054	-5.9	115	0.00	9.09

Initial Calibration Verification

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V1C6871-ICV6871
Lab FileID: 1C155660.D

38	M	2,2-dichloropropane	0.743	0.796	-7.1	120	0.00	9.11
39	M	cis-1,2-dichloroethene	0.569	0.584	-2.6	121	0.00	9.12
40		methyl acrylate	0.053	0.061	-15.1	116	0.00	9.18
41	M	propionitrile	0.057	0.061	-7.0	118	0.00	9.22
42	M	bromochloromethane	0.236	0.258	-9.3	122	0.00	9.44
43	M	tetrahydrofuran	0.054	0.056	-3.7	120	0.00	9.47
44	M	chloroform	0.560	0.596	-6.4	118	0.00	9.49
45	M	t-butyl formate	0.303	0.253	16.5	86	0.00	9.50
46	S	dibromofluoromethane (s)	0.456	0.477	-4.6	116	0.00	9.69
47	M	methacrylonitrile	0.152	0.165	-8.6	115	0.00	9.38
48	M	1,1,1-trichloroethane	0.770	0.815	-5.8	115	0.00	9.72
49		cyclohexane	0.669	0.716	-7.0	116	0.00	9.78
50		1,1-dichloropropene	0.637	0.737	-15.7	123	0.00	9.91
51		iso-butyl alcohol	0.015	0.016	-6.7	121	0.00	9.93
52		carbon tetrachloride	0.659	0.722	-9.6	116	0.00	9.92
53		tert amyl alcohol	0.014	0.016	-14.3	120	0.00	10.04
54	I	1,4-difluorobenzene	1.000	1.000	0.0	118	0.00	10.54
55	S	1,2-dichloroethane-d4 (s)	0.304	0.283	6.9	110	0.00	10.11
56	M	n-butyl alcohol	0.007	0.007#	0.0	118	0.00	10.68
57		2,2,4-trimethylpentane	1.122	1.203	-7.2	125	0.00	10.13
58	M	benzene	1.248	1.304	-4.5	124	0.00	10.17
59	M	tert-amyl methyl ether	0.181	0.188	-3.9	120	0.00	10.18
60	M	heptane	0.253	0.311	-22.9	141	0.00	10.30
61	M	isopropyl acetate	0.048	0.052	-8.3	125	0.00	10.08
62	M	1,2-dichloroethane	0.399	0.369	7.5	116	0.00	10.20
63	M	trichloroethene	0.335	0.354	-5.7	122	0.00	10.88
64		ethyl acrylate	0.272	0.304	-11.8	123	0.00	10.88
65	M	2-nitropropane	0.087	0.088	-1.1	114	0.00	11.67
66	M	2-chloroethyl vinyl ether	0.133	0.150	-12.8	126	0.00	11.67
67	M	methyl methacrylate	0.059	0.063	-6.8	123	0.00	11.15
68	M	1,2-dichloropropane	0.291	0.313	-7.6	121	0.00	11.16
69	M	dibromomethane	0.178	0.192	-7.9	123	0.00	11.32
70	M	methylcyclohexane	0.537	0.570	-6.1	120	0.00	11.08
71	M	bromodichloromethane	0.429	0.442	-3.0	117	0.00	11.45
72		epichlorohydrin	0.024	0.025	-4.2	118	0.00	11.81
73	M	cis-1,3-dichloropropene	0.465	0.530	-14.0	125	0.00	11.89
74	M	4-methyl-2-pentanone	0.076	0.088	-15.8	125	0.00	11.98
75	M	3-methyl-1-butanol	0.010	0.011	-10.0	120	0.00	12.00
76	I	chlorobenzene-d5	1.000	1.000	0.0	117	0.00	13.68
77	S	toluene-d8 (s)	1.260	1.262	-0.2	115	0.00	12.17
78		toluene	0.876	0.936	-6.8	124	0.00	12.24
79		trans-1,3-dichloropropene	0.478	0.506	-5.9	115	0.00	12.45
80		ethyl methacrylate	0.350	0.361	-3.1	117	0.00	12.42
81		1,1,2-trichloroethane	0.239	0.270	-13.0	120	0.00	12.67
82	M	tetrachloroethene	0.323	0.357	-10.5	126	0.00	12.82
83	M	1,3-dichloropropane	0.422	0.480	-13.7	124	0.00	12.85
84		2-hexanone	0.094	0.111	-18.1	129	0.00	12.82
85	M	butyl acetate	0.156	0.176	-12.8	129	0.00	12.89
86	M	3,3-dimethyl-1-butanol			-----NA-----			
87	M	dibromochloromethane	0.356	0.408	-14.6	122	0.00	13.12
88	M	1,2-dibromoethane	0.300	0.346	-15.3	121	0.00	13.26
89		n-butyl ether	1.364	1.437	-5.4	122	0.00	13.59
90	M	chlorobenzene	0.940	0.982	-4.5	122	0.00	13.71
91	M	1,1,1,2-tetrachloroethane	0.333	0.378	-13.5	123	0.00	13.77
92	M	ethylbenzene	1.666	1.742	-4.6	123	0.00	13.75
93	M	m,p-xylene	0.625	0.661	-5.8	123	0.00	13.85
94	M	o-xylene	0.595	0.635	-6.7	122	0.00	14.27
95	M	styrene	1.006	1.086	-8.0	123	0.00	14.29

Initial Calibration Verification

Page 3 of 3

Job Number: JC65860
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V1C6871-ICV6871
 Lab FileID: 1C155660.D

96 M	bromoform	0.237	0.268	-13.1	123	0.00	14.57
97	butyl acrylate	0.498	0.550	-10.4	123	0.00	14.09
98	isopropylbenzene	1.638	1.691	-3.2	120	0.00	14.61
99	cis-1,4-dichloro-2-butene	0.125	0.131	-4.8	114	0.00	14.70
100 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	113	0.00	15.99
101 S	4-bromofluorobenzene (s)	0.833	0.847	-1.7	114	0.00	14.83
102 M	bromobenzene	0.854	0.891	-4.3	120	0.00	15.02
103 M	1,1,2,2-tetrachloroethane	0.631	0.727	-15.2	119	0.00	14.94
104 M	trans-1,4-dichloro-2-bute	0.162	0.212	-30.9#	142	0.00	14.98
105 M	1,2,3-trichloropropane	0.159	0.177	-11.3	118	0.00	15.02
106 M	n-propylbenzene	3.871	4.173	-7.8	121	0.00	15.02
107	4-Ethyltoluene			-----NA-----			
108 M	2-chlorotoluene	0.769	0.796	-3.5	117	0.00	15.17
109 M	4-chlorotoluene	2.187	2.355	-7.7	123	0.00	15.27
110 M	1,3,5-trimethylbenzene	2.554	2.618	-2.5	119	0.00	15.16
111 M	tert-butylbenzene	0.482	0.509	-5.6	118	0.00	15.51
112 M	1,2,4-trimethylbenzene	2.504	2.652	-5.9	120	0.00	15.56
113 M	sec-butylbenzene	3.475	3.768	-8.4	120	0.00	15.73
114 M	1,3-dichlorobenzene	1.535	1.626	-5.9	118	0.00	15.94
115 M	p-isopropyltoluene	2.891	3.002	-3.8	119	0.00	15.84
116 M	1,4-dichlorobenzene	1.527	1.608	-5.3	119	0.00	16.01
117	benzyl chloride	1.360	1.241	8.8	101	0.00	16.14
118 M	1,2-dichlorobenzene	1.466	1.539	-5.0	117	0.00	16.42
119	1,4-Diethylbenzene			-----NA-----			
120 M	n-butylbenzene	1.488	1.603	-7.7	120	0.00	16.27
121 M	1,2-dibromo-3-chloropropa	0.133	0.129	3.0	111	0.00	17.21
122	1,3,5-trichlorobenzene	1.287	1.344	-4.4	117	0.00	17.36
123	1,2,4,5-tetramethylbenzen			-----NA-----			
124	2-ethylhexyl acrylate	0.782	0.896	-14.6	130	0.00	17.90
125 M	1,2,4-trichlorobenzene	1.090	1.122	-2.9	118	0.00	17.94
126 M	hexachlorobutadiene	0.682	0.707	-3.7	114	0.00	18.02
127 M	naphthalene	2.165	2.277	-5.2	118	0.00	18.18
128 M	1,2,3-trichlorobenzene	1.028	1.052	-2.3	115	0.00	18.39
129 m	hexachloroethane	0.550	0.620	-12.7	121	0.00	16.68
130	2-methylnaphthalene	1.625	1.699	-4.6	116	0.00	19.14

(#) = Out of Range

1C155655.D M1CS6871.M

SPCC's out = 0 CCC's out = 0
 Tue Mar 27 15:45:12 2018

6.11.2
 6

Initial Calibration Verification

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V1C6871-ICV6871
Lab FileID: 1C155661.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V1C6871\1C155661.D Vial: 15
Acq On : 23 Mar 2018 6:24 pm Operator: PrashanS
Sample : ICV6871-50 Inst : GCMS1C
Misc : MS24860,V1C6871,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1CS6871.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Tue Mar 27 15:36:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	tert butyl alcohol-d9	1.000	1.000	0.0	104	-0.01	7.39
2 M	tertiary butyl alcohol			NA			
3	Ethanol			NA			
4 M	1,4-dioxane			NA			
5 I	pentafluorobenzene	1.000	1.000	0.0	116	0.00	9.62
6 M	chlorodifluoromethane			NA			
7 M	dichlorodifluoromethane			NA			
8	Freon 114			NA			
9	freon 142b	0.747	0.731	2.1	107	0.00	4.20
10 M	chloromethane			NA			
11 M	vinyl chloride			NA			
12	1,3-Butadiene	0.661	0.717	-8.5	119	0.00	4.59
13 M	bromomethane			NA			
14 M	chloroethane			NA			
15 M	trichlorofluoromethane			NA			
16	vinyl bromide			NA			
17 M	ethyl ether			NA			
18 M	acrolein			NA			
19	freon 113			NA			
20 M	1,1-dichloroethene			NA			
21 M	acetone			NA			
22 M	acetonitrile	0.045	0.052	-15.6	133	0.00	7.24
	----- True		Calc.	% Drift			
23 M	iodomethane			NA			
	----- AvgRF		CCRF	% Dev			
24 M	carbon disulfide			NA			
25 M	methylene chloride			NA			
26 M	methyl acetate			NA			
27 M	methyl tert butyl ether			NA			
28 M	trans-1,2-dichloroethene			NA			
29 M	di-isopropyl ether			NA			
30 M	2-butanone			NA			
31 M	1,1-dichloroethane			NA			
32 M	chloroprene			NA			
33 M	acrylonitrile			NA			
34	hexane			NA			
35 M	vinyl acetate			NA			
36 M	ethyl tert-butyl ether			NA			
37 M	ethyl acetate			NA			

Initial Calibration Verification

Page 2 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V1C6871-ICV6871
Lab FileID: 1C155661.D

38	M	2,2-dichloropropane			-----NA-----			
39	M	cis-1,2-dichloroethene			-----NA-----			
40		methyl acrylate			-----NA-----			
41	M	propionitrile			-----NA-----			
42	M	bromochloromethane			-----NA-----			
43	M	tetrahydrofuran			-----NA-----			
44	M	chloroform			-----NA-----			
45	M	t-butyl formate			-----NA-----			
46	S	dibromofluoromethane (s)	0.456	0.473	-3.7 117	0.00	9.69	
47	M	methacrylonitrile			-----NA-----			
48	M	1,1,1-trichloroethane			-----NA-----			
49		cyclohexane			-----NA-----			
50		1,1-dichloropropene			-----NA-----			
51		iso-butyl alcohol			-----NA-----			
52		carbon tetrachloride			-----NA-----			
53		tert amyl alcohol			-----NA-----			
54	I	1,4-difluorobenzene	1.000	1.000	0.0 111	0.00	10.54	
55	S	1,2-dichloroethane-d4 (s)	0.304	0.290	4.6 107	0.00	10.11	
56	M	n-butyl alcohol			-----NA-----			
57		2,2,4-trimethylpentane			-----NA-----			
58	M	benzene			-----NA-----			
59	M	tert-amyl methyl ether			-----NA-----			
60	M	heptane			-----NA-----			
61	M	isopropyl acetate			-----NA-----			
62	M	1,2-dichloroethane			-----NA-----			
63	M	trichloroethene			-----NA-----			
64		ethyl acrylate			-----NA-----			
65	M	2-nitropropane			-----NA-----			
66	M	2-chloroethyl vinyl ether			-----NA-----			
67	M	methyl methacrylate			-----NA-----			
68	M	1,2-dichloropropane			-----NA-----			
69	M	dibromomethane			-----NA-----			
70	M	methylcyclohexane			-----NA-----			
71	M	bromodichloromethane			-----NA-----			
72		epichlorohydrin			-----NA-----			
73	M	cis-1,3-dichloropropene			-----NA-----			
74	M	4-methyl-2-pentanone			-----NA-----			
75	M	3-methyl-1-butanol			-----NA-----			
76	I	chlorobenzene-d5	1.000	1.000	0.0 115	0.00	13.68	
77	S	toluene-d8 (s)	1.260	1.267	-0.6 115	0.00	12.17	
78		toluene			-----NA-----			
79		trans-1,3-dichloropropene			-----NA-----			
80		ethyl methacrylate			-----NA-----			
81		1,1,2-trichloroethane			-----NA-----			
82	M	tetrachloroethene	0.323	0.295	8.7 102	0.00	12.82	
83	M	1,3-dichloropropane			-----NA-----			
84		2-hexanone			-----NA-----			
85	M	butyl acetate			-----NA-----			
86	M	3,3-dimethyl-1-butanol			-----NA-----			
87	M	dibromochloromethane			-----NA-----			
88	M	1,2-dibromoethane			-----NA-----			
89		n-butyl ether			-----NA-----			
90	M	chlorobenzene			-----NA-----			
91	M	1,1,1,2-tetrachloroethane			-----NA-----			
92	M	ethylbenzene			-----NA-----			
93	M	m,p-xylene			-----NA-----			
94	M	o-xylene			-----NA-----			
95	M	styrene			-----NA-----			

Initial Calibration Verification

Page 3 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V1C6871-ICV6871
Lab FileID: 1C155661.D

96	M	bromoform				-----NA-----		
97		butyl acrylate				-----NA-----		
98		isopropylbenzene				-----NA-----		
99		cis-1,4-dichloro-2-butene				-----NA-----		
100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	15.99
101	S	4-bromofluorobenzene (s)	0.833	0.845	-1.4	111	0.00	14.83
102	M	bromobenzene				-----NA-----		
103	M	1,1,2,2-tetrachloroethane				-----NA-----		
104	M	trans-1,4-dichloro-2-bute				-----NA-----		
105	M	1,2,3-trichloropropane				-----NA-----		
106	M	n-propylbenzene				-----NA-----		
107		4-Ethyltoluene				-----NA-----		
108	M	2-chlorotoluene				-----NA-----		
109	M	4-chlorotoluene				-----NA-----		
110	M	1,3,5-trimethylbenzene				-----NA-----		
111	M	tert-butylbenzene				-----NA-----		
112	M	1,2,4-trimethylbenzene				-----NA-----		
113	M	sec-butylbenzene				-----NA-----		
114	M	1,3-dichlorobenzene				-----NA-----		
115	M	p-isopropyltoluene				-----NA-----		
116	M	1,4-dichlorobenzene				-----NA-----		
117		benzyl chloride				-----NA-----		
118	M	1,2-dichlorobenzene				-----NA-----		
119		1,4-Diethylbenzene				-----NA-----		
120	M	n-butylbenzene				-----NA-----		
121	M	1,2-dibromo-3-chloropropa				-----NA-----		
122		1,3,5-trichlorobenzene				-----NA-----		
123		1,2,4,5-tetramethylbenzen				-----NA-----		
124		2-ethylhexyl acrylate				-----NA-----		
125	M	1,2,4-trichlorobenzene				-----NA-----		
126	M	hexachlorobutadiene				-----NA-----		
127	M	naphthalene				-----NA-----		
128	M	1,2,3-trichlorobenzene				-----NA-----		
129	m	hexachloroethane				-----NA-----		
130		2-methylnaphthalene				-----NA-----		

(#) = Out of Range

1C155655.D M1CS6871.M

SPCC's out = 0 CCC's out = 0

Tue Mar 27 15:45:14 2018

6.11.3

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V1C6913-CC6871
Lab FileID: 1C156702.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\kenrickb\1c156702.d Vial: 1
 Acq On : 12 May 2018 9:35 am Operator: prashans
 Sample : CC6871-50 Inst : GCMS1C
 Misc : MS23682,V1C6913,5.0,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1CS6871.M (RTE Integrator)
 Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
 Last Update : Tue Mar 27 15:36:36 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	tert butyl alcohol-d9	1.000	1.000	0.0	97	-0.01	7.39
2 M	tertiary butyl alcohol	1.284	1.449	-12.9	108	-0.01	7.50
3	Ethanol	0.122	0.118	3.3	90	-0.02	6.14
4 M	1,4-dioxane	0.137	0.125	8.8	85	0.00	11.27
5 I	pentafluorobenzene	1.000	1.000	0.0	98	0.00	9.62
6 M	chlorodifluoromethane	0.601	0.637	-6.0	101	0.00	3.90
7 M	dichlorodifluoromethane	0.771	0.962	-24.8#	119	0.00	3.86
8	Freon 114			-----NA-----			
9	freon 142b			-----NA-----			
10 M	chloromethane	0.895	0.856	4.4	97	0.00	4.29
11 M	vinyl chloride	0.847	0.882	-4.1	101	0.00	4.52
12	1,3-Butadiene	0.661	0.504	23.8#	71	0.00	4.59
13 M	bromomethane	0.472	0.348	26.3#	77	0.03	5.20
14 M	chloroethane	0.330	0.345	-4.5	99	0.01	5.38
15 M	trichlorofluoromethane	0.829	0.934	-12.7	109	0.00	5.82
16	vinyl bromide	0.561	0.475	15.3	80	0.00	5.73
17 M	ethyl ether	0.219	0.238	-8.7	102	0.00	6.27
18 M	acrolein	0.072	0.072	0.0	96	0.00	6.56
19	freon 113	0.344	0.378	-9.9	105	0.00	6.63
20 M	1,1-dichloroethene	0.468	0.460	1.7	100	0.00	6.69
21 M	acetone	0.034	0.030	11.8	89	0.00	6.78
22 M	acetonitrile	0.045	0.046	-2.2	100	0.00	7.24
	----- True Calc. % Drift -----						
23 M	iodomethane	50.000	53.449	-6.9	110	0.00	6.99
	----- AvgRF CCRF % Dev -----						
24 M	carbon disulfide	1.634	1.469	10.1	91	0.00	7.10
25 M	methylene chloride	0.493	0.493	0.0	99	0.00	7.44
26 M	methyl acetate	0.238	0.278	-16.8	107	0.00	7.23
27 M	methyl tert butyl ether	1.067	1.300	-21.8#	110	0.00	7.73
28 M	trans-1,2-dichloroethene	0.520	0.488	6.2	97	0.00	7.80
29 M	di-isopropyl ether	1.253	1.460	-16.5	104	0.00	8.32
30 M	2-butanone	0.042	0.042	0.0	90	-0.01	9.08
31 M	1,1-dichloroethane	0.825	0.876	-6.2	103	0.00	8.38
32 M	chloroprene	0.660	0.835	-26.5#	113	0.00	8.48
33 M	acrylonitrile	0.127	0.127	0.0	96	0.00	7.79
34	hexane	0.315	0.375	-19.0	110	0.00	8.07
35 M	vinyl acetate	0.066	0.065	1.5	89	0.00	8.36
36 M	ethyl tert-butyl ether	1.231	1.436	-16.7	103	0.00	8.79
37 M	ethyl acetate	0.051	0.055	-7.8	101	0.00	9.09

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V1C6913-CC6871
Lab FileID: 1C156702.D

38	M	2,2-dichloropropane	0.743	0.839	-12.9	110	0.00	9.11
39	M	cis-1,2-dichloroethene	0.569	0.524	7.9	94	0.00	9.12
40		methyl acrylate	0.053	0.059	-11.3	97	0.00	9.17
41	M	propionitrile	0.057	0.057	0.0	96	0.00	9.21
42	M	bromochloromethane	0.236	0.235	0.4	96	0.00	9.43
43	M	tetrahydrofuran	0.054	0.052	3.7	96	0.00	9.47
44	M	chloroform	0.560	0.604	-7.9	103	0.00	9.49
45	M	t-butyl formate	0.303	0.399	-31.7#	118	0.00	9.50
46	S	dibromofluoromethane (s)	0.456	0.450	1.3	94	0.00	9.69
47	M	methacrylonitrile	0.152	0.160	-5.3	96	0.00	9.38
48	M	1,1,1-trichloroethane	0.770	0.881	-14.4	108	0.00	9.72
49		cyclohexane	0.669	0.683	-2.1	95	0.00	9.78
50		1,1-dichloropropene	0.637	0.718	-12.7	104	0.00	9.90
51		iso-butyl alcohol	0.015	0.017	-13.3	106	-0.01	9.92
52		carbon tetrachloride	0.659	0.790	-19.9	110	0.00	9.92
53		tert amyl alcohol	0.014	0.016	-14.3	106	0.00	10.04
54	I	1,4-difluorobenzene	1.000	1.000	0.0	95	0.00	10.54
55	S	1,2-dichloroethane-d4 (s)	0.304	0.352	-15.8	110	0.00	10.11
56	M	n-butyl alcohol	0.007	0.008#	-14.3	97	0.00	10.67
57		2,2,4-trimethylpentane	1.122	1.282	-14.3	107	0.00	10.13
58	M	benzene	1.248	1.315	-5.4	100	0.00	10.17
59	M	tert-amyl methyl ether	0.181	0.197	-8.8	100	0.00	10.18
60	M	heptane	0.253	0.288	-13.8	104	0.00	10.30
61	M	isopropyl acetate	0.048	0.052	-8.3	100	0.00	10.08
62	M	1,2-dichloroethane	0.399	0.473	-18.5	119	0.00	10.20
63	M	trichloroethene	0.335	0.341	-1.8	94	0.00	10.88
64		ethyl acrylate	0.272	0.325	-19.5	105	0.00	10.88
65	M	2-nitropropane	0.087	0.123	-41.4#	127	0.00	11.67
66	M	2-chloroethyl vinyl ether	0.133	0.164	-23.3#	111	0.00	11.67
67	M	methyl methacrylate	0.059	0.064	-8.5	100	0.00	11.15
68	M	1,2-dichloropropane	0.291	0.316	-8.6	98	0.00	11.16
69	M	dibromomethane	0.178	0.195	-9.6	99	0.00	11.32
70	M	methylcyclohexane	0.537	0.600	-11.7	101	0.00	11.07
71	M	bromodichloromethane	0.429	0.493	-14.9	104	0.00	11.44
72		epichlorohydrin	0.024	0.026	-8.3	98	0.00	11.81
73	M	cis-1,3-dichloropropene	0.465	0.554	-19.1	104	0.00	11.89
74	M	4-methyl-2-pentanone	0.076	0.091	-19.7	104	0.00	11.98
75	M	3-methyl-1-butanol	0.010	0.012	-20.0	104	0.00	12.00
76	I	chlorobenzene-d5	1.000	1.000	0.0	97	0.00	13.68
77	S	toluene-d8 (s)	1.260	1.325	-5.2	101	0.00	12.16
78		toluene	0.876	0.933	-6.5	103	0.00	12.24
79		trans-1,3-dichloropropene	0.478	0.566	-18.4	106	0.00	12.45
80		ethyl methacrylate	0.350	0.402	-14.9	108	0.00	12.42
81		1,1,2-trichloroethane	0.239	0.262	-9.6	96	0.00	12.67
82	M	tetrachloroethene	0.323	0.333	-3.1	97	0.00	12.81
83	M	1,3-dichloropropane	0.422	0.470	-11.4	100	0.00	12.85
84		2-hexanone	0.094	0.103	-9.6	99	0.00	12.82
85	M	butyl acetate	0.156	0.173	-10.9	105	0.00	12.89
86	M	3,3-dimethyl-1-butanol			-----NA-----			
87	M	dibromochloromethane	0.356	0.398	-11.8	98	0.00	13.11
88	M	1,2-dibromoethane	0.300	0.336	-12.0	97	0.00	13.26
89		n-butyl ether	1.364	1.484	-8.8	105	0.00	13.59
90	M	chlorobenzene	0.940	0.962	-2.3	99	0.00	13.71
91	M	1,1,1,2-tetrachloroethane	0.333	0.367	-10.2	99	0.00	13.77
92	M	ethylbenzene	1.666	1.781	-6.9	104	0.00	13.75
93	M	m,p-xylene	0.625	0.662	-5.9	102	0.00	13.85
94	M	o-xylene	0.595	0.652	-9.6	104	0.00	14.27
95	M	styrene	1.006	1.085	-7.9	102	0.00	14.28

6.11.4
6

Continuing Calibration Summary

Page 3 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: V1C6913-CC6871
Lab FileID: 1C156702.D

96	M	bromoform	0.237	0.250	-5.5	95	0.00	14.57
97		butyl acrylate	0.498	0.601	-20.7#	112	0.00	14.09
98		isopropylbenzene	1.638	1.741	-6.3	103	0.00	14.61
99		cis-1,4-dichloro-2-butene	0.125	0.165	-32.0#	119	0.00	14.70
100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	99	0.00	15.99
101	S	4-bromofluorobenzene (s)	0.833	0.854	-2.5	101	0.00	14.82
102	M	bromobenzene	0.854	0.835	2.2	98	0.00	15.02
103	M	1,1,2,2-tetrachloroethane	0.631	0.710	-12.5	101	0.00	14.94
104	M	trans-1,4-dichloro-2-bute	0.162	0.235	-45.1#	137	0.00	14.98
105	M	1,2,3-trichloropropane	0.159	0.176	-10.7	103	0.00	15.01
106	M	n-propylbenzene	3.871	4.131	-6.7	105	0.00	15.01
107		4-Ethyltoluene			-----NA-----			
108	M	2-chlorotoluene	0.769	0.787	-2.3	101	0.00	15.17
109	M	4-chlorotoluene	2.187	2.295	-4.9	104	0.00	15.27
110	M	1,3,5-trimethylbenzene	2.554	2.798	-9.6	111	0.00	15.16
111	M	tert-butylbenzene	0.482	0.476	1.2	96	0.00	15.51
112	M	1,2,4-trimethylbenzene	2.504	2.785	-11.2	110	0.00	15.55
113	M	sec-butylbenzene	3.475	3.688	-6.1	103	0.00	15.72
114	M	1,3-dichlorobenzene	1.535	1.591	-3.6	101	0.00	15.93
115	M	p-isopropyltoluene	2.891	3.066	-6.1	107	0.00	15.84
116	M	1,4-dichlorobenzene	1.527	1.588	-4.0	103	0.00	16.01
117		benzyl chloride	1.360	1.579	-16.1	113	0.00	16.13
118	M	1,2-dichlorobenzene	1.466	1.508	-2.9	100	0.00	16.42
119		1,4-Diethylbenzene			-----NA-----			
120	M	n-butylbenzene	1.488	1.677	-12.7	110	0.00	16.27
121	M	1,2-dibromo-3-chloropropa	0.133	0.150	-12.8	113	0.00	17.21
122		1,3,5-trichlorobenzene	1.287	1.364	-6.0	104	0.00	17.36
123		1,2,4,5-tetramethylbenzen			-----NA-----			
124		2-ethylhexyl acrylate	0.782	0.717	8.3	91	0.00	17.89
125	M	1,2,4-trichlorobenzene	1.090	1.143	-4.9	105	0.00	17.93
126	M	hexachlorobutadiene	0.682	0.683	-0.1	96	0.00	18.02
127	M	naphthalene	2.165	2.249	-3.9	102	0.00	18.18
128	M	1,2,3-trichlorobenzene	1.028	1.050	-2.1	100	0.00	18.39
129	m	hexachloroethane	0.550	0.569	-3.5	97	0.00	16.67
130		2-methylnaphthalene	1.625	1.325	18.5	79	0.00	19.14

(#) = Out of Range

1C15655.D M1CS6871.M

SPCC's out = 0 CCC's out = 0

Tue May 15 15:50:24 2018

6.11.4

6

Initial Calibration Summary

Page 1 of 5

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
Lab FileID: A240809.D

Response Factor Report MSA

Method : C:\msdchem\1\METHODS\MA9165.M (RTE Integrator)
Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
Last Update : Thu Apr 05 12:19:04 2018
Response via : Initial Calibration

Calibration Files

5 =A240806.D 2 =A240805.D 20 =A240808.D 50 =A240809.D
100 =A240810.D 1 =A240804.D 200 =A240811.D 0.5 =A240803.D
10 =A240807.D 0.2 =A240802.D = =

Compound	5	2	20	50	100	1	200	0.5	10	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 -----ISTD-----												
2) ethanol											0.000#	-1.00
3) tertiary butyl alcohol												
	0.880	0.876	0.899	0.874	0.887	0.891	0.857	0.923		0.886		2.21
4) 1,4-dioxane												
	0.060		0.052	0.055	0.057		0.057	0.053		0.056		5.00
5) I pentafluorobenzene -----ISTD-----												
6) chlorodifluoromethane												
	0.798	0.787	0.773	0.755	0.738		0.743	0.799		0.771		3.31
7) dichlorodifluoromethane												
	0.850	0.932	0.852	0.867	0.801	0.773	0.806	0.867		0.844		5.89
8) freon 114											0.000#	-1.00
9) freon 142b											0.000#	-1.00
10) chloromethane												
	0.937	1.055	0.882	0.910	0.912	1.165	0.941	0.897		0.962		10.16
11) vinyl chloride												
	1.008	1.050	0.981	0.999	0.983	0.928	1.000	0.978		0.991		3.47
12) 1,3-butadiene											0.000#	-1.00
13) bromomethane												
	0.577	0.632	0.543	0.540	0.531	0.569	0.516	0.554		0.558		6.43
14) chloroethane												
	0.535	0.611	0.473	0.456	0.426	0.746		0.495		0.534		20.78
----- Linear regression ----- Coefficient = 0.9985												
Response Ratio = 0.00739 + 0.43515 *A												
15) vinyl bromide												
	0.511	0.503	0.512	0.511	0.514	0.471	0.514	0.514		0.506		2.94
16) trichlorofluoromethane												
	0.794	0.833	0.790	0.790	0.781	0.751	0.779	0.793		0.789		2.85
17) ethyl ether												
	0.267	0.260	0.270	0.255	0.254	0.235	0.237	0.282		0.258		6.27
18) acrolein												
	0.158	0.171	0.152	0.141	0.140		0.137	0.148		0.150		8.09
19) freon 113												
	0.399	0.379	0.396	0.385	0.384	0.407	0.376	0.409		0.392		3.21
20) 1,1-dichloroethene												
	0.496	0.465	0.464	0.441	0.463	0.466	0.438	0.478		0.464		3.98
21) acetone												
	0.075	0.075	0.078	0.075	0.077	0.060	0.073	0.084		0.075		9.16

Initial Calibration Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
Lab FileID: A240809.D

22)	acetonitrile	0.132	0.121	0.117	0.113		0.109		0.125		0.120	6.94	
23)	iodomethane	0.949	0.945	0.912	0.878	0.914	1.085	0.864		0.939	0.936	7.24	
24)	carbon disulfide	1.848	1.825	1.722	1.624	1.715	2.190	1.618		1.784	1.791	10.16	
25)	methylene chloride	0.561	0.520	0.534	0.507	0.518	0.613	0.496		0.531	0.535	6.90	
26)	methyl acetate	0.599	0.616	0.533	0.529	0.526		0.501		0.573	0.554	7.67	
27)	methyl tert butyl ether	1.564	1.572	1.608	1.585	1.533	1.768	1.512	1.687	1.600	1.603	4.95	
28)	trans-1,2-dichloroethene	0.488	0.447	0.469	0.439	0.449	0.551	0.425	0.431	0.482	0.465	8.41	
29)	hexane	0.675	0.690	0.641	0.618	0.616	0.831	0.591		0.674	0.667	11.20	
30)	di-isopropyl ether	1.742	1.727	1.741	1.687	1.645	1.993	1.589	1.853	1.753	2.053	1.778	8.28
31)	ethyl tert-butyl ether	1.598	1.555	1.621	1.623	1.608	1.674	1.584	1.490	1.668	1.675	1.610	3.60
32)	2-butanone	0.080	0.066	0.081	0.083	0.083	0.080	0.084		0.082	0.080	7.19	
33)	1,1-dichloroethane	0.929	0.950	0.897	0.842	0.842	1.136	0.797		0.934	0.916	11.34	
34)	chloroprene	0.706	0.683	0.714	0.671	0.691	0.775	0.659		0.720	0.702	5.14	
35)	acrylonitrile	0.293	0.243	0.283	0.274	0.271		0.259		0.292	0.274	6.62	
36)	vinyl acetate	0.091		0.093	0.095	0.093		0.092		0.091	0.093	1.83	
37)	ethyl acetate	0.100	0.094	0.101	0.105	0.104		0.102		0.101	0.101	3.55	
38)	2,2-dichloropropane	0.749	0.967	0.734	0.696	0.680	1.027	0.661		0.764	0.785	17.38	
39)	cis-1,2-dichloroethene	0.548	0.513	0.532	0.508	0.515	0.571	0.497	0.572	0.548	0.534	5.19	
40)	methyl acrylate	0.088		0.097	0.093	0.097		0.096		0.086	0.093	4.94	
41)	propionitrile	0.166	0.168	0.173	0.175	0.169	0.176	0.166		0.173	0.171	2.45	
42)	bromochloromethane	0.299	0.344	0.275	0.259	0.257	0.367	0.251		0.281	0.292	14.67	
43)	tetrahydrofuran	0.329	0.310	0.298	0.294	0.285		0.279		0.306	0.300	5.65	
44)	chloroform	0.839	0.798	0.813	0.769	0.774	0.890	0.740	0.858	0.812	1.009	0.830	9.25
45)	tert-butyl formate	0.515	0.507	0.523	0.505	0.482	0.567	0.473		0.515	0.511	5.59	
46)	dibromofluoromethane (s)	0.505	0.498	0.498	0.496	0.495	0.502	0.505	0.499	0.497	0.490	0.498	0.92
47)	methacrylonitrile	0.255	0.227	0.258	0.259	0.262		0.256		0.260	0.254	4.79	
48)	cyclohexane	0.751	0.800	0.773	0.743	0.738	0.810	0.730	0.801	0.781	0.770	3.91	
49)	1,1,1-trichloroethane	0.755	0.785	0.741	0.719	0.715	0.854	0.702	0.731	0.747	0.750	6.14	
50)	iso-butyl alcohol	0.044	0.055	0.046	0.044	0.047		0.046		0.046	0.047	8.06	
51)	1,1-dichloropropene	0.623	0.589	0.619	0.612	0.620	0.681	0.607	0.646	0.629	0.625	4.15	

Initial Calibration Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
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52)	carbon tetrachloride	0.629	0.629	0.650	0.621	0.624	0.727	0.614	0.660	0.637	0.643	5.35	
53)	tert-amyl alcohol	0.069	0.068	0.067	0.069	0.066	0.066	0.070	0.068	2.23			
54)	I 1,4-difluorobenzene	-----ISTD-----											
55)	1,2-dichloroethane-d4 (s)	0.357	0.356	0.366	0.352	0.346	0.355	0.343	0.366	0.365	0.355	2.20	
56)	benzene	1.270	1.255	1.238	1.184	1.183	1.383	1.120	1.377	1.279	1.254	6.95	
57)	iso-octane	1.203	1.185	1.194	1.175	1.245	1.342	1.203	1.330	1.229	1.234	4.99	
58)	tert-amyl methyl ether	1.087	1.089	1.071	1.028	1.012	1.173	0.963	1.140	1.099	1.255	7.68	
59)	heptane	0.237	0.258	0.231	0.222	0.221	0.235	0.217	0.257	0.243	0.236	6.31	
60)	isopropyl acetate	0.075	0.079	0.080	0.078	0.075	0.078	0.078	0.078	2.80			
61)	1,2-dichloroethane	0.402	0.395	0.387	0.372	0.372	0.493	0.356	0.403	0.397	10.56		
62)	n-butyl alcohol	0.019	0.019	0.019	0.019	0.019	0.021	0.019	0.020	0.020	0.019	3.42	
63)	ethyl acrylate	0.385	0.442	0.413	0.418	0.431	0.525	0.421	0.410	0.431	9.63		
64)	trichloroethene	0.280	0.279	0.287	0.275	0.284	0.314	0.274	0.259	0.298	0.282	5.16	
65)	2-nitropropane	0.166	0.162	0.141	0.151	0.147	0.142	0.156	0.152	6.45			
66)	methylcyclohexane	0.627	0.628	0.625	0.589	0.591	0.734	0.561	0.696	0.653	0.634	8.55	
67)	2-chloroethyl vinyl ether	0.172	0.177	0.178	0.186	0.188	0.198	0.184	0.208	0.182	0.186	5.97	
68)	methyl methacrylate	0.080	0.084	0.086	0.092	0.089	0.082	0.086	5.04				
69)	1,2-dichloropropane	0.333	0.360	0.322	0.312	0.316	0.400	0.302	0.330	0.334	9.50		
70)	dibromomethane	0.190	0.193	0.190	0.190	0.190	0.194	0.183	0.191	0.194	0.191	1.77	
71)	bromodichloromethane	0.392	0.380	0.392	0.384	0.386	0.405	0.374	0.402	0.398	0.371	0.388	2.97
72)	epichlorohydrin	0.047	0.046	0.046	0.047	0.046	0.055	0.045	0.047	0.047	6.74		
73)	cis-1,3-dichloropropene	0.449	0.457	0.447	0.461	0.475	0.480	0.467	0.505	0.465	0.467	3.83	
74)	4-methyl-2-pentanone	0.177	0.183	0.178	0.180	0.176	0.197	0.166	0.185	0.180	0.174	0.180	4.44
75)	3-methyl-1-butanol	0.032	0.032	0.031	0.032	0.031	0.040	0.029	0.033	0.032	9.51		
76)	I chlorobenzene-d5	-----ISTD-----											
77)	toluene-d8 (s)	1.351	1.339	1.357	1.332	1.285	1.341	1.243	1.383	1.398	1.332	1.336	3.36
78)	toluene	0.820	0.838	0.827	0.791	0.790	0.896	0.726	0.911	0.890	0.960	0.845	8.18
79)	trans-1,3-dichloropropene	0.458	0.463	0.473	0.462	0.454	0.491	0.420	0.507	0.495	0.469	5.56	
80)	ethyl methacrylate	0.475	0.484	0.486	0.463	0.452	0.490	0.422	0.520	0.474	6.16		
81)	1,1,2-trichloroethane	0.265	0.252	0.258	0.249	0.242	0.279	0.228	0.234	0.276	0.254	6.97	

Initial Calibration Summary

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Job Number: JC65860
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
 Lab FileID: A240809.D

82)	2-hexanone	0.186	0.184	0.182	0.173	0.169	0.189	0.157	0.184	0.200	0.194	0.182	6.92
83)	tetrachloroethene	0.348	0.314	0.340	0.327	0.325	0.362	0.302	0.311	0.364		0.333	6.76
84)	1,3-dichloropropane	0.475	0.502	0.481	0.475	0.465	0.558	0.437	0.551	0.489		0.492	7.99
85)	butyl acetate	0.417		0.303	0.263	0.255		0.237		0.352		0.305	22.53
	----- Linear regression -----											Coefficient = 0.9987	
	Response Ratio = 0.02077 + 0.23792 *A												
86)	3,3-dimethyl-1-butanol											0.000#	-1.00
87)	dibromochloromethane	0.341	0.333	0.326	0.327	0.320	0.403	0.303		0.356		0.339	8.98
88)	1,2-dibromoethane	0.316	0.293	0.306	0.299	0.299	0.313	0.283	0.264	0.324		0.300	6.07
89)	n-butyl ether	1.606	1.596	1.619	1.478	1.411	1.748	1.271		1.644		1.547	9.79
90)	chlorobenzene	0.819	0.810	0.807	0.804	0.808	0.883	0.773	0.822	0.832	0.838	0.820	3.48
91)	1,1,1,2-tetrachloroethane	0.407	0.397	0.409	0.381	0.365	0.388	0.337	0.445	0.429		0.395	8.23
92)	ethylbenzene	1.441	1.441	1.474	1.379	1.386	1.588	1.282	1.599	1.508	1.719	1.482	8.56
93)	m,p-xylene	0.554	0.534	0.561	0.535	0.537	0.568	0.505	0.574	0.588	0.658	0.561	7.41
94)	o-xylene	0.618	0.602	0.644	0.596	0.587	0.674	0.544	0.630	0.657	0.549	0.610	7.11
95)	styrene	0.906	0.901	0.896	0.831	0.847	0.961	0.803	1.055	0.923	0.935	0.906	7.91
96)	butyl acrylate	0.797	0.797	0.757	0.665	0.624		0.568		0.813		0.717	13.63
97)	bromoform	0.231	0.210	0.229	0.215	0.211	0.251	0.202	0.184	0.234		0.219	9.04
98)	isopropylbenzene	1.648	1.647	1.755	1.632	1.556	1.768	1.410	1.707	1.839		1.662	7.65
99)	cis-1,4-dichloro-2-butene	0.179	0.178	0.173	0.156	0.148		0.138		0.190		0.166	11.33
100)	I 1,4-dichlorobenzene-d	-----ISTD-----											
101)	4-bromofluorobenzene (s)	0.797	0.801	0.808	0.834	0.868	0.792	0.877	0.785	0.784	0.798	0.814	4.15
102)	bromobenzene	0.641	0.643	0.656	0.653	0.701	0.695	0.681	0.667	0.644		0.664	3.43
103)	1,1,2,2-tetrachloroethane	0.930	0.933	0.964	0.981	0.967	1.035	0.902	0.991	0.963		0.963	4.04
104)	trans-1,4-dichloro-2-butene	0.209	0.191	0.190	0.184	0.177		0.163		0.190		0.186	7.67
105)	1,2,3-trichloropropane	0.227	0.230	0.229	0.230	0.237	0.225	0.221		0.233		0.229	2.17
106)	n-propylbenzene	3.183	3.254	3.369	3.392	3.451	3.561	3.186	3.335	3.412	3.933	3.408	6.42
107)	2-chlorotoluene	0.648	0.656	0.708	0.726	0.754	0.726	0.731	0.622	0.695		0.696	6.41
108)	4-chlorotoluene	1.716	1.788	1.776	1.754	1.817	1.923	1.761	1.841	1.803		1.798	3.32
109)	4-ethyltoluene											0.000#	-1.00
110)	1,3,5-trimethylbenzene												

Initial Calibration Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
Lab FileID: A240809.D

111)	tert-butylbenzene	2.498	2.398	2.635	2.758	2.765	2.656	2.604	2.584	2.642	2.953	2.649	5.77
112)	1,2,4-trimethylbenzene	0.471	0.443	0.552	0.596	0.616	0.530	0.579		0.536		0.540	11.00
113)	sec-butylbenzene	2.417	2.338	2.605	2.632	2.698	2.628	2.490	2.518	2.590	2.927	2.584	6.28
114)	1,3-dichlorobenzene	3.263	3.111	3.598	3.716	3.757	3.476	3.394	3.110	3.532	3.574	3.453	6.68
115)	p-isopropyltoluene	1.217	1.201	1.281	1.260	1.244	1.391	1.173	1.229	1.285	1.423	1.270	6.31
116)	1,4-dichlorobenzene	2.721	2.628	2.939	3.008	3.052	2.859	2.807	2.738	2.939	2.907	2.860	4.73
117)	1,2-dichlorobenzene	1.302	1.219	1.289	1.266	1.252	1.373	1.182	1.427	1.312		1.291	5.82
118)	1,4-diethylbenzene	1.315	1.342	1.382	1.358	1.332	1.496	1.248	1.573	1.422	1.436	1.390	6.79
119)	n-butylbenzene											0.000#	-1.00
120)	1,2,4,5-tetramethylbenzene	1.428	1.440	1.528	1.453	1.458	1.559	1.359	1.585	1.518	1.697	1.503	6.40
121)	1,2-dibromo-3-chloropropane											0.000#	-1.00
122)	1,3,5-trichlorobenzene	0.271	0.260	0.259	0.258	0.248	0.284	0.226	0.259	0.275		0.260	6.45
123)	2-ethylhexyl acrylate	1.305	1.184	1.313	1.300	1.239	1.480	1.159	1.327	1.365	1.488	1.316	8.30
124)	1,2,4-trichlorobenzene	0.965	1.043	0.984	0.984	0.938	1.093	0.886		1.080		0.997	7.14
125)	hexachlorobutadiene	1.119	1.060	1.152	1.123	1.060	1.208	0.987	1.202	1.214	1.284	1.141	7.82
126)	naphthalene	0.469	0.441	0.489	0.503	0.505	0.503	0.492	0.401	0.498		0.478	7.45
127)	1,2,3-trichlorobenzene	3.027	3.144	2.923	2.833	2.713		2.448		3.167		2.894	8.82
128)	hexachloroethane	1.006	0.975	1.043	1.033	0.993	1.080	0.924	1.120	1.078	1.059	1.031	5.62
129)	2-methylnaphthalene	0.431	0.413	0.494	0.555	0.564		0.542		0.498		0.500	11.91
		1.105	1.133	1.144	1.094	1.169		1.101		1.195		1.134	3.33

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

MA9165.M

Thu Apr 05 12:23:06 2018 RPT1

Initial Calibration Verification

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
Lab FileID: A240814.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VA9165\A240814.D Vial: 14
Acq On : 3 Apr 2018 11:40 pm Operator: JessicaP
Sample : icv9165-50 Inst : MSA
Misc : MS25128,VA9165,5,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\MA9165.M (RTE Integrator)
Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
Last Update : Thu Apr 05 11:21:49 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	107	0.00	7.81
2	ethanol			-----NA-----			
3 M	tertiary butyl alcohol	0.886	0.904	-2.0	110	0.03	7.97
4	1,4-dioxane	0.056	0.056	0.0	108	0.00	11.86
5 I	pentafluorobenzene	1.000	1.000	0.0	109	0.00	10.18
6 M	chlorodifluoromethane	0.771	0.713	7.5	103	0.02	4.20
7 M	dichlorodifluoromethane	0.844	0.760	10.0	96	0.02	4.20
8	freon 114			-----NA-----			
9	freon 142b			-----NA-----			
10 M	chloromethane	0.962	0.842	12.5	101	0.01	4.54
11 M	vinyl chloride	0.991	0.867	12.5	95	0.02	4.83
12	1,3-butadiene			-----NA-----			
13 M	bromomethane	0.558	0.515	7.7	104	0.00	5.52
	----- True		Calc.	% Drift			
14 M	chloroethane	50.000	48.193	3.6	102	0.00	5.71
	----- AvgRF		CCRF	% Dev			
15	vinyl bromide	0.506	0.532	-5.1	114	0.00	6.09
16 M	trichlorofluoromethane	0.789	0.726	8.0	100	0.02	6.24
17 M	ethyl ether	0.258	0.261	-1.2	112	0.00	6.68
18 M	acrolein	0.150	0.189	-26.0	147	0.00	6.91
19	freon 113	0.392	0.452	-15.3	128	0.01	7.11
20 M	1,1-dichloroethene	0.464	0.424	8.6	105	0.01	7.11
21 M	acetone	0.075	0.068	9.3	99	0.01	7.16
22 M	acetonitrile	0.120	0.141	-17.5	132	0.07	7.67
23 M	iodomethane	0.936	0.876	6.4	109	0.01	7.40
24 M	carbon disulfide	1.791	1.682	6.1	113	0.00	7.53
25 M	methylene chloride	0.535	0.520	2.8	112	0.00	7.86
26 M	methyl acetate	0.554	0.511	7.8	105	0.00	7.66
27 M	methyl tert butyl ether	1.603	1.564	2.4	108	0.00	8.25
28 M	trans-1,2-dichloroethene	0.465	0.436	6.2	108	0.00	8.27
29	hexane	0.667	0.532	20.2	94	0.00	8.63
30 M	di-isopropyl ether	1.778	1.665	6.4	108	0.00	8.88
31 M	ethyl tert-butyl ether	1.610	1.598	0.7	107	0.00	9.36
32 M	2-butanone	0.080	0.080	0.0	104	0.01	9.59
33 M	1,1-dichloroethane	0.916	0.836	8.7	108	0.00	8.86
34 M	chloroprene	0.702	0.695	1.0	113	0.00	8.99
35 M	acrylonitrile	0.274	0.293	-6.9	116	0.00	8.20
36 M	vinyl acetate	0.093	0.097	-4.3	111	0.00	8.86
37 M	ethyl acetate	0.101	0.108	-6.9	112	0.00	9.62

Initial Calibration Verification

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Job Number: JC65860
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
 Lab FileID: A240814.D

38	M	2,2-dichloropropane	0.785	0.659	16.1	103	0.00	9.66
39	M	cis-1,2-dichloroethene	0.534	0.519	2.8	111	0.00	9.63
40		methyl acrylate	0.093	0.088	5.4	104	0.00	9.70
41	M	propionitrile	0.171	0.175	-2.3	109	0.00	9.68
42	M	bromochloromethane	0.292	0.257	12.0	108	0.00	9.94
43	M	tetrahydrofuran	0.300	0.385	-28.3	143	0.00	9.99
44	M	chloroform	0.830	0.777	6.4	110	0.00	10.00
45		tert-butyl formate	0.511	0.427	16.4	92	0.00	10.07
46	S	dibromofluoromethane (s)	0.498	0.499	-0.2	110	0.00	10.21
47	M	methacrylonitrile	0.254	0.251	1.2	106	0.00	9.88
48		cyclohexane	0.770	0.941	-22.2	138	0.00	10.38
49	M	1,1,1-trichloroethane	0.750	0.685	8.7	104	0.00	10.29
50		iso-butyl alcohol	0.047	0.046	2.1	114	0.00	10.45
51		1,1-dichloropropene	0.625	0.602	3.7	107	0.00	10.47
52		carbon tetrachloride	0.643	0.603	6.2	106	0.00	10.51
53		tert-amyl alcohol	0.068	0.069	-1.5	109	0.00	10.60
54	I	1,4-difluorobenzene	1.000	1.000	0.0	108	0.00	11.12
55	S	1,2-dichloroethane-d4 (s)	0.356	0.353	0.8	108	0.00	10.64
56	M	benzene	1.254	1.177	6.1	107	0.00	10.74
57	M	iso-octane	1.234	1.174	4.9	108	0.00	10.79
58		tert-amyl methyl ether	1.092	1.025	6.1	108	0.00	10.80
59	M	heptane	0.236	0.240	-1.7	117	0.00	10.95
60	M	isopropyl acetate	0.078	0.078	0.0	106	0.00	10.67
61	M	1,2-dichloroethane	0.397	0.373	6.0	108	0.00	10.73
62		n-butyl alcohol	0.019	0.019	0.0	107	0.00	11.22
63		ethyl acrylate	0.431	0.411	4.6	106	0.00	11.48
64	M	trichloroethene	0.283	0.275	2.8	108	0.00	11.47
65	M	2-nitropropane	0.152	0.190	-25.0	136	0.00	12.27
66	m	methylcyclohexane	0.634	0.568	10.4	104	0.00	11.74
67	M	2-chloroethyl vinyl ether	0.186	0.192	-3.2	112	0.00	12.30
68	M	methyl methacrylate	0.086	0.083	3.5	105	0.00	11.75
69	M	1,2-dichloropropane	0.334	0.309	7.5	107	0.00	11.74
70	M	dibromomethane	0.191	0.192	-0.5	109	0.00	11.90
71	M	bromodichloromethane	0.388	0.376	3.1	106	0.00	12.03
72		epichlorohydrin	0.047	0.044	6.4	102	0.00	12.42
73	M	cis-1,3-dichloropropene	0.467	0.451	3.4	106	0.00	12.53
74	M	4-methyl-2-pentanone	0.180	0.176	2.2	106	0.00	12.65
75	M	3-methyl-1-butanol	0.032	0.032	0.0	107	0.00	12.65
76	I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	14.52
77	S	toluene-d8 (s)	1.336	1.356	-1.5	104	0.00	12.86
78		toluene	0.845	0.830	1.8	107	0.00	12.94
79		trans-1,3-dichloropropene	0.469	0.442	5.8	98	0.00	13.13
80		ethyl methacrylate	0.474	0.449	5.3	99	0.00	13.15
81		1,1,2-trichloroethane	0.254	0.256	-0.8	105	0.00	13.36
82		2-hexanone	0.182	0.173	4.9	102	0.00	13.57
83	M	tetrachloroethene	0.333	0.380	-14.1	119	0.00	13.58
84	M	1,3-dichloropropane	0.492	0.490	0.4	105	0.00	13.57
85	M	butyl acetate	True 50.000	Calc. 53.430	% Drift -6.9	107	0.00	13.66
86		3,3-dimethyl-1-butanol	AvgRF	CCRF	% Dev			
87	M	dibromochloromethane	0.339	0.339	0.0	106	0.00	13.85
88	M	1,2-dibromoethane	0.300	0.307	-2.3	105	0.00	14.02
89	M	n-butyl ether	1.547	1.430	7.6	99	0.00	14.49
90	M	chlorobenzene	0.820	0.785	4.3	100	0.00	14.55
91	M	1,1,1,2-tetrachloroethane	0.395	0.392	0.8	105	0.00	14.61

Initial Calibration Verification

Page 3 of 3

Job Number: JC65860
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
 Lab FileID: A240814.D

92	M	ethylbenzene	1.482	1.388	6.3	103	0.00	14.63
93	M	m,p-xylene	0.561	0.534	4.8	102	0.00	14.75
94	M	o-xylene	0.610	0.604	1.0	104	0.00	15.21
95	M	styrene	0.906	0.839	7.4	103	0.00	15.22
96		butyl acrylate	0.717	0.682	4.9	105	0.00	15.02
97	M	bromoform	0.219	0.226	-3.2	107	0.00	15.48
98		isopropylbenzene	1.662	1.652	0.6	103	0.00	15.60
99		cis-1,4-dichloro-2-butene	0.166	0.156	6.0	102	0.00	15.65
100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	17.12
101	S	4-bromofluorobenzene (s)	0.814	0.829	-1.8	103	0.00	15.81
102	M	bromobenzene	0.664	0.656	1.2	104	0.00	16.03
103	M	1,1,2,2-tetrachloroethane	0.963	0.973	-1.0	103	0.00	15.91
104	M	trans-1,4-dichloro-2-bute	0.186	0.232	-24.7	131	0.00	15.96
105	M	1,2,3-trichloropropane	0.229	0.240	-4.8	108	0.00	16.00
106	M	n-propylbenzene	3.408	3.373	1.0	103	0.00	16.06
107	M	2-chlorotoluene	0.696	0.704	-1.1	101	0.00	16.22
108	M	4-chlorotoluene	1.798	1.815	-0.9	107	0.00	16.32
109		4-ethyltoluene			-----NA-----			
110	M	1,3,5-trimethylbenzene	2.649	2.700	-1.9	102	0.00	16.23
111	M	tert-butylbenzene	0.540	0.603	-11.7	105	0.00	16.63
112	M	1,2,4-trimethylbenzene	2.584	2.673	-3.4	105	0.00	16.67
113	M	sec-butylbenzene	3.453	3.733	-8.1	104	0.00	16.87
114	M	1,3-dichlorobenzene	1.270	1.261	0.7	104	0.00	17.06
115	M	p-isopropyltoluene	2.860	2.997	-4.8	103	0.00	17.00
116	M	1,4-dichlorobenzene	1.291	1.264	2.1	104	0.00	17.15
117	M	1,2-dichlorobenzene	1.390	1.355	2.5	104	0.00	17.59
118		1,4-diethylbenzene			-----NA-----			
119	M	n-butylbenzene	1.503	1.467	2.4	105	0.00	17.46
120		1,2,4,5-tetramethylbenzen			-----NA-----			
121	M	1,2-dibromo-3-chloropropa	0.260	0.259	0.4	104	0.00	18.43
122	M	1,3,5-trichlorobenzene	1.316	1.290	2.0	103	0.00	18.65
123		2-ethylhexyl acrylate	0.997	1.003	-0.6	106	0.00	19.36
124	M	1,2,4-trichlorobenzene	1.141	1.142	-0.1	106	0.00	19.37
125	M	hexachlorobutadiene	0.478	0.485	-1.5	100	0.00	19.53
126	M	naphthalene	2.894	2.957	-2.2	108	0.00	19.70
127	M	1,2,3-trichlorobenzene	1.031	1.033	-0.2	104	0.00	19.97
128	M	hexachloroethane	0.500	0.575	-15.0	108	0.00	17.89
129		2-methylnaphthalene	1.134	1.054	7.1	100	0.00	20.99

(#) = Out of Range
 A240809.D MA9165.M

SPCC's out = 0 CCC's out = 0
 Thu Apr 05 11:39:45 2018 RPT1

6.11.6
6

Initial Calibration Verification

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
Lab FileID: A240815.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VA9165\A240815.D Vial: 15
Acq On : 4 Apr 2018 12:09 am Operator: JessicaP
Sample : icv9165-50 Inst : MSA
Misc : MS25128,VA9165,5,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\MA9165.M (RTE Integrator)
Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
Last Update : Thu Apr 05 12:19:04 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	105	0.00	7.81
2	ethanol			NA			
3 M	tertiary butyl alcohol			NA			
4	1,4-dioxane			NA			
5 I	pentafluorobenzene	1.000	1.000	0.0	104	0.00	10.18
6 M	chlorodifluoromethane			NA			
7 M	dichlorodifluoromethane			NA			
8	freon 114			NA			
9	freon 142b			NA			
10 M	chloromethane			NA			
11 M	vinyl chloride			NA			
12	1,3-butadiene			NA			
13 M	bromomethane			NA			
	----- True		Calc.	% Drift			
14 M	chloroethane			NA			
	----- AvgRF		CCRF	% Dev			
15	vinyl bromide			NA			
16 M	trichlorofluoromethane			NA			
17 M	ethyl ether			NA			
18 M	acrolein			NA			
19	freon 113			NA			
20 M	1,1-dichloroethene			NA			
21 M	acetone			NA			
22 M	acetonitrile	0.120	0.114	5.0	102	0.02	7.62
23 M	iodomethane			NA			
24 M	carbon disulfide			NA			
25 M	methylene chloride			NA			
26 M	methyl acetate			NA			
27 M	methyl tert butyl ether			NA			
28 M	trans-1,2-dichloroethene			NA			
29	hexane			NA			
30 M	di-isopropyl ether			NA			
31 M	ethyl tert-butyl ether			NA			
32 M	2-butanone			NA			
33 M	1,1-dichloroethane			NA			
34 M	chloroprene			NA			
35 M	acrylonitrile			NA			
36 M	vinyl acetate			NA			
37 M	ethyl acetate			NA			

Initial Calibration Verification

Page 2 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
Lab FileID: A240815.D

38	M	2,2-dichloropropane							
39	M	cis-1,2-dichloroethene							
40		methyl acrylate							
41	M	propionitrile							
42	M	bromochloromethane							
43	M	tetrahydrofuran							
44	M	chloroform							
45		tert-butyl formate							
46	S	dibromofluoromethane (s)	0.498	0.503	-1.0	105	0.00	10.20	
47	M	methacrylonitrile							
48		cyclohexane							
49	M	1,1,1-trichloroethane							
50		iso-butyl alcohol							
51		1,1-dichloropropene							
52		carbon tetrachloride							
53		tert-amyl alcohol							
54	I	1,4-difluorobenzene	1.000	1.000	0.0	98	0.00	11.12	
55	S	1,2-dichloroethane-d4 (s)	0.356	0.363	-2.0	101	0.00	10.64	
56	M	benzene							
57	M	iso-octane							
58		tert-amyl methyl ether							
59	M	heptane							
60	M	isopropyl acetate							
61	M	1,2-dichloroethane							
62		n-butyl alcohol							
63		ethyl acrylate							
64	M	trichloroethene							
65	M	2-nitropropane							
66	m	methylcyclohexane							
67	M	2-chloroethyl vinyl ether							
68	M	methyl methacrylate							
69	M	1,2-dichloropropane							
70	M	dibromomethane							
71	M	bromodichloromethane							
72		epichlorohydrin							
73	M	cis-1,3-dichloropropene							
74	M	4-methyl-2-pentanone							
75	M	3-methyl-1-butanol							
76	I	chlorobenzene-d5	1.000	1.000	0.0	89	0.00	14.52	
77	S	toluene-d8 (s)	1.336	1.348	-0.9	90	0.00	12.86	
78		toluene							
79		trans-1,3-dichloropropene							
80		ethyl methacrylate							
81		1,1,2-trichloroethane							
82		2-hexanone							
83	M	tetrachloroethene	0.333	0.309	7.2	84	0.00	13.58	
84	M	1,3-dichloropropane							
85	M	butyl acetate							
86		3,3-dimethyl-1-butanol							
87	M	dibromochloromethane							
88	M	1,2-dibromoethane							
89	M	n-butyl ether							
90	M	chlorobenzene							
91	M	1,1,1,2-tetrachloroethane							

Initial Calibration Verification

Page 3 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
Lab FileID: A240815.D

92	M	ethylbenzene							-----NA-----
93	M	m,p-xylene							-----NA-----
94	M	o-xylene							-----NA-----
95	M	styrene							-----NA-----
96		butyl acrylate							-----NA-----
97	M	bromoform							-----NA-----
98		isopropylbenzene							-----NA-----
99		cis-1,4-dichloro-2-butene							-----NA-----
100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	108	0.00	17.12	
101	S	4-bromofluorobenzene (s)	0.814	0.775	4.8	100	0.00	15.81	
102	M	bromobenzene							-----NA-----
103	M	1,1,2,2-tetrachloroethane							-----NA-----
104	M	trans-1,4-dichloro-2-bute							-----NA-----
105	M	1,2,3-trichloropropane							-----NA-----
106	M	n-propylbenzene							-----NA-----
107	M	2-chlorotoluene							-----NA-----
108	M	4-chlorotoluene							-----NA-----
109		4-ethyltoluene							-----NA-----
110	M	1,3,5-trimethylbenzene							-----NA-----
111	M	tert-butylbenzene							-----NA-----
112	M	1,2,4-trimethylbenzene							-----NA-----
113	M	sec-butylbenzene							-----NA-----
114	M	1,3-dichlorobenzene							-----NA-----
115	M	p-isopropyltoluene							-----NA-----
116	M	1,4-dichlorobenzene							-----NA-----
117	M	1,2-dichlorobenzene							-----NA-----
118		1,4-diethylbenzene							-----NA-----
119	M	n-butylbenzene							-----NA-----
120		1,2,4,5-tetramethylbenzen							-----NA-----
121	M	1,2-dibromo-3-chloropropa							-----NA-----
122	M	1,3,5-trichlorobenzene							-----NA-----
123		2-ethylhexyl acrylate							-----NA-----
124	M	1,2,4-trichlorobenzene							-----NA-----
125	M	hexachlorobutadiene							-----NA-----
126	M	naphthalene							-----NA-----
127	M	1,2,3-trichlorobenzene							-----NA-----
128	M	hexachloroethane							-----NA-----
129		2-methylnaphthalene							-----NA-----

(#) = Out of Range
A240809.D MA9165.M

SPCC's out = 0 CCC's out = 0
Thu Apr 05 12:22:15 2018 RPT1

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9208-CC9165
Lab FileID: A241577.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ni...5-18\va9208\va241577.d Vial: 2
Acq On : 14 May 2018 6:52 am Operator: oyinadei
Sample : cc9165-20 Inst : MSA
Misc : MS26219,VA9208,5,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MA9165.M (RTE Integrator)
Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
Last Update : Tue Apr 17 15:31:13 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	98	0.00	7.81
2	ethanol			NA			
3 M	tertiary butyl alcohol	0.886	0.925	-4.4	100	0.00	7.94
4	1,4-dioxane	0.056	0.067	-19.6	125	0.00	11.85
5 I	pentafluorobenzene	1.000	1.000	0.0	96	0.00	10.17
6 M	chlorodifluoromethane	0.771	0.527	31.6#	65	0.02	4.21
7 M	dichlorodifluoromethane	0.844	0.898	-6.4	101	0.02	4.20
8	freon 114			NA			
9	freon 142b			NA			
10 M	chloromethane	0.962	0.951	1.1	103	0.02	4.54
11 M	vinyl chloride	0.991	1.032	-4.1	101	0.02	4.84
12	1,3-butadiene			NA			
13 M	bromomethane	0.558	0.623	-11.6	110	0.01	5.53
	----- True						
14 M	chloroethane	20.000	20.970	-4.8	96	0.00	5.71
	----- AvgRF						
15	vinyl bromide	0.506	0.635	-25.5#	119	0.00	6.10
16 M	trichlorofluoromethane	0.789	0.866	-9.8	105	0.04	6.26
17 M	ethyl ether			NA			
18 M	acrolein	0.150	0.118	21.3#	75	0.00	6.90
19	freon 113	0.392	0.455	-16.1	110	0.02	7.12
20 M	1,1-dichloroethene	0.464	0.499	-7.5	103	0.00	7.11
21 M	acetone	0.075	0.062	17.3	77	-0.01	7.14
22 M	acetonitrile	0.120	0.104	13.3	82	0.00	7.60
23 M	iodomethane			NA			
24 M	carbon disulfide			NA			
25 M	methylene chloride	0.535	0.571	-6.7	103	0.00	7.84
26 M	methyl acetate	0.554	0.445	19.7	80	-0.01	7.65
27 M	methyl tert butyl ether			NA			
28 M	trans-1,2-dichloroethene	0.465	0.444	4.5	91	0.00	8.26
29	hexane	0.667	0.521	21.9#	78	0.00	8.62
30 M	di-isopropyl ether	1.778	1.451	18.4	80	0.00	8.88
31 M	ethyl tert-butyl ether	1.610	1.596	0.9	94	0.00	9.37
32 M	2-butanone	0.080	0.075	6.3	89	0.00	9.58
33 M	1,1-dichloroethane	0.916	0.782	14.6	84	-0.01	8.85
34 M	chloroprene	0.702	0.572	18.5	77	-0.01	8.97
35 M	acrylonitrile			NA			
36 M	vinyl acetate	0.093	0.078	16.1	81	0.00	8.86
37 M	ethyl acetate	0.101	0.082	18.8	77	-0.01	9.61

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9208-CC9165
Lab FileID: A241577.D

38	M	2,2-dichloropropane	0.785	0.744	5.2	97	-0.01	9.64
39	M	cis-1,2-dichloroethene	0.534	0.519	2.8	93	0.00	9.61
40		methyl acrylate						
41	M	propionitrile						
42	M	bromochloromethane	0.292	0.261	10.6	91	0.00	9.93
43	M	tetrahydrofuran						
44	M	chloroform	0.830	0.765	7.8	90	0.00	9.99
45		tert-butyl formate	0.511	0.475	7.0	87	0.00	10.06
46	S	dibromofluoromethane (s)	0.498	0.498	0.0	96	0.00	10.19
47	M	methacrylonitrile						
48		cyclohexane	0.770	0.725	5.8	90	0.00	10.38
49	M	1,1,1-trichloroethane	0.750	0.760	-1.3	98	0.00	10.29
50		iso-butyl alcohol	0.047	0.042	10.6	88	-0.01	10.44
51		1,1-dichloropropene	0.625	0.567	9.3	88	0.00	10.46
52		carbon tetrachloride	0.643	0.638	0.8	94	0.00	10.50
53		tert-amyl alcohol	0.068	0.068	0.0	97	0.00	10.59
54	I	1,4-difluorobenzene	1.000	1.000	0.0	91	0.00	11.11
55	S	1,2-dichloroethane-d4 (s)	0.356	0.343	3.7	85	-0.01	10.63
56	M	benzene	1.254	1.208	3.7	89	0.00	10.73
57	M	iso-octane	1.234	1.251	-1.4	95	0.00	10.78
58		tert-amyl methyl ether	1.092	1.123	-2.8	95	0.00	10.79
59	M	heptane	0.236	0.208	11.9	82	0.00	10.95
60	M	isopropyl acetate	0.078	0.077	1.3	88	0.00	10.67
61	M	1,2-dichloroethane	0.397	0.380	4.3	89	0.00	10.73
62		n-butyl alcohol	0.019	0.020	-5.3	97	0.00	11.21
63		ethyl acrylate	0.431	0.364	15.5	80	0.00	11.47
64	M	trichloroethene	0.283	0.285	-0.7	90	0.00	11.47
65	M	2-nitropropane						
66	m	methylcyclohexane	0.634	0.611	3.6	89	0.00	11.73
67	M	2-chloroethyl vinyl ether	0.186	0.105	43.5#	54	0.00	12.30
68	M	methyl methacrylate						
69	M	1,2-dichloropropane	0.334	0.293	12.3	83	0.00	11.74
70	M	dibromomethane	0.191	0.196	-2.6	93	-0.01	11.88
71	M	bromodichloromethane	0.388	0.391	-0.8	91	0.00	12.02
72		epichlorohydrin	0.047	0.041	12.8	82	0.00	12.41
73	M	cis-1,3-dichloropropene	0.467	0.453	3.0	92	0.00	12.53
74	M	4-methyl-2-pentanone	0.180	0.168	6.7	85	0.00	12.65
75	M	3-methyl-1-butanol	0.032	0.032	0.0	92	0.00	12.64
76	I	chlorobenzene-d5	1.000	1.000	0.0	98	0.00	14.51
77	S	toluene-d8 (s)	1.336	1.272	4.8	92	0.00	12.86
78		toluene	0.845	0.767	9.2	91	0.00	12.93
79		trans-1,3-dichloropropene	0.469	0.462	1.5	96	0.00	13.12
80		ethyl methacrylate						
81		1,1,2-trichloroethane	0.254	0.246	3.1	93	0.00	13.36
82		2-hexanone	0.182	0.170	6.6	91	0.00	13.57
83	M	tetrachloroethene	0.333	0.329	1.2	95	0.00	13.58
84	M	1,3-dichloropropane	0.492	0.472	4.1	96	0.00	13.56
			True	Calc.	% Drift			
85	M	butyl acetate	20.000	16.728	16.4	81	0.00	13.66
			AvgRF	CCRF	% Dev			
86		3,3-dimethyl-1-butanol						
87	M	dibromochloromethane	0.339	0.342	-0.9	103	0.00	13.84
88	M	1,2-dibromoethane	0.300	0.328	-9.3	105	0.00	14.02
89	M	n-butyl ether	1.547	1.361	12.0	82	0.00	14.48
90	M	chlorobenzene	0.820	0.838	-2.2	102	0.00	14.54
91	M	1,1,1,2-tetrachloroethane	0.395	0.403	-2.0	96	0.00	14.61

6.11.8
6

Continuing Calibration Summary

Page 3 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9208-CC9165
Lab FileID: A241577.D

92 M	ethylbenzene	1.482	1.414	4.6	94	0.00	14.62
93 M	m,p-xylene	0.561	0.554	1.2	97	0.00	14.74
94 M	o-xylene	0.610	0.604	1.0	92	0.00	15.20
95 M	styrene	0.906	0.892	1.5	98	0.00	15.21
96	butyl acrylate	0.717	0.631	12.0	82	0.00	15.01
97 M	bromoform	0.219	0.250	-14.2	107	0.00	15.48
98	isopropylbenzene	1.662	1.629	2.0	91	0.00	15.60
99	cis-1,4-dichloro-2-butene	0.166	0.149	10.2	84	0.00	15.64
100 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	100	0.00	17.11
101 S	4-bromofluorobenzene (s)	0.814	0.797	2.1	98	0.00	15.80
102 M	bromobenzene	0.664	0.685	-3.2	104	0.00	16.02
103 M	1,1,2,2-tetrachloroethane	0.963	0.947	1.7	98	0.00	15.90
104 M	trans-1,4-dichloro-2-bute			-----NA-----			
105 M	1,2,3-trichloropropane	0.229	0.238	-3.9	103	0.00	15.99
106 M	n-propylbenzene	3.408	3.195	6.3	94	-0.01	16.05
107 M	2-chlorotoluene	0.696	0.697	-0.1	98	0.00	16.21
108 M	4-chlorotoluene	1.798	1.768	1.7	99	0.00	16.32
109	4-ethyltoluene			-----NA-----			
110 M	1,3,5-trimethylbenzene	2.649	2.485	6.2	94	0.00	16.22
111 M	tert-butylbenzene	0.540	0.536	0.7	97	0.00	16.62
112 M	1,2,4-trimethylbenzene	2.584	2.447	5.3	94	0.00	16.66
113 M	sec-butylbenzene	3.453	3.383	2.0	94	0.00	16.86
114 M	1,3-dichlorobenzene	1.270	1.294	-1.9	101	0.00	17.05
115 M	p-isopropyltoluene	2.860	2.775	3.0	94	-0.01	16.99
116 M	1,4-dichlorobenzene	1.291	1.338	-3.6	103	0.00	17.14
117 M	1,2-dichlorobenzene	1.390	1.394	-0.3	100	0.00	17.58
118	1,4-diethylbenzene	0.000	0.029	0.0	0#	0.04	17.45
119 M	n-butylbenzene	1.503	1.404	6.6	91	0.00	17.46
120	1,2,4,5-tetramethylbenzen	0.000	0.025	0.0	0#	0.13	18.41
121 M	1,2-dibromo-3-chloropropa	0.260	0.296	-13.8	114	-0.01	18.42
122 M	1,3,5-trichlorobenzene	1.316	1.318	-0.2	100	0.00	18.64
123	2-ethylhexyl acrylate	0.997	0.636	36.2#	64	-0.01	19.35
124 M	1,2,4-trichlorobenzene	1.141	1.255	-10.0	108	0.00	19.37
125 M	hexachlorobutadiene	0.478	0.523	-9.4	106	0.00	19.52
126 M	naphthalene	2.894	3.593	-24.2#	122	0.00	19.69
127 M	1,2,3-trichlorobenzene	1.031	1.291	-25.2#	123	-0.01	19.96
128 M	hexachloroethane			-----NA-----			
129	2-methylnaphthalene	1.134	1.974	-74.1#	172	-0.01	20.97
130	ethylenimine			-----NA-----			
131	bis(chloromethyl)ether			-----NA-----			

(#) = Out of Range
A240808.D MA9165.M

SPCC's out = 0 CCC's out = 0
Tue May 15 04:14:53 2018



MS Volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6913\
 Data File : 1c156721.d
 Acq On : 12 May 2018 6:27 pm
 Operator : prashans
 Sample : JC65860-1 Inst : GCMS1C
 Misc : MS26229,V1C6913,5.0,,,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6871.M
 Quant Results File: M1CS6871.RES
 Quant Time: May 14 22:19:47 2018
 Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
 QLast Update : Fri Apr 13 06:52:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.390	65	136480	500.00	ug/L	-0.01
5) pentafluorobenzene	9.618	168	407869	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.543	114	595417	50.00	ug/L	0.00
76) chlorobenzene-d5	13.676	117	490421	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.988	152	242230	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.691	113	183995	49.47	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	98.94%
55) 1,2-dichloroethane-d4 (s)	10.114	65	221410	61.22	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	122.44%
77) toluene-d8 (s)	12.170	98	670040	54.22	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	108.44%
101) 4-bromofluorobenzene (s)	14.822	95	212875	52.75	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	105.50%
Target Compounds						
21) acetone	6.793	58	4922	17.94	ug/L	90
24) carbon disulfide	7.107	76	3325	0.25	ug/L	75
58) benzene	10.167	78	25104	1.69	ug/L	98
78) toluene	12.243	92	6741	0.78	ug/L	92
93) m,p-xylene	13.854	106	1981	0.32	ug/L #	49

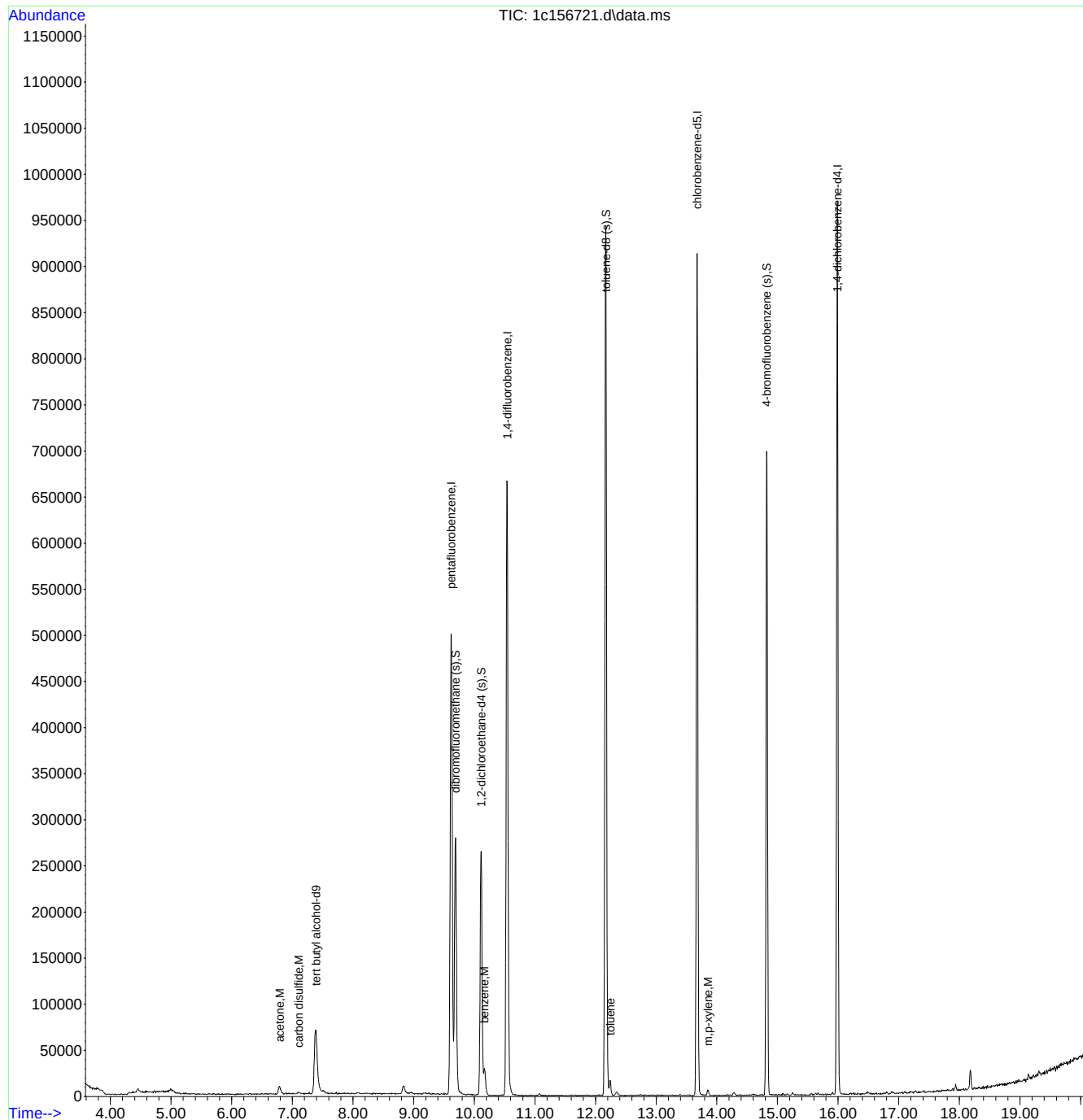
(#) = qualifier out of range (m) = manual integration (+) = signals summed

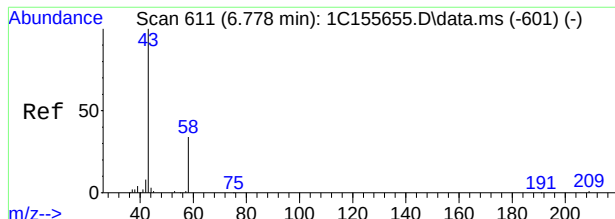
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6913\
Data File : 1c156721.d
Acq On : 12 May 2018 6:27 pm
Operator : prashans
Sample : JC65860-1
Misc : MS26229,V1C6913,5.0,,,,,1
ALS Vial : 20 Sample Multiplier: 1

Inst : GCMS1C

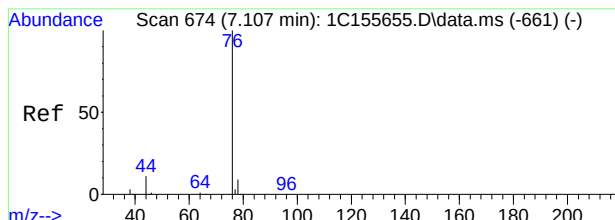
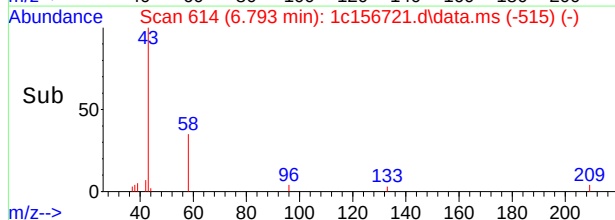
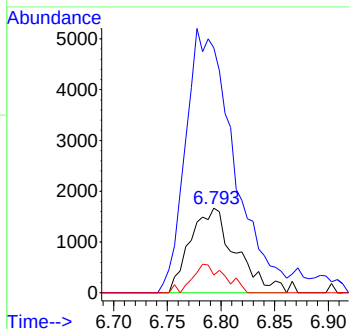
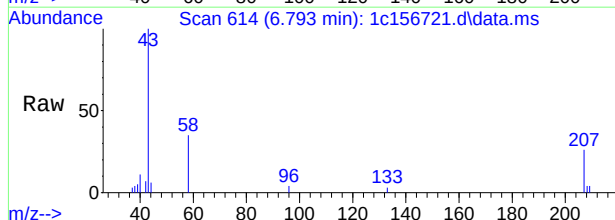
Quant Method : C:\MSDCHEM\1\METHODS\M1CS6871.M
Quant Results File: M1CS6871.RES
Quant Time: May 14 22:19:47 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Apr 13 06:52:32 2018
Response via : Initial Calibration





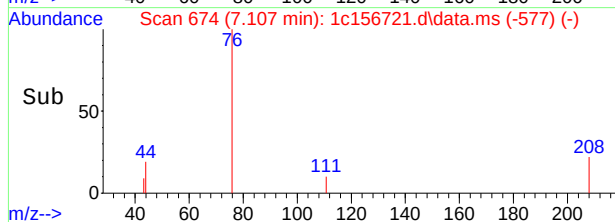
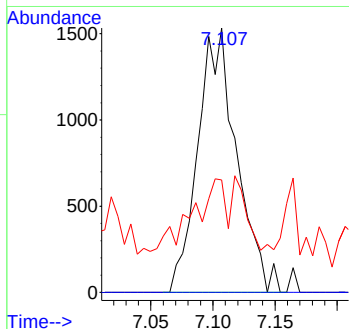
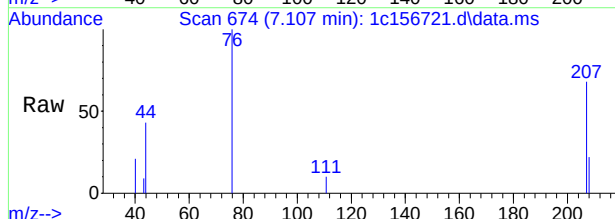
#21
acetone
Concen: 17.94 ug/L
RT: 6.793 min Scan# 614
Delta R.T. 0.016 min
Lab File: 1c156721.d
Acq: 12 May 2018 6:27 pm

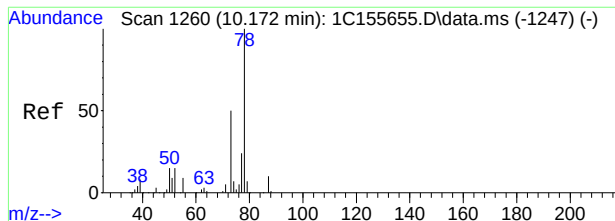
Tgt Ion: 58 Resp: 4922
Ion Ratio Lower Upper
58 100
43 277.8 267.7 327.7
42 20.9 0.0 53.0



#24
carbon disulfide
Concen: 0.25 ug/L
RT: 7.107 min Scan# 674
Delta R.T. 0.005 min
Lab File: 1c156721.d
Acq: 12 May 2018 6:27 pm

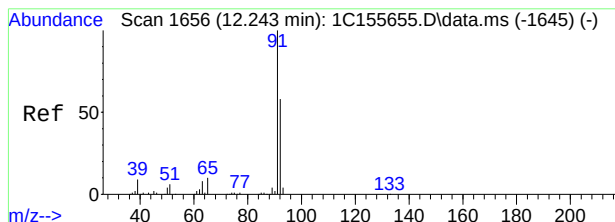
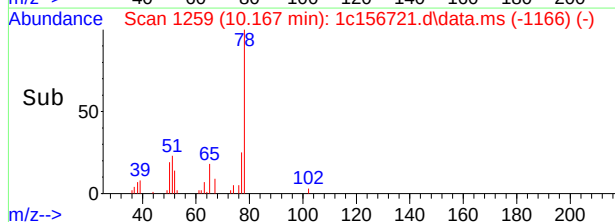
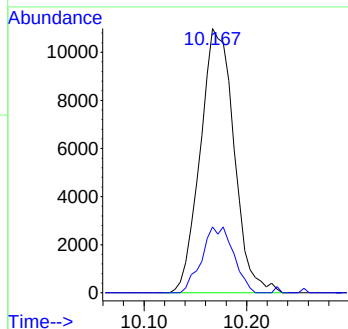
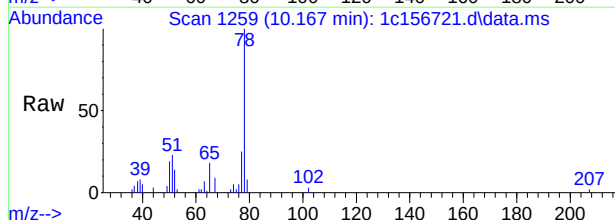
Tgt Ion: 76 Resp: 3325
Ion Ratio Lower Upper
76 100
78 0.0 0.0 39.0
44 21.2 0.0 41.5





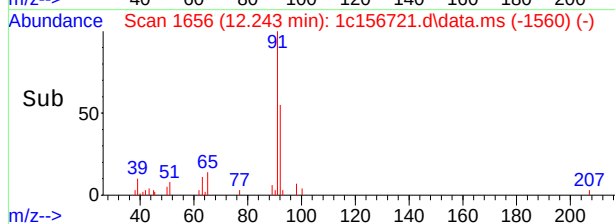
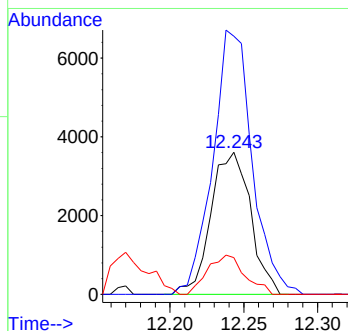
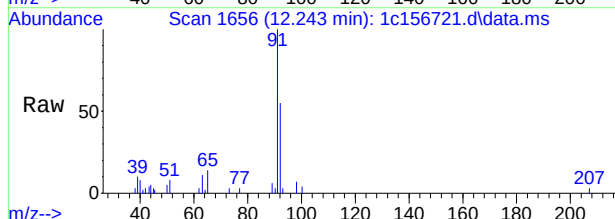
#58
benzene
Concen: 1.69 ug/L
RT: 10.167 min Scan# 1259
Delta R.T. -0.005 min
Lab File: 1c156721.d
Acq: 12 May 2018 6:27 pm

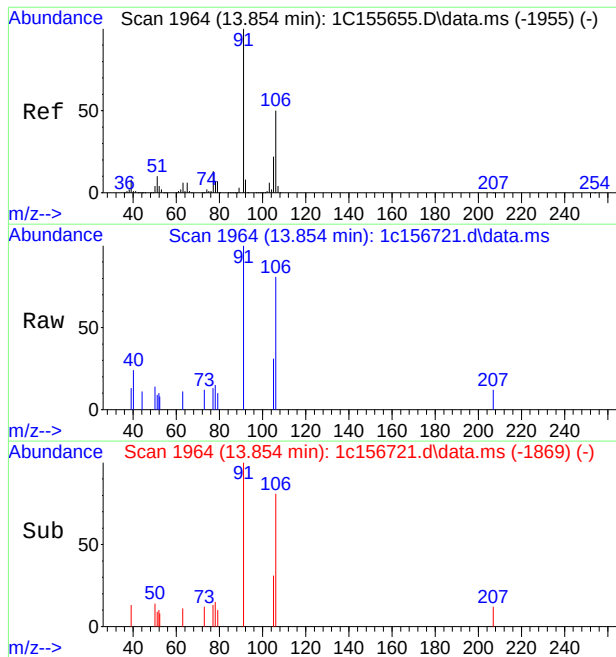
Tgt Ion: 78 Resp: 25104
Ion Ratio Lower Upper
78 100
77 25.0 0.0 53.8



#78
toluene
Concen: 0.78 ug/L
RT: 12.243 min Scan# 1656
Delta R.T. 0.000 min
Lab File: 1c156721.d
Acq: 12 May 2018 6:27 pm

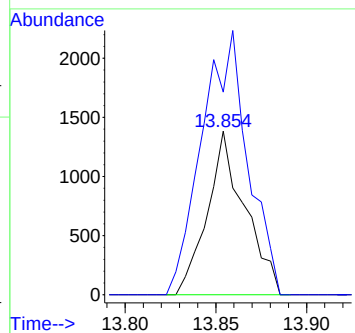
Tgt Ion: 92 Resp: 6741
Ion Ratio Lower Upper
92 100
91 181.7 151.4 191.4
65 25.9 0.0 38.0





#93
m,p-xylene
Concen: 0.32 ug/L
RT: 13.854 min Scan# 1964
Delta R.T. -0.005 min
Lab File: 1c156721.d
Acq: 12 May 2018 6:27 pm

Tgt Ion	106	Ratio	1981	Lower	Upper
106	100				
91	123.8		171.5	231.5#	



7.1.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-15-18\va9208\
 Data File : a241598.d
 Acq On : 14 May 2018 6:15 pm
 Operator : oyinadei
 Sample : JC65860-1A Inst : MSA
 Misc : MS26275,VA9208,5,,,,,5
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
 Quant Results File: MA9165.RES
 Quant Time: May 15 04:45:27 2018
 Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Apr 17 15:31:13 2018
 Response via : Initial Calibration

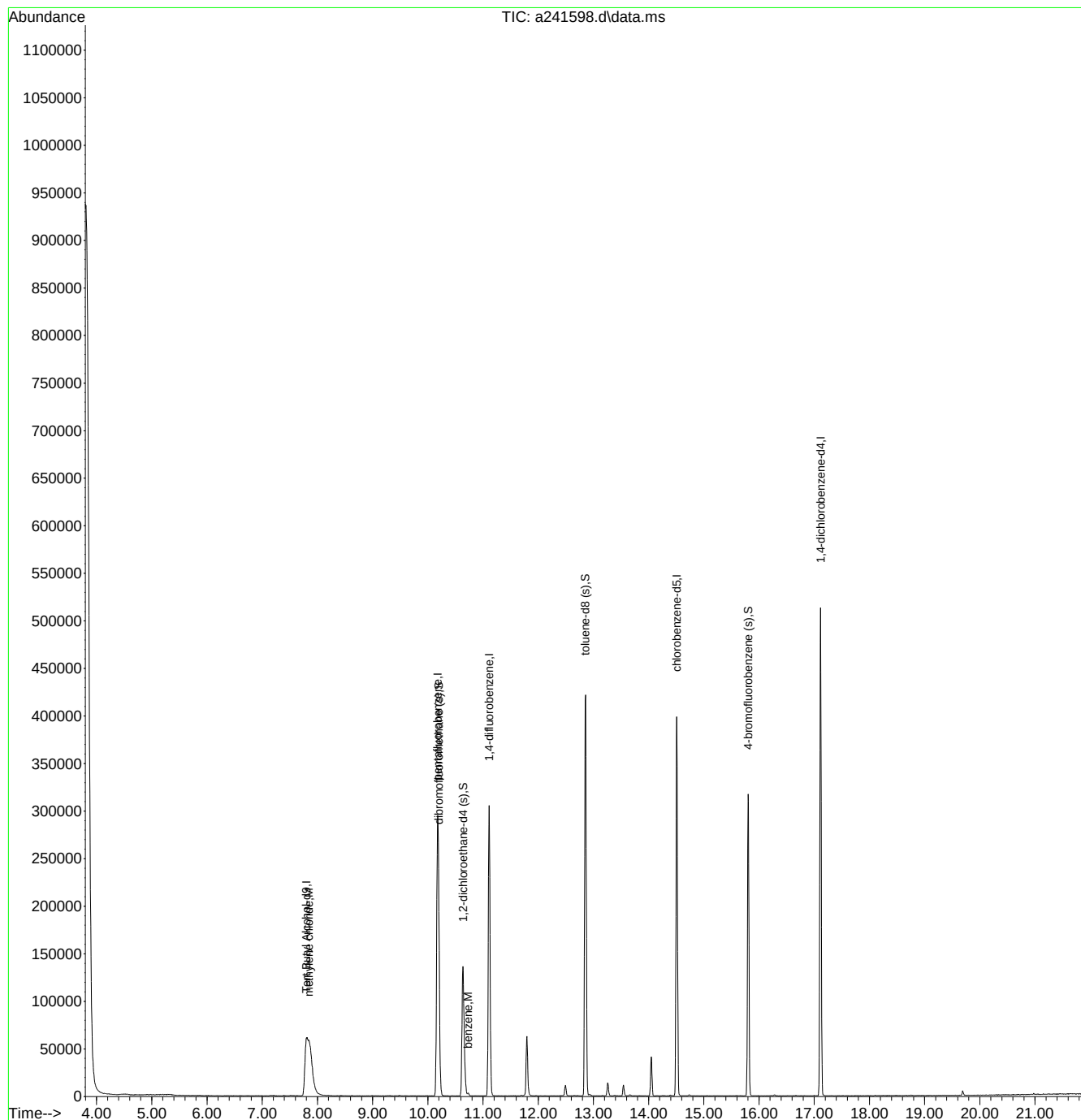
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.800	65	313284	500.00	ug/L	0.00
5) pentafluorobenzene	10.175	168	214565	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.111	114	307605	50.00	ug/L	0.00
76) chlorobenzene-d5	14.510	117	253285	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.115	152	154351	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.195	113	110504	51.67	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	103.34%
55) 1,2-dichloroethane-d4 (s)	10.635	65	107952	49.27	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	98.54%
77) toluene-d8 (s)	12.852	98	329135	48.63	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	97.26%
101) 4-bromofluorobenzene (s)	15.802	95	118281	47.05	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	94.10%
Target Compounds						
25) methylene chloride	7.842	84	2564	1.12	ug/L	Qvalue # 71
56) benzene	10.729	78	3312	0.43	ug/L	95

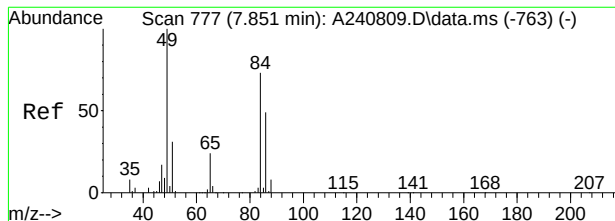
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-15-18\va9208\
Data File : a241598.d
Acq On : 14 May 2018 6:15 pm
Operator : ovinadei
Sample : JC65860-1A Inst : MSA
Misc : MS26275,VA9208,5,,,,,5
ALS Vial : 23 Sample Multiplier: 1

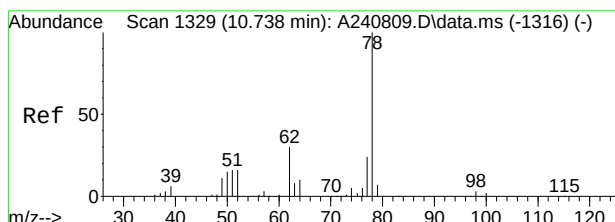
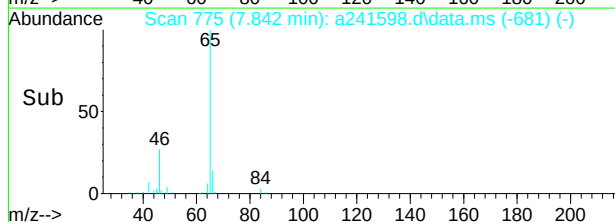
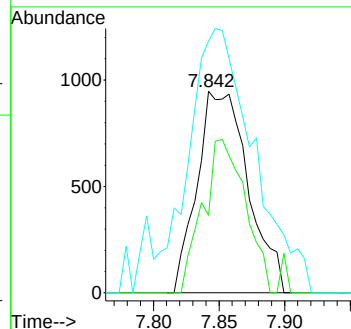
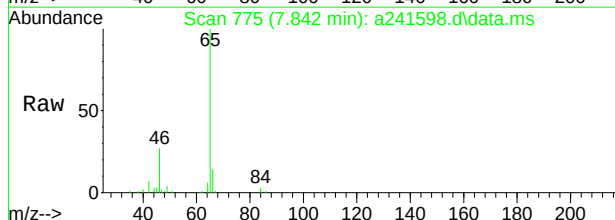
Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
Quant Results File: MA9165.RES
Quant Time: May 15 04:45:27 2018
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 17 15:31:13 2018
Response via : Initial Calibration





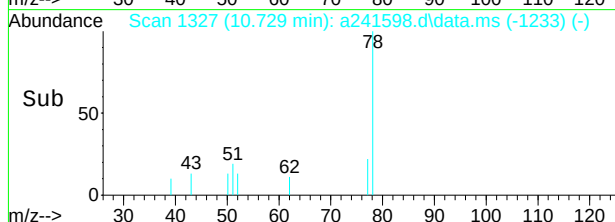
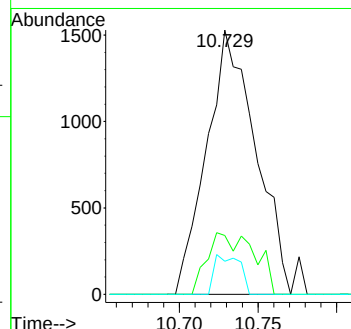
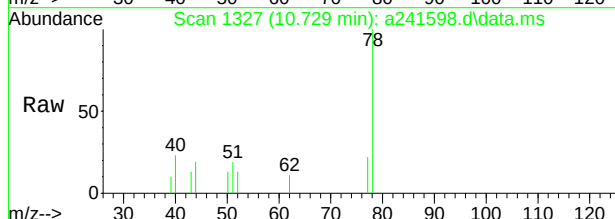
#25
methylene chloride
Concen: 1.12 ug/L
RT: 7.842 min Scan# 775
Delta R.T. -0.009 min
Lab File: a241598.d
Acq: 14 May 2018 6:15 pm

Tgt Ion	Ratio	Lower	Upper
84	100		
86	38.4	36.4	96.4
49	105.3	106.4	166.4#



#56
benzene
Concen: 0.43 ug/L
RT: 10.729 min Scan# 1327
Delta R.T. -0.009 min
Lab File: a241598.d
Acq: 14 May 2018 6:15 pm

Tgt Ion	Ratio	Lower	Upper
78	100		
77	22.2	0.0	53.8
52	12.5	0.0	45.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6913\
 Data File : 1c156706.d
 Acq On : 12 May 2018 11:48 am
 Operator : prashans
 Sample : MB Inst : GCMS1C
 Misc : MS26229,V1C6913,5.0,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6871.M
 Quant Results File: M1CS6871.RES
 Quant Time: May 14 20:59:15 2018
 Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
 QLast Update : Fri Apr 13 06:52:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.384	65	132554	500.00	ug/L	-0.02
5) pentafluorobenzene	9.623	168	455294	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.538	114	648901	50.00	ug/L	0.00
76) chlorobenzene-d5	13.676	117	546735	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.988	152	276523	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.691	113	197026	47.46	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	94.92%
55) 1,2-dichloroethane-d4 (s)	10.109	65	225446	57.20	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	114.40%
77) toluene-d8 (s)	12.170	98	733153	53.22	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	106.44%
101) 4-bromofluorobenzene (s)	14.822	95	236682	51.38	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	102.76%

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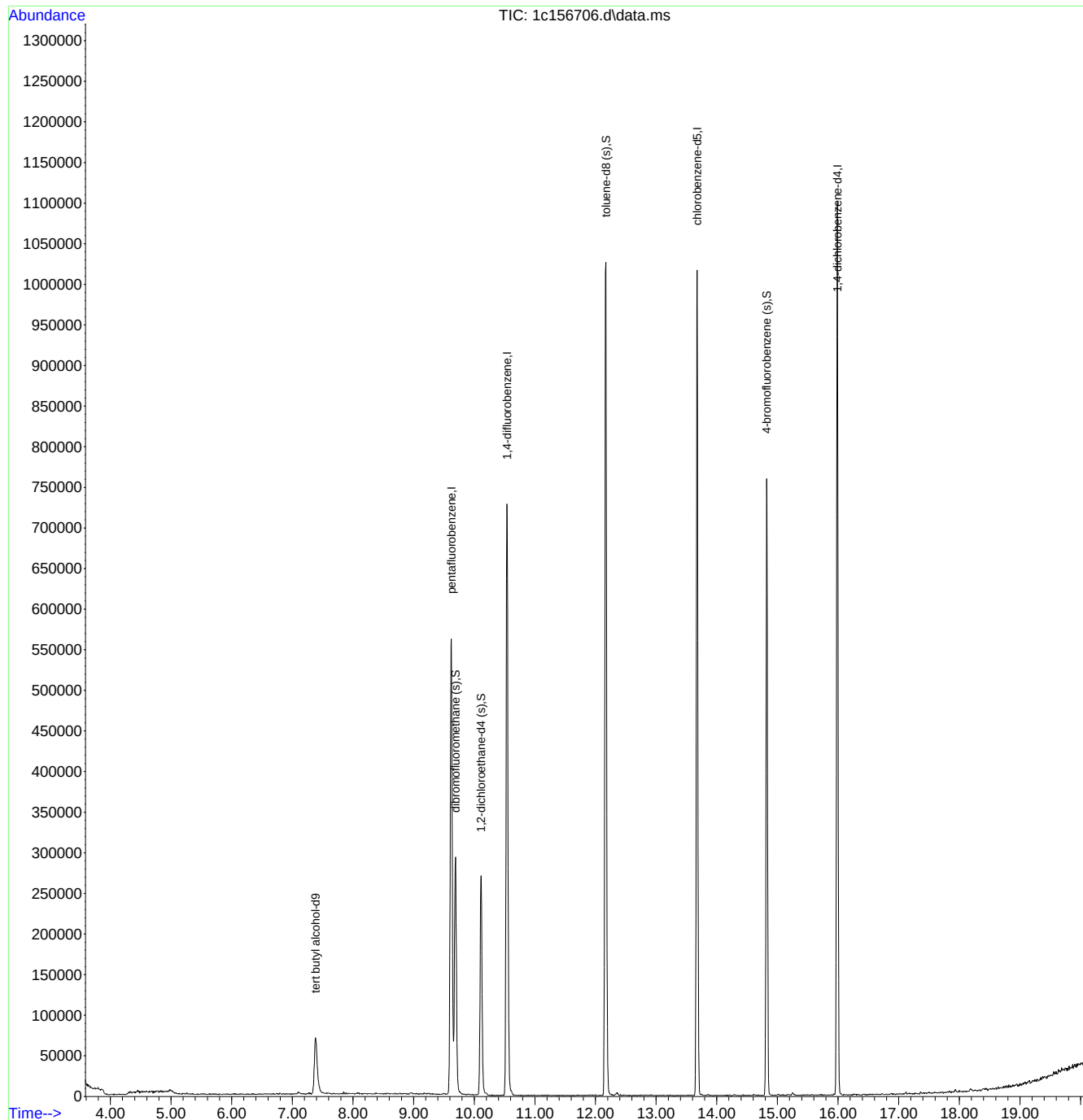
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v1c6913\
Data File : 1c156706.d
Acq On : 12 May 2018 11:48 am
Operator : prashans
Sample : MB
Misc : MS26229,V1C6913,5.0,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Inst : GCMS1C

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6871.M
Quant Results File: M1CS6871.RES
Quant Time: May 14 20:59:15 2018
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Apr 13 06:52:32 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-15-18\va9208\
Data File : a241580.d
Acq On : 14 May 2018 8:47 am
Operator : oyinadei
Sample : mb Inst : MSA
Misc : MS26219,VA9208,5,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
Quant Results File: MA9165.RES
Quant Time: May 15 04:22:02 2018
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 17 15:31:13 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.813	65	330455	500.00	ug/L	0.00
5) pentafluorobenzene	10.177	168	221760	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.113	114	319894	50.00	ug/L	0.00
76) chlorobenzene-d5	14.507	117	271421	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.112	152	161732	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.198	113	110935	50.19	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.38%
55) 1,2-dichloroethane-d4 (s)	10.637	65	111367	48.87	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	97.74%
77) toluene-d8 (s)	12.855	98	339175	46.77	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.54%
101) 4-bromofluorobenzene (s)	15.804	95	123206	46.77	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.54%

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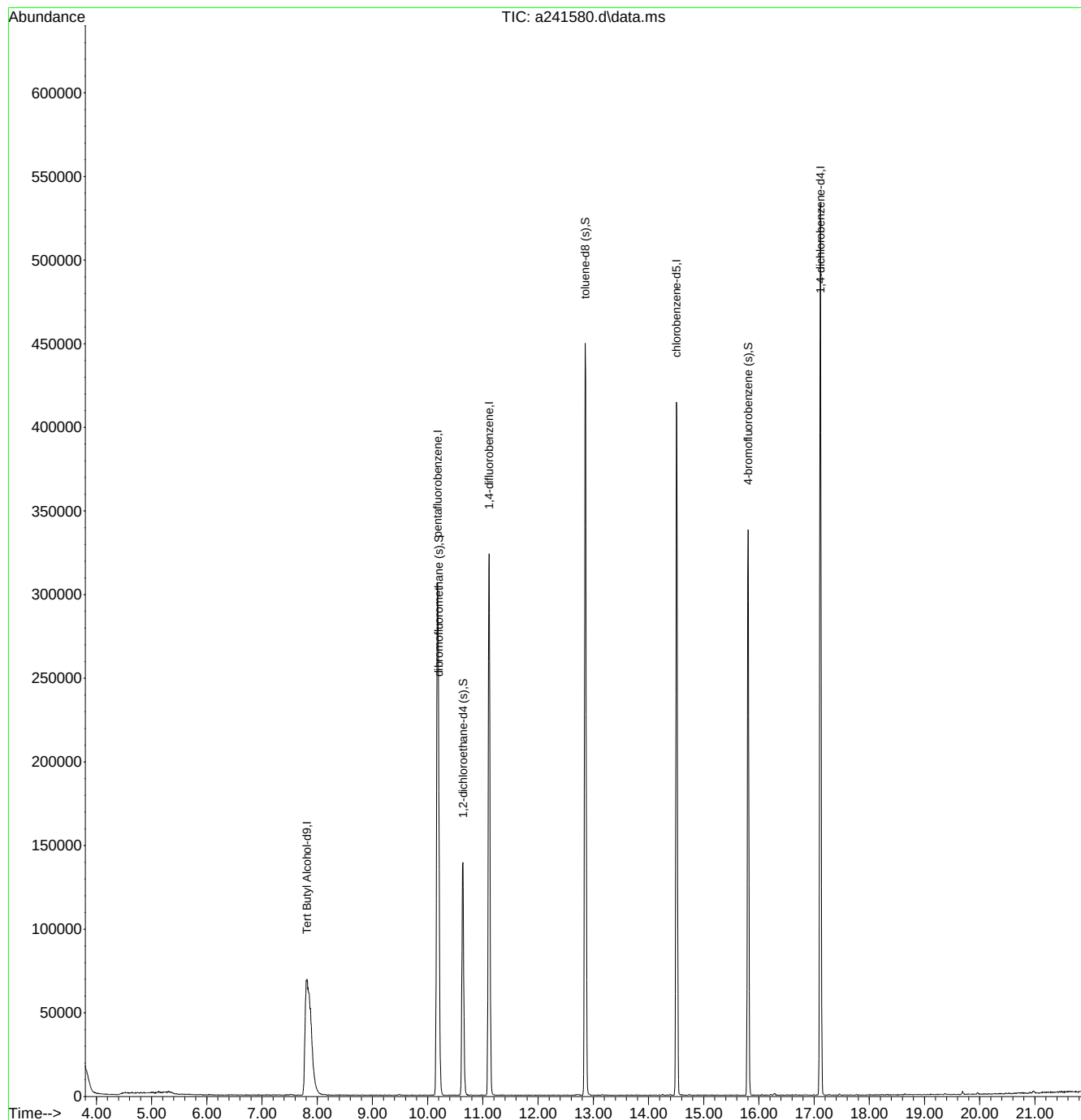
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-15-18\va9208\
Data File : a241580.d
Acq On : 14 May 2018 8:47 am
Operator : oyinadei
Sample : mb
Misc : MS26219,VA9208,5,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Inst : MSA

Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
Quant Results File: MA9165.RES
Quant Time: May 15 04:22:02 2018
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 17 15:31:13 2018
Response via : Initial Calibration



MS Semi-volatiles

QC Data Summaries

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Includes the following where applicable:

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

Method Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11966-MB1	2M103990.D	1	05/14/18	CC	05/13/18	OP11966	E2M4623

The QC reported here applies to the following samples: Method: SW846 8270D

JC65860-1

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	67	16	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	20	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	28	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	59	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	170	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	36	ug/kg	
95-48-7	2-Methylphenol	ND	67	21	ug/kg	
	3&4-Methylphenol	ND	67	27	ug/kg	
88-75-5	2-Nitrophenol	ND	170	22	ug/kg	
100-02-7	4-Nitrophenol	ND	330	89	ug/kg	
87-86-5	Pentachlorophenol	ND	130	31	ug/kg	
108-95-2	Phenol	ND	67	17	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	170	22	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	25	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	20	ug/kg	
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
98-86-2	Acetophenone	ND	170	7.2	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
1912-24-9	Atrazine	ND	67	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	67	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	67	8.1	ug/kg	
92-52-4	1,1'-Biphenyl	ND	67	4.6	ug/kg	
100-52-7	Benzaldehyde	ND	170	8.3	ug/kg	
91-58-7	2-Chloronaphthalene	ND	67	7.9	ug/kg	
106-47-8	4-Chloroaniline	ND	170	12	ug/kg	
86-74-8	Carbazole	ND	67	4.8	ug/kg	
105-60-2	Caprolactam	ND	67	13	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	67	7.1	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	67	14	ug/kg	

8.1.1
8

Method Blank Summary

Page 2 of 3

Job Number: JC65860**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11966-MB1	2M103990.D	1	05/14/18	CC	05/13/18	OP11966	E2M4623

The QC reported here applies to the following samples:**Method:** SW846 8270D

JC65860-1

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	67	12	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	67	11	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	33	10	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	33	17	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	67	28	ug/kg	
123-91-1	1,4-Dioxane	ND	33	22	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
132-64-9	Dibenzofuran	ND	67	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	67	5.4	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	67	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	67	7.1	ug/kg	
131-11-3	Dimethyl phthalate	ND	67	5.9	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	67	7.8	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	67	8.4	ug/kg	
87-68-3	Hexachlorobutadiene	ND	33	13	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	330	13	ug/kg	
67-72-1	Hexachloroethane	ND	170	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
78-59-1	Isophorone	ND	67	7.1	ug/kg	
91-57-6	2-Methylnaphthalene	ND	33	7.5	ug/kg	
88-74-4	2-Nitroaniline	ND	170	7.9	ug/kg	
99-09-2	3-Nitroaniline	ND	170	8.3	ug/kg	
100-01-6	4-Nitroaniline	ND	170	8.6	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
98-95-3	Nitrobenzene	ND	67	13	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	67	9.6	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	12	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	170	8.5	ug/kg	

8.1.1

8

Method Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11966-MB1	2M103990.D	1	05/14/18	CC	05/13/18	OP11966	E2M4623

The QC reported here applies to the following samples: Method: SW846 8270D

JC65860-1

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	92% 23-115%
4165-62-2	Phenol-d5	91% 27-114%
118-79-6	2,4,6-Tribromophenol	92% 19-152%
4165-60-0	Nitrobenzene-d5	89% 26-134%
321-60-8	2-Fluorobiphenyl	96% 39-124%
1718-51-0	Terphenyl-d14	99% 36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	2.04	200	ug/kg	J
	Total TIC, Semi-Volatile		0	ug/kg	

8.1.1
8

Method Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11966-MB1	Z130847.D	1	05/21/18	JB	05/13/18	OP11966	EZ6452

The QC reported here applies to the following samples: Method: SW846 8270D

JC65860-1

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	67	16	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	20	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	28	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	59	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	170	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	36	ug/kg	
95-48-7	2-Methylphenol	ND	67	21	ug/kg	
	3&4-Methylphenol	ND	67	27	ug/kg	
88-75-5	2-Nitrophenol	ND	170	22	ug/kg	
100-02-7	4-Nitrophenol	ND	330	89	ug/kg	
87-86-5	Pentachlorophenol	ND	130	31	ug/kg	
108-95-2	Phenol	ND	67	17	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	170	22	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	25	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	20	ug/kg	
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
98-86-2	Acetophenone	ND	170	7.2	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
1912-24-9	Atrazine	ND	67	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	67	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	67	8.1	ug/kg	
92-52-4	1,1'-Biphenyl	ND	67	4.6	ug/kg	
100-52-7	Benzaldehyde	ND	170	8.3	ug/kg	
91-58-7	2-Chloronaphthalene	ND	67	7.9	ug/kg	
106-47-8	4-Chloroaniline	ND	170	12	ug/kg	
86-74-8	Carbazole	ND	67	4.8	ug/kg	
105-60-2	Caprolactam	ND	67	13	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	67	7.1	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	67	14	ug/kg	

8.1.2
8

Method Blank Summary

Page 2 of 3

Job Number: JC65860**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11966-MB1	Z130847.D	1	05/21/18	JB	05/13/18	OP11966	EZ6452

The QC reported here applies to the following samples:**Method:** SW846 8270D

JC65860-1

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	67	12	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	67	11	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	33	10	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	33	17	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	67	28	ug/kg	
123-91-1	1,4-Dioxane	ND	33	22	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
132-64-9	Dibenzofuran	ND	67	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	67	5.4	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	67	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	67	7.1	ug/kg	
131-11-3	Dimethyl phthalate	ND	67	5.9	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	67	7.8	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	67	8.4	ug/kg	
87-68-3	Hexachlorobutadiene	ND	33	13	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	330	13	ug/kg	
67-72-1	Hexachloroethane	ND	170	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
78-59-1	Isophorone	ND	67	7.1	ug/kg	
91-57-6	2-Methylnaphthalene	ND	33	7.5	ug/kg	
88-74-4	2-Nitroaniline	ND	170	7.9	ug/kg	
99-09-2	3-Nitroaniline	ND	170	8.3	ug/kg	
100-01-6	4-Nitroaniline	ND	170	8.6	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
98-95-3	Nitrobenzene	ND	67	13	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	67	9.6	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	12	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	170	8.5	ug/kg	

8.1.2

8

Method Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11966-MB1	Z130847.D	1	05/21/18	JB	05/13/18	OP11966	EZ6452

The QC reported here applies to the following samples: Method: SW846 8270D

JC65860-1

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	91% 23-115%
4165-62-2	Phenol-d5	95% 27-114%
118-79-6	2,4,6-Tribromophenol	92% 19-152%
4165-60-0	Nitrobenzene-d5	103% 26-134%
321-60-8	2-Fluorobiphenyl	92% 39-124%
1718-51-0	Terphenyl-d14	88% 36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	2.16	240	ug/kg	J
	Total TIC, Semi-Volatile		0	ug/kg	

8.1.2
8

Method Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12025-MB2	6P473090.D	1	05/18/18	SA	05/18/18	OP12025	E6P2215

The QC reported here applies to the following samples: Method: SW846 8270D

JC65860-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.17	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.0	0.55	ug/l	
118-74-1	Hexachlorobenzene	ND	2.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.39	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
110-86-1	Pyridine	ND	2.0	0.39	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	42% 14-88%
4165-62-2	Phenol-d5	25% 10-110%
118-79-6	2,4,6-Tribromophenol	63% 39-149%
4165-60-0	Nitrobenzene-d5	69% 32-128%
321-60-8	2-Fluorobiphenyl	73% 35-119%
1718-51-0	Terphenyl-d14	93% 10-126%

8.1.3
8

Method Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12025-MB1	2M104090.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627

The QC reported here applies to the following samples: Method: SW846 8270D

OP12025-LB10, OP12025-LB11, OP12025-LB13, OP12025-LS6, OP12025-MS, OP12025-MSD

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.17	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.0	0.55	ug/l	
118-74-1	Hexachlorobenzene	ND	2.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.39	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
110-86-1	Pyridine	ND	2.0	0.39	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	46% 14-88%
4165-62-2	Phenol-d5	31% 10-110%
118-79-6	2,4,6-Tribromophenol	95% 39-149%
4165-60-0	Nitrobenzene-d5	93% 32-128%
321-60-8	2-Fluorobiphenyl	95% 35-119%
1718-51-0	Terphenyl-d14	99% 10-126%

Leachate Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12025-LB10	2M104091.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627

The QC reported here applies to the following samples: Method: SW846 8270D

JC65860-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	20	8.9	ug/l	
	3&4-Methylphenol	ND	20	8.8	ug/l	
87-86-5	Pentachlorophenol	ND	100	14	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	50	13	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	50	9.2	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	20	1.7	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	20	5.5	ug/l	
118-74-1	Hexachlorobenzene	ND	20	3.3	ug/l	
87-68-3	Hexachlorobutadiene	ND	10	4.9	ug/l	
67-72-1	Hexachloroethane	ND	50	3.9	ug/l	
98-95-3	Nitrobenzene	ND	20	6.4	ug/l	
110-86-1	Pyridine	ND	20	3.9	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	47% 14-88%
4165-62-2	Phenol-d5	32% 10-110%
118-79-6	2,4,6-Tribromophenol	90% 39-149%
4165-60-0	Nitrobenzene-d5	85% 32-128%
321-60-8	2-Fluorobiphenyl	89% 35-119%
1718-51-0	Terphenyl-d14	95% 10-126%

8.2.1
8

Leachate Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12025-LB11	2M104092.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627

The QC reported here applies to the following samples: Method: SW846 8270D

JC65860-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	20	8.9	ug/l	
	3&4-Methylphenol	ND	20	8.8	ug/l	
87-86-5	Pentachlorophenol	ND	100	14	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	50	13	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	50	9.2	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	20	1.7	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	20	5.5	ug/l	
118-74-1	Hexachlorobenzene	ND	20	3.3	ug/l	
87-68-3	Hexachlorobutadiene	ND	10	4.9	ug/l	
67-72-1	Hexachloroethane	ND	50	3.9	ug/l	
98-95-3	Nitrobenzene	ND	20	6.4	ug/l	
110-86-1	Pyridine	ND	20	3.9	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	48% 14-88%
4165-62-2	Phenol-d5	31% 10-110%
118-79-6	2,4,6-Tribromophenol	87% 39-149%
4165-60-0	Nitrobenzene-d5	85% 32-128%
321-60-8	2-Fluorobiphenyl	88% 35-119%
1718-51-0	Terphenyl-d14	96% 10-126%

8.2.2
8

Leachate Blank Summary

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Job Number: JC65860

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12025-LB13	2M104093.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65860-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	20	8.9	ug/l	
	3&4-Methylphenol	ND	20	8.8	ug/l	
87-86-5	Pentachlorophenol	ND	100	14	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	50	13	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	50	9.2	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	20	1.7	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	20	5.5	ug/l	
118-74-1	Hexachlorobenzene	ND	20	3.3	ug/l	
87-68-3	Hexachlorobutadiene	ND	10	4.9	ug/l	
67-72-1	Hexachloroethane	ND	50	3.9	ug/l	
98-95-3	Nitrobenzene	ND	20	6.4	ug/l	
110-86-1	Pyridine	ND	20	3.9	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	47% 14-88%
4165-62-2	Phenol-d5	32% 10-110%
118-79-6	2,4,6-Tribromophenol	93% 39-149%
4165-60-0	Nitrobenzene-d5	87% 32-128%
321-60-8	2-Fluorobiphenyl	90% 35-119%
1718-51-0	Terphenyl-d14	104% 10-126%

8.2.3

8

Blank Spike Summary

Page 1 of 3

Job Number: JC65860**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11966-BS1	2M103991.D	1	05/14/18	CC	05/13/18	OP11966	E2M4623

The QC reported here applies to the following samples:**Method:** SW846 8270D

JC65860-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-57-8	2-Chlorophenol	1670	1490	89	44-122
59-50-7	4-Chloro-3-methyl phenol	1670	1500	90	50-123
120-83-2	2,4-Dichlorophenol	1670	1460	88	48-122
105-67-9	2,4-Dimethylphenol	1670	1540	92	48-124
51-28-5	2,4-Dinitrophenol	3330	3530	106	34-146
534-52-1	4,6-Dinitro-o-cresol	1670	1650	99	49-140
95-48-7	2-Methylphenol	1670	1480	89	40-126
	3&4-Methylphenol	1670	1490	89	40-127
88-75-5	2-Nitrophenol	1670	1500	90	44-133
100-02-7	4-Nitrophenol	1670	1780	107	35-153
87-86-5	Pentachlorophenol	1670	1830	110	15-149
108-95-2	Phenol	1670	1430	86	50-109
58-90-2	2,3,4,6-Tetrachlorophenol	1670	1600	96	44-132
95-95-4	2,4,5-Trichlorophenol	1670	1670	100	45-124
88-06-2	2,4,6-Trichlorophenol	1670	1670	100	57-122
83-32-9	Acenaphthene	1670	1570	94	53-119
208-96-8	Acenaphthylene	1670	1570	94	41-125
98-86-2	Acetophenone	1670	1420	85	52-112
120-12-7	Anthracene	1670	1520	91	51-120
1912-24-9	Atrazine	1670	1650	99	49-139
56-55-3	Benzo(a)anthracene	1670	1530	92	54-118
50-32-8	Benzo(a)pyrene	1670	1540	92	55-121
205-99-2	Benzo(b)fluoranthene	1670	1480	89	57-116
191-24-2	Benzo(g,h,i)perylene	1670	1640	98	40-124
207-08-9	Benzo(k)fluoranthene	1670	1530	92	59-116
101-55-3	4-Bromophenyl phenyl ether	1670	1520	91	60-122
85-68-7	Butyl benzyl phthalate	1670	1560	94	51-134
92-52-4	1,1'-Biphenyl	1670	1550	93	46-122
100-52-7	Benzaldehyde	1670	1190	71	14-139
91-58-7	2-Chloronaphthalene	1670	1550	93	49-120
106-47-8	4-Chloroaniline	1670	796	48	10-115
86-74-8	Carbazole	1670	1620	97	52-124
105-60-2	Caprolactam	1670	1380	83	16-139
218-01-9	Chrysene	1670	1540	92	51-115
111-91-1	bis(2-Chloroethoxy)methane	1670	1520	91	36-131
111-44-4	bis(2-Chloroethyl)ether	1670	1510	91	41-131

* = Outside of Control Limits.

Blank Spike Summary

Page 2 of 3

Job Number: JC65860**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11966-BS1	2M103991.D	1	05/14/18	CC	05/13/18	OP11966	E2M4623

The QC reported here applies to the following samples:**Method:** SW846 8270D

JC65860-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
108-60-1	2,2'-Oxybis(1-chloropropane)	1670	1540	92	22-134
7005-72-3	4-Chlorophenyl phenyl ether	1670	1600	96	56-118
121-14-2	2,4-Dinitrotoluene	1670	1710	103	57-131
606-20-2	2,6-Dinitrotoluene	1670	1700	102	57-132
91-94-1	3,3'-Dichlorobenzidine	3330	2200	66	10-129
123-91-1	1,4-Dioxane	1670	907	54	10-110
53-70-3	Dibenzo(a,h)anthracene	1670	1560	94	48-121
132-64-9	Dibenzofuran	1670	1640	98	51-119
84-74-2	Di-n-butyl phthalate	1670	1540	92	59-125
117-84-0	Di-n-octyl phthalate	1670	1530	92	47-147
84-66-2	Diethyl phthalate	1670	1620	97	57-116
131-11-3	Dimethyl phthalate	1670	1620	97	56-116
117-81-7	bis(2-Ethylhexyl)phthalate	1670	1560	94	53-133
206-44-0	Fluoranthene	1670	1530	92	58-117
86-73-7	Fluorene	1670	1600	96	56-114
118-74-1	Hexachlorobenzene	1670	1520	91	50-128
87-68-3	Hexachlorobutadiene	1670	1510	91	43-129
77-47-4	Hexachlorocyclopentadiene	3330	3360	101	15-140
67-72-1	Hexachloroethane	1670	1400	84	43-123
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1550	93	49-124
78-59-1	Isophorone	1670	1380	83	38-128
91-57-6	2-Methylnaphthalene	1670	1450	87	37-124
88-74-4	2-Nitroaniline	1670	1640	98	45-144
99-09-2	3-Nitroaniline	1670	1240	74	10-134
100-01-6	4-Nitroaniline	1670	1740	104	41-130
91-20-3	Naphthalene	1670	1420	85	44-116
98-95-3	Nitrobenzene	1670	1360	82	36-132
621-64-7	N-Nitroso-di-n-propylamine	1670	1380	83	38-125
86-30-6	N-Nitrosodiphenylamine	1670	1460	88	51-122
85-01-8	Phenanthrene	1670	1530	92	53-119
129-00-0	Pyrene	1670	1560	94	54-124
95-94-3	1,2,4,5-Tetrachlorobenzene	1670	1230	74	45-128

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11966-BS1	2M103991.D	1	05/14/18	CC	05/13/18	OP11966	E2M4623

The QC reported here applies to the following samples: Method: SW846 8270D

JC65860-1

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	89%	23-115%
4165-62-2	Phenol-d5	88%	27-114%
118-79-6	2,4,6-Tribromophenol	97%	19-152%
4165-60-0	Nitrobenzene-d5	86%	26-134%
321-60-8	2-Fluorobiphenyl	93%	39-124%
1718-51-0	Terphenyl-d14	97%	36-134%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12025-BS2	6P473091.D	1	05/18/18	SA	05/18/18	OP12025	E6P2215

The QC reported here applies to the following samples: Method: SW846 8270D

JC65860-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-48-7	2-Methylphenol	500	338	68	42-103
	3&4-Methylphenol	500	318	64	39-110
87-86-5	Pentachlorophenol	500	361	72	30-136
95-95-4	2,4,5-Trichlorophenol	500	418	84	55-116
88-06-2	2,4,6-Trichlorophenol	500	458	92	56-115
106-46-7	1,4-Dichlorobenzene	500	357	71	39-110
121-14-2	2,4-Dinitrotoluene	500	511	102	57-122
118-74-1	Hexachlorobenzene	500	403	81	49-122
87-68-3	Hexachlorobutadiene	500	343	69	24-112
67-72-1	Hexachloroethane	500	330	66	31-107
98-95-3	Nitrobenzene	500	410	82	44-116
110-86-1	Pyridine	500	152	30	10-110

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	46%	14-88%
4165-62-2	Phenol-d5	33%	10-110%
118-79-6	2,4,6-Tribromophenol	72%	39-149%
4165-60-0	Nitrobenzene-d5	80%	32-128%
321-60-8	2-Fluorobiphenyl	85%	35-119%
1718-51-0	Terphenyl-d14	95%	10-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11966-MS	2M104058.D	1	05/15/18	CC	05/13/18	OP11966	E2M4625
OP11966-MSD	2M104059.D	1	05/15/18	CC	05/13/18	OP11966	E2M4625
JC65784-44	2M104057.D	1	05/15/18	CC	05/13/18	OP11966	E2M4625

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65860-1

CAS No.	Compound	JC65784-44		Spike	MS	MS	Spike	MSD	MSD	RPD	Limits
		ug/kg	Q	ug/kg	ug/kg	%	ug/kg	ug/kg	%		Rec/RPD
95-57-8	2-Chlorophenol	ND		2230	1960	88	2240	1900	85	3	10-137/34
59-50-7	4-Chloro-3-methyl phenol	ND		2230	2030	91	2240	2010	90	1	11-147/35
120-83-2	2,4-Dichlorophenol	ND		2230	1990	89	2240	1940	87	3	15-140/34
105-67-9	2,4-Dimethylphenol	ND		2230	2110	95	2240	2070	92	2	10-151/34
51-28-5	2,4-Dinitrophenol	ND		4450	2970	67	4480	2110	47	34	10-148/49
534-52-1	4,6-Dinitro-o-cresol	ND		2230	1920	86	2240	1620	72	17	10-150/48
95-48-7	2-Methylphenol	ND		2230	1960	88	2240	1880	84	4	10-138/33
	3&4-Methylphenol	ND		2230	1990	89	2240	1930	86	3	10-143/33
88-75-5	2-Nitrophenol	ND		2230	2000	90	2240	1960	87	2	10-150/39
100-02-7	4-Nitrophenol	ND		2230	2440	110	2240	2350	105	4	10-163/38
87-86-5	Pentachlorophenol	ND		2230	2340	105	2240	2230	100	5	10-148/39
108-95-2	Phenol	ND		2230	1860	84	2240	1820	81	2	24-114/32
58-90-2	2,3,4,6-Tetrachlorophenol	ND		2230	2130	96	2240	2090	93	2	14-140/38
95-95-4	2,4,5-Trichlorophenol	ND		2230	2280	102	2240	2240	100	2	10-146/36
88-06-2	2,4,6-Trichlorophenol	ND		2230	2320	104	2240	2220	99	4	16-148/36
83-32-9	Acenaphthene	ND		2230	2050	92	2240	2030	91	1	21-136/34
208-96-8	Acenaphthylene	ND		2230	2020	91	2240	2010	90	0	10-143/36
98-86-2	Acetophenone	ND		2230	1820	82	2240	1750	78	4	24-127/31
120-12-7	Anthracene	ND		2230	1940	87	2240	1930	86	1	10-147/39
1912-24-9	Atrazine	ND		2230	2070	93	2240	2110	94	2	10-161/38
56-55-3	Benzo(a)anthracene	24.0	J	2230	1990	88	2240	1980	87	1	10-151/41
50-32-8	Benzo(a)pyrene	27.6	J	2230	2000	89	2240	2000	88	0	10-149/40
205-99-2	Benzo(b)fluoranthene	40.7	J	2230	1950	86	2240	1950	85	0	10-147/42
191-24-2	Benzo(g,h,i)perylene	33.1	J	2230	2110	93	2240	2140	94	1	10-150/41
207-08-9	Benzo(k)fluoranthene	ND		2230	1960	88	2240	1980	88	1	12-142/41
101-55-3	4-Bromophenyl phenyl ether	ND		2230	1980	89	2240	1980	88	0	26-138/37
85-68-7	Butyl benzyl phthalate	ND		2230	2050	92	2240	2040	91	0	24-143/36
92-52-4	1,1'-Biphenyl	11.1	J	2230	2090	93	2240	2010	89	4	18-138/32
100-52-7	Benzaldehyde	ND		2230	1680	75	2240	1590	71	6	10-149/37
91-58-7	2-Chloronaphthalene	ND		2230	2020	91	2240	1980	88	2	24-130/31
106-47-8	4-Chloroaniline	ND		2230	829	37	2240	819	37	1	10-111/52
86-74-8	Carbazole	7.6	J	2230	2070	93	2240	2080	92	0	12-146/39
105-60-2	Caprolactam	ND		2230	1480	66	2240	1480	66	0	10-147/40
218-01-9	Chrysene	32.4	J	2230	1980	87	2240	1980	87	0	10-151/41
111-91-1	bis(2-Chloroethoxy)methane	ND		2230	1920	86	2240	1900	85	1	10-144/35
111-44-4	bis(2-Chloroethyl)ether	ND		2230	2050	92	2240	1960	87	4	12-142/35

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11966-MS	2M104058.D	1	05/15/18	CC	05/13/18	OP11966	E2M4625
OP11966-MSD	2M104059.D	1	05/15/18	CC	05/13/18	OP11966	E2M4625
JC65784-44	2M104057.D	1	05/15/18	CC	05/13/18	OP11966	E2M4625

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65860-1

CAS No.	Compound	JC65784-44 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
108-60-1	2,2'-Oxybis(1-chloropropane)	ND		2230	1930	87	2240	1910	85	10-137/33
7005-72-3	4-Chlorophenyl phenyl ether	ND		2230	2070	93	2240	2070	92	21-136/35
121-14-2	2,4-Dinitrotoluene	ND		2230	2200	99	2240	2160	96	21-148/41
606-20-2	2,6-Dinitrotoluene	ND		2230	2180	98	2240	2170	97	14-152/40
91-94-1	3,3'-Dichlorobenzidine	ND		4450	2790	63	4480	2800	62	10-137/47
123-91-1	1,4-Dioxane	ND		2230	1100	49	2240	1040	46	10-110/40
53-70-3	Dibenzo(a,h)anthracene	ND		2230	1960	88	2240	2000	89	10-152/38
132-64-9	Dibenzofuran	ND		2230	2160	97	2240	2130	95	17-141/36
84-74-2	Di-n-butyl phthalate	ND		2230	2060	93	2240	2060	92	26-137/35
117-84-0	Di-n-octyl phthalate	ND		2230	2030	91	2240	2070	92	23-145/36
84-66-2	Diethyl phthalate	ND		2230	2140	96	2240	2140	96	25-133/35
131-11-3	Dimethyl phthalate	ND		2230	2120	95	2240	2110	94	21-134/36
117-81-7	bis(2-Ethylhexyl)phthalate	ND		2230	2070	93	2240	2050	91	26-144/39
206-44-0	Fluoranthene	55.3		2230	2020	88	2240	2010	87	10-151/44
86-73-7	Fluorene	ND		2230	2090	94	2240	2060	92	19-133/36
118-74-1	Hexachlorobenzene	ND		2230	1950	88	2240	1940	87	18-142/37
87-68-3	Hexachlorobutadiene	ND		2230	1890	85	2240	1890	84	16-137/32
77-47-4	Hexachlorocyclopentadiene	ND		4450	2450	55	4480	2140	48	14-150/50
67-72-1	Hexachloroethane	ND		2230	1700	76	2240	1670	75	21-131/38
193-39-5	Indeno(1,2,3-cd)pyrene	29.4	J	2230	2060	91	2240	2060	91	10-148/41
78-59-1	Isophorone	ND		2230	1770	80	2240	1750	78	11-142/33
91-57-6	2-Methylnaphthalene	ND		2230	1880	84	2240	1890	84	10-141/35
88-74-4	2-Nitroaniline	ND		2230	2150	97	2240	2130	95	14-156/38
99-09-2	3-Nitroaniline	ND		2230	1560	70	2240	1650	74	10-144/45
100-01-6	4-Nitroaniline	ND		2230	1550	70	2240	1770	79	13-156/44
91-20-3	Naphthalene	ND		2230	1790	80	2240	1790	80	10-136/36
98-95-3	Nitrobenzene	ND		2230	1730	78	2240	1730	77	10-142/34
621-64-7	N-Nitroso-di-n-propylamine	ND		2230	1740	78	2240	1740	78	10-142/31
86-30-6	N-Nitrosodiphenylamine	ND		2230	1890	85	2240	1900	85	10-156/37
85-01-8	Phenanthrene	42.5	J	2230	2020	89	2240	2030	89	11-145/45
129-00-0	Pyrene	45.3		2230	1970	86	2240	1970	86	11-155/44
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		2230	1610	72	2240	1590	71	23-136/32

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11966-MS	2M104058.D	1	05/15/18	CC	05/13/18	OP11966	E2M4625
OP11966-MSD	2M104059.D	1	05/15/18	CC	05/13/18	OP11966	E2M4625
JC65784-44	2M104057.D	1	05/15/18	CC	05/13/18	OP11966	E2M4625

The QC reported here applies to the following samples: Method: SW846 8270D

JC65860-1

CAS No.	Surrogate Recoveries	MS	MSD	JC65784-44	Limits
367-12-4	2-Fluorophenol	89%	88%	72%	23-115%
4165-62-2	Phenol-d5	89%	87%	74%	27-114%
118-79-6	2,4,6-Tribromophenol	100%	100%	94%	19-152%
4165-60-0	Nitrobenzene-d5	87%	86%	72%	26-134%
321-60-8	2-Fluorobiphenyl	96%	92%	85%	39-124%
1718-51-0	Terphenyl-d14	95%	95%	90%	36-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12025-MS	2M104097.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627
OP12025-MSD	2M104098.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627
JC65724-2	2M104099.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627

The QC reported here applies to the following samples: Method: SW846 8270D

JC65860-1A

CAS No.	Compound	JC65724-2 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-48-7	2-Methylphenol	ND	500	343	69	500	348	70	1	47-112/18
	3&4-Methylphenol	ND	500	324	65	500	317	63	2	44-113/19
87-86-5	Pentachlorophenol	ND	500	495	99	500	540	108	9	25-151/25
95-95-4	2,4,5-Trichlorophenol	ND	500	492	98	500	524	105	6	51-124/20
88-06-2	2,4,6-Trichlorophenol	ND	500	508	102	500	525	105	3	53-120/21
106-46-7	1,4-Dichlorobenzene	ND	500	407	81	500	406	81	0	40-105/22
121-14-2	2,4-Dinitrotoluene	ND	500	519	104	500	553	111	6	54-123/27
118-74-1	Hexachlorobenzene	ND	500	438	88	500	472	94	7	46-125/24
87-68-3	Hexachlorobutadiene	ND	500	439	88	500	443	89	1	26-121/24
67-72-1	Hexachloroethane	ND	500	406	81	500	406	81	0	35-111/26
98-95-3	Nitrobenzene	ND	500	426	85	500	429	86	1	35-130/25
110-86-1	Pyridine	ND	500	220	44	500	236	47	7	12-102/41

CAS No.	Surrogate Recoveries	MS	MSD	JC65724-2	Limits
367-12-4	2-Fluorophenol	50%	50%	46%	14-88%
4165-62-2	Phenol-d5	36%	35%	31%	10-110%
118-79-6	2,4,6-Tribromophenol	95%	100%	91%	39-149%
4165-60-0	Nitrobenzene-d5	89%	90%	85%	32-128%
321-60-8	2-Fluorobiphenyl	93%	95%	89%	35-119%
1718-51-0	Terphenyl-d14	92%	99%	101%	10-126%

* = Outside of Control Limits.

Leachate Spike Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12025-LS6	2M104097.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627
JC65724-2	2M104099.D	1	05/17/18	GS	05/16/18	OP12025	E2M4627

The QC reported here applies to the following samples: Method: SW846 8270D

JC65860-1A

CAS No.	Compound	JC65724-2 ug/l	Spike Q ug/l	LS ug/l	LS %	Limits
95-48-7	2-Methylphenol	ND	500	343	69	47-112
	3&4-Methylphenol	ND	500	324	65	44-113
87-86-5	Pentachlorophenol	ND	500	495	99	25-151
95-95-4	2,4,5-Trichlorophenol	ND	500	492	98	51-124
88-06-2	2,4,6-Trichlorophenol	ND	500	508	102	53-120
106-46-7	1,4-Dichlorobenzene	ND	500	407	81	40-105
121-14-2	2,4-Dinitrotoluene	ND	500	519	104	54-123
118-74-1	Hexachlorobenzene	ND	500	438	88	46-125
87-68-3	Hexachlorobutadiene	ND	500	439	88	26-121
67-72-1	Hexachloroethane	ND	500	406	81	35-111
98-95-3	Nitrobenzene	ND	500	426	85	35-130
110-86-1	Pyridine	ND	500	220	44	12-102

CAS No.	Surrogate Recoveries	LS	JC65724-2	Limits
367-12-4	2-Fluorophenol	50%	46%	14-88%
4165-62-2	Phenol-d5	36%	31%	10-110%
118-79-6	2,4,6-Tribromophenol	95%	91%	39-149%
4165-60-0	Nitrobenzene-d5	89%	85%	32-128%
321-60-8	2-Fluorobiphenyl	93%	89%	35-119%
1718-51-0	Terphenyl-d14	92%	101%	10-126%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-DFTPP
Lab File ID: 2M103893.D
Instrument ID: GCMS2M
Injection Date: 05/09/18
Injection Time: 10:22

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	176008	35.4	Pass
68	Less than 2.0% of mass 69	2989	0.60 (1.53) ^a	Pass
69	Mass 69 relative abundance	194999	39.2	Pass
70	Less than 2.0% of mass 69	895	0.18 (0.46) ^a	Pass
127	40.0 - 60.0% of mass 198	246965	49.6	Pass
197	Less than 1.0% of mass 198	4345	0.87	Pass
198	Base peak, 100% relative abundance	497856	100.0	Pass
199	5.0 - 9.0% of mass 198	32775	6.58	Pass
275	10.0 - 30.0% of mass 198	122106	24.5	Pass
365	1.0 - 100.0% of mass 198	14865	2.99	Pass
441	Present, but less than mass 443	46565	9.35 (78.6) ^b	Pass
442	40.0 - 100.0% of mass 198	323541	65.0	Pass
443	17.0 - 23.0% of mass 442	59280	11.9 (18.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4618-IC4618	2M103895.D	05/09/18	11:56	01:34	Initial cal 100
E2M4618-IC4618	2M103896.D	05/09/18	12:22	02:00	Initial cal 80
E2M4618-ICC4618	2M103897.D	05/09/18	12:47	02:25	Initial cal 50
E2M4618-IC4618	2M103898.D	05/09/18	13:13	02:51	Initial cal 25
E2M4618-IC4618	2M103899.D	05/09/18	13:38	03:16	Initial cal 10
E2M4618-IC4618	2M103900.D	05/09/18	14:04	03:42	Initial cal 5
E2M4618-IC4618	2M103901.D	05/09/18	14:29	04:07	Initial cal 2
E2M4618-IC4618	2M103902.D	05/09/18	14:55	04:33	Initial cal 1

Instrument Performance Check (DFTPP)

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-DFTPP
Lab File ID: 2M103903.D
Instrument ID: GCMS2M
Injection Date: 05/09/18
Injection Time: 18:30

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	205172	37.4	Pass
68	Less than 2.0% of mass 69	3087	0.56 (1.34) ^a	Pass
69	Mass 69 relative abundance	230153	42.0	Pass
70	Less than 2.0% of mass 69	1679	0.31 (0.73) ^a	Pass
127	40.0 - 60.0% of mass 198	288469	52.6	Pass
197	Less than 1.0% of mass 198	4778	0.87	Pass
198	Base peak, 100% relative abundance	548117	100.0	Pass
199	5.0 - 9.0% of mass 198	37624	6.86	Pass
275	10.0 - 30.0% of mass 198	131669	24.0	Pass
365	1.0 - 100.0% of mass 198	14986	2.73	Pass
441	Present, but less than mass 443	45789	8.35 (75.2) ^b	Pass
442	40.0 - 100.0% of mass 198	314570	57.4	Pass
443	17.0 - 23.0% of mass 442	60857	11.1 (19.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4619-IC4619	2M103904.D	05/09/18	18:59	00:29	Initial cal 100
E2M4619-IC4619	2M103905.D	05/09/18	19:25	00:55	Initial cal 80
E2M4619-ICC4619	2M103906.D	05/09/18	19:50	01:20	Initial cal 50
E2M4619-IC4619	2M103907.D	05/09/18	20:16	01:46	Initial cal 25
E2M4619-IC4619	2M103908.D	05/09/18	20:41	02:11	Initial cal 10
E2M4619-IC4619	2M103909.D	05/09/18	21:06	02:36	Initial cal 5
E2M4619-IC4619	2M103910.D	05/09/18	21:32	03:02	Initial cal 2
E2M4619-IC4619	2M103911.D	05/09/18	21:57	03:27	Initial cal 1
E2M4619-ICV4618	2M103912.D	05/09/18	22:23	03:53	Initial cal verification 50
E2M4619-ICV4618	2M103913.D	05/09/18	22:48	04:18	Initial cal verification 50
E2M4619-ICV4619	2M103915A.D	05/09/18	23:38	05:08	Initial cal verification 50
E2M4619-ICV4618	2M103915.D	05/09/18	23:38	05:08	Initial cal verification 50
E2M4619-ICV4618	2M103916.D	05/10/18	00:04	05:34	Initial cal verification 50
E2M4619-ICV4619	2M103916A.D	05/10/18	00:04	05:34	Initial cal verification 50
E2M4619-ICV4618	2M103917.D	05/10/18	00:29	05:59	Initial cal verification 50
E2M4619-ICV4619	2M103918.D	05/10/18	02:14	07:44	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4620-DFTPP	Injection Date: 05/11/18
Lab File ID: 2M103920.D	Injection Time: 13:43
Instrument ID: GCMS2M	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	130877	34.6	Pass
68	Less than 2.0% of mass 69	2584	0.68 (1.71) ^a	Pass
69	Mass 69 relative abundance	151216	40.0	Pass
70	Less than 2.0% of mass 69	823	0.22 (0.54) ^a	Pass
127	40.0 - 60.0% of mass 198	189864	50.2	Pass
197	Less than 1.0% of mass 198	3129	0.83	Pass
198	Base peak, 100% relative abundance	378218	100.0	Pass
199	5.0 - 9.0% of mass 198	24697	6.53	Pass
275	10.0 - 30.0% of mass 198	90376	23.9	Pass
365	1.0 - 100.0% of mass 198	11279	2.98	Pass
441	Present, but less than mass 443	34077	9.01 (76.5) ^b	Pass
442	40.0 - 100.0% of mass 198	230490	60.9	Pass
443	17.0 - 23.0% of mass 442	44552	11.8 (19.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4620-ICV4619	2M103921A.D	05/11/18	13:55	00:12	Initial cal verification 50
E2M4620-ICV4618	2M103921.D	05/11/18	13:55	00:12	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4623-DFTPP
Lab File ID: 2M103984.D
Instrument ID: GCMS2M
Injection Date: 05/14/18
Injection Time: 09:13

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	102357	36.7	Pass
68	Less than 2.0% of mass 69	1876	0.67 (1.59) ^a	Pass
69	Mass 69 relative abundance	118138	42.4	Pass
70	Less than 2.0% of mass 69	512	0.18 (0.43) ^a	Pass
127	40.0 - 60.0% of mass 198	146776	52.6	Pass
197	Less than 1.0% of mass 198	2279	0.82	Pass
198	Base peak, 100% relative abundance	278890	100.0	Pass
199	5.0 - 9.0% of mass 198	19935	7.15	Pass
275	10.0 - 30.0% of mass 198	67970	24.4	Pass
365	1.0 - 100.0% of mass 198	8600	3.08	Pass
441	Present, but less than mass 443	24376	8.74 (83.2) ^b	Pass
442	40.0 - 100.0% of mass 198	160048	57.4	Pass
443	17.0 - 23.0% of mass 442	29312	10.5 (18.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4623-CC4618	2M103985.D	05/14/18	09:29	00:16	Continuing cal 25
E2M4623-CC4619	2M103986.D	05/14/18	09:59	00:46	Continuing cal 25
OP11969-MB1	2M103987.D	05/14/18	10:33	01:20	Method Blank
OP11969-BS1	2M103988.D	05/14/18	10:59	01:46	Blank Spike
OP11969-BS13	2M103989.D	05/14/18	11:25	02:12	Blank Spike
OP11966-MB1	2M103990.D	05/14/18	11:50	02:37	Method Blank
OP11966-BS1	2M103991.D	05/14/18	12:16	03:03	Blank Spike
JC62414-3B	2M103992.D	05/14/18	12:42	03:29	(used for QC only; not part of job JC65860)
OP11969-MS	2M103993.D	05/14/18	13:07	03:54	Matrix Spike
OP11969-MSD	2M103994.D	05/14/18	13:33	04:20	Matrix Spike Duplicate
ZZZZZZ	2M103996.D	05/14/18	14:24	05:11	(unrelated sample)
ZZZZZZ	2M103997.D	05/14/18	14:50	05:37	(unrelated sample)
ZZZZZZ	2M104001.D	05/14/18	16:59	07:46	(unrelated sample)

Instrument Performance Check (DFTPP)

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4625-DFTPP
Lab File ID: 2M104045.D
Instrument ID: GCMS2M
Injection Date: 05/15/18
Injection Time: 14:00

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	105034	33.2	Pass
68	Less than 2.0% of mass 69	1835	0.58 (1.49) ^a	Pass
69	Mass 69 relative abundance	123540	39.0	Pass
70	Less than 2.0% of mass 69	758	0.24 (0.61) ^a	Pass
127	40.0 - 60.0% of mass 198	159741	50.5	Pass
197	Less than 1.0% of mass 198	1599	0.51	Pass
198	Base peak, 100% relative abundance	316368	100.0	Pass
199	5.0 - 9.0% of mass 198	21431	6.77	Pass
275	10.0 - 30.0% of mass 198	80776	25.5	Pass
365	1.0 - 100.0% of mass 198	10200	3.22	Pass
441	Present, but less than mass 443	30904	9.77 (82.5) ^b	Pass
442	40.0 - 100.0% of mass 198	196139	62.0	Pass
443	17.0 - 23.0% of mass 442	37445	11.8 (19.1) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4625-CC4618	2M104046.D	05/15/18	14:17	00:17	Continuing cal 25
E2M4625-CC4619	2M104047.D	05/15/18	14:43	00:43	Continuing cal 25
ZZZZZZ	2M104049.D	05/15/18	15:39	01:39	(unrelated sample)
ZZZZZZ	2M104053.D	05/15/18	17:49	03:49	(unrelated sample)
ZZZZZZ	2M104054.D	05/15/18	18:15	04:15	(unrelated sample)
ZZZZZZ	2M104055.D	05/15/18	18:41	04:41	(unrelated sample)
ZZZZZZ	2M104056.D	05/15/18	19:07	05:07	(unrelated sample)
JC65784-44	2M104057.D	05/15/18	19:33	05:33	(used for QC only; not part of job JC65860)
OP11966-MS	2M104058.D	05/15/18	19:59	05:59	Matrix Spike
OP11966-MSD	2M104059.D	05/15/18	20:25	06:25	Matrix Spike Duplicate
ZZZZZZ	2M104064.D	05/15/18	22:08	08:08	(unrelated sample)

Instrument Performance Check (DFTPP)

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4626-DFTPP
Lab File ID: 2M104074.D
Instrument ID: GCMS2M
Injection Date: 05/16/18
Injection Time: 09:22

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	94078	33.2	Pass
68	Less than 2.0% of mass 69	1521	0.54 (1.35) ^a	Pass
69	Mass 69 relative abundance	112645	39.8	Pass
70	Less than 2.0% of mass 69	962	0.34 (0.85) ^a	Pass
127	40.0 - 60.0% of mass 198	140245	49.5	Pass
197	Less than 1.0% of mass 198	1824	0.64	Pass
198	Base peak, 100% relative abundance	283128	100.0	Pass
199	5.0 - 9.0% of mass 198	18788	6.64	Pass
275	10.0 - 30.0% of mass 198	69845	24.7	Pass
365	1.0 - 100.0% of mass 198	9035	3.19	Pass
441	Present, but less than mass 443	26003	9.18 (81.6) ^b	Pass
442	40.0 - 100.0% of mass 198	171875	60.7	Pass
443	17.0 - 23.0% of mass 442	31853	11.3 (18.5) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4626-CC4618	2M104075.D	05/16/18	09:33	00:11	Continuing cal 50
E2M4626-CC4619	2M104076.D	05/16/18	10:09	00:47	Continuing cal 50
ZZZZZZ	2M104077.D	05/16/18	11:23	02:01	(unrelated sample)
ZZZZZZ	2M104078.D	05/16/18	11:48	02:26	(unrelated sample)
ZZZZZZ	2M104079.D	05/16/18	12:14	02:52	(unrelated sample)
ZZZZZZ	2M104080.D	05/16/18	12:39	03:17	(unrelated sample)
ZZZZZZ	2M104081.D	05/16/18	13:05	03:43	(unrelated sample)
ZZZZZZ	2M104082.D	05/16/18	13:30	04:08	(unrelated sample)
ZZZZZZ	2M104084.D	05/16/18	14:21	04:59	(unrelated sample)
ZZZZZZ	2M104085.D	05/16/18	14:47	05:25	(unrelated sample)
JC65860-1	2M104086.D	05/16/18	15:12	05:50	WC-2

Instrument Performance Check (DFTPP)

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4627-DFTPP
Lab File ID: 2M104087.D
Instrument ID: GCMS2M
Injection Date: 05/16/18
Injection Time: 23:18

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	109748	36.0	Pass
68	Less than 2.0% of mass 69	2087	0.68 (1.67) ^a	Pass
69	Mass 69 relative abundance	124621	40.9	Pass
70	Less than 2.0% of mass 69	1013	0.33 (0.81) ^a	Pass
127	40.0 - 60.0% of mass 198	156373	51.3	Pass
197	Less than 1.0% of mass 198	2716	0.89	Pass
198	Base peak, 100% relative abundance	304768	100.0	Pass
199	5.0 - 9.0% of mass 198	21249	6.97	Pass
275	10.0 - 30.0% of mass 198	73189	24.0	Pass
365	1.0 - 100.0% of mass 198	8867	2.91	Pass
441	Present, but less than mass 443	25858	8.48 (82.7) ^b	Pass
442	40.0 - 100.0% of mass 198	167098	54.8	Pass
443	17.0 - 23.0% of mass 442	31275	10.3 (18.7) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4627-CC4618	2M104088.D	05/16/18	23:32	00:14	Continuing cal 25
E2M4627-CC4619	2M104089.D	05/16/18	23:57	00:39	Continuing cal 25
OP12025-MB1	2M104090.D	05/17/18	00:23	01:05	Method Blank
OP11878-MB2	2M104090.D	05/17/18	00:23	01:05	Method Blank
OP12026-MB1	2M104090.D	05/17/18	00:23	01:05	Method Blank
OP12025-LB10	2M104091.D	05/17/18	00:48	01:30	Leachate Blank
OP12025-LB11	2M104092.D	05/17/18	01:13	01:55	Leachate Blank
OP12025-LB13	2M104093.D	05/17/18	01:39	02:21	Leachate Blank
OP12026-LB15	2M104094.D	05/17/18	02:04	02:46	Leachate Blank
OP11878-LB16	2M104095.D	05/17/18	02:30	03:12	Leachate Blank
OP11878-BS2	2M104096.D	05/17/18	02:55	03:37	Blank Spike
OP12026-BS1	2M104096.D	05/17/18	02:55	03:37	Blank Spike
OP12025-BS1	2M104096.D	05/17/18	02:55	03:37	Blank Spike
OP12025-MS	2M104097.D	05/17/18	03:20	04:02	Matrix Spike
OP12025-LS6	2M104097.D	05/17/18	03:20	04:02	Leachate Spike
OP12025-MSD	2M104098.D	05/17/18	03:46	04:28	Matrix Spike Duplicate
JC65724-2	2M104099.D	05/17/18	04:11	04:53	(used for QC only; not part of job JC65860)
ZZZZZZ	2M104100.D	05/17/18	04:37	05:19	(unrelated sample)
ZZZZZZ	2M104101.D	05/17/18	05:02	05:44	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	E2M4627-DFTPP	Injection Date:	05/16/18
Lab File ID:	2M104087.D	Injection Time:	23:18
Instrument ID:	GCMS2M		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	2M104102.D	05/17/18	05:27	06:09	(unrelated sample)
ZZZZZZ	2M104103.D	05/17/18	05:52	06:34	(unrelated sample)
ZZZZZZ	2M104104.D	05/17/18	06:18	07:00	(unrelated sample)
OP12026-MS	2M104105.D	05/17/18	06:43	07:25	Matrix Spike
OP12026-LS7	2M104105.D	05/17/18	06:43	07:25	Leachate Spike
OP12026-MSD	2M104106.D	05/17/18	07:08	07:50	Matrix Spike Duplicate
JC65923-1	2M104107.D	05/17/18	07:34	08:16	(used for QC only; not part of job JC65860)
ZZZZZZ	2M104108.D	05/17/18	07:59	08:41	(unrelated sample)
ZZZZZZ	2M104109.D	05/17/18	08:24	09:06	(unrelated sample)
ZZZZZZ	2M104110.D	05/17/18	08:50	09:32	(unrelated sample)
ZZZZZZ	2M104111.D	05/17/18	09:15	09:57	(unrelated sample)
ZZZZZZ	2M104112.D	05/17/18	09:41	10:23	(unrelated sample)
ZZZZZZ	2M104113.D	05/17/18	10:06	10:48	(unrelated sample)
ZZZZZZ	2M104114.D	05/17/18	10:31	11:13	(unrelated sample)
ZZZZZZ	2M104115.D	05/17/18	10:57	11:39	(unrelated sample)

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Instrument Performance Check (DFTPP)

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4628-DFTPP
Lab File ID: 2M104118.D
Instrument ID: GCMS2M
Injection Date: 05/17/18
Injection Time: 13:10

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	76317	35.0	Pass
68	Less than 2.0% of mass 69	1348	0.62 (1.58) ^a	Pass
69	Mass 69 relative abundance	85216	39.0	Pass
70	Less than 2.0% of mass 69	474	0.22 (0.56) ^a	Pass
127	40.0 - 60.0% of mass 198	110554	50.7	Pass
197	Less than 1.0% of mass 198	978	0.45	Pass
198	Base peak, 100% relative abundance	218248	100.0	Pass
199	5.0 - 9.0% of mass 198	14356	6.58	Pass
275	10.0 - 30.0% of mass 198	53522	24.5	Pass
365	1.0 - 100.0% of mass 198	6411	2.94	Pass
441	Present, but less than mass 443	19771	9.06 (81.6) ^b	Pass
442	40.0 - 100.0% of mass 198	128197	58.7	Pass
443	17.0 - 23.0% of mass 442	24217	11.1 (18.9) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4628-CC4618	2M104119.D	05/17/18	13:24	00:14	Continuing cal 50
E2M4628-CC4619	2M104120.D	05/17/18	13:49	00:39	Continuing cal 50
ZZZZZZ	2M104121.D	05/17/18	14:15	01:05	(unrelated sample)
ZZZZZZ	2M104122.D	05/17/18	14:40	01:30	(unrelated sample)
ZZZZZZ	2M104142.D	05/17/18	16:49	03:39	(unrelated sample)
ZZZZZZ	2M104143.D	05/17/18	22:46	09:36	(unrelated sample)
ZZZZZZ	2M104141.D	05/17/18	23:12	10:02	(unrelated sample)
JC65860-1	2M104144.D	05/18/18	00:03	10:53	WC-2

Instrument Performance Check (DFTPP)

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-DFTPP
Lab File ID: 6P471774.D
Instrument ID: GCMS6P
Injection Date: 04/13/18
Injection Time: 23:44

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	185492	46.4	Pass
68	Less than 2.0% of mass 69	2655	0.66 (1.65) ^a	Pass
69	Mass 69 relative abundance	161241	40.4	Pass
70	Less than 2.0% of mass 69	1012	0.25 (0.63) ^a	Pass
127	40.0 - 60.0% of mass 198	182858	45.8	Pass
197	Less than 1.0% of mass 198	2777	0.70	Pass
198	Base peak, 100% relative abundance	399552	100.0	Pass
199	5.0 - 9.0% of mass 198	25358	6.35	Pass
275	10.0 - 30.0% of mass 198	109442	27.4	Pass
365	1.0 - 100.0% of mass 198	15577	3.90	Pass
441	Present, but less than mass 443	49568	12.4 (82.7) ^b	Pass
442	40.0 - 100.0% of mass 198	312832	78.3	Pass
443	17.0 - 23.0% of mass 442	59968	15.0 (19.2) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P2164-IC2164	6P471775.D	04/14/18	00:24	00:40	Initial cal 100
E6P2164-IC2164	6P471776.D	04/14/18	00:49	01:05	Initial cal 80
E6P2164-ICC2164	6P471777.D	04/14/18	01:14	01:30	Initial cal 50
E6P2164-IC2164	6P471778.D	04/14/18	01:39	01:55	Initial cal 25
E6P2164-IC2164	6P471779.D	04/14/18	02:04	02:20	Initial cal 10
E6P2164-IC2164	6P471780.D	04/14/18	02:28	02:44	Initial cal 5
E6P2164-IC2164	6P471781.D	04/14/18	02:53	03:09	Initial cal 2
E6P2164-IC2164	6P471782.D	04/14/18	03:18	03:34	Initial cal 1
E6P2164-ICV2164	6P471783.D	04/14/18	03:43	03:59	Initial cal verification 50
E6P2164-ICV2164	6P471784.D	04/14/18	04:08	04:24	Initial cal verification 50
E6P2164-ICV2164	6P471785.D	04/14/18	04:32	04:48	Initial cal verification 50
E6P2164-ICV2164	6P471786.D	04/14/18	04:57	05:13	Initial cal verification 50
E6P2164-ICV2164	6P471787.D	04/14/18	05:22	05:38	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-DFTPP
Lab File ID: 6P471788.D
Instrument ID: GCMS6P
Injection Date: 04/14/18
Injection Time: 05:42

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	227605	42.3	Pass
68	Less than 2.0% of mass 69	3266	0.61 (1.61) ^a	Pass
69	Mass 69 relative abundance	202318	37.6	Pass
70	Less than 2.0% of mass 69	676	0.13 (0.33) ^a	Pass
127	40.0 - 60.0% of mass 198	235221	43.7	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	538005	100.0	Pass
199	5.0 - 9.0% of mass 198	34632	6.44	Pass
275	10.0 - 30.0% of mass 198	154754	28.8	Pass
365	1.0 - 100.0% of mass 198	23029	4.28	Pass
441	Present, but less than mass 443	79578	14.8 (81.5) ^b	Pass
442	40.0 - 100.0% of mass 198	501653	93.2	Pass
443	17.0 - 23.0% of mass 442	97586	18.1 (19.5) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P2165-IC2165	6P471789.D	04/14/18	05:55	00:13	Initial cal 100
E6P2165-IC2165	6P471790.D	04/14/18	06:20	00:38	Initial cal 80
E6P2165-ICC2165	6P471791.D	04/14/18	06:44	01:02	Initial cal 50
E6P2165-IC2165	6P471792.D	04/14/18	07:09	01:27	Initial cal 25
E6P2165-IC2165	6P471793.D	04/14/18	07:34	01:52	Initial cal 10
E6P2165-IC2165	6P471794.D	04/14/18	07:58	02:16	Initial cal 5
E6P2165-IC2165	6P471795.D	04/14/18	08:23	02:41	Initial cal 2
E6P2165-IC2165	6P471796.D	04/14/18	08:48	03:06	Initial cal 1
E6P2165-ICV2165	6P471797A.D	04/14/18	09:12	03:30	Initial cal verification 50
E6P2165-ICV2164	6P471797.D	04/14/18	09:12	03:30	Initial cal verification 50
E6P2165-ICV2165	6P471798.D	04/14/18	09:37	03:55	Initial cal verification 50
E6P2165-ICV2165	6P471799.D	04/14/18	10:02	04:20	Initial cal verification 50
E6P2165-ICV2165	6P471800.D	04/14/18	10:26	04:44	Initial cal verification 50
E6P2165-ICV2165	6P471801.D	04/14/18	10:51	05:09	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2215-DFTPP
Lab File ID: 6P473086.D
Instrument ID: GCMS6P
Injection Date: 05/18/18
Injection Time: 19:06

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	137600	52.2	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	144676	54.9	Pass
70	Less than 2.0% of mass 69	1127	0.43 (0.78) ^a	Pass
127	40.0 - 60.0% of mass 198	150527	57.1	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	263765	100.0	Pass
199	5.0 - 9.0% of mass 198	20702	7.85	Pass
275	10.0 - 30.0% of mass 198	69560	26.4	Pass
365	1.0 - 100.0% of mass 198	7684	2.91	Pass
441	Present, but less than mass 443	31830	12.1 (87.5) ^b	Pass
442	40.0 - 100.0% of mass 198	202018	76.6	Pass
443	17.0 - 23.0% of mass 442	36360	13.8 (18.0) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P2215-CC2164	6P473087.D	05/18/18	19:25	00:19	Continuing cal 50
E6P2215-CC2165	6P473088.D	05/18/18	19:49	00:43	Continuing cal 50
OP12062-MB1	6P473090.D	05/18/18	20:42	01:36	Method Blank
OP12025-MB2	6P473090.D	05/18/18	20:42	01:36	Method Blank
OP12063-MB1	6P473090.D	05/18/18	20:42	01:36	Method Blank
OP12062-BS1	6P473091.D	05/18/18	21:06	02:00	Blank Spike
OP12025-BS2	6P473091.D	05/18/18	21:06	02:00	Blank Spike
OP12063-BS1	6P473091.D	05/18/18	21:06	02:00	Blank Spike
OP12062-LB19	6P473092.D	05/18/18	21:31	02:25	Leachate Blank
OP12063-LB20	6P473093.D	05/18/18	21:56	02:50	Leachate Blank
JC65860-1A	6P473094.D	05/18/18	22:20	03:14	WC-2
ZZZZZZ	6P473095.D	05/18/18	22:45	03:39	(unrelated sample)
ZZZZZZ	6P473096.D	05/18/18	23:10	04:04	(unrelated sample)
ZZZZZZ	6P473098.D	05/18/18	23:59	04:53	(unrelated sample)
ZZZZZZ	6P473099.D	05/19/18	00:24	05:18	(unrelated sample)
ZZZZZZ	6P473100.D	05/19/18	00:48	05:42	(unrelated sample)
ZZZZZZ	6P473101.D	05/19/18	01:13	06:07	(unrelated sample)
ZZZZZZ	6P473102.D	05/19/18	01:37	06:31	(unrelated sample)
ZZZZZZ	6P473103.D	05/19/18	02:02	06:56	(unrelated sample)

Instrument Performance Check (DFTPP)

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	E6P2215-DFTPP	Injection Date:	05/18/18
Lab File ID:	6P473086.D	Injection Time:	19:06
Instrument ID:	GCMS6P		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	6P473104.D	05/19/18	02:27	07:21	(unrelated sample)
ZZZZZZ	6P473105.D	05/19/18	02:51	07:45	(unrelated sample)
ZZZZZZ	6P473106.D	05/19/18	03:16	08:10	(unrelated sample)
ZZZZZZ	6P473107.D	05/19/18	03:40	08:34	(unrelated sample)
ZZZZZZ	6P473108.D	05/19/18	04:05	08:59	(unrelated sample)
ZZZZZZ	6P473109.D	05/19/18	04:29	09:23	(unrelated sample)
ZZZZZZ	6P473110.D	05/19/18	04:54	09:48	(unrelated sample)
OP12062-MS	6P473111.D	05/19/18	05:19	10:13	Matrix Spike
OP12062-LS9	6P473111.D	05/19/18	05:19	10:13	Leachate Spike
OP12062-MSD	6P473112.D	05/19/18	05:43	10:37	Matrix Spike Duplicate
JC66031-1A	6P473113.D	05/19/18	06:08	11:02	(used for QC only; not part of job JC65860)
OP12063-MS	6P473114.D	05/19/18	06:33	11:27	Matrix Spike
OP12063-LS10	6P473114.D	05/19/18	06:33	11:27	Leachate Spike
OP12063-MSD	6P473115.D	05/19/18	06:57	11:51	Matrix Spike Duplicate

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Instrument Performance Check (DFTPP)

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-DFTPP	Injection Date: 05/04/18
Lab File ID: Z130440.D	Injection Time: 18:48
Instrument ID: GCMSZ	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	57058	36.6	Pass
68	Less than 2.0% of mass 69	1013	0.65 (1.64) ^a	Pass
69	Mass 69 relative abundance	61632	39.5	Pass
70	Less than 2.0% of mass 69	376	0.24 (0.61) ^a	Pass
127	40.0 - 60.0% of mass 198	84122	54.0	Pass
197	Less than 1.0% of mass 198	707	0.45	Pass
198	Base peak, 100% relative abundance	155912	100.0	Pass
199	5.0 - 9.0% of mass 198	10520	6.75	Pass
275	10.0 - 30.0% of mass 198	43853	28.1	Pass
365	1.0 - 100.0% of mass 198	6467	4.15	Pass
441	Present, but less than mass 443	22304	14.3 (83.3) ^b	Pass
442	40.0 - 100.0% of mass 198	146432	93.9	Pass
443	17.0 - 23.0% of mass 442	26784	17.2 (18.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EZ6436-IC6436	Z130441.D	05/04/18	19:14	00:26	Initial cal 100
EZ6436-IC6436	Z130442.D	05/04/18	19:41	00:53	Initial cal 80
EZ6436-ICC6436	Z130443.D	05/04/18	20:08	01:20	Initial cal 50
EZ6436-IC6436	Z130444.D	05/04/18	20:35	01:47	Initial cal 25
EZ6436-IC6436	Z130445.D	05/04/18	21:02	02:14	Initial cal 10
EZ6436-IC6436	Z130446.D	05/04/18	21:30	02:42	Initial cal 5
EZ6436-IC6436	Z130447.D	05/04/18	21:57	03:09	Initial cal 2
EZ6436-IC6436	Z130448.D	05/04/18	22:24	03:36	Initial cal 1
EZ6436-ICV6436	Z130449.D	05/04/18	22:51	04:03	Initial cal verification 50
EZ6436-ICV6436	Z130450.D	05/04/18	23:18	04:30	Initial cal verification 50
EZ6436-ICV6436	Z130451.D	05/04/18	23:44	04:56	Initial cal verification 50
EZ6436-ICV6436	Z130452.D	05/05/18	00:11	05:23	Initial cal verification 50
EZ6436-ICV6436	Z130453.D	05/05/18	00:38	05:50	Initial cal verification 50
EZ6436-ICV6436	Z130454.D	05/05/18	01:05	06:17	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-DFTPP
Lab File ID: Z130457.D
Instrument ID: GCMSZ
Injection Date: 05/09/18
Injection Time: 13:19

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	56786	31.7	Pass
68	Less than 2.0% of mass 69	1148	0.64 (1.78) ^a	Pass
69	Mass 69 relative abundance	64605	36.1	Pass
70	Less than 2.0% of mass 69	293	0.16 (0.45) ^a	Pass
127	40.0 - 60.0% of mass 198	90496	50.6	Pass
197	Less than 1.0% of mass 198	511	0.29	Pass
198	Base peak, 100% relative abundance	178973	100.0	Pass
199	5.0 - 9.0% of mass 198	11982	6.69	Pass
275	10.0 - 30.0% of mass 198	51293	28.7	Pass
365	1.0 - 100.0% of mass 198	7589	4.24	Pass
441	Present, but less than mass 443	25773	14.4 (79.7) ^b	Pass
442	40.0 - 100.0% of mass 198	175018	97.8	Pass
443	17.0 - 23.0% of mass 442	32322	18.1 (18.5) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EZ6437-IC6437	Z130458.D	05/09/18	13:34	00:15	Initial cal 100
EZ6437-IC6437	Z130459.D	05/09/18	14:01	00:42	Initial cal 80
EZ6437-ICC6437	Z130460.D	05/09/18	14:28	01:09	Initial cal 50
EZ6437-IC6437	Z130461.D	05/09/18	14:56	01:37	Initial cal 25
EZ6437-IC6437	Z130462.D	05/09/18	15:23	02:04	Initial cal 10
EZ6437-IC6437	Z130463.D	05/09/18	15:50	02:31	Initial cal 5
EZ6437-IC6437	Z130464.D	05/09/18	16:17	02:58	Initial cal 2
EZ6437-IC6437	Z130465.D	05/09/18	16:44	03:25	Initial cal 1
EZ6437-ICV6437	Z130466.D	05/09/18	17:11	03:52	Initial cal verification 50
EZ6437-ICV6437	Z130467.D	05/09/18	17:39	04:20	Initial cal verification 50
EZ6437-ICV6436	Z130468A.D	05/09/18	18:05	04:46	Initial cal verification 50
EZ6437-ICV6437	Z130468.D	05/09/18	18:05	04:46	Initial cal verification 50
EZ6437-ICV6437	Z130470.D	05/09/18	19:00	05:41	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6452-DFTPP
Lab File ID: Z130838.D
Instrument ID: GCMSZ
Injection Date: 05/21/18
Injection Time: 10:10

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	45157	40.7	Pass
68	Less than 2.0% of mass 69	843	0.76 (1.68) ^a	Pass
69	Mass 69 relative abundance	50142	45.2	Pass
70	Less than 2.0% of mass 69	280	0.25 (0.56) ^a	Pass
127	40.0 - 60.0% of mass 198	63853	57.6	Pass
197	Less than 1.0% of mass 198	108	0.10	Pass
198	Base peak, 100% relative abundance	110928	100.0	Pass
199	5.0 - 9.0% of mass 198	7590	6.84	Pass
275	10.0 - 30.0% of mass 198	29762	26.8	Pass
365	1.0 - 100.0% of mass 198	4630	4.17	Pass
441	Present, but less than mass 443	13087	11.8 (80.7) ^b	Pass
442	40.0 - 100.0% of mass 198	89445	80.6	Pass
443	17.0 - 23.0% of mass 442	16224	14.6 (18.1) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EZ6452-CC6436	Z130839.D	05/21/18	10:24	00:14	Continuing cal 50
EZ6452-CC6437	Z130840.D	05/21/18	10:51	00:41	Continuing cal 50
OP12123-MB1	Z130841.D	05/21/18	11:18	01:08	Method Blank
OP12123A-MB1	Z130841.D	05/21/18	11:18	01:08	Method Blank
OP12123-BS1	Z130842.D	05/21/18	11:45	01:35	Blank Spike
OP11910-MS	Z130850.D	05/21/18	12:12	02:02	Matrix Spike
ZZZZZZ	Z130843.D	05/21/18	13:06	02:56	(unrelated sample)
OP12098-MB1	Z130844.D	05/21/18	13:33	03:23	Method Blank
OP12131-MB1	Z130845.D	05/21/18	14:00	03:50	Method Blank
OP12132-MB1	Z130845.D	05/21/18	14:00	03:50	Method Blank
OP12097-MB1	Z130846.D	05/21/18	14:27	04:17	Method Blank
OP11966-MB1	Z130847.D	05/21/18	14:54	04:44	Method Blank
ZZZZZZ	Z130848.D	05/21/18	15:21	05:11	(unrelated sample)
OP12132-MS	Z130849.D	05/21/18	15:48	05:38	Matrix Spike
OP12132-LS10	Z130849.D	05/21/18	15:48	05:38	Leachate Spike
OP12132-MSD	Z130852.D	05/21/18	16:15	06:05	Matrix Spike Duplicate
JC65917-1	Z130853.D	05/21/18	16:43	06:33	(used for QC only; not part of job JC65860)
OP12131-LS9	Z130854.D	05/21/18	17:10	07:00	Leachate Spike
OP12131-MS	Z130854.D	05/21/18	17:10	07:00	Matrix Spike

Instrument Performance Check (DFTPP)

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	EZ6452-DFTPP	Injection Date:	05/21/18
Lab File ID:	Z130838.D	Injection Time:	10:10
Instrument ID:	GCMSZ		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
OP12131-MSD	Z130855.D	05/21/18	17:37	07:27	Matrix Spike Duplicate
JC65969-2	Z130856.D	05/21/18	18:04	07:54	(used for QC only; not part of job JC65860)
JC63222-1A	Z130857.D	05/21/18	18:31	08:21	(used for QC only; not part of job JC65860)
ZZZZZZ	Z130858.D	05/21/18	18:58	08:48	(unrelated sample)
ZZZZZZ	Z130859.D	05/21/18	19:26	09:16	(unrelated sample)
OP12123-MS	Z130860.D	05/21/18	19:53	09:43	Matrix Spike
OP12123-MSD	Z130861.D	05/21/18	20:20	10:10	Matrix Spike Duplicate
JC66346-1	Z130862.D	05/21/18	20:47	10:37	(used for QC only; not part of job JC65860)
ZZZZZZ	Z130863.D	05/21/18	21:15	11:05	(unrelated sample)
ZZZZZZ	Z130864.D	05/21/18	21:42	11:32	(unrelated sample)

8.6.14
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Internal Standard Area Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E2M4623-CC4618	Injection Date: 05/14/18
Lab File ID: 2M103985.D	Injection Time: 09:29
Instrument ID: GCMS2M	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	412753	4.65	1599986	5.74	870284	7.80	1522823	9.96	1447212	14.13	1468990	16.24
Upper Limit ^a	825506	5.15	3199972	6.24	1740568	8.30	3045646	10.46	2894424	14.63	2937980	16.74
Lower Limit ^b	206377	4.15	799993	5.24	435142	7.30	761412	9.46	723606	13.63	734495	15.74

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP11969-MB1	404824	4.65	1569507	5.74	751579	7.79	1371882	9.96	1205292	14.13	1265506	16.23
OP11969-BS1	418793	4.65	1629457	5.74	799195	7.79	1460979	9.96	1337183	14.13	1427390	16.23
OP11969-BS13	430998	4.65	1655036	5.74	787446	7.79	1429958	9.95	1261007	14.13	1332523	16.23
OP11966-MB1	420111	4.65	1631167	5.73	769699	7.79	1405674	9.95	1242670	14.13	1289180	16.23
OP11966-BS1	434465	4.65	1676333	5.74	802658	7.79	1452324	9.96	1297860	14.13	1368890	16.23
JC62414-3B	392250	4.65	1560829	5.74	773789	7.79	1463529	9.95	1406374	14.13	1463849	16.23
OP11969-MS	73541*	4.65	280351*	5.73	136684*	7.79	261912*	9.95	243579*	14.12	247495*	16.23
OP11969-MSD	78254*	4.65	305746*	5.73	149060*	7.79	279579*	9.95	276424*	14.12	270116*	16.23
ZZZZZZ	415847	4.65	1650978	5.74	820250	7.79	1498181	9.95	1444656	14.13	1446172	16.23
ZZZZZZ	463176	4.65	1764805	5.74	854740	7.79	1570196	9.96	1485153	14.13	1534138	16.24
ZZZZZZ	381762	4.65	1461434	5.73	686852	7.79	1213958	9.95	1108467	14.13	1170764	16.23

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

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

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

8.7.1

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Internal Standard Area Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E2M4625-CC4618	Injection Date: 05/15/18
Lab File ID: 2M104046.D	Injection Time: 14:17
Instrument ID: GCMS2M	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	456092	4.64	1748188	5.72	964752	7.78	1652447	9.94	1533654	14.12	1535630	16.22
Upper Limit ^a	912184	5.14	3496376	6.22	1929504	8.28	3304894	10.44	3067308	14.62	3071260	16.72
Lower Limit ^b	228046	4.14	874094	5.22	482376	7.28	826224	9.44	766827	13.62	767815	15.72

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
ZZZZZZ	457063	4.64	1714226	5.72	830962	7.78	1499711	9.94	1403936	14.11	1478558	16.22
ZZZZZZ	490115	4.64	1867985	5.72	870862	7.78	1494864	9.94	1271938	14.10	1318688	16.21
ZZZZZZ	453181	4.64	1686548	5.72	797100	7.78	1408449	9.94	1223090	14.10	1301618	16.22
ZZZZZZ	449585	4.64	1679145	5.72	790261	7.78	1385185	9.94	1193983	14.10	1235593	16.22
ZZZZZZ	450142	4.64	1723274	5.72	814794	7.78	1431760	9.94	1270770	14.10	1336432	16.22
JC65784-44	478746	4.64	1798106	5.72	825114	7.78	1440676	9.94	1281526	14.11	1378991	16.22
OP11966-MS	431980	4.64	1664248	5.72	778173	7.78	1385247	9.94	1259801	14.12	1364577	16.22
OP11966-MSD	412345	4.64	1581396	5.72	764267	7.78	1350254	9.94	1228415	14.12	1295618	16.22
ZZZZZZ	426143	4.64	1688303	5.73	836969	7.79	1566736	9.96	1451399	14.15	1510719	16.27

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

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

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

Internal Standard Area Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E2M4626-CC4618	Injection Date: 05/16/18
Lab File ID: 2M104075.D	Injection Time: 09:33
Instrument ID: GCMS2M	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	440417	4.63	1679143	5.72	935402	7.78	1656035	9.94	1599550	14.12	1589716	16.23
Upper Limit ^a	880834	5.13	3358286	6.22	1870804	8.28	3312070	10.44	3199100	14.62	3179432	16.73
Lower Limit ^b	220209	4.13	839572	5.22	467701	7.28	828018	9.44	799775	13.62	794858	15.73

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
ZZZZZZ	432765	4.63	1655414	5.72	815059	7.78	1464387	9.94	1244566	14.12	1180316	16.23
ZZZZZZ	438820	4.63	1708610	5.72	818520	7.77	1490703	9.94	1316395	14.11	1288183	16.22
ZZZZZZ	435005	4.63	1657990	5.72	792481	7.77	1418990	9.94	1165907	14.11	1172374	16.22
ZZZZZZ	459268	4.63	1756777	5.72	820412	7.77	1453379	9.94	1232881	14.11	1238478	16.22
ZZZZZZ	407121	4.63	1565432	5.72	739361	7.77	1322013	9.94	1128971	14.11	1174912	16.23
ZZZZZZ	410203	4.63	1565568	5.73	811863	7.78	1421625	9.95	1258673	14.14	1365669	16.25
ZZZZZZ	421936	4.64	1543238	5.72	713506	7.78	1225446	9.95	1141686	14.14	1205379	16.27
ZZZZZZ	430737	4.64	1598165	5.72	742726	7.78	1272950	9.95	1165197	14.14	1216217	16.25
JC65860-1	394965	4.64	1464846	5.72	687342	7.78	1216948	9.96	1104231	14.19	1243632	16.32

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

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

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

Internal Standard Area Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E2M4627-CC4618	Injection Date: 05/16/18
Lab File ID: 2M104088.D	Injection Time: 23:32
Instrument ID: GCMS2M	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	450248	4.63	1728575	5.72	961360	7.77	1677732	9.94	1571448	14.12	1563673	16.23
Upper Limit ^a	900496	5.13	3457150	6.22	1922720	8.27	3355464	10.44	3142896	14.62	3127346	16.73
Lower Limit ^b	225124	4.13	864288	5.22	480680	7.27	838866	9.44	785724	13.62	781837	15.73

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP12026-MB1	402487	4.63	1558250	5.71	776436	7.77	1442785	9.93	1313494	14.11	1318956	16.22
OP11878-MB2	402487	4.63	1558250	5.71	776436	7.77	1442785	9.93	1313494	14.11	1318956	16.22
OP12025-MB1	402487	4.63	1558250	5.71	776436	7.77	1442785	9.93	1313494	14.11	1318956	16.22
OP12025-LB10	401123	4.63	1551860	5.71	774992	7.77	1439446	9.93	1336442	14.11	1326965	16.22
OP12025-LB11	407526	4.63	1610765	5.71	799103	7.77	1487855	9.93	1372510	14.10	1399790	16.22
OP12025-LB13	413264	4.63	1620665	5.71	811787	7.77	1510266	9.93	1391364	14.11	1405023	16.22
OP12026-LB15	432693	4.63	1668645	5.71	836196	7.77	1572924	9.93	1427944	14.11	1429942	16.22
OP11878-LB16	382887	4.63	1473662	5.71	743748	7.77	1377348	9.93	1265439	14.10	1282358	16.22
OP12026-BS1	418983	4.63	1624409	5.71	799012	7.77	1475596	9.94	1338380	14.12	1336404	16.22
OP12025-BS1	418983	4.63	1624409	5.71	799012	7.77	1475596	9.94	1338380	14.12	1336404	16.22
OP11878-BS2	418983	4.63	1624409	5.71	799012	7.77	1475596	9.94	1338380	14.12	1336404	16.22
OP12025-LS6	472330	4.63	1835767	5.72	916744	7.77	1672302	9.94	1474682	14.12	1464010	16.22
OP12025-MS	472330	4.63	1835767	5.72	916744	7.77	1672302	9.94	1474682	14.12	1464010	16.22
OP12025-MSD	426867	4.63	1643128	5.72	810944	7.77	1470723	9.94	1318735	14.11	1307245	16.22
JC65724-2	408179	4.63	1595753	5.71	804989	7.77	1515337	9.93	1367694	14.10	1404231	16.22
ZZZZZZ	434865	4.63	1695410	5.71	857008	7.77	1604162	9.93	1462493	14.10	1478216	16.22
ZZZZZZ	412529	4.63	1605915	5.71	797740	7.77	1496108	9.93	1390604	14.10	1429015	16.22
ZZZZZZ	405271	4.63	1555297	5.71	784655	7.77	1508201	9.93	1380449	14.10	1377781	16.22
ZZZZZZ	392296	4.63	1538944	5.71	784872	7.77	1458846	9.93	1348925	14.10	1364928	16.22
ZZZZZZ	397113	4.63	1541837	5.71	781724	7.77	1457208	9.93	1334614	14.10	1354453	16.22
OP12026-MS	438815	4.63	1706674	5.72	822374	7.77	1477465	9.93	1311674	14.11	1331264	16.22
OP12026-LS7	438815	4.63	1706674	5.72	822374	7.77	1477465	9.93	1311674	14.11	1331264	16.22
OP12026-MSD	417702	4.63	1616947	5.71	795573	7.77	1431668	9.93	1258156	14.11	1293316	16.22
JC65923-1	415378	4.63	1610293	5.71	794424	7.77	1478574	9.93	1359764	14.10	1385473	16.22
ZZZZZZ	425585	4.63	1656744	5.71	815022	7.77	1512077	9.93	1377855	14.10	1414260	16.22
ZZZZZZ	440614	4.63	1701074	5.71	840014	7.77	1550858	9.93	1431734	14.10	1448382	16.22
ZZZZZZ	421524	4.63	1632607	5.71	808816	7.77	1480152	9.93	1372889	14.10	1379716	16.22
ZZZZZZ	413352	4.63	1580401	5.71	786293	7.77	1428855	9.93	1331027	14.10	1332907	16.22
ZZZZZZ	424488	4.63	1651171	5.71	825752	7.77	1524680	9.93	1390203	14.10	1421950	16.22
ZZZZZZ	408323	4.63	1579832	5.71	786301	7.77	1433094	9.93	1336793	14.10	1371992	16.22
ZZZZZZ	399143	4.63	1531237	5.71	763038	7.77	1421827	9.93	1307641	14.10	1334841	16.22
ZZZZZZ	385441	4.63	1503495	5.71	751636	7.77	1375147	9.93	1279476	14.10	1301481	16.22

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8

8.7.4
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Internal Standard Area Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	E2M4627-CC4618	Injection Date:	05/16/18
Lab File ID:	2M104088.D	Injection Time:	23:32
Instrument ID:	GCMS2M	Method:	SW846 8270D

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
IS 3	= Acenaphthene-D10											
IS 4	= Phenanthrene-d10											
IS 5	= Chrysene-d12											
IS 6	= Perylene-d12											

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

8.7.4
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Internal Standard Area Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E2M4628-CC4618	Injection Date: 05/17/18
Lab File ID: 2M104119.D	Injection Time: 13:24
Instrument ID: GCMS2M	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	327293	4.62	1255378	5.70	688931	7.75	1218054	9.91	1160871	14.07	1162881	16.18
Upper Limit ^a	654586	5.12	2510756	6.20	1377862	8.25	2436108	10.41	2321742	14.57	2325762	16.68
Lower Limit ^b	163647	4.12	627689	5.20	344466	7.25	609027	9.41	580436	13.57	581441	15.68

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
ZZZZZZ	308956	4.61	1201534	5.69	599526	7.75	1127251	9.91	1055772	14.07	1080153	16.17
ZZZZZZ	312090	4.61	1224003	5.69	606768	7.75	1152638	9.90	1082927	14.07	1104459	16.17
ZZZZZZ	306755	4.61	1203193	5.70	590175	7.75	1089457	9.91	1039379	14.07	1079302	16.17
ZZZZZZ	311280	4.62	1219455	5.70	592680	7.75	1100050	9.91	1037546	14.07	1069901	16.18
ZZZZZZ	296845	4.62	1115686	5.70	527206	7.75	945231	9.91	882452	14.07	904669	16.18
JC65860-1	295429	4.62	1145726	5.70	566763	7.75	1061623	9.91	967803	14.08	1023403	16.19

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

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

8.7.5
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Internal Standard Area Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E6P2215-CC2164	Injection Date: 05/18/18
Lab File ID: 6P473087.D	Injection Time: 19:25
Instrument ID: GCMS6P	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	438966	4.49	1769839	5.50	1002716	7.23	1686492	8.91	1549712	12.09	1599046	13.69
Upper Limit ^a	877932	4.99	3539678	6.00	2005432	7.73	3372984	9.41	3099424	12.59	3198092	14.19
Lower Limit ^b	219483	3.99	884920	5.00	501358	6.73	843246	8.41	774856	11.59	799523	13.19

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP12062-MB1	408558	4.49	1660269	5.50	869678	7.22	1560834	8.92	1394722	12.09	1492249	13.69
OP12063-MB1	408558	4.49	1660269	5.50	869678	7.22	1560834	8.92	1394722	12.09	1492249	13.69
OP12025-MB2	408558	4.49	1660269	5.50	869678	7.22	1560834	8.92	1394722	12.09	1492249	13.69
OP12062-BS1	437872	4.49	1754560	5.50	876340	7.22	1555882	8.91	1378380	12.09	1359833	13.69
OP12063-BS1	437872	4.49	1754560	5.50	876340	7.22	1555882	8.91	1378380	12.09	1359833	13.69
OP12025-BS2	437872	4.49	1754560	5.50	876340	7.22	1555882	8.91	1378380	12.09	1359833	13.69
OP12062-LB19	377497	4.49	1560681	5.50	797515	7.22	1449535	8.91	1346728	12.08	1400158	13.69
OP12063-LB20	405681	4.49	1689184	5.50	846782	7.22	1584159	8.91	1397674	12.08	1486565	13.69
JC65860-1A	420110	4.49	1681666	5.50	854578	7.22	1544973	8.92	1388225	12.08	1448852	13.69
ZZZZZZ	383049	4.49	1549401	5.50	809585	7.22	1491645	8.92	1332167	12.08	1371365	13.69
ZZZZZZ	378737	4.49	1613052	5.50	819445	7.22	1476317	8.91	1329641	12.08	1402899	13.69
ZZZZZZ	394019	4.49	1596993	5.50	826594	7.22	1542553	8.91	1439889	12.09	1495578	13.69
ZZZZZZ	393580	4.49	1627967	5.50	829246	7.22	1535805	8.91	1388214	12.08	1448828	13.69
ZZZZZZ	427505	4.49	1815574	5.50	917346	7.22	1649537	8.91	1485178	12.08	1602252	13.69
ZZZZZZ	412661	4.49	1675291	5.50	846173	7.22	1543016	8.91	1404352	12.08	1426540	13.69
ZZZZZZ	401103	4.49	1596353	5.50	824723	7.22	1523839	8.92	1326112	12.09	1431387	13.69
ZZZZZZ	410657	4.49	1731271	5.50	883956	7.22	1581297	8.91	1398533	12.09	1475307	13.69
ZZZZZZ	362264	4.49	1507208	5.50	780913	7.22	1371251	8.91	1236674	12.08	1339147	13.69
ZZZZZZ	374034	4.49	1539089	5.50	771446	7.22	1441624	8.92	1372775	12.09	1470446	13.69
ZZZZZZ	401272	4.49	1605611	5.50	834354	7.22	1468600	8.91	1311884	12.08	1393049	13.69
ZZZZZZ	438545	4.49	1684914	5.50	883388	7.22	1571492	8.91	1417424	12.08	1476445	13.69
ZZZZZZ	399185	4.49	1631461	5.50	847180	7.22	1484986	8.91	1315510	12.08	1394619	13.69
ZZZZZZ	378162	4.49	1576579	5.50	822120	7.22	1461523	8.91	1333954	12.08	1389208	13.69
ZZZZZZ	395133	4.49	1572754	5.50	796634	7.22	1447877	8.91	1314530	12.08	1345367	13.69
OP12062-MS	386440	4.49	1525184	5.50	785968	7.22	1401125	8.91	1288164	12.09	1254389	13.69
OP12062-LS9	386440	4.49	1525184	5.50	785968	7.22	1401125	8.91	1288164	12.09	1254389	13.69
OP12062-MSD	428693	4.49	1730236	5.50	867260	7.23	1541160	8.91	1372940	12.09	1346635	13.69
JC66031-1A	399885	4.49	1651521	5.50	845576	7.22	1501472	8.91	1384138	12.08	1469335	13.69
OP12063-MS	406429	4.49	1571736	5.50	803332	7.22	1451966	8.92	1293978	12.09	1260272	13.69
OP12063-LS10	406429	4.49	1571736	5.50	803332	7.22	1451966	8.92	1293978	12.09	1260272	13.69
OP12063-MSD	414806	4.49	1676229	5.50	831153	7.22	1509349	8.91	1335970	12.09	1310842	13.69

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10

Internal Standard Area Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	E6P2215-CC2164	Injection Date:	05/18/18
Lab File ID:	6P473087.D	Injection Time:	19:25
Instrument ID:	GCMS6P	Method:	SW846 8270D

Lab	IS 1	IS 2	IS 3	IS 4	IS 5	IS 6
Sample ID	AREA RT	AREA RT	AREA RT	AREA RT	AREA RT	AREA RT

IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

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

8.7.6
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Internal Standard Area Summary

Page 1 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: EZ6452-CC6436	Injection Date: 05/21/18
Lab File ID: Z130839.D	Injection Time: 10:24
Instrument ID: GCMSZ	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	177574	4.72	692488	5.64	395906	7.01	703986	8.59	611613	12.40	664116	14.48
Upper Limit ^a	355148	5.22	1384976	6.14	791812	7.51	1407972	9.09	1223226	12.90	1328232	14.98
Lower Limit ^b	88787	4.22	346244	5.14	197953	6.51	351993	8.09	305807	11.90	332058	13.98

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP12123-MB1	172308	4.72	674085	5.64	338612	7.01	626606	8.59	590050	12.39	611246	14.47
OP12123A-MB1	172308	4.72	674085	5.64	338612	7.01	626606	8.59	590050	12.39	611246	14.47
OP12123-BS1	149827	4.72	580469	5.64	300594	7.01	571829	8.59	501264	12.39	560958	14.47
OP11910-MS	168635	4.72	688022	5.64	339559	7.01	638864	8.59	520464	12.40	573749	14.48
ZZZZZZ	178999	4.72	720425	5.64	356955	7.00	663107	8.59	617919	12.39	634134	14.47
OP12098-MB1	199644	4.72	780187	5.64	389509	7.01	723363	8.59	685507	12.39	694079	14.46
OP12131-MB1	185796	4.72	723619	5.64	352729	7.00	654464	8.59	615023	12.39	638014	14.47
OP12132-MB1	185796	4.72	723619	5.64	352729	7.00	654464	8.59	615023	12.39	638014	14.47
OP12097-MB1	193117	4.72	756461	5.64	373198	7.01	679761	8.59	638915	12.39	666290	14.46
OP11966-MB1	175846	4.72	689748	5.64	335311	7.00	615845	8.59	570729	12.38	582808	14.47
ZZZZZZ	198419	4.72	671312	5.64	295881	7.01	556122	8.59	560685	12.39	565106	14.47
OP12132-LS10	186516	4.72	744082	5.64	373222	7.01	693906	8.59	566234	12.39	539495	14.47
OP12132-MS	186516	4.72	744082	5.64	373222	7.01	693906	8.59	566234	12.39	539495	14.47
OP12132-MSD	176349	4.72	679635	5.64	336195	7.01	625295	8.59	481988	12.39	489505	14.47
JC65917-1	186218	4.72	719163	5.64	347072	7.01	627508	8.59	540812	12.39	516425	14.47
OP12131-LS9	191783	4.72	737167	5.64	355069	7.01	676990	8.59	541829	12.39	554764	14.47
OP12131-MS	191783	4.72	737167	5.64	355069	7.01	676990	8.59	541829	12.39	554764	14.47
OP12131-MSD	169558	4.72	670924	5.64	328926	7.01	617743	8.59	556149	12.39	536225	14.47
JC65969-2	208643	4.72	784603	5.64	376075	7.01	696442	8.59	544270	12.39	555726	14.47
JC63222-1A	208783	4.72	789188	5.64	373729	7.01	688638	8.59	633334	12.39	656046	14.47
ZZZZZZ	201028	4.72	770771	5.64	364609	7.01	699427	8.59	653849	12.39	650131	14.47
ZZZZZZ	145027	4.72	630390	5.64	330523	7.01	646983	8.59	544667	12.39	569120	14.47
OP12123-MS	180752	4.72	721454	5.64	346089	7.01	634459	8.59	493097	12.39	530299	14.47
OP12123-MSD	166273	4.72	636534	5.64	317278	7.01	576121	8.59	456649	12.39	489272	14.47
JC66346-1	197761	4.72	768995	5.64	371012	7.01	661967	8.59	548880	12.39	539633	14.47
ZZZZZZ	195599	4.72	762715	5.64	362970	7.01	643378	8.59	555379	12.39	553306	14.47
ZZZZZZ	205126	4.72	794274	5.64	375499	7.01	656945	8.59	532249	12.39	546966	14.47

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

Internal Standard Area Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	EZ6452-CC6436	Injection Date:	05/21/18
Lab File ID:	Z130839.D	Injection Time:	10:24
Instrument ID:	GCMSZ	Method:	SW846 8270D

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

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

Surrogate Recovery Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8270D	Matrix: LEACHATE
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC65860-1A	6P473094.D	39	23	64	68	69	88
OP12025-BS2	6P473091.D	46	33	72	80	85	95
OP12025-LB10	2M104091.D	47	32	90	85	89	95
OP12025-LB11	2M104092.D	48	31	87	85	88	96
OP12025-LB13	2M104093.D	47	32	93	87	90	104
OP12025-LS6	2M104097.D	50	36	95	89	93	92
OP12025-MB2	6P473090.D	42	25	63	69	73	93
OP12025-MS	2M104097.D	50	36	95	89	93	92
OP12025-MSD	2M104098.D	50	35	100	90	95	99
OP12025-MB1	2M104090.D	46	31	95	93	95	99

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	14-88%
S2 = Phenol-d5	10-110%
S3 = 2,4,6-Tribromophenol	39-149%
S4 = Nitrobenzene-d5	32-128%
S5 = 2-Fluorobiphenyl	35-119%
S6 = Terphenyl-d14	10-126%

8.8.1
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Surrogate Recovery Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8270D	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC65860-1	2M104086.D	76	79	88	77	89	93
JC65860-1	2M104144.D	83	89	93	82	89	96
OP11966-BS1	2M103991.D	89	88	97	86	93	97
OP11966-MB1	2M103990.D	92	91	92	89	96	99
OP11966-MB1	Z130847.D	91	95	92	103	92	88
OP11966-MS	2M104058.D	89	89	100	87	96	95
OP11966-MSD	2M104059.D	88	87	100	86	92	95

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	23-115%
S2 = Phenol-d5	27-114%
S3 = 2,4,6-Tribromophenol	19-152%
S4 = Nitrobenzene-d5	26-134%
S5 = 2-Fluorobiphenyl	39-124%
S6 = Terphenyl-d14	36-134%

8.8.2
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Initial Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-ICC4618
Lab FileID: 2M103897.D

Response Factor Report MS2M

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

Calibration Files

2 =2m103901.D 5 =2m103900.D 25 =2m103898.D 80 =2m103896.D
100 =2m103895.D 50 =2m103897.D 1 =2m103902.D 10 =2m103899.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	-----ISTD-----									
2) 1,4-Dioxane	0.629	0.598	0.596	0.576	0.591	0.598	0.637	0.615	0.605	3.36
3) Pyridine	1.526	1.559	1.597	1.500	1.499	1.488	1.575	1.674	1.552	4.06
4) N-Nitrosodim	0.914	0.887	0.926	0.908	0.919	0.926	0.933	0.953	0.921	2.09
5) 2-Fluorophen	1.326	1.258	1.311	1.293	1.319	1.322	1.241	1.356	1.303	2.90
6) Indene	2.170	2.166	2.226	2.234	2.233	2.285	2.221	2.299	2.229	2.12
7) Cumene	3.250	3.242	3.325	3.249	3.272	3.374	3.448	3.387	3.318	2.34
8) Phenol-d5	1.620	1.595	1.625	1.627	1.667	1.663	1.622	1.662	1.635	1.57
9) Phenol	1.883	1.787	1.854	1.867	1.899	1.894	1.877	1.959	1.877	2.56
10) Aniline	2.130	2.106	2.037	1.920	1.913	1.981	2.225	2.172	2.061	5.66
11) bis(2-Chloro	1.278	1.274	1.290	1.271	1.281	1.299	1.342	1.346	1.298	2.32
12) 2-Chlorophen	1.403	1.415	1.401	1.397	1.408	1.417	1.356	1.473	1.409	2.30
13) Decane	1.512	1.436	1.429	1.366	1.348	1.426	1.587	1.500	1.450	5.45
14) 1,3-Dichloro	1.585	1.573	1.574	1.545	1.547	1.589	1.621	1.666	1.588	2.51
15) 1,4-Dichloro	1.577	1.595	1.609	1.567	1.567	1.616	1.654	1.677	1.608	2.52
16) Benzyl alcoh	0.854	0.828	0.856	0.885	0.890	0.885	0.927	0.875	0.875	3.37
17) 1,2-Dichloro	1.482	1.435	1.491	1.464	1.456	1.508	1.624	1.553	1.502	4.07
18) Acetophenone	1.832	1.819	1.885	1.847	1.819	1.898	1.873	1.932	1.863	2.19
19) 2-Methylphen	1.240	1.193	1.215	1.239	1.227	1.253	1.221	1.264	1.231	1.83
20) 2,2'-oxybis(	1.624	1.552	1.558	1.504	1.488	1.552	1.685	1.624	1.573	4.22
21) 3&4-Methylph	1.268	1.252	1.293	1.334	1.322	1.328	1.233	1.315	1.293	2.93
22) n-Nitroso-di	0.963	0.956	0.999	0.994	0.980	1.024	1.032	1.034	0.998	3.05
23) Hexachloroet	0.505	0.502	0.510	0.506	0.503	0.516	0.535	0.554	0.516	3.60
24) I Naphthalene-d8	-----ISTD-----									
25) Nitrobenzene	0.369	0.357	0.366	0.366	0.360	0.367	0.357	0.382	0.366	2.19
26) Nitrobenzene	0.367	0.366	0.363	0.360	0.355	0.364	0.364	0.379	0.365	1.87
27) Quinoline	0.672	0.671	0.677	0.684	0.676	0.675	0.681	0.699	0.679	1.35
28) Isophorone	0.641	0.636	0.636	0.640	0.631	0.639	0.659	0.664	0.643	1.84
29) 2-Nitropheno	0.188	0.189	0.196	0.199	0.197	0.197	0.188	0.202	0.195	2.86
30) 2,4-Dimethyl	0.309	0.303	0.309	0.319	0.316	0.311	0.303	0.323	0.312	2.35
31) Benzoic acid	0.182	0.204	0.242	0.266	0.268	0.258		0.234	0.236	13.79
32) bis(2-Chloro	0.370	0.369	0.372	0.366	0.360	0.366	0.381	0.390	0.372	2.50
33) 2,4-Dichloro	0.297	0.290	0.289	0.291	0.290	0.290	0.293	0.294	0.292	0.90
34) 2,6-Dichloro	0.277	0.277	0.287	0.286	0.283	0.286	0.294	0.294	0.286	2.27
35) 1,3,5-Trichl	0.361	0.345	0.342	0.333	0.330	0.338	0.361	0.359	0.346	3.64
36) 1,2,4-Trichl	0.320	0.324	0.314	0.312	0.307	0.317	0.342	0.331	0.321	3.54
37) 1,2,3-Trichl	0.318	0.319	0.318	0.307	0.299	0.310	0.350	0.328	0.319	4.78
38) Naphthalene	1.046	1.023	1.024	1.016	1.003	1.021	1.081	1.070	1.036	2.66
39) 4-Chloroanil	0.438	0.445	0.439	0.440	0.427	0.435	0.445	0.456	0.441	1.96
40) 2,3-Dichloro	0.359	0.362	0.360	0.370	0.366	0.365	0.359	0.378	0.365	1.77
41) Caprolactam	0.140	0.148	0.150	0.155	0.152	0.152	0.145	0.157	0.150	3.58
42) Hexachlorobu	0.175	0.164	0.167	0.164	0.161	0.165	0.171	0.174	0.168	3.00
43) 4-Chloro-3-m	0.279	0.273	0.280	0.286	0.287	0.282	0.268	0.289	0.281	2.58
44) 2-Methylnaph	0.597	0.595	0.596	0.600	0.599	0.601	0.622	0.616	0.603	1.69
45) 1-Methylnaph	0.625	0.625	0.623	0.627	0.625	0.626	0.630	0.651	0.629	1.43

Initial Calibration Summary

Page 2 of 3

Job Number: JC65860
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-ICC4618
 Lab FileID: 2M103897.D

46)	Dimethylnaph	0.626	0.636	0.638	0.647	0.645	0.641	0.655	0.666	0.644	1.89
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.301	0.323	0.357	0.369	0.369	0.370	0.273	0.358	0.340	10.84
49)	2,4,6-Trichl	0.394	0.365	0.395	0.393	0.389	0.395	0.388	0.407	0.391	3.01
50)	2,4,5-Trichl	0.392	0.405	0.417	0.411	0.406	0.417	0.406	0.432	0.411	2.82
51)	2-Fluorobiph	1.434	1.477	1.454	1.421	1.415	1.462	1.477	1.549	1.461	2.93
52)	2-Chloronaph	1.255	1.234	1.209	1.182	1.168	1.213	1.265	1.275	1.225	3.18
53)	Biphenyl	1.673	1.612	1.627	1.628	1.617	1.652	1.639	1.718	1.646	2.14
54)	2-Nitroanili	0.323	0.319	0.344	0.345	0.348	0.349	0.328	0.350	0.338	3.77
55)	Dimethylphth	1.338	1.307	1.309	1.306	1.295	1.311	1.384	1.382	1.329	2.68
56)	Acenaphthyle	1.936	1.916	1.954	1.922	1.919	1.973	1.978	2.042	1.955	2.17
57)	2,6-Dinitrot	0.273	0.290	0.310	0.311	0.309	0.307	0.266	0.311	0.297	6.24
58)	3-Nitroanili	0.309	0.327	0.356	0.364	0.358	0.367	0.318	0.361	0.345	6.66
59)	Acenaphthene	1.268	1.268	1.277	1.267	1.261	1.283	1.306	1.334	1.283	1.95
60)	2,4-Dinitrop	0.076	0.110	0.156	0.187	0.190	0.178	0.069	0.134	0.137	35.30
---- Quadratic regression ---- Coefficient = 0.9997											
Response Ratio = -0.01252 + 0.16728 *A + 0.00532 *A^2											
61)	4-Nitropheno	0.125	0.142	0.161	0.160	0.164	0.162	0.123	0.155	0.149	11.15
62)	Dibenzofuran	1.712	1.715	1.724	1.715	1.695	1.733	1.727	1.783	1.725	1.50
63)	2,4-Dinitrot	0.367	0.362	0.416	0.431	0.430	0.428	0.331	0.407	0.396	9.61
64)	2,3,4,6-Tetr	0.327	0.333	0.344	0.348	0.349	0.347	0.317	0.350	0.339	3.56
65)	Diethylphtha	1.280	1.279	1.319	1.325	1.322	1.331	1.301	1.364	1.315	2.14
66)	Fluorene	1.405	1.379	1.394	1.398	1.399	1.411	1.367	1.432	1.398	1.41
67)	4-Chlorophen	0.643	0.628	0.641	0.619	0.608	0.625	0.658	0.661	0.635	2.93
68)	4-Nitroanili	0.317	0.345	0.345	0.353	0.350	0.358	0.306	0.369	0.343	6.15
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.093	0.099	0.135	0.149	0.148	0.145	0.083	0.123	0.122	21.91
---- Quadratic regression ---- Coefficient = 0.9990											
Response Ratio = -0.00195 + 0.13467 *A + 0.00646 *A^2											
71)	n-Nitrosodip	0.576	0.580	0.599	0.581	0.582	0.585	0.572	0.597	0.584	1.63
72)	1,2-Diphenyl	0.747	0.768	0.786	0.768	0.768	0.774	0.782	0.797	0.774	1.95
73)	2,4,6-Tribo	0.117	0.116	0.127	0.123	0.123	0.122	0.122	0.119	0.121	3.07
74)	4-Bromopheny	0.217	0.219	0.221	0.216	0.215	0.219	0.226	0.229	0.220	2.18
75)	Hexachlorobe	0.247	0.248	0.252	0.243	0.239	0.247	0.275	0.262	0.252	4.55
76)	Pentachlorop	0.136	0.147	0.162	0.167	0.169	0.166	0.122	0.157	0.153	11.07
77)	Phenanthrene	1.168	1.124	1.141	1.120	1.104	1.125	1.185	1.165	1.141	2.49
78)	Anthracene	1.136	1.145	1.158	1.133	1.127	1.151	1.139	1.184	1.147	1.57
79)	Carbazole	1.042	1.037	1.091	1.081	1.077	1.076	1.060	1.102	1.071	2.13
80)	Di-n-butylph	1.233	1.257	1.331	1.351	1.346	1.344	1.264	1.344	1.309	3.72
81)	Fluoranthene	1.150	1.117	1.184	1.191	1.182	1.189	1.166	1.190	1.171	2.22
82)	Octadecane	0.505	0.499	0.531	0.527	0.524	0.522	0.510	0.537	0.519	2.56
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.338	1.361	1.344	1.313	1.258	1.342	1.318	1.413	1.336	3.30
85)	Terphenyl-d1	0.862	0.876	0.880	0.875	0.844	0.883	0.861	0.936	0.877	3.08
86)	Butylbenzylp	0.622	0.595	0.615	0.624	0.606	0.628	0.611	0.635	0.617	2.09
87)	Benzo[a]anth	1.221	1.194	1.176	1.181	1.156	1.184	1.337	1.233	1.210	4.68
88)	3,3'-Dichlor	0.416	0.432	0.454	0.452	0.436	0.454	0.402	0.466	0.439	4.99
89)	Chrysene	1.170	1.145	1.148	1.130	1.093	1.136	1.188	1.190	1.150	2.81
90)	bis(2-Ethylh	0.816	0.833	0.850	0.876	0.848	0.876	0.828	0.879	0.851	2.87
91)	I Perylene-d12	-----ISTD-----									
92)	Di-n-octylph	1.353	1.387	1.463	1.495	1.469	1.495	1.396	1.499	1.445	3.96
93)	Benzo[b]fluo	1.181	1.196	1.248	1.232	1.213	1.266	1.170	1.288	1.224	3.39
94)	Benzo[k]fluo	1.120	1.165	1.124	1.119	1.079	1.123	1.166	1.198	1.137	3.26
95)	Benzo[a]pyre	1.028	1.053	1.070	1.069	1.041	1.089	1.014	1.126	1.061	3.36

8.9.1
8

Initial Calibration Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-ICC4618
Lab FileID: 2M103897.D

96)	Indeno[1,2,3	1.020	1.014	1.080	1.067	1.073	1.064	1.057	1.077	1.056	2.42
97)	Dibenz(a,h)a	0.927	0.941	0.966	0.961	0.944	0.977	0.929	0.999	0.956	2.60
98)	Dibenz[a,h]a	1.050	1.081	1.107	1.086	1.060	1.106	1.062	1.132	1.086	2.59
99)	7,12-Dimethy	0.505	0.517	0.538	0.549	0.532	0.553	0.517	0.554	0.533	3.51
100)	Benzo[g,h,i]	0.991	1.023	1.039	1.008	0.998	1.027	0.993	1.064	1.018	2.51

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

M2M4618.M Fri May 11 15:20:21 2018

8.9.1
8

Initial Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICC4619
Lab FileID: 2M103906.D

Response Factor Report MS2M

Method : C:\MSDCHEM\1\METHODS\M2M4619.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

Calibration Files

2 =2m103910.D 5 =2m103909.D 25 =2m103907.D 80 =2m103905.D
100 =2m103904.D 50 =2m103906.D 1 =2m103911.D 10 =2m103908.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
101) 1,4-Dichlorobenzene-d	-----ISTD-----									
102) Benzaldehyde	1.101	1.014	0.930	0.874	0.860	0.882	1.137	1.003	0.975	10.87
103) Acenaphthene-d10a	-----ISTD-----									
104) 1,2,4,5-Tetr	0.599	0.577	0.580	0.583	0.578	0.579	0.607	0.596	0.587	1.99
105) Chrysene-d12a	-----ISTD-----									
106) Benzidine	0.349	0.441	0.364	0.366	0.372	0.385		0.450	0.389	10.24
107) 1-chloroocta	0.315	0.310	0.318	0.328	0.340	0.319	0.319	0.313	0.320	2.99
108) Phenanthrene-d10a	-----ISTD-----									
109) Atrazine	0.106	0.108	0.112	0.111	0.112	0.113	0.104	0.108	0.109	3.06
110) o-terphenyl	0.556	0.534	0.552	0.554	0.554	0.550	0.553	0.551	0.550	1.28
111) Pentachloron	0.038	0.040	0.043	0.044	0.045	0.043	0.044	0.042	0.042#	5.75
112) Naphthalene-d8a	-----ISTD-----									
113) Hydroquinone	0.208	0.235	0.305	0.314	0.322	0.333		0.258	0.282	17.13

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

M2M4618.M

Fri May 11 15:21:52 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103912.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103912.D Vial: 10
Acq On : 9 May 2018 10:23 pm Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	137	0.00	4.66
5 S	2-Fluorophenol	1.303	1.284	1.5	133	0.00	3.67
8 S	Phenol-d5	1.635	1.564	4.3	129	0.00	4.39
24 I	Naphthalene-d8	1.000	1.000	0.0	129	0.00	5.76
25 S	Nitrobenzene-d5	0.366	0.370	-1.1	130	0.00	5.10
47 I	Acenaphthene-d10	1.000	1.000	0.0	131	0.00	7.82
51 S	2-Fluorobiphenyl	1.461	1.365	6.6	123	0.00	6.95
69 I	Phenanthrene-d10	1.000	1.000	0.0	119	0.00	9.98
73 S	2,4,6-Tribromophenol	0.121	0.118	2.5	115	0.00	8.94
83 I	Chrysene-d12	1.000	1.000	0.0	109	-0.01	14.15
85 S	Terphenyl-d14	0.877	0.971	-10.7	119	0.00	12.54

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:36 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103913.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103913.D Vial: 11
Acq On : 9 May 2018 10:48 pm Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	135	0.00	4.66
9 t	Phenol	1.877	1.676	10.7	119	0.00	4.40
12 t	2-Chlorophenol	1.409	1.407	0.1	134	0.00	4.51
19 t	2-Methylphenol	1.231	1.174	4.6	126	0.00	4.86
21 t	3&4-Methylphenol	1.293	1.256	2.9	128	0.00	4.98
24 I	Naphthalene-d8	1.000	1.000	0.0	128	0.00	5.76
29 t	2-Nitrophenol	0.195	0.195	0.0	126	0.00	5.40
30 t	2,4-Dimethylphenol	0.312	0.299	4.2	123	0.00	5.43
31 t	Benzoic acid	0.236	0.229	3.0	113	0.00	5.55
33 t	2,4-Dichlorophenol	0.292	0.290	0.7	128	0.00	5.62
34 t	2,6-Dichlorophenol	0.286	0.288	-0.7	128	0.00	5.84
43 t	4-Chloro-3-methylphenol	0.281	0.276	1.8	125	-0.01	6.33
47 I	Acenaphthene-d10	1.000	1.000	0.0	116	0.00	7.82
49 t	2,4,6-Trichlorophenol	0.391	0.419	-7.2	124	0.00	6.85
50 t	2,4,5-Trichlorophenol	0.411	0.437	-6.3	122	-0.01	6.88
60 t	2,4-Dinitrophenol	50.000	45.968	8.1	111	-0.01	7.91
61 t	4-Nitrophenol	0.149	0.149	0.0	107	0.00	8.02
64	2,3,4,6-Tetrachlorophenol	0.339	0.346	-2.1	116	0.00	8.29
69 I	Phenanthrene-d10	1.000	1.000	0.0	116	0.00	9.98
70 t	4,6-Dinitro-2-methylpheno	50.000	48.080	3.8	108	0.00	8.68
76 t	Pentachlorophenol	0.153	0.179	-17.0	131	-0.01	9.71

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:38 2018

Initial Calibration Verification

Page 1 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103915.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103915.D Vial: 13
Acq On : 9 May 2018 11:38 pm Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	138	0.00	4.66
4 t	N-Nitrosodimethylamine	0.921	0.735	20.2	109	0.02	2.50
11 t	bis(2-Chloroethyl)ether	1.298	1.311	-1.0	139	0.00	4.46
14 t	1,3-Dichlorobenzene	1.588	1.518	4.4	132	0.00	4.63
15 t	1,4-Dichlorobenzene	1.608	1.533	4.7	131	0.00	4.68
17 t	1,2-Dichlorobenzene	1.502	1.446	3.7	132	0.00	4.80
20 t	2,2'-oxybis(1-Chloropropa	1.573	1.647	-4.7	146	0.00	4.88
22 t	n-Nitroso-di-n-propylamin	0.998	0.915	8.3	123	0.00	4.98
23 t	Hexachloroethane	0.516	0.493	4.5	132	0.00	5.08
24 I	Naphthalene-d8	1.000	1.000	0.0	131	0.00	5.76
26 t	Nitrobenzene	0.365	0.337	7.7	122	0.00	5.12
28 t	Isophorone	0.643	0.623	3.1	128	-0.01	5.32
32 t	bis(2-Chloroethoxy)methan	0.372	0.379	-1.9	136	0.00	5.52
36 t	1,2,4-Trichlorobenzene	0.321	0.311	3.1	129	0.00	5.70
38 t	Naphthalene	1.036	1.004	3.1	129	0.00	5.78
42 t	Hexachlorobutadiene	0.168	0.169	-0.6	134	0.00	5.91
47 I	Acenaphthene-d10	1.000	1.000	0.0	129	0.00	7.82
48 t	Hexachlorocyclopentadiene	0.340	0.320	5.9	115	0.00	6.71
52 t	2-Chloronaphthalene	1.225	1.166	4.8	124	0.00	7.09
55 t	Dimethylphthalate	1.329	1.259	5.3	124	0.00	7.48
56 t	Acenaphthylene	1.955	1.831	6.3	120	0.00	7.62
57 t	2,6-Dinitrotoluene	0.297	0.275	7.4	116	0.00	7.55
59 t	Acenaphthene	1.283	1.229	4.2	124	0.00	7.86
63 t	2,4-Dinitrotoluene	0.396	0.338	14.6	102	0.00	8.10
65 t	Diethylphthalate	1.315	1.243	5.5	120	-0.01	8.47
66 t	Fluorene	1.398	1.320	5.6	121	0.00	8.59
67 t	4-Chlorophenyl-phenylethe	0.635	0.594	6.5	123	0.00	8.61
69 I	Phenanthrene-d10	1.000	1.000	0.0	122	0.00	9.98
71 t	n-Nitrosodiphenylamine	0.584	0.544	6.8	113	0.00	8.79
72 t	1,2-Diphenylhydrazine	0.774	0.775	-0.1	122	0.00	8.84
74 t	4-Bromophenyl-phenylether	0.220	0.215	2.3	120	0.00	9.33
75 t	Hexachlorobenzene	0.252	0.241	4.4	119	0.00	9.41
77 t	Phenanthrene	1.141	1.104	3.2	120	0.00	10.02
78 t	Anthracene	1.147	1.097	4.4	116	0.00	10.10
80 t	Di-n-butylphthalate	1.309	1.269	3.1	115	0.00	11.00
81 t	Fluoranthene	1.171	1.091	6.8	112	0.00	11.87
83 I	Chrysene-d12	1.000	1.000	0.0	109	0.00	14.16
84 t	Pyrene	1.336	1.336	0.0	108	0.00	12.22

Initial Calibration Verification

Page 2 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103915.D

86	t	Butylbenzylphthalate	0.617	0.615	0.3	107	0.00	13.38
87	t	Benzo[a]anthracene	1.210	1.122	7.3	103	0.00	14.14
89	t	Chrysene	1.150	1.068	7.1	102	0.00	14.20
90	t	bis(2-Ethylhexyl)phthalat	0.851	0.843	0.9	105	0.00	14.35
91	I	Perylene-d12	1.000	1.000	0.0	102	0.00	16.27
92	t	Di-n-octylphthalate	1.445	1.507	-4.3	103	0.00	15.33
93	t	Benzo[b]fluoranthene	1.224	1.103	9.9	89	0.00	15.75
94	t	Benzo[k]fluoranthene	1.137	1.114	2.0	101	-0.01	15.78
95	t	Benzo[a]pyrene	1.061	1.024	3.5	96	0.00	16.19
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.006	4.7	96	-0.01	17.78
98	t	Dibenz[a,h]anthracene	1.086	1.010	7.0	93	-0.01	17.82
100	t	Benzo[g,h,i]perylene	1.018	1.026	-0.8	102	-0.01	18.21

(#) = Out of Range
 2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
 Fri May 11 15:09:40 2018

8.9.5

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4619
Lab FileID: 2M103915A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103915a.D Vial: 13
Acq On : 9 May 2018 11:38 pm Operator: sufiyana
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
103	Acenaphthene-d10a	1.000	1.000	0.0	146	0.00	7.82
104	1,2,4,5-Tetrachlorobenzen	0.587	0.655	-11.6	166	0.00	6.71
105	Chrysene-d12a	1.000	1.000	0.0	110	0.00	14.16
106	Benzidine	0.389	0.291	25.2	95	0.00	12.13

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:42 2018

9.9.6
8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4619
Lab FileID: 2M103916A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103916a.D Vial: 14
Acq On : 10 May 2018 12:04 am Operator: sufiyana
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	131	0.00	4.66
102	Benzaldehyde	0.975	0.943	3.3	140	0.00	4.33
108	Phenanthrene-d10a	1.000	1.000	0.0	120	0.00	9.98
109	Atrazine	0.109	0.120	-10.1	127	0.00	9.63

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:46 2018

8.9.7
8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103916.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103916.D Vial: 14
Acq On : 10 May 2018 12:04 am Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	125	0.00	4.66
2 t	1,4-Dioxane	0.605	0.545	9.9	114	0.02	2.21
6 t	Indene	2.229	2.368	-6.2	130	0.00	4.87
7 t	Cumene	3.318	3.144	5.2	117	0.00	4.07
13 t	Decane	1.450	1.334	8.0	117	0.00	4.55
18 t	Acetophenone	1.863	1.748	6.2	115	0.00	4.98
24 I	Naphthalene-d8	1.000	1.000	0.0	121	0.00	5.76
27 t	Quinoline	0.679	0.660	2.8	119	-0.02	6.11
40 t	2,3-Dichloroaniline	0.365	0.303	17.0	101	0.00	6.84
41 t	Caprolactam	0.150	0.130	13.3	104	-0.03	6.16
45 t	1-Methylnaphthalene	0.629	0.558	11.3	108	0.00	6.62
46 t	Dimethylnaphthalene	0.644	0.603	6.4	114	0.00	7.27
47 I	Acenaphthene-d10	1.000	1.000	0.0	109	0.00	7.82
53 t	Biphenyl	1.646	1.721	-4.6	114	0.00	7.07
69 I	Phenanthrene-d10	1.000	1.000	0.0	111	0.00	9.98
82 t	Octadecane	0.519	0.524	-1.0	111	0.00	9.95

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:44 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103917.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103917.D Vial: 15
Acq On : 10 May 2018 12:29 am Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	106	-0.01	14.15
88 t	3,3'-Dichlorobenzidine	0.439	0.447	-1.8	105	0.00	14.15

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:48 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4619
Lab FileID: 2M103918.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103918.D Vial: 16
Acq On : 10 May 2018 2:14 am Operator: chriss2
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
112	Naphthalene-d8a	1.000	1.000	0.0	143	0.00	5.76
113	Hydroquinone	0.282	0.320	-13.5	138	0.00	6.17

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103906a.D M2M4618.M Fri May 11 15:09:50 2018

8.9.10

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4620-ICV4618
Lab FileID: 2M103921.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4620\2m103921.D Vial: 2
Acq On : 11 May 2018 1:55 pm Operator: christc2
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4620,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	4.67
3 t	Pyridine	1.552	1.520	2.1	112	0.10	2.61
10	Aniline	2.061	2.201	-6.8	122	0.00	4.42
16 t	Benzyl alcohol	0.875	0.939	-7.3	117	0.00	4.78
24 I	Naphthalene-d8	1.000	1.000	0.0	112	0.00	5.76
39 t	4-Chloroaniline	0.441	0.407	7.7	105	0.00	5.83
44 t	2-Methylnaphthalene	0.603	0.585	3.0	109	0.00	6.52
47 I	Acenaphthene-d10	1.000	1.000	0.0	114	0.00	7.82
54 t	2-Nitroaniline	0.338	0.323	4.4	105	0.00	7.22
58 t	3-Nitroaniline	0.345	0.342	0.9	106	0.00	7.77
62 t	Dibenzofuran	1.725	1.699	1.5	112	0.00	8.10
68 t	4-Nitroaniline	0.343	0.311	9.3	99	-0.01	8.63
69 I	Phenanthrene-d10	1.000	1.000	0.0	112	0.00	9.99
79 t	Carbazole	1.071	1.031	3.7	107	0.00	10.37

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:19:12 2018

8.9.11

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4620-ICV4619
Lab FileID: 2M103921A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4620\2m103921a.D Vial: 2
Acq On : 11 May 2018 1:55 pm Operator: christc2
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4620,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
108	Phenanthrene-d10a	1.000	1.000	0.0	122	0.00	9.99
111	Pentachloronitrobenzene	0.042	0.041#	2.4	114	0.00	9.74

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 16:40:21 2018

8.9.12

8

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4623-CC4618
Lab FileID: 2M103985.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4623\2m103985.D Vial: 2
Acq On : 14 May 2018 9:29 am Operator: christc2
Sample : cc4618-25 Inst : MS2M
Misc : op10486,e2m4623,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	65	-0.02	4.65
2 t	1,4-Dioxane	0.605	0.580	4.1	64	-0.02	2.18
3 t	Pyridine	1.552	1.482	4.5	61	0.00	2.50
4 t	N-Nitrosodimethylamine	0.921	0.912	1.0	64	-0.01	2.47
5 S	2-Fluorophenol	1.303	1.305	-0.2	65	0.00	3.66
6 t	Indene	2.229	2.236	-0.3	66	-0.01	4.86
7 t	Cumene	3.318	3.287	0.9	65	-0.02	4.05
8 S	Phenol-d5	1.635	1.643	-0.5	66	-0.02	4.38
9 t	Phenol	1.877	1.924	-2.5	68	-0.01	4.39
10	Aniline	2.061	2.067	-0.3	66	-0.02	4.40
11 t	bis(2-Chloroethyl)ether	1.298	1.309	-0.8	66	-0.02	4.45
12 t	2-Chlorophenol	1.409	1.403	0.4	65	-0.02	4.49
13 t	Decane	1.450	1.444	0.4	66	-0.02	4.54
14 t	1,3-Dichlorobenzene	1.588	1.571	1.1	65	-0.02	4.61
15 t	1,4-Dichlorobenzene	1.608	1.569	2.4	64	-0.02	4.66
16 t	Benzyl alcohol	0.875	0.837	4.3	64	-0.02	4.76
17 t	1,2-Dichlorobenzene	1.502	1.494	0.5	66	-0.01	4.79
18 t	Acetophenone	1.863	1.870	-0.4	65	-0.02	4.97
19 t	2-Methylphenol	1.231	1.286	-4.5	69	-0.02	4.85
20 t	2,2'-oxybis(1-Chloropropa	1.573	1.577	-0.3	66	-0.01	4.87
21 t	3&4-Methylphenol	1.293	1.331	-2.9	67	-0.02	4.97
22 t	n-Nitroso-di-n-propylamin	0.998	1.018	-2.0	67	-0.02	4.97
23 t	Hexachloroethane	0.516	0.515	0.2	66	-0.02	5.06
24 I	Naphthalene-d8	1.000	1.000	0.0	66	-0.02	5.74
25 S	Nitrobenzene-d5	0.366	0.361	1.4	65	-0.02	5.09
26 t	Nitrobenzene	0.365	0.369	-1.1	67	-0.02	5.11
27 t	Quinoline	0.679	0.692	-1.9	68	-0.03	6.10
28 t	Isophorone	0.643	0.647	-0.6	67	-0.02	5.31
29 t	2-Nitrophenol	0.195	0.205	-5.1	69	-0.02	5.39
30 t	2,4-Dimethylphenol	0.312	0.318	-1.9	68	-0.02	5.42
31 t	Benzoic acid	0.236	0.282	-19.5	77	-0.04	5.50
32 t	bis(2-Chloroethoxy)methan	0.372	0.372	0.0	66	-0.02	5.50
33 t	2,4-Dichlorophenol	0.292	0.292	0.0	67	-0.02	5.61
34 t	2,6-Dichlorophenol	0.286	0.288	-0.7	67	-0.02	5.82
35	1,3,5-Trichlorobenzene	0.346	0.342	1.2	66	-0.02	5.40
36 t	1,2,4-Trichlorobenzene	0.321	0.320	0.3	68	-0.02	5.69
37	1,2,3-Trichlorobenzene	0.319	0.318	0.3	66	-0.02	5.91
38 t	Naphthalene	1.036	1.022	1.4	66	-0.02	5.76
39 t	4-Chloroaniline	0.441	0.444	-0.7	67	-0.02	5.81
40 t	2,3-Dichloroaniline	0.365	0.372	-1.9	69	-0.02	6.82
41 t	Caprolactam	0.150	0.156	-4.0	69	-0.04	6.15

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4623-CC4618
Lab FileID: 2M103985.D

42 t	Hexachlorobutadiene	0.168	0.167	0.6	66	-0.02	5.89
43 t	4-Chloro-3-methylphenol	0.281	0.289	-2.8	69	-0.02	6.33
44 t	2-Methylnaphthalene	0.603	0.603	0.0	67	-0.03	6.49
45 t	1-Methylnaphthalene	0.629	0.633	-0.6	67	-0.02	6.61
46 t	Dimethylnaphthalene	0.644	0.647	-0.5	67	-0.03	7.25
47 I	Acenaphthene-d10	1.000	1.000	0.0	68	-0.02	7.80
48 t	Hexachlorocyclopentadiene	0.340	0.358	-5.3	69	-0.02	6.69
49 t	2,4,6-Trichlorophenol	0.391	0.399	-2.0	69	-0.03	6.83
50 t	2,4,5-Trichlorophenol	0.411	0.420	-2.2	69	-0.02	6.87
51 S	2-Fluorobiphenyl	1.461	1.426	2.4	67	-0.02	6.93
52 t	2-Chloronaphthalene	1.225	1.216	0.7	69	-0.02	7.07
53 t	Biphenyl	1.646	1.622	1.5	68	-0.03	7.05
54 t	2-Nitroaniline	0.338	0.353	-4.4	70	-0.03	7.20
55 t	Dimethylphthalate	1.329	1.329	0.0	69	-0.03	7.46
56 t	Acenaphthylene	1.955	1.938	0.9	68	-0.03	7.60
57 t	2,6-Dinitrotoluene	0.297	0.319	-7.4	70	-0.03	7.52
58 t	3-Nitroaniline	0.345	0.377	-9.3	72	-0.03	7.75
59 t	Acenaphthene	1.283	1.265	1.4	68	-0.03	7.84
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	50.000	54.356	-8.7	79	-0.03	7.89
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.149	0.166	-11.4	71	-0.02	8.01
62 t	Dibenzofuran	1.725	1.721	0.2	68	-0.03	8.08
63 t	2,4-Dinitrotoluene	0.396	0.434	-9.6	71	-0.03	8.08
64	2,3,4,6-Tetrachlorophenol	0.339	0.350	-3.2	70	-0.03	8.26
65 t	Diethylphthalate	1.315	1.345	-2.3	70	-0.03	8.46
66 t	Fluorene	1.398	1.398	0.0	68	-0.03	8.57
67 t	4-Chlorophenyl-phenylethe	0.635	0.632	0.5	67	-0.03	8.59
68 t	4-Nitroaniline	0.343	0.373	-8.7	74	-0.03	8.61
69 I	Phenanthrene-d10	1.000	1.000	0.0	71	-0.03	9.96
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	25.000	26.517	-6.1	76	-0.03	8.66
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.584	0.582	0.3	69	-0.03	8.76
72 t	1,2-Diphenylhydrazine	0.774	0.757	2.2	68	-0.03	8.82
73 S	2,4,6-Tribromophenol	0.121	0.122	-0.8	68	-0.02	8.92
74 t	4-Bromophenyl-phenylether	0.220	0.218	0.9	70	-0.03	9.31
75 t	Hexachlorobenzene	0.252	0.250	0.8	70	-0.03	9.39
76 t	Pentachlorophenol	0.153	0.159	-3.9	70	-0.03	9.70
77 t	Phenanthrene	1.141	1.117	2.1	69	-0.03	10.00
78 t	Anthracene	1.147	1.144	0.3	70	-0.03	10.07
79 t	Carbazole	1.071	1.091	-1.9	71	-0.03	10.34
80 t	Di-n-butylphthalate	1.309	1.334	-1.9	71	-0.03	10.98
81 t	Fluoranthene	1.171	1.191	-1.7	71	-0.03	11.85
82 t	Octadecane	0.519	0.513	1.2	69	-0.02	9.93
83 I	Chrysene-d12	1.000	1.000	0.0	72	-0.03	14.13
84 t	Pyrene	1.336	1.326	0.7	71	-0.03	12.20
85 S	Terphenyl-d14	0.877	0.877	0.0	72	-0.03	12.52
86 t	Butylbenzylphthalate	0.617	0.619	-0.3	73	-0.03	13.35
87 t	Benzo[a]anthracene	1.210	1.203	0.6	74	-0.03	14.12
88 t	3,3'-Dichlorobenzidine	0.439	0.463	-5.5	74	-0.03	14.13
89 t	Chrysene	1.150	1.152	-0.2	72	-0.03	14.17
90 t	bis(2-Ethylhexyl)phthalat	0.851	0.855	-0.5	73	-0.03	14.32

8.9.13

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Continuing Calibration Summary

Page 3 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4623-CC4618
Lab FileID: 2M103985.D

91	I	Perylene-d12	1.000	1.000	0.0	73	-0.03	16.24
92	t	Di-n-octylphthalate	1.445	1.480	-2.4	74	-0.03	15.30
93	t	Benzo[b]fluoranthene	1.224	1.237	-1.1	72	-0.03	15.72
94	t	Benzo[k]fluoranthene	1.137	1.168	-2.7	76	-0.04	15.76
95	t	Benzo[a]pyrene	1.061	1.077	-1.5	73	-0.03	16.16
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.068	-1.1	72	-0.05	17.74
97	t	Dibenz(a,h)acridine	0.956	0.977	-2.2	74	-0.04	17.40
98	t	Dibenz[a,h]anthracene	1.086	1.132	-4.2	74	-0.05	17.78
99	t	7,12-Dimethylbenz(a)anthr	0.533	0.550	-3.2	74	-0.04	15.73
100	t	Benzo[g,h,i]perylene	1.018	1.037	-1.9	73	-0.05	18.16

(#) = Out of Range

2m103907a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Mon May 14 15:56:23 2018

8.9.13

8

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4623-CC4619
Lab FileID: 2M103986.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4623\2m103986.D Vial: 3
Acq On : 14 May 2018 9:59 am Operator: christc2
Sample : cc4619-25 Inst : MS2M
Misc : op10486,e2m4623,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	80	-0.01	4.65
102	Benzaldehyde	0.975	0.951	2.5	81	-0.01	4.32
103	Acenaphthene-d10a	1.000	1.000	0.0	83	-0.02	7.80
104	1,2,4,5-Tetrachlorobenzen	0.587	0.579	1.4	83	-0.02	6.69
105	Chrysene-d12a	1.000	1.000	0.0	86	-0.03	14.13
106	Benzidine	0.389	0.449	-15.4	106	-0.02	12.11
107 s	1-chlorooctadecane	0.320	0.319	0.3	86	-0.02	11.82
108	Phenanthrene-d10a	1.000	1.000	0.0	85	-0.03	9.96
109	Atrazine	0.109	0.111	-1.8	84	-0.03	9.60
110 s	o-terphenyl	0.550	0.545	0.9	84	-0.03	10.61
111	Pentachloronitrobenzene	0.042	0.045#	-7.1	90	-0.02	9.72
112	Naphthalene-d8a	1.000	1.000	0.0	81	-0.02	5.74
113	Hydroquinone	0.282	0.361	-28.0#	96	-0.02	6.15

(#) = Out of Range
2m103907a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Mon May 14 15:57:45 2018

8.9.14

8

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4625-CC4618
Lab FileID: 2M104046.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\e2m4625\2m104046.d Vial: 2
Acq On : 15 May 2018 2:17 pm Operator: christc2
Sample : cc4618-25 Inst : MS2M
Misc : op10486,e2m4625,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	72	-0.03	4.64
2 t	1,4-Dioxane	0.605	0.571	5.6	69	-0.03	2.16
3 t	Pyridine	1.552	1.402	9.7	63	-0.02	2.49
4 t	N-Nitrosodimethylamine	0.921	0.868	5.8	68	-0.03	2.45
5 S	2-Fluorophenol	1.303	1.288	1.2	71	-0.01	3.66
6 t	Indene	2.229	2.157	3.2	70	-0.03	4.84
7 t	Cumene	3.318	3.235	2.5	70	-0.03	4.04
8 S	Phenol-d5	1.635	1.604	1.9	71	-0.02	4.38
9 t	Phenol	1.877	1.855	1.2	72	-0.01	4.39
10	Aniline	2.061	1.853	10.1	66	-0.03	4.39
11 t	bis(2-Chloroethyl)ether	1.298	1.278	1.5	72	-0.03	4.44
12 t	2-Chlorophenol	1.409	1.394	1.1	72	-0.02	4.49
13 t	Decane	1.450	1.388	4.3	70	-0.03	4.52
14 t	1,3-Dichlorobenzene	1.588	1.540	3.0	71	-0.03	4.59
15 t	1,4-Dichlorobenzene	1.608	1.560	3.0	70	-0.03	4.65
16 t	Benzyl alcohol	0.875	0.859	1.8	72	-0.03	4.74
17 t	1,2-Dichlorobenzene	1.502	1.473	1.9	71	-0.03	4.77
18 t	Acetophenone	1.863	1.847	0.9	71	-0.03	4.95
19 t	2-Methylphenol	1.231	1.209	1.8	72	-0.02	4.85
20 t	2,2'-oxybis(1-Chloropropa	1.573	1.527	2.9	71	-0.03	4.85
21 t	3&4-Methylphenol	1.293	1.265	2.2	71	-0.02	4.96
22 t	n-Nitroso-di-n-propylamin	0.998	0.991	0.7	72	-0.03	4.95
23 t	Hexachloroethane	0.516	0.518	-0.4	73	-0.03	5.04
24 I	Naphthalene-d8	1.000	1.000	0.0	72	-0.04	5.72
25 S	Nitrobenzene-d5	0.366	0.367	-0.3	73	-0.03	5.08
26 t	Nitrobenzene	0.365	0.360	1.4	72	-0.03	5.09
27 t	Quinoline	0.679	0.677	0.3	72	-0.04	6.08
28 t	Isophorone	0.643	0.626	2.6	71	-0.04	5.30
29 t	2-Nitrophenol	0.195	0.204	-4.6	75	-0.03	5.37
30 t	2,4-Dimethylphenol	0.312	0.295	5.4	69	-0.03	5.41
31 t	Benzoic acid	0.236	0.279	-18.2	84	-0.04	5.50
32 t	bis(2-Chloroethoxy)methan	0.372	0.367	1.3	72	-0.03	5.49
33 t	2,4-Dichlorophenol	0.292	0.293	-0.3	73	-0.03	5.59
34 t	2,6-Dichlorophenol	0.286	0.286	0.0	72	-0.03	5.81
35	1,3,5-Trichlorobenzene	0.346	0.340	1.7	72	-0.04	5.38
36 t	1,2,4-Trichlorobenzene	0.321	0.316	1.6	73	-0.04	5.67
37	1,2,3-Trichlorobenzene	0.319	0.316	0.9	72	-0.04	5.89
38 t	Naphthalene	1.036	1.014	2.1	72	-0.04	5.74
39 t	4-Chloroaniline	0.441	0.429	2.7	71	-0.03	5.80
40 t	2,3-Dichloroaniline	0.365	0.362	0.8	73	-0.04	6.80
41 t	Caprolactam	0.150	0.153	-2.0	74	-0.05	6.14

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4625-CC4618
Lab FileID: 2M104046.D

42 t	Hexachlorobutadiene	0.168	0.167	0.6	72	-0.04	5.87
43 t	4-Chloro-3-methylphenol	0.281	0.285	-1.4	74	-0.03	6.32
44 t	2-Methylnaphthalene	0.603	0.596	1.2	72	-0.04	6.48
45 t	1-Methylnaphthalene	0.629	0.625	0.6	73	-0.04	6.59
46 t	Dimethylnaphthalene	0.644	0.643	0.2	73	-0.04	7.23
47 I	Acenaphthene-d10	1.000	1.000	0.0	76	-0.04	7.78
48 t	Hexachlorocyclopentadiene	0.340	0.331	2.6	70	-0.04	6.67
49 t	2,4,6-Trichlorophenol	0.391	0.388	0.8	74	-0.04	6.81
50 t	2,4,5-Trichlorophenol	0.411	0.401	2.4	73	-0.03	6.86
51 S	2-Fluorobiphenyl	1.461	1.398	4.3	73	-0.04	6.91
52 t	2-Chloronaphthalene	1.225	1.181	3.6	74	-0.04	7.06
53 t	Biphenyl	1.646	1.586	3.6	74	-0.04	7.03
54 t	2-Nitroaniline	0.338	0.338	0.0	74	-0.04	7.19
55 t	Dimethylphthalate	1.329	1.292	2.8	75	-0.04	7.44
56 t	Acenaphthylene	1.955	1.895	3.1	73	-0.04	7.58
57 t	2,6-Dinitrotoluene	0.297	0.313	-5.4	77	-0.04	7.51
58 t	3-Nitroaniline	0.345	0.364	-5.5	77	-0.04	7.73
59 t	Acenaphthene	1.283	1.218	5.1	72	-0.04	7.83
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	50.000	53.757	-7.5	86	-0.04	7.88
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.149	0.162	-8.7	77	-0.01	8.01
62 t	Dibenzofuran	1.725	1.669	3.2	73	-0.04	8.07
63 t	2,4-Dinitrotoluene	0.396	0.432	-9.1	79	-0.04	8.06
64	2,3,4,6-Tetrachlorophenol	0.339	0.343	-1.2	76	-0.04	8.25
65 t	Diethylphthalate	1.315	1.305	0.8	75	-0.05	8.44
66 t	Fluorene	1.398	1.354	3.1	73	-0.04	8.55
67 t	4-Chlorophenyl-phenylethe	0.635	0.613	3.5	72	-0.05	8.57
68 t	4-Nitroaniline	0.343	0.355	-3.5	78	-0.05	8.59
69 I	Phenanthrene-d10	1.000	1.000	0.0	77	-0.04	9.94
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	25.000	26.798	-7.2	83	-0.04	8.65
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.584	0.580	0.7	75	-0.04	8.75
72 t	1,2-Diphenylhydrazine	0.774	0.741	4.3	73	-0.05	8.80
73 S	2,4,6-Tribromophenol	0.121	0.120	0.8	73	-0.04	8.91
74 t	4-Bromophenyl-phenylether	0.220	0.215	2.3	75	-0.05	9.29
75 t	Hexachlorobenzene	0.252	0.235	6.7	72	-0.05	9.37
76 t	Pentachlorophenol	0.153	0.147	3.9	70	-0.04	9.68
77 t	Phenanthrene	1.141	1.116	2.2	75	-0.04	9.98
78 t	Anthracene	1.147	1.123	2.1	75	-0.04	10.06
79 t	Carbazole	1.071	1.071	0.0	76	-0.04	10.33
80 t	Di-n-butylphthalate	1.309	1.315	-0.5	76	-0.04	10.96
81 t	Fluoranthene	1.171	1.184	-1.1	77	-0.05	11.83
82 t	Octadecane	0.519	0.496	4.4	72	-0.04	9.91
83 I	Chrysene-d12	1.000	1.000	0.0	77	-0.05	14.12
84 t	Pyrene	1.336	1.341	-0.4	76	-0.05	12.18
85 S	Terphenyl-d14	0.877	0.867	1.1	76	-0.05	12.49
86 t	Butylbenzylphthalate	0.617	0.620	-0.5	77	-0.04	13.33
87 t	Benzo[a]anthracene	1.210	1.205	0.4	78	-0.05	14.10
88 t	3,3'-Dichlorobenzidine	0.439	0.455	-3.6	77	-0.05	14.10
89 t	Chrysene	1.150	1.145	0.4	76	-0.05	14.15
90 t	bis(2-Ethylhexyl)phthalat	0.851	0.868	-2.0	78	-0.05	14.30

8.9.15

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Continuing Calibration Summary

Page 3 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4625-CC4618
Lab FileID: 2M104046.D

91	I	Perylene-d12	1.000	1.000	0.0	76	-0.05	16.22
92	t	Di-n-octylphthalate	1.445	1.495	-3.5	78	-0.05	15.28
93	t	Benzo[b]fluoranthene	1.224	1.222	0.2	74	-0.05	15.70
94	t	Benzo[k]fluoranthene	1.137	1.150	-1.1	78	-0.05	15.74
95	t	Benzo[a]pyrene	1.061	1.095	-3.2	78	-0.05	16.14
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.097	-3.9	77	-0.07	17.72
97	t	Dibenz(a,h)acridine	0.956	0.955	0.1	75	-0.06	17.38
98	t	Dibenz[a,h]anthracene	1.086	1.100	-1.3	76	-0.07	17.76
99	t	7,12-Dimethylbenz(a)anthr	0.533	0.508	4.7	72	-0.05	15.71
100	t	Benzo[g,h,i]perylene	1.018	1.033	-1.5	76	-0.07	18.14

(#) = Out of Range

2m103907a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Tue May 15 22:40:40 2018

8.9.15

8

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4625-CC4619
Lab FileID: 2M104047.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\e2m4625\2m104047.d Vial: 3
Acq On : 15 May 2018 2:43 pm Operator: christc2
Sample : cc4619-25 Inst : MS2M
Misc : op10486,e2m4625,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	88	-0.03	4.64
102	Benzaldehyde	0.975	0.760	22.1#	72	-0.03	4.31
103	Acenaphthene-d10a	1.000	1.000	0.0	89	-0.04	7.78
104	1,2,4,5-Tetrachlorobenzen	0.587	0.454	22.7#	70	-0.04	6.67
105	Chrysene-d12a	1.000	1.000	0.0	87	-0.04	14.11
106	Benzidine	0.389	0.374	3.9	89	-0.04	12.09
107 s	1-chlorooctadecane	0.320	0.263	17.8	72	-0.05	11.79
108	Phenanthrene-d10a	1.000	1.000	0.0	89	-0.05	9.94
109	Atrazine	0.109	0.090	17.4	71	-0.04	9.59
110 s	o-terphenyl	0.550	0.442	19.6	71	-0.05	10.59
111	Pentachloronitrobenzene	0.042	0.034#	19.0	70	-0.04	9.70
112	Naphthalene-d8a	1.000	1.000	0.0	88	-0.03	5.72
113	Hydroquinone	0.282	0.283	-0.4	81	-0.02	6.14

(#) = Out of Range
2m103907a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Tue May 15 22:40:43 2018

8.9.16

8

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4626-CC4618
Lab FileID: 2M104075.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\SV0A\e2m4626\2m104075.d Vial: 2
Acq On : 16 May 2018 9:33 am Operator: christc2
Sample : cc4618-50 Inst : MS2M
Misc : op10486,e2m4626,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	72	-0.04	4.63
2 t	1,4-Dioxane	0.605	0.573	5.3	69	-0.04	2.16
3 t	Pyridine	1.552	1.469	5.3	71	-0.02	2.49
4 t	N-Nitrosodimethylamine	0.921	0.873	5.2	68	-0.03	2.45
5 S	2-Fluorophenol	1.303	1.307	-0.3	71	-0.01	3.66
6 t	Indene	2.229	2.196	1.5	69	-0.03	4.84
7 t	Cumene	3.318	3.287	0.9	70	-0.03	4.04
8 S	Phenol-d5	1.635	1.654	-1.2	72	-0.01	4.39
9 t	Phenol	1.877	1.839	2.0	70	0.00	4.40
10	Aniline	2.061	1.780	13.6	65	-0.03	4.39
11 t	bis(2-Chloroethyl)ether	1.298	1.288	0.8	71	-0.03	4.43
12 t	2-Chlorophenol	1.409	1.412	-0.2	72	-0.02	4.49
13 t	Decane	1.450	1.381	4.8	70	-0.04	4.51
14 t	1,3-Dichlorobenzene	1.588	1.564	1.5	71	-0.03	4.59
15 t	1,4-Dichlorobenzene	1.608	1.585	1.4	71	-0.03	4.65
16 t	Benzyl alcohol	0.875	0.885	-1.1	72	-0.03	4.74
17 t	1,2-Dichlorobenzene	1.502	1.468	2.3	70	-0.03	4.77
18 t	Acetophenone	1.863	1.859	0.2	71	-0.03	4.95
19 t	2-Methylphenol	1.231	1.219	1.0	70	-0.02	4.85
20 t	2,2'-oxybis(1-Chloropropa	1.573	1.511	3.9	70	-0.03	4.85
21 t	3&4-Methylphenol	1.293	1.275	1.4	69	-0.02	4.96
22 t	n-Nitroso-di-n-propylamin	0.998	0.998	0.0	70	-0.03	4.95
23 t	Hexachloroethane	0.516	0.515	0.2	72	-0.04	5.04
24 I	Naphthalene-d8	1.000	1.000	0.0	70	-0.04	5.72
25 S	Nitrobenzene-d5	0.366	0.373	-1.9	71	-0.03	5.08
26 t	Nitrobenzene	0.365	0.366	-0.3	71	-0.03	5.09
27 t	Quinoline	0.679	0.710	-4.6	74	-0.04	6.09
28 t	Isophorone	0.643	0.649	-0.9	71	-0.04	5.30
29 t	2-Nitrophenol	0.195	0.211	-8.2	75	-0.03	5.37
30 t	2,4-Dimethylphenol	0.312	0.315	-1.0	71	-0.03	5.41
31 t	Benzoic acid	0.236	0.286	-21.2#	78	0.00	5.54
32 t	bis(2-Chloroethoxy)methan	0.372	0.369	0.8	71	-0.04	5.48
33 t	2,4-Dichlorophenol	0.292	0.303	-3.8	74	-0.03	5.60
34 t	2,6-Dichlorophenol	0.286	0.294	-2.8	72	-0.03	5.81
35	1,3,5-Trichlorobenzene	0.346	0.336	2.9	70	-0.04	5.38
36 t	1,2,4-Trichlorobenzene	0.321	0.319	0.6	71	-0.04	5.67
37	1,2,3-Trichlorobenzene	0.319	0.316	0.9	72	-0.04	5.89
38 t	Naphthalene	1.036	1.036	0.0	71	-0.04	5.74
39 t	4-Chloroaniline	0.441	0.433	1.8	70	-0.03	5.80
40 t	2,3-Dichloroaniline	0.365	0.384	-5.2	74	-0.04	6.80
41 t	Caprolactam	0.150	0.159	-6.0	74	-0.03	6.16

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4626-CC4618
Lab FileID: 2M104075.D

42 t	Hexachlorobutadiene	0.168	0.172	-2.4	73	-0.04	5.87
43 t	4-Chloro-3-methylphenol	0.281	0.303	-7.8	75	-0.02	6.33
44 t	2-Methylnaphthalene	0.603	0.615	-2.0	72	-0.04	6.47
45 t	1-Methylnaphthalene	0.629	0.648	-3.0	73	-0.04	6.58
46 t	Dimethylnaphthalene	0.644	0.668	-3.7	73	-0.04	7.23
47 I	Acenaphthene-d10	1.000	1.000	0.0	74	-0.04	7.78
48 t	Hexachlorocyclopentadiene	0.340	0.339	0.3	68	-0.04	6.66
49 t	2,4,6-Trichlorophenol	0.391	0.392	-0.3	73	-0.03	6.82
50 t	2,4,5-Trichlorophenol	0.411	0.419	-1.9	74	-0.03	6.87
51 S	2-Fluorobiphenyl	1.461	1.444	1.2	73	-0.04	6.91
52 t	2-Chloronaphthalene	1.225	1.196	2.4	73	-0.04	7.05
53 t	Biphenyl	1.646	1.649	-0.2	74	-0.04	7.03
54 t	2-Nitroaniline	0.338	0.356	-5.3	75	-0.04	7.19
55 t	Dimethylphthalate	1.329	1.343	-1.1	76	-0.04	7.44
56 t	Acenaphthylene	1.955	1.965	-0.5	74	-0.04	7.58
57 t	2,6-Dinitrotoluene	0.297	0.327	-10.1	79	-0.04	7.51
58 t	3-Nitroaniline	0.345	0.378	-9.6	76	-0.04	7.73
59 t	Acenaphthene	1.283	1.286	-0.2	74	-0.05	7.82
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	100.000	113.327	-13.3	84	-0.03	7.89
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.149	0.171	-14.8	78	0.00	8.03
62 t	Dibenzofuran	1.725	1.741	-0.9	74	-0.05	8.06
63 t	2,4-Dinitrotoluene	0.396	0.449	-13.4	78	-0.03	8.07
64	2,3,4,6-Tetrachlorophenol	0.339	0.353	-4.1	75	-0.03	8.26
65 t	Diethylphthalate	1.315	1.367	-4.0	76	-0.05	8.44
66 t	Fluorene	1.398	1.436	-2.7	75	-0.04	8.55
67 t	4-Chlorophenyl-phenylethe	0.635	0.640	-0.8	76	-0.05	8.57
68 t	4-Nitroaniline	0.343	0.387	-12.8	80	-0.04	8.60
69 I	Phenanthrene-d10	1.000	1.000	0.0	76	-0.04	9.94
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	50.000	53.873	-7.7	80	-0.03	8.67
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.584	0.589	-0.9	76	-0.04	8.75
72 t	1,2-Diphenylhydrazine	0.774	0.751	3.0	74	-0.05	8.80
73 S	2,4,6-Tribromophenol	0.121	0.122	-0.8	76	-0.04	8.91
74 t	4-Bromophenyl-phenylether	0.220	0.219	0.5	76	-0.05	9.29
75 t	Hexachlorobenzene	0.252	0.244	3.2	75	-0.04	9.38
76 t	Pentachlorophenol	0.153	0.149	2.6	68	-0.03	9.69
77 t	Phenanthrene	1.141	1.135	0.5	77	-0.04	9.98
78 t	Anthracene	1.147	1.147	0.0	76	-0.04	10.06
79 t	Carbazole	1.071	1.112	-3.8	78	-0.03	10.33
80 t	Di-n-butylphthalate	1.309	1.380	-5.4	78	-0.05	10.96
81 t	Fluoranthene	1.171	1.236	-5.6	79	-0.04	11.84
82 t	Octadecane	0.519	0.517	0.4	75	-0.05	9.91
83 I	Chrysene-d12	1.000	1.000	0.0	79	-0.04	14.12
84 t	Pyrene	1.336	1.327	0.7	78	-0.04	12.18
85 S	Terphenyl-d14	0.877	0.876	0.1	78	-0.05	12.49
86 t	Butylbenzylphthalate	0.617	0.637	-3.2	80	-0.05	13.33
87 t	Benzo[a]anthracene	1.210	1.200	0.8	80	-0.04	14.11
88 t	3,3'-Dichlorobenzidine	0.439	0.466	-6.2	81	-0.04	14.11
89 t	Chrysene	1.150	1.142	0.7	79	-0.04	14.16
90 t	bis(2-Ethylhexyl)phthalat	0.851	0.901	-5.9	81	-0.05	14.30

8.9.17

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Continuing Calibration Summary

Page 3 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4626-CC4618
Lab FileID: 2M104075.D

91	I	Perylene-d12	1.000	1.000	0.0	78	-0.04	16.23
92	t	Di-n-octylphthalate	1.445	1.574	-8.9	82	-0.05	15.28
93	t	Benzo[b]fluoranthene	1.224	1.232	-0.7	76	-0.03	15.72
94	t	Benzo[k]fluoranthene	1.137	1.160	-2.0	81	-0.04	15.76
95	t	Benzo[a]pyrene	1.061	1.078	-1.6	77	-0.03	16.16
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.092	-3.4	80	-0.04	17.75
97	t	Dibenz(a,h)acridine	0.956	0.973	-1.8	78	-0.04	17.40
98	t	Dibenz[a,h]anthracene	1.086	1.092	-0.6	77	-0.04	17.79
99	t	7,12-Dimethylbenz(a)anthr	0.533	0.540	-1.3	76	-0.04	15.72
100	t	Benzo[g,h,i]perylene	1.018	1.020	-0.2	77	-0.04	18.18

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Thu May 17 01:35:40 2018

8.9.17

8

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4626-CC4619
Lab FileID: 2M104076.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\SV0A\e2m4626\2m104076.d Vial: 3
Acq On : 16 May 2018 10:09 am Operator: christc2
Sample : cc4619-50 Inst : MS2M
Misc : op10486,e2m4626,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	74	-0.03	4.63
102	Benzaldehyde	0.975	0.881	9.6	74	-0.03	4.31
103	Acenaphthene-d10a	1.000	1.000	0.0	79	-0.04	7.78
104	1,2,4,5-Tetrachlorobenzen	0.587	0.559	4.8	76	-0.04	6.67
105	Chrysene-d12a	1.000	1.000	0.0	79	-0.04	14.12
106	Benzidine	0.389	0.395	-1.5	81	-0.04	12.09
107 s	1-chlorooctadecane	0.320	0.324	-1.3	80	-0.05	11.79
108	Phenanthrene-d10a	1.000	1.000	0.0	79	-0.04	9.94
109	Atrazine	0.109	0.115	-5.5	80	-0.03	9.60
110 s	o-terphenyl	0.550	0.549	0.2	79	-0.05	10.59
111	Pentachloronitrobenzene	0.042	0.046#	-9.5	84	-0.03	9.71
112	Naphthalene-d8a	1.000	1.000	0.0	75	-0.04	5.72
113	Hydroquinone	0.282	0.376	-33.3#	85	-0.01	6.15
114	Chrysene-d12b	1.000	1.000	0.0	79	-0.04	14.12
115	2,3,7,8-TCDD			-----NA-----			

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Thu May 17 01:35:43 2018

89.18

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Continuing Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4627-CC4618
Lab FileID: 2M104088.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4627\2m104088.D Vial: 2
Acq On : 16 May 2018 11:32 pm Operator: georges
Sample : cc4618-25 Inst : MS2M
Misc : op10486,e2m4627,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	71	-0.04	4.63
2 t	1,4-Dioxane	0.605	0.541	10.6	65	-0.05	2.15
3 t	Pyridine	1.552	1.490	4.0	67	-0.03	2.48
4 t	N-Nitrosodimethylamine	0.921	0.853	7.4	66	-0.04	2.44
5 S	2-Fluorophenol	1.303	1.263	3.1	69	-0.02	3.65
6 t	Indene	2.229	2.130	4.4	68	-0.04	4.83
7 t	Cumene	3.318	3.221	2.9	69	-0.04	4.03
8 S	Phenol-d5	1.635	1.587	2.9	70	-0.02	4.38
9 t	Phenol	1.877	1.823	2.9	70	-0.02	4.39
10	Aniline	2.061	1.833	11.1	64	-0.04	4.38
11 t	bis(2-Chloroethyl)ether	1.298	1.265	2.5	70	-0.04	4.43
12 t	2-Chlorophenol	1.409	1.366	3.1	69	-0.03	4.48
13 t	Decane	1.450	1.355	6.6	68	-0.04	4.51
14 t	1,3-Dichlorobenzene	1.588	1.525	4.0	69	-0.04	4.59
15 t	1,4-Dichlorobenzene	1.608	1.546	3.9	68	-0.04	4.64
16 t	Benzyl alcohol	0.875	0.844	3.5	70	-0.03	4.74
17 t	1,2-Dichlorobenzene	1.502	1.465	2.5	70	-0.04	4.76
18 t	Acetophenone	1.863	1.829	1.8	69	-0.04	4.94
19 t	2-Methylphenol	1.231	1.196	2.8	70	-0.03	4.84
20 t	2,2'-oxybis(1-Chloropropa	1.573	1.496	4.9	68	-0.04	4.84
21 t	3&4-Methylphenol	1.293	1.240	4.1	68	-0.03	4.96
22 t	n-Nitroso-di-n-propylamin	0.998	0.995	0.3	71	-0.04	4.95
23 t	Hexachloroethane	0.516	0.500	3.1	70	-0.04	5.03
24 I	Naphthalene-d8	1.000	1.000	0.0	72	-0.04	5.72
25 S	Nitrobenzene-d5	0.366	0.365	0.3	71	-0.04	5.07
26 t	Nitrobenzene	0.365	0.358	1.9	71	-0.04	5.09
27 t	Quinoline	0.679	0.686	-1.0	73	-0.05	6.07
28 t	Isophorone	0.643	0.628	2.3	71	-0.04	5.29
29 t	2-Nitrophenol	0.195	0.202	-3.6	74	-0.04	5.36
30 t	2,4-Dimethylphenol	0.312	0.292	6.4	68	-0.03	5.41
31 t	Benzoic acid	0.236	0.271	-14.8	80	-0.04	5.50
32 t	bis(2-Chloroethoxy)methan	0.372	0.365	1.9	70	-0.04	5.48
33 t	2,4-Dichlorophenol	0.292	0.295	-1.0	73	-0.03	5.59
34 t	2,6-Dichlorophenol	0.286	0.287	-0.3	72	-0.04	5.80
35	1,3,5-Trichlorobenzene	0.346	0.335	3.2	70	-0.04	5.38
36 t	1,2,4-Trichlorobenzene	0.321	0.316	1.6	72	-0.04	5.66
37	1,2,3-Trichlorobenzene	0.319	0.309	3.1	70	-0.04	5.88
38 t	Naphthalene	1.036	1.009	2.6	71	-0.05	5.73
39 t	4-Chloroaniline	0.441	0.426	3.4	70	-0.04	5.79
40 t	2,3-Dichloroaniline	0.365	0.370	-1.4	74	-0.04	6.80
41 t	Caprolactam	0.150	0.152	-1.3	73	-0.05	6.14

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4627-CC4618
Lab FileID: 2M104088.D

42 t	Hexachlorobutadiene	0.168	0.170	-1.2	73	-0.05	5.86
43 t	4-Chloro-3-methylphenol	0.281	0.290	-3.2	74	-0.03	6.32
44 t	2-Methylnaphthalene	0.603	0.597	1.0	72	-0.05	6.47
45 t	1-Methylnaphthalene	0.629	0.631	-0.3	73	-0.05	6.58
46 t	Dimethylnaphthalene	0.644	0.656	-1.9	74	-0.05	7.23
47 I	Acenaphthene-d10	1.000	1.000	0.0	75	-0.05	7.77
48 t	Hexachlorocyclopentadiene	0.340	0.331	2.6	70	-0.05	6.66
49 t	2,4,6-Trichlorophenol	0.391	0.384	1.8	73	-0.04	6.81
50 t	2,4,5-Trichlorophenol	0.411	0.411	0.0	74	-0.03	6.86
51 S	2-Fluorobiphenyl	1.461	1.419	2.9	74	-0.05	6.91
52 t	2-Chloronaphthalene	1.225	1.186	3.2	74	-0.05	7.04
53 t	Biphenyl	1.646	1.600	2.8	74	-0.05	7.03
54 t	2-Nitroaniline	0.338	0.338	0.0	74	-0.05	7.18
55 t	Dimethylphthalate	1.329	1.315	1.1	76	-0.05	7.43
56 t	Acenaphthylene	1.955	1.899	2.9	73	-0.05	7.58
57 t	2,6-Dinitrotoluene	0.297	0.317	-6.7	77	-0.04	7.50
58 t	3-Nitroaniline	0.345	0.362	-4.9	77	-0.05	7.72
59 t	Acenaphthene	1.283	1.248	2.7	74	-0.05	7.81
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	50.000	56.915	-13.8	91	-0.04	7.88
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.149	0.159	-6.7	75	-0.01	8.01
62 t	Dibenzofuran	1.725	1.707	1.0	75	-0.05	8.06
63 t	2,4-Dinitrotoluene	0.396	0.441	-11.4	80	-0.04	8.06
64	2,3,4,6-Tetrachlorophenol	0.339	0.341	-0.6	75	-0.04	8.25
65 t	Diethylphthalate	1.315	1.324	-0.7	76	-0.05	8.43
66 t	Fluorene	1.398	1.379	1.4	75	-0.05	8.54
67 t	4-Chlorophenyl-phenylethe	0.635	0.635	0.0	75	-0.05	8.56
68 t	4-Nitroaniline	0.343	0.357	-4.1	78	-0.05	8.59
69 I	Phenanthrene-d10	1.000	1.000	0.0	78	-0.05	9.94
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	25.000	27.578	-10.3	87	-0.04	8.65
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.584	0.575	1.5	75	-0.05	8.74
72 t	1,2-Diphenylhydrazine	0.774	0.738	4.7	73	-0.05	8.79
73 S	2,4,6-Tribromophenol	0.121	0.120	0.8	74	-0.04	8.90
74 t	4-Bromophenyl-phenylether	0.220	0.217	1.4	77	-0.05	9.29
75 t	Hexachlorobenzene	0.252	0.242	4.0	75	-0.05	9.37
76 t	Pentachlorophenol	0.153	0.143	6.5	69	-0.04	9.68
77 t	Phenanthrene	1.141	1.126	1.3	77	-0.05	9.97
78 t	Anthracene	1.147	1.116	2.7	75	-0.05	10.05
79 t	Carbazole	1.071	1.080	-0.8	77	-0.04	10.32
80 t	Di-n-butylphthalate	1.309	1.325	-1.2	78	-0.05	10.95
81 t	Fluoranthene	1.171	1.187	-1.4	78	-0.05	11.83
82 t	Octadecane	0.519	0.508	2.1	75	-0.05	9.90
83 I	Chrysene-d12	1.000	1.000	0.0	78	-0.05	14.12
84 t	Pyrene	1.336	1.322	1.0	77	-0.05	12.17
85 S	Terphenyl-d14	0.877	0.871	0.7	78	-0.05	12.49
86 t	Butylbenzylphthalate	0.617	0.619	-0.3	79	-0.05	13.32
87 t	Benzo[a]anthracene	1.210	1.184	2.1	79	-0.05	14.10
88 t	3,3'-Dichlorobenzidine	0.439	0.458	-4.3	79	-0.05	14.10
89 t	Chrysene	1.150	1.144	0.5	78	-0.05	14.15
90 t	bis(2-Ethylhexyl)phthalat	0.851	0.856	-0.6	79	-0.05	14.30

8.9.19

8

Continuing Calibration Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4627-CC4618
Lab FileID: 2M104088.D

91	I	Perylene-d12	1.000	1.000	0.0	77	-0.04	16.23
92	t	Di-n-octylphthalate	1.445	1.499	-3.7	79	-0.05	15.28
93	t	Benzo[b]fluoranthene	1.224	1.225	-0.1	76	-0.04	15.71
94	t	Benzo[k]fluoranthene	1.137	1.142	-0.4	79	-0.05	15.75
95	t	Benzo[a]pyrene	1.061	1.071	-0.9	78	-0.04	16.15
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.088	-3.0	78	-0.06	17.73
97	t	Dibenz(a,h)acridine	0.956	0.947	0.9	76	-0.05	17.39
98	t	Dibenz[a,h]anthracene	1.086	1.086	0.0	76	-0.06	17.77
99	t	7,12-Dimethylbenz(a)anthr	0.533	0.505	5.3	73	-0.05	15.71
100	t	Benzo[g,h,i]perylene	1.018	1.012	0.6	75	-0.06	18.15

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103907a.D M2M4618.M Thu May 17 12:13:21 2018

8.9.19
8

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4627-CC4619
Lab FileID: 2M104089.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4627\2m104089.D Vial: 3
Acq On : 16 May 2018 11:57 pm Operator: georges
Sample : cc4619-25 Inst : MS2M
Misc : op10486,e2m4627,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	77	-0.03	4.63
102	Benzaldehyde	0.975	0.958	1.7	79	-0.03	4.30
103	Acenaphthene-d10a	1.000	1.000	0.0	83	-0.05	7.77
104	1,2,4,5-Tetrachlorobenzen	0.587	0.575	2.0	82	-0.05	6.66
105	Chrysene-d12a	1.000	1.000	0.0	82	-0.04	14.11
106	Benzidine	0.389	0.531	-36.5#	120	-0.04	12.09
107 s	1-chlorooctadecane	0.320	0.331	-3.4	85	-0.05	11.79
108	Phenanthrene-d10a	1.000	1.000	0.0	84	-0.05	9.94
109	Atrazine	0.109	0.114	-4.6	85	-0.05	9.58
110 s	o-terphenyl	0.550	0.558	-1.5	85	-0.05	10.58
111	Pentachloronitrobenzene	0.042	0.045#	-7.1	89	-0.04	9.70
112	Naphthalene-d8a	1.000	1.000	0.0	78	-0.04	5.71
113	Hydroquinone	0.282	0.367	-30.1#	93	-0.02	6.14

(#) = Out of Range
2m103907a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Thu May 17 12:16:51 2018

8.9.20

8

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4628-CC4618
Lab FileID: 2M104119.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4628\2m104119.D Vial: 2
Acq On : 17 May 2018 1:24 pm Operator: christc2
Sample : cc4618-50 Inst : MS2M
Misc : op10486,e2m4628,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Thu May 17 13:00:25 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	54	-0.05	4.62
2 t	1,4-Dioxane	0.605	0.561	7.3	50	-0.06	2.13
3 t	Pyridine	1.552	1.543	0.6	55	-0.04	2.47
4 t	N-Nitrosodimethylamine	0.921	0.870	5.5	50	-0.05	2.43
5 S	2-Fluorophenol	1.303	1.279	1.8	52	-0.03	3.64
6 t	Indene	2.229	2.163	3.0	51	-0.05	4.81
7 t	Cumene	3.318	3.243	2.3	51	-0.05	4.02
8 S	Phenol-d5	1.635	1.634	0.1	53	-0.03	4.36
9 t	Phenol	1.877	1.832	2.4	52	-0.03	4.37
10	Aniline	2.061	1.831	11.2	49#	-0.05	4.37
11 t	bis(2-Chloroethyl)ether	1.298	1.248	3.9	51	-0.05	4.41
12 t	2-Chlorophenol	1.409	1.388	1.5	52	-0.04	4.47
13 t	Decane	1.450	1.344	7.3	50	-0.05	4.50
14 t	1,3-Dichlorobenzene	1.588	1.534	3.4	52	-0.05	4.57
15 t	1,4-Dichlorobenzene	1.608	1.561	2.9	52	-0.05	4.63
16 t	Benzyl alcohol	0.875	0.853	2.5	52	-0.05	4.72
17 t	1,2-Dichlorobenzene	1.502	1.461	2.7	52	-0.05	4.74
18 t	Acetophenone	1.863	1.840	1.2	52	-0.06	4.93
19 t	2-Methylphenol	1.231	1.196	2.8	51	-0.04	4.82
20 t	2,2'-oxybis(1-Chloropropa	1.573	1.474	6.3	51	-0.05	4.82
21 t	3&4-Methylphenol	1.293	1.264	2.2	51	-0.04	4.94
22 t	n-Nitroso-di-n-propylamin	0.998	0.997	0.1	52	-0.05	4.93
23 t	Hexachloroethane	0.516	0.510	1.2	53	-0.06	5.02
24 I	Naphthalene-d8	1.000	1.000	0.0	53	-0.06	5.70
25 S	Nitrobenzene-d5	0.366	0.366	0.0	52	-0.05	5.05
26 t	Nitrobenzene	0.365	0.360	1.4	52	-0.05	5.07
27 t	Quinoline	0.679	0.688	-1.3	54	-0.07	6.05
28 t	Isophorone	0.643	0.627	2.5	52	-0.06	5.27
29 t	2-Nitrophenol	0.195	0.208	-6.7	55	-0.06	5.34
30 t	2,4-Dimethylphenol	0.312	0.307	1.6	52	-0.05	5.39
31 t	Benzoic acid	0.236	0.287	-21.6#	59	-0.05	5.50
32 t	bis(2-Chloroethoxy)methan	0.372	0.366	1.6	53	-0.06	5.46
33 t	2,4-Dichlorophenol	0.292	0.296	-1.4	54	-0.05	5.57
34 t	2,6-Dichlorophenol	0.286	0.294	-2.8	54	-0.06	5.78
35	1,3,5-Trichlorobenzene	0.346	0.335	3.2	52	-0.06	5.35
36 t	1,2,4-Trichlorobenzene	0.321	0.313	2.5	52	-0.06	5.64
37	1,2,3-Trichlorobenzene	0.319	0.310	2.8	52	-0.06	5.86
38 t	Naphthalene	1.036	1.021	1.4	53	-0.06	5.72
39 t	4-Chloroaniline	0.441	0.428	2.9	52	-0.06	5.77
40 t	2,3-Dichloroaniline	0.365	0.374	-2.5	54	-0.06	6.78
41 t	Caprolactam	0.150	0.153	-2.0	53	-0.06	6.12

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4628-CC4618
Lab FileID: 2M104119.D

42 t	Hexachlorobutadiene	0.168	0.168	0.0	54	-0.06	5.85
43 t	4-Chloro-3-methylphenol	0.281	0.293	-4.3	54	-0.05	6.30
44 t	2-Methylnaphthalene	0.603	0.602	0.2	53	-0.07	6.45
45 t	1-Methylnaphthalene	0.629	0.630	-0.2	53	-0.07	6.56
46 t	Dimethylnaphthalene	0.644	0.649	-0.8	53	-0.07	7.20
47 I	Acenaphthene-d10	1.000	1.000	0.0	54	-0.07	7.75
48 t	Hexachlorocyclopentadiene	0.340	0.346	-1.8	51	-0.07	6.64
49 t	2,4,6-Trichlorophenol	0.391	0.388	0.8	53	-0.06	6.79
50 t	2,4,5-Trichlorophenol	0.411	0.415	-1.0	54	-0.05	6.84
51 S	2-Fluorobiphenyl	1.461	1.441	1.4	54	-0.07	6.88
52 t	2-Chloronaphthalene	1.225	1.190	2.9	53	-0.07	7.02
53 t	Biphenyl	1.646	1.620	1.6	53	-0.07	7.00
54 t	2-Nitroaniline	0.338	0.351	-3.8	55	-0.07	7.16
55 t	Dimethylphthalate	1.329	1.328	0.1	55	-0.07	7.41
56 t	Acenaphthylene	1.955	1.936	1.0	53	-0.07	7.55
57 t	2,6-Dinitrotoluene	0.297	0.316	-6.4	56	-0.06	7.48
58 t	3-Nitroaniline	0.345	0.372	-7.8	55	-0.07	7.70
59 t	Acenaphthene	1.283	1.278	0.4	54	-0.07	7.79
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	100.000	109.149	-9.1	59	-0.06	7.85
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.149	0.167	-12.1	56	-0.03	7.99
62 t	Dibenzofuran	1.725	1.734	-0.5	54	-0.07	8.03
63 t	2,4-Dinitrotoluene	0.396	0.442	-11.6	56	-0.07	8.03
64	2,3,4,6-Tetrachlorophenol	0.339	0.343	-1.2	54	-0.07	8.22
65 t	Diethylphthalate	1.315	1.350	-2.7	55	-0.08	8.40
66 t	Fluorene	1.398	1.423	-1.8	55	-0.08	8.52
67 t	4-Chlorophenyl-phenylethe	0.635	0.628	1.1	55	-0.08	8.54
68 t	4-Nitroaniline	0.343	0.368	-7.3	56	-0.07	8.57
69 I	Phenanthrene-d10	1.000	1.000	0.0	56	-0.08	9.91
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	50.000	53.493	-7.0	58	-0.07	8.62
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.584	0.579	0.9	55	-0.07	8.71
72 t	1,2-Diphenylhydrazine	0.774	0.746	3.6	54	-0.08	8.77
73 S	2,4,6-Tribromophenol	0.121	0.118	2.5	54	-0.07	8.87
74 t	4-Bromophenyl-phenylether	0.220	0.215	2.3	55	-0.08	9.26
75 t	Hexachlorobenzene	0.252	0.240	4.8	54	-0.08	9.34
76 t	Pentachlorophenol	0.153	0.147	3.9	50#	-0.07	9.65
77 t	Phenanthrene	1.141	1.122	1.7	56	-0.08	9.94
78 t	Anthracene	1.147	1.130	1.5	55	-0.08	10.02
79 t	Carbazole	1.071	1.079	-0.7	56	-0.07	10.30
80 t	Di-n-butylphthalate	1.309	1.342	-2.5	56	-0.09	10.92
81 t	Fluoranthene	1.171	1.203	-2.7	56	-0.09	11.79
82 t	Octadecane	0.519	0.505	2.7	54	-0.08	9.87
83 I	Chrysene-d12	1.000	1.000	0.0	57	-0.09	14.07
84 t	Pyrene	1.336	1.312	1.8	56	-0.09	12.14
85 S	Terphenyl-d14	0.877	0.862	1.7	56	-0.09	12.46
86 t	Butylbenzylphthalate	0.617	0.627	-1.6	57	-0.09	13.29
87 t	Benzo[a]anthracene	1.210	1.179	2.6	57	-0.09	14.06
88 t	3,3'-Dichlorobenzidine	0.439	0.449	-2.3	57	-0.09	14.07
89 t	Chrysene	1.150	1.137	1.1	57	-0.09	14.12
90 t	bis(2-Ethylhexyl)phthalat	0.851	0.852	-0.1	56	-0.10	14.25

8.9.21
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Continuing Calibration Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4628-CC4618
Lab FileID: 2M104119.D

91	I	Perylene-d12	1.000	1.000	0.0	57	-0.09	16.18
92	t	Di-n-octylphthalate	1.445	1.503	-4.0	57	-0.10	15.24
93	t	Benzo[b]fluoranthene	1.224	1.226	-0.2	55	-0.09	15.66
94	t	Benzo[k]fluoranthene	1.137	1.133	0.4	57	-0.09	15.70
95	t	Benzo[a]pyrene	1.061	1.066	-0.5	56	-0.09	16.10
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.057	-0.1	57	-0.12	17.67
97	t	Dibenz(a,h)acridine	0.956	0.952	0.4	56	-0.11	17.33
98	t	Dibenz[a,h]anthracene	1.086	1.080	0.6	56	-0.13	17.70
99	t	7,12-Dimethylbenz(a)anthr	0.533	0.534	-0.2	55	-0.10	15.67
100	t	Benzo[g,h,i]perylene	1.018	1.014	0.4	56	-0.13	18.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2m103906a.D M2M4618.M Thu May 17 17:22:16 2018

8.9.21
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Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4628-CC4619
Lab FileID: 2M104120.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4628\2m104120.D Vial: 3
Acq On : 17 May 2018 1:49 pm Operator: christc2
Sample : cc4619-50 Inst : MS2M
Misc : op10486,e2m4628,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Thu May 17 13:00:25 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	63	-0.05	4.61
102	Benzaldehyde	0.975	0.889	8.8	64	-0.05	4.28
103	Acenaphthene-d10a	1.000	1.000	0.0	65	-0.08	7.75
104	1,2,4,5-Tetrachlorobenzen	0.587	0.570	2.9	64	-0.07	6.64
105	Chrysene-d12a	1.000	1.000	0.0	65	-0.09	14.07
106	Benzidine	0.389	0.406	-4.4	69	-0.07	12.06
107 s	1-chlorooctadecane	0.320	0.321	-0.3	65	-0.09	11.76
108	Phenanthrene-d10a	1.000	1.000	0.0	65	-0.08	9.91
109	Atrazine	0.109	0.113	-3.7	65	-0.07	9.56
110 s	o-terphenyl	0.550	0.553	-0.5	66	-0.09	10.55
111	Pentachloronitrobenzene	0.042	0.045#	-7.1	67	-0.08	9.67
112	Naphthalene-d8a	1.000	1.000	0.0	63	-0.06	5.69
113	Hydroquinone	0.282	0.370	-31.2#	70	-0.04	6.12

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Thu May 17 17:23:49 2018

8.9.22

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Initial Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICC2164
Lab FileID: 6P471777.D

Response Factor Report MS6P

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Initial Calibration

Calibration Files

2 =6p471781.D 5 =6p471780.D 25 =6p471778.D 80 =6p471776.D
100 =6p471775.D 50 =6p471777.D 1 =6p471782.D 10 =6p471779.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	-----ISTD-----									
2) 1,4-Dioxane	0.769	0.686	0.657	0.621	0.646	0.636	0.780	0.674	0.684	8.74
3) Pyridine	1.975	1.991	1.818	1.697	1.775	1.725	2.124	1.767	1.859	8.19
4) N-Nitrosodim	1.184	1.134	1.030	0.973	1.011	1.003	1.239	1.052	1.078	8.90
5) 2-Fluorophen	1.606	1.528	1.419	1.310	1.309	1.351	1.684	1.455	1.458	9.52
6) Indene	2.744	2.696	2.316	1.881	1.783	2.080	2.819	2.463	2.348	17.05
7) Cumene	4.126	3.939	3.482	3.052	2.971	3.194	4.235	3.585	3.573	13.65
8) Phenol-d5	2.103	2.014	1.808	1.665	1.641	1.705	2.048	1.872	1.857	9.78
9) Phenol	2.430	2.335	2.060	1.777	1.686	1.876	2.399	2.187	2.094	13.85
10) Aniline	2.707	2.630	2.162	1.913	1.829	1.970	2.818	2.345	2.297	16.81
11) bis(2-Chloro	1.640	1.567	1.397	1.271	1.289	1.318	1.756	1.449	1.461	12.15
12) 2-Chlorophen	1.732	1.632	1.463	1.300	1.295	1.368	1.769	1.507	1.508	12.38
13) Decane	2.238	2.131	1.884	1.567	1.532	1.711	2.292	1.997	1.919	15.38
14) 1,3-Dichloro	1.931	1.869	1.649	1.459	1.449	1.536	1.990	1.710	1.699	12.52
15) 1,4-Dichloro	1.941	1.824	1.649	1.453	1.422	1.532	2.152	1.732	1.713	14.75
16) Benzyl alcoh	1.101	1.059	1.006	0.895	0.882	0.930	1.175	1.014	1.008	10.20
17) 1,2-Dichloro	1.837	1.767	1.556	1.341	1.290	1.429	2.014	1.633	1.608	15.76
18) Acetophenone	2.329	2.221	1.856	1.506	1.467	1.639	2.413	2.015	1.931	19.27
19) 2-Methylphen	1.562	1.545	1.332	1.097	1.059	1.189	1.635	1.390	1.351	16.32
20) 2,2'-oxybis(	0.518	0.482	0.434	0.398	0.396	0.409	0.537	0.451	0.453	11.98
21) 3&4-Methylph	1.695	1.610	1.339	1.082	1.046	1.194	1.723	1.478	1.396	19.40
22) n-Nitroso-di	1.302	1.223	1.030	0.865	0.872	0.912	1.351	1.118	1.084	17.95
23) Hexachloroet	0.648	0.633	0.587	0.541	0.534	0.565	0.686	0.597	0.599	8.91
24) I Naphthalene-d8	-----ISTD-----									
25) Nitrobenzene	0.474	0.471	0.429	0.393	0.385	0.402	0.489	0.429	0.434	9.17
26) Nitrobenzene	0.459	0.450	0.403	0.366	0.358	0.375	0.474	0.409	0.412	10.86
27) Quinoline	0.802	0.765	0.692	0.646	0.640	0.657	0.798	0.690	0.712	9.47
28) Isophorone	0.778	0.767	0.690	0.621	0.616	0.641	0.811	0.698	0.703	10.72
29) 2-Nitropheno	0.223	0.216	0.205	0.184	0.181	0.191	0.206	0.202	0.201	7.36
30) 2,4-Dimethyl	0.369	0.375	0.324	0.309	0.304	0.311	0.381	0.341	0.339	9.40
31) Benzoic acid	0.194	0.258	0.286	0.290	0.298	0.293	0.181	0.260	0.257	17.82
32) bis(2-Chloro	0.458	0.452	0.396	0.352	0.340	0.363	0.463	0.396	0.403	12.39
33) 2,4-Dichloro	0.340	0.347	0.307	0.278	0.267	0.290	0.364	0.314	0.313	11.08
34) 2,6-Dichloro	0.355	0.338	0.300	0.265	0.252	0.275	0.358	0.301	0.306	13.35
35) 1,3,5-Trichl	0.400	0.390	0.348	0.299	0.282	0.312	0.405	0.357	0.349	13.60
36) 1,2,4-Trichl	0.384	0.382	0.335	0.299	0.290	0.310	0.393	0.342	0.342	11.90
37) 1,2,3-Trichl	0.369	0.370	0.323	0.284	0.274	0.296	0.385	0.330	0.329	12.84
38) Naphthalene	1.216	1.181	1.017	0.866	0.834	0.923	1.287	1.062	1.048	16.08
39) 4-Chloroanil	0.526	0.508	0.442	0.378	0.356	0.396	0.537	0.452	0.449	15.51
40) 2,3-Dichloro	0.416	0.418	0.361	0.315	0.302	0.328	0.420	0.369	0.366	13.15
41) Caprolactam	0.220	0.213	0.193	0.184	0.185	0.184	0.204	0.191	0.197	6.99
42) Hexachlorobu	0.215	0.211	0.191	0.170	0.166	0.178	0.218	0.194	0.193	10.58
43) 4-Chloro-3-m	0.336	0.335	0.307	0.281	0.279	0.287	0.340	0.307	0.309	8.26
44) 2-Methylnaph	0.694	0.688	0.604	0.518	0.505	0.548	0.728	0.623	0.613	13.87
45) 1-Methylnaph	0.720	0.712	0.620	0.538	0.516	0.562	0.774	0.635	0.635	14.77

Initial Calibration Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICC2164
Lab FileID: 6P471777.D

46)	Dimethylnaph	0.767	0.771	0.670	0.583	0.557	0.621	0.786	0.680	0.680	13.06
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.382	0.395	0.376	0.347	0.345	0.357	0.383	0.378	0.370	4.97
49)	2,4,6-Trichl	0.410	0.426	0.371	0.329	0.329	0.348	0.417	0.377	0.376	10.36
50)	2,4,5-Trichl	0.440	0.465	0.416	0.383	0.381	0.400	0.492	0.409	0.423	9.32
51)	2-Fluorobiph	1.768	1.709	1.491	1.318	1.286	1.388	1.827	1.556	1.543	13.47
52)	2-Chloronaph	1.489	1.401	1.232	1.084	1.053	1.138	1.494	1.247	1.267	13.89
53)	Biphenyl	1.987	1.929	1.681	1.432	1.389	1.522	2.040	1.719	1.712	14.81
54)	2-Nitroanili	0.408	0.428	0.403	0.376	0.378	0.390	0.433	0.405	0.403	5.22
55)	Dimethylphth	1.554	1.503	1.344	1.232	1.225	1.273	1.580	1.342	1.382	10.45
56)	Acenaphthyle	2.217	2.148	1.892	1.660	1.657	1.765	2.295	1.945	1.947	12.83
57)	2,6-Dinitrot	0.319	0.317	0.318	0.294	0.303	0.298	0.301	0.302	0.307	3.23
58)	3-Nitroanili	0.418	0.411	0.385	0.359	0.365	0.367	0.379	0.382	0.383	5.54
59)	Acenaphthene	1.575	1.509	1.326	1.151	1.133	1.218	1.593	1.355	1.357	13.63
60)	2,4-Dinitrop	0.085	0.115	0.175	0.189	0.195	0.183	0.135	0.154		27.44
	----- Quadratic regression -----	Coefficient = 0.9999									
	Response Ratio = -0.01506 + 0.17969 *A + 0.00352 *A^2										
61)	4-Nitropheno	0.177	0.186	0.192	0.185	0.192	0.189	0.190	0.180	0.186	3.00
62)	Dibenzofuran	2.038	1.951	1.703	1.467	1.423	1.568	2.099	1.792	1.755	14.75
63)	2,4-Dinitrot	0.405	0.445	0.428	0.377	0.378	0.405	0.382	0.410	0.404	6.04
64)	2,3,4,6-Tetr	0.374	0.397	0.391	0.361	0.365	0.369	0.376	0.370	0.375	3.31
65)	Diethylphtha	1.485	1.431	1.296	1.159	1.157	1.225	1.520	1.319	1.324	10.73
66)	Fluorene	1.672	1.593	1.374	1.150	1.112	1.249	1.686	1.439	1.409	16.16
67)	4-Chlorophen	0.786	0.779	0.661	0.566	0.552	0.602	0.810	0.684	0.680	15.08
68)	4-Nitroanili	0.409	0.425	0.389	0.372	0.384	0.380	0.423	0.387	0.396	5.11
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.089	0.119	0.146	0.157	0.155	0.151	0.124	0.135		18.50
71)	n-Nitrosodip	0.622	0.609	0.543	0.501	0.483	0.511	0.623	0.564	0.557	10.10
72)	1,2-Diphenyl	0.967	0.938	0.832	0.727	0.698	0.754	0.985	0.862	0.845	13.21
73)	2,4,6-Tribro	0.153	0.158	0.153	0.148	0.146	0.145	0.151	0.149	0.150	2.82
74)	4-Bromopheny	0.266	0.268	0.239	0.226	0.217	0.225	0.280	0.246	0.246	9.45
75)	Hexachlorobe	0.324	0.310	0.278	0.264	0.258	0.269	0.345	0.292	0.292	10.66
76)	Pentachlorop	0.152	0.171	0.169	0.167	0.163	0.163	0.146	0.168	0.162	5.39
77)	Phenanthrene	1.404	1.338	1.174	1.055	1.000	1.064	1.479	1.214	1.216	14.47
78)	Anthracene	1.375	1.371	1.197	1.088	1.030	1.106	1.442	1.235	1.231	12.38
79)	Carbazole	1.321	1.272	1.121	1.013	0.970	1.033	1.269	1.156	1.145	11.63
80)	Di-n-butylph	1.388	1.354	1.251	1.122	1.079	1.158	1.414	1.275	1.255	10.03
81)	Fluoranthene	1.452	1.441	1.293	1.173	1.153	1.213	1.487	1.337	1.318	10.01
82)	Octadecane	0.657	0.641	0.588	0.493	0.466	0.522	0.649	0.612	0.579	12.96
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.460	1.469	1.301	1.185	1.152	1.237	1.548	1.343	1.337	10.79
85)	Terphenyl-d1	1.071	1.027	0.925	0.887	0.851	0.882	1.064	0.938	0.956	9.07
86)	Butylbenzylp	0.549	0.567	0.536	0.500	0.492	0.508	0.556	0.529	0.529	5.19
87)	Benzo[a]anth	1.409	1.357	1.195	1.102	1.067	1.135	1.512	1.250	1.253	12.69
88)	3,3'-Dichlor	0.512	0.528	0.467	0.440	0.429	0.453	0.516	0.473	0.477	7.81
89)	Chrysene	1.356	1.354	1.184	1.115	1.079	1.148	1.468	1.210	1.239	11.10
90)	bis(2-Ethylh	0.780	0.817	0.749	0.689	0.664	0.706	0.784	0.761	0.744	7.07
91)	I Perylene-d12	-----ISTD-----									
92)	Di-n-octylph	1.303	1.344	1.264	1.112	1.038	1.183	1.270	1.258	1.221	8.44
93)	Benzo[b]fluo	1.383	1.395	1.244	1.144	1.180	1.157	1.376	1.255	1.267	8.28
94)	Benzo[k]fluo	1.332	1.235	1.131	1.038	0.900	1.084	1.377	1.166	1.158	13.51
95)	Benzo[a]pyre	1.239	1.225	1.090	1.027	0.991	1.039	1.248	1.116	1.122	9.19
96)	Indeno[1,2,3	1.629	1.561	1.438	1.361	1.341	1.386	1.639	1.460	1.477	8.02
97)	Dibenz(a,h)a	1.187	1.181	1.094	1.044	1.016	1.059	1.214	1.092	1.111	6.64
98)	Dibenz[a,h]a	1.400	1.372	1.243	1.180	1.144	1.192	1.386	1.269	1.273	7.93

Initial Calibration Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICC2164
Lab FileID: 6P471777.D

99)	7,12-Dimethy	0.538	0.544	0.523	0.508	0.488	0.505	0.545	0.534	0.523	3.97
100)	Benzo[g,h,i]	1.265	1.255	1.149	1.102	1.086	1.119	1.330	1.155	1.183	7.52

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

M6P2164.M Mon Apr 16 09:48:59 2018 ACLIMS

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471783.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471783.D Vial: 10
Acq On : 14 Apr 2018 3:43 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.00	4.66
5 S	2-Fluorophenol	1.458	1.381	5.3	96	0.00	3.68
8 S	Phenol-d5	1.857	1.752	5.7	97	0.00	4.39
24 I	Naphthalene-d8	1.000	1.000	0.0	92	0.00	5.70
25 S	Nitrobenzene-d5	0.434	0.393	9.4	90	0.00	5.09
47 I	Acenaphthene-d10	1.000	1.000	0.0	93	0.00	7.45
51 S	2-Fluorobiphenyl	1.543	1.298	15.9	87	0.00	6.73
69 I	Phenanthrene-d10	1.000	1.000	0.0	83	0.00	9.14
73 S	2,4,6-Tribromophenol	0.150	0.149	0.7	86	0.00	8.33
83 I	Chrysene-d12	1.000	1.000	0.0	85	0.00	12.32
85 S	Terphenyl-d14	0.956	0.867	9.3	83	0.00	11.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471777.D M6P2164.M Mon Apr 16 09:49:20 2018 ACLIMS

8.9.24

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Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471784.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471784.D Vial: 11
Acq On : 14 Apr 2018 4:08 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Multiple Level Calibration

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

Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	4.66
9 t	Phenol	2.094	1.828	12.7	89	0.00	4.40
12 t	2-Chlorophenol	1.508	1.402	7.0	94	0.00	4.50
19 t	2-Methylphenol	1.351	1.260	6.7	97	0.00	4.85
21 t	3&4-Methylphenol	1.396	1.359	2.7	104	0.00	4.97
24 I	Naphthalene-d8	1.000	1.000	0.0	89	0.00	5.70
29 t	2-Nitrophenol	0.201	0.199	1.0	93	0.00	5.37
30 t	2,4-Dimethylphenol	0.339	0.326	3.8	93	0.00	5.40
31 t	Benzoic acid	0.257	0.268	-4.3	81	0.06	5.50
33 t	2,4-Dichlorophenol	0.313	0.295	5.8	91	0.00	5.57
34 t	2,6-Dichlorophenol	0.306	0.294	3.9	95	0.00	5.77
43 t	4-Chloro-3-methylphenol	0.309	0.292	5.5	91	0.00	6.21
47 I	Acenaphthene-d10	1.000	1.000	0.0	81	0.00	7.45
49 t	2,4,6-Trichlorophenol	0.376	0.394	-4.8	91	0.00	6.64
50 t	2,4,5-Trichlorophenol	0.423	0.406	4.0	82	0.00	6.68
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	50.000	44.062	11.9	67	0.00	7.51
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.186	0.186	0.0	79	0.00	7.59
64	2,3,4,6-Tetrachlorophenol	0.375	0.369	1.6	81	0.00	7.82
69 I	Phenanthrene-d10	1.000	1.000	0.0	79	0.00	9.14
70 t	4,6-Dinitro-2-methylpheno	0.135	0.145	-7.4	75	0.00	8.12
76 t	Pentachlorophenol	0.162	0.195	-20.4	90	0.00	8.93

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471777.D M6P2164.M Mon Apr 16 09:49:22 2018 ACLIMS

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471785.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471785.D Vial: 12
Acq On : 14 Apr 2018 4:32 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	0.00	4.66
3 t	Pyridine	1.859	1.805	2.9	104	0.10	2.64
10	Aniline	2.297	2.441	-6.3	123	0.01	4.42
16 t	Benzyl alcohol	1.008	1.025	-1.7	109	0.00	4.77
24 I	Naphthalene-d8	1.000	1.000	0.0	106	0.00	5.69
39 t	4-Chloroaniline	0.449	0.396	11.8	106	0.00	5.76
44 t	2-Methylnaphthalene	0.613	0.589	3.9	114	0.00	6.36
47 I	Acenaphthene-d10	1.000	1.000	0.0	110	0.00	7.45
54 t	2-Nitroaniline	0.403	0.351	12.9	99	0.01	6.96
58 t	3-Nitroaniline	0.383	0.309	19.3	92	0.00	7.40
62 t	Dibenzofuran	1.755	1.566	10.8	110	0.00	7.67
68 t	4-Nitroaniline	0.396	0.298	24.7	86	0.01	8.08
69 I	Phenanthrene-d10	1.000	1.000	0.0	100	0.00	9.15
79 t	Carbazole	1.145	1.020	10.9	98	0.00	9.43

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471777.D M6P2164.M Mon Apr 16 09:49:24 2018 ACLIMS

8.9.26

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Initial Calibration Verification

Page 1 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471786.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471786.D Vial: 13
Acq On : 14 Apr 2018 4:57 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	4.66
4 t	N-Nitrosodimethylamine	1.078	0.861	20.1	79	0.01	2.50
11 t	bis(2-Chloroethyl)ether	1.461	1.376	5.8	96	0.00	4.46
14 t	1,3-Dichlorobenzene	1.699	1.505	11.4	90	0.00	4.62
15 t	1,4-Dichlorobenzene	1.713	1.493	12.8	89	0.00	4.68
17 t	1,2-Dichlorobenzene	1.608	1.413	12.1	91	0.00	4.79
20 t	2,2'-oxybis(1-Chloropropa	0.453	0.442	2.4	99	0.00	4.87
22 t	n-Nitroso-di-n-propylamin	1.084	1.019	6.0	103	0.00	4.97
23 t	Hexachloroethane	0.599	0.522	12.9	85	0.00	5.06
24 I	Naphthalene-d8	1.000	1.000	0.0	87	0.00	5.70
26 t	Nitrobenzene	0.412	0.367	10.9	85	0.00	5.10
28 t	Isophorone	0.703	0.643	8.5	87	0.00	5.30
32 t	bis(2-Chloroethoxy)methan	0.403	0.387	4.0	93	0.00	5.48
36 t	1,2,4-Trichlorobenzene	0.342	0.311	9.1	87	0.00	5.65
38 t	Naphthalene	1.048	0.945	9.8	89	0.00	5.72
42 t	Hexachlorobutadiene	0.193	0.186	3.6	91	0.00	5.83
47 I	Acenaphthene-d10	1.000	1.000	0.0	85	0.00	7.45
48 t	Hexachlorocyclopentadiene	0.370	0.337	8.9	74	0.00	6.53
52 t	2-Chloronaphthalene	1.267	1.130	10.8	84	0.00	6.85
55 t	Dimethylphthalate	1.382	1.227	11.2	82	0.01	7.16
56 t	Acenaphthylene	1.947	1.745	10.4	84	0.00	7.29
57 t	2,6-Dinitrotoluene	0.307	0.275	10.4	78	0.01	7.22
59 t	Acenaphthene	1.357	1.191	12.2	83	0.00	7.48
63 t	2,4-Dinitrotoluene	0.404	0.349	13.6	73	0.00	7.66
65 t	Diethylphthalate	1.324	1.162	12.2	81	0.00	7.95
66 t	Fluorene	1.409	1.212	14.0	82	0.00	8.06
67 t	4-Chlorophenyl-phenylethe	0.680	0.583	14.3	82	0.00	8.07
69 I	Phenanthrene-d10	1.000	1.000	0.0	80	0.00	9.15
71 t	n-Nitrosodiphenylamine	0.557	0.509	8.6	80	0.00	8.20
72 t	1,2-Diphenylhydrazine	0.845	0.782	7.5	83	0.00	8.25
74 t	4-Bromophenyl-phenylether	0.246	0.224	8.9	80	0.00	8.63
75 t	Hexachlorobenzene	0.292	0.265	9.2	79	0.00	8.70
77 t	Phenanthrene	1.216	1.087	10.6	82	0.00	9.17
78 t	Anthracene	1.231	1.093	11.2	79	0.00	9.23
80 t	Di-n-butylphthalate	1.255	1.138	9.3	79	0.00	9.89
81 t	Fluoranthene	1.318	1.155	12.4	76	0.00	10.59
83 I	Chrysene-d12	1.000	1.000	0.0	75	0.00	12.32
84 t	Pyrene	1.337	1.235	7.6	75	0.00	10.86

Initial Calibration Verification

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471786.D

86	t	Butylbenzylphthalate	0.529	0.507	4.2	75	0.00	11.69
87	t	Benzo[a]anthracene	1.253	1.104	11.9	73	0.00	12.31
89	t	Chrysene	1.239	1.115	10.0	73	0.00	12.36
90	t	bis(2-Ethylhexyl)phthalat	0.744	0.697	6.3	74	0.00	12.41
91	I	Perylene-d12	1.000	1.000	0.0	71	0.00	13.92
92	t	Di-n-octylphthalate	1.221	1.210	0.9	73	0.00	13.15
93	t	Benzo[b]fluoranthene	1.267	1.122	11.4	69	0.01	13.53
94	t	Benzo[k]fluoranthene	1.158	1.069	7.7	70	0.01	13.56
95	t	Benzo[a]pyrene	1.122	1.030	8.2	71	0.01	13.87
96	t	Indeno[1,2,3-cd]pyrene	1.477	1.379	6.6	71	0.01	15.09
98	t	Dibenz[a,h]anthracene	1.273	1.169	8.2	70	0.02	15.12
100	t	Benzo[g,h,i]perylene	1.183	1.183	0.0	75	0.02	15.42

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471777.D M6P2164.M Mon Apr 16 09:49:26 2018 ACLIMS

8.9.27
8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471787.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471787.D Vial: 14
Acq On : 14 Apr 2018 5:22 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	4.66
2 t	1,4-Dioxane	0.684	0.643	6.0	93	0.02	2.23
6 t	Indene	2.348	2.446	-4.2	108	0.00	4.86
7 t	Cumene	3.573	3.235	9.5	93	0.00	4.07
13 t	Decane	1.919	1.732	9.7	93	0.00	4.55
18 t	Acetophenone	1.931	1.923	0.4	108	0.00	4.96
24 I	Naphthalene-d8	1.000	1.000	0.0	91	0.00	5.70
27 t	Quinoline	0.712	0.650	8.7	90	0.00	6.01
40 t	2,3-Dichloroaniline	0.366	0.303	17.2	84	0.00	6.64
41 t	Caprolactam	0.197	0.168	14.7	83	0.02	6.07
45 t	1-Methylnaphthalene	0.635	0.534	15.9	87	0.00	6.46
46 t	Dimethylnaphthalene	0.680	0.605	11.0	89	0.00	7.00
47 I	Acenaphthene-d10	1.000	1.000	0.0	81	0.00	7.45
53 t	Biphenyl	1.712	1.721	-0.5	92	0.00	6.83
69 I	Phenanthrene-d10	1.000	1.000	0.0	79	0.00	9.14
82 t	Octadecane	0.579	0.588	-1.6	89	0.00	9.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471777.D M6P2164.M Mon Apr 16 09:49:28 2018 ACLIMS

8.9.28

8

Initial Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICC2165
Lab FileID: 6P471791.D

Response Factor Report MS6P

Method : C:\MSDCHEM\1\METHODS\M6P2165.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Initial Calibration

Calibration Files

2 =6p471795.D 5 =6p471794.D 25 =6p471792.D 80 =6p471790.D
100 =6p471789.D 50 =6p471791.D 1 =6p471796.D 10 =6p471793.D

Compound	2	5	25	80	100	50	1	10	Avg %RSD
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101)	1,4-Dichlorobenzene-d	-----ISTD-----									
102)	Benzaldehyde	1.519	1.446	1.278	1.098	1.018	1.156	1.541	1.308	1.295	15.14
103)	Acenaphthene-d10a	-----ISTD-----									
104)	1,2,4,5-Tetr	0.802	0.783	0.658	0.615	0.588	0.621	0.778	0.674	0.690	12.40
105)	Phenanthrene-d10a	-----ISTD-----									
106)	1-chloroocta	0.412	0.453	0.414	0.371	0.355	0.380	0.386	0.405	0.397	7.74
107)	o-terphenyl	0.787	0.779	0.676	0.622	0.590	0.613	0.763	0.685	0.689	11.42
108)	Atrazine	0.132	0.138	0.130	0.120	0.116	0.122	0.128	0.131	0.127	5.80
109)	I Chrysene-d12a	-----ISTD-----									
110)	benzidine	0.814	0.939	0.795	0.579		0.624	0.689	0.864	0.758	17.34
111)	I Naphthalene-d8a	-----ISTD-----									
112)	Hydroquinone	0.341	0.395	0.378	0.366	0.354	0.363	0.276	0.366	0.355	10.00
113)	Phenanthrene-d10b	-----ISTD-----									
114)	Pentachloron	0.041	0.051	0.048	0.047	0.046	0.046	0.038	0.046	0.045#	8.83

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

M6P2164.M Mon Apr 16 10:21:59 2018 ACLIMS

8.9.29

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2164
Lab FileID: 6P471797.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471797.D Vial: 23
Acq On : 14 Apr 2018 9:12 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

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

Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.

83 I	Chrysene-d12	1.000	1.000	0.0	147	0.00	12.32
88 t	3,3'-Dichlorobenzidine	0.477	0.435	8.8	141	0.00	12.30

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:45 2018 ACLIMS

8.9.30

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2165
Lab FileID: 6P471797A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471797a.D Vial: 23
Acq On : 14 Apr 2018 9:12 am Operator: sufiyana
Sample : icv2165-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
109 I	Chrysene-d12a	1.000	1.000	0.0	156	0.00	12.32
110 T	benzidine	0.758	0.737	2.8	185	0.01	10.78

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:47 2018 ACLIMS

8.9.31
8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2165
Lab FileID: 6P471798.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471798.D Vial: 24
Acq On : 14 Apr 2018 9:37 am Operator: sufiyana
Sample : icv2165-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
111 I	Naphthalene-d8a	1.000	1.000	0.0	94	0.00	5.70
112 T	Hydroquinone	0.355	0.357	-0.6	92	-0.02	6.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:49 2018 ACLIMS

8.9.32

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2165
Lab FileID: 6P471799.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471799.D Vial: 13
Acq On : 14 Apr 2018 10:02 am Operator: sufiyana
Sample : icv2165-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
103	Acenaphthene-d10a	1.000	1.000	0.0	92	0.00	7.45
104	1,2,4,5-Tetrachlorobenzen	0.690	0.613	11.2	91	0.00	6.53

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:51 2018 ACLIMS

8.9.33

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2165
Lab FileID: 6P471800.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471800.D Vial: 14
Acq On : 14 Apr 2018 10:26 am Operator: sufiyana
Sample : icv2165-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	89	0.00	4.66
102	Benzaldehyde	1.295	1.018	21.4	78	0.00	4.33
105	Phenanthrene-d10a	1.000	1.000	0.0	84	0.00	9.14
108	Atrazine	0.127	0.121	4.7	84	0.00	8.84

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:53 2018 ACLIMS

8.9.34

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2165
Lab FileID: 6P471801.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471801.D Vial: 12
Acq On : 14 Apr 2018 10:51 am Operator: sufiyana
Sample : icv2165-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
113	Phenanthrene-d10b	1.000	1.000	0.0	113	0.00	9.15
114	Pentachloronitrobenzene	0.045	0.047#	-4.4	115	0.00	8.95

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:55 2018 ACLIMS

8.9.35

8

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2215-CC2164
Lab FileID: 6P473087.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2215\6p473087.D Vial: 2
Acq On : 18 May 2018 7:25 pm Operator: sufiyana
Sample : cc2164-50 Inst : MS6P
Misc : op8717,e6p2215,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuSat May 19 11:02:18 2018
Last Update : Sat May 19 11:02:18 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	60	-0.04	4.49
2 t	1,4-Dioxane	0.684	0.563	17.7	53	-0.04	1.98
3 t	Pyridine	1.859	1.414	23.9#	49#	-0.13	2.33
4 t	N-Nitrosodimethylamine	1.078	0.801	25.7#	48#	-0.11	2.29
5 S	2-Fluorophenol	1.458	1.300	10.8	58	-0.06	3.52
6 t	Indene	2.348	2.439	-3.9	70	-0.04	4.68
7 t	Cumene	3.573	3.707	-3.8	70	-0.05	3.89
8 S	Phenol-d5	1.857	1.686	9.2	59	-0.04	4.25
9 t	Phenol	2.094	1.986	5.2	64	-0.04	4.26
10	Aniline	2.297	1.801	21.6#	55	-0.02	4.25
11 t	bis(2-Chloroethyl)ether	1.461	1.288	11.8	59	-0.04	4.29
12 t	2-Chlorophenol	1.508	1.430	5.2	63	-0.04	4.34
13 t	Decane	1.919	1.523	20.6#	53	-0.04	4.37
14 t	1,3-Dichlorobenzene	1.699	1.571	7.5	61	-0.04	4.44
15 t	1,4-Dichlorobenzene	1.713	1.622	5.3	64	-0.04	4.50
16 t	Benzyl alcohol	1.008	0.898	10.9	58	-0.04	4.60
17 t	1,2-Dichlorobenzene	1.608	1.530	4.9	64	-0.04	4.61
18 t	Acetophenone	1.931	2.127	-10.2	78	-0.03	4.80
19 t	2-Methylphenol	1.351	1.321	2.2	67	-0.03	4.71
20 t	2,2'-oxybis(1-Chloropropa	0.453	0.418	7.7	61	-0.03	4.69
21 t	3&4-Methylphenol	1.396	1.397	-0.1	70	-0.03	4.82
22 t	n-Nitroso-di-n-propylamin	1.084	1.188	-9.6	78	-0.03	4.80
23 t	Hexachloroethane	0.599	0.506	15.5	54	-0.04	4.87
24 I	Naphthalene-d8	1.000	1.000	0.0	59	-0.04	5.50
25 S	Nitrobenzene-d5	0.434	0.412	5.1	61	-0.04	4.91
26 t	Nitrobenzene	0.412	0.419	-1.7	66	-0.03	4.93
27 t	Quinoline	0.712	0.709	0.4	64	-0.02	5.84
28 t	Isophorone	0.703	0.709	-0.9	66	-0.04	5.12
29 t	2-Nitrophenol	0.201	0.195	3.0	61	-0.04	5.19
30 t	2,4-Dimethylphenol	0.339	0.368	-8.6	70	-0.04	5.24
31 t	Benzoic acid	0.257	0.284	-10.5	58	0.00	5.38
32 t	bis(2-Chloroethoxy)methan	0.403	0.349	13.4	57	-0.04	5.30
33 t	2,4-Dichlorophenol	0.313	0.287	8.3	59	-0.03	5.40
34 t	2,6-Dichlorophenol	0.306	0.287	6.2	62	-0.04	5.59
35	1,3,5-Trichlorobenzene	0.349	0.334	4.3	64	-0.04	5.19
36 t	1,2,4-Trichlorobenzene	0.342	0.303	11.4	58	-0.04	5.45
37	1,2,3-Trichlorobenzene	0.329	0.309	6.1	62	-0.04	5.65
38 t	Naphthalene	1.048	1.085	-3.5	70	-0.04	5.52
39 t	4-Chloroaniline	0.449	0.408	9.1	61	-0.04	5.58
40 t	2,3-Dichloroaniline	0.366	0.360	1.6	65	-0.04	6.44
41 t	Caprolactam	0.197	0.161	18.3	52	-0.02	5.91

Continuing Calibration Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2215-CC2164
Lab FileID: 6P473087.D

42 t	Hexachlorobutadiene	0.193	0.162	16.1	54	-0.04	5.63
43 t	4-Chloro-3-methylphenol	0.309	0.348	-12.6	72	-0.02	6.05
44 t	2-Methylnaphthalene	0.613	0.632	-3.1	69	-0.04	6.16
45 t	1-Methylnaphthalene	0.635	0.658	-3.6	70	-0.04	6.25
46 t	Dimethylnaphthalene	0.680	0.657	3.4	63	-0.04	6.79
47 I	Acenaphthene-d10	1.000	1.000	0.0	62	-0.05	7.23
48 t	Hexachlorocyclopentadiene	0.370	0.226	38.9#	39#	-0.05	6.32
49 t	2,4,6-Trichlorophenol	0.376	0.355	5.6	63	-0.04	6.45
50 t	2,4,5-Trichlorophenol	0.423	0.384	9.2	60	-0.04	6.50
51 S	2-Fluorobiphenyl	1.543	1.419	8.0	64	-0.05	6.52
52 t	2-Chloronaphthalene	1.267	1.159	8.5	63	-0.05	6.64
53 t	Biphenyl	1.712	1.590	7.1	65	-0.04	6.63
54 t	2-Nitroaniline	0.403	0.415	-3.0	66	-0.04	6.76
55 t	Dimethylphthalate	1.382	1.351	2.2	66	-0.05	6.95
56 t	Acenaphthylene	1.947	1.920	1.4	68	-0.05	7.08
57 t	2,6-Dinitrotoluene	0.307	0.315	-2.6	66	-0.03	7.02
58 t	3-Nitroaniline	0.383	0.319	16.7	54	-0.04	7.20
59 t	Acenaphthene	1.357	1.237	8.8	63	-0.05	7.26
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	100.000	76.888	23.1#	47	-0.07	7.33
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.186	0.180	3.2	59	-0.04	7.44
62 t	Dibenzofuran	1.755	1.669	4.9	66	-0.05	7.45
63 t	2,4-Dinitrotoluene	0.404	0.431	-6.7	66	-0.03	7.47
64	2,3,4,6-Tetrachlorophenol	0.375	0.275	26.7#	46#	-0.04	7.61
65 t	Diethylphthalate	1.324	1.414	-6.8	72	-0.04	7.74
66 t	Fluorene	1.409	1.383	1.8	69	-0.04	7.84
67 t	4-Chlorophenyl-phenylethe	0.680	0.639	6.0	66	-0.04	7.85
68 t	4-Nitroaniline	0.396	0.281	29.0#	46#	-0.03	7.89
69 I	Phenanthrene-d10	1.000	1.000	0.0	58	-0.05	8.91
70 t	4,6-Dinitro-2-methylpheno	0.135	0.139	-3.0	54	-0.03	7.94
71 t	n-Nitrosodiphenylamine	0.557	0.588	-5.6	67	-0.05	7.99
72 t	1,2-Diphenylhydrazine	0.845	0.887	-5.0	69	-0.05	8.03
73 S	2,4,6-Tribromophenol	0.150	0.114	24.0#	46#	-0.05	8.12
74 t	4-Bromophenyl-phenylether	0.246	0.210	14.6	54	-0.05	8.40
75 t	Hexachlorobenzene	0.292	0.241	17.5	52	-0.04	8.48
76 t	Pentachlorophenol	0.162	0.130	19.8	46#	-0.04	8.72
77 t	Phenanthrene	1.216	1.100	9.5	60	-0.04	8.95
78 t	Anthracene	1.231	1.170	5.0	62	-0.05	9.01
79 t	Carbazole	1.145	1.042	9.0	59	-0.04	9.21
80 t	Di-n-butylphthalate	1.255	1.387	-10.5	70	-0.04	9.66
81 t	Fluoranthene	1.318	1.204	8.6	58	-0.04	10.36
82 t	Octadecane	0.579	0.582	-0.5	65	-0.04	8.85
83 I	Chrysene-d12	1.000	1.000	0.0	52	-0.05	12.09
84 t	Pyrene	1.337	1.380	-3.2	57	-0.06	10.63
85 S	Terphenyl-d14	0.956	0.909	4.9	53	-0.06	10.84
86 t	Butylbenzylphthalate	0.529	0.682	-28.9#	69	-0.05	11.46
87 t	Benzo[a]anthracene	1.253	1.167	6.9	53	-0.05	12.08
88 t	3,3'-Dichlorobenzidine	0.477	0.449	5.9	51	-0.05	12.07
89 t	Chrysene	1.239	1.151	7.1	52	-0.05	12.12
90 t	bis(2-Ethylhexyl)phthalat	0.744	0.908	-22.0#	66	-0.05	12.17
91 I	Perylene-d12	1.000	1.000	0.0	50	-0.06	13.69
92 t	Di-n-octylphthalate	1.221	1.570	-28.6#	67	-0.06	12.91
93 t	Benzo[b]fluoranthene	1.267	1.206	4.8	53	-0.06	13.30

Continuing Calibration Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2215-CC2164
Lab FileID: 6P473087.D

94	t	Benzo[k]fluoranthene	1.158	1.185	-2.3	55	-0.06	13.33
95	t	Benzo[a]pyrene	1.122	1.052	6.2	51	-0.06	13.63
96	t	Indeno[1,2,3-cd]pyrene	1.477	1.374	7.0	50#	-0.09	14.79
97	t	Dibenz(a,h)acridine	1.111	1.028	7.5	49#	-0.08	14.54
98	t	Dibenz[a,h]anthracene	1.273	1.219	4.2	52	-0.09	14.81
99	t	7,12-Dimethylbenz(a)anthr	0.523	0.580	-10.9	58	-0.06	13.29
100	t	Benzo[g,h,i]perylene	1.183	1.095	7.4	49#	-0.10	15.10

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Sat May 19 11:04:15 2018 ACLIMS

8.9.36
8

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2215-CC2165
Lab FileID: 6P473088.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2215\6p473088.D Vial: 3
Acq On : 18 May 2018 7:49 pm Operator: sufiyana
Sample : cc2165-50 Inst : MS6P
Misc : op8717,e6p2215,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuSat May 19 11:02:18 2018
Last Update : Sat May 19 11:02:18 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	59	-0.04	4.49
102	Benzaldehyde	1.295	0.902	30.3#	46#	-0.04	4.17
103	Acenaphthene-d10a	1.000	1.000	0.0	67	-0.05	7.22
104	1,2,4,5-Tetrachlorobenzen	0.690	0.527	23.6#	57	-0.05	6.33
105	Phenanthrene-d10a	1.000	1.000	0.0	65	-0.05	8.92
106 S	1-chlorooctadecane	0.397	0.360	9.3	62	-0.04	10.28
107 S	o-terphenyl	0.689	0.559	18.9	59	-0.05	9.39
108	Atrazine	0.127	0.111	12.6	60	-0.05	8.63
109 I	Chrysene-d12a	1.000	1.000	0.0	60	-0.06	12.08
110 T	benzidine	0.758	0.303	60.0#	29#	-0.07	10.55
111 I	Naphthalene-d8a	1.000	1.000	0.0	61	-0.04	5.50
112 T	Hydroquinone	0.355	0.301	15.2	50	-0.02	5.91
113	Phenanthrene-d10b	1.000	1.000	0.0	65	-0.05	8.92
114	Pentachloronitrobenzene	0.045	0.043#	4.4	61	-0.05	8.73

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Sat May 19 11:05:31 2018 ACLIMS

8.9.37

8

Initial Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICC6436
Lab FileID: Z130443.D

Response Factor Report SVOAMSZ

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 10:42:55 2018
Response via : Initial Calibration

Calibration Files

100 =z130441.D 80 =z130442.D 50 =z130443.D 25 =z130444.D
10 =z130445.D 5 =z130446.D 2 =z130447.D 1 =z130448.D

Compound	100	80	50	25	10	5	2	1	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	-----ISTD-----									
2) 1,4-Dioxane	0.751	0.718	0.729	0.717	0.704	0.646	0.675	0.664	0.700	5.08
3) Pyridine	1.729	1.718	1.751	1.739	1.780	1.635	1.653	1.668	1.709	3.00
4) N-Nitrosodim		1.017	1.017	1.006	1.013	0.941	0.898	0.907	0.971	5.55
5) 2-Fluorophen	1.625	1.557	1.584	1.563	1.559	1.404	1.371	1.258	1.490	8.68
6) Indene	1.722	1.798	2.009	2.233	2.474	2.374	2.445	2.447	2.188	13.96
7) Cumene	3.217	3.250	3.522	3.722	3.873	3.661	3.620	3.584	3.556	6.32
8) Phenol-d5	1.831	1.798	1.852	1.895	1.909	1.776	1.666	1.580	1.788	6.36
9) Phenol	1.798	1.779	1.916	1.944	2.052	1.940	1.908	1.847	1.898	4.66
10) Aniline	1.935	1.986	2.053	2.247	2.494	2.347	2.444	2.403	2.239	9.80
11) bis(2-Chloro	1.230	1.229	1.271	1.338	1.471	1.437	1.404	1.428	1.351	7.21
12) 2-Chlorophen	1.416	1.417	1.461	1.520	1.601	1.530	1.505	1.393	1.480	4.81
13) Decane	0.822	0.876	0.997	1.122	1.246	1.204	1.244	1.241	1.094	15.87
14) 1,3-Dichloro	1.442	1.493	1.568	1.671	1.803	1.732	1.752	1.810	1.659	8.55
15) 1,4-Dichloro	1.371	1.398	1.493	1.575	1.695	1.664	1.683	1.684	1.570	8.52
16) Benzyl alcoh	0.909	0.879	0.900	0.918	0.949	0.861	0.806	0.772	0.874	6.79
17) 1,2-Dichloro	1.321	1.355	1.461	1.555	1.683	1.599	1.645	1.614	1.529	8.86
18) Acetophenone	1.428	1.467	1.602	1.799	1.990	1.984	2.071	1.992	1.792	14.45
19) 2-Methylphen	1.105	1.127	1.209	1.266	1.389	1.321	1.255	1.164	1.229	7.93
20) 2,2'-oxybis(	0.352	0.356	0.379	0.400	0.446	0.437	0.438	0.424	0.404	9.37
21) 3&4-Methylph	1.025	1.055	1.148	1.247	1.363	1.358	1.302	1.284	1.223	10.75
22) n-Nitroso-di	0.677	0.678	0.741	0.850	0.956	0.931	0.955	0.958	0.843	14.96
23) Hexachloroet	0.459	0.474	0.491	0.510	0.530	0.494	0.508	0.529	0.499	5.02
24) I Naphthalene-d8	-----ISTD-----									
25) Nitrobenzene	0.315	0.326	0.345	0.356	0.379	0.367	0.350	0.340	0.347	5.98
26) Nitrobenzene	0.295	0.307	0.335	0.353	0.383	0.385	0.370	0.342	0.346	9.62
27) Quinoline	0.743	0.747	0.757	0.786	0.826	0.777	0.768	0.754	0.770	3.54
28) Isophorone	0.617	0.624	0.648	0.673	0.707	0.682	0.660	0.625	0.654	4.88
29) 2-Nitropheno	0.182	0.191	0.206	0.205	0.213	0.192	0.169	0.159	0.190	9.91
30) 2,4-Dimethyl	0.294	0.301	0.305	0.331	0.369	0.353	0.344	0.342	0.330	8.18
31) Benzoic Acid	0.284	0.286	0.275	0.258	0.224	0.160			0.248	19.60
32) bis(2-Chloro	0.326	0.336	0.350	0.371	0.410	0.411	0.406	0.389	0.375	9.18
33) 2,4-Dichloro	0.265	0.277	0.292	0.307	0.324	0.311	0.290	0.268	0.292	7.24
34) 2,6-Dichloro	0.233	0.245	0.261	0.279	0.305	0.286	0.280	0.269	0.270	8.58
35) 1,3,5-Trichl	0.269	0.290	0.320	0.347	0.378	0.375	0.387	0.378	0.343	13.12
36) 1,2,4-Trichl	0.280	0.293	0.315	0.332	0.368	0.355	0.348	0.354	0.331	9.59
37) 1,2,3-Trichl	0.263	0.275	0.293	0.310	0.342	0.342	0.336	0.364	0.316	11.43
38) Naphthalene	0.829	0.884	0.946	1.016	1.110	1.088	1.119	1.144	1.017	11.65
39) 4-Chloroanil	0.374	0.390	0.416	0.449	0.482	0.461	0.446	0.431	0.431	8.41
40) 2,3-Dichloro	0.315	0.326	0.347	0.375	0.410	0.399	0.394	0.393	0.370	9.74
41) Caprolactam	0.151	0.148	0.146	0.149	0.155	0.141	0.128	0.115	0.142	9.41
42) Hexachlorobu	0.151	0.159	0.169	0.175	0.185	0.183	0.189	0.190	0.175	8.21
43) 4-Chloro-3-m	0.294	0.299	0.311	0.319	0.332	0.314	0.282	0.260	0.301	7.53
44) 2-Methylnaph	0.528	0.551	0.594	0.637	0.686	0.654	0.639	0.665	0.619	9.07
45) 1-Methylnaph	0.539	0.560	0.608	0.650	0.716	0.709	0.714	0.734	0.654	11.67

Initial Calibration Summary

Page 2 of 3

Job Number: JC65860
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICC6436
 Lab FileID: Z130443.D

46)	Dimethylnaph	0.562	0.585	0.613	0.655	0.717	0.696	0.697	0.672	0.650	8.75
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.268	0.289	0.307	0.312	0.317	0.289	0.255	0.226	0.283	11.07
49)	2,4,6-Trichl	0.301	0.321	0.341	0.370	0.391	0.370	0.358	0.306	0.345	9.52
50)	2,4,5-Trichl	0.348	0.361	0.378	0.393	0.411	0.404	0.378	0.366	0.380	5.77
51)	2-Fluorobiph	1.105	1.171	1.272	1.379	1.551	1.561	1.571	1.605	1.402	14.18
52)	2-Chloronaph	0.957	1.002	1.076	1.180	1.322	1.345	1.360	1.341	1.198	13.96
53)	Biphenyl	1.304	1.354	1.479	1.601	1.759	1.768	1.790	1.831	1.611	12.94
54)	2-Nitroanili	0.308	0.309	0.325	0.335	0.345	0.317	0.263	0.237	0.305	12.10
55)	Dimethylphth	1.244	1.276	1.326	1.394	1.473	1.467	1.453	1.422	1.382	6.47
56)	Acenaphthyle	1.661	1.752	1.894	2.005	2.174	2.110	2.053	2.060	1.964	9.14
57)	2,6-Dinitrot	0.290	0.300	0.307	0.312	0.313	0.275	0.235	0.217	0.281	12.95
58)	3-Nitroanili	0.369	0.371	0.381	0.394	0.396	0.368	0.314	0.253	0.356	13.69
59)	Acenaphthene	0.988	1.025	1.111	1.179	1.297	1.274	1.269	1.309	1.182	10.75
60)	2,4-Dinitrop	0.148	0.149	0.150	0.140	0.109	0.075	0.041	0.025	0.105	49.06
---- Quadratic regression ---- Coefficient = 0.9996											
Response Ratio = -0.01515 + 0.15628 *A + -0.00090 *A^2											
61)	4-Nitropheno	0.184	0.183	0.184	0.182	0.170	0.152		0.176		7.20
62)	Dibenzofuran	1.416	1.485	1.591	1.722	1.893	1.864	1.876	1.858	1.713	11.21
63)	2,4-Dinitrot	0.412	0.420	0.435	0.436	0.424	0.379	0.298	0.242	0.381	18.96
64)	2,3,4,6-Tetr	0.331	0.336	0.346	0.350	0.351	0.313	0.272	0.237	0.317	13.10
65)	Diethylphtha	1.255	1.301	1.367	1.421	1.498	1.458	1.386	1.354	1.380	5.78
66)	Fluorene	1.089	1.133	1.248	1.341	1.495	1.448	1.446	1.444	1.331	11.75
67)	4-Chlorophen	0.550	0.571	0.602	0.628	0.677	0.665	0.638	0.643	0.622	7.14
68)	4-Nitroanili	0.356	0.350	0.360	0.383	0.400	0.369	0.329	0.272	0.352	11.01
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.128	0.130	0.130	0.125	0.109	0.082	0.050	0.031	0.098	40.07
---- Quadratic regression ---- Coefficient = 0.9998											
Response Ratio = -0.00511 + 0.13654 *A + -0.00252 *A^2											
71)	n-Nitrosodip	0.499	0.511	0.548	0.577	0.636	0.622	0.602	0.569	0.570	8.67
72)	1,2-Diphenyl	0.591	0.624	0.676	0.729	0.804	0.802	0.781	0.732	0.717	11.22
73)	2,4,6-Tribo	0.131	0.134	0.134	0.134	0.132	0.120	0.106	0.096	0.123	11.98
74)	4-Bromopheny	0.223	0.230	0.239	0.245	0.255	0.240	0.248	0.229	0.239	4.56
75)	Hexachlorobe	0.252	0.261	0.272	0.281	0.302	0.292	0.294	0.300	0.282	6.53
76)	Pentachlorop	0.159	0.163	0.168	0.166	0.159	0.132	0.100	0.072	0.140	25.66
---- Quadratic regression ---- Coefficient = 1.0000											
Response Ratio = -0.00866 + 0.17904 *A + -0.00353 *A^2											
77)	Phenanthrene	0.904	0.938	0.999	1.060	1.168	1.145	1.158	1.178	1.069	10.28
78)	Anthracene	0.913	0.947	1.034	1.103	1.210	1.164	1.145	1.136	1.081	9.84
79)	Carbazole	0.978	1.002	1.080	1.161	1.238	1.173	1.135	1.075	1.105	7.97
80)	Di-n-butylph	1.291	1.312	1.409	1.447	1.454	1.356	1.154	1.094	1.315	10.07
81)	Fluoranthene	1.075	1.116	1.199	1.264	1.308	1.188	1.128	1.059	1.167	7.59
82)	Octadecane	0.337	0.365	0.411	0.455	0.496	0.465	0.411	0.367	0.413	13.44
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.272	1.354	1.384	1.399	1.462	1.410	1.337	1.286	1.363	4.71
85)	Terphenyl-d1	0.945	0.990	0.991	0.977	1.000	0.928	0.899	0.862	0.949	5.22
86)	Butylbenzylp	0.722	0.744	0.732	0.719	0.686	0.597	0.511		0.673	12.90
87)	Benzo[a]anth	1.140	1.200	1.226	1.277	1.345	1.270	1.282	1.315	1.257	5.22
88)	3,3'-Dichlor	0.519	0.548	0.548	0.561	0.545	0.491	0.432	0.405	0.506	11.59
89)	Chrysene	1.117	1.151	1.150	1.164	1.237	1.181	1.212	1.239	1.182	3.74
90)	bis(2-Ethylh	0.876	0.890	0.886	0.878	0.863	0.754	0.633		0.826	11.78
91)	I Perylene-d12	-----ISTD-----									
92)	Di-n-octylph	1.628	1.565	1.550	1.489	1.430	1.212	0.921	0.762	1.320	24.49

Initial Calibration Summary

Page 3 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICC6436
Lab FileID: Z130443.D

---- Quadratic regression ---- Coefficient = 0.9998
Response Ratio = -0.02116 + 1.47076 *A + 0.06299 *A^2

93)	Benzo[b]fluo	1.196	1.200	1.243	1.276	1.388	1.418	1.509	1.632	1.358	11.61
94)	Benzo[k]fluo	1.009	1.047	1.073	1.168	1.355	1.350	1.502	1.589	1.262	17.34
95)	Benzo[a]pyre	1.051	1.084	1.116	1.147	1.237	1.207	1.263	1.530	1.204	12.55
96)	Indeno[1,2,3	0.963	1.010	1.073	1.062	1.128	1.009	1.017	1.200	1.058	7.21
97)	Dibenz(a,h)a	0.869	0.950	0.988	1.011	1.033	0.996	0.963	1.111	0.990	7.03
98)	Dibenz[a,h]a	0.917	0.990	1.054	1.091	1.189	1.147	1.117	1.149	1.082	8.41
99)	7,12-Dimethy	0.552	0.551	0.570	0.593	0.639	0.588	0.554	0.541	0.573	5.64
100)	Benzo[g,h,i]	0.880	0.963	1.012	1.071	1.107	1.106	1.122	1.336	1.075	12.54

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

MZ6436.M

Wed May 09 10:56:03 2018

8.9.38

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICV6436
Lab FileID: Z130449.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130449.D Vial: 10
Acq On : 4 May 2018 10:51 pm Operator: georges
Sample : icv6436-50 Inst : SVOAMSZ
Misc : op8501,eZ6436,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 10:42:55 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	130	0.00	4.89
5 S	2-Fluorophenol	1.490	1.427	4.2	117	0.00	3.91
8 S	Phenol-d5	1.788	1.676	6.3	118	0.00	4.62
24 I	Naphthalene-d8	1.000	1.000	0.0	125	0.00	5.81
25 S	Nitrobenzene-d5	0.347	0.361	-4.0	131	0.00	5.29
47 I	Acenaphthene-d10	1.000	1.000	0.0	123	0.00	7.22
51 S	2-Fluorobiphenyl	1.402	1.249	10.9	121	0.00	6.62
69 I	Phenanthrene-d10	1.000	1.000	0.0	113	0.00	8.85
73 S	2,4,6-Tribromophenol	0.123	0.126	-2.4	106	0.00	8.02
83 I	Chrysene-d12	1.000	1.000	0.0	124	-0.01	12.67
85 S	Terphenyl-d14	0.949	0.908	4.3	114	0.00	11.09

(#) = Out of Range
z130443.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 10:51:12 2018

8.9.39

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICV6436
Lab FileID: Z130450.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130450.D Vial: 11
Acq On : 4 May 2018 11:18 pm Operator: georges
Sample : icv6436-50 Inst : SVOAMSZ
Misc : op8501,eZ6436,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 10:42:55 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	127	0.00	4.89
9 t	Phenol	1.898	1.813	4.5	121	0.00	4.63
12 t	2-Chlorophenol	1.480	1.458	1.5	127	0.00	4.74
19 t	2-Methylphenol	1.229	1.183	3.7	125	0.00	5.07
21 t	3&4-Methylphenol	1.223	1.248	-2.0	138	0.00	5.17
24 I	Naphthalene-d8	1.000	1.000	0.0	115	0.00	5.81
29 t	2-Nitrophenol	0.190	0.210	-10.5	118	0.00	5.53
30 t	2,4-Dimethylphenol	0.330	0.321	2.7	122	0.00	5.56
31	Benzoic Acid	0.248	0.249	-0.4	105	0.05	5.65
33 t	2,4-Dichlorophenol	0.292	0.291	0.3	115	0.00	5.70
34	2,6-Dichlorophenol	0.270	0.285	-5.6	126	0.00	5.86
43 t	4-Chloro-3-methylphenol	0.301	0.296	1.7	110	0.00	6.20
47 I	Acenaphthene-d10	1.000	1.000	0.0	110	0.00	7.22
49 t	2,4,6-Trichlorophenol	0.345	0.391	-13.3	126	0.00	6.55
50 t	2,4,5-Trichlorophenol	0.380	0.381	-0.3	111	0.00	6.58
60 t	2,4-Dinitrophenol	50.000	46.726	6.5	105	0.00	7.26
61 t	4-Nitrophenol	0.176	0.185	-5.1	111	0.00	7.31
64	2,3,4,6-Tetrachlorophenol	0.317	0.333	-5.0	106	0.00	7.53
69 I	Phenanthrene-d10	1.000	1.000	0.0	110	0.00	8.85
70 t	4,6-Dinitro-2-methylpheno	50.000	50.324	-0.6	111	-0.01	7.80
76 t	Pentachlorophenol	50.000	55.070	-10.1	125	0.00	8.61

(#) = Out of Range
z130443.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 10:51:14 2018

Initial Calibration Verification

Page 1 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICV6436
Lab FileID: Z130451.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130451.D Vial: 12
Acq On : 4 May 2018 11:44 pm Operator: georges
Sample : icv6436-50 Inst : SVOAMSZ
Misc : op8501,eZ6436,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 10:42:55 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	126	0.00	4.89
4 t	N-Nitrosodimethylamine	0.971	0.778	19.9	96	0.00	2.77
11 t	bis(2-Chloroethyl)ether	1.351	1.410	-4.4	140	0.00	4.69
14 t	1,3-Dichlorobenzene	1.659	1.586	4.4	127	0.00	4.85
15 t	1,4-Dichlorobenzene	1.570	1.421	9.5	120	0.00	4.91
17 t	1,2-Dichlorobenzene	1.529	1.438	6.0	124	0.00	5.02
20 t	2,2'-oxybis(1-Chloropropa	0.404	0.426	-5.4	142	0.00	5.08
22 t	n-Nitroso-di-n-propylamin	0.843	0.849	-0.7	144	0.00	5.17
23 t	Hexachloroethane	0.499	0.471	5.6	121	0.00	5.27
24 I	Naphthalene-d8	1.000	1.000	0.0	118	0.00	5.81
26 t	Nitrobenzene	0.346	0.328	5.2	116	0.00	5.30
28 t	Isophorone	0.654	0.610	6.7	112	0.00	5.47
32 t	bis(2-Chloroethoxy)methan	0.375	0.392	-4.5	133	0.00	5.62
36 t	1,2,4-Trichlorobenzene	0.331	0.321	3.0	121	0.00	5.77
38 t	Naphthalene	1.017	0.911	10.4	114	0.00	5.83
42 t	Hexachlorobutadiene	0.175	0.173	1.1	121	0.00	5.92
47 I	Acenaphthene-d10	1.000	1.000	0.0	116	0.00	7.22
48 t	Hexachlorocyclopentadiene	0.283	0.286	-1.1	107	0.00	6.46
52 t	2-Chloronaphthalene	1.198	1.169	2.4	126	0.00	6.72
55 t	Dimethylphthalate	1.382	1.310	5.2	115	0.00	6.95
56 t	Acenaphthylene	1.964	1.752	10.8	108	0.00	7.09
57 t	2,6-Dinitrotoluene	0.281	0.273	2.8	103	0.00	7.01
59 t	Acenaphthene	1.182	1.054	10.8	110	0.00	7.25
63 t	2,4-Dinitrotoluene	0.381	0.354	7.1	95	0.00	7.38
65 t	Diethylphthalate	1.380	1.296	6.1	110	0.00	7.62
66 t	Fluorene	1.331	1.144	14.0	107	0.00	7.76
67 t	4-Chlorophenyl-phenylethe	0.622	0.552	11.3	107	0.00	7.75
69 I	Phenanthrene-d10	1.000	1.000	0.0	118	0.00	8.85
71 t	n-Nitrosodiphenylamine	0.570	0.473	17.0	102	0.00	7.87
72 t	1,2-Diphenylhydrazine	0.717	0.624	13.0	109	0.00	7.92
74 t	4-Bromophenyl-phenylether	0.239	0.216	9.6	107	0.00	8.29
75 t	Hexachlorobenzene	0.282	0.246	12.8	107	0.00	8.39
77 t	Phenanthrene	1.069	0.938	12.3	111	-0.01	8.87
78 t	Anthracene	1.081	0.913	15.5	104	0.00	8.94
80 t	Di-n-butylphthalate	1.315	1.251	4.9	105	0.00	9.64
81 t	Fluoranthene	1.167	1.040	10.9	103	0.00	10.50
83 I	Chrysene-d12	1.000	1.000	0.0	104	0.00	12.68
84 t	Pyrene	1.363	1.335	2.1	101	0.00	10.83

Initial Calibration Verification

Page 2 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICV6436
Lab FileID: Z130451.D

86	t	Butylbenzylphthalate	0.673	0.730	-8.5	104	0.00	11.87
87	t	Benzo[a]anthracene	1.257	1.159	7.8	98	0.00	12.66
89	t	Chrysene	1.182	1.082	8.5	98	0.00	12.72
90	t	bis(2-Ethylhexyl)phthalat	0.826	0.856	-3.6	101	0.01	12.81
91	I	Perylene-d12	1.000	1.000	0.0	107	0.00	14.76
----- True Calc. % Drift -----								
92	t	Di-n-octylphthalate	50.000	48.160	3.7	102	0.00	13.78
----- AvgRF CCRF % Dev -----								
93	t	Benzo[b]fluoranthene	1.358	1.122	17.4	96	0.02	14.25
94	t	Benzo[k]fluoranthene	1.262	1.089	13.7	108	0.01	14.28
95	t	Benzo[a]pyrene	1.204	1.041	13.5	100	0.01	14.68
96	t	Indeno[1,2,3-cd]pyrene	1.058	1.013	4.3	101	0.02	16.18
98	t	Dibenz[a,h]anthracene	1.082	0.991	8.4	101	0.02	16.21
100	t	Benzo[g,h,i]perylene	1.075	1.011	6.0	107	0.03	16.57

(#) = Out of Range
z130443.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 10:51:16 2018

8.9.41
8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICV6436
Lab FileID: Z130452.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130452.D Vial: 13
Acq On : 5 May 2018 12:11 am Operator: georges
Sample : icv6436-50 Inst : SVOAMSZ
Misc : op8501,eZ6436,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	134	0.00	4.89
2	1,4-Dioxane	0.700	0.575	17.9	106	0.00	2.49
6 t	Indene	2.188	2.327	-6.4	156	0.00	5.08
7 t	Cumene	3.556	3.128	12.0	119	0.00	4.31
13 t	Decane	1.094	0.904	17.4	122	0.00	4.77
18 t	Acetophenone	1.792	1.767	1.4	148	0.00	5.18
24 I	Naphthalene-d8	1.000	1.000	0.0	150	0.00	5.81
27 t	Quinoline	0.770	0.603	21.7	119	0.00	6.06
40 t	2,3-Dichloroaniline	0.370	0.272	26.5	117	0.00	6.55
41 t	Caprolactam	0.142	0.106	25.4	109	-0.02	6.10
45 t	1-Methylnaphthalene	0.654	0.466	28.7	115	0.00	6.41
46 t	Dimethylnaphthalene	0.650	0.505	22.3	123	0.00	6.84
47 I	Acenaphthene-d10	1.000	1.000	0.0	118	0.00	7.22
53 t	Biphenyl	1.611	1.512	6.1	121	0.00	6.70
69 I	Phenanthrene-d10	1.000	1.000	0.0	115	0.00	8.84
82 t	Octadecane	0.413	0.430	-4.1	120	0.00	8.72

(#) = Out of Range
z130460a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 19:38:44 2018

8.9.42
8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICV6436
Lab FileID: Z130453.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130453.D Vial: 14
Acq On : 5 May 2018 12:38 am Operator: georges
Sample : icv6436-50 Inst : SVOAMSZ
Misc : op8501,eZ6436,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 10:42:55 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	111	-0.01	12.67
88 t	3,3'-Dichlorobenzidine	0.506	0.518	-2.4	105	0.00	12.65

(#) = Out of Range
z130443.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 10:51:18 2018

8.9.43

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6436-ICV6436
Lab FileID: Z130454.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130454.D Vial: 15
Acq On : 5 May 2018 1:05 am Operator: georges
Sample : icv6436-50 Inst : SVOAMSZ
Misc : op8501,eZ6436,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 10:42:55 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	119	0.00	4.90
3 t	Pyridine	1.709	1.633	4.4	111	0.06	2.87
10 t	Aniline	2.239	2.512	-12.2	146	0.00	4.66
16 t	Benzyl alcohol	0.874	1.023	-17.0	136	0.00	4.99
24 I	Naphthalene-d8	1.000	1.000	0.0	133	0.00	5.81
39 t	4-Chloroaniline	0.431	0.428	0.7	137	0.00	5.86
44 t	2-Methylnaphthalene	0.619	0.553	10.7	124	0.00	6.33
47 I	Acenaphthene-d10	1.000	1.000	0.0	134	0.00	7.22
54 t	2-Nitroaniline	0.305	0.315	-3.3	130	0.00	6.80
58 t	3-Nitroaniline	0.356	0.369	-3.7	130	0.00	7.16
62 t	Dibenzofuran	1.713	1.586	7.4	134	0.00	7.41
68 t	4-Nitroaniline	0.352	0.338	4.0	126	0.00	7.77
69 I	Phenanthrene-d10	1.000	1.000	0.0	133	0.00	8.84
79 t	Carbazole	1.105	1.066	3.5	131	0.00	9.14

(#) = Out of Range
z130443.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 10:51:20 2018

8.9.44

8

Initial Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-ICC6437
Lab FileID: Z130460.D

Response Factor Report SVOAMSZ

Method : C:\MSDCHEM\1\METHODS\MZ6437.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Initial Calibration

Calibration Files

100 =z130458.D 80 =z130459.D 50 =z130460.D 25 =z130461.D
10 =z130462.D 5 =z130463.D 2 =z130464.D 1 =z130465.D

Compound	100	80	50	25	10	5	2	1	Avg	%RSD
101) 1,4-Dichlorobenzene-d	-----ISTD-----									
102) Benzaldehyde	0.847	0.880	0.931	1.009	1.124	1.122	1.156	1.061	1.016	11.67
103) Phenanthrene-d10a	-----ISTD-----									
104) 1-chloroocta	0.246	0.262	0.281	0.295	0.290	0.267	0.225	0.174	0.255	15.68
105) o-terphenyl	0.507	0.517	0.551	0.579	0.591	0.590	0.576	0.567	0.560	5.74
106) Atrazine	0.101	0.103	0.107	0.106	0.103	0.096	0.089	0.070	0.097	12.67
107) Chrysene-d12a	-----ISTD-----									
108) Benzidine	0.452	0.419	0.425	0.414	0.517	0.467	0.295	0.160	0.394	28.80
---- Quadratic regression ---- Coefficient = 0.9982										
Response Ratio = 0.00796 + 0.38082 *A + 0.02448 *A^2										
109) Acenaphthene-d10a	-----ISTD-----									
110) 1,2,4,5-Tetr	0.451	0.463	0.506	0.534	0.567	0.572	0.604	0.565	0.533	10.30
111) I Naphthalene-d8a	-----ISTD-----									
112) Hydroquinone	0.343	0.343	0.344	0.322	0.275	0.224		0.308		15.96
113) Chrysene-d12b	-----ISTD-----									
114) 2,3,7,8-TCDD								0.000#		-1.00
115) Phenanthrene-d10b	-----ISTD-----									
116) Pentachloron	0.044	0.044	0.044	0.043	0.038	0.033		0.041#		11.05

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

MZ6436.M

Wed May 09 19:39:49 2018

8.9.45

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-ICV6437
Lab FileID: Z130466.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130466.D Vial: 10
Acq On : 9 May 2018 5:11 pm Operator: johnb1
Sample : icv6437-50 Inst : SVOAMSZ
Misc : op8501,eZ6437,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
115	Phenanthrene-d10b	1.000	1.000	0.0	103	0.00	8.84
116	Pentachloronitrobenzene	0.041	0.043#	-4.9	100	0.00	8.63

(#) = Out of Range
z130460a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 19:35:28 2018

8.9.46

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-ICV6437
Lab FileID: Z130467.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130467.D Vial: 11
Acq On : 9 May 2018 5:39 pm Operator: johnb1
Sample : icv6437-50 Inst : SVOAMSZ
Misc : op8501,eZ6437,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
107	Chrysene-d12a	1.000	1.000	0.0	81	0.00	12.68
	----- True	Calc.	% Drift	-----			
108	Benzidine	100.000	98.296	1.7	84	0.00	10.71
	----- AvgRF	CCRF	% Dev	-----			
109	Acenaphthene-d10a	1.000	1.000	0.0	91	0.00	7.22
110	1,2,4,5-Tetrachlorobenzen	0.533	0.470	11.8	85	0.00	6.47

(#) = Out of Range
z130460a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 19:35:30 2018

8.9.47

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-ICV6436
Lab FileID: Z130468A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130468a.D Vial: 12
Acq On : 9 May 2018 6:05 pm Operator: johnb1
Sample : icv6436-50 Inst : SVOAMSZ
Misc : op8501,eZ6437,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
91 I	Perylene-d12	1.000	1.000	0.0	113	0.00	14.76
99 t	7,12-Dimethylbenz(a)anthr	0.573	0.532	7.2	106	0.00	14.24

(#) = Out of Range
z130460a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 20:00:34 2018

8.9.48

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-ICV6437
Lab FileID: Z130468.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130468.D Vial: 12
Acq On : 9 May 2018 6:05 pm Operator: johnb1
Sample : icv6437-50 Inst : SVOAMSZ
Misc : op8501,eZ6437,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	99	0.00	4.89
102	Benzaldehyde	1.016	1.025	-0.9	109	0.00	4.57
103	Phenanthrene-d10a	1.000	1.000	0.0	102	0.00	8.84
106	Atrazine	0.097	0.116	-19.6	111	0.00	8.49

(#) = Out of Range
z130460a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 19:35:32 2018

8.9.49

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-ICV6437
Lab FileID: Z130470.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130470.D Vial: 14
Acq On : 9 May 2018 7:00 pm Operator: johnb1
Sample : icv6437-50 Inst : SVOAMSZ
Misc : op8501,eZ6437,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
111 I	Naphthalene-d8a	1.000	1.000	0.0	137	0.00	5.81
112	Hydroquinone	0.308	0.351	-14.0	140	0.00	6.09

(#) = Out of Range SPCC's out = 0 CCC's out = 0
z130460a.D MZ6436.M Wed May 09 19:35:34 2018

8.9.50

8

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6452-CC6436
Lab FileID: Z130839.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6452\z130839.D Vial: 2
Acq On : 21 May 2018 10:24 am Operator: johnb1
Sample : cc6436-50 Inst : SVOAMSZ
Misc : op8501,eZ6452,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Mon May 21 13:38:40 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	85	0.00	4.72
2	1,4-Dioxane	0.700	0.846	-20.9#	99	0.00	2.29
3 t	Pyridine	1.709	1.963	-14.9	96	0.00	2.61
4 t	N-Nitrosodimethylamine	0.971	1.220	-25.6#	103	0.00	2.58
5 S	2-Fluorophenol	1.490	1.692	-13.6	91	0.00	3.75
6 t	Indene	2.188	2.146	1.9	91	0.00	4.91
7 t	Cumene	3.556	3.721	-4.6	90	0.00	4.13
8 S	Phenol-d5	1.788	2.037	-13.9	94	0.00	4.47
9 t	Phenol	1.898	2.116	-11.5	94	0.00	4.48
10 t	Aniline	2.239	1.936	13.5	81	0.00	4.49
11 t	bis(2-Chloroethyl)ether	1.351	1.414	-4.7	95	0.00	4.53
12 t	2-Chlorophenol	1.480	1.519	-2.6	89	0.00	4.58
13 t	Decane	1.094	1.406	-28.5#	121	0.00	4.61
14 t	1,3-Dichlorobenzene	1.659	1.593	4.0	87	0.00	4.68
15 t	1,4-Dichlorobenzene	1.570	1.502	4.3	86	0.00	4.74
16 t	Benzyl alcohol	0.874	1.002	-14.6	95	0.00	4.83
17 t	1,2-Dichlorobenzene	1.529	1.454	4.9	85	0.00	4.85
18 t	Acetophenone	1.792	1.818	-1.5	97	0.00	5.01
19 t	2-Methylphenol	1.229	1.136	7.6	80	0.00	4.91
20 t	2,2'-oxybis(1-Chloropropa	0.404	0.390	3.5	88	0.00	4.92
21 t	3&4-Methylphenol	1.223	1.221	0.2	91	0.00	5.02
22 t	n-Nitroso-di-n-propylamin	0.843	0.896	-6.3	103	0.00	5.01
23 t	Hexachloroethane	0.499	0.492	1.4	86	0.00	5.09
24 I	Naphthalene-d8	1.000	1.000	0.0	86	0.00	5.64
25 S	Nitrobenzene-d5	0.347	0.393	-13.3	98	0.00	5.13
26 t	Nitrobenzene	0.346	0.379	-9.5	97	0.00	5.14
27 t	Quinoline	0.770	0.804	-4.4	91	0.00	5.91
28 t	Isophorone	0.654	0.738	-12.8	98	0.00	5.31
29 t	2-Nitrophenol	0.190	0.216	-13.7	90	0.00	5.37
30 t	2,4-Dimethylphenol	0.330	0.335	-1.5	94	0.00	5.40
31	Benzoic Acid	0.248	0.307	-23.8#	96	0.00	5.50
32 t	bis(2-Chloroethoxy)methan	0.375	0.393	-4.8	97	0.00	5.46
33 t	2,4-Dichlorophenol	0.292	0.311	-6.5	92	0.00	5.54
34	2,6-Dichlorophenol	0.270	0.265	1.9	88	0.00	5.70
35 t	1,3,5-Trichlorobenzene	0.343	0.310	9.6	83	0.00	5.38
36 t	1,2,4-Trichlorobenzene	0.331	0.309	6.6	84	0.00	5.60
37 t	1,2,3-Trichlorobenzene	0.316	0.287	9.2	84	0.00	5.76
38 t	Naphthalene	1.017	0.957	5.9	87	0.00	5.66
39 t	4-Chloroaniline	0.431	0.439	-1.9	91	0.00	5.69
40 t	2,3-Dichloroaniline	0.370	0.357	3.5	88	0.00	6.37
41 t	Caprolactam	0.142	0.197	-38.7#	116	0.00	5.95

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6452-CC6436
Lab FileID: Z130839.D

42 t	Hexachlorobutadiene	0.175	0.164	6.3	83	0.00	5.75
43 t	4-Chloro-3-methylphenol	0.301	0.340	-13.0	94	0.00	6.05
44 t	2-Methylnaphthalene	0.619	0.592	4.4	86	0.00	6.15
45 t	1-Methylnaphthalene	0.654	0.613	6.3	87	0.00	6.23
46 t	Dimethylnaphthalene	0.650	0.613	5.7	86	0.00	6.64
47 I	Acenaphthene-d10	1.000	1.000	0.0	85	0.00	7.01
48 t	Hexachlorocyclopentadiene	0.283	0.272	3.9	76	0.00	6.28
49 t	2,4,6-Trichlorophenol	0.345	0.344	0.3	86	0.00	6.37
50 t	2,4,5-Trichlorophenol	0.380	0.394	-3.7	89	0.00	6.41
51 S	2-Fluorobiphenyl	1.402	1.239	11.6	83	0.00	6.43
52 t	2-Chloronaphthalene	1.198	1.067	10.9	85	0.00	6.53
53 t	Biphenyl	1.611	1.503	6.7	87	0.00	6.51
54 t	2-Nitroaniline	0.305	0.408	-33.8#	107	0.00	6.62
55 t	Dimethylphthalate	1.382	1.353	2.1	87	0.00	6.76
56 t	Acenaphthylene	1.964	1.899	3.3	86	0.00	6.88
57 t	2,6-Dinitrotoluene	0.281	0.319	-13.5	89	0.00	6.81
58 t	3-Nitroaniline	0.356	0.400	-12.4	89	0.00	6.97
59 t	Acenaphthene	1.182	1.127	4.7	87	0.00	7.04
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	100.000	104.894	-4.9	88	0.00	7.07
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.176	0.221	-25.6#	103	0.00	7.12
62 t	Dibenzofuran	1.713	1.553	9.3	83	0.00	7.20
63 t	2,4-Dinitrotoluene	0.381	0.446	-17.1	87	0.00	7.18
64	2,3,4,6-Tetrachlorophenol	0.317	0.346	-9.1	85	0.00	7.32
65 t	Diethylphthalate	1.380	1.424	-3.2	89	0.00	7.41
66 t	Fluorene	1.331	1.263	5.1	86	0.00	7.54
67 t	4-Chlorophenyl-phenylethe	0.622	0.576	7.4	82	0.00	7.53
68 t	4-Nitroaniline	0.352	0.376	-6.8	89	0.00	7.56
69 I	Phenanthrene-d10	1.000	1.000	0.0	85	0.00	8.59
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	50.000	50.450	-0.9	85	0.00	7.59
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.570	0.548	3.9	85	0.00	7.65
72 t	1,2-Diphenylhydrazine	0.717	0.802	-11.9	101	0.00	7.70
73 S	2,4,6-Tribromophenol	0.123	0.129	-4.9	81	0.00	7.79
74 t	4-Bromophenyl-phenylether	0.239	0.235	1.7	83	0.00	8.06
75 t	Hexachlorobenzene	0.282	0.254	9.9	79	0.00	8.15
----- True Calc. % Drift -----							
76 t	Pentachlorophenol	100.000	93.210	6.8	79	0.00	8.38
----- AvgRF CCRF % Dev -----							
77 t	Phenanthrene	1.069	0.999	6.5	85	0.00	8.63
78 t	Anthracene	1.081	1.032	4.5	85	0.00	8.69
79 t	Carbazole	1.105	1.101	0.4	87	0.00	8.90
80 t	Di-n-butylphthalate	1.315	1.510	-14.8	91	0.00	9.39
81 t	Fluoranthene	1.167	1.249	-7.0	88	0.00	10.23
82 t	Octadecane	0.413	0.531	-28.6#	110	0.00	8.48
83 I	Chrysene-d12	1.000	1.000	0.0	87	0.00	12.40
84 t	Pyrene	1.363	1.433	-5.1	90	0.00	10.55
85 S	Terphenyl-d14	0.949	0.969	-2.1	85	0.00	10.82
86 t	Butylbenzylphthalate	0.673	0.798	-18.6	95	0.00	11.60

8.9.51

8

Continuing Calibration Summary

Page 3 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6452-CC6436
Lab FileID: Z130839.D

87 t	Benzo[a]anthracene	1.257	1.254	0.2	89	0.00	12.38
88 t	3,3'-Dichlorobenzidine	0.506	0.508	-0.4	80	0.00	12.38
89 t	Chrysene	1.182	1.144	3.2	86	0.00	12.43
90 t	bis(2-Ethylhexyl)phthalat	0.826	0.991	-20.0	97	0.00	12.54
91 I	Perylene-d12	1.000	1.000	0.0	89	0.00	14.48
----- True Calc. % Drift -----							
92 t	Di-n-octylphthalate	50.000	55.133	-10.3	97	0.00	13.51
----- AvgRF CCRF % Dev -----							
93 t	Benzo[b]fluoranthene	1.358	1.240	8.7	88	0.00	13.96
94 t	Benzo[k]fluoranthene	1.262	1.067	15.5	88	0.00	14.01
95 t	Benzo[a]pyrene	1.204	1.134	5.8	90	0.00	14.40
96 t	Indeno[1,2,3-cd]pyrene	1.058	1.142	-7.9	94	0.00	15.84
97 t	Dibenz(a,h)acridine	0.990	1.037	-4.7	93	0.00	15.54
98 t	Dibenz[a,h]anthracene	1.082	1.083	-0.1	91	0.00	15.87
99 t	7,12-Dimethylbenz(a)anthr	0.573	0.536	6.5	83	0.00	13.96
100 t	Benzo[g,h,i]perylene	1.075	1.084	-0.8	95	0.00	16.20

(#) = Out of Range
z130460a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Mon May 21 13:40:14 2018

8.9.51
8

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6452-CC6437
Lab FileID: Z130840.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6452\z130840.D Vial: 3
 Acq On : 21 May 2018 10:51 am Operator: johnb1
 Sample : cc6437-50 Inst : SVOAMSZ
 Misc : op8501,eZ6452,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 Last Update : Mon May 21 13:38:40 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	87	0.00	4.72
102	Benzaldehyde	1.016	0.886	12.8	82	-0.04	4.40
103	Phenanthrene-d10a	1.000	1.000	0.0	85	0.00	8.59
104 s	1-chlorooctadecane	0.255	0.370	-45.1#	112	-0.02	10.13
105 s	o-terphenyl	0.560	0.531	5.2	82	-0.04	9.10
106	Atrazine	0.097	0.104	-7.2	83	-0.03	8.26
107	Chrysene-d12a	1.000	1.000	0.0	88	-0.01	12.39
108	Benzidine	True 50.000	Calc. 51.824	% Drift -3.6	90	-0.07	10.45
		AvgRF	CCRF	% Dev			
109	Acenaphthene-d10a	1.000	1.000	0.0	88	0.00	7.01
110	1,2,4,5-Tetrachlorobenzen	0.533	0.481	9.8	83	-0.03	6.28
111 I	Naphthalene-d8a	1.000	1.000	0.0	86	0.00	5.64
112	Hydroquinone	0.308	0.407	-32.1#	102	0.00	5.93
113	Phenanthrene-d10b	1.000	1.000	0.0	85	0.00	8.59
114	Pentachloronitrobenzene	0.041	0.045#	-9.8	87	-0.05	8.39

(#) = Out of Range
 z130460a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
 Mon May 21 13:40:16 2018



Dayton, NJ

Section 9

MS Semi-volatiles

Raw Data

6

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-17-18\lotusa\e2m4626\
 Data File : 2m104086.d
 Acq On : 16 May 2018 3:12 pm
 Operator : christc2
 Sample : jc65860-1
 Misc : op11966,e2m4626,32.3,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 27 09:47:25 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
 Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 QLast Update : Fri May 11 12:53:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.638	152	394965	40.00	ppm	-0.03
24) Naphthalene-d8	5.723	136	1464846	40.00	ppm	-0.04
47) Acenaphthene-d10	7.783	164	687342	40.00	ppm	-0.04
69) Phenanthrene-d10	9.959	188	1216948	40.00	ppm	-0.03
83) Chrysene-d12	14.190	240	1104231	40.00	ppm	0.03
91) Perylene-d12	16.319	264	1243632	40.00	ppm	0.05
101) 1,4-Dichlorobenzene-d4a	4.638	152	394965	40.00	ppm	-0.03
103) Acenaphthene-d10a	7.783	164	687342	40.00	ppm	-0.04
105) Chrysene-d12a	14.190	240	1104231	40.00	ppm	0.04
108) Phenanthrene-d10a	9.959	188	1217093	40.00	ppm	-0.03
112) Naphthalene-d8a	5.723	136	1464846	40.00	ppm	-0.03
114) Chrysene-d12b	14.190	240	1104231	40.00	ppm	0.04
System Monitoring Compounds						
5) 2-Fluorophenol	3.664	112	488237	37.94	ppm	0.00
Spiked Amount 50.000			Recovery	=	75.88%	
8) Phenol-d5	4.386	99	641461	39.73	ppm	-0.01
Spiked Amount 50.000			Recovery	=	79.46%	
25) Nitrobenzene-d5	5.076	82	514164	38.40	ppm	-0.03
Spiked Amount 50.000			Recovery	=	76.80%	
51) 2-Fluorobiphenyl	6.911	172	1120245	44.61	ppm	-0.04
Spiked Amount 50.000			Recovery	=	89.22%	
73) 2,4,6-Tribromophenol	8.916	330	161394	43.84	ppm	-0.03
Spiked Amount 50.000			Recovery	=	87.68%	
85) Terphenyl-d14	12.521	244	1120670	46.28	ppm	-0.02
Spiked Amount 50.000			Recovery	=	92.56%	
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0d	0.00	ppm	
Target Compounds						
9) Phenol	4.397	94	162155	8.75	ppm	95
19) 2-Methylphenol	4.846	108	53020	4.36	ppm	96
21) 3&4-Methylphenol	4.974	108	160619	12.58	ppm	82
30) 2,4-Dimethylphenol	5.418	107	71023	6.22	ppm	92
38) Naphthalene	5.745	128	2005559	52.88	ppm	99
44) 2-Methylnaphthalene	6.472	141	272004	12.32	ppm	96
53) Biphenyl	7.034	154	110169	3.90	ppm	97
56) Acenaphthylene	7.590	152	4150548	123.54	ppm	99
59) Acenaphthene	7.825	153	110271	5.00	ppm	94
62) Dibenzofuran	8.066	168	656850	22.15	ppm	100
66) Fluorene	8.558	166	392542	16.34	ppm	97
77) Phenanthrene	10.008	178	11142758	320.90	ppm	96
78) Anthracene	10.082	178	6071386	174.04	ppm	100
79) Carbazole	10.345	167	906142	27.82	ppm	98
81) Fluoranthene	11.880	202	29444969m	826.41	ppm	
84) Pyrene	12.233	202	29938549m	811.83	ppm	
87) Benzo[a]anthracene	14.174	228	24019302	718.82	ppm	85
89) Chrysene	14.238	228	19601723	617.39	ppm	94

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-17-18\lotusa\e2m4626\
Data File : 2m104086.d
Acq On : 16 May 2018 3:12 pm
Operator : christc2
Sample : jc65860-1
Misc : op11966,e2m4626,32.3,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 27 09:47:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

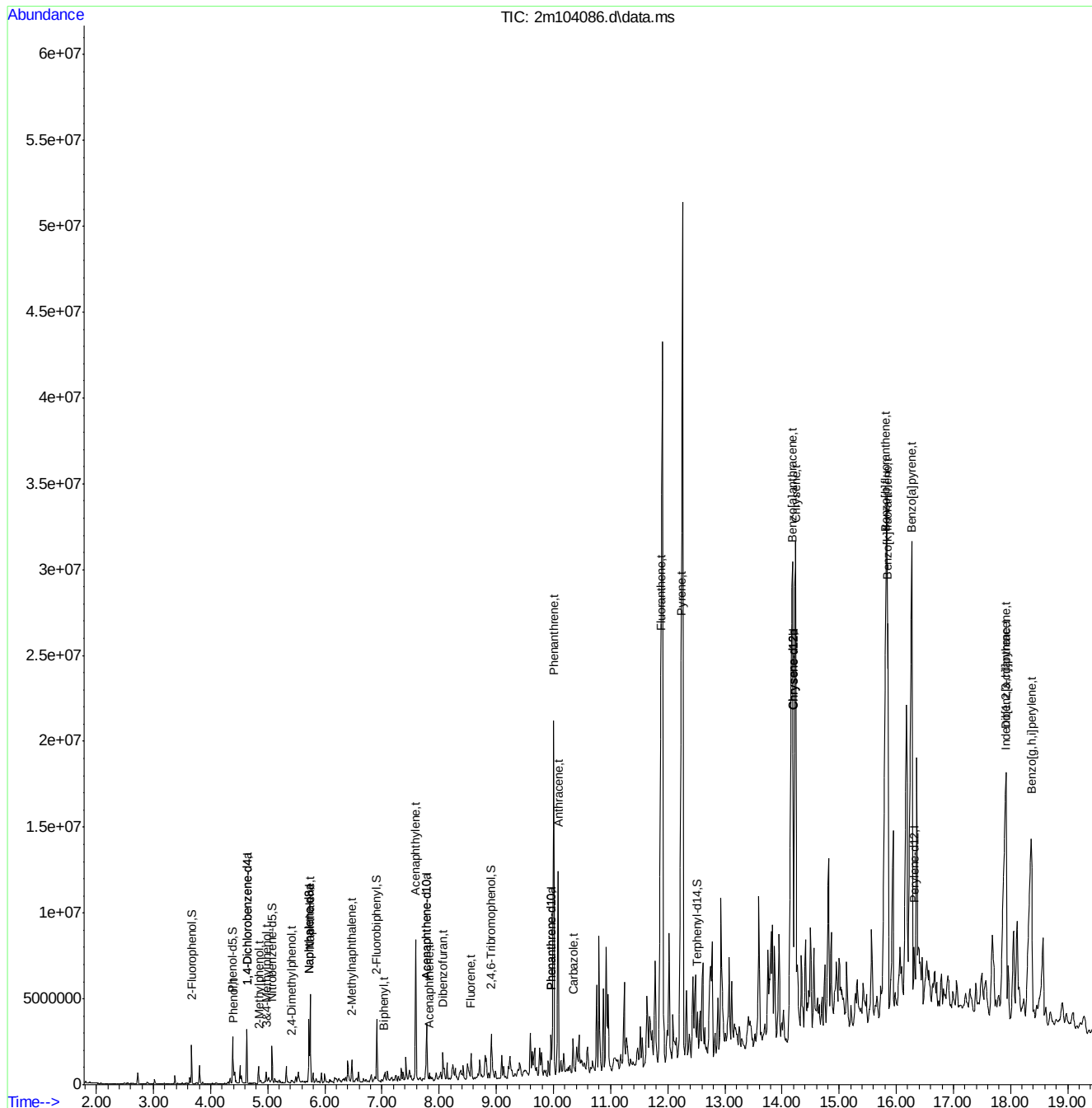
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) Benzo[b]fluoranthene	15.816	252	31323503	822.91	ppm	90
94) Benzo[k]fluoranthene	15.854	252	7508086	212.45	ppm	94
95) Benzo[a]pyrene	16.265	252	22679910m	687.36	ppm	
96) Indeno[1,2,3-cd]pyrene	17.907	276	15829419	481.99	ppm	87
98) Dibenz[a,h]anthracene	17.918	278	4731159	140.18	ppm	80
100) Benzo[g,h,i]perylene	18.362	276	13756008	434.74	ppm	98

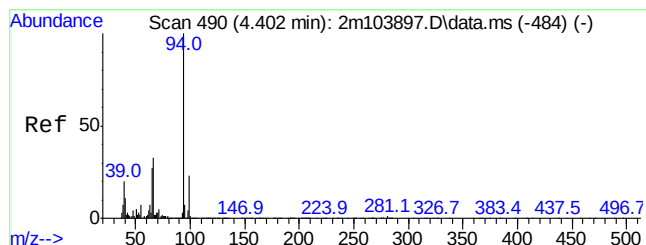
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-17-18\lotusa\e2m4626\
Data File : 2m104086.d
Acq On : 16 May 2018 3:12 pm
Operator : christc2
Sample : jc65860-1
Misc : op11966,e2m4626,32.3,,,1,1
ALS Vial : 13 Sample Multiplier: 1

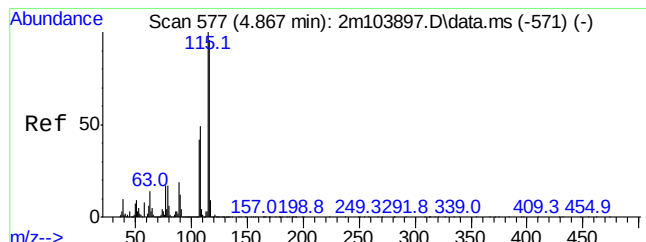
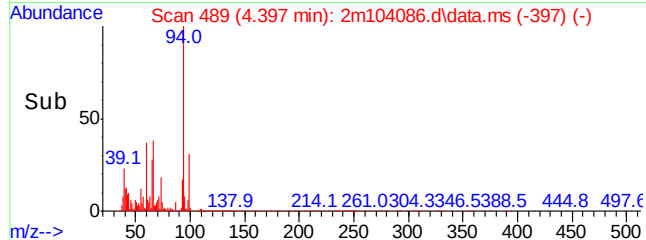
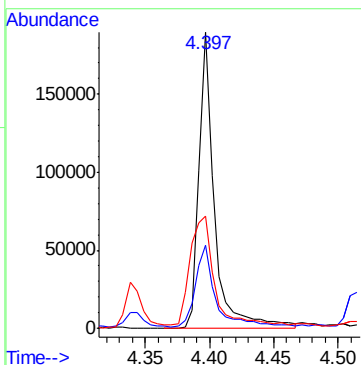
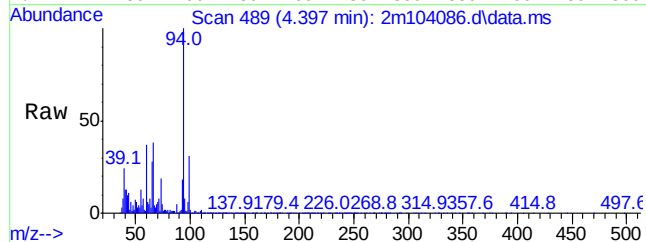
Quant Time: May 27 09:47:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration





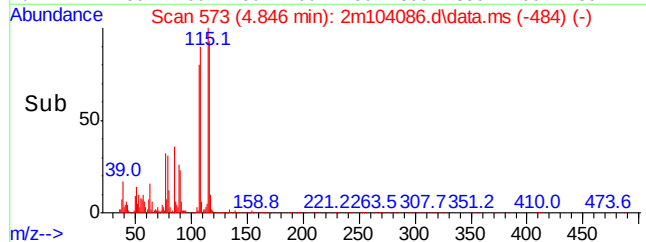
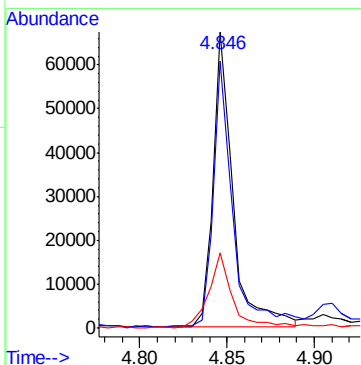
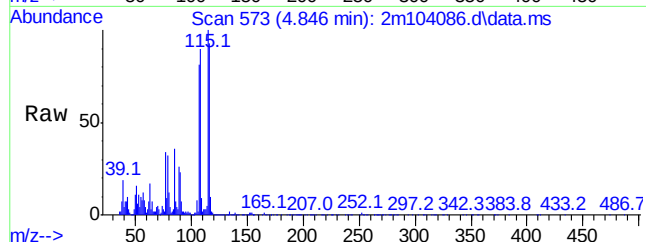
#9
Phenol
Concen: 8.75 ppm
RT: 4.397 min Scan# 489
Delta R.T. -0.005 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

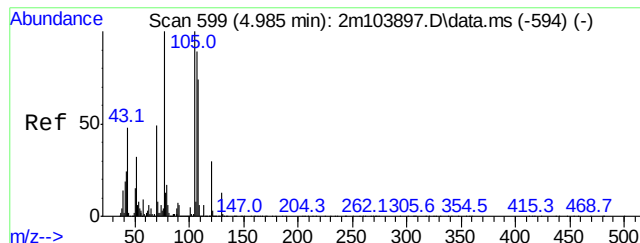
Tgt Ion:	94	Resp:	162155
Ion Ratio	Lower	Upper	
94	100		
65	27.4	0.0	56.9
66	36.8	2.6	62.6



#19
2-Methylphenol
Concen: 4.36 ppm
RT: 4.846 min Scan# 573
Delta R.T. -0.021 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

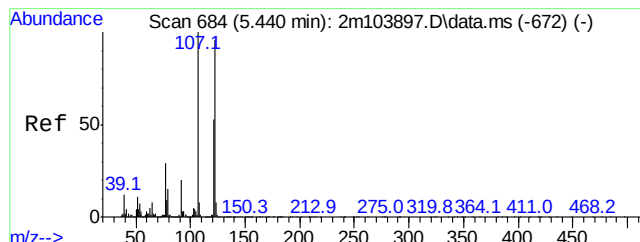
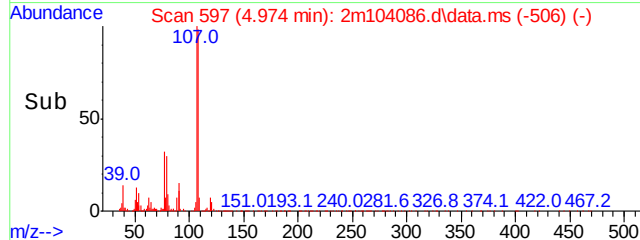
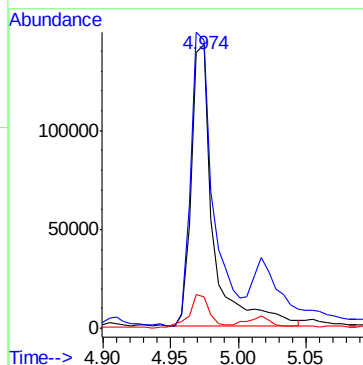
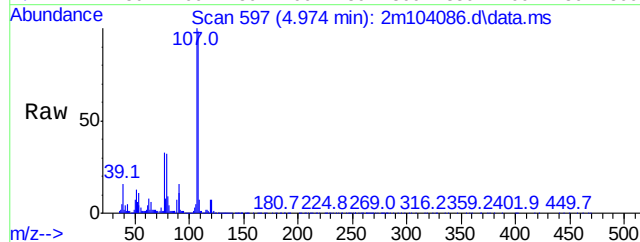
Tgt Ion:	108	Resp:	53020
Ion Ratio	Lower	Upper	
108	100		
107	89.4	54.8	114.8
90	25.2	0.0	54.8





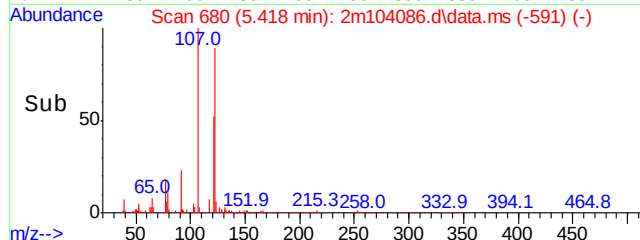
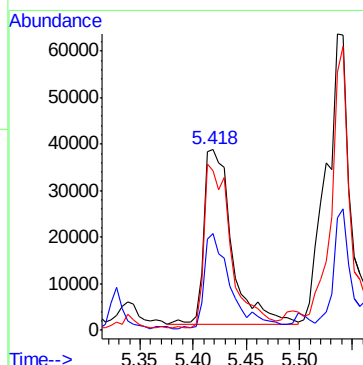
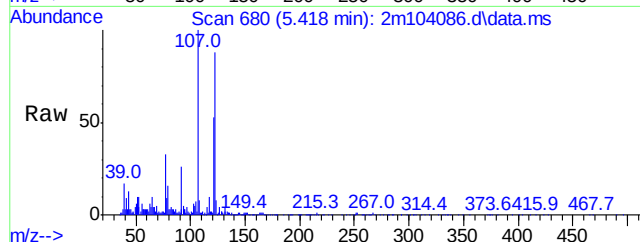
#21
3&4-Methylphenol
Concen: 12.58 ppm
RT: 4.974 min Scan# 597
Delta R.T. -0.011 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

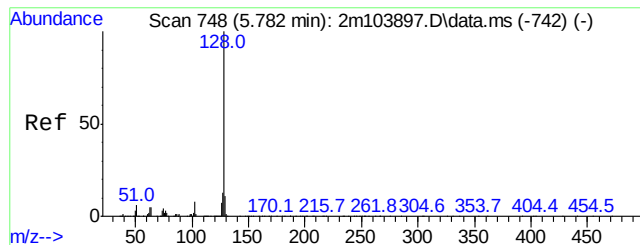
Tgt	Ion	Ratio	Resp	Lower	Upper
108	108	100	160619		
107	99.5	90.9	150.9		
90	10.6	0.0	39.8		



#30
2,4-Dimethylphenol
Concen: 6.22 ppm
RT: 5.418 min Scan# 680
Delta R.T. -0.021 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

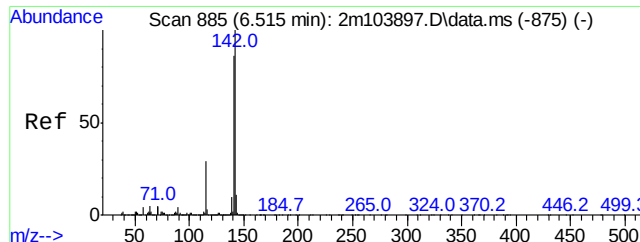
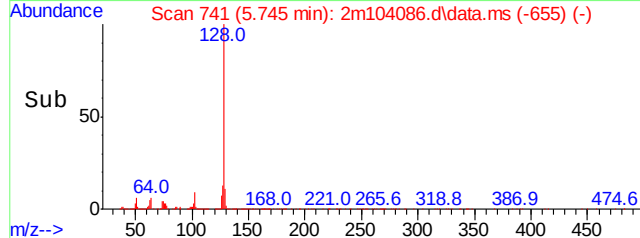
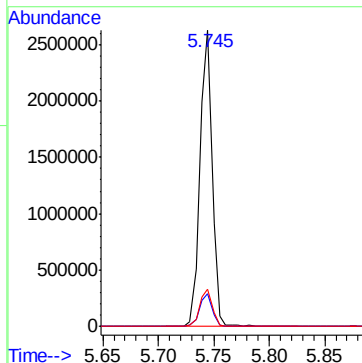
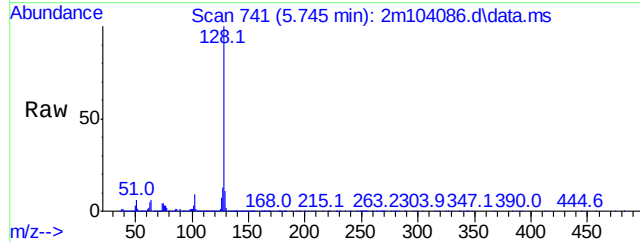
Tgt	Ion	Ratio	Resp	Lower	Upper
107	107	100	71023		
121	49.3	23.2	83.2		
122	85.6	64.1	124.1		





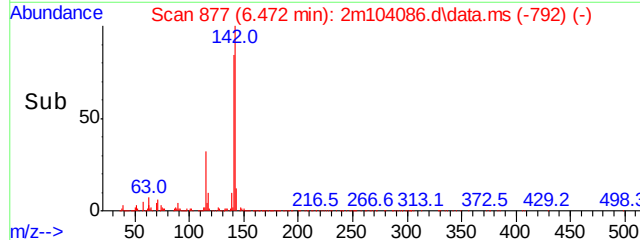
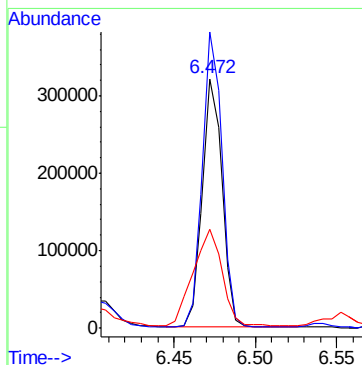
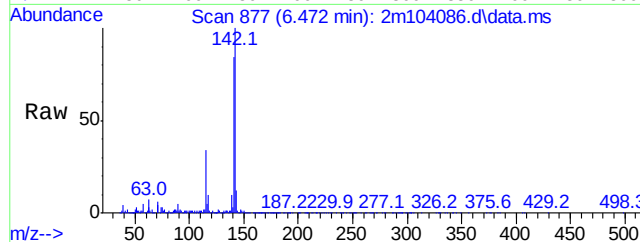
#38
Naphthalene
Concen: 52.88 ppm
RT: 5.745 min Scan# 741
Delta R.T. -0.037 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

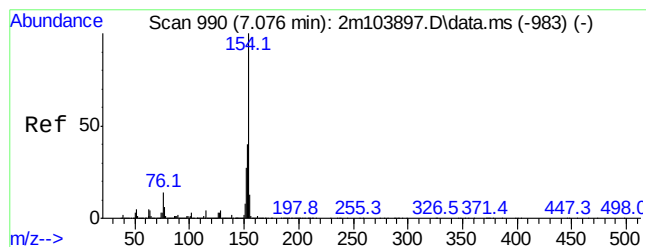
Tgt Ion:	128	Resp:	2005559
Ion Ratio	Lower	Upper	
128	100		
129	11.1	0.0	40.7
127	12.7	0.0	42.5



#44
2-Methylnaphthalene
Concen: 12.32 ppm
RT: 6.472 min Scan# 877
Delta R.T. -0.043 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

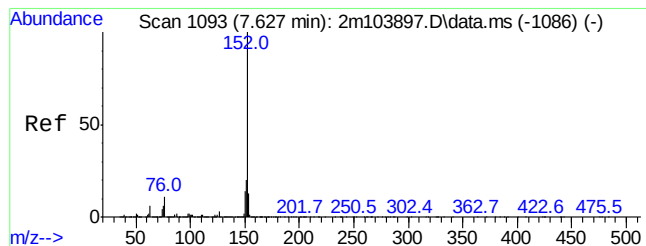
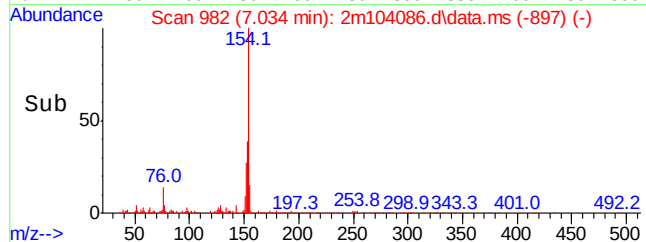
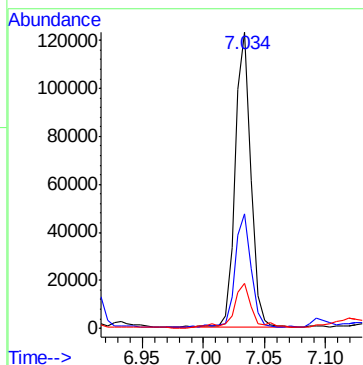
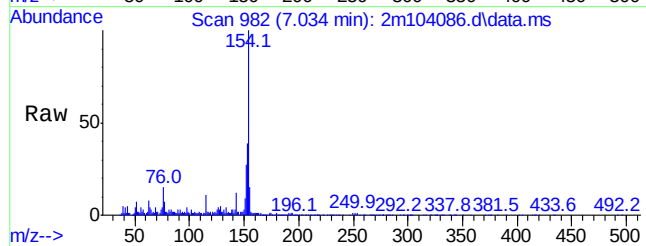
Tgt Ion:	141	Resp:	272004
Ion Ratio	Lower	Upper	
141	100		
142	118.6	86.4	146.4
115	38.8	3.6	63.6





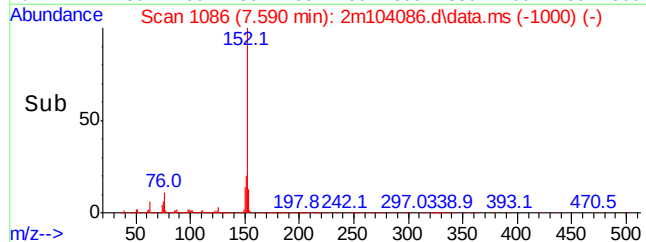
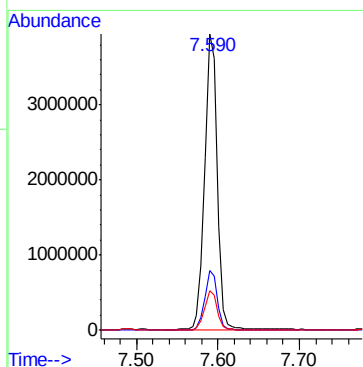
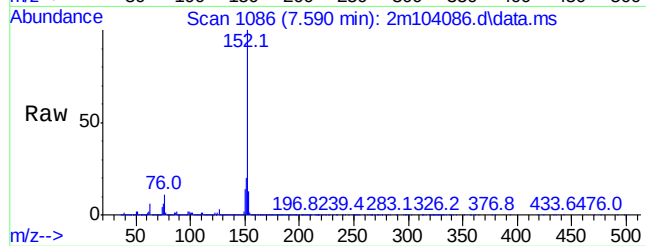
#53
Biphenyl
Concen: 3.90 ppm
RT: 7.034 min Scan# 982
Delta R.T. -0.043 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

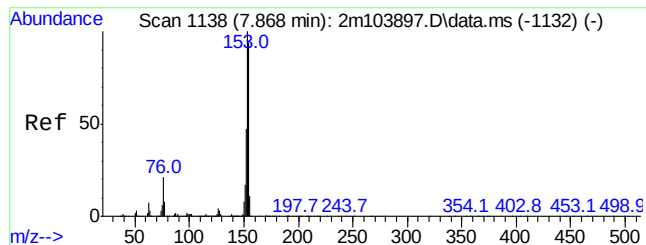
Tgt Ion:	154	Resp:	110169
Ion Ratio	Lower	Upper	
154	100		
153	38.3	9.6	69.6
155	15.0	0.0	42.7



#56
Acenaphthylene
Concen: 123.54 ppm
RT: 7.590 min Scan# 1086
Delta R.T. -0.037 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

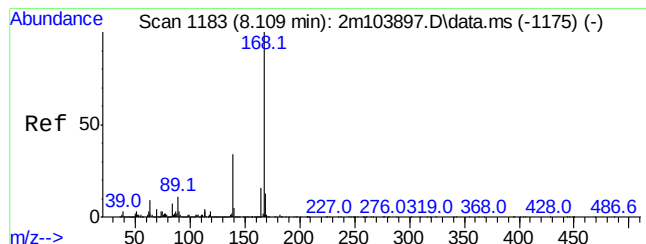
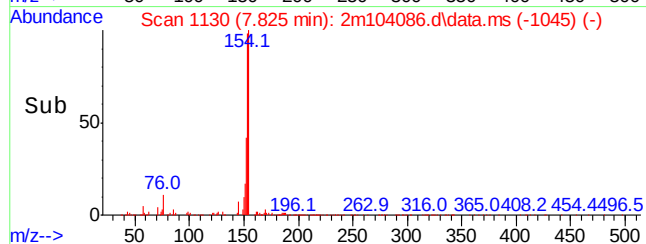
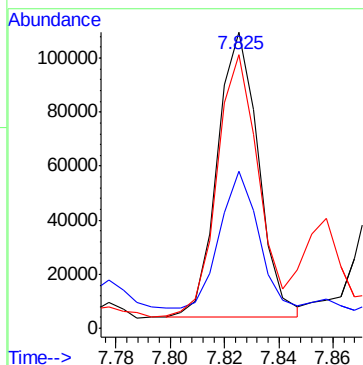
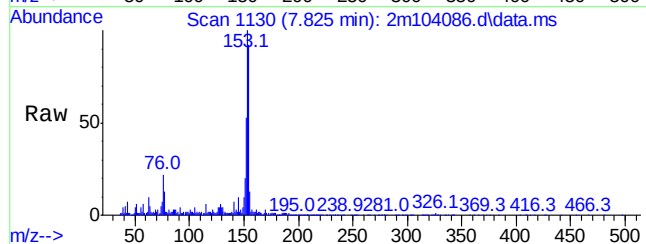
Tgt Ion:	152	Resp:	4150548
Ion Ratio	Lower	Upper	
152	100		
151	19.9	0.0	49.6
153	13.2	0.0	42.8





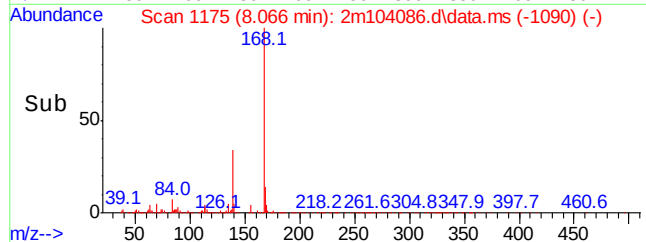
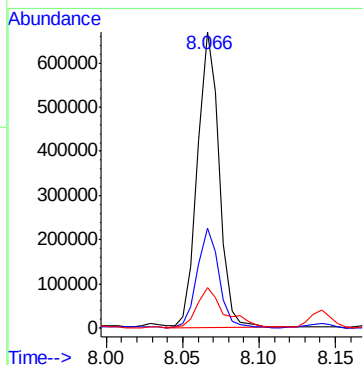
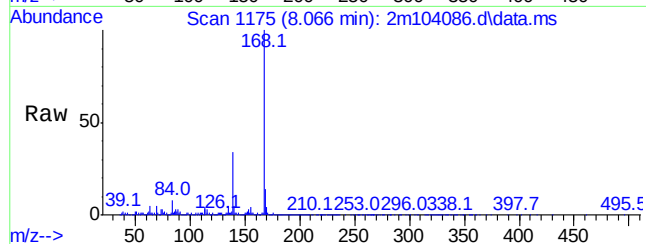
#59
Acenaphthene
Concen: 5.00 ppm
RT: 7.825 min Scan# 1130
Delta R.T. -0.043 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

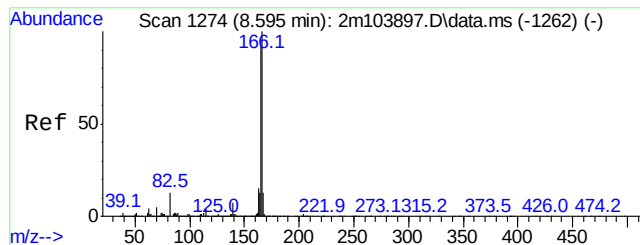
Tgt Ion	Ratio	Lower	Upper
153	100		
152	48.6	17.1	77.1
154	84.9	62.8	122.8



#62
Dibenzofuran
Concen: 22.15 ppm
RT: 8.066 min Scan# 1175
Delta R.T. -0.043 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

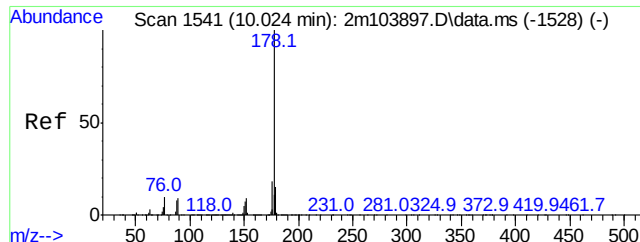
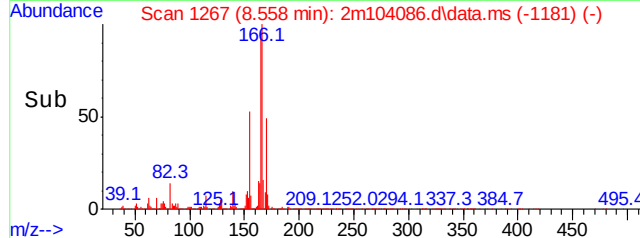
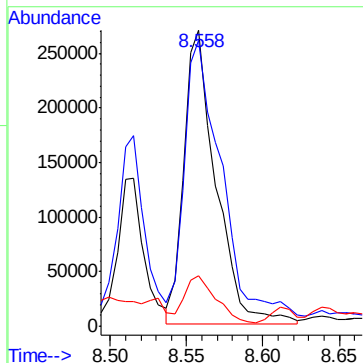
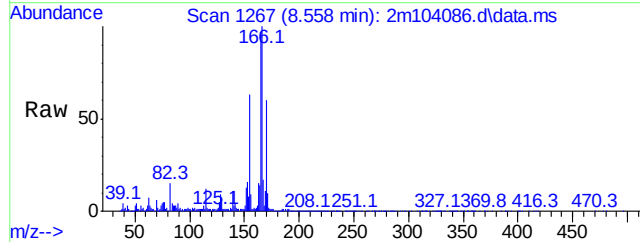
Tgt Ion	Ratio	Lower	Upper
168	100		
139	33.6	3.6	63.6
169	13.4	0.0	43.0





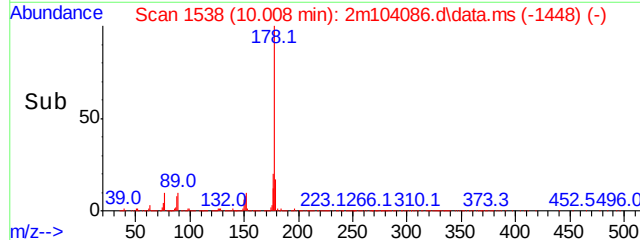
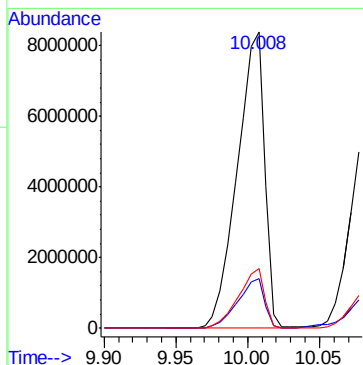
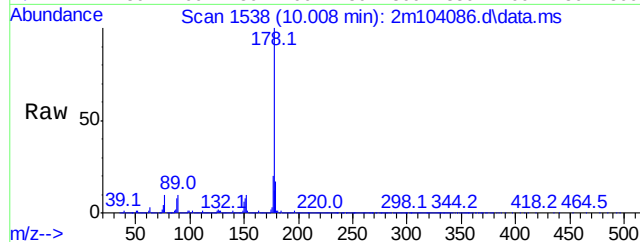
#66
Fluorene
Concen: 16.34 ppm
RT: 8.558 min Scan# 1267
Delta R.T. -0.037 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

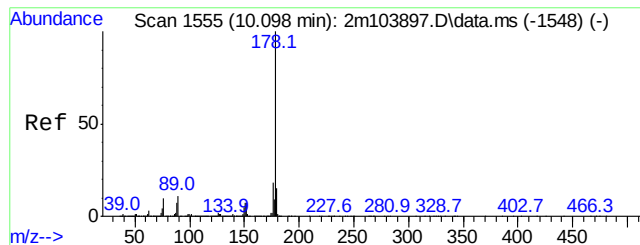
Tgt Ion	Ratio	Lower	Upper
166	100		
165	94.4	62.0	122.0
167	13.8	0.0	42.9



#77
Phenanthrene
Concen: 320.90 ppm
RT: 10.008 min Scan# 1538
Delta R.T. -0.016 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

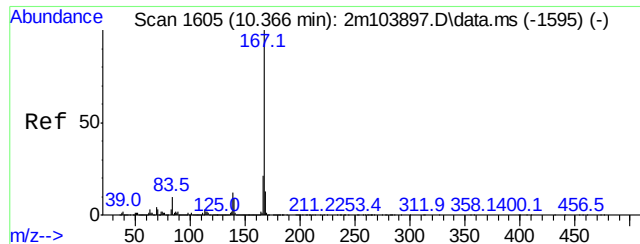
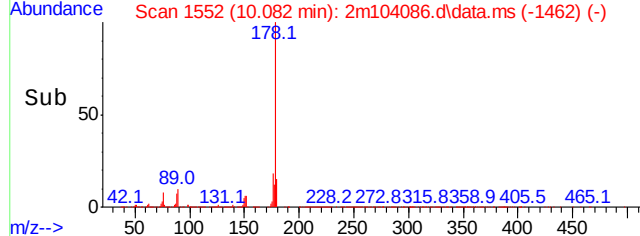
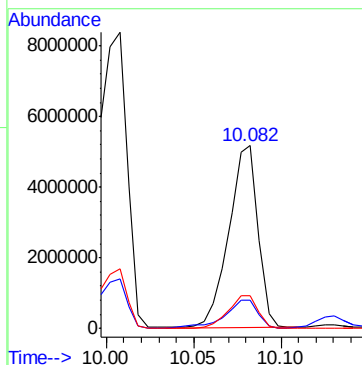
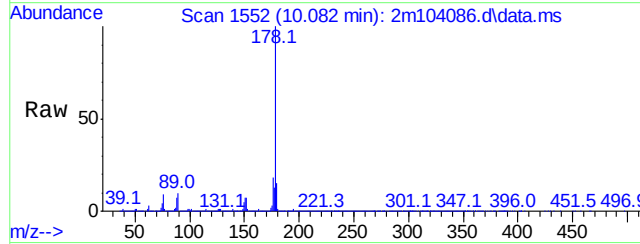
Tgt Ion	Ratio	Lower	Upper
178	100		
179	16.7	0.0	45.2
176	20.1	0.0	48.5





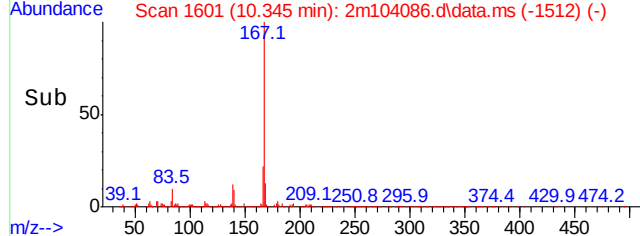
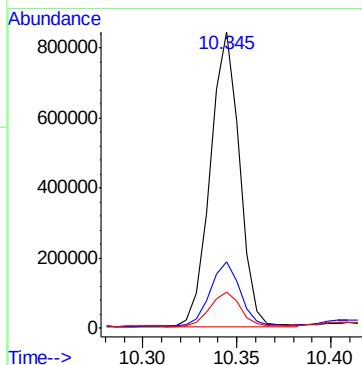
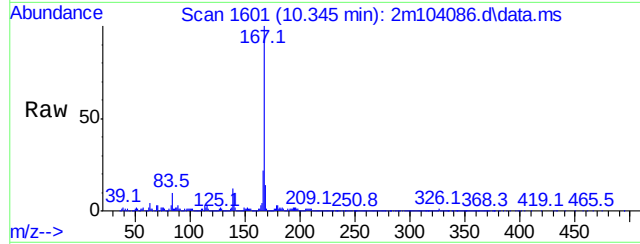
#78
 Anthracene
 Concen: 174.04 ppm
 RT: 10.082 min Scan# 1552
 Delta R.T. -0.016 min
 Lab File: 2m104086.d
 Acq: 16 May 2018 3:12 pm

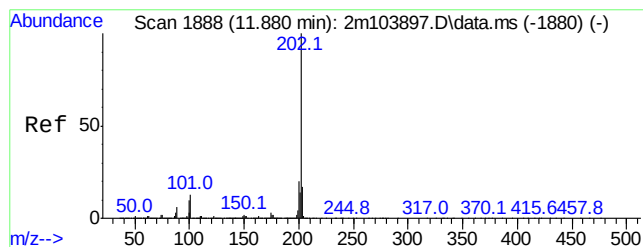
Tgt Ion	Ratio	Lower	Upper
178	100		
179	15.0	0.0	45.1
176	18.0	0.0	47.7



#79
 Carbazole
 Concen: 27.82 ppm
 RT: 10.345 min Scan# 1601
 Delta R.T. -0.021 min
 Lab File: 2m104086.d
 Acq: 16 May 2018 3:12 pm

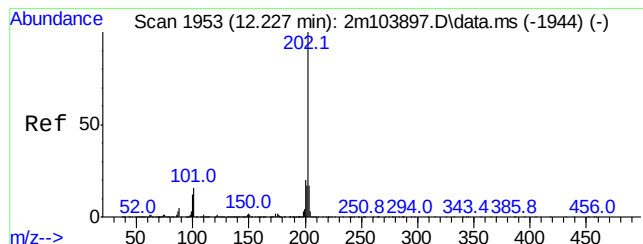
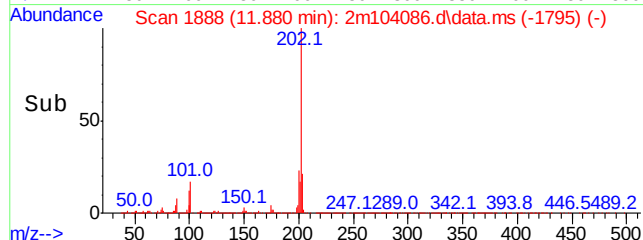
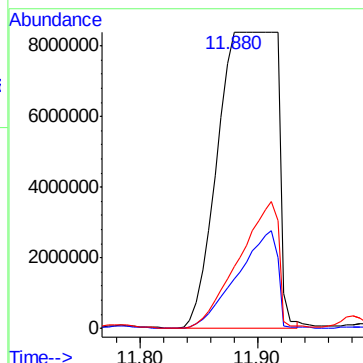
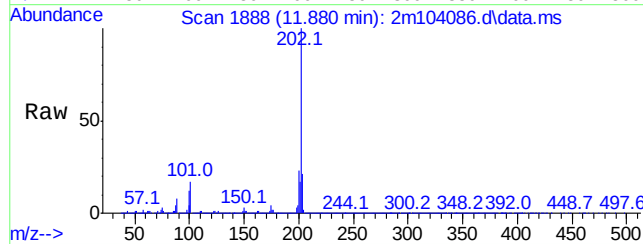
Tgt Ion	Ratio	Lower	Upper
167	100		
166	21.7	0.0	50.9
139	11.6	0.0	42.3





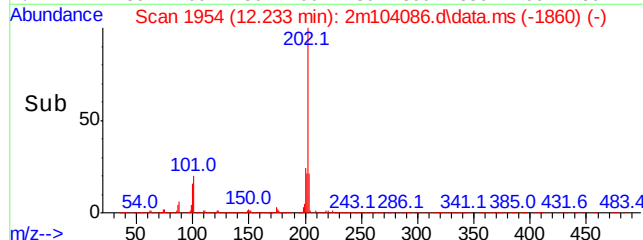
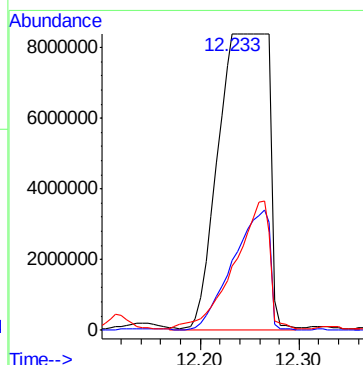
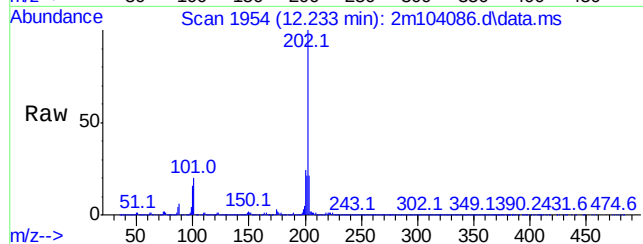
#81
Fluoranthene
Concen: 826.41 ppm m
RT: 11.880 min Scan# 1888
Delta R.T. 0.000 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

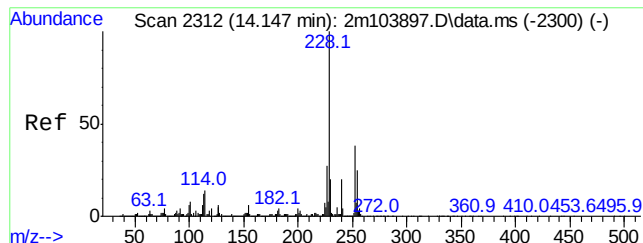
Tgt	Ion:202	Resp:29444969	
Ion	Ratio	Lower	Upper
202	100		
101	16.6	0.0	43.1
203	20.8	0.0	47.0



#84
Pyrene
Concen: 811.83 ppm m
RT: 12.233 min Scan# 1954
Delta R.T. 0.005 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

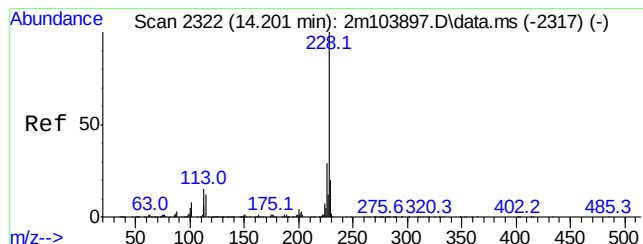
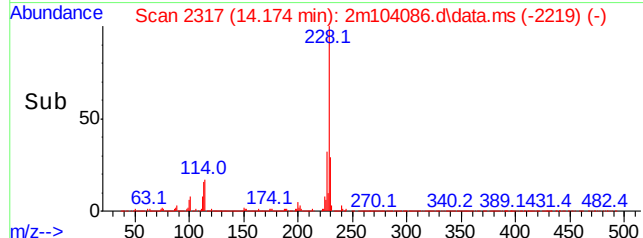
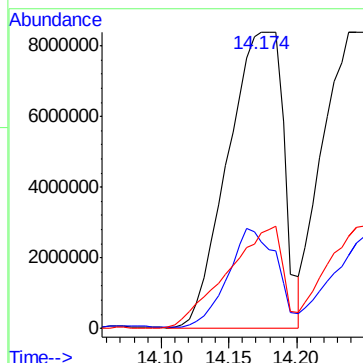
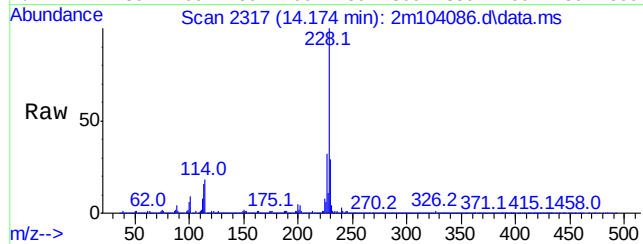
Tgt	Ion:202	Resp:29938549	
Ion	Ratio	Lower	Upper
202	100		
200	23.7	0.0	50.0
203	21.4	0.0	47.3





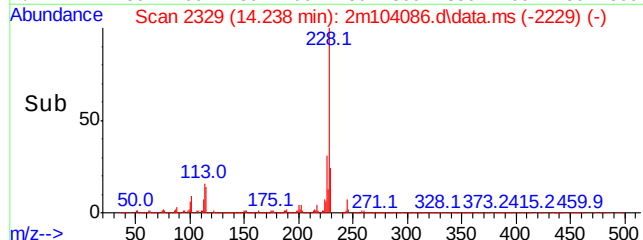
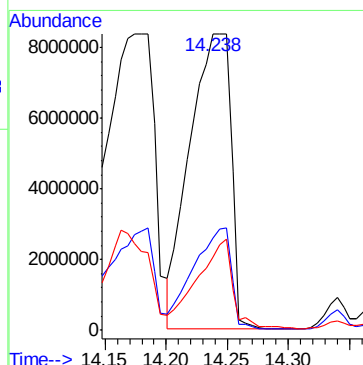
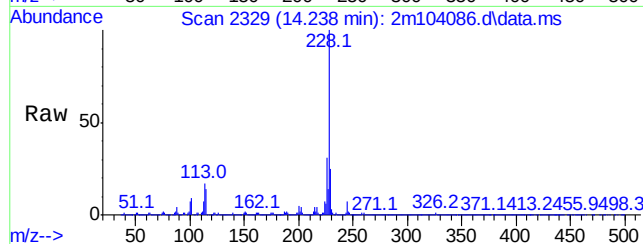
#87
Benzo[a]anthracene
Concen: 718.82 ppm
RT: 14.174 min Scan# 2317
Delta R.T. 0.027 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

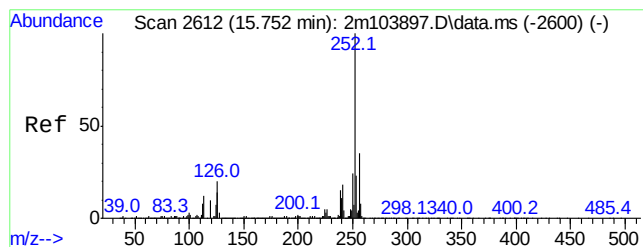
Tgt	Ion:228	Resp:24019302	
Ion	Ratio	Lower	Upper
228	100		
229	29.1	0.0	49.8
226	32.4	0.0	56.6



#89
Chrysene
Concen: 617.39 ppm
RT: 14.238 min Scan# 2329
Delta R.T. 0.037 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

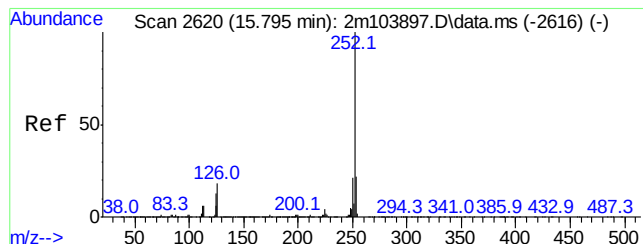
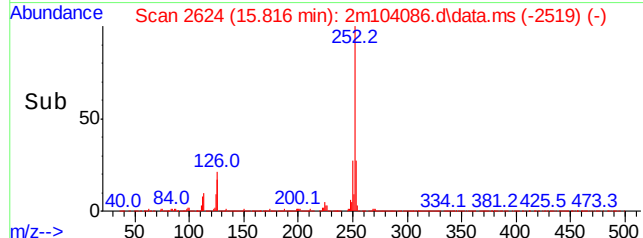
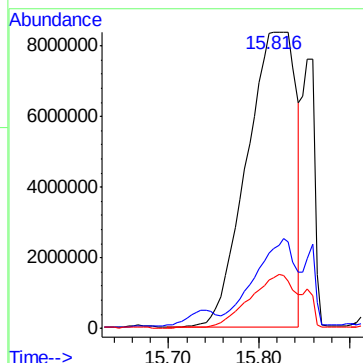
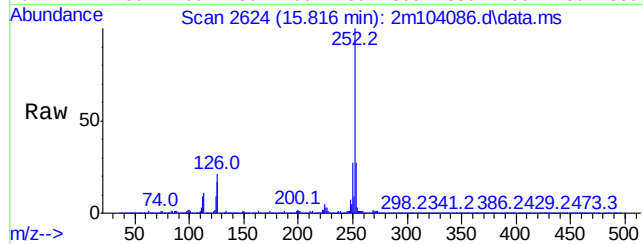
Tgt	Ion:228	Resp:19601723	
Ion	Ratio	Lower	Upper
228	100		
226	31.0	0.0	58.8
229	24.0	0.0	49.8





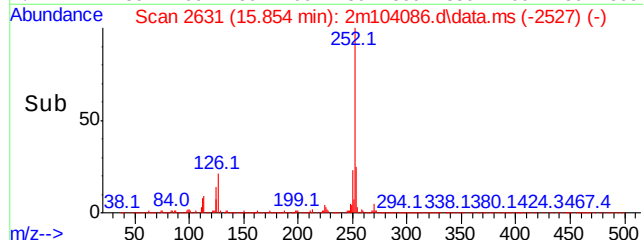
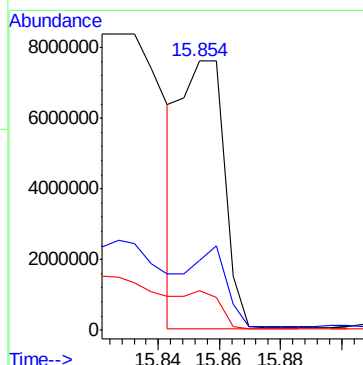
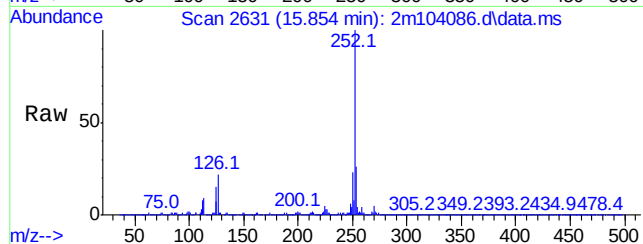
#93
Benzo[b]fluoranthene
Concen: 822.91 ppm
RT: 15.816 min Scan# 2624
Delta R.T. 0.064 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

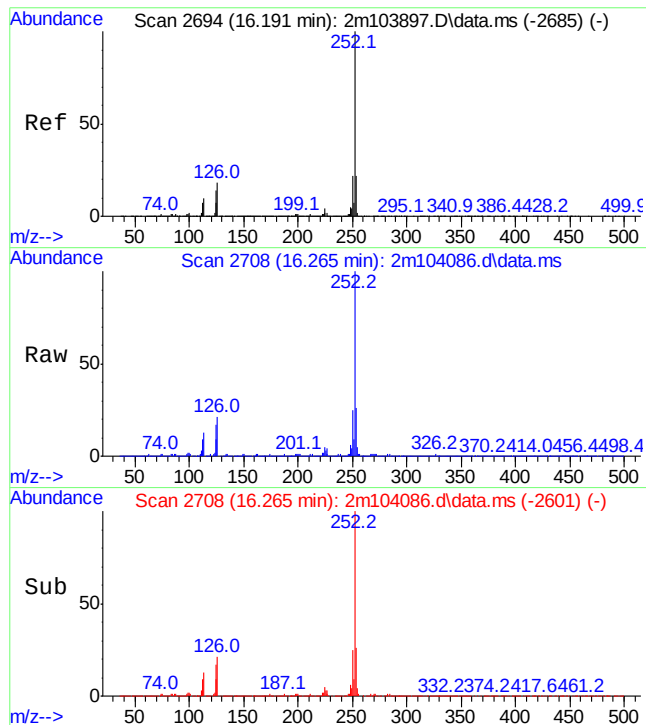
Tgt Ion	Ratio	Lower	Upper
252	100		
253	27.8	0.0	52.5
125	18.2	0.0	44.3



#94
Benzo[k]fluoranthene
Concen: 212.45 ppm
RT: 15.854 min Scan# 2631
Delta R.T. 0.059 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

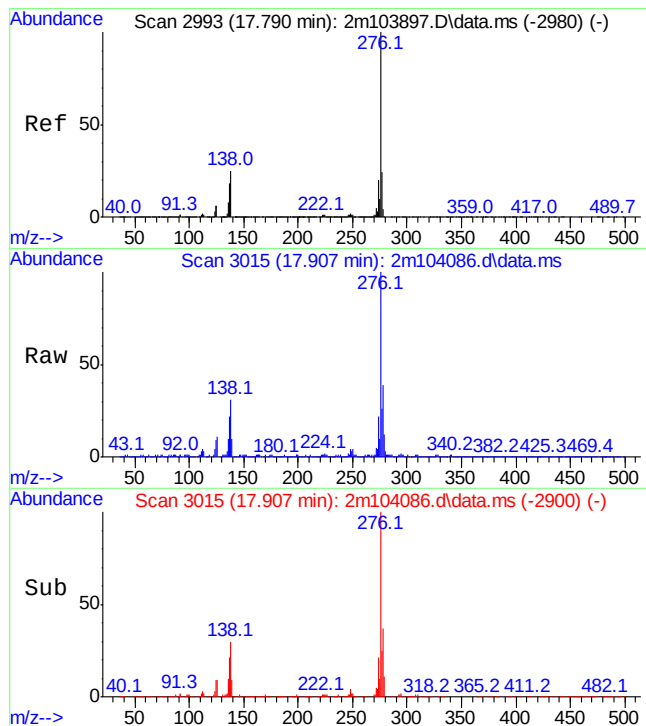
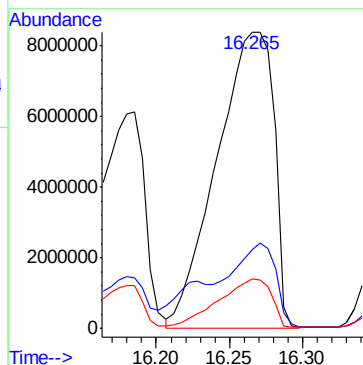
Tgt Ion	Ratio	Lower	Upper
252	100		
253	25.5	0.0	51.8
125	14.0	0.0	42.9





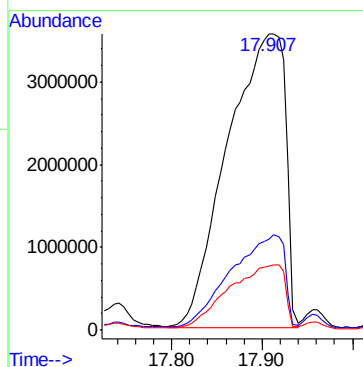
#95
Benzo[a]pyrene
Concen: 687.36 ppm m
RT: 16.265 min Scan# 2708
Delta R.T. 0.075 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

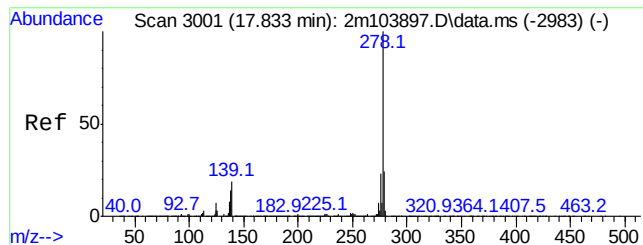
Tgt Ion:	252	Resp:	22679910
Ion Ratio	Lower	Upper	
252	100		
253	26.4	0.0	51.6
125	16.6	0.0	44.0



#96
Indeno[1,2,3-cd]pyrene
Concen: 481.99 ppm
RT: 17.907 min Scan# 3015
Delta R.T. 0.118 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

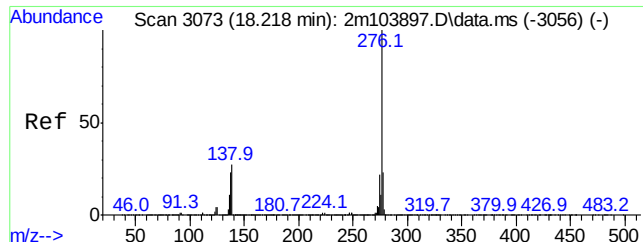
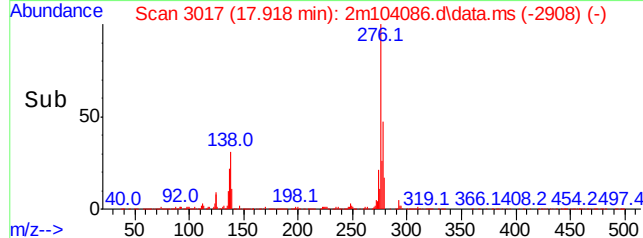
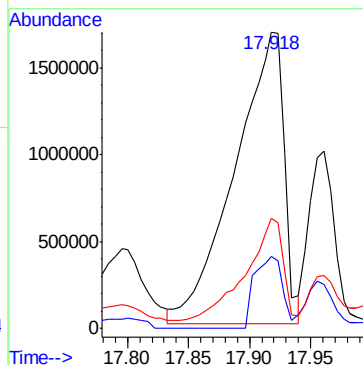
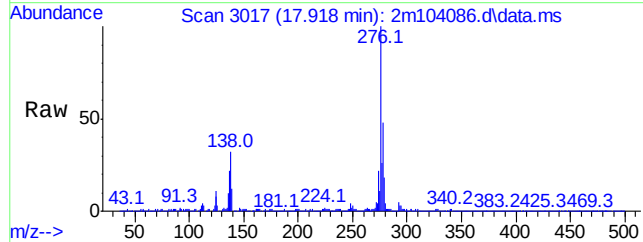
Tgt Ion:	276	Resp:	15829419
Ion Ratio	Lower	Upper	
276	100		
138	30.0	0.0	52.7
137	21.0	0.0	46.8





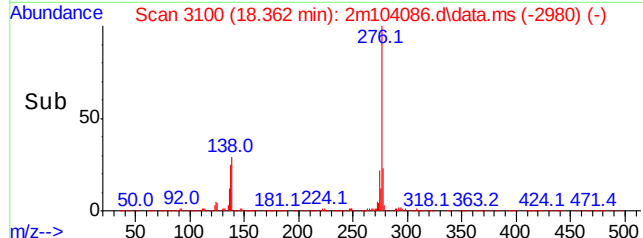
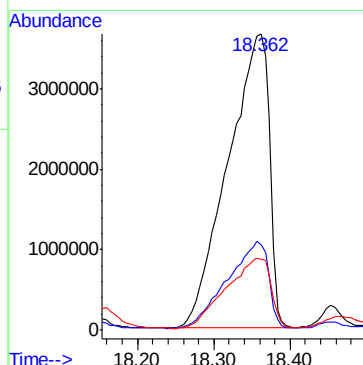
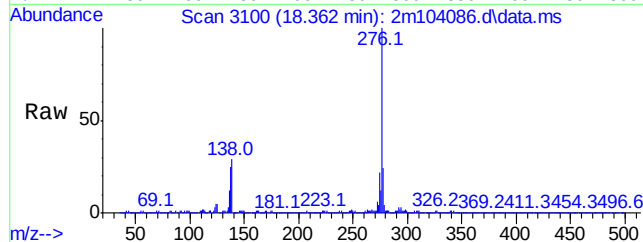
#98
Dibenzo[a,h]anthracene
Concen: 140.18 ppm
RT: 17.918 min Scan# 3017
Delta R.T. 0.086 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

Tgt Ion: 278 Resp: 4731159
Ion Ratio Lower Upper
278 100
139 24.0 0.0 48.9
279 36.7 0.0 53.6



#100
Benzo[g,h,i]perylene
Concen: 434.74 ppm
RT: 18.362 min Scan# 3100
Delta R.T. 0.144 min
Lab File: 2m104086.d
Acq: 16 May 2018 3:12 pm

Tgt Ion: 276 Resp: 13756008
Ion Ratio Lower Upper
276 100
138 28.5 0.0 57.0
277 23.4 0.0 53.4



Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-18-18\jonkm\e2m4628\
 Data File : 2m104144.d
 Acq On : 18 May 2018 12:03 am
 Operator : christc2
 Sample : jc65860-1
 Misc : op11966,e2m4628,32.3,,,1,20
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: May 27 09:45:13 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
 Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 QLast Update : Fri May 11 12:53:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.616	152	295429	40.00	ppm	-0.05
24) Naphthalene-d8	5.697	136	1145726	40.00	ppm	-0.06
47) Acenaphthene-d10	7.745	164	566763	40.00	ppm	-0.07
69) Phenanthrene-d10	9.906	188	1061623	40.00	ppm	-0.08
83) Chrysene-d12	14.078	240	967803	40.00	ppm	-0.09
91) Perylene-d12	16.185	264	1023403	40.00	ppm	-0.09
101) 1,4-Dichlorobenzene-d4a	4.616	152	295429	40.00	ppm	-0.05
103) Acenaphthene-d10a	7.745	164	566763	40.00	ppm	-0.08
105) Chrysene-d12a	14.078	240	967803	40.00	ppm	-0.07
108) Phenanthrene-d10a	9.906	188	1061623	40.00	ppm	-0.08
112) Naphthalene-d8a	5.697	136	1145726	40.00	ppm	-0.06
114) Chrysene-d12b	14.078	240	967803	40.00	ppm	-0.07
System Monitoring Compounds						
5) 2-Fluorophenol	3.643	112	19998	2.08	ppm	-0.03
Spiked Amount 50.000			Recovery	=	4.16%	
8) Phenol-d5	4.365	99	27001	2.24	ppm	-0.03
Spiked Amount 50.000			Recovery	=	4.48%	
25) Nitrobenzene-d5	5.055	82	21367	2.04	ppm	-0.05
Spiked Amount 50.000			Recovery	=	4.08%	
51) 2-Fluorobiphenyl	6.879	172	46311	2.24	ppm	-0.07
Spiked Amount 50.000			Recovery	=	4.48%	
73) 2,4,6-Tribromophenol	8.868	330	7457	2.32	ppm	-0.07
Spiked Amount 50.000			Recovery	=	4.64%	
85) Terphenyl-d14	12.457	244	51173	2.41	ppm	-0.09
Spiked Amount 50.000			Recovery	=	4.82%	
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
38) Naphthalene	5.718	128	82652	2.79	ppm	97
44) 2-Methylnaphthalene	6.445	141	10791	0.62	ppm	91
53) Biphenyl	7.002	154	4648	0.20	ppm	97
56) Acenaphthylene	7.553	152	176366	6.37	ppm	98
62) Dibenzofuran	8.029	168	28288	1.16	ppm	94
66) Fluorene	8.515	166	15337	0.77	ppm	90
77) Phenanthrene	9.943	178	529897	17.49	ppm	99
78) Anthracene	10.018	178	248336	8.16	ppm	100
79) Carbazole	10.291	167	38672	1.36	ppm	99
81) Fluoranthene	11.799	202	2169972	69.81	ppm	99
84) Pyrene	12.147	202	2025574	62.67	ppm	99
87) Benzo[a]anthracene	14.062	228	1143186	39.03	ppm	98
89) Chrysene	14.115	228	957157	34.40	ppm	98
93) Benzo[b]fluoranthene	15.666	252	1312683	41.91	ppm	99
94) Benzo[k]fluoranthene	15.699	252	489032	16.82	ppm	96
95) Benzo[a]pyrene	16.105	252	1017502	37.47	ppm	98
96) Indeno[1,2,3-cd]pyrene	17.672	276	705934	26.12	ppm	99
98) Dibenz[a,h]anthracene	17.699	278	158826m	5.72	ppm	

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-18-18\jonkm\e2m4628\
Data File : 2m104144.d
Acq On : 18 May 2018 12:03 am
Operator : christc2
Sample : jc65860-1
Misc : op11966,e2m4628,32.3,,,1,20
ALS Vial : 27 Sample Multiplier: 1

Quant Time: May 27 09:45:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) Benzo[g,h,i]perylene	18.084	276	618522	23.75	ppm	99

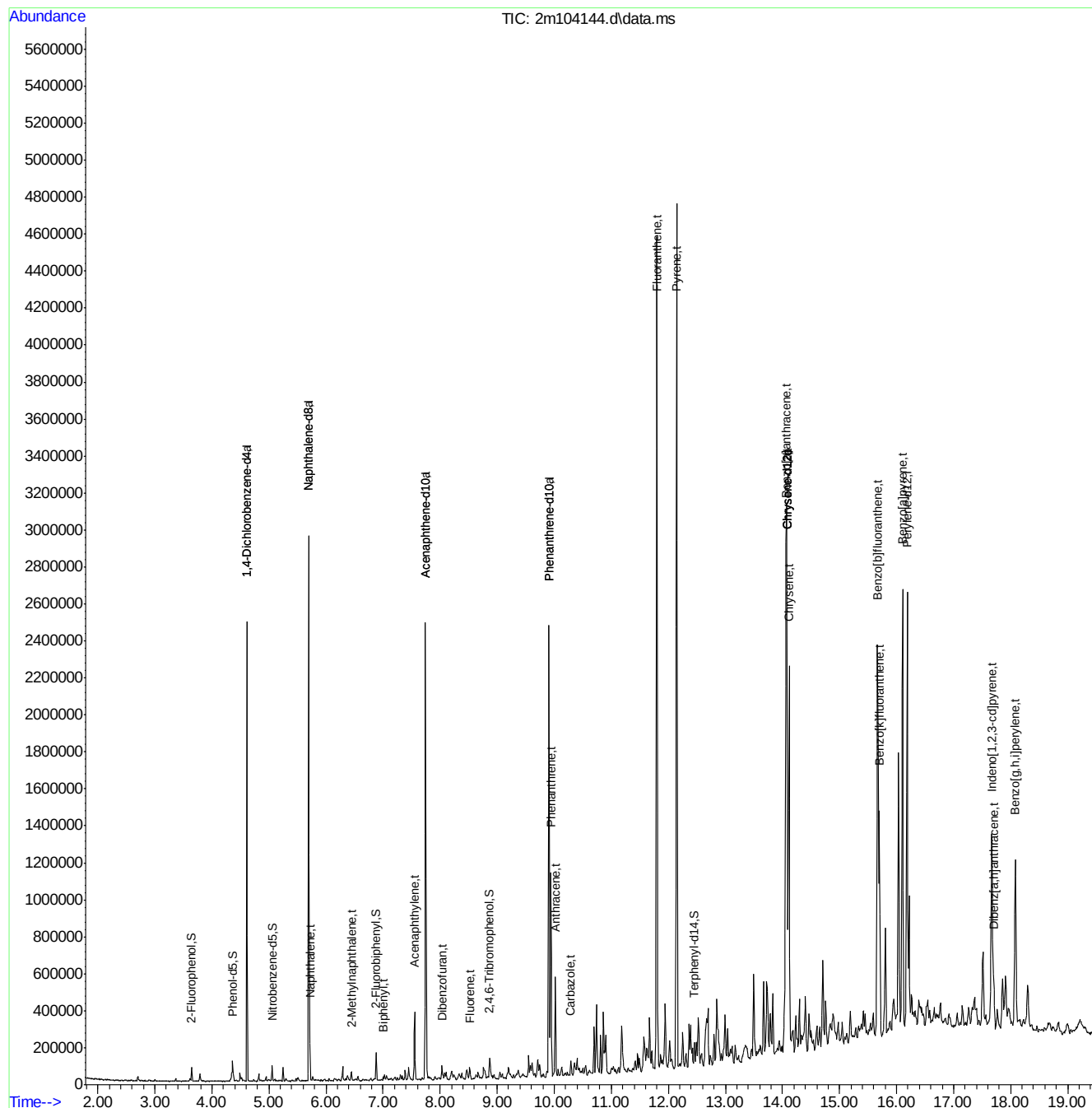
(#) = qualifier out of range (m) = manual integration (+) = signals summed

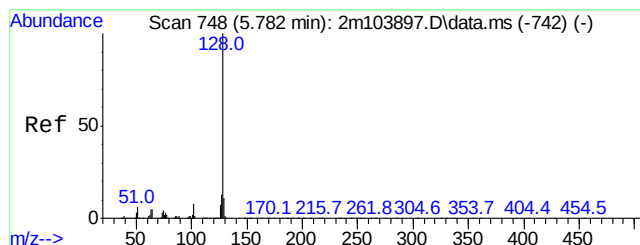
9.1.2
9

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-18-18\jonkm\e2m4628\
Data File : 2m104144.d
Acq On : 18 May 2018 12:03 am
Operator : christc2
Sample : jc65860-1
Misc : op11966,e2m4628,32.3,,,1,20
ALS Vial : 27 Sample Multiplier: 1

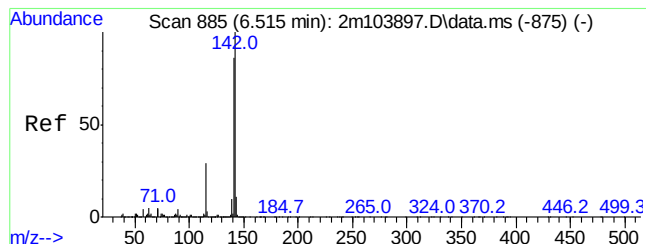
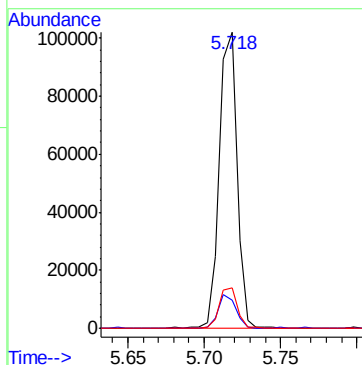
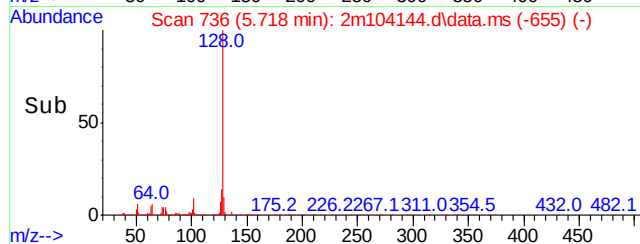
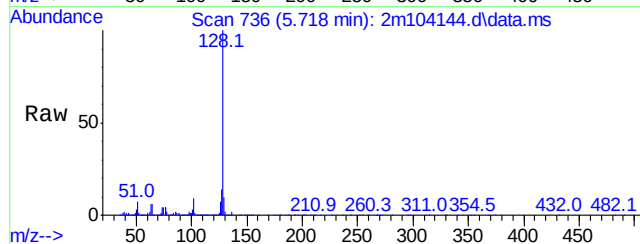
Quant Time: May 27 09:45:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration





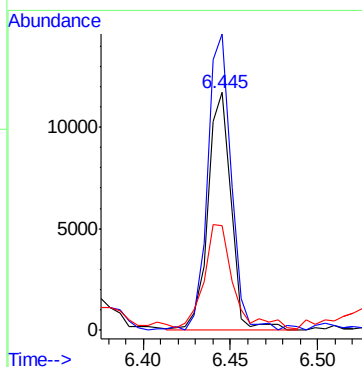
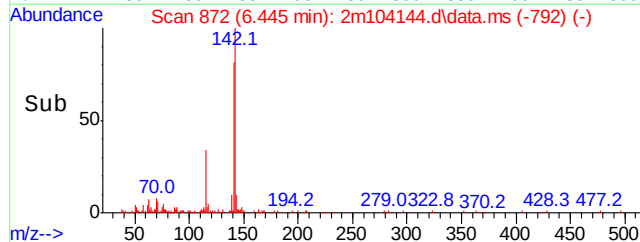
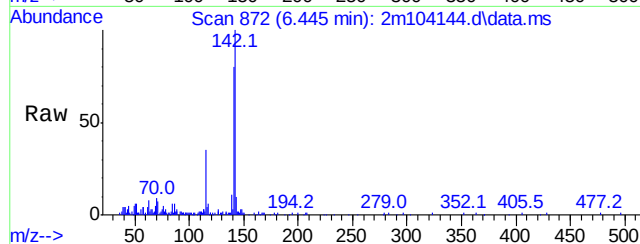
#38
Naphthalene
Concen: 2.79 ppm
RT: 5.718 min Scan# 736
Delta R.T. -0.064 min
Lab File: 2m104144.d
Acq: 18 May 2018 12:03 am

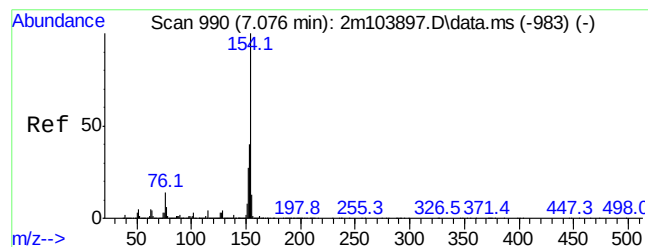
Tgt Ion	Ratio	Lower	Upper
128	100		
129	9.6	0.0	40.7
127	13.5	0.0	42.5



#44
2-Methylnaphthalene
Concen: 0.62 ppm
RT: 6.445 min Scan# 872
Delta R.T. -0.070 min
Lab File: 2m104144.d
Acq: 18 May 2018 12:03 am

Tgt Ion	Ratio	Lower	Upper
141	100		
142	124.2	86.4	146.4
115	42.7	3.6	63.6





#53

Biphennyl

Concen: 0.20 ppm

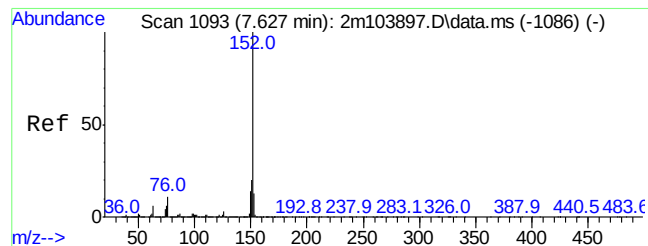
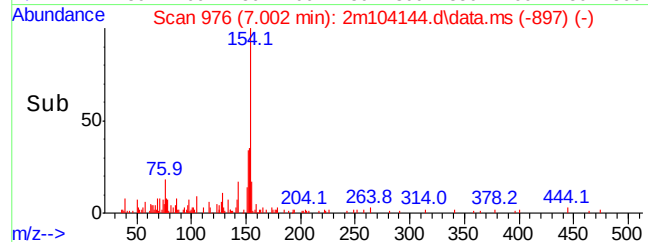
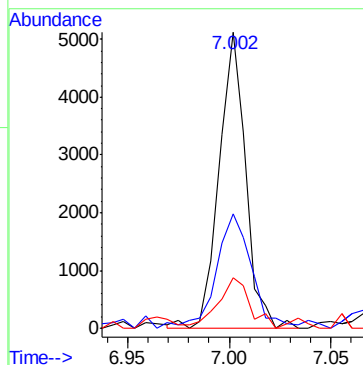
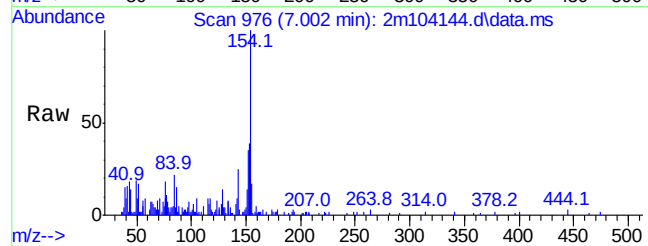
RT: 7.002 min Scan# 976

Delta R.T. -0.075 min

Lab File: 2m104144.d

Acq: 18 May 2018 12:03 am

Tgt Ion:	154	Resp:	4648
Ion Ratio	Lower	Upper	
154	100		
153	37.3	9.6	69.6
155	13.7	0.0	42.7



#56

Acenaphthylene

Concen: 6.37 ppm

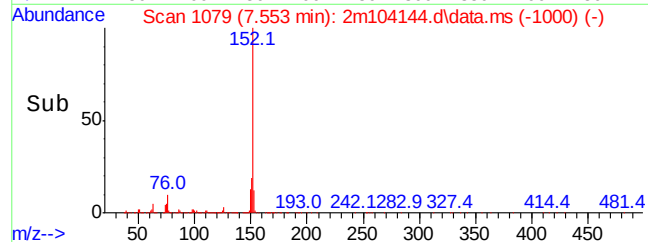
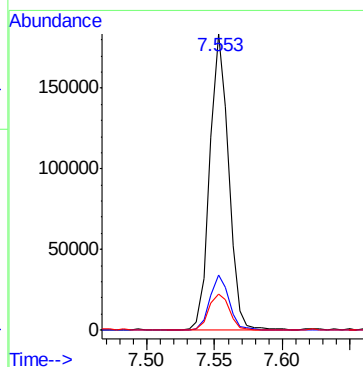
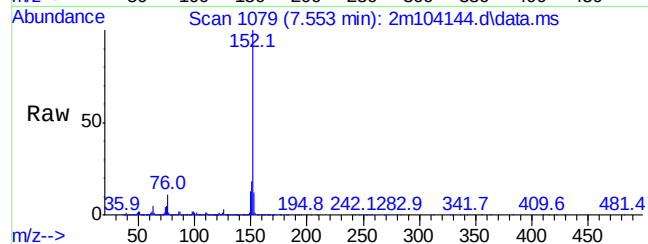
RT: 7.553 min Scan# 1079

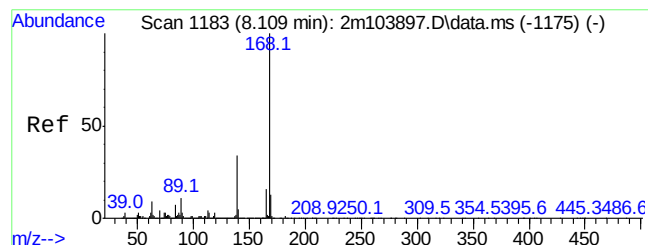
Delta R.T. -0.075 min

Lab File: 2m104144.d

Acq: 18 May 2018 12:03 am

Tgt Ion:	152	Resp:	176366
Ion Ratio	Lower	Upper	
152	100		
151	18.5	0.0	49.6
153	12.3	0.0	42.8





#62

Dibenzenofuran

Concen: 1.16 ppm

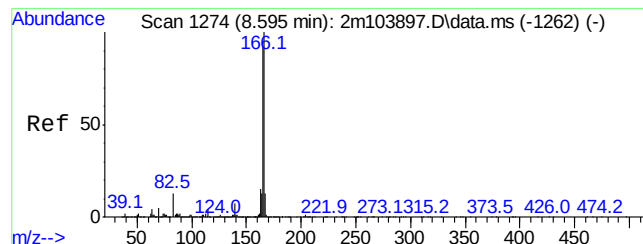
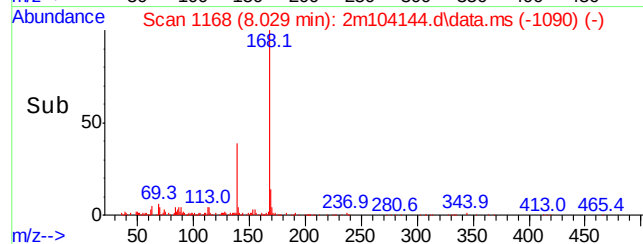
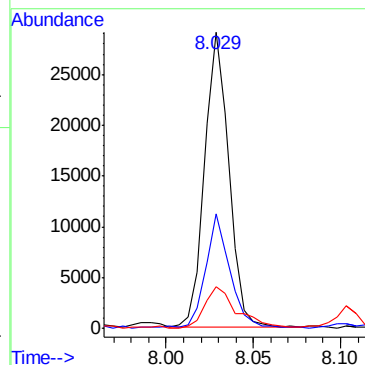
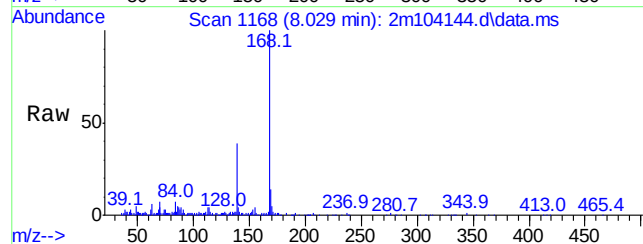
RT: 8.029 min Scan# 1168

Delta R.T. -0.080 min

Lab File: 2m104144.d

Acq: 18 May 2018 12:03 am

Tgt Ion:	168	Resp:	28288
Ion Ratio	Lower	Upper	
168	100		
139	38.1	3.6	63.6
169	14.0	0.0	43.0



#66

Fluorene

Concen: 0.77 ppm

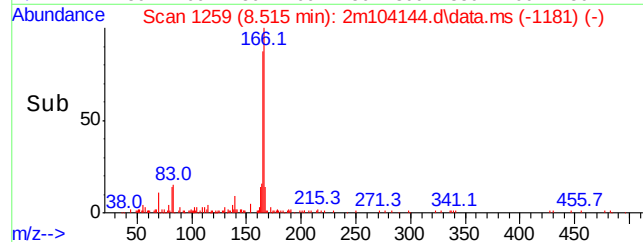
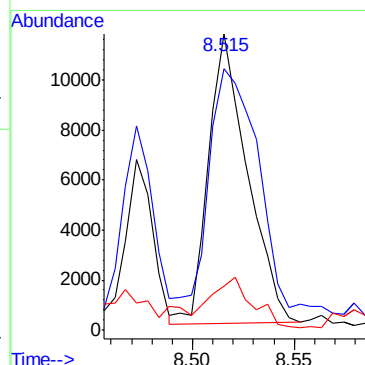
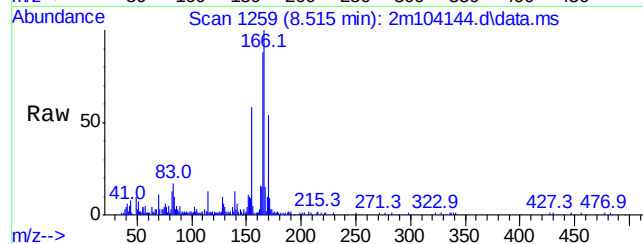
RT: 8.515 min Scan# 1259

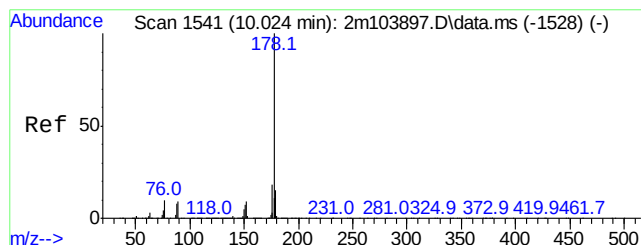
Delta R.T. -0.080 min

Lab File: 2m104144.d

Acq: 18 May 2018 12:03 am

Tgt Ion:	166	Resp:	15337
Ion Ratio	Lower	Upper	
166	100		
165	81.7	62.0	122.0
167	10.9	0.0	42.9





#77

Phenanthrene

Concen: 17.49 ppm

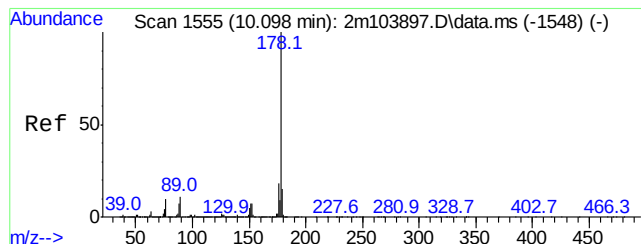
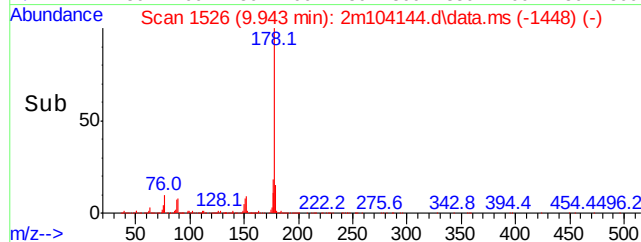
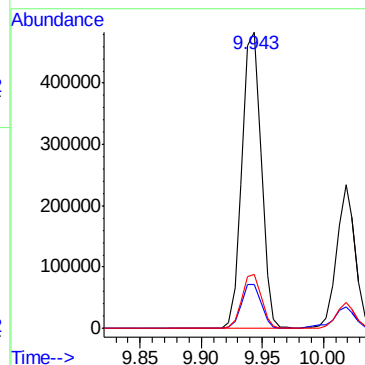
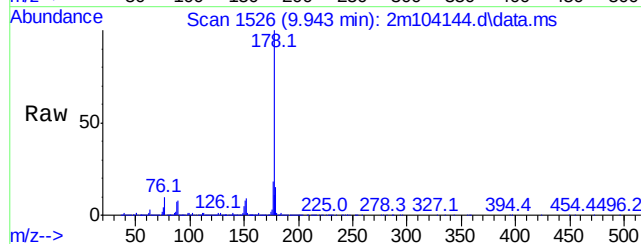
RT: 9.943 min Scan# 1526

Delta R.T. -0.080 min

Lab File: 2m104144.d

Acq: 18 May 2018 12:03 am

Tgt Ion	Ratio	Lower	Upper
178	100		
179	14.6	0.0	45.2
176	18.1	0.0	48.5



#78

Anthracene

Concen: 8.16 ppm

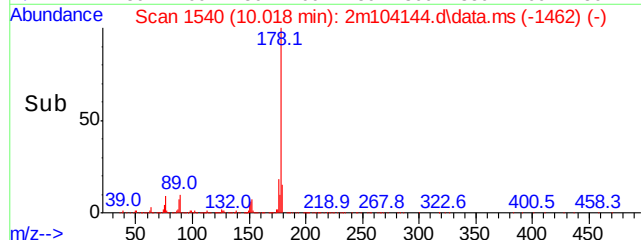
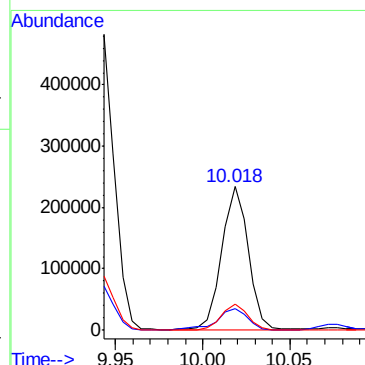
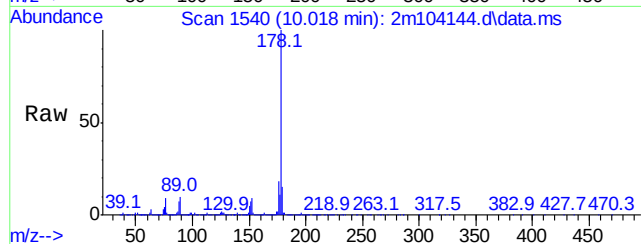
RT: 10.018 min Scan# 1540

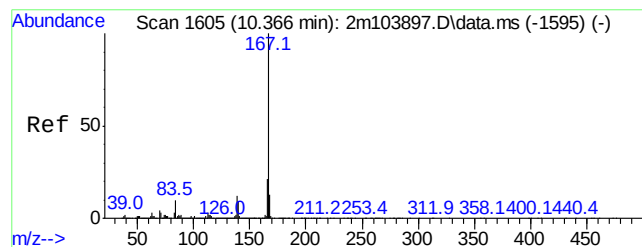
Delta R.T. -0.080 min

Lab File: 2m104144.d

Acq: 18 May 2018 12:03 am

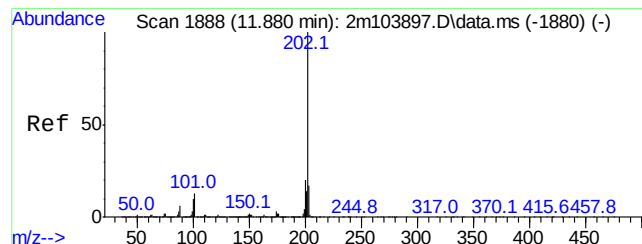
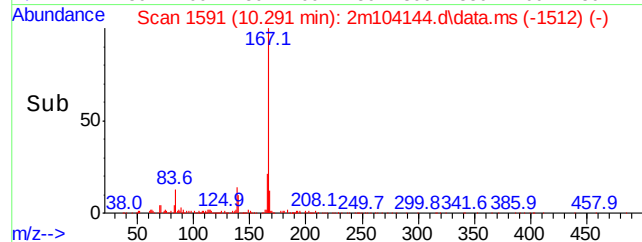
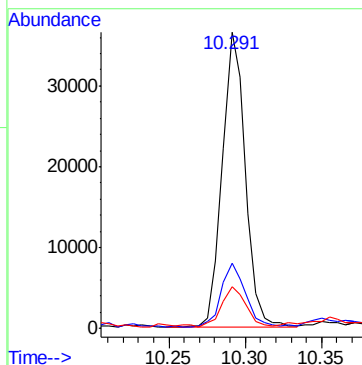
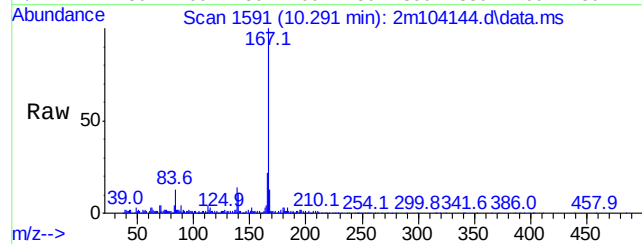
Tgt Ion	Ratio	Lower	Upper
178	100		
179	14.9	0.0	45.1
176	17.8	0.0	47.7





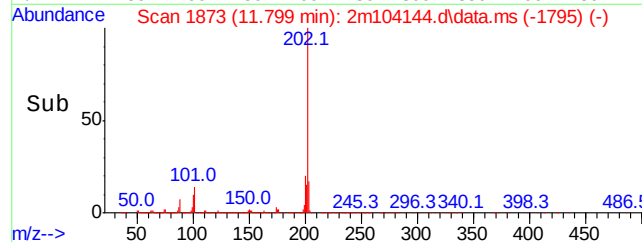
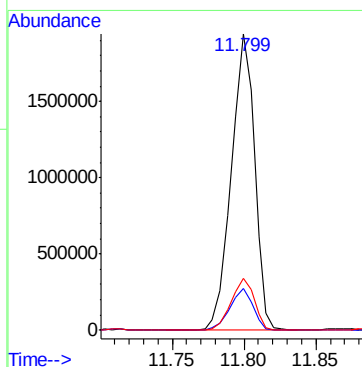
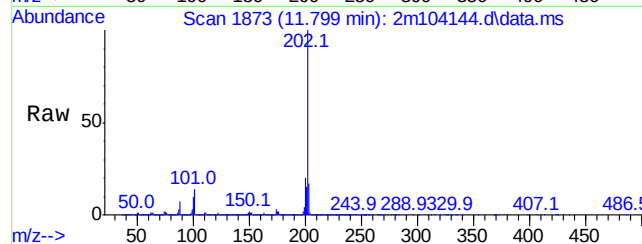
#79
 Carbazole
 Concen: 1.36 ppm
 RT: 10.291 min Scan# 1591
 Delta R.T. -0.075 min
 Lab File: 2m104144.d
 Acq: 18 May 2018 12:03 am

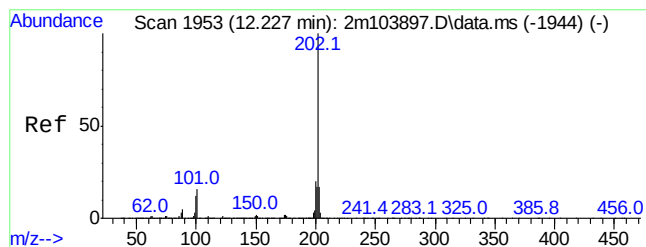
Tgt Ion	Ratio	Lower	Upper
167	100		
166	21.4	0.0	50.9
139	12.8	0.0	42.3



#81
 Fluoranthene
 Concen: 69.81 ppm
 RT: 11.799 min Scan# 1873
 Delta R.T. -0.080 min
 Lab File: 2m104144.d
 Acq: 18 May 2018 12:03 am

Tgt Ion	Ratio	Lower	Upper
202	100		
101	13.9	0.0	43.1
203	17.3	0.0	47.0





#84

Pyrene

Concen: 62.67 ppm

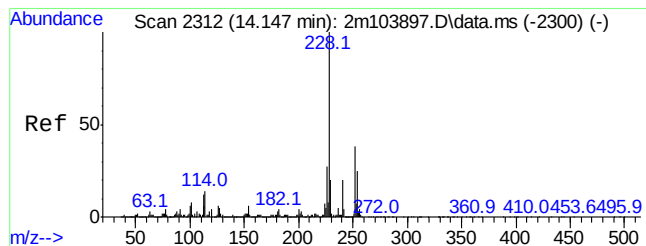
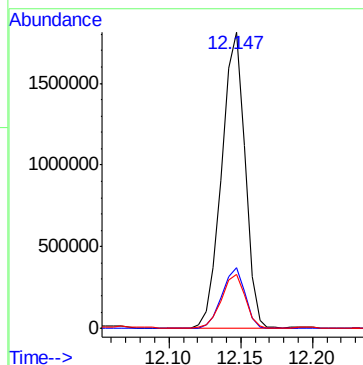
RT: 12.147 min Scan# 1938

Delta R.T. -0.080 min

Lab File: 2m104144.d

Acq: 18 May 2018 12:03 am

Tgt	Ion	202	Resp	2025574
	Ratio	100	Lower	Upper
	202	20.6	0.0	50.0
	203	18.0	0.0	47.3



#87

Benzo[a]anthracene

Concen: 39.03 ppm

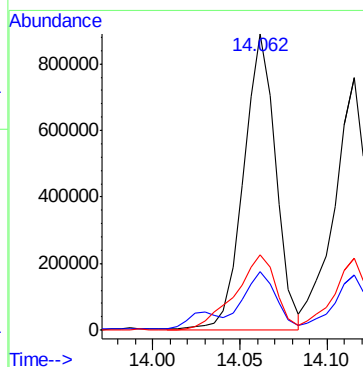
RT: 14.062 min Scan# 2296

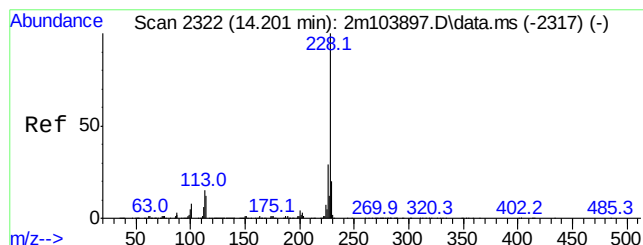
Delta R.T. -0.086 min

Lab File: 2m104144.d

Acq: 18 May 2018 12:03 am

Tgt	Ion	228	Resp	1143186
	Ratio	100	Lower	Upper
	228	19.3	0.0	49.8
	229	25.3	0.0	56.6





#89

Chrysene

Concen: 34.40 ppm

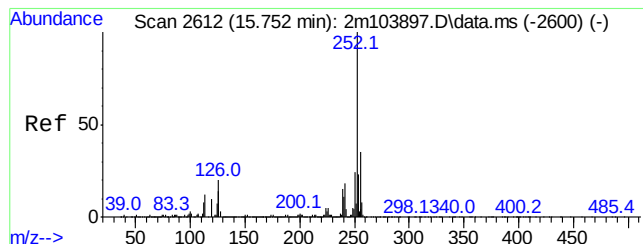
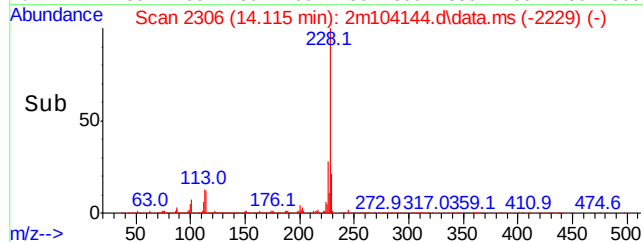
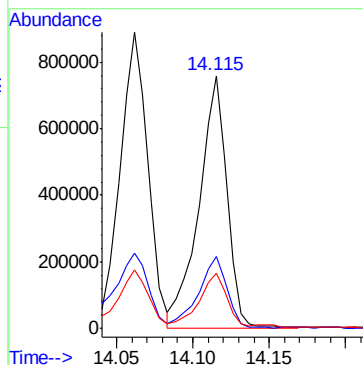
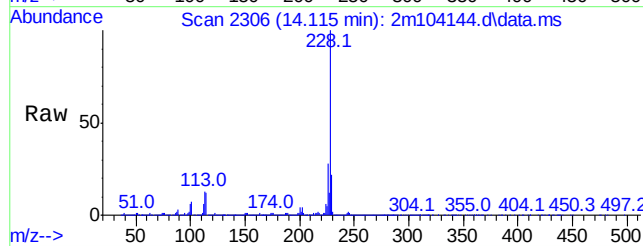
RT: 14.115 min Scan# 2306

Delta R.T. -0.086 min

Lab File: 2m104144.d

Acq: 18 May 2018 12:03 am

Tgt Ion:	228	Resp:	957157
Ion Ratio	Lower	Upper	
228	100		
226	28.2	0.0	58.8
229	21.2	0.0	49.8



#93

Benzo[b]fluoranthene

Concen: 41.91 ppm

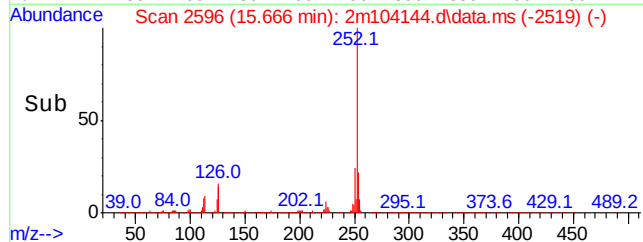
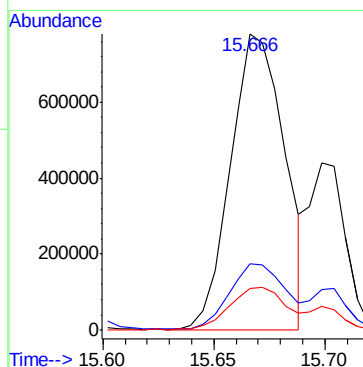
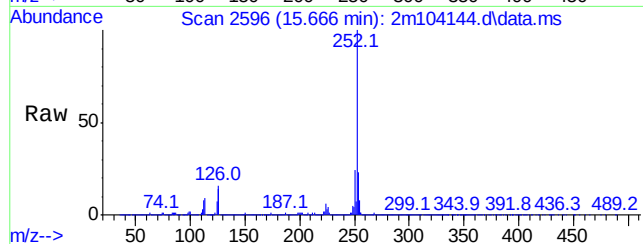
RT: 15.666 min Scan# 2596

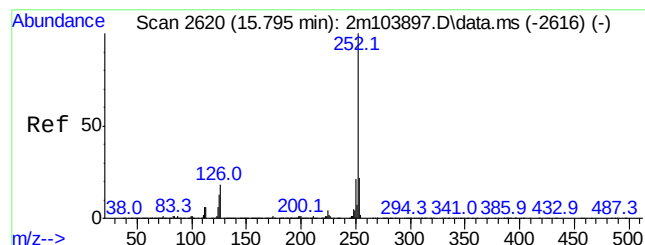
Delta R.T. -0.086 min

Lab File: 2m104144.d

Acq: 18 May 2018 12:03 am

Tgt Ion:	252	Resp:	1312683
Ion Ratio	Lower	Upper	
252	100		
253	22.2	0.0	52.5
125	13.8	0.0	44.3





#94

Benzo[k]fluoranthene

Concen: 16.82 ppm

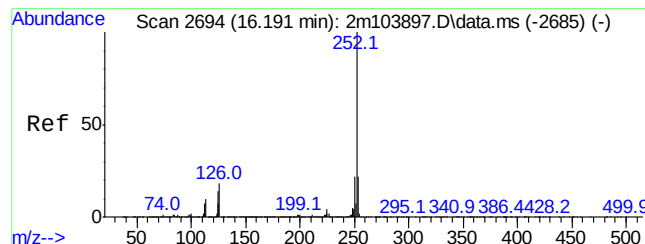
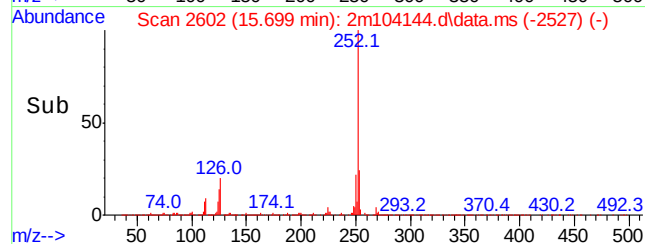
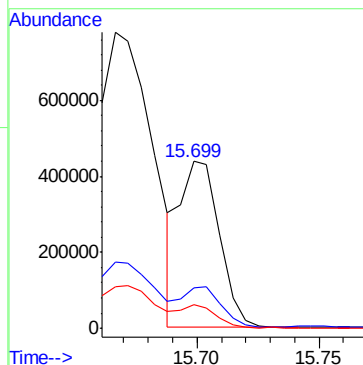
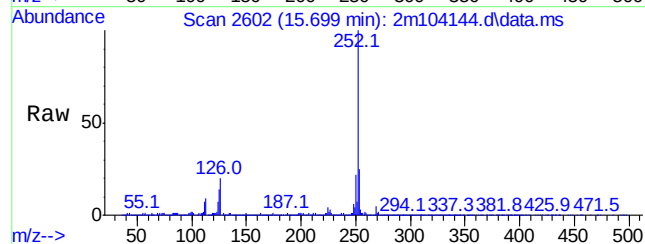
RT: 15.699 min Scan# 2602

Delta R.T. -0.096 min

Lab File: 2m104144.d

Acq: 18 May 2018 12:03 am

Tgt	Ion:252	Resp:	489032
Ion	Ratio	Lower	Upper
252	100		
253	24.6	0.0	51.8
125	13.1	0.0	42.9



#95

Benzo[a]pyrene

Concen: 37.47 ppm

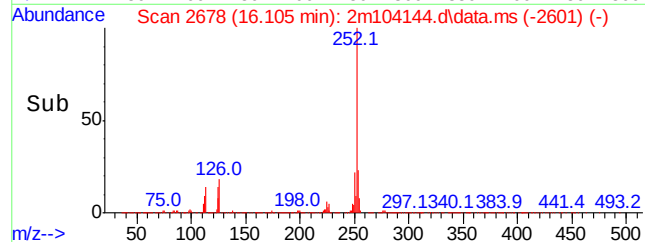
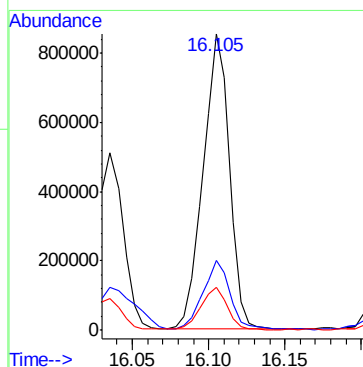
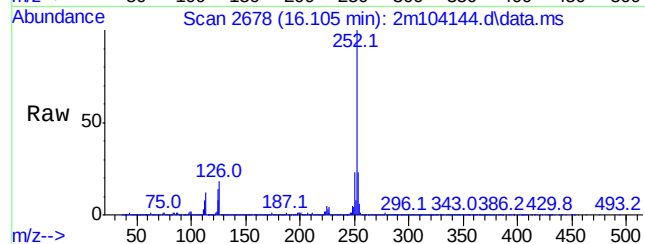
RT: 16.105 min Scan# 2678

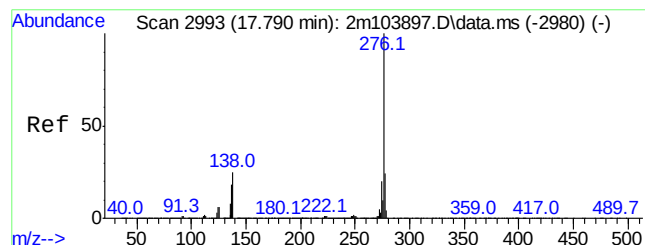
Delta R.T. -0.086 min

Lab File: 2m104144.d

Acq: 18 May 2018 12:03 am

Tgt	Ion:252	Resp:	1017502
Ion	Ratio	Lower	Upper
252	100		
253	23.2	0.0	51.6
125	14.2	0.0	44.0





#96

Indeno[1,2,3-cd]pyrene

Concen: 26.12 ppm

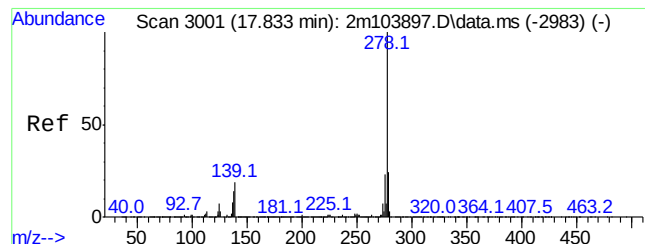
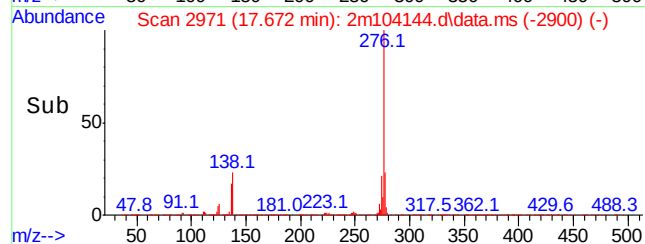
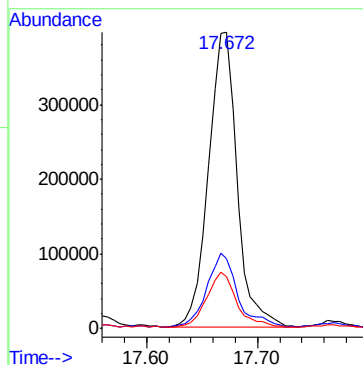
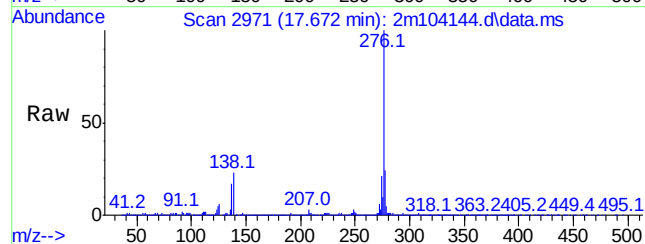
RT: 17.672 min Scan# 2971

Delta R.T. -0.118 min

Lab File: 2m104144.d

Acq: 18 May 2018 12:03 am

Tgt Ion	Ratio	Lower	Upper
276	100		
138	23.1	0.0	52.7
137	17.1	0.0	46.8



#98

Dibenz[a,h]anthracene

Concen: 5.72 ppm m

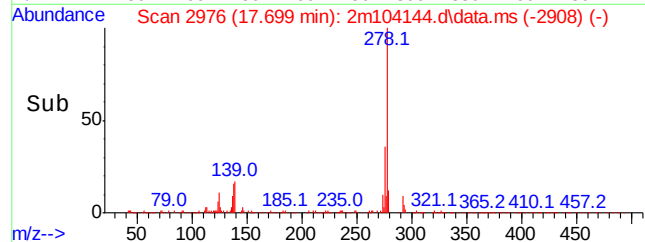
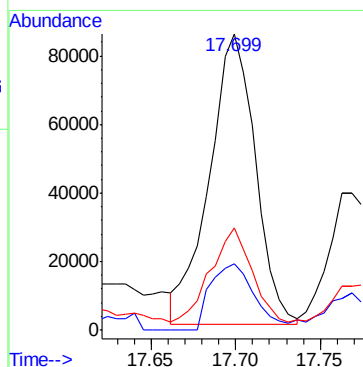
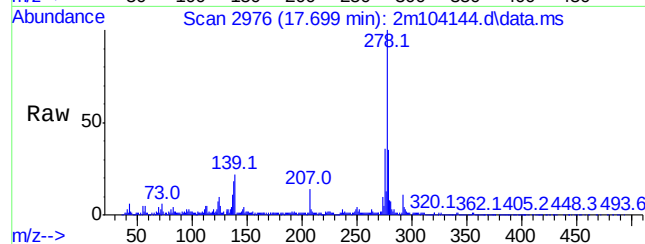
RT: 17.699 min Scan# 2976

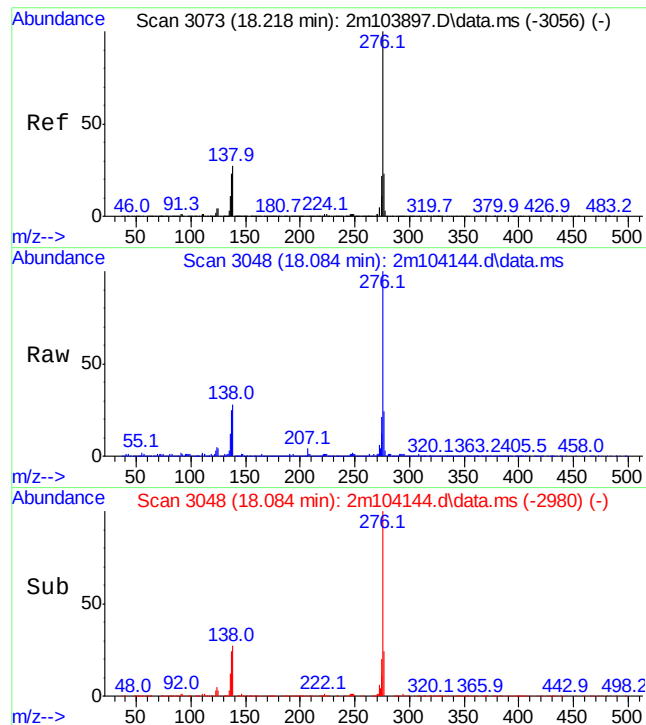
Delta R.T. -0.134 min

Lab File: 2m104144.d

Acq: 18 May 2018 12:03 am

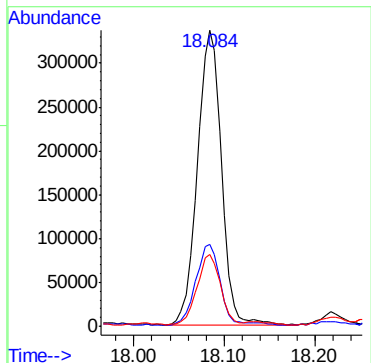
Tgt Ion	Ratio	Lower	Upper
278	100		
139	22.3	0.0	48.9
279	34.6	0.0	53.6





#100
Benzo[g,h,i]perylene
Concen: 23.75 ppm
RT: 18.084 min Scan# 3048
Delta R.T. -0.134 min
Lab File: 2m104144.d
Acq: 18 May 2018 12:03 am

Tgt Ion:	276	Resp:	618522
Ion Ratio	Lower	Upper	
276	100		
138	27.4	0.0	57.0
277	24.0	0.0	53.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2215\
 Data File : 6p473094.D
 Acq On : 18 May 2018 10:20 pm
 Operator : sufiyana
 Sample : jc65860-1a
 Misc : op12025,e6p2215,100,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 19 11:25:45 2018

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuThu May 17 23:52:21 2018

QLast Update : Thu May 17 23:52:21 2018

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.486	152	420110	40.00	ppm	-0.04
24) Naphthalene-d8	5.503	136	1681666	40.00	ppm	-0.04
47) Acenaphthene-d10	7.225	164	854578	40.00	ppm	-0.05
69) Phenanthrene-d10	8.915	188	1544973	40.00	ppm	-0.05
83) Chrysene-d12	12.081	240	1388225	40.00	ppm	-0.06
91) Perylene-d12	13.686	264	1448852	40.00	ppm	-0.07
101) 1,4-Dichlorobenzene-d4a	4.486	152	420110	40.00	ppm	-0.04
103) Acenaphthene-d10a	7.225	164	854578	40.00	ppm	-0.05
105) Phenanthrene-d10a	8.915	188	1544973	40.00	ppm	-0.05
109) Chrysene-d12a	12.081	240	1388225	40.00	ppm	-0.06
111) Naphthalene-d8a	5.503	136	1681666	40.00	ppm	-0.04
113) Phenanthrene-d10b	8.915	188	1544973	40.00	ppm	-0.05
115) Chrysene-d12b	12.081	240	1389315	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.524	112	295657	19.31	ppm	-0.06
Spiked Amount 50.000			Recovery	=	38.62%	
8) Phenol-d5	4.256	99	223471	11.46	ppm	-0.04
Spiked Amount 50.000			Recovery	=	22.92%	
25) Nitrobenzene-d5	4.914	82	619429	33.93	ppm	-0.04
Spiked Amount 50.000			Recovery	=	67.86%	
51) 2-Fluorobiphenyl	6.519	172	1131643	34.33	ppm	-0.05
Spiked Amount 50.000			Recovery	=	68.66%	
73) 2,4,6-Tribromophenol	8.113	330	184937	31.83	ppm	-0.05
Spiked Amount 50.000			Recovery	=	63.66%	
85) Terphenyl-d14	10.841	244	1456876	43.93	ppm	-0.06
Spiked Amount 50.000			Recovery	=	87.86%	
106) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
107) o-terphenyl	0.000	230	0	0.00	ppm	

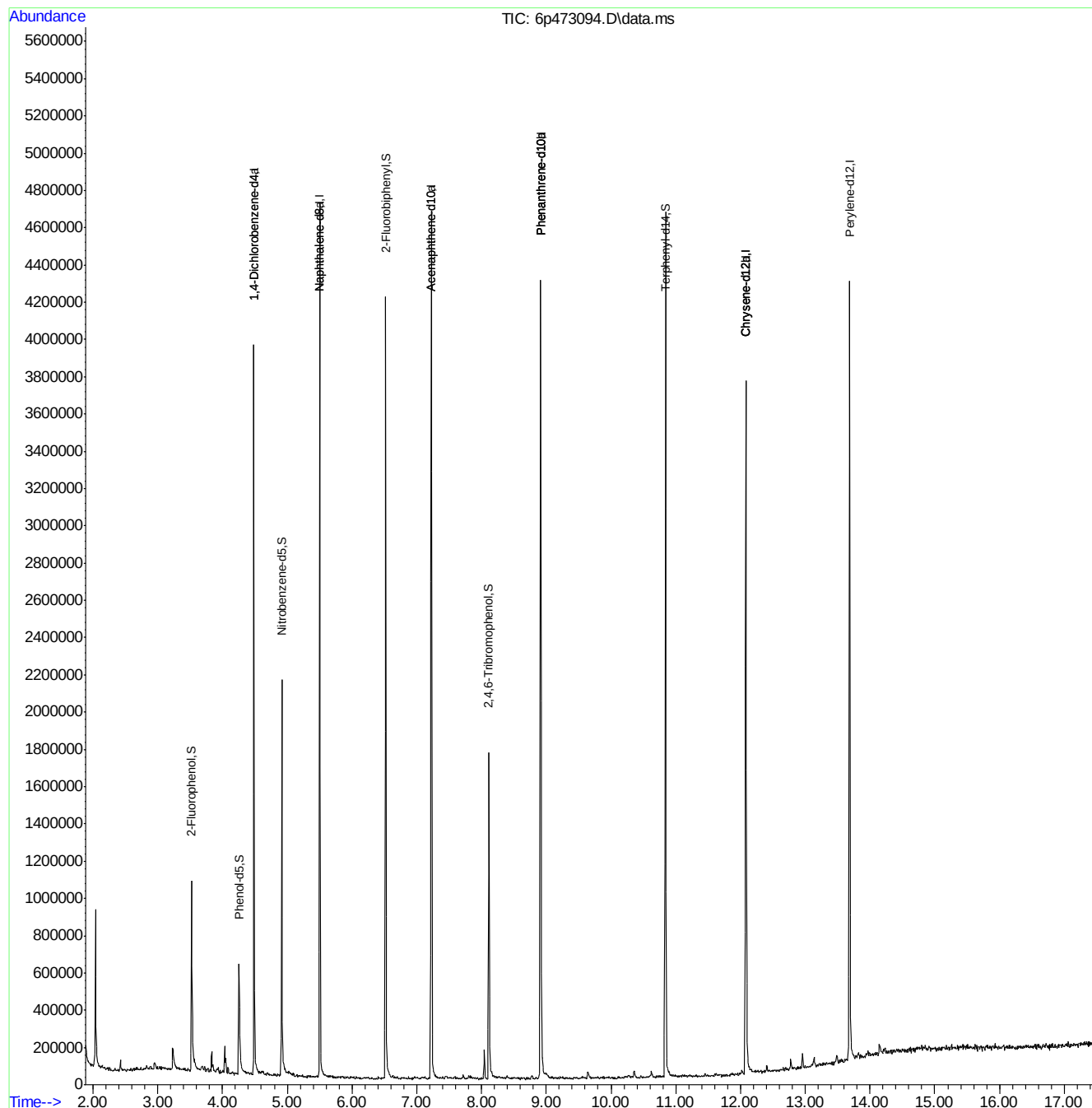
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2215\
Data File : 6p473094.D
Acq On : 18 May 2018 10:20 pm
Operator : sufiyana
Sample : jc65860-1a
Misc : op12025,e6p2215,100,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 19 11:25:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuThu May 17 23:52:21 2018
QLast Update : Thu May 17 23:52:21 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4623\
 Data File : 2m103990.D
 Acq On : 14 May 2018 11:50 am
 Operator : christc2
 Sample : op11966-mb1
 Misc : op11966,e2m4623,30.0,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 14 16:16:58 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
 Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 QLast Update : Fri May 11 12:53:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.648	152	420111	40.00	ppm	-0.02
24) Naphthalene-d8	5.734	136	1631167	40.00	ppm	-0.03
47) Acenaphthene-d10	7.793	164	769699	40.00	ppm	-0.03
69) Phenanthrene-d10	9.954	188	1405674	40.00	ppm	-0.03
83) Chrysene-d12	14.126	240	1242670	40.00	ppm	-0.04
91) Perylene-d12	16.234	264	1289180	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.648	152	420111	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.793	164	769699	40.00	ppm	-0.03
105) Chrysene-d12a	14.126	240	1242670	40.00	ppm	-0.03
108) Phenanthrene-d10a	9.954	188	1405674	40.00	ppm	-0.03
112) Naphthalene-d8a	5.734	136	1631167	40.00	ppm	-0.02
114) Chrysene-d12b	14.126	240	1242670	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.664	112	627991	45.87	ppm	0.00
Spiked Amount 50.000			Recovery	=	91.74%	
8) Phenol-d5	4.381	99	777161	45.25	ppm	-0.02
Spiked Amount 50.000			Recovery	=	90.50%	
25) Nitrobenzene-d5	5.087	82	664202	44.55	ppm	-0.02
Spiked Amount 50.000			Recovery	=	89.10%	
51) 2-Fluorobiphenyl	6.927	172	1346429	47.88	ppm	-0.03
Spiked Amount 50.000			Recovery	=	95.76%	
73) 2,4,6-Tribromophenol	8.917	330	195449	45.96	ppm	-0.03
Spiked Amount 50.000			Recovery	=	91.92%	
85) Terphenyl-d14	12.511	244	1349273	49.51	ppm	-0.03
Spiked Amount 50.000			Recovery	=	99.02%	
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	

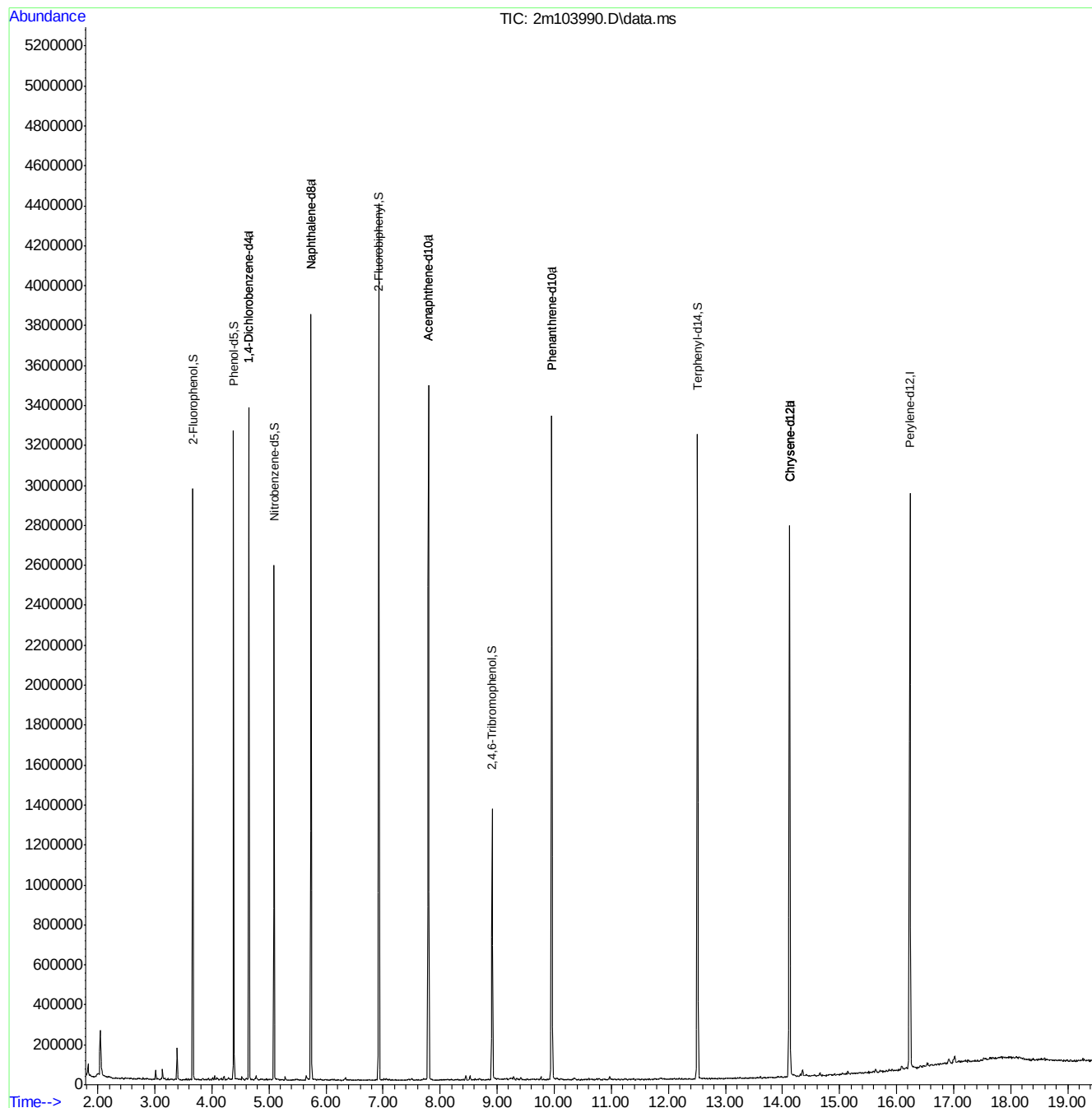
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4623\
Data File : 2m103990.D
Acq On : 14 May 2018 11:50 am
Operator : christc2
Sample : op11966-mb1
Misc : op11966,e2m4623,30.0,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 14 16:16:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2215\
 Data File : 6p473090.D
 Acq On : 18 May 2018 8:42 pm
 Operator : sufiyana
 Sample : op12025-mb2
 Misc : op12025,e6p2215,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 19 11:16:20 2018

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuThu May 17 23:52:21 2018

QLast Update : Thu May 17 23:52:21 2018

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.486	152	408558	40.00	ppm	-0.04
24) Naphthalene-d8	5.503	136	1660269	40.00	ppm	-0.04
47) Acenaphthene-d10	7.225	164	869678	40.00	ppm	-0.05
69) Phenanthrene-d10	8.915	188	1560834	40.00	ppm	-0.05
83) Chrysene-d12	12.087	240	1394722	40.00	ppm	-0.06
91) Perylene-d12	13.686	264	1492249	40.00	ppm	-0.07
101) 1,4-Dichlorobenzene-d4a	4.486	152	408558	40.00	ppm	-0.04
103) Acenaphthene-d10a	7.225	164	869678	40.00	ppm	-0.05
105) Phenanthrene-d10a	8.915	188	1560834	40.00	ppm	-0.05
109) Chrysene-d12a	12.087	240	1394722	40.00	ppm	-0.06
111) Naphthalene-d8a	5.503	136	1660269	40.00	ppm	-0.04
113) Phenanthrene-d10b	8.915	188	1560834	40.00	ppm	-0.05
115) Chrysene-d12b	12.087	240	1394722	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.518	112	309057	20.75	ppm	-0.06
Spiked Amount 50.000			Recovery	=	41.50%	
8) Phenol-d5	4.256	99	241136	12.71	ppm	-0.04
Spiked Amount 50.000			Recovery	=	25.42%	
25) Nitrobenzene-d5	4.914	82	620972	34.45	ppm	-0.04
Spiked Amount 50.000			Recovery	=	68.90%	
51) 2-Fluorobiphenyl	6.519	172	1221319	36.41	ppm	-0.05
Spiked Amount 50.000			Recovery	=	72.82%	
73) 2,4,6-Tribromophenol	8.113	330	184403	31.41	ppm	-0.05
Spiked Amount 50.000			Recovery	=	62.82%	
85) Terphenyl-d14	10.841	244	1552497	46.59	ppm	-0.06
Spiked Amount 50.000			Recovery	=	93.18%	
106) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
107) o-terphenyl	0.000	230	0	0.00	ppm	

Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2215\
Data File : 6p473090.D
Acq On : 18 May 2018 8:42 pm
Operator : sufiyana
Sample : op12025-mb2
Misc : op12025,e6p2215,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

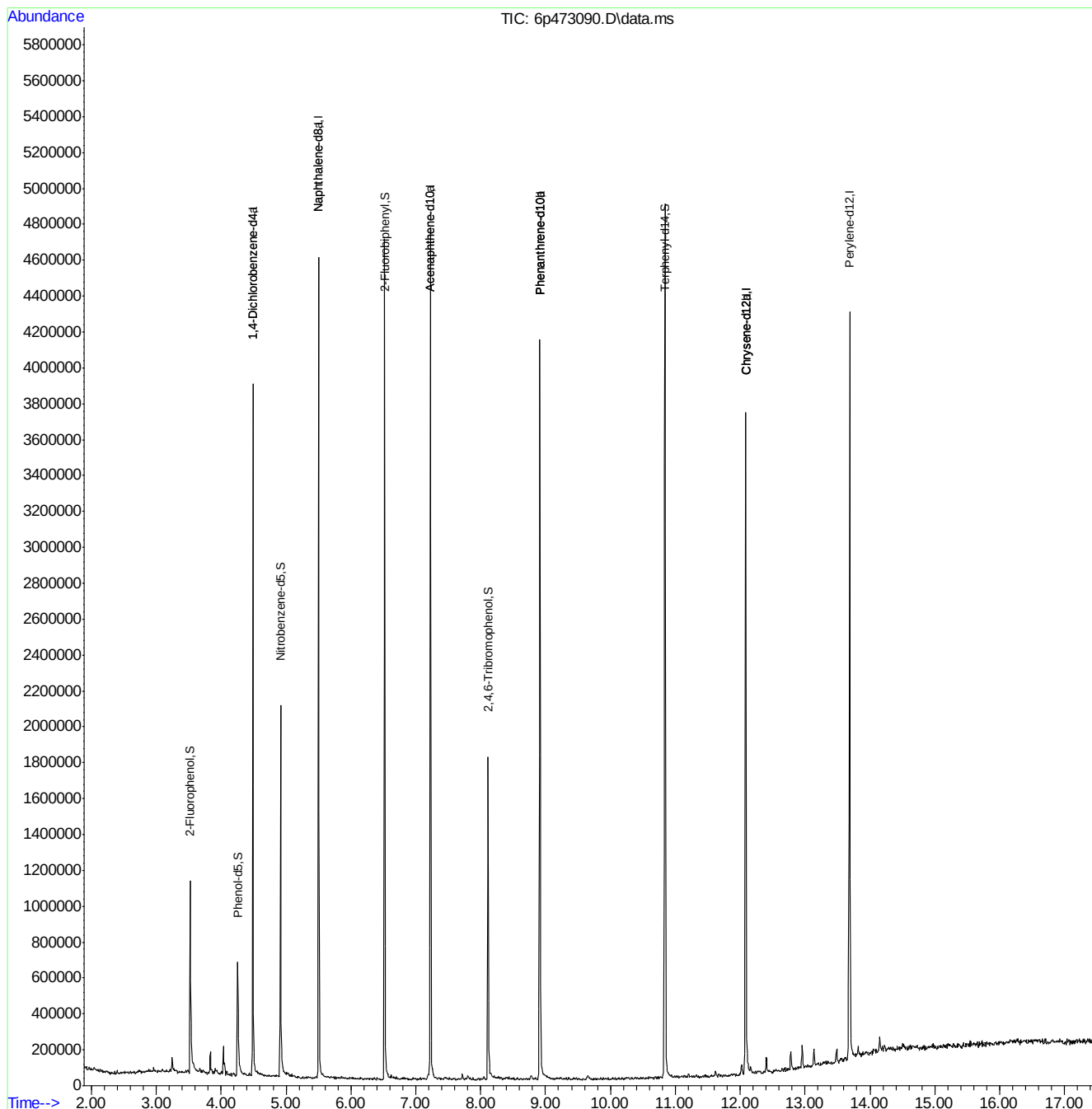
Quant Time: May 19 11:16:20 2018

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuThu May 17 23:52:21 2018

QLast Update : Thu May 17 23:52:21 2018

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6452\
 Data File : z130847.D
 Acq On : 21 May 2018 2:54 pm
 Operator : johnb1
 Sample : op11966-mb1
 Misc : op11966,eZ6452,30.0,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 21 16:07:50 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 QLast Update : Sat May 19 13:58:01 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.721	152	175846	40.00	ppm	-0.03
24) Naphthalene-d8	5.640	136	689748	40.00	ppm	-0.03
47) Acenaphthene-d10	7.002	164	335311	40.00	ppm	-0.04
69) Phenanthrene-d10	8.589	188	615845	40.00	ppm	-0.05
83) Chrysene-d12	12.382	240	570729	40.00	ppm	-0.06
91) Perylene-d12	14.465	264	582808	40.00	ppm	-0.06
101) 1,4-Dichlorobenzene-d4a	4.721	152	175846	40.00	ppm	-0.03
103) Phenanthrene-d10a	8.589	188	615845	40.00	ppm	-0.05
107) Chrysene-d12a	12.382	240	570729	40.00	ppm	-0.06
109) Acenaphthene-d10a	7.002	164	335311	40.00	ppm	-0.04
111) Naphthalene-d8a	5.640	136	689748	40.00	ppm	-0.03
113) Phenanthrene-d10b	8.589	188	615845	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	3.754	112	296962	45.33	ppm	-0.06
Spiked Amount 50.000			Recovery	=	90.66%	
8) Phenol-d5	4.464	99	373409	47.49	ppm	-0.03
Spiked Amount 50.000			Recovery	=	94.98%	
25) Nitrobenzene-d5	5.122	82	308038	51.45	ppm	-0.04
Spiked Amount 50.000			Recovery	=	102.90%	
51) 2-Fluorobiphenyl	6.425	172	542623	46.18	ppm	-0.03
Spiked Amount 50.000			Recovery	=	92.36%	
73) 2,4,6-Tribromophenol	7.787	330	87613	46.10	ppm	-0.05
Spiked Amount 50.000			Recovery	=	92.20%	
85) Terphenyl-d14	10.816	244	593846	43.86	ppm	-0.07
Spiked Amount 50.000			Recovery	=	87.72%	
104) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
105) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	

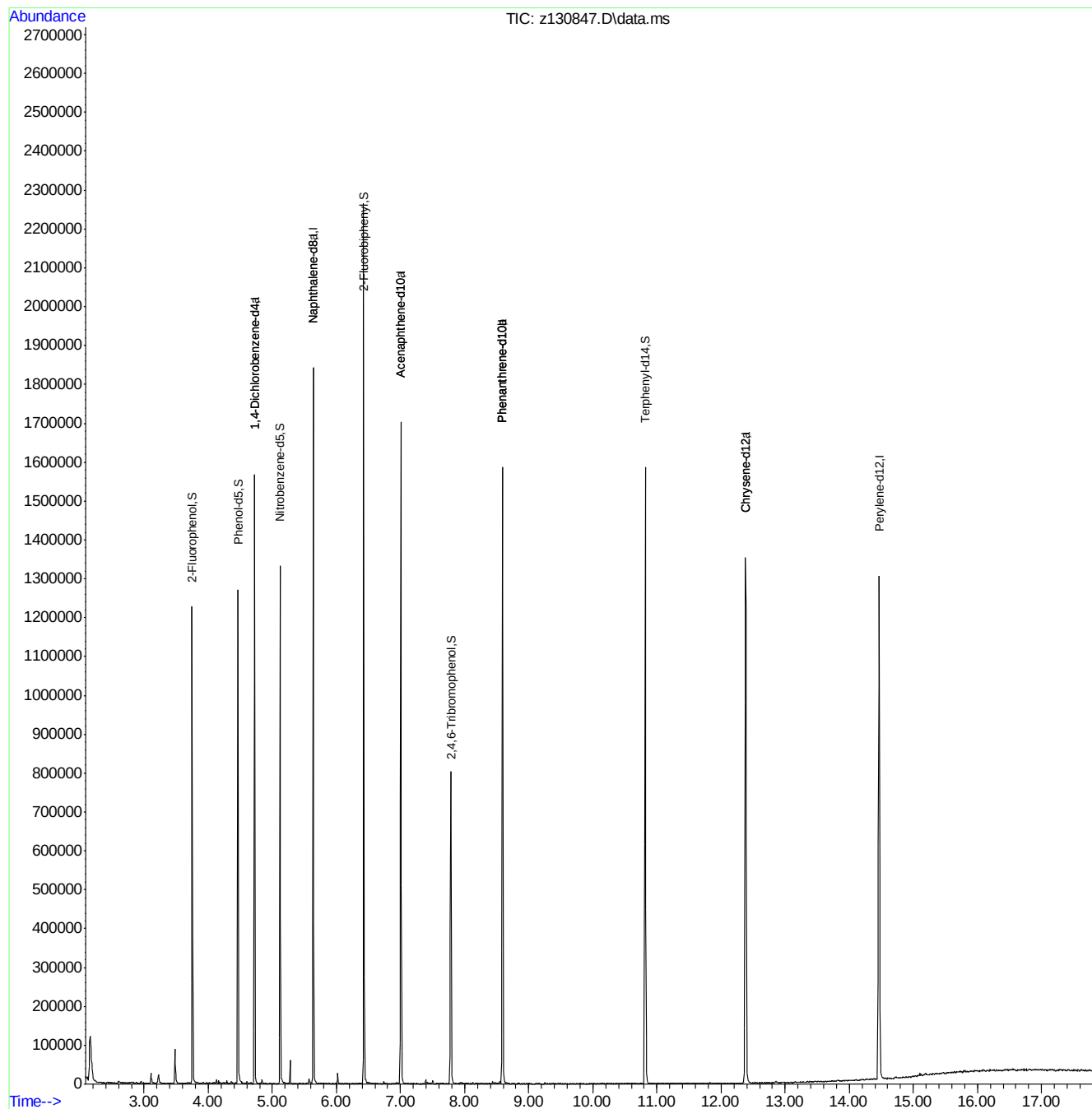
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6452\
Data File : z130847.D
Acq On : 21 May 2018 2:54 pm
Operator : johnb1
Sample : op11966-mb1
Misc : op11966,eZ6452,30.0,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 21 16:07:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Sat May 19 13:58:01 2018
Response via : Initial Calibration



GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLM3857-MB1	LM94853.D	1	05/17/18	KC	n/a	n/a	GLM3857

The QC reported here applies to the following samples: Method: SW846 8015C

JC65860-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
98-08-8	aaa-Trifluorotoluene	94% 70-116%

10.1.1
10

Blank Spike Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLM3857-BS	LM94857.D	1	05/17/18	KC	n/a	n/a	GLM3857

The QC reported here applies to the following samples: Method: SW846 8015C

JC65860-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	400	363	91	75-126

CAS No.	Surrogate Recoveries	BSP	Limits
98-08-8	aaa-Trifluorotoluene	106%	70-116%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC65860-1MS	LM94855.D	1	05/17/18	KC	n/a	n/a	GLM3857
JC65860-1MSD	LM94856.D	1	05/17/18	KC	n/a	n/a	GLM3857
JC65860-1	LM94854.D	1	05/17/18	KC	n/a	n/a	GLM3857

The QC reported here applies to the following samples: Method: SW846 8015C

JC65860-1

CAS No.	Compound	JC65860-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	20.9	J	934	859	90	934	853	89	1	68-128/11

CAS No.	Surrogate Recoveries	MS	MSD	JC65860-1	Limits
98-08-8	aaa-Trifluorotoluene	107%	108%	94%	70-116%

* = Outside of Control Limits.

Surrogate Recovery Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8015C	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a
JC65860-1	LM94854.D	94
GLM3857-BS	LM94857.D	106
GLM3857-MB1	LM94853.D	94
JC65860-1MS	LM94855.D	107
JC65860-1MSD	LM94856.D	108

Surrogate Compounds	Recovery Limits
S1 = aaa-Trifluorotoluene	70-116%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GLM3856-CC3729	Injection Date:	05/16/18
Lab File ID:	LM94845.D	Injection Time:	17:04
Instrument ID:	GCLM	Method:	SW846 8015C

S1 ^a
RT

Check Std	10.83
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Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT
GLM3857-RT	LM94850.D	05/17/18	08:21	10.83

Surrogate
Compounds

S1 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

10.5.1
10

GC Surrogate Retention Time Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GLM3857-CC3729	Injection Date:	05/17/18
Lab File ID:	LM94851.D	Injection Time:	09:05
Instrument ID:	GCLM	Method:	SW846 8015C

S1 ^a
RT

Check Std	10.83
-----------	-------

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT
GLM3857-MB1	LM94853.D	05/17/18	10:12	10.83
JC65860-1	LM94854.D	05/17/18	10:48	10.83
JC65860-1MS	LM94855.D	05/17/18	11:11	10.83
JC65860-1MSD	LM94856.D	05/17/18	11:41	10.82
GLM3857-BS	LM94857.D	05/17/18	12:07	10.83

Surrogate Compounds

S1 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

10.5.2
10

Initial Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GLM3729-ICC3729
Lab FileID: LM92038.D

Response Factor Report GCLM

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GRO) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Initial Calibration

Calibration Files

0.2 =LM92035.D 0.8 =LM92036.D 4 =LM92037.D
8 =LM92038.D 20 =LM92039.D 40 =LM92041.D 30 =LM92040.D

Compound	0.2	0.8	4	8	20	40	30	Avg	%RSD
1)H TPH-GRO (C6-C10)	1.411	2.302	2.836	2.614	2.206	2.185	2.310	2.266	E6 19.66
2)H TPH-GRO (C6-C12)	1.390	2.112	2.586	2.370	1.967	1.946	2.061	2.062	E6 18.22
3)S a,a,a-Trifluoroto	2.212	2.318	2.467	2.680	3.184	3.485	3.439	2.827	E6 18.96

Average % RSD = 18.9

(100.0 %) 3 of 3 compounds'% RSD > 0

(#) = Out of Range

MLM3729.M

Wed Dec 13 09:39:21 2017

RPT1

10.6.1
10

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GLM3729-ICV3729
Lab FileID: LM92044.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\LM92044.D Vial: 13
Acq On : 12 Dec 2017 5:34 pm Operator: KRIZHKAC
Sample : ICV3729-8000 Inst : GCLM
Misc : GC51650, GLM3729, 10.0,, 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-GR0 (C6-C10)	2.266	2.680 E6	-18.3	103	0.00	8.54-15.10
2 H	TPH-GR0 (C6-C12)	2.062	2.394 E6	-16.1	101	0.00	8.32-15.32
3 S	a,a,a-Trifluorotoluene	2.827	2.745 E6	2.9	102	0.00	10.78-10.90

Average % D = 12.4

(0.0 %) 0 of 3 compounds '%D > 20

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LM92038.D MLM3729.M Wed Dec 13 09:41:01 2017 RPT1

10.6.2
10

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GLM3856-CC3729
Lab FileID: LM94845.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\LM94845.D Vial: 22
Acq On : 16 May 2018 5:04 pm Operator: KRIZHKAC
Sample : CC3729-4000 Inst : GCLM
Misc : GC52496, GLM3856, 10.0, , 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GRO) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-GRO (C6-C10)	2.266	2.505 E6	-10.5	88	0.00	8.54-15.10
2 H	TPH-GRO (C6-C12)	2.062	2.283 E6	-10.7	88	0.00	8.32-15.32
3 S	a,a,a-Trifluorotoluene	2.827	2.917 E6	-3.2	118	-0.01	10.77-10.89

Average % D = 8.1

(0.0 %) 0 of 3 compounds '%D > 20

(#) = Out of Range
LM92037.D MLM3729.M

SPCC's out = 0 CCC's out = 0
Thu May 17 10:41:37 2018 RPT1

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GLM3857-CC3729
Lab FileID: LM94851.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\LM94851.D Vial: 4
Acq On : 17 May 2018 9:05 am Operator: KRIZHKAC
Sample : CC3729-4000 Inst : GCLM
Misc : GC52496, GLM3857, 10.0,, 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-GR0 (C6-C10)	2.266	2.579 E6	-13.8	91	0.00	8.54-15.10
2 H	TPH-GR0 (C6-C12)	2.062	2.371 E6	-15.0	92	0.00	8.32-15.32
3 S	a,a,a-Trifluorotoluene	2.827	2.899 E6	-2.5	117	-0.01	10.77-10.89

Average % D = 10.4

(0.0 %) 0 of 3 compounds '%D > 20

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LM92037.D MLM3729.M Fri May 18 07:55:54 2018 RPT1

10.6.4
10

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GLM3857-CC3729
Lab FileID: LM94858.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\LM94858.D Vial: 11
Acq On : 17 May 2018 12:29 pm Operator: KRIZHKAC
Sample : CC3729-8000 Inst : GCLM
Misc : GC52496, GLM3857, 10.0,, 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GRO) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-GRO (C6-C10)	2.266	2.423 E6	-6.9	93	0.00	8.54-15.10
2 H	TPH-GRO (C6-C12)	2.062	2.214 E6	-7.4	93	0.00	8.32-15.32
3 S	a,a,a-Trifluorotoluene	2.827	3.161 E6	-11.8	118	-0.01	10.77-10.89

Average % D = 8.7

(0.0 %) 0 of 3 compounds '%D > 20

(#) = Out of Range
LM92038.D MLM3729.M

SPCC's out = 0 CCC's out = 0
Fri May 18 07:56:44 2018 RPT1



Dayton, NJ

Section 11

GC Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\LM94854.D Vial: 7
Acq On : 17 May 2018 10:48 am Operator: KRIZHKAC
Sample : JC65860-1 Inst : GCLM
Misc : GC52496, GLM3857, 5.36,, 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: May 18 7:57 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Initial Calibration
DataAcq Meth : MLM3729.M

Volume Inj. : N/A
Signal Phase : crossbond phenylmethyl polysiloxane
Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um

Compound	R.T.	Response	Conc Units

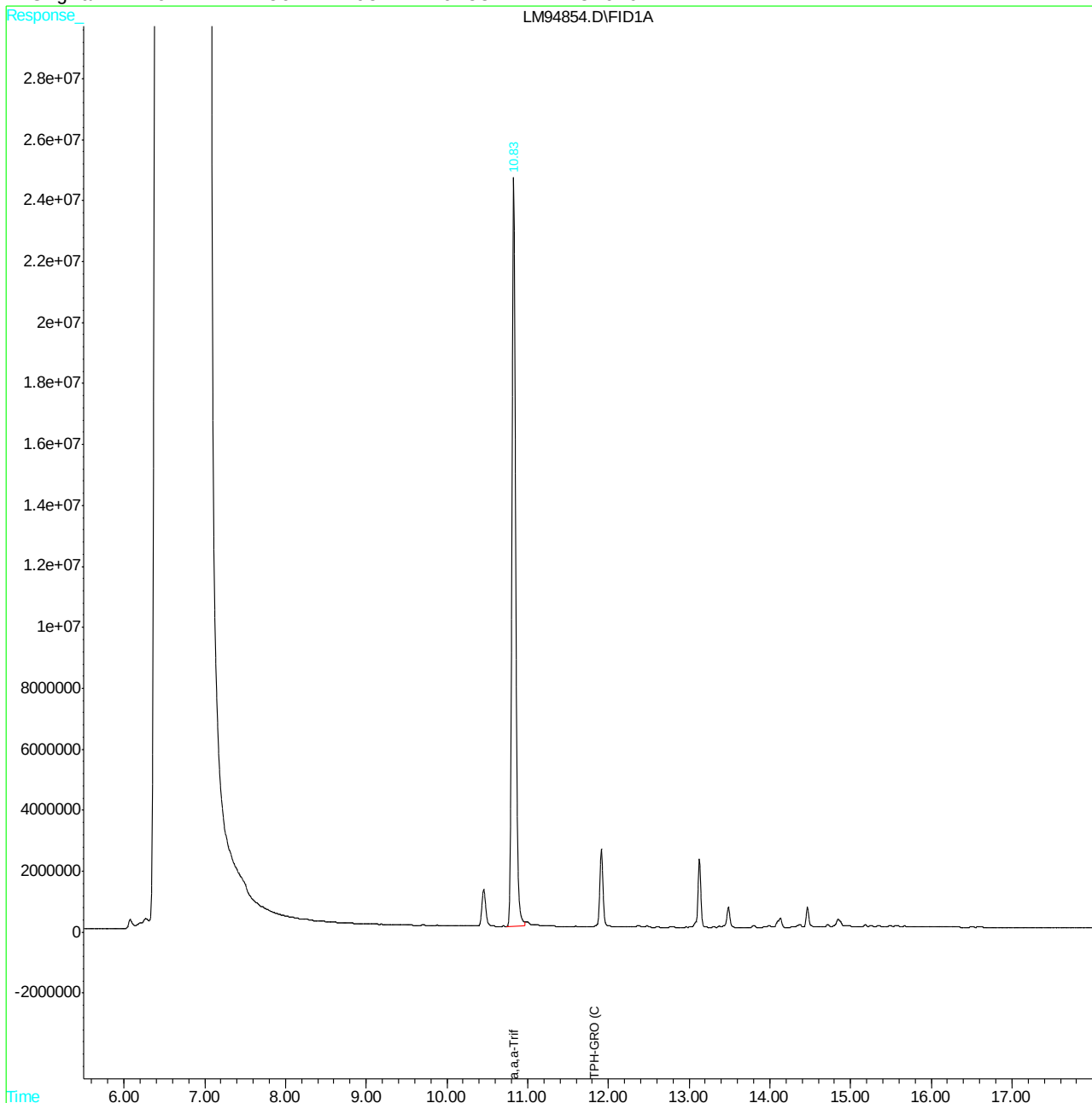
System Monitoring Compounds			
3) S a,a,a-Trifluorotoluene	10.83	795473796	281.431 ug/l
Spiked Amount 300.000	Range 70 - 116	Recovery =	93.81%
Target Compounds			
1) H TPH-GR0 (C6-C10)	11.82	405162189	178.789 ug/l

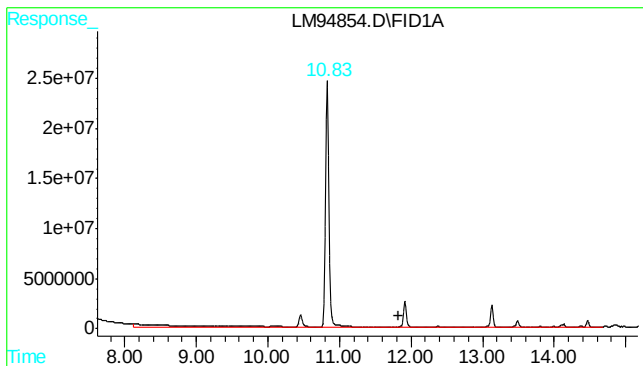
Quantitation Report

Data File : C:\HPCHEM\1\DATA\LM94854.D Vial: 7
 Acq On : 17 May 2018 10:48 am Operator: KRIZHKAC
 Sample : JC65860-1 Inst : GCLM
 Misc : GC52496, GLM3857, 5.36, , 100, 10, 1 Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: May 18 7:57 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
 Title : Method SW846 8015C (GRO) .
 Last Update : Wed Dec 13 09:36:39 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : MLM3729.M

Volume Inj. : N/A
 Signal Phase : crossbond phenylmethyl polysiloxane
 Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um





#1 TPH-GRO (C6-C10)
R.T.: 11.820 min
Delta R.T.: 0.000 min
Response: 405162189
Conc: 178.79 ug/l m

11.1.1
11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\LM94853.D Vial: 6
Acq On : 17 May 2018 10:12 am Operator: KRIZHKAC
Sample : MB1 Inst : GCLM
Misc : GC52496, GLM3857, 10.0, , 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: May 18 7:57 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Initial Calibration
DataAcq Meth : MLM3729.M

Volume Inj. : N/A
Signal Phase : crossbond phenylmethyl polysiloxane
Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
3) S a,a,a-Trifluorotoluene	10.83	797059889	281.992 ug/l
Spiked Amount 300.000	Range 70 - 116	Recovery =	94.00%

Target Compounds

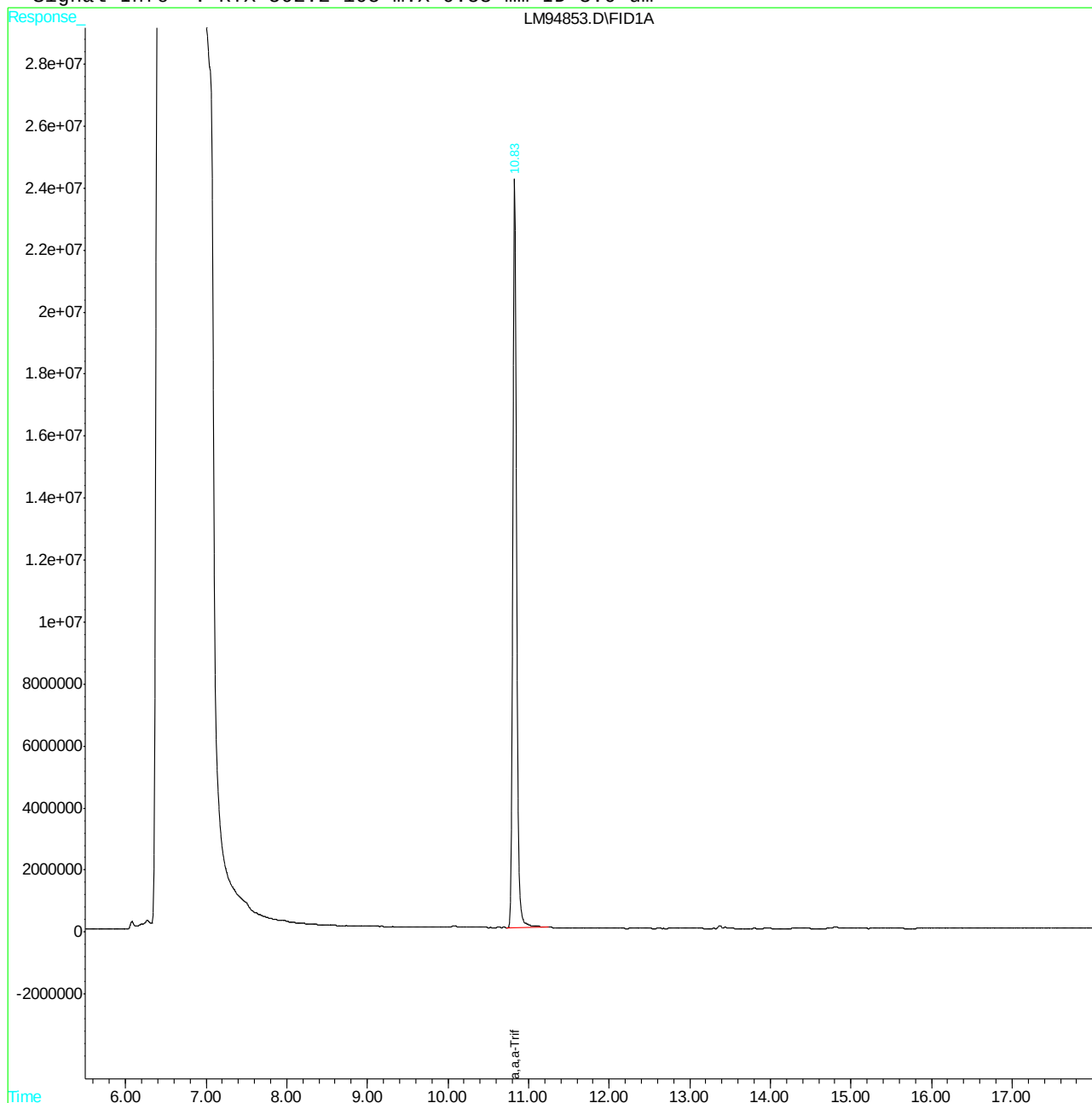
(f)=RT Delta > 1/2 Window (m)=manual int.
LM94853.D MLM3729.M Fri May 18 07:57:17 2018 RPT1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\LM94853.D Vial: 6
Acq On : 17 May 2018 10:12 am Operator: KRIZHKAC
Sample : MB1 Inst : GCLM
Misc : GC52496, GLM3857, 10.0, , 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: May 18 7:57 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Multiple Level Calibration
DataAcq Meth : MLM3729.M

Volume Inj. : N/A
Signal Phase : crossbond phenylmethyl polysiloxane
Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um



GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- DDT/Endrin Breakdown Checks
- GC Identification Summaries (Hits)
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-MB3	3G116516.D	1	05/20/18	VDT	05/18/18	OP11975	G3G4048

The QC reported here applies to the following samples: Method: SW846 8151A
JC65860-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	0.42	0.12	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	0.12	0.025	ug/l	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	110% 50-142%
19719-28-9	2,4-DCAA	72% 50-142%

12.1.1
12

Method Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-MB1	OA133321.D	1	05/14/18	VDT	05/13/18	OP11975	GOA4568

The QC reported here applies to the following samples: Method: SW846 8151A
OP11975-LS6, OP11975-MS, OP11975-MSD

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	0.42	0.12	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	0.12	0.025	ug/l	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	63% 50-142%
19719-28-9	2,4-DCAA	74% 50-142%

12.1.2
12

Method Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-MB2	3G116498.D	1	05/17/18	VDT	05/16/18	OP11975	G3G4047

The QC reported here applies to the following samples: Method: SW846 8151A
OP11975-LB10, OP11975-LB13

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	0.42	0.12	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	0.12	0.025	ug/l	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	102% 50-142%
19719-28-9	2,4-DCAA	87% 50-142%

Method Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11974-MB1	1G146111.D	1	05/13/18	CP	05/11/18	OP11974	G1G4644

The QC reported here applies to the following samples: Method: SW846 8081B

JC65860-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	0.0067	0.0040	ug/l	
12789-03-6	Chlordane	ND	0.33	0.14	ug/l	
72-20-8	Endrin	ND	0.0067	0.0040	ug/l	
76-44-8	Heptachlor	ND	0.0067	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0067	0.0040	ug/l	
72-43-5	Methoxychlor	ND	0.013	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	82% 30-137%
877-09-8	Tetrachloro-m-xylene	81% 30-137%
2051-24-3	Decachlorobiphenyl	46% 10-137%
2051-24-3	Decachlorobiphenyl	35% 10-137%

12.1.4
12

Method Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12110-MB1	2G163841.D	1	05/20/18	EAL	05/19/18	OP12110	G2G4338

The QC reported here applies to the following samples: Method: SW846 8082A

JC65860-1

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	13	ug/kg	
11104-28-2	Aroclor 1221	ND	33	14	ug/kg	
11141-16-5	Aroclor 1232	ND	33	8.9	ug/kg	
53469-21-9	Aroclor 1242	ND	33	5.3	ug/kg	
12672-29-6	Aroclor 1248	ND	33	20	ug/kg	
11097-69-1	Aroclor 1254	ND	33	8.2	ug/kg	
11096-82-5	Aroclor 1260	ND	33	11	ug/kg	
11100-14-4	Aroclor 1268	ND	33	5.0	ug/kg	
37324-23-5	Aroclor 1262	ND	33	2.5	ug/kg	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	84% 24-152%
877-09-8	Tetrachloro-m-xylene	84% 24-152%
2051-24-3	Decachlorobiphenyl	87% 10-166%
2051-24-3	Decachlorobiphenyl	92% 10-166%

12.1.5
12

Method Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11954-MB1	2Y91051.D	1	05/13/18	TL	05/11/18	OP11954	G2Y3470

The QC reported here applies to the following samples: Method: SW846 8015C

JC65860-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	10	2.4	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	53% 18-132%
16416-32-3	Tetracosane-d50	66% 25-137%
438-22-2	5a-Androstane	51% 22-134%

12.1.6
12

Leachate Blank Summary

Page 1 of 1

Job Number: JC65860

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-LB10	3G116508.D	1	05/17/18	VDT	05/16/18	OP11975	G3G4047

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65860-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	4.2	1.2	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	1.2	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	98%
19719-28-9	2,4-DCAA	74%

12.2.1
12

Leachate Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-LB13	3G116509.D	1	05/17/18	VDT	05/16/18	OP11975	G3G4047

The QC reported here applies to the following samples: Method: SW846 8151A

JC65860-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	4.2	1.2	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	1.2	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	97% 50-142%
19719-28-9	2,4-DCAA	75% 50-142%

12.2.2
12

Leachate Blank Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-LB11	OA133357.D	1	05/15/18	VDT	05/13/18	OP11975	GOA4568

The QC reported here applies to the following samples: Method: SW846 8151A
OP11975-LS6, OP11975-MS, OP11975-MSD

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	4.2	1.2	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	1.2	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	56% 50-142%
19719-28-9	2,4-DCAA	55% 50-142%

Leachate Blank Summary

Page 1 of 1

Job Number: JC65860

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11974-LB11	1G146129.D	1	05/14/18	CP	05/12/18	OP11974	G1G4644

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65860-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	0.067	0.040	ug/l	
12789-03-6	Chlordane	ND	3.3	1.4	ug/l	
72-20-8	Endrin	ND	0.067	0.040	ug/l	
76-44-8	Heptachlor	ND	0.067	0.030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.067	0.040	ug/l	
72-43-5	Methoxychlor	ND	0.13	0.045	ug/l	
8001-35-2	Toxaphene	ND	1.7	1.1	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	89% 30-137%
877-09-8	Tetrachloro-m-xylene	78% 30-137%
2051-24-3	Decachlorobiphenyl	70% 10-137%
2051-24-3	Decachlorobiphenyl	56% 10-137%

12.2.4
12

Blank Spike Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-BS3	3G116517.D	1	05/20/18	VDT	05/18/18	OP11975	G3G4048

The QC reported here applies to the following samples: Method: SW846 8151A

JC65860-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
94-75-7	2,4-D	13.3	11.4	86	46-153
93-72-1	2,4,5-TP (Silvex)	2.67	2.3	86	57-151

CAS No.	Surrogate Recoveries	BSP	Limits
19719-28-9	2,4-DCAA	82%	50-142%
19719-28-9	2,4-DCAA	65%	50-142%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11974-BS1	1G146112.D	1	05/13/18	CP	05/11/18	OP11974	G1G4644

The QC reported here applies to the following samples: Method: SW846 8081B

JC65860-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
58-89-9	gamma-BHC (Lindane)	1.67	1.3	78	37-178
72-20-8	Endrin	1.67	1.3	78	45-182
76-44-8	Heptachlor	1.67	1.2	72	26-172
1024-57-3	Heptachlor epoxide	1.67	1.2	72	43-173
72-43-5	Methoxychlor	1.67	1.3	78 ^a	40-192

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	69%	30-137%
877-09-8	Tetrachloro-m-xylene	69%	30-137%
2051-24-3	Decachlorobiphenyl	41%	10-137%
2051-24-3	Decachlorobiphenyl	35%	10-137%

(a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11954-BS1	2Y91052.D	1	05/13/18	TL	05/11/18	OP11954	G2Y3470

The QC reported here applies to the following samples: Method: SW846 8015C

JC65860-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	100	74.0	74	44-120

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	62%	18-132%
16416-32-3	Tetracosane-d50	77%	25-137%
438-22-2	5a-Androstane	60%	22-134%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12110-BS1	2G163842.D	1	05/20/18	EAL	05/19/18	OP12110	G2G4338
OP12110-BSD	2G163843.D	1	05/20/18	EAL	05/19/18	OP12110	G2G4338

The QC reported here applies to the following samples: Method: SW846 8082A

JC65860-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	133	130	97	137	103	5	61-146/30
11104-28-2	Aroclor 1221		ND		ND		nc	70-130/30
11141-16-5	Aroclor 1232		ND		ND		nc	70-130/30
53469-21-9	Aroclor 1242		ND		ND		nc	70-130/30
12672-29-6	Aroclor 1248		ND		ND		nc	70-130/30
11097-69-1	Aroclor 1254		ND		ND		nc	70-130/30
11096-82-5	Aroclor 1260	133	133	100	140	105	5	62-148/30
11100-14-4	Aroclor 1268		ND		ND		nc	-/30
37324-23-5	Aroclor 1262		ND		ND		nc	-/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	86%	91%	24-152%
877-09-8	Tetrachloro-m-xylene	84%	89%	24-152%
2051-24-3	Decachlorobiphenyl	90%	94%	10-166%
2051-24-3	Decachlorobiphenyl	95%	99%	10-166%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-MS	OA133324.D	1	05/14/18	VDT	05/13/18	OP11975	GOA4568
OP11975-MSD	OA133325.D	1	05/14/18	VDT	05/13/18	OP11975	GOA4568
LA43799-1B	OA133323.D	1	05/14/18	VDT	05/13/18	OP11975	GOA4568

The QC reported here applies to the following samples: Method: SW846 8151A

JC65860-1A

CAS No.	Compound	LA43799-1B Spike		MS	MS	Spike	MSD	MSD	RPD	Limits
		ug/l	Q ug/l	ug/l	%	ug/l	ug/l	%		Rec/RPD
94-75-7	2,4-D	ND	13.3	13.7	103	13.3	12.4	93	10	43-136/44
93-72-1	2,4,5-TP (Silvex)	ND	2.67	2.2	83	2.67	3.2	120	37	47-141/41

CAS No.	Surrogate Recoveries	MS	MSD	LA43799-1B Limits	
19719-28-9	2,4-DCAA	48%* a	65%	50%	50-142%
19719-28-9	2,4-DCAA	52%	76%	54%	50-142%

(a) Outside the QC limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11974-MS	1G146114.D	1	05/14/18	CP	05/11/18	OP11974	G1G4644
OP11974-MSD	1G146115.D	1	05/14/18	CP	05/12/18	OP11974	G1G4644
LA43799-1B	1G146113.D	1	05/14/18	CP	05/12/18	OP11974	G1G4644

The QC reported here applies to the following samples: Method: SW846 8081B

JC65860-1A

CAS No.	Compound	LA43799-1B Spike ug/l	Q	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
58-89-9	gamma-BHC (Lindane)	ND	1.67	2.8	168* a	1.67	2.7	162* a	4	39-160/97
12789-03-6	Chlordane	ND		ND			ND		nc	81-123/10
72-20-8	Endrin	ND	1.67	2.7	162	1.67	2.4	144	12	43-169/95
76-44-8	Heptachlor	ND	1.67	1.3	78	1.67	1.3	78	0	35-152/102
1024-57-3	Heptachlor epoxide	ND	1.67	2.7	162* a	1.67	2.7	162* a	0	42-159/96
72-43-5	Methoxychlor	ND	1.67	1.3	78	1.67	1.6	96	21	47-170/99
8001-35-2	Toxaphene	ND		ND			ND		nc	50-150/8

CAS No.	Surrogate Recoveries	MS	MSD	LA43799-1B Limits
877-09-8	Tetrachloro-m-xylene	114%	120%	75% 30-137%
877-09-8	Tetrachloro-m-xylene	79%	72%	65% 30-137%
2051-24-3	Decachlorobiphenyl	108%	94%	76% 10-137%
2051-24-3	Decachlorobiphenyl	53%	42%	35% 10-137%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12110-MS	2G163851.D	1	05/20/18	EAL	05/19/18	OP12110	G2G4338
OP12110-MSD	2G163852.D	1	05/20/18	EAL	05/19/18	OP12110	G2G4338
JC66309-7	2G163850.D	1	05/20/18	EAL	05/19/18	OP12110	G2G4338

The QC reported here applies to the following samples: Method: SW846 8082A

JC65860-1

CAS No.	Compound	JC66309-7 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	161	190	118	161	216	134	13	24-178/46
11104-28-2	Aroclor 1221	ND		ND			ND		nc	70-130/50
11141-16-5	Aroclor 1232	ND		ND			ND		nc	70-130/50
53469-21-9	Aroclor 1242	ND		ND			ND		nc	70-130/50
12672-29-6	Aroclor 1248	ND		ND			ND		nc	70-130/50
11097-69-1	Aroclor 1254	ND		ND			ND		nc	70-130/50
11096-82-5	Aroclor 1260	ND	161	202	126	161	209	130	3	15-185/45
11100-14-4	Aroclor 1268	ND		ND			ND		nc	-/50
37324-23-5	Aroclor 1262	ND		ND			ND		nc	-/50

CAS No.	Surrogate Recoveries	MS	MSD	JC66309-7	Limits
877-09-8	Tetrachloro-m-xylene	74%	82%	81%	24-152%
877-09-8	Tetrachloro-m-xylene	70%	81%	88%	24-152%
2051-24-3	Decachlorobiphenyl	101%	108%	68%	10-166%
2051-24-3	Decachlorobiphenyl	64%	62%	67%	10-166%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11954-MS	2Y91054.D	1	05/13/18	TL	05/11/18	OP11954	G2Y3470
OP11954-MSD	2Y91055.D	1	05/13/18	TL	05/11/18	OP11954	G2Y3470
JC65741-2	2Y91053.D	1	05/13/18	TL	05/11/18	OP11954	G2Y3470

The QC reported here applies to the following samples: Method: SW846 8015C

JC65860-1

CAS No.	Compound	JC65741-2 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	ND		113	72.0	64	116	73.1	63	2	10-145/50

CAS No.	Surrogate Recoveries	MS	MSD	JC65741-2	Limits
84-15-1	o-Terphenyl	52%	53%	46%	18-132%
16416-32-3	Tetracosane-d50	63%	65%	57%	25-137%
438-22-2	5a-Androstane	49%	50%	44%	22-134%

* = Outside of Control Limits.

Leachate Spike Summary

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Job Number: JC65860

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11975-LS6	OA133324.D	1	05/14/18	VDT	05/13/18	OP11975	GOA4568
LA43799-1B	OA133323.D	1	05/14/18	VDT	05/13/18	OP11975	GOA4568

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65860-1A

CAS No.	Compound	LA43799-1B Spike		LS	LS	Limits
		ug/l	Q ug/l	ug/l	%	
94-75-7	2,4-D	ND	13.3	13.7	103	43-136
93-72-1	2,4,5-TP (Silvex)	ND	2.67	2.2	83	47-141

CAS No.	Surrogate Recoveries	LS	LA43799-1B Limits
19719-28-9	2,4-DCAA	48%* a	50% 50-142%
19719-28-9	2,4-DCAA	52%	54% 50-142%

(a) Outside the QC limits.

* = Outside of Control Limits.

Leachate Spike Summary

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Job Number: JC65860

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11974-LS6	1G146114.D	1	05/14/18	CP	05/12/18	OP11974	G1G4644
LA43799-1B	1G146113.D	1	05/14/18	CP	05/12/18	OP11974	G1G4644

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65860-1A

CAS No.	Compound	LA43799-1B Spike ug/l	Q	ug/l	LS ug/l	LS %	Limits
58-89-9	gamma-BHC (Lindane)	ND		1.67	2.8	168* a	39-160
12789-03-6	Chlordane	ND			ND		81-123
72-20-8	Endrin	ND		1.67	2.7	162	43-169
76-44-8	Heptachlor	ND		1.67	1.3	78	35-152
1024-57-3	Heptachlor epoxide	ND		1.67	2.7	162* a	42-159
72-43-5	Methoxychlor	ND		1.67	1.3	78	47-170
8001-35-2	Toxaphene	ND			ND		50-150

CAS No.	Surrogate Recoveries	LS	LA43799-1B Limits
877-09-8	Tetrachloro-m-xylene	114%	75% 30-137%
877-09-8	Tetrachloro-m-xylene	79%	65% 30-137%
2051-24-3	Decachlorobiphenyl	108%	76% 10-137%
2051-24-3	Decachlorobiphenyl	53%	35% 10-137%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Internal Standard Area Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G1G4644-CC4628	Injection Date:	05/13/18
Lab File ID:	1G146109.D	Injection Time:	22:49
Instrument ID:	GC1G	Method:	SW846 8081B

	IS 1		IS 2	
	AREA	RT	AREA	RT
Check Std	106227419	2.30	736666133	1.99
Upper Limit ^a	212454838	2.80	1473332266	2.49
Lower Limit ^b	53113710	1.80	368333067	1.49

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT
OP11875-MB2	108378507	2.30	780381902	1.99
OP11974-MB1	108378507	2.30	780381902	1.99
OP11950-MB1	108378507	2.30	780381902	1.99
OP11974-BS1	111843766	2.30	843724198	1.99
OP11875-BS2	111843766	2.30	843724198	1.99
OP11950-BS1	111843766	2.30	843724198	1.99
LA43799-1B	128342440	2.30	461705991	1.98
OP11974-LS6	125377535	2.30	454924932	1.98
OP11974-MS	125377535	2.30	454924932	1.98
OP11974-MSD	122302559	2.30	431389970	1.98
DA5034-1	107573480	2.30	529168761	1.97
ZZZZZZ	108333564	2.30	783724240	1.98
ZZZZZZ	106954957	2.30	783017046	1.98
ZZZZZZ	107127186	2.30	759416157	1.98
ZZZZZZ	109462928	2.30	780047129	1.98
ZZZZZZ	114399564	2.30	823704723	1.98
ZZZZZZ	107489926	2.30	753086608	1.98
JC65677-3	108641923	2.30	755994453	1.98
OP11950-LS5	117119748	2.30	937503076	1.98
OP11950-MS	117119748	2.30	937503076	1.98
OP11950-MSD	113303565	2.30	863442255	1.98
ZZZZZZ	114682472	2.30	831321048	1.99
ZZZZZZ	111644368	2.30	864752426	1.98
OP11950-LB7	115995306	2.30	884532494	1.99
OP11974-LB11	119707352	2.30	807847965	1.98

IS 1 = 1-Bromo-2-nitrobenzene (Signal #2)
IS 2 = 1-Bromo-2-nitrobenzene (Signal #1)

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

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

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Internal Standard Area Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: G6G1687-CC1671	Injection Date: 05/20/18
Lab File ID: 6G56346.D	Injection Time: 23:32
Instrument ID: GC6G	Method: SW846 8081B

	IS 1		IS 2	
	AREA	RT	AREA	RT
Check Std	252082069	2.16	365756020	1.96
Upper Limit ^a	504164138	2.66	731512040	2.46
Lower Limit ^b	126041035	1.66	182878010	1.46

Lab Sample ID	IS 1		IS 2	
	AREA	RT	AREA	RT
OP11974-MB3	253079823	2.16	356577682	1.96
OP12065-MB1	253079823	2.16	356577682	1.96
OP11974-BS3	245874963	2.16	343435805	1.96
OP12065-BS1	245874963	2.16	343435805	1.96
ZZZZZZ	261401493	2.16	375383944	1.96
ZZZZZZ	263718500	2.16	368945380	1.96
ZZZZZZ	260008427	2.16	373120104	1.96
JC65996-1	251440737	2.16	352446149	1.96
OP12065-MS	250590819	2.16	356640749	1.96
OP12065-LS9	250590819	2.16	356640749	1.96
OP12065-MSD	251383357	2.16	355452865	1.96
ZZZZZZ	247885798	2.15	345292288	1.96
ZZZZZZ	250455137	2.16	351022198	1.96
ZZZZZZ	256959458	2.16	361916168	1.96
ZZZZZZ	260657368	2.16	374628679	1.96
ZZZZZZ	261017325	2.16	363203526	1.96
ZZZZZZ	209574814	2.16	334726211	1.97
ZZZZZZ	241742705	2.16	334978067	1.96
ZZZZZZ	250960355	2.16	350010714	1.96
JC65860-1A	269198521	2.16	374778879	1.96
OP11974-LB10	240238832	2.16	338809565	1.96
OP12065-LB19	251550658	2.16	351978160	1.96

IS 1 = 1-Bromo-2-nitrobenzene (Signal #2)

IS 2 = 1-Bromo-2-nitrobenzene (Signal #1)

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

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

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DDT/Endrin Breakdown Check

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	G1G4628-DDT	Injection Date:	04/25/18
Lab File ID:	1G145465.D	Injection Time:	11:55
Instrument ID:	GC1G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	19117068	3242526
4,4'-DDE	17540271	2426192
4,4'-DDT	1139549834	151721138

DDT Breakdown ^a	3.1 %	3.6 %
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Endrin aldehyde	6205253	869695
Endrin ketone	16073186	1914397
Endrin	736751809	103748583

Endrin Breakdown ^b	2.9 %	2.6 %
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(a) Calculated as: $(\text{DDD} + \text{DDE}) / (\text{DDD} + \text{DDE} + \text{DDT}) \times 100$

(b) Calculated as: $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G1G4628-IC4628	1G145467.D	04/25/18	12:29	00:34	Initial cal 1
G1G4628-IC4628	1G145468.D	04/25/18	12:46	00:51	Initial cal 2
G1G4628-IC4628	1G145469.D	04/25/18	13:04	01:09	Initial cal 5
G1G4628-IC4628	1G145470.D	04/25/18	13:21	01:26	Initial cal 10
G1G4628-IC4628	1G145471.D	04/25/18	13:38	01:44	Initial cal 25
G1G4628-IC4628	1G145472.D	04/25/18	13:55	02:01	Initial cal 50
G1G4628-IC4628	1G145473.D	04/25/18	14:13	02:18	Initial cal 75
G1G4628-IC4628	1G145474.D	04/25/18	14:30	02:35	Initial cal 100
G1G4628-IC4628	1G145475.D	04/25/18	14:47	02:53	Initial cal 500
G1G4628-IC4628	1G145476.D	04/25/18	15:05	03:10	Initial cal 500
G1G4628-ICV4628	1G145478.D	04/25/18	15:39	03:45	Initial cal verification 500
G1G4628-ICV4628	1G145479.D	04/25/18	15:56	04:02	Initial cal verification 500
G1G4628-ICV4628	1G145481.D	04/25/18	16:31	04:36	Initial cal verification 50

DDT/Endrin Breakdown Check

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4644-DDT	Injection Date: 05/13/18
Lab File ID: 1G146108.D	Injection Time: 22:32
Instrument ID: GC1G	

Compound	Response Signal 1	Response Signal 2
4,4' -DDD	25201970	3700756
4,4' -DDE	18824575	4223385
4,4' -DDT	1164227366	120725639

DDT Breakdown ^a	3.6 %	6.2 %
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Endrin aldehyde	3628172	527978
Endrin ketone	4177532	663851
Endrin	804541378	108070177

Endrin Breakdown ^b	1 %	1.1 %
-------------------------------	-----	-------

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100

(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G1G4644-CC4628	1G146109.D	05/13/18	22:49	00:17	Continuing cal 25
OP11875-MB2	1G146111.D	05/13/18	23:25	00:53	Method Blank
OP11950-MB1	1G146111.D	05/13/18	23:25	00:53	Method Blank
OP11974-MB1	1G146111.D	05/13/18	23:25	00:53	Method Blank
OP11974-BS1	1G146112.D	05/13/18	23:42	01:10	Blank Spike
OP11875-BS2	1G146112.D	05/13/18	23:42	01:10	Blank Spike
OP11950-BS1	1G146112.D	05/13/18	23:42	01:10	Blank Spike
LA43799-1B	1G146113.D	05/14/18	00:00	01:28	(used for QC only; not part of job JC65860)
OP11974-LS6	1G146114.D	05/14/18	00:18	01:46	Leachate Spike
OP11974-MS	1G146114.D	05/14/18	00:18	01:46	Matrix Spike
OP11974-MSD	1G146115.D	05/14/18	00:36	02:04	Matrix Spike Duplicate
DA5034-1	1G146116.D	05/14/18	00:54	02:22	(used for QC only; not part of job JC65860)
ZZZZZZ	1G146117.D	05/14/18	01:11	02:40	(unrelated sample)
ZZZZZZ	1G146118.D	05/14/18	01:29	02:57	(unrelated sample)
ZZZZZZ	1G146119.D	05/14/18	01:47	03:15	(unrelated sample)
ZZZZZZ	1G146120.D	05/14/18	02:04	03:32	(unrelated sample)
ZZZZZZ	1G146121.D	05/14/18	02:21	03:49	(unrelated sample)
ZZZZZZ	1G146122.D	05/14/18	02:38	04:07	(unrelated sample)
JC65677-3	1G146123.D	05/14/18	02:55	04:24	(used for QC only; not part of job JC65860)
OP11950-MS	1G146124.D	05/14/18	03:13	04:41	Matrix Spike
OP11950-LS5	1G146124.D	05/14/18	03:13	04:41	Leachate Spike
OP11950-MSD	1G146125.D	05/14/18	03:30	04:58	Matrix Spike Duplicate
ZZZZZZ	1G146126.D	05/14/18	03:47	05:15	(unrelated sample)
ZZZZZZ	1G146127.D	05/14/18	04:04	05:33	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	G1G4644-DDT	Injection Date:	05/13/18
Lab File ID:	1G146108.D	Injection Time:	22:32
Instrument ID:	GC1G		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
OP11950-LB7	1G146128.D	05/14/18	04:22	05:50	Leachate Blank
OP11974-LB11	1G146129.D	05/14/18	04:39	06:07	Leachate Blank
G1G4644-CC4628	1G146130.D	05/14/18	04:56	06:24	Continuing cal 50
ZZZZZZ	1G146132.D	05/14/18	05:30	06:59	(unrelated sample)
ZZZZZZ	1G146133.D	05/14/18	05:47	07:16	(unrelated sample)
ZZZZZZ	1G146134.D	05/14/18	06:04	07:33	(unrelated sample)
ZZZZZZ	1G146135.D	05/14/18	06:21	07:50	(unrelated sample)
ZZZZZZ	1G146136.D	05/14/18	06:39	08:07	(unrelated sample)

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DDT/Endrin Breakdown Check

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	G6G1671-DDT	Injection Date:	04/30/18
Lab File ID:	6G55778.D	Injection Time:	10:46
Instrument ID:	GC6G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	11318971	7536013
4,4'-DDE	11688813	6661386
4,4'-DDT	697113892	431734229

DDT Breakdown ^a	3.2 %	3.2 %
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Endrin aldehyde	0	0
Endrin ketone	3648777	6453656
Endrin	397383387	243111166

Endrin Breakdown ^b	0.9 %	2.6 %
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(a) Calculated as: $(\text{DDD} + \text{DDE}) / (\text{DDD} + \text{DDE} + \text{DDT}) \times 100$

(b) Calculated as: $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G6G1671-IC1671	6G55780.D	04/30/18	11:25	00:39	Initial cal 1
G6G1671-IC1671	6G55781.D	04/30/18	11:43	00:57	Initial cal 2
G6G1671-IC1671	6G55782.D	04/30/18	12:01	01:15	Initial cal 5
G6G1671-IC1671	6G55783.D	04/30/18	12:18	01:33	Initial cal 10
G6G1671-ICC1671	6G55784.D	04/30/18	12:36	01:50	Initial cal 25
G6G1671-IC1671	6G55785.D	04/30/18	12:54	02:08	Initial cal 50
G6G1671-IC1671	6G55786.D	04/30/18	13:12	02:26	Initial cal 75
G6G1671-IC1671	6G55787.D	04/30/18	13:29	02:44	Initial cal 100
G6G1671-IC1671	6G55788.D	04/30/18	13:47	03:02	Initial cal 500
G6G1671-IC1671	6G55789.D	04/30/18	14:05	03:19	Initial cal 500
G6G1671-ICV1671	6G55790.D	04/30/18	14:23	03:37	Initial cal verification 25
G6G1671-ICV1671	6G55791.D	04/30/18	14:41	03:55	Initial cal verification 500
G6G1671-ICV1671	6G55792.D	04/30/18	14:58	04:13	Initial cal verification 500
G6G1671-ICV1671	6G55793.D	04/30/18	15:16	04:31	Initial cal verification 50
G6G1671-ICV1671	6G55794.D	04/30/18	15:34	04:48	Initial cal verification 50

DDT/Endrin Breakdown Check

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	G6G1687-DDT	Injection Date:	05/20/18
Lab File ID:	6G56345.D	Injection Time:	23:15
Instrument ID:	GC6G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	10600488	7019390
4,4'-DDE	8773442	5792842
4,4'-DDT	602388985	406717816

DDT Breakdown ^a	3.1 %	3.1 %
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Endrin aldehyde	461410	321060
Endrin ketone	2543771	2117467
Endrin	361685811	237972338

Endrin Breakdown ^b	0.8 %	1 %
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(a) Calculated as: $(\text{DDD} + \text{DDE}) / (\text{DDD} + \text{DDE} + \text{DDT}) \times 100$

(b) Calculated as: $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G6G1687-CC1671	6G56346.D	05/20/18	23:32	00:18	Continuing cal 25
OP11974-MB3	6G56348.D	05/21/18	00:12	00:58	Method Blank
OP12065-MB1	6G56348.D	05/21/18	00:12	00:58	Method Blank
OP11974-BS3	6G56349.D	05/21/18	00:30	01:16	Blank Spike
OP12065-BS1	6G56349.D	05/21/18	00:30	01:16	Blank Spike
ZZZZZZ	6G56350.D	05/21/18	00:48	01:33	(unrelated sample)
ZZZZZZ	6G56351.D	05/21/18	01:06	01:51	(unrelated sample)
ZZZZZZ	6G56352.D	05/21/18	01:24	02:09	(unrelated sample)
JC65996-1	6G56353.D	05/21/18	01:42	02:27	(used for QC only; not part of job JC65860)
OP12065-LS9	6G56354.D	05/21/18	01:59	02:45	Leachate Spike
OP12065-MS	6G56354.D	05/21/18	01:59	02:45	Matrix Spike
OP12065-MSD	6G56355.D	05/21/18	02:17	03:03	Matrix Spike Duplicate
ZZZZZZ	6G56356.D	05/21/18	02:35	03:21	(unrelated sample)
ZZZZZZ	6G56357.D	05/21/18	02:53	03:38	(unrelated sample)
ZZZZZZ	6G56358.D	05/21/18	03:11	03:56	(unrelated sample)
ZZZZZZ	6G56359.D	05/21/18	03:29	04:14	(unrelated sample)
ZZZZZZ	6G56360.D	05/21/18	03:47	04:32	(unrelated sample)
ZZZZZZ	6G56361.D	05/21/18	04:04	04:50	(unrelated sample)
ZZZZZZ	6G56362.D	05/21/18	04:22	05:08	(unrelated sample)
ZZZZZZ	6G56363.D	05/21/18	04:40	05:26	(unrelated sample)
JC65860-1A	6G56364.D	05/21/18	04:58	05:43	WC-2
OP11974-LB10	6G56365.D	05/21/18	05:16	06:01	Leachate Blank
OP12065-LB19	6G56366.D	05/21/18	05:34	06:19	Leachate Blank
G6G1687-CC1671	6G56367.D	05/21/18	05:51	06:37	Continuing cal 50

GC Identification Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4048-CC4044	Injection Date:	05/20/18
Lab File ID:	3G116514.D	Injection Time:	10:49
Instrument ID:	GC3G	Method:	SW846 8151A
Sample ID:	OP11975-BS3	Injection Date:	05/20/18
Lab File ID:	3G116517.D	Injection Time:	12:17
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
2,4-D	1 ^a	8.90	8.90	11.4		ug/l	14.6
2,4-D	2	9.71	9.71	13.2		ug/l	
2,4,5-TP (Silvex)	1 ^a	10.22	10.22	2.3		ug/l	12.2
2,4,5-TP (Silvex)	2	11.11	11.11	2.6		ug/l	

(a) QC results reported from this column.

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GC Identification Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GOA4568-CC4559	Injection Date:	05/14/18
Lab File ID:	OA133319.D	Injection Time:	08:55
Instrument ID:	GCOA	Method:	SW846 8151A
Sample ID:	OP11975-MS	Injection Date:	05/14/18
Lab File ID:	OA133324.D	Injection Time:	11:27
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
2,4-D	1 ^a	8.87	8.89	13.7		ug/l	42.5
2,4-D	2	10.56	10.57	8.9		ug/l	
2,4,5-TP (Silvex)	1 ^a	10.18	10.19	2.2		ug/l	31.6
2,4,5-TP (Silvex)	2	12.08	12.09	1.6		ug/l	

(a) QC results reported from this column.

12.9.2
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GC Identification Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GOA4568-CC4559	Injection Date:	05/14/18
Lab File ID:	OA133319.D	Injection Time:	08:55
Instrument ID:	GCOA	Method:	SW846 8151A

Sample ID:	OP11975-MSD	Injection Date:	05/14/18
Lab File ID:	OA133325.D	Injection Time:	11:55
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
2,4-D	1 ^a	8.87	8.89	12.4		ug/l	8.4
2,4-D	2	10.56	10.57	11.4		ug/l	
2,4,5-TP (Silvex)	1 ^a	10.18	10.19	3.2		ug/l	41.5
2,4,5-TP (Silvex)	2	12.07	12.09	2.1		ug/l	

(a) QC results reported from this column.

12.9.3
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GC Identification Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G1G4644-CC4628	Injection Date:	05/13/18
Lab File ID:	1G146109.D	Injection Time:	22:49
Instrument ID:	GC1G	Method:	SW846 8081B

Sample ID:	OP11974-BS1	Injection Date:	05/13/18
Lab File ID:	1G146112.D	Injection Time:	23:42
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
gamma-BHC (Lindane)	1	3.30	3.29	1.4		ug/l	7.4
gamma-BHC (Lindane)	2 ^a	4.27	4.27	1.3		ug/l	
Endrin	1	5.99	5.99	1.4		ug/l	7.4
Endrin	2 ^a	7.78	7.78	1.3		ug/l	
Heptachlor	1 ^a	3.79	3.78	1.2		ug/l	0.0
Heptachlor	2	4.87	4.87	1.2		ug/l	
Heptachlor epoxide	1	4.83	4.82	1.3		ug/l	8.0
Heptachlor epoxide	2 ^a	6.18	6.18	1.2		ug/l	
Methoxychlor ^b	1 ^a	7.35	7.35	1.3		ug/l	16.7
Methoxychlor ^b	2	9.68	9.68	1.1		ug/l	

(a) QC results reported from this column.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

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GC Identification Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G1G4644-CC4628	Injection Date:	05/13/18
Lab File ID:	1G146109.D	Injection Time:	22:49
Instrument ID:	GC1G	Method:	SW846 8081B

Sample ID:	OP11974-MS	Injection Date:	05/14/18
Lab File ID:	1G146114.D	Injection Time:	00:18
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
gamma-BHC (Lindane)	1 ^a	3.30	3.29	2.8		ug/l	94.7
gamma-BHC (Lindane)	2	4.26	4.27	1.0		ug/l	
Endrin	1 ^a	5.98	5.99	2.7		ug/l	84.2
Endrin	2	7.77	7.78	1.1		ug/l	
Heptachlor	1 ^a	3.78	3.78	1.3		ug/l	7.4
Heptachlor	2	4.87	4.87	1.4		ug/l	
Heptachlor epoxide	1 ^a	4.82	4.82	2.7		ug/l	91.9
Heptachlor epoxide	2	6.18	6.18	1.0		ug/l	
Methoxychlor	1 ^a	7.31	7.35	1.3		ug/l	26.1
Methoxychlor	2	9.66	9.68	1.0		ug/l	

(a) QC results reported from this column.

12.9.5
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GC Identification Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G1G4644-CC4628	Injection Date:	05/13/18
Lab File ID:	1G146109.D	Injection Time:	22:49
Instrument ID:	GC1G	Method:	SW846 8081B

Sample ID:	OP11974-MSD	Injection Date:	05/14/18
Lab File ID:	1G146115.D	Injection Time:	00:36
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
gamma-BHC (Lindane)	1 ^a	3.30	3.29	2.7		ug/l	95.9
gamma-BHC (Lindane)	2	4.26	4.27	0.95		ug/l	
Endrin	1 ^a	5.98	5.99	2.4		ug/l	74.3
Endrin	2	7.77	7.78	1.1		ug/l	
Heptachlor	1 ^a	3.78	3.78	1.3		ug/l	7.4
Heptachlor	2	4.87	4.87	1.4		ug/l	
Heptachlor epoxide	1 ^a	4.82	4.82	2.7		ug/l	84.2
Heptachlor epoxide	2	6.18	6.18	1.1		ug/l	
Methoxychlor	1 ^a	7.31	7.35	1.6		ug/l	28.6
Methoxychlor	2	9.66	9.68	1.2		ug/l	

(a) QC results reported from this column.

12.9.6
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GC Identification Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: G2G4337-CC4311	Injection Date: 05/19/18
Lab File ID: 2G163826.D	Injection Time: 21:12
Instrument ID: GC2G	Method: SW846 8082A

Sample ID: OP12110-BS1	Injection Date: 05/20/18
Lab File ID: 2G163842.D	Injection Time: 01:43
Client ID: Blank Spike	

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 ^a			130		ug/kg	0.0
Aroclor 1016	2			130		ug/kg	
AR1016-A	1	3.16	3.16	160		ug/kg	
AR1016-A	2	4.09	4.09	167		ug/kg	
AR1016-B	1	3.55	3.55	135		ug/kg	
AR1016-B	2	4.62	4.62	128		ug/kg	
AR1016-C	1	4.10	4.09	115		ug/kg	
AR1016-C	2	5.27	5.26	111		ug/kg	
AR1016-D	1	4.26	4.26	110		ug/kg	
AR1016-D	2	5.45	5.45	121		ug/kg	
AR1016-E	1	4.76	4.76	128		ug/kg	
AR1016-E	2	6.09	6.09	121		ug/kg	
Aroclor 1260	1			129		ug/kg	3.1
Aroclor 1260	2 ^a			133		ug/kg	
AR1260-A	1	7.13	7.12	98.8		ug/kg	
AR1260-A	2	8.69	8.69	105		ug/kg	
AR1260-B	1	7.28	7.28	145		ug/kg	
AR1260-B	2	8.80	8.80	148		ug/kg	
AR1260-C	1	7.62	7.62	139		ug/kg	
AR1260-C	2	9.23	9.23	134		ug/kg	
AR1260-D	1	8.05	8.05	124		ug/kg	
AR1260-D	2	9.59	9.58	136		ug/kg	
AR1260-E	1	8.45	8.44	138		ug/kg	
AR1260-E	2	10.13	10.12	143		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2G4337-CC4311	Injection Date:	05/19/18
Lab File ID:	2G163826.D	Injection Time:	21:12
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	OP12110-BSD	Injection Date:	05/20/18
Lab File ID:	2G163843.D	Injection Time:	02:00
Client ID:	Blank Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1			137		ug/kg	0.0
Aroclor 1016	2 ^a			137		ug/kg	
AR1016-A	1	3.15	3.16	170		ug/kg	
AR1016-A	2	4.09	4.09	180		ug/kg	
AR1016-B	1	3.55	3.55	143		ug/kg	
AR1016-B	2	4.62	4.62	135		ug/kg	
AR1016-C	1	4.09	4.09	121		ug/kg	
AR1016-C	2	5.27	5.26	117		ug/kg	
AR1016-D	1	4.26	4.26	115		ug/kg	
AR1016-D	2	5.45	5.45	127		ug/kg	
AR1016-E	1	4.76	4.76	136		ug/kg	
AR1016-E	2	6.09	6.09	126		ug/kg	
Aroclor 1260	1			133		ug/kg	5.1
Aroclor 1260	2 ^a			140		ug/kg	
AR1260-A	1	7.13	7.12	104		ug/kg	
AR1260-A	2	8.69	8.69	111		ug/kg	
AR1260-B	1	7.28	7.28	150		ug/kg	
AR1260-B	2	8.80	8.80	157		ug/kg	
AR1260-C	1	7.62	7.62	137		ug/kg	
AR1260-C	2	9.23	9.23	140		ug/kg	
AR1260-D	1	8.05	8.05	131		ug/kg	
AR1260-D	2	9.59	9.58	143		ug/kg	
AR1260-E	1	8.45	8.44	142		ug/kg	
AR1260-E	2	10.13	10.12	150		ug/kg	

(a) QC results reported from this column.

12.9.8
12

GC Identification Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: G2G4338-CC4311	Injection Date: 05/20/18
Lab File ID: 2G163848.D	Injection Time: 03:25
Instrument ID: GC2G	Method: SW846 8082A

Sample ID: OP12110-MS	Injection Date: 05/20/18
Lab File ID: 2G163851.D	Injection Time: 04:16
Client ID: Matrix Spike	

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 ^a			190		ug/kg	37.5
Aroclor 1016	2			130		ug/kg	
AR1016-C	1	4.10	4.10	158		ug/kg	
AR1016-C	2	5.25	5.26	178		ug/kg	
AR1016-D	1	4.25	4.26	226		ug/kg	
AR1016-D	2	5.44	5.45	112		ug/kg	
AR1016-E	1	4.77	4.76	187		ug/kg	
AR1016-E	2	6.09	6.09	102		ug/kg	
Aroclor 1260	1 ^a			202		ug/kg	32.2
Aroclor 1260	2			146		ug/kg	
AR1260-A	1	7.11	7.12	200		ug/kg	
AR1260-A	2	8.68	8.68	121		ug/kg	
AR1260-B	1	7.27	7.28	219		ug/kg	
AR1260-B	2	8.80	8.80	125		ug/kg	
AR1260-C	1	7.61	7.61	185		ug/kg	
AR1260-C	2	9.23	9.23	146		ug/kg	
AR1260-D	1	8.04	8.04	189		ug/kg	
AR1260-D	2	9.57	9.58	152		ug/kg	
AR1260-E	1	8.42	8.43	216		ug/kg	
AR1260-E	2	10.11	10.12	187		ug/kg	

(a) QC results reported from this column.

12.9.9
12

GC Identification Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: G2G4338-CC4311	Injection Date: 05/20/18
Lab File ID: 2G163848.D	Injection Time: 03:25
Instrument ID: GC2G	Method: SW846 8082A

Sample ID: OP12110-MSD	Injection Date: 05/20/18
Lab File ID: 2G163852.D	Injection Time: 04:33
Client ID: Matrix Spike Duplicate	

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 ^a			216		ug/kg	33.5
Aroclor 1016	2			154		ug/kg	
AR1016-C	1	4.10	4.10	158		ug/kg	
AR1016-C	2	5.25	5.26	203		ug/kg	
AR1016-D	1	4.25	4.26	285		ug/kg	
AR1016-D	2	5.44	5.45	115		ug/kg	
AR1016-E	1	4.76	4.76	205		ug/kg	
AR1016-E	2	6.09	6.09	143		ug/kg	
Aroclor 1260	1 ^a			209		ug/kg	30.3
Aroclor 1260	2			154		ug/kg	
AR1260-A	1	7.11	7.12	204		ug/kg	
AR1260-A	2	8.68	8.68	124		ug/kg	
AR1260-B	1	7.27	7.28	227		ug/kg	
AR1260-B	2	8.80	8.80	141		ug/kg	
AR1260-C	1	7.61	7.61	188		ug/kg	
AR1260-C	2	9.23	9.23	151		ug/kg	
AR1260-D	1	8.04	8.04	196		ug/kg	
AR1260-D	2	9.57	9.58	155		ug/kg	
AR1260-E	1	8.42	8.43	229		ug/kg	
AR1260-E	2	10.11	10.12	200		ug/kg	

(a) QC results reported from this column.

12.9.10
12

Surrogate Recovery Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8151A	Matrix: LEACHATE
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b
JC65860-1A	3G116530.D	89	83
OP11975-BS3	3G116517.D	82	65
OP11975-LB10	3G116508.D	98	74
OP11975-LB13	3G116509.D	97	75
OP11975-LS6	OA133324.D	48* ^c	52
OP11975-MB3	3G116516.D	110	72
OP11975-MS	OA133324.D	48* ^c	52
OP11975-MSD	OA133325.D	65	76
OP11975-LB11	OA133357.D	56	55
OP11975-MB1	OA133321.D	63	74
OP11975-MB2	3G116498.D	102	87

Surrogate Compounds	Recovery Limits
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S1 = 2,4-DCAA	50-142%
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- (a) Recovery from GC signal #2
(b) Recovery from GC signal #1
(c) Outside the QC limits.

12.10.1
12

Surrogate Recovery Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8081B	Matrix: LEACHATE
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a	S2 ^b
JC65860-1A	6G56364.D	55	55	58	60
OP11974-BS1	1G146112.D	69	69	41	35
OP11974-LB11	1G146129.D	89	78	70	56
OP11974-LS6	1G146114.D	114	79	108	53
OP11974-MB1	1G146111.D	82	81	46	35
OP11974-MS	1G146114.D	114	79	108	53
OP11974-MSD	1G146115.D	120	72	94	42

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	30-137%
S2 = Decachlorobiphenyl	10-137%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

12.10.2
12

Surrogate Recovery Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8082A	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a	S2 ^b
JC65860-1	2G163845.D	86	55	1092* ^c	1320* ^c
OP12110-BS1	2G163842.D	86	84	90	95
OP12110-BSD	2G163843.D	91	89	94	99
OP12110-MB1	2G163841.D	84	84	87	92
OP12110-MS	2G163851.D	74	70	101	64
OP12110-MSD	2G163852.D	82	81	108	62

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	24-152%
S2 = Decachlorobiphenyl	10-166%

- (a) Recovery from GC signal #1
- (b) Recovery from GC signal #2
- (c) Outside control limits due to matrix interference.

12.10.3
12

Surrogate Recovery Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8015C	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S2 ^a	S3 ^a
JC65860-1	2Y91072.D	59	80	75
OP11954-BS1	2Y91052.D	62	77	60
OP11954-MB1	2Y91051.D	53	66	51
OP11954-MS	2Y91054.D	52	63	49
OP11954-MSD	2Y91055.D	53	65	50

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	18-132%
S2 = Tetracosane-d50	25-137%
S3 = 5a-Androstane	22-134%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4047-CC4044	Injection Date:	05/17/18
Lab File ID:	3G116496.D	Injection Time:	09:05
Instrument ID:	GC3G	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	7.90	7.38

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
OP12024-MB1	3G116498.D	05/17/18	10:01	7.90	7.38
OP11975-MB2	3G116498.D	05/17/18	10:01	7.90	7.38
OP11871-MB2	3G116498.D	05/17/18	10:01	7.90	7.38
OP12024-BS1	3G116499.D	05/17/18	10:30	7.90	7.38
OP11871-BS2	3G116499.D	05/17/18	10:30	7.90	7.38
OP11975-BS2	3G116499.D	05/17/18	10:30	7.90	7.38
ZZZZZZ	3G116500.D	05/17/18	10:58	7.90	7.38
ZZZZZZ	3G116501.D	05/17/18	11:26	7.90	7.38
ZZZZZZ	3G116502.D	05/17/18	11:55	7.90	7.38
JC65918-1	3G116503.D	05/17/18	12:23	7.90	7.38
OP12024-LS7	3G116504.D	05/17/18	12:51	7.90	7.38
OP12024-MS	3G116504.D	05/17/18	12:51	7.90	7.38
OP12024-MSD	3G116505.D	05/17/18	13:20	7.90	7.38

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4047-CC4044	Injection Date:	05/17/18
Lab File ID:	3G116506.D	Injection Time:	13:48
Instrument ID:	GC3G	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	7.90	7.38

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
OP11975-LB10	3G116508.D	05/17/18	14:45	7.90	7.38
OP11975-LB13	3G116509.D	05/17/18	15:13	7.90	7.38
OP12024-LB15	3G116510.D	05/17/18	15:42	7.90	7.38
OP11871-LB16	3G116511.D	05/17/18	16:11	7.90	7.38
G3G4047-ECC4043	3G116512.D	05/17/18	16:39	7.90	7.38

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4048-CC4044	Injection Date:	05/20/18
Lab File ID:	3G116514.D	Injection Time:	10:49
Instrument ID:	GC3G	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	7.90	7.38

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
OP12064-MB1	3G116516.D	05/20/18	11:48	7.90	7.38
OP11975-MB3	3G116516.D	05/20/18	11:48	7.90	7.38
OP11975-BS3	3G116517.D	05/20/18	12:17	7.90	7.38
OP12064-BS1	3G116517.D	05/20/18	12:17	7.90	7.38
ZZZZZZ	3G116518.D	05/20/18	12:45	7.90	7.38
ZZZZZZ	3G116519.D	05/20/18	13:14	7.90	7.38
ZZZZZZ	3G116520.D	05/20/18	13:42	7.90	7.38
ZZZZZZ	3G116521.D	05/20/18	14:11	7.90	7.38
ZZZZZZ	3G116522.D	05/20/18	14:39	7.90	7.38
ZZZZZZ	3G116523.D	05/20/18	15:08	7.90	7.38

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4048-CC4044	Injection Date:	05/20/18
Lab File ID:	3G116524.D	Injection Time:	15:37
Instrument ID:	GC3G	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	7.90	7.38

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
JC66034-1A	3G116526.D	05/20/18	16:34	7.90	7.38
ZZZZZZ	3G116527.D	05/20/18	17:02	7.90	7.38
ZZZZZZ	3G116528.D	05/20/18	17:31	7.90	7.38
ZZZZZZ	3G116529.D	05/20/18	17:59	7.90	7.38
JC65860-1A	3G116530.D	05/20/18	18:28	7.90	7.38
OP12064-LS9	3G116531.D	05/20/18	18:57	7.90	7.38
OP12064-MS	3G116531.D	05/20/18	18:57	7.90	7.38
OP12064-MSD	3G116532.D	05/20/18	19:25	7.90	7.38
OP12064-LB19	3G116533.D	05/20/18	19:54	7.90	7.38
OP12136-MB1	3G116534.D	05/20/18	20:22	7.90	7.38
OP12135-MB1	3G116534.D	05/20/18	20:22	7.90	7.38

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GOA4568-CC4559	Injection Date:	05/14/18
Lab File ID:	OA133319.D	Injection Time:	08:55
Instrument ID:	GCOA	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	8.55	7.35

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
OP11951-MB1	OA133321.D	05/14/18	10:00	8.56	7.36
OP11975-MB1	OA133321.D	05/14/18	10:00	8.56	7.36
OP11951-BS1	OA133322.D	05/14/18	10:29	8.55	7.35
OP11975-BS1	OA133322.D	05/14/18	10:29	8.55	7.35
LA43799-1B	OA133323.D	05/14/18	10:58	8.55	7.35
OP11975-LS6	OA133324.D	05/14/18	11:27	8.55	7.35
OP11975-MS	OA133324.D	05/14/18	11:27	8.55	7.35
OP11975-MSD	OA133325.D	05/14/18	11:55	8.54	7.34
ZZZZZZ	OA133326.D	05/14/18	12:24	8.56	7.33
OP11920-MS	OA133327.D	05/14/18	12:53	8.55	7.34
OP11920-MSD	OA133329.D	05/14/18	14:01	8.55	7.36
GOA4568-ECC4559	OA133330.D	05/14/18	14:53	8.55	7.35

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.1.5
12

GC Surrogate Retention Time Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GOA4568-CC4559	Injection Date:	05/15/18
Lab File ID:	OA133347.D	Injection Time:	00:04
Instrument ID:	GCOA	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	8.55	7.35

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
ZZZZZZ	OA133349.D	05/15/18	01:01	8.56	7.37
ZZZZZZ	OA133350.D	05/15/18	01:30	8.56	7.36
ZZZZZZ	OA133351.D	05/15/18	01:58	8.56	7.36
ZZZZZZ	OA133352.D	05/15/18	02:27	8.56	7.37
ZZZZZZ	OA133353.D	05/15/18	02:56	8.56	7.36
ZZZZZZ	OA133354.D	05/15/18	03:24	8.56	7.36
ZZZZZZ	OA133355.D	05/15/18	03:53	8.56	7.36
ZZZZZZ	OA133356.D	05/15/18	04:21	8.56	7.36
OP11975-LB11	OA133357.D	05/15/18	04:50	8.56	7.37
GOA4568-ECC4559	OA133358.D	05/15/18	05:19	8.55	7.35

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G1G4644-CC4628	Injection Date:	05/13/18
Lab File ID:	1G146109.D	Injection Time:	22:49
Instrument ID:	GC1G	Method:	SW846 8081B

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.55	3.14	9.80	11.67

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP11875-MB2	1G146111.D	05/13/18	23:25	2.55	3.14	9.80	11.67
OP11974-MB1	1G146111.D	05/13/18	23:25	2.55	3.14	9.80	11.67
OP11950-MB1	1G146111.D	05/13/18	23:25	2.55	3.14	9.80	11.67
OP11974-BS1	1G146112.D	05/13/18	23:42	2.55	3.14	9.80	11.67
OP11875-BS2	1G146112.D	05/13/18	23:42	2.55	3.14	9.80	11.67
OP11950-BS1	1G146112.D	05/13/18	23:42	2.55	3.14	9.80	11.67
LA43799-1B	1G146113.D	05/14/18	00:00	2.55	3.13	9.79	11.66
OP11974-LS6	1G146114.D	05/14/18	00:18	2.55	3.14	9.79	11.67
OP11974-MS	1G146114.D	05/14/18	00:18	2.55	3.14	9.79	11.67
OP11974-MSD	1G146115.D	05/14/18	00:36	2.55	3.14	9.79	11.66
DA5034-1	1G146116.D	05/14/18	00:54	2.56	3.13	9.79	11.66
ZZZZZZ	1G146117.D	05/14/18	01:11	2.54	3.14	9.80	11.67
ZZZZZZ	1G146118.D	05/14/18	01:29	2.54	3.14	9.80	11.67
ZZZZZZ	1G146119.D	05/14/18	01:47	2.54	3.14	9.80	11.67
ZZZZZZ	1G146120.D	05/14/18	02:04	2.54	3.14	9.79	11.66
ZZZZZZ	1G146121.D	05/14/18	02:21	2.54	3.14	9.80	11.67
ZZZZZZ	1G146122.D	05/14/18	02:38	2.54	3.14	9.80	11.67
JC65677-3	1G146123.D	05/14/18	02:55	2.54	3.14	9.80	11.67
OP11950-LS5	1G146124.D	05/14/18	03:13	2.54	3.14	9.80	11.67
OP11950-MS	1G146124.D	05/14/18	03:13	2.54	3.14	9.80	11.67
OP11950-MSD	1G146125.D	05/14/18	03:30	2.54	3.14	9.80	11.67
ZZZZZZ	1G146126.D	05/14/18	03:47	2.55	3.14	9.80	11.67
ZZZZZZ	1G146127.D	05/14/18	04:04	2.55	3.14	9.80	11.67
OP11950-LB7	1G146128.D	05/14/18	04:22	2.55	3.14	9.79	11.66
OP11974-LB11	1G146129.D	05/14/18	04:39	2.54	3.14	9.80	11.67

Surrogate Compounds

S1 = Tetrachloro-m-xylene

S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1

(b) Retention time from GC signal #2

12.11.7
12

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G6G1687-CC1671	Injection Date:	05/20/18
Lab File ID:	6G56346.D	Injection Time:	23:32
Instrument ID:	GC6G	Method:	SW846 8081B

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.54	2.93	9.83	11.72

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP11974-MB3	6G56348.D	05/21/18	00:12	2.54	2.93	9.83	11.72
OP12065-MB1	6G56348.D	05/21/18	00:12	2.54	2.93	9.83	11.72
OP11974-BS3	6G56349.D	05/21/18	00:30	2.54	2.93	9.83	11.72
OP12065-BS1	6G56349.D	05/21/18	00:30	2.54	2.93	9.83	11.72
ZZZZZZ	6G56350.D	05/21/18	00:48	2.54	2.93	9.83	11.72
ZZZZZZ	6G56351.D	05/21/18	01:06	2.54	2.93	9.83	11.72
ZZZZZZ	6G56352.D	05/21/18	01:24	2.54	2.93	9.83	11.72
JC65996-1	6G56353.D	05/21/18	01:42	2.54	2.93	9.83	11.72
OP12065-MS	6G56354.D	05/21/18	01:59	2.54	2.93	9.83	11.72
OP12065-LS9	6G56354.D	05/21/18	01:59	2.54	2.93	9.83	11.72
OP12065-MSD	6G56355.D	05/21/18	02:17	2.54	2.93	9.83	11.72
ZZZZZZ	6G56356.D	05/21/18	02:35	2.54	2.93	9.83	11.72
ZZZZZZ	6G56357.D	05/21/18	02:53	2.54	2.93	9.83	11.72
ZZZZZZ	6G56358.D	05/21/18	03:11	2.54	2.93	9.83	11.72
ZZZZZZ	6G56359.D	05/21/18	03:29	2.54	2.93	9.83	11.72
ZZZZZZ	6G56360.D	05/21/18	03:47	2.54	2.93	9.83	11.72
ZZZZZZ	6G56361.D	05/21/18	04:04	2.55	2.94	9.83	11.72
ZZZZZZ	6G56362.D	05/21/18	04:22	2.54	2.93	9.83	11.72
ZZZZZZ	6G56363.D	05/21/18	04:40	2.54	2.93	9.83	11.72
JC65860-1A	6G56364.D	05/21/18	04:58	2.54	2.93	9.83	11.72
OP11974-LB10	6G56365.D	05/21/18	05:16	2.54	2.93	9.83	11.72
OP12065-LB19	6G56366.D	05/21/18	05:34	2.54	2.93	9.83	11.72

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

12.11.8
12

GC Surrogate Retention Time Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2G4337-CC4311	Injection Date:	05/19/18
Lab File ID:	2G163826.D	Injection Time:	21:12
Instrument ID:	GC2G	Method:	SW846 8082A

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.79	3.43	9.97	11.77

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP12124-MB1	2G163839.D	05/20/18	00:52	2.78	3.43	9.97	11.77
OP12124-BS1	2G163840.D	05/20/18	01:09	2.79	3.43	9.97	11.77
OP12110-MB1	2G163841.D	05/20/18	01:26	2.79	3.43	9.97	11.77
OP12110-BS1	2G163842.D	05/20/18	01:43	2.78	3.43	9.97	11.77
OP12110-BSD	2G163843.D	05/20/18	02:00	2.79	3.43	9.97	11.77
ZZZZZZ	2G163844.D	05/20/18	02:17	2.78	3.43	9.96	11.77
JC65860-1	2G163845.D	05/20/18	02:34	2.78	3.43	10.00	11.79

Surrogate
Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2G4338-CC4311	Injection Date:	05/20/18
Lab File ID:	2G163848.D	Injection Time:	03:25
Instrument ID:	GC2G	Method:	SW846 8082A

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.79	3.43	9.97	11.77

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
JC66309-7	2G163850.D	05/20/18	03:59	2.79	3.43	9.96	11.77
OP12110-MS	2G163851.D	05/20/18	04:16	2.79	3.43	9.96	11.77
OP12110-MSD	2G163852.D	05/20/18	04:33	2.79	3.43	9.96	11.77

Surrogate
Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2Y3470-CC3446	Injection Date:	05/13/18
Lab File ID:	2Y91048.D	Injection Time:	12:44
Instrument ID:	GC2Y	Method:	SW846 8015C

	S1 ^a	S2 ^a	S3 ^a
	RT	RT	RT
Check Std	9.96	11.75	10.64

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT	S3 ^a RT
G2Y3470-RT	2Y91050.D	05/13/18	13:54			
OP11954-MB1	2Y91051.D	05/13/18	14:44	9.98	11.76	10.65
OP11954-BS1	2Y91052.D	05/13/18	15:17	9.97	11.76	10.65
JC65741-2	2Y91053.D	05/13/18	15:50	9.97	11.75	10.64
OP11954-MS	2Y91054.D	05/13/18	16:26	9.97	11.76	10.65
OP11954-MSD	2Y91055.D	05/13/18	17:00	9.97	11.75	10.64
ZZZZZZ	2Y91056.D	05/13/18	17:33	9.97	11.76	10.65
ZZZZZZ	2Y91057.D	05/13/18	18:06	9.97	11.75	10.64

Surrogate Compounds

S1 = o-Terphenyl
S2 = Tetracosane-d50
S3 = 5a-Androstane

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2Y3470-CC3446	Injection Date:	05/14/18
Lab File ID:	2Y91070.D	Injection Time:	01:20
Instrument ID:	GC2Y	Method:	SW846 8015C

	S1 ^a	S2 ^a	S3 ^a
	RT	RT	RT
Check Std	9.96	11.75	10.64

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT	S3 ^a RT
JC65860-1	2Y91072.D	05/14/18	02:27	9.97	11.76	10.65
ZZZZZZ	2Y91073.D	05/14/18	03:00	9.95	11.75	10.64
ZZZZZZ	2Y91074.D	05/14/18	03:34	9.96	11.75	10.64
ZZZZZZ	2Y91075.D	05/14/18	04:08	0.00	0.00	0.00

Surrogate Compounds

S1 = o-Terphenyl
S2 = Tetracosane-d50
S3 = 5a-Androstane

(a) Retention time from GC signal #1

12.11.12
12

Initial Calibration Summary

Page 1 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICC4628
Lab FileID: 1G145471.D

Response Factor Report GC1G

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Initial Calibration

Calibration Files

2 =1G145468.D 5 =1G145469.D 10 =1G145470.D 25 =1G145471.D
50 =1G145472.D 100 =1G145474.D 1 =1G145467.D 75 =1G145473.D

Compound	2	5	10	25	50	100	1	75	Avg %RSD
1) I 1-bromo-2-nitrobenzen -----ISTD-----									
2) Tetrachloro-	0.891	0.950	0.938	0.944	1.066	0.950	0.834	0.969	0.943 7.02
3) Hexachlorobe	1.639	1.655	1.700	1.633	1.820	1.624	1.792	1.641	1.688 4.53
4) alpha-BHC	1.118	1.306	1.304	1.329	1.545	1.476	1.219	1.447	1.343 10.48
5) gamma-BHC	1.115	1.188	1.201	1.193	1.371	1.288	1.221	1.288	1.233 6.43
6) Heptachlor	1.112	1.193	1.215	1.254	1.435	1.321	1.411	1.328	1.284 8.61
7) beta-BHC	0.547	0.591	0.534	0.563	0.613	0.570	0.511	0.574	0.563 5.72
8) delta-BHC	0.776	0.904	0.999	1.151	1.315	1.249	1.044	1.247	1.086 17.32
9) Aldrin	1.029	1.126	1.180	1.153	1.329	1.243	1.241	1.239	1.192 7.68
10) Alachlor	0.155	0.126	0.127	0.127	0.139	0.135	0.196	0.135	0.142 16.60
11) Heptachlor E	0.980	1.076	1.111	1.092	1.258	1.145	1.110	1.158	1.116 7.07
12) gamma-Chlord	1.010	1.054	1.110	1.101	1.274	1.186	1.228	1.188	1.144 7.86
13) alpha-Chlord	0.960	1.049	1.079	1.063	1.220	1.131	1.108	1.135	1.093 6.94
14) Endosulfan I	1.053	1.180	1.206	1.151	1.319	1.197	1.223	1.209	1.192 6.22
15) 4,4'-DDE	0.893	0.914	0.919	0.925	1.065	1.001	1.178	0.999	0.987 9.83
16) Dieldrin	1.027	1.059	1.081	1.093	1.270	1.182	1.057	1.177	1.118 7.41
17) Endrin	0.923	0.972	1.009	1.019	1.176	1.090	1.012	1.091	1.036 7.65
18) 4,4'-DDD	0.716	0.717	0.760	0.772	0.919	0.857	0.794	0.855	0.799 9.08
19) Endosulfan I	0.861	0.959	0.996	0.972	1.120	1.023	1.076	1.030	1.005 7.81
20) 4,4'-DDT	0.622	0.648	0.693	0.764	0.890	0.875	0.528	0.857	0.735 18.15
21) Endrin Aldeh	0.729	0.812	0.817	0.808	0.866	0.845	0.765	0.842	0.811 5.53
22) Endosulfan S	0.656	0.759	0.790	0.802	0.912	0.853	0.731	0.848	0.794 10.05
23) Methoxychlor	0.210	0.239	0.289	0.332	0.407	0.395	0.161	0.390	0.303 30.77
----- Quadratic regression ----- Coefficient = 0.9984									
Response Ratio = -0.01368 + 0.39702 *A + 0.00297 *A^2									
24) Mirex	0.747	0.807	0.826	0.805	0.878	0.793	0.818	0.802	0.810 4.51
25) Endrin Keton	0.835	0.878	0.917	0.932	1.066	0.986	0.890	0.991	0.937 7.91
26) Decachlorobi	0.948	0.953	0.978	0.951	1.045	0.940	0.985	0.956	0.970 3.52
27) I 1-bromo-2-nitrobenzen -----ISTD-----									
28) Toxaphene{A}					0.018			0.018	0.00
29) Toxaphene{B}					0.044			0.044	0.00
30) Toxaphene{C}					0.037			0.037	0.00
31) Toxaphene{D}					0.025			0.025	0.00
32) Toxaphene{E}					0.027			0.027	0.00
33) I 1-bromo-2-nitrobenzen -----ISTD-----									
34) Chlordane {A}					0.062			0.062	0.00
35) Chlordane {B}					0.026			0.026	0.00
36) Chlordane {C}					0.153			0.153	0.00
37) Chlordane {D}					0.239			0.239	0.00
38) Chlordane {E}					0.027			0.027	0.00

Signal #2

Initial Calibration Summary

Page 2 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICC4628
Lab FileID: 1G145471.D

1)	I	1-bromo-2-nitrobenzen	-----	ISTD-----							
2)	Tetrachloro-	1.015	1.010	1.030	1.009	1.140	0.987	1.062	1.012	1.033	4.67
3)	Hexachlorobe	1.367	1.308	1.308	1.271	1.437	1.246	1.840	1.282	1.382	14.08
4)	alpha-BHC	1.299	1.331	1.346	1.385	1.643	1.493	1.355	1.516	1.421	8.31
5)	gamma-BHC	1.214	1.241	1.259	1.276	1.487	1.322	1.188	1.347	1.292	7.33
6)	Heptachlor	1.186	1.248	1.276	1.278	1.484	1.314	1.351	1.337	1.309	6.72
7)	beta-BHC	0.528	0.562	0.592	0.582	0.663	0.567	0.626	0.587	0.588	7.00
8)	delta-BHC	1.026	1.112	1.135	1.157	1.374	1.237	1.098	1.249	1.173	9.27
9)	Aldrin	1.296	1.267	1.269	1.267	1.464	1.302	1.243	1.319	1.303	5.31
10)	Alachlor	0.189	0.179	0.180	0.164	0.180	0.152	0.191	0.158	0.174	8.26
11)	Heptachlor E	1.224	1.197	1.195	1.183	1.349	1.184	1.129	1.209	1.209	5.22
12)	gamma-Chlord	1.201	1.193	1.202	1.180	1.365	1.204	1.266	1.226	1.229	4.94
13)	alpha-Chlord	1.148	1.160	1.165	1.150	1.316	1.154	1.159	1.175	1.178	4.76
14)	Endosulfan I	1.144	1.101	1.102	1.085	1.237	1.084	1.175	1.106	1.129	4.73
15)	4,4'-DDE	0.999	1.040	1.050	1.051	1.231	1.113	0.956	1.124	1.070	7.95
16)	Dieldrin	1.186	1.190	1.201	1.189	1.379	1.227	1.281	1.247	1.237	5.36
17)	Endrin	1.039	1.049	1.051	1.044	1.209	1.079	1.080	1.090	1.080	5.12
18)	4,4'-DDD	0.791	0.767	0.791	0.791	0.933	0.854	0.877	0.848	0.831	6.76
19)	Endosulfan I	1.050	1.038	1.058	1.029	1.181	1.046	1.186	1.056	1.081	5.94
20)	4,4'-DDT	0.512	0.568	0.608	0.669	0.816	0.774	0.520	0.763	0.654	18.32
21)	Endrin Aldeh	0.848	0.843	0.803	0.823	0.887	0.822	0.927	0.836	0.848	4.71
22)	Endosulfan S	0.780	0.799	0.747	0.809	0.929	0.831	0.780	0.840	0.814	6.76
23)	Methoxychlor	0.317	0.361	0.316	0.348	0.406	0.359	0.315	0.362	0.348	9.07
24)	Mirex	0.709	0.760	0.715	0.737	0.814	0.699	0.852	0.717	0.750	7.35
25)	Endrin Keton	0.791	0.826	0.822	0.858	1.014	0.906	0.879	0.919	0.877	8.05
26)	Decachlorobi	0.971	0.934	0.897	0.916	1.025	0.882	0.876	0.907	0.926	5.42
27)	I	1-bromo-2-nitrobenzen	-----	ISTD-----							
28)	Toxaphene{A}					0.020				0.020	0.00
29)	Toxaphene{B}					0.025				0.025	0.00
30)	Toxaphene{C}					0.042				0.042	0.00
31)	Toxaphene{D}					0.025				0.025	0.00
32)	Toxaphene{E}					0.021				0.021	0.00
33)	I	1-bromo-2-nitrobenzen	-----	ISTD-----							
34)	Chlordane {A					0.057				0.057	0.00
35)	Chlordane {B					0.026				0.026	0.00
36)	Chlordane {C					0.143				0.143	0.00
37)	Chlordane {D					0.238				0.238	0.00
38)	Chlordane {E					0.025				0.025	0.00

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

1PST4628.M

Thu Apr 26 09:15:45 2018

RPT1

12.12.1
12

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145478.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145478.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145478.D\ECD2B.CH
Acq On : 4-25-18 03:39:32 PM Operator: dharas
Sample : icv4628-500 Inst : GC1G
Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.00	1.95- 2.01
2 SAB	Tetrachloro-m-xylene	0.943	0.964	-2.2	93	0.00	2.52- 2.58
26 SA	Decachlorobiphenyl	0.970	1.009	-4.0	100	0.00	9.79- 9.85
33 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	93	0.00	1.88- 2.08
34	Chlordane {A}	0.062	0.071	-14.5	107	0.00	3.70- 3.90
35	Chlordane {B}	0.026	0.026	0.0	93	0.00	4.66- 4.86
36	Chlordane {C}	0.153	0.154	-0.7	94	0.00	4.91- 5.11
37	Chlordane {D}	0.239	0.245	-2.5	95	0.00	5.07- 5.27
38	Chlordane {E}	0.027	0.030	-11.1	103	0.00	5.97- 6.17

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	110	0.00	2.27- 2.33
2 SAB	Tetrachloro-m-xylene	1.033	0.916	11.3	88	0.00	3.11- 3.17
26 SA	Decachlorobiphenyl	0.926	0.922	0.4	99	0.00	11.68-11.74
33 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	95	0.00	2.20- 2.40
34	Chlordane {A}	0.057	0.067	-17.5	111	0.00	4.78- 4.98
35	Chlordane {B}	0.026	0.030	-15.4	108	0.00	6.04- 6.24
36	Chlordane {C}	0.143	0.144	-0.7	96	0.00	6.40- 6.60
37	Chlordane {D}	0.238	0.239	-0.4	96	0.00	6.63- 6.83
38	Chlordane {E}	0.025	0.027	-8.0	104	0.00	7.82- 8.02

(#) = Out of Range
1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
Thu Apr 26 09:08:59 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145479.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145479.D\ECD1A.CH Vial: 15
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145479.D\ECD2B.CH
Acq On : 4-25-18 03:56:45 PM Operator: dharas
Sample : icv4628-500 Inst : GC1G
Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	110	0.00	1.95- 2.01
2 SAB	Tetrachloro-m-xylene	0.943	0.840	10.9	87	0.00	2.52- 2.58
26 SA	Decachlorobiphenyl	0.970	0.955	1.5	101	0.00	9.79- 9.85
27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	97	0.00	1.88- 2.08
28 L8	Toxaphene{A}	0.018	0.019	-5.6	104	0.00	5.59- 5.79
29 L8	Toxaphene{B}	0.044	0.046	-4.5	101	0.00	6.22- 6.42
30 L8	Toxaphene{C}	0.037	0.039	-5.4	102	0.00	6.39- 6.59
31 L8	Toxaphene{D}	0.025	0.030	-20.0	118	0.00	6.74- 6.94
32 L8	Toxaphene{E}	0.027	0.029	-7.4	105	0.00	7.39- 7.59

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	112	0.00	2.27- 2.33
2 SAB	Tetrachloro-m-xylene	1.033	0.909	12.0	89	0.00	3.11- 3.17
26 SA	Decachlorobiphenyl	0.926	0.900	2.8	98	0.00	11.68-11.74
27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	0.00	2.20- 2.40
28 L8	Toxaphene{A}	0.020	0.020	0.0	100	0.00	7.14- 7.34
29 L8	Toxaphene{B}	0.025	0.026	-4.0	100	0.00	8.03- 8.23
30 L8	Toxaphene{C}	0.042	0.043	-2.4	100	0.00	8.20- 8.40
31 L8	Toxaphene{D}	0.025	0.026	-4.0	101	0.00	8.63- 8.83
32 L8	Toxaphene{E}	0.021	0.021	0.0	99	0.00	9.53- 9.73

(#) = Out of Range
1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
Thu Apr 26 09:09:00 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145481.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145481.D\ECD1A.CH Vial: 17
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145481.D\ECD2B.CH
Acq On : 4-25-18 04:31:21 PM Operator: dharas
Sample : icv4628-50 Inst : GC1G
Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	1.95- 2.01
3	Hexachlorobenzene	1.688	1.743	-3.3	100	0.00	2.85- 2.91

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	113	0.00	2.27- 2.33
3	Hexachlorobenzene	1.382	1.329	3.8	104	0.00	3.65- 3.71

(#) = Out of Range
1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
Thu Apr 26 09:09:01 2018 RPT1

12.12.4
12

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145508.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145508.D\ECD1A.CH Vial: 25
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145508.D\ECD2B.CH
Acq On : 4-25-18 06:53:01 PM Operator: dharas
Sample : icv4628-50 Inst : GC1G
Misc : op11477,g1g4628,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	116	0.00	1.95-	2.01
10	Alachlor	0.142	0.126	11.3	105	0.00	4.22-	4.28

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	121	0.00	2.27-	2.33
10	Alachlor	0.174	0.151	13.2	101	0.00	5.09-	5.15

(#) = Out of Range
1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
Thu Apr 26 09:09:02 2018 RPT1

12.12.5
12

Initial Calibration Verification

Page 1 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145488.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145488.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145488.D\ECD2B.CH
Acq On : 4-25-18 07:10:15 PM Operator: dharas
Sample : icv4628-25 Inst : GC1G
Misc : op11423,g1g4628,15.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Wed Apr 25 15:35:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	97	0.00	1.95-	2.01
2 SAB	Tetrachloro-m-xylene	0.943	0.835	11.5	86	0.00	2.52-	2.58
4 A	alpha-BHC	1.343	1.359	-1.2	99	0.00	2.98-	3.04
5 MA	gamma-BHC	1.233	1.293	-4.9	105	0.00	3.27-	3.33
6 MA	Heptachlor	1.284	1.312	-2.2	101	0.00	3.77-	3.83
7 B	beta-BHC	0.563	0.571	-1.4	98	0.00	3.35-	3.41
8 B	delta-BHC	1.086	1.141	-5.1	96	0.00	3.54-	3.61
9 MB	Aldrin	1.192	1.191	0.1	100	0.00	4.11-	4.17
11 B	Heptachlor Epoxide	1.116	1.105	1.0	98	0.00	4.81-	4.87
12 B	gamma-Chlordane	1.144	1.151	-0.6	101	0.00	4.98-	5.04
13 B	alpha-Chlordane	1.093	1.152	-5.4	105	0.00	5.15-	5.21
14 A	Endosulfan I	1.192	1.184	0.7	100	0.00	5.33-	5.39
15 B	4,4'-DDE	0.987	1.094	-10.8	115	0.00	5.26-	5.32
16 MA	Dieldrin	1.118	1.150	-2.9	102	0.00	5.65-	5.71
17 MA	Endrin	1.036	1.103	-6.5	105	0.00	5.98-	6.04
18 A	4,4'-DDD	0.799	0.839	-5.0	105	0.00	6.10-	6.17
19 B	Endosulfan II	1.005	0.989	1.6	99	0.00	6.30-	6.36
20 MA	4,4'-DDT	0.735	0.836	-13.7	106	0.00	6.52-	6.58
21 B	Endrin Aldehyde	0.811	0.790	2.6	95	0.00	6.93-	6.99
22 B	Endosulfan Sulfate	0.794	0.862	-8.6	104	0.00	7.61-	7.67
----- True Calc. % Drift -----								
23 A	Methoxychlor	25.000	26.181	-4.7	114	0.00	7.30-	7.36
----- AvgRF CCRF % Dev -----								
24	Mirex	0.810	0.766	5.4	92	0.00	7.48-	7.54
25 B	Endrin Ketone	0.937	0.876	6.5	91	0.00	8.06-	8.12
26 SA	Decachlorobiphenyl	0.970	0.868	10.5	88	0.00	9.79-	9.85

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	2.27-	2.33
2 SAB	Tetrachloro-m-xylene	1.033	0.893	13.6	89	0.00	3.11-	3.17
4 A	alpha-BHC	1.421	1.409	0.8	103	0.00	3.80-	3.86
5 MA	gamma-BHC	1.292	1.263	2.2	100	0.00	4.25-	4.31
6 MA	Heptachlor	1.309	1.318	-0.7	104	0.00	4.85-	4.91

Initial Calibration Verification

Page 2 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4628-ICV4628
Lab FileID: 1G145488.D

7	B	beta-BHC	0.588	0.545	7.3	95	0.00	4.34-	4.40
8	B	delta-BHC	1.173	1.168	0.4	102	0.00	4.76-	4.82
9	MB	Aldrin	1.303	1.264	3.0	101	0.00	5.33-	5.39
11	B	Heptachlor Epoxide	1.209	1.183	2.2	101	0.00	6.17-	6.23
12	B	gamma-Chlordane	1.229	1.184	3.7	101	0.00	6.47-	6.53
13	B	alpha-Chlordane	1.178	1.142	3.1	100	0.00	6.70-	6.76
14	A	Endosulfan I	1.129	1.103	2.3	103	0.00	6.80-	6.86
15	B	4,4'-DDE	1.070	1.126	-5.2	108	0.00	6.95-	7.01
16	MA	Dieldrin	1.237	1.190	3.8	101	0.00	7.25-	7.31
17	MA	Endrin	1.080	1.104	-2.2	107	0.00	7.77-	7.83
18	A	4,4'-DDD	0.831	0.851	-2.4	109	0.00	7.93-	7.99
19	B	Endosulfan II	1.081	1.018	5.8	100	0.00	8.13-	8.19
20	MA	4,4'-DDT	0.654	0.753	-15.1	114	0.00	8.47-	8.53
21	B	Endrin Aldehyde	0.848	0.801	5.5	98	0.00	8.71-	8.77
22	B	Endosulfan Sulfate	0.814	0.891	-9.5	111	0.00	9.19-	9.25
23	A	Methoxychlor	0.348	0.342	1.7	99	0.00	9.66-	9.72
24		Mirex	0.750	0.686	8.5	94	0.00	9.98-	10.04
25	B	Endrin Ketone	0.877	0.831	5.2	98	0.00	10.03-	10.09
26	SA	Decachlorobiphenyl	0.926	0.898	3.0	99	0.00	11.68-	11.74

(#) = Out of Range
1G145471.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
Thu Apr 26 09:08:10 2018 RPT1

12.12.6
12

Continuing Calibration Summary

Page 1 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4644-CC4628
Lab FileID: 1G146109.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4644\1G146109.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\1G4644\1G146109.D\ECD2B.CH
Acq On : 13 May 2018 10:49 pm Operator: christp
Sample : cc4628-25 Inst : GC1G
Misc : op11897,g1g4644,15.9,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Sun May 13 23:05:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	86	0.00	1.96-	2.02
2 SAB	Tetrachloro-m-xylene	0.943	0.937	0.6	85	0.00	2.52-	2.58
3	Hexachlorobenzene	1.688	1.553	8.0	81	0.00	2.85-	2.91
4 A	alpha-BHC	1.343	1.293	3.7	83	0.00	2.97-	3.03
5 MA	gamma-BHC	1.233	1.141	7.5	82	0.00	3.26-	3.32
6 MA	Heptachlor	1.284	1.114	13.2	76	-0.01	3.75-	3.81
7 B	beta-BHC	0.563	0.451	19.9	69	0.01	3.37-	3.43
8 B	delta-BHC	1.086	0.881	18.9	66	0.02	3.56-	3.62
9 MB	Aldrin	1.192	1.125	5.6	84	-0.01	4.09-	4.15
10	Alachlor	0.142	0.121	14.8	82	0.00	4.22-	4.28
11 B	Heptachlor Epoxide	1.116	1.071	4.0	84	-0.01	4.79-	4.85
12 B	gamma-Chlordane	1.144	0.991	13.4	77	-0.01	4.96-	5.02
13 B	alpha-Chlordane	1.093	0.956	12.5	77	-0.01	5.13-	5.19
14 A	Endosulfan I	1.192	1.317	-10.5	98	-0.01	5.31-	5.37
15 B	4,4'-DDE	0.987	0.644	34.8#	60	0.02	5.26-	5.32
16 MA	Dieldrin	1.118	1.097	1.9	86	-0.01	5.63-	5.69
17 MA	Endrin	1.036	1.070	-3.3	90	-0.01	5.96-	6.02
18 A	4,4'-DDD	0.799	0.598	25.2#	66	0.04	6.12-	6.19
19 B	Endosulfan II	1.005	1.035	-3.0	91	0.00	6.29-	6.35
20 MA	4,4'-DDT	0.735	0.700	4.8	78	0.01	6.51-	6.57
21 B	Endrin Aldehyde	0.811	0.823	-1.5	87	0.00	6.91-	6.97
22 B	Endosulfan Sulfate	0.794	0.854	-7.6	91	0.00	7.59-	7.65
----- True Calc. % Drift -----								
23 A	Methoxychlor	25.000	22.302	10.8	85	0.03	7.32-	7.38
----- AvgRF CCRF % Dev -----								
24	Mirex	0.810	0.870	-7.4	92	-0.01	7.45-	7.51
25 B	Endrin Ketone	0.937	0.868	7.4	80	0.00	8.04-	8.10
26 SA	Decachlorobiphenyl	0.970	1.069	-10.2	96	0.00	9.77-	9.83

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.01	2.27-	2.33
2 SAB	Tetrachloro-m-xylene	1.033	0.953	7.7	97	0.00	3.11-	3.17
3	Hexachlorobenzene	1.382	1.451	-5.0	117	0.00	3.64-	3.70
4 A	alpha-BHC	1.421	1.240	12.7	92	0.00	3.79-	3.85
5 MA	gamma-BHC	1.292	1.139	11.8	92	0.00	4.24-	4.30
6 MA	Heptachlor	1.309	1.160	11.4	93	0.00	4.84-	4.90

Continuing Calibration Summary

Page 2 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4644-CC4628
Lab FileID: 1G146109.D

7 B	beta-BHC	0.588	0.485	17.5	86	0.02	4.34- 4.40
8 B	delta-BHC	1.173	0.916	21.9#	81	0.02	4.75- 4.81
9 MB	Aldrin	1.303	1.174	9.9	95	0.00	5.31- 5.37
10	Alachlor	0.174	0.139	20.1#	87	0.00	5.08- 5.14
11 B	Heptachlor Epoxide	1.209	1.024	15.3	89	0.00	6.15- 6.21
12 B	gamma-Chlordane	1.229	1.048	14.7	91	0.00	6.45- 6.51
13 B	alpha-Chlordane	1.178	1.032	12.4	92	0.00	6.67- 6.73
14 A	Endosulfan I	1.129	0.955	15.4	90	0.00	6.78- 6.84
15 B	4,4'-DDE	1.070	0.904	15.5	88	0.01	6.94- 7.00
16 MA	Dieldrin	1.237	1.025	17.1	89	0.00	7.23- 7.29
17 MA	Endrin	1.080	0.944	12.6	93	0.00	7.75- 7.81
18 A	4,4'-DDD	0.831	0.582	30.0#	76	0.03	7.92- 7.98
19 B	Endosulfan II	1.081	0.896	17.1	89	0.00	8.11- 8.17
20 MA	4,4'-DDT	0.654	0.447	31.7#	69	0.01	8.45- 8.51
21 B	Endrin Aldehyde	0.848	0.668	21.2#	83	0.00	8.68- 8.74
22 B	Endosulfan Sulfate	0.814	0.632	22.4#	80	0.00	9.16- 9.22
23 A	Methoxychlor	0.348	0.270	22.4#	79	0.02	9.65- 9.71
24	Mirex	0.750	0.660	12.0	92	0.00	9.96-10.02
25 B	Endrin Ketone	0.877	0.692	21.1#	83	0.00	10.00-10.06
26 SA	Decachlorobiphenyl	0.926	0.853	7.9	96	0.00	11.64-11.70

(#) = Out of Range
 1G145471.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
 Mon May 14 09:18:28 2018 RPT1

12.12.7
 12

Continuing Calibration Summary

Page 1 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4644-CC4628
Lab FileID: 1G146130.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4644\1G146130.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\1G4644\1G146130.D\ECD2B.CH
Acq On : 5-14-18 04:56:18 AM Operator: christp
Sample : cc4628-50 Inst : GC1G
Misc : op11974,g1g4644,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Sun May 13 23:05:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	0.00	1.96-	2.02
2 SAB	Tetrachloro-m-xylene	0.943	0.995	-5.5	91	0.00	2.52-	2.58
3	Hexachlorobenzene	1.688	1.674	0.8	90	0.00	2.85-	2.91
4 A	alpha-BHC	1.343	1.471	-9.5	93	0.00	2.97-	3.03
5 MA	gamma-BHC	1.233	1.259	-2.1	90	0.00	3.27-	3.33
6 MA	Heptachlor	1.284	1.398	-8.9	95	-0.01	3.75-	3.81
7 B	beta-BHC	0.563	0.565	-0.4	90	0.02	3.37-	3.43
8 B	delta-BHC	1.086	0.866	20.3#	64	0.02	3.56-	3.62
9 MB	Aldrin	1.192	1.316	-10.4	97	-0.01	4.09-	4.15
10	Alachlor	0.142	0.142	0.0	100	0.00	4.21-	4.27
11 B	Heptachlor Epoxide	1.116	1.241	-11.2	96	-0.01	4.79-	4.85
12 B	gamma-Chlordane	1.144	1.264	-10.5	97	-0.01	4.96-	5.02
13 B	alpha-Chlordane	1.093	1.185	-8.4	95	-0.01	5.13-	5.19
14 A	Endosulfan I	1.192	1.659	-39.2#	123	-0.01	5.31-	5.37
15 B	4,4'-DDE	0.987	0.714	27.7#	66	0.02	5.27-	5.33
16 MA	Dieldrin	1.118	1.297	-16.0	100	-0.01	5.63-	5.69
17 MA	Endrin	1.036	1.241	-19.8	103	-0.01	5.96-	6.02
18 A	4,4'-DDD	0.799	0.752	5.9	80	0.03	6.12-	6.19
19 B	Endosulfan II	1.005	1.194	-18.8	104	0.00	6.29-	6.35
20 MA	4,4'-DDT	0.735	0.785	-6.8	86	0.01	6.51-	6.57
21 B	Endrin Aldehyde	0.811	0.927	-14.3	105	0.00	6.91-	6.97
22 B	Endosulfan Sulfate	0.794	0.836	-5.3	90	0.00	7.59-	7.65
----- True Calc. % Drift -----								
23 A	Methoxychlor	50.000	55.244	-10.5	103	0.03	7.32-	7.38
----- AvgRF CCRF % Dev -----								
24	Mirex	0.810	0.943	-16.4	105	-0.01	7.45-	7.51
25 B	Endrin Ketone	0.937	0.933	0.4	86	0.00	8.03-	8.09
26 SA	Decachlorobiphenyl	0.970	1.135	-17.0	106	0.00	9.77-	9.83

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	122	0.01	2.27-	2.33
2 SAB	Tetrachloro-m-xylene	1.033	0.990	4.2	106	0.00	3.11-	3.17
3	Hexachlorobenzene	1.382	1.544	-11.7	131	0.00	3.64-	3.70
4 A	alpha-BHC	1.421	1.411	0.7	105	0.00	3.79-	3.85
5 MA	gamma-BHC	1.292	1.211	6.3	100	0.00	4.24-	4.30
6 MA	Heptachlor	1.309	1.325	-1.2	109	0.00	4.84-	4.90

Continuing Calibration Summary

Page 2 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G1G4644-CC4628
Lab FileID: 1G146130.D

7 B	beta-BHC	0.588	0.562	4.4	104	0.02	4.34- 4.40
8 B	delta-BHC	1.173	0.748	36.2#	67	0.02	4.76- 4.82
9 MB	Aldrin	1.303	1.266	2.8	106	0.00	5.31- 5.37
10	Alachlor	0.174	0.148	14.9	100	0.00	5.08- 5.14
11 B	Heptachlor Epoxide	1.209	1.146	5.2	104	0.00	6.15- 6.21
12 B	gamma-Chlordane	1.229	1.176	4.3	105	0.00	6.45- 6.51
13 B	alpha-Chlordane	1.178	1.140	3.2	106	0.00	6.67- 6.73
14 A	Endosulfan I	1.129	1.050	7.0	104	0.00	6.78- 6.84
15 B	4,4'-DDE	1.070	0.985	7.9	98	0.02	6.94- 7.00
16 MA	Dieldrin	1.237	1.143	7.6	101	0.00	7.23- 7.29
17 MA	Endrin	1.080	1.026	5.0	104	0.00	7.75- 7.81
18 A	4,4'-DDD	0.831	0.657	20.9#	86	0.03	7.92- 7.98
19 B	Endosulfan II	1.081	0.978	9.5	101	0.00	8.11- 8.17
20 MA	4,4'-DDT	0.654	0.503	23.1#	75	0.01	8.45- 8.51
21 B	Endrin Aldehyde	0.848	0.709	16.4	98	0.00	8.68- 8.74
22 B	Endosulfan Sulfate	0.814	0.585	28.1#	77	0.00	9.16- 9.22
23 A	Methoxychlor	0.348	0.308	11.5	93	0.01	9.65- 9.71
24	Mirex	0.750	0.689	8.1	104	0.00	9.95-10.01
25 B	Endrin Ketone	0.877	0.704	19.7	85	0.00	10.00-10.06
26 SA	Decachlorobiphenyl	0.926	0.850	8.2	101	0.00	11.64-11.70

(#) = Out of Range
 1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0
 Mon May 14 09:18:57 2018 RPT1

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Initial Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICC4311
Lab FileID: 2G162099.D

Response Factor Report HP G1530A

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 2PCB4311.M
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response Via : Initial Calibration

Calibration Files

50 =2G162102a.D 250 =2G162097.D 500 =2G162098.D
1000 =2G162099.D 2000 =2G162100.D 3000 =2G162101.D

	Compound	50	250	500	1000	2000	3000	Avg		%RSD
1)	S Tetrachloro-m...	3.853	3.487	3.538	3.692	3.667	3.785	3.670	E6	3.81
2)	AR1221-A				2.897			2.897	E4	0.00
3)	AR1221-B				4.202			4.202	E4	0.00
4)	AR1221-C				1.288			1.288	E5	0.00
5)	AR1221-D				1.466			1.466	E4	0.00
6)	AR1221-E				1.436			1.436	E4	0.00
7)	AR1232-A				9.734			9.734	E4	0.00
8)	AR1232-B				6.684			6.684	E4	0.00
9)	AR1232-C				1.305			1.305	E5	0.00
10)	AR1232-D				5.447			5.447	E4	0.00
11)	AR1232-E				5.149			5.149	E4	0.00
12)	AR1242-A				1.198			1.198	E5	0.00
13)	AR1242-B				2.525			2.525	E5	0.00
14)	AR1242-C				1.054			1.054	E5	0.00
15)	AR1242-D				1.090			1.090	E5	0.00
16)	AR1242-E				9.298			9.298	E4	0.00
17)	AR1248-A				5.917			5.917	E4	0.00
18)	AR1248-B				1.544			1.544	E5	0.00
19)	AR1248-C				1.652			1.652	E5	0.00
20)	AR1248-D				1.598			1.598	E5	0.00
21)	AR1248-E				1.421			1.421	E5	0.00
22)	AR1248-F				1.402			1.402	E5	0.00
23)	AR1248-G				1.572			1.572	E5	0.00
24)	AR1254-A				1.234			1.234	E5	0.00
25)	AR1254-B				2.588			2.588	E5	0.00
26)	AR1254-C				1.370			1.370	E5	0.00
27)	AR1254-D				2.459			2.459	E5	0.00
28)	AR1254-E				1.825			1.825	E5	0.00
29)	AR1254-F				1.712			1.712	E5	0.00
30)	AR1254-G				2.518			2.518	E5	0.00
31)	AR1016-A	9.451	7.869	7.627	7.558	7.126	7.105	7.789	E4	11.13
32)	AR1016-B	1.685	1.361	1.324	1.304	1.242	1.247	1.361	E5	12.16
33)	AR1016-C	3.261	2.840	2.792	2.854	2.797	2.854	2.900	E5	6.18
34)	AR1016-D	1.360	1.162	1.156	1.157	1.119	1.140	1.182	E5	7.49
35)	AR1016-E	1.424	1.227	1.184	1.176	1.145	1.161	1.219	E5	8.51
36)	AR1260-A	3.759	3.397	3.078	3.178	3.473	3.566	3.408	E5	7.36
37)	AR1260-B	1.602	1.368	1.501	1.530	1.316	1.349	1.444	E5	8.00
38)	AR1260-C	1.676	1.539	1.642	1.690	1.480	1.527	1.592	E5	5.54
39)	AR1260-D	3.627	3.372	3.743	3.953	3.621	3.712	3.671	E5	5.17
40)	AR1260-E	3.931	3.596	3.895	4.026	3.611	3.668	3.788	E5	4.88
41)	AR1262-A				1.935			1.935	E5	0.00
42)	AR1262-B				2.424			2.424	E5	0.00
43)	AR1262-C				2.270			2.270	E5	0.00
44)	AR1262-D				4.854			4.854	E5	0.00
45)	AR1262-E				5.588			5.588	E5	0.00
46)	AR1268-A				5.754			5.754	E5	0.00

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Initial Calibration Summary

Page 2 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICC4311
Lab FileID: 2G162099.D

47)	AR1268-B				5.673			5.673	E5	0.00
48)	AR1268-C				4.730			4.730	E5	0.00
49)	AR1268-D				1.992			1.992	E5	0.00
50)	AR1268-E				1.615			1.615	E6	0.00
51) S	Decachlorobip...	4.697	4.061	3.924	3.931	3.825	3.897	4.056	E6	7.97

Signal #2 Calibration Files

50 =2G162102a.D 250 =2G162097.D 500 =2G162098.D
1000 =2G162099.D 2000 =2G162100.D 3000 =2G162101.D

	Compound	50	250	500	1000	2000	3000	Avg		%RSD
1) S	Tetrachloro-m...	2.359	2.161	2.233	2.322	2.300	2.354	2.288	E7	3.37
2)	AR1221-A				1.409			1.409	E5	0.00
3)	AR1221-B				2.507			2.507	E5	0.00
4)	AR1221-C				6.558			6.558	E5	0.00
5)	AR1221-D				1.222			1.222	E5	0.00
6)	AR1221-E				8.849			8.849	E4	0.00
7)	AR1232-A				5.020			5.020	E5	0.00
8)	AR1232-B				3.935			3.935	E5	0.00
9)	AR1232-C				8.152			8.152	E5	0.00
10)	AR1232-D				3.615			3.615	E5	0.00
11)	AR1232-E				2.173			2.173	E5	0.00
12)	AR1242-A				7.054			7.054	E5	0.00
13)	AR1242-B				1.548			1.548	E6	0.00
14)	AR1242-C				6.668			6.668	E5	0.00
15)	AR1242-D				4.564			4.564	E5	0.00
16)	AR1242-E				6.343			6.343	E5	0.00
17)	AR1248-A				3.627			3.627	E5	0.00
18)	AR1248-B				9.548			9.548	E5	0.00
19)	AR1248-C				5.697			5.697	E5	0.00
20)	AR1248-D				7.271			7.271	E5	0.00
21)	AR1248-E				8.799			8.799	E5	0.00
22)	AR1248-F				1.097			1.097	E6	0.00
23)	AR1248-G				1.220			1.220	E6	0.00
24)	AR1254-A				9.925			9.925	E5	0.00
25)	AR1254-B				9.839			9.839	E5	0.00
26)	AR1254-C				7.977			7.977	E5	0.00
27)	AR1254-D				1.634			1.634	E6	0.00
28)	AR1254-E				1.089			1.089	E6	0.00
29)	AR1254-F				1.181			1.181	E6	0.00
30)	AR1254-G				1.511			1.511	E6	0.00
31)	AR1016-A	4.464	3.663	3.554	3.667	3.532	3.597	3.746	E5	9.50
32)	AR1016-B	1.008	0.785	0.781	0.777	0.734	0.721	0.801	E6	13.07
33)	AR1016-C	1.870	1.661	1.687	1.744	1.719	1.721	1.734	E6	4.20
34)	AR1016-D	8.979	7.276	7.297	7.378	7.117	7.090	7.523	E5	9.59
35)	AR1016-E	5.760	4.925	4.923	5.029	5.023	5.124	5.131	E5	6.19
36)	AR1260-A	2.222	1.949	1.820	1.882	2.043	2.081	2.000	E6	7.30
37)	AR1260-B	1.009	0.803	0.897	0.917	0.804	0.816	0.874	E6	9.41
38)	AR1260-C	1.124	0.949	1.023	1.051	0.980	1.006	1.022	E6	5.98
39)	AR1260-D	2.347	1.930	2.170	2.256	2.063	2.114	2.146	E6	6.84
40)	AR1260-E	2.219	1.874	2.089	2.144	1.933	1.971	2.038	E6	6.55
41)	AR1262-A				1.044			1.044	E6	0.00
42)	AR1262-B				1.428			1.428	E6	0.00
43)	AR1262-C				1.336			1.336	E6	0.00
44)	AR1262-D				2.732			2.732	E6	0.00
45)	AR1262-E				3.034			3.034	E6	0.00
46)	AR1268-A				3.086			3.086	E6	0.00
47)	AR1268-B				3.099			3.099	E6	0.00
48)	AR1268-C				2.498			2.498	E6	0.00

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Initial Calibration Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICC4311
Lab FileID: 2G162099.D

49)	AR1268-D					1.038				1.038	E6	0.00
50)	AR1268-E					8.238				8.238	E6	0.00
51) S	Decachlorobip...	2.219	1.845	1.796	1.874	1.841	1.884	1.910	E7	8.10		

(#) = Out of Range												

2PCB4311.M Thu Apr 19 15:44:17 2018 RPT1

Initial Calibration Verification

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD1A.CH Vial: 13
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	3.975 E6	-8.3	108	0.00	2.75-	2.81
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	76.686 E3	1.5	101	0.00	3.12-	3.18
32	AR1016-B	136.058	141.949 E3	-4.3	109	0.00	3.53-	3.59
33	AR1016-C	289.965	305.729 E3	-5.4	107	0.00	4.08-	4.14
34	AR1016-D	118.235	126.283 E3	-6.8	109	0.00	4.24-	4.30
35	AR1016-E	121.934	124.361 E3	-2.0	106	0.00	4.75-	4.81
36	AR1260-A	340.850	344.355 E3	-1.0	108	0.00	7.12-	7.18
37	AR1260-B	144.444	147.854 E3	-2.4	97	0.00	7.28-	7.34
38	AR1260-C	159.229	170.106 E3	-6.8	101	0.00	7.62-	7.68
39	AR1260-D	367.146	387.161 E3	-5.5	98	0.00	8.05-	8.11
40	AR1260-E	378.788	394.757 E3	-4.2	98	0.00	8.39-	8.55
41	AR1262-A			-----NA-----				

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Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

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Initial Calibration Verification

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	18.717	E6	2.0	100	0.00		11.78-11.84	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162099.D 2PCB4311.M Thu Apr 19 15:43:22 2018 RPT1

12.12.10
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Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162107.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD1A.CH Vial: 14
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
2	AR1221-A	28.967	30.231 E3	-4.4	104	0.00	2.18-	2.38
3	AR1221-B	42.023	40.285 E3	4.1	96	0.00	2.85-	3.05
4	AR1221-C	128.795	122.705 E3	4.7	95	0.00	3.05-	3.25
5	AR1221-D	14.657	11.965 E3	18.4	82	0.00	3.46-	3.66
6	AR1221-E	14.364	14.535 E3	-1.2	101	0.00	3.60-	3.80
24	AR1254-A	123.364	129.470 E3	-4.9	105	0.00	4.78-	5.78
25	AR1254-B	258.753	268.829 E3	-3.9	104	0.00	5.52-	5.72
26	AR1254-C	136.952	143.562 E3	-4.8	105	0.00	5.88-	6.08
27	AR1254-D	245.908	257.604 E3	-4.8	105	0.00	6.04-	6.24
28	AR1254-E	182.509	189.827 E3	-4.0	104	0.00	6.42-	6.62
29	AR1254-F	171.196	179.789 E3	-5.0	105	0.00	6.67-	6.87
30	AR1254-G	251.778	263.449 E3	-4.6	105	0.00	7.05-	7.25

***** Signal #2 *****

2	AR1221-A	140.927	146.033 E3	-3.6	104	0.00	2.77-	2.97
3	AR1221-B	250.670	252.257 E3	-0.6	101	0.00	3.72-	3.92
4	AR1221-C	655.831	636.187 E3	3.0	97	0.00	3.99-	4.19
5	AR1221-D	122.166	105.889 E3	13.3	87	0.00	4.55-	4.75
6	AR1221-E	88.492	89.522 E3	-1.2	101	0.00	4.67-	4.87
24	AR1254-A	992.497	1051.994 E3	-6.0	106	0.00	6.20-	7.20
25	AR1254-B	983.915	1037.386 E3	-5.4	105	0.00	6.86-	7.06
26	AR1254-C	797.725	839.207 E3	-5.2	105	0.00	7.37-	7.56
27	AR1254-D	1.634	1.719 E6	-5.2	105	0.00	7.53-	7.73
28	AR1254-E	1.089	1.136 E6	-4.3	104	0.00	7.86-	8.06
29	AR1254-F	1.181	1.231 E6	-4.2	104	0.00	8.32-	8.52
30	AR1254-G	1.511	1.615 E6	-6.9	107	0.00	8.62-	8.82

(#) = Out of Range
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 16:15:57 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162108.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD1A.CH Vial: 15
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD2B.CH
Acq On : 19 Apr 2018 3:51 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
7	AR1232-A	97.343	98.365 E3	-1.0	101	0.00	3.05-	3.25
8	AR1232-B	66.843	68.498 E3	-2.5	102	0.00	3.46-	3.66
9	AR1232-C	130.487	135.897 E3	-4.1	104	0.00	4.01-	4.21
10	AR1232-D	54.474	56.766 E3	-4.2	104	0.00	4.17-	4.37
11	AR1232-E	51.489	53.116 E3	-3.2	103	0.00	4.68-	4.88
41	AR1262-A	193.481	203.733 E3	-5.3	105	0.00	6.67-	6.87
42	AR1262-B	242.383	258.534 E3	-6.7	107	0.00	7.21-	7.41
43	AR1262-C	227.005	238.593 E3	-5.1	105	0.00	7.55-	7.75
44	AR1262-D	485.357	514.218 E3	-5.9	106	0.00	7.98-	8.18
45	AR1262-E	558.779	598.920 E3	-7.2	107	0.00	8.43-	8.63

***** Signal #2 *****

7	AR1232-A	501.961	512.204 E3	-2.0	102	0.00	4.00-	4.20
8	AR1232-B	393.517	401.624 E3	-2.1	102	0.00	4.54-	4.74
9	AR1232-C	815.235	827.075 E3	-1.5	101	0.00	5.18-	5.38
10	AR1232-D	361.545	372.004 E3	-2.9	103	0.00	5.37-	5.57
11	AR1232-E	217.324	220.012 E3	-1.2	101	0.00	6.02-	6.22
41	AR1262-A	1.044	1.084 E6	-3.8	104	0.00	8.09-	8.29
42	AR1262-B	1.428	1.495 E6	-4.7	105	0.00	8.73-	8.93
43	AR1262-C	1.336	1.393 E6	-4.3	104	0.00	9.16-	9.36
44	AR1262-D	2.732	2.841 E6	-4.0	104	0.00	9.51-	9.71
45	AR1262-E	3.034	3.169 E6	-4.4	104	0.00	10.02-	10.22

(#) = Out of Range
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 16:15:59 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162109.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD1A.CH Vial: 16
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD2B.CH
Acq On : 19 Apr 2018 4:08 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
12	AR1242-A	119.785	114.904 E3	4.1	96	0.00	3.46-	3.66
13	AR1242-B	252.484	244.856 E3	3.0	97	0.00	4.01-	4.21
14	AR1242-C	105.443	101.790 E3	3.5	97	0.00	4.17-	4.37
15	AR1242-D	108.979	102.543 E3	5.9	94	0.00	4.68-	4.88
16	AR1242-E	92.981	87.846 E3	5.5	94	0.00	5.27-	5.47
46	AR1268-A	575.351	581.914 E3	-1.1	101	0.00	8.42-	8.62
47	AR1268-B	567.310	583.888 E3	-2.9	103	0.00	8.48-	8.68
48	AR1268-C	473.024	486.973 E3	-2.9	103	0.00	8.75-	8.95
49	AR1268-D	199.180	204.671 E3	-2.8	103	0.00	9.24-	9.44
50	AR1268-E	1.615	1.646 E6	-1.9	102	0.00	9.64-	9.84

***** Signal #2 *****

12	AR1242-A	705.391	679.662 E3	3.6	96	0.00	4.53-	4.73
13	AR1242-B	1.548	1.499 E6	3.2	97	0.00	5.18-	5.38
14	AR1242-C	666.761	667.573 E3	-0.1	100	0.00	5.37-	5.57
15	AR1242-D	456.404	438.896 E3	3.8	96	0.00	6.01-	6.21
16	AR1242-E	634.341	601.296 E3	5.2	95	0.00	6.63-	6.83
46	AR1268-A	3.086	3.010 E6	2.5	98	0.00	10.02-	10.22
47	AR1268-B	3.099	3.068 E6	1.0	99	0.00	10.09-	10.29
48	AR1268-C	2.498	2.444 E6	2.2	98	0.00	10.46-	10.66
49	AR1268-D	1.038	1.042 E6	-0.4	100	0.00	10.86-	11.06
50	AR1268-E	8.238	7.835 E6	4.9	95	0.00	11.33-	11.53

(#) = Out of Range
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 16:23:22 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162110.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD1A.CH Vial: 17
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
17	AR1248-A	59.174	55.493 E3	6.2	94	0.00	3.45-	3.65
18	AR1248-B	154.398	154.781 E3	-0.2	100	0.00	4.01-	4.21
19	AR1248-C	165.207	165.431 E3	-0.1	100	0.00	4.40-	4.60
20	AR1248-D	159.827	163.966 E3	-2.6	103	0.00	4.68-	4.88
21	AR1248-E	142.066	146.330 E3	-3.0	103	0.00	4.79-	4.99
22	AR1248-F	140.157	154.154 E3	-10.0	110	0.00	5.26-	5.46
23	AR1248-G	157.220	168.971 E3	-7.5	107	0.00	5.12-	6.12

***** Signal #2 *****

17	AR1248-A	362.749	338.780 E3	6.6	93	0.00	4.53-	4.73
18	AR1248-B	954.786	932.709 E3	2.3	98	0.00	5.18-	5.38
19	AR1248-C	569.681	572.997 E3	-0.6	101	0.00	5.63-	5.83
20	AR1248-D	727.117	735.665 E3	-1.2	101	0.00	6.01-	6.21
21	AR1248-E	879.894	914.038 E3	-3.9	104	0.00	6.19-	6.39
22	AR1248-F	1.097	1.158 E6	-5.6	106	0.00	6.62-	6.82
23	AR1248-G	1.220	1.306 E6	-7.0	107	0.00	6.55-	7.55

(#) = Out of Range
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 16:41:13 2018 RPT1

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4337-CC4311
Lab FileID: 2G163826.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\2G4337\2G163826.D\ECD1A.CH Vial: 46
 Signal #2 : C:\msdchem\1\data\2G4337\2G163826.D\ECD2B.CH
 Acq On : 19 May 2018 9:12 pm Operator: edouarda
 Sample : cc4311-500 Inst : HP G1530A
 Misc : OP12093,G2G4337,15.0,,,10,1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\msdchem\1\methods\2PCB4311.M (ChemStation Integrator)
 Title :
 Last Update : Mon May 14 13:05:01 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	3.817 E6	-4.0	108	0.00	2.75-	2.82
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	83.138 E3	-6.7	109	0.00	3.13-	3.19
32	AR1016-B	136.058	144.035 E3	-5.9	109	0.00	3.52-	3.58
33	AR1016-C	289.965	286.494 E3	1.2	103	0.00	4.06-	4.12
34	AR1016-D	118.235	122.566 E3	-3.7	106	0.00	4.23-	4.29
35	AR1016-E	121.934	123.818 E3	-1.5	105	0.00	4.73-	4.79
36	AR1260-A	340.850	318.115 E3	6.7	103	0.00	7.09-	7.15
37	AR1260-B	144.444	159.306 E3	-10.3	106	0.00	7.25-	7.31
38	AR1260-C	159.229	173.050 E3	-8.7	105	0.00	7.59-	7.65
39	AR1260-D	367.146	414.892 E3	-13.0	111	0.00	8.02-	8.08
40	AR1260-E	378.788	400.797 E3	-5.8	103	0.00	8.36-	8.52
41	AR1262-A			-----NA-----				

12.12.15
12

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4337-CC4311
Lab FileID: 2G163826.D

42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								
48	AR1268-C								
49	AR1268-D								
50	AR1268-E								
51 S	Decachlorobiphenyl	4.056	3.858 E6	4.9	98	0.00		9.94-10.00	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	22.247 E6	2.8	100	0.00		3.40- 3.46	
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1016-A	374.605	390.080 E3	-4.1	110	0.00		4.06- 4.12	
32	AR1016-B	0.801	0.793 E6	1.0	102	0.00		4.59- 4.65	
33	AR1016-C	1.734	1.667 E6	3.9	99	0.00		5.23- 5.29	
34	AR1016-D	752.270	780.789 E3	-3.8	107	0.00		5.42- 5.48	
35	AR1016-E	513.080	504.320 E3	1.7	102	0.00		6.06- 6.12	
36	AR1260-A	2.000	1.734 E6	13.3	95	0.00		8.66- 8.72	
37	AR1260-B	0.874	0.886 E6	-1.4	99	0.00		8.77- 8.83	
38	AR1260-C	1.022	0.987 E6	3.4	96	0.00		9.20- 9.26	
39	AR1260-D	2.146	2.048 E6	4.6	94	0.00		9.55- 9.61	
40	AR1260-E	2.038	2.015 E6	1.1	96	0.00		10.09-10.15	
41	AR1262-A								
42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								

12.12.15
12

Continuing Calibration Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4337-CC4311
Lab FileID: 2G163826.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	17.881	E6	6.4	100	0.00	11.74	11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162098.D 2PCB4311.M Sun May 20 17:37:22 2018

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4337-CC4311
Lab FileID: 2G163837.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\2G4337\2G163837.D\ECD1A.CH Vial: 54
Signal #2 : C:\msdchem\1\data\2G4337\2G163837.D\ECD2B.CH
Acq On : 20 May 2018 12:19 am Operator: edouarda
Sample : cc4311-1000 Inst : HP G1530A
Misc : OP12085,G2G4337,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\msdchem\1\methods\2PCB4311.M (ChemStation Integrator)
Title :
Last Update : Mon May 14 13:05:01 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	3.917 E6	-6.7	106	0.00	2.76-	2.82
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	81.128 E3	-4.2	107	0.00	3.13-	3.19
32	AR1016-B	136.058	140.756 E3	-3.5	108	0.00	3.52-	3.58
33	AR1016-C	289.965	292.138 E3	-0.7	102	0.00	4.07-	4.13
34	AR1016-D	118.235	121.556 E3	-2.8	105	0.00	4.23-	4.29
35	AR1016-E	121.934	122.512 E3	-0.5	104	0.00	4.73-	4.79
36	AR1260-A	340.850	327.755 E3	3.8	103	0.00	7.09-	7.15
37	AR1260-B	144.444	159.952 E3	-10.7	105	0.00	7.25-	7.31
38	AR1260-C	159.229	175.754 E3	-10.4	104	0.00	7.58-	7.64
39	AR1260-D	367.146	442.747 E3	-20.6#	112	0.00	8.02-	8.08
40	AR1260-E	378.788	405.632 E3	-7.1	101	0.00	8.36-	8.52
41	AR1262-A			-----NA-----				

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4337-CC4311
Lab FileID: 2G163837.D

42	AR1262-B								-----NA-----
43	AR1262-C								-----NA-----
44	AR1262-D								-----NA-----
45	AR1262-E								-----NA-----
46	AR1268-A								-----NA-----
47	AR1268-B								-----NA-----
48	AR1268-C								-----NA-----
49	AR1268-D								-----NA-----
50	AR1268-E								-----NA-----
51 S	Decachlorobiphenyl	4.056	3.915 E6	3.5	100	0.00			9.94-10.00

***** Signal #2 *****

1	S	Tetrachloro-m-xylene	22.882	22.843	E6	0.2	98	0.00	3.40	3.46
2		AR1221-A				NA				
3		AR1221-B				NA				
4		AR1221-C				NA				
5		AR1221-D				NA				
6		AR1221-E				NA				
7		AR1232-A				NA				
8		AR1232-B				NA				
9		AR1232-C				NA				
10		AR1232-D				NA				
11		AR1232-E				NA				
12		AR1242-A				NA				
13		AR1242-B				NA				
14		AR1242-C				NA				
15		AR1242-D				NA				
16		AR1242-E				NA				
17		AR1248-A				NA				
18		AR1248-B				NA				
19		AR1248-C				NA				
20		AR1248-D				NA				
21		AR1248-E				NA				
22		AR1248-F				NA				
23		AR1248-G				NA				
24		AR1254-A				NA				
25		AR1254-B				NA				
26		AR1254-C				NA				
27		AR1254-D				NA				
28		AR1254-E				NA				
29		AR1254-F				NA				
30		AR1254-G				NA				
31		AR1016-A	374.605	377.655	E3	-0.8	103	0.00	4.06	4.12
32		AR1016-B	0.801	0.775	E6	3.2	100	0.00	4.59	4.65
33		AR1016-C	1.734	1.705	E6	1.7	98	0.00	5.23	5.29
34		AR1016-D	752.270	748.519	E3	0.5	101	0.00	5.42	5.48
35		AR1016-E	513.080	505.511	E3	1.5	101	0.00	6.06	6.12
36		AR1260-A	2.000	1.839	E6	8.1	98	0.00	8.65	8.71
37		AR1260-B	0.874	0.913	E6	-4.5	100	0.00	8.77	8.83
38		AR1260-C	1.022	1.032	E6	-1.0	98	0.00	9.20	9.26
39		AR1260-D	2.146	2.208	E6	-2.9	98	0.00	9.55	9.61
40		AR1260-E	2.038	2.102	E6	-3.1	98	0.00	10.09	10.15
41		AR1262-A				NA				
42		AR1262-B				NA				
43		AR1262-C				NA				
44		AR1262-D				NA				
45		AR1262-E				NA				
46		AR1268-A				NA				
47		AR1268-B				NA				

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Continuing Calibration Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4337-CC4311
Lab FileID: 2G163837.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	18.975	E6	0.6	101	0.00	11.74	11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G163402.D 2PCB4311.M Sun May 20 20:20:21 2018

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Continuing Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163848.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\2G4337\2G163848.D\ECD1A.CH Vial: 62
Signal #2 : C:\msdchem\1\data\2G4337\2G163848.D\ECD2B.CH
Acq On : 20 May 2018 3:25 am Operator: edouarda
Sample : cc4311-500 Inst : HP G1530A
Misc : OP12110,G2G4338,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\msdchem\1\methods\2PCB4311.M (ChemStation Integrator)
Title :
Last Update : Mon May 14 13:05:01 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	3.893 E6	-6.1	110	0.00	2.76-	2.82
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	85.033 E3	-9.2	111	0.00	3.13-	3.19
32	AR1016-B	136.058	145.714 E3	-7.1	110	0.00	3.52-	3.58
33	AR1016-C	289.965	288.682 E3	0.4	103	0.00	4.07-	4.13
34	AR1016-D	118.235	123.843 E3	-4.7	107	0.00	4.23-	4.29
35	AR1016-E	121.934	125.100 E3	-2.6	106	0.00	4.73-	4.79
36	AR1260-A	340.850	319.692 E3	6.2	104	0.00	7.09-	7.15
37	AR1260-B	144.444	158.601 E3	-9.8	106	0.00	7.25-	7.31
38	AR1260-C	159.229	173.541 E3	-9.0	106	0.00	7.58-	7.64
39	AR1260-D	367.146	423.452 E3	-15.3	113	0.00	8.01-	8.07
40	AR1260-E	378.788	402.482 E3	-6.3	103	0.00	8.36-	8.51
41	AR1262-A			-----NA-----				

Continuing Calibration Summary

Page 2 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163848.D

42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								
48	AR1268-C								
49	AR1268-D								
50	AR1268-E								
51 S	Decachlorobiphenyl	4.056	3.989 E6	1.7	102	0.00		9.94-10.00	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	22.703 E6	0.8	102	0.00		3.40- 3.46	
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1016-A	374.605	396.346 E3	-5.8	112	0.00		4.06- 4.12	
32	AR1016-B	0.801	0.797 E6	0.5	102	0.00		4.59- 4.65	
33	AR1016-C	1.734	1.709 E6	1.4	101	0.00		5.23- 5.29	
34	AR1016-D	752.270	767.035 E3	-2.0	105	0.00		5.42- 5.48	
35	AR1016-E	513.080	502.217 E3	2.1	102	0.00		6.06- 6.12	
36	AR1260-A	2.000	1.884 E6	5.8	104	0.00		8.65- 8.71	
37	AR1260-B	0.874	0.941 E6	-7.7	105	0.00		8.77- 8.83	
38	AR1260-C	1.022	1.062 E6	-3.9	104	0.00		9.20- 9.26	
39	AR1260-D	2.146	2.231 E6	-4.0	103	0.00		9.55- 9.61	
40	AR1260-E	2.038	2.168 E6	-6.4	104	0.00		10.09-10.15	
41	AR1262-A								
42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								

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Continuing Calibration Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163848.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	19.777	E6	-3.5	110	0.00	11.74	-11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162098.D 2PCB4311.M Sun May 20 20:20:47 2018

Continuing Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163859.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\2G4337\2G163859.D\ECD1A.CH Vial: 70
Signal #2 : C:\msdchem\1\data\2G4337\2G163859.D\ECD2B.CH
Acq On : 20 May 2018 6:31 am Operator: edouarda
Sample : cc4311-1000 Inst : HP G1530A
Misc : OP12110,G2G4338,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\msdchem\1\methods\2PCB4311.M (ChemStation Integrator)
Title :
Last Update : Mon May 14 13:05:01 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	3.865 E6	-5.3	105	0.00	2.76-	2.82
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	80.759 E3	-3.7	107	0.00	3.13-	3.19
32	AR1016-B	136.058	139.144 E3	-2.3	107	0.00	3.52-	3.58
33	AR1016-C	289.965	285.721 E3	1.5	100	0.00	4.07-	4.13
34	AR1016-D	118.235	120.074 E3	-1.6	104	0.00	4.23-	4.29
35	AR1016-E	121.934	121.394 E3	0.4	103	0.00	4.74-	4.80
36	AR1260-A	340.850	326.992 E3	4.1	103	0.00	7.09-	7.15
37	AR1260-B	144.444	159.976 E3	-10.8	105	0.00	7.25-	7.31
38	AR1260-C	159.229	178.025 E3	-11.8	105	0.00	7.58-	7.64
39	AR1260-D	367.146	442.516 E3	-20.5#	112	0.00	8.01-	8.07
40	AR1260-E	378.788	411.668 E3	-8.7	102	0.00	8.36-	8.51
41	AR1262-A			-----NA-----				

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Continuing Calibration Summary

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Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163859.D

42	AR1262-B											
43	AR1262-C											
44	AR1262-D											
45	AR1262-E											
46	AR1268-A											
47	AR1268-B											
48	AR1268-C											
49	AR1268-D											
50	AR1268-E											
51 S	Decachlorobiphenyl	4.056	3.853	E6	5.0	98	0.00				9.94-10.00	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	22.716	E6	0.7	98	0.00				3.40- 3.46	
2	AR1221-A											
3	AR1221-B											
4	AR1221-C											
5	AR1221-D											
6	AR1221-E											
7	AR1232-A											
8	AR1232-B											
9	AR1232-C											
10	AR1232-D											
11	AR1232-E											
12	AR1242-A											
13	AR1242-B											
14	AR1242-C											
15	AR1242-D											
16	AR1242-E											
17	AR1248-A											
18	AR1248-B											
19	AR1248-C											
20	AR1248-D											
21	AR1248-E											
22	AR1248-F											
23	AR1248-G											
24	AR1254-A											
25	AR1254-B											
26	AR1254-C											
27	AR1254-D											
28	AR1254-E											
29	AR1254-F											
30	AR1254-G											
31	AR1016-A	374.605	397.453	E3	-6.1	108	0.00				4.06- 4.12	
32	AR1016-B	0.801	0.772	E6	3.6	99	0.00				4.59- 4.65	
33	AR1016-C	1.734	1.710	E6	1.4	98	0.00				5.23- 5.29	
34	AR1016-D	752.270	765.416	E3	-1.7	104	0.00				5.42- 5.48	
35	AR1016-E	513.080	511.940	E3	0.2	102	0.00				6.06- 6.12	
36	AR1260-A	2.000	1.896	E6	5.2	101	0.00				8.65- 8.71	
37	AR1260-B	0.874	0.954	E6	-9.2	104	0.00				8.77- 8.83	
38	AR1260-C	1.022	1.075	E6	-5.2	102	0.00				9.20- 9.26	
39	AR1260-D	2.146	2.291	E6	-6.8	102	0.00				9.55- 9.61	
40	AR1260-E	2.038	2.196	E6	-7.8	102	0.00				10.09-10.15	
41	AR1262-A											
42	AR1262-B											
43	AR1262-C											
44	AR1262-D											
45	AR1262-E											
46	AR1268-A											
47	AR1268-B											

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Continuing Calibration Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163859.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	18.693	E6	2.1	100	0.00	11.74	11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G163402.D 2PCB4311.M Sun May 20 20:20:23 2018

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Initial Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2Y3446-ICC3446
Lab FileID: 2Y90536.D

Response Factor Report GC2Y2Z

Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M (Chemstation Integrator)
Title :
Last Update : Wed Apr 11 13:40:25 2018
Response via : Initial Calibration

Calibration Files

250 =2y90534.D 500 =2y90535.D 1000=2y90536.D 2500=2y90537.D
5000=2y90538.D 100 =2y90533.D 10k =2y90539.D 50k =2y90540.D 25 =2y90531.D 50 =2y90532.D

Compound	250	500	1000	2500	5000	100	10k	50k	25	50	Avg	%RSD
1) TPH-DRO	1.139	1.287	1.385	1.342	1.315	1.201	1.323	1.469	1.107	1.134	1.270	E6 9.46
2) TPH-DRO (C10	1.139	1.287	1.385	1.342	1.315	1.201	1.323	1.469	1.107	1.134	1.270	E6 9.46
3) TPH (C12-C40	1.139	1.287	1.385	1.342	1.315	1.201	1.323	1.469	1.107	1.134	1.270	E6 9.46
4) TPH-ORO (>C2	1.139	1.287	1.385	1.342	1.315	1.201	1.323	1.469	1.107	1.134	1.270	E6 9.46
5) TPH-HRO (C18	1.139	1.287	1.385	1.342	1.315	1.201	1.323	1.469	1.107	1.134	1.270	E6 9.46
6) TPH-DRO (C10	1.139	1.287	1.385	1.342	1.315	1.201	1.323	1.469	1.107	1.134	1.270	E6 9.46
7) TPH-ORO (C20	1.139	1.287	1.385	1.342	1.315	1.201	1.323	1.469	1.107	1.134	1.270	E6 9.46
8) o-Terphenyl	1.552	1.761	1.898	1.808	1.776	1.657			2.075	1.815	1.793	E6 8.67
9) 5a-Androstan	1.478	1.686	1.805	1.740	1.767	1.572			1.802	1.678	1.691	E6 6.83
10) Tetracosane-	1.021	1.224	1.362	1.351	1.377	1.018			1.030	1.003	1.173	E6 14.70

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

DR02Y3446.M Wed Apr 11 13:44:10 2018 RPT1

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12

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2Y3446-ICV3446
Lab FileID: 2Y90541.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Y3446\2Y90541.D Vial: 26
Acq On : 10 Apr 2018 3:42 pm Operator: rebeccak
Sample : icv3446-1000 Inst : GC2Y2Z
Misc : op11131,g2y3446,10.4,,,1,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M (Chemstation Integrator)
Title :
Last Update : Wed Apr 11 13:40:25 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-DRO	1.270	1.143 E6	10.0	83	0.00	4.08-13.50
2 H	TPH-DRO (C10-C44)			-----NA-----			
3 H	TPH (C12-C40)			-----NA-----			
4 H	TPH-ORO (>C28-C40)			-----NA-----			
5 H	TPH-HRO (C18-C36)			-----NA-----			
6 H	TPH-DRO (C10-C20)			-----NA-----			
7 H	TPH-ORO (C20-C34)			-----NA-----			
8 S	o-Terphenyl			-----NA-----			
9 S	5a-Androstane			-----NA-----			
10 S	Tetracosane-d50			-----NA-----			

(#) = Out of Range
2y90536.D DR02Y3446.M

SPCC's out = 0 CCC's out = 0
Wed Apr 11 13:43:51 2018 RPT1

12.12.20
12

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2Y3470-CC3446
Lab FileID: 2Y91048.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Y3470\2Y91048.D Vial: 3
Acq On : 13 May 2018 12:44 pm Operator: thomasl
Sample : cc3446-500 Inst : GC2Y2Z
Misc : op11891,g2y3470,10.0,,,1,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M (Chemstation Integrator)
Title :
Last Update : Wed May 09 13:26:10 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-DRO	1.270	1.164 E6	8.3	90	0.00	4.08-13.50
2 H	TPH-DRO (C10-C44)			-----NA-----			
3 H	TPH (C12-C40)			-----NA-----			
4 H	TPH-ORO (>C28-C40)			-----NA-----			
5 H	TPH-HRO (C18-C36)			-----NA-----			
6 H	TPH-DRO (C10-C20)			-----NA-----			
7 H	TPH-ORO (C20-C34)			-----NA-----			
8 S	o-Terphenyl	1.793	1.537 E6	14.3	87	0.00	9.93- 9.99
9 S	5a-Androstane	1.691	1.515 E6	10.4	90	0.00	10.61-10.67
10 S	Tetracosane-d50	1.173	1.241 E6	-5.8	101	0.00	11.72-11.78

(#) = Out of Range
2y90535.D DR02Y3446.M

SPCC's out = 0 CCC's out = 0
Mon May 14 09:00:37 2018 RPT1

12.12.21
12

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2Y3470-CC3446
Lab FileID: 2Y91059.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Y3470\2Y91059.D Vial: 4
Acq On : 13 May 2018 7:13 pm Operator: thomasl
Sample : cc3446-1000 Inst : GC2Y2Z
Misc : op11954,g2y3470,10.0,,,1,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M (Chemstation Integrator)
Title :
Last Update : Wed May 09 13:26:10 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-DR0	1.270	1.157 E6	8.9	84	0.00	4.08-13.50
2 H	TPH-DR0 (C10-C44)			-----NA-----			
3 H	TPH (C12-C40)			-----NA-----			
4 H	TPH-OR0 (>C28-C40)			-----NA-----			
5 H	TPH-HR0 (C18-C36)			-----NA-----			
6 H	TPH-DR0 (C10-C20)			-----NA-----			
7 H	TPH-OR0 (C20-C34)			-----NA-----			
8 S	o-Terphenyl	1.793	1.548 E6	13.7	82	0.00	9.93- 9.99
9 S	5a-Androstane	1.691	1.489 E6	11.9	82	0.00	10.61-10.67
10 S	Tetracosane-d50	1.173	1.266 E6	-7.9	93	0.00	11.72-11.78

(#) = Out of Range

2y90536.D DR02Y3446.M

SPCC's out = 0 CCC's out = 0
Mon May 14 09:01:12 2018 RPT1

12.12.22
12

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2Y3470-CC3446
Lab FileID: 2Y91070.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Y3470\2Y91070.D Vial: 3
Acq On : 14 May 2018 1:20 am Operator: thomasl
Sample : cc3446-500 Inst : GC2Y2Z
Misc : op11954,g2y3470,10.0,,,1,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M (Chemstation Integrator)
Title :
Last Update : Wed May 09 13:26:10 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-DR0	1.270	1.189 E6	6.4	92	0.00	4.08-13.50
2 H	TPH-DR0 (C10-C44)			-----NA-----			
3 H	TPH (C12-C40)			-----NA-----			
4 H	TPH-OR0 (>C28-C40)			-----NA-----			
5 H	TPH-HR0 (C18-C36)			-----NA-----			
6 H	TPH-DR0 (C10-C20)			-----NA-----			
7 H	TPH-OR0 (C20-C34)			-----NA-----			
8 S	o-Terphenyl	1.793	1.568 E6	12.5	89	0.00	9.93- 9.99
9 S	5a-Androstane	1.691	1.553 E6	8.2	92	0.00	10.61-10.67
10 S	Tetracosane-d50	1.173	1.265 E6	-7.8	103	0.00	11.72-11.78

(#) = Out of Range
2y90535.D DR02Y3446.M

SPCC's out = 0 CCC's out = 0
Mon May 14 09:00:38 2018 RPT1

12.12.23
12

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2Y3470-CC3446
Lab FileID: 2Y91077.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Y3470\2Y91077.D Vial: 4
Acq On : 14 May 2018 5:15 am Operator: thomasl
Sample : cc3446-1000 Inst : GC2Y2Z
Misc : op11891,g2y3470,10.0,,,1,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M (Chemstation Integrator)
Title :
Last Update : Wed May 09 13:26:10 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-DRO	1.270	1.197 E6	5.7	86	0.00	4.08-13.50
2 H	TPH-DRO (C10-C44)			-----NA-----			
3 H	TPH (C12-C40)			-----NA-----			
4 H	TPH-ORO (>C28-C40)			-----NA-----			
5 H	TPH-HRO (C18-C36)			-----NA-----			
6 H	TPH-DRO (C10-C20)			-----NA-----			
7 H	TPH-ORO (C20-C34)			-----NA-----			
8 S	o-Terphenyl	1.793	1.619 E6	9.7	85	0.00	9.94-10.00
9 S	5a-Androstane	1.691	1.528 E6	9.6	85	0.00	10.61-10.67
10 S	Tetracosane-d50	1.173	1.322 E6	-12.7	97	0.00	11.72-11.78

(#) = Out of Range

2y90536.D DR02Y3446.M

SPCC's out = 0 CCC's out = 0
Mon May 14 09:01:13 2018 RPT1

12.12.24
12

Initial Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4044-ICC4044
Lab FileID: 3G116471.D

Response Factor Report GC3G

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Initial Calibration

Calibration Files

500 =3G116473.D 400 =3G116472.D 300 =3G116471.D 200 =3G116470.D
100 =3G116469.D 50 =3G116468.D

	Compound	500	400	300	200	100	50	Avg	%RSD
1)	Dalapon	8.040	8.239	8.702	9.079	9.619	9.930	8.935	E6 8.40
2) S	2,4-DCAA	4.007	4.096	4.334	4.703	5.227	5.977	4.724	E6 16.07
3)	Dicamba	2.039	2.115	2.263	2.366	2.515	2.748	2.341	E7 11.21
4)	MCPD	9.961	9.720	9.698	9.279	7.271		9.186	E3 11.96
5)	MCPA	1.593	1.665	1.705	1.716	1.547		1.645	E4 4.44
6)	Dichloroprop	4.617	4.792	5.158	5.790	6.827	8.591	5.963	E6 25.45
7)	2,4-D	6.067	6.274	6.723	7.268	7.941	8.515	7.132	E6 13.48
8)	Pentachlorophenol	8.400	8.604	8.819	9.280	9.400	9.660	9.027	E7 5.47
9)	2,4,5-TP	3.353	3.396	3.553	3.815	3.907	4.255	3.713	E7 9.31
10)	2,4,5-T	3.485	3.558	3.722	3.899	4.086	4.098	3.808	E7 6.89
11)	2,4-DB	3.534	3.638	4.085	4.238	4.775	5.033	4.217	E6 14.22
12)	Dinoseb	1.789	1.791	1.956	2.100	2.257	2.422	2.052	E7 12.47
13)	Picloram	3.674	3.736	3.874	4.021	4.121	4.218	3.941	E7 5.48

Signal #2

1)	Dalapon	1.883	1.903	2.017	2.106	2.176	2.212	2.050	E6 6.75
2) S	2,4-DCAA	0.964	0.963	0.971	1.057	1.055	0.967	0.996	E6 4.64
3)	Dicamba	5.743	5.532	5.719	6.031	6.280	6.312	5.936	E6 5.41
4)	MCPD	2.010	1.957	1.943	1.867	1.443		1.844	E3 12.46
5)	MCPA	3.317	3.267	3.294	3.247	2.706		3.166	E3 8.16
6)	Dichloroprop	1.262	1.272	1.333	1.414	1.475	1.599	1.392	E6 9.36
7)	2,4-D	1.553	1.573	1.640	1.747	1.819	1.849	1.697	E6 7.45
8)	Pentachlorophenol	2.935	2.935	2.929	3.004	2.887	2.706	2.899	E7 3.52
9)	2,4,5-TP	1.139	1.136	1.165	1.183	1.110	1.138	1.145	E7 2.23
10)	2,4,5-T	1.095	1.092	1.125	1.168	1.192	0.959	1.105	E7 7.42
11)	2,4-DB	0.851	0.859	0.887	0.929	0.944	1.040	0.918	E6 7.64
12)	Dinoseb	6.573	6.572	6.798	7.033	7.008	7.029	6.835	E6 3.24
13)	Picloram	1.495	1.492	1.500	1.494	1.414	1.284	1.447	E7 5.94

(#) = Out of Range

3H4044.M

Tue May 15 14:24:18 2018

GC3G

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4044-ICV4044
 Lab FileID: 3G116474.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4044\3G116474.D\ECD1A.CH Vial: 8
 Signal #2 : C:\MSDCHEM\1\DATA\3G4044\3G116474.D\ECD2B.CH
 Acq On : 15 May 2018 12:35 pm Operator: vinced
 Sample : icv4044-300 Inst : GC3G
 Misc : op11937,g3g4044,15.0,,,5,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
 Title : HERB
 Last Update : Tue May 15 14:11:36 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.583 E6	3.9	99	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.462 E6	5.5	103	0.00	7.35-	7.42
3	Dicamba	23.412	23.941 E6	-2.3	106	0.00	7.56-	7.63
4	MCPP	9.186	10.165 E3	-10.7	105	0.00	7.84-	7.91
5	MCPA	16.451	17.089 E3	-3.9	100	0.00	8.03-	8.10
6	Dichloroprop	5.963	5.145 E6	13.7	100	0.00	8.55-	8.62
7	2,4-D	7.132	6.440 E6	9.7	96	0.00	8.87-	8.94
8	Pentachlorophenol	90.271	99.241 E6	-9.9	113	0.00	9.16-	9.23
9	2,4,5-TP	37.131	36.667 E6	1.2	103	0.00	10.19-	10.26
10	2,4,5-T	38.080	38.682 E6	-1.6	104	0.00	10.65-	10.72
11	2,4-DB	4.217	4.119 E6	2.3	101	0.00	11.60-	11.69
12	Dinoseb	20.525	20.454 E6	0.3	105	0.00	13.54-	13.61
13	Picloram	39.407	37.677 E6	4.4	97	0.00	13.19-	13.26

***** Signal #2 *****

1	Dalapon	2.050	1.984 E6	3.2	98	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	994.933 E3	0.1	103	0.00	7.87-	7.93
3	Dicamba	5.936	6.012 E6	-1.3	105	0.00	8.11-	8.18
4	MCPP	1.844	2.033 E3	-10.2	105	0.00	8.29-	8.36
5	MCPA	3.166	3.291 E3	-3.9	100	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.301 E6	6.5	98	0.00	9.16-	9.23
7	2,4-D	1.697	1.681 E6	0.9	102	0.00	9.68-	9.75
8	Pentachlorophenol	28.995	33.090 E6	-14.1	113	0.00	10.24-	10.31
9	2,4,5-TP	11.452	11.500 E6	-0.4	99	0.00	11.08-	11.15
10	2,4,5-T	11.051	11.496 E6	-4.0	102	0.00	11.79-	11.89
11	2,4-DB	918.292	890.981 E3	3.0	100	0.00	12.80-	12.87
12	Dinoseb	6.835	6.968 E6	-1.9	102	0.00	13.33-	13.40
13	Picloram	14.467	14.316 E6	1.0	95	0.00	15.37-	15.44

(#) = Out of Range
 3G116471.D 3H4044.M

SPCC's out = 0 CCC's out = 0
 Tue May 15 14:24:04 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4047-CC4044
Lab FileID: 3G116496.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4047\3G116496.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\3G4047\3G116496.D\ECD2B.CH
Acq On : 5-17-2018 09:05:16 AM Operator: vinced
Sample : cc4044-200 Inst : GC3G
Misc : op11993,g3g4047,1000,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.701 E6	2.6	96	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.380 E6	7.3	93	0.00	7.35-	7.42
3	Dicamba	23.412	21.120 E6	9.8	89	0.00	7.56-	7.63
4	MCPD	9.186	8.268 E3	10.0	89	0.00	7.84-	7.91
5	MCPA	16.451	14.746 E3	10.4	86	0.00	8.04-	8.11
6	Dichloroprop	5.963	5.314 E6	10.9	92	0.00	8.55-	8.62
7	2,4-D	7.132	6.672 E6	6.4	92	0.00	8.87-	8.94
8	Pentachlorophenol	90.271	87.112 E6	3.5	94	0.00	9.16-	9.23
9	2,4,5-TP	37.131	34.135 E6	8.1	89	0.00	10.19-	10.26
10	2,4,5-T	38.080	35.387 E6	7.1	91	0.00	10.65-	10.72
11	2,4-DB	4.217	3.702 E6	12.2	87	0.00	11.60-	11.69
12	Dinoseb	20.525	18.627 E6	9.2	89	0.00	13.54-	13.61
13	Picloram	39.407	36.892 E6	6.4	92	0.00	13.19-	13.26

***** Signal #2 *****

1	Dalapon	2.050	2.205 E6	-7.6	105	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	998.628 E3	-0.3	95	0.00	7.87-	7.93
3	Dicamba	5.936	5.808 E6	2.2	96	0.00	8.11-	8.18
4	MCPD	1.844	1.821 E3	1.2	98	0.00	8.29-	8.36
5	MCPA	3.166	3.090 E3	2.4	95	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.437 E6	-3.2	102	0.00	9.16-	9.23
7	2,4-D	1.697	1.792 E6	-5.6	103	0.00	9.68-	9.75
8	Pentachlorophenol	28.995	30.719 E6	-5.9	102	0.00	10.24-	10.31
9	2,4,5-TP	11.452	11.737 E6	-2.5	99	0.00	11.07-	11.14
10	2,4,5-T	11.051	12.300 E6	-11.3	105	0.00	11.79-	11.88
11	2,4-DB	918.292	883.570 E3	3.8	95	0.00	12.80-	12.87
12	Dinoseb	6.835	7.066 E6	-3.4	100	0.00	13.33-	13.40
13	Picloram	14.467	14.862 E6	-2.7	99	0.00	15.37-	15.44

(#) = Out of Range
3G116470.D 3H4044.M

SPCC's out = 0 CCC's out = 0
Thu May 17 13:48:19 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4047-CC4044
Lab FileID: 3G116506.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4047\3G116506.D\ECD1A.CH Vial: 3
 Signal #2 : C:\MSDCHEM\1\DATA\3G4047\3G116506.D\ECD2B.CH
 Acq On : 5-17-2018 01:48:41 PM Operator: vinced
 Sample : cc4044-300 Inst : GC3G
 Misc : op12024,g3g4047,30,,,2.5,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
 Title : HERB
 Last Update : Tue May 15 14:11:36 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.230 E6	7.9	95	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.159 E6	12.0	96	0.00	7.35-	7.42
3	Dicamba	23.412	21.206 E6	9.4	94	0.00	7.56-	7.63
4	MCPD	9.186	9.094 E3	1.0	94	0.00	7.84-	7.91
5	MCPA	16.451	15.991 E3	2.8	94	0.00	8.04-	8.11
6	Dichloroprop	5.963	4.874 E6	18.3	94	0.00	8.55-	8.62
7	2,4-D	7.132	6.475 E6	9.2	96	0.00	8.87-	8.94
8	Pentachlorophenol	90.271	86.838 E6	3.8	98	0.00	9.16-	9.23
9	2,4,5-TP	37.131	34.268 E6	7.7	96	0.00	10.19-	10.26
10	2,4,5-T	38.080	35.896 E6	5.7	96	0.00	10.65-	10.72
11	2,4-DB	4.217	3.641 E6	13.7	89	0.00	11.60-	11.69
12	Dinoseb	20.525	18.670 E6	9.0	95	0.00	13.55-	13.62
13	Picloram	39.407	37.058 E6	6.0	96	0.00	13.19-	13.26

***** Signal #2 *****

1	Dalapon	2.050	1.936 E6	5.6	96	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	968.619 E3	2.8	100	0.00	7.87-	7.93
3	Dicamba	5.936	5.416 E6	8.8	95	0.00	8.11-	8.18
4	MCPD	1.844	1.867 E3	-1.2	96	0.00	8.29-	8.36
5	MCPA	3.166	3.255 E3	-2.8	99	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.289 E6	7.4	97	0.00	9.16-	9.23
7	2,4-D	1.697	1.637 E6	3.5	100	0.00	9.68-	9.75
8	Pentachlorophenol	28.995	28.950 E6	0.2	99	0.00	10.24-	10.31
9	2,4,5-TP	11.452	10.914 E6	4.7	94	0.00	11.08-	11.15
10	2,4,5-T	11.051	10.564 E6	4.4	94	0.00	11.80-	11.89
11	2,4-DB	918.292	862.654 E3	6.1	97	0.00	12.80-	12.87
12	Dinoseb	6.835	6.613 E6	3.2	97	0.00	13.33-	13.40
13	Picloram	14.467	14.423 E6	0.3	96	0.00	15.37-	15.44

(#) = Out of Range
 3G116471.D 3H4044.M

SPCC's out = 0 CCC's out = 0
 Thu May 17 14:14:58 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4047-ECC4044
Lab FileID: 3G116512.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4047\3G116512.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\3G4047\3G116512.D\ECD2B.CH
Acq On : 5-17-2018 04:39:30 PM Operator: vinced
Sample : ecc4044-200 Inst : GC3G
Misc : op11871,g3g4047,30,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.905 E6	0.3	98	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.567 E6	3.3	97	0.00	7.35-	7.42
3	Dicamba	23.412	22.525 E6	3.8	95	0.00	7.56-	7.63
4	MCPD	9.186	8.948 E3	2.6	96	0.00	7.84-	7.91
5	MCPA	16.451	16.905 E3	-2.8	99	0.00	8.03-	8.10
6	Dichloroprop	5.963	5.436 E6	8.8	94	0.00	8.55-	8.62
7	2,4-D	7.132	7.104 E6	0.4	98	0.00	8.88-	8.95
8	Pentachlorophenol	90.271	92.694 E6	-2.7	100	0.00	9.16-	9.23
9	2,4,5-TP	37.131	36.496 E6	1.7	96	0.00	10.19-	10.26
10	2,4,5-T	38.080	38.108 E6	-0.1	98	0.00	10.65-	10.72
11	2,4-DB	4.217	3.969 E6	5.9	94	0.00	11.60-	11.69
12	Dinoseb	20.525	19.122 E6	6.8	91	0.00	13.54-	13.61
13	Picloram	39.407	39.033 E6	0.9	97	0.00	13.19-	13.26

***** Signal #2 *****

1	Dalapon	2.050	2.042 E6	0.4	97	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	1007.232 E3	-1.1	95	0.00	7.87-	7.93
3	Dicamba	5.936	5.551 E6	6.5	92	0.00	8.11-	8.18
4	MCPD	1.844	1.894 E3	-2.7	101	0.00	8.29-	8.36
5	MCPA	3.166	3.268 E3	-3.2	101	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.358 E6	2.4	96	0.00	9.16-	9.23
7	2,4-D	1.697	1.753 E6	-3.3	100	0.00	9.68-	9.75
8	Pentachlorophenol	28.995	28.911 E6	0.3	96	0.00	10.24-	10.31
9	2,4,5-TP	11.452	11.015 E6	3.8	93	0.00	11.08-	11.15
10	2,4,5-T	11.051	10.588 E6	4.2	91	0.00	11.80-	11.89
11	2,4-DB	918.292	889.934 E3	3.1	96	0.00	12.81-	12.88
12	Dinoseb	6.835	6.710 E6	1.8	95	0.00	13.33-	13.40
13	Picloram	14.467	14.507 E6	-0.3	97	0.00	15.37-	15.44

(#) = Out of Range
3G116470.D 3H4044.M

SPCC's out = 0 CCC's out = 0
Thu May 17 17:04:00 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4048-CC4044
Lab FileID: 3G116514.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4048\3G116514.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\3G4048\3G116514.D\ECD2B.CH
Acq On : 20 May 2018 10:49 am Operator: vinced
Sample : cc4044-200 Inst : GC3G
Misc : op11871,g3g4048,30,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.290 E6	7.2	91	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.410 E6	6.6	94	0.00	7.35-	7.42
3	Dicamba	23.412	19.865 E6	15.2	84	0.00	7.56-	7.63
4	MCPP	9.186	8.331 E3	9.3	90	0.00	7.84-	7.91
5	MCPA	16.451	15.184 E3	7.7	89	0.00	8.03-	8.10
6	Dichloroprop	5.963	5.109 E6	14.3	88	0.00	8.55-	8.62
7	2,4-D	7.132	6.500 E6	8.9	89	0.00	8.87-	8.94
8	Pentachlorophenol	90.271	83.303 E6	7.7	90	0.00	9.16-	9.23
9	2,4,5-TP	37.131	32.875 E6	11.5	86	0.00	10.18-	10.25
10	2,4,5-T	38.080	33.517 E6	12.0	86	0.00	10.64-	10.71
11	2,4-DB	4.217	3.654 E6	13.4	86	0.00	11.60-	11.69
12	Dinoseb	20.525	18.536 E6	9.7	88	0.00	13.54-	13.61
13	Picloram	39.407	35.187 E6	10.7	88	0.00	13.18-	13.25

***** Signal #2 *****

1	Dalapon	2.050	2.211 E6	-7.9	105	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	1049.160 E3	-5.3	99	0.00	7.87-	7.93
3	Dicamba	5.936	5.619 E6	5.3	93	0.00	8.11-	8.18
4	MCPP	1.844	1.786 E3	3.1	96	0.00	8.29-	8.36
5	MCPA	3.166	3.062 E3	3.3	94	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.439 E6	-3.4	102	0.00	9.16-	9.23
7	2,4-D	1.697	1.771 E6	-4.4	101	0.00	9.67-	9.74
8	Pentachlorophenol	28.995	30.673 E6	-5.8	102	0.00	10.23-	10.30
9	2,4,5-TP	11.452	11.836 E6	-3.4	100	0.00	11.07-	11.14
10	2,4,5-T	11.051	11.185 E6	-1.2	96	0.00	11.79-	11.88
11	2,4-DB	918.292	919.675 E3	-0.2	99	0.00	12.80-	12.87
12	Dinoseb	6.835	7.155 E6	-4.7	102	0.00	13.33-	13.40
13	Picloram	14.467	14.486 E6	-0.1	97	0.00	15.36-	15.43

(#) = Out of Range
3G116470.D 3H4044.M

SPCC's out = 0 CCC's out = 0
Mon May 21 09:38:13 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4048-CC4044
Lab FileID: 3G116524.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4048\3G116524.D\ECD1A.CH Vial: 3
 Signal #2 : C:\MSDCHEM\1\DATA\3G4048\3G116524.D\ECD2B.CH
 Acq On : 5-20-2018 03:37:00 PM Operator: vinced
 Sample : cc4044-300 Inst : GC3G
 Misc : op12064,g3g4048,30,,,2.5,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
 Title : HERB
 Last Update : Tue May 15 14:11:36 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.202 E6	8.2	94	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.276 E6	9.5	99	0.00	7.35-	7.42
3	Dicamba	23.412	21.130 E6	9.7	93	0.00	7.56-	7.63
4	MCPD	9.186	9.477 E3	-3.2	98	0.00	7.84-	7.91
5	MCPA	16.451	16.242 E3	1.3	95	0.00	8.03-	8.10
6	Dichloroprop	5.963	4.853 E6	18.6	94	0.00	8.55-	8.62
7	2,4-D	7.132	6.521 E6	8.6	97	0.00	8.87-	8.94
8	Pentachlorophenol	90.271	85.651 E6	5.1	97	0.00	9.16-	9.23
9	2,4,5-TP	37.131	33.804 E6	9.0	95	0.00	10.19-	10.26
10	2,4,5-T	38.080	35.241 E6	7.5	95	0.00	10.65-	10.72
11	2,4-DB	4.217	3.669 E6	13.0	90	0.00	11.60-	11.69
12	Dinoseb	20.525	17.659 E6	14.0	90	0.00	13.54-	13.61
13	Picloram	39.407	35.488 E6	9.9	92	0.00	13.19-	13.26

***** Signal #2 *****

1	Dalapon	2.050	1.979 E6	3.5	98	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	971.307 E3	2.5	100	0.00	7.87-	7.93
3	Dicamba	5.936	5.390 E6	9.2	94	0.00	8.11-	8.18
4	MCPD	1.844	1.928 E3	-4.6	99	0.00	8.29-	8.36
5	MCPA	3.166	3.309 E3	-4.5	100	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.315 E6	5.5	99	0.00	9.16-	9.23
7	2,4-D	1.697	1.625 E6	4.2	99	0.00	9.68-	9.75
8	Pentachlorophenol	28.995	28.839 E6	0.5	98	0.00	10.24-	10.31
9	2,4,5-TP	11.452	10.936 E6	4.5	94	0.00	11.07-	11.14
10	2,4,5-T	11.051	10.505 E6	4.9	93	0.00	11.79-	11.89
11	2,4-DB	918.292	851.738 E3	7.2	96	0.00	12.80-	12.87
12	Dinoseb	6.835	6.574 E6	3.8	97	0.00	13.33-	13.40
13	Picloram	14.467	14.278 E6	1.3	95	0.00	15.37-	15.44

(#) = Out of Range
 3G116471.D 3H4044.M

SPCC's out = 0 CCC's out = 0
 Mon May 21 09:38:38 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4048-CC4044
Lab FileID: 3G116535.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4048\3G116535.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\3G4048\3G116535.D\ECD2B.CH
Acq On : 5-20-2018 08:51:06 PM Operator: vinced
Sample : cc4044-200 Inst : GC3G
Misc : op12135,g3g4048,1.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.747 E6	2.1	96	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.619 E6	2.2	98	0.00	7.35-	7.42
3	Dicamba	23.412	21.885 E6	6.5	92	0.00	7.56-	7.63
4	MCPD	9.186	9.193 E3	-0.1	99	0.00	7.84-	7.91
5	MCPA	16.451	16.245 E3	1.3	95	0.00	8.03-	8.10
6	Dichloroprop	5.963	5.308 E6	11.0	92	0.00	8.55-	8.62
7	2,4-D	7.132	7.020 E6	1.6	97	0.00	8.88-	8.95
8	Pentachlorophenol	90.271	89.453 E6	0.9	96	0.00	9.16-	9.23
9	2,4,5-TP	37.131	34.491 E6	7.1	90	0.00	10.19-	10.26
10	2,4,5-T	38.080	36.575 E6	4.0	94	0.00	10.65-	10.72
11	2,4-DB	4.217	3.947 E6	6.4	93	0.00	11.60-	11.70
12	Dinoseb	20.525	18.363 E6	10.5	87	0.00	13.54-	13.61
13	Picloram	39.407	36.709 E6	6.8	91	0.00	13.19-	13.26

***** Signal #2 *****

1	Dalapon	2.050	2.055 E6	-0.2	98	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	985.138 E3	1.1	93	0.00	7.87-	7.93
3	Dicamba	5.936	5.220 E6	12.1	87	0.00	8.11-	8.18
4	MCPD	1.844	1.893 E3	-2.7	101	0.00	8.29-	8.36
5	MCPA	3.166	3.285 E3	-3.8	101	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.365 E6	1.9	97	0.00	9.16-	9.23
7	2,4-D	1.697	1.697 E6	0.0	97	0.00	9.68-	9.75
8	Pentachlorophenol	28.995	28.810 E6	0.6	96	0.00	10.24-	10.31
9	2,4,5-TP	11.452	10.819 E6	5.5	91	0.00	11.08-	11.15
10	2,4,5-T	11.051	10.298 E6	6.8	88	0.00	11.80-	11.89
11	2,4-DB	918.292	878.906 E3	4.3	95	0.00	12.81-	12.88
12	Dinoseb	6.835	6.442 E6	5.7	92	0.00	13.33-	13.40
13	Picloram	14.467	14.053 E6	2.9	94	0.00	15.37-	15.44

(#) = Out of Range
3G116470.D 3H4044.M

SPCC's out = 0 CCC's out = 0
Mon May 21 09:38:14 2018 GC3G

Initial Calibration Summary

Page 1 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICC1671
Lab FileID: 6G55784.D

Response Factor Report GC6G

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration

Calibration Files

5 =6g55782.d 10 =6g55783.d 25 =6g55784.d 50 =6g55785.d
100 =6g55787.d 1 =6g55780.d 75 =6g55786.d 2 =6g55781.d
= =

Compound	5	10	25	50	100	1	75	2	Avg	%RSD
1) I 1-bromo-2-nitrobenzen -----ISTD-----										
2) Tetrachloro-m-xylene	0.937	0.914	0.936	0.973	1.007	1.084	0.982	0.943	0.972	5.57
3) hexachlorobenzene	1.022	1.033	1.042	1.079	1.085	1.271	1.095	1.053	1.085	7.34
4) alpha-BHC	1.184	1.208	1.340	1.459	1.524	1.314	1.516	1.163	1.338	11.04
5) gamma-BHC	1.132	1.137	1.236	1.325	1.368	1.415	1.374	1.152	1.267	9.25
6) Heptachlor	1.099	1.099	1.172	1.249	1.270	1.305	1.276	1.109	1.197	7.32
7) beta-BHC	0.560	0.531	0.543	0.559	0.560	0.645	0.568	0.567	0.567	6.05
8) delta-BHC	0.969	1.003	1.123	1.228	1.293	1.083	1.279	0.962	1.117	12.18
9) Aldrin	1.052	1.060	1.150	1.238	1.265	1.222	1.274	1.047	1.164	8.51
10) alachlor	0.145	0.140	0.140	0.142	0.134		0.140		0.140	2.52
11) Heptachlor Epoxide	1.019	0.991	1.060	1.124	1.145	1.121	1.155	0.991	1.076	6.40
12) gamma-Chlordane	0.964	0.976	1.051	1.129	1.174	1.059	1.174	0.952	1.060	8.65
13) alpha-Chlordane	1.019	0.982	1.040	1.103	1.136	1.224	1.139	1.039	1.085	7.33
14) Endosulfan I	0.944	0.924	0.979	1.039	1.058	1.118	1.068	0.963	1.012	6.79
15) 4,4'-DDE	0.934	0.922	1.009	1.096	1.140	1.095	1.140	0.931	1.033	9.24
16) Dieldrin	0.993	0.994	1.079	1.165	1.187	1.144	1.206	0.997	1.096	8.36
17) Endrin	0.953	0.899	0.964	1.033	1.049	1.054	1.068	0.913	0.992	6.79
18) 4,4'-DDD	0.797	0.774	0.836	0.900	0.920	0.899	0.934	0.788	0.856	7.56
19) Endosulfan II	0.970	0.933	0.963	1.012	1.017	1.406	1.039	1.074	1.052	14.27
20) 4,4'-DDT	0.737	0.743	0.802	0.870	0.903	0.844	0.914	0.751	0.821	8.84
21) Endrin Aldehyde	0.803	0.770	0.796	0.836	0.833	0.945	0.855	0.824	0.833	6.32
22) Endosulfan Sulfate	0.791	0.758	0.792	0.833	0.841	0.925	0.858	0.801	0.825	6.29
23) Methoxychlor										

Initial Calibration Summary

Page 2 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICC1671
Lab FileID: 6G55784.D

	0.516	0.458	0.468	0.480	0.473	0.552	0.487	0.482	0.490	6.24
24) Mirex	0.833	0.792	0.774	0.785	0.773	1.050	0.798	0.858	0.833	11.13
25) Endrin Ketone	0.924	0.912	0.956	1.006	1.005	1.086	1.029	0.931	0.981	6.17
26) Decachlorobiphenyl	0.983	0.929	0.914	0.922	0.892	1.300	0.929	1.055	0.991	13.66
27) I 1-bromo-2-nitrobenzen	-----ISTD-----									
28) Toxaphene{A}				0.016					0.016	0.00
29) Toxaphene{B}				0.041					0.041	0.00
30) Toxaphene{C}				0.033					0.033	0.00
31) Toxaphene{D}				0.026					0.026	0.00
32) Toxaphene{E}				0.027					0.027	0.00
33) I 1-bromo-2-nitrobenzen	-----ISTD-----									
34) Chlordane {A}				0.054					0.054	0.00
35) Chlordane {B}				0.045					0.045	0.00
36) Chlordane {C}				0.145					0.145	0.00
37) Chlordane {D}				0.228					0.228	0.00
38) Chlordane {E}				0.026					0.026	0.00

Signal #2

1) I 1-bromo-2-nitrobenzen	-----ISTD-----									
2) Tetrachloro-m-xylene	0.878	0.885	0.907	0.945	1.004	0.981	0.968	0.882	0.931	5.35
3) hexachlorobenzene	1.120	1.130	1.119	1.146	1.192	1.299	1.165	1.172	1.168	5.06
4) alpha-BHC	1.073	1.128	1.243	1.360	1.490	1.146	1.430	1.045	1.239	13.63
5) gamma-BHC	1.031	1.065	1.150	1.242	1.352	1.136	1.298	1.023	1.162	10.67
6) Heptachlor	1.093	1.097	1.153	1.225	1.303	1.223	1.267	1.097	1.182	7.06
7) beta-BHC	0.513	0.510	0.515	0.527	0.550	0.604	0.537	0.514	0.534	5.92
8) delta-BHC	0.923	0.964	1.051	1.160	1.279	1.110	1.225	0.921	1.079	12.73
9) Aldrin	0.939	0.957	1.022	1.101	1.190	1.050	1.147	0.919	1.041	9.61
10) alachlor	0.152	0.138	0.135	0.135	0.133		0.134		0.138	5.09
11) Heptachlor Epoxide	0.953	0.942	0.979	1.034	1.098	1.030	1.065	0.948	1.006	5.86
12) gamma-Chlordane	0.951	0.927	0.976	1.036	1.112	0.910	1.074	0.902	0.986	8.03
13) alpha-Chlordane	0.936	0.896	0.970	1.012	1.066	0.939	1.032	0.827	0.960	8.08

Initial Calibration Summary

Page 3 of 3

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICC1671
Lab FileID: 6G55784.D

14)	Endosulfan I	0.892	0.845	0.882	0.932	0.994	0.993	0.955	0.844	0.917	6.61
15)	4,4'-DDE	0.839	0.863	0.923	0.997	1.085	0.903	1.044	0.802	0.932	10.82
16)	Dieldrin	0.884	0.904	0.959	1.034	1.124	0.978	1.078	0.912	0.984	8.86
17)	Endrin	0.872	0.882	0.909	0.976	1.050	1.138	1.020	0.881	0.966	10.03
18)	4,4'-DDD	0.736	0.733	0.765	0.820	0.889	0.891	0.858	0.731	0.803	8.76
19)	Endosulfan II	0.900	0.876	0.885	0.926	0.978	1.323	0.951	0.983	0.978	14.84
20)	4,4'-DDT	0.670	0.708	0.760	0.820	0.901	0.776	0.863	0.703	0.775	10.51
21)	Endrin Aldehyde	0.703	0.697	0.710	0.734	0.774	0.847	0.755	0.721	0.743	6.71
22)	Endosulfan Sulfate	0.687	0.695	0.715	0.747	0.796	0.836	0.774	0.700	0.744	7.26
23)	Methoxychlor	0.423	0.429	0.438	0.449	0.467	0.431	0.460	0.426	0.440	3.73
24)	Mirex	0.734	0.730	0.711	0.712	0.735	0.885	0.725	0.736	0.746	7.67
25)	Endrin Ketone	0.879	0.850	0.879	0.915	0.975	1.451	0.953	0.981	0.985	19.70
26)	Decachlorobiphenyl	0.924	0.908	0.866	0.875	0.893	1.128	0.885	0.952	0.929	9.16
27)	I 1-bromo-2-nitrobenzen	-----ISTD-----									
28)	Toxaphene{A}	0.019								0.019	0.00
29)	Toxaphene{B}	0.025								0.025	0.00
30)	Toxaphene{C}	0.047								0.047	0.00
31)	Toxaphene{D}	0.026								0.026	0.00
32)	Toxaphene{E}	0.023								0.023	0.00
33)	I 1-bromo-2-nitrobenzen	-----ISTD-----									
34)	Chlordane {A}	0.054								0.054	0.00
35)	Chlordane {B}	0.040								0.040	0.00
36)	Chlordane {C}	0.126								0.126	0.00
37)	Chlordane {D}	0.206								0.206	0.00
38)	Chlordane {E}	0.021								0.021	0.00

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

6PST1671.M

Mon Apr 30 17:43:44 2018

Initial Calibration Verification

Page 1 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55790.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55790.d\ECD1A.CH Vial: 13
Signal #2 : C:\msdchem\1\data\G6G1671\6g55790.d\ECD2B.CH
Acq On : 30-Apr-18, 14:23:25 Operator: dharas
Sample : icv1671-25 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	-0.02	1.44-	2.44
2 SAB	Tetrachloro-m-xylene	0.972	1.010	-3.9	110	-0.02	2.50-	2.56
4 A	alpha-BHC	1.338	1.571	-17.4	119	-0.01	2.97-	3.03
5 MA	gamma-BHC	1.267	1.426	-12.5	117	-0.01	3.26-	3.32
6 MA	Heptachlor	1.197	1.362	-13.8	118	-0.01	3.75-	3.81
7 B	beta-BHC	0.567	0.628	-10.8	118	-0.01	3.33-	3.39
8 B	delta-BHC	1.117	1.334	-19.4	121	-0.01	3.51-	3.57
9 MB	Aldrin	1.164	1.327	-14.0	117	-0.01	4.08-	4.14
11 B	Heptachlor Epoxide	1.076	1.233	-14.6	118	-0.01	4.78-	4.84
12 B	gamma-Chlordane	1.060	1.261	-19.0	122	-0.01	4.95-	5.01
13 B	alpha-Chlordane	1.085	1.229	-13.3	120	-0.01	5.12-	5.18
14 A	Endosulfan I	1.012	1.180	-16.6	123	-0.01	5.29-	5.35
15 B	4,4'-DDE	1.033	1.198	-16.0	121	-0.01	5.23-	5.29
16 MA	Dieldrin	1.096	1.269	-15.8	120	-0.01	5.61-	5.67
17 MA	Endrin	0.992	1.152	-16.1	122	-0.01	5.93-	5.99
18 A	4,4'-DDD	0.856	0.999	-16.7	122	-0.01	6.06-	6.12
19 B	Endosulfan II	1.052	1.107	-5.2	117	-0.01	6.25-	6.31
20 MA	4,4'-DDT	0.821	0.930	-13.3	118	-0.01	6.47-	6.53
21 B	Endrin Aldehyde	0.833	0.937	-12.5	120	-0.01	6.88-	6.94
22 B	Endosulfan Sulfate	0.825	0.962	-16.6	124	-0.01	7.56-	7.62
23 A	Methoxychlor	0.490	0.535	-9.2	116	-0.01	7.26-	7.32
24	Mirex	0.833	0.886	-6.4	117	-0.01	7.41-	7.47
25 B	Endrin Ketone	0.981	1.108	-12.9	118	-0.01	8.00-	8.06
26 SA	Decachlorobiphenyl	0.991	1.025	-3.4	114	-0.01	9.81-	9.87

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	-0.01	1.65-	2.65
2 SAB	Tetrachloro-m-xylene	0.931	0.973	-4.5	107	0.00	2.90-	2.96
4 A	alpha-BHC	1.239	1.459	-17.8	117	0.00	3.53-	3.59
5 MA	gamma-BHC	1.162	1.337	-15.1	116	0.00	3.94-	4.00
6 MA	Heptachlor	1.182	1.342	-13.5	116	0.00	4.50-	4.56
7 B	beta-BHC	0.534	0.593	-11.0	115	0.00	4.02-	4.08
8 B	delta-BHC	1.079	1.250	-15.8	118	0.00	4.40-	4.46
9 MB	Aldrin	1.041	1.180	-13.4	115	0.00	4.93-	4.99
11 B	Heptachlor Epoxide	1.006	1.143	-13.6	116	0.00	5.73-	5.79
12 B	gamma-Chlordane	0.986	1.164	-18.1	119	0.00	6.01-	6.07
13 B	alpha-Chlordane	0.960	1.122	-16.9	115	0.00	6.23-	6.29

Initial Calibration Verification

Page 2 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55790.D

14	A	Endosulfan I	0.917	1.067	-16.4	120	0.00	6.32-	6.38
15	B	4,4'-DDE	0.932	1.097	-17.7	118	0.00	6.49-	6.55
16	MA	Dieldrin	0.984	1.136	-15.4	118	0.00	6.75-	6.81
17	MA	Endrin	0.966	1.101	-14.0	120	-0.01	7.24-	7.30
18	A	4,4'-DDD	0.803	0.923	-14.9	120	0.00	7.42-	7.48
19	B	Endosulfan II	0.978	1.021	-4.4	115	0.00	7.58-	7.64
20	MA	4,4'-DDT	0.775	0.887	-14.5	116	-0.01	7.95-	8.01
21	B	Endrin Aldehyde	0.743	0.843	-13.5	118	-0.01	8.15-	8.21
22	B	Endosulfan Sulfate	0.744	0.875	-17.6	122	-0.01	8.61-	8.67
23	A	Methoxychlor	0.440	0.516	-17.3	117	-0.02	9.18-	9.24
24		Mirex	0.746	0.824	-10.5	115	-0.02	9.49-	9.55
25	B	Endrin Ketone	0.985	1.028	-4.4	116	-0.02	9.56-	9.62
26	SA	Decachlorobiphenyl	0.929	0.998	-7.4	115	-0.02	11.69-	11.75

(#) = Out of Range
6g55784.d 6PST1671.M

SPCC's out = 0 CCC's out = 0
Mon Apr 30 17:38:40 2018

12.12.34

12

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55791.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55791.d\ECD1A.CH Vial: 14
Signal #2 : C:\msdchem\1\data\G6G1671\6g55791.d\ECD2B.CH
Acq On : 30-Apr-18, 14:41:11 Operator: dharas
Sample : icv1671-500 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
33 I 1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	-0.02	1.44- 2.44
34 Chlordane {A}	0.054	0.063	-16.7	117	-0.01	3.68- 3.88
35 Chlordane {B}	0.045	0.039	13.3	88	-0.01	4.15- 4.35
36 Chlordane {C}	0.145	0.145	0.0	99	-0.01	4.87- 5.07
37 Chlordane {D}	0.228	0.230	-0.9	101	-0.01	5.04- 5.24
38 Chlordane {E}	0.026	0.028	-7.7	110	-0.01	5.92- 6.12

***** Signal #2 *****

33 I 1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	-0.01	1.65- 2.65
34 Chlordane {A}	0.054	0.064	-18.5	116	0.00	4.43- 4.63
35 Chlordane {B}	0.040	0.036	10.0	89	0.00	5.05- 5.25
36 Chlordane {C}	0.126	0.128	-1.6	100	0.00	5.94- 6.14
37 Chlordane {D}	0.206	0.208	-1.0	100	0.00	6.16- 6.36
38 Chlordane {E}	0.021	0.023	-9.5	108	0.00	7.30- 7.50

(#) = Out of Range
6g55785.d 6PST1671.M

SPCC's out = 0 CCC's out = 0
Mon Apr 30 17:38:57 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55792.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\G6G1671\6g55792.d\ECD1A.CH Vial: 15
Acq On : 30-Apr-18, 14:58:58 Operator: dharas
Sample : icv1671-500 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\msdchem\1\data\G6G1671\6g55792.d\ECD2B.CH Vial: 0
Acq On : 30-Apr-18, 14:58:59 Operator: dharas
Sample : icv1671-500 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	-0.02	1.44-	2.44
28 L8	Toxaphene{A}	0.016	0.017	-6.3	107	-0.01	5.55-	5.75
29 L8	Toxaphene{B}	0.041	0.044	-7.3	108	-0.01	6.17-	6.37
30 L8	Toxaphene{C}	0.033	0.035	-6.1	107	0.00	6.35-	6.55
31 L8	Toxaphene{D}	0.026	0.026	0.0	103	-0.01	6.69-	6.89
32 L8	Toxaphene{E}	0.027	0.029	-7.4	110	-0.01	7.33-	7.53

***** Signal #2 *****

27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.65-	2.65
28 L8	Toxaphene{A}	0.019	0.021	-10.5	108	0.00	6.64-	6.84
29 L8	Toxaphene{B}	0.025	0.026	-4.0	102	-0.01	7.48-	7.68
30 L8	Toxaphene{C}	0.047	0.046	2.1	98	-0.01	7.64-	7.84
31 L8	Toxaphene{D}	0.026	0.027	-3.8	104	-0.01	8.08-	8.28
32 L8	Toxaphene{E}	0.023	0.024	-4.3	101	-0.02	8.97-	9.17

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Mon Apr 30 17:38:59 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55793.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55793.d\ECD1A.CH Vial: 16
Signal #2 : C:\msdchem\1\data\G6G1671\6g55793.d\ECD2B.CH
Acq On : 30-Apr-18, 15:16:44 Operator: dharas
Sample : icv1671-50 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	-0.02	1.44	2.44
10	alachlor	0.140	0.155	-10.7	109	-0.01	4.22	4.28

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	-0.01	1.65	2.65
10	alachlor	0.138	0.150	-8.7	109	0.00	4.75	4.81

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Mon Apr 30 17:39:01 2018

12.12.37
12

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55794.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55794.d\ECD1A.CH Vial: 17
Signal #2 : C:\msdchem\1\data\G6G1671\6g55794.d\ECD2B.CH
Acq On : 30-Apr-18, 15:34:38 Operator: dharas
Sample : icv1671-50 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	-0.02	1.44-	2.44
3	hexachlorobenzene	1.085	1.076	0.8	102	-0.01	2.83-	2.89

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	-0.01	1.65-	2.65
3	hexachlorobenzene	1.168	1.139	2.5	99	0.00	3.38-	3.44

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Mon Apr 30 17:39:03 2018

12.12.38
12

Continuing Calibration Summary

Page 1 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1687-CC1671
Lab FileID: G656346.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1687\6g56346.d\ECD1A.CH Vial: 2
Signal #2 : C:\msdchem\1\data\G6G1687\6g56346.d\ECD2B.CH
Acq On : 20-May-18, 23:32:50 Operator: christp
Sample : cc1671-25 Inst : GC6G
Misc : OP12048,g6g1687,16.0,,,10,5 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Thu May 17 23:56:16 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	91	0.01	1.46-	2.46
2 SAB	Tetrachloro-m-xylene	0.972	0.892	8.2	86	0.00	2.51-	2.57
3	hexachlorobenzene	1.085	1.009	7.0	88	0.00	2.83-	2.89
4 A	alpha-BHC	1.338	1.195	10.7	81	0.00	2.97-	3.03
5 MA	gamma-BHC	1.267	1.029	18.8	75	0.00	3.26-	3.32
6 MA	Heptachlor	1.197	1.032	13.8	80	0.00	3.75-	3.81
7 B	beta-BHC	0.567	0.456	19.6	76	0.00	3.33-	3.39
8 B	delta-BHC	1.117	0.942	15.7	76	0.00	3.52-	3.58
9 MB	Aldrin	1.164	1.011	13.1	80	0.00	4.08-	4.14
10	alachlor	0.140	0.143	-2.1	92	0.00	4.21-	4.27
11 B	Heptachlor Epoxide	1.076	0.883	17.9	75	0.00	4.78-	4.84
12 B	gamma-Chlordane	1.060	0.879	17.1	76	0.00	4.94-	5.00
13 B	alpha-Chlordane	1.085	0.894	17.6	78	0.00	5.11-	5.17
14 A	Endosulfan I	1.012	0.870	14.0	80	0.00	5.29-	5.35
15 B	4,4'-DDE	1.033	0.848	17.9	76	0.00	5.22-	5.28
16 MA	Dieldrin	1.096	0.946	13.7	79	0.00	5.61-	5.67
17 MA	Endrin	0.992	0.891	10.2	84	0.00	5.93-	5.99
18 A	4,4'-DDD	0.856	0.703	17.9	76	0.00	6.05-	6.11
19 B	Endosulfan II	1.052	0.857	18.5	81	0.00	6.25-	6.31
20 MA	4,4'-DDT	0.821	0.690	16.0	78	0.00	6.47-	6.53
21 B	Endrin Aldehyde	0.833	0.706	15.2	80	0.00	6.87-	6.93
22 B	Endosulfan Sulfate	0.825	0.774	6.2	89	0.00	7.55-	7.61
23 A	Methoxychlor	0.490	0.412	15.9	80	0.00	7.25-	7.31
24	Mirex	0.833	0.705	15.4	82	0.00	7.40-	7.46
25 B	Endrin Ketone	0.981	0.896	8.7	85	0.00	7.99-	8.05
26 SA	Decachlorobiphenyl	0.991	0.817	17.6	81	0.00	9.80-	9.86

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.01	1.66-	2.66
2 SAB	Tetrachloro-m-xylene	0.931	0.880	5.5	97	0.00	2.90-	2.96
3	hexachlorobenzene	1.168	1.143	2.1	102	0.00	3.38-	3.44
4 A	alpha-BHC	1.239	1.147	7.4	92	0.00	3.53-	3.59
5 MA	gamma-BHC	1.162	1.056	9.1	91	0.00	3.93-	3.99
6 MA	Heptachlor	1.182	1.073	9.2	93	0.00	4.49-	4.55
7 B	beta-BHC	0.534	0.475	11.0	92	0.00	4.02-	4.08
8 B	delta-BHC	1.079	0.952	11.8	90	0.00	4.39-	4.45
9 MB	Aldrin	1.041	0.916	12.0	89	0.00	4.92-	4.98
10	alachlor	0.138	0.129	6.5	95	0.00	4.74-	4.80
11 B	Heptachlor Epoxide	1.006	0.882	12.3	90	0.00	5.72-	5.78
12 B	gamma-Chlordane	0.986	0.895	9.2	91	0.00	5.99-	6.05

Continuing Calibration Summary

Page 2 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1687-CC1671
Lab FileID: 6G56346.D

13	B	alpha-Chlordane	0.960	0.860	10.4	88	0.00	6.22-	6.28
14	A	Endosulfan I	0.917	0.805	12.2	91	0.00	6.31-	6.37
15	B	4,4'-DDE	0.932	0.824	11.6	89	0.00	6.48-	6.54
16	MA	Dieldrin	0.984	0.872	11.4	91	0.00	6.73-	6.79
17	MA	Endrin	0.966	0.848	12.2	93	0.00	7.23-	7.29
18	A	4,4'-DDD	0.803	0.679	15.4	88	0.00	7.41-	7.47
19	B	Endosulfan II	0.978	0.812	17.0	91	0.00	7.57-	7.63
20	MA	4,4'-DDT	0.775	0.670	13.5	88	0.00	7.94-	8.00
21	B	Endrin Aldehyde	0.743	0.648	12.8	91	0.00	8.14-	8.20
22	B	Endosulfan Sulfate	0.744	0.725	2.6	101	0.00	8.60-	8.66
23	A	Methoxychlor	0.440	0.394	10.5	90	0.00	9.18-	9.24
24		Mirex	0.746	0.672	9.9	94	0.00	9.48-	9.54
25	B	Endrin Ketone	0.985	0.835	15.2	95	0.00	9.55-	9.61
26	SA	Decachlorobiphenyl	0.929	0.835	10.1	96	0.00	11.69-	11.75

(#) = Out of Range
6g55784.d 6PST1671.M

SPCC's out = 0 CCC's out = 0
Mon May 21 03:59:01 2018

12.12.39

12

Continuing Calibration Summary

Page 1 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1687-CC1671
Lab FileID: 6G56367.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1687\6g56367.d\ECD1A.CH Vial: 4
Signal #2 : C:\msdchem\1\data\G6G1687\6g56367.d\ECD2B.CH
Acq On : 21-May-18, 05:51:47 Operator: christp
Sample : cc1671-50 Inst : GC6G
Misc : OP12065,g6g1687,30,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Thu May 17 23:56:16 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	89	0.02	1.46-	2.46
2 SAB	Tetrachloro-m-xylene	0.972	0.932	4.1	86	0.00	2.51-	2.57
3	hexachlorobenzene	1.085	1.040	4.1	86	0.00	2.84-	2.90
4 A	alpha-BHC	1.338	1.306	2.4	80	0.00	2.97-	3.03
5 MA	gamma-BHC	1.267	1.202	5.1	81	0.00	3.26-	3.32
6 MA	Heptachlor	1.197	1.158	3.3	83	0.00	3.75-	3.81
7 B	beta-BHC	0.567	0.512	9.7	82	0.00	3.34-	3.40
8 B	delta-BHC	1.117	1.114	0.3	81	0.00	3.52-	3.58
9 MB	Aldrin	1.164	1.132	2.7	82	0.00	4.08-	4.14
10	alachlor	0.140	0.151	-7.9	95	0.00	4.22-	4.28
11 B	Heptachlor Epoxide	1.076	1.060	1.5	84	0.00	4.78-	4.84
12 B	gamma-Chlordane	1.060	1.030	2.8	81	0.00	4.94-	5.00
13 B	alpha-Chlordane	1.085	1.001	7.7	81	0.00	5.11-	5.17
14 A	Endosulfan I	1.012	0.977	3.5	84	0.00	5.29-	5.35
15 B	4,4'-DDE	1.033	0.943	8.7	77	0.00	5.22-	5.28
16 MA	Dieldrin	1.096	1.073	2.1	82	0.00	5.61-	5.67
17 MA	Endrin	0.992	0.963	2.9	83	0.00	5.93-	5.99
18 A	4,4'-DDD	0.856	0.775	9.5	77	0.00	6.05-	6.11
19 B	Endosulfan II	1.052	0.934	11.2	82	0.00	6.25-	6.31
20 MA	4,4'-DDT	0.821	0.740	9.9	76	0.00	6.47-	6.53
21 B	Endrin Aldehyde	0.833	0.777	6.7	83	0.00	6.87-	6.93
22 B	Endosulfan Sulfate	0.825	0.836	-1.3	90	0.00	7.55-	7.61
23 A	Methoxychlor	0.490	0.419	14.5	78	0.00	7.25-	7.31
24	Mirex	0.833	0.743	10.8	85	0.00	7.40-	7.46
25 B	Endrin Ketone	0.981	0.976	0.5	87	0.00	7.99-	8.05
26 SA	Decachlorobiphenyl	0.991	0.845	14.7	82	0.00	9.80-	9.86

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	0.01	1.66-	2.66
2 SAB	Tetrachloro-m-xylene	0.931	0.917	1.5	96	0.00	2.90-	2.96
3	hexachlorobenzene	1.168	1.186	-1.5	102	0.00	3.38-	3.44
4 A	alpha-BHC	1.239	1.260	-1.7	91	0.00	3.53-	3.59
5 MA	gamma-BHC	1.162	1.158	0.3	92	0.00	3.93-	3.99
6 MA	Heptachlor	1.182	1.171	0.9	94	0.00	4.49-	4.55
7 B	beta-BHC	0.534	0.497	6.9	93	0.00	4.02-	4.08
8 B	delta-BHC	1.079	1.073	0.6	91	0.00	4.39-	4.45
9 MB	Aldrin	1.041	1.047	-0.6	94	0.00	4.92-	4.98

Continuing Calibration Summary

Page 2 of 2

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1687-CC1671
Lab FileID: 6G56367.D

10	alachlor	0.138	0.138	0.0	100	0.00	4.74-	4.80
11 B	Heptachlor Epoxide	1.006	0.998	0.8	95	0.00	5.72-	5.78
12 B	gamma-Chlordane	0.986	1.001	-1.5	95	0.00	5.99-	6.05
13 B	alpha-Chlordane	0.960	0.963	-0.3	94	0.00	6.21-	6.27
14 A	Endosulfan I	0.917	0.897	2.2	95	0.00	6.31-	6.37
15 B	4,4'-DDE	0.932	0.940	-0.9	93	0.00	6.48-	6.54
16 MA	Dieldrin	0.984	0.997	-1.3	95	0.00	6.73-	6.79
17 MA	Endrin	0.966	0.920	4.8	93	0.00	7.22-	7.28
18 A	4,4'-DDD	0.803	0.755	6.0	91	0.00	7.41-	7.47
19 B	Endosulfan II	0.978	0.899	8.1	96	0.00	7.57-	7.63
20 MA	4,4'-DDT	0.775	0.718	7.4	86	0.00	7.94-	8.00
21 B	Endrin Aldehyde	0.743	0.722	2.8	97	0.00	8.13-	8.19
22 B	Endosulfan Sulfate	0.744	0.782	-5.1	103	0.00	8.60-	8.66
23 A	Methoxychlor	0.440	0.412	6.4	90	0.00	9.17-	9.23
24	Mirex	0.746	0.717	3.9	99	0.00	9.48-	9.54
25 B	Endrin Ketone	0.985	0.914	7.2	98	0.00	9.55-	9.61
26 SA	Decachlorobiphenyl	0.929	0.884	4.8	99	0.00	11.69-	11.75

(#) = Out of Range
6g55785.d 6PST1671.M

SPCC's out = 0 CCC's out = 0
Mon May 21 11:08:20 2018

12.12.40
12

Initial Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4559-ICC4559
Lab FileID: OA133102.D

Response Factor Report SVOA0A

Method : C:\MSDCHEM\1\METHODS\H0A4559.M (ChemStation Integrator)
Title : HERB
Last Update : Thu May 03 09:51:17 2018
Response via : Initial Calibration

Calibration Files

500 =oa133104.d 400 =oa133103.d 300 =oa133102.d 200 =oa133101.d
100 =oa133100.d 50 =oa133099.d

	Compound	500	400	300	200	100	50	Avg	%RSD
1)	Dalapon	0.879	0.891	0.915	0.957	1.044	1.104	0.965	E6 9.38
2) S	2,4-DCAA	5.066	5.108	5.284	5.352	6.015	6.645	5.578	E5 11.20
3)	Dicamba	2.394	2.407	2.479	2.409	2.611	2.853	2.526	E6 7.11
4)	MCPD	1.472	1.507	1.511	1.512	1.506		1.502	E3 1.11
5)	MCPA	2.638	2.730	2.748	2.877	3.025		2.804	E3 5.35
6)	Dichloroprop	6.003	6.108	6.378	6.606	7.324	8.217	6.773	E5 12.54
7)	2,4-D	7.450	7.618	7.880	8.223	8.964	9.568	8.284	E5 9.98
8)	Pentachlorophenol	1.127	1.130	1.116	1.123	1.134	1.098	1.121	E7 1.16
9)	2,4,5-TP	4.300	4.307	4.332	4.320	4.391	4.511	4.360	E6 1.86
10)	2,4,5-T	4.168	4.277	4.308	4.315	4.378	4.553	4.333	E6 2.95
11)	2,4-DB	4.144	4.302	4.448	4.625	4.800	5.487	4.635	E5 10.31
12)	Dinoseb	2.716	2.826	2.952	2.911	3.152	3.449	3.001	E6 8.77
13)	Picloram	5.114	5.127	5.205	5.110	5.027	5.019	5.100	E6 1.36

Signal #2

1)	Dalapon	1.054	1.076	1.110	1.169	1.260	1.353	1.170	E7 9.92
2) S	2,4-DCAA	0.769	0.798	0.852	0.912	1.079	1.235	0.941	E7 19.27
3)	Dicamba	3.365	3.524	3.766	3.882	4.386	4.492	3.903	E7 11.65
4)	MCPD	2.714	2.796	2.809	2.828	2.584		2.746	E4 3.66
5)	MCPA	5.757	6.054	6.408	6.741	6.904		6.373	E4 7.45
6)	Dichloroprop	0.763	0.790	0.845	0.898	1.060	1.227	0.930	E7 19.27
7)	2,4-D	1.055	1.066	1.161	1.237	1.358	1.537	1.236	E7 15.05
8)	Pentachlorophenol	1.313	1.354	1.375	1.430	1.525	1.610	1.434	E8 7.87
9)	2,4,5-TP	4.878	4.992	5.212	5.398	5.663	6.258	5.400	E7 9.37
10)	2,4,5-T	5.176	5.342	5.558	5.728	5.887	6.352	5.674	E7 7.39
11)	2,4-DB	6.568	6.741	7.050	7.420	7.949	8.558	7.381	E6 10.30
12)	Dinoseb	2.420	2.534	2.714	2.861	3.258	3.641	2.905	E7 15.98
13)	Picloram	3.970	4.133	4.291	4.448	4.769	5.057	4.445	E7 9.14

(#) = Out of Range

H0A4559.M

Thu May 03 10:03:01 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4559-ICV4559
Lab FileID: OA133105.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4559\oa133105.d\ECD1A.CH Vial: 0
Signal #2 : C:\msdchem\1\data\OA4559\oa133105.d\ECD2B.CH
Acq On : 02-May-18, 18:42:11 Operator: vinced
Sample : icv4559-300 Inst : SV0A0A
Misc : op11359,goa4559,30,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Thu May 03 09:51:17 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	964.956	945.953 E3	2.0	103	0.00	2.32-	2.38
2 S	2,4-DCAA	557.841	561.020 E3	-0.6	106	0.00	7.32-	7.38
3	Dicamba	2.526	2.760 E6	-9.3	111	0.00	7.53-	7.59
4	MCPD	1.502	1.579 E3	-5.1	104	0.00	7.81-	7.87
5	MCPA	2.804	2.875 E3	-2.5	105	0.00	8.00-	8.06
6	Dichloroprop	677.279	676.760 E3	0.1	106	0.00	8.53-	8.59
7	2,4-D	828.384	843.668 E3	-1.8	107	0.00	8.86-	8.93
8	Pentachlorophenol	11.215	12.796 E6	-14.1	115	0.00	9.13-	9.19
9	2,4,5-TP	4.360	4.566 E6	-4.7	105	0.00	10.17-	10.23
10	2,4,5-T	4.333	4.550 E6	-5.0	106	0.00	10.63-	10.70
11	2,4-DB	463.455	479.684 E3	-3.5	108	0.01	11.58-	11.67
12	Dinoseb	3.001	3.161 E6	-5.3	107	0.00	13.50-	13.56
13	Picloram	5.100	5.288 E6	-3.7	102	0.00	13.17-	13.23

***** Signal #2 *****

1	Dalapon	11.702	11.136 E6	4.8	100	0.00	2.63-	2.69
2 S	2,4-DCAA	9.409	9.102 E6	3.3	107	0.00	8.52-	8.58
3	Dicamba	39.025	41.326 E6	-5.9	110	0.00	8.80-	8.86
4	MCPD	27.463	31.252 E3	-13.8	111	0.00	8.99-	9.05
5	MCPA	63.726	74.907 E3	-17.5	117	0.00	9.38-	9.44
6	Dichloroprop	9.304	8.672 E6	6.8	103	0.00	9.97-	10.03
7	2,4-D	12.358	12.382 E6	-0.2	107	0.00	10.55-	10.61
8	Pentachlorophenol	143.443	155.279 E6	-8.3	113	0.00	11.18-	11.24
9	2,4,5-TP	54.001	54.765 E6	-1.4	105	0.00	12.06-	12.12
10	2,4,5-T	56.738	59.311 E6	-4.5	107	0.00	12.82-	12.94
11	2,4-DB	7.381	7.534 E6	-2.1	107	0.00	13.88-	13.98
12	Dinoseb	29.046	28.284 E6	2.6	104	0.00	14.45-	14.52
13	Picloram	44.447	43.644 E6	1.8	102	0.00	16.62-	16.68

(#) = Out of Range
oa133102.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Thu May 03 10:02:29 2018

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4568-CC4559
Lab FileID: OA133319.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4568\oa133319.d\ECD1A.CH Vial: 0
Signal #2 : C:\msdchem\1\data\OA4568\oa133319.d\ECD2B.CH
Acq On : 14-May-18, 08:55:06 Operator: vinced
Sample : cc4559-200 Inst : SV0A0A
Misc : op11920,goa4568,15.0,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Mon May 14 15:39:56 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Dalapon	964.956	1000.105 E3	-3.6	104	0.00	2.32- 2.38
2 S	2,4-DCAA	557.841	469.228 E3	15.9	88	0.00	7.32- 7.38
3	Dicamba	2.526	2.263 E6	10.4	94	0.00	7.53- 7.59
4	MCPD	1.502	1.246 E3	17.0	82	0.00	7.81- 7.87
5	MCPA	2.804	2.279 E3	18.7	79	0.00	8.01- 8.07
6	Dichloroprop	677.279	583.057 E3	13.9	88	0.00	8.53- 8.59
7	2,4-D	828.384	655.786 E3	20.8#	80	0.00	8.85- 8.92
8	Pentachlorophenol	11.215	9.848 E6	12.2	88	0.00	9.14- 9.20
9	2,4,5-TP	4.360	3.749 E6	14.0	87	0.00	10.16-10.22
10	2,4,5-T	4.333	3.465 E6	20.0#	80	0.00	10.62-10.69
11	2,4-DB	463.455	379.737 E3	18.1	82	0.00	11.57-11.66
12	Dinoseb	3.001	2.783 E6	7.3	96	0.00	13.49-13.55
13	Picloram	5.100	4.120 E6	19.2	81	0.00	13.15-13.21

***** Signal #2 *****

1	Dalapon	11.702	11.298 E6	3.5	97	0.00	2.63- 2.69
2 S	2,4-DCAA	9.409	8.953 E6	4.8	98	0.00	8.52- 8.58
3	Dicamba	39.025	36.807 E6	5.7	95	0.00	8.80- 8.86
4	MCPD	27.463	27.318 E3	0.5	97	0.00	8.99- 9.05
5	MCPA	63.726	62.430 E3	2.0	93	0.00	9.39- 9.45
6	Dichloroprop	9.304	8.463 E6	9.0	94	0.00	9.97-10.03
7	2,4-D	12.358	10.889 E6	11.9	88	0.00	10.54-10.60
8	Pentachlorophenol	143.443	130.254 E6	9.2	91	0.00	11.18-11.26
9	2,4,5-TP	54.001	46.168 E6	14.5	86	0.00	12.06-12.12
10	2,4,5-T	56.738	45.964 E6	19.0	80	0.00	12.81-12.93
11	2,4-DB	7.381	6.171 E6	16.4	83	0.00	13.88-13.97
12	Dinoseb	29.046	27.907 E6	3.9	98	0.00	14.45-14.52
13	Picloram	44.447	31.609 E6	28.9#	71	0.00	16.60-16.66

(#) = Out of Range
oa133101.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Mon May 14 15:40:03 2018

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4568-ECC4559
Lab FileID: OA133330.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\OA4568\oa133330.d\ECD1A.CH Vial: 0
Acq On : 14-May-18, 14:53:04 Operator: vinced
Sample : ecc4559-300 Inst : SVOA0A
Misc : op11920,goa4568,16.0,,,5,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\msdchem\1\data\OA4568\oa133330.d\ECD2B.CH Vial: 3
Acq On : 14-May-18, 14:53:04 Operator: vinced
Sample : cc4559-300 Inst : SVOA0A
Misc : op11920,goa4568,16.0,,,5,1 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Mon May 14 15:39:56 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	964.956	875.244 E3	9.3	96	0.00	2.32-	2.38
2 S	2,4-DCAA	557.841	514.842 E3	7.7	97	0.00	7.32-	7.38
3	Dicamba	2.526	2.423 E6	4.1	98	0.00	7.53-	7.59
4	MCP	1.502	1.457 E3	3.0	96	0.00	7.81-	7.87
5	MCPA	2.804	2.688 E3	4.1	98	0.00	8.01-	8.07
6	Dichloroprop	677.279	620.159 E3	8.4	97	0.00	8.52-	8.58
7	2,4-D	828.384	768.948 E3	7.2	98	0.00	8.86-	8.93
8	Pentachlorophenol	11.215	10.862 E6	3.1	97	0.00	9.14-	9.20
9	2,4,5-TP	4.360	4.232 E6	2.9	98	0.00	10.17-	10.23
10	2,4,5-T	4.333	4.069 E6	6.1	94	0.00	10.63-	10.70
11	2,4-DB	463.455	415.519 E3	10.3	93	0.00	11.58-	11.67
12	Dinoseb	3.001	2.584 E6	13.9	88	0.00	13.50-	13.56
13	Picloram	5.100	4.975 E6	2.5	96	0.02	13.17-	13.23

***** Signal #2 *****

1	Dalapon	11.702	10.952 E6	6.4	99	0.00	2.63-	2.69
2 S	2,4-DCAA	9.409	9.183 E6	2.4	108	0.00	8.52-	8.58
3	Dicamba	39.025	37.615 E6	3.6	100	0.00	8.80-	8.86
4	MCP	27.463	24.447 E3	11.0	87	0.00	8.99-	9.05
5	MCPA	63.726	53.523 E3	16.0	84	0.00	9.38-	9.44
6	Dichloroprop	9.304	8.645 E6	7.1	102	0.00	9.97-	10.03
7	2,4-D	12.358	11.811 E6	4.4	102	0.00	10.55-	10.61
8	Pentachlorophenol	143.443	137.284 E6	4.3	100	0.00	11.18-	11.26
9	2,4,5-TP	54.001	52.977 E6	1.9	102	0.00	12.06-	12.12
10	2,4,5-T	56.738	54.677 E6	3.6	98	0.00	12.82-	12.94
11	2,4-DB	7.381	6.912 E6	6.4	98	0.00	13.88-	13.97
12	Dinoseb	29.046	21.726 E6	25.2#	80	0.00	14.45-	14.52
13	Picloram	44.447	41.046 E6	7.7	96	0.01	16.62-	16.68

(#) = Out of Range
oa133102.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Mon May 14 15:40:19 2018

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4568-CC4559
Lab FileID: OA133347.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4568\oa133347.d\ECD1A.CH Vial: 0
Signal #2 : C:\msdchem\1\data\OA4568\oa133347.d\ECD2B.CH
Acq On : 15-May-18, 00:04:32 Operator: vinced
Sample : cc4559-300 Inst : SVOA0A
Misc : op11937,goa4568,15.7,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Tue May 15 11:51:37 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	964.956	899.290 E3	6.8	98	0.00	2.32-	2.38
2 S	2,4-DCAA	557.841	532.966 E3	4.5	101	0.00	7.32-	7.38
3	Dicamba	2.526	2.503 E6	0.9	101	0.00	7.53-	7.59
4	MCPD	1.502	1.499 E3	0.2	99	0.00	7.81-	7.87
5	MCPA	2.804	2.731 E3	2.6	99	0.00	8.01-	8.07
6	Dichloroprop	677.279	641.929 E3	5.2	101	0.00	8.53-	8.59
7	2,4-D	828.384	795.597 E3	4.0	101	0.00	8.86-	8.93
8	Pentachlorophenol	11.215	11.234 E6	-0.2	101	0.00	9.14-	9.20
9	2,4,5-TP	4.360	4.384 E6	-0.6	101	0.00	10.17-	10.23
10	2,4,5-T	4.333	4.271 E6	1.4	99	0.01	10.63-	10.70
11	2,4-DB	463.455	439.780 E3	5.1	99	0.01	11.58-	11.67
12	Dinoseb	3.001	2.950 E6	1.7	100	0.00	13.50-	13.56
13	Picloram	5.100	5.049 E6	1.0	97	0.02	13.18-	13.24

***** Signal #2 *****

1	Dalapon	11.702	11.592 E6	0.9	104	0.00	2.63-	2.69
2 S	2,4-DCAA	9.409	9.287 E6	1.3	109	0.00	8.52-	8.58
3	Dicamba	39.025	41.791 E6	-7.1	111	0.00	8.80-	8.86
4	MCPD	27.463	24.522 E3	10.7	87	0.00	8.99-	9.05
5	MCPA	63.726	51.697 E3	18.9	81	0.00	9.38-	9.44
6	Dichloroprop	9.304	9.013 E6	3.1	107	0.00	9.97-	10.03
7	2,4-D	12.358	12.334 E6	0.2	106	0.00	10.55-	10.61
8	Pentachlorophenol	143.443	141.269 E6	1.5	103	0.00	11.17-	11.25
9	2,4,5-TP	54.001	54.925 E6	-1.7	105	0.00	12.06-	12.12
10	2,4,5-T	56.738	56.590 E6	0.3	102	0.00	12.82-	12.94
11	2,4-DB	7.381	6.974 E6	5.5	99	0.00	13.88-	13.98
12	Dinoseb	29.046	27.670 E6	4.7	102	0.00	14.45-	14.52
13	Picloram	44.447	43.037 E6	3.2	100	0.01	16.62-	16.68

(#) = Out of Range
oa133102.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Tue May 15 11:52:04 2018

Continuing Calibration Summary

Page 1 of 1

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4568-ECC4559
Lab FileID: OA133358.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\OA4568\oa133358.d\ECD1A.CH Vial: 0
Acq On : 15-May-18, 05:19:11 Operator: vinced
Sample : ecc4559-200 Inst : SVOA0A
Misc : op11975,goa4568,30,,,2.5,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\msdchem\1\data\OA4568\oa133358.d\ECD2B.CH Vial: 2
Acq On : 15-May-18, 05:19:11 Operator: vinced
Sample : cc4559-200 Inst : SVOA0A
Misc : op11975,goa4568,30,,,2.5,1 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Tue May 15 11:51:37 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	964.956	1059.995 E3	-9.8	111	0.00	2.33-	2.39
2 S	2,4-DCAA	557.841	528.893 E3	5.2	99	0.00	7.32-	7.38
3	Dicamba	2.526	2.446 E6	3.2	102	0.00	7.53-	7.59
4	MCP	1.502	1.438 E3	4.3	95	0.00	7.81-	7.87
5	MCPA	2.804	2.756 E3	1.7	96	0.00	8.01-	8.07
6	Dichloroprop	677.279	648.613 E3	4.2	98	0.00	8.53-	8.59
7	2,4-D	828.384	771.682 E3	6.8	94	0.01	8.87-	8.94
8	Pentachlorophenol	11.215	10.296 E6	8.2	92	0.00	9.14-	9.20
9	2,4,5-TP	4.360	4.198 E6	3.7	97	0.01	10.18-	10.24
10	2,4,5-T	4.333	4.127 E6	4.8	96	0.02	10.64-	10.71
11	2,4-DB	463.455	436.614 E3	5.8	94	0.02	11.59-	11.69
12	Dinoseb	3.001	2.789 E6	7.1	96	0.00	13.50-	13.56
13	Picloram	5.100	4.793 E6	6.0	94	0.03	13.19-	13.25

***** Signal #2 *****

1	Dalapon	11.702	13.818 E6	-18.1	118	0.00	2.63-	2.69
2 S	2,4-DCAA	9.409	9.606 E6	-2.1	105	0.00	8.52-	8.58
3	Dicamba	39.025	39.355 E6	-0.8	101	0.00	8.80-	8.86
4	MCP	27.463	20.577 E3	25.1#	73	0.00	8.99-	9.05
5	MCPA	63.726	48.137 E3	24.5#	71	0.00	9.39-	9.45
6	Dichloroprop	9.304	9.841 E6	-5.8	110	0.00	9.97-	10.03
7	2,4-D	12.358	12.871 E6	-4.2	104	0.00	10.55-	10.61
8	Pentachlorophenol	143.443	143.852 E6	-0.3	101	0.00	11.18-	11.26
9	2,4,5-TP	54.001	56.506 E6	-4.6	105	0.00	12.07-	12.13
10	2,4,5-T	56.738	57.252 E6	-0.9	100	0.01	12.82-	12.94
11	2,4-DB	7.381	7.195 E6	2.5	97	0.01	13.89-	13.98
12	Dinoseb	29.046	28.858 E6	0.6	101	0.00	14.45-	14.52
13	Picloram	44.447	46.628 E6	-4.9	105	0.02	16.62-	16.68

(#) = Out of Range
oa133101.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Tue May 15 11:53:59 2018



GC/LC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4048\3G116530.D\ECD1A.CH Vial: 16
Signal #2 : C:\MSDCHEM\1\DATA\3G4048\3G116530.D\ECD2B.CH
Acq On : 5-20-2018 06:28:22 PM Operator: vinced
Sample : jc65860-1A Inst : GC3G
Misc : op11975,g3g4048,30,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 21 09:16:10 2018 Quant Results File: 3H4044.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Initial Calibration
DataAcq Meth : 3H4044.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2

System Monitoring Compounds						
2) S 2,4-DCAA	7.38	7.90	1964.2E6	443.3E6	415.787	445.005
Spiked Amount	500.000		Recovery	=	83.16%	89.00%

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
3G116530.D 3H4044.M Mon May 21 09:16:48 2018 GC3G

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4048\3G116530.D\ECD1A.CH Vial: 16
Signal #2 : C:\MSDCHEM\1\DATA\3G4048\3G116530.D\ECD2B.CH
Acq On : 5-20-2018 06:28:22 PM Operator: vinced
Sample : jc65860-1A Inst : GC3G
Misc : op11975,g3g4048,30,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 21 9:16 2018 Quant Results File: 3H4044.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : 3H4044.M

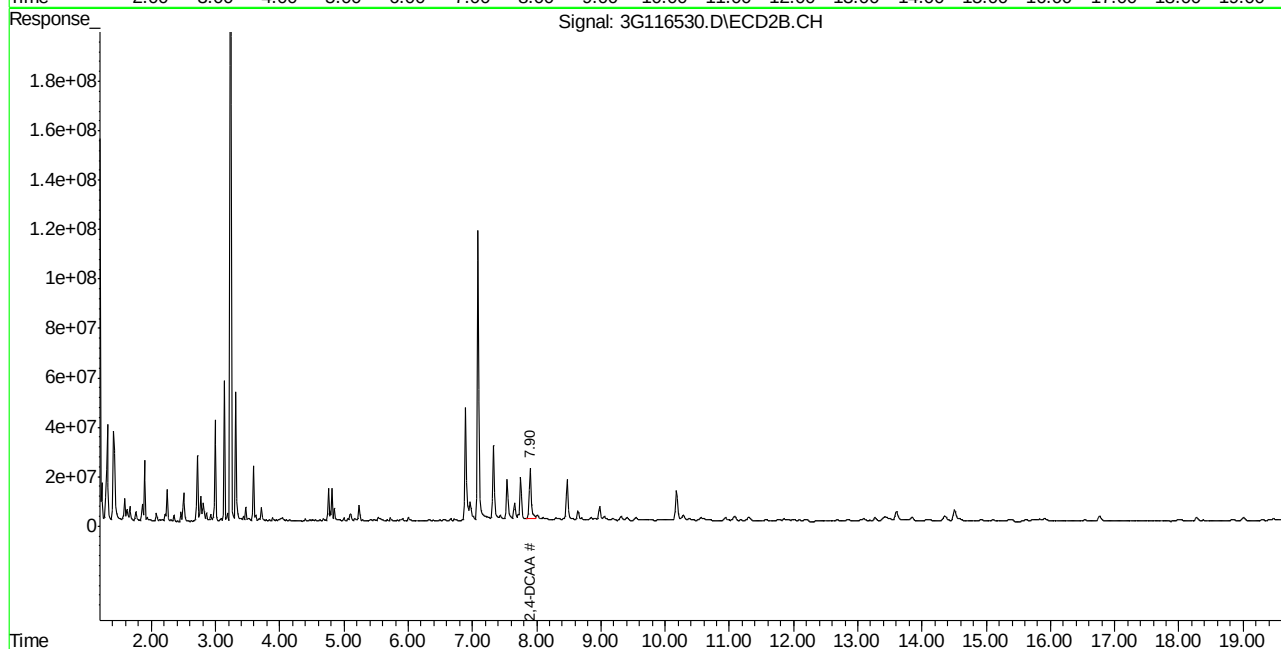
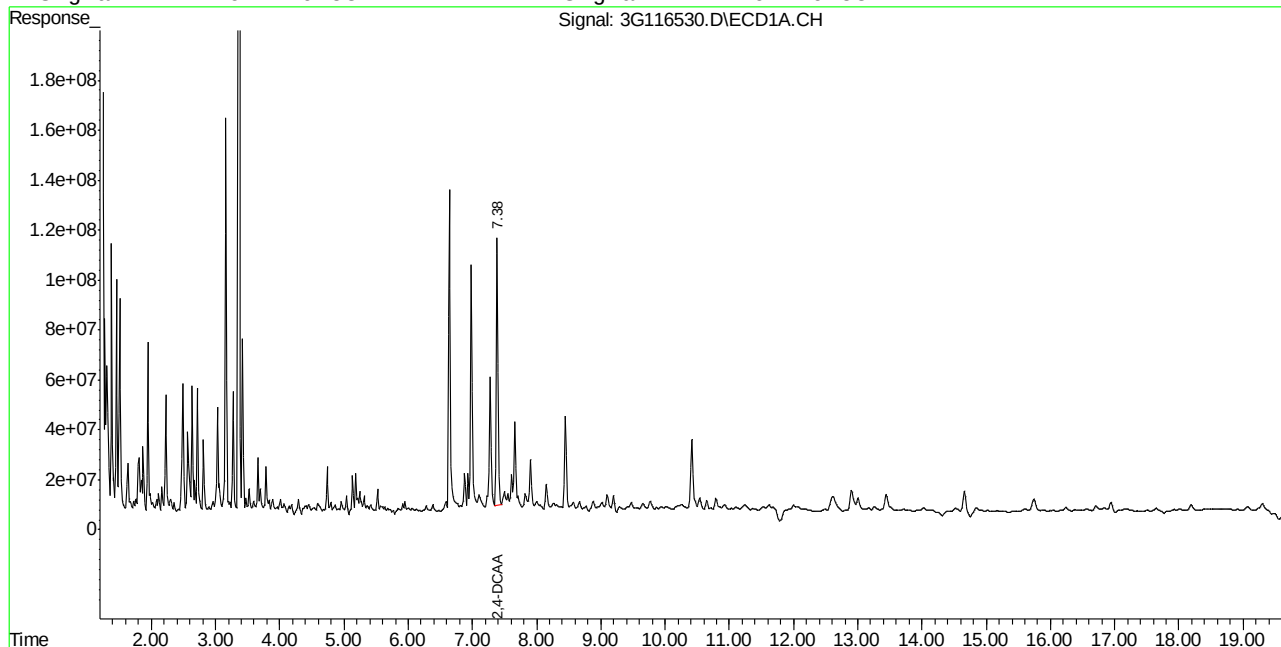
Volume Inj. : 1ul/column

Signal #1 Phase : RTX-CLP I

Signal #2 Phase: RTX-CLP II

Signal #1 Info : 0.53MM

Signal #2 Info : 0.53MM



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1687\
Data File : 6g56364.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21-May-18, 04:58:26
Operator : christp
Sample : jc65860-1a
Misc : OP11974,g6g1687,30,,,2,1
ALS Vial : 21 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 21 09:03:58 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Thu May 17 23:56:16 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound		RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1) I	1-bromo-2...	1.960	2.159	374.8E6	269.2E6	50.000	50.000
27) I	1-bromo-2...	1.960	2.159	374.8E6	269.2E6	50.000	50.000
33) I	1-bromo-2...	1.960	2.159	374.8E6	269.2E6	50.000	50.000
System Monitoring Compounds							
2) SAB	Tetrachlo...	2.542	2.934	161.1E6	110.2E6	22.116	21.976
Spiked Amount		40.000	Range 30 - 150	Recovery	=	55.29%	54.94%
26) SA	Decachlor...	9.829	11.718	173.6E6	120.8E6	23.378	24.158
Spiked Amount		40.000		Recovery	=	58.45%	60.39%
Target Compounds							
Sum Toxaphene				0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

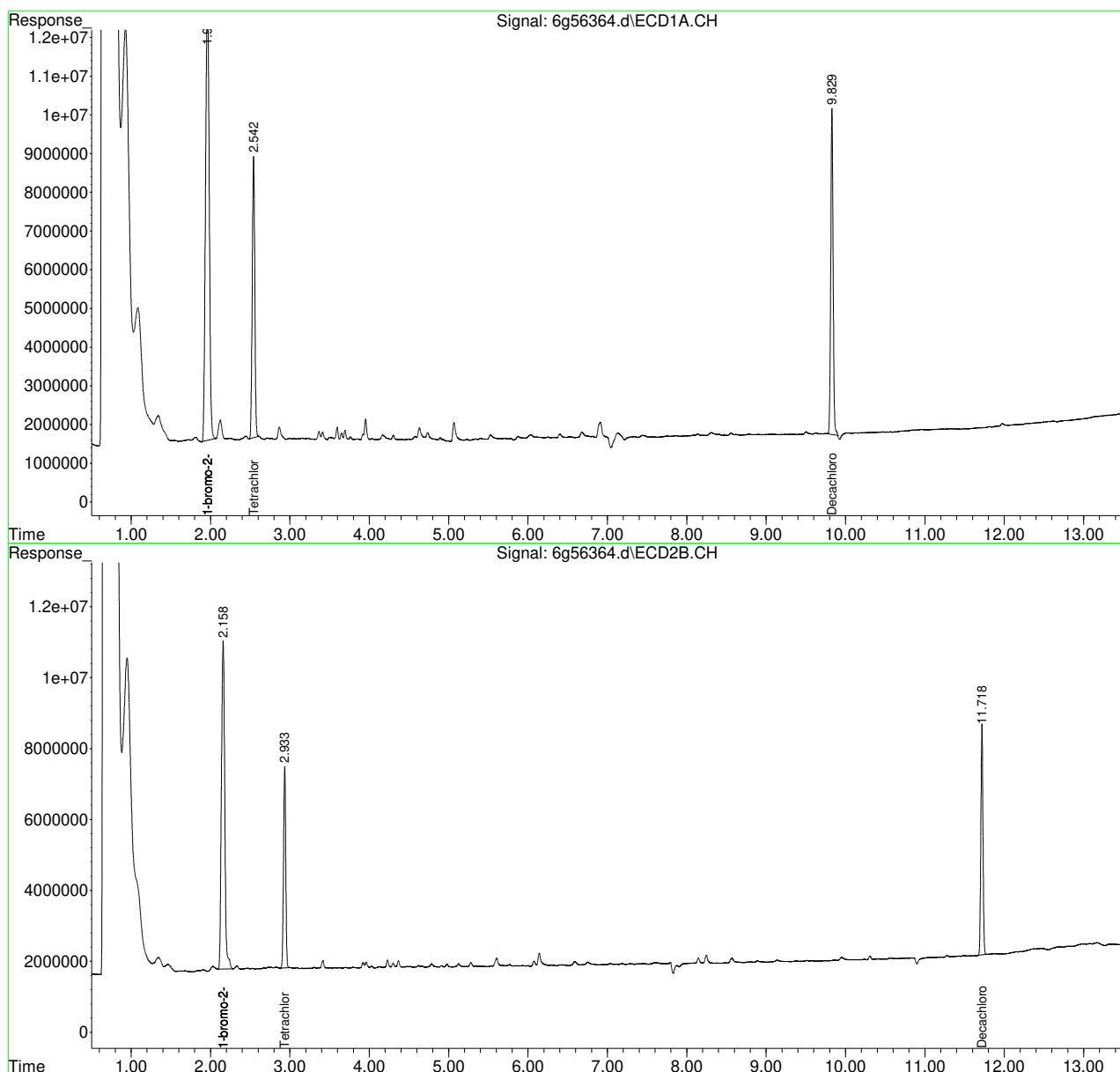
13.12
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1687\
Data File : 6g56364.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21-May-18, 04:58:26
Operator : christp
Sample : jc65860-1a
Misc : OP11974,g6g1687,30,,,2,1
ALS Vial : 21 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 21 09:03:58 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Thu May 17 23:56:16 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4337\
 Data File : 2G163845.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 20 May 2018 2:34 am
 Operator : edouarda
 Sample : jc65860-1
 Misc : OP12110,G2G4338,15.8,,,10,1
 ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: May 21 10:35:42 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Mon May 14 13:05:01 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.783	3.427	126.8E6	500.0E6	34.555	21.853m#
Spiked Amount	40.000		Recovery	=	86.39%	54.63%
51) S Decachlor...	9.996f	11.789	1772.4E6	10088.3E6	436.995m	528.197m
Spiked Amount	40.000		Recovery	=	1092.49%	1320.49%

Target Compounds

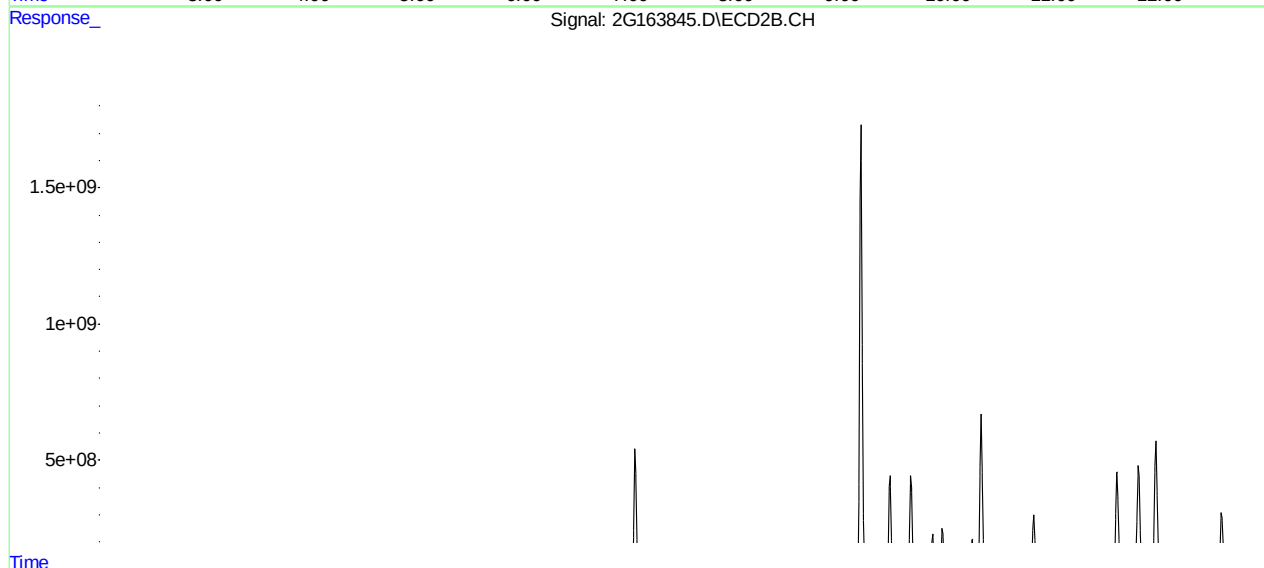
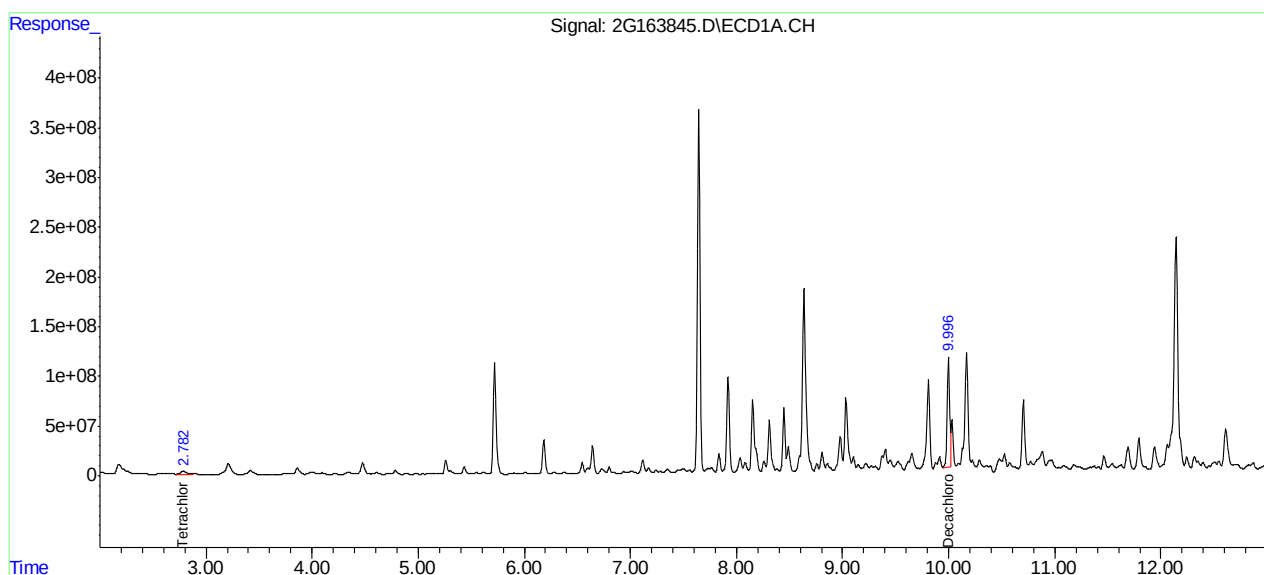
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4337\
 Data File : 2G163845.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 20 May 2018 2:34 am
 Operator : edouarda
 Sample : jc65860-1
 Misc : OP12110,G2G4338,15.8,,,10,1
 ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: May 21 10:35:42 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Mon May 14 13:05:01 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\G2Y3470\
Data File : 2y91072.D
Signal(s) : FID1A.CH
Acq On : 14 May 2018 2:27 am
Operator : thomasl
Sample : jc65860-1
Misc : op11954,g2y3470,10.5,,,1,1
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 14 09:34:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M
Quant Title :
QLast Update : Wed May 09 13:26:10 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL
Signal Phase : RTX-1
Signal Info : 30mX0.25mmX0.25um

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
8) S o-Terphenyl	9.97	52809059	29.458 PPM	m
Spiked Amount 50.000		Recovery =	58.92%	
9) S 5a-Androstane	10.65	63249846	37.404 PPM	m
Spiked Amount 50.000		Recovery =	74.81%	
10) S Tetracosane-d50	11.76	46731299	39.828 PPM	m
Spiked Amount 50.000		Recovery =	79.66%	
Target Compounds				
1) H TPH-DRO	8.79	5128304051	4037.836 PPM	
2) H TPH-DRO (C10-C44)	14.69	5791027881	4559.640 PPM	

(f)=RT Delta > 1/2 Window

(m)=manual int.

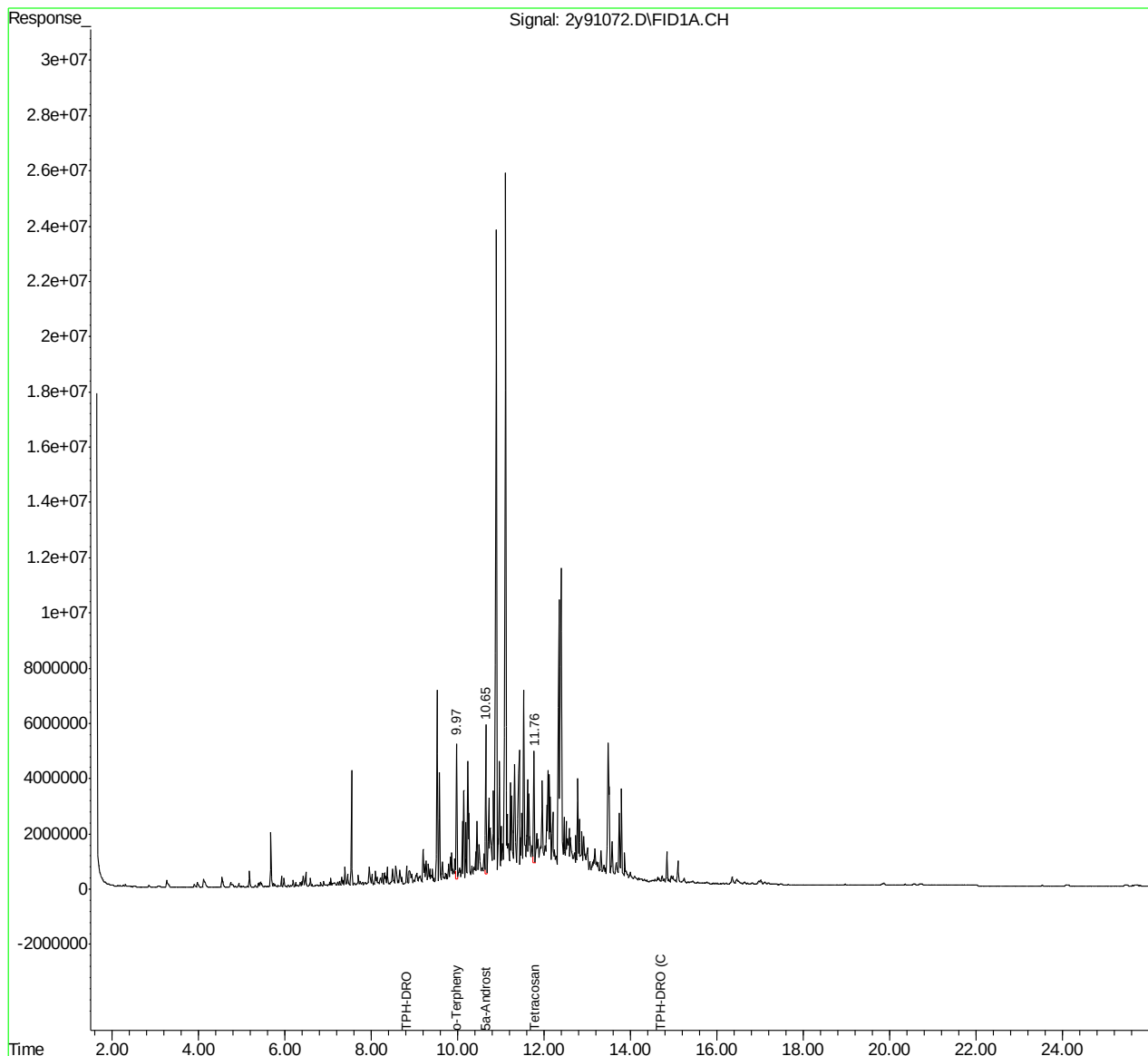
13.14
13

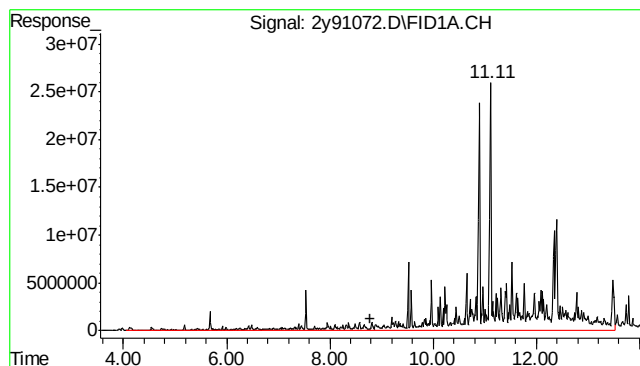
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\G2Y3470\
Data File : 2y91072.D
Signal(s) : FID1A.CH
Acq On : 14 May 2018 2:27 am
Operator : thomasl
Sample : jc65860-1
Misc : op11954,g2y3470,10.5,,,1,1
ALS Vial : 22 Sample Multiplier: 1

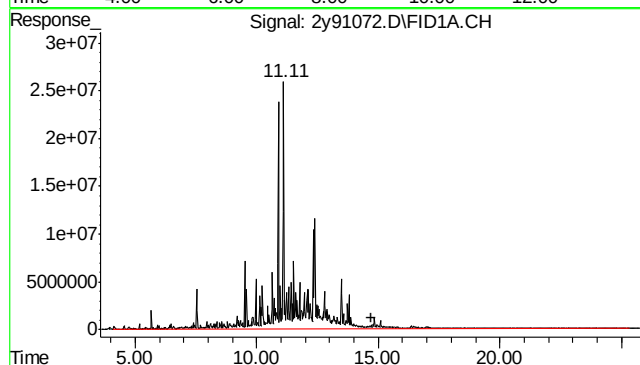
Integration File: autoint1.e
Quant Time: May 14 09:34:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M
Quant Title :
QLast Update : Wed May 09 13:26:10 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL
Signal Phase : RTX-1
Signal Info : 30mX0.25mmX0.25um

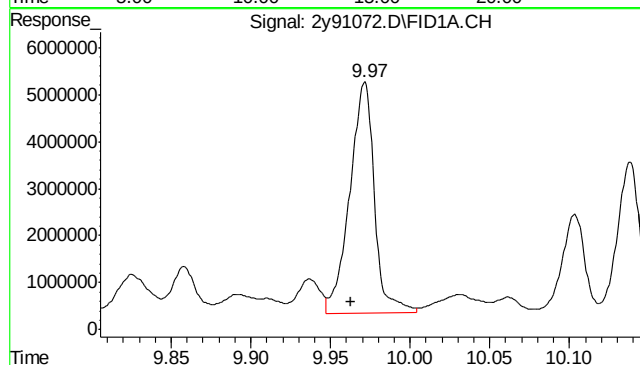




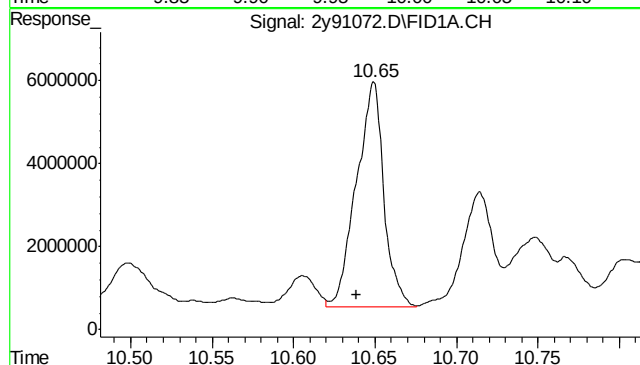
#1 TPH-DRO
R.T.: 8.790 min
Delta R.T.: 0.000 min
Response: 5128304051
Conc: 4037.84 PPM m



#2 TPH-DRO (C10-C44)
R.T.: 14.690 min
Delta R.T.: 0.000 min
Response: 5791027881
Conc: 4559.64 PPM m

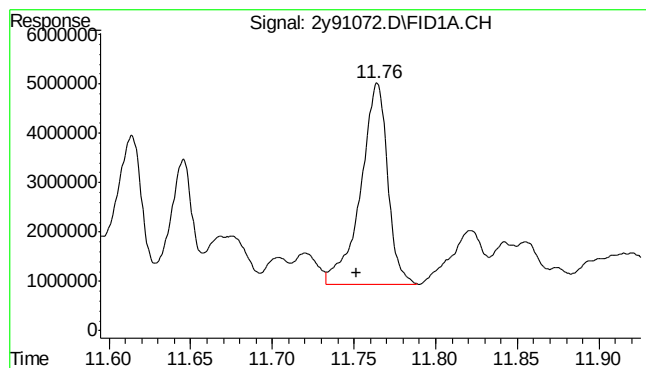


#8 o-Terphenyl
R.T.: 9.971 min
Delta R.T.: 0.008 min
Response: 52809059
Conc: 29.46 PPM m



#9 5a-Androstane
R.T.: 10.649 min
Delta R.T.: 0.010 min
Response: 63249846
Conc: 37.40 PPM m

13.1.4
13



#10 Tetracosane-d50

R.T.: 11.764 min

Delta R.T.: 0.013 min

Response: 46731299

Conc: 39.83 PPM m

13.14
13

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4644\1G146111.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4644\1G146111.D\ECD2B.CH
Acq On : 13 May 2018 11:25 pm Operator: christp
Sample : op11950-mb1 Inst : GC1G
Misc : op11950,g1g4644,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: May 14 8:19 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Sun May 13 23:05:19 2018
Response via : Initial Calibration
DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards						
1) I 1-bromo-2-nitrob	1.99	2.30	780.4E6	108.4E6	50.000	50.000
27) I 1-bromo-2-nitrob	1.99	2.30	780.4E6	108.4E6	50.000	50.000
33) I 1-bromo-2-nitrob	1.99	2.30	780.4E6	108.4E6	50.000	50.000
System Monitoring Compounds						
2) SAB Tetrachloro-m-xy	2.55	3.14	483.4E6	72898341	32.850	32.549
Spiked Amount	40.000	Range	30 - 150	Recovery	=	82.13% 81.37%
26) SA Decachlorobiphen	9.80	11.67	275.7E6	28295542	18.218	14.094
Spiked Amount	40.000			Recovery	=	45.55% 35.23%

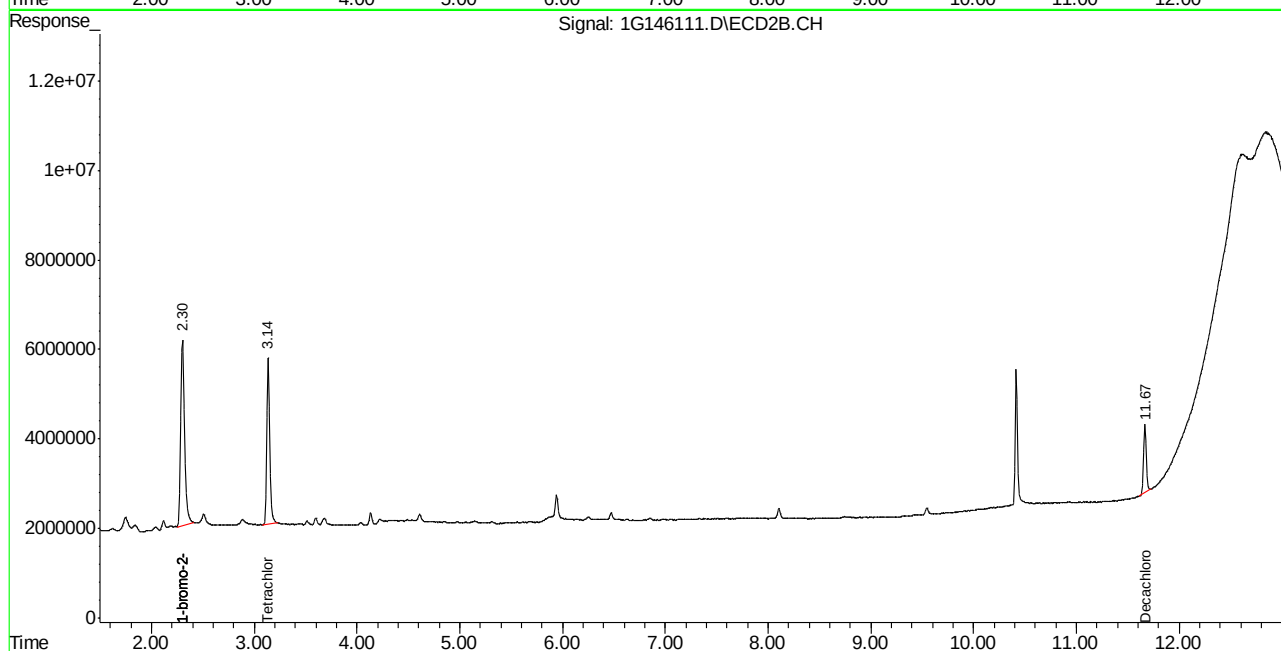
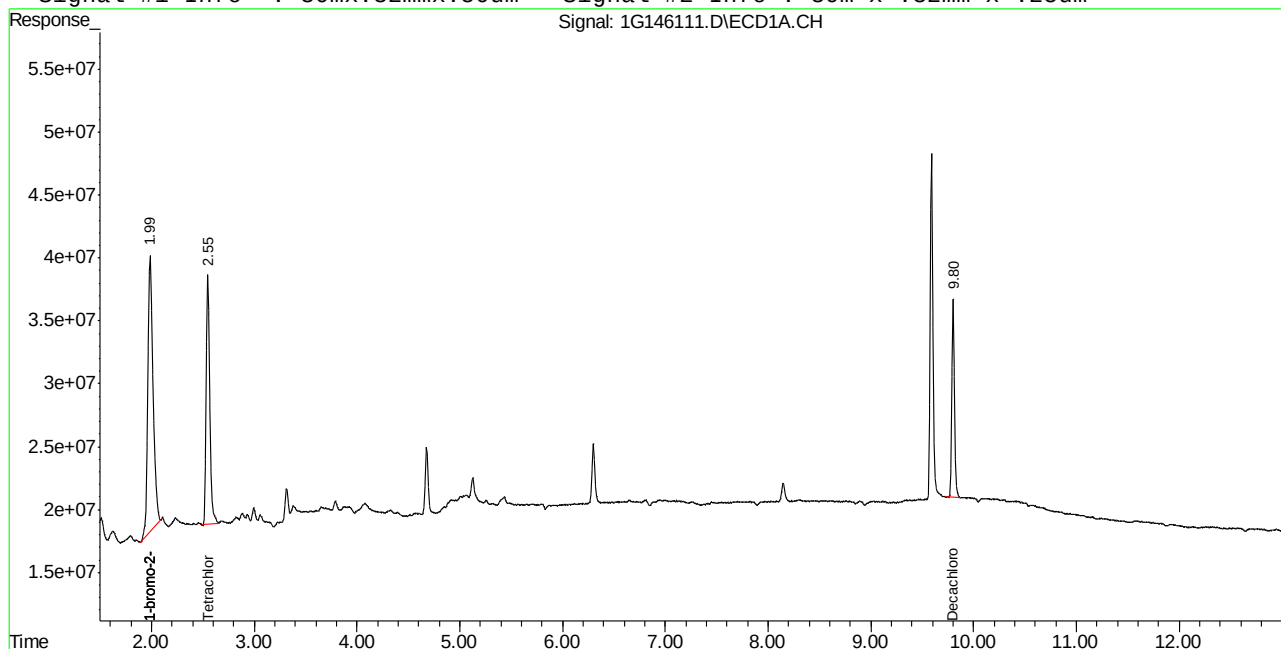
Target Compounds

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4644\1G146111.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\1G4644\1G146111.D\ECD2B.CH
Acq On : 13 May 2018 11:25 pm Operator: christp
Sample : op11950-mb1 Inst : GC1G
Misc : op11950,g1g4644,300,,,2,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E
Quant Time: May 14 8:19 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)
Title : PEST/PCB
Last Update : Sun May 13 23:05:19 2018
Response via : Multiple Level Calibration
DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4337\
Data File : 2G163841.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 20 May 2018 1:26 am
Operator : edouarda
Sample : op12110-mb1
Misc : OP12110,G2G4338,15.0,,,10,1
ALS Vial : 57 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 21 10:11:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds							
1) S	Tetrachlo...	2.786	3.432	123.7E6	769.8E6	33.689	33.644
	Spiked Amount	40.000		Recovery	=	84.22%	84.11%
51) S	Decachlor...	9.970	11.771	140.8E6	701.5E6	34.708	36.729m
	Spiked Amount	40.000		Recovery	=	86.77%	91.82%

Target Compounds

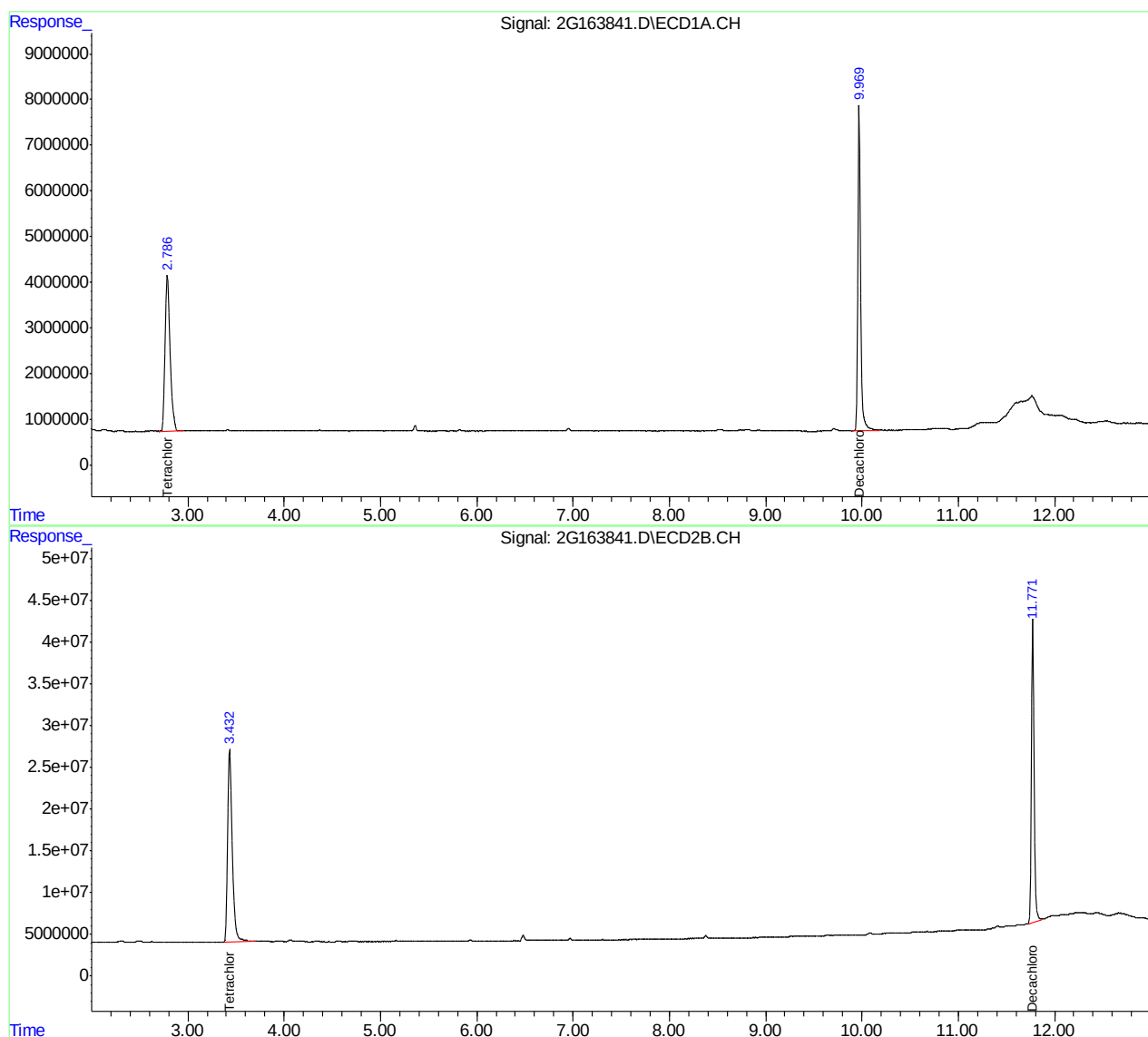
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4337\
Data File : 2G163841.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 20 May 2018 1:26 am
Operator : edouarda
Sample : op12110-mb1
Misc : OP12110,G2G4338,15.0,,,10,1
ALS Vial : 57 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 21 10:11:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\G2Y3470\
Data File : 2y91051.D
Signal(s) : FID1A.CH
Acq On : 13 May 2018 2:44 pm
Operator : thomasl
Sample : op11954-mb1
Misc : op11954,g2y3470,10.0,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 14 09:06:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M
Quant Title :
QLast Update : Wed May 09 13:26:10 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL
Signal Phase : RTX-1
Signal Info : 30mX0.25mmX0.25um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
8) S o-Terphenyl	9.98	47619003	26.563 PPM
Spiked Amount 50.000		Recovery =	53.13%
9) S 5a-Androstane	10.65	43101491	25.489 PPM
Spiked Amount 50.000		Recovery =	50.98%
10) S Tetracosane-d50	11.76	38512000	32.823 PPM
Spiked Amount 50.000		Recovery =	65.65%

Target Compounds

(f)=RT Delta > 1/2 Window

(m)=manual int.

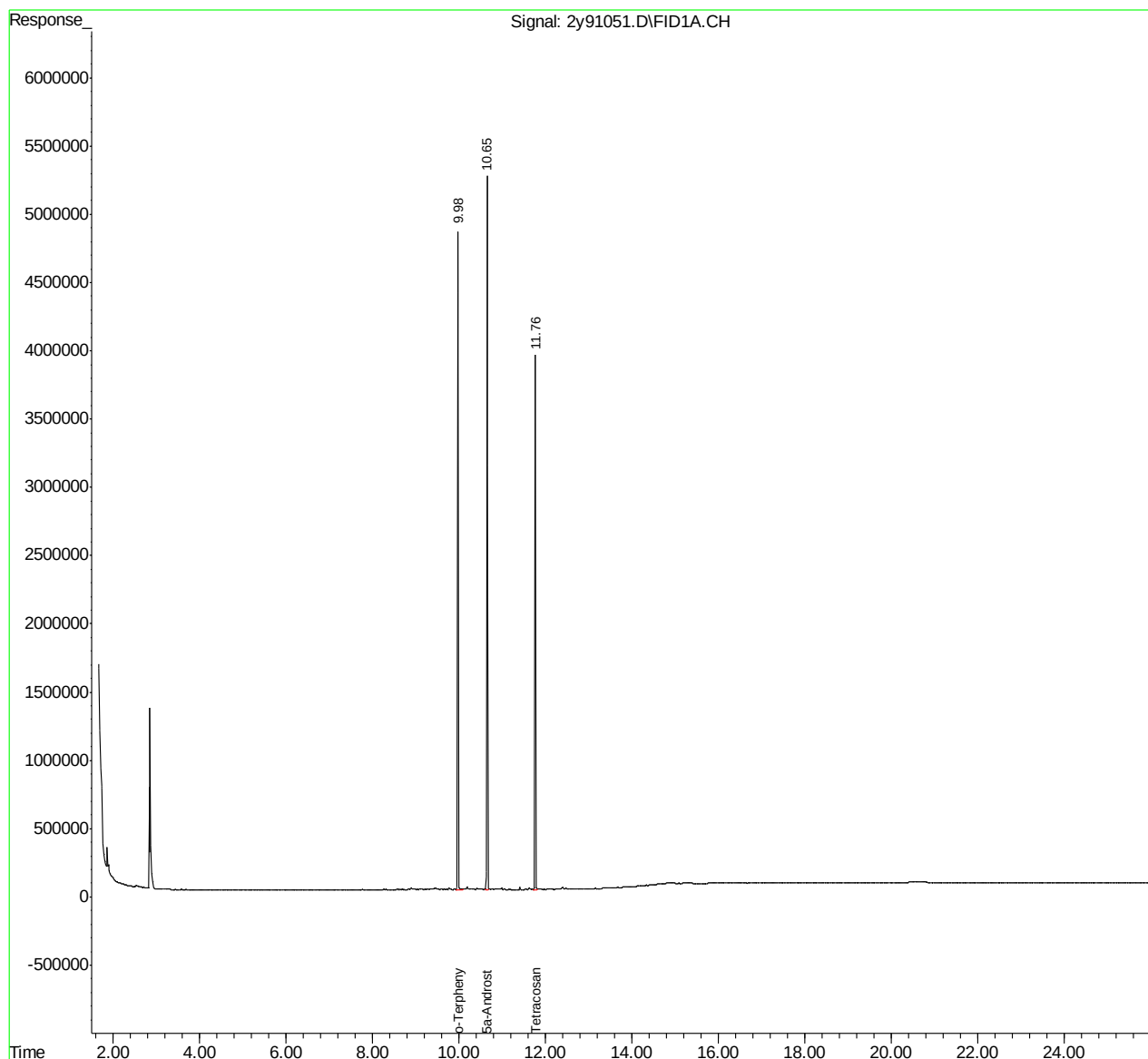
13.23
13

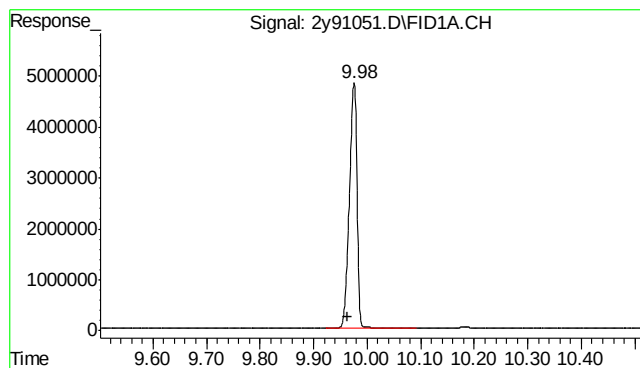
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\G2Y3470\
Data File : 2y91051.D
Signal(s) : FID1A.CH
Acq On : 13 May 2018 2:44 pm
Operator : thomasl
Sample : op11954-mb1
Misc : op11954,g2y3470,10.0,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 14 09:06:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\DR02Y3446.M
Quant Title :
QLast Update : Wed May 09 13:26:10 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

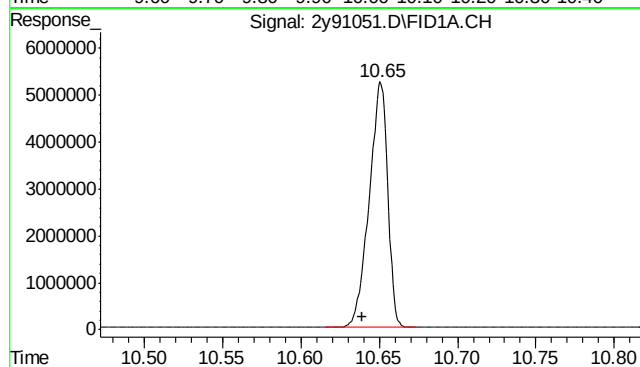
Volume Inj. : 1UL
Signal Phase : RTX-1
Signal Info : 30mX0.25mmX0.25um





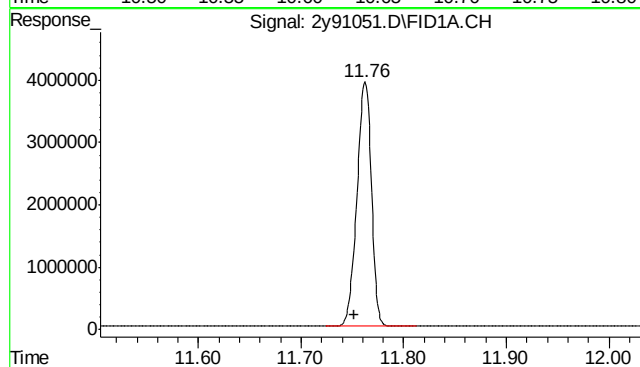
#8 o-Terphenyl

R.T.: 9.976 min
Delta R.T.: 0.013 min
Response: 47619003
Conc: 26.56 PPM



#9 5a-Androstane

R.T.: 10.651 min
Delta R.T.: 0.012 min
Response: 43101491
Conc: 25.49 PPM



#10 Tetracosane-d50

R.T.: 11.763 min
Delta R.T.: 0.011 min
Response: 38512000
Conc: 32.82 PPM

Gwendolyn Burns
05/21/18 10:31

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4048\3G116516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\3G4048\3G116516.D\ECD2B.CH
Acq On : 20 May 2018 11:48 am Operator: vinced
Sample : op12064-mb1 Inst : GC3G
Misc : op12064,g3g4048,300,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 20 12:11:50 2018 Quant Results File: 3H4044.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Initial Calibration
DataAcq Meth : 3H4044.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2

System Monitoring Compounds						
2) S 2,4-DCAA	7.38	7.90	1689.2E6	547.7E6	357.562	549.807m#
Spiked Amount	500.000		Recovery	=	71.51%	109.96%

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
3G116516.D 3H4044.M Mon May 21 09:02:06 2018 GC3G

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4048\3G116516.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\3G4048\3G116516.D\ECD2B.CH
Acq On : 20 May 2018 11:48 am Operator: vinced
Sample : op12064-mb1 Inst : GC3G
Misc : op12064,g3g4048,300,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 21 9:01 2018 Quant Results File: 3H4044.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : 3H4044.M

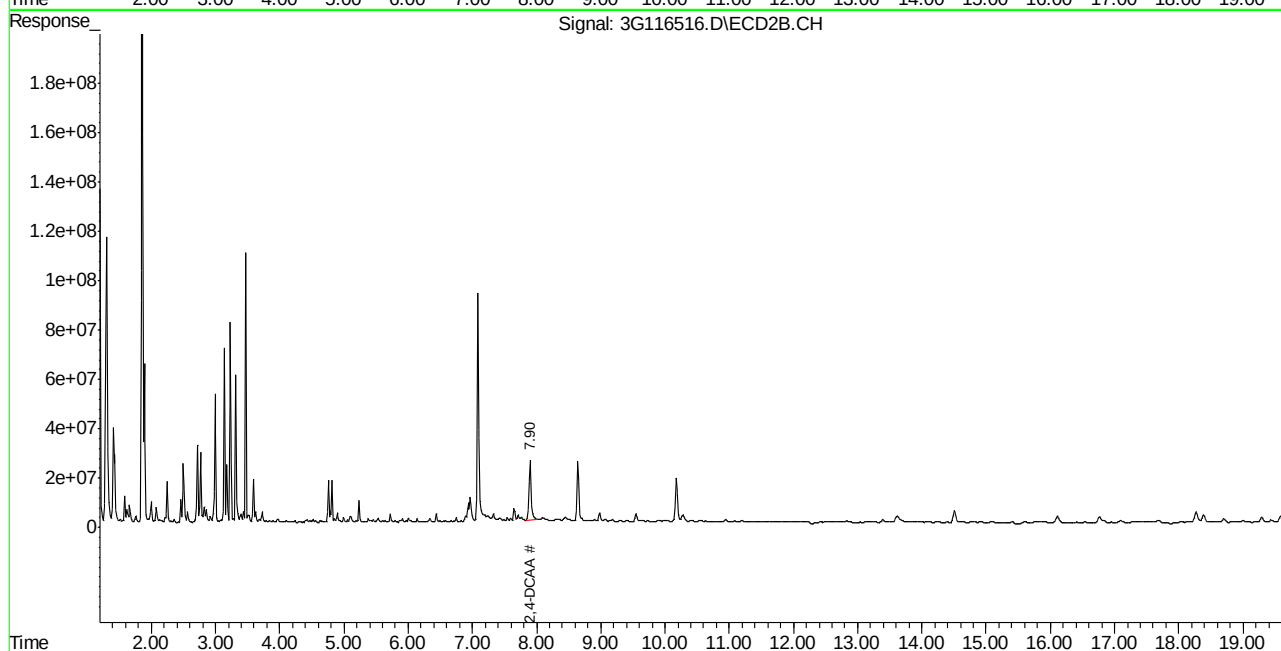
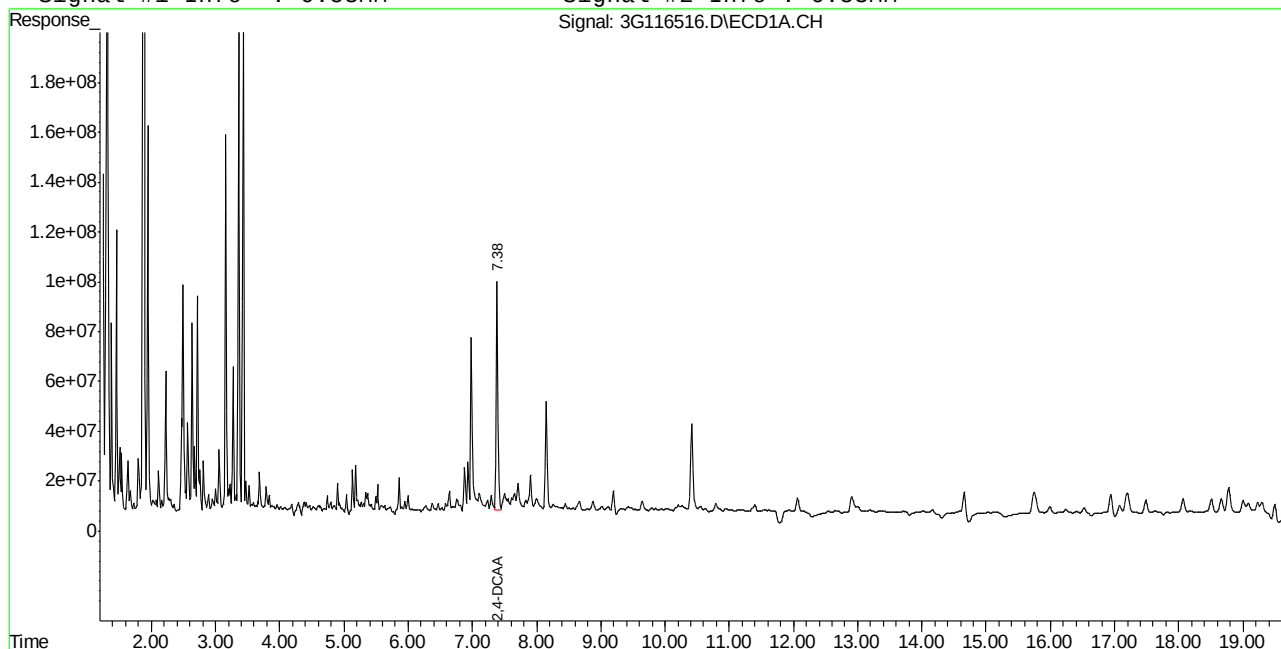
Volume Inj. : 1ul/column

Signal #1 Phase : RTX-CLP I

Signal #2 Phase: RTX-CLP II

Signal #1 Info : 0.53MM

Signal #2 Info : 0.53MM



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
 Data File : 6g55784.d
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 30-Apr-18, 12:36:33
 Operator : dharas
 Sample : icc1671-25
 Misc : OP11619,g6g1671,1000,,,5,1
 ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Apr 30 12:52:37 2018
 Quant Method : C:\msdchem\1\methods\6PST1671.M
 Quant Title : PEST/PCB
 QLast Update : Mon Apr 30 12:31:07 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1)	I 1-bromo-2...	1.943	2.148	403.9E6	253.2E6	50.000	50.000
27)	I 1-bromo-2...	1.943	2.148	403.9E6	253.2E6	50.000	50.000
33)	I 1-bromo-2...	1.943	2.148	403.9E6	253.2E6	50.000	50.000
System Monitoring Compounds							
2)	SAB Tetrachlo...	2.530	2.932	189.1E6	114.8E6	23.658	23.388
	Spiked Amount	40.000	Range	30 - 150	Recovery	=	59.15%
26)	SA Decachlor...	9.838	11.722	184.6E6	109.7E6	24.257	25.672
	Spiked Amount	40.000		Recovery	=	60.64%	64.18%
Target Compounds							
3)	hexachlor...	2.857	3.415	210.3E6	141.6E6	21.917	22.707
4)	A alpha-BHC	2.996	3.563	270.6E6	157.3E6	22.926	22.462
5)	MA gamma-BHC	3.287	3.971	249.6E6	145.6E6	23.359	22.563
6)	MA Heptachlor	3.776	4.526	236.7E6	146.0E6	25.037	24.415
7)	B beta-BHC	3.359	4.051	109.6E6	65204342	24.369	24.037
8)	B delta-BHC	3.542	4.431	226.7E6	133.1E6	23.687	22.873
9)	MB Aldrin	4.107	4.962	232.3E6	129.4E6	24.904	22.686
10)	alachlor	4.246	4.780	28340673	17039946	23.696	23.431
11)	B Heptachlo...	4.813	5.760	214.1E6	124.0E6	25.673	24.804
12)	B gamma-Chl...	4.975	6.037	212.2E6	123.6E6	25.903	25.235
13)	B alpha-Chl...	5.145	6.257	210.1E6	122.8E6	25.048	25.615
14)	A Endosulfan I	5.322	6.349	197.6E6	111.7E6	24.765	24.460
15)	B 4,4'-DDE	5.256	6.521	203.7E6	116.9E6	24.678	22.598
16)	MA Dieldrin	5.642	6.775	217.8E6	121.4E6	23.209	22.770
17)	MA Endrin	5.964	7.268	194.6E6	115.1E6	25.344	24.911
18)	A 4,4'-DDD	6.085	7.452	168.7E6	96890160	24.374	24.290
19)	B Endosulfa...	6.283	7.612	194.5E6	112.1E6	25.092	24.729
20)	MA 4,4'-DDT	6.503	7.980	162.0E6	96232017	24.375	23.954
21)	B Endrin Al...	6.907	8.177	160.7E6	89850605	25.017	24.937
22)	B Endosulfa...	7.588	8.641	159.9E6	90465081	25.757	25.546
23)	A Methoxychlor	7.285	9.213	94604672	55394201	26.255	27.313
24)	Mirex	7.436	9.520	156.3E6	89970523	24.892	24.562
25)	B Endrin Ke...	8.028	9.587	193.0E6	111.2E6	25.635	23.298
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

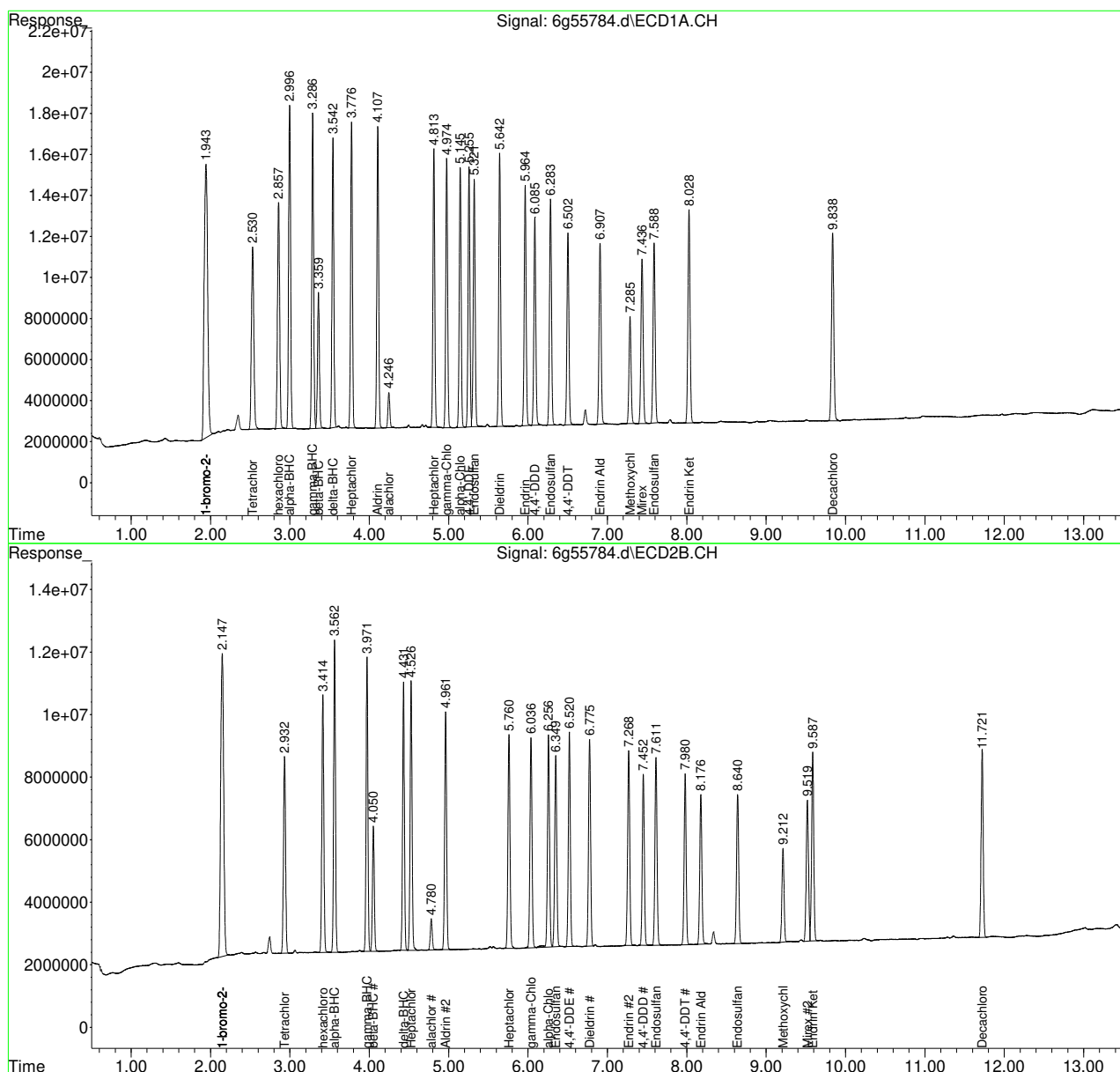
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55784.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:36:33
Operator : dharas
Sample : icc1671-25
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 12:52:37 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55788.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)
Operator : dharas
Sample : ic1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:25:49 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound		RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1) I	1-bromo-2...	1.944	2.148	409.6E6	252.6E6	50.000	50.000
27) I	1-bromo-2...	1.944	2.148	409.6E6	252.6E6	50.000	50.000
33) I	1-bromo-2...	1.944	2.148	409.6E6	252.6E6	50.000	50.000
System Monitoring Compounds							
2) SAB	Tetrachlo...	2.531f	2.933	389.1E6	228.0E6	47.992	46.540
Spiked Amount		40.000	Range 30 - 150	Recovery	=	119.98%	116.35%
26) SA	Decachlor...	9.838	11.722f	351.2E6	206.2E6	45.509	48.373
Spiked Amount		40.000		Recovery	=	113.77%	120.93%
Target Compounds							
Sum Toxaphene				0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000
34)	Chlordane...	3.776	4.526	220.7E6	136.8E6	497.720	487.961
35)	Chlordane...	4.250	5.150	183.3E6	100.4E6	481.316	486.126
36)	Chlordane...	4.975	6.037	592.7E6	319.3E6	506.778	487.790
37)	Chlordane...	5.139	6.258	932.0E6	520.1E6	496.185	488.099m
38)	Chlordane...	6.024	7.396	105.2E6	54285316	450.659	528.699

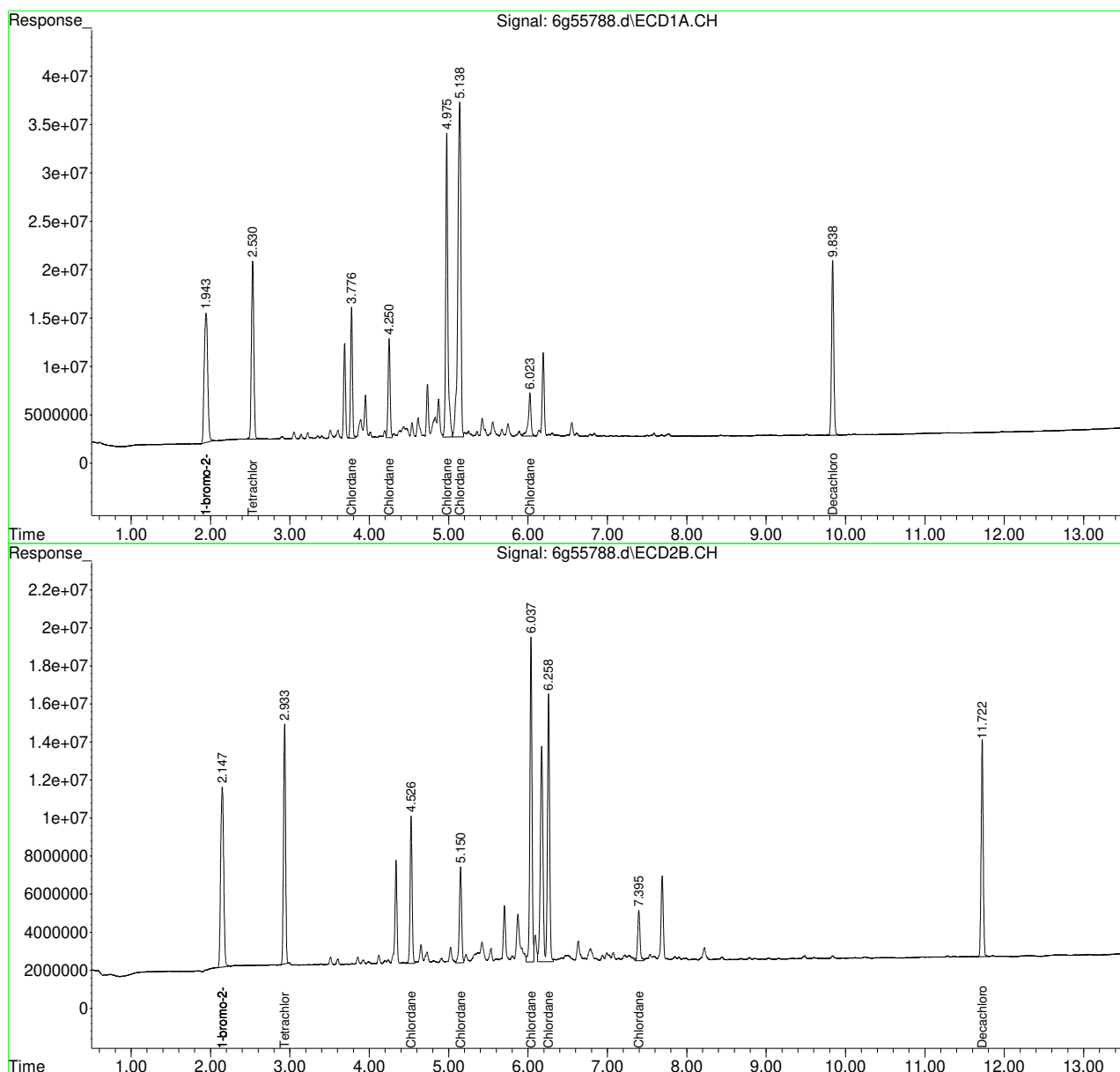
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55788.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)
Operator : dharas
Sample : ic1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:25:49 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
 Data File : 6g55789.d
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 30-Apr-18, 14:05:32
 Operator : dharas
 Sample : ic1671-500
 Misc : OP11619,g6g1671,1000,,,5,1
 ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Apr 30 17:26:17 2018
 Quant Method : C:\msdchem\1\methods\6PST1671.M
 Quant Title : PEST/PCB
 QLast Update : Mon Apr 30 12:31:07 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1) I	1-bromo-2...	1.940	2.144	402.5E6	250.1E6	50.000	50.000
27) I	1-bromo-2...	1.940	2.144	402.5E6	250.1E6	50.000	50.000
33) I	1-bromo-2...	1.940	2.144	402.5E6	250.1E6	50.000	50.000
System Monitoring Compounds							
2) SAB	Tetrachlo...	2.528f	2.931	385.1E6	233.3E6	48.334	48.108
Spiked Amount		40.000	Range 30 - 150	Recovery	=	120.84%	120.27%
26) SA	Decachlor...	9.837	11.722f	358.9E6	213.2E6	47.319	50.528
Spiked Amount		40.000		Recovery	=	118.30%	126.32%
Target Compounds							
28) L8	Toxaphene{A}	5.652	6.741	63726000	48141894	470.271	486.445
29) L8	Toxaphene{B}	6.272	7.583	164.9E6	62990732	478.558	515.469
30) L8	Toxaphene{C}	6.447	7.744	133.5E6	117.7E6	480.051	512.531
31) L8	Toxaphene{D}	6.787	8.178	104.7E6	65399372	492.281	529.767
32) L8	Toxaphene{E}	7.434	9.066	107.3E6	58569705	475.346	551.126
Sum Toxaphene				574.1E6	352.8E6	2396.507	2595.337
Average Toxaphene						479.301	519.067

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

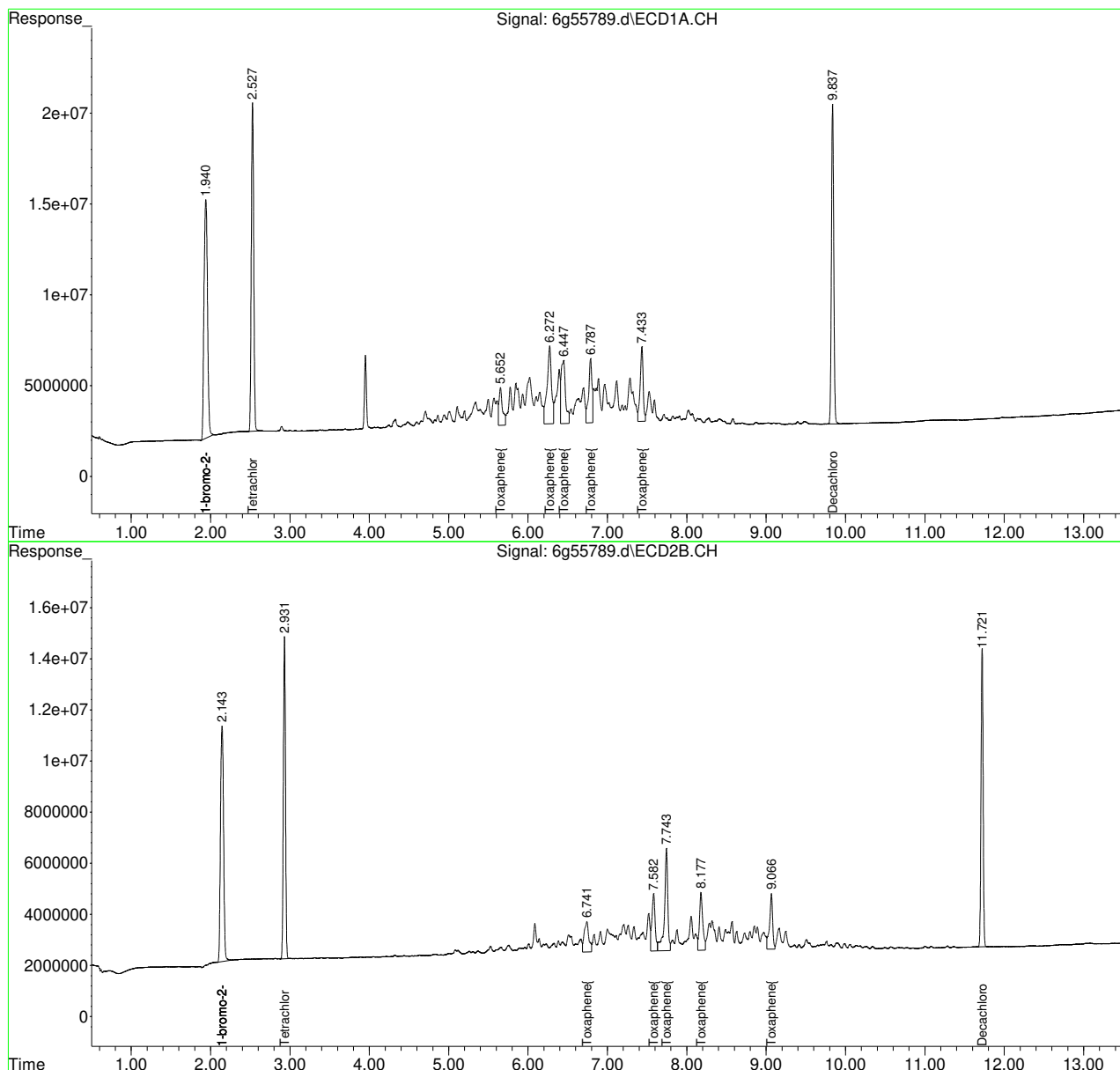
13.33
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
 Data File : 6g55789.d
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 30-Apr-18, 14:05:32
 Operator : dharas
 Sample : ic1671-500
 Misc : OP11619,g6g1671,1000,,,5,1
 ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Apr 30 17:26:17 2018
 Quant Method : C:\msdchem\1\methods\6PST1671.M
 Quant Title : PEST/PCB
 QLast Update : Mon Apr 30 12:31:07 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:33:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.778	3.432	147.7E6	928.7E6	33.797	30.364
Spiked Amount	40.000		Recovery	=	84.49%	75.91%
51) S Decachlor...	10.013	11.809	157.2E6	749.6E6	34.886	39.555
Spiked Amount	40.000		Recovery	=	87.22%	98.89%
Target Compounds						
31) AR1016-A	3.155	4.092	75576037	366.7E6	827.627	761.652
32) AR1016-B	3.557	4.630	130.4E6	777.2E6	1133.202	804.122 #
33) AR1016-C	4.107	5.275	285.4E6	1744.2E6	773.001	833.586
34) AR1016-D	4.268	5.461	115.7E6	737.8E6	860.556	953.596
35) AR1016-E	4.782	6.112	117.6E6	502.9E6	835.629m	883.134
36) AR1260-A	7.151	8.712	317.8E6	1882.4E6	835.813	1010.865m
37) AR1260-B	7.312	8.828	153.0E6	917.3E6	895.825	941.444
38) AR1260-C	7.650	9.260	169.0E6	1051.3E6	1020.047	1122.233
39) AR1260-D	8.080	9.610	395.3E6	2256.3E6	855.811	959.373
40) AR1260-E	8.472	10.153	402.6E6	2144.0E6	925.282m	1047.495m

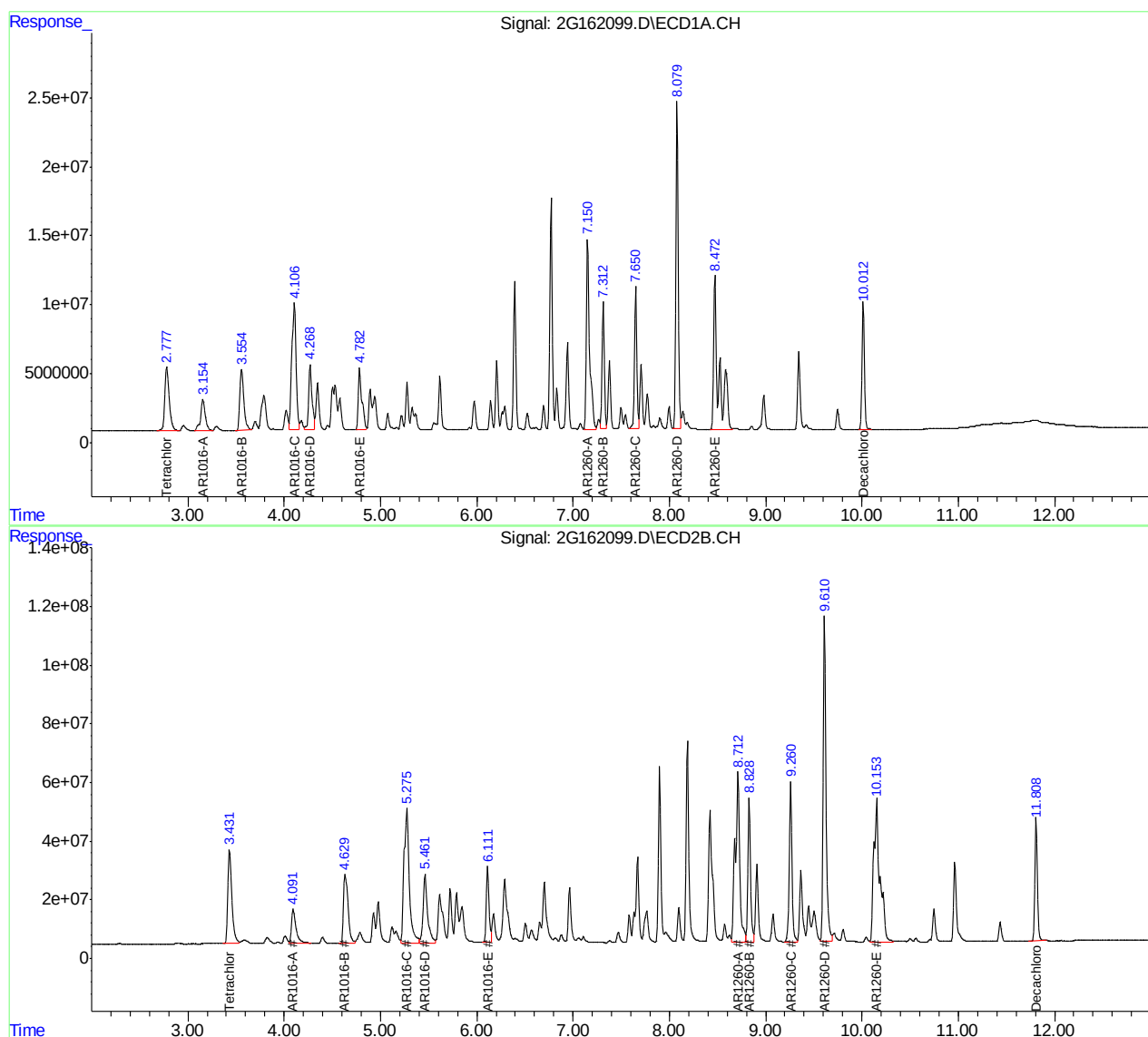
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:33:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.779	3.431	163.8E6	987.2E6	47.199	46.623
Spiked Amount	40.000		Recovery	=	118.00%	116.56%
51) S Decachlor...	10.013	11.809	165.0E6	806.7E6	44.682	46.281
Spiked Amount	40.000		Recovery	=	111.71%	115.70%
Target Compounds						
2) AR1221-A	2.282	2.875	28967496	140.9E6	1023.276	1085.901
3) AR1221-B	2.954	3.821	42022816	250.7E6	983.648	970.364
4) AR1221-C	3.153	4.091	128.8E6	655.8E6	950.947m	1092.099
5) AR1221-D	3.558	4.650	14656903	122.2E6	1190.489	1041.062
6) AR1221-E	3.699	4.770	14363624	88492068	1222.278	1236.269
24) AR1254-A	5.275	6.700	123.4E6	992.5E6	961.679	1070.842
25) AR1254-B	5.616	6.960	258.8E6	983.9E6	1032.998m	1051.674
26) AR1254-C	5.981	7.464	137.0E6	797.7E6	999.447	1078.993
27) AR1254-D	6.143	7.630	245.9E6	1634.3E6	996.318	1197.753
28) AR1254-E	6.519	7.955	182.5E6	1088.9E6	1178.826	1169.607
29) AR1254-F	6.772	8.419	171.2E6	1181.2E6	1099.087	1059.697m
30) AR1254-G	7.152	8.714	251.8E6	1510.8E6	1013.161	1105.727

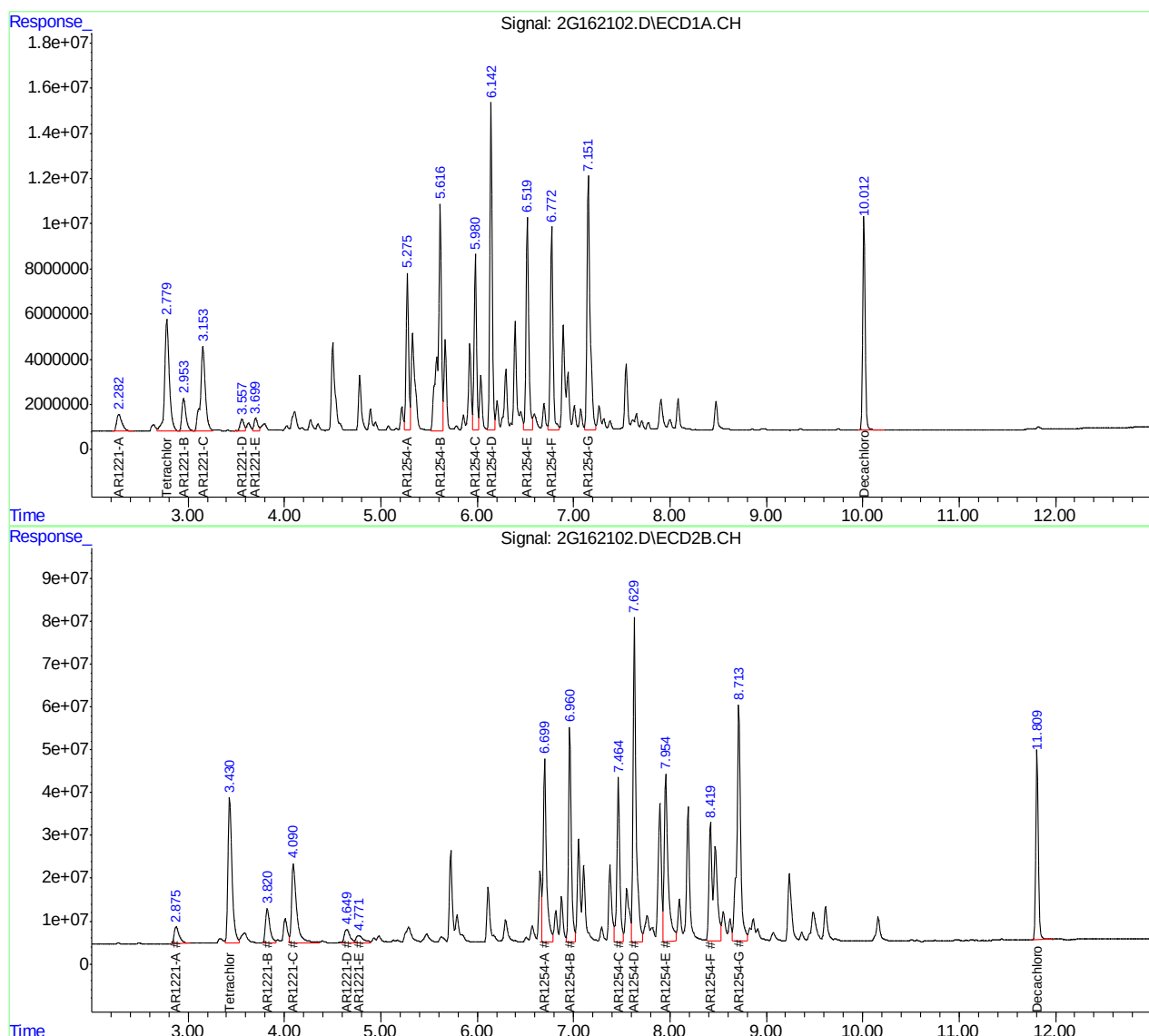
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
 Data File : 2G162102.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Apr 2018 1:52 pm
 Operator : tianweir
 Sample : ic4311-1000
 Misc : OP11095,G2G4311,15.0,,,10.0,1
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Apr 19 14:24:01 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu Apr 19 14:23:00 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.780	3.431	169.1E6	1049.9E6	9.839	9.841
Spiked Amount	40.000		Recovery	=	24.60%	24.60%
51) S Decachlor...	10.014	11.809	173.1E6	864.6E6	9.763	9.860
Spiked Amount	40.000		Recovery	=	24.41%	24.65%
Target Compounds						
7) AR1232-A	3.155	4.093	97343092	502.0E6	807.139m	801.687
8) AR1232-B	3.559	4.634	66842636	393.5E6	814.432	795.791
9) AR1232-C	4.109	5.281	130.5E6	815.2E6	748.996	817.807
10) AR1232-D	4.271	5.467	54473697	361.5E6	844.210	954.940
11) AR1232-E	4.785	6.115	51489431	217.3E6	836.532	879.986
41) AR1262-A	6.772	8.187	193.5E6	1044.2E6	608.178	987.107 #
42) AR1262-B	7.314	8.828	242.4E6	1428.2E6	818.303	912.354
43) AR1262-C	7.651	9.260	227.0E6	1336.0E6	936.108	1081.334
44) AR1262-D	8.081	9.610	485.4E6	2732.2E6	759.581	918.956
45) AR1262-E	8.525	10.123	558.8E6	3034.4E6	795.650m	942.420m

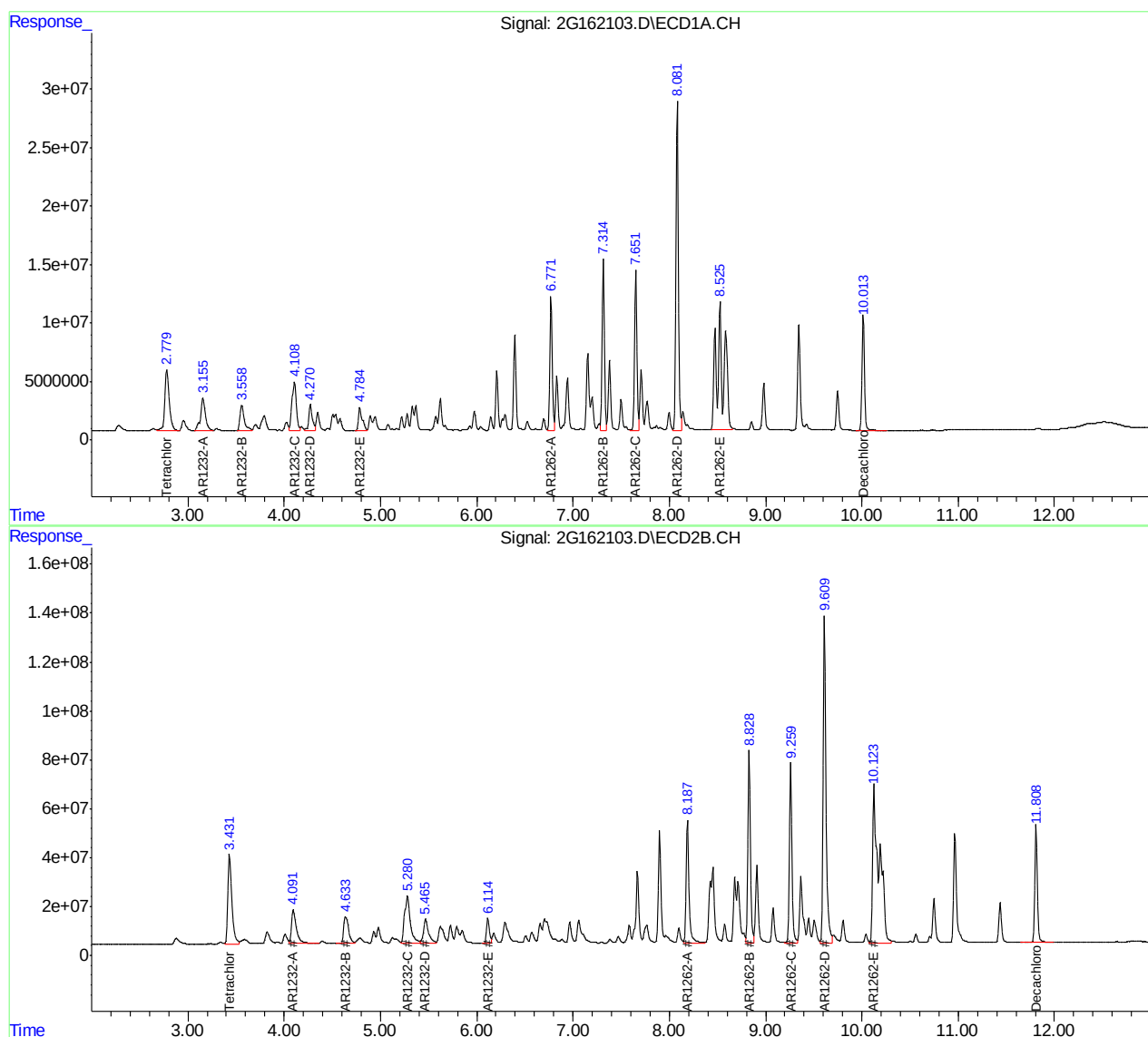
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
 Data File : 2G162104.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Apr 2018 2:44 pm
 Operator : tianweir
 Sample : ic4311-1000
 Misc : OP11095,G2G4311,15.0,,,10.0,1
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Apr 19 15:35:12 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu Apr 19 15:34:50 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.779	3.432	164.4E6	1042.8E6	9.788	9.829
Spiked Amount	40.000		Recovery	=	24.47%	24.57%
51) S Decachlor...	10.010	11.807	482.0E6	2362.8E6	11.088	11.117
Spiked Amount	40.000		Recovery	=	27.72%	27.79%
Target Compounds						
12) AR1242-A	3.557	4.630	119.8E6	705.4E6	833.841	769.896
13) AR1242-B	4.106	5.276	252.5E6	1547.7E6	766.774	823.562
14) AR1242-C	4.268	5.463	105.4E6	666.8E6	881.574	956.816
15) AR1242-D	4.782	6.113	109.0E6	456.4E6	869.789	894.747
16) AR1242-E	5.364	6.725	92980758	634.3E6	872.039	977.929
46) AR1268-A	8.523	10.121	575.4E6	3085.9E6	840.878	938.864
47) AR1268-B	8.578	10.189	567.3E6	3099.0E6	712.876	817.926
48) AR1268-C	8.851	10.557	473.0E6	2498.5E6	752.872	873.269
49) AR1268-D	9.340	10.962	199.2E6	1037.7E6	826.458	946.346
50) AR1268-E	9.742	11.430	1615.1E6	8238.1E6	809.035	1044.134 #

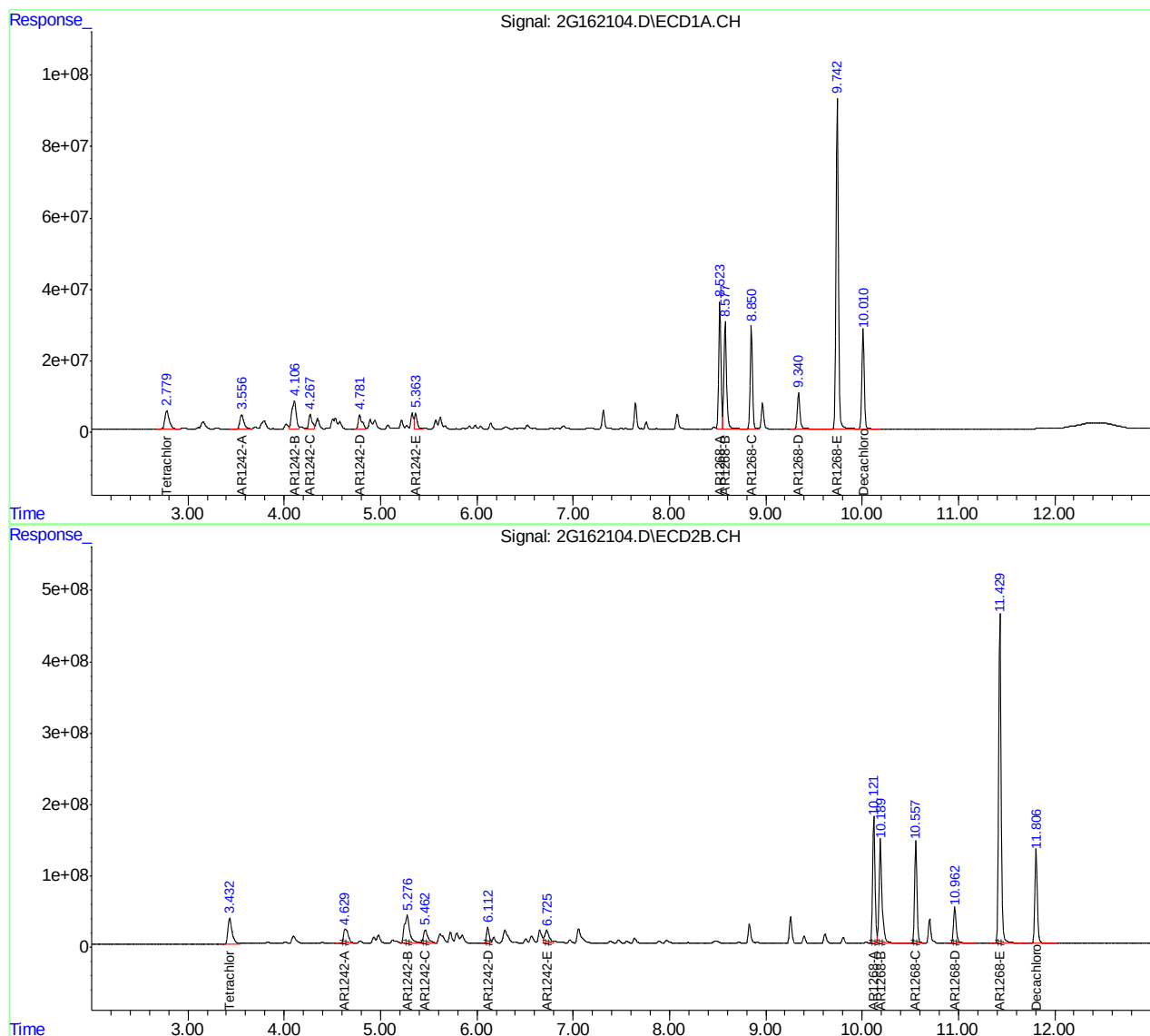
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
 Data File : 2G162104.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Apr 2018 2:44 pm
 Operator : tianweir
 Sample : ic4311-1000
 Misc : OP11095,G2G4311,15.0,,,10.0,1
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Apr 19 15:35:12 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu Apr 19 15:34:50 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:38:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.778	3.432	160.3E6	1054.2E6	9.743	9.848
Spiked Amount	40.000		Recovery	=	24.36%	24.62%
51) S Decachlor...	10.014	11.810	174.1E6	851.3E6	9.773	9.833
Spiked Amount	40.000		Recovery	=	24.43%	24.58%
Target Compounds						
17) AR1248-A	3.555	4.632	59173660	362.7E6	826.748	812.103
18) AR1248-B	4.105	5.281	154.4E6	954.8E6	820.696	837.930m
19) AR1248-C	4.501	5.724	165.2E6	569.7E6	812.299m	907.464
20) AR1248-D	4.782	6.112	159.8E6	727.1E6	860.353	930.188
21) AR1248-E	4.892	6.291	142.1E6	879.9E6	855.462m	1021.118
22) AR1248-F	5.364	6.722	140.2E6	1097.1E6	782.480	1016.890 #
23) AR1248-G	5.620	7.053	157.2E6	1220.2E6	600.449m	1102.458m#

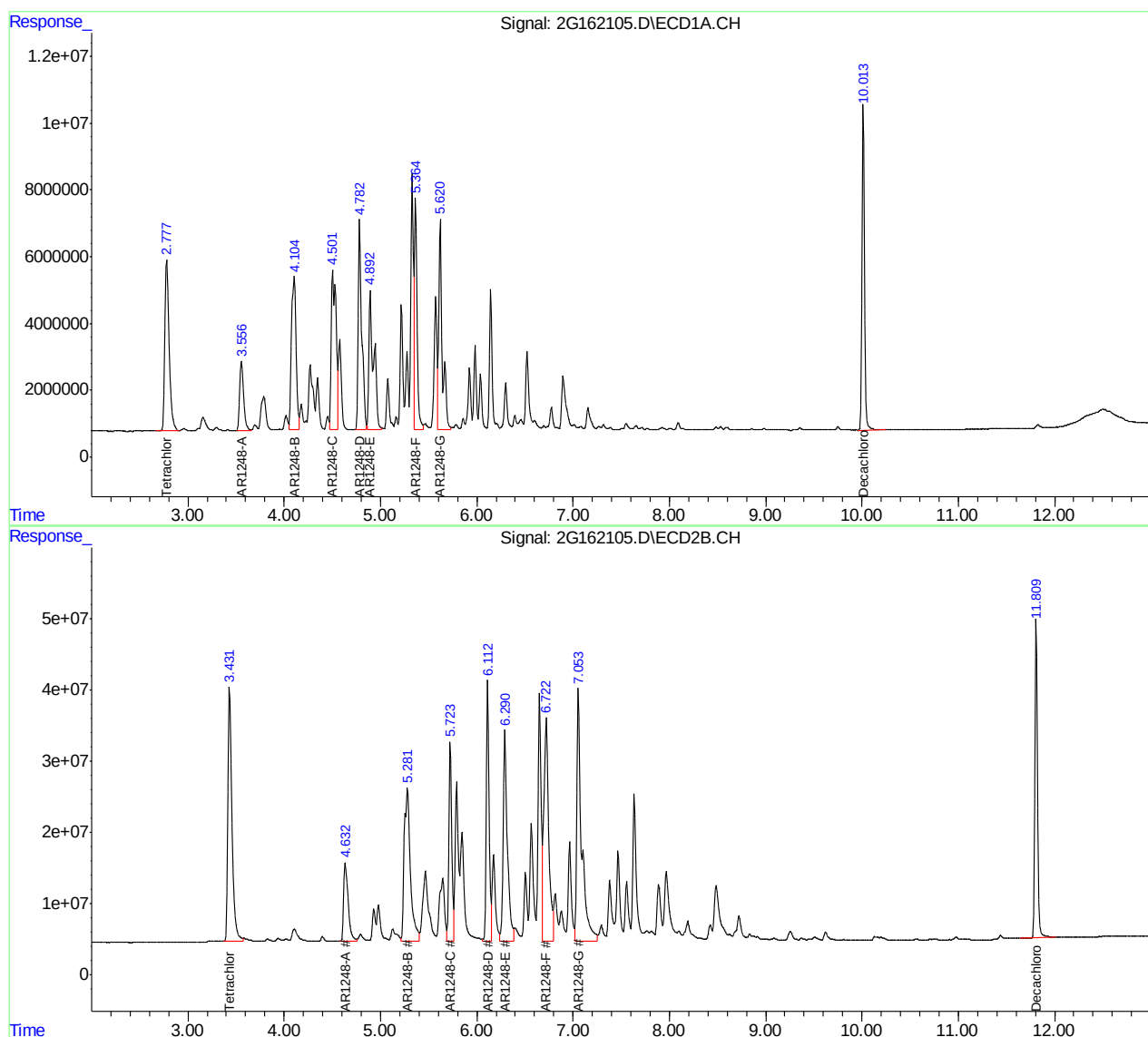
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
 Data File : 2G162105.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Apr 2018 3:00 pm
 Operator : tianweir
 Sample : ic4311-1000
 Misc : OP11095,G2G4311,15.0,,,10.0,1
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Apr 19 15:38:22 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu Apr 19 15:36:57 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Metals Analysis

QC Data Summaries

Includes the following where applicable:

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

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV
Analyst: DP
Parameters: Hg

Date Analyzed: 05/14/18 Methods: SW846 7470A
Run ID: MA44394

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:59	MA44394-STD1	1		B=1.9125E-004, C=1.0349E-002, R=0.9999503
12:00	MA44394-STD2	1		STDB
12:02	MA44394-STD3	1		STDC
12:03	MA44394-STD4	1		STDD
12:05	MA44394-STD5	1		STDE
12:06	MA44394-STD6	1		STDF
12:12	MA44394-ICV1	1		
12:14	MA44394-ICB1	1		
12:15	ZZZZZZ	1		
12:17	ZZZZZZ	1		
12:18	ZZZZZZ	1		
12:21	MA44394-CCV1	1		
12:23	MA44394-CCB1	1		
12:25	MA44394-CRI1	1		
12:29	MP7147-MB1	1		
12:30	MP7147-B1	1		
12:31	MP7147-S1	1		
12:33	MP7147-S2	1		
12:35	JC65930-1	1		(sample used for QC only; not part of login JC65860)
12:36	ZZZZZZ	1		
12:38	ZZZZZZ	1		
12:39	MA44394-CCV2	1		
12:40	MA44394-CCB2	1		
12:44	ZZZZZZ	1		
12:45	ZZZZZZ	1		
12:46	ZZZZZZ	1		
12:48	ZZZZZZ	1		
12:49	ZZZZZZ	1		
12:50	ZZZZZZ	1		
12:52	ZZZZZZ	1		
12:53	ZZZZZZ	1		
12:54	MA44394-CCV3	1		
12:55	MA44394-CCB3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV
Analyst: DP
Parameters: Hg

Date Analyzed: 05/14/18 Methods: SW846 7470A
Run ID: MA44394

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:57	ZZZZZZ	1		
12:59	ZZZZZZ	1		
13:00	ZZZZZZ	1		
13:01	ZZZZZZ	1		
13:03	ZZZZZZ	1		
13:04	ZZZZZZ	1		
13:05	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:08	MA44394-CCV4	1		
13:09	MA44394-CCB4	1		
13:11	ZZZZZZ	1		
13:13	MP7148-MB1	1		
13:14	MP7148-B1	1		
13:15	MP7148-S1	1		
13:17	MP7148-S2	1		
13:18	JC65764-1A	1		(sample used for QC only; not part of login JC65860)
13:20	ZZZZZZ	1		
13:21	ZZZZZZ	1		
13:23	MA44394-CCV5	1		
13:24	MA44394-CCB5	1		
13:26	ZZZZZZ	1		
13:27	ZZZZZZ	1		
13:28	ZZZZZZ	1		
13:29	ZZZZZZ	1		
13:31	JC65860-1A	1		
13:32	ZZZZZZ	1		
13:33	ZZZZZZ	1		
13:35	ZZZZZZ	1		
13:36	MA44394-CCV6	1		
13:37	MA44394-CCB6	1		
13:39	ZZZZZZ	1		
13:40	ZZZZZZ	1		
13:41	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV
Analyst: DP
Parameters: Hg

Date Analyzed: 05/14/18 Methods: SW846 7470A
Run ID: MA44394

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:43	ZZZZZZ	1		
13:44	ZZZZZZ	1		
13:45	ZZZZZZ	1		
13:47	ZZZZZZ	1		
13:48	ZZZZZZ	1		
13:49	MA44394-CCV7	1		
13:50	MA44394-CCB7	1		
13:52	ZZZZZZ	1		
13:53	MP7148-MB2	1		
13:55	MP7148-B2	1		
-----> Last reportable sample/prep for job JC65860				
13:56	MP7029-MB3	1		
13:58	MP7029-B3	1		
13:59	ZZZZZZ	1		
14:00	ZZZZZZ	1		
14:02	MP7149-MB1	1		
14:03	MA44394-CCV8	1		
14:04	MA44394-CCB8	1		
14:06	MP7149-B1	1		
14:07	MP7149-S1	1		
14:09	MP7149-S2	1		
14:11	JC65868-2B	1		(sample used for QC only; not part of login JC65860)
14:12	MA44394-CCV9	1		
14:13	MA44394-CCB9	1		
14:44	MA44394-CCV10	1		
14:45	MA44394-CCB10	1		
14:54	MA44394-CRI2	1		
14:56	MA44394-CCV11	1		
14:57	MA44394-CCB11	1		
-----> Last reportable CCB for job JC65860 Refer to raw data for calibration curve and standards.				

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV Date Analyzed: 05/14/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44394 Units: ug/l

Time: Sample ID:			12:14 ICB1		12:23 CCB1		12:40 CCB2		12:55 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.016	-0.0296	<0.20	-0.0526	<0.20	-0.0589	<0.20	-0.0476	<0.20

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

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV Date Analyzed: 05/14/18 Methods: SW846 7470A
 QC Limits: result < RL Run ID: MA44394 Units: ug/l

Time: Sample ID:			13:09 CCB4		13:24 CCB5		13:37 CCB6		13:50 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.016	-0.0275	<0.20	-0.0367	<0.20	-0.0172	<0.20	-0.0246	<0.20

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

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV Date Analyzed: 05/14/18 Methods: SW846 7470A
 QC Limits: result < RL Run ID: MA44394 Units: ug/l

Time: Sample ID:			14:04 CCB8		14:13 CCB9		14:45 CCB10		14:57 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.016	-0.0268	<0.20	-0.0426	<0.20	-0.0357	<0.20	-0.0348	<0.20

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV Date Analyzed: 05/14/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44394 Units: ug/l

Time:		12:12		12:21		12:39	
Sample ID:	ICV	ICV1	CCV	CCV1	CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True
Mercury	3	3.14	104.7	2.5	2.69	107.6	2.5
							2.69
							107.6

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV Date Analyzed: 05/14/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44394 Units: ug/l

Time:		12:54		13:08		13:23			
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.68	107.2	2.5	2.68	107.2	2.5	2.59	103.6

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV Date Analyzed: 05/14/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44394 Units: ug/l

Time:		13:36		13:49		14:03			
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.61	104.4	2.5	2.55	102.0	2.5	2.57	102.8

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV Date Analyzed: 05/14/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44394 Units: ug/l

Time:		14:12		14:44		14:56	
Sample ID:	CCV	CCV9	CCV	CCV10	CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True
Mercury	2.5	2.54	101.6	2.5	2.62	104.8	2.5
							2.60
							104.0

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9051418W2.CSV Date Analyzed: 05/14/18 Methods: SW846 7470A
 QC Limits: 70 to 130 % Recovery Run ID: MA44394 Units: ug/l

Time:				12:25		14:54	
Sample ID:	CRI	CRIA	CRI1			CRI2	
Metal	True	True	Results	% Rec		Results	% Rec
Mercury	0.20		0.201	100.5		0.203	101.5

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

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051518S2.CSV
Analyst: DP
Parameters: Hg

Date Analyzed: 05/15/18 Methods: SW846 7471B
Run ID: MA44402

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:28	MA44402-STD1	1		B=9.6621e-005, C=3.7353e-002, R=0.9996855
11:29	MA44402-STD2	1		STDB
11:31	MA44402-STD3	1		STDC
11:32	MA44402-STD4	1		STDD
11:33	MA44402-STD5	1		STDE
11:35	MA44402-STD6	1		STDF
11:41	MA44402-STD7	1		STDE
11:44	MA44402-ICV1	1		
11:48	MA44402-ICB1	1		
11:49	MA44402-CCV1	1		
11:50	MA44402-CCB1	1		
11:52	MA44402-CRI1	1		
11:56	MP7162-MB1	1		
11:58	MP7162-B1	1		
11:59	MP7162-S1	1		
12:01	MP7162-S2	1		
12:02	JC66030-20	1		(sample used for QC only; not part of login JC65860)
12:04	ZZZZZZ	1		
12:05	ZZZZZZ	1		
12:08	MA44402-CCV2	1		
12:09	MA44402-CCB2	1		
12:11	ZZZZZZ	1		
12:12	ZZZZZZ	1		
12:14	ZZZZZZ	1		
12:16	ZZZZZZ	1		
12:19	ZZZZZZ	1		
12:21	ZZZZZZ	1		
12:23	ZZZZZZ	1		
12:25	ZZZZZZ	1		
12:28	ZZZZZZ	1		
12:30	MA44402-CCV3	1		
12:31	MA44402-CCB3	1		
12:33	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051518S2.CSV
Analyst: DP
Parameters: Hg

Date Analyzed: 05/15/18 Methods: SW846 7471B
Run ID: MA44402

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:34	ZZZZZZ	1		
12:37	ZZZZZZ	1		
12:48	MA44402-CCV4	1		
12:49	MA44402-CCB4	1		
12:51	ZZZZZZ	1		
12:52	ZZZZZZ	1		
12:54	ZZZZZZ	1		
12:55	ZZZZZZ	1		
12:58	ZZZZZZ	1		
13:00	ZZZZZZ	1		
13:02	ZZZZZZ	1		
13:04	MA44402-CCV5	1		
13:05	MA44402-CCB5	1		
13:07	MP7163-B1	1		
13:08	MP7163-LC1	1		Missed DF
13:10	MP7163-S1	1		
13:12	MP7163-S2	1		
13:13	JC65764-1	1		(sample used for QC only; not part of login JC65860)
13:15	ZZZZZZ	1		
13:17	ZZZZZZ	1		
13:18	JC65860-1	1		
13:19	MA44402-CCV6	1		
13:21	MA44402-CCB6	1		
13:23	ZZZZZZ	1		
13:24	ZZZZZZ	1		
13:25	ZZZZZZ	1		
13:27	ZZZZZZ	1		
13:28	ZZZZZZ	1		
13:29	ZZZZZZ	1		
13:31	ZZZZZZ	1		
13:32	ZZZZZZ	1		
13:33	MA44402-CCV7	1		
13:35	MA44402-CCB7	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051518S2.CSV
Analyst: DP
Parameters: Hg

Date Analyzed: 05/15/18 Methods: SW846 7471B
Run ID: MA44402

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:37	ZZZZZZ	1		
13:38	ZZZZZZ	1		
13:40	ZZZZZZ	1		
13:42	ZZZZZZ	1		
13:45	ZZZZZZ	5		
13:46	ZZZZZZ	5		
13:48	ZZZZZZ	10		
13:50	ZZZZZZ	2		
13:51	ZZZZZZ	10		
13:53	MA44402-CCV8	1		
13:55	MA44402-CCB8	1		
13:57	ZZZZZZ	10		
13:58	ZZZZZZ	2		
14:00	ZZZZZZ	5		
14:02	ZZZZZZ	5		
14:03	ZZZZZZ	5		
14:05	ZZZZZZ	20		
14:07	ZZZZZZ	20		
14:09	MP7163-LC1	5		
14:10	MA44402-CCV9	1		
14:12	MA44402-CCB9	1		
14:14	MA44402-CRI2	1		
14:15	MA44402-CCV10	1		
14:17	MA44402-CCB10	1		
14:58	MP7163-MB1	1		
----->	Last reportable sample/prep for job JC65860			
14:59	ZZZZZZ	10		
15:00	ZZZZZZ	20		
15:02	ZZZZZZ	10		
15:04	ZZZZZZ	20		
15:07	MA44402-CRI3	1		
15:10	MA44402-CCV11	1		
15:11	MA44402-CCB11	1		
----->	Last reportable CCB for job JC65860			
15:33	ZZZZZZ	10		

14.2
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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051518S2.CSV
Analyst: DP
Parameters: Hg

Date Analyzed: 05/15/18 Methods: SW846 7471B
Run ID: MA44402

Time	Sample Description	Dilution Factor	PS Recov	Comments
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15:34 ZZZZZZ 5

15:37 MA44402-CRI4 1

15:38 MA44402-CCV12 1

15:39 MA44402-CCB12 1

Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051518S2.CSV Date Analyzed: 05/15/18 Methods: SW846 7471B
 QC Limits: result < RL Run ID: MA44402 Units: ug/l

Time: Sample ID:			11:48 ICB1		11:50 CCB1		12:09 CCB2		12:31 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.025	0.0329	<0.20	0.0146	<0.20	0.00460	<0.20	0.00280	<0.20

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

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051518S2.CSV Date Analyzed: 05/15/18 Methods: SW846 7471B
 QC Limits: result < RL Run ID: MA44402 Units: ug/l

Time: Sample ID:			12:49 CCB4		13:05 CCB5		13:21 CCB6		13:35 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.025	0.0218	<0.20	-0.0554	<0.20	0.0174	<0.20	-0.0218	<0.20

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051518S2.CSV Date Analyzed: 05/15/18 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA44402 Units: ug/l

Time: Sample ID:			13:55 CCB8		14:12 CCB9		14:17 CCB10		15:11 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.025	0.0236	<0.20	0.0403	<0.20	0.0302	<0.20	0.0365	<0.20

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051518S2.CSV Date Analyzed: 05/15/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44402 Units: ug/l

Time:		11:44			11:49			12:08		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	
Mercury	3	3.15	105.0	2.5	2.44	97.6	2.5	2.35	94.0	

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

14.2.2
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051518S2.CSV Date Analyzed: 05/15/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44402 Units: ug/l

Time:		12:30		12:48		13:04	
Sample ID:	CCV	CCV3	CCV	CCV4	CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True
Mercury	2.5	2.38	95.2	2.5	2.49	99.6	2.5
							2.41
							96.4

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051518S2.CSV Date Analyzed: 05/15/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44402 Units: ug/l

Time:		13:19		13:33		13:53			
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.33	93.2	2.5	2.45	98.0	2.5	2.41	96.4

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051518S2.CSV Date Analyzed: 05/15/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44402 Units: ug/l

Time:		14:10		14:15		15:10	
Sample ID:	CCV	CCV9	CCV	CCV10	CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True
Mercury	2.5	2.43	97.2	2.5	2.44	97.6	2.5
							2.40
							96.0

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H8051518S2.CSV Date Analyzed: 05/15/18 Methods: SW846 7471B
 QC Limits: 70 to 130 % Recovery Run ID: MA44402 Units: ug/l

Time:				11:52			14:14			15:07
Sample ID:	CRI	CRIA	CRI1		CRI2		CRI3			
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec		
Mercury	0.20		0.229	114.5	0.229	114.5	0.237	118.5		

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

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:01	MA44405-STD1	1		STDA
11:04	MA44405-STD2	1		STDB
11:07	ZZZZZZ	1		
11:10	ZZZZZZ	1		
11:16	ZZZZZZ	1		
11:19	ZZZZZZ	1		
11:22	ZZZZZZ	1		
11:26	MA44405-ICV1	1		
11:30	MA44405-ICV2	1		
11:34	MA44405-ICB1	1		
11:37	MA44405-ICCV1	1		
11:42	MA44405-CCB1	1		
11:46	ZZZZZZ	1		
11:50	MA44405-CRI1	1		
11:53	MA44405-CRID1	1		
11:56	MA44405-ICSA1	1		
11:59	MA44405-ICSAB1	1		
12:02	MA44405-HSTD1	1		
12:05	MA44405-HSTD2	1		
12:08	ZZZZZZ	1		
12:12	ZZZZZZ	1		
12:15	ZZZZZZ	1		
12:18	MA44405-CCV1	1		
12:21	MA44405-CCB2	1		
12:24	MA44405-CRI2	1		
12:27	ZZZZZZ	1		
12:30	MA44405-CCV2	1		
12:35	MA44405-CCB3	1		
12:38	MP7122-MB1	5		
12:41	MP7122-MB2	5		
12:44	MP7122-B1	5		
12:47	MP7122-B2	5		
12:50	MP7122-S1	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:53	MP7122-S2	5		
12:56	JC65764-1A	5		(sample used for QC only; not part of login JC65860)
12:59	MP7122-SD1	25		
13:02	ZZZZZZ	5		
13:05	MA44405-CCV3	1		
13:08	MA44405-CCB4	1		
13:20	ZZZZZZ	1		
13:23	ZZZZZZ	1		
13:26	MP7086-S1	3		Not needed.
13:29	MP7086-S2	3		Not needed.
13:32	JC65784-11	3		(sample used for QC only; not part of login JC65860)
13:35	MP7086-SD1	15		Not needed.
13:38	ZZZZZZ	2		
13:41	ZZZZZZ	3		
13:44	ZZZZZZ	1		
13:47	MA44405-CCV4	1		
13:50	MA44405-CCB5	1		
13:53	ZZZZZZ	3		
13:56	ZZZZZZ	2		
13:59	ZZZZZZ	2		
14:02	ZZZZZZ	10		
14:05	ZZZZZZ	1		
14:08	ZZZZZZ	1		
14:11	MP7071-S1	10		
14:13	MP7071-S2	10		
14:16	JC65783-1	10		(sample used for QC only; not part of login JC65860)
14:19	MA44405-CCV5	1		
14:22	MA44405-CCB6	1		
14:25	MP7071-SD1	50		
14:28	ZZZZZZ	1		
14:31	ZZZZZZ	1		
14:34	ZZZZZZ	2		
14:37	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:40	ZZZZZZ	10		
14:43	ZZZZZZ	1		
14:46	ZZZZZZ	5		
14:49	MA44405-CCV6	1		
14:52	MA44405-CCB7	1		
14:55	ZZZZZZ	5		
14:58	ZZZZZZ	5		
15:03	ZZZZZZ	1		
15:06	ZZZZZZ	5		
15:09	ZZZZZZ	5		
15:13	ZZZZZZ	5		
15:16	JC65860-1A	5		
----->	Last reportable sample/prep for job JC65860			
15:19	ZZZZZZ	5		
15:22	ZZZZZZ	5		
15:25	MA44405-CCV7	1		
15:31	MA44405-CCB8	1		
15:35	ZZZZZZ	5		
15:40	ZZZZZZ	1		
15:44	ZZZZZZ	5		
15:47	ZZZZZZ	5		
15:50	ZZZZZZ	5		
15:53	ZZZZZZ	5		
15:56	ZZZZZZ	5		
15:59	ZZZZZZ	5		
16:02	ZZZZZZ	5		
16:06	MA44405-CCV8	1		
16:09	MA44405-CCB9	1		
16:12	ZZZZZZ	5		
16:16	ZZZZZZ	5		
16:19	MP7112-B1	1		
16:21	MP7112-MB1	1		batch to reanalyze for Ag, Mb high
16:25	MP7112-S1	1		FE, MN high
16:28	MP7112-S2	1		FE, MN high

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:30	JC65784-21	1		(sample used for QC only; not part of login JC65860)
16:34	MP7112-SD1	5		FE, MN high
16:37	ZZZZZZ	1		
16:40	MA44405-CCV9	1		
16:43	MA44405-CCB10	1		
16:48	MA44405-CRI3	1		
16:51	MA44405-CRID2	1		
16:54	MA44405-ICSA2	1		
16:57	MA44405-ICSAB2	1		
17:00	MA44405-CCV10	1		
17:04	MA44405-CCB11	1		
----->	Last reportable CCB for job JC65860			
17:07	ZZZZZZ	1		
17:10	ZZZZZZ	1		
17:13	ZZZZZZ	1		
17:16	ZZZZZZ	1		
17:19	ZZZZZZ	1		
17:22	ZZZZZZ	1		
17:25	ZZZZZZ	1		
17:28	ZZZZZZ	1		
17:31	ZZZZZZ	1		
17:34	ZZZZZZ	1		
17:37	ZZZZZZ	1		
17:40	ZZZZZZ	1		
17:44	MA44405-CCV11	1		
17:46	MA44405-CCB12	1		
17:49	ZZZZZZ	1		
17:53	ZZZZZZ	1		
17:56	ZZZZZZ	1		
17:59	ZZZZZZ	1		
18:02	ZZZZZZ	1		
18:05	ZZZZZZ	1		
18:08	ZZZZZZ	1		
18:11	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:14	ZZZZZZ	1		
18:18	MA44405-CCV12	1		
18:20	MA44405-CCB13	1		
18:30	ZZZZZZ	1		
18:33	ZZZZZZ	1		
18:36	ZZZZZZ	1		
18:39	ZZZZZZ	1		
18:42	ZZZZZZ	1		
18:45	ZZZZZZ	1		
18:48	ZZZZZZ	1		
18:51	ZZZZZZ	1		
18:54	MA44405-CCV13	1		
18:57	MA44405-CCB14	1		
19:00	ZZZZZZ	1		
19:03	ZZZZZZ	1		
19:06	ZZZZZZ	1		
19:09	ZZZZZZ	1		
19:12	ZZZZZZ	1		
19:15	ZZZZZZ	2		
19:18	ZZZZZZ	10		
19:21	ZZZZZZ	10		
19:24	ZZZZZZ	2		
19:27	MA44405-CCV14	1		
19:30	MA44405-CCB15	1		
19:33	ZZZZZZ	1		
19:36	ZZZZZZ	1		
19:39	ZZZZZZ	1		
19:42	MP7084-MB1	1		
19:45	MP7084-B1	1		
19:47	MP7084-S1	1		Fe, Mn, Ni high
19:50	MP7084-S2	1		Fe, Mn, Ni high
19:53	JC65783-21	1		(sample used for QC only; not part of login JC65860)
19:57	MP7084-SD1	5		Fe, Mn, Ni high

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:00	MA44405-CCV15	1		
20:02	MA44405-CCB16	1		
20:05	ZZZZZZ	1		
20:08	ZZZZZZ	1		
20:11	ZZZZZZ	1		
20:14	ZZZZZZ	1		
20:17	ZZZZZZ	1		
20:20	ZZZZZZ	1		
20:23	ZZZZZZ	1		
20:27	ZZZZZZ	1		
20:30	ZZZZZZ	1		
20:33	MA44405-CCV16	1		
20:36	MA44405-CCB17	1		
20:39	ZZZZZZ	1		
20:42	ZZZZZZ	1		
20:45	ZZZZZZ	1		
20:48	ZZZZZZ	1		
20:51	ZZZZZZ	1		
20:54	ZZZZZZ	1		
20:57	ZZZZZZ	1		
21:01	ZZZZZZ	1		
21:04	ZZZZZZ	1		
21:07	ZZZZZZ	1		
21:10	MA44405-CCV17	1		
21:14	MA44405-CCB18	1		
21:20	MA44405-CRI4	1		
21:23	MA44405-CRID3	1		
21:26	MA44405-CCV18	1		
21:29	MA44405-CCB19	1		
21:32	MP7121-MB1	1		CCV out
21:35	MP7121-B1	1		CCV out
21:38	MP7121-S1	1		high elements. CCV out
21:41	MP7121-S2	1		high elements. CCV out

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:44	JC65784-44	1		(sample used for QC only; not part of login JC65860)
21:47	MP7121-SD1	5		CCV out
21:50	ZZZZZZ	1		
21:53	ZZZZZZ	1		
21:57	ZZZZZZ	1		
22:00	MA44405-CCV19	1		
22:02	MA44405-CCB20	1		
22:05	ZZZZZZ	1		
22:09	ZZZZZZ	1		
22:12	ZZZZZZ	1		
22:15	ZZZZZZ	1		
22:18	ZZZZZZ	1		
22:21	ZZZZZZ	1		
22:24	ZZZZZZ	1		
22:27	ZZZZZZ	1		
22:31	ZZZZZZ	1		
22:34	MA44405-CCV20	1		
22:37	MA44405-CCB21	1		
22:40	ZZZZZZ	1		
22:43	ZZZZZZ	1		
22:46	ZZZZZZ	1		
22:49	ZZZZZZ	1		
22:52	ZZZZZZ	1		
22:55	ZZZZZZ	1		
22:58	ZZZZZZ	1		
23:01	MA44405-CCV21	1		
23:04	MA44405-CCB22	1		
23:07	MA44405-CRI5	1		
23:10	MA44405-CRID4	1		
23:13	MA44405-CCV22	1		
23:16	MA44405-CCB23	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
11:01	MA44405-STD1	6538 R	155060 R	24117 R	10473 R
11:04	MA44405-STD2	6170	144960	23417	9513
11:07	ZZZZZZ	6373	150500	23668	9830
11:10	ZZZZZZ	6560	156250	23953	10481
11:16	ZZZZZZ	6694	160500	25032	10743
11:19	ZZZZZZ	6566	157910	24650	10475
11:22	ZZZZZZ	6649	158650	24862	10602
11:26	MA44405-ICV1	No results reported for the elements associated with this internal standard.			
11:30	MA44405-ICV2	6407	150130	23848	9859
11:34	MA44405-ICB1	6619	155840	24360	10561
11:37	MA44405-ICCV1	6404	150110	23905	9858
11:42	MA44405-CCB1	6612	156450	24309	10547
11:46	ZZZZZZ	6747	160190	24818	10830
11:50	MA44405-CRI1	6597	156190	24399	10450
11:53	MA44405-CRID1	6619	156230	24152	10545
11:56	MA44405-ICSA1	5963	138390	23278	9024
11:59	MA44405-ICSAB1	5860	138230	23064	8912
12:02	MA44405-HSTD1	6513	155080	24370	10427
12:05	MA44405-HSTD2	6110	140980	23403	9107
12:08	ZZZZZZ	6571	155100	24391	10649
12:12	ZZZZZZ	6465	157210	24316	10507
12:15	ZZZZZZ	13884 !	294730 !	35701 !	21974 !
12:18	MA44405-CCV1	6465	151370	24186	9934
12:21	MA44405-CCB2	6629	157290	24316	10578
12:24	MA44405-CRI2	6574	156780	24334	10400
12:27	ZZZZZZ	6611	999999 !	24407	10546
12:30	MA44405-CCV2	6433	151310	24187	9879
12:35	MA44405-CCB3	6671	157220	24123	10618
12:38	MP7122-MB1	6383	148430	23764	9663
12:41	MP7122-MB2	6356	148930	24087	9658
12:44	MP7122-B1	6398	150090	24265	9634
12:47	MP7122-B2	6403	149420	24164	9652
12:50	MP7122-S1	6424	149980	24181	9652

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:53	MP7122-S2	6434	150850	24315	9669
12:56	JC65764-1A	6324	150190	24181	9550
12:59	MP7122-SD1	6576	155730	24347	10224
13:02	ZZZZZZ	6382	149130	23946	9668
13:05	MA44405-CCV3	6452	150270	23636	9897
13:08	MA44405-CCB4	6644	157540	24150	10568
13:20	ZZZZZZ	6629	157910	24066	10498
13:23	ZZZZZZ	6494	152320	23784	10000
13:26	MP7086-S1	No results reported for the elements associated with this internal standard.			
13:29	MP7086-S2	No results reported for the elements associated with this internal standard.			
13:32	JC65784-11	No results reported for the elements associated with this internal standard.			
13:35	MP7086-SD1	No results reported for the elements associated with this internal standard.			
13:38	ZZZZZZ	6781	157540	24578	10225
13:41	ZZZZZZ	6564	153260	23601	9797
13:44	ZZZZZZ	6720	155690	24663	9816
13:47	MA44405-CCV4	6545	150440	23223	9896
13:50	MA44405-CCB5	6582	157010	23570	10336
13:53	ZZZZZZ	6847	151460	24218	10335
13:56	ZZZZZZ	6926	161430	24548	10310
13:59	ZZZZZZ	6788	159450	24205	10387
14:02	ZZZZZZ	6798	158060	23742	10436
14:05	ZZZZZZ	6795	160150	23894	10596
14:08	ZZZZZZ	6606	153170	23145	9999
14:11	MP7071-S1	6797	157270	23739	10394
14:13	MP7071-S2	6791	157000	23473	10377
14:16	JC65783-1	6824	158000	23595	10472
14:19	MA44405-CCV5	6547	150530	22917	9806
14:22	MA44405-CCB6	6804	155780	23326	10578
14:25	MP7071-SD1	6706	156810	23429	10383
14:28	ZZZZZZ	6867	159000	23759	10651
14:31	ZZZZZZ	6675	153230	23475	10081
14:34	ZZZZZZ	6683	154980	23420	10093
14:37	ZZZZZZ	6588	150460	23187	10006

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP
Analyst: EAL
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Date Analyzed: 05/14/18
Run ID: MA44405
Methods: SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:40	ZZZZZZ	6677	153240	23003	10110
14:43	ZZZZZZ	6412	147430	22950	9392
14:46	ZZZZZZ	6652	153290	22775	10043
14:49	MA44405-CCV6	6617	151170	22863	9853
14:52	MA44405-CCB7	6825	157130	23120	10547
14:55	ZZZZZZ	6564	148950	22730	9644
14:58	ZZZZZZ	6578	149120	22815	9662
15:03	ZZZZZZ	6749	155460	22782	10361
15:06	ZZZZZZ	6482	148020	22650	9480
15:09	ZZZZZZ	6434	147110	22537	9373
15:13	ZZZZZZ	6473	147540	22701	9440
15:16	JC65860-1A	6476	147430	22613	9410
15:19	ZZZZZZ	6618	149180	22836	9687
15:22	ZZZZZZ	6617	150060	22653	9686
15:25	MA44405-CCV7	6667	151700	22804	9877
15:31	MA44405-CCB8	6912	158230	23058	10651
15:35	ZZZZZZ	6667	150640	22830	9800
15:40	ZZZZZZ	7068	160160	23316	10824
15:44	ZZZZZZ	6211	135000	22434	8525
15:47	ZZZZZZ	6666	150260	22891	9780
15:50	ZZZZZZ	6663	149540	22903	9726
15:53	ZZZZZZ	6553	148060	22745	9500
15:56	ZZZZZZ	6689	151940	23025	9710
15:59	ZZZZZZ	6580	148960	21824	9549
16:02	ZZZZZZ	6528	148030	22780	9466
16:06	MA44405-CCV8	6599	151490	22836	9734
16:09	MA44405-CCB9	6940	158300	23121	10629
16:12	ZZZZZZ	6648	151870	22770	9704
16:16	ZZZZZZ	6486	148700	22815	9395
16:19	MP7112-B1	6752	154680	23050	10052
16:21	MP7112-MB1	6938	161390	23435	10606
16:25	MP7112-S1	6903	156000	23823	10082
16:28	MP7112-S2	6979	158110	24007	10159

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP
Analyst: EAL
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Date Analyzed: 05/14/18
Run ID: MA44405
Methods: SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:30	JC65784-21	7131	162640	24340	10378
16:34	MP7112-SD1	6994	157850	23216	10435
16:37	ZZZZZZ	6734	154330	23831	9771
16:40	MA44405-CCV9	6719	153120	22656	9902
16:43	MA44405-CCB10	6955	159020	22795	10653
16:48	MA44405-CRI3	6861	155900	22967	10453
16:51	MA44405-CRID2	6883	157830	22784	10539
16:54	MA44405-ICSA2	6255	138850	21866	9056
16:57	MA44405-ICSAB2	6228	138750	21818	9032
17:00	MA44405-CCV10	6689	150890	22423	9863
17:04	MA44405-CCB11	6907	158470	22726	10565
17:07	ZZZZZZ	6456	147250	21902	9461
17:10	ZZZZZZ	6962	148160	23149	9861
17:13	ZZZZZZ	13359 !	274180 !	33244 !	20502 !
17:16	ZZZZZZ	6898	158190	22958	10569
17:19	ZZZZZZ	6907	157690	23122	10525
17:22	ZZZZZZ	6886	158030	22832	10504
17:25	ZZZZZZ	6876	157970	22811	10543
17:28	ZZZZZZ	6904	157840	22873	10541
17:31	ZZZZZZ	6869	157140	23047	10481
17:34	ZZZZZZ	6887	158130	22586	10563
17:37	ZZZZZZ	6906	158010	22896	10622
17:40	ZZZZZZ	6887	158220	22750	10525
17:44	MA44405-CCV11	6702	152500	22604	9871
17:46	MA44405-CCB12	6998	158330	22885	10682
17:49	ZZZZZZ	6732	152340	23279	9642
17:53	ZZZZZZ	6908	156820	23719	9862
17:56	ZZZZZZ	6808	154860	23608	9658
17:59	ZZZZZZ	6801	153510	23467	9613
18:02	ZZZZZZ	6720	150680	23537	9370
18:05	ZZZZZZ	6908	154960	23830	9729
18:08	ZZZZZZ	6825	153640	23659	9553
18:11	ZZZZZZ	7099	161880	23778	10271

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As, Ba, Cd, Cr, Pb, Se, Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:14	ZZZZZZ	7061	160460	24045	10240
18:18	MA44405-CCV12	6734	152280	22572	9892
18:20	MA44405-CCB13	6962	157460	22642	10611
18:30	ZZZZZZ	7020	159130	24123	10192
18:33	ZZZZZZ	7026	159530	24049	10188
18:36	ZZZZZZ	6936	159660	23810	10034
18:39	ZZZZZZ	6981	158160	23803	10055
18:42	ZZZZZZ	7167	159080	23513	10474
18:45	ZZZZZZ	6939	157830	23402	10261
18:48	ZZZZZZ	6918	157660	23056	10298
18:51	ZZZZZZ	6971	156730	23712	10026
18:54	MA44405-CCV13	6676	151830	22435	9794
18:57	MA44405-CCB14	6915	157870	22768	10540
19:00	ZZZZZZ	6898	158140	22606	10511
19:03	ZZZZZZ	6965	158840	23142	10127
19:06	ZZZZZZ	6926	158320	23190	10094
19:09	ZZZZZZ	6772	155010	22551	10022
19:12	ZZZZZZ	7023	157830	23666	10105
19:15	ZZZZZZ	6880	155640	23072	10123
19:18	ZZZZZZ	6845	157800	22945	10437
19:21	ZZZZZZ	6793	156280	22671	10366
19:24	ZZZZZZ	6814	155960	22712	10227
19:27	MA44405-CCV14	6751	151900	22529	9882
19:30	MA44405-CCB15	6920	158190	22646	10539
19:33	ZZZZZZ	7021	161890	23358	10686
19:36	ZZZZZZ	6987	159730	23151	10619
19:39	ZZZZZZ	6826	155470	22867	10074
19:42	MP7084-MB1	7021	162210	23027	10664
19:45	MP7084-B1	6753	154270	22665	10013
19:47	MP7084-S1	6829	156470	23724	10186
19:50	MP7084-S2	6834	156940	23613	10156
19:53	JC65783-21	6968	160880	23860	10449
19:57	MP7084-SD1	6979	159220	23116	10442

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:00	MA44405-CCV15	6734	152340	22210	9864
20:02	MA44405-CCB16	6876	156590	22537	10482
20:05	ZZZZZZ	7036	159540	23443	10085
20:08	ZZZZZZ	7010	158720	23475	10357
20:11	ZZZZZZ	7126	159730	23901	10148
20:14	ZZZZZZ	6998	157030	23508	10039
20:17	ZZZZZZ	6886	159220	23995	10333
20:20	ZZZZZZ	7075	161910	24107	10304
20:23	ZZZZZZ	7156	163440	24210	10434
20:27	ZZZZZZ	7070	159750	23776	10206
20:30	ZZZZZZ	7245	999999 !a	27563	10548
20:33	MA44405-CCV16	6914	159690	24186	10050
20:36	MA44405-CCB17	6937	166230	24299	10552
20:39	ZZZZZZ	7440	171280	26513	10590
20:42	ZZZZZZ	6851	160420	25302	9680
20:45	ZZZZZZ	7257	169980	25722	10421
20:48	ZZZZZZ	7153	166500	25786	10253
20:51	ZZZZZZ	7457	173890	26770	10669
20:54	ZZZZZZ	7023	164180	25646	9851
20:57	ZZZZZZ	7171	166750	25961	9950
21:01	ZZZZZZ	7357	173560	26609	10653
21:04	ZZZZZZ	7453	173040	26498	10637
21:07	ZZZZZZ	7309	173590	25748	10955
21:10	MA44405-CCV17	6841	164310	24779	9946
21:14	MA44405-CCB18	7280	170750	25005	11025
21:20	MA44405-CRI4	7239	171650	24861	10888
21:23	MA44405-CRID3	7307	173000	25483	11074
21:26	MA44405-CCV18	6811	151460	22237	9950
21:29	MA44405-CCB19	6905	158160	22716	10500
21:32	MP7121-MB1	6940	159240	21990	10524
21:35	MP7121-B1	6889	153660	22203	10170
21:38	MP7121-S1	6700	150180	23123	9476
21:41	MP7121-S2	6758	152540	23525	9617

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44405
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:44	JC65784-44	6913	156580	23639	9842
21:47	MP7121-SD1	6889	157020	22972	10198
21:50	ZZZZZZ	7059	159270	24048	10265
21:53	ZZZZZZ	7015	158020	23786	10175
21:57	ZZZZZZ	7104	161280	24107	10245
22:00	MA44405-CCV19	6738	152850	22353	9899
22:02	MA44405-CCB20	6937	158770	22953	10591
22:05	ZZZZZZ	7045	160490	24100	10089
22:09	ZZZZZZ	7120	161010	24515	10190
22:12	ZZZZZZ	7121	163080	25493	10381
22:15	ZZZZZZ	7218	163760	24739	10390
22:18	ZZZZZZ	6649	153860	23850	9523
22:21	ZZZZZZ	7109	163210	24845	10374
22:24	ZZZZZZ	6092	158410	24614	11505
22:27	ZZZZZZ	6584	154910	24230	10195
22:31	ZZZZZZ	6626	159120	24477	11070
22:34	MA44405-CCV20	6727	154720	23362	9993
22:37	MA44405-CCB21	6954	160310	23856	10731
22:40	ZZZZZZ	6523	147580	24048	9241
22:43	ZZZZZZ	6667	153460	24275	9622
22:46	ZZZZZZ	7297	167180	25346	10427
22:49	ZZZZZZ	7198	165340	24946	10406
22:52	ZZZZZZ	7273	166980	25609	10340
22:55	ZZZZZZ	7297	167850	25708	10238
22:58	ZZZZZZ	7410	169650	26092	10356
23:01	MA44405-CCV21	6752	156050	23996	10072
23:04	MA44405-CCB22	6901	160770	23801	10710
23:07	MA44405-CRI5	6821	159010	23843	10523
23:10	MA44405-CRID4	6889	161110	23834	10674
23:13	MA44405-CCV22	6698	154400	23648	10002
23:16	MA44405-CCB23	6892	160840	23908	10691

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

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
 Analyst: EAL Run ID: MA44405
 Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Sample					
Time	Description	Istd#1	Istd#2	Istd#3	Istd#4
Istd#4	Yttrium (3600)		70-130 %		
Istd#3	Yttrium (3710)		70-130 %		
Istd#4	Indium		70-130 %		

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP
QC Limits: result < RL

Date Analyzed: 05/14/18
Run ID: MA44405

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			11:34 ICB1		11:42 CCB1		12:21 CCB2		12:35 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	anr							
Antimony	6.0	2.4	anr							
Arsenic	3.0	1.2	0.100	<3.0	-0.200	<3.0	-0.600	<3.0	0.500	<3.0
Barium	200	.6	0.00	<200	0.400	<200	-0.100	<200	0.300	<200
Beryllium	1.0	.2	anr							
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	0.200	<3.0	0.300	<3.0	0.300	<3.0	0.100	<3.0
Calcium	5000	5.5	anr							
Chromium	10	.7	0.300	<10	0.200	<10	0.400	<10	0.00	<10
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	3.5	anr							
Lead	3.0	2.2	0.300	<3.0	0.400	<3.0	-0.100	<3.0	0.500	<3.0
Lithium	50	3.4								
Magnesium	5000	25	anr							
Manganese	15	.14	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	2								
Potassium	10000	60	anr							
Selenium	10	3.7	0.600	<10	1.00	<10	1.80	<10	1.70	<10
Silicon	200	1.8								
Silver	10	.7	-0.700	<10	0.100	<10	-0.200	<10	-0.400	<10
Sodium	10000	35	anr							
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	anr							
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	anr							
Zinc	20	.2	anr							

14.3.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44405 Units: ug/l

Time:		11:34		11:42		12:21		12:35		
Sample ID:		ICB1		CCB1		CCB2		CCB3		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP
QC Limits: result < RL

Date Analyzed: 05/14/18
Run ID: MA44405

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			13:08 CCB4		13:50 CCB5		14:22 CCB6		14:52 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	anr							
Antimony	6.0	2.4	anr							
Arsenic	3.0	1.2	0.200	<3.0	0.300	<3.0	1.00	<3.0	0.800	<3.0
Barium	200	.6	0.400	<200	0.500	<200	0.500	<200	0.700	<200
Beryllium	1.0	.2	anr							
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	0.200	<3.0	0.100	<3.0	0.200	<3.0	0.200	<3.0
Calcium	5000	5.5	anr							
Chromium	10	.7	0.100	<10	0.400	<10	0.200	<10	0.200	<10
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	3.5	anr							
Lead	3.0	2.2	0.800	<3.0	1.40	<3.0	-0.200	<3.0	1.20	<3.0
Lithium	50	3.4								
Magnesium	5000	25	anr							
Manganese	15	.14	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	2								
Potassium	10000	60	anr							
Selenium	10	3.7	0.500	<10	0.200	<10	0.200	<10	1.10	<10
Silicon	200	1.8								
Silver	10	.7	-0.300	<10	-1.00	<10	-0.900	<10	-1.40	<10
Sodium	10000	35	anr							
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	anr							
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	anr							
Zinc	20	.2	anr							

14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44405 Units: ug/l

Time: Sample ID:			13:08 CCB4		13:50 CCB5		14:22 CCB6		14:52 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44405 Units: ug/l

Time: Sample ID:			15:31 CCB8		16:09 CCB9		16:43 CCB10		17:04 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	anr							
Antimony	6.0	2.4	anr							
Arsenic	3.0	1.2	0.100	<3.0	0.700	<3.0	0.700	<3.0	1.40	<3.0
Barium	200	.6	0.800	<200	0.900	<200	0.900	<200	0.600	<200
Beryllium	1.0	.2	anr							
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	0.100	<3.0	0.300	<3.0	0.100	<3.0	0.200	<3.0
Calcium	5000	5.5	anr							
Chromium	10	.7	0.200	<10	0.300	<10	0.400	<10	-0.200	<10
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	3.5	anr							
Lead	3.0	2.2	-0.800	<3.0	0.400	<3.0	0.600	<3.0	0.100	<3.0
Lithium	50	3.4								
Magnesium	5000	25	anr							
Manganese	15	.14	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	2								
Potassium	10000	60	anr							
Selenium	10	3.7	1.30	<10	1.20	<10	3.30	<10	0.700	<10
Silicon	200	1.8								
Silver	10	.7	-1.00	<10	-1.60	<10	-1.30	<10	-1.60	<10
Sodium	10000	35	anr							
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	anr							
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	anr							
Zinc	20	.2	anr							

14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44405 Units: ug/l

Time: Sample ID:			15:31 CCB8		16:09 CCB9		16:43 CCB10		17:04 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.3.2
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CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP
QC Limits: to % Recovery

Date Analyzed: 05/14/18
Run ID: MA44405

Methods: SW846 6010C
Units: ug/l

Time: Sample ID: ICCV		11:37 ICCV1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	2000	2010	100.5
Barium	2000	2040	102.0
Beryllium	anr		
Bismuth			
Boron			
Cadmium	2000	2010	100.5
Calcium	anr		
Chromium	2000	2060	103.0
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	2000	2050	102.5
Lithium			
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Phosphorus			
Potassium	anr		
Selenium	2000	2010	100.5
Silicon			
Silver	250	255	102.0
Sodium	anr		
Strontium			
Sulfur	anr		
Thallium	anr		
Tin			
Titanium			
Tungsten			
Vanadium	anr		
Zinc	anr		

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: to % Recovery Run ID: MA44405 Units: ug/l

Time:		11:37
Sample ID:		ICCV
Metal		True
		Results % Rec

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time: Sample ID:		11:30 ICV2	% Rec	CCV	12:18 CCV1	% Rec	CCV	12:30 CCV2	% Rec
Metal	ICV True	Results		True	Results		True	Results	
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2010	100.5	2000	1980	99.0	2000	2000	100.0
Barium	2000	2040	102.0	2000	2010	100.5	2000	2020	101.0
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	2010	100.5	2000	1980	99.0	2000	1990	99.5
Calcium	anr								
Chromium	2000	2030	101.5	2000	1990	99.5	2000	2010	100.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2060	103.0	2000	2030	101.5	2000	2040	102.0
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	2020	101.0	2000	1990	99.5	2000	2000	100.0
Silicon									
Silver	250	252	100.8	250	246	98.4	250	248	99.2
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.3.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time:		11:30			12:18			12:30		
Sample ID:	ICV	ICV2		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time: Sample ID:	CCV	13:05 CCV3	% Rec	CCV	13:47 CCV4	% Rec	CCV	14:19 CCV5	% Rec
Metal	True	Results		True	Results		True	Results	
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1970	98.5	2000	1930	96.5	2000	1940	97.0
Barium	2000	2010	100.5	2000	2030	101.5	2000	2040	102.0
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	1970	98.5	2000	1920	96.0	2000	1920	96.0
Calcium	anr								
Chromium	2000	1990	99.5	2000	1970	98.5	2000	1980	99.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2020	101.0	2000	2000	100.0	2000	2020	101.0
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	1980	99.0	2000	1940	97.0	2000	1940	97.0
Silicon									
Silver	250	246	98.4	250	243	97.2	250	242	96.8
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.3.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time:		13:05			13:47			14:19		
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time: Sample ID:		14:49 CCV6		15:25 CCV7		16:06 CCV8						
Metal	CCV	True	Results	% Rec	CCV	True	Results	% Rec	CCV	True	Results	% Rec
Aluminum	anr											
Antimony	anr											
Arsenic	2000	1920	96.0	2000	1900	95.0	2000	1930	96.5			
Barium	2000	2020	101.0	2000	2010	100.5	2000	2010	100.5			
Beryllium	anr											
Bismuth												
Boron												
Cadmium	2000	1880	94.0	2000	1860	93.0	2000	1890	94.5			
Calcium	anr											
Chromium	2000	1960	98.0	2000	1940	97.0	2000	1960	98.0			
Cobalt	anr											
Copper	anr											
Iron	anr											
Lead	2000	2000	100.0	2000	1990	99.5	2000	2020	101.0			
Lithium												
Magnesium	anr											
Manganese	anr											
Molybdenum												
Nickel	anr											
Phosphorus												
Potassium	anr											
Selenium	2000	1910	95.5	2000	1910	95.5	2000	1940	97.0			
Silicon												
Silver	250	239	95.6	250	238	95.2	250	239	95.6			
Sodium	anr											
Strontium												
Sulfur	anr											
Thallium	anr											
Tin												
Titanium												
Tungsten												
Vanadium	anr											
Zinc	anr											

14.3.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time:		14:49			15:25			16:06		
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time: Sample ID:		16:40 CCV9		17:00 CCV10			
Metal	CCV	Results	% Rec	CCV	Results	% Rec	
Aluminum	anr						
Antimony	anr						
Arsenic	2000	1880	94.0	2000	1870	93.5	
Barium	2000	1990	99.5	2000	2000	100.0	
Beryllium	anr						
Bismuth							
Boron							
Cadmium	2000	1830	91.5	2000	1820	91.0	
Calcium	anr						
Chromium	2000	1920	96.0	2000	1930	96.5	
Cobalt	anr						
Copper	anr						
Iron	anr						
Lead	2000	1970	98.5	2000	1960	98.0	
Lithium							
Magnesium	anr						
Manganese	anr						
Molybdenum							
Nickel	anr						
Phosphorus							
Potassium	anr						
Selenium	2000	1870	93.5	2000	1870	93.5	
Silicon							
Silver	250	233	93.2	250	235	94.0	
Sodium	anr						
Strontium							
Sulfur	anr						
Thallium	anr						
Tin							
Titanium							
Tungsten							
Vanadium	anr						
Zinc	anr						

14.3.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time:		16:40			17:00		
Sample ID:	CCV	CCV9		CCV	CCV10		
Metal	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

HIGH STANDARD CHECK SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP
QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/14/18
Run ID: MA44405

Methods: SW846 6010C
Units: ug/l

Time:		12:02			12:05		
Sample ID:	HSTD	HSTD1	% Rec	HSTD	HSTD2	% Rec	
Metal	True	Results		True	Results		
Aluminum							
Antimony	anr						
Arsenic	5000	5030	100.6				
Barium	5000	5180	103.6				
Beryllium	anr						
Bismuth							
Boron							
Cadmium	5000	5110	102.2				
Calcium							
Chromium	5000	5200	104.0				
Cobalt	anr						
Copper	anr						
Iron							
Lead	5000	5240	104.8				
Lithium							
Magnesium							
Manganese	anr						
Molybdenum							
Nickel	anr						
Phosphorus							
Potassium							
Selenium	5000	5080	101.6				
Silicon							
Silver	625	628	100.5				
Sodium							
Strontium							
Sulfur	anr						
Thallium	anr						
Tin							
Titanium							
Tungsten							
Vanadium	anr						
Zinc	anr						

HIGH STANDARD CHECK SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44405 Units: ug/l

Time:		12:02		12:05	
Sample ID:		HSTD1		HSTD2	
Metal	HSTD	Results	% Rec	Results	% Rec

Zirconium

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44405 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	11:50 CRI1	% Rec	11:53 CRID1	% Rec	12:24 CRI2	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	anr					
Antimony	6.0	20	3.0	anr					
Arsenic	8.0	20	3.0	7.70	96.3	3.00	100.0	8.60	107.5
Barium	200		4.0	207	103.5	4.30	107.5	209	104.5
Beryllium	2.0		1.0	anr					
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	3.30	110.0	1.30	130.0	3.40	113.3
Calcium	5000	2000	1000	anr					
Chromium	10		2.0	10.8	108.0	2.00	100.0	10.6	106.0
Cobalt	50		3.0	anr					
Copper	10		2.0	anr					
Iron	100	500		anr					
Lead	3.0	20	2.5	3.20	106.7			3.60	120.0
Lithium	50								
Magnesium	5000	2000	100	anr					
Manganese	15		3.0	anr					
Molybdenum	20								
Nickel	10		4.0	anr					
Phosphorus	50								
Potassium	5000		2000	anr					
Selenium	10	20	5.0	12.2	122.0	5.70	114.0	10.9	109.0
Silicon	200								
Silver	5.0		2.0	5.00	100.0			4.90	98.0
Sodium	5000		1000	anr					
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	anr					
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	anr					
Zinc	20		10	anr					

14.3.6
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44405 Units: ug/l

Time:					11:50		11:53		12:24	
Sample ID:	CRI	CRIA	CRID	CRI1			CRID1		CRID2	
Metal	True	True	True	Results	%	Rec	Results	%	Results	%

Zirconium 10

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44405 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	16:48 CRI3	% Rec	16:51 CRID2	% Rec
Metal	True	True	True	Results		Results	
Aluminum	200	500	100	anr			
Antimony	6.0	20	3.0	anr			
Arsenic	8.0	20	3.0	8.50	106.3	2.50	83.3
Barium	200		4.0	207	103.5	4.80	120.0
Beryllium	2.0		1.0	anr			
Bismuth	20						
Boron	100		10				
Cadmium	3.0		1.0	3.00	100.0	1.00	100.0
Calcium	5000	2000	1000	anr			
Chromium	10		2.0	10.4	104.0	2.10	105.0
Cobalt	50		3.0	anr			
Copper	10		2.0	anr			
Iron	100	500		anr			
Lead	3.0	20	2.5	3.70	123.3		
Lithium	50						
Magnesium	5000	2000	100	anr			
Manganese	15		3.0	anr			
Molybdenum	20						
Nickel	10		4.0	anr			
Phosphorus	50						
Potassium	5000		2000	anr			
Selenium	10	20	5.0	11.6	116.0	5.90	118.0
Silicon	200						
Silver	5.0		2.0	4.00	80.0		
Sodium	5000		1000	anr			
Strontium	10						
Sulfur	50			anr			
Thallium	10		2.0	anr			
Tin	10						
Titanium	10						
Tungsten	50						
Vanadium	50		2.0	anr			
Zinc	20		10	anr			

14.3.6
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44405 Units: ug/l

Time:					16:48		16:51	
Sample ID:	CRI	CRIA	CRID	CRI3			CRID2	
Metal	True	True	True	Results	% Rec		Results	% Rec

Zirconium 10

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

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051418M1.ICP Date Analyzed: 05/14/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44405 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	11:56 ICSA1 Results	% Rec	11:59 ICSAB1 Results	% Rec	16:54 ICSA2 Results	% Rec	16:57 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	513000	102.6	524000	104.8	499000	99.8	503000	100.6
Antimony		1000	-2.70		1080	108.0	-5.40		979	97.9
Arsenic		1000	0.300		1100	110.0	4.00		1030	103.0
Barium		500	1.80		524	104.8	2.10		518	103.6
Beryllium		500	-0.100		511	102.2	-0.300		491	98.2
Bismuth		500	-2.90		530	106.0	-9.30		490	98.0
Boron		500	-2.40		531	106.2	-5.10		491	98.2
Cadmium		1000	1.00		1070	107.0	0.600		971	97.1
Calcium	400000	400000	402000	100.5	393000	98.3	377000	94.3	375000	93.8
Chromium		500	0.500		502	100.4	1.10		488	97.6
Cobalt		500	1.20		517	103.4	0.800		483	96.6
Copper		500	0.700		525	105.0	2.60		511	102.2
Iron	200000	200000	199000	99.5	201000	100.5	196000	98.0	198000	99.0
Lead		1000	1.70		1010	101.0	4.10		976	97.6
Lithium		500	2.30		530	106.0	4.70		506	101.2
Magnesium	500000	500000	513000	102.6	510000	102.0	486000	97.2	485000	97.0
Manganese		500	0.300		526	105.2	-0.600		497	99.4
Molybdenum		500	0.800		505	101.0	1.00		438	87.6
Nickel		1000	-0.200		1020	102.0	0.400		983	98.3
Phosphorus		500	2.70		531	106.2	14.4		515	103.0
Potassium			144		158		182		245	
Selenium		1000	-0.200		1030	103.0	3.50		968	96.8
Silicon		500	13.6		530	106.0	12.8		482	96.4
Silver		1000	3.70		1010	101.0	-2.70		963	96.3
Sodium			-24.5		-9.50		126		132	
Strontium		500	-2.50		522	104.4	-2.70		484	96.8
Sulfur		500	-15.2		509	101.8	-10.9		457	91.4
Thallium		1000	-2.70		1020	102.0	-2.60		976	97.6
Tin		500	-4.50		490	98.0	-3.90		430	86.0
Titanium		500	-2.30		512	102.4	-1.70		500	100.0
Tungsten		500	2.10		506	101.2	2.80		473	94.6
Vanadium		500	3.70		517	103.4	6.10		485	97.0
Zinc		1000	4.90		1010	101.0	4.40		921	92.1

14.3.7
14

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 6010C
Units: ug/l

Zirconium	500	-2.60	504	100.8	-2.80	476	95.2
(*) Outside of QC limits (anr) Analyte not requested							

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

14.3.7 14

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44427
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:19	MA44427-STD1	1		IEC 12/18/17 to 5/17/18
12:22	MA44427-STD2	1		STDB
12:25	ZZZZZZ	1		
12:27	ZZZZZZ	1		
12:31	ZZZZZZ	1		
12:34	ZZZZZZ	1		
12:37	MA44427-ICV1	1		
12:42	MA44427-ICB1	1		
12:46	MA44427-ICCV1	1		
12:51	MA44427-CCB1	1		
12:55	ZZZZZZ	1		
12:59	MA44427-CRI1	1		
13:02	MA44427-CRID1	1		
13:05	MA44427-ICSA1	1		
13:08	MA44427-ICSAB1	1		
13:11	MA44427-HSTD1	1		
13:14	MA44427-HSTD2	1		
13:18	ZZZZZZ	1		
13:21	ZZZZZZ	1		
13:24	ZZZZZZ	1		
13:27	MA44427-CCV1	1		
13:33	MA44427-CCB2	1		
13:36	ZZZZZZ	1		
13:39	ZZZZZZ	1		
13:42	ZZZZZZ	2		
13:45	ZZZZZZ	2		
13:48	ZZZZZZ	3		
13:51	ZZZZZZ	3		
13:54	ZZZZZZ	2		
13:57	ZZZZZZ	5		
14:00	ZZZZZZ	3		
14:03	MA44427-CCV2	1		
14:06	MA44427-CCB3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44427
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:09	ZZZZZZ	2		
14:12	ZZZZZZ	3		
14:15	ZZZZZZ	2		
14:17	MP7158-MB1	1		
14:20	ZZZZZZ	1		
14:23	ZZZZZZ	1		
14:26	ZZZZZZ	1		
14:29	ZZZZZZ	1		
14:32	ZZZZZZ	1		
14:35	MA44427-CCV3	1		
14:38	MA44427-CCB4	1		
14:41	ZZZZZZ	1		
14:44	ZZZZZZ	1		
14:47	ZZZZZZ	1		
14:50	ZZZZZZ	1		
14:54	ZZZZZZ	1		
14:57	ZZZZZZ	1		
15:00	ZZZZZZ	1		
15:03	ZZZZZZ	1		
15:06	ZZZZZZ	1		
15:09	MA44427-CCV4	1		
15:12	MA44427-CCB5	1		
15:15	ZZZZZZ	2		
15:18	ZZZZZZ	1		
15:21	ZZZZZZ	1		
15:24	ZZZZZZ	1		
15:26	ZZZZZZ	1		
15:30	ZZZZZZ	1		
15:33	ZZZZZZ	1		
15:35	ZZZZZZ	1		
15:39	ZZZZZZ	1		
15:42	MA44427-CCV5	1		
15:46	MA44427-CCB6	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44427
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:49	ZZZZZZ	5		
15:52	MP7168-MB1	1		
15:55	MP7168-B1	1		
15:58	MP7168-S1	1		high elements
16:01	MP7168-S2	1		High elements
16:05	MP7168-D1	1		High elements
16:08	TD20915-1	1		(sample used for QC only; not part of login JC65860)
16:11	MP7168-SD1	5		High elements
16:14	ZZZZZZ	1		
16:17	MA44427-CCV6	1		
16:20	MA44427-CCB7	1		
16:23	ZZZZZZ	1		
16:26	ZZZZZZ	1		
16:30	ZZZZZZ	1		
16:33	ZZZZZZ	1		
16:36	ZZZZZZ	1		
16:39	ZZZZZZ	1		
16:42	ZZZZZZ	1		
16:45	ZZZZZZ	1		
16:48	ZZZZZZ	1		
16:51	MA44427-CCV7	1		
16:54	MA44427-CCB8	1		
16:57	ZZZZZZ	5		
17:00	ZZZZZZ	3		
17:03	ZZZZZZ	5		
17:06	ZZZZZZ	1		
17:09	ZZZZZZ	1		
17:12	MP7158-B1	1		
17:15	MP7158-S1	1		
17:18	MP7158-S2	1		
17:20	JC65898-1	1		(sample used for QC only; not part of login JC65860)
17:23	MA44427-CCV8	1		
17:26	MA44427-CCB9	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44427
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:29	MP7158-SD1	5		
17:32	ZZZZZZ	1		
17:35	ZZZZZZ	1		
17:38	ZZZZZZ	1		
17:41	ZZZZZZ	1		
17:44	ZZZZZZ	2		
17:47	ZZZZZZ	1		
17:50	ZZZZZZ	1		
17:53	ZZZZZZ	5		
17:56	MA44427-CCV9	1		
17:59	MA44427-CCB10	1		
18:02	ZZZZZZ	25		
18:05	ZZZZZZ	5		
18:08	ZZZZZZ	1		
18:11	ZZZZZZ	1		
18:14	MA44427-CRI2	1		
18:17	MA44427-CRID2	1		
18:20	MA44427-ICSA2	1		
18:23	MA44427-ICSAB2	1		
18:26	MA44427-CCV10	1		
18:29	MA44427-CCB11	1		
18:32	ZZZZZZ	1		
18:35	ZZZZZZ	1		
18:38	ZZZZZZ	1		
18:41	ZZZZZZ	1		
18:54	ZZZZZZ	1		
18:57	ZZZZZZ	1		
19:00	ZZZZZZ	1		
19:04	ZZZZZZ	1		
19:07	ZZZZZZ	1		
19:10	ZZZZZZ	1		
19:13	ZZZZZZ	1		
19:16	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44427
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:19	ZZZZZZ	1		
19:22	MA44427-CCV11	1		
19:25	MA44427-CCB12	1		
19:28	JC65860-1	1		Ca high
----->	Last reportable sample/	prep for job JC65860		
19:31	ZZZZZZ	1		
19:34	ZZZZZZ	1		
19:37	ZZZZZZ	1		
19:40	ZZZZZZ	1		
19:43	ZZZZZZ	1		
19:46	ZZZZZZ	1		
19:49	ZZZZZZ	1		
19:52	ZZZZZZ	1		
19:55	MA44427-CCV12	1		
19:58	MA44427-CCB13	1		
20:01	ZZZZZZ	1		
20:04	ZZZZZZ	1		
20:07	ZZZZZZ	1		
20:10	ZZZZZZ	1		
20:13	ZZZZZZ	1		
20:16	ZZZZZZ	1		
20:19	ZZZZZZ	1		
20:22	ZZZZZZ	1		
20:25	ZZZZZZ	1		
20:28	MA44427-CCV13	1		
20:31	MA44427-CCB14	1		
20:34	MP7175-MB1	1		
20:37	MP7175-B1	1		
20:40	MP7175-S1	1		FE, Cu, PB high
20:43	MP7175-S2	1		FE, Cu, PB high
20:46	JC65915-4	1		(sample used for QC only; not part of login JC65860)
20:49	MP7175-SD1	5		Cu, PB high
20:52	ZZZZZZ	1		
20:55	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44427
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:58	ZZZZZZ	1		
21:01	MA44427-CCV14	1		
21:04	MA44427-CCB15	1		
21:07	ZZZZZZ	1		
21:10	ZZZZZZ	1		
21:13	ZZZZZZ	1		
21:16	ZZZZZZ	1		
21:19	ZZZZZZ	1		
21:22	ZZZZZZ	1		
21:25	ZZZZZZ	1		
21:28	ZZZZZZ	1		
21:31	ZZZZZZ	1		
21:34	MA44427-CCV15	1		
21:37	MA44427-CCB16	1		
21:40	ZZZZZZ	1		
21:43	ZZZZZZ	1		
21:46	ZZZZZZ	1		
21:49	ZZZZZZ	1		
21:52	ZZZZZZ	1		
22:01	MA44427-CCV16	1		
22:04	MA44427-CCB17	1		
22:07	ZZZZZZ	1		
22:10	ZZZZZZ	1		
22:13	MP7176-B1	1		
22:16	MP7176-MB1	1		
22:19	MP7176-S1	1		
22:22	MP7176-S2	1		
22:25	JC65866-3	1		(sample used for QC only; not part of login JC65860)
22:28	MP7176-SD1	5		
22:31	ZZZZZZ	1		
22:34	MA44427-CCV17	1		
22:37	MA44427-CCB18	1		
22:40	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44427
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:43	ZZZZZZ	1		
22:46	ZZZZZZ	1		
22:49	ZZZZZZ	1		
22:52	ZZZZZZ	1		
22:55	ZZZZZZ	1		
22:58	ZZZZZZ	1		
23:01	ZZZZZZ	1		
23:04	ZZZZZZ	1		
23:07	MA44427-CCV18	1		
23:13	MA44427-CCB19	1		
23:16	ZZZZZZ	1		
23:19	ZZZZZZ	1		
23:22	ZZZZZZ	1		
23:25	ZZZZZZ	1		
23:28	ZZZZZZ	1		
23:31	ZZZZZZ	1		
23:34	ZZZZZZ	1		
23:37	ZZZZZZ	1		
23:40	ZZZZZZ	1		
23:43	MA44427-CCV19	1		
23:46	MA44427-CCB20	1		
23:49	MP7177-MB1	1		
23:52	MP7177-MB2	1		
23:55	MP7177-B1	1		
23:58	MP7177-B2	1		
00:03	MA44427-CCV20	1		
00:06	MA44427-CCB21	1		
00:09	MP7177-MB1	1		GEQC to reanalysis, no ending ICSA
00:12	MP7177-MB2	1		
00:15	MP7177-B1	1		
00:18	MP7177-B2	1		
00:21	MP7177-S1	1		
00:24	MP7177-S2	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44427
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:27	JC65928-1	1		(sample used for QC only; not part of login JC65860)
00:30	MP7177-SD1	5		
00:33	ZZZZZZ	1		
00:36	MP7177-B1	1		
00:39	MA44427-CCV21	1		
00:42	MA44427-CCB22	1		
00:45	ZZZZZZ	1		
00:48	ZZZZZZ	1		
00:51	ZZZZZZ	1		
00:54	ZZZZZZ	1		
00:58	ZZZZZZ	1		
01:01	ZZZZZZ	1		
01:04	ZZZZZZ	1		
01:07	ZZZZZZ	1		
01:10	ZZZZZZ	1		
01:13	MA44427-CCV22	1		
01:16	MA44427-CCB23	1		
01:19	ZZZZZZ	1		
01:22	ZZZZZZ	1		
01:25	ZZZZZZ	1		
01:28	ZZZZZZ	1		
01:31	ZZZZZZ	1		
01:34	ZZZZZZ	1		
01:37	ZZZZZZ	1		
01:40	ZZZZZZ	1		
01:43	ZZZZZZ	1		
01:46	MA44427-CCV23	1		
01:49	MA44427-CCB24	1		
01:52	MA44427-CRI3	1		
01:55	MA44427-CRID3	1		
01:58	MA44427-CCV24	1		
02:01	MA44427-CCB25	1		
-----> Last reportable CCB for job JC65860 Refer to raw data for calibration curve and standards.				

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44427
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:19	MA44427-STD1	6846 R	133610 R	26695 R	11477 R
12:22	MA44427-STD2	6553	124610	26214	10389
12:25	ZZZZZZ	6649	128330	26433	10634
12:27	ZZZZZZ	6837	133730	26420	11465
12:31	ZZZZZZ	6795	132900	26699	11299
12:34	ZZZZZZ	6793	132580	26358	11392
12:37	MA44427-ICV1	6596	126450	25998	10603
12:42	MA44427-ICB1	6782	131640	26195	11443
12:46	MA44427-ICCV1	6587	125760	25833	10607
12:51	MA44427-CCB1	6718	130410	26132	11352
12:55	ZZZZZZ	6686	129420	25983	11287
12:59	MA44427-CRI1	6601	128970	25728	11099
13:02	MA44427-CRID1	6659	129600	26066	11270
13:05	MA44427-ICSA1	6023	114340	24682	9481
13:08	MA44427-ICSAB1	6025	113920	24503	9512
13:11	MA44427-HSTD1	6582	128720	25922	11142
13:14	MA44427-HSTD2	6135	117110	24757	9600
13:18	ZZZZZZ	6548	128630	25493	11277
13:21	ZZZZZZ	6504	129250	25613	11196
13:24	ZZZZZZ	6648	130460	25783	11338
13:27	MA44427-CCV1	6463	125220	25362	10504
13:33	MA44427-CCB2	6609	129870	25508	11270
13:36	ZZZZZZ	6636	131200	25885	11301
13:39	ZZZZZZ	6462	125870	25300	10624
13:42	ZZZZZZ	6667	129530	25763	10837
13:45	ZZZZZZ	6641	128180	25698	10821
13:48	ZZZZZZ	6705	128280	26094	10953
13:51	ZZZZZZ	6613	129180	25565	11060
13:54	ZZZZZZ	6549	129070	25441	11164
13:57	ZZZZZZ	6544	128160	25406	10999
14:00	ZZZZZZ	6671	129430	25360	11085
14:03	MA44427-CCV2	6422	123650	24898	10496
14:06	MA44427-CCB3	6587	129500	25167	11300

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44427
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:09	ZZZZZZ	6641	128630	25750	11083
14:12	ZZZZZZ	6597	129720	25698	11054
14:15	ZZZZZZ	6593	129140	25485	10991
14:17	MP7158-MB1	6672	130550	25666	11456
14:20	ZZZZZZ	6695	130810	25562	11271
14:23	ZZZZZZ	6675	129730	25770	11218
14:26	ZZZZZZ	6690	132480	25612	11246
14:29	ZZZZZZ	6663	132170	25701	11307
14:32	ZZZZZZ	6188	119650	24905	9630
14:35	MA44427-CCV3	6445	123840	24758	10546
14:38	MA44427-CCB4	6619	131300	25207	11344
14:41	ZZZZZZ	6684	130370	26378	11055
14:44	ZZZZZZ	6759	133570	26575	11281
14:47	ZZZZZZ	6422	122550	26242	9589
14:50	ZZZZZZ	6430	122110	26052	9739
14:54	ZZZZZZ	6227	118230	25384	9303
14:57	ZZZZZZ	6331	122010	25958	9685
15:00	ZZZZZZ	6372	122810	25666	9713
15:03	ZZZZZZ	6738	132740	26543	11456
15:06	ZZZZZZ	6603	128980	25581	10832
15:09	MA44427-CCV4	6537	127240	25241	10652
15:12	MA44427-CCB5	6623	131440	25227	11335
15:15	ZZZZZZ	6745	130220	25942	10842
15:18	ZZZZZZ	6639	131940	25567	11352
15:21	ZZZZZZ	6545	127510	25226	10813
15:24	ZZZZZZ	6696	130130	25867	10940
15:26	ZZZZZZ	6722	127410	25997	10819
15:30	ZZZZZZ	6597	130480	25473	11309
15:33	ZZZZZZ	6370	125720	24775	10563
15:35	ZZZZZZ	6611	129200	25545	11110
15:39	ZZZZZZ	6565	126110	25426	10512
15:42	MA44427-CCV5	6353	123990	24095	10453
15:46	MA44427-CCB6	6548	129150	24697	11276

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44427
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:49	ZZZZZZ	6545	129160	25407	11303
15:52	MP7168-MB1	6626	132500	25726	11382
15:55	MP7168-B1	6485	126750	25181	10761
15:58	MP7168-S1	6072	123340	25704	11533
16:01	MP7168-S2	6133	123140	25550	11580
16:05	MP7168-D1	6218	125960	25934	11763
16:08	TD20915-1	6270	126130	25874	11776
16:11	MP7168-SD1	6717	132760	26395	11586
16:14	ZZZZZZ	6301	125200	25351	11463
16:17	MA44427-CCV6	6540	126340	25474	10664
16:20	MA44427-CCB7	6726	132740	25770	11484
16:23	ZZZZZZ	6648	129660	26804	10747
16:26	ZZZZZZ	6889	133130	27111	11111
16:30	ZZZZZZ	6918	133120	26910	11147
16:33	ZZZZZZ	7091	138000	27881	11125
16:36	ZZZZZZ	7069	136330	27417	11190
16:39	ZZZZZZ	6960	133970	27381	11027
16:42	ZZZZZZ	6834	132910	27204	10666
16:45	ZZZZZZ	6839	133990	27426	10955
16:48	ZZZZZZ	6820	133580	27319	10812
16:51	MA44427-CCV7	6638	127570	25778	10733
16:54	MA44427-CCB8	6789	133460	26222	11492
16:57	ZZZZZZ	6808	131900	26858	11155
17:00	ZZZZZZ	6841	132450	26842	11127
17:03	ZZZZZZ	No results reported for the elements associated with this internal standard.			
17:06	ZZZZZZ	6692	129530	26285	10894
17:09	ZZZZZZ	6897	135190	27076	11645
17:12	MP7158-B1	6681	129290	26152	10865
17:15	MP7158-S1	6732	130170	26559	10924
17:18	MP7158-S2	6716	129800	26405	10913
17:20	JC65898-1	6938	135170	26995	11554
17:23	MA44427-CCV8	6704	127640	26226	10785
17:26	MA44427-CCB9	6845	133780	26407	11541

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44427
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
17:29	MP7158-SD1	6867	133820	26356	11519
17:32	ZZZZZZ	7000	134660	26950	11560
17:35	ZZZZZZ	6924	133910	27461	11360
17:38	ZZZZZZ	6877	132430	27559	11216
17:41	ZZZZZZ	6896	134900	26877	11471
17:44	ZZZZZZ	6849	132030	27129	11414
17:47	ZZZZZZ	6946	135170	27210	11397
17:50	ZZZZZZ	6939	135090	27013	11468
17:53	ZZZZZZ	6859	133250	26444	11235
17:56	MA44427-CCV9	6673	127790	25950	10712
17:59	MA44427-CCB10	6856	133060	26449	11535
18:02	ZZZZZZ	6773	999999 !	26670	11496
18:05	ZZZZZZ	6650	129170	26312	10591
18:08	ZZZZZZ	6768	129960	26489	10995
18:11	ZZZZZZ	6863	135140	26946	11545
18:14	MA44427-CRI2	6810	132200	26428	11392
18:17	MA44427-CRID2	6910	131830	26432	11625
18:20	MA44427-ICSA2	6231	117020	25704	9720
18:23	MA44427-ICSAB2	6234	117170	25192	9737
18:26	MA44427-CCV10	6664	127360	26112	10695
18:29	MA44427-CCB11	6876	132490	26488	11546
18:32	ZZZZZZ	6441	999999 !	25580	10316
18:35	ZZZZZZ	7022	124970	27322	10717
18:38	ZZZZZZ	6374	124160	25793	10287
18:41	ZZZZZZ	6872	133740	26658	11597
18:54	ZZZZZZ	6304	121130	25286	10087
18:57	ZZZZZZ	6780	131300	26235	11372
19:00	ZZZZZZ	6725	131440	26089	11288
19:04	ZZZZZZ	6721	130620	26040	11363
19:07	ZZZZZZ	6701	122100	26484	11294
19:10	ZZZZZZ	6701	130280	25856	11263
19:13	ZZZZZZ	6750	130720	26509	11373
19:16	ZZZZZZ	6733	129860	25973	11333

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44427
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:19	ZZZZZZ	6674	129010	26127	11047
19:22	MA44427-CCV11	6568	126150	25567	10558
19:25	MA44427-CCB12	6711	130890	25866	11315
19:28	JC65860-1	6441	123500	25951	9598
19:31	ZZZZZZ	6781	131620	27088	10857
19:34	ZZZZZZ	6884	132340	27024	10799
19:37	ZZZZZZ	6563	125420	26427	10160
19:40	ZZZZZZ	6697	128310	26411	11160
19:43	ZZZZZZ	No results reported for the elements associated with this internal standard.			
19:46	ZZZZZZ	6724	129490	26551	11066
19:49	ZZZZZZ	No results reported for the elements associated with this internal standard.			
19:52	ZZZZZZ	No results reported for the elements associated with this internal standard.			
19:55	MA44427-CCV12	6591	126300	25779	10604
19:58	MA44427-CCB13	6780	131340	26044	11433
20:01	ZZZZZZ	6902	131230	26864	11014
20:04	ZZZZZZ	No results reported for the elements associated with this internal standard.			
20:07	ZZZZZZ	No results reported for the elements associated with this internal standard.			
20:10	ZZZZZZ	6965	133330	27582	10816
20:13	ZZZZZZ	6890	132290	27172	10863
20:16	ZZZZZZ	6757	127990	26515	10778
20:19	ZZZZZZ	6838	129390	26941	10780
20:22	ZZZZZZ	6753	129470	26552	10842
20:25	ZZZZZZ	6809	129750	26444	10977
20:28	MA44427-CCV13	6580	126210	25773	10592
20:31	MA44427-CCB14	6745	130750	25839	11381
20:34	MP7175-MB1	6820	134040	26718	11499
20:37	MP7175-B1	6588	126940	25994	10712
20:40	MP7175-S1	6429	125510	26270	10579
20:43	MP7175-S2	6485	128680	26498	10692
20:46	JC65915-4	6593	125860	26242	10887
20:49	MP7175-SD1	6686	131630	26202	11103
20:52	ZZZZZZ	7221	136280	28084	11333
20:55	ZZZZZZ	6958	133070	27042	10970

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44427
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:58	ZZZZZZ	7039	135230	27601	10903
21:01	MA44427-CCV14	6559	125280	25486	10583
21:04	MA44427-CCB15	6723	130500	25791	11364
21:07	ZZZZZZ	6817	131710	26690	11055
21:10	ZZZZZZ	6959	132500	27369	10942
21:13	ZZZZZZ	6952	132940	27225	10879
21:16	ZZZZZZ	No results reported for the elements associated with this internal standard.			
21:19	ZZZZZZ	6649	129050	26798	11050
21:22	ZZZZZZ	6724	129920	26331	11092
21:25	ZZZZZZ	6679	129670	26726	10952
21:28	ZZZZZZ	6430	126170	26131	10471
21:31	ZZZZZZ	6763	130000	26584	11009
21:34	MA44427-CCV15	6563	999999	25742	10600
21:37	MA44427-CCB16	6741	132580	25990	11416
21:40	ZZZZZZ	6786	129400	26662	11124
21:43	ZZZZZZ	6699	130560	26885	11099
21:46	ZZZZZZ	6768	130420	26632	11104
21:49	ZZZZZZ	6747	130530	26908	10998
21:52	ZZZZZZ	6651	129930	26653	11085
22:01	MA44427-CCV16	6575	126960	25464	10621
22:04	MA44427-CCB17	6721	131330	25782	11397
22:07	ZZZZZZ	6550	129260	26413	10911
22:10	ZZZZZZ	6611	128950	26303	10875
22:13	MP7176-B1	6676	130450	26170	10918
22:16	MP7176-MB1	6757	133230	26270	11455
22:19	MP7176-S1	6572	127110	25920	10560
22:22	MP7176-S2	6602	128070	26195	10598
22:25	JC65866-3	6614	128400	25951	10920
22:28	MP7176-SD1	6715	130700	25796	11268
22:31	ZZZZZZ	6784	132740	26069	11225
22:34	MA44427-CCV17	6579	125150	25595	10606
22:37	MA44427-CCB18	6741	132040	25530	11397
22:40	ZZZZZZ	6645	130040	25921	10941

INTERNAL STANDARD SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
 Analyst: EAL Run ID: MA44427
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:43	ZZZZZZ	6555	128440	25991	10863
22:46	ZZZZZZ	6454	129560	25977	10728
22:49	ZZZZZZ	6544	129960	25789	10807
22:52	ZZZZZZ	6566	128090	26078	10932
22:55	ZZZZZZ	6411	124600	25597	10343
22:58	ZZZZZZ	6552	128770	25814	10827
23:01	ZZZZZZ	6497	128400	25878	10750
23:04	ZZZZZZ	6772	132840	999999 !	11260
23:07	MA44427-CCV18	6603	126490	25513	10656
23:13	MA44427-CCB19	6747	131530	25683	11423
23:16	ZZZZZZ	6819	135370	26647	11551
23:19	ZZZZZZ	6482	127860	25854	10510
23:22	ZZZZZZ	6542	127930	26402	10544
23:25	ZZZZZZ	6459	127050	25981	10517
23:28	ZZZZZZ	6653	131480	26544	11018
23:31	ZZZZZZ	6638	131720	26097	10980
23:34	ZZZZZZ	6654	132020	26464	10956
23:37	ZZZZZZ	6240	122540	25569	10164
23:40	ZZZZZZ	6819	135020	26414	11592
23:43	MA44427-CCV19	6593	123430	25755	10666
23:46	MA44427-CCB20	6765	132260	25597	11498
23:49	MP7177-MB1	No results reported for the elements associated with this internal standard.			
23:52	MP7177-MB2	No results reported for the elements associated with this internal standard.			
23:55	MP7177-B1	No results reported for the elements associated with this internal standard.			
23:58	MP7177-B2	No results reported for the elements associated with this internal standard.			
00:03	MA44427-CCV20	6537	126940	25474	10604
00:06	MA44427-CCB21	6649	131430	25677	11338
00:09	MP7177-MB1	6695	132810	26253	11426
00:12	MP7177-MB2	6741	134530	26092	11495
00:15	MP7177-B1	No results reported for the elements associated with this internal standard.			
00:18	MP7177-B2	6642	129630	25930	10915
00:21	MP7177-S1	6455	126300	25734	10401
00:24	MP7177-S2	6448	127010	25547	10370

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44427
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:27	JC65928-1	6493	128790	25853	10649
00:30	MP7177-SD1	6612	131400	25604	11125
00:33	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:36	MP7177-B1	6609	129090	26063	10867
00:39	MA44427-CCV21	6492	126480	25259	10561
00:42	MA44427-CCB22	6647	131640	25481	11345
00:45	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:48	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:51	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:54	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:58	ZZZZZZ	No results reported for the elements associated with this internal standard.			
01:01	ZZZZZZ	6579	128900	26167	10794
01:04	ZZZZZZ	6596	130330	26033	10974
01:07	ZZZZZZ	6538	128180	26792	10841
01:10	ZZZZZZ	6368	125690	25567	10432
01:13	MA44427-CCV22	6552	126810	25639	10655
01:16	MA44427-CCB23	6663	132740	25550	11378
01:19	ZZZZZZ	6580	132100	26294	10973
01:22	ZZZZZZ	6739	135290	26282	11500
01:25	ZZZZZZ	6463	127690	25694	10632
01:28	ZZZZZZ	6570	131300	26443	10852
01:31	ZZZZZZ	6627	132460	25981	11087
01:34	ZZZZZZ	6519	129430	25954	10849
01:37	ZZZZZZ	6336	126140	25453	10390
01:40	ZZZZZZ	6636	131340	26177	11088
01:43	ZZZZZZ	6746	134960	26508	11547
01:46	MA44427-CCV23	6521	126430	25377	10620
01:49	MA44427-CCB24	6682	131680	25888	11427
01:52	MA44427-CRI3	6642	131630	25737	11271
01:55	MA44427-CRID3	6666	131490	25788	11395
01:58	MA44427-CCV24	6509	128750	25567	10630
02:01	MA44427-CCB25	6660	132770	25538	11396

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

INTERNAL STANDARD SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
 Analyst: EAL Run ID: MA44427
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Sample					
Time	Description	Istd#1	Istd#2	Istd#3	Istd#4

LEGEND:

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

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
QC Limits: result < RL

Date Analyzed: 05/16/18
Run ID: MA44427

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			12:42 ICB1		12:51 CCB1		13:33 CCB2		14:06 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	-5.30	<200	-10.1	<200	-16.2	<200	-3.60	<200
Antimony	6.0	2.4	-1.10	<6.0	-1.30	<6.0	-1.50	<6.0	-0.100	<6.0
Arsenic	3.0	1.2	0.200	<3.0	0.200	<3.0	-0.200	<3.0	-0.300	<3.0
Barium	200	.6	0.200	<200	0.500	<200	0.800	<200	1.20	<200
Beryllium	1.0	.2	0.00	<1.0	0.100	<1.0	-0.100	<1.0	-0.100	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	0.100	<3.0	0.00	<3.0	0.00	<3.0	0.100	<3.0
Calcium	5000	5.5	-1.00	<5000	0.200	<5000	-3.40	<5000	-5.00	<5000
Chromium	10	.7	-0.100	<10	-0.100	<10	-0.100	<10	-0.100	<10
Cobalt	50	.4	-0.100	<50	0.00	<50	-0.200	<50	0.200	<50
Copper	10	1.1	-0.100	<10	0.00	<10	-0.400	<10	-0.800	<10
Iron	100	3.5	1.70	<100	4.10	<100	2.40	<100	2.30	<100
Lead	3.0	2.2	-0.300	<3.0	1.20	<3.0	0.300	<3.0	-0.700	<3.0
Lithium	50	3.4								
Magnesium	5000	25	-10.7	<5000	-2.70	<5000	6.60	<5000	18.9	<5000
Manganese	15	.14	0.00	<15	0.100	<15	0.00	<15	0.100	<15
Molybdenum	20	.4								
Nickel	10	.5	-0.200	<10	0.00	<10	0.100	<10	0.200	<10
Phosphorus	50	2								
Potassium	10000	60	-34.9	<10000	-59.1	<10000	-92.5	<10000	-117	<10000
Selenium	10	3.7	-0.400	<10	-0.400	<10	-0.700	<10	-1.50	<10
Silicon	200	1.8								
Silver	10	.7	-0.500	<10	-0.200	<10	-0.500	<10	-1.20	<10
Sodium	10000	35	-22.7	<10000	-9.70	<10000	-41.4	<10000	-45.1	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	0.600	<2.0	1.70	<2.0	0.700	<2.0	0.400	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.400	<50	0.400	<50	0.400	<50	0.300	<50
Zinc	20	.2	0.100	<20	0.00	<20	0.100	<20	0.100	<20

14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44427 Units: ug/l

Time:		12:42		12:51		13:33		14:06		
Sample ID:		ICB1		CCB1		CCB2		CCB3		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
QC Limits: result < RL

Date Analyzed: 05/16/18
Run ID: MA44427

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:	RL	IDL	14:38 CCB4 raw	final	15:12 CCB5 raw	final	15:46 CCB6 raw	final	16:20 CCB7 raw	final
Metal										
Aluminum	200	19	-6.70	<200	-13.7	<200	-18.4	<200	5.90	<200
Antimony	6.0	2.4	-0.800	<6.0	0.00	<6.0	-2.20	<6.0	-0.900	<6.0
Arsenic	3.0	1.2	0.300	<3.0	-0.400	<3.0	-2.50	<3.0	-0.500	<3.0
Barium	200	.6	0.700	<200	0.500	<200	0.800	<200	0.600	<200
Beryllium	1.0	.2	0.00	<1.0	0.00	<1.0	0.00	<1.0	0.100	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	-0.100	<3.0	0.100	<3.0	0.00	<3.0	0.100	<3.0
Calcium	5000	5.5	-5.60	<5000	-6.70	<5000	-5.90	<5000	-4.20	<5000
Chromium	10	.7	-0.200	<10	-0.200	<10	-0.100	<10	-0.100	<10
Cobalt	50	.4	0.200	<50	0.100	<50	0.00	<50	0.100	<50
Copper	10	1.1	-0.500	<10	-0.700	<10	-0.700	<10	-0.500	<10
Iron	100	3.5	4.40	<100	1.70	<100	2.80	<100	1.90	<100
Lead	3.0	2.2	0.600	<3.0	0.00	<3.0	0.400	<3.0	0.800	<3.0
Lithium	50	3.4								
Magnesium	5000	25	13.2	<5000	5.40	<5000	-1.40	<5000	-8.30	<5000
Manganese	15	.14	0.100	<15	0.100	<15	0.100	<15	0.100	<15
Molybdenum	20	.4								
Nickel	10	.5	0.200	<10	0.00	<10	0.700	<10	0.400	<10
Phosphorus	50	2								
Potassium	10000	60	-108	<10000	-81.1	<10000	-117	<10000	-56.0	<10000
Selenium	10	3.7	0.400	<10	-0.100	<10	-0.600	<10	-0.200	<10
Silicon	200	1.8								
Silver	10	.7	-1.00	<10	-0.800	<10	-1.30	<10	-0.600	<10
Sodium	10000	35	-68.5	<10000	-16.3	<10000	-42.2	<10000	-17.1	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	2.00	<2.0*(a)	1.00	<2.0	0.900	<2.0	1.40	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.700	<50	0.900	<50	0.500	<50	0.500	<50
Zinc	20	.2	0.100	<20	0.100	<20	-0.100	<20	0.100	<20

14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44427 Units: ug/l

Time:		14:38		15:12		15:46		16:20		
Sample ID:		CCB4		CCB5		CCB6		CCB7		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested
(a) No AQ samples reported for this element in the area bracketed by this QC.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
QC Limits: result < RL

Date Analyzed: 05/16/18
Run ID: MA44427

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:	RL	IDL	16:54 CCB8 raw	final	17:26 CCB9 raw	final	17:59 CCB10 raw	final	18:29 CCB11 raw	final
Metal										
Aluminum	200	19	-5.50	<200	-9.60	<200	-9.60	<200	-16.0	<200
Antimony	6.0	2.4	-0.200	<6.0	-0.100	<6.0	-0.900	<6.0	0.400	<6.0
Arsenic	3.0	1.2	0.200	<3.0	-0.200	<3.0	-0.100	<3.0	0.300	<3.0
Barium	200	.6	0.800	<200	0.400	<200	0.300	<200	0.400	<200
Beryllium	1.0	.2	0.100	<1.0	0.00	<1.0	0.00	<1.0	0.00	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	0.100	<3.0	0.00	<3.0	0.00	<3.0	-0.100	<3.0
Calcium	5000	5.5	-3.10	<5000	0.400	<5000	5.60	<5000	4.60	<5000
Chromium	10	.7	-0.100	<10	-0.300	<10	-0.100	<10	0.00	<10
Cobalt	50	.4	0.00	<50	0.00	<50	0.100	<50	0.00	<50
Copper	10	1.1	-0.300	<10	0.00	<10	0.00	<10	0.100	<10
Iron	100	3.5	3.60	<100	2.60	<100	1.40	<100	2.40	<100
Lead	3.0	2.2	0.300	<3.0	0.100	<3.0	1.00	<3.0	-0.300	<3.0
Lithium	50	3.4								
Magnesium	5000	25	-9.20	<5000	-0.500	<5000	6.90	<5000	2.60	<5000
Manganese	15	.14	0.100	<15	0.00	<15	0.00	<15	0.100	<15
Molybdenum	20	.4								
Nickel	10	.5	-0.100	<10	-0.400	<10	0.100	<10	-0.100	<10
Phosphorus	50	2								
Potassium	10000	60	-26.2	<10000	25.6	<10000	-20.5	<10000	-32.8	<10000
Selenium	10	3.7	1.00	<10	1.20	<10	-0.300	<10	0.700	<10
Silicon	200	1.8								
Silver	10	.7	-1.10	<10	0.00	<10	-0.100	<10	-0.400	<10
Sodium	10000	35	-17.4	<10000	-3.80	<10000	-7.50	<10000	-13.6	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	1.00	<2.0	2.10	* (a)	1.60	<2.0	2.50	* (a)
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.600	<50	0.400	<50	0.500	<50	0.200	<50
Zinc	20	.2	0.100	<20	0.00	<20	0.00	<20	0.100	<20

14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44427 Units: ug/l

Time:		16:54		17:26		17:59		18:29		
Sample ID:		CCB8		CCB9		CCB10		CCB11		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested
(a) No AQ samples reported for this element in the area bracketed by this QC.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
QC Limits: result < RL

Date Analyzed: 05/16/18
Run ID: MA44427

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			19:25 CCB12		19:58 CCB13		20:31 CCB14		21:04 CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	-2.80	<200	-14.3	<200	-7.90	<200	-1.80	<200
Antimony	6.0	2.4	-2.30	<6.0	-1.60	<6.0	-1.20	<6.0	-1.80	<6.0
Arsenic	3.0	1.2	-0.800	<3.0	-1.20	<3.0	0.400	<3.0	-1.00	<3.0
Barium	200	.6	0.200	<200	0.500	<200	0.300	<200	0.300	<200
Beryllium	1.0	.2	0.00	<1.0	0.00	<1.0	0.00	<1.0	0.00	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	0.200	<3.0	0.00	<3.0	-0.100	<3.0	0.00	<3.0
Calcium	5000	5.5	0.400	<5000	2.60	<5000	1.90	<5000	1.40	<5000
Chromium	10	.7	0.00	<10	0.100	<10	0.100	<10	-0.200	<10
Cobalt	50	.4	-0.100	<50	-0.100	<50	0.100	<50	0.300	<50
Copper	10	1.1	0.300	<10	0.00	<10	0.200	<10	0.00	<10
Iron	100	3.5	0.400	<100	3.20	<100	2.30	<100	0.600	<100
Lead	3.0	2.2	0.400	<3.0	0.100	<3.0	0.600	<3.0	0.900	<3.0
Lithium	50	3.4								
Magnesium	5000	25	-17.0	<5000	6.00	<5000	-1.20	<5000	-9.70	<5000
Manganese	15	.14	0.00	<15	0.100	<15	0.100	<15	0.100	<15
Molybdenum	20	.4								
Nickel	10	.5	0.300	<10	-0.100	<10	0.100	<10	-0.400	<10
Phosphorus	50	2								
Potassium	10000	60	33.6	<10000	34.1	<10000	-11.3	<10000	2.90	<10000
Selenium	10	3.7	0.500	<10	2.00	<10	0.300	<10	0.300	<10
Silicon	200	1.8								
Silver	10	.7	-0.600	<10	-0.400	<10	-0.700	<10	-0.700	<10
Sodium	10000	35	5.60	<10000	-8.60	<10000	-1.40	<10000	6.30	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	0.400	<2.0	0.800	<2.0	0.100	<2.0	3.00	* (a)
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.500	<50	0.200	<50	0.200	<50	0.600	<50
Zinc	20	.2	0.100	<20	0.00	<20	0.00	<20	0.00	<20

14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44427 Units: ug/l

Time:		19:25		19:58		20:31		21:04		
Sample ID:		CCB12		CCB13		CCB14		CCB15		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested
(a) No AQ samples reported for this element in the area bracketed by this QC.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
QC Limits: result < RL

Date Analyzed: 05/16/18
Run ID: MA44427

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			21:37 CCB16		22:04 CCB17		22:37 CCB18		23:13 CCB19	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	-6.90	<200	-9.00	<200	-11.1	<200	-2.00	<200
Antimony	6.0	2.4	-0.400	<6.0	-0.900	<6.0	-1.30	<6.0	-1.60	<6.0
Arsenic	3.0	1.2	0.300	<3.0	0.300	<3.0	0.00	<3.0	0.00	<3.0
Barium	200	.6	0.300	<200	0.600	<200	0.100	<200	0.200	<200
Beryllium	1.0	.2	0.00	<1.0	0.200	<1.0	0.00	<1.0	0.00	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	0.00	<3.0	0.00	<3.0	0.00	<3.0	-0.100	<3.0
Calcium	5000	5.5	-1.00	<5000	6.60	<5000	-1.70	<5000	-0.900	<5000
Chromium	10	.7	0.00	<10	-0.200	<10	-0.200	<10	-0.100	<10
Cobalt	50	.4	0.00	<50	0.300	<50	0.100	<50	-0.100	<50
Copper	10	1.1	-0.500	<10	0.00	<10	-0.200	<10	-0.600	<10
Iron	100	3.5	2.80	<100	6.50	<100	1.90	<100	1.40	<100
Lead	3.0	2.2	0.00	<3.0	0.100	<3.0	1.10	<3.0	-0.100	<3.0
Lithium	50	3.4								
Magnesium	5000	25	-7.80	<5000	12.8	<5000	-9.80	<5000	0.200	<5000
Manganese	15	.14	0.100	<15	0.200	<15	0.00	<15	0.100	<15
Molybdenum	20	.4								
Nickel	10	.5	-0.100	<10	-0.200	<10	0.00	<10	-0.200	<10
Phosphorus	50	2								
Potassium	10000	60	66.7	<10000	45.3	<10000	11.2	<10000	14.4	<10000
Selenium	10	3.7	2.30	<10	-0.800	<10	1.50	<10	0.400	<10
Silicon	200	1.8								
Silver	10	.7	-0.800	<10	-0.400	<10	-0.300	<10	-0.500	<10
Sodium	10000	35	-3.80	<10000	-8.50	<10000	-11.6	<10000	-3.80	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	0.600	<2.0	1.00	<2.0	-0.600	<2.0	2.00	<2.0*(a)
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.00	<50	0.100	<50	0.300	<50	0.500	<50
Zinc	20	.2	0.00	<20	0.300	<20	0.100	<20	0.00	<20

14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44427 Units: ug/l

Time:		21:37		22:04		22:37		23:13		
Sample ID:		CCB16		CCB17		CCB18		CCB19		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested
(a) No AQ samples reported for this element in the area bracketed by this QC.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
QC Limits: result < RL

Date Analyzed: 05/16/18
Run ID: MA44427

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			23:46 CCB20		00:06 CCB21		00:42 CCB22		01:16 CCB23	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	-18.2	<200	-7.80	<200	-8.60	<200	-10.1	<200
Antimony	6.0	2.4	-1.50	<6.0	0.00	<6.0	-1.30	<6.0	-0.800	<6.0
Arsenic	3.0	1.2	-0.700	<3.0	2.20	<3.0	0.100	<3.0	-0.700	<3.0
Barium	200	.6	0.400	<200	0.500	<200	0.300	<200	0.300	<200
Beryllium	1.0	.2	0.00	<1.0	0.100	<1.0	0.00	<1.0	0.00	<1.0
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	-0.200	<3.0	0.100	<3.0	0.00	<3.0	0.00	<3.0
Calcium	5000	5.5	0.200	<5000	3.00	<5000	-3.10	<5000	-1.40	<5000
Chromium	10	.7	-0.300	<10	0.00	<10	0.00	<10	0.00	<10
Cobalt	50	.4	-0.100	<50	0.00	<50	0.00	<50	-0.100	<50
Copper	10	1.1	-0.800	<10	0.00	<10	-0.800	<10	-1.00	<10
Iron	100	3.5	0.900	<100	5.10	<100	1.50	<100	2.80	<100
Lead	3.0	2.2	-1.20	<3.0	0.400	<3.0	0.900	<3.0	0.300	<3.0
Lithium	50	3.4								
Magnesium	5000	25	8.80	<5000	17.1	<5000	-1.90	<5000	1.10	<5000
Manganese	15	.14	0.100	<15	0.200	<15	0.00	<15	0.00	<15
Molybdenum	20	.4								
Nickel	10	.5	-0.100	<10	-0.100	<10	0.100	<10	0.200	<10
Phosphorus	50	2								
Potassium	10000	60	62.7	<10000	52.7	<10000	51.5	<10000	108	<10000
Selenium	10	3.7	1.00	<10	-0.200	<10	1.50	<10	-0.900	<10
Silicon	200	1.8								
Silver	10	.7	-0.800	<10	-0.500	<10	-0.300	<10	-0.800	<10
Sodium	10000	35	10.3	<10000	4.10	<10000	39.0	<10000	77.4	<10000
Strontium	10	.2								
Sulfur	50	3.1	anr							
Thallium	2.0	1.8	1.30	<2.0	0.800	<2.0	1.00	<2.0	1.30	<2.0
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	0.200	<50	0.600	<50	0.300	<50	0.700	<50
Zinc	20	.2	-0.100	<20	0.400	<20	0.100	<20	0.100	<20

14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44427 Units: ug/l

Time:		23:46		00:06		00:42		01:16		
Sample ID:		CCB20		CCB21		CCB22		CCB23		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
QC Limits: result < RL

Date Analyzed: 05/16/18
Run ID: MA44427

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:				01:49 CCB24			02:01 CCB25		
Metal	RL	IDL		raw	final		raw	final	
Aluminum	200	19	-6.70		<200		-21.7	<200	
Antimony	6.0	2.4	0.500		<6.0		-0.400	<6.0	
Arsenic	3.0	1.2	0.300		<3.0		1.20	<3.0	
Barium	200	.6	0.300		<200		0.500	<200	
Beryllium	1.0	.2	0.00		<1.0		0.00	<1.0	
Bismuth	20	3.2							
Boron	100	1.5							
Cadmium	3.0	.4	0.100		<3.0		0.00	<3.0	
Calcium	5000	5.5	-2.20		<5000		-1.30	<5000	
Chromium	10	.7	-0.100		<10		-0.300	<10	
Cobalt	50	.4	0.00		<50		0.100	<50	
Copper	10	1.1	-1.00		<10		-0.400	<10	
Iron	100	3.5	2.00		<100		1.90	<100	
Lead	3.0	2.2	-0.300		<3.0		0.200	<3.0	
Lithium	50	3.4							
Magnesium	5000	25	-0.500		<5000		-4.60	<5000	
Manganese	15	.14	0.00		<15		0.100	<15	
Molybdenum	20	.4							
Nickel	10	.5	-0.100		<10		0.100	<10	
Phosphorus	50	2							
Potassium	10000	60	77.1		<10000		111	<10000	
Selenium	10	3.7	0.900		<10		0.500	<10	
Silicon	200	1.8							
Silver	10	.7	-1.00		<10		-0.900	<10	
Sodium	10000	35	46.0		<10000		43.7	<10000	
Strontium	10	.2							
Sulfur	50	3.1	anr						
Thallium	2.0	1.8	1.90		<2.0		1.20	<2.0	
Tin	10	.9							
Titanium	10	.7							
Tungsten	50	2.2							
Vanadium	50	.8	0.400		<50		0.300	<50	
Zinc	20	.2	0.100		<20		0.00	<20	

14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44427 Units: ug/l

Time: Sample ID:			01:49 CCB24		02:01 CCB25	
Metal	RL	IDL	raw	final	raw	final

Zirconium 10 .3

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: to % Recovery Run ID: MA44427 Units: ug/l

Time: Sample ID: ICCV	12:46 ICCV1		
Metal	True	Results	% Rec
Aluminum	40000	40800	102.0
Antimony	2000	2050	102.5
Arsenic	2000	2050	102.5
Barium	2000	2010	100.5
Beryllium	2000	2050	102.5
Bismuth			
Boron			
Cadmium	2000	2050	102.5
Calcium	40000	41100	102.8
Chromium	2000	2090	104.5
Cobalt	2000	2040	102.0
Copper	2000	2030	101.5
Iron	40000	41300	103.3
Lead	2000	2050	102.5
Lithium			
Magnesium	40000	41300	103.3
Manganese	2000	2130	106.5
Molybdenum			
Nickel	2000	2050	102.5
Phosphorus			
Potassium	40000	40900	102.3
Selenium	2000	2000	100.0
Silicon			
Silver	250	259	103.6
Sodium	40000	41000	102.5
Strontium			
Sulfur	anr		
Thallium	2000	2040	102.0
Tin			
Titanium			
Tungsten			
Vanadium	2000	2080	104.0
Zinc	2000	2080	104.0

14.4.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: to % Recovery Run ID: MA44427 Units: ug/l

Time:	12:46
Sample ID:	ICCV
Metal	True
Results	% Rec

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time: Sample ID:	ICV	12:37 ICV1		CCV	13:27 CCV1		CCV	14:03 CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40600	101.5	40000	40500	101.3	40000	40500	101.3
Antimony	2000	2060	103.0	2000	2080	104.0	2000	2070	103.5
Arsenic	2000	2070	103.5	2000	2090	104.5	2000	2090	104.5
Barium	2000	2010	100.5	2000	1930	96.5	2000	1900	95.0
Beryllium	2000	2060	103.0	2000	2010	100.5	2000	2000	100.0
Bismuth									
Boron									
Cadmium	2000	2050	102.5	2000	2060	103.0	2000	2060	103.0
Calcium	40000	40500	101.3	40000	40000	100.0	40000	39700	99.3
Chromium	2000	2030	101.5	2000	2050	102.5	2000	2060	103.0
Cobalt	2000	2060	103.0	2000	2030	101.5	2000	2010	100.5
Copper	2000	1990	99.5	2000	1920	96.0	2000	1900	95.0
Iron	40000	40300	100.8	40000	41000	102.5	40000	40900	102.3
Lead	2000	2050	102.5	2000	2050	102.5	2000	2040	102.0
Lithium									
Magnesium	40000	40900	102.3	40000	40600	101.5	40000	40500	101.3
Manganese	2000	2120	106.0	2000	2070	103.5	2000	2070	103.5
Molybdenum									
Nickel	2000	2040	102.0	2000	2050	102.5	2000	2030	101.5
Phosphorus									
Potassium	40000	40700	101.8	40000	39100	97.8	40000	38400	96.0
Selenium	2000	2050	102.5	2000	1980	99.0	2000	1950	97.5
Silicon									
Silver	250	259	103.6	250	252	100.8	250	251	100.4
Sodium	40000	41600	104.0	40000	39500	98.8	40000	39000	97.5
Strontium									
Sulfur	anr								
Thallium	2000	2040	102.0	2000	2020	101.0	2000	2000	100.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	2040	102.0	2000	2000	100.0	2000	2000	100.0
Zinc	2000	2080	104.0	2000	2100	105.0	2000	2100	105.0

14.4.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time:		12:37			13:27			14:03		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time: Sample ID:	CCV	14:35 CCV3		CCV	15:09 CCV4		CCV	15:42 CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40000	100.0	40000	40300	100.8	40000	41800	104.5
Antimony	2000	2100	105.0	2000	2030	101.5	2000	2090	104.5
Arsenic	2000	2130	106.5	2000	2050	102.5	2000	2120	106.0
Barium	2000	1870	93.5	2000	1900	95.0	2000	1940	97.0
Beryllium	2000	1970	98.5	2000	1990	99.5	2000	2060	103.0
Bismuth									
Boron									
Cadmium	2000	2080	104.0	2000	2020	101.0	2000	2080	104.0
Calcium	40000	39200	98.0	40000	39700	99.3	40000	40700	101.8
Chromium	2000	2090	104.5	2000	2010	100.5	2000	2050	102.5
Cobalt	2000	2040	102.0	2000	1980	99.0	2000	2010	100.5
Copper	2000	1910	95.5	2000	1860	93.0	2000	1880	94.0
Iron	40000	40400	101.0	40000	40700	101.8	40000	42200	105.5
Lead	2000	2060	103.0	2000	2020	101.0	2000	2050	102.5
Lithium									
Magnesium	40000	40100	100.3	40000	40500	101.3	40000	41700	104.3
Manganese	2000	2090	104.5	2000	2030	101.5	2000	2060	103.0
Molybdenum									
Nickel	2000	2070	103.5	2000	2010	100.5	2000	2040	102.0
Phosphorus									
Potassium	40000	38300	95.8	40000	38500	96.3	40000	39400	98.5
Selenium	2000	1970	98.5	2000	1940	97.0	2000	1960	98.0
Silicon									
Silver	250	256	102.4	250	245	98.0	250	252	100.8
Sodium	40000	38600	96.5	40000	39000	97.5	40000	39900	99.8
Strontium									
Sulfur	anr								
Thallium	2000	1990	99.5	2000	1980	99.0	2000	1990	99.5
Tin									
Titanium									
Tungsten									
Vanadium	2000	2030	101.5	2000	1960	98.0	2000	1990	99.5
Zinc	2000	2140	107.0	2000	2080	104.0	2000	2130	106.5

14.4.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time:		14:35			15:09			15:42		
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time: Sample ID:	CCV	16:17 CCV6		CCV	16:51 CCV7		CCV	17:23 CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40400	101.0	40000	40500	101.3	40000	40000	100.0
Antimony	2000	2070	103.5	2000	2050	102.5	2000	2020	101.0
Arsenic	2000	2090	104.5	2000	2070	103.5	2000	2030	101.5
Barium	2000	1920	96.0	2000	1960	98.0	2000	1960	98.0
Beryllium	2000	2000	100.0	2000	2020	101.0	2000	2000	100.0
Bismuth									
Boron									
Cadmium	2000	2050	102.5	2000	2030	101.5	2000	2010	100.5
Calcium	40000	39900	99.8	40000	40400	101.0	40000	40100	100.3
Chromium	2000	2040	102.0	2000	2040	102.0	2000	2040	102.0
Cobalt	2000	2010	100.5	2000	2020	101.0	2000	2010	100.5
Copper	2000	1900	95.0	2000	1930	96.5	2000	1960	98.0
Iron	40000	40900	102.3	40000	41000	102.5	40000	40400	101.0
Lead	2000	2050	102.5	2000	2050	102.5	2000	2030	101.5
Lithium									
Magnesium	40000	40500	101.3	40000	40900	102.3	40000	40300	100.8
Manganese	2000	2060	103.0	2000	2070	103.5	2000	2080	104.0
Molybdenum									
Nickel	2000	2040	102.0	2000	2040	102.0	2000	2020	101.0
Phosphorus									
Potassium	40000	38700	96.8	40000	39700	99.3	40000	39800	99.5
Selenium	2000	1990	99.5	2000	1990	99.5	2000	1980	99.0
Silicon									
Silver	250	250	100.0	250	250	100.0	250	253	101.2
Sodium	40000	39100	97.8	40000	40000	100.0	40000	39900	99.8
Strontium									
Sulfur	anr								
Thallium	2000	1990	99.5	2000	2010	100.5	2000	2020	101.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1990	99.5	2000	2000	100.0	2000	2020	101.0
Zinc	2000	2110	105.5	2000	2090	104.5	2000	2060	103.0

14.4.4
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Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 6010C
Units: ug/l

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time: Sample ID:	CCV	17:56 CCV9 Results	% Rec	CCV	18:26 CCV10 Results	% Rec	CCV	19:22 CCV11 Results	% Rec
Metal	True			True			True		
Aluminum	40000	40400	101.0	40000	39800	99.5	40000	41200	103.0
Antimony	2000	2030	101.5	2000	2010	100.5	2000	2060	103.0
Arsenic	2000	2030	101.5	2000	2010	100.5	2000	2060	103.0
Barium	2000	1990	99.5	2000	1960	98.0	2000	2020	101.0
Beryllium	2000	2020	101.0	2000	1990	99.5	2000	2060	103.0
Bismuth									
Boron									
Cadmium	2000	2020	101.0	2000	2000	100.0	2000	2050	102.5
Calcium	40000	40600	101.5	40000	40000	100.0	40000	41300	103.3
Chromium	2000	2030	101.5	2000	2020	101.0	2000	2060	103.0
Cobalt	2000	2020	101.0	2000	2000	100.0	2000	2050	102.5
Copper	2000	1950	97.5	2000	1940	97.0	2000	1990	99.5
Iron	40000	40800	102.0	40000	40200	100.5	40000	41500	103.8
Lead	2000	2030	101.5	2000	2020	101.0	2000	2060	103.0
Lithium									
Magnesium	40000	40900	102.3	40000	40200	100.5	40000	41500	103.8
Manganese	2000	2070	103.5	2000	2060	103.0	2000	2100	105.0
Molybdenum									
Nickel	2000	2030	101.5	2000	2010	100.5	2000	2060	103.0
Phosphorus									
Potassium	40000	40100	100.3	40000	39500	98.8	40000	40800	102.0
Selenium	2000	1990	99.5	2000	1970	98.5	2000	2010	100.5
Silicon									
Silver	250	250	100.0	250	249	99.6	250	255	102.0
Sodium	40000	40400	101.0	40000	39700	99.3	40000	41000	102.5
Strontium									
Sulfur	anr								
Thallium	2000	2030	101.5	2000	2010	100.5	2000	2050	102.5
Tin									
Titanium									
Tungsten									
Vanadium	2000	2010	100.5	2000	2000	100.0	2000	2040	102.0
Zinc	2000	2060	103.0	2000	2040	102.0	2000	2090	104.5

14.4.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time:		17:56		18:26		19:22			
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time: Sample ID:	CCV	19:55 CCV12		CCV	20:28 CCV13		CCV	21:01 CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40600	101.5	40000	40800	102.0	40000	40300	100.8
Antimony	2000	2060	103.0	2000	2050	102.5	2000	2030	101.5
Arsenic	2000	2060	103.0	2000	2050	102.5	2000	2040	102.0
Barium	2000	1980	99.0	2000	1990	99.5	2000	1960	98.0
Beryllium	2000	2030	101.5	2000	2030	101.5	2000	2010	100.5
Bismuth									
Boron									
Cadmium	2000	2050	102.5	2000	2040	102.0	2000	2020	101.0
Calcium	40000	40600	101.5	40000	40600	101.5	40000	40100	100.3
Chromium	2000	2060	103.0	2000	2050	102.5	2000	2030	101.5
Cobalt	2000	2040	102.0	2000	2030	101.5	2000	2010	100.5
Copper	2000	1970	98.5	2000	1960	98.0	2000	1930	96.5
Iron	40000	40900	102.3	40000	41000	102.5	40000	40500	101.3
Lead	2000	2060	103.0	2000	2050	102.5	2000	2030	101.5
Lithium									
Magnesium	40000	41000	102.5	40000	40800	102.0	40000	40500	101.3
Manganese	2000	2090	104.5	2000	2090	104.5	2000	2060	103.0
Molybdenum									
Nickel	2000	2050	102.5	2000	2040	102.0	2000	2030	101.5
Phosphorus									
Potassium	40000	40200	100.5	40000	40000	100.0	40000	39400	98.5
Selenium	2000	2010	100.5	2000	1990	99.5	2000	1980	99.0
Silicon									
Silver	250	252	100.8	250	252	100.8	250	250	100.0
Sodium	40000	40400	101.0	40000	40300	100.8	40000	39700	99.3
Strontium									
Sulfur	anr								
Thallium	2000	2040	102.0	2000	2040	102.0	2000	2020	101.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	2030	101.5	2000	2030	101.5	2000	2000	100.0
Zinc	2000	2090	104.5	2000	2080	104.0	2000	2060	103.0

14.4.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time:		19:55			20:28			21:01		
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time: Sample ID:	CCV	21:34 CCV15		CCV	22:01 CCV16		CCV	22:34 CCV17	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40100	100.3	40000	40700	101.8	40000	40000	100.0
Antimony	2000	2050	102.5	2000	2050	102.5	2000	2030	101.5
Arsenic	2000	2060	103.0	2000	2060	103.0	2000	2040	102.0
Barium	2000	1950	97.5	2000	1980	99.0	2000	1940	97.0
Beryllium	2000	1990	99.5	2000	2030	101.5	2000	1990	99.5
Bismuth									
Boron									
Cadmium	2000	2040	102.0	2000	2040	102.0	2000	2010	100.5
Calcium	40000	39900	99.8	40000	40500	101.3	40000	39800	99.5
Chromium	2000	2520	126.0*(a	2000	2030	101.5	2000	2050	102.5
Cobalt	2000	2020	101.0	2000	2020	101.0	2000	2010	100.5
Copper	2000	2400	120.0*(a	2000	1940	97.0	2000	1930	96.5
Iron	40000	40300	100.8	40000	40800	102.0	40000	40100	100.3
Lead	2000	2040	102.0	2000	2040	102.0	2000	2020	101.0
Lithium									
Magnesium	40000	40100	100.3	40000	40700	101.8	40000	40000	100.0
Manganese	2000	2550	127.5*(a	2000	2060	103.0	2000	2070	103.5
Molybdenum									
Nickel	2000	2040	102.0	2000	2040	102.0	2000	2030	101.5
Phosphorus									
Potassium	40000	39400	98.5	40000	40000	100.0	40000	39300	98.3
Selenium	2000	1980	99.0	2000	1990	99.5	2000	1970	98.5
Silicon									
Silver	250	292	116.8*(a	250	251	100.4	250	250	100.0
Sodium	40000	39700	99.3	40000	40300	100.8	40000	39600	99.0
Strontium									
Sulfur	anr								
Thallium	2000	1980	99.0	2000	2020	101.0	2000	2010	100.5
Tin									
Titanium									
Tungsten									
Vanadium	2000	2480	124.0*(a	2000	2000	100.0	2000	2010	100.5
Zinc	2000	2080	104.0	2000	2080	104.0	2000	2060	103.0

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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time:		21:34		22:01		22:34	
Sample ID:	CCV	CCV15		CCV16		CCV17	
Metal	True	Results	% Rec	True	Results	% Rec	True

Zirconium

(*) Outside of QC limits

(anr) Analyte not requested

(a) No samples reported for this element in the area bracketed by this QC.

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time: Sample ID:	CCV	23:07 CCV18		CCV	23:43 CCV19		CCV	00:03 CCV20	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40100	100.3	40000	39900	99.8	40000	40500	101.3
Antimony	2000	2030	101.5	2000	2040	102.0	2000	2060	103.0
Arsenic	2000	2040	102.0	2000	2050	102.5	2000	2070	103.5
Barium	2000	1940	97.0	2000	1930	96.5	2000	1960	98.0
Beryllium	2000	1990	99.5	2000	1980	99.0	2000	2010	100.5
Bismuth									
Boron									
Cadmium	2000	2010	100.5	2000	2020	101.0	2000	2050	102.5
Calcium	40000	39800	99.5	40000	39600	99.0	40000	40100	100.3
Chromium	2000	2030	101.5	2000	2100	105.0	2000	2040	102.0
Cobalt	2000	2000	100.0	2000	2000	100.0	2000	2020	101.0
Copper	2000	1910	95.5	2000	1990	99.5	2000	1930	96.5
Iron	40000	40200	100.5	40000	40000	100.0	40000	40500	101.3
Lead	2000	2020	101.0	2000	2030	101.5	2000	2050	102.5
Lithium									
Magnesium	40000	40000	100.0	40000	39700	99.3	40000	40400	101.0
Manganese	2000	2050	102.5	2000	2130	106.5	2000	2070	103.5
Molybdenum									
Nickel	2000	2020	101.0	2000	2030	101.5	2000	2040	102.0
Phosphorus									
Potassium	40000	39100	97.8	40000	39200	98.0	40000	39600	99.0
Selenium	2000	1950	97.5	2000	1970	98.5	2000	1990	99.5
Silicon									
Silver	250	248	99.2	250	256	102.4	250	250	100.0
Sodium	40000	39400	98.5	40000	39500	98.8	40000	39900	99.8
Strontium									
Sulfur	anr								
Thallium	2000	2000	100.0	2000	1990	99.5	2000	2010	100.5
Tin									
Titanium									
Tungsten									
Vanadium	2000	1990	99.5	2000	2060	103.0	2000	2000	100.0
Zinc	2000	2050	102.5	2000	2070	103.5	2000	2090	104.5

14.4.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time: Sample ID:	CCV	00:39 CCV21		CCV	01:13 CCV22		CCV	01:46 CCV23	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40400	101.0	40000	39800	99.5	40000	40300	100.8
Antimony	2000	2040	102.0	2000	2080	104.0	2000	2050	102.5
Arsenic	2000	2060	103.0	2000	2090	104.5	2000	2060	103.0
Barium	2000	1940	97.0	2000	1930	96.5	2000	1930	96.5
Beryllium	2000	1990	99.5	2000	1980	99.0	2000	1990	99.5
Bismuth									
Boron									
Cadmium	2000	2030	101.5	2000	2070	103.5	2000	2030	101.5
Calcium	40000	39800	99.5	40000	39400	98.5	40000	39600	99.0
Chromium	2000	2020	101.0	2000	2040	102.0	2000	2020	101.0
Cobalt	2000	1990	99.5	2000	2030	101.5	2000	1990	99.5
Copper	2000	1900	95.0	2000	1930	96.5	2000	1900	95.0
Iron	40000	40300	100.8	40000	39700	99.3	40000	40100	100.3
Lead	2000	2020	101.0	2000	2050	102.5	2000	2030	101.5
Lithium									
Magnesium	40000	40000	100.0	40000	39500	98.8	40000	39800	99.5
Manganese	2000	2040	102.0	2000	2070	103.5	2000	2050	102.5
Molybdenum									
Nickel	2000	2020	101.0	2000	2050	102.5	2000	2020	101.0
Phosphorus									
Potassium	40000	39000	97.5	40000	39500	98.8	40000	39100	97.8
Selenium	2000	1960	98.0	2000	1990	99.5	2000	1970	98.5
Silicon									
Silver	250	247	98.8	250	252	100.8	250	247	98.8
Sodium	40000	39400	98.5	40000	39600	99.0	40000	39500	98.8
Strontium									
Sulfur	anr								
Thallium	2000	1970	98.5	2000	2000	100.0	2000	1980	99.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1970	98.5	2000	2010	100.5	2000	1980	99.0
Zinc	2000	2080	104.0	2000	2110	105.5	2000	2080	104.0

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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time: Sample ID:	CCV	01:58 CCV24	
Metal	True	Results	% Rec
Aluminum	40000	39800	99.5
Antimony	2000	2050	102.5
Arsenic	2000	2070	103.5
Barium	2000	1910	95.5
Beryllium	2000	1960	98.0
Bismuth			
Boron			
Cadmium	2000	2040	102.0
Calcium	40000	39100	97.8
Chromium	2000	1990	99.5
Cobalt	2000	1990	99.5
Copper	2000	1870	93.5
Iron	40000	39600	99.0
Lead	2000	2020	101.0
Lithium			
Magnesium	40000	39200	98.0
Manganese	2000	2010	100.5
Molybdenum			
Nickel	2000	2020	101.0
Phosphorus			
Potassium	40000	38700	96.8
Selenium	2000	1960	98.0
Silicon			
Silver	250	244	97.6
Sodium	40000	39000	97.5
Strontium			
Sulfur	anr		
Thallium	2000	1970	98.5
Tin			
Titanium			
Tungsten			
Vanadium	2000	1940	97.0
Zinc	2000	2090	104.5

14.4.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time:		01:58	
Sample ID:		CCV24	
Metal	True	Results	% Rec

Zirconium

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

HIGH STANDARD CHECK SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP
 QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/16/18
 Run ID: MA44427

Methods: SW846 6010C
 Units: ug/l

Time: Sample ID:	HSTD	13:11 HSTD1	% Rec	HSTD	13:14 HSTD2	% Rec
Metal	True	Results		True	Results	
Aluminum				300000	318000	106.0
Antimony	5000	5220	104.4			
Arsenic	5000	5160	103.2			
Barium	5000	4970	99.4			
Beryllium	5000	5010	100.2			
Bismuth						
Boron						
Cadmium	5000	5230	104.6			
Calcium				150000	148000	98.7
Chromium	5000	5260	105.2			
Cobalt	5000	5090	101.8			
Copper	5000	5030	100.6			
Iron				150000	156000	104.0
Lead	5000	5180	103.6			
Lithium						
Magnesium				300000	317000	105.7
Manganese	5000	5240	104.8			
Molybdenum						
Nickel	5000	5150	103.0			
Phosphorus						
Potassium				150000	156000	104.0
Selenium	5000	5000	100.0			
Silicon						
Silver	625	634	101.4			
Sodium				150000	155000	103.3
Strontium						
Sulfur	anr					
Thallium	5000	5130	102.6			
Tin						
Titanium						
Tungsten						
Vanadium	5000	5110	102.2			
Zinc	5000	5390	107.8			

HIGH STANDARD CHECK SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44427 Units: ug/l

Time:		13:11		13:14	
Sample ID:		HSTD1		HSTD2	
Metal	HSTD	Results	% Rec	Results	% Rec

Zirconium

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44427 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	12:59 CRI1	% Rec	13:02 CRID1	% Rec	18:14 CRI2	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	205	102.5	98.5	98.5	193	96.5
Antimony	6.0	20	3.0	5.00	83.3			4.60	76.7
Arsenic	8.0	20	3.0	8.60	107.5	2.60	86.7	8.40	105.0
Barium	200		4.0	200	100.0	4.80	120.0	198	99.0
Beryllium	2.0		1.0	2.00	100.0	1.00	100.0	2.00	100.0
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	3.20	106.7	1.00	100.0	3.20	106.7
Calcium	5000	2000	1000	5250	105.0	1070	107.0	5180	103.6
Chromium	10		2.0	10.2	102.0	1.80	90.0	10.4	104.0
Cobalt	50		3.0	51.8	103.6	3.30	110.0	50.9	101.8
Copper	10		2.0	9.70	97.0			9.60	96.0
Iron	100	500		113	113.0			104	104.0
Lead	3.0	20	2.5	3.70	123.3			2.80	93.3
Lithium	50								
Magnesium	5000	2000	100	5380	107.6	100	100.0	5300	106.0
Manganese	15		3.0	16.1	107.3	3.30	110.0	15.9	106.0
Molybdenum	20								
Nickel	10		4.0	10.3	103.0	4.40	110.0	10.0	100.0
Phosphorus	50								
Potassium	5000		2000	5050	101.0	2020	101.0	5050	101.0
Selenium	10	20	5.0	11.5	115.0	3.80	76.0	10.6	106.0
Silicon	200								
Silver	5.0		2.0	3.90	78.0			4.10	82.0
Sodium	5000		1000	5090	101.8	991	99.1	5060	101.2
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	9.40	94.0	2.70	135.0*(a	8.60	86.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	52.0	104.0	2.40	120.0	52.2	104.4
Zinc	20		10	22.3	111.5	11.7	117.0	22.0	110.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44427 Units: ug/l

Time:					12:59		13:02		18:14	
Sample ID:	CRI	CRIA	CRID	CRI1			CRID1		CRID2	
Metal	True	True	True	Results	% Rec		Results	% Rec	Results	% Rec

Zirconium 10

(*) Outside of QC limits
(anr) Analyte not requested
(a) No AQ samples reported for this element in the area bracketed by this QC.

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44427 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	18:17 CRID2	% Rec	01:52 CRI3	% Rec	01:55 CRID3	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	104	104.0	201	100.5	97.9	97.9
Antimony	6.0	20	3.0			5.00	83.3		
Arsenic	8.0	20	3.0	3.10	103.3	8.70	108.8	3.00	100.0
Barium	200		4.0	4.20	105.0	195	97.5	4.30	107.5
Beryllium	2.0		1.0	1.00	100.0	1.90	95.0	0.900	90.0
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	1.10	110.0	3.10	103.3	1.10	110.0
Calcium	5000	2000	1000	1060	106.0	5130	102.6	1060	106.0
Chromium	10		2.0	1.60	80.0	10.2	102.0	1.90	95.0
Cobalt	50		3.0	3.10	103.3	51.3	102.6	3.00	100.0
Copper	10		2.0			9.10	91.0		
Iron	100	500				107	107.0		
Lead	3.0	20	2.5			2.70	90.0		
Lithium	50								
Magnesium	5000	2000	100	102	102.0	5210	104.2	113	113.0
Manganese	15		3.0	3.20	106.7	15.9	106.0	3.30	110.0
Molybdenum	20								
Nickel	10		4.0	4.50	112.5	10.7	107.0	4.80	120.0
Phosphorus	50								
Potassium	5000		2000	2070	103.5	5100	102.0	2160	108.0
Selenium	10	20	5.0	5.60	112.0	12.2	122.0	5.20	104.0
Silicon	200								
Silver	5.0		2.0			3.70	74.0		
Sodium	5000		1000	1010	101.0	5100	102.0	1090	109.0
Strontium	10								
Sulfur	50								
Thallium	10		2.0	2.60	130.0	11.2	112.0	4.60	230.0*(a
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	2.60	130.0	51.3	102.6	2.30	115.0
Zinc	20		10	11.1	111.0	22.6	113.0	11.7	117.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44427 Units: ug/l

Time:					18:17		01:52		01:55	
Sample ID:	CRI	CRIA	CRID		CRID2		CRI3		CRID3	
Metal	True	True	True		Results	% Rec	Results	% Rec	Results	% Rec

Zirconium 10

(*) Outside of QC limits
(anr) Analyte not requested
(a) No AQ samples reported for this element in the area bracketed by this QC.

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44427 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	13:05 ICSA1 Results	% Rec	13:08 ICSAB1 Results	% Rec	18:20 ICSA2 Results	% Rec	18:23 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	533000	106.6	534000	106.8	517000	103.4	526000	105.2
Antimony		1000	2.50		1080	108.0	4.00		1060	106.0
Arsenic		1000	-1.50		1110	111.0	-2.10		1080	108.0
Barium		500	1.90		500	100.0	1.70		502	100.4
Beryllium		500	0.00		507	101.4	0.100		500	100.0
Bismuth		500	4.90		520	104.0	7.60		517	103.4
Boron		500	0.500		513	102.6	-1.60		509	101.8
Cadmium		1000	0.800		1070	107.0	0.700		1040	104.0
Calcium	400000	400000	407000	101.8	403000	100.8	403000	100.8	395000	98.8
Chromium		500	0.400		511	102.2	-0.200		503	100.6
Cobalt		500	0.00		507	101.4	0.200		504	100.8
Copper		500	-0.400		517	103.4	-0.800		515	103.0
Iron	200000	200000	208000	104.0	207000	103.5	201000	100.5	202000	101.0
Lead		1000	4.90		1010	101.0	5.00		1000	100.0
Lithium		500	15.1		532	106.4	10.4		525	105.0
Magnesium	500000	500000	528000	105.6	520000	104.0	514000	102.8	513000	102.6
Manganese		500	0.00		528	105.6	-0.100		523	104.6
Molybdenum		500	0.300		498	99.6	0.300		492	98.4
Nickel		1000	-3.70		1000	100.0	-4.10		989	98.9
Phosphorus		500	11.8		523	104.6	10.0		519	103.8
Potassium			-111		-90.4		12.2		12.7	
Selenium		1000	0.400		1010	101.0	1.00		1010	101.0
Silicon		500	17.4		530	106.0	16.7		520	104.0
Silver		1000	5.10		1020	102.0	5.50		1000	100.0
Sodium			-46.2		-57.3		-43.5		-27.4	
Strontium		500	-2.80		512	102.4	-2.80		513	102.6
Sulfur		500	-16.7		507	101.4	-16.5		504	100.8
Thallium		1000	0.200		1020	102.0	-2.10		1020	102.0
Tin		500	-4.30		486	97.2	-4.10		480	96.0
Titanium		500	-1.90		511	102.2	-2.30		502	100.4
Tungsten		500	0.300		495	99.0	-3.50		488	97.6
Vanadium		500	-3.60		511	102.2	-3.80		509	101.8
Zinc		1000	5.50		1010	101.0	5.20		987	98.7

14.4.7
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INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC051618M2.ICP Date Analyzed: 05/16/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44427 Units: ug/l

Time:				13:05		13:08		18:20		18:23	
Sample ID:	ICSAB	ICSAB	ICSAB	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Metal	True	True	True								

Zirconium 500 -2.80 510 102.0 -2.80 505 101.0

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

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44444
Parameters: As, Ba, Cd, Cr, Co, Cu, Fe, Pb, Mn, Ni, Se, Ag, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:26	MA44444-STD1	1		STDA
10:33	MA44444-STD2	1		STDB
10:37	ZZZZZZ	1		
10:41	ZZZZZZ	1		
10:45	MA44444-ICV1	1		
10:52	MA44444-ICB1	1		
10:56	MA44444-ICCV1	1		
11:04	MA44444-CCB1	1		
11:08	MA44444-CRI1	1		
11:12	MA44444-CRID1	1		
11:16	MA44444-ICSA1	1		
11:21	MA44444-ICSAB1	1		
11:25	MA44444-HSTD1	1		
11:29	MA44444-HSTD2	1		
11:33	ZZZZZZ	1		
11:38	ZZZZZZ	1		
11:42	ZZZZZZ	1		
11:46	ZZZZZZ	5		
11:51	MA44444-CCV1	1		
11:57	MA44444-CCB2	1		
12:02	MA44444-CRID2	1		
12:06	MP7200-MB1	1		
12:10	MP7200-B1	1		
12:15	MP7200-S1	1		
12:19	MP7200-S2	1		
12:23	MP7200-D1	1		
12:27	JC66320-1	1		(sample used for QC only; not part of login JC65860)
12:31	MP7200-SD1	5		
12:35	ZZZZZZ	1		
12:40	MA44444-CCV2	1		
12:44	MA44444-CCB3	1		
12:48	ZZZZZZ	1		
12:52	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44444
Parameters: As,Ba,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:57	ZZZZZZ	1		
13:01	ZZZZZZ	1		
13:05	MP7168-S1	3		
13:09	MP7168-S2	3		
13:13	MP7168-D1	3		
13:18	TD20915-1	3		(sample used for QC only; not part of login JC65860)
13:22	MP7168-SD1	15		
13:26	MA44444-CCV3	1		
13:30	MA44444-CCB4	1		
13:34	MP7168-S1	10		
13:38	MP7168-S2	10		
13:43	MP7168-D1	10		
13:47	TD20915-1	10		(sample used for QC only; not part of login JC65860)
13:51	MP7168-SD1	50		
----->	Last reportable sample/prep for job JC65860			
13:55	ZZZZZZ	1		
14:00	ZZZZZZ	1		
14:04	MP7070-D1	25		
14:08	ZZZZZZ	1		
14:12	MA44444-CCV4	1		
14:16	MA44444-CCB5	1		
14:21	ZZZZZZ	1		
14:25	ZZZZZZ	1		
14:29	ZZZZZZ	1		
14:34	MA44444-CRID3	1		
14:38	MA44444-CRI2	1		
14:42	MA44444-ICSA2	1		
14:47	MA44444-ICSAB2	1		
14:51	MA44444-CCV5	1		
14:55	MA44444-CCB6	1		
----->	Last reportable CCB for job JC65860 Refer to raw data for calibration curve and standards.			

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44444
Parameters: As, Ba, Cd, Cr, Co, Cu, Fe, Pb, Mn, Ni, Se, Ag, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
10:26	MA44444-STD1	2911 R	77083 R	11204 R	6078 R
10:33	MA44444-STD2	2736	71980	11119	5297
10:37	ZZZZZZ	2806	73256	11167	5470
10:41	ZZZZZZ	2927	77423	11282	6145
10:45	MA44444-ICV1	2826	74143	11306	5540
10:52	MA44444-ICB1	2935	77769	11408	6184
10:56	MA44444-ICCV1	2810	73972	11298	5523
11:04	MA44444-CCB1	2925	77785	11378	6161
11:08	MA44444-CRI1	2898	76819	11387	6015
11:12	MA44444-CRID1	No results reported for the elements associated with this internal standard.			
11:16	MA44444-ICSA1	2595	68052	11015	4902
11:21	MA44444-ICSAB1	2593	67884	10984	4921
11:25	MA44444-HSTD1	2885	76327	11387	6024
11:29	MA44444-HSTD2	2670	69101	11033	4990
11:33	ZZZZZZ	2894	76718	11420	6144
11:38	ZZZZZZ	2862	77813	11440	6161
11:42	ZZZZZZ	2951	77852	11458	6218
11:46	ZZZZZZ	2913	76944	11421	5932
11:51	MA44444-CCV1	2849	74684	11286	5555
11:57	MA44444-CCB2	2967	78461	11384	6228
12:02	MA44444-CRID2	2948	78251	11477	6168
12:06	MP7200-MB1	2964	78839	11548	6236
12:10	MP7200-B1	2877	75395	11395	5699
12:15	MP7200-S1	2810	73830	11287	5448
12:19	MP7200-S2	2829	74261	11322	5475
12:23	MP7200-D1	2859	75030	11413	5624
12:27	JC66320-1	2868	75479	11567	5649
12:31	MP7200-SD1	2932	77491	11470	5993
12:35	ZZZZZZ	2970	79367	11749	6221
12:40	MA44444-CCV2	2859	74936	11455	5589
12:44	MA44444-CCB3	2979	78187	11491	6249
12:48	ZZZZZZ	2954	78336	11517	6141
12:52	ZZZZZZ	3000	79717	11652	6330

INTERNAL STANDARD SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
 Analyst: EAL Run ID: MA44444
 Parameters: As, Ba, Cd, Cr, Co, Cu, Fe, Pb, Mn, Ni, Se, Ag, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:57	ZZZZZZ	No results reported for the elements associated with this internal standard.			
13:01	ZZZZZZ	2878	76045	11371	5726
13:05	MP7168-S1	2824	76052	11630	6028
13:09	MP7168-S2	2831	75329	11578	6040
13:13	MP7168-D1	2811	76012	11604	6049
13:18	TD20915-1	2824	75897	11557	6059
13:22	MP7168-SD1	2973	78341	11601	6202
13:26	MA44444-CCV3	2856	75118	11354	5588
13:30	MA44444-CCB4	2999	79153	11422	6275
13:34	MP7168-S1	2937	77649	11586	6097
13:38	MP7168-S2	2934	77711	11520	6096
13:43	MP7168-D1	2953	78236	11508	6140
13:47	TD20915-1	2936	77406	11508	6101
13:51	MP7168-SD1	2966	78113	11366	6168
13:55	ZZZZZZ	2960	78853	11429	6175
14:00	ZZZZZZ	2872	75422	11237	5675
14:04	MP7070-D1	2940	77187	11353	6163
14:08	ZZZZZZ	2974	77852	11670	5735
14:12	MA44444-CCV4	2874	75243	11319	5593
14:16	MA44444-CCB5	2991	79105	11406	6260
14:21	ZZZZZZ	2991	78875	11571	6079
14:25	ZZZZZZ	2978	78907	11458	6224
14:29	ZZZZZZ	2984	78565	11468	6242
14:34	MA44444-CRID3	2980	78690	11361	6208
14:38	MA44444-CRI2	2942	77917	11298	6061
14:42	MA44444-ICSA2	2636	69244	10911	4955
14:47	MA44444-ICSAB2	2631	69054	10938	4958
14:51	MA44444-CCV5	2880	74936	11234	5616
14:55	MA44444-CCB6	2986	78955	11409	6259

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

LEGEND:

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44444 Units: ug/l

Time: Sample ID:			10:52 ICB1		11:04 CCB1		11:57 CCB2		12:44 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34								
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.4	0.900	<3.0	-0.500	<3.0	0.900	<3.0	-0.100	<3.0
Barium	200	.5	-0.200	<200	-0.100	<200	-0.200	<200	-0.400	<200
Beryllium	1.0	.2								
Bismuth	20	2.5								
Boron	100	1.9								
Cadmium	3.0	.3	-0.300	<3.0	0.00	<3.0	-0.200	<3.0	-0.100	<3.0
Calcium	5000	8.7	anr							
Chromium	10	.6	0.300	<10	-0.200	<10	-0.400	<10	0.100	<10
Cobalt	50	.5	0.00	<50	0.100	<50	0.100	<50	0.00	<50
Copper	10	1.2	0.100	<10	0.200	<10	0.200	<10	0.300	<10
Iron	100	4.6	5.10	<100	4.30	<100	4.20	<100	4.90	<100
Lead	3.0	1.4	-0.100	<3.0	-0.500	<3.0	0.400	<3.0	0.300	<3.0
Lithium	50	2.8								
Magnesium	5000	33								
Manganese	15	.1	0.200	<15	0.100	<15	0.100	<15	0.200	<15
Molybdenum	20	.4								
Nickel	10	.5	0.00	<10	0.300	<10	0.00	<10	0.200	<10
Phosphorus	50	1.7								
Potassium	10000	68								
Selenium	10	3.8	-1.00	<10	-1.20	<10	-2.70	<10	-1.60	<10
Silicon	200	2.1								
Silver	10	.5	0.100	<10	0.300	<10	-0.100	<10	0.100	<10
Sodium	10000	15								
Strontium	10	.2								
Sulfur	50	20	anr							
Thallium	2.0	1.6	-0.900	<2.0	0.300	<2.0	0.400	<2.0	-1.00	<2.0
Tin	10	1								
Titanium	10	.7								
Tungsten	50	1.8								
Vanadium	50	.4	-0.200	<50	-0.200	<50	-0.500	<50	-0.200	<50
Zinc	20	.3	-0.300	<20	-0.100	<20	-0.100	<20	-0.200	<20

14.5.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44444 Units: ug/l

Time:		10:52		11:04		11:57		12:44		
Sample ID:		ICB1		CCB1		CCB2		CCB3		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



14.5.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44444 Units: ug/l

Time: Sample ID:			13:30 CCB4		14:16 CCB5		14:55 CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	34						
Antimony	6.0	1.4	anr					
Arsenic	3.0	1.4	-0.300	<3.0	0.100	<3.0	-0.100	<3.0
Barium	200	.5	-0.100	<200	-0.200	<200	-0.300	<200
Beryllium	1.0	.2						
Bismuth	20	2.5						
Boron	100	1.9						
Cadmium	3.0	.3	-0.200	<3.0	-0.100	<3.0	0.00	<3.0
Calcium	5000	8.7	anr					
Chromium	10	.6	0.00	<10	-0.200	<10	0.00	<10
Cobalt	50	.5	0.00	<50	0.100	<50	0.100	<50
Copper	10	1.2	0.100	<10	0.100	<10	0.200	<10
Iron	100	4.6	5.70	<100	7.50	<100	8.60	<100
Lead	3.0	1.4	0.700	<3.0	0.500	<3.0	-0.100	<3.0
Lithium	50	2.8						
Magnesium	5000	33						
Manganese	15	.1	0.200	<15	0.200	<15	0.100	<15
Molybdenum	20	.4						
Nickel	10	.5	-0.200	<10	0.200	<10	0.500	<10
Phosphorus	50	1.7						
Potassium	10000	68						
Selenium	10	3.8	-0.900	<10	-2.00	<10	-0.900	<10
Silicon	200	2.1						
Silver	10	.5	0.500	<10	0.100	<10	0.00	<10
Sodium	10000	15						
Strontium	10	.2						
Sulfur	50	20	anr					
Thallium	2.0	1.6	0.500	<2.0	-0.200	<2.0	-0.300	<2.0
Tin	10	1						
Titanium	10	.7						
Tungsten	50	1.8						
Vanadium	50	.4	-0.200	<50	0.00	<50	0.100	<50
Zinc	20	.3	-0.200	<20	0.00	<20	-0.300	<20

14.5.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

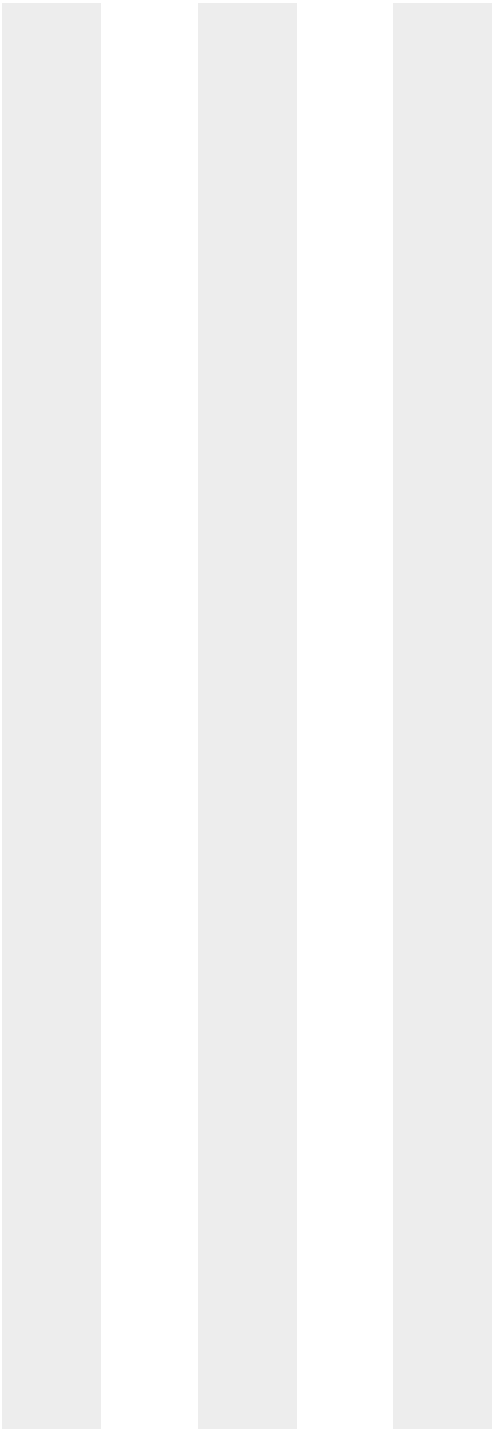
Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44444 Units: ug/l

Time:		13:30		14:16		14:55		
Sample ID:		CCB4		CCB5		CCB6		
Metal	RL	IDL	raw	final	raw	final	raw	final

Zirconium 10 .3

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



CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP
QC Limits: to % Recovery

Date Analyzed: 05/18/18
Run ID: MA44444

Methods: SW846 6010C
Units: ug/l

Time: 10:56		10:56	
Sample ID: ICCV		ICCV1	
Metal	True	Results	% Rec
Aluminum			
Antimony	anr		
Arsenic	2000	1980	99.0
Barium	2000	2000	100.0
Beryllium			
Bismuth			
Boron			
Cadmium	2000	2000	100.0
Calcium	anr		
Chromium	2000	2010	100.5
Cobalt	2000	1980	99.0
Copper	2000	1940	97.0
Iron	40000	40200	100.5
Lead	2000	2000	100.0
Lithium			
Magnesium			
Manganese	2000	2010	100.5
Molybdenum			
Nickel	2000	1990	99.5
Phosphorus			
Potassium			
Selenium	2000	1980	99.0
Silicon			
Silver	250	245	98.0
Sodium			
Strontium			
Sulfur	anr		
Thallium	2000	2040	102.0
Tin			
Titanium			
Tungsten			
Vanadium	2000	1980	99.0
Zinc	2000	2010	100.5

14.5.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: to % Recovery Run ID: MA44444 Units: ug/l

Time:		10:56
Sample ID:		ICCV
Metal		True
		Results % Rec

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44444 Units: ug/l

Time: Sample ID:		10:45 ICV1	% Rec	11:51 CCV1		% Rec	12:40 CCV2		% Rec
Metal	ICV True	Results		True	Results		True	Results	
Aluminum									
Antimony	anr								
Arsenic	2000	2020	101.0	2000	1940	97.0	2000	1960	98.0
Barium	2000	1990	99.5	2000	1980	99.0	2000	2000	100.0
Beryllium									
Bismuth									
Boron									
Cadmium	2000	1970	98.5	2000	1960	98.0	2000	1980	99.0
Calcium	anr								
Chromium	2000	1950	97.5	2000	1970	98.5	2000	2000	100.0
Cobalt	2000	2010	100.5	2000	1960	98.0	2000	1970	98.5
Copper	2000	1910	95.5	2000	1920	96.0	2000	1940	97.0
Iron	40000	38900	97.3	40000	39300	98.3	40000	39300	98.3
Lead	2000	1990	99.5	2000	1990	99.5	2000	2000	100.0
Lithium									
Magnesium									
Manganese	2000	1990	99.5	2000	1990	99.5	2000	2000	100.0
Molybdenum									
Nickel	2000	1950	97.5	2000	1980	99.0	2000	1990	99.5
Phosphorus									
Potassium									
Selenium	2000	2040	102.0	2000	1940	97.0	2000	1960	98.0
Silicon									
Silver	250	251	100.4	250	241	96.4	250	244	97.6
Sodium									
Strontium									
Sulfur	anr								
Thallium	2000	2020	101.0	2000	2030	101.5	2000	2040	102.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1980	99.0	2000	1950	97.5	2000	1970	98.5
Zinc	2000	1980	99.0	2000	1980	99.0	2000	1990	99.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44444 Units: ug/l

Time:		10:45			11:51			12:40		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44444 Units: ug/l

Time: Sample ID:		13:26 CCV3		14:12 CCV4		14:51 CCV5			
Metal	CCV	True	Results	% Rec	True	Results	% Rec	True	Results
Aluminum									
Antimony	anr								
Arsenic	2000	1950	97.5		2000	1950	97.5	2000	1940
Barium	2000	2000	100.0		2000	2020	101.0	2000	1990
Beryllium									
Bismuth									
Boron									
Cadmium	2000	1970	98.5		2000	1970	98.5	2000	1960
Calcium	anr								
Chromium	2000	1980	99.0		2000	1980	99.0	2000	1980
Cobalt	2000	1970	98.5		2000	1970	98.5	2000	1960
Copper	2000	1930	96.5		2000	1930	96.5	2000	1930
Iron	40000	39200	98.0		40000	39300	98.3	40000	38800
Lead	2000	2000	100.0		2000	2000	100.0	2000	1990
Lithium									
Magnesium									
Manganese	2000	2000	100.0		2000	2000	100.0	2000	1990
Molybdenum									
Nickel	2000	1980	99.0		2000	1990	99.5	2000	1980
Phosphorus									
Potassium									
Selenium	2000	1950	97.5		2000	1950	97.5	2000	1940
Silicon									
Silver	250	241	96.4		250	242	96.8	250	243
Sodium									
Strontium									
Sulfur	anr								
Thallium	2000	2030	101.5		2000	2040	102.0	2000	2030
Tin									
Titanium									
Tungsten									
Vanadium	2000	1950	97.5		2000	1960	98.0	2000	1960
Zinc	2000	1990	99.5		2000	1990	99.5	2000	1980

14.5.4
14

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 6010C
Units: ug/l

Zirconium

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

HIGH STANDARD CHECK SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP
QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/18/18
Run ID: MA44444

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:		11:25 HSTD1	% Rec	11:29 HSTD2		% Rec
Metal	HSTD	Results		True	Results	
Aluminum						
Antimony	anr					
Arsenic	5000	4900	98.0			
Barium	5000	5040	100.8			
Beryllium						
Bismuth						
Boron						
Cadmium	5000	4950	99.0			
Calcium						
Chromium	5000	5110	102.2			
Cobalt	5000	4920	98.4			
Copper	5000	5020	100.4			
Iron				150000	150000	100.0
Lead	5000	4940	98.8			
Lithium						
Magnesium						
Manganese	5000	5060	101.2			
Molybdenum						
Nickel	5000	4890	97.8			
Phosphorus						
Potassium						
Selenium	5000	4930	98.6			
Silicon						
Silver	625	603	96.5			
Sodium						
Strontium						
Sulfur	anr					
Thallium	5000	5150	103.0			
Tin						
Titanium						
Tungsten						
Vanadium	5000	5000	100.0			
Zinc	5000	5100	102.0			

HIGH STANDARD CHECK SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44444 Units: ug/l

Time:		11:25			11:29		
Sample ID:	HSTD	HSTD1		HSTD	HSTD2		
Metal	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44444 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	11:08 CRI1	% Rec	12:02 CRID2	% Rec	14:34 CRID3	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100						
Antimony	6.0	20	3.0	anr					
Arsenic	8.0	20	3.0	8.10	101.3	3.30	110.0	3.80	126.7
Barium	200		4.0	208	104.0	4.00	100.0	4.10	102.5
Beryllium	2.0		1.0						
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	3.10	103.3	0.900	90.0	0.900	90.0
Calcium	5000	2000	1000	anr					
Chromium	10		2.0	11.1	111.0	2.10	105.0	2.00	100.0
Cobalt	50		3.0	50.7	101.4	3.10	103.3	3.10	103.3
Copper	10		2.0	10.7	107.0				
Iron	100	500		118	118.0				
Lead	3.0	20	2.5	3.50	116.7				
Lithium	50								
Magnesium	5000	2000	100						
Manganese	15		3.0	16.4	109.3	3.40	113.3	3.40	113.3
Molybdenum	20								
Nickel	10		4.0	10.3	103.0	4.00	100.0	4.20	105.0
Phosphorus	50								
Potassium	5000		2000						
Selenium	10	20	5.0	9.60	96.0				
Silicon	200								
Silver	5.0		2.0	4.60	92.0				
Sodium	5000		1000						
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	10.2	102.0	2.00	100.0	1.90	95.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	51.2	102.4	1.80	90.0	1.90	95.0
Zinc	20		10	21.2	106.0	10.9	109.0	11.0	110.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44444 Units: ug/l

Time:					11:08		12:02		14:34	
Sample ID:	CRI	CRIA	CRID	CRI1			CRID2		CRID3	
Metal	True	True	True	Results	%	Rec	Results	%	Results	%

Zirconium 10

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
 QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44444 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	14:38 CRI2	% Rec
Metal	True	True	True	Results	
Aluminum	200	500	100		
Antimony	6.0	20	3.0	anr	
Arsenic	8.0	20	3.0	8.90	111.3
Barium	200		4.0	209	104.5
Beryllium	2.0		1.0		
Bismuth	20				
Boron	100		10		
Cadmium	3.0		1.0	2.90	96.7
Calcium	5000	2000	1000	anr	
Chromium	10		2.0	10.3	103.0
Cobalt	50		3.0	50.8	101.6
Copper	10		2.0	10.6	106.0
Iron	100	500		112	112.0
Lead	3.0	20	2.5	2.40	80.0
Lithium	50				
Magnesium	5000	2000	100		
Manganese	15		3.0	16.4	109.3
Molybdenum	20				
Nickel	10		4.0	10.3	103.0
Phosphorus	50				
Potassium	5000		2000		
Selenium	10	20	5.0	8.20	82.0
Silicon	200				
Silver	5.0		2.0	4.40	88.0
Sodium	5000		1000		
Strontium	10				
Sulfur	50			anr	
Thallium	10		2.0	10.6	106.0
Tin	10				
Titanium	10				
Tungsten	50				
Vanadium	50		2.0	50.9	101.8
Zinc	20		10	21.5	107.5

14.5.6
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44444 Units: ug/l

Time:				14:38	
Sample ID:	CRI	CRIA	CRID	CRI2	
Metal	True	True	True	Results	% Rec

Zirconium 10

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

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44444 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	11:16 ICSA1 Results	% Rec	11:21 ICSAB1 Results	% Rec	14:42 ICSA2 Results	% Rec	14:47 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	518000	103.6	520000	104.0	515000	103.0	514000	102.8
Antimony		1000	-3.90		1030	103.0	-0.100		1020	102.0
Arsenic		1000	-0.400		1070	107.0	0.900		1060	106.0
Barium		500	-0.400		518	103.6	-0.300		522	104.4
Beryllium		500	0.200		500	100.0	0.100		495	99.0
Bismuth		500	-2.30		505	101.0	-1.50		502	100.4
Boron		500	0.00		507	101.4	0.200		501	100.2
Cadmium		1000	-0.100		1040	104.0	0.00		1030	103.0
Calcium	400000	400000	403000	100.8	394000	98.5	397000	99.3	393000	98.3
Chromium		500	-1.60		496	99.2	-2.10		490	98.0
Cobalt		500	0.600		493	98.6	0.900		490	98.0
Copper		500	0.00		511	102.2	-0.300		507	101.4
Iron	200000	200000	198000	99.0	199000	99.5	195000	97.5	196000	98.0
Lead		1000	1.20		974	97.4	1.20		975	97.5
Lithium		500	6.80		535	107.0	6.90		534	106.8
Magnesium	500000	500000	510000	102.0	507000	101.4	504000	100.8	503000	100.6
Manganese		500	15.8		522	104.4	15.4		519	103.8
Molybdenum		500	-1.50		488	97.6	-1.60		483	96.6
Nickel		1000	-1.00		981	98.1	-0.500		979	97.9
Phosphorus		500	-6.50		496	99.2	-8.00		493	98.6
Potassium			-384		-316		-405		-360	
Selenium		1000	3.50		993	99.3	1.40		973	97.3
Silicon		500	2.60		495	99.0	6.20		494	98.8
Silver		1000	1.20		1050	105.0	0.700		1040	104.0
Sodium			1.40		24.8		-3.50		1.60	
Strontium		500	4.90		524	104.8	5.00		524	104.8
Sulfur		500	-21.0		480	96.0	-17.2		477	95.4
Thallium		1000	-2.00		966	96.6	0.500		968	96.8
Tin		500	-5.60		469	93.8	-4.50		464	92.8
Titanium		500	-1.10		508	101.6	-0.500		504	100.8
Tungsten		500	10.4		491	98.2	10.0		487	97.4
Vanadium		500	-1.20		496	99.2	-1.40		490	98.0
Zinc		1000	4.60		968	96.8	4.50		964	96.4

14.5.7
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INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M1.ICP Date Analyzed: 05/18/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44444 Units: ug/l

Time:				11:16			11:21			14:42			14:47
Sample ID:	ICSAB	ICSAB	ICSAB	ICSAB1	% Rec	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Metal	True	True	True	Results				Results		Results		Results	

Zirconium 500 3.20 495 99.0 3.10 492 98.4

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

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
Analyst: ND
Parameters: Ca,Cr,Ni

Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44445

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:01	MA44445-STD1	1		STDA
16:05	MA44445-STD2	1		STDB
16:09	ZZZZZZ	1		
16:13	ZZZZZZ	1		
16:19	MA44445-ICV1	1		
16:29	MA44445-ICB1	1		
16:34	MA44445-ICCV1	1		
16:44	MA44445-CCB1	1		
16:48	MA44445-CRI1	1		
16:52	MA44445-CRID1	1		
16:57	MA44445-ICSA1	1		
17:01	MA44445-ICSAB1	1		
17:05	MA44445-HSTD1	1		
17:09	MA44445-HSTD2	1		
17:14	ZZZZZZ	1		
17:18	ZZZZZZ	1		
17:22	ZZZZZZ	1		
17:27	MA44445-CCV1	1		
17:31	MA44445-CCB2	1		
17:35	MA44445-CRID2	1		
17:39	ZZZZZZ	1		
17:44	ZZZZZZ	1		
17:48	MP7177-S1	1		
17:52	MP7177-S2	1		
17:56	MP7198-MB1	1		
18:00	MP7198-B1	1		
18:04	MP7198-S1	1		
18:08	MP7198-S2	1		
18:13	MA44445-CCV2	1		
18:17	MA44445-CCB3	1		
18:21	MP7198-D1	1		
18:25	TD21009-1	1		(sample used for QC only; not part of login JC65860)
18:30	MP7198-SD1	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
Analyst: ND
Parameters: Ca,Cr,Ni

Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44445

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:34	MP7198-S1	10		
18:38	MP7198-S2	10		needs post spike for MN
18:42	MP7198-D1	10		
18:47	TD21009-1	10		(sample used for QC only; not part of login JC65860)
18:51	MP7198-SD1	50		
18:55	MP7198-S1	20		
18:59	MA44445-CCV3	1		
19:03	MA44445-CCB4	1		
19:08	MP7198-S2	20		
19:12	MP7198-D1	20		
19:16	TD21009-1	20		(sample used for QC only; not part of login JC65860)
19:20	MP7198-SD1	100		
19:25	ZZZZZZ	3		
19:29	ZZZZZZ	3		
19:33	ZZZZZZ	5		
19:37	ZZZZZZ	3		
19:41	ZZZZZZ	3		
19:46	MA44445-CCV4	1		
19:50	MA44445-CCB5	1		
19:54	ZZZZZZ	1		
19:58	JC65860-1	5		
20:03	ZZZZZZ	5		
20:07	ZZZZZZ	5		
20:11	ZZZZZZ	2		
20:15	ZZZZZZ	1		
20:19	ZZZZZZ	3		
20:24	MP7104-B1	1		
20:28	ZZZZZZ	1		
20:32	MA44445-CCV5	1		
20:36	MA44445-CCB6	1		
20:40	ZZZZZZ	1		
20:49	MP7104-MB1	1		
20:53	MP7104-S1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
Analyst: ND
Parameters: Ca,Cr,Ni

Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44445

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:57	MP7104-S2	1		
21:01	JC65790-1A	1		(sample used for QC only; not part of login JC65860)
21:05	MP7104-SD1	5		
21:09	ZZZZZZ	1		
21:14	ZZZZZZ	1		
21:18	MP7168-PS1	3		
----->	Last reportable sample/prep for job JC65860			
21:22	MA44445-CCV6	1		
21:26	MA44445-CCB7	1		
21:38	MP7031-MB4	5		Bad readING
21:42	MP7031-B4	5		Bad readING
21:46	ZZZZZZ	5		
21:54	ZZZZZZ	5		
21:58	MP7228-MB1	5		
22:02	MP7228-B1	5		
22:07	MP7228-S1	5		
22:11	MP7228-S2	5		
22:15	MA44445-CCV7	1		
22:21	MA44445-CCB8	1		
22:26	JC65475-5R	5		(sample used for QC only; not part of login JC65860)
22:30	MP7228-SD1	25		
22:34	ZZZZZZ	5		
22:39	ZZZZZZ	5		
22:43	ZZZZZZ	5		
22:47	ZZZZZZ	5		
22:52	ZZZZZZ	5		
22:56	ZZZZZZ	5		
23:00	ZZZZZZ	5		
23:05	MA44445-CCV8	1		
23:09	MA44445-CCB9	1		
23:13	ZZZZZZ	5		
23:18	ZZZZZZ	1		
23:22	ZZZZZZ	1		
23:26	MP7175-S1	3		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
Analyst: ND
Parameters: Ca,Cr,Ni

Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44445

Time	Sample Description	Dilution Factor	PS Recov	Comments
23:30	MP7175-S2	3		
23:34	ZZZZZZ	10		
23:39	ZZZZZZ	3		
23:43	MA44445-CCV9	1		
23:47	MA44445-CCB10	1		
23:51	MA44445-CRID3	1		
23:56	MA44445-CRI2	1		
00:00	MA44445-ICSA2	1		
00:04	MA44445-ICSAB2	1		
00:09	MA44445-CCV10	1		
00:13	MA44445-CCB11	1		
00:17	ZZZZZZ	1		
00:21	ZZZZZZ	1		
00:26	ZZZZZZ	1		
00:30	ZZZZZZ	1		
00:34	ZZZZZZ	1		
00:39	ZZZZZZ	1		
00:43	ZZZZZZ	1		
00:47	ZZZZZZ	1		
00:52	ZZZZZZ	1		
00:56	ZZZZZZ	1		
01:01	ZZZZZZ	1		
01:05	ZZZZZZ	1		
01:09	MA44445-CCV11	1		
01:13	MA44445-CCB12	1		
01:18	MP7216-MB1	1		
01:22	MP7216-B1	1		
01:26	MP7216-S1	1		
01:30	MP7216-S2	1		
01:34	JC66082-1	1		(sample used for QC only; not part of login JC65860)
01:38	MP7216-SD1	5		
01:43	ZZZZZZ	1		
01:47	ZZZZZZ	1		

----->

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
Analyst: ND
Parameters: Ca,Cr,Ni

Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44445

Time	Sample Description	Dilution Factor	PS Recov	Comments
01:51	ZZZZZZ	1		
01:55	ZZZZZZ	1		
01:59	MA44445-CCV12	1		
02:03	MA44445-CCB13	1		
02:08	ZZZZZZ	1		
02:12	ZZZZZZ	1		
02:16	ZZZZZZ	1		
02:20	ZZZZZZ	1		
02:24	ZZZZZZ	1		
02:29	ZZZZZZ	1		
02:33	ZZZZZZ	1		
02:37	ZZZZZZ	1		
02:41	ZZZZZZ	1		
02:45	ZZZZZZ	1		
02:50	MA44445-CCV13	1		
02:54	MA44445-CCB14	1		
02:58	ZZZZZZ	1		
03:02	ZZZZZZ	1		
03:06	ZZZZZZ	1		
03:11	ZZZZZZ	1		
03:15	MP7222-B1	1		
03:19	MP7222-MB1	1		
03:23	MP7222-S1	1		Na high. Tl hit
03:27	MP7222-S2	1		Na high. Tl hit
03:32	JC66259-1	1		(sample used for QC only; not part of login JC65860)
03:36	MP7222-SD1	5		Na high. Tl hit
03:40	MA44445-CCV14	1		
03:44	MA44445-CCB15	1		
03:49	ZZZZZZ	1		
03:53	ZZZZZZ	1		
03:57	ZZZZZZ	1		
04:02	ZZZZZZ	1		
04:06	ZZZZZZ	1		

14.6
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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
Analyst: ND
Parameters: Ca,Cr,Ni

Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44445

Time	Sample Description	Dilution Factor	PS Recov	Comments
04:10	ZZZZZZ	1		
04:15	ZZZZZZ	1		
04:19	ZZZZZZ	1		
04:23	ZZZZZZ	1		
04:28	ZZZZZZ	1		
04:32	MA44445-CCV15	1		
04:36	MA44445-CCB16	1		
04:40	ZZZZZZ	1		
04:45	ZZZZZZ	1		
04:49	ZZZZZZ	1		
04:53	ZZZZZZ	1		
04:57	ZZZZZZ	1		
05:02	ZZZZZZ	1		
05:06	ZZZZZZ	1		
05:10	ZZZZZZ	1		
05:15	ZZZZZZ	1		
05:19	MA44445-CCV16	1		
05:23	MA44445-CCB17	1		
05:27	ZZZZZZ	1		
05:32	ZZZZZZ	1		
05:36	MP7199-S1	5		
05:40	MP7199-S2	5		Bad reading
05:44	JC66030-20	5		(sample used for QC only; not part of login JC65860)
05:48	MP7199-SD1	25		
05:53	ZZZZZZ	5		
05:57	ZZZZZZ	1		
06:01	ZZZZZZ	2		
06:05	ZZZZZZ	10		
06:09	MA44445-CCV17	1		
06:13	MA44445-CCB18	1		
06:18	ZZZZZZ	5		
06:22	ZZZZZZ	3		
06:26	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
Analyst: ND
Parameters: Ca,Cr,Ni

Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44445

Time	Sample Description	Dilution Factor	PS Recov	Comments
06:30	ZZZZZZ	2		
06:35	ZZZZZZ	2		
06:39	ZZZZZZ	5		
06:43	ZZZZZZ	2		
06:47	ZZZZZZ	5		
06:51	ZZZZZZ	3		
06:56	ZZZZZZ	5		
07:00	MA44445-CCV18	1		
07:04	MA44445-CCB19	1		
07:08	MA44445-CRI3	1		
07:13	MA44445-CRID4	1		
07:17	MA44445-CCV19	1		
07:21	MA44445-CCB20	1		
07:25	MP7238-MB1	1		Y 3600 out on CCB
07:30	MP7238-B1	1		Y 3600 out on CCB
07:34	MP7238-S1	1		Y 3600 out on CCB. S high
07:38	MP7238-S2	1		Y 3600 out on CCB. S high
07:42	JC66349-1	1		(sample used for QC only; not part of login JC65860)
07:47	MP7238-SD1	5		Y 3600 out on CCB. S high
07:51	ZZZZZZ	1		
07:55	ZZZZZZ	1		
07:59	ZZZZZZ	1		
08:04	MA44445-CCV20	1		
08:08	MA44445-CCB21	1		
08:29	ZZZZZZ	1		
08:57	MA44445-CCV21	1		
09:03	MA44445-CCB22	1		
09:06	ZZZZZZ	1		
09:13	MA44445-CCV22	1		
09:18	MA44445-CCB23	1		
09:22	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
Analyst: ND
Parameters: Ca,Cr,Ni

Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44445

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:01	MA44445-STD1	3007 R	80114 R	11428 R	7407 R
16:05	MA44445-STD2	2819	73795	11252	6364
16:09	ZZZZZZ	2906	999999 !	11281	6621
16:13	ZZZZZZ	3030	80105	11605	7455
16:19	MA44445-ICV1	2889	76130	11416	6596
16:29	MA44445-ICB1	3039	80167	11672	7485
16:34	MA44445-ICCV1	2926	76419	11535	6673
16:44	MA44445-CCB1	3045	80456	11617	7497
16:48	MA44445-CRI1	3001	79348	11559	7270
16:52	MA44445-CRID1	No results reported for the elements associated with this internal standard.			
16:57	MA44445-ICSA1	2688	70090	11299	5881
17:01	MA44445-ICSAB1	2685	69934	11144	5886
17:05	MA44445-HSTD1	2981	78882	11679	7225
17:09	MA44445-HSTD2	2755	71761	11263	5982
17:14	ZZZZZZ	2987	78758	11573	7372
17:18	ZZZZZZ	2956	80509	11571	7448
17:22	ZZZZZZ	3046	80503	11613	7506
17:27	MA44445-CCV1	2934	76844	11446	6688
17:31	MA44445-CCB2	3049	80685	11617	7498
17:35	MA44445-CRID2	3054	80352	11640	7476
17:39	ZZZZZZ	3067	81225	11762	7533
17:44	ZZZZZZ	2967	77953	11618	6866
17:48	MP7177-S1	2877	75808	11522	6481
17:52	MP7177-S2	2878	76080	11500	6478
17:56	MP7198-MB1	3057	79681	11741	7503
18:00	MP7198-B1	2934	76955	11357	6772
18:04	MP7198-S1	2693	72562	11310	7026
18:08	MP7198-S2	2682	72116	11219	7057
18:13	MA44445-CCV2	2987	77998	11552	6798
18:17	MA44445-CCB3	3097	81794	11670	7598
18:21	MP7198-D1	2744	72705	11100	7183
18:25	TD21009-1	2725	72802	11129	7196
18:30	MP7198-SD1	3007	79164	11644	7335

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
Analyst: ND
Parameters: Ca,Cr,Ni

Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44445

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:34	MP7198-S1	3069	80621	11625	7383
18:38	MP7198-S2	3050	80541	11604	7335
18:42	MP7198-D1	3073	80752	11552	7450
18:47	TD21009-1	3076	81199	11628	7449
18:51	MP7198-SD1	3117	81853	11537	7551
18:55	MP7198-S1	3104	81474	11536	7462
18:59	MA44445-CCV3	3011	78591	11367	6811
19:03	MA44445-CCB4	3127	82255	11511	7639
19:08	MP7198-S2	3107	81485	11585	7466
19:12	MP7198-D1	3118	81874	11680	7536
19:16	TD21009-1	3118	81646	11689	7532
19:20	MP7198-SD1	3140	82214	11581	7615
19:25	ZZZZZZ	3040	79122	11524	6796
19:29	ZZZZZZ	3041	79279	11598	6749
19:33	ZZZZZZ	3149	81623	11591	7372
19:37	ZZZZZZ	3011	78246	11366	6639
19:41	ZZZZZZ	3032	79042	11381	6786
19:46	MA44445-CCV4	3036	78541	11337	6853
19:50	MA44445-CCB5	3148	82321	11419	7663
19:54	ZZZZZZ	3138	82087	11478	7622
19:58	JC65860-1	3061	79224	11355	6825
20:03	ZZZZZZ	3157	81568	11500	7368
20:07	ZZZZZZ	3164	82017	11530	7403
20:11	ZZZZZZ	3202	83114	11812	7147
20:15	ZZZZZZ	3033	78443	11620	6482
20:19	ZZZZZZ	3091	80153	11427	6903
20:24	MP7104-B1	3086	80384	11393	7050
20:28	ZZZZZZ	3168	999999 !	11518	7639
20:32	MA44445-CCV5	3056	78856	11330	6872
20:36	MA44445-CCB6	3178	83021	11351	7706
20:40	ZZZZZZ	3165	999999 !	11525	7639
20:49	MP7104-MB1	3128	82580	11667	7555
20:53	MP7104-S1	3034	79058	11670	6890

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
Analyst: ND
Parameters: Ca,Cr,Ni

Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44445

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:57	MP7104-S2	3024	79056	11747	6882
21:01	JC65790-1A	3097	81313	11880	7268
21:05	MP7104-SD1	3115	81962	11872	7554
21:09	ZZZZZZ	3099	82477	12053	7620
21:14	ZZZZZZ	2999	79049	11715	6953
21:18	MP7168-PS1	2870	76834	11806	7006
21:22	MA44445-CCV6	2973	78000	11832	6802
21:26	MA44445-CCB7	3065	81762	11865	7583
21:38	MP7031-MB4	3069	999999 !a	12069	7623
21:42	MP7031-B4	3056	81555	11881	7381
21:46	ZZZZZZ	No results reported for the elements associated with this internal standard.			
21:54	ZZZZZZ	2755	73673	11572	6438
21:58	MP7228-MB1	2973	78801	11934	7239
22:02	MP7228-B1	2845	74223	11824	6440
22:07	MP7228-S1	2762	73215	11742	6233
22:11	MP7228-S2	2766	73280	11638	6226
22:15	MA44445-CCV7	2867	75565	11832	6624
22:21	MA44445-CCB8	2984	80085	11979	7431
22:26	JC65475-5R	2736	73017	11644	6219
22:30	MP7228-SD1	2878	76661	11861	6831
22:34	ZZZZZZ	2923	78357	12111	7116
22:39	ZZZZZZ	2805	73964	11833	6427
22:43	ZZZZZZ	2702	72323	11635	6190
22:47	ZZZZZZ	2927	75981	12012	7116
22:52	ZZZZZZ	2799	73649	11832	6406
22:56	ZZZZZZ	2776	73681	11779	6347
23:00	ZZZZZZ	2722	72930	11705	6203
23:05	MA44445-CCV8	2832	75605	11852	6564
23:09	MA44445-CCB9	2957	79444	12046	7385
23:13	ZZZZZZ	2747	73051	11677	6231
23:18	ZZZZZZ	2971	80501	12071	7412
23:22	ZZZZZZ	2835	75676	11720	6662
23:26	MP7175-S1	2890	76981	12018	6819

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
Analyst: ND
Parameters: Ca,Cr,Ni

Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44445

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
23:30	MP7175-S2	2914	77858	12074	6914
23:34	ZZZZZZ	2985	79719	11968	7229
23:39	ZZZZZZ	2931	78273	11976	6997
23:43	MA44445-CCV9	2851	75293	11820	6592
23:47	MA44445-CCB10	2971	79976	11847	7409
23:51	MA44445-CRID3	2953	79334	11844	7328
23:56	MA44445-CRI2	2934	78466	11924	7198
00:00	MA44445-ICSA2	2608	69179	11396	5817
00:04	MA44445-ICSAB2	2600	69044	11392	5800
00:09	MA44445-CCV10	2846	75248	11692	6591
00:13	MA44445-CCB11	2964	79056	12161	7402
00:17	ZZZZZZ	2983	79967	11925	7442
00:21	ZZZZZZ	2954	79201	11867	7350
00:26	ZZZZZZ	2954	79333	11855	7357
00:30	ZZZZZZ	2943	79878	11854	7351
00:34	ZZZZZZ	2965	79642	11937	7417
00:39	ZZZZZZ	2960	79688	11978	7361
00:43	ZZZZZZ	2980	80147	11960	7406
00:47	ZZZZZZ	2968	79615	11932	7378
00:52	ZZZZZZ	2953	79281	11959	7340
00:56	ZZZZZZ	2715	73116	11582	6304
01:01	ZZZZZZ	2700	73070	11482	6271
01:05	ZZZZZZ	2997	75192	12422	6534
01:09	MA44445-CCV11	2849	75896	11738	6597
01:13	MA44445-CCB12	2964	79880	11904	7387
01:18	MP7216-MB1	2967	79957	12028	7394
01:22	MP7216-B1	2864	76610	11813	6737
01:26	MP7216-S1	2877	77151	12248	6490
01:30	MP7216-S2	2876	76856	12131	6487
01:34	JC66082-1	2946	78518	12276	6708
01:38	MP7216-SD1	2972	79440	12049	7088
01:43	ZZZZZZ	2968	79068	12201	6737
01:47	ZZZZZZ	2977	79158	12317	6728

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
Analyst: ND
Parameters: Ca,Cr,Ni

Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44445

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
01:51	ZZZZZZ	2977	78936	12296	6780
01:55	ZZZZZZ	2981	78967	12236	6786
01:59	MA44445-CCV12	2848	75461	11735	6595
02:03	MA44445-CCB13	2973	79730	11899	7411
02:08	ZZZZZZ	2987	79177	12427	6705
02:12	ZZZZZZ	2953	78392	12166	6708
02:16	ZZZZZZ	3017	80122	12533	6793
02:20	ZZZZZZ	2937	78768	12443	6809
02:24	ZZZZZZ	2796	74672	11855	6184
02:29	ZZZZZZ	3058	80364	12518	6723
02:33	ZZZZZZ	2987	79264	12486	6544
02:37	ZZZZZZ	3031	79350	12395	6723
02:41	ZZZZZZ	3038	79000	12513	6638
02:45	ZZZZZZ	3059	78758	12303	6828
02:50	MA44445-CCV13	2834	75487	11660	6549
02:54	MA44445-CCB14	2946	79155	11769	7334
02:58	ZZZZZZ	2917	76276	12088	6581
03:02	ZZZZZZ	3025	79152	12339	6714
03:06	ZZZZZZ	2975	76800	12103	6707
03:11	ZZZZZZ	2938	76560	12057	6723
03:15	MP7222-B1	2864	76619	11635	6717
03:19	MP7222-MB1	2936	79374	11777	7315
03:23	MP7222-S1	2668	71688	11412	5989
03:27	MP7222-S2	2669	71760	11495	5977
03:32	JC66259-1	2685	72118	11485	6104
03:36	MP7222-SD1	2812	76080	11563	6664
03:40	MA44445-CCV14	2824	75195	11627	6524
03:44	MA44445-CCB15	2940	79005	11706	7327
03:49	ZZZZZZ	2934	79073	11853	7296
03:53	ZZZZZZ	2784	75207	11537	6580
03:57	ZZZZZZ	2867	77402	11896	6891
04:02	ZZZZZZ	2493	66751	11124	5518
04:06	ZZZZZZ	2606	69843	11262	5857

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
Analyst: ND
Parameters: Ca,Cr,Ni

Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44445

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
04:10	ZZZZZZ	2616	70382	11330	5893
04:15	ZZZZZZ	2790	999999 !	11788	6464
04:19	ZZZZZZ	2647	71095	11398	5984
04:23	ZZZZZZ	2654	71218	11400	6021
04:28	ZZZZZZ	2773	74516	11648	6488
04:32	MA44445-CCV15	2823	75036	11496	6511
04:36	MA44445-CCB16	2894	79211	11631	7213
04:40	ZZZZZZ	2646	71701	11257	6067
04:45	ZZZZZZ	2929	79408	11769	7295
04:49	ZZZZZZ	2795	74840	11537	6480
04:53	ZZZZZZ	2862	77338	11670	6931
04:57	ZZZZZZ	2868	77391	11363	6940
05:02	ZZZZZZ	2880	77528	11741	6940
05:06	ZZZZZZ	2886	77628	11781	6917
05:10	ZZZZZZ	2868	77538	11636	6929
05:15	ZZZZZZ	2928	79550	11701	7297
05:19	MA44445-CCV16	2820	75263	11554	6517
05:23	MA44445-CCB17	2938	79361	11648	7318
05:27	ZZZZZZ	2927	999999 !	11727	7284
05:32	ZZZZZZ	2819	75400	11479	6603
05:36	MP7199-S1	2911	77493	11689	6894
05:40	MP7199-S2	2902	999999 !a	11702	6876
05:44	JC66030-20	2938	78470	11705	7058
05:48	MP7199-SD1	2946	78929	11674	7221
05:53	ZZZZZZ	2926	78266	11755	7062
05:57	ZZZZZZ	2854	76900	11913	6626
06:01	ZZZZZZ	2890	77400	11720	6808
06:05	ZZZZZZ	2932	78323	11550	7086
06:09	MA44445-CCV17	2814	74658	11450	6490
06:13	MA44445-CCB18	2918	78476	11528	7271
06:18	ZZZZZZ	2918	78301	11677	7035
06:22	ZZZZZZ	2925	78201	11723	6958
06:26	ZZZZZZ	2915	78277	11814	6892

INTERNAL STANDARD SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
Analyst: ND
Parameters: Ca,Cr,Ni

Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44445

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
06:30	ZZZZZZ	2896	77722	11778	6865
06:35	ZZZZZZ	2864	77508	11708	6898
06:39	ZZZZZZ	2929	78373	11651	7023
06:43	ZZZZZZ	2884	77535	11692	6853
06:47	ZZZZZZ	2936	78241	11732	6902
06:51	ZZZZZZ	2918	77676	11732	7006
06:56	ZZZZZZ	2941	78527	11697	7085
07:00	MA44445-CCV18	2803	74984	11450	6472
07:04	MA44445-CCB19	2917	78762	11515	7265
07:08	MA44445-CRI3	2887	77451	11454	7065
07:13	MA44445-CRID4	2907	78173	11546	7208
07:17	MA44445-CCV19	2799	74848	11436	6469
07:21	MA44445-CCB20	2919	78895	11560	7260
07:25	MP7238-MB1	2978	80811	11837	7515
07:30	MP7238-B1	2882	77455	11852	6798
07:34	MP7238-S1	2475	66748	11423	5388
07:38	MP7238-S2	2497	67095	11397	5429
07:42	JC66349-1	2499	66699	11394	5431
07:47	MP7238-SD1	2725	72299	11419	6201
07:51	ZZZZZZ	2978	79809	12165	7048
07:55	ZZZZZZ	2931	79228	11990	7095
07:59	ZZZZZZ	2704	74659	11765	6296
08:04	MA44445-CCV20	2798	74983	11472	6456
08:08	MA44445-CCB21	2921	999999 !a	11958	7265
08:29	ZZZZZZ	2745	72930	11143	6339
08:57	MA44445-CCV21	2749	73981	11379	6355
09:03	MA44445-CCB22	2895	78009	11484	7223
09:06	ZZZZZZ	2945	79187	11973	7005
09:13	MA44445-CCV22	2759	73211	11378	6368
09:18	MA44445-CCB23	2884	78233	11506	7194
09:22	ZZZZZZ	2882	77486	11327	7169

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

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
 Analyst: ND Run ID: MA44445
 Parameters: Ca,Cr,Ni

Sample					
Time	Description	Istd#1	Istd#2	Istd#3	Istd#4
Istd#4	Yttrium (3600)		70-130 %		
Istd#3	Yttrium (3710)		70-130 %		
Istd#4	Indium		70-130 %		

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
QC Limits: result < RL

Date Analyzed: 05/18/18
Run ID: MA44445

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:			16:29 ICB1		16:44 CCB1		17:31 CCB2		18:17 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34	anr							
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.4	anr							
Barium	200	.5	anr							
Beryllium	1.0	.2	anr							
Bismuth	20	2.5								
Boron	100	1.9								
Cadmium	3.0	.3	anr							
Calcium	2000	8.7	4.40	<5000	3.30	<5000	2.90	<5000	5.40	<5000
Chromium	10	.6	0.00	<10	0.400	<10	0.500	<10	0.100	<10
Cobalt	50	.5	anr							
Copper	10	1.2	anr							
Iron	100	4.6	anr							
Lead	3.0	1.4	anr							
Lithium	50	2.8								
Magnesium	2000	33	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4								
Nickel	10	.5	0.200	<10	0.00	<10	0.200	<10	0.500	<10
Phosphorus	50	1.7								
Potassium	2000	68	anr							
Selenium	10	3.8	anr							
Silicon	200	2.1								
Silver	10	.5	anr							
Sodium	2000	15	anr							
Strontium	10	.2								
Sulfur	50	20	anr							
Thallium	2.0	1.6	anr							
Tin	10	1								
Titanium	10	.7								
Tungsten	50	1.8								
Vanadium	50	.4	anr							
Zinc	20	.3	anr							

14.6.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44445 Units: ug/l

Time:		16:29		16:44		17:31		18:17		
Sample ID:		ICB1		CCB1		CCB2		CCB3		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
QC Limits: result < RL

Date Analyzed: 05/18/18
Run ID: MA44445

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:			19:03 CCB4		19:50 CCB5		20:36 CCB6		21:26 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34	anr							
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.4	anr							
Barium	200	.5	anr							
Beryllium	1.0	.2	anr							
Bismuth	20	2.5								
Boron	100	1.9								
Cadmium	3.0	.3	anr							
Calcium	2000	8.7	1.30	<5000	2.30	<5000	2.20	<2000	5.10	<5000
Chromium	10	.6	0.400	<10	0.00	<10	0.200	<10	0.400	<10
Cobalt	50	.5	anr							
Copper	10	1.2	anr							
Iron	100	4.6	anr							
Lead	3.0	1.4	anr							
Lithium	50	2.8								
Magnesium	2000	33	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4								
Nickel	10	.5	0.200	<10	0.300	<10	0.400	<10	-0.100	<10
Phosphorus	50	1.7								
Potassium	2000	68	anr							
Selenium	10	3.8	anr							
Silicon	200	2.1								
Silver	10	.5	anr							
Sodium	2000	15	anr							
Strontium	10	.2								
Sulfur	50	20	anr							
Thallium	2.0	1.6	anr							
Tin	10	1								
Titanium	10	.7								
Tungsten	50	1.8								
Vanadium	50	.4	anr							
Zinc	20	.3	anr							

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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44445 Units: ug/l

Time: Sample ID:			19:03 CCB4		19:50 CCB5		20:36 CCB6		21:26 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
QC Limits: result < RL

Date Analyzed: 05/18/18
Run ID: MA44445

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:			22:21 CCB8		23:09 CCB9		23:47 CCB10		00:13 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	34	anr							
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.4	anr							
Barium	200	.5	anr							
Beryllium	1.0	.2	anr							
Bismuth	20	2.5								
Boron	100	1.9								
Cadmium	3.0	.3	anr							
Calcium	2000	8.7	7.40	<5000	10.3	<5000	9.80	<5000	6.10	<5000
Chromium	10	.6	0.400	<10	0.200	<10	0.300	<10	0.600	<10
Cobalt	50	.5	anr							
Copper	10	1.2	anr							
Iron	100	4.6	anr							
Lead	3.0	1.4	anr							
Lithium	50	2.8								
Magnesium	2000	33	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4								
Nickel	10	.5	-0.100	<10	0.500	<10	0.400	<10	0.200	<10
Phosphorus	50	1.7								
Potassium	2000	68	anr							
Selenium	10	3.8	anr							
Silicon	200	2.1								
Silver	10	.5	anr							
Sodium	2000	15	anr							
Strontium	10	.2								
Sulfur	50	20	anr							
Thallium	2.0	1.6	anr							
Tin	10	1								
Titanium	10	.7								
Tungsten	50	1.8								
Vanadium	50	.4	anr							
Zinc	20	.3	anr							

14.6.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44445 Units: ug/l

Time: Sample ID:			22:21 CCB8		23:09 CCB9		23:47 CCB10		00:13 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

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



CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44445 Units: ug/l

Time: Sample ID: ICCV		16:34 ICCV1		
Metal	True	Results	% Rec	
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Bismuth				
Boron				
Cadmium	anr			
Calcium	40000	39900	99.8	
Chromium	2000	2020	101.0	
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel	2000	2010	100.5	
Phosphorus				
Potassium	anr			
Selenium	anr			
Silicon				
Silver	anr			
Sodium	anr			
Strontium				
Sulfur	anr			
Thallium	anr			
Tin				
Titanium				
Tungsten				
Vanadium	anr			
Zinc	anr			

14.6.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44445 Units: ug/l

Time:		16:34	
Sample ID:		ICCV	ICCV1
Metal	True	Results	% Rec

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44445 Units: ug/l

Time: Sample ID:		16:19 ICV1	% Rec	CCV	17:27 CCV1	% Rec	CCV	18:13 CCV2	% Rec
Metal	True	Results		True	Results		True	Results	
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	40000	39800	99.5	40000	39700	99.3	40000	39300	98.3
Chromium	2000	1950	97.5	2000	2000	100.0	2000	1970	98.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	2000	1990	99.5	2000	2000	100.0	2000	1980	99.0
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.6.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44445 Units: ug/l

Time:		16:19			17:27			18:13		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44445 Units: ug/l

Time: Sample ID:		18:59 CCV3		19:46 CCV4		20:32 CCV5			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	40000	39300	98.3	40000	39100	97.8	40000	38900	97.3
Chromium	2000	1940	97.0	2000	1930	96.5	2000	1920	96.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	2000	1960	98.0	2000	1960	98.0	2000	1960	98.0
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.6.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44445 Units: ug/l

Time:		18:59			19:46			20:32		
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44445 Units: ug/l

Time: Sample ID:		21:22 CCV6		22:15 CCV7		23:05 CCV8			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	40000	39300	98.3	40000	39300	98.3	40000	39300	98.3
Chromium	2000	2010	100.5	2000	2040	102.0	2000	2040	102.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	2000	1990	99.5	2000	2000	100.0	2000	2010	100.5
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.6.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44445 Units: ug/l

Time: Sample ID:		23:43 CCV9		00:09 CCV10			
Metal	CCV	Results	% Rec	CCV	Results	% Rec	
Aluminum	anr						
Antimony	anr						
Arsenic	anr						
Barium	anr						
Beryllium	anr						
Bismuth							
Boron							
Cadmium	anr						
Calcium	40000	39300	98.3	40000	39400	98.5	
Chromium	2000	2050	102.5	2000	2050	102.5	
Cobalt	anr						
Copper	anr						
Iron	anr						
Lead	anr						
Lithium							
Magnesium	anr						
Manganese	anr						
Molybdenum							
Nickel	2000	2010	100.5	2000	2000	100.0	
Phosphorus							
Potassium	anr						
Selenium	anr						
Silicon							
Silver	anr						
Sodium	anr						
Strontium							
Sulfur	anr						
Thallium	anr						
Tin							
Titanium							
Tungsten							
Vanadium	anr						
Zinc	anr						

14.6.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44445 Units: ug/l

Time:		23:43			00:09		
Sample ID:	CCV	CCV9	CCV		CCV10		
Metal	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

HIGH STANDARD CHECK SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/18/18
Run ID: MA44445

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time:		17:05			17:09		
Sample ID:	HSTD	HSTD1		HSTD	HSTD2		
Metal	True	Results	% Rec	True	Results	% Rec	
Aluminum							
Antimony	anr						
Arsenic	anr						
Barium	anr						
Beryllium	anr						
Bismuth							
Boron							
Cadmium	anr						
Calcium				150000	153000	102.0	
Chromium	5000	5180	103.6				
Cobalt	anr						
Copper	anr						
Iron							
Lead	anr						
Lithium							
Magnesium							
Manganese	anr						
Molybdenum							
Nickel	5000	4990	99.8				
Phosphorus							
Potassium							
Selenium	anr						
Silicon							
Silver	anr						
Sodium							
Strontium							
Sulfur	anr						
Thallium	anr						
Tin							
Titanium							
Tungsten							
Vanadium	anr						
Zinc	anr						

HIGH STANDARD CHECK SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: 90 to 110 % Recovery Run ID: MA44445 Units: ug/l

Time:		17:05			17:09		
Sample ID:	HSTD	HSTD1		HSTD	HSTD2		
Metal	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44445 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	16:48 CRI1	% Rec	17:35 CRID2	% Rec	23:51 CRID3	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	anr					
Antimony	6.0	20	3.0	anr					
Arsenic	8.0	20	3.0	anr					
Barium	200		4.0	anr					
Beryllium	2.0		1.0	anr					
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	anr					
Calcium	5000	2000	1000	5290	105.8	1090	109.0	1090	109.0
Chromium	10		2.0	10.9	109.0	2.40	120.0		
Cobalt	50		3.0	anr					
Copper	10		2.0	anr					
Iron	100	500		anr					
Lead	3.0	20	2.5	anr					
Lithium	50								
Magnesium	5000	2000	100	anr					
Manganese	15		3.0	anr					
Molybdenum	20								
Nickel	10		4.0	10.8	108.0	4.10	102.5	4.50	112.5
Phosphorus	50								
Potassium	5000		2000	anr					
Selenium	10	20	5.0	anr					
Silicon	200								
Silver	5.0		2.0	anr					
Sodium	5000		1000	anr					
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	anr					
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	anr					
Zinc	20		10	anr					

14.6.6
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44445 Units: ug/l

Time:					16:48		17:35		23:51	
Sample ID:	CRI	CRIA	CRID	CRI1			CRID2		CRID3	
Metal	True	True	True	Results	% Rec		Results	% Rec	Results	% Rec

Zirconium 10

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP
QC Limits: 70 to 130 % Recovery

Date Analyzed: 05/18/18
Run ID: MA44445

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	23:56 CRI2	
Metal	True	True	True	Results	% Rec
Aluminum	200	500	100	anr	
Antimony	6.0	20	3.0	anr	
Arsenic	8.0	20	3.0	anr	
Barium	200		4.0	anr	
Beryllium	2.0		1.0	anr	
Bismuth	20				
Boron	100		10		
Cadmium	3.0		1.0	anr	
Calcium	5000	2000	1000	5220	104.4
Chromium	10		2.0	11.5	115.0
Cobalt	50		3.0	anr	
Copper	10		2.0	anr	
Iron	100	500		anr	
Lead	3.0	20	2.5	anr	
Lithium	50				
Magnesium	5000	2000	100	anr	
Manganese	15		3.0	anr	
Molybdenum	20				
Nickel	10		4.0	10.6	106.0
Phosphorus	50				
Potassium	5000		2000	anr	
Selenium	10	20	5.0	anr	
Silicon	200				
Silver	5.0		2.0	anr	
Sodium	5000		1000	anr	
Strontium	10				
Sulfur	50			anr	
Thallium	10		2.0	anr	
Tin	10				
Titanium	10				
Tungsten	50				
Vanadium	50		2.0	anr	
Zinc	20		10	anr	

14.6.6
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44445 Units: ug/l

Time:				23:56	
Sample ID:	CRI	CRIA	CRID	CRI2	
Metal	True	True	True	Results	% Rec

Zirconium 10

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

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44445 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	16:57 ICSA1 Results	% Rec	17:01 ICSAB1 Results	% Rec	00:00 ICSA2 Results	% Rec	00:04 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	506000	101.2	515000	103.0	502000	100.4	507000	101.4
Antimony		1000	-3.70		1040	104.0	1.70		1070	107.0
Arsenic		1000	-3.40		1070	107.0	-3.40		1110	111.0
Barium		500	0.100		525	105.0	0.00		519	103.8
Beryllium		500	0.200		510	102.0	0.300		509	101.8
Bismuth		500	-1.80		508	101.6	1.00		530	106.0
Boron		500	0.300		509	101.8	-0.300		534	106.8
Cadmium		1000	0.300		1040	104.0	0.500		1070	107.0
Calcium	400000	400000	401000	100.3	398000	99.5	399000	99.8	390000	97.5
Chromium		500	-1.80		497	99.4	-2.00		504	100.8
Cobalt		500	0.500		499	99.8	0.200		504	100.8
Copper		500	-1.00		514	102.8	0.300		520	104.0
Iron	200000	200000	200000	100.0	202000	101.0	198000	99.0	200000	100.0
Lead		1000	1.80		991	99.1	1.40		969	96.9
Lithium		500	6.30		535	107.0	3.30		536	107.2
Magnesium	500000	500000	512000	102.4	515000	103.0	502000	100.4	502000	100.4
Manganese		500	-4.00		507	101.4	-2.70		505	101.0
Molybdenum		500	-2.30		491	98.2	-1.90		493	98.6
Nickel		1000	-0.400		997	99.7	-0.700		993	99.3
Phosphorus		500	-4.60		498	99.6	-13.5		506	101.2
Potassium			-400		-420		-474		-438	
Selenium		1000	-6.10		996	99.6	-0.800		1010	101.0
Silicon		500	3.10		500	100.0	2.30		506	101.2
Silver		1000	2.50		1050	105.0	6.80		1070	107.0
Sodium			19.2		19.5		66.6		70.1	
Strontium		500	4.80		526	105.2	4.70		522	104.4
Sulfur		500	-14.9		493	98.6	-16.5		501	100.2
Thallium		1000	2.50		980	98.0	0.900		967	96.7
Tin		500	-3.30		471	94.2	-5.20		482	96.4
Titanium		500	-1.00		510	102.0	-0.800		511	102.2
Tungsten		500	10.5		495	99.0	8.90		496	99.2
Vanadium		500	-1.50		497	99.4	-1.70		496	99.2
Zinc		1000	5.10		975	97.5	5.50		967	96.7

14.6.7
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INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SE051818M2.ICP Date Analyzed: 05/18/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44445 Units: ug/l

Time:				16:57			17:01			00:00			00:04
Sample ID:	ICSAB	ICSAB	ICSAB	ICSAB1	% Rec	Results	% Rec	Results	% Rec	ICSAB2	% Rec	Results	% Rec
Metal	True	True	True	Results				Results		Results		Results	

Zirconium 500 3.50 499 99.8 4.80 496 99.2

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

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/13/18 05/13/18

Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	1.0	.095	.17				
Antimony	0.50	.012	.022				
Arsenic	0.50	.006	.014	0.0051	<0.50	-0.00060	<0.50
Barium	1.0	.003	.0063	0.0099	<1.0	0.0080	<1.0
Beryllium	0.025	.001	.002				
Bismuth	0.10	.016	.025				
Boron	0.50	.0075	.067				
Cadmium	0.025	.002	.0035	0.0014	<0.025	0.0011	<0.025
Calcium	10	.028	.14				
Chromium	0.050	.0035	.0043	0.0020	<0.050	0.0022	<0.050
Cobalt	0.25	.002	.0036				
Copper	0.050	.0055	.016				
Iron	0.50	.018	.16				
Lead	0.50	.011	.013	0.0046	<0.50	-0.0025	<0.50
Lithium	0.25	.017	.076				
Magnesium	10	.12	.32				
Manganese	0.075	.0007	.0021				
Molybdenum	0.10	.002	.007				
Nickel	0.050	.0025	.0067				
Potassium	10	.3	1.2				
Selenium	0.50	.019	.033	0.0	<0.50	0.0071	<0.50
Silicon	1.0	.009	.22				
Silver	0.050	.0035	.016	-0.0031	<0.050	-0.0033	<0.050
Strontium	0.050	.001	.0015				
Sulfur	0.25	.016	.075				
Thallium	0.50	.009	.0082				
Tin	0.050	.0045	.012				
Titanium	0.050	.0035	.0092				
Tungsten	0.25	.011	.071				
Vanadium	0.25	.004	.0064				
Zinc	0.50	.001	.002				
Zirconium	0.050	.0015	.01				

Associated samples MP7122: JC65860-1A

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/13/18 05/13/18

Metal	RL	IDL	MDL	MB raw	final	MB raw	final
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Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 05/13/18

Metal	JC65764-1A Original MS		SpikeLot MPSPK2	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.0	2.0	2.0	100.0	75-125
Barium	0.48	2.5	2.0	101.0	75-125
Beryllium					
Bismuth					
Boron					
Cadmium	0.0	2.0	2.0	100.0	75-125
Calcium					
Chromium	0.0	2.0	2.0	100.0	75-125
Cobalt					
Copper	anr				
Iron					
Lead	0.011	2.1	2.0	104.5	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Potassium					
Selenium	0.0	2.0	2.0	100.0	75-125
Silicon					
Silver	0.0	0.24	0.25	96.0	75-125
Strontium					
Sulfur					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium					
Zinc	anr				
Zirconium					

Associated samples MP7122: JC65860-1A

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MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/13/18

Metal	JC65764-1A Original MS	SpikeLot MPSPK2	% Rec	QC Limits
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Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 05/13/18

Metal	JC65764-1A Original	MSD	SpikeLot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.0	2.0	2.0	100.0	0.0	20
Barium	0.48	2.5	2.0	101.0	0.0	20
Beryllium						
Bismuth						
Boron						
Cadmium	0.0	2.0	2.0	100.0	0.0	20
Calcium						
Chromium	0.0	2.0	2.0	100.0	0.0	20
Cobalt						
Copper	anr					
Iron						
Lead	0.011	2.1	2.0	104.5	0.0	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium	0.0	2.1	2.0	105.0	4.9	20
Silicon						
Silver	0.0	0.24	0.25	96.0	0.0	20
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc	anr					
Zirconium						

Associated samples MP7122: JC65860-1A

14.7.2
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MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/13/18

Metal	JC65764-1A Original MSD	Spike lot MPSPK2	% Rec	MSD RPD	QC Limit
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Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 05/13/18 05/13/18

Metal	BSP Result	SpikeLot MPSPK2	% Rec	QC Limits	BSP Result	SpikeLot MPSPK2	% Rec	QC Limits
Aluminum								
Antimony								
Arsenic	2.0	2.0	100.0	80-120	2.0	2.0	100.0	80-120
Barium	2.0	2.0	100.0	80-120	2.0	2.0	100.0	80-120
Beryllium								
Bismuth								
Boron								
Cadmium	2.0	2.0	100.0	80-120	2.0	2.0	100.0	80-120
Calcium								
Chromium	2.0	2.0	100.0	80-120	2.0	2.0	100.0	80-120
Cobalt								
Copper	anr							
Iron								
Lead	2.1	2.0	105.0	80-120	2.1	2.0	105.0	80-120
Lithium								
Magnesium								
Manganese								
Molybdenum								
Nickel	anr							
Potassium								
Selenium	2.1	2.0	105.0	80-120	2.1	2.0	105.0	80-120
Silicon								
Silver	0.24	0.25	96.0	80-120	0.24	0.25	96.0	80-120
Strontium								
Sulfur								
Thallium								
Tin								
Titanium								
Tungsten								
Vanadium								
Zinc	anr							
Zirconium								

Associated samples MP7122: JC65860-1A

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/13/18 05/13/18

Metal	BSP Result	Spike lot MPSPK2	% Rec	QC Limits	BSP Result	Spike lot MPSPK2	% Rec	QC Limits
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Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/13/18

Metal		JC65764-1A Original SDL 5:25 %DIF		QC Limits
Aluminum				
Antimony				
Arsenic	0.00	200	NC	0-10
Barium	477	498	4.4	0-10
Beryllium				
Bismuth				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper	anr			
Iron				
Lead	11.3	0.00	100.0(a)	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium	0.00	116	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	anr			
Zirconium				

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SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7122
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/13/18

Metal	JC65764-1A Original SDL 5:25 %DIF	QC Limits
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Associated samples MP7122: JC65860-1A

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7148
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 05/14/18 05/14/18

Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Mercury	0.00020	.000016	.00013	0.000015	<0.00020	0.000023	<0.00020

Associated samples MP7148: JC65860-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7148
 Matrix Type: LEACHATE

Methods: SW846 7470A
 Units: mg/l

Prep Date: 05/14/18

Metal	JC65764-1A Original MS	SpikeLot HGPW3	% Rec	QC Limits
Mercury	0.0	0.0022	0.0020	110.0 75-125

Associated samples MP7148: JC65860-1A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 7470A
Units: mg/l

Prep Date: 05/14/18

	JC65764-1A	Spikelot	MSD	QC
Metal	Original MSD	HGPW3 % Rec	RPD	Limit
Mercury	0.0	0.0021	0.0020	105.0
			4.7	20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7148
 Matrix Type: LEACHATE

Methods: SW846 7470A
 Units: mg/l

Prep Date: 05/14/18 05/14/18

Metal	BSP Result	SpikeLot HGPW3	% Rec	QC Limits	BSP Result	SpikeLot HGPW3	% Rec	QC Limits
Mercury	0.0019	0.0020	95.0	80-120	0.0021	0.0020	105.0	80-120

Associated samples MP7148: JC65860-1A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7163
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/15/18

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0042	.015	0.013	<0.033

Associated samples MP7163: JC65860-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7163
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 05/15/18

Metal	JC65764-1		SpikeLot		QC
	Original	MS	HGPWS1	% Rec	Limits
Mercury	0.022	0.35	0.33	99.3	80-120

Associated samples MP7163: JC65860-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 7471B
Units: mg/kg

05/15/18

Associated samples MP7163: JC65860-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 7471B
Units: mg/kg

05/15/18

Associated samples MP7163: JC65860-1

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BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7168
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/15/18

Metal	RL	IDL	MDL	MB raw	final
Aluminum	53	2	5.5	-0.43	<53
Antimony	2.1	.25	.39	0.084	<2.1
Arsenic	2.1	.13	.27	0.011	<2.1
Barium	21	.063	.18	0.23	<21
Beryllium	0.21	.021	.052	0.032	<0.21
Bismuth	2.1	.34	.51		
Boron	11	.16	1.4		
Cadmium	0.53	.042	.06	0.074	<0.53
Calcium	530	.58	44	21.9	<530
Chromium	1.1	.074	.19	0.095	<1.1
Cobalt	5.3	.042	.074	0.032	<5.3
Copper	2.6	.12	.42	0.19	<2.6
Iron	53	.37	4.8	4.9	<53
Lead	2.1	.23	.36	0.13	<2.1
Lithium	5.3	.36	1.2		
Magnesium	530	2.6	14	6.4	<530
Manganese	1.6	.015	.092	0.11	<1.6
Molybdenum	2.1	.042	.16		
Nickel	4.2	.053	.26	0.084	<4.2
Phosphorus	11	.21	4.3		
Potassium	1100	6.3	32	-6.6	<1100
Selenium	2.1	.39	.68	-0.021	<2.1
Silicon	21	.19	2.7		
Silver	0.53	.074	.3	-0.063	<0.53
Sodium	1100	3.6	14	2.6	<1100
Strontium	5.3	.021	1		
Sulfur	11	.33	3.1		
Thallium	1.1	.19	.42	-0.021	<1.1
Tin	11	.095	2.7		
Titanium	1.1	.074	.28		
Tungsten	5.3	.23	1.2		
Vanadium	5.3	.084	.093	0.042	<5.3
Zinc	5.3	.021	4	0.58	<5.3

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7168
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/15/18

Metal	RL	IDL	MDL	MB raw	final
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Zirconium 2.1 .032 .26

Associated samples MP7168: JC65860-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7168
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/15/18

Metal	TD20915-1 Original MS		Spike lot MPSPK2	% Rec	QC Limits
Aluminum	411	2990	2500	103.2	75-125
Antimony	8.0	214	200	103.0	75-125
Arsenic	40.6	236	200	97.7	75-125
Barium	958	1290	200	166.0(a)	75-125
Beryllium	0.0	194	200	97.0	75-125
Bismuth					
Boron					
Cadmium	0.95	198	200	98.5	75-125
Calcium	4330	6940	2500	104.4	75-125
Chromium	120	449	200	164.5N(b)	75-125
Cobalt	7.9	189	200	90.6	75-125
Copper	247	451	200	102.0	75-125
Iron	125000	130000	2500	200.0(a)	75-125
Lead	336	532	200	98.0	75-125
Lithium					
Magnesium	444	2820	2500	95.0	75-125
Manganese	2070	2320	200	125.0	75-125
Molybdenum					
Nickel	127	389	200	131.0N(b)	75-125
Phosphorus					
Potassium	281	2760	2500	99.2	75-125
Selenium	0.0	196	200	98.0	75-125
Silicon					
Silver	0.0	23.3	25	93.2	75-125
Sodium	5260	7870	2500	104.4	75-125
Strontium					
Sulfur	anr				
Thallium	0.0	202	200	101.0	75-125
Tin					
Titanium					
Tungsten					
Vanadium	37.1	227	200	95.0	75-125
Zinc	311	494	200	91.5	75-125

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7168
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/15/18

Metal	TD20915-1 Original MS	Spike lot MPSPK2	% Rec	QC Limits
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Zirconium

Associated samples MP7168: JC65860-1

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

(b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7168
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/15/18 05/15/18

Metal	TD20915-1 Original	MSD	Spikelet MPSPK2	% Rec	MSD RPD	QC Limit	TD20915-1 Original	DUP	RPD	QC Limits
Aluminum	411	3120	2600	104.0	4.3	20	411	602	37.7*(b)	0-20
Antimony	8.0	223	208	103.2	4.1	20	8.0	8.7	8.4	0-20
Arsenic	40.6	247	208	99.1	4.6	20	40.6	41.1	1.2	0-20
Barium	958	1640	208	327.4(a)	23.9 (b)	20	958	1070	11.0	0-20
Beryllium	0.0	205	208	98.4	5.5	20	0.0	0.0	NC	0-20
Bismuth										
Boron										
Cadmium	0.95	210	208	100.3	5.9	20	0.95	0.88	7.7	0-20
Calcium	4330	6860	2600	97.2	1.2	20	4330	4560	5.2	0-20
Chromium	120	325	208	98.4	32.0 (b)	20	120	119	0.8	0-20
Cobalt	7.9	198	208	91.2	4.7	20	7.9	7.8	1.3	0-20
Copper	247	502	208	122.4	10.7	20	247	245	0.8	0-20
Iron	125000	135000	2600	384.0(a)	3.8	20	125000	126000	0.8	0-20
Lead	336	556	208	105.6	4.4	20	336	357	6.1	0-20
Lithium										
Magnesium	444	2900	2600	94.3	2.8	20	444	440	0.9	0-20
Manganese	2070	2490	208	201.6(a)	7.1	20	2070	2090	1.0	0-20
Molybdenum										
Nickel	127	325	208	95.0	17.9	20	127	125	1.6	0-20
Phosphorus										
Potassium	281	2860	2600	99.0	3.6	20	281	277	1.4	0-20
Selenium	0.0	209	208	100.3	6.4	20	0.0	0.0	NC	0-20
Silicon										
Silver	0.0	24.7	26	94.8	5.8	20	0.0	0.52	200.0(c)	0-20
Sodium	5260	7860	2600	99.8	0.1	20	5260	5030	4.5	0-20
Strontium										
Sulfur	anr									
Thallium	0.0	216	208	103.7	6.7	20	0.0	0.0	NC	0-20
Tin										
Titanium										
Tungsten										
Vanadium	37.1	243	208	98.8	6.8	20	37.1	37.7	1.6	0-20
Zinc	311	505	208	93.1	2.2	20	311	299	3.9	0-20

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7168
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/15/18 05/15/18

Metal	TD20915-1 Original MSD	Spike lot MPSPK2	% Rec	MSD RPD	QC Limit	TD20915-1 Original DUP	RPD	QC Limits
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Zirconium

Associated samples MP7168: JC65860-1

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

(b) High rpd due to possible sample nonhomogeneity.

(c) RPD acceptable due to low duplicate and sample concentrations.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7168
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/15/18

Metal	BSP Result	Spike lot MPSPK2	% Rec	QC Limits
Aluminum	2360	2400	98.2	80-120
Antimony	203	192	105.6	80-120
Arsenic	206	192	107.1	80-120
Barium	180	192	93.6	80-120
Beryllium	191	192	99.3	80-120
Bismuth				
Boron				
Cadmium	197	192	102.4	80-120
Calcium	2340	2400	97.3	80-120
Chromium	195	192	101.4	80-120
Cobalt	191	192	99.3	80-120
Copper	180	192	93.6	80-120
Iron	2410	2400	100.3	80-120
Lead	195	192	101.4	80-120
Lithium				
Magnesium	2380	2400	99.0	80-120
Manganese	196	192	101.9	80-120
Molybdenum				
Nickel	194	192	100.9	80-120
Phosphorus				
Potassium	2220	2400	92.4	80-120
Selenium	186	192	96.7	80-120
Silicon				
Silver	22.7	24	94.4	80-120
Sodium	2280	2400	94.8	80-120
Strontium				
Sulfur	anr			
Thallium	190	192	98.8	80-120
Tin				
Titanium				
Tungsten				
Vanadium	189	192	98.3	80-120
Zinc	211	192	109.7	80-120

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/15/18

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
-------	---------------	--------------------	-------	--------------

Zirconium

Associated samples MP7168: JC65860-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7168
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/15/18

Metal	TD20915-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum	4030	4290	6.5	0-10
Antimony	78.0	61.8	20.8 (a)	0-10
Arsenic	398	402	1.0	0-10
Barium	9390	10300	9.3	0-10
Beryllium	0.00	0.00	NC	0-10
Bismuth				
Boron				
Cadmium	9.30	0.00	100.0(a)	0-10
Calcium	42400	46100	8.7	0-10
Chromium	1170	1210	3.0	0-10
Cobalt	77.8	78.5	0.9	0-10
Copper	2420	2510	3.7	0-10
Iron	1220000	1300000	6.2	0-10
Lead	3300	3470	5.1	0-10
Lithium				
Magnesium	4360	4930	13.2*(b)	0-10
Manganese	20300	21100	4.0	0-10
Molybdenum				
Nickel	1240	1330	6.7	0-10
Phosphorus				
Potassium	2750	3740	35.9 (a)	0-10
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	51600	54700	6.0	0-10
Strontium				
Sulfur	anr			
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Tungsten				
Vanadium	364	363	0.2	0-10
Zinc	3040	3160	3.8	0-10

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7168
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/15/18

Metal	TD20915-1		QC Limits
	Original	SDL 1:5 %DIF	

Zirconium

Associated samples MP7168: JC65860-1

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

(b) Serial dilution indicates possible matrix interference.

POST DIGESTATE SPIKE SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7168
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date:

05/15/18

Metal	Sample ml	Final ml	TD20915-1 Raw	PS Corr.** ug/l	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Bismuth										
Boron										
Cadmium										
Calcium										
Chromium	9.0	10	1173	1055.7	1545	0.5	10	500	97.9	80-120
Cobalt										
Copper										
Iron										
Lead										
Lithium										
Magnesium										
Manganese										
Molybdenum										
Nickel	9.0	10	1242	1117.8	1588	0.5	10	500	94.0	80-120
Phosphorus										
Potassium										
Selenium										
Silicon										
Silver										
Sodium										
Strontium										
Sulfur										
Thallium										
Tin										
Titanium										
Tungsten										
Vanadium										
Zinc										

14.10.5
14

POST DIGESTATE SPIKE SUMMARY

Login Number: JC65860
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7168
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date:

05/15/18

Metal	Sample ml	Final ml	TD20915-1 Raw	PS Corr.** ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
-------	--------------	-------------	------------------	-----------------------	-------------	----------------	---------------	-------	--------------

Zirconium

Associated samples MP7168: JC65860-1

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(**) Corr. sample result = Raw * (sample volume / final volume)

(anr) Analyte not requested

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC
- Percent Solids Raw Data Summary

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Cyanide	GP12998/GN79946	0.12	0.0	mg/kg	1	1.06	106.0	90-110%
Cyanide Reactivity	GP12980/GN79946	10	0.0	mg/kg	100	4.26	4.3	.25-27%
Percent Sulfur	GP13154/GN80195	0.10	0.0	%	.667	0.77	114.8	80-120%
Percent Sulfur	GP13154/GN80242	0.10	0.0	%	0.667	0.62	93.4	80-120%
Sulfide Reactivity	GP12981/GN79882	100	0.0	mg/kg	500	310	62.0	42-107%

Associated Samples:

Batch GP12980: JC65860-1A

Batch GP12981: JC65860-1A

Batch GP12998: JC65860-1

Batch GP13154: JC65860-1

(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Corrosivity as pH	GN80265	JC65814-2AB	su	7.03	7	0.4	0-5%
Cyanide	GP12998/GN79946	JC65868-1A	mg/kg	0.079	0.0	200.0(a)	0-49%
Cyanide Reactivity	GP12980/GN79946	JC65724-2	mg/kg	0.0	0.0	0.0	0-20%
Heat Content, BTU	GP13163/GN80194	JC64996-7	BTU/lb	1950	1850	5.3	0-32%
Ignitability (Flashpoint)	GN80261	JC65751-16	Deg. F	>200	>200	0.0	0-10%
Percent Sulfur	GP13154/GN80195	JC64996-7	%	0.0	0.0	0.0	0-20%
Sulfide Reactivity	GP12981/GN79882	JC65724-2	mg/kg	0.0	0.0	0.0	0-20%

Associated Samples:

Batch GN80261: JC65860-1A

Batch GN80265: JC65860-1A

Batch GP12980: JC65860-1A

Batch GP12981: JC65860-1A

Batch GP12998: JC65860-1

Batch GP13154: JC65860-1

Batch GP13163: JC65860-1

(*) Outside of QC limits

(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Cyanide	GP12998/GN79946	JC65860-1	mg/kg	7.1	1.82	9.1	110.0	75-125%
Sulfide Reactivity	GP12981/GN79882	JC65724-2	mg/kg	0.0	737	156	21.2	20-82%

Associated Samples:

Batch GP12981: JC65860-1A

Batch GP12998: JC65860-1

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051418W1.CN Date Analyzed: 05/14/18 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Analyst: BM Run ID: GN79946
Parameters: Cyanide,Cyanide Reactivity

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:51	GN79946-STD1	1		STDA
08:53	GN79946-STD2	1		STDB
08:54	GN79946-STD3	1		STDC
08:56	GN79946-STD4	1		STDD
08:57	GN79946-STD5	1		STDE
08:58	GN79946-STD6	1		STDF
09:00	GN79946-STD7	1		STDG
09:01	GN79946-ICV1	1		ICV failed, see rerun.
09:02	GN79946-ICB1	1		ICV failed, see rerun.
09:04	GN79946-CCV1	1		ICV failed, see rerun.
09:12	GN79946-ICV2	1		
09:13	GN79946-ICB2	1		
09:14	GN79946-CCV2	1		
09:16	GN79946-CCB1	1		
09:17	GP12999-MB1	1		
09:18	GP12999-B1	1		
09:20	GP12999-B2	1		
09:21	GP12999-S1	1		
09:22	GP12999-D1	1		
09:24	JC65733-1	1		(sample used for QC only; not part of login JC65860)
09:25	ZZZZZ	1		
09:27	GP12998-MB1	1		
09:28	GP12998-B1	1		
09:29	GP12998-S1	1		
09:31	GN79946-CCV3	1		
09:32	GN79946-CCB2	1		
09:33	GP12998-S2	1		
09:35	GP12998-D1	1		
09:36	ZZZZZ	1		
09:37	ZZZZZ	1		
09:39	JC65868-1A	1		(sample used for QC only; not part of login JC65860)
09:40	JC65860-1	1		
09:42	ZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051418W1.CN Date Analyzed: 05/14/18 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Analyst: BM Run ID: GN79946
Parameters: Cyanide,Cyanide Reactivity

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:43	ZZZZZZ	1		
09:44	ZZZZZZ	1		
09:46	ZZZZZZ	1		
09:47	GN79946-CCV4	1		
09:48	GN79946-CCB3	1		
09:50	ZZZZZZ	1		
09:51	ZZZZZZ	1		
09:52	ZZZZZZ	1		
09:54	ZZZZZZ	1		
09:55	GP12997-MB1	1		
09:57	GP12997-B1	1		see rerun.
09:58	GP12997-S1	1		
09:59	GP12997-S2	1		
10:01	GP12997-D1	1		
10:02	ZZZZZZ	1		
10:03	GN79946-CCV5	1		
10:05	GN79946-CCB4	1		
10:06	ZZZZZZ	1		
10:07	JC65732-4	1		(sample used for QC only; not part of login JC65860)
10:09	ZZZZZZ	1		
10:10	ZZZZZZ	1		
10:11	ZZZZZZ	1		
10:13	ZZZZZZ	1		
10:14	ZZZZZZ	1		
10:16	ZZZZZZ	1		
10:17	ZZZZZZ	1		
10:18	ZZZZZZ	1		
10:20	GN79946-CCV6	1		
10:21	GN79946-CCB5	1		
10:22	ZZZZZZ	1		
10:24	JC65866-3	1		(sample used for QC only; not part of login JC65860)
10:25	ZZZZZZ	1		
10:26	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051418W1.CN Date Analyzed: 05/14/18 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Analyst: BM Run ID: GN79946
Parameters: Cyanide,Cyanide Reactivity

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:28	ZZZZZZ	1		
10:29	ZZZZZZ	1		
10:31	ZZZZZZ	1		
10:32	GP13001-MB1	1		
10:33	GP13001-B1	1		
10:35	GP13001-S1	1		
10:36	GN79946-CCV7	1		
10:37	GN79946-CCB6	1		
10:39	GP13001-D1	1		
10:40	JC65989-1	1		(sample used for QC only; not part of login JC65860)
10:41	GP12982-MB1	1		
10:43	GP12982-B1	1		
10:44	GP12982-D1	1		
10:46	ZZZZZZ	1		
10:47	JC65837-1	1		(sample used for QC only; not part of login JC65860)
10:48	ZZZZZZ	1		
10:50	ZZZZZZ	1		
10:51	ZZZZZZ	1		
10:52	GN79946-CCV8	1		
10:54	GN79946-CCB7	1		
10:55	ZZZZZZ	1		
10:56	ZZZZZZ	1		
10:58	GP12997-B1	1		
10:59	GP12980-MB1	1		
11:00	GP12980-B1	1		
11:02	GP12980-D1	1		
11:03	JC65724-2	1		(sample used for QC only; not part of login JC65860)
11:05	ZZZZZZ	1		
11:06	ZZZZZZ	1		
11:07	ZZZZZZ	1		
11:09	GN79946-CCV9	1		
11:10	GN79946-CCB8	1		
11:11	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051418W1.CN Date Analyzed: 05/14/18 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Analyst: BM Run ID: GN79946
Parameters: Cyanide,Cyanide Reactivity

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:13	ZZZZZZ	1		
11:14	ZZZZZZ	1		
11:15	ZZZZZZ	1		
11:17	ZZZZZZ	1		
11:18	ZZZZZZ	1		
11:20	JC65860-1A	1		
11:21	ZZZZZZ	1		
11:22	ZZZZZZ	1		
11:24	ZZZZZZ	20		
11:25	GN79946-CCV10	1		
11:26	GN79946-CCB9	1		
11:28	ZZZZZZ	40		
11:31	GN79946-CCV11	1		
11:32	GN79946-CCB10	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC65860
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051418W1.CN

Date Analyzed: 05/14/18
Run ID: GN79946

Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN79946-ICV1	Cyanide	0.0058 U	0.010	0.0058			
GN79946-ICB1	Cyanide	0.00800	0.010	0.0058			
GN79946-CCV1	Cyanide	0.395	0.010	0.0058	.4	98.8	90-110
GN79946-ICV2	Cyanide	0.291	0.010	0.0058	.3	97.0	90-110
GN79946-ICB2	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV2	Cyanide	0.397	0.010	0.0058	.4	99.3	90-110
GN79946-CCB1	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV3	Cyanide	0.396	0.010	0.0058	.4	99.0	90-110
GN79946-CCB2	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV4	Cyanide	0.396	0.010	0.0058	.4	99.0	90-110
GN79946-CCB3	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV5	Cyanide	0.397	0.010	0.0058	.4	99.3	90-110
GN79946-CCB4	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV6	Cyanide	0.396	0.010	0.0058	.4	99.0	90-110
GN79946-CCB5	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV7	Cyanide	0.392	0.010	0.0058	.4	98.0	90-110
GN79946-CCB6	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV8	Cyanide	0.391	0.010	0.0058	.4	97.8	90-110
GN79946-CCB7	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV9	Cyanide	0.389	0.010	0.0058	.4	97.3	90-110
GN79946-CCB8	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV10	Cyanide	0.387	0.010	0.0058	.4	96.8	90-110
GN79946-CCB9	Cyanide	0.0058 U	0.010	0.0058			
GN79946-CCV11	Cyanide	0.388	0.010	0.0058	.4	97.0	90-110
GN79946-CCB10	Cyanide	0.0058 U	0.010	0.0058			

(!) Outside of QC limits

15.4
15

Percent Solids Raw Data Summary

Job Number: JC65860
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	JC65860-1	Analyzed:	16-MAY-18 by DJ	Method:	SM2540 G-97
ClientID:	WC-2				
Wet Weight (Total)	31.66		g		
Tare Weight	24.21		g		
Dry Weight (Total)	30.61		g		
Solids, Percent	85.9		%		

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

e-Hardcopy 2.0
Automated Report

Technical Report for

Arcadis

NYSEG - Lyons MGP Site, Lyons NY

B0013143.0000

SGS Job Number: JC66181

Sampling Dates: 05/11/18 - 05/14/18

Report to:

Arcadis
295 Woodcliff Drive Suite 301
Fairport, NY 14450
matt.hysell@arcadis.com; Nicholas.Beyrle@arcadis.com

ATTN: Matthew Hysell

Total number of pages in report: **134**



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

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

Nancy Cole
Laboratory Director

Client Service contact: Diane Komar 732-329-0200

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

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Test results relate only to samples analyzed.

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Sample Summary

Arcadis

Job No: JC66181

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.0000

Sample Number	Collected		Matrix Code	Type	Client Sample ID
	Date	Time By			
JC66181-1	05/11/18	09:20 RDC	05/15/18	SO Soil	SB-103(7-9)
JC66181-2	05/11/18	12:05 RDC	05/15/18	SO Soil	SB-106(5-7)
JC66181-3	05/14/18	09:40 RDC	05/15/18	SO Soil	SB-107(5-7)

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Arcadis

Job No JC66181

Site: NYSEG - Lyons MGP Site, Lyons NY

Report Date 5/22/2018 5:45:50 PM

On 05/15/2018, 3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 3.1 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC66181 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

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

MS Semi-volatiles By Method SW846 8270D

Matrix: SO

Batch ID: OP12038

- All samples were extracted within the recommended method holding time.
- Sample(s) JC66178-1MS, JC66178-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC66181-1: Dilution required due to matrix interference.
- JC66181-2: Dilution required due to matrix interference.
- JC66181-3: Dilution required due to matrix interference.
- JC66181-2 for Nitrobenzene-d5: Outside control limits due to dilution.

General Chemistry By Method SM2540 G-97

Matrix: SO

Batch ID: GN80141

- The data for SM2540 G-97 meets quality control requirements.

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

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

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

Tuesday, May 22, 2018

Page 1 of 1

Summary of Hits

Job Number: JC66181
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/11/18 thru 05/14/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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JC66181-1 SB-103(7-9)

Acenaphthene ^a	1220	220	77	ug/kg	SW846 8270D
Acenaphthylene ^a	6380	220	110	ug/kg	SW846 8270D
Anthracene ^a	8210	220	140	ug/kg	SW846 8270D
Benzo(a)anthracene	69800	1100	320	ug/kg	SW846 8270D
Benzo(a)pyrene	64200	1100	510	ug/kg	SW846 8270D
Benzo(b)fluoranthene	72300	1100	490	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	26800	1100	560	ug/kg	SW846 8270D
Benzo(k)fluoranthene ^a	19900	220	100	ug/kg	SW846 8270D
Chrysene	54500	1100	350	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene ^a	10600	220	99	ug/kg	SW846 8270D
Fluoranthene	81100	1100	500	ug/kg	SW846 8270D
Fluorene ^a	1210	220	100	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	28100	1100	520	ug/kg	SW846 8270D
Naphthalene ^a	1910	220	63	ug/kg	SW846 8270D
Phenanthrene ^a	8100	220	75	ug/kg	SW846 8270D
Pyrene	80000	1100	360	ug/kg	SW846 8270D

JC66181-2 SB-106(5-7)

Acenaphthene ^a	16900	1900	660	ug/kg	SW846 8270D
Acenaphthylene	231000	19000	9700	ug/kg	SW846 8270D
Anthracene	284000	19000	12000	ug/kg	SW846 8270D
Benzo(a)anthracene	315000	19000	5400	ug/kg	SW846 8270D
Benzo(a)pyrene ^a	178000	1900	870	ug/kg	SW846 8270D
Benzo(b)fluoranthene	264000	19000	8400	ug/kg	SW846 8270D
Benzo(g,h,i)perylene ^a	81600	1900	950	ug/kg	SW846 8270D
Benzo(k)fluoranthene ^a	108000	1900	890	ug/kg	SW846 8270D
Chrysene	262000	19000	6000	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene ^a	39900	1900	840	ug/kg	SW846 8270D
Fluoranthene	692000	19000	8500	ug/kg	SW846 8270D
Fluorene ^a	27300	1900	880	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene ^a	86600	1900	900	ug/kg	SW846 8270D
Naphthalene	995000	19000	5400	ug/kg	SW846 8270D
Phenanthrene	1240000	19000	6400	ug/kg	SW846 8270D
Pyrene	561000	19000	6100	ug/kg	SW846 8270D

JC66181-3 SB-107(5-7)

Acenaphthene ^a	1080	77	27	ug/kg	SW846 8270D
Acenaphthylene ^a	2410	77	39	ug/kg	SW846 8270D
Anthracene ^a	6180	77	47	ug/kg	SW846 8270D
Benzo(a)anthracene	25300	390	110	ug/kg	SW846 8270D
Benzo(a)pyrene	29200	390	180	ug/kg	SW846 8270D

Summary of Hits

Job Number: JC66181
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/11/18 thru 05/14/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						
Benzo(b)fluoranthene		28600	390	170	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		15300	390	190	ug/kg	SW846 8270D
Benzo(k)fluoranthene		11900	390	180	ug/kg	SW846 8270D
Chrysene		20200	390	120	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene ^a		6830	77	34	ug/kg	SW846 8270D
Fluoranthene		26900	390	170	ug/kg	SW846 8270D
Fluorene ^a		1740	77	35	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		14600	390	180	ug/kg	SW846 8270D
Naphthalene ^a		1630	77	22	ug/kg	SW846 8270D
Phenanthrene		13100	390	130	ug/kg	SW846 8270D
Pyrene		24800	390	120	ug/kg	SW846 8270D

(a) Dilution required due to matrix interference.



Dayton, NJ

Section 4

4

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SB-103(7-9)	Date Sampled:	05/11/18
Lab Sample ID:	JC66181-1	Date Received:	05/15/18
Matrix:	SO - Soil	Percent Solids:	73.8
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	6P473023.D	5	05/16/18 22:49	CC	05/16/18 07:45	OP12038	E6P2211
Run #2	6P473037.D	25	05/17/18 14:18	CC	05/16/18 07:45	OP12038	E6P2212

	Initial Weight	Final Volume
Run #1	30.3 g	1.0 ml
Run #2	30.3 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1220	220	77	ug/kg	
208-96-8	Acenaphthylene	6380	220	110	ug/kg	
120-12-7	Anthracene	8210	220	140	ug/kg	
56-55-3	Benzo(a)anthracene	69800 ^b	1100	320	ug/kg	
50-32-8	Benzo(a)pyrene	64200 ^b	1100	510	ug/kg	
205-99-2	Benzo(b)fluoranthene	72300 ^b	1100	490	ug/kg	
191-24-2	Benzo(g,h,i)perylene	26800 ^b	1100	560	ug/kg	
207-08-9	Benzo(k)fluoranthene	19900	220	100	ug/kg	
218-01-9	Chrysene	54500 ^b	1100	350	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	10600	220	99	ug/kg	
206-44-0	Fluoranthene	81100 ^b	1100	500	ug/kg	
86-73-7	Fluorene	1210	220	100	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	28100 ^b	1100	520	ug/kg	
91-20-3	Naphthalene	1910	220	63	ug/kg	
85-01-8	Phenanthrene	8100	220	75	ug/kg	
129-00-0	Pyrene	80000 ^b	1100	360	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	58%	56%	26-134%
321-60-8	2-Fluorobiphenyl	65%	68%	39-124%
1718-51-0	Terphenyl-d14	67%	78%	36-134%

(a) Dilution required due to matrix interference.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SB-106(5-7)	Date Sampled:	05/11/18
Lab Sample ID:	JC66181-2	Date Received:	05/15/18
Matrix:	SO - Soil	Percent Solids:	82.1
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	6P473038.D	50	05/17/18 14:43	CC	05/16/18 07:45	OP12038	E6P2212
Run #2	6P473084.D	500	05/18/18 17:33	CC	05/16/18 07:45	OP12038	E6P2214

	Initial Weight	Final Volume
Run #1	31.9 g	1.0 ml
Run #2	31.9 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	16900	1900	660	ug/kg	
208-96-8	Acenaphthylene	231000 ^b	19000	9700	ug/kg	
120-12-7	Anthracene	284000 ^b	19000	12000	ug/kg	
56-55-3	Benzo(a)anthracene	315000 ^b	19000	5400	ug/kg	
50-32-8	Benzo(a)pyrene	178000	1900	870	ug/kg	
205-99-2	Benzo(b)fluoranthene	264000 ^b	19000	8400	ug/kg	
191-24-2	Benzo(g,h,i)perylene	81600	1900	950	ug/kg	
207-08-9	Benzo(k)fluoranthene	108000	1900	890	ug/kg	
218-01-9	Chrysene	262000 ^b	19000	6000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	39900	1900	840	ug/kg	
206-44-0	Fluoranthene	692000 ^b	19000	8500	ug/kg	
86-73-7	Fluorene	27300	1900	880	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	86600	1900	900	ug/kg	
91-20-3	Naphthalene	995000 ^b	19000	5400	ug/kg	
85-01-8	Phenanthrene	1240000 ^b	19000	6400	ug/kg	
129-00-0	Pyrene	561000 ^b	19000	6100	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%	0% ^c	26-134%
321-60-8	2-Fluorobiphenyl	76%	87%	39-124%
1718-51-0	Terphenyl-d14	106%	89%	36-134%

(a) Dilution required due to matrix interference.

(b) Result is from Run# 2

(c) Outside control limits due to dilution.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SB-107(5-7)	Date Sampled:	05/14/18
Lab Sample ID:	JC66181-3	Date Received:	05/15/18
Matrix:	SO - Soil	Percent Solids:	85.4
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	6P473025.D	2	05/16/18 23:39	CC	05/16/18 07:45	OP12038	E6P2211
Run #2	6P473039.D	10	05/17/18 15:07	CC	05/16/18 07:45	OP12038	E6P2212

	Initial Weight	Final Volume
Run #1	30.3 g	1.0 ml
Run #2	30.3 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1080	77	27	ug/kg	
208-96-8	Acenaphthylene	2410	77	39	ug/kg	
120-12-7	Anthracene	6180	77	47	ug/kg	
56-55-3	Benzo(a)anthracene	25300 ^b	390	110	ug/kg	
50-32-8	Benzo(a)pyrene	29200 ^b	390	180	ug/kg	
205-99-2	Benzo(b)fluoranthene	28600 ^b	390	170	ug/kg	
191-24-2	Benzo(g,h,i)perylene	15300 ^b	390	190	ug/kg	
207-08-9	Benzo(k)fluoranthene	11900 ^b	390	180	ug/kg	
218-01-9	Chrysene	20200 ^b	390	120	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	6830	77	34	ug/kg	
206-44-0	Fluoranthene	26900 ^b	390	170	ug/kg	
86-73-7	Fluorene	1740	77	35	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	14600 ^b	390	180	ug/kg	
91-20-3	Naphthalene	1630	77	22	ug/kg	
85-01-8	Phenanthrene	13100 ^b	390	130	ug/kg	
129-00-0	Pyrene	24800 ^b	390	120	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	59%	52%	26-134%
321-60-8	2-Fluorobiphenyl	66%	69%	39-124%
1718-51-0	Terphenyl-d14	58%	72%	36-134%

(a) Dilution required due to matrix interference.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

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

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

FED-EX Tracking # 4077 3094 32SS	Bottle Order Control # DK-05118-26
SGS Accutest Quote #	SGS Accutest Job # TC66181

[illegible]

SGS Sample Receipt Summary

Job Number: JC66181

Client: ARCADIS

Project: NYSEG - LYONS MGP SITE, LYONS NY - DELIN

Date / Time Received: 5/15/2018 9:30:00 AM

Delivery Method:
Airbill #s:
Cooler Temps (Raw Measured) °C: Cooler 1: (3.1);

Cooler Temps (Corrected) °C: Cooler 1: (3.1);

Cooler Security
Y or N
Y or N

- | | |
|--|---|
| 1. Custody Seals Present: ☒ Y ☐ N | 3. COC Present: ☒ Y ☐ N |
| 2. Custody Seals Intact: ☒ Y ☐ N | 4. Smpl Dates/Time OK: ☒ Y ☐ N |

Cooler Temperature
Y or N

- | | |
|---|-----------|
| 1. Temp criteria achieved: ☒ Y ☐ N | IR Gun |
| 2. Cooler temp verification: | |
| 3. Cooler media: | Ice (Bag) |
| 4. No. Coolers: | 1 |

Quality Control Preservation
Y or N
N/A

- | | |
|---|--|
| 1. Trip Blank present / cooler: ☐ Y ☒ N ☐ N/A | |
| 2. Trip Blank listed on COC: ☐ Y ☒ N ☐ N/A | |
| 3. Samples preserved properly: ☒ Y ☐ N ☐ N/A | |
| 4. VOCs headspace free: ☐ Y ☐ N ☒ N/A | |

Sample Integrity - Documentation
Y or N

- | | |
|---|--|
| 1. Sample labels present on bottles: ☒ Y ☐ N | |
| 2. Container labeling complete: ☒ Y ☐ N | |
| 3. Sample container label / COC agree: ☒ Y ☐ N | |

Sample Integrity - Condition
Y or N

- | | |
|---|--------|
| 1. Sample recvd within HT: ☒ Y ☐ N | |
| 2. All containers accounted for: ☒ Y ☐ N | |
| 3. Condition of sample: ☐ Y ☐ N | Intact |

Sample Integrity - Instructions
Y or N
N/A

- | | |
|---|---|
| 1. Analysis requested is clear: ☒ Y ☐ N | |
| 2. Bottles received for unspecified tests: ☐ Y ☒ N | |
| 3. Sufficient volume recvd for analysis: ☒ Y ☐ N | |
| 4. Compositing instructions clear: ☐ Y ☐ N | ☒ N/A |
| 5. Filtering instructions clear: ☐ Y ☐ N | ☒ N/A |

Test Strip Lot #s:

pH 1-12: 216017

pH 12+: 208717

Other: (Specify)

Comments

 SM089-03
Rev. Date 12/7/17

JC66181: Chain of Custody

Page 2 of 2

Internal Sample Tracking Chronicle

Arcadis

Job No: JC66181

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.0000

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC66181-1 Collected: 11-MAY-18 09:20 By: RDC Received: 15-MAY-18 By: AS SB-103(7-9)						
JC66181-1	SW846 8270D	16-MAY-18 22:49	CC	16-MAY-18 NT		B8270PAH
JC66181-1	SW846 8270D	17-MAY-18 14:18	CC	16-MAY-18 NT		B8270PAH
JC66181-1	SM2540 G-97	17-MAY-18 19:00	LV			SOL104
JC66181-2 Collected: 11-MAY-18 12:05 By: RDC Received: 15-MAY-18 By: AS SB-106(5-7)						
JC66181-2	SW846 8270D	17-MAY-18 14:43	CC	16-MAY-18 NT		B8270PAH
JC66181-2	SM2540 G-97	17-MAY-18 19:00	LV			SOL104
JC66181-2	SW846 8270D	18-MAY-18 17:33	CC	16-MAY-18 NT		B8270PAH
JC66181-3 Collected: 14-MAY-18 09:40 By: RDC Received: 15-MAY-18 By: AS SB-107(5-7)						
JC66181-3	SW846 8270D	16-MAY-18 23:39	CC	16-MAY-18 NT		B8270PAH
JC66181-3	SW846 8270D	17-MAY-18 15:07	CC	16-MAY-18 NT		B8270PAH
JC66181-3	SM2540 G-97	17-MAY-18 19:00	LV			SOL104

SGS Internal Chain of Custody

Page 1 of 1

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/15/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66181-1.1	Secured Storage	Jennifer Voitovitch	05/15/18 22:55	Retrieve from Storage
JC66181-1.1	Jennifer Voitovitch	Secured Staging Area	05/15/18 22:55	Return to Storage
JC66181-1.1	Secured Staging Area	Sora Lynn Mathurin	05/16/18 05:01	Retrieve from Storage
JC66181-1.1	Sora Lynn Mathurin	Secured Storage	05/16/18 12:06	Return to Storage
JC66181-1.1	Secured Storage	Luis Villanueva	05/17/18 15:52	Retrieve from Storage
JC66181-1.1	Luis Villanueva	Secured Staging Area	05/17/18 15:52	Return to Storage
JC66181-1.1	Secured Staging Area	Luis Villanueva	05/17/18 15:52	Retrieve from Storage
JC66181-1.1	Luis Villanueva	Secured Storage	05/18/18 15:38	Return to Storage
JC66181-1.1.1	Sora Lynn Mathurin	Organics Prep	05/16/18 05:01	Extract from JC66181-1.1
JC66181-1.1.1	Organics Prep	Finley Nyaata	05/16/18 13:23	Extract from JC66181-1.1
JC66181-1.1.1	Finley Nyaata	Extract Storage	05/16/18 13:23	Return to Storage
JC66181-1.1.1	Extract Storage	Christine Change	05/16/18 14:40	Retrieve from Storage
JC66181-1.1.1	Christine Change	GCMS6P	05/16/18 14:40	Load on Instrument
JC66181-2.1	Secured Storage	Jennifer Voitovitch	05/15/18 22:55	Retrieve from Storage
JC66181-2.1	Jennifer Voitovitch	Secured Staging Area	05/15/18 22:55	Return to Storage
JC66181-2.1	Secured Staging Area	Sora Lynn Mathurin	05/16/18 05:01	Retrieve from Storage
JC66181-2.1	Sora Lynn Mathurin	Secured Storage	05/16/18 12:06	Return to Storage
JC66181-2.1	Secured Storage	Luis Villanueva	05/17/18 15:52	Retrieve from Storage
JC66181-2.1	Luis Villanueva	Secured Staging Area	05/17/18 15:52	Return to Storage
JC66181-2.1	Secured Staging Area	Luis Villanueva	05/17/18 15:52	Retrieve from Storage
JC66181-2.1	Luis Villanueva	Secured Storage	05/18/18 15:38	Return to Storage
JC66181-2.1.1	Sora Lynn Mathurin	Organics Prep	05/16/18 05:01	Extract from JC66181-2.1
JC66181-2.1.1	Organics Prep	Finley Nyaata	05/16/18 13:23	Extract from JC66181-2.1
JC66181-2.1.1	Finley Nyaata	Extract Storage	05/16/18 13:23	Return to Storage
JC66181-2.1.1	Extract Storage	Christine Change	05/16/18 14:40	Retrieve from Storage
JC66181-2.1.1	Christine Change	GCMS6P	05/16/18 14:40	Load on Instrument
JC66181-3.1	Secured Storage	Jennifer Voitovitch	05/15/18 22:55	Retrieve from Storage
JC66181-3.1	Jennifer Voitovitch	Secured Staging Area	05/15/18 22:55	Return to Storage
JC66181-3.1	Secured Staging Area	Sora Lynn Mathurin	05/16/18 05:01	Retrieve from Storage
JC66181-3.1	Sora Lynn Mathurin	Secured Storage	05/16/18 12:06	Return to Storage
JC66181-3.1	Secured Storage	Luis Villanueva	05/17/18 15:52	Retrieve from Storage
JC66181-3.1	Luis Villanueva	Secured Staging Area	05/17/18 15:52	Return to Storage
JC66181-3.1	Secured Staging Area	Luis Villanueva	05/17/18 15:52	Retrieve from Storage
JC66181-3.1	Luis Villanueva	Secured Storage	05/18/18 15:38	Return to Storage
JC66181-3.1.1	Sora Lynn Mathurin	Organics Prep	05/16/18 05:01	Extract from JC66181-3.1
JC66181-3.1.1	Organics Prep	Finley Nyaata	05/16/18 13:23	Extract from JC66181-3.1
JC66181-3.1.1	Finley Nyaata	Extract Storage	05/16/18 13:23	Return to Storage
JC66181-3.1.1	Extract Storage	Christine Change	05/16/18 14:40	Retrieve from Storage
JC66181-3.1.1	Christine Change	GCMS6P	05/16/18 14:40	Load on Instrument

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Page 1 of 1

Job Number: JC66181

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12038-MB	6P473002.D	1	05/16/18	CC	05/16/18	OP12038	E6P2211

The QC reported here applies to the following samples:

Method: SW846 8270D

JC66181-1, JC66181-2, JC66181-3

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	77% 23-115%
4165-62-2	Phenol-d5	78% 27-114%
118-79-6	2,4,6-Tribromophenol	71% 19-152%
4165-60-0	Nitrobenzene-d5	80% 26-134%
321-60-8	2-Fluorobiphenyl	87% 39-124%
1718-51-0	Terphenyl-d14	96% 36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/kg	

Blank Spike Summary

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Job Number: JC66181

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12038-BS	6P473003.D	1	05/16/18	CC	05/16/18	OP12038	E6P2211

The QC reported here applies to the following samples:

Method: SW846 8270D

JC66181-1, JC66181-2, JC66181-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	1670	1400	84	53-119
208-96-8	Acenaphthylene	1670	1480	89	41-125
120-12-7	Anthracene	1670	1340	80	51-120
56-55-3	Benzo(a)anthracene	1670	1360	82	54-118
50-32-8	Benzo(a)pyrene	1670	1310	79	55-121
205-99-2	Benzo(b)fluoranthene	1670	1340	80	57-116
191-24-2	Benzo(g,h,i)perylene	1670	1400	84	40-124
207-08-9	Benzo(k)fluoranthene	1670	1460	88	59-116
218-01-9	Chrysene	1670	1330	80	51-115
53-70-3	Dibenzo(a,h)anthracene	1670	1350	81	48-121
206-44-0	Fluoranthene	1670	1240	74	58-117
86-73-7	Fluorene	1670	1430	86	56-114
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1340	80	49-124
91-20-3	Naphthalene	1670	1420	85	44-116
85-01-8	Phenanthrene	1670	1300	78	53-119
129-00-0	Pyrene	1670	1500	90	54-124

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	72%	23-115%
4165-62-2	Phenol-d5	76%	27-114%
118-79-6	2,4,6-Tribromophenol	69%	19-152%
4165-60-0	Nitrobenzene-d5	78%	26-134%
321-60-8	2-Fluorobiphenyl	80%	39-124%
1718-51-0	Terphenyl-d14	92%	36-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12038-MS	6P473016.D	1	05/16/18	CC	05/16/18	OP12038	E6P2211
OP12038-MSD	6P473017.D	1	05/16/18	CC	05/16/18	OP12038	E6P2211
JC66178-1	6P473014.D	1	05/16/18	CC	05/16/18	OP12038	E6P2211

The QC reported here applies to the following samples:

Method: SW846 8270D

JC66181-1, JC66181-2, JC66181-3

CAS No.	Compound	JC66178-1 ug/kg	Spike Q	ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		1960	1120	57	1940	1310	68	16	21-136/34
208-96-8	Acenaphthylene	ND		1960	1180	60	1940	1360	70	14	10-143/36
120-12-7	Anthracene	ND		1960	1020	52	1940	1160	60	13	10-147/39
56-55-3	Benzo(a)anthracene	ND		1960	1000	51	1940	1150	59	14	10-151/41
50-32-8	Benzo(a)pyrene	ND		1960	960	49	1940	1130	58	16	10-149/40
205-99-2	Benzo(b)fluoranthene	18.6	J	1960	960	48	1940	1070	54	11	10-147/42
191-24-2	Benzo(g,h,i)perylene	ND		1960	1030	53	1940	1220	63	17	10-150/41
207-08-9	Benzo(k)fluoranthene	ND		1960	981	50	1940	1170	60	18	12-142/41
218-01-9	Chrysene	ND		1960	980	50	1940	1130	58	14	10-151/41
53-70-3	Dibenzo(a,h)anthracene	ND		1960	979	50	1940	1130	58	14	10-152/38
206-44-0	Fluoranthene	21.1	J	1960	972	49	1940	1090	55	11	10-151/44
86-73-7	Fluorene	ND		1960	1120	57	1940	1340	69	18	19-133/36
193-39-5	Indeno(1,2,3-cd)pyrene	ND		1960	972	50	1940	1150	59	17	10-148/41
91-20-3	Naphthalene	ND		1960	1120	57	1940	1250	65	11	10-136/36
85-01-8	Phenanthrene	ND		1960	1010	52	1940	1170	60	15	11-145/45
129-00-0	Pyrene	22.4	J	1960	1110	56	1940	1280	65	14	11-155/44

CAS No.	Surrogate Recoveries	MS	MSD	JC66178-1	Limits
367-12-4	2-Fluorophenol	54%	62%	64%	23-115%
4165-62-2	Phenol-d5	53%	62%	62%	27-114%
118-79-6	2,4,6-Tribromophenol	48%	51%	59%	19-152%
4165-60-0	Nitrobenzene-d5	54%	60%	62%	26-134%
321-60-8	2-Fluorobiphenyl	59%	67%	71%	39-124%
1718-51-0	Terphenyl-d14	61%	70%	78%	36-134%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

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Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-DFTPP
Lab File ID: 6P471774.D
Instrument ID: GCMS6P
Injection Date: 04/13/18
Injection Time: 23:44

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	185492	46.4	Pass
68	Less than 2.0% of mass 69	2655	0.66 (1.65) ^a	Pass
69	Mass 69 relative abundance	161241	40.4	Pass
70	Less than 2.0% of mass 69	1012	0.25 (0.63) ^a	Pass
127	40.0 - 60.0% of mass 198	182858	45.8	Pass
197	Less than 1.0% of mass 198	2777	0.70	Pass
198	Base peak, 100% relative abundance	399552	100.0	Pass
199	5.0 - 9.0% of mass 198	25358	6.35	Pass
275	10.0 - 30.0% of mass 198	109442	27.4	Pass
365	1.0 - 100.0% of mass 198	15577	3.90	Pass
441	Present, but less than mass 443	49568	12.4 (82.7) ^b	Pass
442	40.0 - 100.0% of mass 198	312832	78.3	Pass
443	17.0 - 23.0% of mass 442	59968	15.0 (19.2) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P2164-IC2164	6P471775.D	04/14/18	00:24	00:40	Initial cal 100
E6P2164-IC2164	6P471776.D	04/14/18	00:49	01:05	Initial cal 80
E6P2164-ICC2164	6P471777.D	04/14/18	01:14	01:30	Initial cal 50
E6P2164-IC2164	6P471778.D	04/14/18	01:39	01:55	Initial cal 25
E6P2164-IC2164	6P471779.D	04/14/18	02:04	02:20	Initial cal 10
E6P2164-IC2164	6P471780.D	04/14/18	02:28	02:44	Initial cal 5
E6P2164-IC2164	6P471781.D	04/14/18	02:53	03:09	Initial cal 2
E6P2164-IC2164	6P471782.D	04/14/18	03:18	03:34	Initial cal 1
E6P2164-ICV2164	6P471783.D	04/14/18	03:43	03:59	Initial cal verification 50
E6P2164-ICV2164	6P471784.D	04/14/18	04:08	04:24	Initial cal verification 50
E6P2164-ICV2164	6P471785.D	04/14/18	04:32	04:48	Initial cal verification 50
E6P2164-ICV2164	6P471786.D	04/14/18	04:57	05:13	Initial cal verification 50
E6P2164-ICV2164	6P471787.D	04/14/18	05:22	05:38	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-DFTPP
Lab File ID: 6P471788.D
Instrument ID: GCMS6P
Injection Date: 04/14/18
Injection Time: 05:42

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	227605	42.3	Pass
68	Less than 2.0% of mass 69	3266	0.61 (1.61) ^a	Pass
69	Mass 69 relative abundance	202318	37.6	Pass
70	Less than 2.0% of mass 69	676	0.13 (0.33) ^a	Pass
127	40.0 - 60.0% of mass 198	235221	43.7	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	538005	100.0	Pass
199	5.0 - 9.0% of mass 198	34632	6.44	Pass
275	10.0 - 30.0% of mass 198	154754	28.8	Pass
365	1.0 - 100.0% of mass 198	23029	4.28	Pass
441	Present, but less than mass 443	79578	14.8 (81.5) ^b	Pass
442	40.0 - 100.0% of mass 198	501653	93.2	Pass
443	17.0 - 23.0% of mass 442	97586	18.1 (19.5) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P2165-IC2165	6P471789.D	04/14/18	05:55	00:13	Initial cal 100
E6P2165-IC2165	6P471790.D	04/14/18	06:20	00:38	Initial cal 80
E6P2165-ICC2165	6P471791.D	04/14/18	06:44	01:02	Initial cal 50
E6P2165-IC2165	6P471792.D	04/14/18	07:09	01:27	Initial cal 25
E6P2165-IC2165	6P471793.D	04/14/18	07:34	01:52	Initial cal 10
E6P2165-IC2165	6P471794.D	04/14/18	07:58	02:16	Initial cal 5
E6P2165-IC2165	6P471795.D	04/14/18	08:23	02:41	Initial cal 2
E6P2165-IC2165	6P471796.D	04/14/18	08:48	03:06	Initial cal 1
E6P2165-ICV2165	6P471797A.D	04/14/18	09:12	03:30	Initial cal verification 50
E6P2165-ICV2164	6P471797.D	04/14/18	09:12	03:30	Initial cal verification 50
E6P2165-ICV2165	6P471798.D	04/14/18	09:37	03:55	Initial cal verification 50
E6P2165-ICV2165	6P471799.D	04/14/18	10:02	04:20	Initial cal verification 50
E6P2165-ICV2165	6P471800.D	04/14/18	10:26	04:44	Initial cal verification 50
E6P2165-ICV2165	6P471801.D	04/14/18	10:51	05:09	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2211-DFTPP
Lab File ID: 6P472996.D
Instrument ID: GCMS6P
Injection Date: 05/16/18
Injection Time: 11:40

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	140441	44.0	Pass
68	Less than 2.0% of mass 69	2723	0.85 (1.62) ^a	Pass
69	Mass 69 relative abundance	167627	52.6	Pass
70	Less than 2.0% of mass 69	1576	0.49 (0.94) ^a	Pass
127	40.0 - 60.0% of mass 198	173800	54.5	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	318861	100.0	Pass
199	5.0 - 9.0% of mass 198	22654	7.10	Pass
275	10.0 - 30.0% of mass 198	87755	27.5	Pass
365	1.0 - 100.0% of mass 198	12720	3.99	Pass
441	Present, but less than mass 443	42888	13.5 (85.2) ^b	Pass
442	40.0 - 100.0% of mass 198	263232	82.6	Pass
443	17.0 - 23.0% of mass 442	50320	15.8 (19.1) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P2211-CC2164	6P472997.D	05/16/18	11:54	00:14	Continuing cal 50
E6P2211-CC2165	6P472998.D	05/16/18	12:20	00:40	Continuing cal 50
OP12038-MB	6P473002.D	05/16/18	14:06	02:26	Method Blank
OP12038-BS	6P473003.D	05/16/18	14:31	02:51	Blank Spike
ZZZZZZ	6P473004.D	05/16/18	14:55	03:15	(unrelated sample)
ZZZZZZ	6P473005.D	05/16/18	15:21	03:41	(unrelated sample)
ZZZZZZ	6P473006.D	05/16/18	15:46	04:06	(unrelated sample)
ZZZZZZ	6P473007.D	05/16/18	16:11	04:31	(unrelated sample)
ZZZZZZ	6P473008.D	05/16/18	16:36	04:56	(unrelated sample)
ZZZZZZ	6P473009.D	05/16/18	17:01	05:21	(unrelated sample)
ZZZZZZ	6P473010.D	05/16/18	17:26	05:46	(unrelated sample)
ZZZZZZ	6P473011.D	05/16/18	17:51	06:11	(unrelated sample)
ZZZZZZ	6P473012.D	05/16/18	18:15	06:35	(unrelated sample)
ZZZZZZ	6P473013.D	05/16/18	18:40	07:00	(unrelated sample)
JC66178-1	6P473014.D	05/16/18	19:05	07:25	(used for QC only; not part of job JC66181)
ZZZZZZ	6P473015.D	05/16/18	19:30	07:50	(unrelated sample)
OP12038-MS	6P473016.D	05/16/18	19:55	08:15	Matrix Spike
OP12038-MSD	6P473017.D	05/16/18	20:20	08:40	Matrix Spike Duplicate
ZZZZZZ	6P473018.D	05/16/18	20:45	09:05	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	E6P2211-DFTPP	Injection Date:	05/16/18
Lab File ID:	6P472996.D	Injection Time:	11:40
Instrument ID:	GCMS6P		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	6P473019.D	05/16/18	21:10	09:30	(unrelated sample)
ZZZZZZ	6P473020.D	05/16/18	21:35	09:55	(unrelated sample)
ZZZZZZ	6P473021.D	05/16/18	22:00	10:20	(unrelated sample)
ZZZZZZ	6P473022.D	05/16/18	22:24	10:44	(unrelated sample)
JC66181-1	6P473023.D	05/16/18	22:49	11:09	SB-103(7-9)
JC66181-3	6P473025.D	05/16/18	23:39	11:59	SB-107(5-7)

Instrument Performance Check (DFTPP)

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Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2212-DFTPP
Lab File ID: 6P473027.D
Instrument ID: GCMS6P
Injection Date: 05/17/18
Injection Time: 09:55

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	155508	50.8	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	169230	55.3	Pass
70	Less than 2.0% of mass 69	1159	0.38 (0.68) ^a	Pass
127	40.0 - 60.0% of mass 198	177992	58.1	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	306277	100.0	Pass
199	5.0 - 9.0% of mass 198	20914	6.83	Pass
275	10.0 - 30.0% of mass 198	78994	25.8	Pass
365	1.0 - 100.0% of mass 198	9596	3.13	Pass
441	Present, but less than mass 443	37873	12.4 (92.0) ^b	Pass
442	40.0 - 100.0% of mass 198	218530	71.4	Pass
443	17.0 - 23.0% of mass 442	41172	13.4 (18.8) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P2212-CC2164	6P473028.D	05/17/18	10:08	00:13	Continuing cal 25
E6P2212-CC2165	6P473029.D	05/17/18	10:32	00:37	Continuing cal 25
ZZZZZZ	6P473035.D	05/17/18	13:02	03:07	(unrelated sample)
ZZZZZZ	6P473036A.D	05/17/18	13:53	03:58	(unrelated sample)
JC66181-1	6P473037.D	05/17/18	14:18	04:23	SB-103(7-9)
JC66181-2	6P473038.D	05/17/18	14:43	04:48	SB-106(5-7)
JC66181-3	6P473039.D	05/17/18	15:07	05:12	SB-107(5-7)
OP11930-BS13	6P473041.D	05/17/18	16:55	07:00	Blank Spike
ZZZZZZ	6P473043.D	05/17/18	17:45	07:50	(unrelated sample)

Instrument Performance Check (DFTPP)

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Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2214-DFTPP
Lab File ID: 6P473072.D
Instrument ID: GCMS6P
Injection Date: 05/18/18
Injection Time: 11:26

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	153797	48.9	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	166909	53.0	Pass
70	Less than 2.0% of mass 69	1333	0.42 (0.80) ^a	Pass
127	40.0 - 60.0% of mass 198	178178	56.6	Pass
197	Less than 1.0% of mass 198	2244	0.71	Pass
198	Base peak, 100% relative abundance	314645	100.0	Pass
199	5.0 - 9.0% of mass 198	20313	6.46	Pass
275	10.0 - 30.0% of mass 198	87029	27.7	Pass
365	1.0 - 100.0% of mass 198	10049	3.19	Pass
441	Present, but less than mass 443	39267	12.5 (83.4) ^b	Pass
442	40.0 - 100.0% of mass 198	243050	77.2	Pass
443	17.0 - 23.0% of mass 442	47090	15.0 (19.4) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P2214-CC2164	6P473073.D	05/18/18	11:56	00:30	Continuing cal 25
E6P2214-CC2165	6P473074.D	05/18/18	12:21	00:55	Continuing cal 25
OP11756-MB1	6P473078.D	05/18/18	15:04	03:38	Method Blank
ZZZZZZ	6P473079.D	05/18/18	15:29	04:03	(unrelated sample)
ZZZZZZ	6P473080.D	05/18/18	15:54	04:28	(unrelated sample)
ZZZZZZ	6P473081.D	05/18/18	16:18	04:52	(unrelated sample)
ZZZZZZ	6P473082.D	05/18/18	16:43	05:17	(unrelated sample)
ZZZZZZ	6P473083.D	05/18/18	17:08	05:42	(unrelated sample)
JC66181-2	6P473084.D	05/18/18	17:33	06:07	SB-106(5-7)

Internal Standard Area Summary

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Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E6P2211-CC2164	Injection Date: 05/16/18
Lab File ID: 6P472997.D	Injection Time: 11:54
Instrument ID: GCMS6P	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	642487	4.51	2514090	5.53	1416056	7.25	2413019	8.94	2234669	12.12	2244777	13.72
Upper Limit ^a	1284974	5.01	5028180	6.03	2832112	7.75	4826038	9.44	4469338	12.62	4489554	14.22
Lower Limit ^b	321244	4.01	1257045	5.03	708028	6.75	1206510	8.44	1117335	11.62	1122389	13.22

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP12038-MB	583854	4.51	2283345	5.52	1108216	7.25	1894813	8.94	1601318	12.11	1589117	13.72
OP12038-BS	565103	4.51	2199500	5.52	1114633	7.25	1928004	8.94	1618382	12.12	1568003	13.72
ZZZZZZ	554970	4.51	2213329	5.52	1072553	7.25	1910106	8.94	1570792	12.11	1537054	13.72
ZZZZZZ	499328	4.51	2000951	5.52	1034066	7.25	1773367	8.94	1615939	12.12	1802205	13.72
ZZZZZZ	582372	4.51	2272607	5.52	1068431	7.25	1935353	8.94	1614947	12.11	1609859	13.72
ZZZZZZ	585146	4.51	2331405	5.52	1136198	7.25	1946907	8.94	1610696	12.11	1644045	13.72
ZZZZZZ	554235	4.51	2181540	5.52	1053719	7.25	1815732	8.94	1531523	12.11	1539218	13.72
ZZZZZZ	507632	4.51	2190836	5.52	1085376	7.25	1924575	8.94	1597495	12.11	1598368	13.71
ZZZZZZ	569958	4.51	2284786	5.52	1110271	7.25	1926937	8.94	1599177	12.11	1616495	13.71
ZZZZZZ	570188	4.51	2265090	5.52	1106361	7.25	1904258	8.94	1559925	12.11	1617081	13.71
ZZZZZZ	627314	4.51	2426626	5.52	1170260	7.25	1984435	8.94	1657124	12.11	1692242	13.71
ZZZZZZ	575336	4.51	2161409	5.52	1052641	7.25	1814029	8.94	1461021	12.11	1581108	13.71
JC66178-1	548114	4.51	2194363	5.52	1051202	7.25	1803658	8.94	1494720	12.11	1660520	13.72
ZZZZZZ	561485	4.51	2208040	5.52	1077124	7.25	1853396	8.94	1524979	12.11	1692649	13.72
OP12038-MS	562913	4.51	2210870	5.52	1075148	7.25	1863329	8.94	1605487	12.11	1840379	13.72
OP12038-MSD	521035	4.51	2128168	5.52	1036052	7.25	1869132	8.94	1602116	12.12	1820486	13.72
ZZZZZZ	584884	4.51	2284416	5.52	1086778	7.25	1909692	8.94	1512280	12.11	1743230	13.72
ZZZZZZ	589918	4.51	2369375	5.52	1127467	7.25	1921990	8.94	1586424	12.12	1863278	13.72
ZZZZZZ	561629	4.51	2189669	5.52	1082916	7.25	1767440	8.94	1568441	12.12	1855260	13.72
ZZZZZZ	599398	4.51	2326709	5.52	1072058	7.25	1807246	8.94	1594611	12.12	1904167	13.72
ZZZZZZ	554612	4.51	2113767	5.52	1008864	7.25	1688259	8.94	1637552	12.12	1979485	13.73
JC66181-1 ^c	568327	4.51	2173472	5.53	1116512	7.26	1976601	8.95	2150470	12.16	2533769	13.77
JC66181-3 ^c	595263	4.51	2270693	5.53	1101638	7.26	2008190	8.96	2292878	12.17	2731246	13.79

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

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Dilution required due to matrix interference.

Internal Standard Area Summary

Page 1 of 1

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E6P2212-CC2164	Injection Date: 05/17/18
Lab File ID: 6P473028.D	Injection Time: 10:08
Instrument ID: GCMS6P	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	564051	4.50	2245531	5.52	1285331	7.25	2202880	8.94	2073671	12.12	2180456	13.72
Upper Limit ^a	1128102	5.00	4491062	6.02	2570662	7.75	4405760	9.44	4147342	12.62	4360912	14.22
Lower Limit ^b	282026	4.00	1122766	5.02	642666	6.75	1101440	8.44	1036836	11.62	1090228	13.22

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
ZZZZZZ	589052	4.50	2378065	5.52	1160379	7.25	2065425	8.94	2120368	12.12	2567328	13.76
ZZZZZZ	649321	4.51	2592349	5.52	1191691	7.26	2072567	8.95	2057649	12.14	2447904	13.76
JC66181-1	501970	4.51	2087855	5.53	1075548	7.26	1923425	8.96	1888626	12.15	2229442	13.76
JC66181-2 ^c	522539	4.51	2170639	5.53	1091632	7.26	1992358	8.97	1964956	12.16	2191310	13.77
JC66181-3	511583	4.51	2098017	5.52	1081304	7.26	1931098	8.95	1891284	12.15	2135121	13.76
OP11930-BS13	454365	4.51	1825553	5.52	946121	7.26	1732158	8.95	1604595	12.13	1823189	13.75
ZZZZZZ	505130	4.51	2157237	5.53	1084750	7.26	2044818	8.96	1891758	12.14	2117695	13.75

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

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

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

(c) Dilution required due to matrix interference.

Internal Standard Area Summary

Page 1 of 1

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E6P2214-CC2164	Injection Date: 05/18/18
Lab File ID: 6P473073.D	Injection Time: 11:56
Instrument ID: GCMS6P	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	491702	4.49	2007763	5.51	1123119	7.23	1954115	8.93	1768682	12.10	1905722	13.70
Upper Limit ^a	983404	4.99	4015526	6.01	2246238	7.73	3908230	9.43	3537364	12.60	3811444	14.20
Lower Limit ^b	245851	3.99	1003882	5.01	561560	6.73	977058	8.43	884341	11.60	952861	13.20

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP11756-MB1	634236	4.49	2584386	5.50	1313274	7.23	2402525	8.92	2121950	12.10	2234348	13.70
ZZZZZZ	539970	4.49	2264060	5.50	1117529	7.23	2021522	8.92	1781158	12.10	1949950	13.70
ZZZZZZ	458383	4.49	1846463	5.50	925965	7.23	1603198	8.92	1387039	12.10	1491765	13.70
ZZZZZZ	425883	4.49	1694152	5.51	873702	7.23	1618661	8.92	1457682	12.09	1555391	13.70
ZZZZZZ	421454	4.49	1778647	5.50	927874	7.23	1710217	8.92	1613402	12.09	1673631	13.70
ZZZZZZ	408277	4.49	1728273	5.50	928260	7.23	1681285	8.92	1562806	12.09	1634513	13.70
JC66181-2	428761	4.49	1770557	5.51	942301	7.23	1729595	8.92	1586678	12.10	1664391	13.70

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

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

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

Surrogate Recovery Summary

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8270D	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
JC66181-1	6P473037.D	56	68	78
JC66181-1	6P473023.D	58	65	67
JC66181-2	6P473038.D	66	76	106
JC66181-2	6P473084.D	0* a	87	89
JC66181-3	6P473039.D	52	69	72
JC66181-3	6P473025.D	59	66	58
OP12038-BS	6P473003.D	78	80	92
OP12038-MB	6P473002.D	80	87	96
OP12038-MS	6P473016.D	54	59	61
OP12038-MSD	6P473017.D	60	67	70

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-134%
S2 = 2-Fluorobiphenyl	39-124%
S3 = Terphenyl-d14	36-134%

(a) Outside control limits due to dilution.

Initial Calibration Summary

Page 1 of 3

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICC2164
Lab FileID: 6P471777.D

Response Factor Report MS6P

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Initial Calibration

Calibration Files

2 =6p471781.D 5 =6p471780.D 25 =6p471778.D 80 =6p471776.D
100 =6p471775.D 50 =6p471777.D 1 =6p471782.D 10 =6p471779.D

Compound	2	5	25	80	100	50	1	10	Avg %RSD

1) I 1,4-Dichlorobenzene-d	-----ISTD-----								
2) 1,4-Dioxane	0.769	0.686	0.657	0.621	0.646	0.636	0.780	0.674	8.74
3) Pyridine	1.975	1.991	1.818	1.697	1.775	1.725	2.124	1.767	8.19
4) N-Nitrosodim	1.184	1.134	1.030	0.973	1.011	1.003	1.239	1.052	8.90
5) 2-Fluorophen	1.606	1.528	1.419	1.310	1.309	1.351	1.684	1.455	9.52
6) Indene	2.744	2.696	2.316	1.881	1.783	2.080	2.819	2.463	17.05
7) Cumene	4.126	3.939	3.482	3.052	2.971	3.194	4.235	3.585	13.65
8) Phenol-d5	2.103	2.014	1.808	1.665	1.641	1.705	2.048	1.872	9.78
9) Phenol	2.430	2.335	2.060	1.777	1.686	1.876	2.399	2.187	13.85
10) Aniline	2.707	2.630	2.162	1.913	1.829	1.970	2.818	2.345	16.81
11) bis(2-Chloro	1.640	1.567	1.397	1.271	1.289	1.318	1.756	1.449	12.15
12) 2-Chlorophen	1.732	1.632	1.463	1.300	1.295	1.368	1.769	1.507	12.38
13) Decane	2.238	2.131	1.884	1.567	1.532	1.711	2.292	1.997	15.38
14) 1,3-Dichloro	1.931	1.869	1.649	1.459	1.449	1.536	1.990	1.710	12.52
15) 1,4-Dichloro	1.941	1.824	1.649	1.453	1.422	1.532	2.152	1.732	14.75
16) Benzyl alcoh	1.101	1.059	1.006	0.895	0.882	0.930	1.175	1.014	10.20
17) 1,2-Dichloro	1.837	1.767	1.556	1.341	1.290	1.429	2.014	1.633	15.76
18) Acetophenone	2.329	2.221	1.856	1.506	1.467	1.639	2.413	2.015	19.27
19) 2-Methylphen	1.562	1.545	1.332	1.097	1.059	1.189	1.635	1.390	16.32
20) 2,2'-oxybis(	0.518	0.482	0.434	0.398	0.396	0.409	0.537	0.451	11.98
21) 3&4-Methylph	1.695	1.610	1.339	1.082	1.046	1.194	1.723	1.478	19.40
22) n-Nitroso-di	1.302	1.223	1.030	0.865	0.872	0.912	1.351	1.118	17.95
23) Hexachloroet	0.648	0.633	0.587	0.541	0.534	0.565	0.686	0.597	8.91
24) I Naphthalene-d8	-----ISTD-----								
25) Nitrobenzene	0.474	0.471	0.429	0.393	0.385	0.402	0.489	0.429	9.17
26) Nitrobenzene	0.459	0.450	0.403	0.366	0.358	0.375	0.474	0.409	10.86
27) Quinoline	0.802	0.765	0.692	0.646	0.640	0.657	0.798	0.690	9.47
28) Isophorone	0.778	0.767	0.690	0.621	0.616	0.641	0.811	0.698	10.72
29) 2-Nitropheno	0.223	0.216	0.205	0.184	0.181	0.191	0.206	0.202	7.36
30) 2,4-Dimethyl	0.369	0.375	0.324	0.309	0.304	0.311	0.381	0.341	9.40
31) Benzoic acid	0.194	0.258	0.286	0.290	0.298	0.293	0.181	0.260	17.82
32) bis(2-Chloro	0.458	0.452	0.396	0.352	0.340	0.363	0.463	0.396	12.39
33) 2,4-Dichloro	0.340	0.347	0.307	0.278	0.267	0.290	0.364	0.314	11.08
34) 2,6-Dichloro	0.355	0.338	0.300	0.265	0.252	0.275	0.358	0.301	13.35
35) 1,3,5-Trichl	0.400	0.390	0.348	0.299	0.282	0.312	0.405	0.357	13.60
36) 1,2,4-Trichl	0.384	0.382	0.335	0.299	0.290	0.310	0.393	0.342	11.90
37) 1,2,3-Trichl	0.369	0.370	0.323	0.284	0.274	0.296	0.385	0.330	12.84
38) Naphthalene	1.216	1.181	1.017	0.866	0.834	0.923	1.287	1.062	16.08
39) 4-Chloroanil	0.526	0.508	0.442	0.378	0.356	0.396	0.537	0.452	15.51
40) 2,3-Dichloro	0.416	0.418	0.361	0.315	0.302	0.328	0.420	0.369	13.15
41) Caprolactam	0.220	0.213	0.193	0.184	0.185	0.184	0.204	0.191	6.99
42) Hexachlorobu	0.215	0.211	0.191	0.170	0.166	0.178	0.218	0.194	10.58
43) 4-Chloro-3-m	0.336	0.335	0.307	0.281	0.279	0.287	0.340	0.307	8.26
44) 2-Methylnaph	0.694	0.688	0.604	0.518	0.505	0.548	0.728	0.623	13.87
45) 1-Methylnaph	0.720	0.712	0.620	0.538	0.516	0.562	0.774	0.635	14.77

Initial Calibration Summary

Page 2 of 3

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICC2164
Lab FileID: 6P471777.D

46)	Dimethylnaph	0.767	0.771	0.670	0.583	0.557	0.621	0.786	0.680	0.680	13.06
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.382	0.395	0.376	0.347	0.345	0.357	0.383	0.378	0.370	4.97
49)	2,4,6-Trichl	0.410	0.426	0.371	0.329	0.329	0.348	0.417	0.377	0.376	10.36
50)	2,4,5-Trichl	0.440	0.465	0.416	0.383	0.381	0.400	0.492	0.409	0.423	9.32
51)	2-Fluorobiph	1.768	1.709	1.491	1.318	1.286	1.388	1.827	1.556	1.543	13.47
52)	2-Chloronaph	1.489	1.401	1.232	1.084	1.053	1.138	1.494	1.247	1.267	13.89
53)	Biphenyl	1.987	1.929	1.681	1.432	1.389	1.522	2.040	1.719	1.712	14.81
54)	2-Nitroanili	0.408	0.428	0.403	0.376	0.378	0.390	0.433	0.405	0.403	5.22
55)	Dimethylphth	1.554	1.503	1.344	1.232	1.225	1.273	1.580	1.342	1.382	10.45
56)	Acenaphthyle	2.217	2.148	1.892	1.660	1.657	1.765	2.295	1.945	1.947	12.83
57)	2,6-Dinitrot	0.319	0.317	0.318	0.294	0.303	0.298	0.301	0.302	0.307	3.23
58)	3-Nitroanili	0.418	0.411	0.385	0.359	0.365	0.367	0.379	0.382	0.383	5.54
59)	Acenaphthene	1.575	1.509	1.326	1.151	1.133	1.218	1.593	1.355	1.357	13.63
60)	2,4-Dinitrop	0.085	0.115	0.175	0.189	0.195	0.183	0.135	0.154		27.44
	----- Quadratic regression -----	Coefficient = 0.9999									
	Response Ratio = -0.01506 + 0.17969 *A + 0.00352 *A^2										
61)	4-Nitropheno	0.177	0.186	0.192	0.185	0.192	0.189	0.190	0.180	0.186	3.00
62)	Dibenzofuran	2.038	1.951	1.703	1.467	1.423	1.568	2.099	1.792	1.755	14.75
63)	2,4-Dinitrot	0.405	0.445	0.428	0.377	0.378	0.405	0.382	0.410	0.404	6.04
64)	2,3,4,6-Tetr	0.374	0.397	0.391	0.361	0.365	0.369	0.376	0.370	0.375	3.31
65)	Diethylphtha	1.485	1.431	1.296	1.159	1.157	1.225	1.520	1.319	1.324	10.73
66)	Fluorene	1.672	1.593	1.374	1.150	1.112	1.249	1.686	1.439	1.409	16.16
67)	4-Chlorophen	0.786	0.779	0.661	0.566	0.552	0.602	0.810	0.684	0.680	15.08
68)	4-Nitroanili	0.409	0.425	0.389	0.372	0.384	0.380	0.423	0.387	0.396	5.11
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.089	0.119	0.146	0.157	0.155	0.151	0.124	0.135		18.50
71)	n-Nitrosodip	0.622	0.609	0.543	0.501	0.483	0.511	0.623	0.564	0.557	10.10
72)	1,2-Diphenyl	0.967	0.938	0.832	0.727	0.698	0.754	0.985	0.862	0.845	13.21
73)	2,4,6-Tribro	0.153	0.158	0.153	0.148	0.146	0.145	0.151	0.149	0.150	2.82
74)	4-Bromopheny	0.266	0.268	0.239	0.226	0.217	0.225	0.280	0.246	0.246	9.45
75)	Hexachlorobe	0.324	0.310	0.278	0.264	0.258	0.269	0.345	0.292	0.292	10.66
76)	Pentachlorop	0.152	0.171	0.169	0.167	0.163	0.163	0.146	0.168	0.162	5.39
77)	Phenanthrene	1.404	1.338	1.174	1.055	1.000	1.064	1.479	1.214	1.216	14.47
78)	Anthracene	1.375	1.371	1.197	1.088	1.030	1.106	1.442	1.235	1.231	12.38
79)	Carbazole	1.321	1.272	1.121	1.013	0.970	1.033	1.269	1.156	1.145	11.63
80)	Di-n-butylph	1.388	1.354	1.251	1.122	1.079	1.158	1.414	1.275	1.255	10.03
81)	Fluoranthene	1.452	1.441	1.293	1.173	1.153	1.213	1.487	1.337	1.318	10.01
82)	Octadecane	0.657	0.641	0.588	0.493	0.466	0.522	0.649	0.612	0.579	12.96
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.460	1.469	1.301	1.185	1.152	1.237	1.548	1.343	1.337	10.79
85)	Terphenyl-d1	1.071	1.027	0.925	0.887	0.851	0.882	1.064	0.938	0.956	9.07
86)	Butylbenzylp	0.549	0.567	0.536	0.500	0.492	0.508	0.556	0.529	0.529	5.19
87)	Benzo[a]anth	1.409	1.357	1.195	1.102	1.067	1.135	1.512	1.250	1.253	12.69
88)	3,3'-Dichlor	0.512	0.528	0.467	0.440	0.429	0.453	0.516	0.473	0.477	7.81
89)	Chrysene	1.356	1.354	1.184	1.115	1.079	1.148	1.468	1.210	1.239	11.10
90)	bis(2-Ethylh	0.780	0.817	0.749	0.689	0.664	0.706	0.784	0.761	0.744	7.07
91)	I Perylene-d12	-----ISTD-----									
92)	Di-n-octylph	1.303	1.344	1.264	1.112	1.038	1.183	1.270	1.258	1.221	8.44
93)	Benzo[b]fluo	1.383	1.395	1.244	1.144	1.180	1.157	1.376	1.255	1.267	8.28
94)	Benzo[k]fluo	1.332	1.235	1.131	1.038	0.900	1.084	1.377	1.166	1.158	13.51
95)	Benzo[a]pyre	1.239	1.225	1.090	1.027	0.991	1.039	1.248	1.116	1.122	9.19
96)	Indeno[1,2,3	1.629	1.561	1.438	1.361	1.341	1.386	1.639	1.460	1.477	8.02
97)	Dibenz(a,h)a	1.187	1.181	1.094	1.044	1.016	1.059	1.214	1.092	1.111	6.64
98)	Dibenz[a,h]a	1.400	1.372	1.243	1.180	1.144	1.192	1.386	1.269	1.273	7.93

Initial Calibration Summary

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICC2164
Lab FileID: 6P471777.D

99)	7,12-Dimethy	0.538	0.544	0.523	0.508	0.488	0.505	0.545	0.534	0.523	3.97
100)	Benzo[g,h,i]	1.265	1.255	1.149	1.102	1.086	1.119	1.330	1.155	1.183	7.52

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

M6P2164.M Mon Apr 16 09:48:59 2018 ACLIMS

Initial Calibration Verification

Page 1 of 1

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471783.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471783.D Vial: 10
Acq On : 14 Apr 2018 3:43 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.00	4.66
5 S	2-Fluorophenol	1.458	1.381	5.3	96	0.00	3.68
8 S	Phenol-d5	1.857	1.752	5.7	97	0.00	4.39
24 I	Naphthalene-d8	1.000	1.000	0.0	92	0.00	5.70
25 S	Nitrobenzene-d5	0.434	0.393	9.4	90	0.00	5.09
47 I	Acenaphthene-d10	1.000	1.000	0.0	93	0.00	7.45
51 S	2-Fluorobiphenyl	1.543	1.298	15.9	87	0.00	6.73
69 I	Phenanthrene-d10	1.000	1.000	0.0	83	0.00	9.14
73 S	2,4,6-Tribromophenol	0.150	0.149	0.7	86	0.00	8.33
83 I	Chrysene-d12	1.000	1.000	0.0	85	0.00	12.32
85 S	Terphenyl-d14	0.956	0.867	9.3	83	0.00	11.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471777.D M6P2164.M Mon Apr 16 09:49:20 2018 ACLIMS

Initial Calibration Verification

Page 1 of 1

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471784.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471784.D Vial: 11
Acq On : 14 Apr 2018 4:08 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	4.66
9 t	Phenol	2.094	1.828	12.7	89	0.00	4.40
12 t	2-Chlorophenol	1.508	1.402	7.0	94	0.00	4.50
19 t	2-Methylphenol	1.351	1.260	6.7	97	0.00	4.85
21 t	3&4-Methylphenol	1.396	1.359	2.7	104	0.00	4.97
24 I	Naphthalene-d8	1.000	1.000	0.0	89	0.00	5.70
29 t	2-Nitrophenol	0.201	0.199	1.0	93	0.00	5.37
30 t	2,4-Dimethylphenol	0.339	0.326	3.8	93	0.00	5.40
31 t	Benzoic acid	0.257	0.268	-4.3	81	0.06	5.50
33 t	2,4-Dichlorophenol	0.313	0.295	5.8	91	0.00	5.57
34 t	2,6-Dichlorophenol	0.306	0.294	3.9	95	0.00	5.77
43 t	4-Chloro-3-methylphenol	0.309	0.292	5.5	91	0.00	6.21
47 I	Acenaphthene-d10	1.000	1.000	0.0	81	0.00	7.45
49 t	2,4,6-Trichlorophenol	0.376	0.394	-4.8	91	0.00	6.64
50 t	2,4,5-Trichlorophenol	0.423	0.406	4.0	82	0.00	6.68
60 t	2,4-Dinitrophenol	50.000	44.062	11.9	67	0.00	7.51
61 t	4-Nitrophenol	0.186	0.186	0.0	79	0.00	7.59
64	2,3,4,6-Tetrachlorophenol	0.375	0.369	1.6	81	0.00	7.82
69 I	Phenanthrene-d10	1.000	1.000	0.0	79	0.00	9.14
70 t	4,6-Dinitro-2-methylpheno	0.135	0.145	-7.4	75	0.00	8.12
76 t	Pentachlorophenol	0.162	0.195	-20.4	90	0.00	8.93

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471777.D M6P2164.M Mon Apr 16 09:49:22 2018 ACLIMS

Initial Calibration Verification

Page 1 of 1

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471785.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471785.D Vial: 12
Acq On : 14 Apr 2018 4:32 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	0.00	4.66
3 t	Pyridine	1.859	1.805	2.9	104	0.10	2.64
10	Aniline	2.297	2.441	-6.3	123	0.01	4.42
16 t	Benzyl alcohol	1.008	1.025	-1.7	109	0.00	4.77
24 I	Naphthalene-d8	1.000	1.000	0.0	106	0.00	5.69
39 t	4-Chloroaniline	0.449	0.396	11.8	106	0.00	5.76
44 t	2-Methylnaphthalene	0.613	0.589	3.9	114	0.00	6.36
47 I	Acenaphthene-d10	1.000	1.000	0.0	110	0.00	7.45
54 t	2-Nitroaniline	0.403	0.351	12.9	99	0.01	6.96
58 t	3-Nitroaniline	0.383	0.309	19.3	92	0.00	7.40
62 t	Dibenzofuran	1.755	1.566	10.8	110	0.00	7.67
68 t	4-Nitroaniline	0.396	0.298	24.7	86	0.01	8.08
69 I	Phenanthrene-d10	1.000	1.000	0.0	100	0.00	9.15
79 t	Carbazole	1.145	1.020	10.9	98	0.00	9.43

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471777.D M6P2164.M Mon Apr 16 09:49:24 2018 ACLIMS

Initial Calibration Verification

Page 1 of 2

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471786.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471786.D Vial: 13
Acq On : 14 Apr 2018 4:57 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	4.66
4 t	N-Nitrosodimethylamine	1.078	0.861	20.1	79	0.01	2.50
11 t	bis(2-Chloroethyl)ether	1.461	1.376	5.8	96	0.00	4.46
14 t	1,3-Dichlorobenzene	1.699	1.505	11.4	90	0.00	4.62
15 t	1,4-Dichlorobenzene	1.713	1.493	12.8	89	0.00	4.68
17 t	1,2-Dichlorobenzene	1.608	1.413	12.1	91	0.00	4.79
20 t	2,2'-oxybis(1-Chloropropa	0.453	0.442	2.4	99	0.00	4.87
22 t	n-Nitroso-di-n-propylamin	1.084	1.019	6.0	103	0.00	4.97
23 t	Hexachloroethane	0.599	0.522	12.9	85	0.00	5.06
24 I	Naphthalene-d8	1.000	1.000	0.0	87	0.00	5.70
26 t	Nitrobenzene	0.412	0.367	10.9	85	0.00	5.10
28 t	Isophorone	0.703	0.643	8.5	87	0.00	5.30
32 t	bis(2-Chloroethoxy)methan	0.403	0.387	4.0	93	0.00	5.48
36 t	1,2,4-Trichlorobenzene	0.342	0.311	9.1	87	0.00	5.65
38 t	Naphthalene	1.048	0.945	9.8	89	0.00	5.72
42 t	Hexachlorobutadiene	0.193	0.186	3.6	91	0.00	5.83
47 I	Acenaphthene-d10	1.000	1.000	0.0	85	0.00	7.45
48 t	Hexachlorocyclopentadiene	0.370	0.337	8.9	74	0.00	6.53
52 t	2-Chloronaphthalene	1.267	1.130	10.8	84	0.00	6.85
55 t	Dimethylphthalate	1.382	1.227	11.2	82	0.01	7.16
56 t	Acenaphthylene	1.947	1.745	10.4	84	0.00	7.29
57 t	2,6-Dinitrotoluene	0.307	0.275	10.4	78	0.01	7.22
59 t	Acenaphthene	1.357	1.191	12.2	83	0.00	7.48
63 t	2,4-Dinitrotoluene	0.404	0.349	13.6	73	0.00	7.66
65 t	Diethylphthalate	1.324	1.162	12.2	81	0.00	7.95
66 t	Fluorene	1.409	1.212	14.0	82	0.00	8.06
67 t	4-Chlorophenyl-phenylethe	0.680	0.583	14.3	82	0.00	8.07
69 I	Phenanthrene-d10	1.000	1.000	0.0	80	0.00	9.15
71 t	n-Nitrosodiphenylamine	0.557	0.509	8.6	80	0.00	8.20
72 t	1,2-Diphenylhydrazine	0.845	0.782	7.5	83	0.00	8.25
74 t	4-Bromophenyl-phenylether	0.246	0.224	8.9	80	0.00	8.63
75 t	Hexachlorobenzene	0.292	0.265	9.2	79	0.00	8.70
77 t	Phenanthrene	1.216	1.087	10.6	82	0.00	9.17
78 t	Anthracene	1.231	1.093	11.2	79	0.00	9.23
80 t	Di-n-butylphthalate	1.255	1.138	9.3	79	0.00	9.89
81 t	Fluoranthene	1.318	1.155	12.4	76	0.00	10.59
83 I	Chrysene-d12	1.000	1.000	0.0	75	0.00	12.32
84 t	Pyrene	1.337	1.235	7.6	75	0.00	10.86

Initial Calibration Verification

Page 2 of 2

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471786.D

86	t	Butylbenzylphthalate	0.529	0.507	4.2	75	0.00	11.69
87	t	Benzo[a]anthracene	1.253	1.104	11.9	73	0.00	12.31
89	t	Chrysene	1.239	1.115	10.0	73	0.00	12.36
90	t	bis(2-Ethylhexyl)phthalat	0.744	0.697	6.3	74	0.00	12.41
91	I	Perylene-d12	1.000	1.000	0.0	71	0.00	13.92
92	t	Di-n-octylphthalate	1.221	1.210	0.9	73	0.00	13.15
93	t	Benzo[b]fluoranthene	1.267	1.122	11.4	69	0.01	13.53
94	t	Benzo[k]fluoranthene	1.158	1.069	7.7	70	0.01	13.56
95	t	Benzo[a]pyrene	1.122	1.030	8.2	71	0.01	13.87
96	t	Indeno[1,2,3-cd]pyrene	1.477	1.379	6.6	71	0.01	15.09
98	t	Dibenz[a,h]anthracene	1.273	1.169	8.2	70	0.02	15.12
100	t	Benzo[g,h,i]perylene	1.183	1.183	0.0	75	0.02	15.42

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471777.D M6P2164.M Mon Apr 16 09:49:26 2018 ACLIMS

6.7.5
6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2164-ICV2164
Lab FileID: 6P471787.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471787.D Vial: 14
Acq On : 14 Apr 2018 5:22 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018
Last Update : Mon Apr 16 09:33:00 2018
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	4.66
2 t	1,4-Dioxane	0.684	0.643	6.0	93	0.02	2.23
6 t	Indene	2.348	2.446	-4.2	108	0.00	4.86
7 t	Cumene	3.573	3.235	9.5	93	0.00	4.07
13 t	Decane	1.919	1.732	9.7	93	0.00	4.55
18 t	Acetophenone	1.931	1.923	0.4	108	0.00	4.96
24 I	Naphthalene-d8	1.000	1.000	0.0	91	0.00	5.70
27 t	Quinoline	0.712	0.650	8.7	90	0.00	6.01
40 t	2,3-Dichloroaniline	0.366	0.303	17.2	84	0.00	6.64
41 t	Caprolactam	0.197	0.168	14.7	83	0.02	6.07
45 t	1-Methylnaphthalene	0.635	0.534	15.9	87	0.00	6.46
46 t	Dimethylnaphthalene	0.680	0.605	11.0	89	0.00	7.00
47 I	Acenaphthene-d10	1.000	1.000	0.0	81	0.00	7.45
53 t	Biphenyl	1.712	1.721	-0.5	92	0.00	6.83
69 I	Phenanthrene-d10	1.000	1.000	0.0	79	0.00	9.14
82 t	Octadecane	0.579	0.588	-1.6	89	0.00	9.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471777.D M6P2164.M Mon Apr 16 09:49:28 2018 ACLIMS

Initial Calibration Summary

Page 1 of 1

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICC2165
Lab FileID: 6P471791.D

Response Factor Report MS6P

Method : C:\MSDCHEM\1\METHODS\M6P2165.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Initial Calibration

Calibration Files

2 =6p471795.D 5 =6p471794.D 25 =6p471792.D 80 =6p471790.D
100 =6p471789.D 50 =6p471791.D 1 =6p471796.D 10 =6p471793.D

Compound	2	5	25	80	100	50	1	10	Avg %RSD
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101)	1,4-Dichlorobenzene-d	-----ISTD-----							
102)	Benzaldehyde	1.519	1.446	1.278	1.098	1.018	1.156	1.541	1.308 1.295 15.14
103)	Acenaphthene-d10a	-----ISTD-----							
104)	1,2,4,5-Tetr	0.802	0.783	0.658	0.615	0.588	0.621	0.778	0.674 0.690 12.40
105)	Phenanthrene-d10a	-----ISTD-----							
106)	1-chloroocta	0.412	0.453	0.414	0.371	0.355	0.380	0.386	0.405 0.397 7.74
107)	o-terphenyl	0.787	0.779	0.676	0.622	0.590	0.613	0.763	0.685 0.689 11.42
108)	Atrazine	0.132	0.138	0.130	0.120	0.116	0.122	0.128	0.131 0.127 5.80
109)	I Chrysene-d12a	-----ISTD-----							
110)	benzidine	0.814	0.939	0.795	0.579		0.624	0.689	0.864 0.758 17.34
111)	I Naphthalene-d8a	-----ISTD-----							
112)	Hydroquinone	0.341	0.395	0.378	0.366	0.354	0.363	0.276	0.366 0.355 10.00
113)	Phenanthrene-d10b	-----ISTD-----							
114)	Pentachloron	0.041	0.051	0.048	0.047	0.046	0.046	0.038	0.046 0.045# 8.83

(#) = Out of Range ### Number of calibration levels exceeded format ###

M6P2164.M Mon Apr 16 10:21:59 2018 ACLIMS

6.7.7
6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2164
Lab FileID: 6P471797.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471797.D Vial: 23
Acq On : 14 Apr 2018 9:12 am Operator: sufiyana
Sample : icv2164-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.

83 I	Chrysene-d12	1.000	1.000	0.0	147	0.00	12.32
88 t	3,3'-Dichlorobenzidine	0.477	0.435	8.8	141	0.00	12.30

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:45 2018 ACLIMS

6.7.8

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2165
Lab FileID: 6P471797A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471797a.D Vial: 23
Acq On : 14 Apr 2018 9:12 am Operator: sufiyana
Sample : icv2165-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
109 I	Chrysene-d12a	1.000	1.000	0.0	156	0.00	12.32
110 T	benzidine	0.758	0.737	2.8	185	0.01	10.78

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:47 2018 ACLIMS

Initial Calibration Verification

Page 1 of 1

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2165
Lab FileID: 6P471798.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471798.D Vial: 24
Acq On : 14 Apr 2018 9:37 am Operator: sufiyana
Sample : icv2165-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
111 I	Naphthalene-d8a	1.000	1.000	0.0	94	0.00	5.70
112 T	Hydroquinone	0.355	0.357	-0.6	92	-0.02	6.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:49 2018 ACLIMS

Initial Calibration Verification

Page 1 of 1

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2165
Lab FileID: 6P471799.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471799.D Vial: 13
Acq On : 14 Apr 2018 10:02 am Operator: sufiyana
Sample : icv2165-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
103	Acenaphthene-d10a	1.000	1.000	0.0	92	0.00	7.45
104	1,2,4,5-Tetrachlorobenzen	0.690	0.613	11.2	91	0.00	6.53

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:51 2018 ACLIMS

6.7.11
6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2165
Lab FileID: 6P471800.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471800.D Vial: 14
Acq On : 14 Apr 2018 10:26 am Operator: sufiyana
Sample : icv2165-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	89	0.00	4.66
102	Benzaldehyde	1.295	1.018	21.4	78	0.00	4.33
105	Phenanthrene-d10a	1.000	1.000	0.0	84	0.00	9.14
108	Atrazine	0.127	0.121	4.7	84	0.00	8.84

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:53 2018 ACLIMS

6.7.12
6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2165-ICV2165
Lab FileID: 6P471801.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471801.D Vial: 12
Acq On : 14 Apr 2018 10:51 am Operator: sufiyana
Sample : icv2165-50 Inst : MS6P
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Mon Apr 16 10:13:29 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
113	Phenanthrene-d10b	1.000	1.000	0.0	113	0.00	9.15
114	Pentachloronitrobenzene	0.045	0.047#	-4.4	115	0.00	8.95

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p471791a.D M6P2164.M Mon Apr 16 10:22:55 2018 ACLIMS

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2211-CC2164
Lab FileID: 6P472997.D

Evaluate Continuing Calibration Report

Data File : Z:\svoa\completed\05...el\6p2211\6p472997.d Vial: 2
Acq On : 16 May 2018 11:54 am Operator: christc2
Sample : cc2164-50 Inst : MS6P
Misc : op8717,e6p2211,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Fri May 11 07:49:12 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	88	-0.04	4.51
2 t	1,4-Dioxane	0.684	0.551	19.4	76	-0.05	2.02
3 t	Pyridine	1.859	1.416	23.8#	72	-0.04	2.36
4 t	N-Nitrosodimethylamine	1.078	0.767	28.8#	67	-0.05	2.32
5 S	2-Fluorophenol	1.458	1.239	15.0	81	-0.06	3.54
6 t	Indene	2.348	2.395	-2.0	101	-0.04	4.70
7 t	Cumene	3.573	3.676	-2.9	101	-0.04	3.91
8 S	Phenol-d5	1.857	1.642	11.6	85	-0.05	4.27
9 t	Phenol	2.094	1.974	5.7	92	-0.06	4.28
10	Aniline	2.297	1.876	18.3	84	-0.04	4.27
11 t	bis(2-Chloroethyl)ether	1.461	1.220	16.5	81	-0.04	4.32
12 t	2-Chlorophenol	1.508	1.393	7.6	89	-0.05	4.36
13 t	Decane	1.919	1.535	20.0	79	-0.04	4.40
14 t	1,3-Dichlorobenzene	1.699	1.557	8.4	89	-0.04	4.46
15 t	1,4-Dichlorobenzene	1.713	1.595	6.9	91	-0.04	4.52
16 t	Benzyl alcohol	1.008	0.849	15.8	80	-0.04	4.63
17 t	1,2-Dichlorobenzene	1.608	1.512	6.0	93	-0.04	4.64
18 t	Acetophenone	1.931	2.037	-5.5	109	-0.04	4.82
19 t	2-Methylphenol	1.351	1.340	0.8	99	-0.05	4.72
20 t	2,2'-oxybis(1-Chloropropa	0.453	0.411	9.3	88	-0.04	4.72
21 t	3&4-Methylphenol	1.396	1.375	1.5	101	-0.05	4.84
22 t	n-Nitroso-di-n-propylamin	1.084	1.144	-5.5	110	-0.04	4.82
23 t	Hexachloroethane	0.599	0.510	14.9	79	-0.05	4.89
24 I	Naphthalene-d8	1.000	1.000	0.0	84	-0.04	5.53
25 S	Nitrobenzene-d5	0.434	0.402	7.4	84	-0.04	4.94
26 t	Nitrobenzene	0.412	0.393	4.6	88	-0.04	4.95
27 t	Quinoline	0.712	0.703	1.3	90	-0.04	5.86
28 t	Isophorone	0.703	0.701	0.3	92	-0.04	5.14
29 t	2-Nitrophenol	0.201	0.200	0.5	88	-0.04	5.21
30 t	2,4-Dimethylphenol	0.339	0.356	-5.0	97	-0.05	5.26
31 t	Benzoic acid	0.257	0.307	-19.5	88	-0.03	5.39
32 t	bis(2-Chloroethoxy)methan	0.403	0.352	12.7	82	-0.04	5.32
33 t	2,4-Dichlorophenol	0.313	0.286	8.6	83	-0.06	5.42
34 t	2,6-Dichlorophenol	0.306	0.283	7.5	87	-0.05	5.61
35	1,3,5-Trichlorobenzene	0.349	0.332	4.9	90	-0.04	5.22
36 t	1,2,4-Trichlorobenzene	0.342	0.310	9.4	84	-0.04	5.48
37	1,2,3-Trichlorobenzene	0.329	0.303	7.9	86	-0.05	5.67
38 t	Naphthalene	1.048	1.071	-2.2	98	-0.05	5.55
39 t	4-Chloroaniline	0.449	0.412	8.2	88	-0.04	5.60
40 t	2,3-Dichloroaniline	0.366	0.353	3.6	91	-0.05	6.47
41 t	Caprolactam	0.197	0.157	20.3#	72	-0.03	5.94

Continuing Calibration Summary

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2211-CC2164
Lab FileID: 6P472997.D

42	t	Hexachlorobutadiene	0.193	0.158	18.1	75	-0.05	5.66
43	t	4-Chloro-3-methylphenol	0.309	0.337	-9.1	99	-0.05	6.07
44	t	2-Methylnaphthalene	0.613	0.609	0.7	94	-0.05	6.18
45	t	1-Methylnaphthalene	0.635	0.656	-3.3	98	-0.05	6.28
46	t	Dimethylnaphthalene	0.680	0.657	3.4	89	-0.05	6.81
47	I	Acenaphthene-d10	1.000	1.000	0.0	88	-0.05	7.25
48	t	Hexachlorocyclopentadiene	0.370	0.226	38.9#	56	-0.05	6.34
49	t	2,4,6-Trichlorophenol	0.376	0.357	5.1	90	-0.05	6.48
50	t	2,4,5-Trichlorophenol	0.423	0.383	9.5	84	-0.06	6.52
51	S	2-Fluorobiphenyl	1.543	1.403	9.1	89	-0.05	6.55
52	t	2-Chloronaphthalene	1.267	1.150	9.2	89	-0.05	6.67
53	t	Biphenyl	1.712	1.590	7.1	92	-0.05	6.65
54	t	2-Nitroaniline	0.403	0.398	1.2	90	-0.05	6.79
55	t	Dimethylphthalate	1.382	1.357	1.8	94	-0.05	6.98
56	t	Acenaphthylene	1.947	1.891	2.9	94	-0.05	7.10
57	t	2,6-Dinitrotoluene	0.307	0.313	-2.0	92	-0.05	7.04
58	t	3-Nitroaniline	0.383	0.318	17.0	76	-0.05	7.22
59	t	Acenaphthene	1.357	1.258	7.3	91	-0.05	7.29
----- True			Calc.	% Drift	-----			
60	t	2,4-Dinitrophenol	100.000	96.131	3.9	84	-0.04	7.35
----- AvgRF			CCRF	% Dev	-----			
61	t	4-Nitrophenol	0.186	0.189	-1.6	88	-0.09	7.46
62	t	Dibenzofuran	1.755	1.617	7.9	91	-0.05	7.48
63	t	2,4-Dinitrotoluene	0.404	0.420	-4.0	91	-0.05	7.49
64	t	2,3,4,6-Tetrachlorophenol	0.375	0.300	20.0	71	-0.06	7.63
65	t	Diethylphthalate	1.324	1.337	-1.0	96	-0.05	7.76
66	t	Fluorene	1.409	1.355	3.8	95	-0.05	7.86
67	t	4-Chlorophenyl-phenylethe	0.680	0.615	9.6	90	-0.05	7.87
68	t	4-Nitroaniline	0.396	0.282	28.8#	65	-0.05	7.91
69	I	Phenanthrene-d10	1.000	1.000	0.0	83	-0.06	8.94
70	t	4,6-Dinitro-2-methylpheno	0.135	0.154	-14.1	85	-0.04	7.96
71	t	n-Nitrosodiphenylamine	0.557	0.557	0.0	91	-0.05	8.01
72	t	1,2-Diphenylhydrazine	0.845	0.826	2.2	91	-0.05	8.05
73	S	2,4,6-Tribromophenol	0.150	0.113	24.7#	65	-0.06	8.14
74	t	4-Bromophenyl-phenylether	0.246	0.202	17.9	75	-0.06	8.43
75	t	Hexachlorobenzene	0.292	0.243	16.8	75	-0.06	8.50
76	t	Pentachlorophenol	0.162	0.147	9.3	75	-0.06	8.75
77	t	Phenanthrene	1.216	1.074	11.7	84	-0.06	8.97
78	t	Anthracene	1.231	1.121	8.9	84	-0.05	9.03
79	t	Carbazole	1.145	1.008	12.0	81	-0.06	9.24
80	t	Di-n-butylphthalate	1.255	1.336	-6.5	96	-0.06	9.69
81	t	Fluoranthene	1.318	1.153	12.5	79	-0.06	10.39
82	t	Octadecane	0.579	0.543	6.2	87	-0.06	8.87
83	I	Chrysene-d12	1.000	1.000	0.0	74	-0.06	12.12
84	t	Pyrene	1.337	1.298	2.9	78	-0.06	10.65
85	S	Terphenyl-d14	0.956	0.857	10.4	72	-0.06	10.87
86	t	Butylbenzylphthalate	0.529	0.641	-21.2#	94	-0.06	11.49
87	t	Benzo[a]anthracene	1.253	1.137	9.3	74	-0.06	12.11
88	t	3,3'-Dichlorobenzidine	0.477	0.410	14.0	67	-0.06	12.10
89	t	Chrysene	1.239	1.101	11.1	71	-0.06	12.15
90	t	bis(2-Ethylhexyl)phthalat	0.744	0.890	-19.6	94	-0.06	12.20
91	I	Perylene-d12	1.000	1.000	0.0	71	-0.06	13.72
92	t	Di-n-octylphthalate	1.221	1.525	-24.9#	91	-0.06	12.94
93	t	Benzo[b]fluoranthene	1.267	1.209	4.6	74	-0.06	13.33

Continuing Calibration Summary

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2211-CC2164
Lab FileID: 6P472997.D

94	t	Benzo[k]fluoranthene	1.158	1.121	3.2	73	-0.06	13.36
95	t	Benzo[a]pyrene	1.122	1.063	5.3	72	-0.06	13.66
96	t	Indeno[1,2,3-cd]pyrene	1.477	1.394	5.6	71	-0.07	14.84
97	t	Dibenz(a,h)acridine	1.111	1.043	6.1	70	-0.07	14.57
98	t	Dibenz[a,h]anthracene	1.273	1.232	3.2	73	-0.08	14.85
99	t	7,12-Dimethylbenz(a)anthr	0.523	0.589	-12.6	83	-0.06	13.32
100	t	Benzo[g,h,i]perylene	1.183	1.095	7.4	69	-0.08	15.14

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p472794.d M6P2164.M Thu May 17 15:29:48 2018 MANAGER

6.7.14
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Continuing Calibration Summary

Page 1 of 1

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2211-CC2165
Lab FileID: 6P472998.D

Evaluate Continuing Calibration Report

Data File : Z:\svoa\completed\05...el\6p2211\6p472998.d Vial: 3
Acq On : 16 May 2018 12:20 pm Operator: christc2
Sample : cc2165-50 Inst : MS6P
Misc : op8717,e6p2211,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
Last Update : Fri May 11 07:49:12 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	74	-0.04	4.51
102	Benzaldehyde	1.295	0.894	31.0#	57	-0.15	4.18
103	Acenaphthene-d10a	1.000	1.000	0.0	86	-0.05	7.25
104	1,2,4,5-Tetrachlorobenzen	0.690	0.532	22.9#	73	-0.18	6.35
105	Phenanthrene-d10a	1.000	1.000	0.0	80	-0.06	8.94
106 S	1-chlorooctadecane	0.397	0.366	7.8	77	-0.21	10.31
107 S	o-terphenyl	0.689	0.569	17.4	74	-0.21	9.42
108	Atrazine	0.127	0.119	6.3	79	-0.18	8.65
109 I	Chrysene-d12a	1.000	1.000	0.0	74	-0.07	12.11
110 T	benzidine	0.758	0.358	52.8#	43#	-0.19	10.57
111 I	Naphthalene-d8a	1.000	1.000	0.0	75	-0.05	5.52
112 T	Hydroquinone	0.355	0.308	13.2	64	-0.15	5.93
113	Phenanthrene-d10b	1.000	1.000	0.0	80	-0.06	8.94
114	Pentachloronitrobenzene	0.045	0.047#	-4.4	83	-0.19	8.75

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

6p472794.d M6P2164.M

Thu May 17 15:25:48 2018 MANAGER

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2212-CC2164
Lab FileID: 6P473028.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2212\6p473028.D Vial: 2
Acq On : 17 May 2018 10:08 am Operator: christc2
Sample : cc2164-25 Inst : MS6P
Misc : op8717,e6p2212,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 15 13:30:05 2018
Last Update : Tue May 15 13:30:05 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	74	-0.03	4.50
2 t	1,4-Dioxane	0.684	0.599	12.4	67	-0.01	2.00
3 t	Pyridine	1.859	1.491	19.8	61	-0.10	2.35
4 t	N-Nitrosodimethylamine	1.078	0.776	28.0#	56	-0.08	2.31
5 S	2-Fluorophenol	1.458	1.281	12.1	67	-0.04	3.54
6 t	Indene	2.348	2.516	-7.2	80	-0.02	4.69
7 t	Cumene	3.573	3.737	-4.6	79	-0.04	3.90
8 S	Phenol-d5	1.857	1.645	11.4	67	-0.02	4.27
9 t	Phenol	2.094	1.975	5.7	71	-0.02	4.28
10	Aniline	2.297	1.921	16.4	66	-0.02	4.26
11 t	bis(2-Chloroethyl)ether	1.461	1.262	13.6	67	-0.02	4.31
12 t	2-Chlorophenol	1.508	1.457	3.4	74	-0.02	4.36
13 t	Decane	1.919	1.577	17.8	62	-0.03	4.38
14 t	1,3-Dichlorobenzene	1.699	1.586	6.7	71	-0.03	4.46
15 t	1,4-Dichlorobenzene	1.713	1.596	6.8	72	-0.03	4.51
16 t	Benzyl alcohol	1.008	0.894	11.3	66	-0.03	4.62
17 t	1,2-Dichlorobenzene	1.608	1.544	4.0	73	-0.03	4.63
18 t	Acetophenone	1.931	2.108	-9.2	84	-0.02	4.81
19 t	2-Methylphenol	1.351	1.341	0.7	74	-0.02	4.72
20 t	2,2'-oxybis(1-Chloropropa	0.453	0.422	6.8	72	-0.02	4.71
21 t	3&4-Methylphenol	1.396	1.414	-1.3	78	-0.02	4.83
22 t	n-Nitroso-di-n-propylamin	1.084	1.195	-10.2	86	-0.02	4.81
23 t	Hexachloroethane	0.599	0.526	12.2	66	-0.02	4.89
24 I	Naphthalene-d8	1.000	1.000	0.0	73	-0.03	5.52
25 S	Nitrobenzene-d5	0.434	0.405	6.7	69	-0.02	4.93
26 t	Nitrobenzene	0.412	0.409	0.7	74	-0.02	4.94
27 t	Quinoline	0.712	0.723	-1.5	76	-0.02	5.84
28 t	Isophorone	0.703	0.725	-3.1	77	-0.03	5.13
29 t	2-Nitrophenol	0.201	0.198	1.5	71	-0.02	5.20
30 t	2,4-Dimethylphenol	0.339	0.354	-4.4	80	-0.03	5.25
31 t	Benzoic acid	0.257	0.311	-21.0#	80	0.00	5.36
32 t	bis(2-Chloroethoxy)methan	0.403	0.362	10.2	67	-0.02	5.31
33 t	2,4-Dichlorophenol	0.313	0.286	8.6	68	-0.02	5.42
34 t	2,6-Dichlorophenol	0.306	0.286	6.5	70	-0.03	5.60
35	1,3,5-Trichlorobenzene	0.349	0.342	2.0	72	-0.03	5.21
36 t	1,2,4-Trichlorobenzene	0.342	0.320	6.4	70	-0.03	5.47
37	1,2,3-Trichlorobenzene	0.329	0.321	2.4	73	-0.02	5.67
38 t	Naphthalene	1.048	1.074	-2.5	77	-0.03	5.53
39 t	4-Chloroaniline	0.449	0.414	7.8	69	-0.02	5.59
40 t	2,3-Dichloroaniline	0.366	0.372	-1.6	76	-0.02	6.45
41 t	Caprolactam	0.197	0.163	17.3	62	-0.02	5.91

Continuing Calibration Summary

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2212-CC2164
Lab FileID: 6P473028.D

42	t	Hexachlorobutadiene	0.193	0.169	12.4	65	-0.03	5.65
43	t	4-Chloro-3-methylphenol	0.309	0.348	-12.6	83	-0.01	6.06
44	t	2-Methylnaphthalene	0.613	0.631	-2.9	77	-0.02	6.17
45	t	1-Methylnaphthalene	0.635	0.683	-7.6	81	-0.02	6.27
46	t	Dimethylnaphthalene	0.680	0.679	0.1	74	-0.02	6.80
47	I	Acenaphthene-d10	1.000	1.000	0.0	77	-0.03	7.25
48	t	Hexachlorocyclopentadiene	0.370	0.195	47.3#	40#	-0.03	6.33
49	t	2,4,6-Trichlorophenol	0.376	0.364	3.2	76	-0.03	6.47
50	t	2,4,5-Trichlorophenol	0.423	0.396	6.4	73	-0.02	6.52
51	S	2-Fluorobiphenyl	1.543	1.420	8.0	73	-0.03	6.54
52	t	2-Chloronaphthalene	1.267	1.148	9.4	72	-0.03	6.66
53	t	Biphenyl	1.712	1.620	5.4	74	-0.03	6.64
54	t	2-Nitroaniline	0.403	0.411	-2.0	79	-0.03	6.78
55	t	Dimethylphthalate	1.382	1.373	0.7	79	-0.03	6.97
56	t	Acenaphthylene	1.947	1.887	3.1	77	-0.03	7.09
57	t	2,6-Dinitrotoluene	0.307	0.317	-3.3	77	-0.02	7.03
58	t	3-Nitroaniline	0.383	0.331	13.6	66	-0.02	7.22
59	t	Acenaphthene	1.357	1.269	6.5	74	-0.03	7.28
----- True			Calc.	% Drift	-----			
60	t	2,4-Dinitrophenol	50.000	46.750	6.5	71	-0.06	7.34
----- AvgRF			CCRF	% Dev	-----			
61	t	4-Nitrophenol	0.186	0.189	-1.6	76	-0.02	7.46
62	t	Dibenzofuran	1.755	1.698	3.2	77	-0.03	7.47
63	t	2,4-Dinitrotoluene	0.404	0.440	-8.9	79	-0.02	7.48
64		2,3,4,6-Tetrachlorophenol	0.375	0.298	20.5#	59	-0.02	7.63
65	t	Diethylphthalate	1.324	1.352	-2.1	81	-0.02	7.75
66	t	Fluorene	1.409	1.373	2.6	77	-0.02	7.86
67	t	4-Chlorophenyl-phenylethe	0.680	0.629	7.5	73	-0.02	7.86
68	t	4-Nitroaniline	0.396	0.274	30.8#	54	-0.02	7.90
69	I	Phenanthrene-d10	1.000	1.000	0.0	75	-0.03	8.94
70	t	4,6-Dinitro-2-methylpheno	0.135	0.139	-3.0	71	-0.02	7.95
71	t	n-Nitrosodiphenylamine	0.557	0.596	-7.0	82	-0.03	8.01
72	t	1,2-Diphenylhydrazine	0.845	0.846	-0.1	76	-0.03	8.04
73	S	2,4,6-Tribromophenol	0.150	0.117	22.0#	57	-0.03	8.13
74	t	4-Bromophenyl-phenylether	0.246	0.202	17.9	63	-0.03	8.42
75	t	Hexachlorobenzene	0.292	0.242	17.1	65	-0.03	8.50
76	t	Pentachlorophenol	0.162	0.145	10.5	64	-0.02	8.74
77	t	Phenanthrene	1.216	1.101	9.5	70	-0.03	8.96
78	t	Anthracene	1.231	1.143	7.1	72	-0.03	9.03
79	t	Carbazole	1.145	1.075	6.1	72	-0.02	9.24
80	t	Di-n-butylphthalate	1.255	1.389	-10.7	83	-0.02	9.68
81	t	Fluoranthene	1.318	1.201	8.9	70	-0.01	10.39
82	t	Octadecane	0.579	0.543	6.2	69	-0.02	8.87
83	I	Chrysene-d12	1.000	1.000	0.0	67	-0.03	12.12
84	t	Pyrene	1.337	1.334	0.2	68	-0.04	10.65
85	S	Terphenyl-d14	0.956	0.862	9.8	62	-0.03	10.87
86	t	Butylbenzylphthalate	0.529	0.663	-25.3#	83	-0.03	11.48
87	t	Benzo[a]anthracene	1.253	1.161	7.3	65	-0.02	12.10
88	t	3,3'-Dichlorobenzidine	0.477	0.455	4.6	65	-0.03	12.09
89	t	Chrysene	1.239	1.147	7.4	65	-0.03	12.15
90	t	bis(2-Ethylhexyl)phthalat	0.744	0.924	-24.2#	82	-0.02	12.20
91	I	Perylene-d12	1.000	1.000	0.0	68	-0.03	13.72
92	t	Di-n-octylphthalate	1.221	1.525	-24.9#	82	-0.03	12.94
93	t	Benzo[b]fluoranthene	1.267	1.186	6.4	65	-0.03	13.33

Continuing Calibration Summary

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2212-CC2164
Lab FileID: 6P473028.D

94	t	Benzo[k]fluoranthene	1.158	1.188	-2.6	72	-0.03	13.35
95	t	Benzo[a]pyrene	1.122	1.055	6.0	66	-0.03	13.66
96	t	Indeno[1,2,3-cd]pyrene	1.477	1.379	6.6	65	-0.05	14.83
97	t	Dibenz(a,h)acridine	1.111	1.045	5.9	65	-0.05	14.57
98	t	Dibenz[a,h]anthracene	1.273	1.217	4.4	67	-0.06	14.84
99	t	7,12-Dimethylbenz(a)anthr	0.523	0.545	-4.2	71	-0.04	13.32
100	t	Benzo[g,h,i]perylene	1.183	1.077	9.0	64	-0.06	15.14

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p472376.D M6P2164.M Thu May 17 14:58:03 2018 ACLIMS

6.7.16
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Continuing Calibration Summary

Page 1 of 1

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2212-CC2165
Lab FileID: 6P473029.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2212\6p473029.D Vial: 3
Acq On : 17 May 2018 10:32 am Operator: christc2
Sample : cc2165-25 Inst : MS6P
Misc : op8717,e6p2212,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 15 13:30:05 2018
Last Update : Tue May 15 13:30:05 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	78	-0.03	4.50
102	Benzaldehyde	1.295	1.015	21.6#	62	-0.03	4.18
103	Acenaphthene-d10a	1.000	1.000	0.0	87	-0.03	7.25
104	1,2,4,5-Tetrachlorobenzen	0.690	0.524	24.1#	69	-0.04	6.34
105	Phenanthrene-d10a	1.000	1.000	0.0	87	-0.03	8.94
106 S	1-chlorooctadecane	0.397	0.349	12.1	73	-0.02	10.31
107 S	o-terphenyl	0.689	0.547	20.6#	70	-0.03	9.41
108	Atrazine	0.127	0.115	9.4	77	-0.03	8.65
109 I	Chrysene-d12a	1.000	1.000	0.0	79	-0.03	12.11
110 T	benzidine	0.758	0.456	39.8#	45#	-0.05	10.57
111 I	Naphthalene-d8a	1.000	1.000	0.0	77	-0.03	5.52
112 T	Hydroquinone	0.355	0.328	7.6	67	-0.02	5.92
113	Phenanthrene-d10b	1.000	1.000	0.0	87	-0.03	8.94
114	Pentachloronitrobenzene	0.045	0.044#	2.2	80	-0.03	8.75

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p472376.D M6P2164.M Thu May 17 15:08:15 2018 ACLIMS

6.7.17
6

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2214-CC2164
Lab FileID: 6P473073.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2214\6p473073.D Vial: 2
 Acq On : 18 May 2018 11:56 am Operator: christc2
 Sample : cc2164-25 Inst : MS6P
 Misc : op8717,e6p2214,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
 Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuThu May 17 23:52:21 2018
 Last Update : Thu May 17 23:52:21 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	64	-0.04	4.49
2 t	1,4-Dioxane	0.684	0.591	13.6	58	-0.03	1.98
3 t	Pyridine	1.859	1.473	20.8#	52	-0.12	2.34
4 t	N-Nitrosodimethylamine	1.078	0.764	29.1#	48#	-0.10	2.30
5 S	2-Fluorophenol	1.458	1.329	8.8	60	-0.05	3.53
6 t	Indene	2.348	2.557	-8.9	71	-0.03	4.68
7 t	Cumene	3.573	3.850	-7.8	71	-0.05	3.89
8 S	Phenol-d5	1.857	1.721	7.3	61	-0.03	4.26
9 t	Phenol	2.094	1.966	6.1	61	-0.04	4.27
10	Aniline	2.297	1.924	16.2	57	-0.02	4.25
11 t	bis(2-Chloroethyl)ether	1.461	1.317	9.9	61	-0.04	4.30
12 t	2-Chlorophenol	1.508	1.474	2.3	65	-0.03	4.35
13 t	Decane	1.919	1.623	15.4	55	-0.04	4.37
14 t	1,3-Dichlorobenzene	1.699	1.604	5.6	63	-0.04	4.45
15 t	1,4-Dichlorobenzene	1.713	1.659	3.2	65	-0.04	4.50
16 t	Benzyl alcohol	1.008	0.934	7.3	60	-0.04	4.61
17 t	1,2-Dichlorobenzene	1.608	1.574	2.1	65	-0.04	4.61
18 t	Acetophenone	1.931	2.131	-10.4	74	-0.03	4.80
19 t	2-Methylphenol	1.351	1.355	-0.3	66	-0.02	4.71
20 t	2,2'-oxybis(1-Chloropropa	0.453	0.452	0.2	67	-0.03	4.70
21 t	3&4-Methylphenol	1.396	1.411	-1.1	68	-0.03	4.83
22 t	n-Nitroso-di-n-propylamin	1.084	1.239	-14.3	77	-0.03	4.80
23 t	Hexachloroethane	0.599	0.538	10.2	59	-0.04	4.87
24 I	Naphthalene-d8	1.000	1.000	0.0	65	-0.04	5.51
25 S	Nitrobenzene-d5	0.434	0.411	5.3	63	-0.04	4.92
26 t	Nitrobenzene	0.412	0.416	-1.0	67	-0.03	4.93
27 t	Quinoline	0.712	0.724	-1.7	68	-0.03	5.83
28 t	Isophorone	0.703	0.739	-5.1	70	-0.04	5.12
29 t	2-Nitrophenol	0.201	0.195	3.0	62	-0.04	5.19
30 t	2,4-Dimethylphenol	0.339	0.357	-5.3	72	-0.03	5.24
31 t	Benzoic acid	0.257	0.269	-4.7	62	-0.01	5.36
32 t	bis(2-Chloroethoxy)methan	0.403	0.341	15.4	56	-0.04	5.30
33 t	2,4-Dichlorophenol	0.313	0.290	7.3	62	-0.03	5.41
34 t	2,6-Dichlorophenol	0.306	0.288	5.9	63	-0.04	5.59
35	1,3,5-Trichlorobenzene	0.349	0.336	3.7	63	-0.04	5.20
36 t	1,2,4-Trichlorobenzene	0.342	0.306	10.5	60	-0.04	5.46
37	1,2,3-Trichlorobenzene	0.329	0.313	4.9	63	-0.04	5.65
38 t	Naphthalene	1.048	1.072	-2.3	69	-0.04	5.52
39 t	4-Chloroaniline	0.449	0.426	5.1	63	-0.03	5.58
40 t	2,3-Dichloroaniline	0.366	0.372	-1.6	68	-0.04	6.44
41 t	Caprolactam	0.197	0.163	17.3	55	-0.03	5.90

Continuing Calibration Summary

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2214-CC2164
Lab FileID: 6P473073.D

42	t	Hexachlorobutadiene	0.193	0.162	16.1	56	-0.04	5.64
43	t	4-Chloro-3-methylphenol	0.309	0.352	-13.9	75	-0.02	6.05
44	t	2-Methylnaphthalene	0.613	0.638	-4.1	69	-0.03	6.16
45	t	1-Methylnaphthalene	0.635	0.663	-4.4	70	-0.03	6.26
46	t	Dimethylnaphthalene	0.680	0.661	2.8	65	-0.03	6.79
47	I	Acenaphthene-d10	1.000	1.000	0.0	67	-0.05	7.23
48	t	Hexachlorocyclopentadiene	0.370	0.204	44.9#	37#	-0.05	6.32
49	t	2,4,6-Trichlorophenol	0.376	0.365	2.9	66	-0.04	6.45
50	t	2,4,5-Trichlorophenol	0.423	0.387	8.5	63	-0.03	6.51
51	S	2-Fluorobiphenyl	1.543	1.448	6.2	65	-0.05	6.52
52	t	2-Chloronaphthalene	1.267	1.179	6.9	65	-0.04	6.65
53	t	Biphenyl	1.712	1.584	7.5	64	-0.04	6.63
54	t	2-Nitroaniline	0.403	0.422	-4.7	71	-0.04	6.76
55	t	Dimethylphthalate	1.382	1.363	1.4	68	-0.04	6.96
56	t	Acenaphthylene	1.947	1.943	0.2	69	-0.05	7.08
57	t	2,6-Dinitrotoluene	0.307	0.314	-2.3	67	-0.03	7.02
58	t	3-Nitroaniline	0.383	0.307	19.8	54	-0.03	7.21
59	t	Acenaphthene	1.357	1.289	5.0	66	-0.04	7.27
----- True			Calc.	% Drift	-----			
60	t	2,4-Dinitrophenol	50.000	40.796	18.4	53	-0.07	7.34
----- AvgRF			CCRF	% Dev	-----			
61	t	4-Nitrophenol	0.186	0.159	14.5	56	-0.03	7.45
62	t	Dibenzofuran	1.755	1.708	2.7	68	-0.05	7.45
63	t	2,4-Dinitrotoluene	0.404	0.435	-7.7	68	-0.03	7.47
64	t	2,3,4,6-Tetrachlorophenol	0.375	0.267	28.8#	46#	-0.04	7.62
65	t	Diethylphthalate	1.324	1.430	-8.0	74	-0.04	7.74
66	t	Fluorene	1.409	1.374	2.5	67	-0.04	7.84
67	t	4-Chlorophenyl-phenylethe	0.680	0.638	6.2	65	-0.04	7.85
68	t	4-Nitroaniline	0.396	0.282	28.8#	49#	-0.03	7.89
69	I	Phenanthrene-d10	1.000	1.000	0.0	66	-0.04	8.93
70	t	4,6-Dinitro-2-methylpheno	0.135	0.135	0.0	61	-0.03	7.94
71	t	n-Nitrosodiphenylamine	0.557	0.596	-7.0	73	-0.05	7.99
72	t	1,2-Diphenylhydrazine	0.845	0.854	-1.1	68	-0.05	8.03
73	S	2,4,6-Tribromophenol	0.150	0.111	26.0#	48#	-0.04	8.12
74	t	4-Bromophenyl-phenylether	0.246	0.206	16.3	57	-0.05	8.41
75	t	Hexachlorobenzene	0.292	0.247	15.4	59	-0.04	8.48
76	t	Pentachlorophenol	0.162	0.105	35.2#	41#	-0.03	8.73
77	t	Phenanthrene	1.216	1.126	7.4	64	-0.04	8.95
78	t	Anthracene	1.231	1.123	8.8	62	-0.04	9.01
79	t	Carbazole	1.145	1.058	7.6	63	-0.03	9.22
80	t	Di-n-butylphthalate	1.255	1.392	-10.9	74	-0.03	9.66
81	t	Fluoranthene	1.318	1.202	8.8	62	-0.03	10.37
82	t	Octadecane	0.579	0.562	2.9	63	-0.04	8.85
83	I	Chrysene-d12	1.000	1.000	0.0	57	-0.05	12.10
84	t	Pyrene	1.337	1.389	-3.9	61	-0.06	10.63
85	S	Terphenyl-d14	0.956	0.913	4.5	56	-0.05	10.85
86	t	Butylbenzylphthalate	0.529	0.710	-34.2#	75	-0.04	11.47
87	t	Benzo[a]anthracene	1.253	1.188	5.2	57	-0.04	12.09
88	t	3,3'-Dichlorobenzidine	0.477	0.464	2.7	57	-0.04	12.08
89	t	Chrysene	1.239	1.170	5.6	56	-0.04	12.13
90	t	bis(2-Ethylhexyl)phthalat	0.744	0.950	-27.7#	72	-0.04	12.18
91	I	Perylene-d12	1.000	1.000	0.0	60	-0.05	13.70
92	t	Di-n-octylphthalate	1.221	1.511	-23.8#	71	-0.05	12.92
93	t	Benzo[b]fluoranthene	1.267	1.234	2.6	59	-0.05	13.31

6.7.18
6

Continuing Calibration Summary

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2214-CC2164
Lab FileID: 6P473073.D

94	t	Benzo[k]fluoranthene	1.158	1.093	5.6	58	-0.05	13.33
95	t	Benzo[a]pyrene	1.122	1.051	6.3	58	-0.05	13.64
96	t	Indeno[1,2,3-cd]pyrene	1.477	1.371	7.2	57	-0.07	14.81
97	t	Dibenz(a,h)acridine	1.111	1.030	7.3	56	-0.07	14.55
98	t	Dibenz[a,h]anthracene	1.273	1.194	6.2	57	-0.08	14.82
99	t	7,12-Dimethylbenz(a)anthr	0.523	0.575	-9.9	66	-0.06	13.30
100	t	Benzo[g,h,i]perylene	1.183	1.126	4.8	58	-0.09	15.11

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p472376.D M6P2164.M Sat May 19 08:44:47 2018 ACLIMS

6.7.18
6

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E6P2214-CC2165
Lab FileID: 6P473074.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2214\6p473074.D Vial: 3
Acq On : 18 May 2018 12:21 pm Operator: christc2
Sample : cc2165-25 Inst : MS6P
Misc : op8717,e6p2214,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuThu May 17 23:52:21 2018
Last Update : Thu May 17 23:52:21 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	63	-0.04	4.49
102	Benzaldehyde	1.295	0.974	24.8#	48#	-0.04	4.17
103	Acenaphthene-d10a	1.000	1.000	0.0	74	-0.05	7.23
104	1,2,4,5-Tetrachlorobenzen	0.690	0.512	25.8#	58	-0.05	6.33
105	Phenanthrene-d10a	1.000	1.000	0.0	71	-0.05	8.92
106 S	1-chlorooctadecane	0.397	0.362	8.8	62	-0.04	10.28
107 S	o-terphenyl	0.689	0.551	20.0#	58	-0.05	9.39
108	Atrazine	0.127	0.114	10.2	63	-0.05	8.63
109 I	Chrysene-d12a	1.000	1.000	0.0	66	-0.05	12.10
110 T	benzidine	0.758	0.420	44.6#	35#	-0.06	10.56
111 I	Naphthalene-d8a	1.000	1.000	0.0	65	-0.04	5.50
112 T	Hydroquinone	0.355	0.295	16.9	51	-0.02	5.92
113	Phenanthrene-d10b	1.000	1.000	0.0	71	-0.05	8.92
114	Pentachloronitrobenzene	0.045	0.043#	4.4	64	-0.04	8.73

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p472376.D M6P2164.M Sat May 19 08:46:17 2018 ACLIMS

6.7.19

6



MS Semi-volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-17-18\aimeel\6p2211\
 Data File : 6p473023.d
 Acq On : 16 May 2018 10:49 pm
 Operator : christc2
 Sample : jc66181-1
 Misc : op12038,e6p2211,30.3,,,1,5
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: May 22 16:42:20 2018

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018

QLast Update : Wed May 16 22:45:08 2018

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.513	152	568327	40.00	ppm	0.00
24) Naphthalene-d8	5.529	136	2173472	40.00	ppm	0.00
47) Acenaphthene-d10	7.257	164	1116512	40.00	ppm	0.00
69) Phenanthrene-d10	8.952	188	1976601	40.00	ppm	0.01
83) Chrysene-d12	12.162	240	2150470	40.00	ppm	0.04
91) Perylene-d12	13.772	264	2533769	40.00	ppm	0.05
101) 1,4-Dichlorobenzene-d4a	4.513	152	568327	40.00	ppm	0.00
103) Acenaphthene-d10a	7.257	164	1116512	40.00	ppm	0.00
105) Phenanthrene-d10a	8.952	188	1976601	40.00	ppm	0.01
109) Chrysene-d12a	12.162	240	2150470	40.00	ppm	0.04
111) Naphthalene-d8a	5.529	136	2173472	40.00	ppm	0.00
113) Phenanthrene-d10b	8.952	188	1976601	40.00	ppm	0.01
115) Chrysene-d12b	12.162	240	2150470	40.00	ppm	0.04
System Monitoring Compounds						
5) 2-Fluorophenol	3.550	112	108250	5.23	ppm	0.00
Spiked Amount 50.000			Recovery	=	10.46%	
8) Phenol-d5	4.278	99	146364	5.55	ppm	0.01
Spiked Amount 50.000			Recovery	=	11.10%	
25) Nitrobenzene-d5	4.936	82	136610	5.79	ppm	0.00
Spiked Amount 50.000			Recovery	=	11.58%	
51) 2-Fluorobiphenyl	6.546	172	281520	6.54	ppm	0.00
Spiked Amount 50.000			Recovery	=	13.08%	
73) 2,4,6-Tribromophenol	8.145	330	35651	4.80	ppm	0.00
Spiked Amount 50.000			Recovery	=	9.60%	
85) Terphenyl-d14	10.883	244	344637	6.71	ppm	0.00
Spiked Amount 50.000			Recovery	=	13.42%	
106) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
107) o-terphenyl	0.000	230	0d	0.00	ppm	
Target Compounds						
38) Naphthalene	5.545	128	487707	8.56	ppm	99
44) 2-Methylnaphthalene	6.182	141	103715	3.11	ppm	# 1
56) Acenaphthylene	7.102	152	1550254	28.52	ppm	100
59) Acenaphthene	7.289	153	207359m	5.47	ppm	
66) Fluorene	7.867	166	213235	5.42	ppm	90
77) Phenanthrene	8.979	178	2176297	36.22	ppm	99
78) Anthracene	9.038	178	2233323	36.73	ppm	99
81) Fluoranthene	10.413	202	16527773	253.69	ppm	# 1
84) Pyrene	10.680	202	16937787	235.68	ppm	80
87) Benzo[a]anthracene	12.140	228	17740526	263.28	ppm	75
89) Chrysene	12.194	228	13682929m	205.37	ppm	
93) Benzo[b]fluoranthene	13.381	252	22035643m	274.63	ppm	
94) Benzo[k]fluoranthene	13.413	252	6513470m	88.81	ppm	
95) Benzo[a]pyrene	13.723	252	16303433	229.40	ppm	92
96) Indeno[1,2,3-cd]pyrene	14.916	276	10459997	111.81	ppm	90
98) Dibenz[a,h]anthracene	14.916	278	3825966m	47.44	ppm	
100) Benzo[g,h,i]perylene	15.232	276	7886017	105.26	ppm	77

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-17-18\aimeel\e6p2211\
Data File : 6p473023.d
Acq On : 16 May 2018 10:49 pm
Operator : christc2
Sample : jc66181-1
Misc : op12038,e6p2211,30.3,,,1,5
ALS Vial : 28 Sample Multiplier: 1

Quant Time: May 22 16:42:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
QLast Update : Wed May 16 22:45:08 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

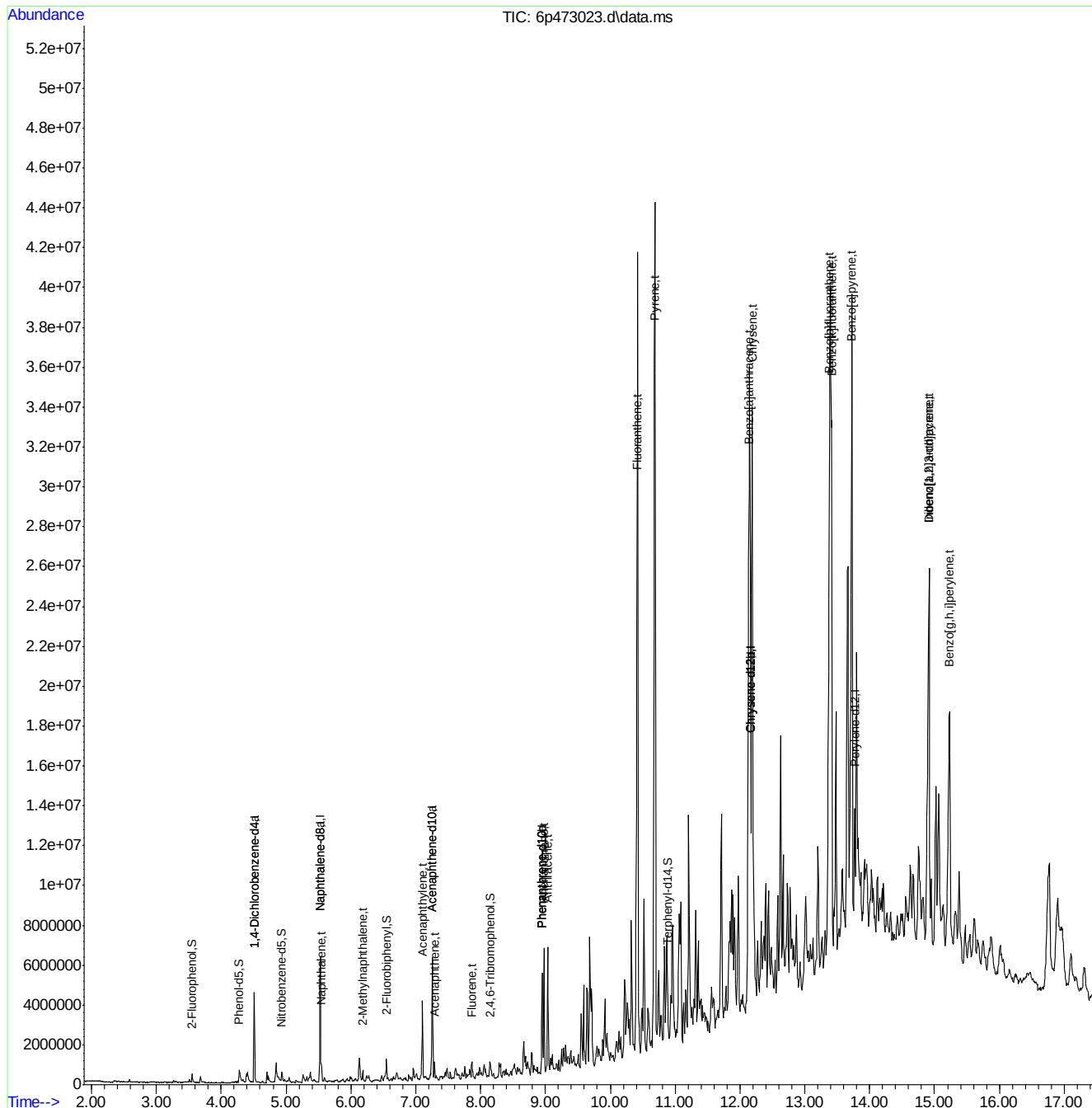
(#) = qualifier out of range (m) = manual integration (+) = signals summed						

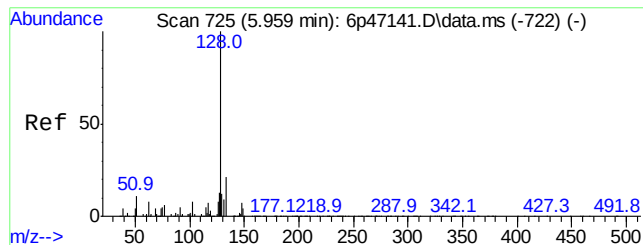
7.1.1
7

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-17-18\aimeel\6p2211\
Data File : 6p473023.d
Acq On : 16 May 2018 10:49 pm
Operator : christc2
Sample : jc66181-1
Misc : op12038,6p2211,30.3,,,1,5
ALS Vial : 28 Sample Multiplier: 1

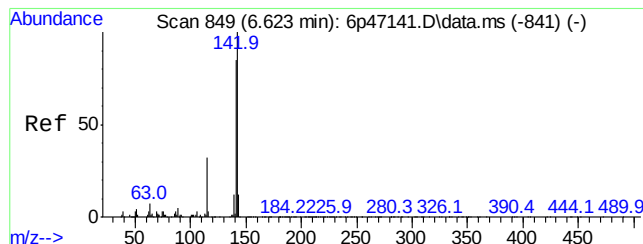
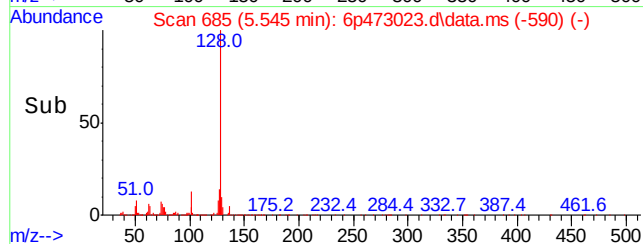
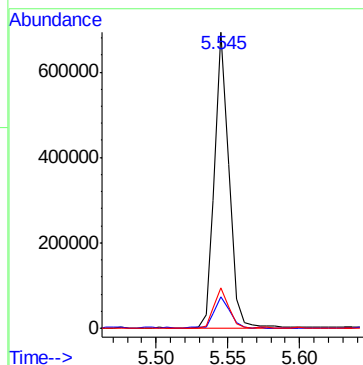
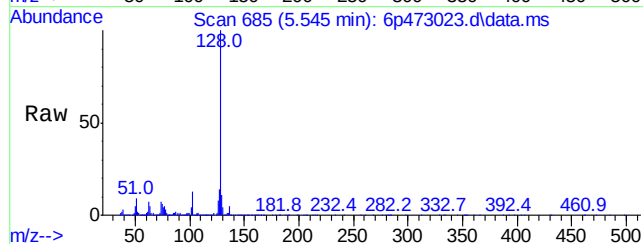
Quant Time: May 22 16:42:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
QLast Update : Wed May 16 22:45:08 2018
Response via : Initial Calibration





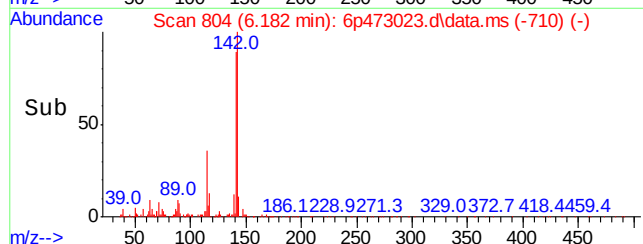
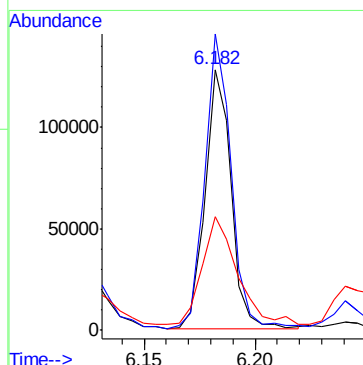
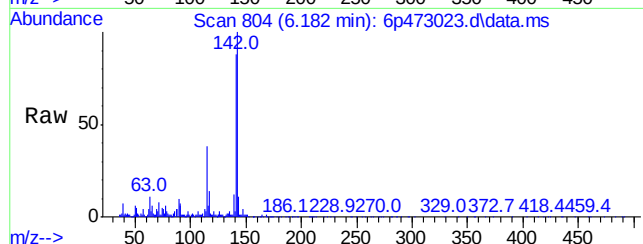
#38
Naphthalene
Concen: 8.56 ppm
RT: 5.545 min Scan# 685
Delta R.T. 0.011 min
Lab File: 6p473023.d
Acq: 16 May 2018 10:49 pm

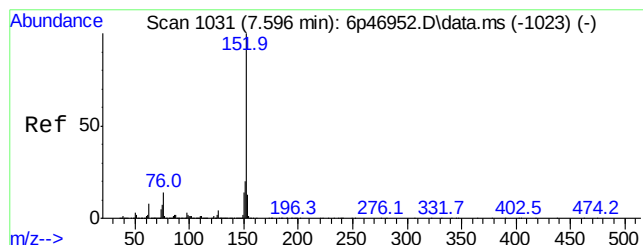
Tgt Ion:	128	Resp:	487707
Ion Ratio	Lower	Upper	
128	100		
129	10.4	0.0	41.2
127	13.5	0.0	43.3



#44
2-Methylnaphthalene
Concen: 3.11 ppm
RT: 6.182 min Scan# 804
Delta R.T. 0.004 min
Lab File: 6p473023.d
Acq: 16 May 2018 10:49 pm

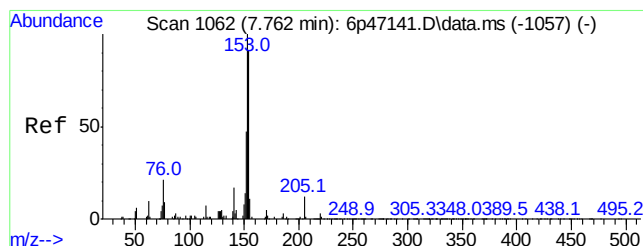
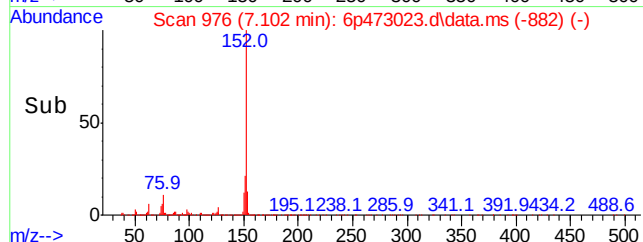
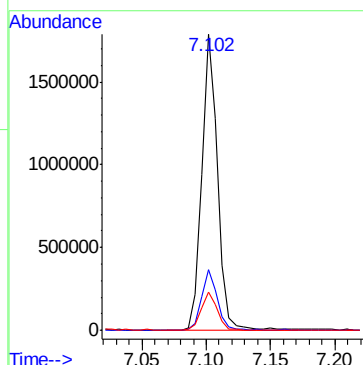
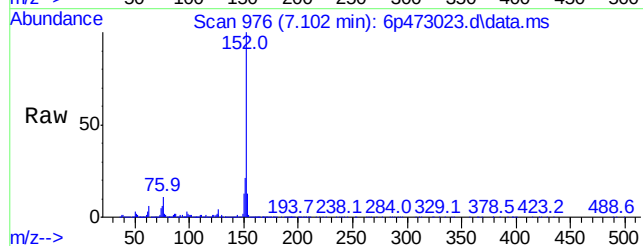
Tgt Ion:	141	Resp:	103715
Ion Ratio	Lower	Upper	
141	100		
142	113.8	791.6	851.6#
115	41.8	0.0	32.9#





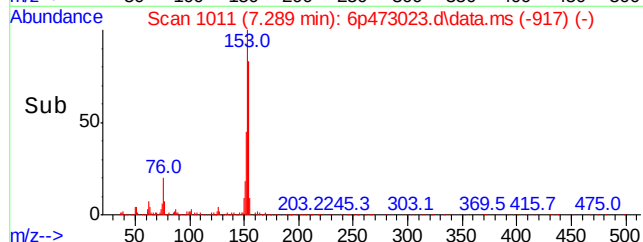
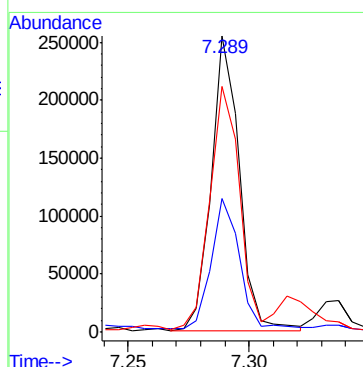
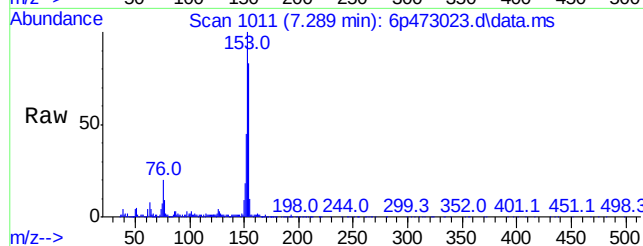
#56
Acenaphthylene
Concen: 28.52 ppm
RT: 7.102 min Scan# 976
Delta R.T. 0.003 min
Lab File: 6p473023.d
Acq: 16 May 2018 10:49 pm

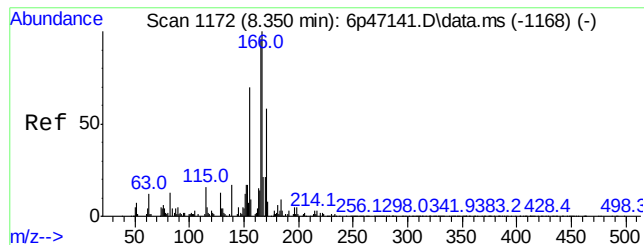
Tgt	Ion:152	Resp: 1550254
Ion	Ratio	Lower Upper
152	100	
151	20.5	0.0 50.8
153	12.7	0.0 42.6



#59
Acenaphthene
Concen: 5.47 ppm m
RT: 7.289 min Scan# 1011
Delta R.T. 0.000 min
Lab File: 6p473023.d
Acq: 16 May 2018 10:49 pm

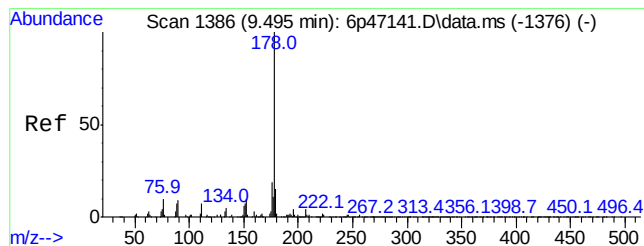
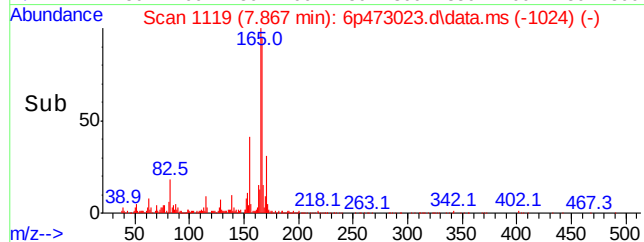
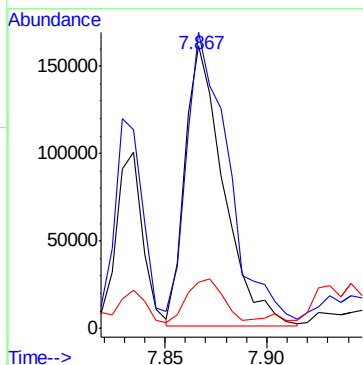
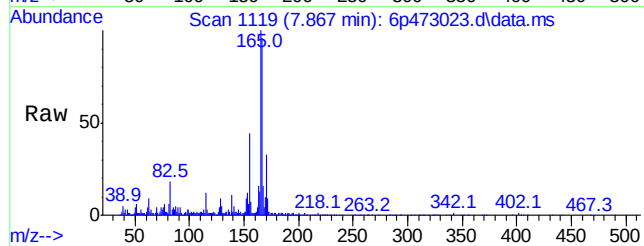
Tgt	Ion:153	Resp: 207359
Ion	Ratio	Lower Upper
153	100	
152	45.2	15.4 75.4
154	83.2	60.5 120.5





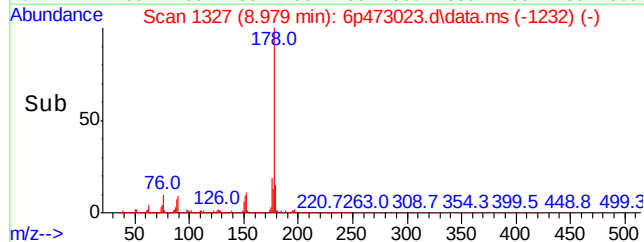
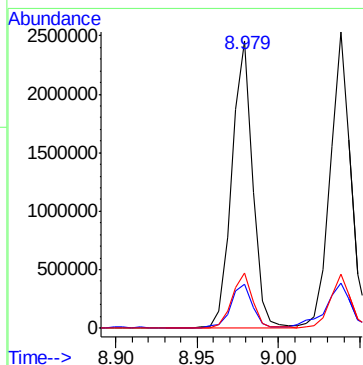
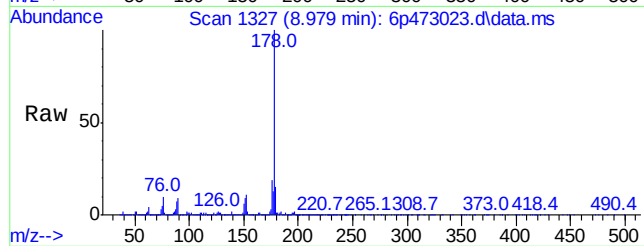
#66
 Fluorene
 Concen: 5.42 ppm
 RT: 7.867 min Scan# 1119
 Delta R.T. 0.008 min
 Lab File: 6p473023.d
 Acq: 16 May 2018 10:49 pm

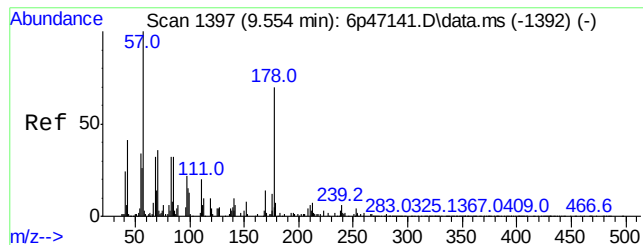
Tgt Ion	166	165	167
Ratio	100	102.5	14.1
Lower		61.4	0.0
Upper		121.4	43.3



#77
 Phenanthrene
 Concen: 36.22 ppm
 RT: 8.979 min Scan# 1327
 Delta R.T. 0.011 min
 Lab File: 6p473023.d
 Acq: 16 May 2018 10:49 pm

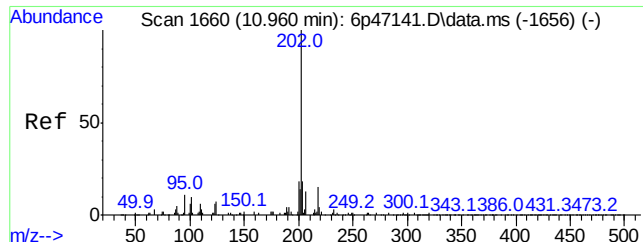
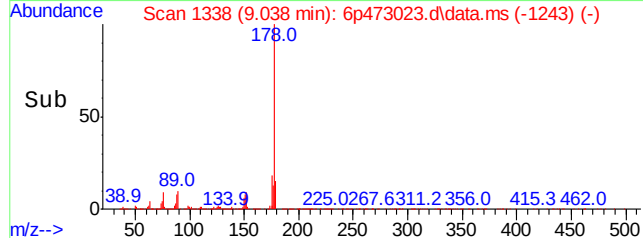
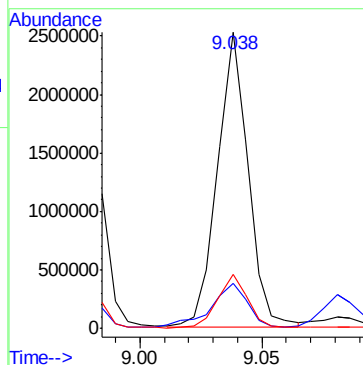
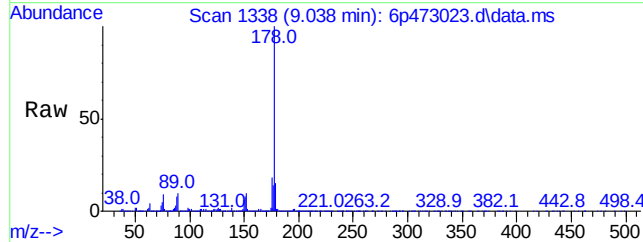
Tgt Ion	178	179	176
Ratio	100	14.5	19.0
Lower		0.0	0.0
Upper		44.8	48.8





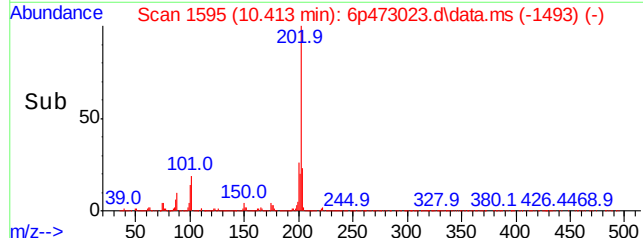
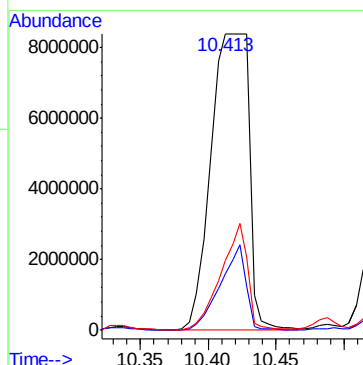
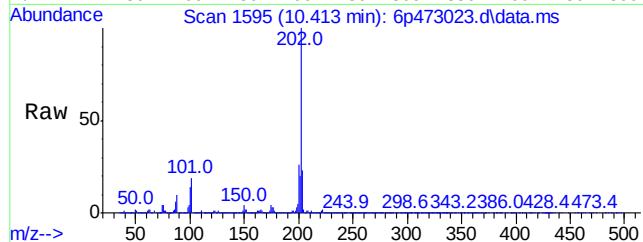
#78
 Anthracene
 Concen: 36.73 ppm
 RT: 9.038 min Scan# 1338
 Delta R.T. 0.006 min
 Lab File: 6p473023.d
 Acq: 16 May 2018 10:49 pm

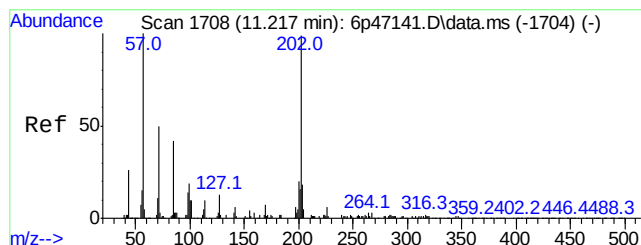
Tgt Ion:	178	Resp:	2233323
Ion Ratio	Lower	Upper	
178	100		
179	14.4	0.0	44.5
176	18.1	0.0	47.5



#81
 Fluoranthene
 Concen: 253.69 ppm
 RT: 10.413 min Scan# 1595
 Delta R.T. 0.043 min
 Lab File: 6p473023.d
 Acq: 16 May 2018 10:49 pm

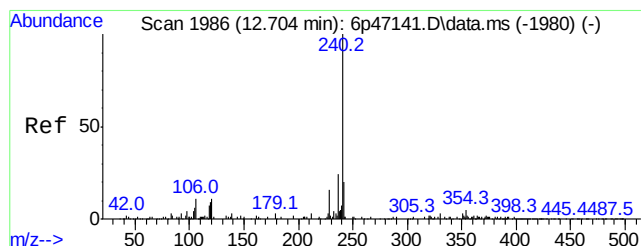
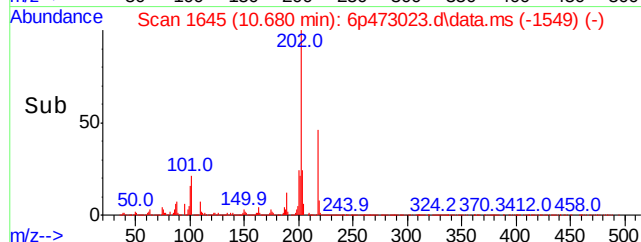
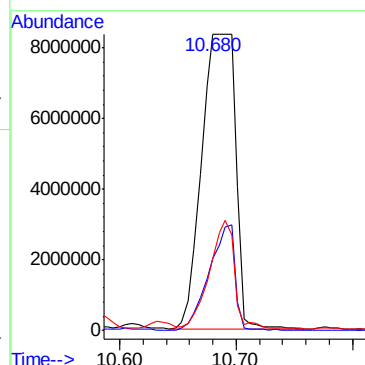
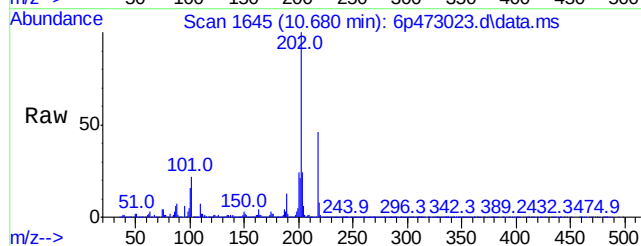
Tgt Ion:	202	Resp:	16527773
Ion Ratio	Lower	Upper	
202	100		
101	19.0	0.0	38.6
203	23.2	178.5	238.5#





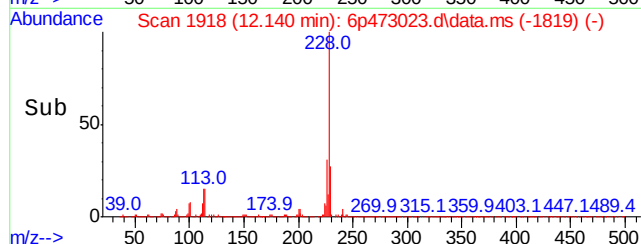
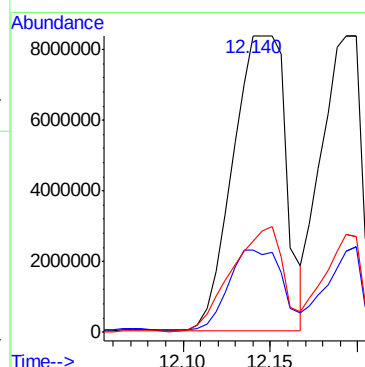
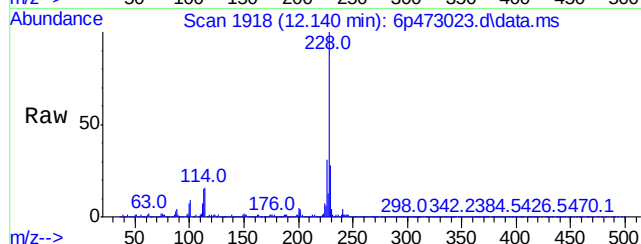
#84
Pyrene
Concen: 235.68 ppm
RT: 10.680 min Scan# 1645
Delta R.T. 0.014 min
Lab File: 6p473023.d
Acq: 16 May 2018 10:49 pm

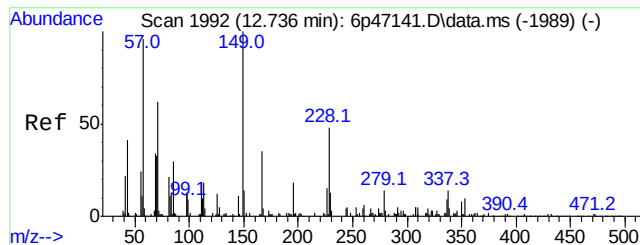
Tgt Ion:	202	Resp:	16937787
Ion	Ratio	Lower	Upper
202	100		
200	24.1	0.0	30.0
203	23.1	0.0	44.9



#87
Benzo[a]anthracene
Concen: 263.28 ppm
RT: 12.140 min Scan# 1918
Delta R.T. 0.032 min
Lab File: 6p473023.d
Acq: 16 May 2018 10:49 pm

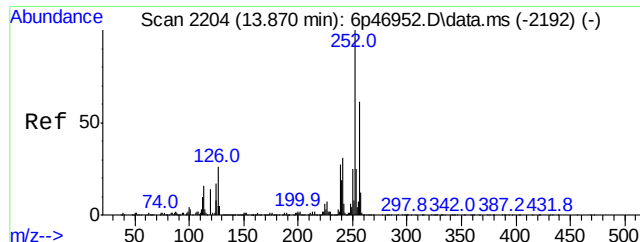
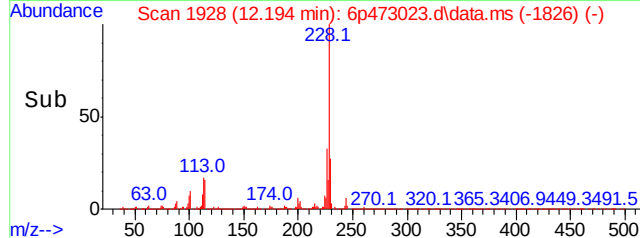
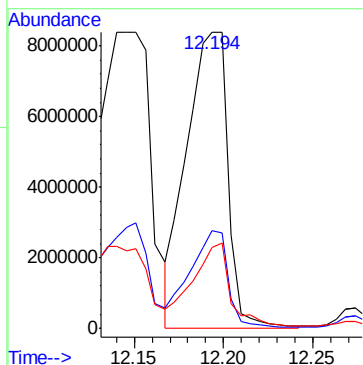
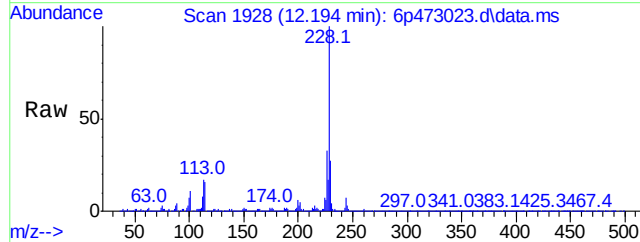
Tgt Ion:	228	Resp:	17740526
Ion	Ratio	Lower	Upper
228	100		
229	27.3	0.0	52.0
226	30.9	0.0	41.0





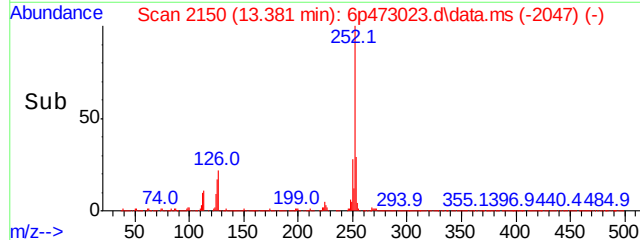
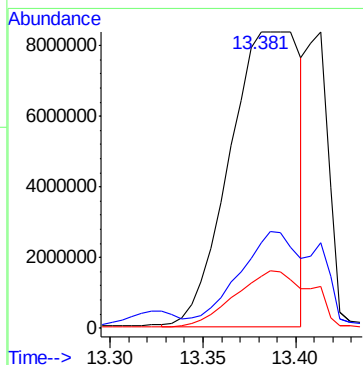
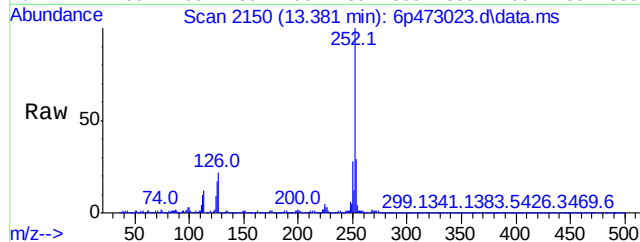
#89
Chrysene
Concen: 205.37 ppm m
RT: 12.194 min Scan# 1928
Delta R.T. 0.043 min
Lab File: 6p473023.d
Acq: 16 May 2018 10:49 pm

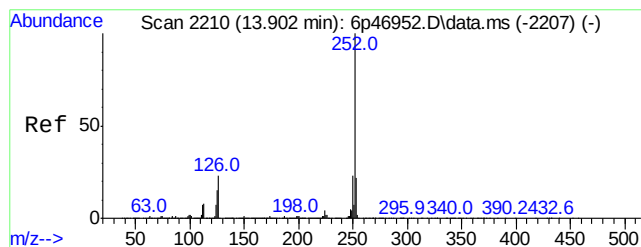
Tgt Ion:	228	Resp:	13682929
Ion Ratio	Lower	Upper	
228	100		
226	33.2	0.0	30.0#
229	27.2	11.0	71.0



#93
Benzo[b]fluoranthene
Concen: 274.63 ppm m
RT: 13.381 min Scan# 2150
Delta R.T. 0.050 min
Lab File: 6p473023.d
Acq: 16 May 2018 10:49 pm

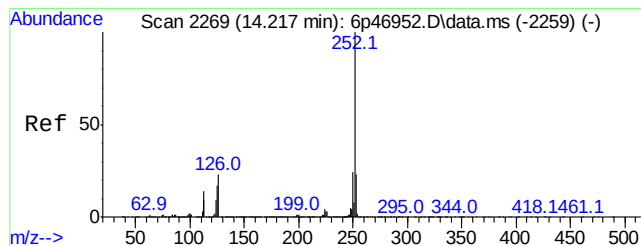
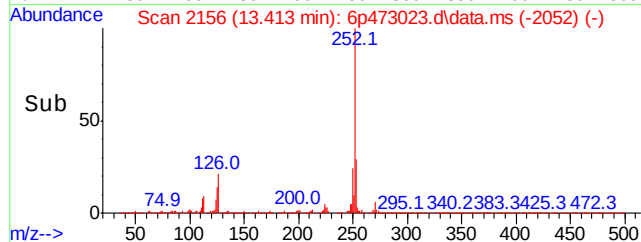
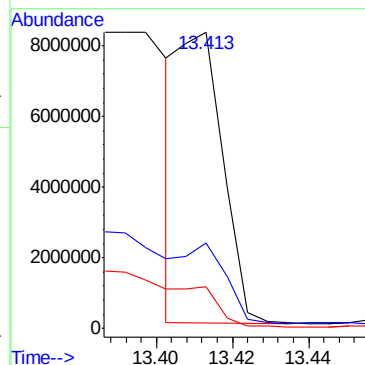
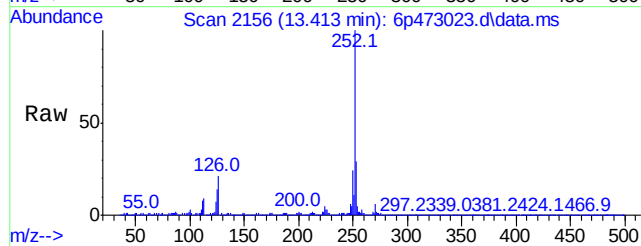
Tgt Ion:	252	Resp:	22035643
Ion Ratio	Lower	Upper	
252	100		
253	28.8	2.6	62.6
125	17.3	6.7	66.7





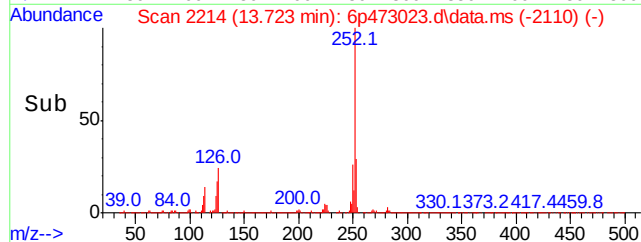
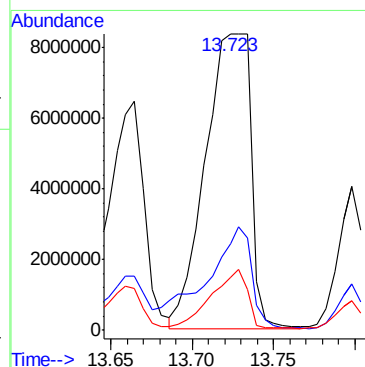
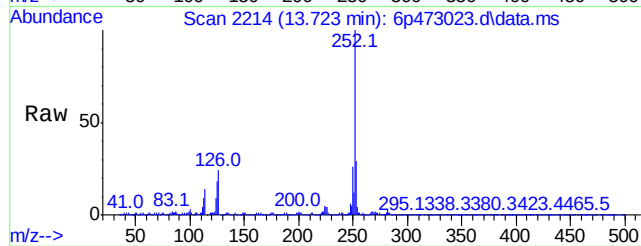
#94
Benzo[k]fluoranthene
Concen: 88.81 ppm
RT: 13.413 min Scan# 2156
Delta R.T. 0.056 min
Lab File: 6p473023.d
Acq: 16 May 2018 10:49 pm

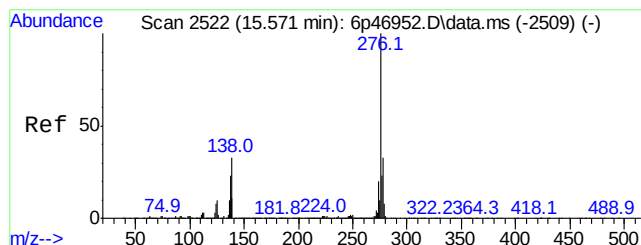
Tgt Ion:	252	Resp:	6513470
Ion Ratio	Lower	Upper	
252	100		
253	28.9	0.0	30.0
125	14.1	0.0	44.0



#95
Benzo[a]pyrene
Concen: 229.40 ppm
RT: 13.723 min Scan# 2214
Delta R.T. 0.058 min
Lab File: 6p473023.d
Acq: 16 May 2018 10:49 pm

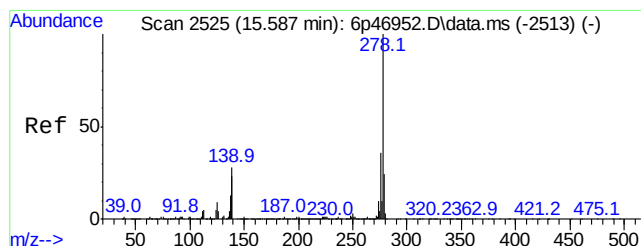
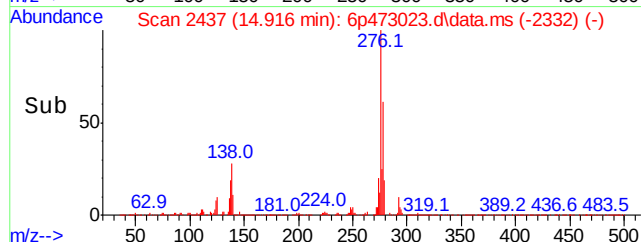
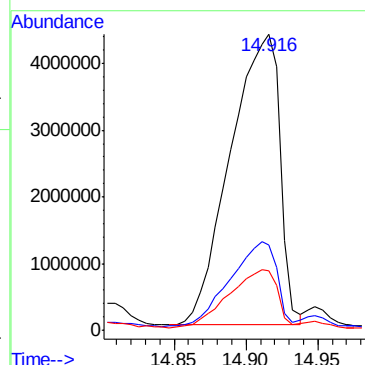
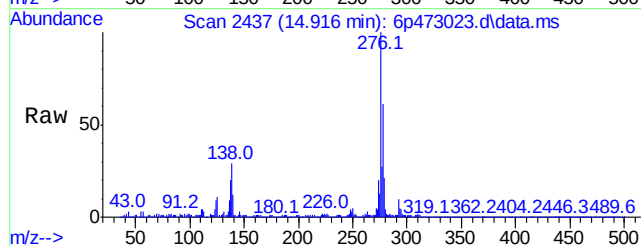
Tgt Ion:	252	Resp:	16303433
Ion Ratio	Lower	Upper	
252	100		
253	24.8	0.0	53.9
125	17.4	0.0	34.5





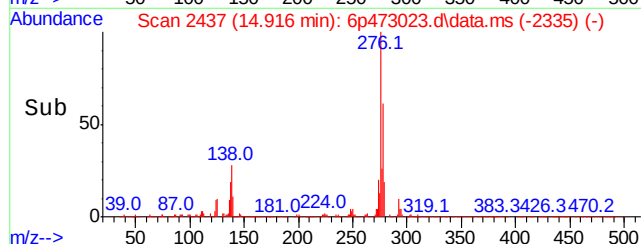
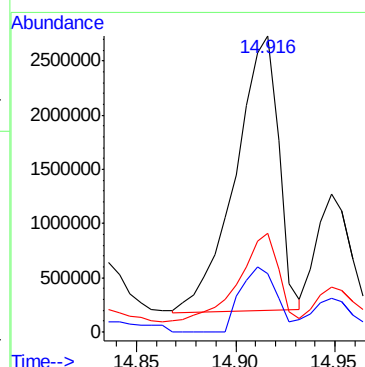
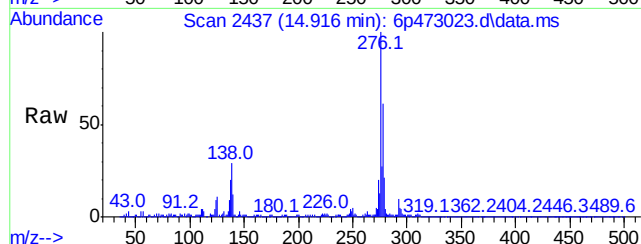
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 111.81 ppm
 RT: 14.916 min Scan# 2437
 Delta R.T. 0.062 min
 Lab File: 6p473023.d
 Acq: 16 May 2018 10:49 pm

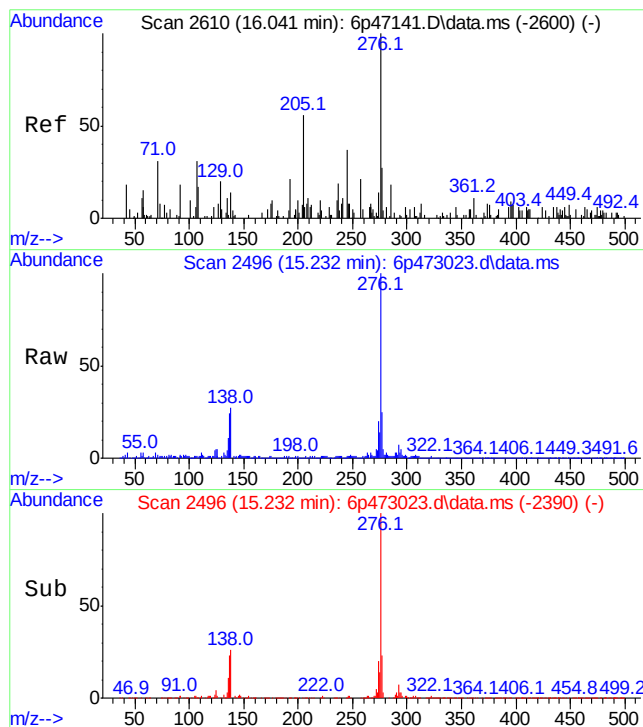
Tgt Ion:	276	Resp:	10459997
Ion Ratio	Lower	Upper	
276	100		
138	27.5	0.0	30.0
137	19.2	0.0	45.0



#98
 Dibenz[a,h]anthracene
 Concen: 47.44 ppm m
 RT: 14.916 min Scan# 2437
 Delta R.T. 0.046 min
 Lab File: 6p473023.d
 Acq: 16 May 2018 10:49 pm

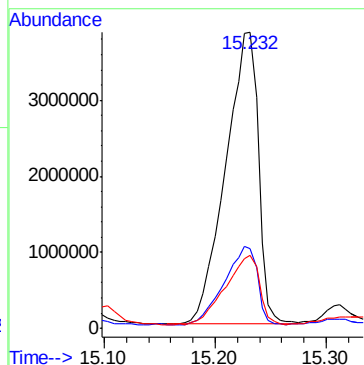
Tgt Ion:	278	Resp:	3825966
Ion Ratio	Lower	Upper	
278	100		
139	19.7	0.0	30.0
279	33.6	0.0	30.0#





#100
Benzo[g,h,i]perylene
Concen: 105.26 ppm
RT: 15.232 min Scan# 2496
Delta R.T. 0.064 min
Lab File: 6p473023.d
Acq: 16 May 2018 10:49 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	26.0	0.0	36.1
277	23.7	2.5	62.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2212\
 Data File : 6p473037.D
 Acq On : 17 May 2018 2:18 pm
 Operator : christc2
 Sample : jc66181-1
 Misc : op12038,e6p2212,30.3,,,1,25
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 17 15:55:34 2018

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 15 13:30:05 2018

QLast Update : Tue May 15 13:30:05 2018

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.508	152	501970	40.00	ppm	-0.02
24) Naphthalene-d8	5.529	136	2087855	40.00	ppm	-0.02
47) Acenaphthene-d10	7.262	164	1075548	40.00	ppm	-0.02
69) Phenanthrene-d10	8.958	188	1923425	40.00	ppm	-0.01
83) Chrysene-d12	12.151	240	1888626	40.00	ppm	0.00
91) Perylene-d12	13.761	264	2229442	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.508	152	501970	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.262	164	1075548	40.00	ppm	-0.02
105) Phenanthrene-d10a	8.958	188	1923425	40.00	ppm	-0.01
109) Chrysene-d12a	12.151	240	1888626	40.00	ppm	0.00
111) Naphthalene-d8a	5.529	136	2087855	40.00	ppm	-0.02
113) Phenanthrene-d10b	8.958	188	1923425	40.00	ppm	-0.01
115) Chrysene-d12b	12.151	240	1888626	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.550	112	19930	1.09	ppm	-0.03
Spiked Amount	50.000		Recovery	=	2.18%	
8) Phenol-d5	4.283	99	26095	1.12	ppm	0.00
Spiked Amount	50.000		Recovery	=	2.24%	
25) Nitrobenzene-d5	4.936	82	25189	1.11	ppm	-0.02
Spiked Amount	50.000		Recovery	=	2.22%	
51) 2-Fluorobiphenyl	6.546	172	56441	1.36	ppm	-0.02
Spiked Amount	50.000		Recovery	=	2.72%	
73) 2,4,6-Tribromophenol	8.156	330	7394	1.02	ppm	0.00
Spiked Amount	50.000		Recovery	=	2.04%	
85) Terphenyl-d14	10.889	244	70092	1.55	ppm	-0.01
Spiked Amount	50.000		Recovery	=	3.10%	
106) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
107) o-terphenyl	0.000	230	0d	0.00	ppm	
Target Compounds						
						Qvalue
38) Naphthalene	5.545	128	104888	1.92	ppm	96
44) 2-Methylnaphthalene	6.182	141	22166	0.69	ppm	79
56) Acenaphthylene	7.102	152	430844	8.23	ppm	99
59) Acenaphthene	7.294	153	44409	1.22	ppm	93
66) Fluorene	7.872	166	52869	1.40	ppm	81
77) Phenanthrene	8.985	178	455028	7.78	ppm	99
78) Anthracene	9.043	178	471949	7.98	ppm	97
81) Fluoranthene	10.413	202	4596277	72.50	ppm	97
84) Pyrene	10.680	202	4515649	71.55	ppm	99
87) Benzo[a]anthracene	12.135	228	3697055	62.47	ppm	97
89) Chrysene	12.178	228	2854429	48.78	ppm	95
93) Benzo[b]fluoranthene	13.365	252	4567788m	64.70	ppm	
94) Benzo[k]fluoranthene	13.392	252	1640029m	25.41	ppm	
95) Benzo[a]pyrene	13.702	252	3590545	57.42	ppm	96
96) Indeno[1,2,3-cd]pyrene	14.884	276	2071361	25.16	ppm	82
98) Dibenz[a,h]anthracene	14.890	278	818080	11.53	ppm	91
100) Benzo[g,h,i]perylene	15.194	276	1578090	23.94	ppm	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2212\
Data File : 6p473037.D
Acq On : 17 May 2018 2:18 pm
Operator : christc2
Sample : jc66181-1
Misc : op12038,e6p2212,30.3,,,1,25
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 17 15:55:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 15 13:30:05 2018
QLast Update : Tue May 15 13:30:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

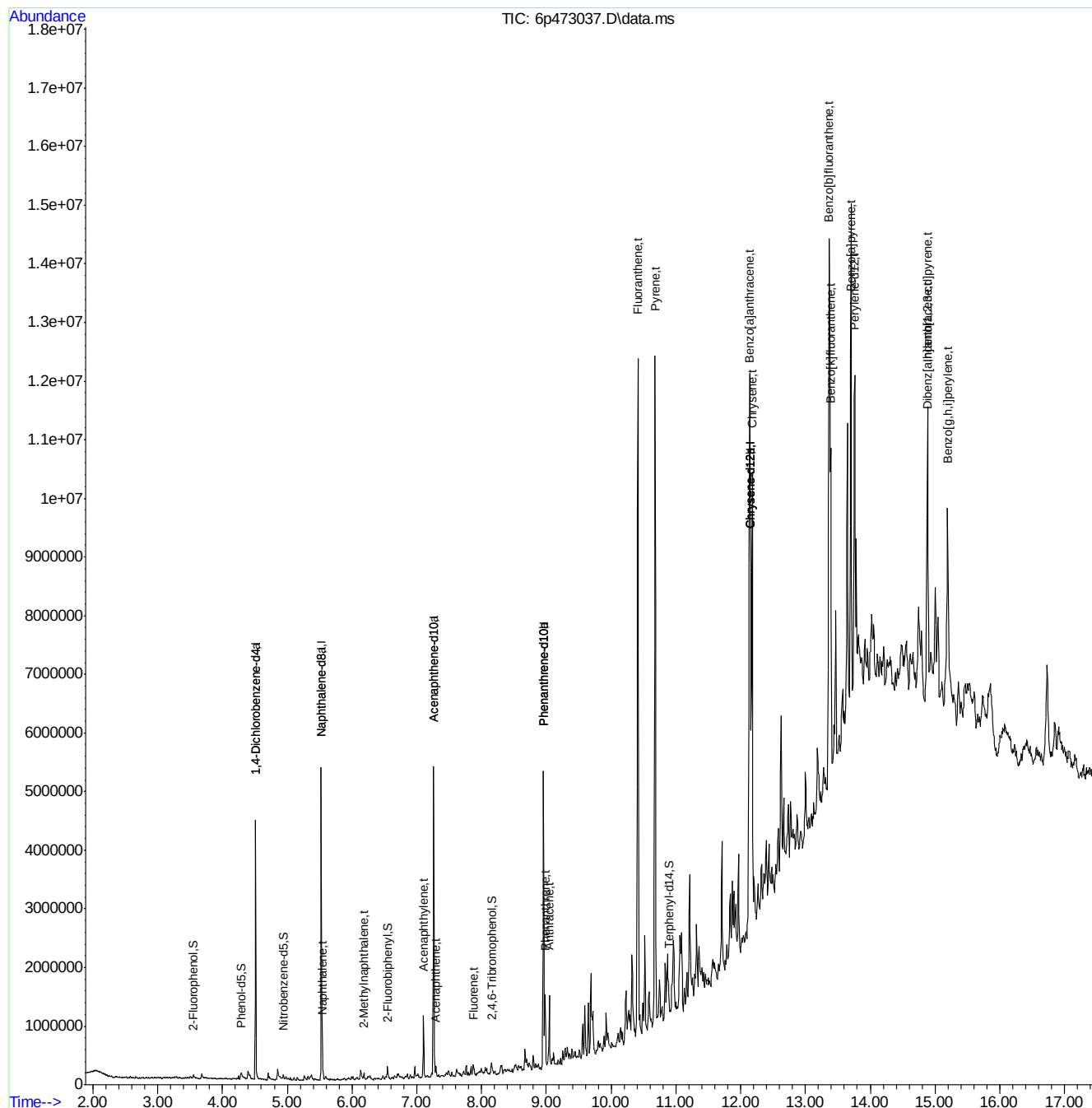
(#) = qualifier out of range (m) = manual integration (+) = signals summed						

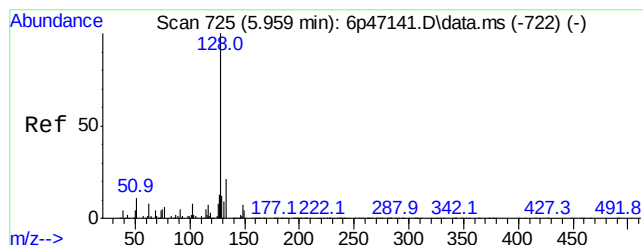
7.1.2
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2212\
Data File : 6p473037.D
Acq On : 17 May 2018 2:18 pm
Operator : christc2
Sample : jc66181-1
Misc : op12038,e6p2212,30.3,,,1,25
ALS Vial : 11 Sample Multiplier: 1

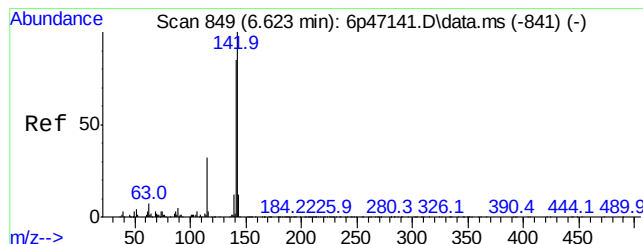
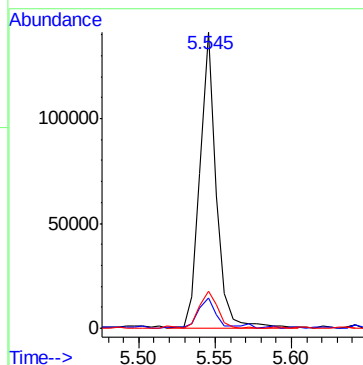
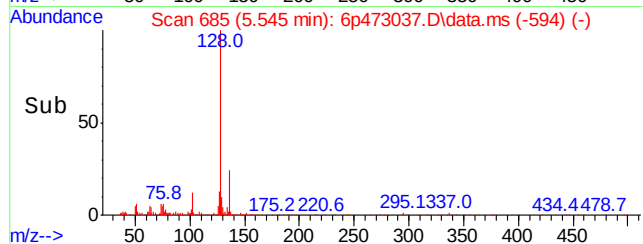
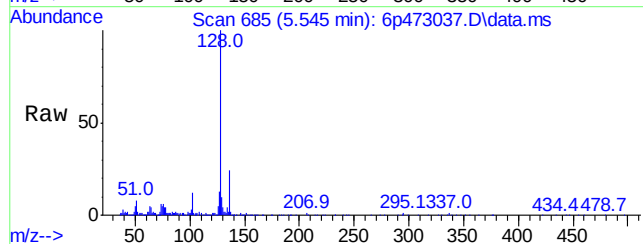
Quant Time: May 17 15:55:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 15 13:30:05 2018
QLast Update : Tue May 15 13:30:05 2018
Response via : Initial Calibration





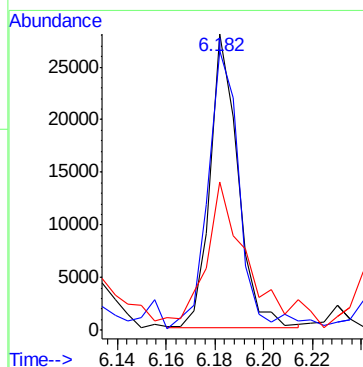
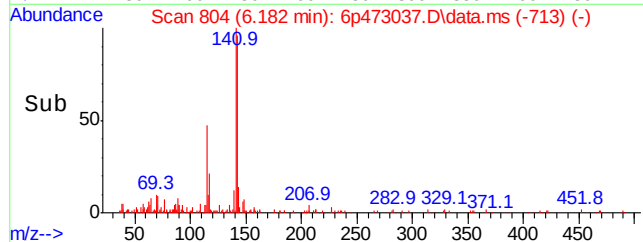
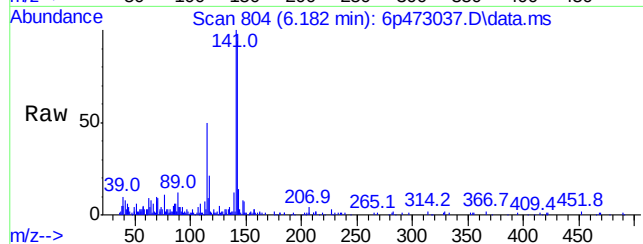
#38
Naphthalene
Concen: 1.92 ppm
RT: 5.545 min Scan# 685
Delta R.T. -0.016 min
Lab File: 6p473037.D
Acq: 17 May 2018 2:18 pm

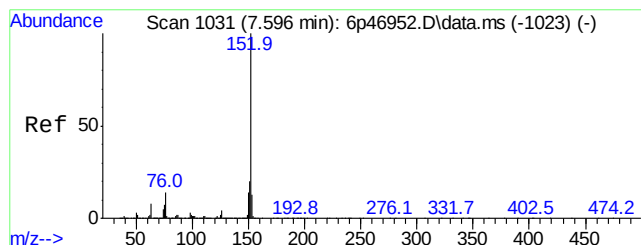
Tgt Ion	Ratio	Lower	Upper
128	100		
129	9.2	0.0	41.1
127	12.1	0.0	43.2



#44
2-Methylnaphthalene
Concen: 0.69 ppm
RT: 6.182 min Scan# 804
Delta R.T. -0.012 min
Lab File: 6p473037.D
Acq: 17 May 2018 2:18 pm

Tgt Ion	Ratio	Lower	Upper
141	100		
142	94.2	91.8	151.8
115	43.4	8.6	68.6





#56

Acenaphthylene

Concen: 8.23 ppm

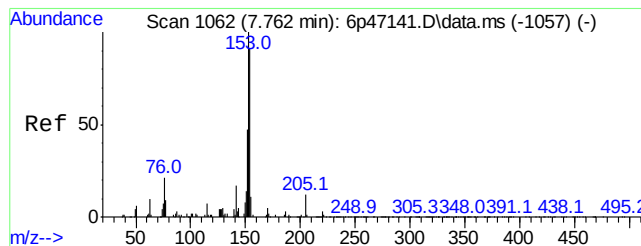
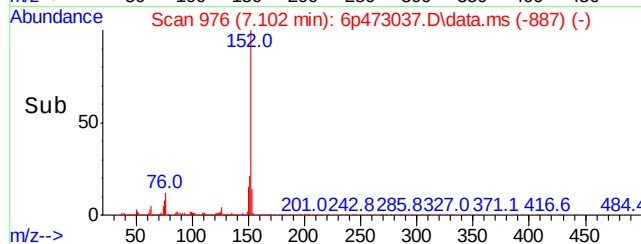
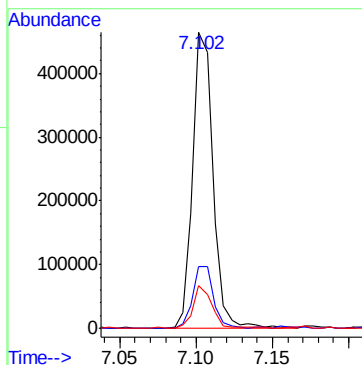
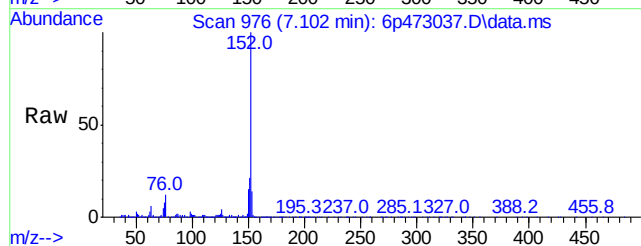
RT: 7.102 min Scan# 976

Delta R.T. -0.023 min

Lab File: 6p473037.D

Acq: 17 May 2018 2:18 pm

Tgt	Ion:152	Resp:	430844
Ion	Ratio	Lower	Upper
152	100		
151	20.6	0.0	50.2
153	14.3	0.0	44.8



#59

Acenaphthene

Concen: 1.22 ppm

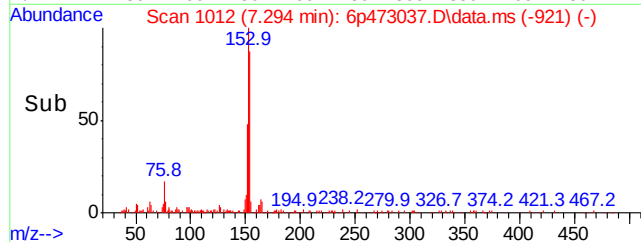
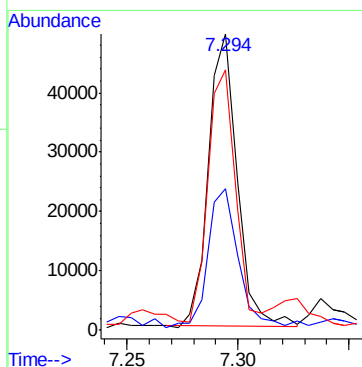
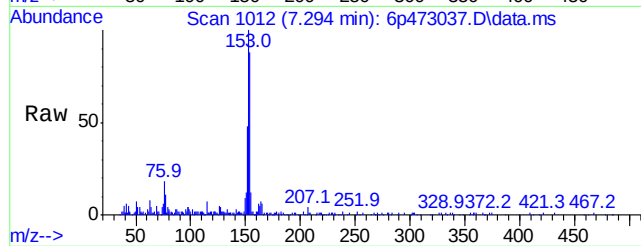
RT: 7.294 min Scan# 1012

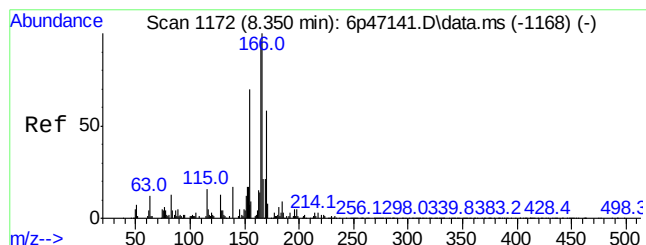
Delta R.T. -0.016 min

Lab File: 6p473037.D

Acq: 17 May 2018 2:18 pm

Tgt	Ion:153	Resp:	44409
Ion	Ratio	Lower	Upper
153	100		
152	46.4	13.9	73.9
154	81.3	59.3	119.3





#66

Fluorene

Concen: 1.40 ppm

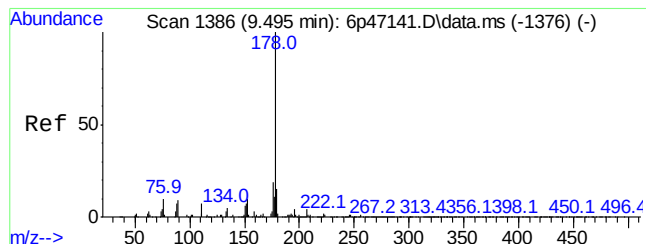
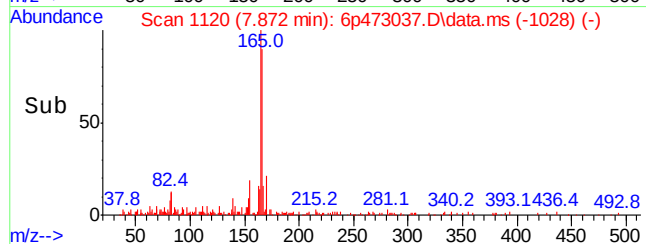
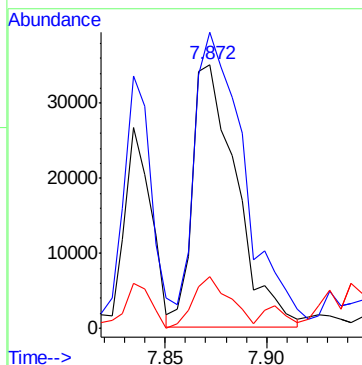
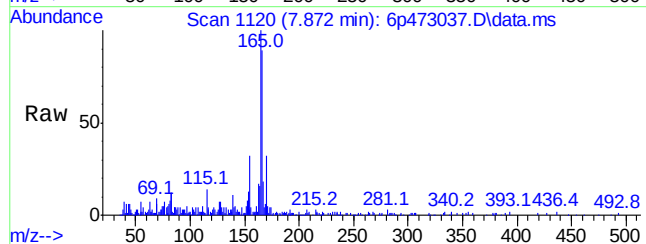
RT: 7.872 min Scan# 1120

Delta R.T. -0.009 min

Lab File: 6p473037.D

Acq: 17 May 2018 2:18 pm

Tgt Ion:	166	Resp:	52869
Ion Ratio	Lower	Upper	
166	100		
165	107.6	59.3	119.3
167	19.6	0.0	43.1



#77

Phenanthrene

Concen: 7.78 ppm

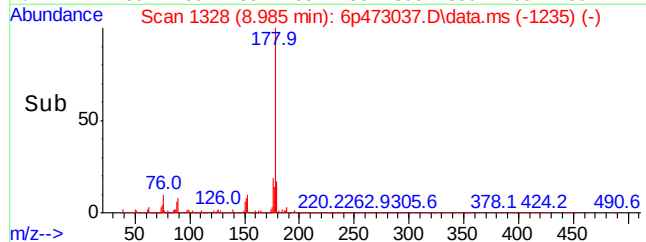
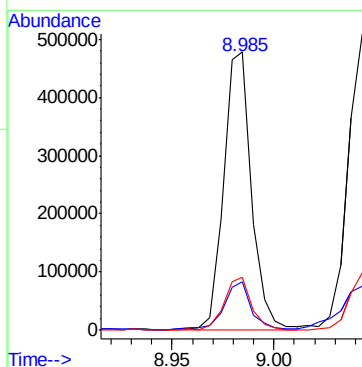
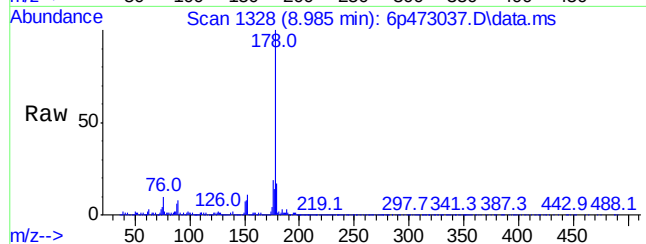
RT: 8.985 min Scan# 1328

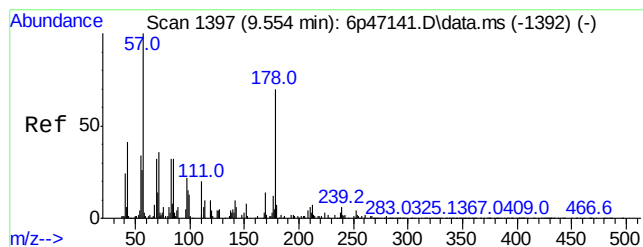
Delta R.T. -0.005 min

Lab File: 6p473037.D

Acq: 17 May 2018 2:18 pm

Tgt Ion:	178	Resp:	455028
Ion Ratio	Lower	Upper	
178	100		
179	17.2	0.0	46.6
176	19.1	0.0	49.6





#78

Anthracene

Concen: 7.98 ppm

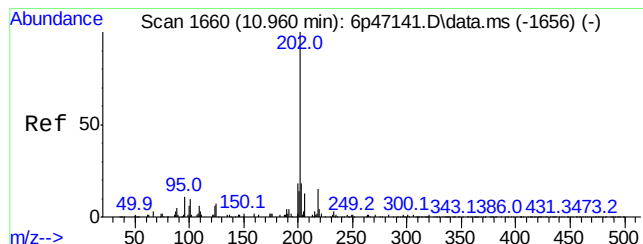
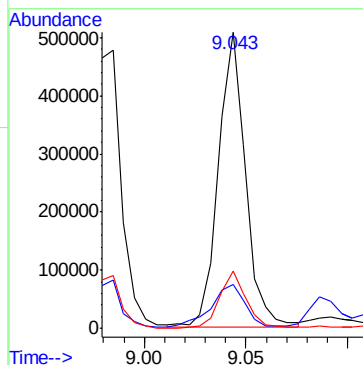
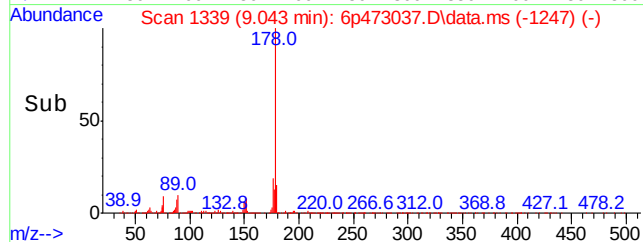
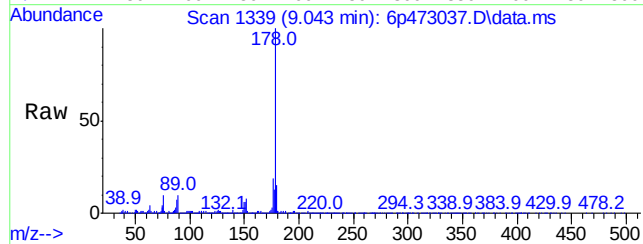
RT: 9.043 min Scan# 1339

Delta R.T. -0.010 min

Lab File: 6p473037.D

Acq: 17 May 2018 2:18 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	14.0	0.0	45.3
176	19.3	0.0	48.4



#81

Fluoranthene

Concen: 72.50 ppm

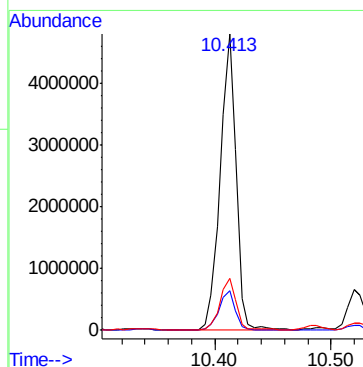
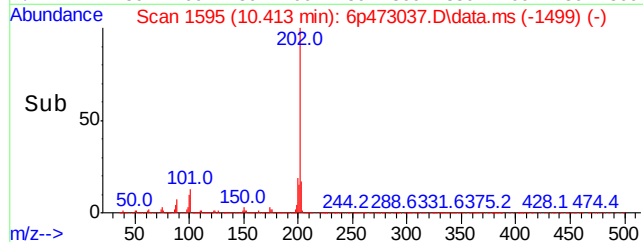
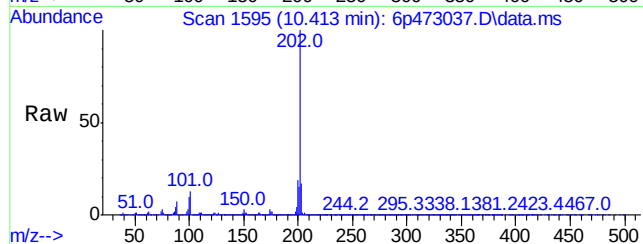
RT: 10.413 min Scan# 1595

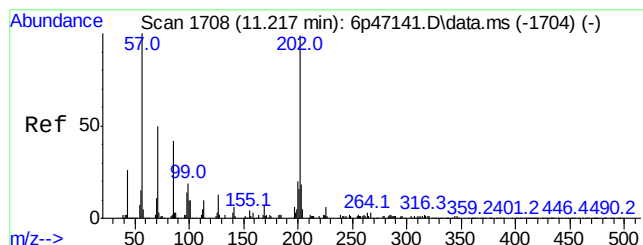
Delta R.T. 0.016 min

Lab File: 6p473037.D

Acq: 17 May 2018 2:18 pm

Tgt Ion	Ratio	Lower	Upper
202	100		
101	13.3	0.0	40.9
203	17.2	0.0	47.4





#84

Pyrene

Concen: 71.55 ppm

RT: 10.680 min Scan# 1645

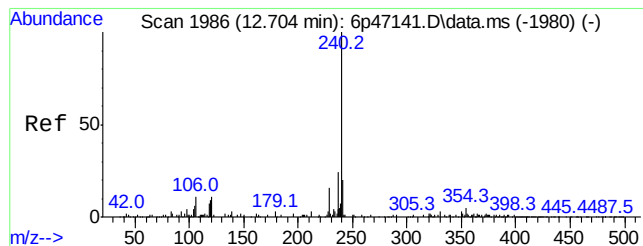
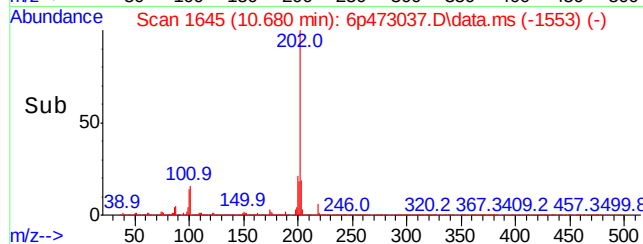
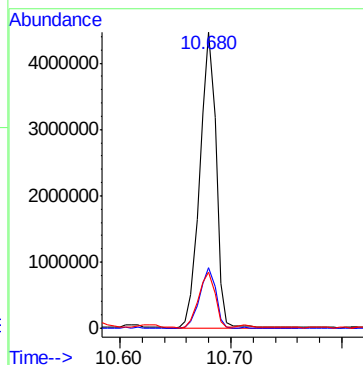
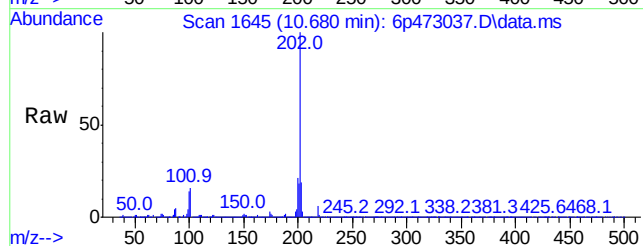
Delta R.T. -0.007 min

Lab File: 6p473037.D

Acq: 17 May 2018 2:18 pm

Tgt Ion: 202 Resp: 4515649

Ion	Ratio	Lower	Upper
202	100		
200	20.6	0.0	50.7
203	18.6	0.0	47.9



#87

Benzo[a]anthracene

Concen: 62.47 ppm

RT: 12.135 min Scan# 1917

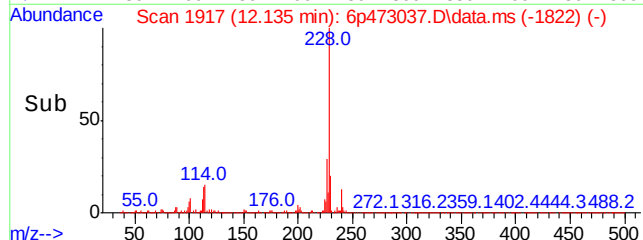
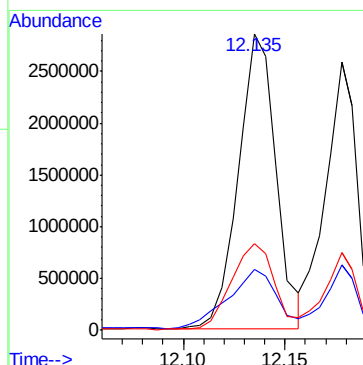
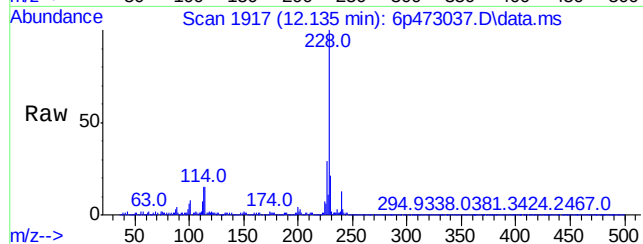
Delta R.T. 0.010 min

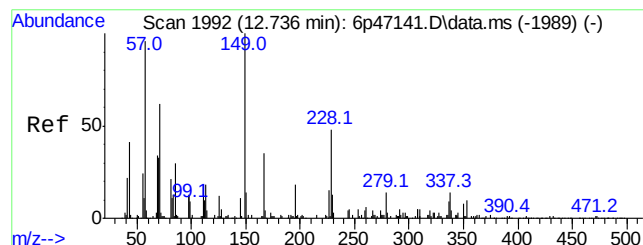
Lab File: 6p473037.D

Acq: 17 May 2018 2:18 pm

Tgt Ion: 228 Resp: 3697055

Ion	Ratio	Lower	Upper
228	100		
229	19.7	0.0	49.8
226	28.8	0.0	56.0





#89

Chrysene

Concen: 48.78 ppm

RT: 12.178 min Scan# 1925

Delta R.T. 0.005 min

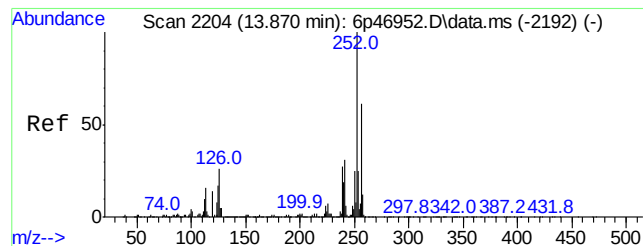
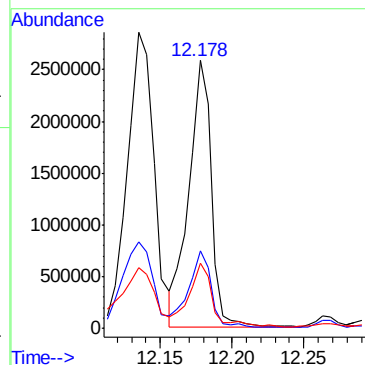
Lab File: 6p473037.D

Acq: 17 May 2018 2:18 pm

Tgt Ion: 228 Resp: 2854429

Ion	Ratio	Lower	Upper
228	100		
226	28.5	0.0	59.5
229	23.6	0.0	49.6

Ion	Ratio	Lower	Upper
228	100		
226	28.5	0.0	59.5
229	23.6	0.0	49.6



#93

Benzo[b]fluoranthene

Concen: 64.70 ppm m

RT: 13.365 min Scan# 2147

Delta R.T. 0.008 min

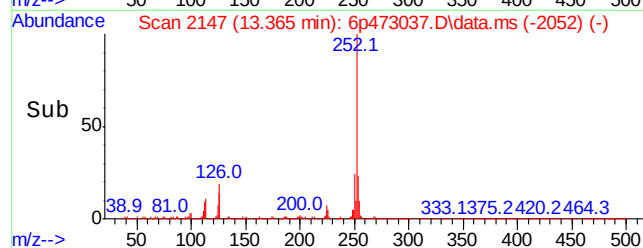
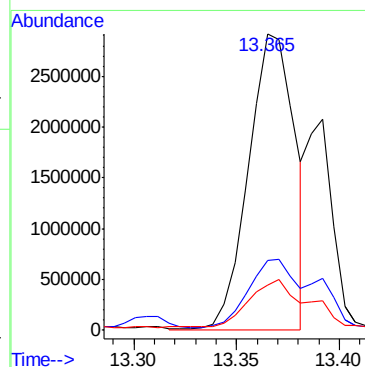
Lab File: 6p473037.D

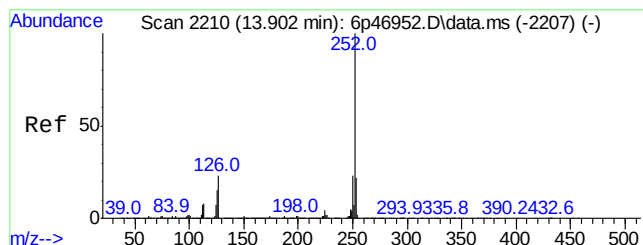
Acq: 17 May 2018 2:18 pm

Tgt Ion: 252 Resp: 4567788

Ion	Ratio	Lower	Upper
252	100		
253	23.6	0.0	55.4
125	15.0	0.0	40.0

Ion	Ratio	Lower	Upper
252	100		
253	23.6	0.0	55.4
125	15.0	0.0	40.0





#94

Benzo[k]fluoranthene

Concen: 25.41 ppm

RT: 13.392 min Scan# 2152

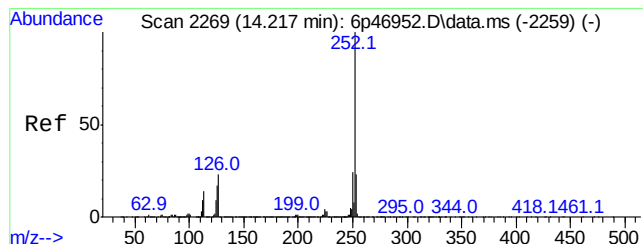
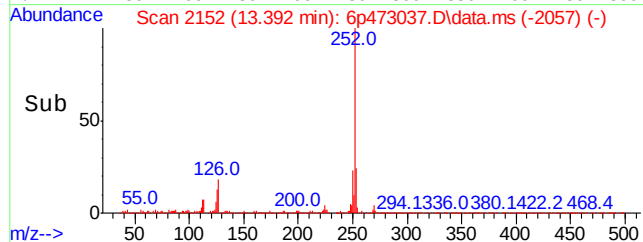
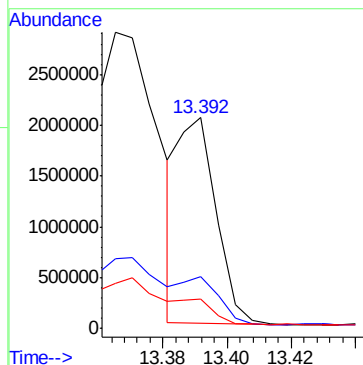
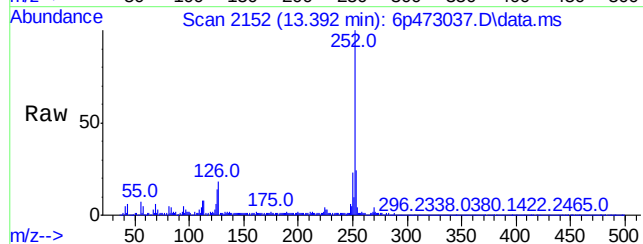
Delta R.T. 0.008 min

Lab File: 6p473037.D

Acq: 17 May 2018 2:18 pm

Tgt Ion: 252 Resp: 1640029

Ion	Ratio	Lower	Upper
252	100		
253	24.5	0.0	51.8
125	14.1	0.0	38.7



#95

Benzo[a]pyrene

Concen: 57.42 ppm

RT: 13.702 min Scan# 2210

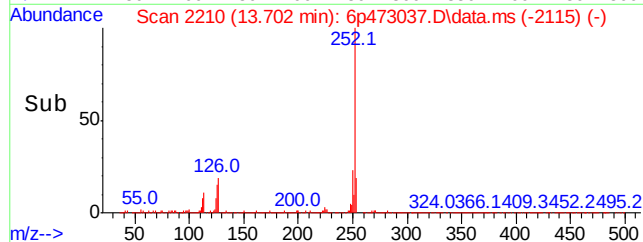
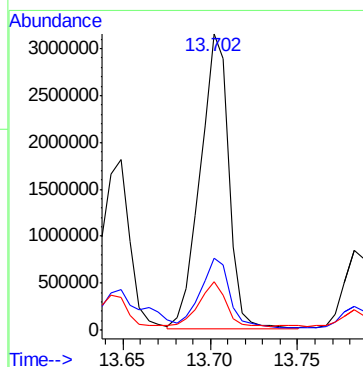
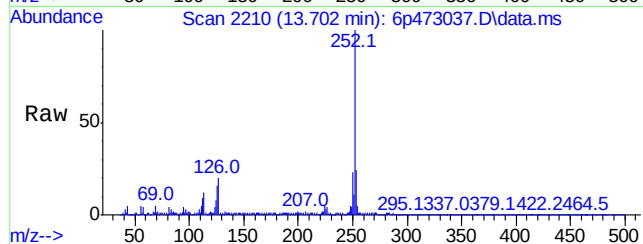
Delta R.T. 0.010 min

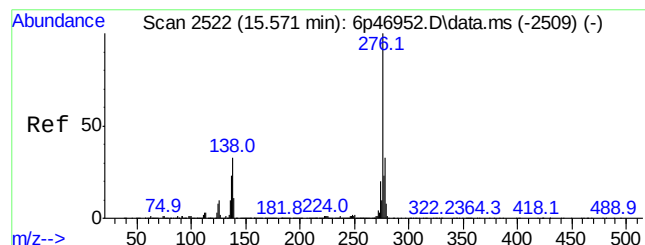
Lab File: 6p473037.D

Acq: 17 May 2018 2:18 pm

Tgt Ion: 252 Resp: 3590545

Ion	Ratio	Lower	Upper
252	100		
253	22.3	0.0	52.5
125	15.1	0.0	40.0





#96

Indeno[1,2,3-cd]pyrene

Concen: 25.16 ppm

RT: 14.884 min Scan# 2431

Delta R.T. 0.003 min

Lab File: 6p473037.D

Acq: 17 May 2018 2:18 pm

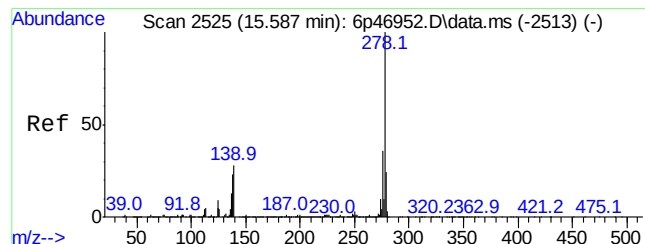
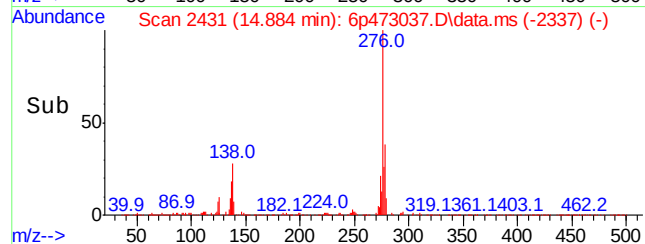
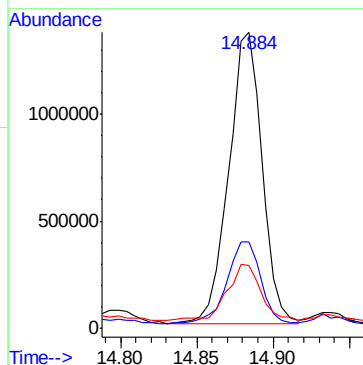
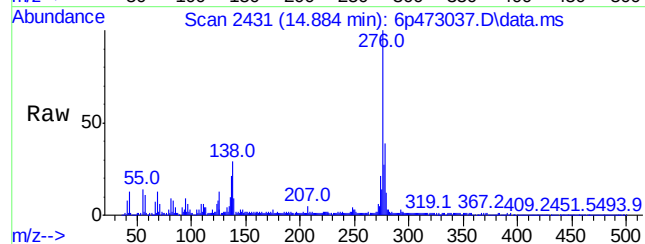
Tgt Ion: 276 Resp: 2071361

Ion Ratio Lower Upper

276 100

138 28.0 0.0 48.9

137 18.8 0.0 43.2



#98

Dibenzo[a,h]anthracene

Concen: 11.53 ppm

RT: 14.890 min Scan# 2432

Delta R.T. -0.013 min

Lab File: 6p473037.D

Acq: 17 May 2018 2:18 pm

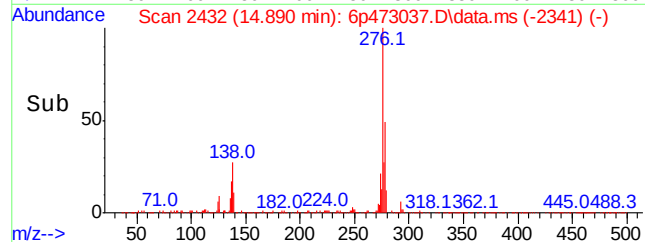
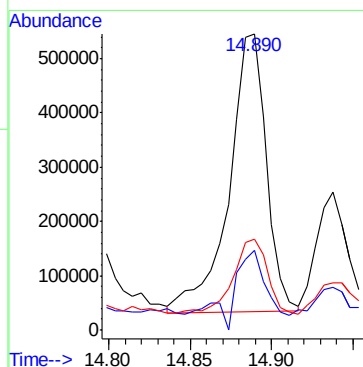
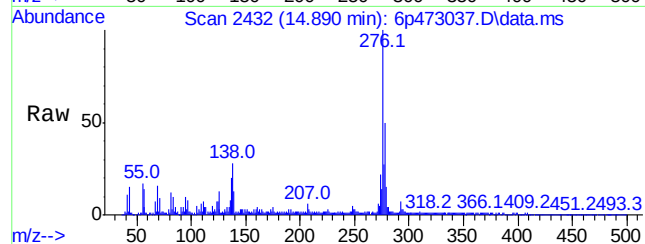
Tgt Ion: 278 Resp: 818080

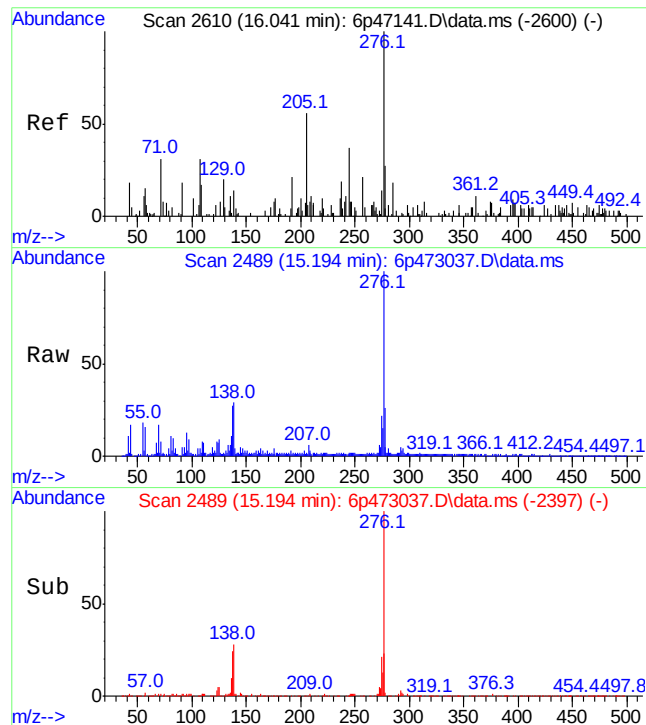
Ion Ratio Lower Upper

278 100

139 21.6 0.0 45.9

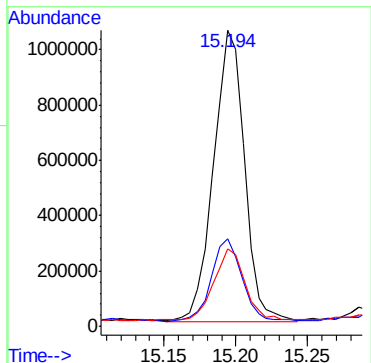
279 27.3 0.0 54.3





#100
Benzo[g,h,i]perylene
Concen: 23.94 ppm
RT: 15.194 min Scan# 2489
Delta R.T. -0.006 min
Lab File: 6p473037.D
Acq: 17 May 2018 2:18 pm

Tgt	Ion	276	Resp	1578090
Ion	Ratio	Lower	Upper	
276	100			
138	28.3	0.0	49.9	
277	24.3	0.0	53.3	



7.1.2
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2212\
 Data File : 6p473038.D
 Acq On : 17 May 2018 2:43 pm
 Operator : christc2
 Sample : jc66181-2
 Misc : op12038,e6p2212,31.9,,,1,50
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 17 15:58:42 2018

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 15 13:30:05 2018

QLast Update : Tue May 15 13:30:05 2018

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.508	152	522539	40.00	ppm	-0.02
24) Naphthalene-d8	5.529	136	2170639	40.00	ppm	-0.02
47) Acenaphthene-d10	7.257	164	1091632	40.00	ppm	-0.02
69) Phenanthrene-d10	8.968	188	1992358	40.00	ppm	0.00
83) Chrysene-d12	12.161	240	1964956	40.00	ppm	0.02
91) Perylene-d12	13.766	264	2191310	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4a	4.508	152	522539	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.257	164	1091632	40.00	ppm	-0.02
105) Phenanthrene-d10a	8.968	188	1992358	40.00	ppm	0.00
109) Chrysene-d12a	12.161	240	1964956	40.00	ppm	0.02
111) Naphthalene-d8a	5.529	136	2170639	40.00	ppm	-0.02
113) Phenanthrene-d10b	8.968	188	1992358	40.00	ppm	0.00
115) Chrysene-d12b	12.161	240	1964956	40.00	ppm	0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.545	112	11045	0.58	ppm	-0.04
Spiked Amount	50.000		Recovery	=	1.16%	
8) Phenol-d5	4.283	99	13963	0.58	ppm	0.00
Spiked Amount	50.000		Recovery	=	1.16%	
25) Nitrobenzene-d5	4.935	82	15451	0.66	ppm	-0.02
Spiked Amount	50.000		Recovery	=	1.32%	
51) 2-Fluorobiphenyl	6.545	172	32077	0.76	ppm	-0.02
Spiked Amount	50.000		Recovery	=	1.52%	
73) 2,4,6-Tribromophenol	8.150	330	1234	0.16	ppm	-0.01
Spiked Amount	50.000		Recovery	=	0.32%	
85) Terphenyl-d14	10.894	244	49717	1.06	ppm	0.00
Spiked Amount	50.000		Recovery	=	2.12%	
106) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
107) o-terphenyl	0.000	230	0d	0.00	ppm	
Target Compounds						Qvalue
38) Naphthalene	5.545	128	12510081	219.93	ppm	91
44) 2-Methylnaphthalene	6.192	141	9215621	276.86	ppm	80
56) Acenaphthylene	7.112	152	7063594	132.91	ppm	99
59) Acenaphthene	7.294	153	327165	8.83	ppm	94
66) Fluorene	7.872	166	550632	14.32	ppm	89
77) Phenanthrene	8.995	178	20719591m	342.10	ppm	
78) Anthracene	9.065	178	8428035	137.50	ppm	95
81) Fluoranthene	10.423	202	16801817	255.85	ppm	87
84) Pyrene	10.696	202	15022601	228.77	ppm	86
87) Benzo[a]anthracene	12.151	228	9937483	161.40	ppm	99
89) Chrysene	12.194	228	7958744	130.73	ppm	94
93) Benzo[b]fluoranthene	13.381	252	8663378m	124.85	ppm	
94) Benzo[k]fluoranthene	13.402	252	3601182m	56.77	ppm	
95) Benzo[a]pyrene	13.713	252	5744532	93.46	ppm	96
96) Indeno[1,2,3-cd]pyrene	14.895	276	3671711	45.38	ppm	82
98) Dibenz[a,h]anthracene	14.900	278	1458968	20.92	ppm	91
100) Benzo[g,h,i]perylene	15.210	276	2767641	42.72	ppm	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2212\
Data File : 6p473038.D
Acq On : 17 May 2018 2:43 pm
Operator : christc2
Sample : jc66181-2
Misc : op12038,e6p2212,31.9,,,1,50
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 17 15:58:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 15 13:30:05 2018
QLast Update : Tue May 15 13:30:05 2018
Response via : Initial Calibration

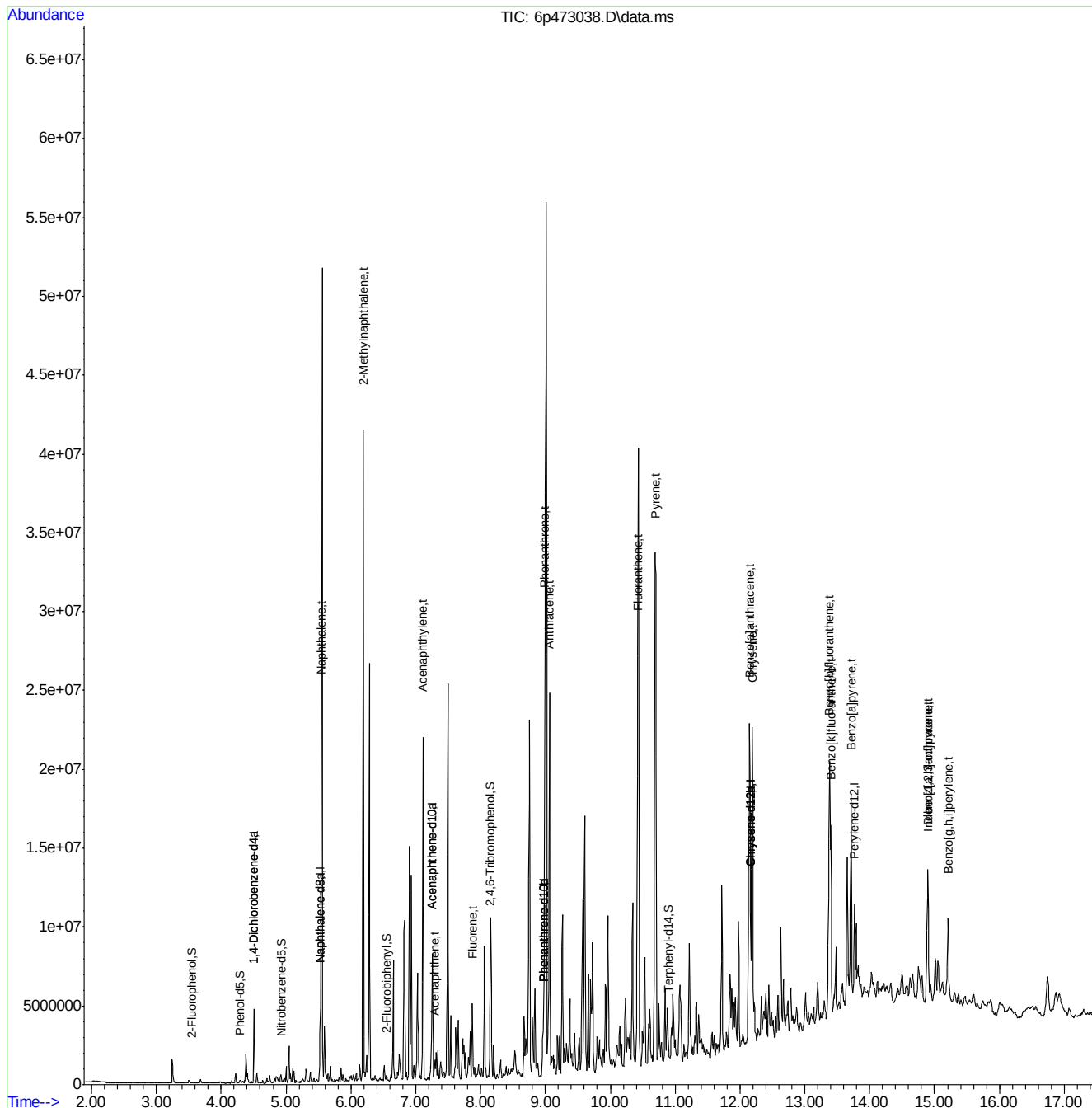
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

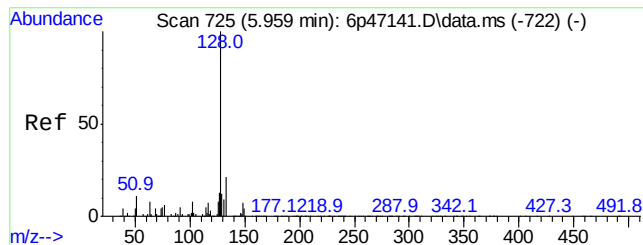
(#)=qualifier out of range (m)=manual integration (+)=signals summed						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2212\
Data File : 6p473038.D
Acq On : 17 May 2018 2:43 pm
Operator : christc2
Sample : jc66181-2
Misc : op12038,e6p2212,31.9,,,1,50
ALS Vial : 12 Sample Multiplier: 1

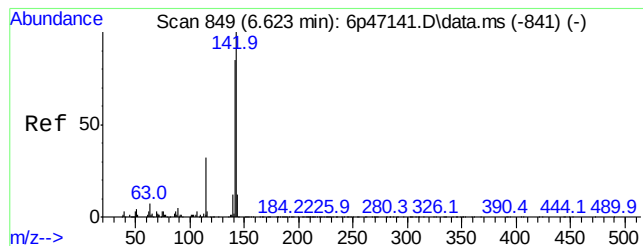
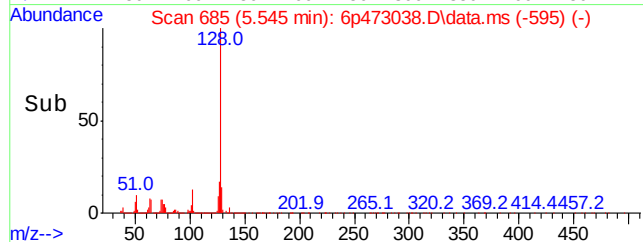
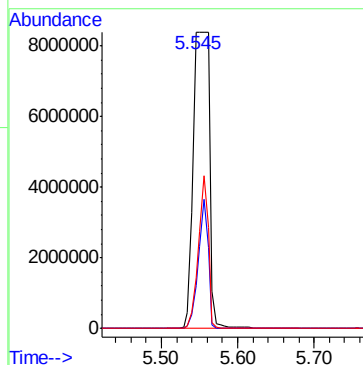
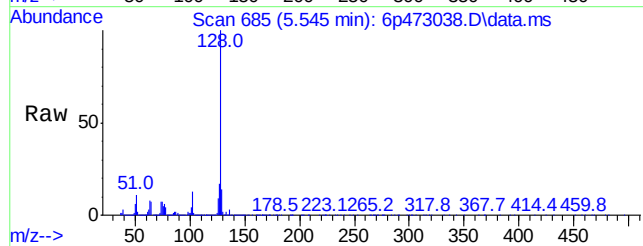
Quant Time: May 17 15:58:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 15 13:30:05 2018
QLast Update : Tue May 15 13:30:05 2018
Response via : Initial Calibration





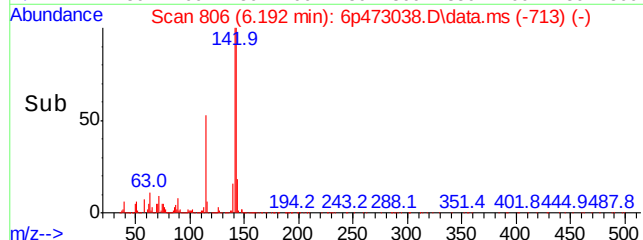
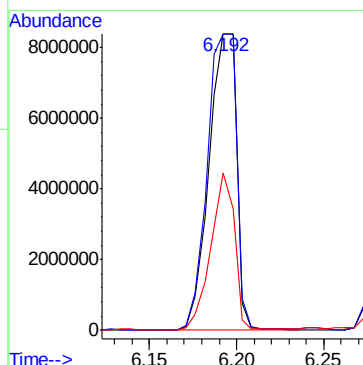
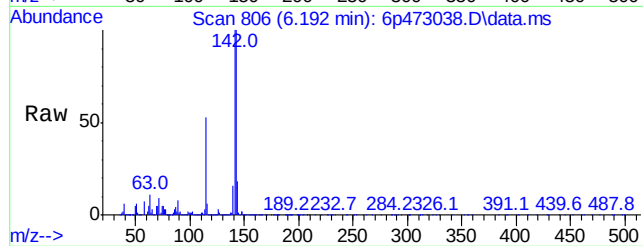
#38
Naphthalene
Concen: 219.93 ppm
RT: 5.545 min Scan# 685
Delta R.T. -0.016 min
Lab File: 6p473038.D
Acq: 17 May 2018 2:43 pm

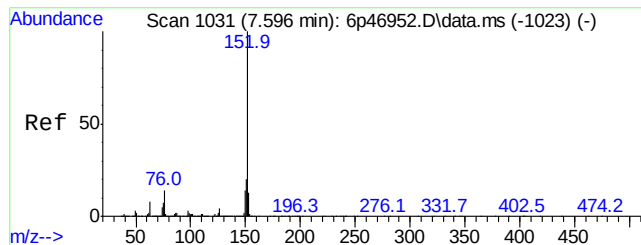
Tgt Ion:	128	Resp:	12510081
Ion Ratio	Lower	Upper	
128	100		
129	14.4	0.0	41.1
127	16.9	0.0	43.2



#44
2-Methylnaphthalene
Concen: 276.86 ppm
RT: 6.192 min Scan# 806
Delta R.T. -0.002 min
Lab File: 6p473038.D
Acq: 17 May 2018 2:43 pm

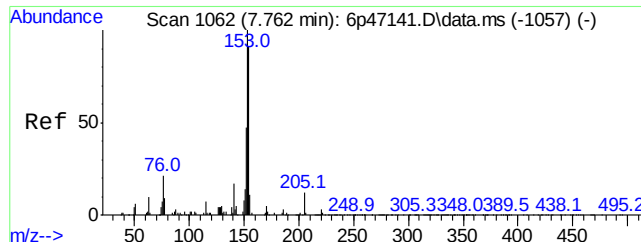
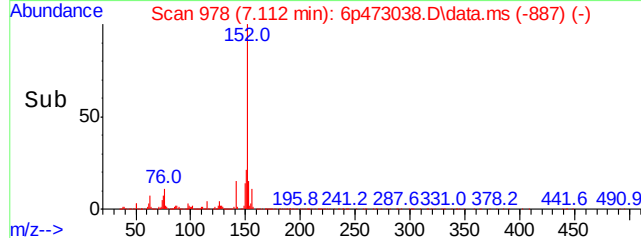
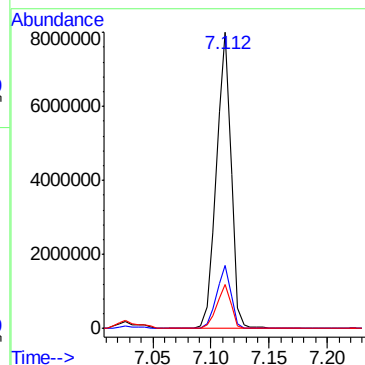
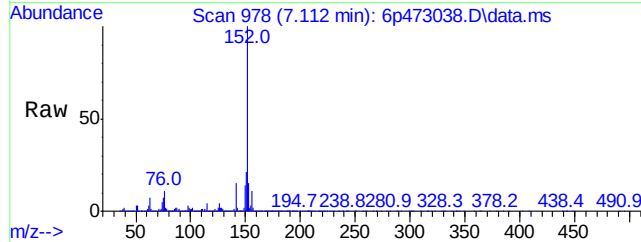
Tgt Ion:	141	Resp:	9215621
Ion Ratio	Lower	Upper	
141	100		
142	99.9	91.8	151.8
115	52.8	8.6	68.6





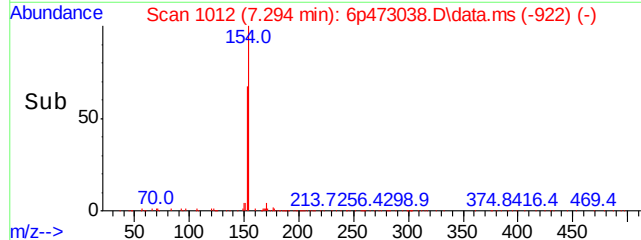
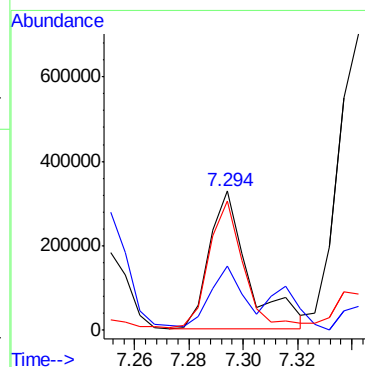
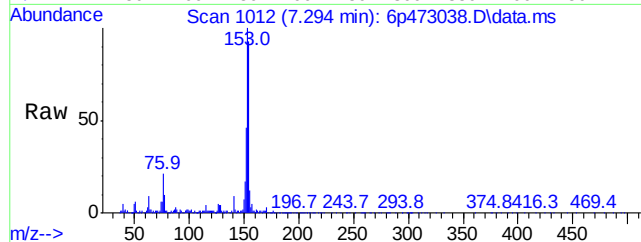
#56
Acenaphthylene
Concen: 132.91 ppm
RT: 7.112 min Scan# 978
Delta R.T. -0.013 min
Lab File: 6p473038.D
Acq: 17 May 2018 2:43 pm

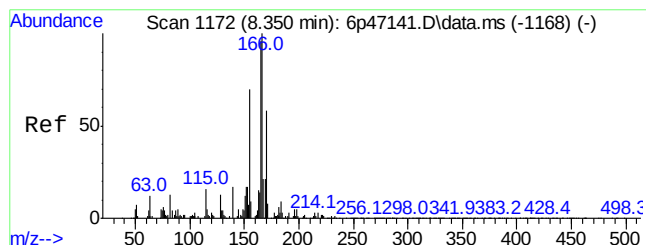
Tgt Ion:	152	Resp:	7063594
Ion Ratio	Lower	Upper	
152	100		
151	21.1	0.0	50.2
153	14.8	0.0	44.8



#59
Acenaphthene
Concen: 8.83 ppm
RT: 7.294 min Scan# 1012
Delta R.T. -0.016 min
Lab File: 6p473038.D
Acq: 17 May 2018 2:43 pm

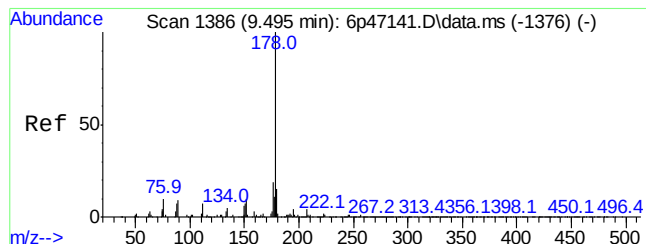
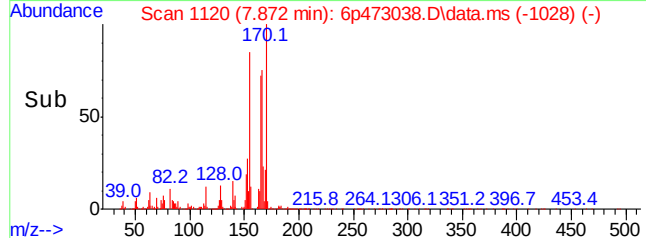
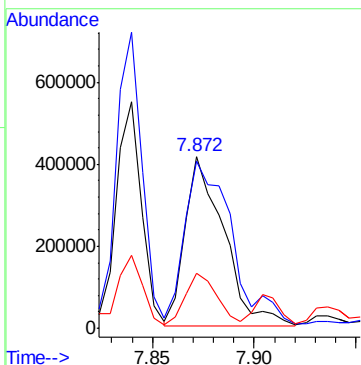
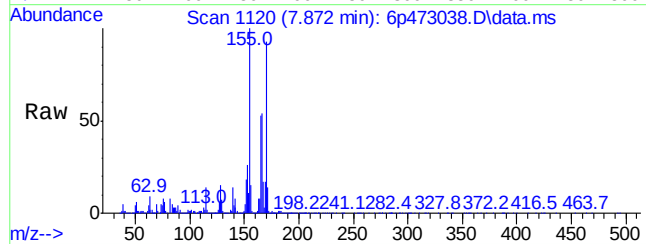
Tgt Ion:	153	Resp:	327165
Ion Ratio	Lower	Upper	
153	100		
152	39.6	13.9	73.9
154	94.9	59.3	119.3





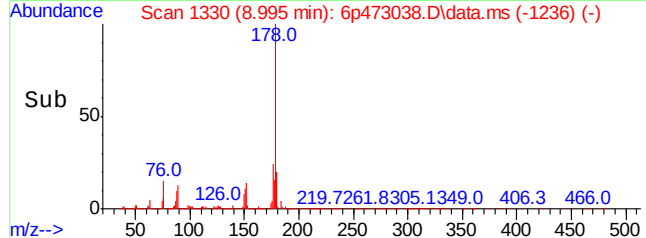
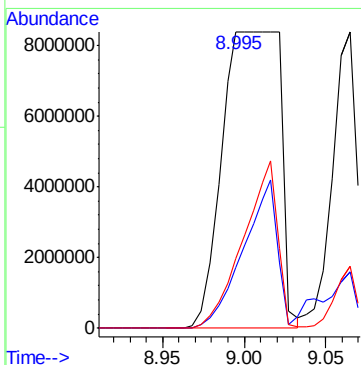
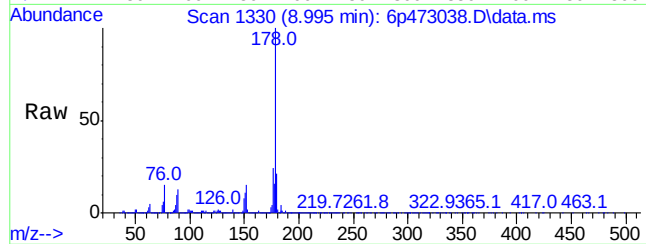
#66
Fluorene
Concen: 14.32 ppm
RT: 7.872 min Scan# 1120
Delta R.T. -0.009 min
Lab File: 6p473038.D
Acq: 17 May 2018 2:43 pm

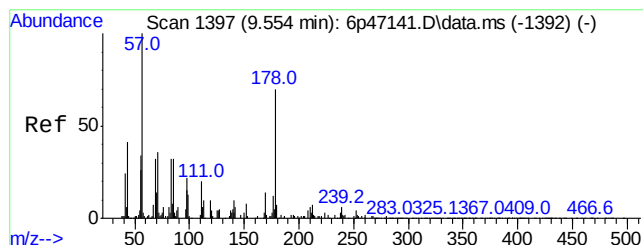
Tgt Ion:	166	Resp:	550632
Ion Ratio	Lower	Upper	
166	100		
165	95.3	59.3	119.3
167	30.5	0.0	43.1



#77
Phenanthrene
Concen: 342.10 ppm m
RT: 8.995 min Scan# 1330
Delta R.T. 0.005 min
Lab File: 6p473038.D
Acq: 17 May 2018 2:43 pm

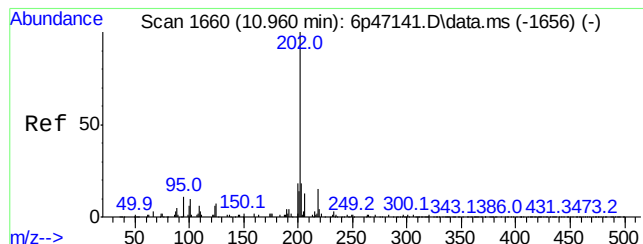
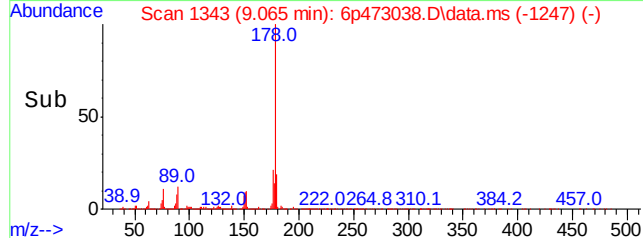
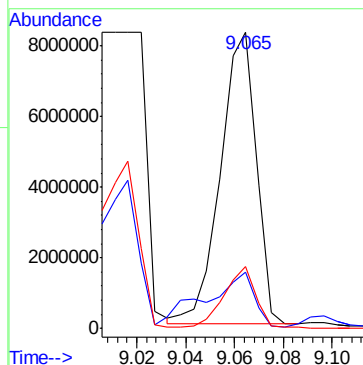
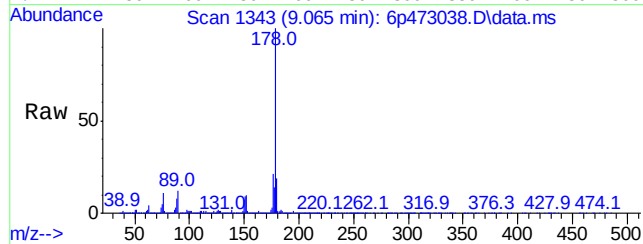
Tgt Ion:	178	Resp:	20719591
Ion Ratio	Lower	Upper	
178	100		
179	20.6	0.0	46.6
176	23.6	0.0	49.6





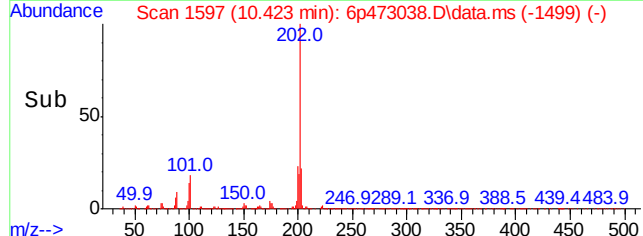
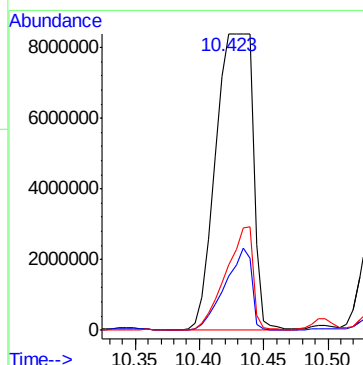
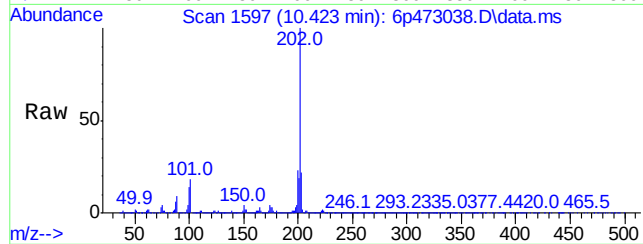
#78
 Anthracene
 Concen: 137.50 ppm
 RT: 9.065 min Scan# 1343
 Delta R.T. 0.011 min
 Lab File: 6p473038.D
 Acq: 17 May 2018 2:43 pm

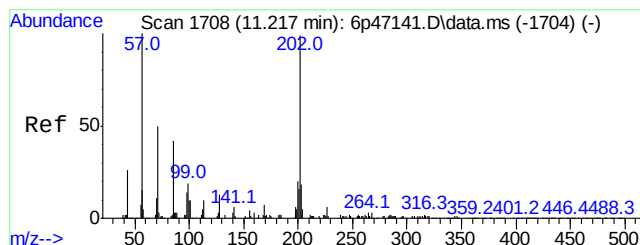
Tgt Ion:	178	Resp:	8428035
Ion Ratio	Lower	Upper	
178	100		
179	16.7	0.0	45.3
176	20.9	0.0	48.4



#81
 Fluoranthene
 Concen: 255.85 ppm
 RT: 10.423 min Scan# 1597
 Delta R.T. 0.026 min
 Lab File: 6p473038.D
 Acq: 17 May 2018 2:43 pm

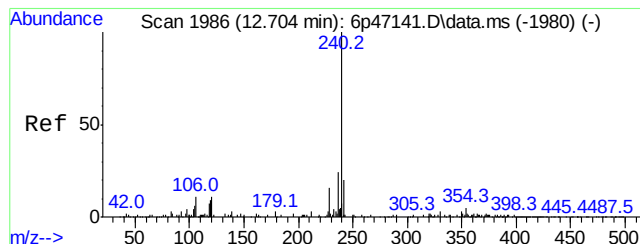
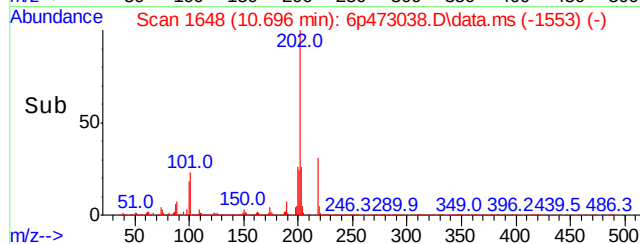
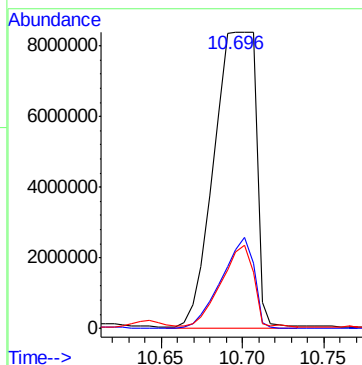
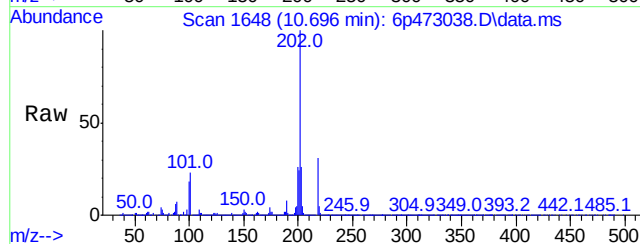
Tgt Ion:	202	Resp:	16801817
Ion Ratio	Lower	Upper	
202	100		
101	18.2	0.0	40.9
203	21.7	0.0	47.4





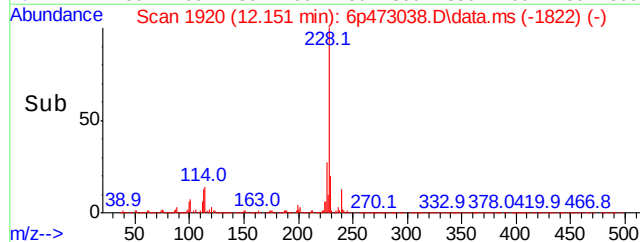
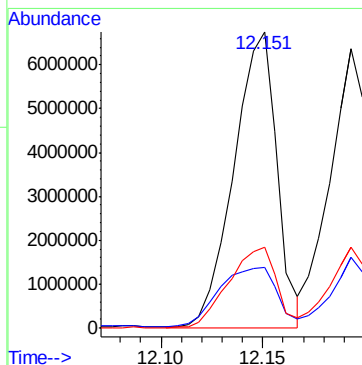
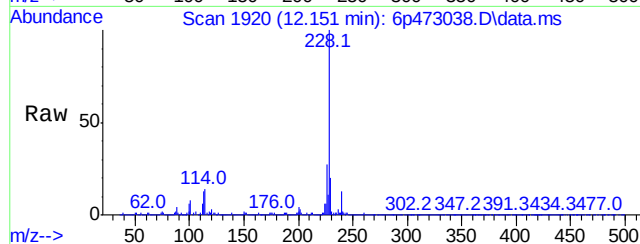
#84
Pyrene
Concen: 228.77 ppm
RT: 10.696 min Scan# 1648
Delta R.T. 0.009 min
Lab File: 6p473038.D
Acq: 17 May 2018 2:43 pm

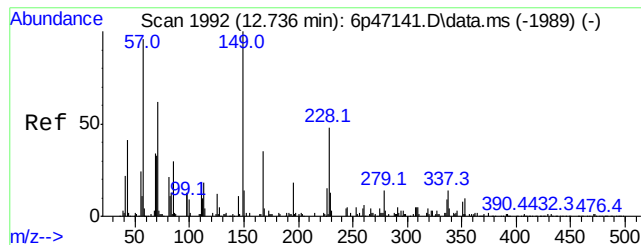
Tgt Ion:	202	Resp:	15022601
Ion	Ratio	Lower	Upper
202	100		
200	26.4	0.0	50.7
203	25.1	0.0	47.9



#87
Benzo[a]anthracene
Concen: 161.40 ppm
RT: 12.151 min Scan# 1920
Delta R.T. 0.026 min
Lab File: 6p473038.D
Acq: 17 May 2018 2:43 pm

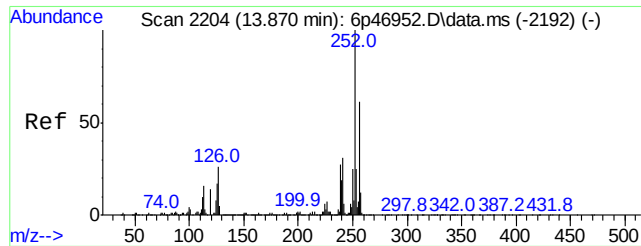
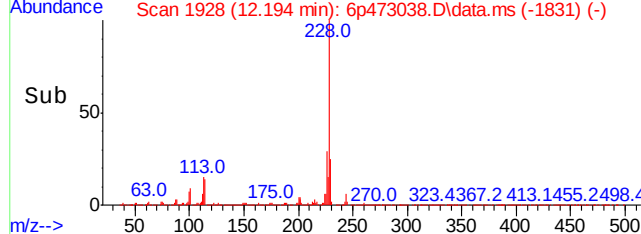
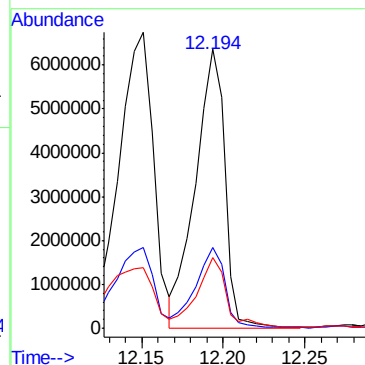
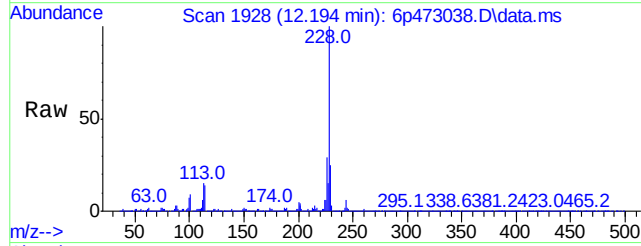
Tgt Ion:	228	Resp:	9937483
Ion	Ratio	Lower	Upper
228	100		
229	19.5	0.0	49.8
226	26.8	0.0	56.0





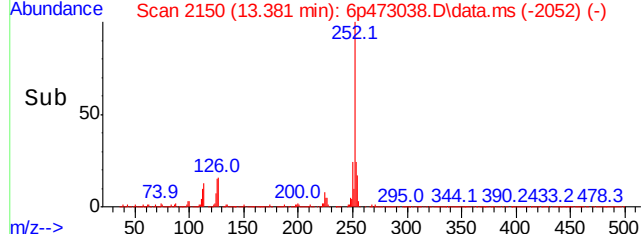
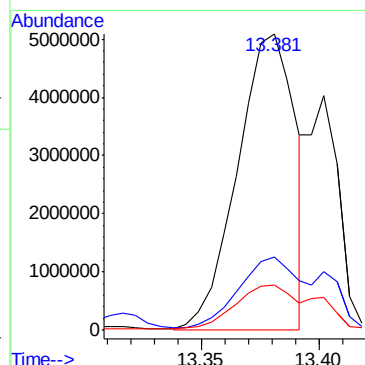
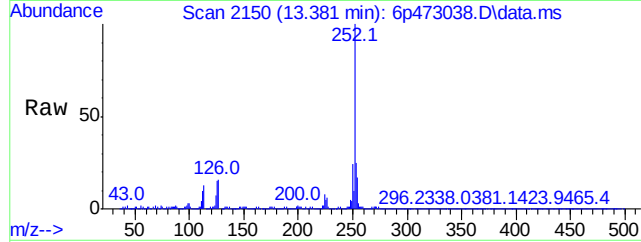
#89
Chrysene
Concen: 130.73 ppm
RT: 12.194 min Scan# 1928
Delta R.T. 0.021 min
Lab File: 6p473038.D
Acq: 17 May 2018 2:43 pm

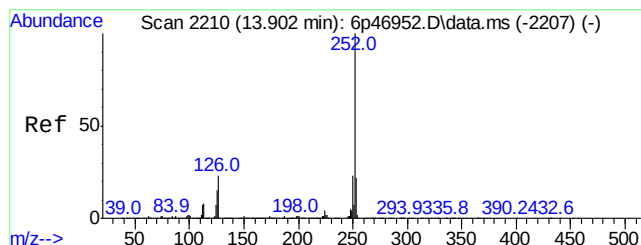
Tgt Ion: 228 Resp: 7958744
Ion Ratio Lower Upper
228 100
226 28.4 0.0 59.5
229 25.0 0.0 49.6



#93
Benzo[b]fluoranthene
Concen: 124.85 ppm m
RT: 13.381 min Scan# 2150
Delta R.T. 0.024 min
Lab File: 6p473038.D
Acq: 17 May 2018 2:43 pm

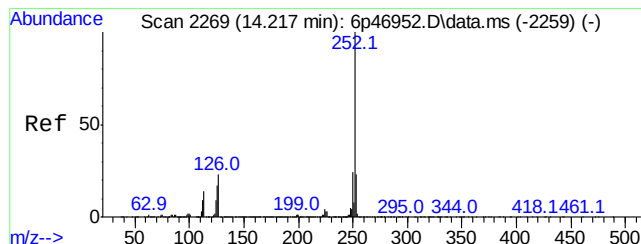
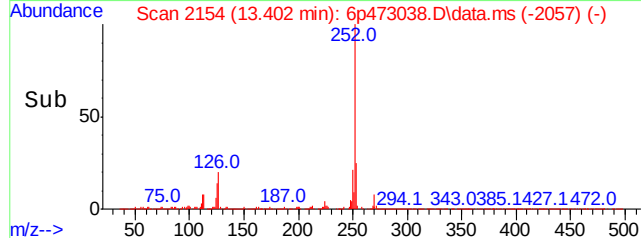
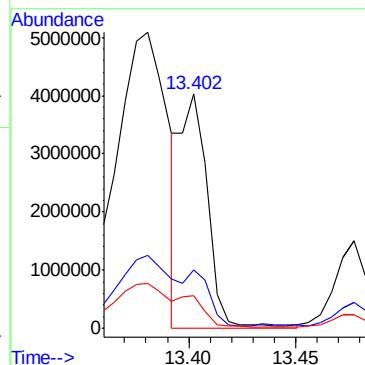
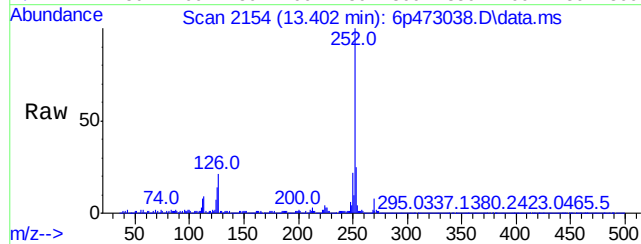
Tgt Ion: 252 Resp: 8663378
Ion Ratio Lower Upper
252 100
253 24.6 0.0 55.4
125 15.0 0.0 40.0





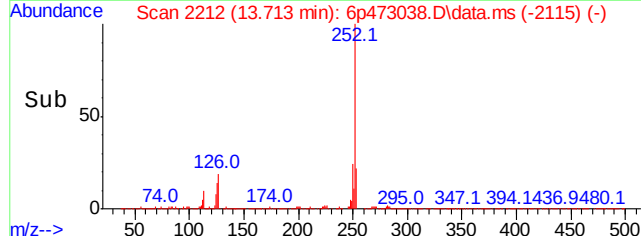
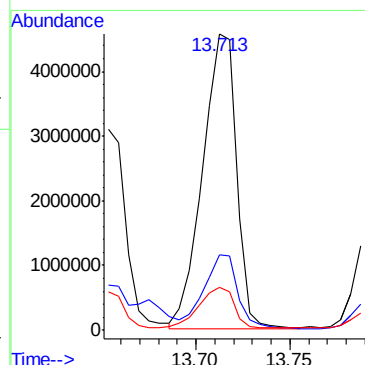
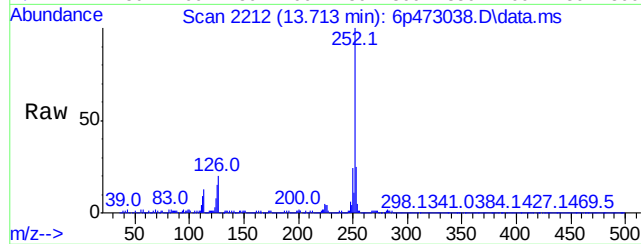
#94
Benzo[k]fluoranthene
Concen: 56.77 ppm
RT: 13.402 min Scan# 2154
Delta R.T. 0.018 min
Lab File: 6p473038.D
Acq: 17 May 2018 2:43 pm

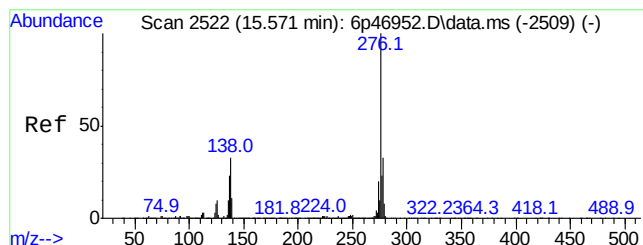
Tgt Ion:	252	Resp:	3601182
Ion Ratio	Lower	Upper	
252	100		
253	25.1	0.0	51.8
125	14.0	0.0	38.7



#95
Benzo[a]pyrene
Concen: 93.46 ppm
RT: 13.713 min Scan# 2212
Delta R.T. 0.021 min
Lab File: 6p473038.D
Acq: 17 May 2018 2:43 pm

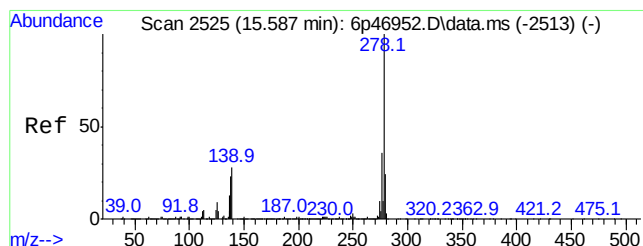
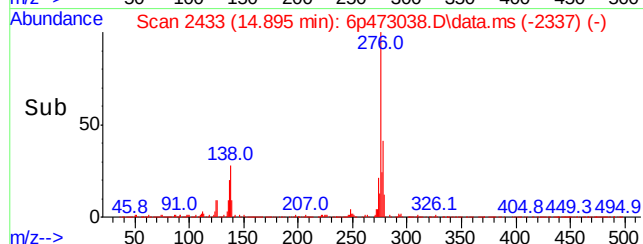
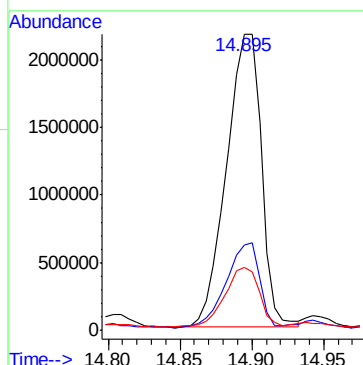
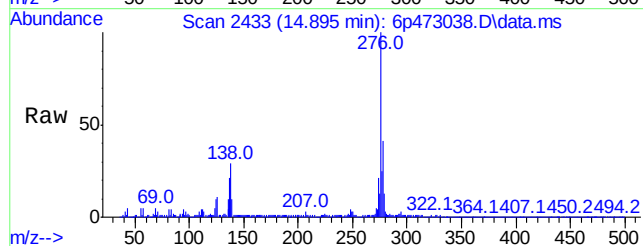
Tgt Ion:	252	Resp:	5744532
Ion Ratio	Lower	Upper	
252	100		
253	23.2	0.0	52.5
125	13.8	0.0	40.0





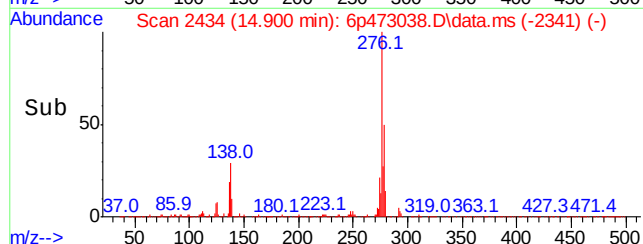
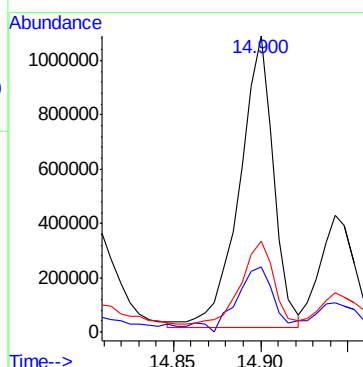
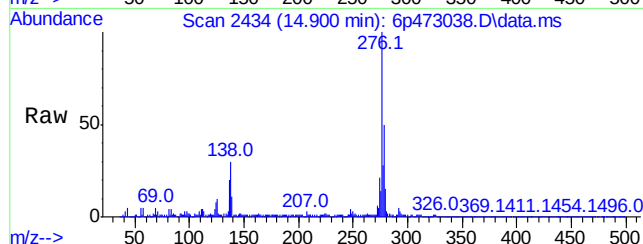
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 45.38 ppm
 RT: 14.895 min Scan# 2433
 Delta R.T. 0.013 min
 Lab File: 6p473038.D
 Acq: 17 May 2018 2:43 pm

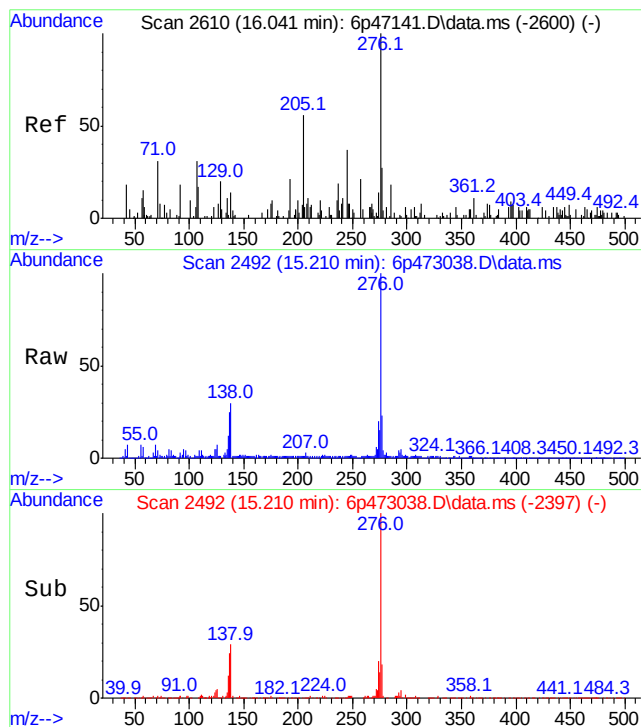
Tgt Ion:	276	Resp:	3671711
Ion Ratio	Lower	Upper	
276	100		
138	27.7	0.0	48.9
137	19.8	0.0	43.2



#98
 Dibenz[a,h]anthracene
 Concen: 20.92 ppm
 RT: 14.900 min Scan# 2434
 Delta R.T. -0.003 min
 Lab File: 6p473038.D
 Acq: 17 May 2018 2:43 pm

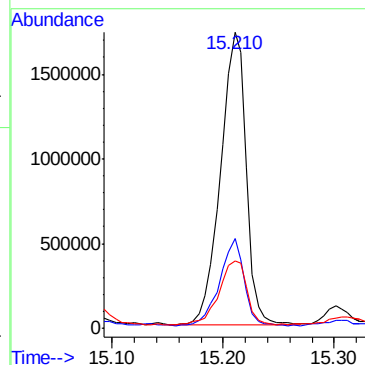
Tgt Ion:	278	Resp:	1458968
Ion Ratio	Lower	Upper	
278	100		
139	19.7	0.0	45.9
279	28.7	0.0	54.3





#100
Benzo[g,h,i]perylene
Concen: 42.72 ppm
RT: 15.210 min Scan# 2492
Delta R.T. 0.010 min
Lab File: 6p473038.D
Acq: 17 May 2018 2:43 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	29.7	0.0	49.9
277	21.9	0.0	53.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2214\
 Data File : 6p473084.D
 Acq On : 18 May 2018 5:33 pm
 Operator : christc2
 Sample : jc66181-2
 Misc : op12052,e6p2214,31.9,,,1,500
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 19 09:23:39 2018

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuThu May 17 23:52:21 2018

QLast Update : Thu May 17 23:52:21 2018

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.492	152	428761	40.00	ppm	-0.04
24) Naphthalene-d8	5.508	136	1770557	40.00	ppm	-0.04
47) Acenaphthene-d10	7.230	164	942301	40.00	ppm	-0.05
69) Phenanthrene-d10	8.920	188	1729595	40.00	ppm	-0.05
83) Chrysene-d12	12.097	240	1586678	40.00	ppm	-0.05
91) Perylene-d12	13.702	264	1664391	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.492	152	428761	40.00	ppm	-0.04
103) Acenaphthene-d10a	7.230	164	942301	40.00	ppm	-0.05
105) Phenanthrene-d10a	8.920	188	1729595	40.00	ppm	-0.05
109) Chrysene-d12a	12.097	240	1586678	40.00	ppm	-0.05
111) Naphthalene-d8a	5.508	136	1770557	40.00	ppm	-0.04
113) Phenanthrene-d10b	8.920	188	1729595	40.00	ppm	-0.05
115) Chrysene-d12b	12.097	240	1588687	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	6.519	172	3175	0.09	ppm	-0.05
Spiked Amount 50.000			Recovery	=	0.18%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	10.846	244	3383	0.09	ppm	-0.05
Spiked Amount 50.000			Recovery	=	0.18%	
106) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
107) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
38) Naphthalene	5.524	128	2418503	52.13	ppm	99
44) 2-Methylnaphthalene	6.160	141	866431	31.91	ppm	97
56) Acenaphthylene	7.075	152	555424	12.11	ppm	98
59) Acenaphthene	7.262	153	28479	0.89	ppm	# 78
66) Fluorene	7.834	166	43673	1.32	ppm	82
77) Phenanthrene	8.952	178	3418664	65.02	ppm	97
78) Anthracene	9.006	178	792369	14.89	ppm	98
81) Fluoranthene	10.364	202	2066187	36.24	ppm	97
84) Pyrene	10.632	202	1557026	29.36	ppm	98
87) Benzo[a]anthracene	12.087	228	820312	16.50	ppm	96
89) Chrysene	12.124	228	675442	13.74	ppm	98
93) Benzo[b]fluoranthene	13.306	252	729773m	13.85	ppm	
94) Benzo[k]fluoranthene	13.327	252	254843m	5.29	ppm	
95) Benzo[a]pyrene	13.638	252	446610	9.57	ppm	95
96) Indeno[1,2,3-cd]pyrene	14.798	276	277575	4.52	ppm	92
98) Dibenz[a,h]anthracene	14.809	278	104454	1.97	ppm	73
100) Benzo[g,h,i]perylene	15.103	276	211121	4.29	ppm	88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2214\
Data File : 6p473084.D
Acq On : 18 May 2018 5:33 pm
Operator : christc2
Sample : jc66181-2
Misc : op12052,e6p2214,31.9,,,1,500
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 19 09:23:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuThu May 17 23:52:21 2018
QLast Update : Thu May 17 23:52:21 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

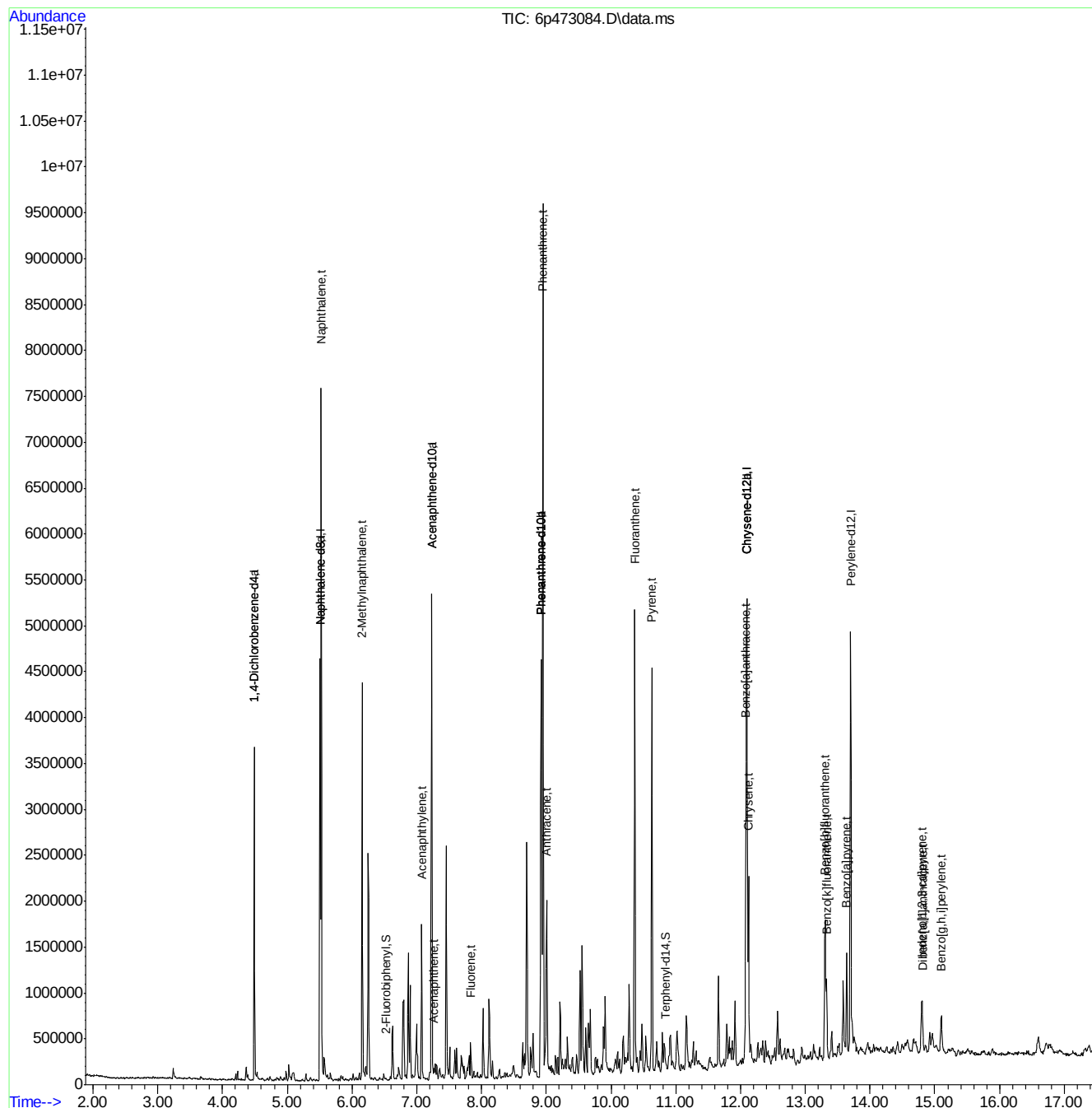
(#) = qualifier out of range (m) = manual integration (+) = signals summed						

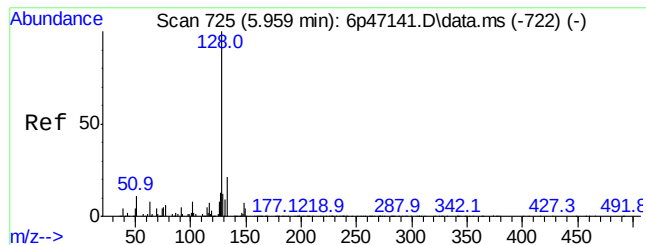
7.1.4
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2214\
Data File : 6p473084.D
Acq On : 18 May 2018 5:33 pm
Operator : christc2
Sample : jc66181-2
Misc : op12052,e6p2214,31.9,,,1,500
ALS Vial : 13 Sample Multiplier: 1

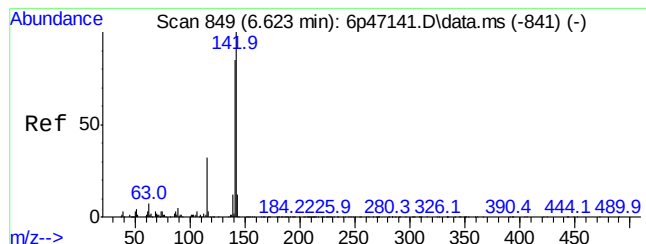
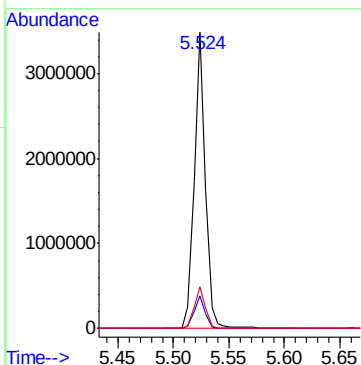
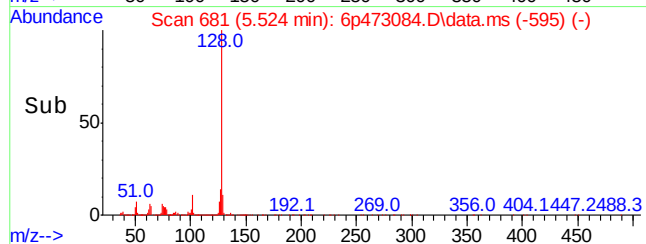
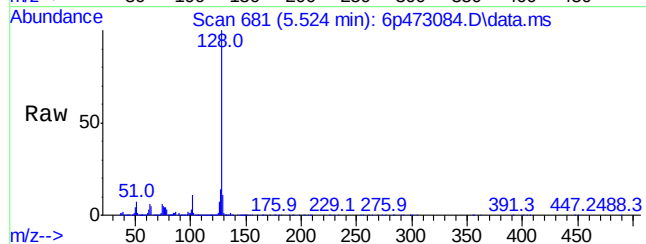
Quant Time: May 19 09:23:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuThu May 17 23:52:21 2018
QLast Update : Thu May 17 23:52:21 2018
Response via : Initial Calibration





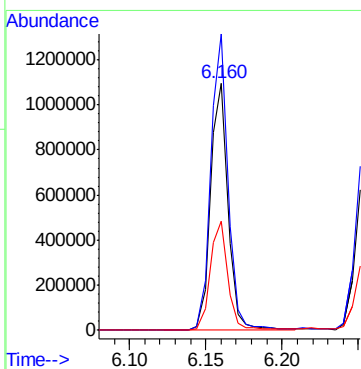
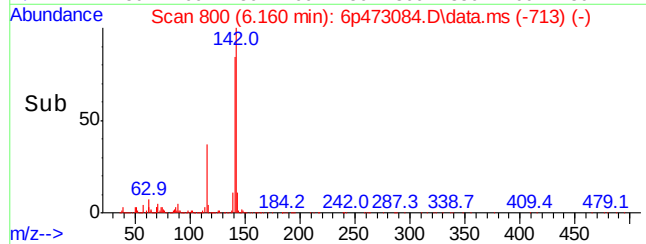
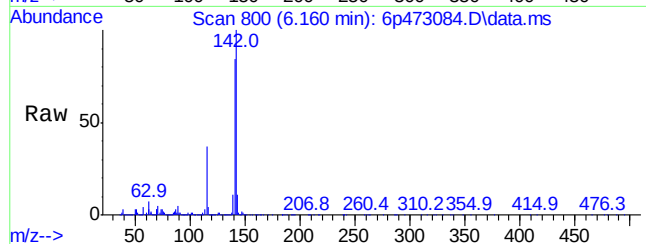
#38
Naphthalene
Concen: 52.13 ppm
RT: 5.524 min Scan# 681
Delta R.T. -0.038 min
Lab File: 6p473084.D
Acq: 18 May 2018 5:33 pm

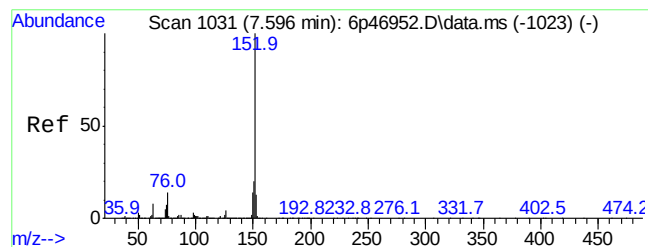
Tgt Ion	Ratio	Lower	Upper
128	100		
129	11.0	0.0	41.1
127	13.9	0.0	43.2



#44
2-Methylnaphthalene
Concen: 31.91 ppm
RT: 6.160 min Scan# 800
Delta R.T. -0.034 min
Lab File: 6p473084.D
Acq: 18 May 2018 5:33 pm

Tgt Ion	Ratio	Lower	Upper
141	100		
142	119.7	91.8	151.8
115	43.6	8.6	68.6





#56

Acenaphthylene

Concen: 12.11 ppm

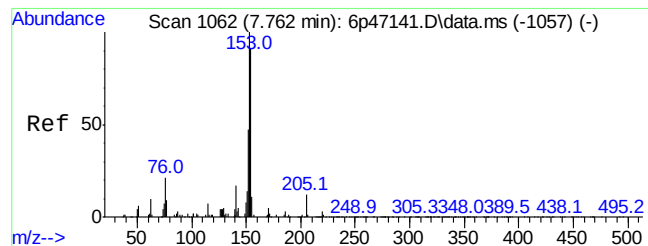
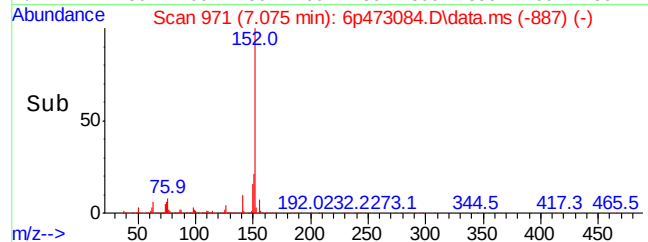
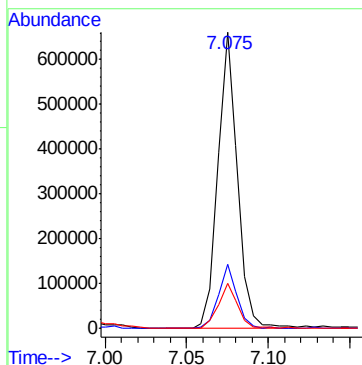
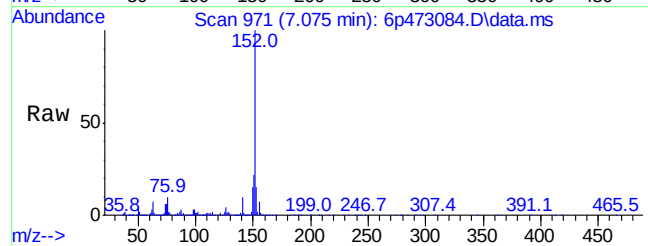
RT: 7.075 min Scan# 971

Delta R.T. -0.050 min

Lab File: 6p473084.D

Acq: 18 May 2018 5:33 pm

Tgt Ion:	152	Resp:	555424
Ion Ratio	Lower	Upper	
152	100		
151	21.6	0.0	50.2
153	15.3	0.0	44.8



#59

Acenaphthene

Concen: 0.89 ppm

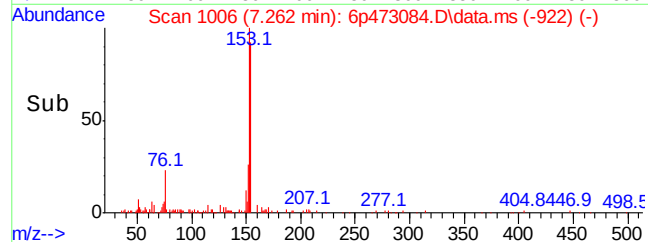
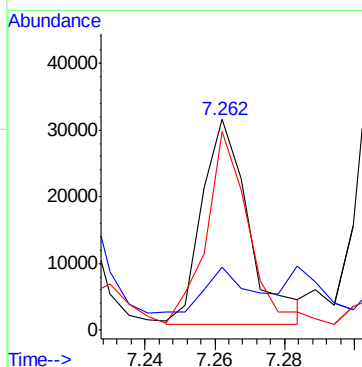
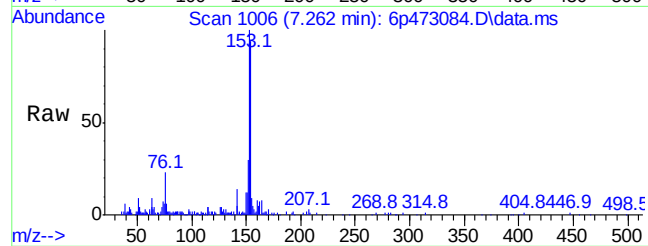
RT: 7.262 min Scan# 1006

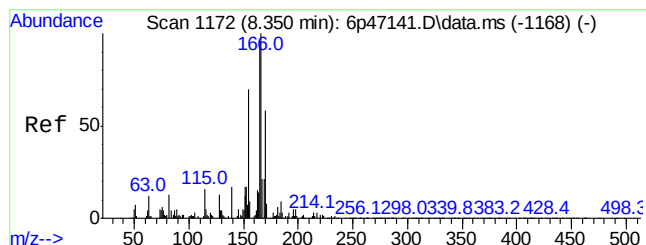
Delta R.T. -0.048 min

Lab File: 6p473084.D

Acq: 18 May 2018 5:33 pm

Tgt Ion:	153	Resp:	28479
Ion Ratio	Lower	Upper	
153	100		
152	11.7	13.9	73.9#
154	97.4	59.3	119.3





#66

Fluorene

Concen: 1.32 ppm

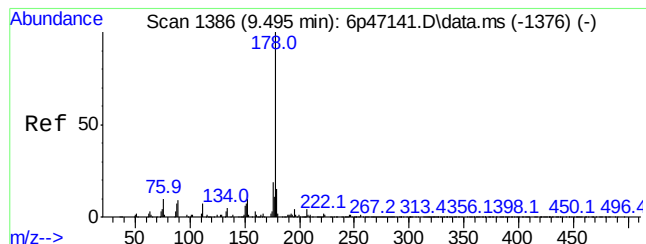
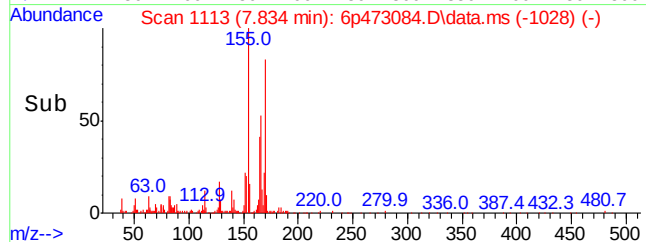
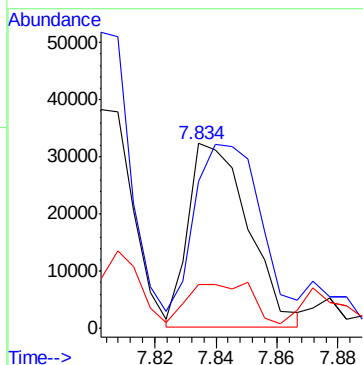
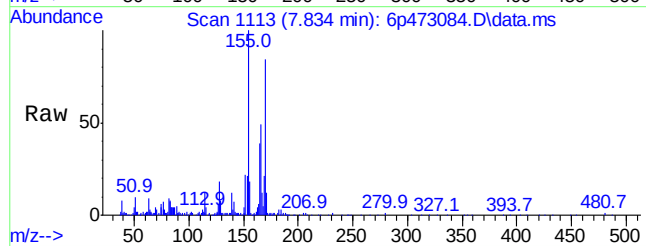
RT: 7.834 min Scan# 1113

Delta R.T. -0.047 min

Lab File: 6p473084.D

Acq: 18 May 2018 5:33 pm

Tgt Ion	Ratio	Lower	Upper
166	100		
165	71.9	59.3	119.3
167	18.9	0.0	43.1



#77

Phenanthrene

Concen: 65.02 ppm

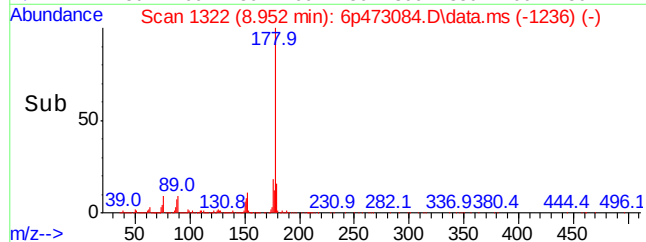
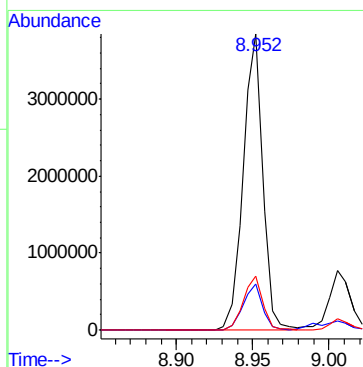
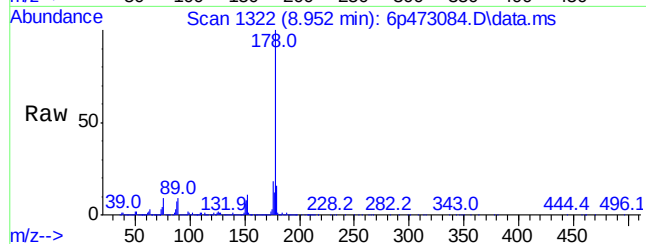
RT: 8.952 min Scan# 1322

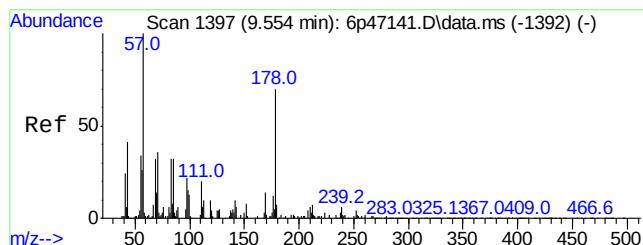
Delta R.T. -0.038 min

Lab File: 6p473084.D

Acq: 18 May 2018 5:33 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	15.5	0.0	46.6
176	18.1	0.0	49.6





#78

Anthracene

Concen: 14.89 ppm

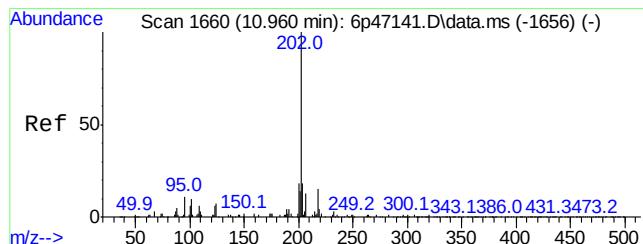
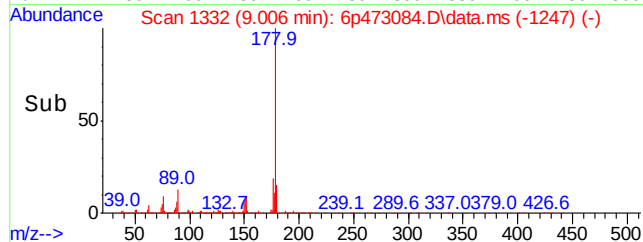
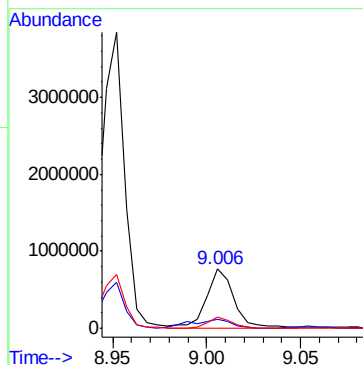
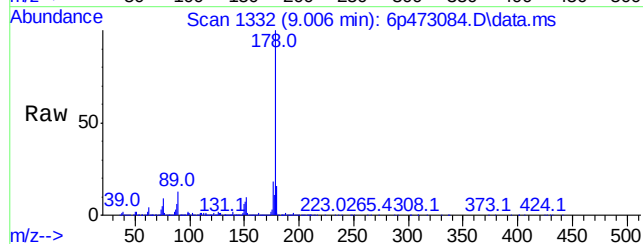
RT: 9.006 min Scan# 1332

Delta R.T. -0.047 min

Lab File: 6p473084.D

Acq: 18 May 2018 5:33 pm

Tgt Ion:	178	Resp:	792369
Ion Ratio	Lower	Upper	
178	100		
179	13.3	0.0	45.3
176	18.6	0.0	48.4



#81

Fluoranthene

Concen: 36.24 ppm

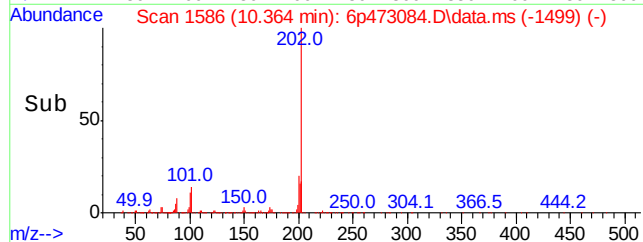
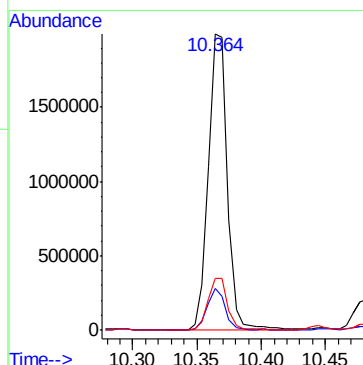
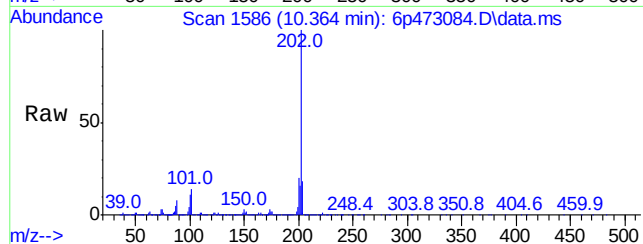
RT: 10.364 min Scan# 1586

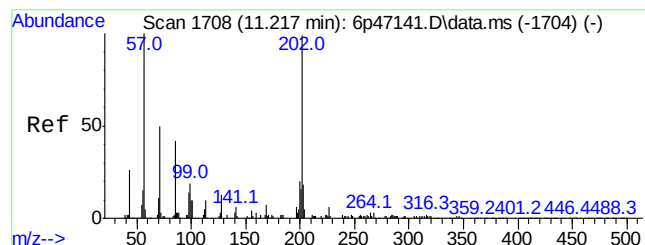
Delta R.T. -0.033 min

Lab File: 6p473084.D

Acq: 18 May 2018 5:33 pm

Tgt Ion:	202	Resp:	2066187
Ion Ratio	Lower	Upper	
202	100		
101	14.1	0.0	40.9
203	17.5	0.0	47.4





#84

Pyrene

Concen: 29.36 ppm

RT: 10.632 min Scan# 1636

Delta R.T. -0.056 min

Lab File: 6p473084.D

Acq: 18 May 2018 5:33 pm

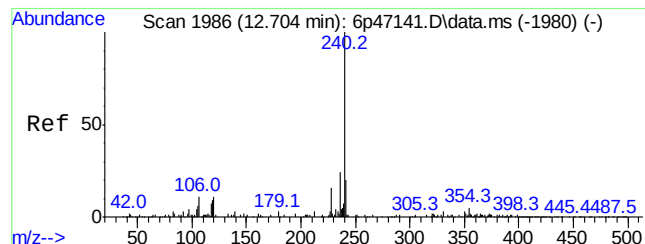
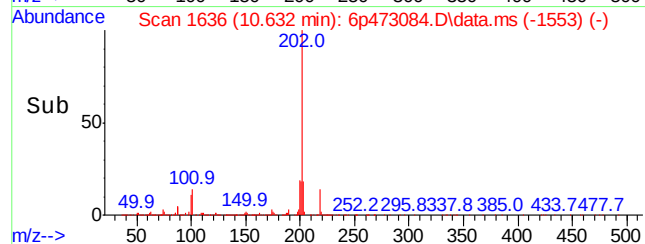
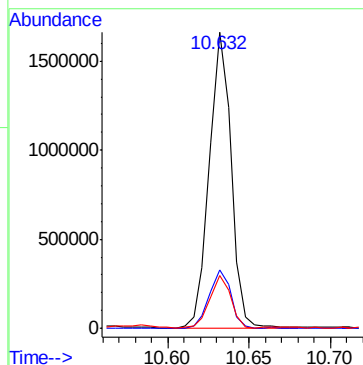
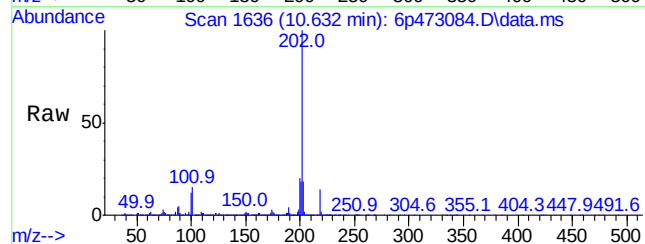
Tgt Ion: 202 Resp: 1557026

Ion Ratio Lower Upper

202 100

200 19.5 0.0 50.7

203 17.7 0.0 47.9



#87

Benzo[a]anthracene

Concen: 16.50 ppm

RT: 12.087 min Scan# 1908

Delta R.T. -0.038 min

Lab File: 6p473084.D

Acq: 18 May 2018 5:33 pm

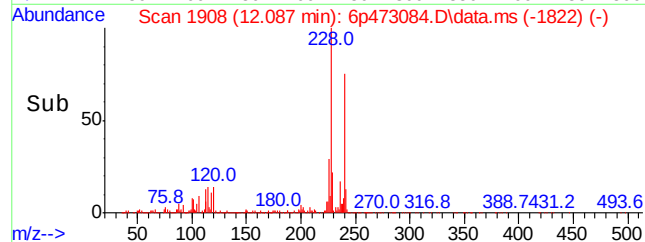
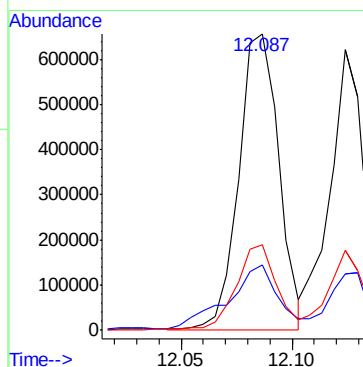
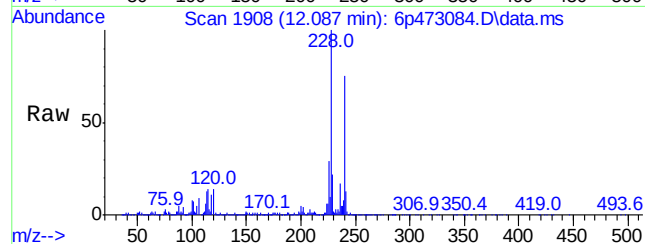
Tgt Ion: 228 Resp: 820312

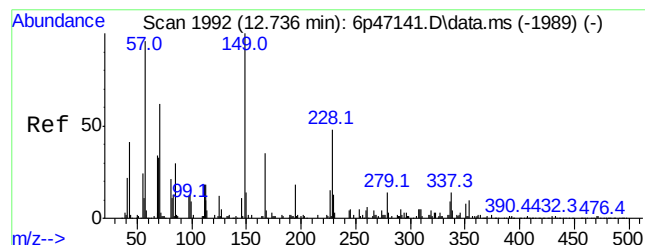
Ion Ratio Lower Upper

228 100

229 20.9 0.0 49.8

226 28.3 0.0 56.0





#89

Chrysene

Concen: 13.74 ppm

RT: 12.124 min Scan# 1915

Delta R.T. -0.048 min

Lab File: 6p473084.D

Acq: 18 May 2018 5:33 pm

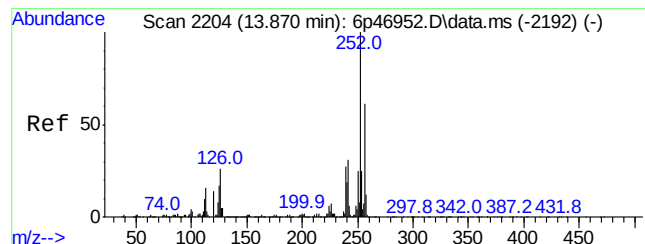
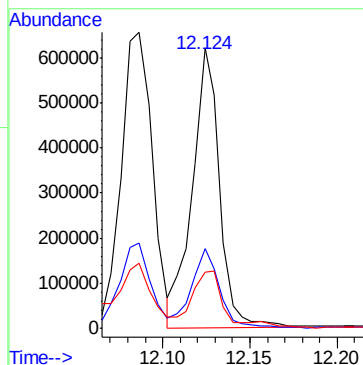
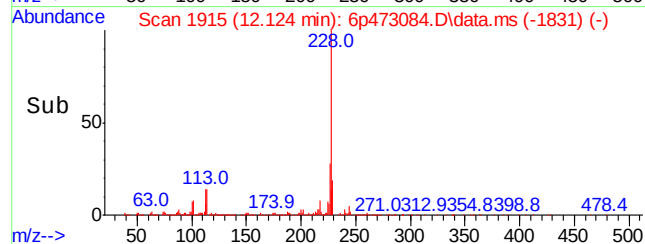
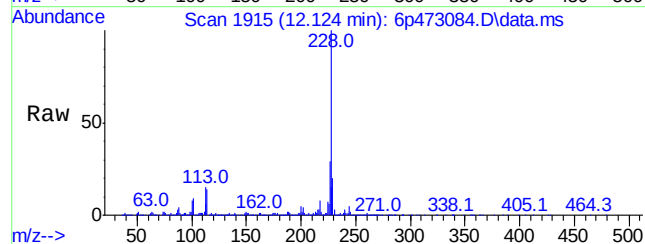
Tgt Ion: 228 Resp: 675442

Ion Ratio Lower Upper

228 100

226 28.1 0.0 59.5

229 18.7 0.0 49.6



#93

Benzo[b]fluoranthene

Concen: 13.85 ppm m

RT: 13.306 min Scan# 2136

Delta R.T. -0.051 min

Lab File: 6p473084.D

Acq: 18 May 2018 5:33 pm

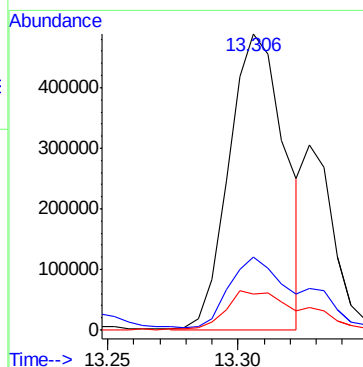
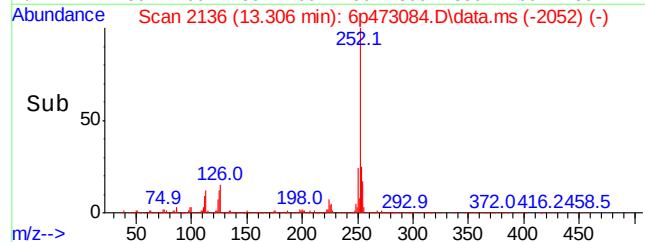
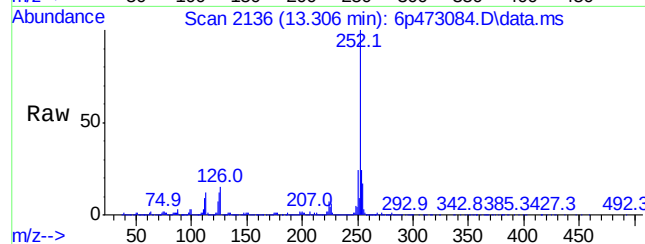
Tgt Ion: 252 Resp: 729773

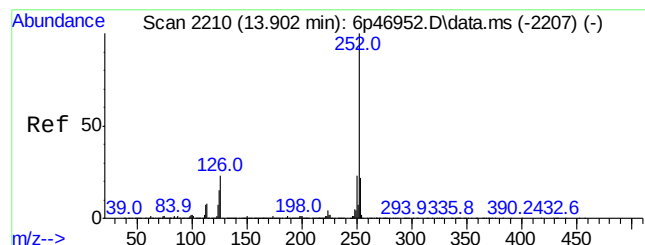
Ion Ratio Lower Upper

252 100

253 24.5 0.0 55.4

125 12.0 0.0 40.0





#94

Benzo[k]fluoranthene

Concen: 5.29 ppm

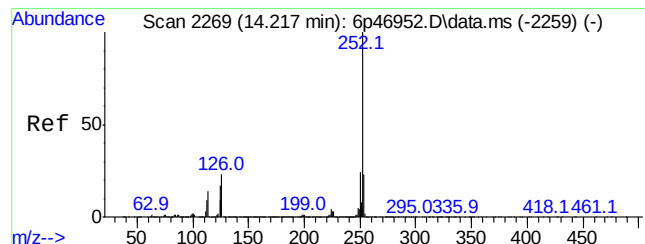
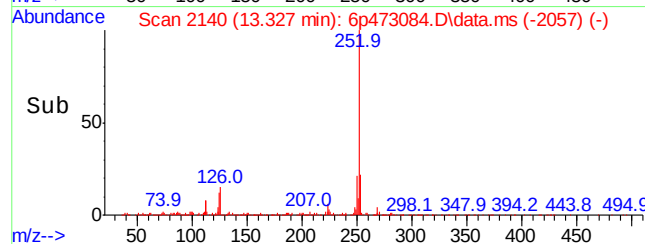
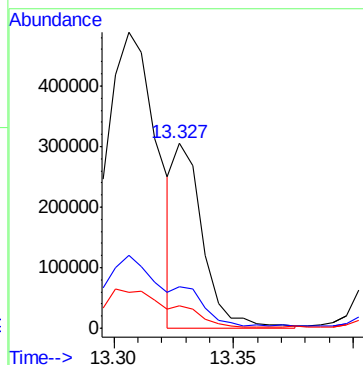
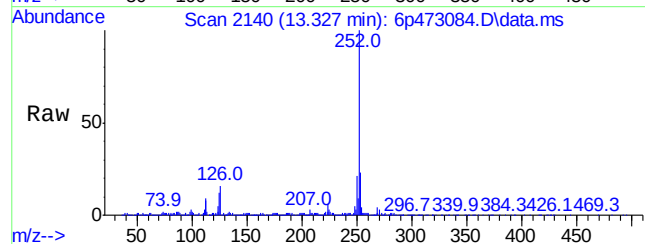
RT: 13.327 min Scan# 2140

Delta R.T. -0.056 min

Lab File: 6p473084.D

Acq: 18 May 2018 5:33 pm

Tgt	Ion:252	Resp:	254843
Ion	Ratio	Lower	Upper
252	100		
253	22.7	0.0	51.8
125	12.2	0.0	38.7



#95

Benzo[a]pyrene

Concen: 9.57 ppm

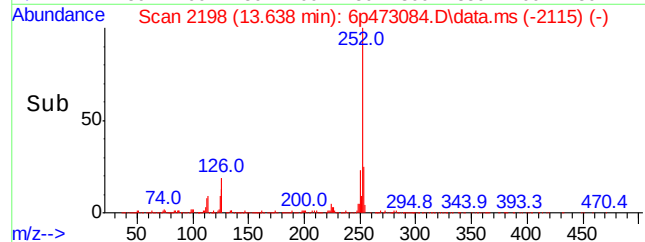
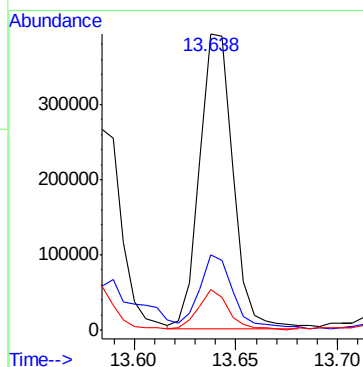
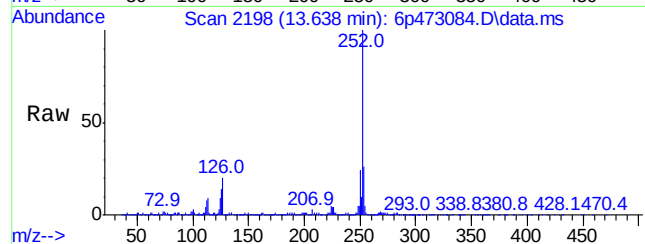
RT: 13.638 min Scan# 2198

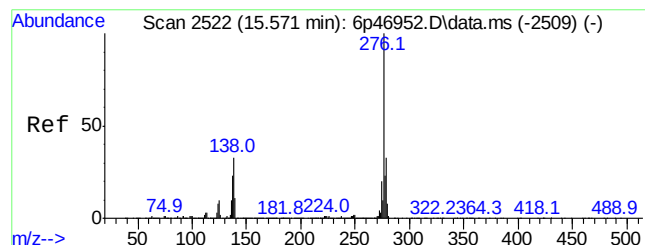
Delta R.T. -0.054 min

Lab File: 6p473084.D

Acq: 18 May 2018 5:33 pm

Tgt	Ion:252	Resp:	446610
Ion	Ratio	Lower	Upper
252	100		
253	23.7	0.0	52.5
125	13.4	0.0	40.0





#96

Indeno[1,2,3-cd]pyrene

Concen: 4.52 ppm

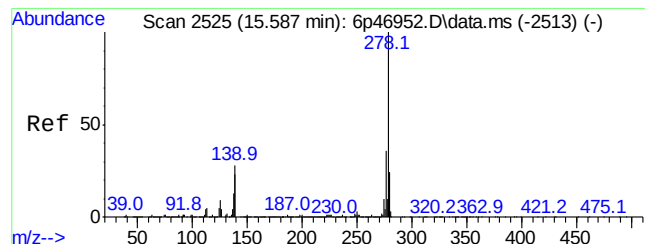
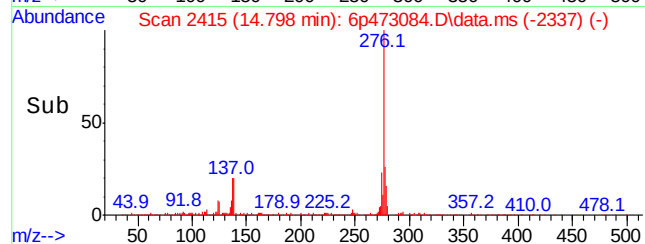
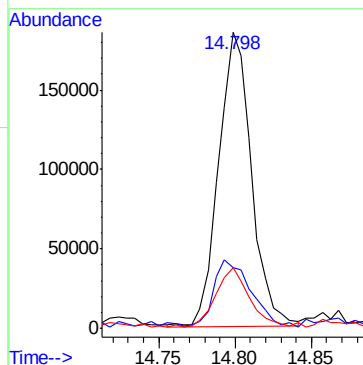
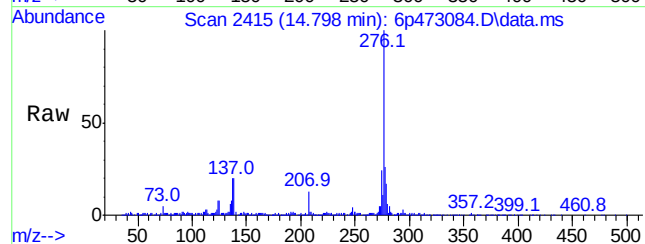
RT: 14.798 min Scan# 2415

Delta R.T. -0.083 min

Lab File: 6p473084.D

Acq: 18 May 2018 5:33 pm

Tgt Ion:	276	Resp:	277575
Ion Ratio	Lower	Upper	
276	100		
138	19.6	0.0	48.9
137	19.7	0.0	43.2



#98

Dibenz[a,h]anthracene

Concen: 1.97 ppm

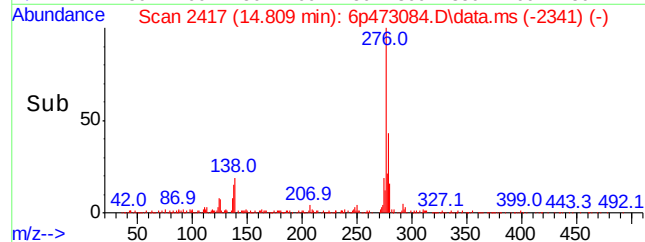
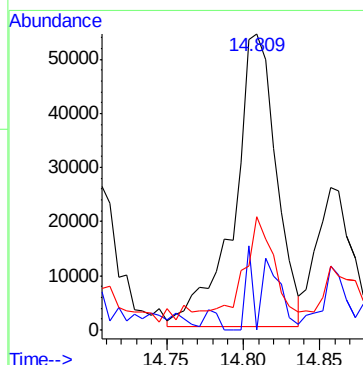
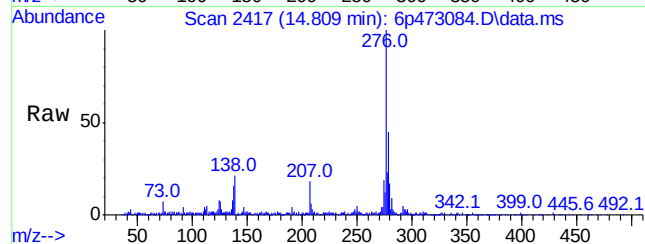
RT: 14.809 min Scan# 2417

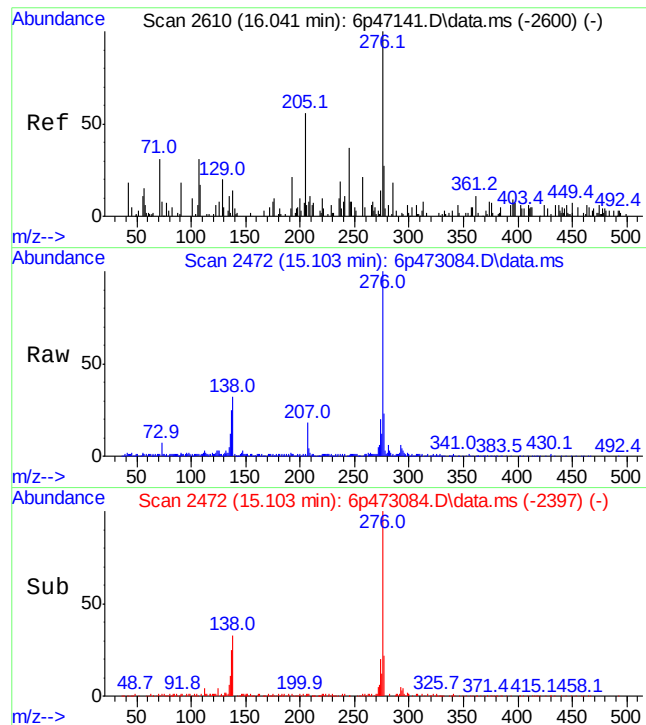
Delta R.T. -0.094 min

Lab File: 6p473084.D

Acq: 18 May 2018 5:33 pm

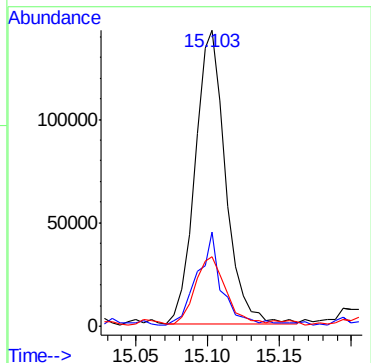
Tgt Ion:	278	Resp:	104454
Ion Ratio	Lower	Upper	
278	100		
139	0.0	0.0	45.9
279	34.1	0.0	54.3





#100
Benzo[g,h,i]perylene
Concen: 4.29 ppm
RT: 15.103 min Scan# 2472
Delta R.T. -0.097 min
Lab File: 6p473084.D
Acq: 18 May 2018 5:33 pm

Tgt	Ion	276	Resp	211121
Ion	Ratio	Lower	Upper	
276	100			
138	31.3	0.0	49.9	
277	22.4	0.0	53.3	



7.1.4
7

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-17-18\aimeel\6p2211\
 Data File : 6p473025.d
 Acq On : 16 May 2018 11:39 pm
 Operator : christc2
 Sample : jc66181-3
 Misc : op12038,e6p2211,30.3,,,1,2
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: May 22 16:48:12 2018

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018

QLast Update : Wed May 16 22:45:08 2018

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.513	152	595263	40.00	ppm	0.00
24) Naphthalene-d8	5.529	136	2270693	40.00	ppm	0.00
47) Acenaphthene-d10	7.262	164	1101638	40.00	ppm	0.01
69) Phenanthrene-d10	8.958	188	2008190	40.00	ppm	0.02
83) Chrysene-d12	12.172	240	2292878	40.00	ppm	0.05
91) Perylene-d12	13.793	264	2731246	40.00	ppm	0.07
101) 1,4-Dichlorobenzene-d4a	4.513	152	595263	40.00	ppm	0.00
103) Acenaphthene-d10a	7.262	164	1101638	40.00	ppm	0.01
105) Phenanthrene-d10a	8.958	188	2008190	40.00	ppm	0.02
109) Chrysene-d12a	12.172	240	2292878	40.00	ppm	0.05
111) Naphthalene-d8a	5.529	136	2270693	40.00	ppm	0.00
113) Phenanthrene-d10b	8.958	188	2008190	40.00	ppm	0.02
115) Chrysene-d12b	12.172	240	2292878	40.00	ppm	0.05
System Monitoring Compounds						
5) 2-Fluorophenol	3.556	112	298266	13.75	ppm	0.01
Spiked Amount 50.000			Recovery	=	27.50%	
8) Phenol-d5	4.283	99	400333	14.49	ppm	0.02
Spiked Amount 50.000			Recovery	=	28.98%	
25) Nitrobenzene-d5	4.941	82	365610	14.83	ppm	0.01
Spiked Amount 50.000			Recovery	=	29.66%	
51) 2-Fluorobiphenyl	6.551	172	702010	16.52	ppm	0.00
Spiked Amount 50.000			Recovery	=	33.04%	
73) 2,4,6-Tribromophenol	8.156	330	58571	7.75	ppm	0.00
Spiked Amount 50.000			Recovery	=	15.50%	
85) Terphenyl-d14	10.894	244	788209	14.39	ppm	0.01
Spiked Amount 50.000			Recovery	=	28.78%	
106) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
107) o-terphenyl	0.000	230	0d	0.00	ppm	
Target Compounds						
38) Naphthalene	5.551	128	1252846	21.06	ppm	99
44) 2-Methylnaphthalene	6.187	141	383270	11.01	ppm	# 1
56) Acenaphthylene	7.107	152	1670850	31.15	ppm	99
59) Acenaphthene	7.294	153	524779	14.04	ppm	97
66) Fluorene	7.872	166	871631	22.46	ppm	92
77) Phenanthrene	8.995	178	8959227	146.76	ppm	96
78) Anthracene	9.054	178	4940630	79.97	ppm	99
81) Fluoranthene	10.423	202	15922742	240.56	ppm	# 1
84) Pyrene	10.691	202	16127284	210.47	ppm	69
87) Benzo[a]anthracene	12.156	228	18099301	251.92	ppm	65
89) Chrysene	12.204	228	15040102	211.72	ppm	# 76
93) Benzo[b]fluoranthene	13.397	252	21910003m	253.32	ppm	
94) Benzo[k]fluoranthene	13.413	252	11477501m	145.17	ppm	
95) Benzo[a]pyrene	13.745	252	19441829	253.78	ppm	88
96) Indeno[1,2,3-cd]pyrene	14.959	276	16353708	162.18	ppm	91
98) Dibenz[a,h]anthracene	14.959	278	7686576m	88.41	ppm	
100) Benzo[g,h,i]perylene	15.275	276	12788753	158.36	ppm	76

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-17-18\aimeel\6p2211\
Data File : 6p473025.d
Acq On : 16 May 2018 11:39 pm
Operator : christc2
Sample : jc66181-3
Misc : op12038,6p2211,30.3,,,1,2
ALS Vial : 30 Sample Multiplier: 1

Quant Time: May 22 16:48:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
QLast Update : Wed May 16 22:45:08 2018
Response via : Initial Calibration

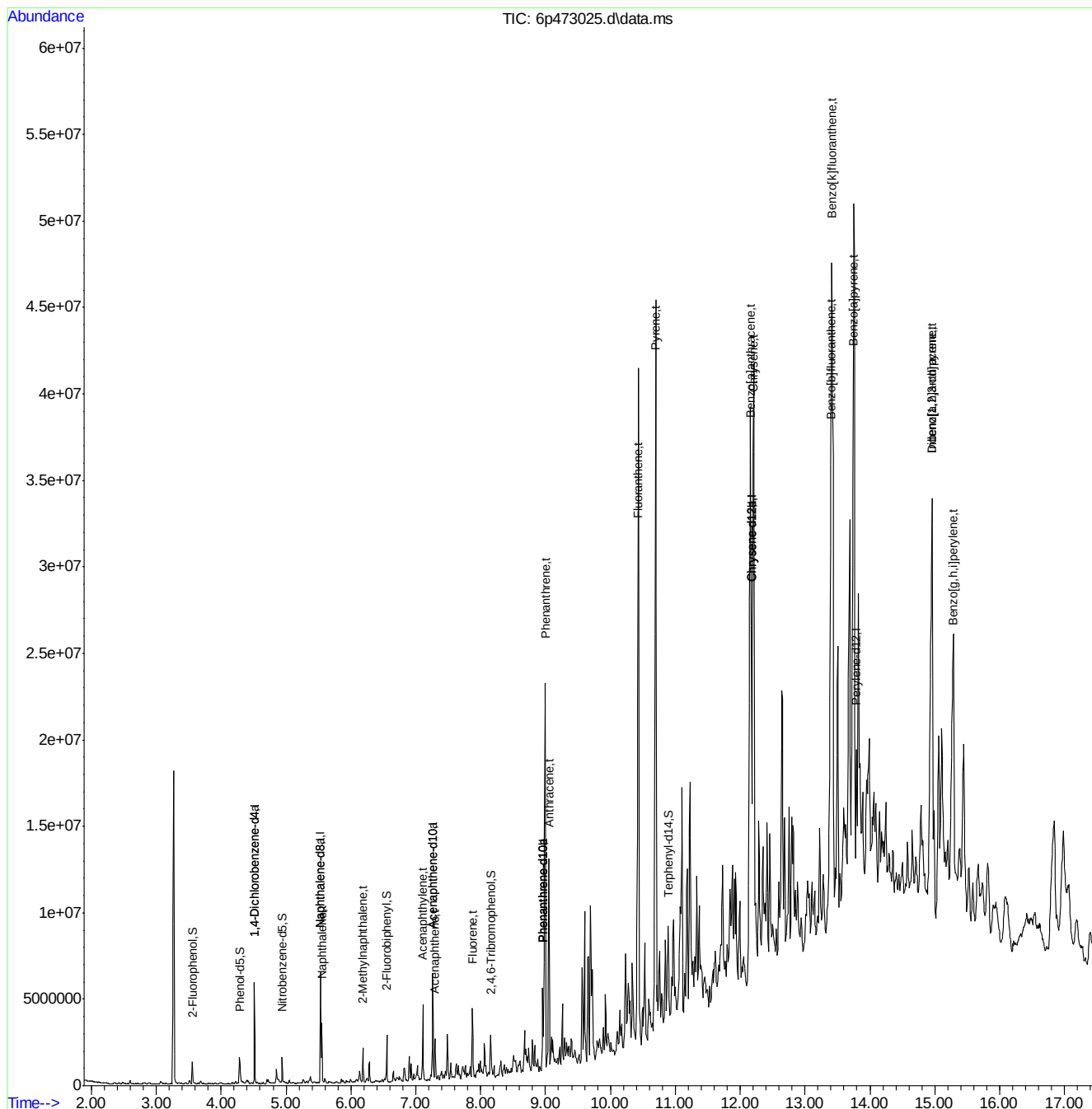
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

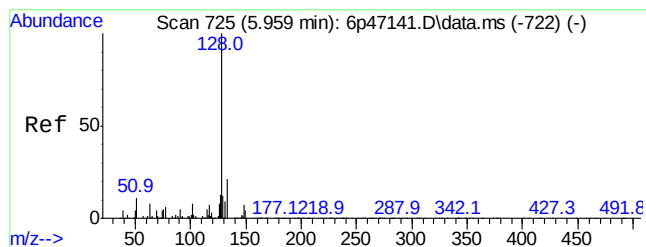
(#) = qualifier out of range (m) = manual integration (+) = signals summed						

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-17-18\aimeel\e6p2211\
Data File : 6p473025.d
Acq On : 16 May 2018 11:39 pm
Operator : christc2
Sample : jc66181-3
Misc : op12038,e6p2211,30.3,,,1,2
ALS Vial : 30 Sample Multiplier: 1

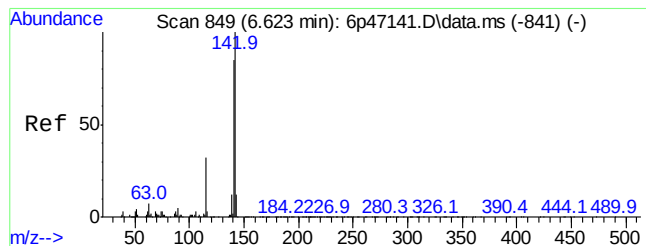
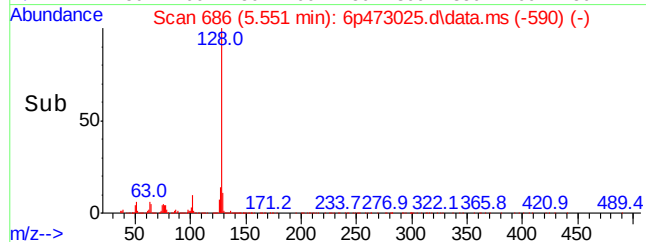
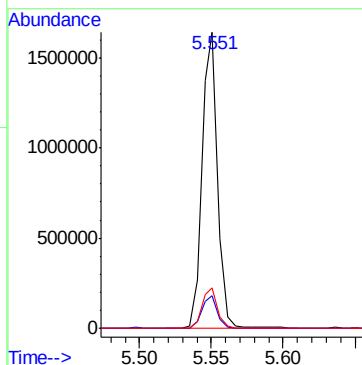
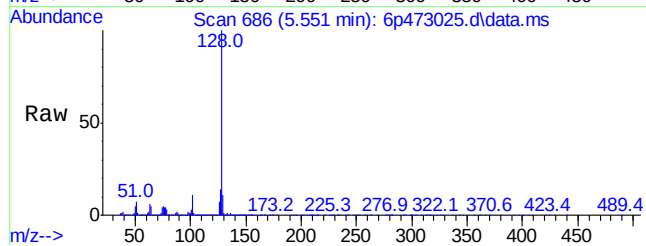
Quant Time: May 22 16:48:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
QLast Update : Wed May 16 22:45:08 2018
Response via : Initial Calibration





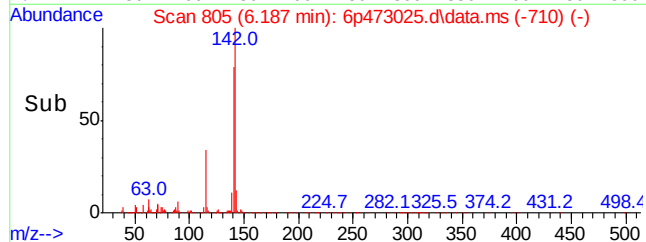
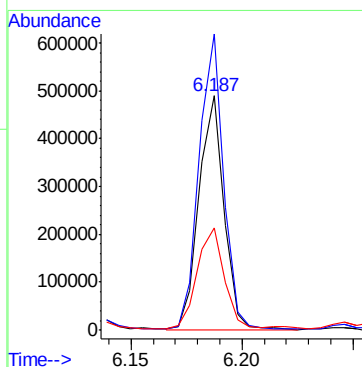
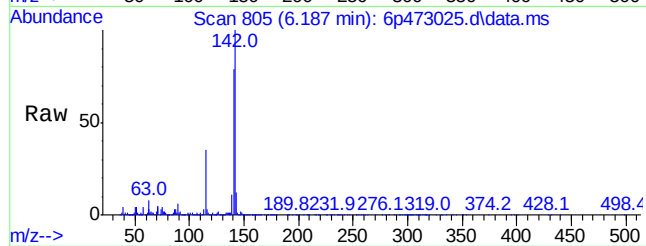
#38
Naphthalene
Concen: 21.06 ppm
RT: 5.551 min Scan# 686
Delta R.T. 0.016 min
Lab File: 6p473025.d
Acq: 16 May 2018 11:39 pm

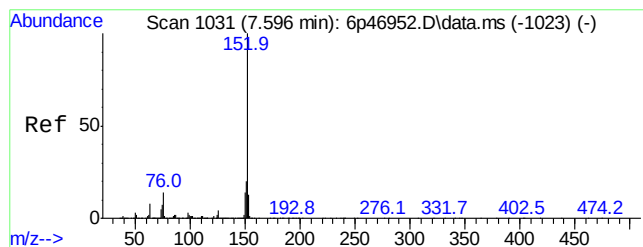
Tgt Ion:	128	Resp:	1252846
Ion Ratio	Lower	Upper	
128	100		
129	10.8	0.0	41.2
127	13.6	0.0	43.3



#44
2-Methylnaphthalene
Concen: 11.01 ppm
RT: 6.187 min Scan# 805
Delta R.T. 0.010 min
Lab File: 6p473025.d
Acq: 16 May 2018 11:39 pm

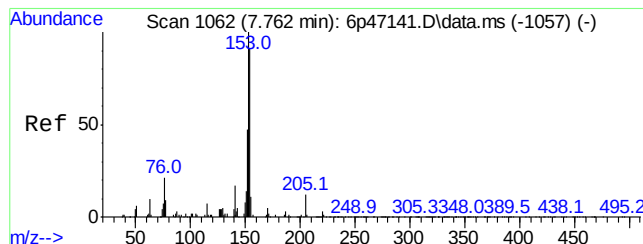
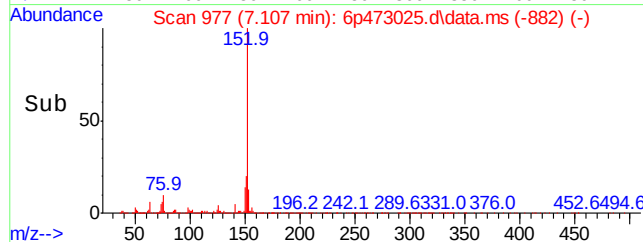
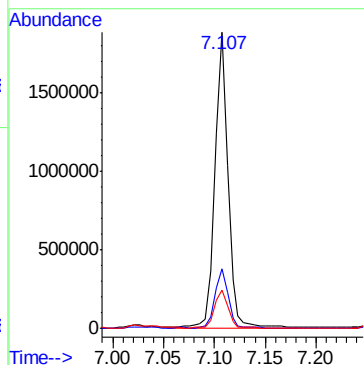
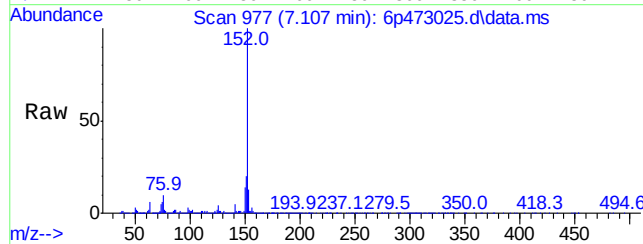
Tgt Ion:	141	Resp:	383270
Ion Ratio	Lower	Upper	
141	100		
142	126.2	791.6	851.6#
115	42.9	0.0	32.9#





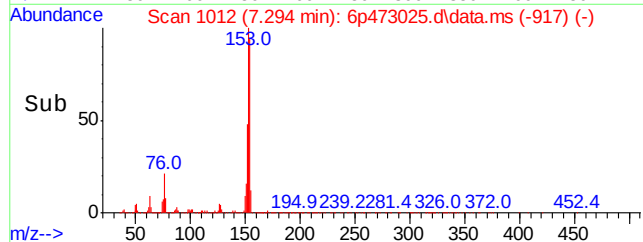
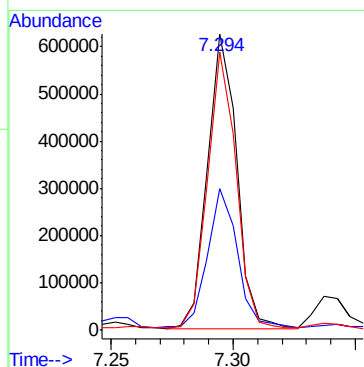
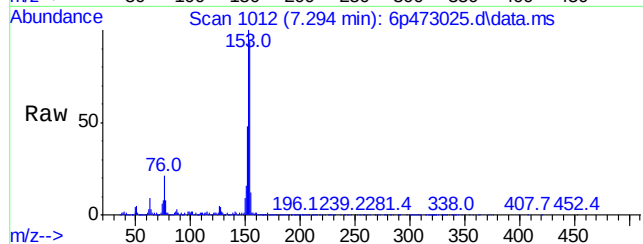
#56
Acenaphthylene
Concen: 31.15 ppm
RT: 7.107 min Scan# 977
Delta R.T. 0.009 min
Lab File: 6p473025.d
Acq: 16 May 2018 11:39 pm

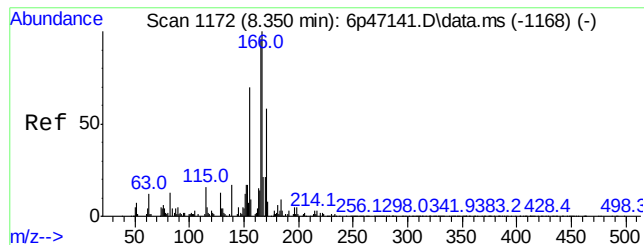
Tgt Ion:	152	Resp:	1670850
Ion Ratio	Lower	Upper	
152	100		
151	20.2	0.0	50.8
153	12.7	0.0	42.6



#59
Acenaphthene
Concen: 14.04 ppm
RT: 7.294 min Scan# 1012
Delta R.T. 0.006 min
Lab File: 6p473025.d
Acq: 16 May 2018 11:39 pm

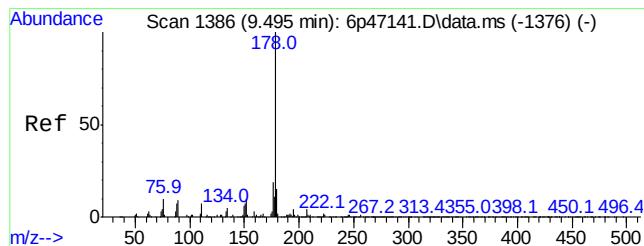
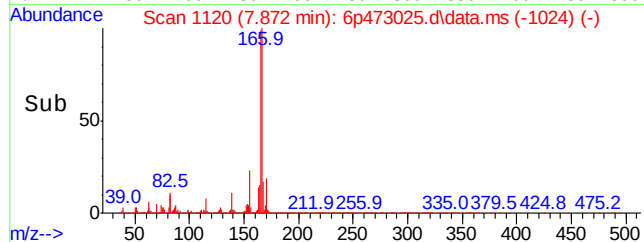
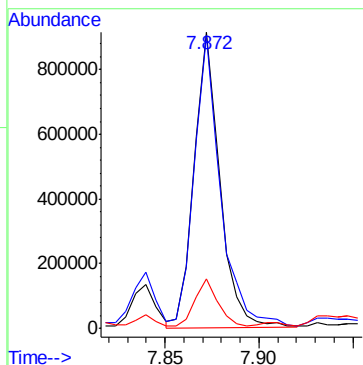
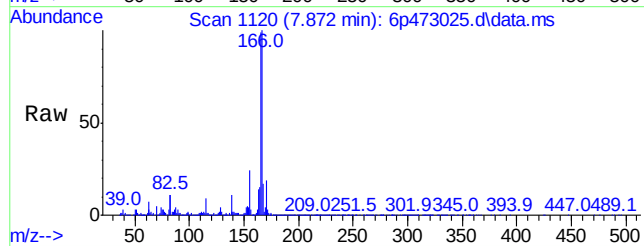
Tgt Ion:	153	Resp:	524779
Ion Ratio	Lower	Upper	
153	100		
152	47.0	15.4	75.4
154	93.7	60.5	120.5





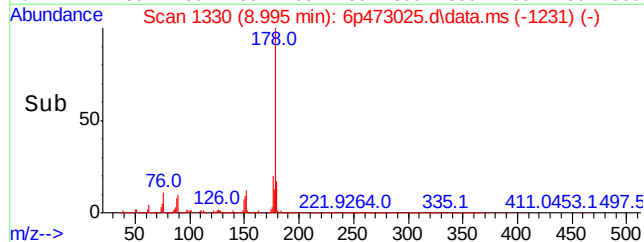
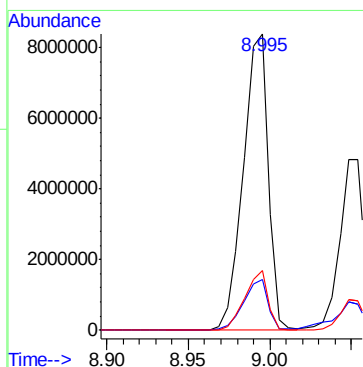
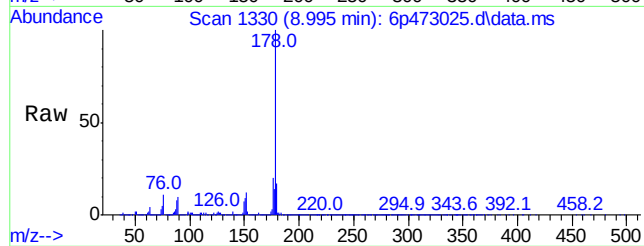
#66
Fluorene
Concen: 22.46 ppm
RT: 7.872 min Scan# 1120
Delta R.T. 0.014 min
Lab File: 6p473025.d
Acq: 16 May 2018 11:39 pm

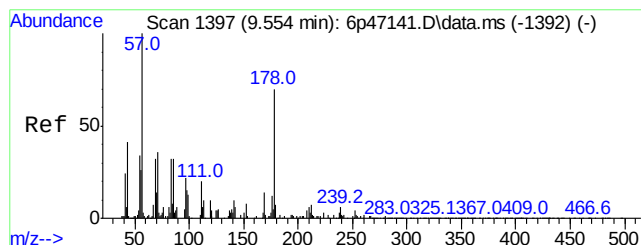
Tgt Ion	Ratio	Lower	Upper
166	100		
165	98.8	61.4	121.4
167	16.1	0.0	43.3



#77
Phenanthrene
Concen: 146.76 ppm
RT: 8.995 min Scan# 1330
Delta R.T. 0.027 min
Lab File: 6p473025.d
Acq: 16 May 2018 11:39 pm

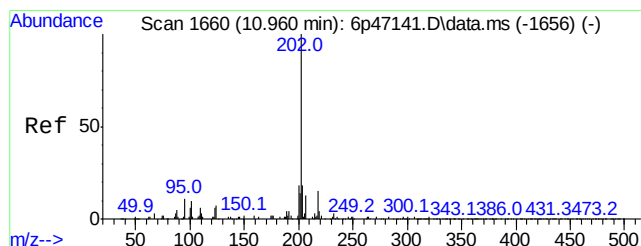
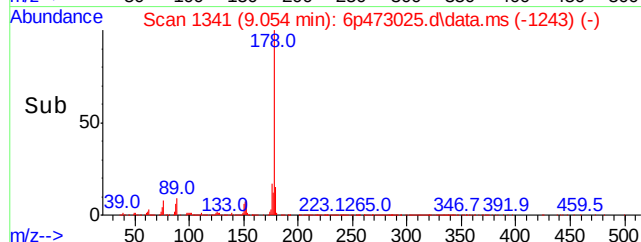
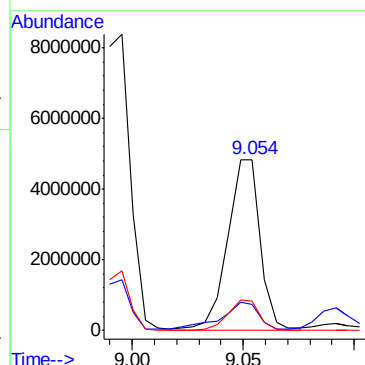
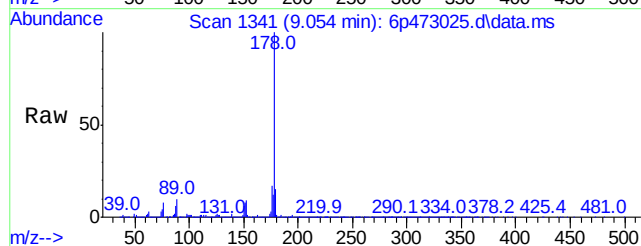
Tgt Ion	Ratio	Lower	Upper
178	100		
179	16.7	0.0	44.8
176	20.1	0.0	48.8





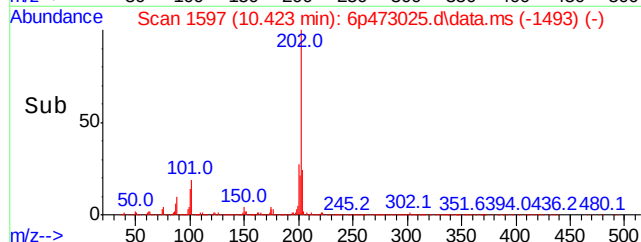
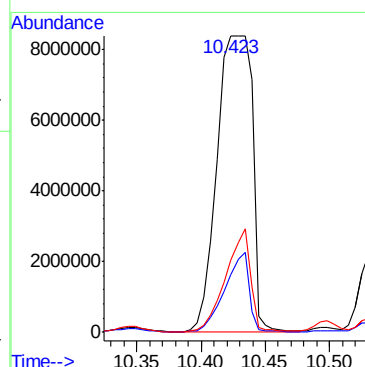
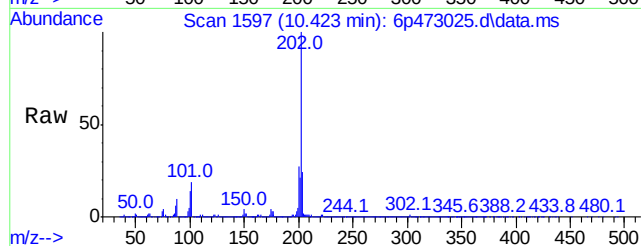
#78
 Anthracene
 Concen: 79.97 ppm
 RT: 9.054 min Scan# 1341
 Delta R.T. 0.022 min
 Lab File: 6p473025.d
 Acq: 16 May 2018 11:39 pm

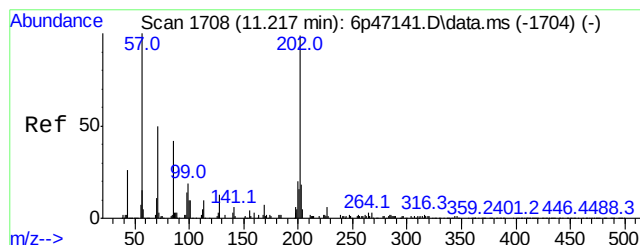
Tgt Ion	Ratio	Lower	Upper
178	100		
179	14.1	0.0	44.5
176	17.3	0.0	47.5



#81
 Fluoranthene
 Concen: 240.56 ppm
 RT: 10.423 min Scan# 1597
 Delta R.T. 0.054 min
 Lab File: 6p473025.d
 Acq: 16 May 2018 11:39 pm

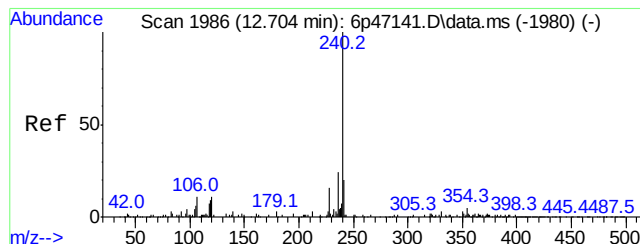
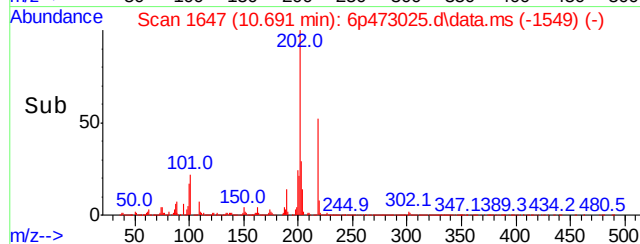
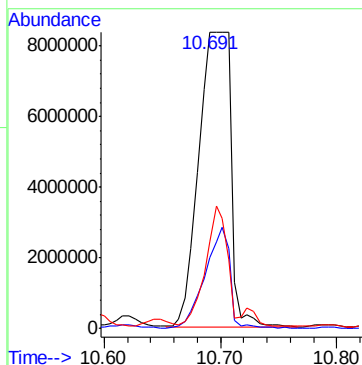
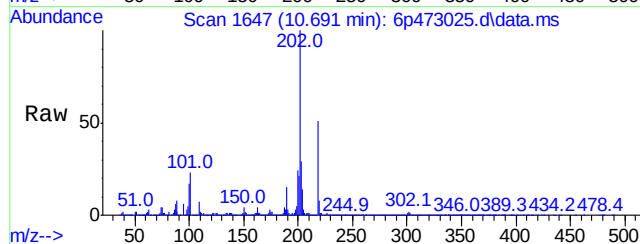
Tgt Ion	Ratio	Lower	Upper
202	100		
101	19.2	0.0	38.6
203	24.1	178.5	238.5#





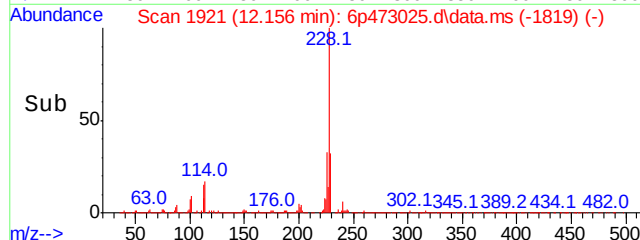
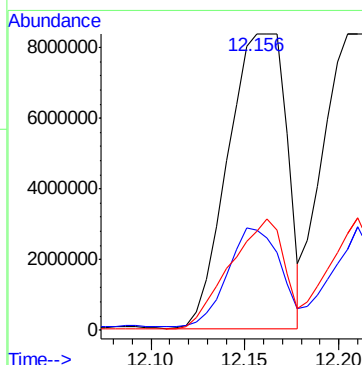
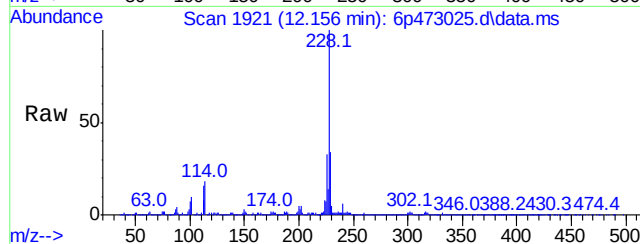
#84
Pyrene
Concen: 210.47 ppm
RT: 10.691 min Scan# 1647
Delta R.T. 0.025 min
Lab File: 6p473025.d
Acq: 16 May 2018 11:39 pm

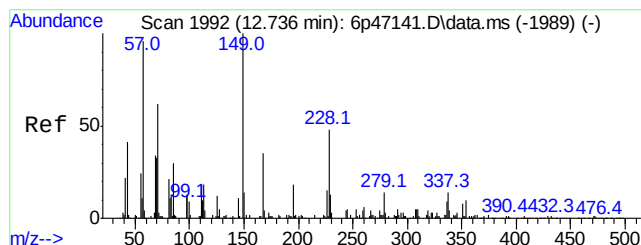
Tgt Ion:	202	Resp:	16127284
Ion	Ratio	Lower	Upper
202	100		
200	24.0	0.0	30.0
203	28.0	0.0	44.9



#87
Benzo[a]anthracene
Concen: 251.92 ppm
RT: 12.156 min Scan# 1921
Delta R.T. 0.048 min
Lab File: 6p473025.d
Acq: 16 May 2018 11:39 pm

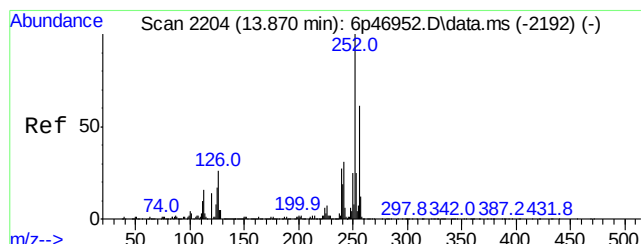
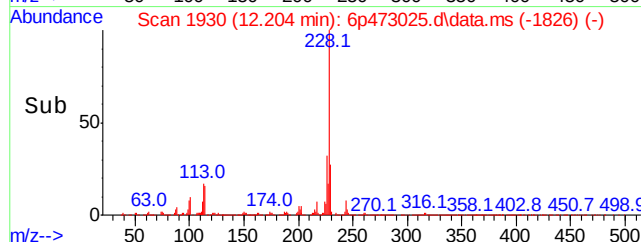
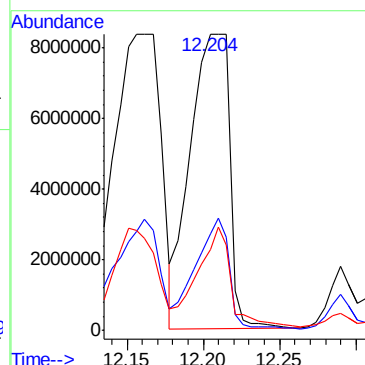
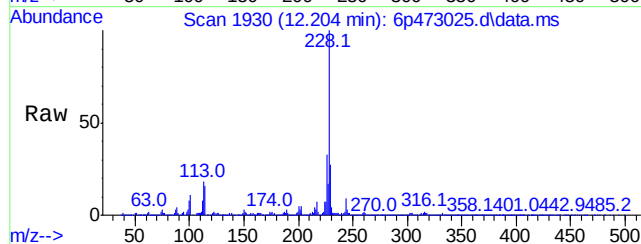
Tgt Ion:	228	Resp:	18099301
Ion	Ratio	Lower	Upper
228	100		
229	33.4	0.0	52.0
226	33.3	0.0	41.0





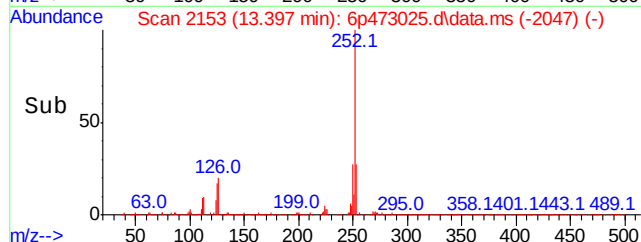
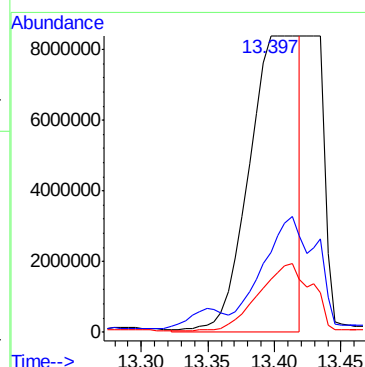
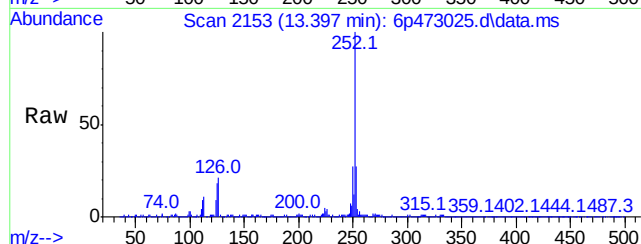
#89
Chrysene
Concen: 211.72 ppm
RT: 12.204 min Scan# 1930
Delta R.T. 0.054 min
Lab File: 6p473025.d
Acq: 16 May 2018 11:39 pm

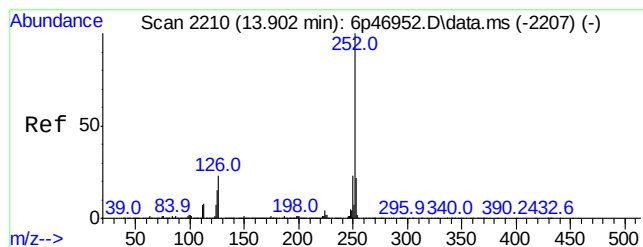
Tgt Ion:	228	Resp:	15040102
Ion	Ratio	Lower	Upper
228	100		
226	32.4	0.0	30.0#
229	26.2	11.0	71.0



#93
Benzo[b]fluoranthene
Concen: 253.32 ppm
RT: 13.397 min Scan# 2153
Delta R.T. 0.066 min
Lab File: 6p473025.d
Acq: 16 May 2018 11:39 pm

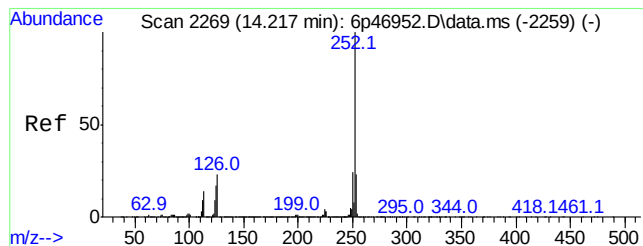
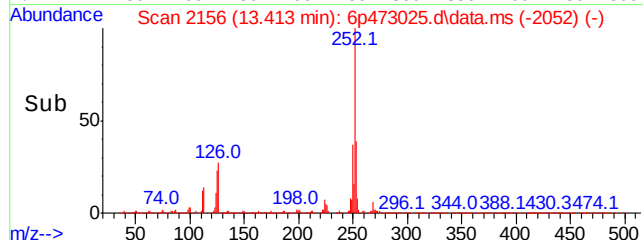
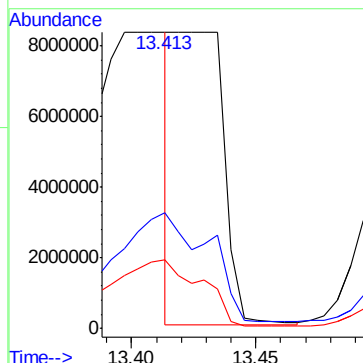
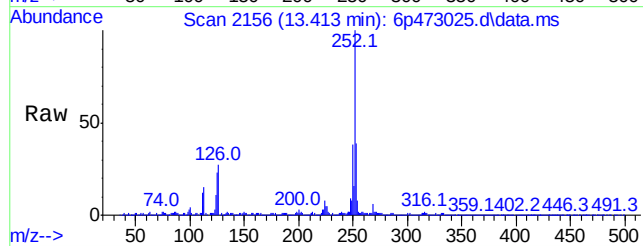
Tgt Ion:	252	Resp:	21910003
Ion	Ratio	Lower	Upper
252	100		
253	27.1	2.6	62.6
125	17.7	6.7	66.7





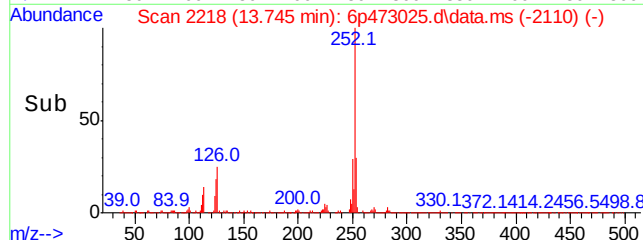
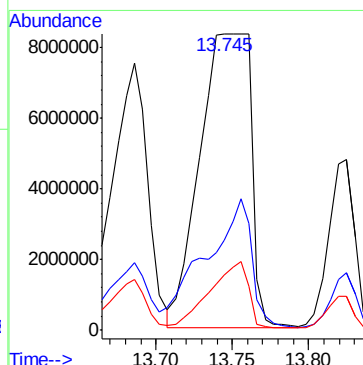
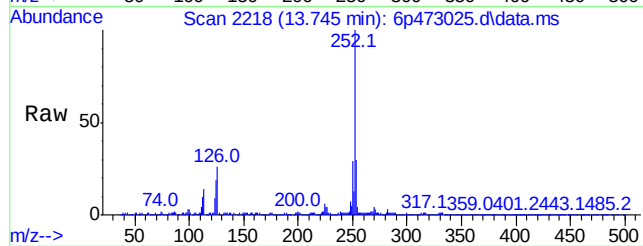
#94
Benzo[k]fluoranthene
Concen: 145.17 ppm
RT: 13.413 min Scan# 2156
Delta R.T. 0.056 min
Lab File: 6p473025.d
Acq: 16 May 2018 11:39 pm

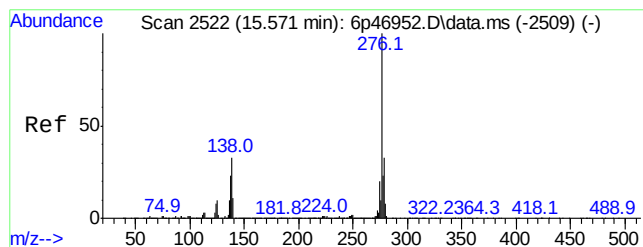
Tgt Ion:	252	Resp:	11477501
Ion Ratio	Lower	Upper	
252	100		
253	39.0	0.0	30.0#
125	23.2	0.0	44.0



#95
Benzo[a]pyrene
Concen: 253.78 ppm
RT: 13.745 min Scan# 2218
Delta R.T. 0.080 min
Lab File: 6p473025.d
Acq: 16 May 2018 11:39 pm

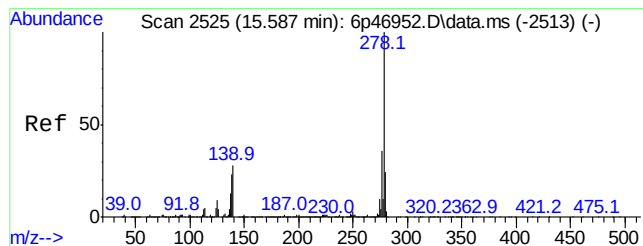
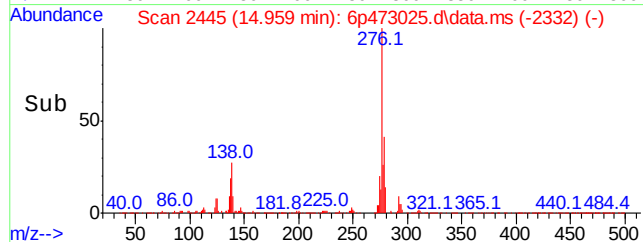
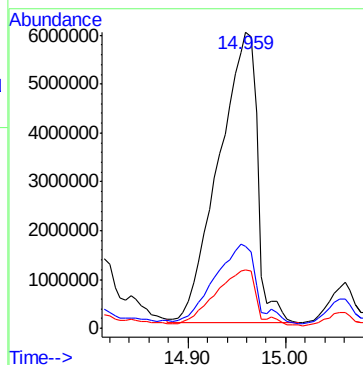
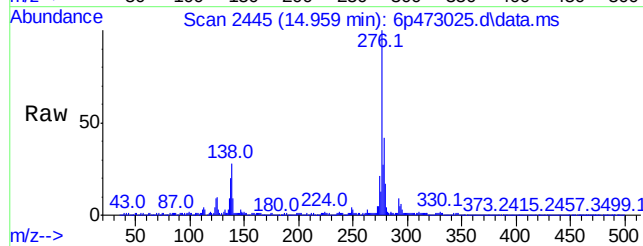
Tgt Ion:	252	Resp:	19441829
Ion Ratio	Lower	Upper	
252	100		
253	27.3	0.0	53.9
125	18.5	0.0	34.5





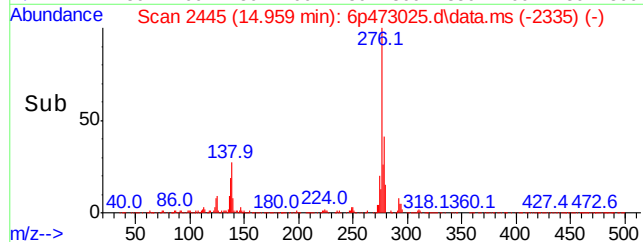
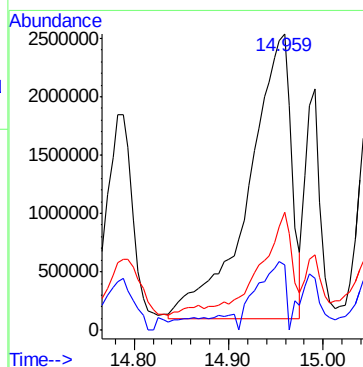
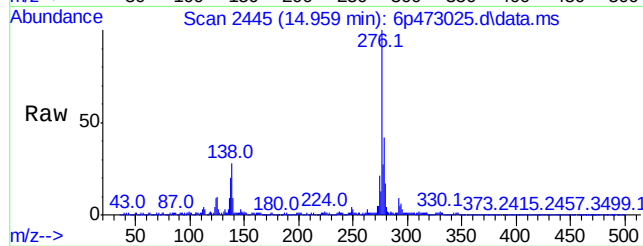
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 162.18 ppm
 RT: 14.959 min Scan# 2445
 Delta R.T. 0.105 min
 Lab File: 6p473025.d
 Acq: 16 May 2018 11:39 pm

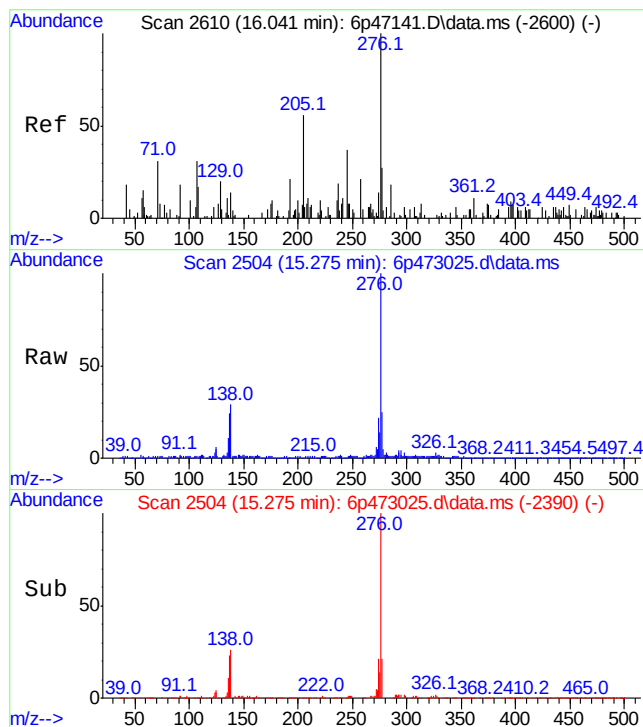
Tgt Ion:	276	Resp:	16353708
Ion	Ratio	Lower	Upper
276	100		
138	26.2	0.0	30.0
137	18.6	0.0	45.0



#98
 Dibenz[a,h]anthracene
 Concen: 88.41 ppm m
 RT: 14.959 min Scan# 2445
 Delta R.T. 0.089 min
 Lab File: 6p473025.d
 Acq: 16 May 2018 11:39 pm

Tgt Ion:	278	Resp:	7686576
Ion	Ratio	Lower	Upper
278	100		
139	22.0	0.0	30.0
279	39.9	0.0	30.0#

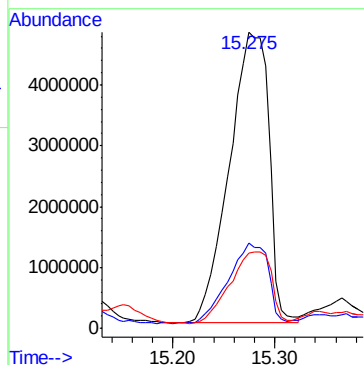




#100
Benzo[g,h,i]perylene
Concen: 158.36 ppm
RT: 15.275 min Scan# 2504
Delta R.T. 0.107 min
Lab File: 6p473025.d
Acq: 16 May 2018 11:39 pm

Tgt Ion: 276 Resp: 12788753

Ion	Ratio	Lower	Upper
276	100		
138	27.1	0.0	36.1
277	23.2	2.5	62.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2212\
 Data File : 6p473039.D
 Acq On : 17 May 2018 3:07 pm
 Operator : christc2
 Sample : jc66181-3
 Misc : op12038,e6p2212,30.3,,,1,10
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 17 16:02:07 2018

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 15 13:30:05 2018

QLast Update : Tue May 15 13:30:05 2018

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.508	152	511583	40.00	ppm	-0.02
24) Naphthalene-d8	5.524	136	2098017	40.00	ppm	-0.02
47) Acenaphthene-d10	7.257	164	1081304	40.00	ppm	-0.02
69) Phenanthrene-d10	8.952	188	1931098	40.00	ppm	-0.02
83) Chrysene-d12	12.146	240	1891284	40.00	ppm	0.00
91) Perylene-d12	13.761	264	2135121	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.508	152	511583	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.257	164	1081304	40.00	ppm	-0.02
105) Phenanthrene-d10a	8.952	188	1931098	40.00	ppm	-0.02
109) Chrysene-d12a	12.146	240	1891284	40.00	ppm	0.00
111) Naphthalene-d8a	5.524	136	2098017	40.00	ppm	-0.02
113) Phenanthrene-d10b	8.952	188	1931098	40.00	ppm	-0.02
115) Chrysene-d12b	12.146	240	1891284	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.545	112	55820	2.99	ppm	-0.04
Spiked Amount 50.000			Recovery	=	5.98%	
8) Phenol-d5	4.278	99	74687	3.14	ppm	-0.01
Spiked Amount 50.000			Recovery	=	6.28%	
25) Nitrobenzene-d5	4.936	82	59529	2.61	ppm	-0.02
Spiked Amount 50.000			Recovery	=	5.22%	
51) 2-Fluorobiphenyl	6.546	172	144399	3.46	ppm	-0.02
Spiked Amount 50.000			Recovery	=	6.92%	
73) 2,4,6-Tribromophenol	8.150	330	14175	1.95	ppm	-0.01
Spiked Amount 50.000			Recovery	=	3.90%	
85) Terphenyl-d14	10.889	244	161592	3.58	ppm	-0.01
Spiked Amount 50.000			Recovery	=	7.16%	
106) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
107) o-terphenyl	0.000	230	0d	0.00	ppm	
Target Compounds						
38) Naphthalene	5.545	128	262826	4.78	ppm	100
44) 2-Methylnaphthalene	6.182	141	85290	2.65	ppm	85
56) Acenaphthylene	7.102	152	350347	6.66	ppm	97
59) Acenaphthene	7.289	153	114424	3.12	ppm	97
66) Fluorene	7.867	166	185857	4.88	ppm	96
77) Phenanthrene	8.985	178	1984509	33.81	ppm	97
78) Anthracene	9.043	178	1025539	17.26	ppm	99
79) Carbazole	9.247	167	259737	4.70	ppm	98
81) Fluoranthene	10.407	202	4437884	69.72	ppm	96
84) Pyrene	10.680	202	4058217	64.21	ppm	99
87) Benzo[a]anthracene	12.135	228	3880231	65.48	ppm	98
89) Chrysene	12.178	228	3063925	52.29	ppm	94
93) Benzo[b]fluoranthene	13.370	252	5002264m	73.98	ppm	
94) Benzo[k]fluoranthene	13.392	252	1906249m	30.84	ppm	
95) Benzo[a]pyrene	13.707	252	4521361	75.50	ppm	96
96) Indeno[1,2,3-cd]pyrene	14.889	276	2977678	37.77	ppm	83
98) Dibenz[a,h]anthracene	14.889	278	1047250	15.41	ppm	87
100) Benzo[g,h,i]perylene	15.205	276	2505579	39.69	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2212\
Data File : 6p473039.D
Acq On : 17 May 2018 3:07 pm
Operator : christc2
Sample : jc66181-3
Misc : op12038,e6p2212,30.3,,,1,10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 17 16:02:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 15 13:30:05 2018
QLast Update : Tue May 15 13:30:05 2018
Response via : Initial Calibration

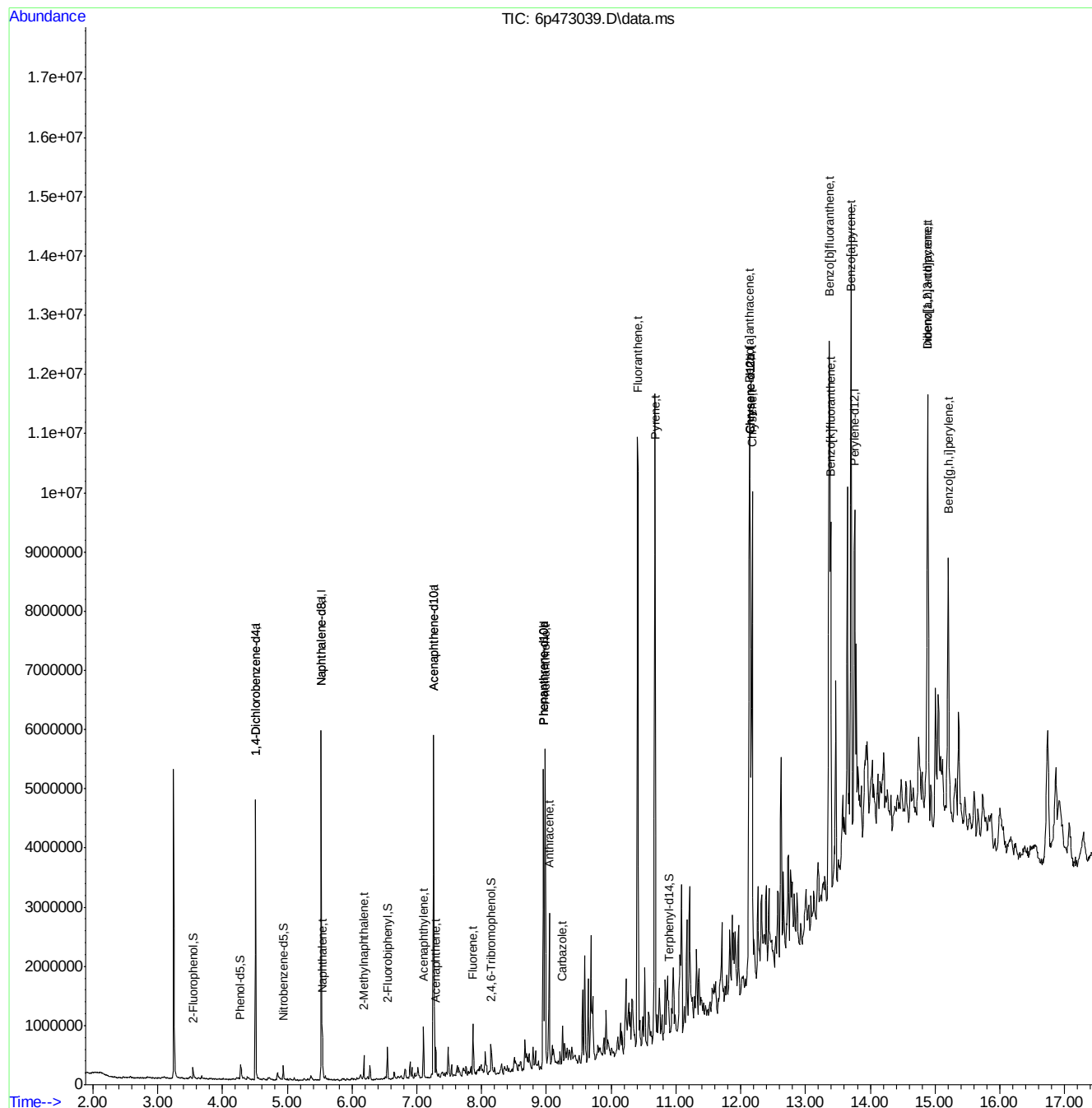
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

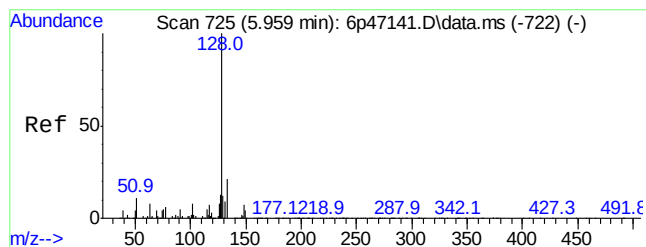
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2212\
Data File : 6p473039.D
Acq On : 17 May 2018 3:07 pm
Operator : christc2
Sample : jc66181-3
Misc : op12038,e6p2212,30.3,,,1,10
ALS Vial : 13 Sample Multiplier: 1

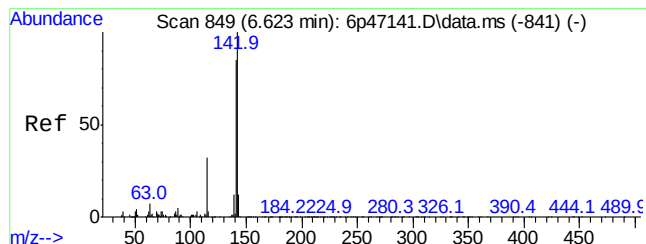
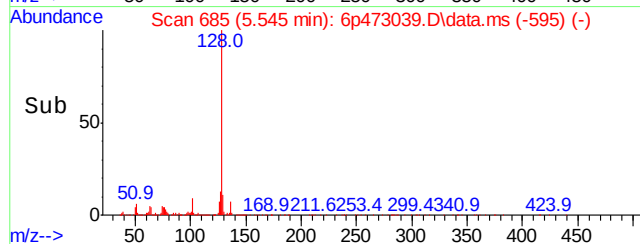
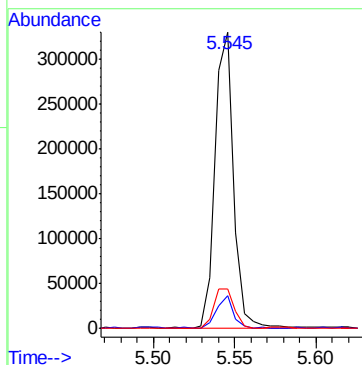
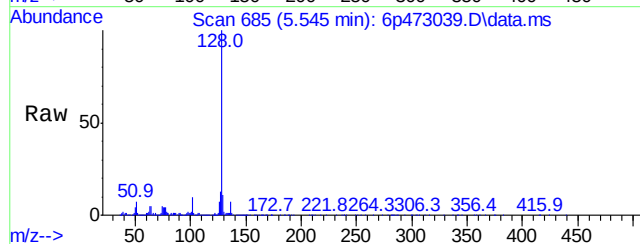
Quant Time: May 17 16:02:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 15 13:30:05 2018
QLast Update : Tue May 15 13:30:05 2018
Response via : Initial Calibration





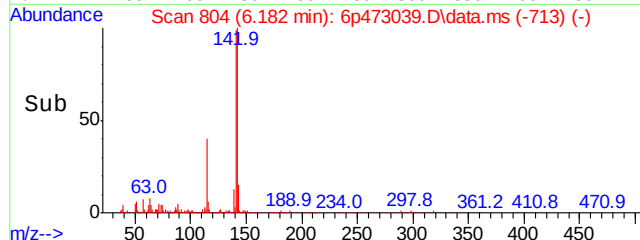
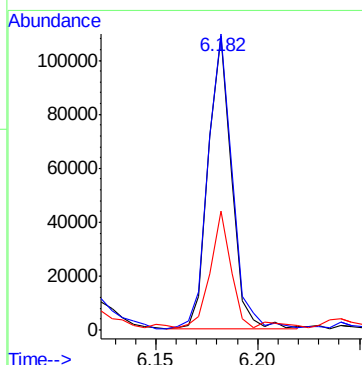
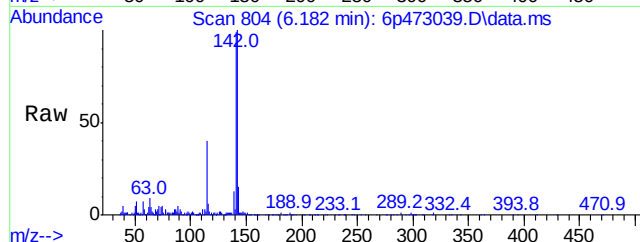
#38
Naphthalene
Concen: 4.78 ppm
RT: 5.545 min Scan# 685
Delta R.T. -0.016 min
Lab File: 6p473039.D
Acq: 17 May 2018 3:07 pm

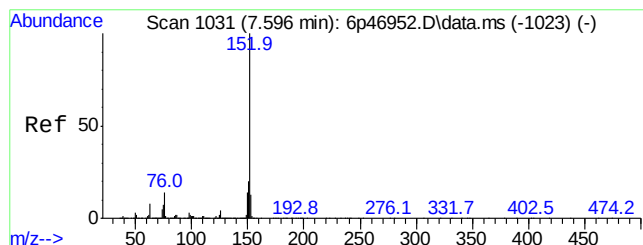
Tgt Ion	Ratio	Resp	Lower	Upper
128	100	262826		
129	10.9	0.0	41.1	
127	13.2	0.0	43.2	



#44
2-Methylnaphthalene
Concen: 2.65 ppm
RT: 6.182 min Scan# 804
Delta R.T. -0.013 min
Lab File: 6p473039.D
Acq: 17 May 2018 3:07 pm

Tgt Ion	Ratio	Resp	Lower	Upper
141	100	85290		
142	100.8	91.8	151.8	
115	39.4	8.6	68.6	





#56

Acenaphthylene

Concen: 6.66 ppm

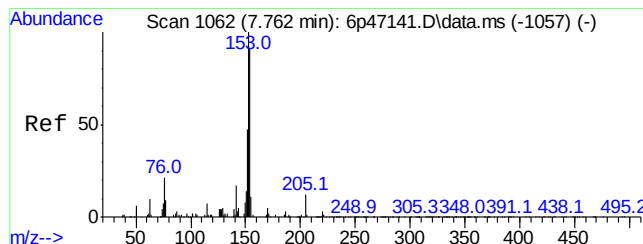
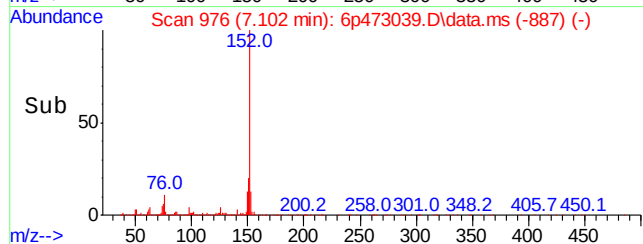
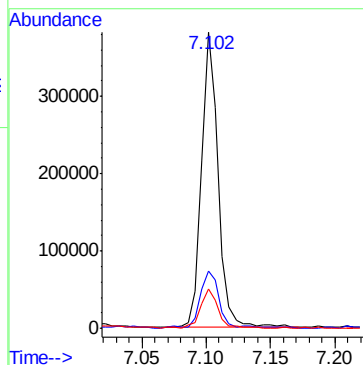
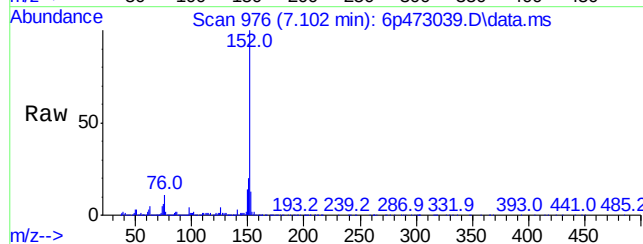
RT: 7.102 min Scan# 976

Delta R.T. -0.023 min

Lab File: 6p473039.D

Acq: 17 May 2018 3:07 pm

Tgt	Ion:152	Resp:	350347
Ion	Ratio	Lower	Upper
152	100		
151	19.3	0.0	50.2
153	12.8	0.0	44.8



#59

Acenaphthene

Concen: 3.12 ppm

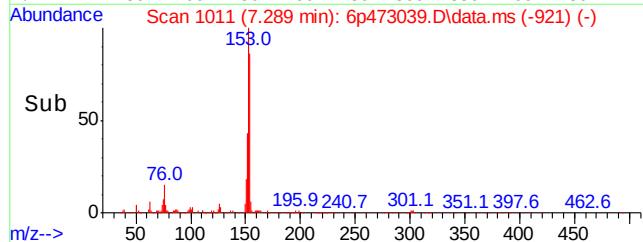
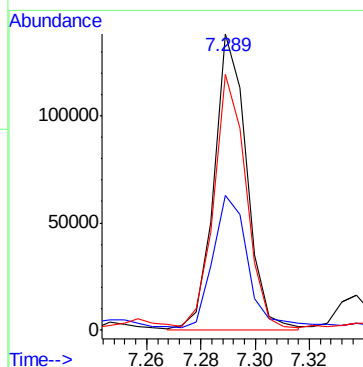
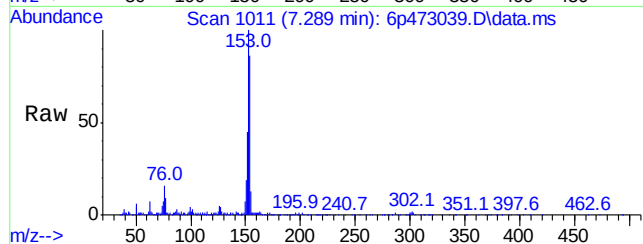
RT: 7.289 min Scan# 1011

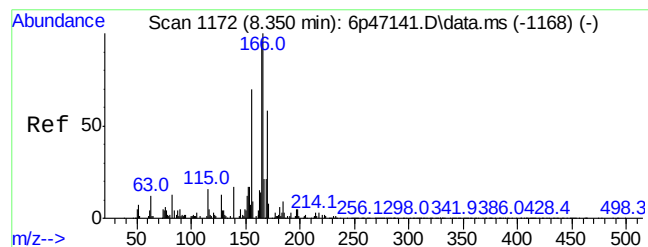
Delta R.T. -0.021 min

Lab File: 6p473039.D

Acq: 17 May 2018 3:07 pm

Tgt	Ion:153	Resp:	114424
Ion	Ratio	Lower	Upper
153	100		
152	43.8	13.9	73.9
154	85.5	59.3	119.3





#66

Fluorene

Concen: 4.88 ppm

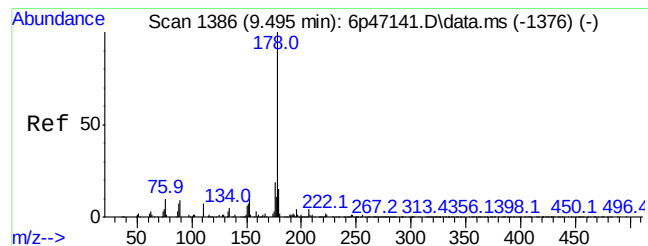
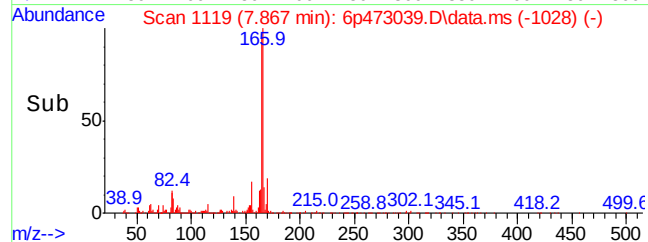
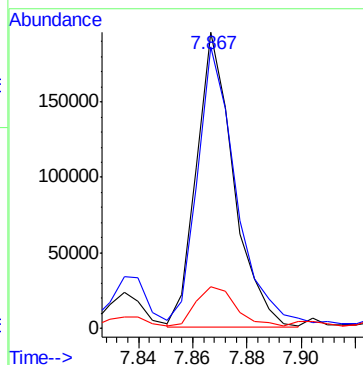
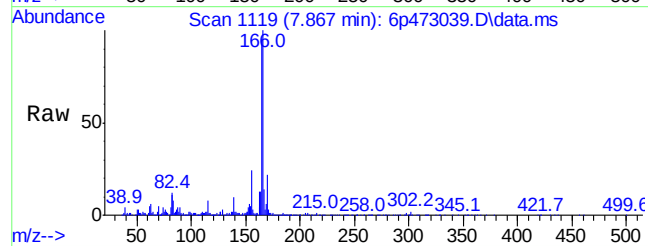
RT: 7.867 min Scan# 1119

Delta R.T. -0.014 min

Lab File: 6p473039.D

Acq: 17 May 2018 3:07 pm

Tgt Ion	Ratio	Lower	Upper
166	100		
165	93.5	59.3	119.3
167	12.8	0.0	43.1



#77

Phenanthrene

Concen: 33.81 ppm

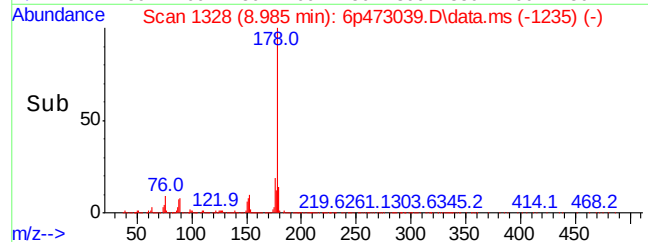
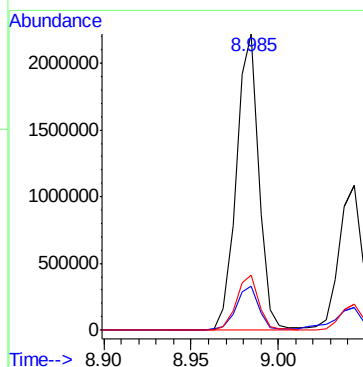
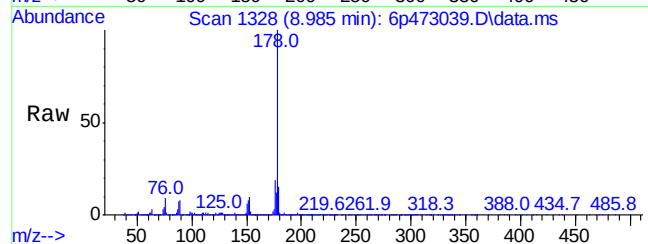
RT: 8.985 min Scan# 1328

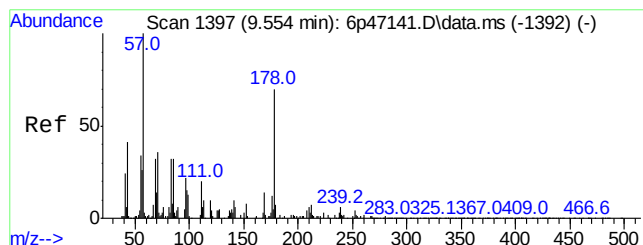
Delta R.T. -0.005 min

Lab File: 6p473039.D

Acq: 17 May 2018 3:07 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	14.5	0.0	46.6
176	18.6	0.0	49.6





#78

Anthracene

Concen: 17.26 ppm

RT: 9.043 min Scan# 1339

Delta R.T. -0.010 min

Lab File: 6p473039.D

Acq: 17 May 2018 3:07 pm

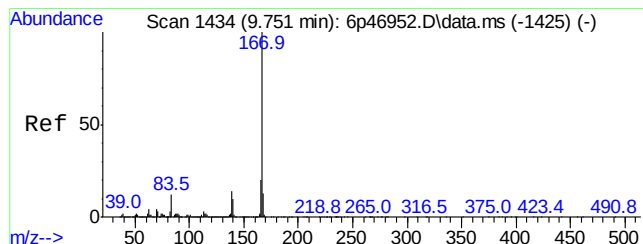
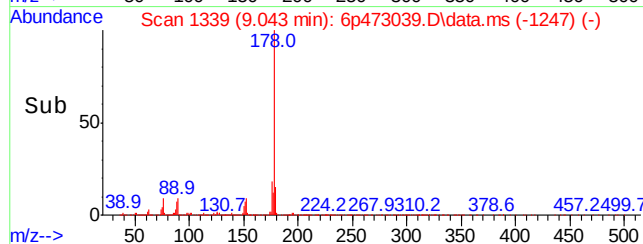
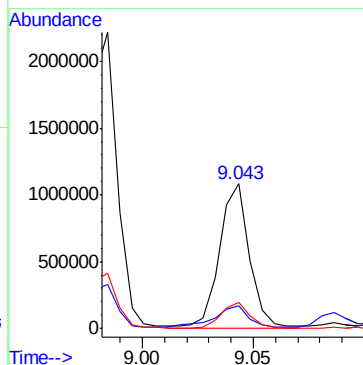
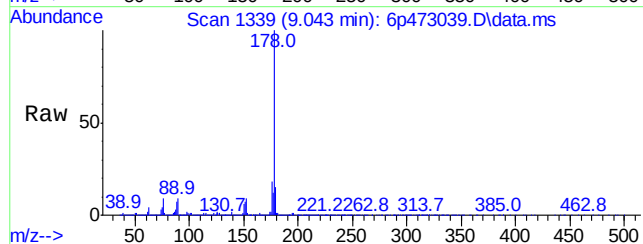
Tgt Ion:178 Resp: 1025539

Ion Ratio Lower Upper

178 100

179 14.7 0.0 45.3

176 18.1 0.0 48.4



#79

Carbazole

Concen: 4.70 ppm

RT: 9.247 min Scan# 1377

Delta R.T. -0.008 min

Lab File: 6p473039.D

Acq: 17 May 2018 3:07 pm

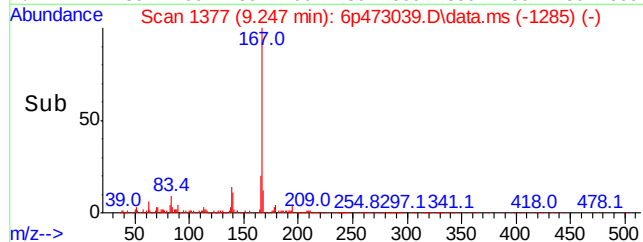
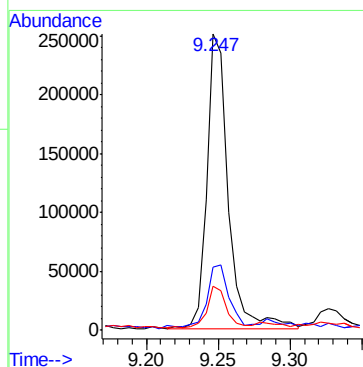
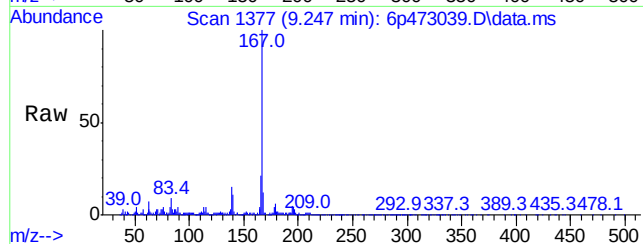
Tgt Ion:167 Resp: 259737

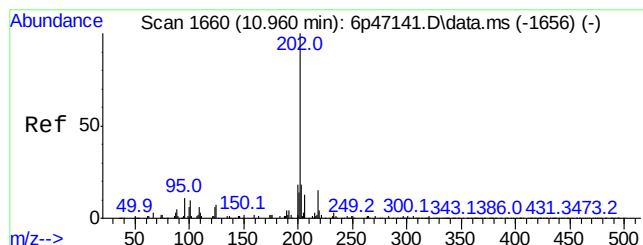
Ion Ratio Lower Upper

167 100

166 19.7 0.0 50.0

139 13.7 0.0 42.3





#81

Fluoranthene

Concen: 69.72 ppm

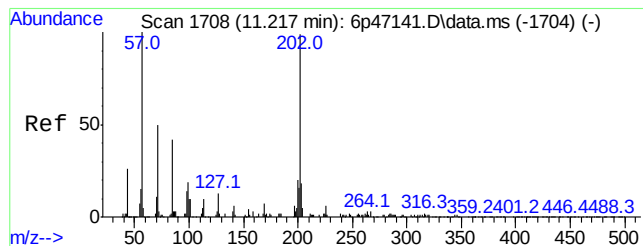
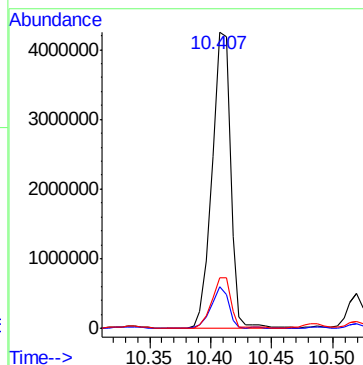
RT: 10.407 min Scan# 1594

Delta R.T. 0.010 min

Lab File: 6p473039.D

Acq: 17 May 2018 3:07 pm

Tgt	Ion:202	Resp: 4437884
Ion	Ratio	Lower Upper
202	100	
101	14.0	0.0 40.9
203	17.0	0.0 47.4



#84

Pyrene

Concen: 64.21 ppm

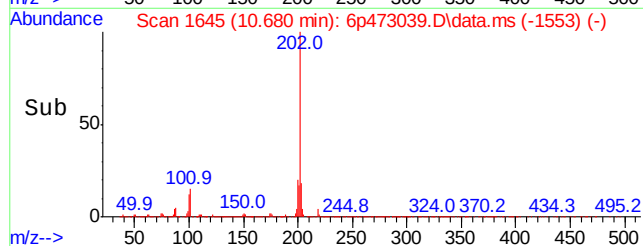
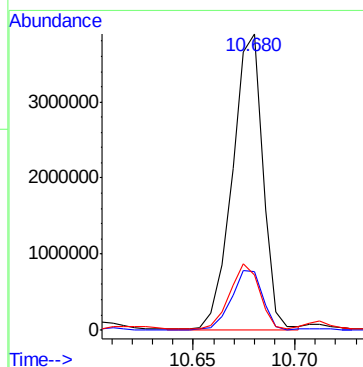
RT: 10.680 min Scan# 1645

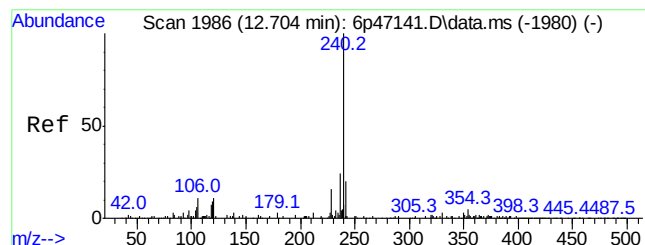
Delta R.T. -0.007 min

Lab File: 6p473039.D

Acq: 17 May 2018 3:07 pm

Tgt	Ion:202	Resp: 4058217
Ion	Ratio	Lower Upper
202	100	
200	19.8	0.0 50.7
203	17.9	0.0 47.9





#87

Benzo[a]anthracene

Concen: 65.48 ppm

RT: 12.135 min Scan# 1917

Delta R.T. 0.010 min

Lab File: 6p473039.D

Acq: 17 May 2018 3:07 pm

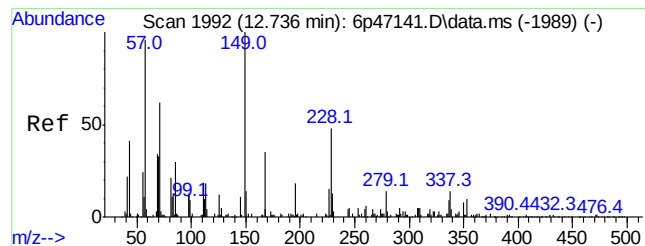
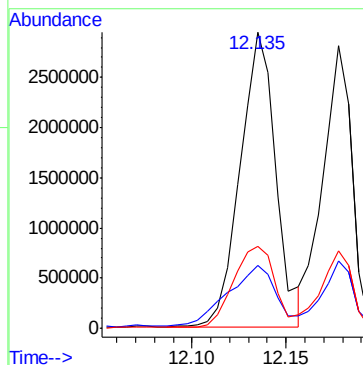
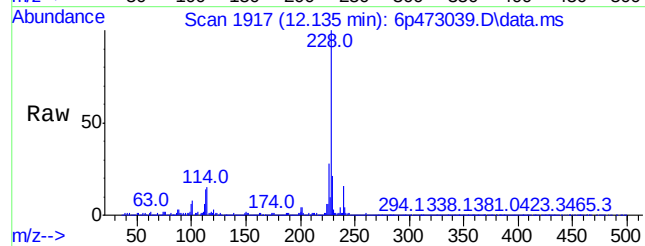
Tgt Ion:228 Resp: 3880231

Ion Ratio Lower Upper

228 100

229 20.2 0.0 49.8

226 27.3 0.0 56.0



#89

Chrysene

Concen: 52.29 ppm

RT: 12.178 min Scan# 1925

Delta R.T. 0.005 min

Lab File: 6p473039.D

Acq: 17 May 2018 3:07 pm

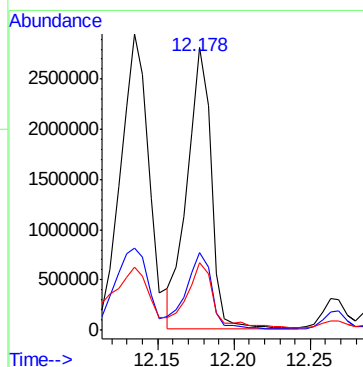
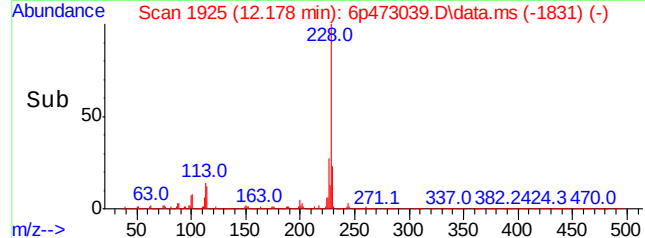
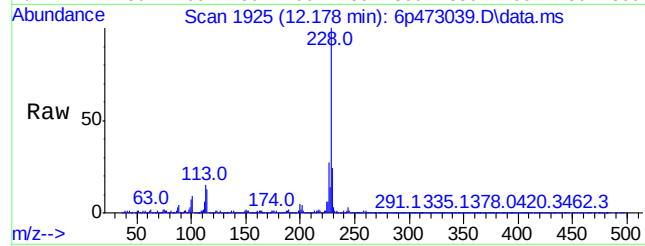
Tgt Ion:228 Resp: 3063925

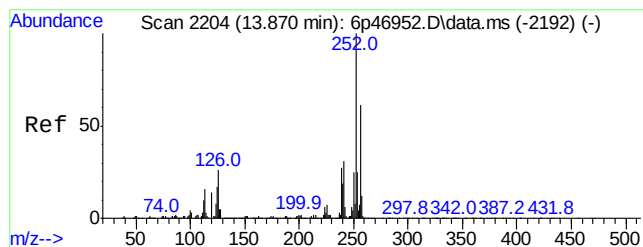
Ion Ratio Lower Upper

228 100

226 26.8 0.0 59.5

229 22.9 0.0 49.6





#93

Benzo[b]fluoranthene

Concen: 73.98 ppm m

RT: 13.370 min Scan# 2148

Delta R.T. 0.013 min

Lab File: 6p473039.D

Acq: 17 May 2018 3:07 pm

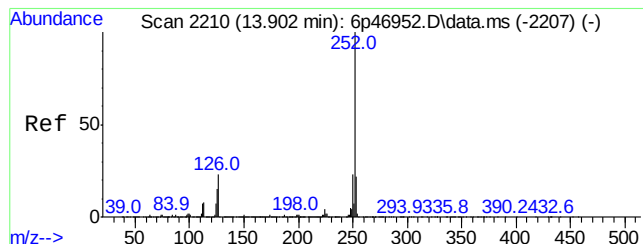
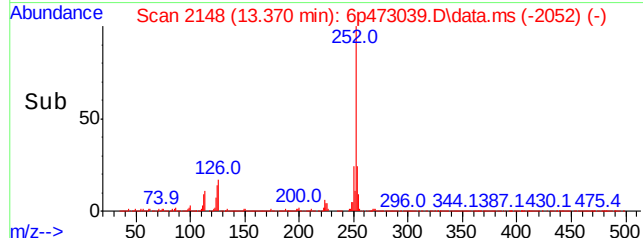
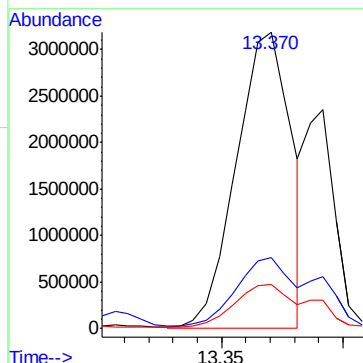
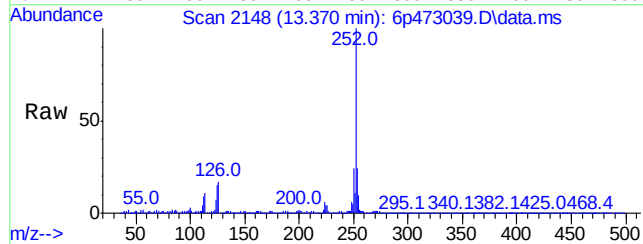
Tgt Ion: 252 Resp: 5002264

Ion Ratio Lower Upper

252 100

253 23.8 0.0 55.4

125 14.7 0.0 40.0



#94

Benzo[k]fluoranthene

Concen: 30.84 ppm m

RT: 13.392 min Scan# 2152

Delta R.T. 0.008 min

Lab File: 6p473039.D

Acq: 17 May 2018 3:07 pm

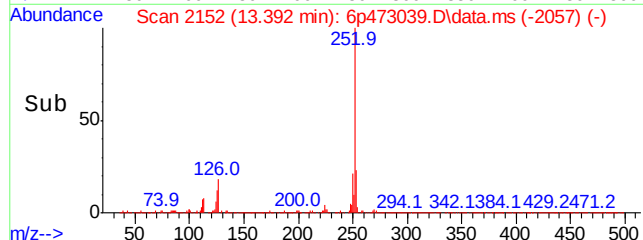
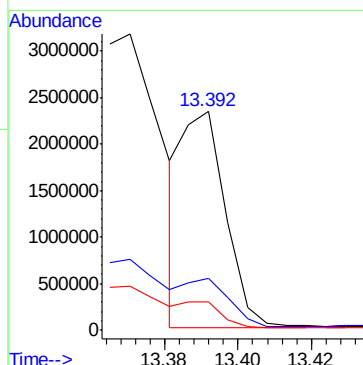
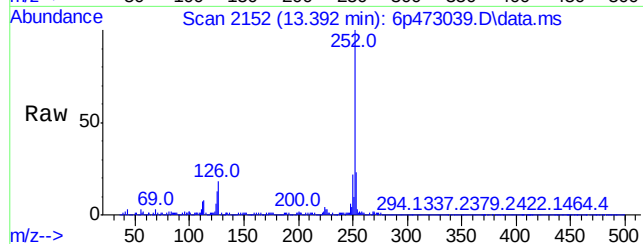
Tgt Ion: 252 Resp: 1906249

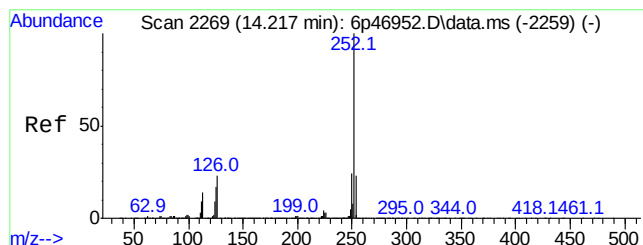
Ion Ratio Lower Upper

252 100

253 23.5 0.0 51.8

125 12.8 0.0 38.7





#95

Benzo[a]pyrene

Concen: 75.50 ppm

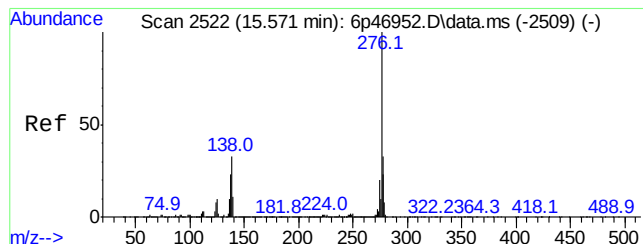
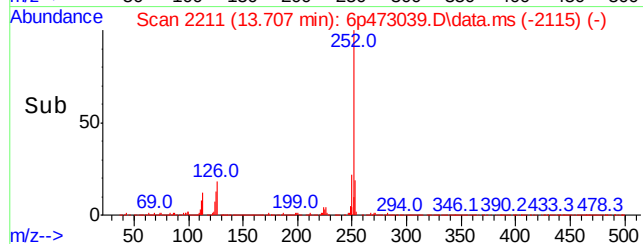
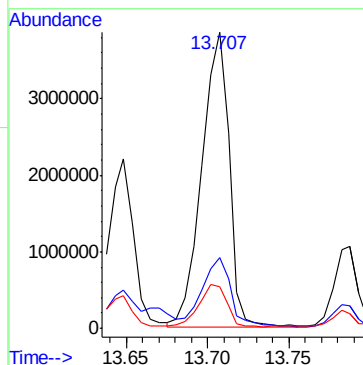
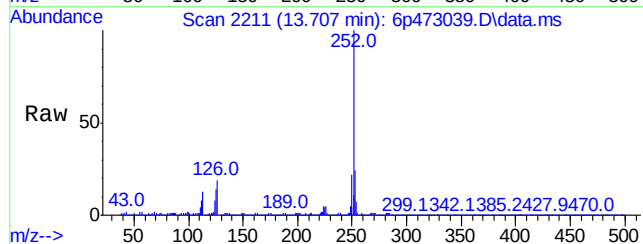
RT: 13.707 min Scan# 2211

Delta R.T. 0.015 min

Lab File: 6p473039.D

Acq: 17 May 2018 3:07 pm

Tgt	Ion:252	Resp: 4521361	
Ion	Ratio	Lower	Upper
252	100		
253	21.5	0.0	52.5
125	13.4	0.0	40.0



#96

Indeno[1,2,3-cd]pyrene

Concen: 37.77 ppm

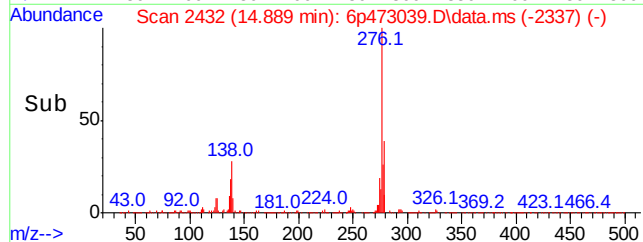
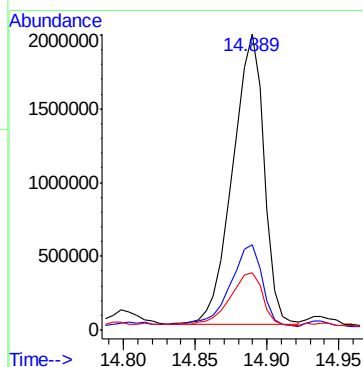
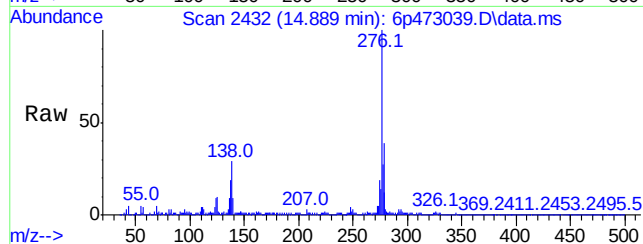
RT: 14.889 min Scan# 2432

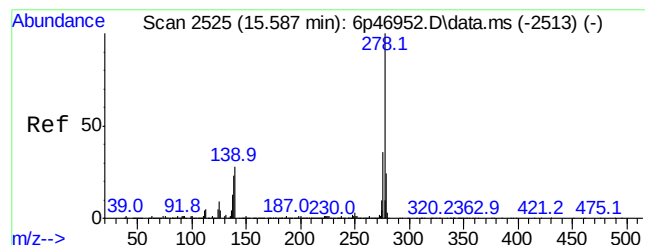
Delta R.T. 0.008 min

Lab File: 6p473039.D

Acq: 17 May 2018 3:07 pm

Tgt	Ion:276	Resp: 2977678	
Ion	Ratio	Lower	Upper
276	100		
138	27.9	0.0	48.9
137	18.1	0.0	43.2





#98

Dibenz[a,h]anthracene

Concen: 15.41 ppm

RT: 14.889 min Scan# 2432

Delta R.T. -0.013 min

Lab File: 6p473039.D

Acq: 17 May 2018 3:07 pm

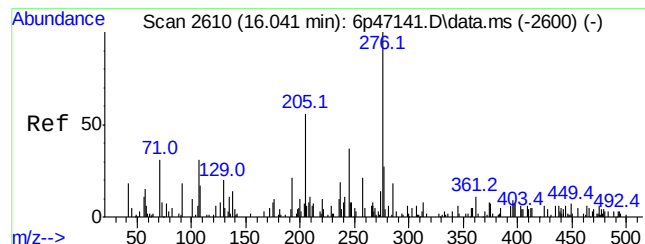
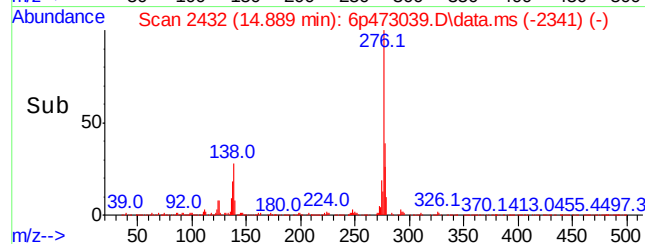
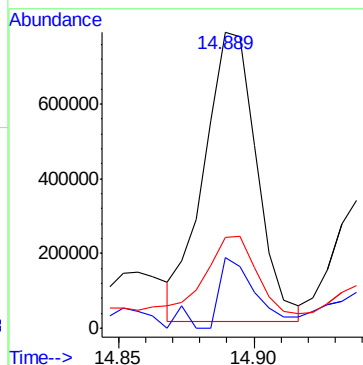
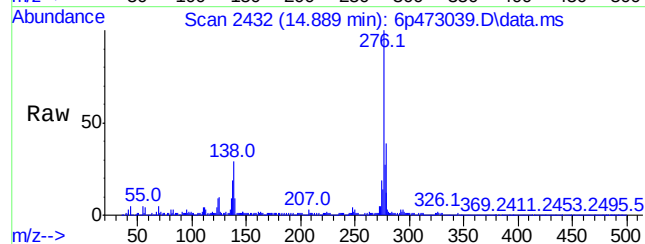
Tgt Ion: 278 Resp: 1047250

Ion Ratio Lower Upper

278 100

139 24.8 0.0 45.9

279 27.9 0.0 54.3



#100

Benzo[g,h,i]perylene

Concen: 39.69 ppm

RT: 15.205 min Scan# 2491

Delta R.T. 0.005 min

Lab File: 6p473039.D

Acq: 17 May 2018 3:07 pm

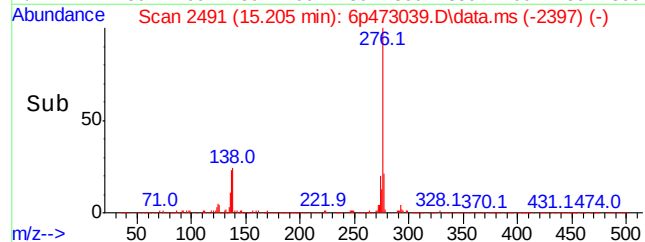
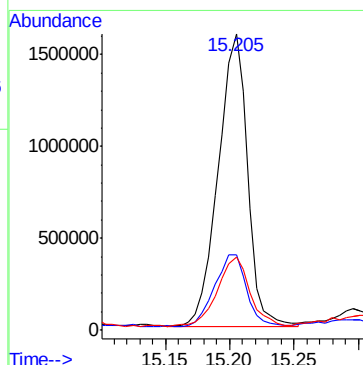
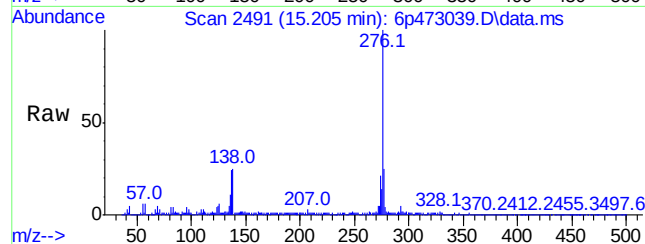
Tgt Ion: 276 Resp: 2505579

Ion Ratio Lower Upper

276 100

138 24.2 0.0 49.9

277 23.4 0.0 53.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\6p2211\
 Data File : 6p473002.d
 Acq On : 16 May 2018 2:06 pm
 Operator : christc2
 Sample : op12038-mb Inst : MS6P
 Misc : op12038,e6p2211,30.0,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M
 Quant Results File: M6P2164.RES
 Quant Time: May 17 00:43:19 2018
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018
 QLast Update : Wed May 16 22:45:08 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.508	152	583854	40.00	ppm	0.00
24) Naphthalene-d8	5.524	136	2283345	40.00	ppm	0.00
47) Acenaphthene-d10	7.251	164	1108216	40.00	ppm	0.00
69) Phenanthrene-d10	8.942	188	1894813	40.00	ppm	0.00
83) Chrysene-d12	12.113	240	1601318	40.00	ppm	0.00
91) Perylene-d12	13.718	264	1589117	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.508	152	583854	40.00	ppm	0.00
103) Acenaphthene-d10a	7.251	164	1108216	40.00	ppm	0.00
105) Phenanthrene-d10a	8.942	188	1894813	40.00	ppm	0.00
109) Chrysene-d12a	12.113	240	1601318	40.00	ppm	0.00
111) Naphthalene-d8a	5.524	136	2283345	40.00	ppm	0.00
113) Phenanthrene-d10b	8.942	188	1894813	40.00	ppm	0.00
115) Chrysene-d12b	12.113	240	1601318	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.545	112	819300	38.50	ppm	-0.03
Spiked Amount 50.000			Recovery	=	77.00%	
8) Phenol-d5	4.267	99	1050844	38.77	ppm	-0.02
Spiked Amount 50.000			Recovery	=	77.54%	
25) Nitrobenzene-d5	4.935	82	996121	40.18	ppm	0.00
Spiked Amount 50.000			Recovery	=	80.36%	
51) 2-Fluorobiphenyl	6.545	172	1865704	43.64	ppm	0.00
Spiked Amount 50.000			Recovery	=	87.28%	
73) 2,4,6-Tribromophenol	8.139	330	254016	35.64	ppm	0.00
Spiked Amount 50.000			Recovery	=	71.28%	
85) Terphenyl-d14	10.872	244	1842116	48.15	ppm	-0.01
Spiked Amount 50.000			Recovery	=	96.30%	
106) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
107) o-terphenyl	0.000	230	0	0.00	ppm	

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\ep2211\
Data File : 6p473002.d
Acq On : 16 May 2018 2:06 pm
Operator : christc2
Sample : op12038-mb
Misc : op12038, ep2211, 30.0, , 1, 1
ALS Vial : 7 Sample Multiplier: 1

Inst : MS6P

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

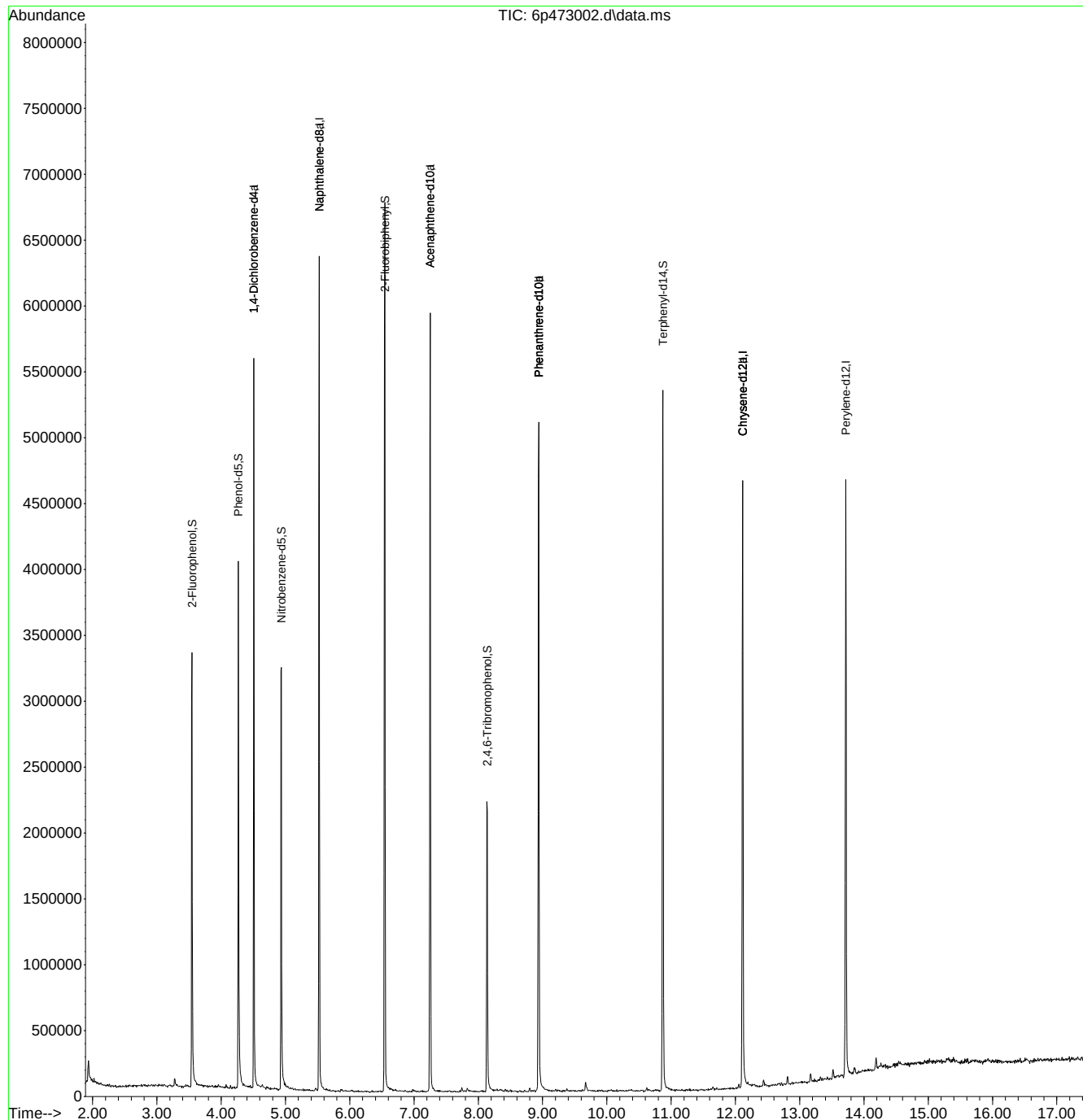
Quant Results File: M6P2164.RES

Quant Time: May 17 00:43:19 2018

Quant Title : Semi Volatile GC/MS, zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018

QLast Update : Wed May 16 22:45:08 2018

Response via : Initial Calibration



General Chemistry

QC Data Summaries



Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Job Number: JC66181
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: JC66181-1		Analyzed: 17-MAY-18 by LV		Method: SM2540 G-97
ClientID: SB-103(7-9)				
Wet Weight (Total)	33.28	g		
Tare Weight	27.97	g		
Dry Weight (Total)	31.89	g		
Solids, Percent	73.8	%		
Sample: JC66181-2		Analyzed: 17-MAY-18 by LV		Method: SM2540 G-97
ClientID: SB-106(5-7)				
Wet Weight (Total)	29.48	g		
Tare Weight	23.61	g		
Dry Weight (Total)	28.43	g		
Solids, Percent	82.1	%		
Sample: JC66181-3		Analyzed: 17-MAY-18 by LV		Method: SM2540 G-97
ClientID: SB-107(5-7)				
Wet Weight (Total)	25.58	g		
Tare Weight	20.1	g		
Dry Weight (Total)	24.78	g		
Solids, Percent	85.4	%		

8.1
8

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Arcadis

NYSEG - Lyons MGP Site, Lyons NY

B0013143.0000

SGS Job Number: JC66318

Sampling Date: 05/16/18

Report to:

Arcadis
295 Woodcliff Drive Suite 301
Fairport, NY 14450
matt.hysell@arcadis.com; Nicholas.Beyrle@arcadis.com

ATTN: Matthew Hysell

Total number of pages in report: **574**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy F. Cole

Nancy Cole
Laboratory Director

Client Service contact: Diane Komar 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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15.6: Percent Solids Raw Data Summary 574



Sample Summary

Arcadis

Job No: JC66318

NYSEG - Lyons MGP Site, Lyons NY

Project No: B0013143.0000

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JC66318-1	05/16/18	13:00	RDL	05/17/18	SO Soil	WC-6
JC66318-1A	05/16/18	13:00	RDL	05/17/18	SO Soil	WC-6

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

2

Client: Arcadis

Job No JC66318

Site: NYSEG - Lyons MGP Site, Lyons NY

Report Date 5/29/2018 4:11:25 PM

On 05/17/2018, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC66318 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Please refer to certification exceptions summary for additional certification information.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: LEACHATE

Batch ID: VA9217

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66318-1ALS, JC66318-1AMS, JC66318-1AMSD were used as the QC samples indicated.
- JC66318-1A for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.

Matrix: SO

Batch ID: VY7784

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66236-4DUP, JC66236-5MS were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Methyl Acetate are outside control limits. Outside control limits due to matrix interference.
- JC66318-1 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC66318-1 for Chloromethane: Associated CCV outside of control limits high, sample was ND.
- JC66318-1 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JC66318-1 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC66318-1 for Acetone: Associated CCV outside of control limits low.
- JC66318-1 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.

Tuesday, May 29, 2018

Page 1 of 5

MS Semi-volatiles By Method SW846 8270D

Matrix: LEACHATE

Batch ID: OP12241

- All samples were extracted within the recommended method holding time.
- Sample(s) JC66426-1LS, JC66426-1MS, JC66426-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for MSD for 1,4-Dichlorobenzene, 2-Methylphenol are outside of in house control limits for sample OP12241-MSD.

Matrix: SO

Batch ID: OP12130

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66368-2MS, JC66368-2MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for 2-Methylnaphthalene, Benzaldehyde are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for Benzaldehyde are outside control limits. Outside control limits due to matrix interference.
- JC66318-1 for Atrazine: Associated CCV outside of control limits high, sample was ND.

GC Volatiles By Method SW846 8015C

Matrix: SO

Batch ID: GLM3860

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66368-5MSD, JC66368-5MS were used as the QC samples indicated.
- Matrix Spike Recovery(s) for TPH-GRO (C6-C10) are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for TPH-GRO (C6-C10) are outside control limits. Outside control limits due to matrix interference.

GC/LC Semi-volatiles By Method SW846 8015C

Matrix: SO

Batch ID: OP12128

- All samples were extracted within the recommended method holding time.
- Sample(s) JC66362-1MSD, JC66362-1MS were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for TPH-DRO (C10-C28) are outside control limits. Outside control limits due to high level in sample relative to spike amount.

GC/LC Semi-volatiles By Method SW846 8081B

Matrix: LEACHATE

Batch ID: OP12234

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66318-1ALS, JC66318-1AMS, JC66318-1AMSD were used as the QC samples indicated.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO

Batch ID: OP12110

- All samples were extracted within the recommended method holding time.
- Sample(s) JC66309-7MS, JC66309-7MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC66318-1 for Decachlorobiphenyl: Outside control limits due to matrix interference.

Tuesday, May 29, 2018

Page 2 of 5

GC/LC Semi-volatiles By Method SW846 8151A

Matrix: LEACHATE

Batch ID: OP12300

- All samples were extracted within the recommended method holding time.
- Sample(s) JC66237-1LS, JC66237-1MS, JC66237-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Metals Analysis By Method SW846 6010C

Matrix: LEACHATE

Batch ID: MP7268

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66318-1AMS, JC66318-1AMSD, JC66318-1ASDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Cadmium, Lead are outside control limits for sample MP7268-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Samples(s) JC66318-1A: New York does not offer 3010A certification for antimony and silver. The laboratory is certified for method 3010A (Acid Digestion for Total Metals) for all other metals and is certified for the associated analytical methods of 6010C (ICP Analysis) and 6020A (ICP-MS Analysis). New York does certify for method 3005A (Acid Digestion for Total Recoverable or Dissolved Metals) for antimony and silver and the laboratory holds that certification, but that provides total recoverable rather than total metals results.

Matrix: SO

Batch ID: MP7220

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66030-33MS, JC66030-33MSD, JC66030-33SDL were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Aluminum, Antimony are outside control limits. Spike recovery indicates possible matrix interference.
- Matrix Spike Duplicate Recovery(s) for Antimony, Potassium are outside control limits. Spike recovery indicates possible matrix interference.
- RPD(s) for Serial Dilution for Cobalt, Copper, Lead, Selenium, Sodium are outside control limits for sample MP7220-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP7220-SD1 for Zinc: Serial dilution indicates possible matrix interference.
- MP7220-SD1 for Iron: Serial dilution indicates possible matrix interference.
- MP7220-SD1 for Calcium: Serial dilution indicates possible matrix interference.
- MP7220-SD1 for Barium: Serial dilution indicates possible matrix interference.

Metals Analysis By Method SW846 7470A

Matrix: LEACHATE

Batch ID: MP7266

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66318-1AMS, JC66318-1AMSD were used as the QC samples for metals.

Metals Analysis By Method SW846 7471B

Matrix: SO

Batch ID: MP7226

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66322-4MS, JC66322-4MSD were used as the QC samples for metals.

General Chemistry By Method ASTM D129-95

Matrix: SO	Batch ID: GP13154
-------------------	--------------------------

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64996-7DUP were used as the QC samples for Percent Sulfur.

General Chemistry By Method ASTM D240-92

Matrix: SO	Batch ID: GP13163
-------------------	--------------------------

- Sample(s) JC64996-7DUP were used as the QC samples for Heat Content, BTU.

General Chemistry By Method SM2540 G-97

Matrix: SO	Batch ID: GN80251
-------------------	--------------------------

- The data for SM2540 G-97 meets quality control requirements.

General Chemistry By Method SW846 1010A/ASTM D93

Matrix: SO	Batch ID: GN80318
-------------------	--------------------------

- Sample(s) JC66426-1DUP were used as the QC samples for Ignitability (Flashpoint).

General Chemistry By Method SW846 9012B/LACHAT

Matrix: SO	Batch ID: GP13150
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- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA5367-3DUP, DA5367-3MS were used as the QC samples for Cyanide.
- Matrix Spike Recovery(s) for Cyanide are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- RPD(s) for Duplicate for Cyanide are outside control limits for sample GP13150-D1. High RPD due to possible sample nonhomogeneity.

General Chemistry By Method SW846 9045D

Matrix: SO	Batch ID: GN80332
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- Sample(s) JC66333-1DUP were used as the QC samples for Corrosivity as pH.

General Chemistry By Method SW846 CHAP7/9012 B

Matrix: SO	Batch ID: GP13164
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- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65281-110DUP were used as the QC samples for Cyanide Reactivity.

General Chemistry By Method SW846 CHAP7/9034

Matrix: SO	Batch ID: GP13165
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- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65281-110DUP, JC65281-110MS were used as the QC samples for Sulfide Reactivity.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC66318
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/16/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC66318-1	WC-6					
Acetone ^a		8.5 J	9.7	6.2	ug/kg	SW846 8260C
2,4-Dimethylphenol		103 J	170	62	ug/kg	SW846 8270D
2-Methylphenol		39.9 J	69	22	ug/kg	SW846 8270D
3&4-Methylphenol		122	69	28	ug/kg	SW846 8270D
Phenol		77.6	69	18	ug/kg	SW846 8270D
Acenaphthene		412	35	12	ug/kg	SW846 8270D
Acenaphthylene		513	35	18	ug/kg	SW846 8270D
Anthracene		1280	35	21	ug/kg	SW846 8270D
Benzo(a)anthracene		5410	170	49	ug/kg	SW846 8270D
Benzo(a)pyrene		6830	170	79	ug/kg	SW846 8270D
Benzo(b)fluoranthene		7760	170	77	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		4970	170	87	ug/kg	SW846 8270D
Benzo(k)fluoranthene		2270	35	16	ug/kg	SW846 8270D
1,1'-Biphenyl		43.6 J	69	4.7	ug/kg	SW846 8270D
Carbazole		481	69	5.0	ug/kg	SW846 8270D
Chrysene		4780	170	55	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		1250	35	15	ug/kg	SW846 8270D
Dibenzofuran		292	69	14	ug/kg	SW846 8270D
Fluoranthene		6120	170	77	ug/kg	SW846 8270D
Fluorene		339	35	16	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		5400	170	81	ug/kg	SW846 8270D
2-Methylnaphthalene		196	35	7.8	ug/kg	SW846 8270D
Naphthalene		356	35	9.8	ug/kg	SW846 8270D
Phenanthrene		2900	35	12	ug/kg	SW846 8270D
Pyrene		6060	170	55	ug/kg	SW846 8270D
TPH-DRO (C10-C28)		211	10	2.5	mg/kg	SW846 8015C
Aluminum		6060	54		mg/kg	SW846 6010C
Arsenic		8.7	2.2		mg/kg	SW846 6010C
Barium		63.0	22		mg/kg	SW846 6010C
Beryllium		0.34	0.22		mg/kg	SW846 6010C
Calcium		86400	1600		mg/kg	SW846 6010C
Chromium		8.4	1.1		mg/kg	SW846 6010C
Cobalt		5.6	5.4		mg/kg	SW846 6010C
Copper		42.7	2.7		mg/kg	SW846 6010C
Iron		11800	54		mg/kg	SW846 6010C
Lead		124	2.2		mg/kg	SW846 6010C
Magnesium		19700	540		mg/kg	SW846 6010C
Manganese		502	1.6		mg/kg	SW846 6010C
Mercury		2.3	0.17		mg/kg	SW846 7471B
Nickel		12.9	4.4		mg/kg	SW846 6010C
Potassium		1600	1100		mg/kg	SW846 6010C
Vanadium		14.2	5.4		mg/kg	SW846 6010C
Zinc		132	5.4		mg/kg	SW846 6010C

Summary of Hits

Job Number: JC66318
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/16/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Cyanide		1.1	0.19		mg/kg	SW846 9012B/LACHAT
Heat Content, BTU		1330	100		BTU/lb	ASTM D240-92
JC66318-1A WC-6						
Corrosivity as pH		8.68 NC			su	SW846 9045D
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010A/ASTM D93

(a) Associated CCV outside of control limits low.



Dayton, NJ

Section 4

4

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Page 1 of 2

Client Sample ID:	WC-6	Date Sampled:	05/16/18
Lab Sample ID:	JC66318-1	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	91.9
Method:	SW846 8260C		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y179961.D	1	05/18/18 19:39	PS	n/a	n/a	VY7784
Run #2							

Run #	Initial Weight
Run #1	5.6 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone ^a	8.5	9.7	6.2	ug/kg	J
71-43-2	Benzene	ND	0.49	0.10	ug/kg	
74-97-5	Bromochloromethane	ND	4.9	0.42	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	0.24	ug/kg	
75-25-2	Bromoform	ND	4.9	0.30	ug/kg	
74-83-9	Bromomethane	ND	4.9	0.68	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.7	5.1	ug/kg	
75-15-0	Carbon disulfide	ND	1.9	0.59	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	0.63	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	0.28	ug/kg	
75-00-3	Chloroethane ^b	ND	4.9	0.88	ug/kg	
67-66-3	Chloroform	ND	1.9	0.31	ug/kg	
74-87-3	Chloromethane ^b	ND	4.9	0.96	ug/kg	
110-82-7	Cyclohexane	ND	1.9	0.33	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.9	0.65	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	0.37	ug/kg	
106-93-4	1,2-Dibromoethane	ND	0.97	0.24	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.97	0.50	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.97	0.28	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.97	0.47	ug/kg	
75-71-8	Dichlorodifluoromethane ^b	ND	4.9	0.59	ug/kg	
75-34-3	1,1-Dichloroethane	ND	0.97	0.25	ug/kg	
107-06-2	1,2-Dichloroethane	ND	0.97	0.17	ug/kg	
75-35-4	1,1-Dichloroethene	ND	0.97	0.69	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	0.97	0.39	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.97	0.57	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	0.39	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	0.37	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.23	ug/kg	
100-41-4	Ethylbenzene	ND	0.97	0.28	ug/kg	
76-13-1	Freon 113	ND	4.9	0.65	ug/kg	
591-78-6	2-Hexanone	ND	4.9	2.7	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-6	Date Sampled:	05/16/18
Lab Sample ID:	JC66318-1	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	91.9
Method:	SW846 8260C		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.9	0.24	ug/kg	
79-20-9	Methyl Acetate	ND	4.9	2.5	ug/kg	
108-87-2	Methylcyclohexane	ND	1.9	0.53	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.97	0.42	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	4.9	1.7	ug/kg	
75-09-2	Methylene chloride	ND	4.9	2.4	ug/kg	
100-42-5	Styrene	ND	1.9	0.48	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	0.25	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	0.62	ug/kg	
108-88-3	Toluene	ND	0.97	0.53	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.9	0.97	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.9	0.97	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.9	0.56	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.41	ug/kg	
79-01-6	Trichloroethene	ND	0.97	0.53	ug/kg	
75-69-4	Trichlorofluoromethane ^b	ND	4.9	0.47	ug/kg	
75-01-4	Vinyl chloride ^b	ND	1.9	0.74	ug/kg	
	m,p-Xylene	ND	0.97	0.53	ug/kg	
95-47-6	o-Xylene	ND	0.97	0.24	ug/kg	
1330-20-7	Xylene (total)	ND	0.97	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		75-127%
17060-07-0	1,2-Dichloroethane-D4	103%		75-130%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	126%		79-127%

(a) Associated CCV outside of control limits low.

(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 3

Client Sample ID:	WC-6	Date Sampled:	05/16/18
Lab Sample ID:	JC66318-1	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	91.9
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5P50486.D	1	05/22/18 07:54	SA	05/21/18 08:45	OP12130	E5P2408
Run #2	5P50532.D	5	05/23/18 14:29	CC	05/21/18 08:45	OP12130	E5P2410

	Initial Weight	Final Volume
Run #1	31.4 g	1.0 ml
Run #2	31.4 g	1.0 ml

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	69	17	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	21	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	30	ug/kg	
105-67-9	2,4-Dimethylphenol	103	170	62	ug/kg	J
51-28-5	2,4-Dinitrophenol	ND	170	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	37	ug/kg	
95-48-7	2-Methylphenol	39.9	69	22	ug/kg	J
	3&4-Methylphenol	122	69	28	ug/kg	
88-75-5	2-Nitrophenol	ND	170	23	ug/kg	
100-02-7	4-Nitrophenol	ND	350	93	ug/kg	
87-86-5	Pentachlorophenol	ND	140	33	ug/kg	
108-95-2	Phenol	77.6	69	18	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	170	23	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	26	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	21	ug/kg	
83-32-9	Acenaphthene	412	35	12	ug/kg	
208-96-8	Acenaphthylene	513	35	18	ug/kg	
98-86-2	Acetophenone	ND	170	7.5	ug/kg	
120-12-7	Anthracene	1280	35	21	ug/kg	
1912-24-9	Atrazine ^a	ND	69	15	ug/kg	
56-55-3	Benzo(a)anthracene	5410 ^b	170	49	ug/kg	
50-32-8	Benzo(a)pyrene	6830 ^b	170	79	ug/kg	
205-99-2	Benzo(b)fluoranthene	7760 ^b	170	77	ug/kg	
191-24-2	Benzo(g,h,i)perylene	4970 ^b	170	87	ug/kg	
207-08-9	Benzo(k)fluoranthene	2270	35	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	69	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	69	8.5	ug/kg	
92-52-4	1,1'-Biphenyl	43.6	69	4.7	ug/kg	J
100-52-7	Benzaldehyde	ND	170	8.6	ug/kg	
91-58-7	2-Chloronaphthalene	ND	69	8.2	ug/kg	
106-47-8	4-Chloroaniline	ND	170	12	ug/kg	
86-74-8	Carbazole	481	69	5.0	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-6	Date Sampled:	05/16/18
Lab Sample ID:	JC66318-1	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	91.9
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	69	14	ug/kg	
218-01-9	Chrysene	4780 ^b	170	55	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	69	7.4	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	69	15	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	69	12	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	69	11	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	35	11	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	35	17	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	69	29	ug/kg	
123-91-1	1,4-Dioxane	ND	35	23	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1250	35	15	ug/kg	
132-64-9	Dibenzofuran	292	69	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	69	5.6	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	69	8.6	ug/kg	
84-66-2	Diethyl phthalate	ND	69	7.4	ug/kg	
131-11-3	Dimethyl phthalate	ND	69	6.2	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	69	8.1	ug/kg	
206-44-0	Fluoranthene	6120 ^b	170	77	ug/kg	
86-73-7	Fluorene	339	35	16	ug/kg	
118-74-1	Hexachlorobenzene	ND	69	8.8	ug/kg	
87-68-3	Hexachlorobutadiene	ND	35	14	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	350	14	ug/kg	
67-72-1	Hexachloroethane	ND	170	17	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	5400 ^b	170	81	ug/kg	
78-59-1	Isophorone	ND	69	7.4	ug/kg	
91-57-6	2-Methylnaphthalene	196	35	7.8	ug/kg	
88-74-4	2-Nitroaniline	ND	170	8.2	ug/kg	
99-09-2	3-Nitroaniline	ND	170	8.7	ug/kg	
100-01-6	4-Nitroaniline	ND	170	9.0	ug/kg	
91-20-3	Naphthalene	356	35	9.8	ug/kg	
98-95-3	Nitrobenzene	ND	69	13	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	69	10	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	13	ug/kg	
85-01-8	Phenanthrene	2900	35	12	ug/kg	
129-00-0	Pyrene	6060 ^b	170	55	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	170	8.8	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	65%	67%	23-115%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-6	Date Sampled:	05/16/18
Lab Sample ID:	JC66318-1	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	91.9
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	67%	68%	27-114%
118-79-6	2,4,6-Tribromophenol	74%	76%	19-152%
4165-60-0	Nitrobenzene-d5	66%	67%	26-134%
321-60-8	2-Fluorobiphenyl	76%	76%	39-124%
1718-51-0	Terphenyl-d14	77%	78%	36-134%

- (a) Associated CCV outside of control limits high, sample was ND.
(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.1
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SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-6						
Lab Sample ID:	JC66318-1					Date Sampled:	05/16/18
Matrix:	SO - Soil					Date Received:	05/17/18
Method:	SW846 8015C					Percent Solids:	91.9
Project:	NYSEG - Lyons MGP Site, Lyons NY						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LM94907.D	1	05/21/18 10:33	KC	n/a	n/a	GLM3860
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.3 g	10.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	26	13	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	96%		70-116%

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-6							
Lab Sample ID:	JC66318-1					Date Sampled:	05/16/18	
Matrix:	SO - Soil					Date Received:	05/17/18	
Method:	SW846 8082A SW846 3546					Percent Solids:	91.9	
Project:	NYSEG - Lyons MGP Site, Lyons NY							

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G163872.D	1	05/20/18 10:12	EAL	05/19/18 05:00	OP12110	G2G4338
Run #2							

	Initial Weight	Final Volume
Run #1	15.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	35	14	ug/kg	
11104-28-2	Aroclor 1221	ND	35	14	ug/kg	
11141-16-5	Aroclor 1232	ND	35	9.5	ug/kg	
53469-21-9	Aroclor 1242	ND	35	5.6	ug/kg	
12672-29-6	Aroclor 1248	ND	35	21	ug/kg	
11097-69-1	Aroclor 1254	ND	35	8.7	ug/kg	
11096-82-5	Aroclor 1260	ND	35	11	ug/kg	
11100-14-4	Aroclor 1268	ND	35	5.3	ug/kg	
37324-23-5	Aroclor 1262	ND	35	2.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		24-152%
877-09-8	Tetrachloro-m-xylene	81%		24-152%
2051-24-3	Decachlorobiphenyl	251% ^a		10-166%
2051-24-3	Decachlorobiphenyl	328% ^a		10-166%

(a) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-6						
Lab Sample ID:	JC66318-1				Date Sampled:	05/16/18	
Matrix:	SO - Soil				Date Received:	05/17/18	
Method:	SW846 8015C SW846 3546				Percent Solids:	91.9	
Project:	NYSEG - Lyons MGP Site, Lyons NY						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZZ88969.D	1	05/21/18 16:31	RK	05/21/18 11:45	OP12128	GZZ3205
Run #2							

	Initial Weight	Final Volume
Run #1	10.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	211	10	2.5	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	59%		18-132%
16416-32-3	Tetracosane-d50	75%		25-137%
438-22-2	5a-Androstane	69%		22-134%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-6	Date Sampled:	05/16/18
Lab Sample ID:	JC66318-1	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	91.9
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method	
Aluminum	6060	54	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Antimony	< 2.2	2.2	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Arsenic	8.7	2.2	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	63.0	22	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Beryllium	0.34	0.22	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.54	0.54	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Calcium	86400	1600	mg/kg	3	05/18/18	05/22/18	EAL	SW846 6010C ³	SW846 3050B ⁴
Chromium	8.4	1.1	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Cobalt	5.6	5.4	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Copper	42.7	2.7	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Iron	11800	54	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	124	2.2	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Magnesium	19700	540	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Manganese	502	1.6	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	2.3	0.17	mg/kg	5	05/18/18	05/18/18	JA	SW846 7471B ¹	SW846 7471B ⁵
Nickel	12.9	4.4	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Potassium	1600	1100	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Selenium	< 2.2	2.2	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.54	0.54	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Sodium	< 1100	1100	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Thallium	< 1.1	1.1	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Vanadium	14.2	5.4	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴
Zinc	132	5.4	mg/kg	1	05/18/18	05/21/18	EAL	SW846 6010C ²	SW846 3050B ⁴

(1) Instrument QC Batch: MA44439

(2) Instrument QC Batch: MA44470

(3) Instrument QC Batch: MA44481

(4) Prep QC Batch: MP7220

(5) Prep QC Batch: MP7226

RL = Reporting Limit

Report of Analysis

Client Sample ID:	WC-6	Date Sampled:	05/16/18
Lab Sample ID:	JC66318-1	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	91.9
Project:	NYSEG - Lyons MGP Site, Lyons NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	1.1	0.19	mg/kg	1	05/18/18 12:27	BM	SW846 9012B/LACHAT
Heat Content, BTU	1330	100	BTU/lb	1	05/20/18	JOO	ASTM D240-92
Percent Sulfur	< 0.10	0.10	%	1	05/20/18	JOO	ASTM D129-95
Solids, Percent	91.9		%	1	05/21/18 10:01	RI	SM2540 G-97

RL = Reporting Limit

4.1
4

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-6		
Lab Sample ID:	JC66318-1A	Date Sampled:	05/16/18
Matrix:	SO - Soil	Date Received:	05/17/18
Method:	SW846 8260C SW846 1311	Percent Solids:	91.9
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A241802.D	5	05/21/18 22:07	JP	05/20/18 10:30	GP13188	VA9217
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.0025	0.00087	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.024	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0017	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0012	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0014	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.00087	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0010	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0024	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0025	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0013	mg/l	
75-01-4	Vinyl chloride ^a	ND	D043	0.20	0.0050	0.0031	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	96%		64-135%
2037-26-5	Toluene-D8	96%		76-117%
460-00-4	4-Bromofluorobenzene	94%		72-122%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-6		
Lab Sample ID:	JC66318-1A	Date Sampled:	05/16/18
Matrix:	SO - Soil	Date Received:	05/17/18
Method:	SW846 8270D SW846 3510C	Percent Solids:	91.9
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M104360.D	1	05/24/18 08:54	CS	05/23/18 20:10	OP12241	E2M4637
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	45%		14-88%
4165-62-2	Phenol-d5	30%		10-110%
118-79-6	2,4,6-Tribromophenol	66%		39-149%
4165-60-0	Nitrobenzene-d5	67%		32-128%
321-60-8	2-Fluorobiphenyl	66%		35-119%
1718-51-0	Terphenyl-d14	73%		10-126%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-6								
Lab Sample ID:	JC66318-1A							Date Sampled:	05/16/18
Matrix:	SO - Soil							Date Received:	05/17/18
Method:	SW846 8151A SW846 8151/3510C							Percent Solids:	91.9
Project:	NYSEG - Lyons MGP Site, Lyons NY								

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G116658.D	1	05/27/18 18:14	VDT	05/25/18 15:30	OP12300	G3G4054
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.5 ml
Run #2		

Herbicide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0042	0.0012	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0012	0.00025	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	73%		50-142%
19719-28-9	2,4-DCAA	63%		50-142%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	WC-6						
Lab Sample ID:	JC66318-1A					Date Sampled:	05/16/18
Matrix:	SO - Soil					Date Received:	05/17/18
Method:	SW846 8081B SW846 3510C					Percent Solids:	91.9
Project:	NYSEG - Lyons MGP Site, Lyons NY						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G56518.D	1	05/24/18 03:49	CP	05/23/18 18:10	OP12234	G6G1689
Run #2							

	Initial Volume	Final Volume
Run #1	30.0 ml	2.0 ml
Run #2		

Pesticide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.000067	0.000040	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0033	0.0014	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.000067	0.000040	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.000067	0.000030	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.000067	0.000040	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00013	0.000045	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0017	0.0011	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	66%		30-137%
877-09-8	Tetrachloro-m-xylene	74%		30-137%
2051-24-3	Decachlorobiphenyl	65%		10-137%
2051-24-3	Decachlorobiphenyl	78%		10-137%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-6	Date Sampled:	05/16/18
Lab Sample ID:	JC66318-1A	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	91.9
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	5	05/21/18	05/22/18 EAL	SW846 6010C ²	SW846 3010A ⁴
Barium	< 1.0	D005	100	1.0	mg/l	5	05/21/18	05/22/18 EAL	SW846 6010C ²	SW846 3010A ⁴
Cadmium	< 0.025	D006	1.0	0.025	mg/l	5	05/21/18	05/22/18 EAL	SW846 6010C ²	SW846 3010A ⁴
Chromium	< 0.050	D007	5.0	0.050	mg/l	5	05/21/18	05/22/18 EAL	SW846 6010C ²	SW846 3010A ⁴
Lead	< 0.50	D008	5.0	0.50	mg/l	5	05/21/18	05/22/18 EAL	SW846 6010C ²	SW846 3010A ⁴
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	05/21/18	05/21/18 DP	SW846 7470A ¹	SW846 7470A ³
Selenium	< 0.50	D010	1.0	0.50	mg/l	5	05/21/18	05/22/18 EAL	SW846 6010C ²	SW846 3010A ⁴
Silver	< 0.050	D011	5.0	0.050	mg/l	5	05/21/18	05/22/18 EAL	SW846 6010C ²	SW846 3010A ⁴

- (1) Instrument QC Batch: MA44455
- (2) Instrument QC Batch: MA44481
- (3) Prep QC Batch: MP7266
- (4) Prep QC Batch: MP7268

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

Report of Analysis

Client Sample ID:	WC-6	Date Sampled:	05/16/18
Lab Sample ID:	JC66318-1A	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	91.9
Project:	NYSEG - Lyons MGP Site, Lyons NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	8.68 NC		su	1	05/22/18 16:32	RI	SW846 9045D
Cyanide Reactivity	< 11	11	mg/kg	1	05/21/18 10:59	BM	SW846 CHAP7/9012 B
Ignitability (Flashpoint)	> 200		Deg. F	1	05/22/18 16:33	RI	SW846 1010A/ASTM D93
Sulfide Reactivity	< 110	110	mg/kg	1	05/21/18 13:44	MP	SW846 CHAP7/9034

RL = Reporting Limit

4.2
4

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

Parameter Certification Exceptions

Page 1 of 1

Job Number: JC66318

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Cyanide Reactivity		SW846 CHAP7/9012 B	SO	SGS is not certified for this parameter. ^a
Percent Sulfur		ASTM D129-95	SO	SGS is not certified for this parameter. ^b
Sulfide Reactivity		SW846 CHAP7/9034	SO	SGS is not certified for this parameter. ^a

(a) Reactivity analyzed following SW846 Chapter 7 is no longer recognized by regulatory agencies. Use of results should be verified through the program to which the data is being submitted.

(b) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

Certification exceptions shown are based on the New Jersey DEP certifications. Applicability in other states may vary. Please contact your laboratory representative if additional information is required for a specific regulatory program.

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

[illegible]

SGS Sample Receipt Summary

Job Number: JC66318

Client: ARCADIS

Project: NYSEG - LYONS MGP SITE, LYONS NY - LTDD

Date / Time Received: 5/17/2018 9:15:00 AM

Delivery Method:
Airbill #s:
Cooler Temps (Raw Measured) °C: Cooler 1: (2.2);

Cooler Temps (Corrected) °C: Cooler 1: (2.2);

Cooler Security
Y or N
Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | ☒ | ☐ | 3. COC Present: | ☒ | ☐ |
| 2. Custody Seals Intact: | ☒ | ☐ | 4. Smpl Dates/Time OK | ☒ | ☐ |

Cooler Temperature
Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | ☒ | ☐ |
| 2. Cooler temp verification: | IR Gun | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

Quality Control Preservation
Y or N
N/A

- | | | | |
|---------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | ☐ | ☒ | ☐ |
| 2. Trip Blank listed on COC: | ☐ | ☒ | ☐ |
| 3. Samples preserved properly: | ☒ | ☐ | |
| 4. VOCs headspace free: | ☐ | ☐ | ☒ |

Sample Integrity - Documentation
Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | ☒ | ☐ |
| 2. Container labeling complete: | ☒ | ☐ |
| 3. Sample container label / COC agree: | ☒ | ☐ |

Sample Integrity - Condition
Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | ☒ | ☐ |
| 2. All containers accounted for: | ☒ | ☐ |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions
Y or N
N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | ☒ | ☐ | |
| 2. Bottles received for unspecified tests | ☐ | ☒ | |
| 3. Sufficient volume recvd for analysis: | ☒ | ☐ | |
| 4. Compositing instructions clear: | ☐ | ☐ | ☒ |
| 5. Filtering instructions clear: | ☐ | ☐ | ☒ |

Test Strip Lot #s:	pH 1-12: 216017	pH 12+: 208717	Other: (Specify)
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Comments

SM089-03
Rev. Date 12/7/17

JC66318: Chain of Custody

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Internal Sample Tracking Chronicle

Arcadis

Job No: JC66318

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.0000

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC66318-1	Collected: 16-MAY-18 13:00	By: RDL	Received: 17-MAY-18	By: RL		
WC-6						
JC66318-1	SW846 7471B	18-MAY-18 09:36	JA	18-MAY-18 JA		HG
JC66318-1	SW846 9012B/LACHAT	18-MAY-18 12:27	BM	18-MAY-18 RP		CN
JC66318-1	SW846 8260C	18-MAY-18 19:39	PS			V8260TCL20
JC66318-1	ASTM D129-95	20-MAY-18	JOO	18-MAY-18 JOO		SULFUR
JC66318-1	ASTM D240-92	20-MAY-18	JOO	18-MAY-18 JOO		BTU
JC66318-1	SW846 8082A	20-MAY-18 10:12	EAL	19-MAY-18 NT		P8082PCB11
JC66318-1	SM2540 G-97	21-MAY-18 10:01	RI			SOL104
JC66318-1	SW846 8015C	21-MAY-18 10:33	KC			V8015GRO
JC66318-1	SW846 8015C	21-MAY-18 16:31	RK	21-MAY-18 MA		B8015DRO
JC66318-1	SW846 6010C	21-MAY-18 23:02	EAL	18-MAY-18 BP		AG,AL,AS,BA,BE,CD,CO,CR,CU, FE,K,MG,MN,NA,NI,PB,SB,SE, TL,V,ZN
JC66318-1	SW846 8270D	22-MAY-18 07:54	SA	21-MAY-18 AY		AB8270TCL20
JC66318-1	SW846 6010C	22-MAY-18 15:55	EAL	18-MAY-18 BP		CA
JC66318-1	SW846 8270D	23-MAY-18 14:29	CC	21-MAY-18 AY		AB8270TCL20
JC66318-1A	Collected: 16-MAY-18 13:00	By: RDL	Received: 17-MAY-18	By: RL		
WC-6						
JC66318-1A	SW846 CHAP7/9012 B	21-MAY-18 10:59	BM	18-MAY-18 FO		CREAC
JC66318-1A	SW846 7470A	21-MAY-18 12:00	DP	21-MAY-18 DP		EHG
JC66318-1A	SW846 CHAP7/9034	21-MAY-18 13:44	MP	18-MAY-18 FO		SREAC
JC66318-1A	SW846 8260C	21-MAY-18 22:07	JP	20-MAY-18 RB		V8260TCLP
JC66318-1A	SW846 9045D	22-MAY-18 16:32	RI			CORR
JC66318-1A	SW846 1010A/ASTM D23	22-MAY-18 16:33	RI			IGN
JC66318-1A	SW846 6010C	22-MAY-18 23:35	EAL	21-MAY-18 BP		EAG,EAS,EBA,ECD,ECR,EPB,ESE
JC66318-1A	SW846 8081B	24-MAY-18 03:49	CP	23-MAY-18 RG		P8081TCLP
JC66318-1A	SW846 8270D	24-MAY-18 08:54	CS	23-MAY-18 RG		AB8270TCLP
JC66318-1A	SW846 8151A	27-MAY-18 18:14	VDT	25-MAY-18 YB		H8151TCLP

SGS Internal Chain of Custody

Page 1 of 4

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/17/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66318-1.1	Secured Storage	Dwayne Johnson	05/17/18 13:21	Retrieve from Storage
JC66318-1.1	Dwayne Johnson	Secured Staging Area	05/17/18 13:21	Return to Storage
JC66318-1.1	Secured Staging Area	Jessica Adametz	05/17/18 14:23	Retrieve from Storage
JC66318-1.1	Jessica Adametz	Secured Storage	05/17/18 14:59	Return to Storage
JC66318-1.1	Secured Storage	Dwayne Johnson	05/18/18 09:29	Retrieve from Storage
JC66318-1.1	Dwayne Johnson	Secured Staging Area	05/18/18 09:29	Return to Storage
JC66318-1.1	Secured Staging Area	Jared O. Onindo	05/18/18 13:13	Retrieve from Storage
JC66318-1.1	Jared O. Onindo	Secured Storage	05/18/18 18:54	Return to Storage
JC66318-1.1	Secured Storage	Christopher Hall	05/18/18 22:46	Retrieve from Storage
JC66318-1.1	Christopher Hall	Secured Staging Area	05/18/18 22:46	Return to Storage
JC66318-1.1	Secured Staging Area	Lindsey Lee	05/19/18 03:56	Retrieve from Storage
JC66318-1.1	Lindsey Lee	Secured Storage	05/19/18 05:45	Return to Storage
JC66318-1.1	Secured Storage	Sahara Feliciano	05/19/18 08:54	Retrieve from Storage
JC66318-1.1	Sahara Feliciano	Secured Staging Area	05/19/18 08:54	Return to Storage
JC66318-1.1	Secured Staging Area	Robert Bandstra	05/19/18 10:02	Retrieve from Storage
JC66318-1.1	Robert Bandstra	Secured Storage	05/19/18 12:22	Return to Storage
JC66318-1.1	Secured Storage	Sahara Feliciano	05/20/18 08:33	Retrieve from Storage
JC66318-1.1	Sahara Feliciano	Secured Staging Area	05/20/18 08:33	Return to Storage
JC66318-1.1	Secured Staging Area	Sauvelson Auguste	05/21/18 04:22	Retrieve from Storage
JC66318-1.1	Sauvelson Auguste	Secured Storage	05/21/18 11:32	Return to Storage
JC66318-1.1	Secured Storage	Matthew Robbins	05/21/18 23:06	Retrieve from Storage
JC66318-1.1	Matthew Robbins	Secured Staging Area	05/21/18 23:06	Return to Storage
JC66318-1.1	Secured Staging Area	Rie Iwasaki	05/22/18 08:01	Retrieve from Storage
JC66318-1.1	Rie Iwasaki	Secured Storage	05/22/18 16:34	Return to Storage
JC66318-1.1	Secured Storage	Dwayne Johnson	05/24/18 09:17	Retrieve from Storage
JC66318-1.1	Dwayne Johnson	Secured Staging Area	05/24/18 09:17	Return to Storage
JC66318-1.1	Secured Staging Area	Andrew Csimbok	05/24/18 14:46	Retrieve from Storage
JC66318-1.1	Andrew Csimbok	Secured Storage	05/24/18 16:59	Return to Storage
JC66318-1.1.1	Lindsey Lee	Organics Prep	05/19/18 03:57	Extract from JC66318-1.1
JC66318-1.1.1	Organics Prep	Natasha Torres	05/19/18 09:12	Extract from JC66318-1.1
JC66318-1.1.1	Natasha Torres	Extract Storage	05/19/18 09:12	Return to Storage
JC66318-1.1.1	Extract Storage	Edouard Adrian Lee	05/19/18 19:39	Retrieve from Storage
JC66318-1.1.1	Edouard Adrian Lee	GC2G	05/19/18 19:39	Load on Instrument
JC66318-1.1.2	Robert Bandstra	TCLP	05/19/18 10:02	Leachate from JC66318-1.1
JC66318-1.1.2	TCLP	Robert Bandstra	05/20/18 08:53	Leachate from JC66318-1.1
JC66318-1.1.2	Robert Bandstra	Secured Storage	05/20/18 08:53	Return to Storage
JC66318-1.1.2	Secured Storage	Autumn Yun	05/23/18 15:35	Retrieve from Storage
JC66318-1.1.2	Autumn Yun	Secured Storage	05/25/18 18:23	Return to Storage
JC66318-1.1.3	TCLP	Robert Bandstra	05/20/18 08:53	Leachate from JC66318-1.1
JC66318-1.1.3	Robert Bandstra	Secured Storage	05/20/18 08:53	Return to Storage

SGS Internal Chain of Custody

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/17/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66318-1.1.4	Sauvelson Auguste	Organics Prep	05/21/18 04:24	Extract from JC66318-1.1
JC66318-1.1.4	Organics Prep	Meilly Arbelo	05/21/18 14:27	Extract from JC66318-1.1
JC66318-1.1.4	Meilly Arbelo	Extract Storage	05/21/18 14:27	Return to Storage
JC66318-1.1.4	Extract Storage	Rebecca Krug	05/21/18 15:47	Retrieve from Storage
JC66318-1.1.4	Rebecca Krug	GCZZ	05/21/18 15:47	Load on Instrument
JC66318-1.1.5	Sauvelson Auguste	Organics Prep	05/21/18 04:39	Extract from JC66318-1.1
JC66318-1.1.5	Organics Prep	Finley Nyaata	05/21/18 14:16	Extract from JC66318-1.1
JC66318-1.1.5	Finley Nyaata	Extract Storage	05/21/18 14:16	Return to Storage
JC66318-1.1.5	Extract Storage	George Sleem	05/22/18 02:42	Retrieve from Storage
JC66318-1.1.5	George Sleem	GCMS5P	05/22/18 02:42	Load on Instrument
JC66318-1.1.5	GCMS5P	John Boudreau	05/25/18 12:55	Unload from Instrument
JC66318-1.1.5	John Boudreau	Extract Freezer	05/25/18 12:55	Return to Storage
JC66318-1.1.6	Autumn Yun	Organics Prep	05/23/18 15:40	Extract from JC66318-1.1.2
JC66318-1.1.6	Organics Prep	Rebecca Gluckman	05/23/18 23:34	Extract from JC66318-1.1.2
JC66318-1.1.6	Rebecca Gluckman	Extract Storage	05/23/18 23:34	Return to Storage
JC66318-1.1.6	Extract Storage	George Sleem	05/24/18 02:28	Retrieve from Storage
JC66318-1.1.6	George Sleem	GCMS2M	05/24/18 02:28	Load on Instrument
JC66318-1.1.6	GCMS2M	John Boudreau	05/24/18 15:05	Unload from Instrument
JC66318-1.1.6	John Boudreau	Extract Freezer	05/24/18 15:05	Return to Storage
JC66318-1.1.7	Autumn Yun	Organics Prep	05/23/18 15:52	Extract from JC66318-1.1.2
JC66318-1.1.7	Organics Prep	Rebecca Gluckman	05/23/18 21:18	Extract from JC66318-1.1.2
JC66318-1.1.7	Rebecca Gluckman	Extract Storage	05/23/18 21:18	Return to Storage
JC66318-1.1.7	Extract Storage	Christine Phillips	05/24/18 00:48	Retrieve from Storage
JC66318-1.1.7	Christine Phillips	GC6G	05/24/18 00:48	Load on Instrument
JC66318-1.1.8	Andrew Csimbok	TCLP	05/24/18 14:46	Leachate from JC66318-1.1
JC66318-1.1.8	TCLP	Robert Bandstra	05/25/18 10:49	Leachate from JC66318-1.1
JC66318-1.1.8	Robert Bandstra	Secured Storage	05/25/18 10:50	Return to Storage
JC66318-1.1.8	Secured Storage	Yaw Britwum	05/25/18 14:05	Retrieve from Storage
JC66318-1.1.8	Yaw Britwum	Secured Storage	05/26/18 12:25	Return to Storage
JC66318-1.1.9	Yaw Britwum	Organics Prep	05/25/18 14:19	Extract from JC66318-1.1.8
JC66318-1.1.9	Organics Prep	Yaw Britwum	05/26/18 12:33	Extract from JC66318-1.1.8
JC66318-1.1.9	Yaw Britwum	Extract Storage	05/26/18 12:33	Return to Storage
JC66318-1.1.9	Extract Storage	Vincent Drago	05/27/18 12:08	Retrieve from Storage
JC66318-1.1.9	Vincent Drago	GC3G	05/27/18 12:08	Load on Instrument
JC66318-1.1.9	GC3G	Vincent Drago	05/29/18 11:08	Unload from Instrument
JC66318-1.1.9	Vincent Drago	Extract Freezer	05/29/18 11:08	Return to Storage
JC66318-1.2	Secured Storage	Christopher Hall	05/17/18 17:34	Retrieve from Storage
JC66318-1.2	Christopher Hall	Secured Staging Area	05/17/18 17:34	Return to Storage

SGS Internal Chain of Custody

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/17/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66318-1.2	Secured Staging Area	Rinku Patel	05/18/18 08:40	Retrieve from Storage
JC66318-1.2	Rinku Patel	Secured Storage	05/18/18 15:50	Return to Storage
JC66318-1.3	Secured Storage	Sahara Feliciano	05/17/18 16:57	Retrieve from Storage
JC66318-1.3	Sahara Feliciano	Secured Staging Area	05/17/18 16:57	Return to Storage
JC66318-1.3	Secured Staging Area	Bhooma Patel	05/18/18 07:17	Retrieve from Storage
JC66318-1.3	Bhooma Patel	Secured Storage	05/18/18 09:00	Return to Storage
JC66318-1.3	Secured Storage	Sahara Feliciano	05/20/18 08:22	Retrieve from Storage
JC66318-1.3	Sahara Feliciano	Secured Staging Area	05/20/18 08:22	Return to Storage
JC66318-1.3	Secured Staging Area	Robert Bandstra	05/20/18 08:24	Retrieve from Storage
JC66318-1.3	Secured Storage	Todd Shoemaker	05/21/18 09:01	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC66318-1.3	Todd Shoemaker	Rie Iwasaki	05/21/18 09:01	Custody Transfer
JC66318-1.3	Rie Iwasaki	Secured Storage	05/21/18 10:03	Return to Storage
JC66318-1.3.1	Bhooma Patel	Metals Digestion	05/18/18 08:55	Digestate from JC66318-1.3
JC66318-1.3.1	Metals Digestion	Bhooma Patel	05/18/18 08:56	Digestate from JC66318-1.3
JC66318-1.3.1	Bhooma Patel	Metals Digestate Storage	05/18/18 08:56	Return to Storage
JC66318-1.3.2	Robert Bandstra	TCLP	05/20/18 08:24	Leachate from JC66318-1.3
JC66318-1.3.2	TCLP	Brian Miller	05/21/18 08:10	Leachate from JC66318-1.3
JC66318-1.3.2	Brian Miller	Secured Storage	05/21/18 08:10	Return to Storage
JC66318-1.3.3	TCLP	Brian Miller	05/21/18 08:10	Leachate from JC66318-1.3
JC66318-1.3.3	Brian Miller	Secured Storage	05/21/18 08:10	Return to Storage
JC66318-1.3.3	Secured Storage	Jessica Potts	05/21/18 15:25	Retrieve from Storage
JC66318-1.3.3	Jessica Potts	GCMSA	05/21/18 15:25	Load on Instrument
JC66318-1.3.3	GCMSA	Jessica Potts	05/22/18 08:55	Unload from Instrument
JC66318-1.3.3	Jessica Potts	Secured Storage	05/22/18 08:55	Return to Storage
JC66318-1.4	Dominic Guerriero	Secured Storage	05/17/18 10:28	Return to Storage
JC66318-1.4	Secured Storage	Krizhka Cuenta	05/17/18 13:35	Retrieve from Storage
JC66318-1.4	Krizhka Cuenta	Secured Storage	05/17/18 16:53	Return to Storage
JC66318-1.4	Secured Storage	Krizhka Cuenta	05/21/18 10:06	Retrieve from Storage
JC66318-1.4	Krizhka Cuenta	Secured Storage	05/21/18 16:10	Return to Storage
JC66318-1.5	Dominic Guerriero	Secured Storage	05/17/18 10:28	Return to Storage
JC66318-1.6	Dominic Guerriero	Secured Storage	05/17/18 10:28	Return to Storage
JC66318-1.6	Secured Storage	Prashant Shukla	05/18/18 12:34	Retrieve from Storage
JC66318-1.6	Prashant Shukla	GCMSY	05/18/18 12:34	Load on Instrument
JC66318-1.6	GCMSY	Prashant Shukla	05/19/18 10:55	Unload from Instrument
JC66318-1.6	Prashant Shukla		05/19/18 10:55	Depleted

SGS Internal Chain of Custody

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/17/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66318-1.7	Dominic Guerriero	Secured Storage	05/17/18 10:28	Return to Storage
JC66318-1.7	Secured Storage	Prashant Shukla	05/19/18 12:57	Retrieve from Storage
JC66318-1.7	Prashant Shukla	GCMS1C	05/19/18 12:58	Load on Instrument
JC66318-1.7	GCMS1C	Prashant Shukla	05/21/18 09:23	Unload from Instrument
JC66318-1.7	Prashant Shukla		05/21/18 09:23	Depleted

5.4
5

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

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Job Number: JC66318

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY7784-MB	Y179943.D	1	05/18/18	PS	n/a	n/a	VY7784

The QC reported here applies to the following samples:

Method: SW846 8260C

JC66318-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.4	ug/kg	
71-43-2	Benzene	ND	0.50	0.11	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.44	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.24	ug/kg	
75-25-2	Bromoform	ND	5.0	0.31	ug/kg	
74-83-9	Bromomethane	ND	5.0	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	5.2	ug/kg	
75-15-0	Carbon disulfide	ND	2.0	0.61	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.65	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.29	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.90	ug/kg	
67-66-3	Chloroform	ND	2.0	0.32	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.99	ug/kg	
110-82-7	Cyclohexane	ND	2.0	0.34	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.38	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.0	0.25	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.52	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.29	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.48	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.61	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.0	0.71	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.40	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.58	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.40	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.38	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.24	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/kg	
76-13-1	Freon 113	ND	5.0	0.67	ug/kg	
591-78-6	2-Hexanone	ND	5.0	2.8	ug/kg	
98-82-8	Isopropylbenzene	ND	2.0	0.25	ug/kg	
79-20-9	Methyl Acetate	ND	5.0	2.5	ug/kg	
108-87-2	Methylcyclohexane	ND	2.0	0.55	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/kg	

Method Blank Summary

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Job Number: JC66318**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY7784-MB	Y179943.D	1	05/18/18	PS	n/a	n/a	VY7784

The QC reported here applies to the following samples:**Method:** SW846 8260C

JC66318-1

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.8	ug/kg	
75-09-2	Methylene chloride	ND	5.0	2.5	ug/kg	
100-42-5	Styrene	ND	2.0	0.50	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.25	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.64	ug/kg	
108-88-3	Toluene	ND	1.0	0.55	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.58	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.42	ug/kg	
79-01-6	Trichloroethene	ND	1.0	0.55	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	0.48	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.77	ug/kg	
	m,p-Xylene	ND	1.0	0.55	ug/kg	
95-47-6	o-Xylene	ND	1.0	0.25	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.25	ug/kg	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	99%
17060-07-0	1,2-Dichloroethane-D4	90%
2037-26-5	Toluene-D8	91%
460-00-4	4-Bromofluorobenzene	111%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

Method Blank Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA9217-MB	A241800.D	1	05/21/18	JP	n/a	n/a	VA9217

The QC reported here applies to the following samples: Method: SW846 8260C

JC66318-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.17	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	101% 76-120%
17060-07-0	1,2-Dichloroethane-D4	98% 64-135%
2037-26-5	Toluene-D8	98% 76-117%
460-00-4	4-Bromofluorobenzene	92% 72-122%

Leachate Blank Summary

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Job Number: JC66318

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GP13188-26LB	A241801.D	5	05/21/18	JP	05/20/18	GP13188	VA9217

The QC reported here applies to the following samples:

Method: SW846 8260C

JC66318-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.5	0.87	ug/l	
78-93-3	2-Butanone (MEK)	ND	50	24	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	1.7	ug/l	
108-90-7	Chlorobenzene	ND	5.0	1.2	ug/l	
67-66-3	Chloroform	ND	5.0	1.4	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	0.87	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	5.0	2.4	ug/l	
127-18-4	Tetrachloroethene	ND	5.0	2.5	ug/l	
79-01-6	Trichloroethene	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	5.0	3.1	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	103% 76-120%
17060-07-0	1,2-Dichloroethane-D4	98% 64-135%
2037-26-5	Toluene-D8	97% 76-117%
460-00-4	4-Bromofluorobenzene	92% 72-122%

Blank Spike Summary

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Job Number: JC66318**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY7784-BS	Y179941.D	1	05/18/18	PS	n/a	n/a	VY7784

The QC reported here applies to the following samples:**Method:** SW846 8260C

JC66318-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	200	125	63	48-149
71-43-2	Benzene	50	48.6	97	74-117
74-97-5	Bromochloromethane	50	53.8	108	82-121
75-27-4	Bromodichloromethane	50	46.5	93	78-119
75-25-2	Bromoform	50	53.5	107	76-130
74-83-9	Bromomethane	50	65.1	130	58-137
78-93-3	2-Butanone (MEK)	200	189	95	65-143
75-15-0	Carbon disulfide	50	49.7	99	66-140
56-23-5	Carbon tetrachloride	50	55.2	110	69-136
108-90-7	Chlorobenzene	50	49.6	99	79-117
75-00-3	Chloroethane	50	68.0	136	62-139
67-66-3	Chloroform	50	47.4	95	76-119
74-87-3	Chloromethane	50	68.0	136	52-144
110-82-7	Cyclohexane	50	51.2	102	64-136
96-12-8	1,2-Dibromo-3-chloropropane	50	46.3	93	72-124
124-48-1	Dibromochloromethane	50	49.9	100	78-122
106-93-4	1,2-Dibromoethane	50	52.6	105	80-116
95-50-1	1,2-Dichlorobenzene	50	48.2	96	77-117
541-73-1	1,3-Dichlorobenzene	50	51.1	102	75-117
106-46-7	1,4-Dichlorobenzene	50	48.6	97	76-115
75-71-8	Dichlorodifluoromethane	50	76.6	153	43-156
75-34-3	1,1-Dichloroethane	50	50.7	101	75-124
107-06-2	1,2-Dichloroethane	50	43.3	87	74-124
75-35-4	1,1-Dichloroethene	50	55.7	111	64-129
156-59-2	cis-1,2-Dichloroethene	50	46.1	92	74-118
156-60-5	trans-1,2-Dichloroethene	50	51.8	104	71-125
78-87-5	1,2-Dichloropropane	50	51.1	102	80-119
10061-01-5	cis-1,3-Dichloropropene	50	53.6	107	80-119
10061-02-6	trans-1,3-Dichloropropene	50	44.6	89	78-119
100-41-4	Ethylbenzene	50	47.2	94	75-118
76-13-1	Freon 113	50	59.2	118	60-181
591-78-6	2-Hexanone	200	186	93	63-138
98-82-8	Isopropylbenzene	50	47.5	95	74-122
79-20-9	Methyl Acetate	50	52.5	105	61-140
108-87-2	Methylcyclohexane	50	43.8	88	67-136
1634-04-4	Methyl Tert Butyl Ether	50	44.0	88	75-123

* = Outside of Control Limits.

Blank Spike Summary

Page 2 of 2

Job Number: JC66318

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY7784-BS	Y179941.D	1	05/18/18	PS	n/a	n/a	VY7784

The QC reported here applies to the following samples:

Method: SW846 8260C

JC66318-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	232	116	73-136
75-09-2	Methylene chloride	50	50.9	102	73-120
100-42-5	Styrene	50	48.6	97	78-120
79-34-5	1,1,2,2-Tetrachloroethane	50	47.0	94	72-120
127-18-4	Tetrachloroethene	50	53.5	107	69-128
108-88-3	Toluene	50	48.5	97	74-117
87-61-6	1,2,3-Trichlorobenzene	50	45.1	90	72-133
120-82-1	1,2,4-Trichlorobenzene	50	46.3	93	73-132
71-55-6	1,1,1-Trichloroethane	50	49.5	99	73-131
79-00-5	1,1,2-Trichloroethane	50	45.3	91	79-117
79-01-6	Trichloroethene	50	49.3	99	80-120
75-69-4	Trichlorofluoromethane	50	64.7	129	63-141
75-01-4	Vinyl chloride	50	70.6	141	55-145
	m,p-Xylene	100	104	104	75-120
95-47-6	o-Xylene	50	44.8	90	75-119
1330-20-7	Xylene (total)	150	149	99	76-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	75-127%
17060-07-0	1,2-Dichloroethane-D4	89%	75-130%
2037-26-5	Toluene-D8	91%	80-120%
460-00-4	4-Bromofluorobenzene	109%	79-127%

* = Outside of Control Limits.

Blank Spike Summary

Page 1 of 1

Job Number: JC66318

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA9217-BS	A241798.D	1	05/21/18	JP	n/a	n/a	VA9217

The QC reported here applies to the following samples:

Method: SW846 8260C

JC66318-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	50.8	102	75-122
78-93-3	2-Butanone (MEK)	200	213	107	64-130
56-23-5	Carbon tetrachloride	50	57.2	114	75-148
108-90-7	Chlorobenzene	50	55.3	111	76-124
67-66-3	Chloroform	50	49.7	99	77-124
106-46-7	1,4-Dichlorobenzene	50	52.3	105	71-123
107-06-2	1,2-Dichloroethane	50	47.9	96	66-150
75-35-4	1,1-Dichloroethene	50	52.7	105	61-132
127-18-4	Tetrachloroethene	50	55.6	111	70-136
79-01-6	Trichloroethene	50	56.2	112	79-126
75-01-4	Vinyl chloride	50	63.5	127	56-146

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	76-120%
17060-07-0	1,2-Dichloroethane-D4	93%	64-135%
2037-26-5	Toluene-D8	98%	76-117%
460-00-4	4-Bromofluorobenzene	95%	72-122%

* = Outside of Control Limits.

Matrix Spike Summary

Page 1 of 2

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66236-5MS	Y179952.D	1	05/18/18	PS	n/a	n/a	VY7784
JC66236-5 ^a	Y179945.D	1	05/18/18	PS	n/a	n/a	VY7784

The QC reported here applies to the following samples:

Method: SW846 8260C

JC66318-1

CAS No.	Compound	JC66236-5 ug/kg	Spike Q	ug/kg	MS ug/kg	MS %	Limits
67-64-1	Acetone	27.7		249	141	46	10-157
71-43-2	Benzene	ND		62.2	54.4	87	58-125
74-97-5	Bromochloromethane	ND		62.2	62.9	101	60-127
75-27-4	Bromodichloromethane	ND		62.2	50.6	81	57-128
75-25-2	Bromoform	ND		62.2	56.6	91	48-133
74-83-9	Bromomethane	ND		62.2	58.1	93	31-141
78-93-3	2-Butanone (MEK)	ND		249	208	84	29-146
75-15-0	Carbon disulfide	ND		62.2	43.1	69	47-145
56-23-5	Carbon tetrachloride	ND		62.2	63.6	102	51-143
108-90-7	Chlorobenzene	ND		62.2	52.8	85	54-130
75-00-3	Chloroethane	ND		62.2	60.4	97	22-153
67-66-3	Chloroform	ND		62.2	54.4	87	61-125
74-87-3	Chloromethane	ND		62.2	52.5	84	43-142
110-82-7	Cyclohexane	ND		62.2	61.7	99	37-148
96-12-8	1,2-Dibromo-3-chloropropane	ND		62.2	53.5	86	41-127
124-48-1	Dibromochloromethane	ND		62.2	58.3	94	56-127
106-93-4	1,2-Dibromoethane	ND		62.2	57.2	92	54-121
95-50-1	1,2-Dichlorobenzene	ND		62.2	48.6	78	41-134
541-73-1	1,3-Dichlorobenzene	ND		62.2	49.0	79	41-135
106-46-7	1,4-Dichlorobenzene	ND		62.2	46.1	74	41-133
75-71-8	Dichlorodifluoromethane	ND		62.2	52.9	85	30-153
75-34-3	1,1-Dichloroethane	ND		62.2	58.3	94	61-131
107-06-2	1,2-Dichloroethane	ND		62.2	47.7	77	56-126
75-35-4	1,1-Dichloroethene	ND		62.2	62.2	100	53-132
156-59-2	cis-1,2-Dichloroethene	ND		62.2	51.5	83	57-125
156-60-5	trans-1,2-Dichloroethene	ND		62.2	57.2	92	56-130
78-87-5	1,2-Dichloropropane	ND		62.2	56.6	91	63-126
10061-01-5	cis-1,3-Dichloropropene	ND		62.2	53.3	86	55-126
10061-02-6	trans-1,3-Dichloropropene	ND		62.2	47.8	77	51-126
100-41-4	Ethylbenzene	ND		62.2	49.8	80	49-132
76-13-1	Freon 113	ND		62.2	72.2	116	42-179
591-78-6	2-Hexanone	ND		249	202	81	25-150
98-82-8	Isopropylbenzene	ND		62.2	50.0	80	43-141
79-20-9	Methyl Acetate	ND		62.2	142	228* ^b	32-158
108-87-2	Methylcyclohexane	ND		62.2	44.8	72	22-158
1634-04-4	Methyl Tert Butyl Ether	ND		62.2	51.3	82	58-123

* = Outside of Control Limits.

Matrix Spike Summary

Page 2 of 2

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66236-5MS	Y179952.D	1	05/18/18	PS	n/a	n/a	VY7784
JC66236-5 ^a	Y179945.D	1	05/18/18	PS	n/a	n/a	VY7784

The QC reported here applies to the following samples:

Method: SW846 8260C

JC66318-1

CAS No.	Compound	JC66236-5 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		249	236	95	40-140
75-09-2	Methylene chloride	2.8	J	62.2	60.7	93	57-123
100-42-5	Styrene	ND		62.2	49.0	79	46-139
79-34-5	1,1,2,2-Tetrachloroethane	ND		62.2	50.1	81	44-127
127-18-4	Tetrachloroethene	ND		62.2	57.1	92	39-154
108-88-3	Toluene	ND		62.2	57.4	92	54-127
87-61-6	1,2,3-Trichlorobenzene	ND		62.2	30.9	50	17-151
120-82-1	1,2,4-Trichlorobenzene	ND		62.2	31.4	50	19-153
71-55-6	1,1,1-Trichloroethane	ND		62.2	59.2	95	57-138
79-00-5	1,1,2-Trichloroethane	ND		62.2	52.5	84	53-127
79-01-6	Trichloroethene	ND		62.2	60.8	98	52-140
75-69-4	Trichlorofluoromethane	ND		62.2	63.4	102	46-142
75-01-4	Vinyl chloride	ND		62.2	58.1	93	43-146
	m,p-Xylene	ND		124	111	89	45-137
95-47-6	o-Xylene	ND		62.2	49.1	79	48-135
1330-20-7	Xylene (total)	ND		187	160	86	46-137

CAS No.	Surrogate Recoveries	MS	JC66236-5	Limits
1868-53-7	Dibromofluoromethane	99%	106%	75-127%
17060-07-0	1,2-Dichloroethane-D4	84%	92%	75-130%
2037-26-5	Toluene-D8	95%	92%	80-120%
460-00-4	4-Bromofluorobenzene	115%	123%	79-127%

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

(b) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66318-1AMS	A241803.D	5	05/21/18	JP	n/a	n/a	VA9217
JC66318-1AMSD	A241804.D	5	05/21/18	JP	n/a	n/a	VA9217
JC66318-1A	A241802.D	5	05/21/18	JP	05/20/18	GP13188	VA9217

The QC reported here applies to the following samples: Method: SW846 8260C

JC66318-1A

CAS No.	Compound	JC66318-1A ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	250	240	96	250	243	97	1	38-139/13
78-93-3	2-Butanone (MEK)	ND	1000	1030	103	1000	1040	104	1	58-140/14
56-23-5	Carbon tetrachloride	ND	250	276	110	250	281	112	2	50-161/18
108-90-7	Chlorobenzene	ND	250	263	105	250	268	107	2	65-128/12
67-66-3	Chloroform	ND	250	234	94	250	239	96	2	66-132/14
106-46-7	1,4-Dichlorobenzene	ND	250	253	101	250	254	102	0	63-126/13
107-06-2	1,2-Dichloroethane	ND	250	229	92	250	229	92	0	59-153/15
75-35-4	1,1-Dichloroethene	ND	250	248	99	250	252	101	2	41-144/17
127-18-4	Tetrachloroethene	ND	250	264	106	250	271	108	3	48-145/15
79-01-6	Trichloroethene	ND	250	261	104	250	267	107	2	53-141/15
75-01-4	Vinyl chloride	ND	250	293	117	250	297	119	1	34-151/20

CAS No.	Surrogate Recoveries	MS	MSD	JC66318-1A	Limits
1868-53-7	Dibromofluoromethane	101%	101%	101%	76-120%
17060-07-0	1,2-Dichloroethane-D4	94%	92%	96%	64-135%
2037-26-5	Toluene-D8	97%	98%	96%	76-117%
460-00-4	4-Bromofluorobenzene	95%	96%	94%	72-122%

* = Outside of Control Limits.

Leachate Spike Summary

Page 1 of 1

Job Number: JC66318

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GP13188-16LS	A241803A.D	5	05/21/18	JP	05/20/18	GP13188	VA9217
JC66318-1A	A241802.D	5	05/21/18	JP	05/20/18	GP13188	VA9217

The QC reported here applies to the following samples:

Method: SW846 8260C

JC66318-1A

CAS No.	Compound	JC66318-1A ug/l	Spike Q ug/l	LS ug/l	LS %	Limits
71-43-2	Benzene	ND	250	240	96	38-139
78-93-3	2-Butanone (MEK)	ND	1000	1030	103	58-140
56-23-5	Carbon tetrachloride	ND	250	276	110	50-161
108-90-7	Chlorobenzene	ND	250	263	105	65-128
67-66-3	Chloroform	ND	250	234	94	66-132
106-46-7	1,4-Dichlorobenzene	ND	250	253	101	63-126
107-06-2	1,2-Dichloroethane	ND	250	229	92	59-153
75-35-4	1,1-Dichloroethene	ND	250	248	99	41-144
127-18-4	Tetrachloroethene	ND	250	264	106	48-145
79-01-6	Trichloroethene	ND	250	261	104	53-141
75-01-4	Vinyl chloride	ND	250	293	117	34-151

CAS No.	Surrogate Recoveries	LS	JC66318-1A	Limits
1868-53-7	Dibromofluoromethane	101%	101%	76-120%
17060-07-0	1,2-Dichloroethane-D4	94%	96%	64-135%
2037-26-5	Toluene-D8	97%	96%	76-117%
460-00-4	4-Bromofluorobenzene	95%	94%	72-122%

* = Outside of Control Limits.

Duplicate Summary

Page 1 of 2

Job Number: JC66318**Account:** AGMNYF Arcadis**Project:** NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66236-4DUP	Y179949.D	1	05/18/18	PS	n/a	n/a	VY7784
JC66236-4	Y179944.D	1	05/18/18	PS	n/a	n/a	VY7784

The QC reported here applies to the following samples:**Method:** SW846 8260C

JC66318-1

CAS No.	Compound	JC66236-4 ug/kg	DUP Q ug/kg	Q	RPD	Limits
67-64-1	Acetone	ND	ND	nc		40
71-43-2	Benzene	ND	ND	nc		30
74-97-5	Bromochloromethane	ND	ND	nc		30
75-27-4	Bromodichloromethane	ND	ND	nc		30
75-25-2	Bromoform	ND	ND	nc		30
74-83-9	Bromomethane	ND	ND	nc		30
78-93-3	2-Butanone (MEK)	ND	ND	nc		30
75-15-0	Carbon disulfide	ND	ND	nc		30
56-23-5	Carbon tetrachloride	ND	ND	nc		30
108-90-7	Chlorobenzene	ND	ND	nc		30
75-00-3	Chloroethane	ND	ND	nc		30
67-66-3	Chloroform	ND	ND	nc		30
74-87-3	Chloromethane	ND	ND	nc		30
110-82-7	Cyclohexane	ND	ND	nc		30
96-12-8	1,2-Dibromo-3-chloropropane	ND	ND	nc		30
124-48-1	Dibromochloromethane	ND	ND	nc		30
106-93-4	1,2-Dibromoethane	ND	ND	nc		30
95-50-1	1,2-Dichlorobenzene	ND	ND	nc		30
541-73-1	1,3-Dichlorobenzene	ND	ND	nc		30
106-46-7	1,4-Dichlorobenzene	ND	ND	nc		30
75-71-8	Dichlorodifluoromethane	ND	ND	nc		30
75-34-3	1,1-Dichloroethane	ND	ND	nc		30
107-06-2	1,2-Dichloroethane	ND	ND	nc		30
75-35-4	1,1-Dichloroethene	ND	ND	nc		30
156-59-2	cis-1,2-Dichloroethene	ND	ND	nc		30
156-60-5	trans-1,2-Dichloroethene	ND	ND	nc		30
78-87-5	1,2-Dichloropropane	ND	ND	nc		30
10061-01-5	cis-1,3-Dichloropropene	ND	ND	nc		30
10061-02-6	trans-1,3-Dichloropropene	ND	ND	nc		30
100-41-4	Ethylbenzene	ND	ND	nc		30
76-13-1	Freon 113	ND	ND	nc		30
591-78-6	2-Hexanone	ND	ND	nc		30
98-82-8	Isopropylbenzene	ND	ND	nc		30
79-20-9	Methyl Acetate	ND	ND	nc		30
108-87-2	Methylcyclohexane	ND	ND	nc		30
1634-04-4	Methyl Tert Butyl Ether	ND	ND	nc		30

* = Outside of Control Limits.

Duplicate Summary

Page 2 of 2

Job Number: JC66318

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66236-4DUP	Y179949.D	1	05/18/18	PS	n/a	n/a	VY7784
JC66236-4	Y179944.D	1	05/18/18	PS	n/a	n/a	VY7784

The QC reported here applies to the following samples:

Method: SW846 8260C

JC66318-1

CAS No.	Compound	JC66236-4 ug/kg	DUP Q	ug/kg	Q	RPD	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	30
75-09-2	Methylene chloride	ND		ND		nc	36
100-42-5	Styrene	ND		ND		nc	30
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	30
127-18-4	Tetrachloroethene	ND		ND		nc	30
108-88-3	Toluene	ND		ND		nc	24
87-61-6	1,2,3-Trichlorobenzene	ND		ND		nc	30
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	30
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	30
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	30
79-01-6	Trichloroethene	ND		ND		nc	30
75-69-4	Trichlorofluoromethane	ND		ND		nc	30
75-01-4	Vinyl chloride	ND		ND		nc	30
	m,p-Xylene	ND		ND		nc	32
95-47-6	o-Xylene	ND		ND		nc	30
1330-20-7	Xylene (total)	ND		ND		nc	33

CAS No.	Surrogate Recoveries	DUP	JC66236-4	Limits
1868-53-7	Dibromofluoromethane	97%	112%	75-127%
17060-07-0	1,2-Dichloroethane-D4	89%	90%	75-130%
2037-26-5	Toluene-D8	95%	93%	80-120%
460-00-4	4-Bromofluorobenzene	114%	116%	79-127%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-BFB
Lab File ID: A240801.D
Instrument ID: GCMSA
Injection Date: 04/03/18
Injection Time: 17:23

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	14.95 - 40.0% of mass 95	10680	17.4	Pass
75	30.0 - 60.0% of mass 95	27821	45.2	Pass
95	Base peak, 100% relative abundance	61501	100.0	Pass
96	5.0 - 9.0% of mass 95	4068	6.61	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	51685	84.0	Pass
175	5.0 - 9.0% of mass 174	4265	6.93 (8.25) ^a	Pass
176	95.0 - 101.0% of mass 174	50666	82.4 (98.0) ^a	Pass
177	5.0 - 9.0% of mass 176	3509	5.71 (6.93) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VA9165-IC9165	A240802.D	04/03/18	17:52	00:29	Initial cal 0.2
VA9165-IC9165	A240803.D	04/03/18	18:21	00:58	Initial cal 0.5
VA9165-IC9165	A240804.D	04/03/18	18:50	01:27	Initial cal 1
VA9165-IC9165	A240805.D	04/03/18	19:19	01:56	Initial cal 2
VA9165-IC9165	A240806.D	04/03/18	19:48	02:25	Initial cal 5
VA9165-IC9165	A240807.D	04/03/18	20:17	02:54	Initial cal 10
VA9165-IC9165	A240808.D	04/03/18	20:46	03:23	Initial cal 20
VA9165-ICC9165	A240809.D	04/03/18	21:15	03:52	Initial cal 50
VA9165-IC9165	A240810.D	04/03/18	21:44	04:21	Initial cal 100
VA9165-IC9165	A240811.D	04/03/18	22:13	04:50	Initial cal 200
VA9165-ICV9165	A240814.D	04/03/18	23:40	06:17	Initial cal verification 50
VA9165-ICV9165	A240815.D	04/04/18	00:09	06:46	Initial cal verification 50

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9217-BFB
Lab File ID: A241796.D
Instrument ID: GCMSA
Injection Date: 05/21/18
Injection Time: 19:11

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	14.95 - 40.0% of mass 95	11236	15.0	Pass
75	30.0 - 60.0% of mass 95	32235	43.1	Pass
95	Base peak, 100% relative abundance	74725	100.0	Pass
96	5.0 - 9.0% of mass 95	4951	6.63	Pass
173	Less than 2.0% of mass 174	258	0.35 (0.37) ^a	Pass
174	50.0 - 120.0% of mass 95	69501	93.0	Pass
175	5.0 - 9.0% of mass 174	5302	7.10 (7.63) ^a	Pass
176	95.0 - 101.0% of mass 174	66811	89.4 (96.1) ^a	Pass
177	5.0 - 9.0% of mass 176	4477	5.99 (6.70) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VA9217-CC9165	A241796.D	05/21/18	19:11	00:00	Continuing cal 50
VA9217-BS	A241798.D	05/21/18	20:10	00:59	Blank Spike
VA9217-MB	A241800.D	05/21/18	21:09	01:58	Method Blank
GP13188-26LB	A241801.D	05/21/18	21:38	02:27	Leachate Blank
JC66318-1A	A241802.D	05/21/18	22:07	02:56	WC-6
JC66318-1AMS	A241803.D	05/21/18	22:36	03:25	Matrix Spike
GP13188-16LS	A241803A.D	05/21/18	22:36	03:25	Leachate Spike
JC66318-1AMSD	A241804.D	05/21/18	23:06	03:55	Matrix Spike Duplicate
ZZZZZZ	A241806.D	05/22/18	00:04	04:53	(unrelated sample)
ZZZZZZ	A241807.D	05/22/18	00:33	05:22	(unrelated sample)
ZZZZZZ	A241808.D	05/22/18	01:02	05:51	(unrelated sample)
ZZZZZZ	A241809.D	05/22/18	01:31	06:20	(unrelated sample)
ZZZZZZ	A241810.D	05/22/18	02:00	06:49	(unrelated sample)
ZZZZZZ	A241811.D	05/22/18	02:30	07:19	(unrelated sample)
ZZZZZZ	A241812.D	05/22/18	02:59	07:48	(unrelated sample)
ZZZZZZ	A241813.D	05/22/18	03:28	08:17	(unrelated sample)
ZZZZZZ	A241814.D	05/22/18	03:58	08:47	(unrelated sample)
ZZZZZZ	A241815.D	05/22/18	04:27	09:16	(unrelated sample)

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-BFB
Lab File ID: Y178404.D
Instrument ID: GCMSY
Injection Date: 02/27/18
Injection Time: 17:32

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	10392	17.4	Pass
75	30.0 - 60.0% of mass 95	26546	44.5	Pass
95	Base peak, 100% relative abundance	59720	100.0	Pass
96	5.0 - 9.0% of mass 95	3564	5.97	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	55101	92.3	Pass
175	5.0 - 9.0% of mass 174	4101	6.87 (7.44) ^a	Pass
176	95.0 - 101.0% of mass 174	54221	90.8 (98.4) ^a	Pass
177	5.0 - 9.0% of mass 176	3555	5.95 (6.56) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VY7713-IC7713	Y178405.D	02/27/18	18:24	00:52	Initial cal 0.2
VY7713-IC7713	Y178406.D	02/27/18	18:53	01:21	Initial cal 0.5
VY7713-IC7713	Y178407.D	02/27/18	19:21	01:49	Initial cal 1
VY7713-IC7713	Y178408.D	02/27/18	19:50	02:18	Initial cal 2
VY7713-IC7713	Y178409.D	02/27/18	20:18	02:46	Initial cal 4
VY7713-IC7713	Y178410.D	02/27/18	20:53	03:21	Initial cal 8
VY7713-IC7713	Y178411.D	02/27/18	21:21	03:49	Initial cal 20
VY7713-ICC7713	Y178412.D	02/27/18	21:50	04:18	Initial cal 50
VY7713-IC7713	Y178413.D	02/27/18	22:19	04:47	Initial cal 100
VY7713-IC7713	Y178414.D	02/27/18	22:52	05:20	Initial cal 200
VY7713-ICV7713	Y178417.D	02/28/18	00:17	06:45	Initial cal verification 50
VY7713-ICV7713	Y178418.D	02/28/18	00:45	07:13	Initial cal verification 50

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JC66318

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-BFB2

Injection Date: 02/28/18

Lab File ID: Y178420.D

Injection Time: 13:40

Instrument ID: GCMSY

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	12286	18.8	Pass
75	30.0 - 60.0% of mass 95	30709	47.0	Pass
95	Base peak, 100% relative abundance	65304	100.0	Pass
96	5.0 - 9.0% of mass 95	4323	6.62	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	60085	92.0	Pass
175	5.0 - 9.0% of mass 174	5068	7.76 (8.43) ^a	Pass
176	95.0 - 101.0% of mass 174	59149	90.6 (98.4) ^a	Pass
177	5.0 - 9.0% of mass 176	3877	5.94 (6.55) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VY7713-ICV7713	Y178421.D	02/28/18	14:19	00:39	Initial cal verification 50

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7781-BFB
Lab File ID: Y179903.D
Instrument ID: GCMSY
Injection Date: 05/16/18
Injection Time: 22:31

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	9976	15.5	Pass
75	30.0 - 60.0% of mass 95	27234	42.3	Pass
95	Base peak, 100% relative abundance	64333	100.0	Pass
96	5.0 - 9.0% of mass 95	4327	6.73	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	62853	97.7	Pass
175	5.0 - 9.0% of mass 174	4537	7.05 (7.22) ^a	Pass
176	95.0 - 101.0% of mass 174	61040	94.9 (97.1) ^a	Pass
177	5.0 - 9.0% of mass 176	3975	6.18 (6.51) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VY7781-IC7713	Y179904.D	05/16/18	22:59	00:28	Initial cal 0.5
VY7781-IC7713	Y179905.D	05/16/18	23:28	00:57	Initial cal 1
VY7781-IC7713	Y179906.D	05/16/18	23:56	01:25	Initial cal 2
VY7781-IC7713	Y179907.D	05/17/18	00:25	01:54	Initial cal 4
VY7781-IC7713	Y179908.D	05/17/18	00:54	02:23	Initial cal 8
VY7781-IC7713	Y179909.D	05/17/18	01:23	02:52	Initial cal 20
VY7781-IC7713	Y179910.D	05/17/18	01:51	03:20	Initial cal 50
VY7781-IC7713	Y179911.D	05/17/18	02:20	03:49	Initial cal 100
VY7781-IC7713	Y179912.D	05/17/18	02:49	04:18	Initial cal 200
VY7781-ICV7713	Y179914.D	05/17/18	03:46	05:15	Initial cal verification 50

Instrument Performance Check (BFB)

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7784-BFB
Lab File ID: Y179939.D
Instrument ID: GCMSY
Injection Date: 05/18/18
Injection Time: 08:27

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	11763	16.5	Pass
75	30.0 - 60.0% of mass 95	30765	43.2	Pass
95	Base peak, 100% relative abundance	71144	100.0	Pass
96	5.0 - 9.0% of mass 95	4903	6.89	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	64760	91.0	Pass
175	5.0 - 9.0% of mass 174	4829	6.79 (7.46) ^a	Pass
176	95.0 - 101.0% of mass 174	62915	88.4 (97.2) ^a	Pass
177	5.0 - 9.0% of mass 176	4237	5.96 (6.73) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VY7784-CC7713	Y179939.D	05/18/18	08:27	00:00	Continuing cal 50
VY7784-BS	Y179941.D	05/18/18	09:51	01:24	Blank Spike
VY7784-MB	Y179943.D	05/18/18	11:00	02:33	Method Blank
JC66236-4	Y179944.D	05/18/18	11:34	03:07	(used for QC only; not part of job JC66318)
JC66236-5	Y179945.D	05/18/18	12:02	03:35	(used for QC only; not part of job JC66318)
ZZZZZZ	Y179946.D	05/18/18	12:31	04:04	(unrelated sample)
ZZZZZZ	Y179947.D	05/18/18	12:59	04:32	(unrelated sample)
ZZZZZZ	Y179948.D	05/18/18	13:28	05:01	(unrelated sample)
JC66236-4DUP	Y179949.D	05/18/18	13:57	05:30	Duplicate
ZZZZZZ	Y179950.D	05/18/18	14:25	05:58	(unrelated sample)
ZZZZZZ	Y179951.D	05/18/18	14:54	06:27	(unrelated sample)
JC66236-5MS	Y179952.D	05/18/18	15:23	06:56	Matrix Spike
ZZZZZZ	Y179954.D	05/18/18	16:20	07:53	(unrelated sample)
ZZZZZZ	Y179955.D	05/18/18	16:48	08:21	(unrelated sample)
ZZZZZZ	Y179958.D	05/18/18	18:14	09:47	(unrelated sample)
ZZZZZZ	Y179959.D	05/18/18	18:42	10:15	(unrelated sample)
ZZZZZZ	Y179960.D	05/18/18	19:11	10:44	(unrelated sample)
JC66318-1	Y179961.D	05/18/18	19:39	11:12	WC-6
ZZZZZZ	Y179962.D	05/18/18	20:08	11:41	(unrelated sample)

Internal Standard Area Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: VA9217-CC9165	Injection Date: 05/21/18
Lab File ID: A241796.D	Injection Time: 19:11
Instrument ID: GCMSA	Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	358698	7.80	240262	10.17	356922	11.11	307572	14.51	173526	17.12
Upper Limit ^a	717396	8.30	480524	10.67	713844	11.61	615144	15.01	347052	17.62
Lower Limit ^b	179349	7.30	120131	9.67	178461	10.61	153786	14.01	86763	16.62

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VA9217-MB	333137	7.80	240003	10.17	340630	11.11	286817	14.51	178980	17.11
GP13188-26LB	350545	7.79	239479	10.17	340709	11.11	286479	14.51	179977	17.11
JC66318-1A	328861	7.80	221495	10.17	318360	11.11	276038	14.51	168915	17.11
ZZZZZZ	335424	7.80	233373	10.17	332535	11.11	285383	14.51	179848	17.11
ZZZZZZ	346648	7.80	234322	10.17	336337	11.11	287243	14.51	181096	17.11
ZZZZZZ	340774	7.80	226577	10.17	320422	11.11	277891	14.51	175934	17.11
ZZZZZZ	345345	7.79	230768	10.17	327667	11.11	279844	14.51	178575	17.11
ZZZZZZ	331769	7.80	221970	10.17	317806	11.11	270288	14.51	170703	17.11
ZZZZZZ	335525	7.80	219654	10.17	311570	11.11	271582	14.51	168660	17.11
ZZZZZZ	327230	7.79	215643	10.17	311357	11.11	270573	14.51	167479	17.11
ZZZZZZ	323447	7.80	214527	10.17	311989	11.11	268488	14.51	166681	17.12
ZZZZZZ	321891	7.80	216735	10.17	308282	11.11	265158	14.51	165876	17.11
ZZZZZZ	316093	7.79	210955	10.17	297486	11.11	261176	14.51	162260	17.11

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: VY7784-CC7713	Injection Date: 05/18/18
Lab File ID: Y179939.D	Injection Time: 08:27
Instrument ID: GCMSY	Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	84057	6.97	190531	9.20	286367	10.11	273665	13.29	140326	15.60
Upper Limit ^a	168114	7.47	381062	9.70	572734	10.61	547330	13.79	280652	16.10
Lower Limit ^b	42029	6.47	95266	8.70	143184	9.61	136833	12.79	70163	15.10

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VY7784-BS	90927	6.98	194113	9.20	301916	10.11	298664	13.28	152245	15.60
VY7784-MB	88664	6.98	190615	9.20	294975	10.11	284801	13.29	133614	15.60
JC66236-4	82030	6.98	177331	9.20	306263	10.11	291701	13.29	129344	15.60
JC66236-5	83234	6.96	186513	9.20	308410	10.11	303606	13.29	118597	15.60
ZZZZZZ	89187	6.97	229675	9.20	369522	10.11	351503	13.28	158726	15.60
ZZZZZZ	105792	6.98	205766	9.20	358289	10.11	343376	13.29	159731	15.60
ZZZZZZ	101114	6.98	195350	9.20	328069	10.11	311731	13.28	145361	15.60
JC66236-4DUP	93328	6.97	227471	9.20	343068	10.11	315468	13.28	138895	15.60
ZZZZZZ	116446	6.98	218859	9.20	348310	10.11	340336	13.28	153088	15.60
ZZZZZZ	109381	6.98	225470	9.20	350563	10.11	341099	13.28	158918	15.60
JC66236-5MS	93378	6.97	246423	9.20	384616	10.11	339338	13.28	148046	15.60
ZZZZZZ	112159	6.97	258780	9.20	386850	10.11	356275	13.28	167239	15.60
ZZZZZZ	98911	6.97	250317	9.20	377060	10.11	350024	13.28	167270	15.60
ZZZZZZ	117801	6.97	260775	9.20	418309	10.11	445792	13.28	184110	15.60
ZZZZZZ	95127	6.97	251406	9.20	384773	10.11	361413	13.28	146487	15.60
ZZZZZZ	109601	6.98	226033	9.20	356564	10.11	323939	13.28	142679	15.60
JC66318-1	129075	6.98	219955	9.20	348052	10.11	294291	13.28	105834	15.60
ZZZZZZ	119316	6.97	253229	9.20	398900	10.11	411333	13.28	179118	15.60

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8260C	Matrix: LEACHATE
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC66318-1A	A241802.D	101	96	96	94
GP13188-16LS	A241803A.D	101	94	97	95
GP13188-26LB	A241801.D	103	98	97	92
JC66318-1AMS	A241803.D	101	94	97	95
JC66318-1AMSD	A241804.D	101	92	98	96
VA9217-BS	A241798.D	102	93	98	95
VA9217-MB	A241800.D	101	98	98	92

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	76-120%
S2 = 1,2-Dichloroethane-D4	64-135%
S3 = Toluene-D8	76-117%
S4 = 4-Bromofluorobenzene	72-122%

6.10.1
6

Surrogate Recovery Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8260C	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC66318-1	Y179961.D	112	103	97	126
JC66236-4DUP	Y179949.D	97	89	95	114
JC66236-5MS	Y179952.D	99	84	95	115
VY7784-BS	Y179941.D	100	89	91	109
VY7784-MB	Y179943.D	99	90	91	111

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	75-127%
S2 = 1,2-Dichloroethane-D4	75-130%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	79-127%

6.10.2
6

Initial Calibration Summary

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
Lab FileID: A240809.D

Response Factor Report MSA

Method : C:\msdchem\1\METHODS\MA9165.M (RTE Integrator)
Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
Last Update : Thu Apr 05 12:19:04 2018
Response via : Initial Calibration

Calibration Files

5 =A240806.D 2 =A240805.D 20 =A240808.D 50 =A240809.D
100 =A240810.D 1 =A240804.D 200 =A240811.D 0.5 =A240803.D
10 =A240807.D 0.2 =A240802.D = =

Compound	5	2	20	50	100	1	200	0.5	10	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 -----ISTD-----												
2) ethanol											0.000#	-1.00
3) tertiary butyl alcohol												
	0.880	0.876	0.899	0.874	0.887	0.891	0.857	0.923		0.886		2.21
4) 1,4-dioxane												
	0.060		0.052	0.055	0.057		0.057	0.053		0.056		5.00
5) I pentafluorobenzene -----ISTD-----												
6) chlorodifluoromethane												
	0.798	0.787	0.773	0.755	0.738		0.743	0.799		0.771		3.31
7) dichlorodifluoromethane												
	0.850	0.932	0.852	0.867	0.801	0.773	0.806	0.867		0.844		5.89
8) freon 114											0.000#	-1.00
9) freon 142b											0.000#	-1.00
10) chloromethane												
	0.937	1.055	0.882	0.910	0.912	1.165	0.941	0.897		0.962		10.16
11) vinyl chloride												
	1.008	1.050	0.981	0.999	0.983	0.928	1.000	0.978		0.991		3.47
12) 1,3-butadiene											0.000#	-1.00
13) bromomethane												
	0.577	0.632	0.543	0.540	0.531	0.569	0.516	0.554		0.558		6.43
14) chloroethane												
	0.535	0.611	0.473	0.456	0.426	0.746		0.495		0.534		20.78
----- Linear regression ----- Coefficient = 0.9985												
Response Ratio = 0.00739 + 0.43515 *A												
15) vinyl bromide												
	0.511	0.503	0.512	0.511	0.514	0.471	0.514	0.514		0.506		2.94
16) trichlorofluoromethane												
	0.794	0.833	0.790	0.790	0.781	0.751	0.779	0.793		0.789		2.85
17) ethyl ether												
	0.267	0.260	0.270	0.255	0.254	0.235	0.237	0.282		0.258		6.27
18) acrolein												
	0.158	0.171	0.152	0.141	0.140		0.137	0.148		0.150		8.09
19) freon 113												
	0.399	0.379	0.396	0.385	0.384	0.407	0.376	0.409		0.392		3.21
20) 1,1-dichloroethene												
	0.496	0.465	0.464	0.441	0.463	0.466	0.438	0.478		0.464		3.98
21) acetone												
	0.075	0.075	0.078	0.075	0.077	0.060	0.073	0.084		0.075		9.16

Initial Calibration Summary

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
Lab FileID: A240809.D

22)	acetonitrile	0.132	0.121	0.117	0.113		0.109		0.125		0.120	6.94	
23)	iodomethane	0.949	0.945	0.912	0.878	0.914	1.085	0.864		0.939	0.936	7.24	
24)	carbon disulfide	1.848	1.825	1.722	1.624	1.715	2.190	1.618		1.784	1.791	10.16	
25)	methylene chloride	0.561	0.520	0.534	0.507	0.518	0.613	0.496		0.531	0.535	6.90	
26)	methyl acetate	0.599	0.616	0.533	0.529	0.526		0.501		0.573	0.554	7.67	
27)	methyl tert butyl ether	1.564	1.572	1.608	1.585	1.533	1.768	1.512	1.687	1.600	1.603	4.95	
28)	trans-1,2-dichloroethene	0.488	0.447	0.469	0.439	0.449	0.551	0.425	0.431	0.482	0.465	8.41	
29)	hexane	0.675	0.690	0.641	0.618	0.616	0.831	0.591		0.674	0.667	11.20	
30)	di-isopropyl ether	1.742	1.727	1.741	1.687	1.645	1.993	1.589	1.853	1.753	2.053	1.778	8.28
31)	ethyl tert-butyl ether	1.598	1.555	1.621	1.623	1.608	1.674	1.584	1.490	1.668	1.675	1.610	3.60
32)	2-butanone	0.080	0.066	0.081	0.083	0.083	0.080	0.084		0.082	0.080	7.19	
33)	1,1-dichloroethane	0.929	0.950	0.897	0.842	0.842	1.136	0.797		0.934	0.916	11.34	
34)	chloroprene	0.706	0.683	0.714	0.671	0.691	0.775	0.659		0.720	0.702	5.14	
35)	acrylonitrile	0.293	0.243	0.283	0.274	0.271		0.259		0.292	0.274	6.62	
36)	vinyl acetate	0.091		0.093	0.095	0.093		0.092		0.091	0.093	1.83	
37)	ethyl acetate	0.100	0.094	0.101	0.105	0.104		0.102		0.101	0.101	3.55	
38)	2,2-dichloropropane	0.749	0.967	0.734	0.696	0.680	1.027	0.661		0.764	0.785	17.38	
39)	cis-1,2-dichloroethene	0.548	0.513	0.532	0.508	0.515	0.571	0.497	0.572	0.548	0.534	5.19	
40)	methyl acrylate	0.088		0.097	0.093	0.097		0.096		0.086	0.093	4.94	
41)	propionitrile	0.166	0.168	0.173	0.175	0.169	0.176	0.166		0.173	0.171	2.45	
42)	bromochloromethane	0.299	0.344	0.275	0.259	0.257	0.367	0.251		0.281	0.292	14.67	
43)	tetrahydrofuran	0.329	0.310	0.298	0.294	0.285		0.279		0.306	0.300	5.65	
44)	chloroform	0.839	0.798	0.813	0.769	0.774	0.890	0.740	0.858	0.812	1.009	0.830	9.25
45)	tert-butyl formate	0.515	0.507	0.523	0.505	0.482	0.567	0.473		0.515	0.511	5.59	
46)	dibromofluoromethane (s)	0.505	0.498	0.498	0.496	0.495	0.502	0.505	0.499	0.497	0.490	0.498	0.92
47)	methacrylonitrile	0.255	0.227	0.258	0.259	0.262		0.256		0.260	0.254	4.79	
48)	cyclohexane	0.751	0.800	0.773	0.743	0.738	0.810	0.730	0.801	0.781	0.770	3.91	
49)	1,1,1-trichloroethane	0.755	0.785	0.741	0.719	0.715	0.854	0.702	0.731	0.747	0.750	6.14	
50)	iso-butyl alcohol	0.044	0.055	0.046	0.044	0.047		0.046		0.046	0.047	8.06	
51)	1,1-dichloropropene	0.623	0.589	0.619	0.612	0.620	0.681	0.607	0.646	0.629	0.625	4.15	

6.11.1
6

Initial Calibration Summary

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
Lab FileID: A240809.D

52)	carbon tetrachloride	0.629	0.629	0.650	0.621	0.624	0.727	0.614	0.660	0.637	0.643	5.35	
53)	tert-amyl alcohol	0.069	0.068	0.067	0.069	0.066	0.066	0.070	0.068	2.23			
54)	I 1,4-difluorobenzene	-----ISTD-----											
55)	1,2-dichloroethane-d4 (s)	0.357	0.356	0.366	0.352	0.346	0.355	0.343	0.366	0.365	0.355	2.20	
56)	benzene	1.270	1.255	1.238	1.184	1.183	1.383	1.120	1.377	1.279	1.254	6.95	
57)	iso-octane	1.203	1.185	1.194	1.175	1.245	1.342	1.203	1.330	1.229	1.234	4.99	
58)	tert-amyl methyl ether	1.087	1.089	1.071	1.028	1.012	1.173	0.963	1.140	1.099	1.255	7.68	
59)	heptane	0.237	0.258	0.231	0.222	0.221	0.235	0.217	0.257	0.243	0.236	6.31	
60)	isopropyl acetate	0.075	0.079	0.080	0.078	0.075	0.078	0.078	0.078	2.80			
61)	1,2-dichloroethane	0.402	0.395	0.387	0.372	0.372	0.493	0.356	0.403	0.397	10.56		
62)	n-butyl alcohol	0.019	0.019	0.019	0.019	0.019	0.021	0.019	0.020	0.020	0.019	3.42	
63)	ethyl acrylate	0.385	0.442	0.413	0.418	0.431	0.525	0.421	0.410	0.431	9.63		
64)	trichloroethene	0.280	0.279	0.287	0.275	0.284	0.314	0.274	0.259	0.298	0.282	5.16	
65)	2-nitropropane	0.166	0.162	0.141	0.151	0.147	0.142	0.156	0.152	6.45			
66)	methylcyclohexane	0.627	0.628	0.625	0.589	0.591	0.734	0.561	0.696	0.653	0.634	8.55	
67)	2-chloroethyl vinyl ether	0.172	0.177	0.178	0.186	0.188	0.198	0.184	0.208	0.182	0.186	5.97	
68)	methyl methacrylate	0.080	0.084	0.086	0.092	0.089	0.082	0.086	5.04				
69)	1,2-dichloropropane	0.333	0.360	0.322	0.312	0.316	0.400	0.302	0.330	0.334	9.50		
70)	dibromomethane	0.190	0.193	0.190	0.190	0.190	0.194	0.183	0.191	0.194	0.191	1.77	
71)	bromodichloromethane	0.392	0.380	0.392	0.384	0.386	0.405	0.374	0.402	0.398	0.371	0.388	2.97
72)	epichlorohydrin	0.047	0.046	0.046	0.047	0.046	0.055	0.045	0.047	0.047	6.74		
73)	cis-1,3-dichloropropene	0.449	0.457	0.447	0.461	0.475	0.480	0.467	0.505	0.465	0.467	3.83	
74)	4-methyl-2-pentanone	0.177	0.183	0.178	0.180	0.176	0.197	0.166	0.185	0.180	0.174	0.180	4.44
75)	3-methyl-1-butanol	0.032	0.032	0.031	0.032	0.031	0.040	0.029	0.033	0.032	9.51		
76)	I chlorobenzene-d5	-----ISTD-----											
77)	toluene-d8 (s)	1.351	1.339	1.357	1.332	1.285	1.341	1.243	1.383	1.398	1.332	1.336	3.36
78)	toluene	0.820	0.838	0.827	0.791	0.790	0.896	0.726	0.911	0.890	0.960	0.845	8.18
79)	trans-1,3-dichloropropene	0.458	0.463	0.473	0.462	0.454	0.491	0.420	0.507	0.495	0.469	5.56	
80)	ethyl methacrylate	0.475	0.484	0.486	0.463	0.452	0.490	0.422	0.520	0.474	6.16		
81)	1,1,2-trichloroethane	0.265	0.252	0.258	0.249	0.242	0.279	0.228	0.234	0.276	0.254	6.97	

Initial Calibration Summary

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Job Number: JC66318
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
 Lab FileID: A240809.D

82)	2-hexanone	0.186	0.184	0.182	0.173	0.169	0.189	0.157	0.184	0.200	0.194	0.182	6.92
83)	tetrachloroethene	0.348	0.314	0.340	0.327	0.325	0.362	0.302	0.311	0.364		0.333	6.76
84)	1,3-dichloropropane	0.475	0.502	0.481	0.475	0.465	0.558	0.437	0.551	0.489		0.492	7.99
85)	butyl acetate	0.417		0.303	0.263	0.255		0.237		0.352		0.305	22.53
	----- Linear regression -----	Coefficient = 0.9987											
	Response Ratio = 0.02077 + 0.23792 *A												
86)	3,3-dimethyl-1-butanol											0.000#	-1.00
87)	dibromochloromethane	0.341	0.333	0.326	0.327	0.320	0.403	0.303		0.356		0.339	8.98
88)	1,2-dibromoethane	0.316	0.293	0.306	0.299	0.299	0.313	0.283	0.264	0.324		0.300	6.07
89)	n-butyl ether	1.606	1.596	1.619	1.478	1.411	1.748	1.271		1.644		1.547	9.79
90)	chlorobenzene	0.819	0.810	0.807	0.804	0.808	0.883	0.773	0.822	0.832	0.838	0.820	3.48
91)	1,1,1,2-tetrachloroethane	0.407	0.397	0.409	0.381	0.365	0.388	0.337	0.445	0.429		0.395	8.23
92)	ethylbenzene	1.441	1.441	1.474	1.379	1.386	1.588	1.282	1.599	1.508	1.719	1.482	8.56
93)	m,p-xylene	0.554	0.534	0.561	0.535	0.537	0.568	0.505	0.574	0.588	0.658	0.561	7.41
94)	o-xylene	0.618	0.602	0.644	0.596	0.587	0.674	0.544	0.630	0.657	0.549	0.610	7.11
95)	styrene	0.906	0.901	0.896	0.831	0.847	0.961	0.803	1.055	0.923	0.935	0.906	7.91
96)	butyl acrylate	0.797	0.797	0.757	0.665	0.624		0.568		0.813		0.717	13.63
97)	bromoform	0.231	0.210	0.229	0.215	0.211	0.251	0.202	0.184	0.234		0.219	9.04
98)	isopropylbenzene	1.648	1.647	1.755	1.632	1.556	1.768	1.410	1.707	1.839		1.662	7.65
99)	cis-1,4-dichloro-2-butene	0.179	0.178	0.173	0.156	0.148		0.138		0.190		0.166	11.33
100)	I 1,4-dichlorobenzene-d	-----ISTD-----											
101)	4-bromofluorobenzene (s)	0.797	0.801	0.808	0.834	0.868	0.792	0.877	0.785	0.784	0.798	0.814	4.15
102)	bromobenzene	0.641	0.643	0.656	0.653	0.701	0.695	0.681	0.667	0.644		0.664	3.43
103)	1,1,2,2-tetrachloroethane	0.930	0.933	0.964	0.981	0.967	1.035	0.902	0.991	0.963		0.963	4.04
104)	trans-1,4-dichloro-2-butene	0.209	0.191	0.190	0.184	0.177		0.163		0.190		0.186	7.67
105)	1,2,3-trichloropropane	0.227	0.230	0.229	0.230	0.237	0.225	0.221		0.233		0.229	2.17
106)	n-propylbenzene	3.183	3.254	3.369	3.392	3.451	3.561	3.186	3.335	3.412	3.933	3.408	6.42
107)	2-chlorotoluene	0.648	0.656	0.708	0.726	0.754	0.726	0.731	0.622	0.695		0.696	6.41
108)	4-chlorotoluene	1.716	1.788	1.776	1.754	1.817	1.923	1.761	1.841	1.803		1.798	3.32
109)	4-ethyltoluene											0.000#	-1.00
110)	1,3,5-trimethylbenzene												

Initial Calibration Summary

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICC9165
Lab FileID: A240809.D

	2.498	2.398	2.635	2.758	2.765	2.656	2.604	2.584	2.642	2.953	2.649	5.77
111)	tert-butylbenzene											
	0.471	0.443	0.552	0.596	0.616	0.530	0.579		0.536		0.540	11.00
112)	1,2,4-trimethylbenzene											
	2.417	2.338	2.605	2.632	2.698	2.628	2.490	2.518	2.590	2.927	2.584	6.28
113)	sec-butylbenzene											
	3.263	3.111	3.598	3.716	3.757	3.476	3.394	3.110	3.532	3.574	3.453	6.68
114)	1,3-dichlorobenzene											
	1.217	1.201	1.281	1.260	1.244	1.391	1.173	1.229	1.285	1.423	1.270	6.31
115)	p-isopropyltoluene											
	2.721	2.628	2.939	3.008	3.052	2.859	2.807	2.738	2.939	2.907	2.860	4.73
116)	1,4-dichlorobenzene											
	1.302	1.219	1.289	1.266	1.252	1.373	1.182	1.427	1.312		1.291	5.82
117)	1,2-dichlorobenzene											
	1.315	1.342	1.382	1.358	1.332	1.496	1.248	1.573	1.422	1.436	1.390	6.79
118)	1,4-diethylbenzene											
											0.000#	-1.00
119)	n-butylbenzene											
	1.428	1.440	1.528	1.453	1.458	1.559	1.359	1.585	1.518	1.697	1.503	6.40
120)	1,2,4,5-tetramethylbenzene											
											0.000#	-1.00
121)	1,2-dibromo-3-chloropropane											
	0.271	0.260	0.259	0.258	0.248	0.284	0.226	0.259	0.275		0.260	6.45
122)	1,3,5-trichlorobenzene											
	1.305	1.184	1.313	1.300	1.239	1.480	1.159	1.327	1.365	1.488	1.316	8.30
123)	2-ethylhexyl acrylate											
	0.965	1.043	0.984	0.984	0.938	1.093	0.886		1.080		0.997	7.14
124)	1,2,4-trichlorobenzene											
	1.119	1.060	1.152	1.123	1.060	1.208	0.987	1.202	1.214	1.284	1.141	7.82
125)	hexachlorobutadiene											
	0.469	0.441	0.489	0.503	0.505	0.503	0.492	0.401	0.498		0.478	7.45
126)	naphthalene											
	3.027	3.144	2.923	2.833	2.713		2.448		3.167		2.894	8.82
127)	1,2,3-trichlorobenzene											
	1.006	0.975	1.043	1.033	0.993	1.080	0.924	1.120	1.078	1.059	1.031	5.62
128)	hexachloroethane											
	0.431	0.413	0.494	0.555	0.564		0.542		0.498		0.500	11.91
129)	2-methylnaphthalene											
	1.105	1.133	1.144	1.094	1.169		1.101		1.195		1.134	3.33

(#) = Out of Range ### Number of calibration levels exceeded format ###

MA9165.M

Thu Apr 05 12:23:06 2018 RPT1

Initial Calibration Verification

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
Lab FileID: A240814.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VA9165\A240814.D Vial: 14
Acq On : 3 Apr 2018 11:40 pm Operator: JessicaP
Sample : icv9165-50 Inst : MSA
Misc : MS25128,VA9165,5,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\MA9165.M (RTE Integrator)
Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
Last Update : Thu Apr 05 11:21:49 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	107	0.00	7.81
2	ethanol			-----NA-----			
3 M	tertiary butyl alcohol	0.886	0.904	-2.0	110	0.03	7.97
4	1,4-dioxane	0.056	0.056	0.0	108	0.00	11.86
5 I	pentafluorobenzene	1.000	1.000	0.0	109	0.00	10.18
6 M	chlorodifluoromethane	0.771	0.713	7.5	103	0.02	4.20
7 M	dichlorodifluoromethane	0.844	0.760	10.0	96	0.02	4.20
8	freon 114			-----NA-----			
9	freon 142b			-----NA-----			
10 M	chloromethane	0.962	0.842	12.5	101	0.01	4.54
11 M	vinyl chloride	0.991	0.867	12.5	95	0.02	4.83
12	1,3-butadiene			-----NA-----			
13 M	bromomethane	0.558	0.515	7.7	104	0.00	5.52
	----- True Calc. % Drift -----						
14 M	chloroethane	50.000	48.193	3.6	102	0.00	5.71
	----- AvgRF CCRF % Dev -----						
15	vinyl bromide	0.506	0.532	-5.1	114	0.00	6.09
16 M	trichlorofluoromethane	0.789	0.726	8.0	100	0.02	6.24
17 M	ethyl ether	0.258	0.261	-1.2	112	0.00	6.68
18 M	acrolein	0.150	0.189	-26.0	147	0.00	6.91
19	freon 113	0.392	0.452	-15.3	128	0.01	7.11
20 M	1,1-dichloroethene	0.464	0.424	8.6	105	0.01	7.11
21 M	acetone	0.075	0.068	9.3	99	0.01	7.16
22 M	acetonitrile	0.120	0.141	-17.5	132	0.07	7.67
23 M	iodomethane	0.936	0.876	6.4	109	0.01	7.40
24 M	carbon disulfide	1.791	1.682	6.1	113	0.00	7.53
25 M	methylene chloride	0.535	0.520	2.8	112	0.00	7.86
26 M	methyl acetate	0.554	0.511	7.8	105	0.00	7.66
27 M	methyl tert butyl ether	1.603	1.564	2.4	108	0.00	8.25
28 M	trans-1,2-dichloroethene	0.465	0.436	6.2	108	0.00	8.27
29	hexane	0.667	0.532	20.2	94	0.00	8.63
30 M	di-isopropyl ether	1.778	1.665	6.4	108	0.00	8.88
31 M	ethyl tert-butyl ether	1.610	1.598	0.7	107	0.00	9.36
32 M	2-butanone	0.080	0.080	0.0	104	0.01	9.59
33 M	1,1-dichloroethane	0.916	0.836	8.7	108	0.00	8.86
34 M	chloroprene	0.702	0.695	1.0	113	0.00	8.99
35 M	acrylonitrile	0.274	0.293	-6.9	116	0.00	8.20
36 M	vinyl acetate	0.093	0.097	-4.3	111	0.00	8.86
37 M	ethyl acetate	0.101	0.108	-6.9	112	0.00	9.62

Initial Calibration Verification

Job Number: JC66318
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
 Lab FileID: A240814.D

38	M	2,2-dichloropropane	0.785	0.659	16.1	103	0.00	9.66
39	M	cis-1,2-dichloroethene	0.534	0.519	2.8	111	0.00	9.63
40		methyl acrylate	0.093	0.088	5.4	104	0.00	9.70
41	M	propionitrile	0.171	0.175	-2.3	109	0.00	9.68
42	M	bromochloromethane	0.292	0.257	12.0	108	0.00	9.94
43	M	tetrahydrofuran	0.300	0.385	-28.3	143	0.00	9.99
44	M	chloroform	0.830	0.777	6.4	110	0.00	10.00
45		tert-butyl formate	0.511	0.427	16.4	92	0.00	10.07
46	S	dibromofluoromethane (s)	0.498	0.499	-0.2	110	0.00	10.21
47	M	methacrylonitrile	0.254	0.251	1.2	106	0.00	9.88
48		cyclohexane	0.770	0.941	-22.2	138	0.00	10.38
49	M	1,1,1-trichloroethane	0.750	0.685	8.7	104	0.00	10.29
50		iso-butyl alcohol	0.047	0.046	2.1	114	0.00	10.45
51		1,1-dichloropropene	0.625	0.602	3.7	107	0.00	10.47
52		carbon tetrachloride	0.643	0.603	6.2	106	0.00	10.51
53		tert-amyl alcohol	0.068	0.069	-1.5	109	0.00	10.60
54	I	1,4-difluorobenzene	1.000	1.000	0.0	108	0.00	11.12
55	S	1,2-dichloroethane-d4 (s)	0.356	0.353	0.8	108	0.00	10.64
56	M	benzene	1.254	1.177	6.1	107	0.00	10.74
57	M	iso-octane	1.234	1.174	4.9	108	0.00	10.79
58		tert-amyl methyl ether	1.092	1.025	6.1	108	0.00	10.80
59	M	heptane	0.236	0.240	-1.7	117	0.00	10.95
60	M	isopropyl acetate	0.078	0.078	0.0	106	0.00	10.67
61	M	1,2-dichloroethane	0.397	0.373	6.0	108	0.00	10.73
62		n-butyl alcohol	0.019	0.019	0.0	107	0.00	11.22
63		ethyl acrylate	0.431	0.411	4.6	106	0.00	11.48
64	M	trichloroethene	0.283	0.275	2.8	108	0.00	11.47
65	M	2-nitropropane	0.152	0.190	-25.0	136	0.00	12.27
66	m	methylcyclohexane	0.634	0.568	10.4	104	0.00	11.74
67	M	2-chloroethyl vinyl ether	0.186	0.192	-3.2	112	0.00	12.30
68	M	methyl methacrylate	0.086	0.083	3.5	105	0.00	11.75
69	M	1,2-dichloropropane	0.334	0.309	7.5	107	0.00	11.74
70	M	dibromomethane	0.191	0.192	-0.5	109	0.00	11.90
71	M	bromodichloromethane	0.388	0.376	3.1	106	0.00	12.03
72		epichlorohydrin	0.047	0.044	6.4	102	0.00	12.42
73	M	cis-1,3-dichloropropene	0.467	0.451	3.4	106	0.00	12.53
74	M	4-methyl-2-pentanone	0.180	0.176	2.2	106	0.00	12.65
75	M	3-methyl-1-butanol	0.032	0.032	0.0	107	0.00	12.65
76	I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	14.52
77	S	toluene-d8 (s)	1.336	1.356	-1.5	104	0.00	12.86
78		toluene	0.845	0.830	1.8	107	0.00	12.94
79		trans-1,3-dichloropropene	0.469	0.442	5.8	98	0.00	13.13
80		ethyl methacrylate	0.474	0.449	5.3	99	0.00	13.15
81		1,1,2-trichloroethane	0.254	0.256	-0.8	105	0.00	13.36
82		2-hexanone	0.182	0.173	4.9	102	0.00	13.57
83	M	tetrachloroethene	0.333	0.380	-14.1	119	0.00	13.58
84	M	1,3-dichloropropane	0.492	0.490	0.4	105	0.00	13.57
		----- True	Calc.	% Drift	-----			
85	M	butyl acetate	50.000	53.430	-6.9	107	0.00	13.66
		----- AvgRF	CCRF	% Dev	-----			
86		3,3-dimethyl-1-butanol			NA			
87	M	dibromochloromethane	0.339	0.339	0.0	106	0.00	13.85
88	M	1,2-dibromoethane	0.300	0.307	-2.3	105	0.00	14.02
89	M	n-butyl ether	1.547	1.430	7.6	99	0.00	14.49
90	M	chlorobenzene	0.820	0.785	4.3	100	0.00	14.55
91	M	1,1,1,2-tetrachloroethane	0.395	0.392	0.8	105	0.00	14.61

Initial Calibration Verification

Page 3 of 3

Job Number: JC66318
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
 Lab FileID: A240814.D

92	M	ethylbenzene	1.482	1.388	6.3	103	0.00	14.63
93	M	m,p-xylene	0.561	0.534	4.8	102	0.00	14.75
94	M	o-xylene	0.610	0.604	1.0	104	0.00	15.21
95	M	styrene	0.906	0.839	7.4	103	0.00	15.22
96		butyl acrylate	0.717	0.682	4.9	105	0.00	15.02
97	M	bromoform	0.219	0.226	-3.2	107	0.00	15.48
98		isopropylbenzene	1.662	1.652	0.6	103	0.00	15.60
99		cis-1,4-dichloro-2-butene	0.166	0.156	6.0	102	0.00	15.65
100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	17.12
101	S	4-bromofluorobenzene (s)	0.814	0.829	-1.8	103	0.00	15.81
102	M	bromobenzene	0.664	0.656	1.2	104	0.00	16.03
103	M	1,1,2,2-tetrachloroethane	0.963	0.973	-1.0	103	0.00	15.91
104	M	trans-1,4-dichloro-2-bute	0.186	0.232	-24.7	131	0.00	15.96
105	M	1,2,3-trichloropropane	0.229	0.240	-4.8	108	0.00	16.00
106	M	n-propylbenzene	3.408	3.373	1.0	103	0.00	16.06
107	M	2-chlorotoluene	0.696	0.704	-1.1	101	0.00	16.22
108	M	4-chlorotoluene	1.798	1.815	-0.9	107	0.00	16.32
109		4-ethyltoluene			-----NA-----			
110	M	1,3,5-trimethylbenzene	2.649	2.700	-1.9	102	0.00	16.23
111	M	tert-butylbenzene	0.540	0.603	-11.7	105	0.00	16.63
112	M	1,2,4-trimethylbenzene	2.584	2.673	-3.4	105	0.00	16.67
113	M	sec-butylbenzene	3.453	3.733	-8.1	104	0.00	16.87
114	M	1,3-dichlorobenzene	1.270	1.261	0.7	104	0.00	17.06
115	M	p-isopropyltoluene	2.860	2.997	-4.8	103	0.00	17.00
116	M	1,4-dichlorobenzene	1.291	1.264	2.1	104	0.00	17.15
117	M	1,2-dichlorobenzene	1.390	1.355	2.5	104	0.00	17.59
118		1,4-diethylbenzene			-----NA-----			
119	M	n-butylbenzene	1.503	1.467	2.4	105	0.00	17.46
120		1,2,4,5-tetramethylbenzen			-----NA-----			
121	M	1,2-dibromo-3-chloropropa	0.260	0.259	0.4	104	0.00	18.43
122	M	1,3,5-trichlorobenzene	1.316	1.290	2.0	103	0.00	18.65
123		2-ethylhexyl acrylate	0.997	1.003	-0.6	106	0.00	19.36
124	M	1,2,4-trichlorobenzene	1.141	1.142	-0.1	106	0.00	19.37
125	M	hexachlorobutadiene	0.478	0.485	-1.5	100	0.00	19.53
126	M	naphthalene	2.894	2.957	-2.2	108	0.00	19.70
127	M	1,2,3-trichlorobenzene	1.031	1.033	-0.2	104	0.00	19.97
128	M	hexachloroethane	0.500	0.575	-15.0	108	0.00	17.89
129		2-methylnaphthalene	1.134	1.054	7.1	100	0.00	20.99

(#) = Out of Range
 A240809.D MA9165.M

SPCC's out = 0 CCC's out = 0
 Thu Apr 05 11:39:45 2018 RPT1

6.11.2
6

Initial Calibration Verification

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
Lab FileID: A240815.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VA9165\A240815.D Vial: 15
Acq On : 4 Apr 2018 12:09 am Operator: JessicaP
Sample : icv9165-50 Inst : MSA
Misc : MS25128,VA9165,5,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\MA9165.M (RTE Integrator)
Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
Last Update : Thu Apr 05 12:19:04 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	105	0.00	7.81
2	ethanol			NA			
3 M	tertiary butyl alcohol			NA			
4	1,4-dioxane			NA			
5 I	pentafluorobenzene	1.000	1.000	0.0	104	0.00	10.18
6 M	chlorodifluoromethane			NA			
7 M	dichlorodifluoromethane			NA			
8	freon 114			NA			
9	freon 142b			NA			
10 M	chloromethane			NA			
11 M	vinyl chloride			NA			
12	1,3-butadiene			NA			
13 M	bromomethane			NA			
	----- True		Calc.	% Drift			
14 M	chloroethane			NA			
	----- AvgRF		CCRF	% Dev			
15	vinyl bromide			NA			
16 M	trichlorofluoromethane			NA			
17 M	ethyl ether			NA			
18 M	acrolein			NA			
19	freon 113			NA			
20 M	1,1-dichloroethene			NA			
21 M	acetone			NA			
22 M	acetonitrile	0.120	0.114	5.0	102	0.02	7.62
23 M	iodomethane			NA			
24 M	carbon disulfide			NA			
25 M	methylene chloride			NA			
26 M	methyl acetate			NA			
27 M	methyl tert butyl ether			NA			
28 M	trans-1,2-dichloroethene			NA			
29	hexane			NA			
30 M	di-isopropyl ether			NA			
31 M	ethyl tert-butyl ether			NA			
32 M	2-butanone			NA			
33 M	1,1-dichloroethane			NA			
34 M	chloroprene			NA			
35 M	acrylonitrile			NA			
36 M	vinyl acetate			NA			
37 M	ethyl acetate			NA			

Initial Calibration Verification

Page 2 of 3

Job Number: JC66318
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
 Lab FileID: A240815.D

38	M	2,2-dichloropropane							
39	M	cis-1,2-dichloroethene							
40		methyl acrylate							
41	M	propionitrile							
42	M	bromochloromethane							
43	M	tetrahydrofuran							
44	M	chloroform							
45		tert-butyl formate							
46	S	dibromofluoromethane (s)	0.498	0.503	-1.0	105	0.00	10.20	
47	M	methacrylonitrile							
48		cyclohexane							
49	M	1,1,1-trichloroethane							
50		iso-butyl alcohol							
51		1,1-dichloropropene							
52		carbon tetrachloride							
53		tert-amyl alcohol							
54	I	1,4-difluorobenzene	1.000	1.000	0.0	98	0.00	11.12	
55	S	1,2-dichloroethane-d4 (s)	0.356	0.363	-2.0	101	0.00	10.64	
56	M	benzene							
57	M	iso-octane							
58		tert-amyl methyl ether							
59	M	heptane							
60	M	isopropyl acetate							
61	M	1,2-dichloroethane							
62		n-butyl alcohol							
63		ethyl acrylate							
64	M	trichloroethene							
65	M	2-nitropropane							
66	m	methylcyclohexane							
67	M	2-chloroethyl vinyl ether							
68	M	methyl methacrylate							
69	M	1,2-dichloropropane							
70	M	dibromomethane							
71	M	bromodichloromethane							
72		epichlorohydrin							
73	M	cis-1,3-dichloropropene							
74	M	4-methyl-2-pentanone							
75	M	3-methyl-1-butanol							
76	I	chlorobenzene-d5	1.000	1.000	0.0	89	0.00	14.52	
77	S	toluene-d8 (s)	1.336	1.348	-0.9	90	0.00	12.86	
78		toluene							
79		trans-1,3-dichloropropene							
80		ethyl methacrylate							
81		1,1,2-trichloroethane							
82		2-hexanone							
83	M	tetrachloroethene	0.333	0.309	7.2	84	0.00	13.58	
84	M	1,3-dichloropropane							
85	M	butyl acetate							
86		3,3-dimethyl-1-butanol							
87	M	dibromochloromethane							
88	M	1,2-dibromoethane							
89	M	n-butyl ether							
90	M	chlorobenzene							
91	M	1,1,1,2-tetrachloroethane							

----- True Calc. % Drift -----

----- AvgRF CCRF % Dev -----

6.11.3

6

Initial Calibration Verification

Page 3 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9165-ICV9165
Lab FileID: A240815.D

92	M	ethylbenzene							-----NA-----
93	M	m,p-xylene							-----NA-----
94	M	o-xylene							-----NA-----
95	M	styrene							-----NA-----
96		butyl acrylate							-----NA-----
97	M	bromoform							-----NA-----
98		isopropylbenzene							-----NA-----
99		cis-1,4-dichloro-2-butene							-----NA-----
100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	108	0.00	17.12	
101	S	4-bromofluorobenzene (s)	0.814	0.775	4.8	100	0.00	15.81	
102	M	bromobenzene							-----NA-----
103	M	1,1,2,2-tetrachloroethane							-----NA-----
104	M	trans-1,4-dichloro-2-bute							-----NA-----
105	M	1,2,3-trichloropropane							-----NA-----
106	M	n-propylbenzene							-----NA-----
107	M	2-chlorotoluene							-----NA-----
108	M	4-chlorotoluene							-----NA-----
109		4-ethyltoluene							-----NA-----
110	M	1,3,5-trimethylbenzene							-----NA-----
111	M	tert-butylbenzene							-----NA-----
112	M	1,2,4-trimethylbenzene							-----NA-----
113	M	sec-butylbenzene							-----NA-----
114	M	1,3-dichlorobenzene							-----NA-----
115	M	p-isopropyltoluene							-----NA-----
116	M	1,4-dichlorobenzene							-----NA-----
117	M	1,2-dichlorobenzene							-----NA-----
118		1,4-diethylbenzene							-----NA-----
119	M	n-butylbenzene							-----NA-----
120		1,2,4,5-tetramethylbenzen							-----NA-----
121	M	1,2-dibromo-3-chloropropa							-----NA-----
122	M	1,3,5-trichlorobenzene							-----NA-----
123		2-ethylhexyl acrylate							-----NA-----
124	M	1,2,4-trichlorobenzene							-----NA-----
125	M	hexachlorobutadiene							-----NA-----
126	M	naphthalene							-----NA-----
127	M	1,2,3-trichlorobenzene							-----NA-----
128	M	hexachloroethane							-----NA-----
129		2-methylnaphthalene							-----NA-----

(#) = Out of Range
A240809.D MA9165.M

SPCC's out = 0 CCC's out = 0
Thu Apr 05 12:22:15 2018 RPT1

6.11.3

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9217-CC9165
Lab FileID: A241796.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\kenrickb\va9217\va921796.d Vial: 24
Acq On : 21 May 2018 7:11 pm Operator: jessicap
Sample : cc9165-50 Inst : MSA
Misc : MS26493,VA9217,5,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MA9165.M (RTE Integrator)
Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
Last Update : Tue Apr 17 15:31:13 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	100	0.00	7.80
2	ethanol			NA			
3 M	tertiary butyl alcohol	0.886	0.996	-12.4	115	0.00	7.93
4	1,4-dioxane	0.056	0.070	-25.0#	127	0.00	11.85
5 I	pentafluorobenzene	1.000	1.000	0.0	99	0.00	10.17
6 M	chlorodifluoromethane	0.771	0.711	7.8	93	0.02	4.21
7 M	dichlorodifluoromethane	0.844	1.066	-26.3#	121	0.02	4.20
8	freon 114			NA			
9	freon 142b			NA			
10 M	chloromethane	0.962	1.129	-17.4	122	0.02	4.54
11 M	vinyl chloride	0.991	1.253	-26.4#	124	0.03	4.85
12	1,3-butadiene			NA			
13 M	bromomethane	0.558	0.731	-31.0#	133	0.02	5.54
	----- True						
14 M	chloroethane	50.000	63.258	-26.5#	121	0.00	5.70
	----- AvgRF						
15	vinyl bromide	0.506	0.692	-36.8#	134	0.00	6.10
16 M	trichlorofluoromethane	0.789	0.958	-21.4#	120	0.02	6.25
17 M	ethyl ether			NA			
18 M	acrolein	0.150	0.121	19.3	85	0.00	6.90
19	freon 113	0.392	0.450	-14.8	115	0.02	7.13
20 M	1,1-dichloroethene	0.464	0.508	-9.5	114	0.00	7.10
21 M	acetone	0.075	0.071	5.3	93	-0.01	7.14
22 M	acetonitrile	0.120	0.108	10.0	91	0.00	7.60
23 M	iodomethane			NA			
24 M	carbon disulfide	1.791	1.565	12.6	95	0.00	7.52
25 M	methylene chloride	0.535	0.577	-7.9	112	0.00	7.85
26 M	methyl acetate	0.554	0.446	19.5	83	0.00	7.65
27 M	methyl tert butyl ether	1.603	1.782	-11.2	111	0.00	8.24
28 M	trans-1,2-dichloroethene	0.465	0.484	-4.1	109	0.00	8.26
29	hexane	0.667	0.485	27.3#	77	0.00	8.62
30 M	di-isopropyl ether	1.778	1.534	13.7	90	0.00	8.87
31 M	ethyl tert-butyl ether	1.610	1.668	-3.6	101	0.00	9.36
32 M	2-butanone	0.080	0.084	-5.0	100	0.00	9.58
33 M	1,1-dichloroethane	0.916	0.847	7.5	99	0.00	8.85
34 M	chloroprene	0.702	0.636	9.4	94	0.00	8.98
35 M	acrylonitrile			NA			
36 M	vinyl acetate	0.093	0.095	-2.2	98	0.00	8.86
37 M	ethyl acetate	0.101	0.086	14.9	81	0.00	9.61

Continuing Calibration Summary

Page 2 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9217-CC9165
Lab FileID: A241796.D

38 M	2,2-dichloropropane	0.785	0.702	10.6	100	0.00	9.65
39 M	cis-1,2-dichloroethene	0.534	0.560	-4.9	109	0.00	9.62
40	methyl acrylate			-----NA-----			
41 M	propionitrile			-----NA-----			
42 M	bromochloromethane	0.292	0.285	2.4	109	0.00	9.93
43 M	tetrahydrofuran			-----NA-----			
44 M	chloroform	0.830	0.834	-0.5	107	-0.01	9.99
45	tert-butyl formate	0.511	0.504	1.4	98	0.00	10.06
46 S	dibromofluoromethane (s)	0.498	0.507	-1.8	101	0.00	10.19
47 M	methacrylonitrile			-----NA-----			
48	cyclohexane	0.770	0.809	-5.1	107	0.00	10.38
49 M	1,1,1-trichloroethane	0.750	0.870	-16.0	119	0.00	10.28
50	iso-butyl alcohol	0.047	0.047	0.0	104	0.00	10.44
51	1,1-dichloropropene	0.625	0.629	-0.6	101	0.00	10.46
52	carbon tetrachloride	0.643	0.749	-16.5	119	0.00	10.49
53	tert-amyl alcohol	0.068	0.076	-11.8	108	0.00	10.59
54 I	1,4-difluorobenzene	1.000	1.000	0.0	95	0.00	11.11
55 S	1,2-dichloroethane-d4 (s)	0.356	0.340	4.5	91	0.00	10.63
56 M	benzene	1.254	1.295	-3.3	103	0.00	10.73
57 M	iso-octane	1.234	1.154	6.5	93	0.00	10.78
58	tert-amyl methyl ether	1.092	1.172	-7.3	108	0.00	10.79
59 M	heptane	0.236	0.196	16.9	83	0.00	10.94
60 M	isopropyl acetate	0.078	0.084	-7.7	99	0.00	10.66
61 M	1,2-dichloroethane	0.397	0.384	3.3	98	0.00	10.72
62	n-butyl alcohol	0.019	0.022	-15.8	105	0.00	11.22
63	ethyl acrylate	0.431	0.381	11.6	86	0.00	11.47
64 M	trichloroethene	0.283	0.317	-12.0	109	0.00	11.47
65 M	2-nitropropane			-----NA-----			
66 m	methylcyclohexane	0.634	0.621	2.1	100	0.00	11.73
67 M	2-chloroethyl vinyl ether	0.186	0.170	8.6	87	0.00	12.29
68 M	methyl methacrylate			-----NA-----			
69 M	1,2-dichloropropane	0.334	0.317	5.1	96	0.00	11.74
70 M	dibromomethane	0.191	0.210	-9.9	104	0.00	11.88
71 M	bromodichloromethane	0.388	0.424	-9.3	104	0.00	12.03
72	epichlorohydrin	0.047	0.042	10.6	86	0.00	12.41
73 M	cis-1,3-dichloropropene	0.467	0.471	-0.9	96	0.00	12.52
74 M	4-methyl-2-pentanone	0.180	0.186	-3.3	98	0.00	12.64
75 M	3-methyl-1-butanol	0.032	0.035	-9.4	105	0.00	12.64
76 I	chlorobenzene-d5	1.000	1.000	0.0	98	0.00	14.51
77 S	toluene-d8 (s)	1.336	1.313	1.7	96	0.00	12.85
78	toluene	0.845	0.865	-2.4	107	0.00	12.93
79	trans-1,3-dichloropropene	0.469	0.460	1.9	97	0.00	13.12
80	ethyl methacrylate			-----NA-----			
81	1,1,2-trichloroethane	0.254	0.266	-4.7	104	0.00	13.35
82	2-hexanone	0.182	0.179	1.6	101	0.00	13.56
83 M	tetrachloroethene	0.333	0.382	-14.7	114	0.00	13.57
84 M	1,3-dichloropropane	0.492	0.493	-0.2	101	0.00	13.56
85 M	butyl acetate	50.000	48.159	3.7	93	0.00	13.65
86	3,3-dimethyl-1-butanol			-----NA-----			
87 M	dibromochloromethane	0.339	0.367	-8.3	110	0.00	13.85
88 M	1,2-dibromoethane	0.300	0.347	-15.7	113	0.00	14.01
89 M	n-butyl ether	1.547	1.451	6.2	96	0.00	14.48
90 M	chlorobenzene	0.820	0.917	-11.8	111	0.00	14.54
91 M	1,1,1,2-tetrachloroethane	0.395	0.452	-14.4	116	0.00	14.61

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Continuing Calibration Summary

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VA9217-CC9165
Lab FileID: A241796.D

92 M	ethylbenzene	1.482	1.576	-6.3	112	0.00	14.62
93 M	m,p-xylene	0.561	0.617	-10.0	113	0.00	14.74
94 M	o-xylene	0.610	0.695	-13.9	114	0.00	15.21
95 M	styrene	0.906	0.983	-8.5	116	0.00	15.21
96	butyl acrylate	0.717	0.648	9.6	95	0.00	15.01
97 M	bromoform	0.219	0.261	-19.2	118	0.00	15.48
98	isopropylbenzene	1.662	1.875	-12.8	112	0.00	15.59
99	cis-1,4-dichloro-2-butene	0.166	0.160	3.6	101	0.00	15.65
100 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	113	0.00	17.12
101 S	4-bromofluorobenzene (s)	0.814	0.792	2.7	107	0.00	15.80
102 M	bromobenzene	0.664	0.716	-7.8	124	0.00	16.02
103 M	1,1,2,2-tetrachloroethane	0.963	0.962	0.1	111	0.00	15.90
104 M	trans-1,4-dichloro-2-bute	0.186	0.252	-35.5#	155	0.00	15.95
105 M	1,2,3-trichloropropane	0.229	0.248	-8.3	122	0.00	15.99
106 M	n-propylbenzene	3.408	3.442	-1.0	115	0.00	16.05
107 M	2-chlorotoluene	0.696	0.777	-11.6	121	0.00	16.21
108 M	4-chlorotoluene	1.798	1.830	-1.8	118	0.00	16.31
109	4-ethyltoluene			-----NA-----			
110 M	1,3,5-trimethylbenzene	2.649	2.811	-6.1	115	0.00	16.22
111 M	tert-butylbenzene	0.540	0.626	-15.9	119	0.00	16.62
112 M	1,2,4-trimethylbenzene	2.584	2.634	-1.9	113	0.00	16.67
113 M	sec-butylbenzene	3.453	3.777	-9.4	115	0.00	16.86
114 M	1,3-dichlorobenzene	1.270	1.372	-8.0	123	0.00	17.05
115 M	p-isopropyltoluene	2.860	3.092	-8.1	116	0.00	16.99
116 M	1,4-dichlorobenzene	1.291	1.373	-6.4	123	0.00	17.14
117 M	1,2-dichlorobenzene	1.390	1.466	-5.5	122	0.00	17.58
118	1,4-diethylbenzene			-----NA-----			
119 M	n-butylbenzene	1.503	1.476	1.8	115	0.00	17.46
120	1,2,4,5-tetramethylbenzen			-----NA-----			
121 M	1,2-dibromo-3-chloropropa	0.260	0.306	-17.7	134	-0.01	18.42
122 M	1,3,5-trichlorobenzene	1.316	1.347	-2.4	117	0.00	18.64
123	2-ethylhexyl acrylate	0.997	0.741	25.7#	85	0.00	19.35
124 M	1,2,4-trichlorobenzene	1.141	1.214	-6.4	122	0.00	19.36
125 M	hexachlorobutadiene	0.478	0.516	-7.9	116	0.00	19.52
126 M	naphthalene	2.894	3.570	-23.4#	143	0.00	19.69
127 M	1,2,3-trichlorobenzene	1.031	1.241	-20.4#	136	0.00	19.96
128 M	hexachloroethane			-----NA-----			
129	2-methylnaphthalene	1.134	2.016	-77.8#	208#	0.00	20.97
130	ethylenimine			-----NA-----			
131	bis(chloromethyl)ether			-----NA-----			

(#) = Out of Range
A240809.D MA9165.M

SPCC's out = 0 CCC's out = 0
Wed May 23 00:34:45 2018

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Initial Calibration Summary

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICC7713
Lab FileID: Y178412.D

Response Factor Report MSY

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
Last Update : Thu May 17 08:41:26 2018
Response via : Initial Calibration

Calibration Files

4 =Y178409.D 8 =Y178410.D 0.5 =Y178406.D 50 =Y178412.D
100 =Y178413.D 1 =Y178407.D 200 =Y178414.D 20 =Y178411.D
2 =Y178408.D 0.2 =Y178405.D = =

Compound	4	8	0.5	50	100	1	200	20	2	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 -----ISTD-----												
2) ethanol										0.000		-1.00
3) tertiary butyl alcohol												
1.644 1.453			1.436	1.567		1.500	1.520			1.520		5.05
4) 1,4-dioxane												
0.111 0.103			0.116	0.126		0.122	0.114			0.115		6.95
5) I pentafluorobenzene -----ISTD-----												
6) chlorodifluoromethane												
0.942 0.846			0.836	0.915	1.071	0.840	0.899	1.005		0.919		9.18
7) dichlorodifluoromethane												
0.867 0.809			0.700	0.738	0.956	0.701	0.804	0.881		0.807		11.38
8) Freon 123										0.000		-1.00
9) Freon 114										0.000		-1.00
10) chloromethane												
1.181 1.106			0.956	1.031		0.973	1.148	1.088		1.069		8.01
11) vinyl chloride												
0.994 0.920			0.832	0.937	0.912	0.898	0.940	0.867		0.913		5.36
12) 1,3-butadiene												
0.917 0.801			0.686	0.795		0.729	0.798	0.891		0.803		10.18
13) bromomethane												
0.825 0.653			0.533	0.585		0.545	0.632			0.629		17.01
14) chloroethane												
0.592 0.519 0.423			0.449	0.481		0.459	0.508	0.596		0.503		12.71
15) vinyl Bromide												
0.598 0.549			0.509	0.554		0.542	0.565			0.553		5.32
16) trichlorofluoromethane												
0.840 0.770			0.728	0.775	0.797	0.756	0.804	0.742		0.776		4.69
17) ethyl ether												
0.326 0.278			0.276	0.294	0.290	0.282	0.298	0.317		0.295		6.14
18) 2-chloropropane												
0.251 0.234			0.210	0.218		0.208	0.226	0.246		0.227		7.45
19) acrolein												
0.137			0.097	0.096		0.094	0.115			0.108		16.92
20) freon 113												
0.432 0.392			0.373	0.396		0.385	0.405	0.365		0.393		5.64
21) 1,1-dichloroethene												
0.856 0.797 0.660			0.735	0.782	0.723	0.737	0.784	0.739		0.757		7.31
22) acetone												
0.067 0.064			0.056	0.057		0.053	0.062	0.074		0.062		11.85
23) acetonitrile												

Initial Calibration Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICC7713
Lab FileID: Y178412.D

	0.078	0.077		0.067	0.072		0.068	0.077		0.073	7.04
24)	iodomethane										
	0.968	0.949	0.863	0.871	0.952	0.912	0.915	0.947	0.894	0.919	4.08
25)	carbon disulfide										
	1.977	1.859	1.837	1.735	1.855	1.805	1.771	1.873	1.846	1.694	4.35
26)	methylene chloride										
	0.652	0.591	0.619	0.543	0.588	0.638	0.562	0.582	0.581	0.595	5.90
27)	methyl acetate										
	0.393	0.355		0.335	0.374		0.351	0.365		0.362	5.56
28)	methyl tert butyl ether										
	1.851	1.742	2.327	1.580	1.712	1.789	1.635	1.714	1.730	1.786	12.17
29)	trans-1,2-dichloroethene										
	0.826	0.754	0.790	0.718	0.754	0.711	0.698	0.752	0.776	0.753	5.40
30)	hexane										
	0.815	0.775		0.688	0.701		0.663	0.761	0.700	0.729	7.53
31)	di-isopropyl ether										
	2.500	2.264		2.124	2.267	2.974	2.130	2.279	2.259	2.350	11.81
32)	ethyl tert-butyl ether										
	2.100	1.962	2.194	1.890	2.062	1.968	1.986	1.991	1.871	2.003	5.08
33)	2-butanone										
	0.055	0.049		0.054	0.058		0.057	0.057	0.036	0.052	14.78
34)	1,1-dichloroethane										
	1.027	0.985	1.013	0.909	0.968	0.877	0.906	0.975	0.996	0.962	5.43
35)	chloroprene										
	0.818	0.755	0.827	0.706	0.731	0.801	0.676	0.755	0.747	0.757	6.68
36)	acrylonitrile										
	0.142	0.197		0.172	0.187	0.168	0.183	0.198	0.140	0.174	13.02
37)	vinyl acetate										
	0.057			0.068	0.080		0.075	0.074		0.071	12.13
38)	ethyl acetate										
	This compound does not meet initial calibration criteria										
	0.115			0.066	0.069		0.079	0.086		0.083	23.78
39)	2,2-dichloropropane										
	0.978	0.848		0.761	0.804	1.014	0.758	0.833	0.962	0.870	11.59
40)	cis-1,2-dichloroethene										
	0.720	0.610		0.550	0.581	0.881	0.545	0.572	0.798	0.657	19.33
41)	propionitrile										
	0.081	0.075		0.072	0.076		0.074	0.079	0.063	0.074	7.68
42)	bromochloromethane										
	0.363	0.335	0.291	0.320	0.351	0.300	0.336	0.352	0.279	0.325	9.12
43)	tetrahydrofuran										
	0.053	0.058		0.059	0.065		0.064	0.071		0.062	10.43
44)	chloroform										
	1.008	0.918		0.854	0.914	1.116	0.859	0.903	0.949	0.940	9.19
45)	tert-Butyl Formate										
	This compound does not meet initial calibration criteria										
	0.234			0.228	0.251		0.241	0.251		0.241	4.25
46)	isobutyl alcohol										
	0.141	0.130		0.121	0.125	0.116	0.120	0.131	0.124	0.126	6.26
47)	dibromofluoromethane (s)										
	0.447	0.444	0.442	0.447	0.452	0.441	0.458	0.455	0.438	0.444	1.43
48)	methacrylonitrile										
	0.159	0.182		0.177	0.186	0.270	0.183	0.195	0.175	0.191	17.63
49)	1,1,1-trichloroethane										
	0.914	0.780	1.062	0.751	0.805	0.858	0.762	0.801	0.875	0.845	11.56
50)	cyclohexane										
	0.877	0.807	0.890	0.741	0.760	0.796	0.769	0.822	0.801	0.807	6.23
51)	1,1-dichloropropene										
	0.685	0.642	0.728	0.615	0.651	0.614	0.608	0.662	0.664	0.516	8.84
52)	tert-amyl alcohol										

Initial Calibration Summary

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Job Number: JC66318
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICC7713
 Lab FileID: Y178412.D

	0.025	0.026		0.021	0.023		0.022	0.024		0.023	9.12	
53)	carbon tetrachloride											
	0.742	0.673	0.587	0.648	0.683	0.695	0.649	0.696	0.645	0.669	6.49	
54)	I	1,4-difluorobenzene -----ISTD-----										
55)	1,2-dichloroethane-d4 (s)											
	0.306	0.301	0.291	0.284	0.287	0.289	0.283	0.295	0.297	0.292	0.292	2.47
56)	2,2,4-trimethylpentane											
	1.559	1.416	1.812	1.286	1.395	1.690	1.381	1.418	1.452	1.534	1.494	10.57
57)	tert-amyl methyl ether											
	1.344	1.320		1.149	1.262	1.563	1.200	1.256	1.253		1.293	9.67
58)	n-butyl alcohol											
	0.009	0.011		0.010	0.011		0.011	0.012			0.011	8.06
59)	benzene											
	1.550	1.442	1.761	1.312	1.400	1.512	1.299	1.405	1.489		1.463	9.58
60)	heptane											
	0.286	0.276		0.255	0.269		0.250	0.277	0.379		0.285	15.24
61)	isopropyl acetate											
	0.043	0.051		0.057	0.061		0.061	0.058			0.055	12.52
62)	1,2-dichloroethane											
	0.457	0.426	0.577	0.389	0.420	0.452	0.383	0.422	0.424	0.417	0.437	12.44
63)	trichloroethene											
	0.374	0.341	0.415	0.308	0.327	0.379	0.305	0.329	0.346	0.369	0.349	9.94
64)	ethyl acrylate											
	0.271	0.365		0.332	0.359		0.350	0.352			0.338	10.31
65)	2-nitropropane											
	0.078	0.076		0.062	0.068		0.064	0.069			0.069	9.25
66)	2-chloroethyl vinyl ether											
	0.180	0.167		0.158	0.170	0.153	0.164	0.173	0.155		0.165	5.66
67)	methyl methacrylate											
	0.059	0.066		0.067	0.072		0.071	0.068			0.068	6.77
68)	1,2-dichloropropane											
	0.406	0.385	0.371	0.361	0.390	0.359	0.364	0.380	0.385		0.378	4.11
69)	methylcyclohexane											
	0.763	0.686	0.903	0.609	0.656	0.702	0.628	0.670	0.653		0.697	12.84
70)	dibromomethane											
	0.217	0.204	0.182	0.188	0.201	0.214	0.188	0.201	0.187		0.198	6.30
71)	bromodichloromethane											
	0.500	0.465	0.637	0.440	0.474	0.503	0.448	0.461	0.503		0.492	12.04
72)	epichlorohydrin											
		0.034		0.026	0.028		0.027	0.032			0.029	11.70
73)	cis-1,3-dichloropropene											
	0.577	0.553	0.556	0.538	0.582	0.555	0.549	0.562	0.528		0.556	3.07
74)	4-methyl-2-pentanone											
	0.128	0.123	0.075	0.117	0.126	0.097	0.122	0.131	0.114		0.115	15.56
75)	3-methyl-1-butanol											
	0.010	0.011		0.010	0.010		0.010	0.011	0.009		0.010	7.35
76)	I	chlorobenzene-d5 -----ISTD-----										
77)	toluene-d8 (s)											
	1.351	1.352	1.344	1.374	1.371	1.344	1.355	1.372	1.368	1.356	1.359	0.85
78)	toluene											
	1.031	0.958	0.986	0.924	0.979	0.927	0.896	0.950	0.988	0.922	0.956	4.24
79)	trans-1,3-dichloropropene											
	0.609	0.552	0.537	0.546	0.578	0.611	0.535	0.579	0.557	0.592	0.570	4.97
80)	ethyl methacrylate											
	0.544	0.483		0.453	0.466		0.445	0.496			0.481	7.55
81)	1,1,2-trichloroethane											
	0.305	0.281		0.266	0.282	0.322	0.260	0.284	0.277		0.285	7.08
82)	2-hexanone											

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Initial Calibration Summary

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICC7713
Lab FileID: Y178412.D

	0.140	0.139		0.131	0.137	0.109	0.129	0.140	0.111		0.129	9.83
83)	tetrachloroethene											
	0.426	0.367	0.366	0.368	0.388	0.364	0.364	0.402	0.402	0.365	0.381	5.84
84)	1,3-dichloropropane											
	0.562	0.530	0.549	0.490	0.527	0.499	0.490	0.528	0.510	0.425	0.511	7.55
85)	butyl acetate											
	This compound does not meet initial calibration criteria											
	0.206			0.202	0.218		0.205	0.217			0.209	3.57
86)	dibromochloromethane											
	0.371	0.363	0.335	0.354	0.386	0.321	0.368	0.381	0.361		0.360	5.81
87)	1,2-dibromoethane											
	0.327	0.325	0.323	0.312	0.333	0.291	0.312	0.328	0.314		0.318	3.95
88)	3,3-Dimethyl-1-Butanol											
	0.047	0.048		0.043	0.047		0.045	0.051	0.045		0.047	5.56
89)	n-butyl ether											
	2.001	1.869		1.782	1.896		1.720	1.865	1.844		1.854	4.78
90)	chlorobenzene											
	1.105	1.030	1.146	0.993	1.067	0.991	0.986	1.070	1.091	1.263	1.074	7.93
91)	1,1,1,2-tetrachloroethane											
	0.438	0.406	0.339	0.406	0.443	0.406	0.409	0.440	0.408		0.411	7.60
92)	ethylbenzene											
	1.898	1.791	2.128	1.669	1.783	1.700	1.632	1.813	1.844	2.528	1.878	14.23
93)	m,p-xylene											
	0.709	0.665	0.729	0.637	0.680	0.623	0.624	0.670	0.661	0.653	0.665	5.20
94)	o-xylene											
	1.644	1.521	1.892	1.437	1.559	1.501	1.429	1.556	1.622	2.007	1.617	11.77
95)	styrene											
	1.270	1.134	1.237	1.111	1.178	1.126	1.097	1.164	1.149	1.303	1.177	5.96
96)	bromoform											
	0.236	0.232	0.228	0.234	0.251	0.194	0.239	0.242	0.218		0.231	7.17
97)	butyl acrylate											
	0.728	0.643		0.689	0.728		0.683	0.786	0.554		0.687	10.77
98)	isopropylbenzene											
	1.949	1.779	1.888	1.728	1.871	1.767	1.709	1.855	1.806	2.185	1.854	7.47
99)	cis-1,4-dichloro-2-butene											
	0.136	0.129		0.129	0.140		0.128	0.137	0.089		0.127	13.57
100)	I	1,4-dichlorobenzene-d -----ISTD-----										
101)	4-bromofluorobenzene (s)											
	0.821	0.825	0.834	0.833	0.829	0.838	0.827	0.818	0.843	0.833	0.830	0.92
102)	bromobenzene											
	0.865	0.854	0.846	0.822	0.893	0.821	0.834	0.857	0.849	0.817	0.846	2.78
103)	1,1,2,2-tetrachloroethane											
	0.881	0.815	1.117	0.775	0.829	0.985	0.779	0.829	0.913		0.880	12.63
104)	trans-1,4-dichloro-2-butene											
	0.198	0.175		0.164	0.170	0.197	0.156	0.173	0.174		0.176	8.38
105)	1,2,3-trichloropropane											
	0.214	0.185		0.170	0.187	0.129	0.172	0.177	0.186		0.178	13.42
106)	n-propylbenzene											
	4.127	3.859	4.773	3.695	3.977	3.768	3.622	3.941	4.079	5.832	4.167	16.02
107)	4-Ethyltoluene											
											0.000	-1.00
108)	2-chlorotoluene											
	0.862	0.821	0.785	0.793	0.864	0.847	0.800	0.828	0.890	0.626	0.812	9.08
109)	4-chlorotoluene											
	2.505	2.379	3.207	2.171	2.381	2.503	2.191	2.342	2.502		2.465	12.39
110)	1,3,5-trimethylbenzene											
	2.925	2.801	3.060	2.732	3.032	2.693	2.766	2.781	2.889	3.912	2.959	12.06
111)	tert-butylbenzene											
	0.526	0.474	0.490	0.500	0.557	0.452	0.519	0.514	0.468		0.500	6.56

6.11.5
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Initial Calibration Summary

Page 5 of 5

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICC7713
Lab FileID: Y178412.D

112)	1,2,4-trimethylbenzene	2.986	2.870	3.238	2.795	3.089	2.686	2.830	2.906	3.004	3.424	2.983	7.39
113)	sec-butylbenzene	3.868	3.613	4.225	3.547	3.931	3.700	3.607	3.738	3.670	4.381	3.828	7.28
114)	1,3-dichlorobenzene	1.750	1.665	1.721	1.597	1.746	1.700	1.611	1.665	1.794	1.753	1.700	3.80
115)	p-isopropyltoluene	3.239	3.111	3.485	3.021	3.334	3.042	3.073	3.186	3.076	3.676	3.224	6.68
116)	1,4-dichlorobenzene	1.878	1.722	2.033	1.609	1.749	1.855	1.624	1.700	1.785	1.855	1.781	7.23
117)	1,2-dichlorobenzene	1.790	1.692	1.868	1.629	1.786	1.641	1.652	1.711	1.656	1.890	1.732	5.55
118)	1,4-Diethylbenzene											0.000	-1.00
119)	n-butylbenzene	1.755	1.667	1.985	1.657	1.830	1.579	1.657	1.764	1.705	1.817	1.742	6.65
120)	1,2,4,5-Tetramethylbenzene											0.000	-1.00
121)	1,2-dibromo-3-chloropropane	0.202	0.178		0.170	0.192		0.177	0.185	0.174		0.183	6.16
122)	1,3,5-Trichlorobenzene	1.695	1.610	1.836	1.590	1.825	1.603	1.647	1.747	1.578	2.251	1.738	11.70
123)	1,2,4-trichlorobenzene	1.433	1.310	1.326	1.333	1.561	1.293	1.414	1.411	1.329	1.557	1.397	7.01
124)	hexachlorobutadiene	0.922	0.829	1.057	0.838	0.933	0.833	0.813	0.887	0.897	0.839	0.885	8.31
125)	naphthalene	2.622	2.382	2.840	2.326	2.751	2.468	2.535	2.602	2.535	3.062	2.612	8.48
126)	1,2,3-trichlorobenzene	1.296	1.178	1.201	1.184	1.383	1.199	1.271	1.286	1.191	1.298	1.248	5.46
127)	hexachloroethane	0.512	0.524	0.388	0.559	0.627	0.425	0.596	0.555	0.490		0.520	14.82
128)	Benzyl chloride	1.635	1.587		1.449	1.556	1.943	1.440	1.573	1.603		1.598	9.75
129)	2-ethylhexyl acrylate	1.268	0.957		0.990	1.206		1.119	1.089	1.337		1.138	12.37
130)	2-methylnaphthalene	1.086			1.147	1.469		1.423	1.223			1.269	13.32
131)	pentafluorobenzene(a)	-----ISTD-----											
132)	freon 142b	0.979	0.882	1.115	1.040	0.898	1.015	0.968	0.827	0.886		0.957	9.56
133)	freon 141b	0.911	0.862	0.648	0.941	0.828	0.853	0.873	0.774	0.814		0.834	10.29

(#) = Out of Range ### Number of calibration levels exceeded format ###

MYS7713.M

Thu May 17 08:44:26 2018

RPT1

6.11.5

6

Initial Calibration Verification

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
Lab FileID: Y178417.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\VY7713\Y178417.D Vial: 14
Acq On : 28 Feb 2018 12:17 am Operator: PrashanS
Sample : ICV7713-50 Inst : MSY
Misc : MS24386,VY7713,5.0,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
Last Update : Mon Mar 05 14:04:44 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	104	-0.01	6.99
2	ethanol			-----NA-----			
3	tertiary butyl alcohol	1.520	1.613	-6.1	117	0.00	7.11
4	1,4-dioxane	0.115	0.126	-9.6	114	0.00	10.84
5 I	pentafluorobenzene	1.000	1.000	0.0	98	0.00	9.22
6	chlorodifluoromethane	0.919	0.807	12.2	94	0.00	3.86
7	dichlorodifluoromethane	0.807	0.829	-2.7	116	0.00	3.86
8	Freon 142B			-----NA-----			
9	Freon 114			-----NA-----			
10	chloromethane	1.069	1.144	-7.0	117	0.00	4.19
11	vinyl chloride	0.913	0.891	2.4	105	0.00	4.42
12	1,3-butadiene			-----NA-----			
13	bromomethane	0.629	0.618	1.7	114	0.00	5.01
14	chloroethane	0.503	0.501	0.4	109	0.00	5.16
15	vinyl Bromide	0.553	0.558	-0.9	107	0.00	5.48
16	trichlorofluoromethane	0.776	0.773	0.4	104	0.01	5.61
17	ethyl ether	0.295	0.296	-0.3	105	0.00	5.96
18	2-chloropropane	0.227	0.225	0.9	105	0.00	6.13
19	acrolein	0.108	0.110	-1.9	111	0.00	6.16
20	freon 113	0.393	0.443	-12.7	116	0.00	6.38
21	1,1-dichloroethene	0.757	0.741	2.1	99	0.00	6.36
22	acetone	0.062	0.055	11.3	96	0.00	6.37
23	acetonitrile	0.073	0.069	5.5	102	0.00	6.75
24	iodomethane	0.919	0.928	-1.0	104	0.00	6.62
25	carbon disulfide	1.825	1.829	-0.2	103	0.00	6.76
26	methylene chloride	0.595	0.598	-0.5	108	0.00	7.03
27	methyl acetate	0.362	0.386	-6.6	113	0.00	6.84
28	methyl tert butyl ether	1.786	1.800	0.8	112	0.00	7.40
29	trans-1,2-dichloroethene	0.753	0.757	-0.5	103	0.00	7.42
30	hexane	0.729	0.603	17.3	86	0.00	7.76
31	di-isopropyl ether	2.350	2.362	-0.5	109	0.00	8.00
32	ethyl tert-butyl ether	2.003	2.135	-6.6	110	0.00	8.45
33	2-butanone	0.052	0.059	-13.5	106	0.00	8.63
34	1,1-dichloroethane	0.962	0.985	-2.4	106	0.00	7.96
35	chloroprene	0.757	0.756	0.1	105	0.00	8.09
36	acrylonitrile	0.174	0.220	-26.4	125	0.00	7.30
37	vinyl acetate	0.071	0.087	-22.5	126	0.00	7.95
38	ethyl acetate	0.083	0.078	6.0	115	0.00	8.68
39	2,2-dichloropropane	0.870	0.818	6.0	105	0.00	8.71
40	cis-1,2-dichloroethene	0.657	0.600	8.7	107	0.00	8.68
41	propionitrile	0.074	0.075	-1.4	103	0.00	8.69

Initial Calibration Verification

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
Lab FileID: Y178417.D

42	bromochloromethane	0.325	0.362	-11.4	111	0.00	8.98
43	tetrahydrofuran	0.062	0.068	-9.7	113	0.00	9.05
44	chloroform	0.940	0.927	1.4	106	0.00	9.04
45	tert-Butyl Formate	0.241	0.339	-40.7#	145	0.01	9.11
46	isobutyl alcohol	0.126	0.131	-4.0	106	0.00	9.42
47 S	dibromofluoromethane (s)	0.447	0.448	-0.2	98	0.00	9.24
48	methacrylonitrile	0.191	0.190	0.5	105	0.00	8.89
49	1,1,1-trichloroethane	0.845	0.788	6.7	103	0.00	9.33
50	cyclohexane	0.807	0.781	3.2	103	0.00	9.43
51	1,1-dichloropropene	0.639	0.655	-2.5	104	0.00	9.51
52	tert-amyl alcohol	0.023	0.026	-13.0	122	0.00	9.61
53	carbon tetrachloride	0.669	0.679	-1.5	102	0.00	9.54
54 I	1,4-difluorobenzene	1.000	1.000	0.0	97	0.00	10.13
55 S	1,2-dichloroethane-d4 (s)	0.292	0.290	0.7	99	0.00	9.65
56	2,2,4-trimethylpentane	1.494	1.442	3.5	108	0.00	9.81
57	tert-amyl methyl ether	1.293	1.332	-3.0	112	0.00	9.82
58	n-butyl alcohol	0.011	0.012	-9.1	114	0.00	10.22
59	benzene	1.463	1.432	2.1	105	0.00	9.76
60	heptane	0.285	0.296	-3.9	112	0.00	9.99
61	isopropyl acetate	0.055	0.066	-20.0	112	0.00	9.68
62	1,2-dichloroethane	0.437	0.439	-0.5	109	0.00	9.74
63	trichloroethene	0.349	0.335	4.0	105	0.00	10.48
64	ethyl acrylate	0.338	0.374	-10.7	109	0.00	10.47
65	2-nitropropane	0.069	0.072	-4.3	112	0.00	11.20
66	2-chloroethyl vinyl ether	0.165	0.182	-10.3	111	0.00	11.26
67	methyl methacrylate	0.068	0.075	-10.3	107	0.00	10.74
68	1,2-dichloropropane	0.378	0.388	-2.6	104	0.00	10.72
69	methylcyclohexane	0.697	0.620	11.0	98	0.00	10.74
70	dibromomethane	0.198	0.212	-7.1	109	0.00	10.87
71	bromodichloromethane	0.492	0.476	3.3	104	0.00	11.00
72	epichlorohydrin	0.029	0.032	-10.3	118	0.00	11.35
73	cis-1,3-dichloropropene	0.556	0.585	-5.2	105	0.00	11.48
74	4-methyl-2-pentanone	0.115	0.139	-20.9	115	0.00	11.57
75	3-methyl-1-butanol	0.010	0.011	-10.0	108	0.00	11.59
76 I	chlorobenzene-d5	1.000	1.000	0.0	96	0.00	13.29
77 S	toluene-d8 (s)	1.359	1.379	-1.5	97	0.00	11.79
78	toluene	0.956	0.983	-2.8	102	0.00	11.87
79	trans-1,3-dichloropropene	0.570	0.564	1.1	99	0.00	12.03
80	ethyl methacrylate	0.481	0.477	0.8	101	0.00	12.06
81	1,1,2-trichloroethane	0.285	0.291	-2.1	105	0.00	12.24
82	2-hexanone	0.129	0.142	-10.1	105	0.00	12.43
83	tetrachloroethene	0.381	0.429	-12.6	112	0.00	12.47
84	1,3-dichloropropane	0.511	0.563	-10.2	111	0.00	12.43
85	butyl acetate	0.209	0.241	-15.3	115	0.00	12.53
86	dibromochloromethane	0.360	0.406	-12.8	110	0.00	12.69
87	1,2-dibromoethane	0.318	0.347	-9.1	107	0.00	12.85
88	3,3-Dimethyl-1-Butanol	0.047	0.051	-8.5	113	0.00	12.60
89	n-butyl ether	1.854	1.881	-1.5	101	0.00	13.29
90	chlorobenzene	1.074	1.074	0.0	104	0.00	13.33
91	1,1,1,2-tetrachloroethane	0.411	0.456	-10.9	108	0.00	13.38
92	ethylbenzene	1.878	1.826	2.8	105	0.00	13.40
93	m,p-xylene	0.665	0.696	-4.7	105	0.00	13.50
94	o-xylene	1.617	1.594	1.4	107	0.00	13.92
95	styrene	1.177	1.226	-4.2	106	0.00	13.92
96	bromoform	0.231	0.270	-16.9	111	0.00	14.15
97	butyl acrylate	0.687	0.791	-15.1	110	0.00	13.74
98	isopropylbenzene	1.854	1.905	-2.8	106	0.00	14.26
99	cis-1,4-dichloro-2-butene	0.127	0.142	-11.8	106	0.00	14.29

Initial Calibration Verification

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
Lab FileID: Y178417.D

100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	96	0.00	15.61
101	S	4-bromofluorobenzene (s)	0.830	0.824	0.7	95	0.00	14.45
102		bromobenzene	0.846	0.901	-6.5	106	0.00	14.64
103		1,1,2,2-tetrachloroethane	0.880	0.860	2.3	107	0.00	14.52
104		trans-1,4-dichloro-2-bute	0.176	0.222	-26.1	131	0.00	14.57
105		1,2,3-trichloropropane	0.178	0.192	-7.9	108	0.00	14.60
106		n-propylbenzene	4.167	4.028	3.3	105	0.00	14.67
107		4-Ethyltoluene			-----NA-----			
108		2-chlorotoluene	0.812	0.864	-6.4	105	0.00	14.81
109		4-chlorotoluene	2.465	2.470	-0.2	109	0.00	14.90
110		1,3,5-trimethylbenzene	2.959	3.007	-1.6	106	0.00	14.82
111		tert-butylbenzene	0.500	0.555	-11.0	107	0.00	15.17
112		1,2,4-trimethylbenzene	2.983	3.161	-6.0	109	0.00	15.21
113		sec-butylbenzene	3.828	3.943	-3.0	107	0.00	15.38
114		1,3-dichlorobenzene	1.700	1.753	-3.1	106	0.00	15.55
115		p-isopropyltoluene	3.224	3.403	-5.6	108	0.00	15.50
116		1,4-dichlorobenzene	1.781	1.764	1.0	106	0.00	15.63
117		1,2-dichlorobenzene	1.732	1.776	-2.5	105	0.00	16.01
118		1,4-Diethylbenzene			-----NA-----			
119		n-butylbenzene	1.742	1.923	-10.4	112	0.00	15.92
120		1,2,4,5-Tetramethylbenzen			-----NA-----			
121		1,2-dibromo-3-chloropropa	0.183	0.201	-9.8	114	0.00	16.77
122		1,3,5-Trichlorobenzene	1.738	1.807	-4.0	109	0.00	16.99
123		1,2,4-trichlorobenzene	1.397	1.544	-10.5	111	0.00	17.60
124		hexachlorobutadiene	0.885	0.916	-3.5	105	0.00	17.75
125		naphthalene	2.612	2.757	-5.6	114	0.00	17.87
126		1,2,3-trichlorobenzene	1.248	1.342	-7.5	109	0.00	18.11
127		hexachloroethane	0.520	0.630	-21.2	109	0.00	16.30
128		Benzyl chloride	1.598	1.395	12.7	93	0.00	15.73
129		2-ethylhexyl acrylate	1.138	1.285	-12.9	125	0.00	17.61
130		2-methylnaphthalene	1.269	1.210	4.6	101	0.00	19.05

(#) = Out of Range
Y178412.D MYS7713.M

SPCC's out = 0 CCC's out = 0
Mon Mar 05 14:06:10 2018 RPT1

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Initial Calibration Verification

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
Lab FileID: Y178418.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\VY7713\Y178418.D Vial: 15
 Acq On : 28 Feb 2018 12:45 am Operator: PrashanS
 Sample : ICV7713-50 Inst : MSY
 Misc : MS24386,VY7713,5.0,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)
 Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 Last Update : Wed Feb 28 11:02:25 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	106	0.00	7.00
2	ethanol			-----NA-----			
3	tertiary butyl alcohol			-----NA-----			
4	1,4-dioxane			-----NA-----			
5 I	pentafluorobenzene	1.000	1.000	0.0	94	0.00	9.22
6	chlorodifluoromethane			-----NA-----			
7	dichlorodifluoromethane			-----NA-----			
8	Freon 142B			-----NA-----			
9	Freon 114			-----NA-----			
10	chloromethane			-----NA-----			
11	vinyl chloride			-----NA-----			
12	1,3-butadiene			-----NA-----			
13	bromomethane			-----NA-----			
14	chloroethane			-----NA-----			
15	vinyl Bromide			-----NA-----			
16	trichlorofluoromethane			-----NA-----			
17	ethyl ether			-----NA-----			
18	2-chloropropane			-----NA-----			
19	acrolein			-----NA-----			
20	freon 113			-----NA-----			
21	1,1-dichloroethene			-----NA-----			
22	acetone			-----NA-----			
23	acetonitrile	0.073	0.076	-4.1	106	0.01	6.76
24	iodomethane			-----NA-----			
25	carbon disulfide			-----NA-----			
26	methylene chloride			-----NA-----			
27	methyl acetate			-----NA-----			
28	methyl tert butyl ether			-----NA-----			
29	trans-1,2-dichloroethene			-----NA-----			
30	hexane			-----NA-----			
31	di-isopropyl ether			-----NA-----			
32	ethyl tert-butyl ether			-----NA-----			
33	2-butanone			-----NA-----			
34	1,1-dichloroethane			-----NA-----			
35	chloroprene			-----NA-----			
36	acrylonitrile			-----NA-----			
37	vinyl acetate			-----NA-----			
38	ethyl acetate			-----NA-----			
39	2,2-dichloropropane			-----NA-----			
40	cis-1,2-dichloroethene			-----NA-----			
41	propionitrile			-----NA-----			

Initial Calibration Verification

Page 2 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
Lab FileID: Y178418.D

42	bromochloromethane							
43	tetrahydrofuran							
44	chloroform							
45	tert-Butyl Formate							
46	isobutyl alcohol							
47 S	dibromofluoromethane (s)	0.447	0.447	0.0	94	0.00	9.23	
48	methacrylonitrile							
49	1,1,1-trichloroethane							
50	cyclohexane							
51	1,1-dichloropropene							
52	tert-amyl alcohol							
53	carbon tetrachloride							
54 I	1,4-difluorobenzene	1.000	1.000	0.0	91	0.00	10.13	
55 S	1,2-dichloroethane-d4 (s)	0.292	0.301	-3.1	96	0.00	9.64	
56	2,2,4-trimethylpentane							
57	tert-amyl methyl ether							
58	n-butyl alcohol							
59	benzene							
60	heptane							
61	isopropyl acetate							
62	1,2-dichloroethane							
63	trichloroethene							
64	ethyl acrylate							
65	2-nitropropane							
66	2-chloroethyl vinyl ether							
67	methyl methacrylate							
68	1,2-dichloropropane							
69	methylcyclohexane							
70	dibromomethane							
71	bromodichloromethane							
72	epichlorohydrin							
73	cis-1,3-dichloropropene							
74	4-methyl-2-pentanone							
75	3-methyl-1-butanol							
76 I	chlorobenzene-d5	1.000	1.000	0.0	94	0.00	13.30	
77 S	toluene-d8 (s)	1.359	1.323	2.6	90	0.00	11.79	
78	toluene							
79	trans-1,3-dichloropropene							
80	ethyl methacrylate							
81	1,1,2-trichloroethane							
82	2-hexanone							
83	tetrachloroethene	0.381	0.383	-0.5	98	0.00	12.47	
84	1,3-dichloropropane							
85	butyl acetate							
86	dibromochloromethane							
87	1,2-dibromoethane							
88	3,3-Dimethyl-1-Butanol							
89	n-butyl ether							
90	chlorobenzene							
91	1,1,1,2-tetrachloroethane							
92	ethylbenzene							
93	m,p-xylene							
94	o-xylene							
95	styrene							
96	bromoform							
97	butyl acrylate							
98	isopropylbenzene							
99	cis-1,4-dichloro-2-butene							

Initial Calibration Verification

Page 3 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
Lab FileID: Y178418.D

100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	15.61
101	S	4-bromofluorobenzene (s)	0.830	0.818	1.4	96	0.00	14.45
102		bromobenzene					-----NA-----	
103		1,1,2,2-tetrachloroethane					-----NA-----	
104		trans-1,4-dichloro-2-bute					-----NA-----	
105		1,2,3-trichloropropane					-----NA-----	
106		n-propylbenzene					-----NA-----	
107		4-Ethyltoluene					-----NA-----	
108		2-chlorotoluene					-----NA-----	
109		4-chlorotoluene					-----NA-----	
110		1,3,5-trimethylbenzene					-----NA-----	
111		tert-butylbenzene					-----NA-----	
112		1,2,4-trimethylbenzene					-----NA-----	
113		sec-butylbenzene					-----NA-----	
114		1,3-dichlorobenzene					-----NA-----	
115		p-isopropyltoluene					-----NA-----	
116		1,4-dichlorobenzene					-----NA-----	
117		1,2-dichlorobenzene					-----NA-----	
118		1,4-Diethylbenzene					-----NA-----	
119		n-butylbenzene					-----NA-----	
120		1,2,4,5-Tetramethylbenzen					-----NA-----	
121		1,2-dibromo-3-chloropropa					-----NA-----	
122		1,3,5-Trichlorobenzene					-----NA-----	
123		1,2,4-trichlorobenzene					-----NA-----	
124		hexachlorobutadiene					-----NA-----	
125		naphthalene					-----NA-----	
126		1,2,3-trichlorobenzene					-----NA-----	
127		hexachloroethane					-----NA-----	
128		Benzyl chloride					-----NA-----	
129		2-ethylhexyl acrylate					-----NA-----	
130		2-methylnaphthalene					-----NA-----	

(#) = Out of Range
Y178412.D MYS7713.M

SPCC's out = 0 CCC's out = 0
Thu Mar 01 09:38:46 2018 RPT1

6.11.7
6

Initial Calibration Verification

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
Lab FileID: Y178421.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\VY7713\Y178421.D Vial: 18
Acq On : 28 Feb 2018 2:19 pm Operator: PrashanS
Sample : ICV7713-50 Inst : MSY
Misc : MS24386,VY7713,5.0,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
Last Update : Wed Feb 28 11:02:25 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	104	0.00	7.01
2	ethanol			-----NA-----			
3	tertiary butyl alcohol			-----NA-----			
4	1,4-dioxane			-----NA-----			
5 I	pentafluorobenzene	1.000	1.000	0.0	91	0.00	9.22
6	chlorodifluoromethane			-----NA-----			
7	dichlorodifluoromethane			-----NA-----			
8	Freon 142B			-----NA-----			
9	Freon 114			-----NA-----			
10	chloromethane			-----NA-----			
11	vinyl chloride			-----NA-----			
12	1,3-butadiene	0.803	0.977	-21.7	130	0.00	4.45
13	bromomethane			-----NA-----			
14	chloroethane			-----NA-----			
15	vinyl Bromide			-----NA-----			
16	trichlorofluoromethane			-----NA-----			
17	ethyl ether			-----NA-----			
18	2-chloropropane			-----NA-----			
19	acrolein			-----NA-----			
20	freon 113			-----NA-----			
21	1,1-dichloroethene			-----NA-----			
22	acetone			-----NA-----			
23	acetonitrile			-----NA-----			
24	iodomethane			-----NA-----			
25	carbon disulfide			-----NA-----			
26	methylene chloride			-----NA-----			
27	methyl acetate			-----NA-----			
28	methyl tert butyl ether			-----NA-----			
29	trans-1,2-dichloroethene			-----NA-----			
30	hexane			-----NA-----			
31	di-isopropyl ether			-----NA-----			
32	ethyl tert-butyl ether			-----NA-----			
33	2-butanone			-----NA-----			
34	1,1-dichloroethane			-----NA-----			
35	chloroprene			-----NA-----			
36	acrylonitrile			-----NA-----			
37	vinyl acetate			-----NA-----			
38	ethyl acetate			-----NA-----			
39	2,2-dichloropropane			-----NA-----			
40	cis-1,2-dichloroethene			-----NA-----			
41	propionitrile			-----NA-----			

Initial Calibration Verification

Page 2 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
Lab FileID: Y178421.D

42	bromochloromethane							
43	tetrahydrofuran							
44	chloroform							
45	tert-Butyl Formate							
46	isobutyl alcohol							
47 S	dibromofluoromethane (s)	0.447	0.452	-1.1	92	0.00	9.24	
48	methacrylonitrile							
49	1,1,1-trichloroethane							
50	cyclohexane							
51	1,1-dichloropropene							
52	tert-amyl alcohol							
53	carbon tetrachloride							
54 I	1,4-difluorobenzene	1.000	1.000	0.0	88	0.00	10.13	
55 S	1,2-dichloroethane-d4 (s)	0.292	0.306	-4.8	95	0.00	9.65	
56	2,2,4-trimethylpentane							
57	tert-amyl methyl ether							
58	n-butyl alcohol							
59	benzene							
60	heptane							
61	isopropyl acetate							
62	1,2-dichloroethane							
63	trichloroethene							
64	ethyl acrylate							
65	2-nitropropane							
66	2-chloroethyl vinyl ether							
67	methyl methacrylate							
68	1,2-dichloropropane							
69	methylcyclohexane							
70	dibromomethane							
71	bromodichloromethane							
72	epichlorohydrin							
73	cis-1,3-dichloropropene							
74	4-methyl-2-pentanone							
75	3-methyl-1-butanol							
76 I	chlorobenzene-d5	1.000	1.000	0.0	90	0.00	13.30	
77 S	toluene-d8 (s)	1.359	1.330	2.1	87	0.00	11.79	
78	toluene							
79	trans-1,3-dichloropropene							
80	ethyl methacrylate							
81	1,1,2-trichloroethane							
82	2-hexanone							
83	tetrachloroethene							
84	1,3-dichloropropane							
85	butyl acetate							
86	dibromochloromethane							
87	1,2-dibromoethane							
88	3,3-Dimethyl-1-Butanol							
89	n-butyl ether							
90	chlorobenzene							
91	1,1,1,2-tetrachloroethane							
92	ethylbenzene							
93	m,p-xylene							
94	o-xylene							
95	styrene							
96	bromoform							
97	butyl acrylate							
98	isopropylbenzene							
99	cis-1,4-dichloro-2-butene							

Initial Calibration Verification

Page 3 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7713-ICV7713
Lab FileID: Y178421.D

100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	15.61
101	S	4-bromofluorobenzene (s)	0.830	0.827	0.4	92	0.00	14.45
102		bromobenzene					-----NA-----	
103		1,1,2,2-tetrachloroethane					-----NA-----	
104		trans-1,4-dichloro-2-bute					-----NA-----	
105		1,2,3-trichloropropane					-----NA-----	
106		n-propylbenzene					-----NA-----	
107		4-Ethyltoluene					-----NA-----	
108		2-chlorotoluene					-----NA-----	
109		4-chlorotoluene					-----NA-----	
110		1,3,5-trimethylbenzene					-----NA-----	
111		tert-butylbenzene					-----NA-----	
112		1,2,4-trimethylbenzene					-----NA-----	
113		sec-butylbenzene					-----NA-----	
114		1,3-dichlorobenzene					-----NA-----	
115		p-isopropyltoluene					-----NA-----	
116		1,4-dichlorobenzene					-----NA-----	
117		1,2-dichlorobenzene					-----NA-----	
118		1,4-Diethylbenzene					-----NA-----	
119		n-butylbenzene					-----NA-----	
120		1,2,4,5-Tetramethylbenzen					-----NA-----	
121		1,2-dibromo-3-chloropropa					-----NA-----	
122		1,3,5-Trichlorobenzene					-----NA-----	
123		1,2,4-trichlorobenzene					-----NA-----	
124		hexachlorobutadiene					-----NA-----	
125		naphthalene					-----NA-----	
126		1,2,3-trichlorobenzene					-----NA-----	
127		hexachloroethane					-----NA-----	
128		Benzyl chloride					-----NA-----	
129		2-ethylhexyl acrylate					-----NA-----	
130		2-methylnaphthalene					-----NA-----	

(#) = Out of Range
Y178412.D MYS7713.M

SPCC's out = 0 CCC's out = 0
Thu Mar 01 09:29:58 2018 RPT1

6.11.8

6

Initial Calibration Verification

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7781-ICV7713
Lab FileID: Y179914.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\VY7780\Y179914.D Vial: 12
 Acq On : 17 May 2018 3:46 am Operator: PrashanS
 Sample : ICV7713-50 Inst : MSY
 Misc : MS26330,VY7781,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)
 Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 Last Update : Thu May 17 08:41:26 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	83	-0.01	6.99
2	ethanol			-----NA-----			
3	tertiary butyl alcohol			-----NA-----			
4	1,4-dioxane			-----NA-----			
5 I	pentafluorobenzene	1.000	1.000	0.0	88	-0.02	9.20
6	chlorodifluoromethane			-----NA-----			
7	dichlorodifluoromethane			-----NA-----			
8	Freon 123			-----NA-----			
9	Freon 114			-----NA-----			
10	chloromethane			-----NA-----			
11	vinyl chloride			-----NA-----			
12	1,3-butadiene			-----NA-----			
13	bromomethane			-----NA-----			
14	chloroethane			-----NA-----			
15	vinyl Bromide			-----NA-----			
16	trichlorofluoromethane			-----NA-----			
17	ethyl ether			-----NA-----			
18	2-chloropropane			-----NA-----			
19	acrolein			-----NA-----			
20	freon 113			-----NA-----			
21	1,1-dichloroethene			-----NA-----			
22	acetone			-----NA-----			
23	acetonitrile			-----NA-----			
24	iodomethane			-----NA-----			
25	carbon disulfide			-----NA-----			
26	methylene chloride			-----NA-----			
27	methyl acetate			-----NA-----			
28	methyl tert butyl ether			-----NA-----			
29	trans-1,2-dichloroethene			-----NA-----			
30	hexane			-----NA-----			
31	di-isopropyl ether			-----NA-----			
32	ethyl tert-butyl ether			-----NA-----			
33	2-butanone			-----NA-----			
34	1,1-dichloroethane			-----NA-----			
35	chloroprene			-----NA-----			
36	acrylonitrile			-----NA-----			
37	vinyl acetate			-----NA-----			
38	ethyl acetate			-----NA-----			
39	2,2-dichloropropane			-----NA-----			
40	cis-1,2-dichloroethene			-----NA-----			
41	propionitrile			-----NA-----			

Initial Calibration Verification

Page 2 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7781-ICV7713
Lab FileID: Y179914.D

42	bromochloromethane							
43	tetrahydrofuran							
44	chloroform							
45	tert-Butyl Formate							
46	isobutyl alcohol							
47 S	dibromofluoromethane (s)	0.447	0.455	-1.8	90	-0.02	9.22	
48	methacrylonitrile							
49	1,1,1-trichloroethane							
50	cyclohexane							
51	1,1-dichloropropene							
52	tert-amyl alcohol							
53	carbon tetrachloride							
54 I	1,4-difluorobenzene	1.000	1.000	0.0	96	-0.01	10.11	
55 S	1,2-dichloroethane-d4 (s)	0.292	0.255	12.7	86	-0.02	9.63	
56	2,2,4-trimethylpentane							
57	tert-amyl methyl ether							
58	n-butyl alcohol							
59	benzene							
60	heptane							
61	isopropyl acetate							
62	1,2-dichloroethane							
63	trichloroethene							
64	ethyl acrylate							
65	2-nitropropane							
66	2-chloroethyl vinyl ether							
67	methyl methacrylate							
68	1,2-dichloropropane							
69	methylcyclohexane							
70	dibromomethane							
71	bromodichloromethane							
72	epichlorohydrin							
73	cis-1,3-dichloropropene							
74	4-methyl-2-pentanone							
75	3-methyl-1-butanol							
76 I	chlorobenzene-d5	1.000	1.000	0.0	118	0.00	13.29	
77 S	toluene-d8 (s)	1.359	1.251	7.9	107	-0.01	11.78	
78	toluene							
79	trans-1,3-dichloropropene							
80	ethyl methacrylate							
81	1,1,2-trichloroethane							
82	2-hexanone							
83	tetrachloroethene							
84	1,3-dichloropropane							
85	butyl acetate							
86	dibromochloromethane							
87	1,2-dibromoethane							
88	3,3-Dimethyl-1-Butanol							
89	n-butyl ether							
90	chlorobenzene							
91	1,1,1,2-tetrachloroethane							
92	ethylbenzene							
93	m,p-xylene							
94	o-xylene							
95	styrene							
96	bromoform							
97	butyl acrylate							
98	isopropylbenzene							
99	cis-1,4-dichloro-2-butene							

Initial Calibration Verification

Page 3 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7781-ICV7713
Lab FileID: Y179914.D

100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	92	-0.01	15.60
101	S	4-bromofluorobenzene (s)	0.830	0.937	-12.9	104	-0.01	14.43
102		bromobenzene						
103		1,1,2,2-tetrachloroethane						
104		trans-1,4-dichloro-2-bute						
105		1,2,3-trichloropropane						
106		n-propylbenzene						
107		4-Ethyltoluene						
108		2-chlorotoluene						
109		4-chlorotoluene						
110		1,3,5-trimethylbenzene						
111		tert-butylbenzene						
112		1,2,4-trimethylbenzene						
113		sec-butylbenzene						
114		1,3-dichlorobenzene						
115		p-isopropyltoluene						
116		1,4-dichlorobenzene						
117		1,2-dichlorobenzene						
118		1,4-Diethylbenzene						
119		n-butylbenzene						
120		1,2,4,5-Tetramethylbenzen						
121		1,2-dibromo-3-chloropropa						
122		1,3,5-Trichlorobenzene						
123		1,2,4-trichlorobenzene						
124		hexachlorobutadiene						
125		naphthalene						
126		1,2,3-trichlorobenzene						
127		hexachloroethane						
128		Benzyl chloride						
129		2-ethylhexyl acrylate						
130		2-methylnaphthalene						
131		pentafluorobenzene(a)	1.000	1.000	0.0	92	-0.02	9.20
132		freon 142b	0.957	1.146	-19.7	101	0.00	4.12
133		freon 141b	0.834	0.953	-14.3	93	0.00	5.96

(#) = Out of Range
Y178412.D MYS7713.M

SPCC's out = 0 CCC's out = 0
Thu May 17 08:45:01 2018 RPT1

6.11.9

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7784-CC7713
Lab FileID: Y179939.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\kenrickb\vy7784\y179939.d Vial: 1
Acq On : 18 May 2018 8:27 am Operator: PrashanS
Sample : CC7713-50 Inst : MSY
Misc : MS26388,VY7784,5.0,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
Last Update : Mon Sep 13 11:48:20 2010
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	91	-0.03	6.97
2	ethanol			-----NA-----			
3	tertiary butyl alcohol	1.520	1.437	5.5	91	-0.03	7.07
4	1,4-dioxane	0.115	0.145	-26.1#	113	0.01	10.85
5 I	pentafluorobenzene	1.000	1.000	0.0	94	-0.02	9.20
6	chlorodifluoromethane	0.919	0.634	31.0#	71	0.00	3.86
7	dichlorodifluoromethane	0.807	1.207	-49.6#	162	0.01	3.86
8	Freon 123			-----NA-----			
9	Freon 114			-----NA-----			
10	chloromethane	1.069	1.345	-25.8#	132	0.00	4.20
11	vinyl chloride	0.913	1.196	-31.0#	135	0.00	4.42
12	1,3-butadiene	0.803	0.927	-15.4	127	0.00	4.44
13	bromomethane	0.629	0.732	-16.4	129	0.00	5.01
14	chloroethane	0.503	0.625	-24.3#	131	0.00	5.16
15	vinyl Bromide	0.553	0.633	-14.5	117	-0.01	5.47
16	trichlorofluoromethane	0.776	0.938	-20.9#	121	0.00	5.60
17	ethyl ether	0.295	0.254	13.9	87	-0.02	5.95
18	2-chloropropane	0.227	0.206	9.3	92	-0.01	6.12
19	acrolein	0.108	0.092	14.8	90	-0.01	6.15
20	freon 113	0.393	0.453	-15.3	114	-0.02	6.37
21	1,1-dichloroethene	0.757	0.773	-2.1	99	-0.01	6.35
22	acetone	0.062	0.039	37.1#	65	-0.02	6.35
23	acetonitrile	0.073	0.069	5.5	97	-0.01	6.74
24	iodomethane	0.919	0.794	13.6	86	-0.03	6.59
25	carbon disulfide	1.825	1.645	9.9	89	-0.02	6.75
26	methylene chloride	0.595	0.560	5.9	97	-0.02	7.01
27	methyl acetate	0.362	0.379	-4.7	106	-0.02	6.82
28	methyl tert butyl ether	1.786	1.464	18.0	87	-0.03	7.38
29	trans-1,2-dichloroethene	0.753	0.731	2.9	96	-0.02	7.41
30	hexane	0.729	0.641	12.1	88	0.00	7.76
31	di-isopropyl ether	2.350	1.826	22.3#	81	-0.02	7.98
32	ethyl tert-butyl ether	2.003	1.618	19.2	81	-0.01	8.44
33	2-butanone	0.052	0.049	5.8	86	-0.02	8.61
34	1,1-dichloroethane	0.962	0.911	5.3	94	-0.02	7.94
35	chloroprene	0.757	0.662	12.5	88	-0.02	8.07
36	acrylonitrile	0.174	0.162	6.9	88	-0.02	7.29
37	vinyl acetate	0.071	0.055	22.5#	77	-0.02	7.94
38	ethyl acetate	0.083	0.069	16.9	98	-0.01	8.67
39	2,2-dichloropropane	0.870	0.792	9.0	98	-0.02	8.69
40	cis-1,2-dichloroethene	0.657	0.558	15.1	96	-0.02	8.67
41	propionitrile	0.074	0.072	2.7	95	-0.02	8.67

Continuing Calibration Summary

Page 2 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7784-CC7713
Lab FileID: Y179939.D

42	bromochloromethane	0.325	0.332	-2.2	98	-0.02	8.96
43	tetrahydrofuran	0.062	0.061	1.6	98	-0.01	9.04
44	chloroform	0.940	0.840	10.6	92	-0.02	9.03
45	tert-Butyl Formate	0.241	0.438	-81.7#	181	0.00	9.08
46	isobutyl alcohol	0.126	0.122	3.2	95	-0.01	9.40
47 S	dibromofluoromethane (s)	0.447	0.418	6.5	88	-0.02	9.22
48	methacrylonitrile	0.191	0.172	9.9	91	-0.01	8.88
49	1,1,1-trichloroethane	0.845	0.786	7.0	98	-0.01	9.31
50	cyclohexane	0.807	0.790	2.1	100	-0.02	9.42
51	1,1-dichloropropene	0.639	0.649	-1.6	99	-0.02	9.49
52	tert-amyl alcohol	0.023	0.025	-8.7	114	-0.02	9.60
53	carbon tetrachloride	0.669	0.687	-2.7	100	-0.01	9.53
54 I	1,4-difluorobenzene	1.000	1.000	0.0	94	-0.01	10.11
55 S	1,2-dichloroethane-d4 (s)	0.292	0.259	11.3	86	-0.02	9.63
56	2,2,4-trimethylpentane	1.494	1.247	16.5	91	-0.01	9.80
57	tert-amyl methyl ether	1.293	1.018	21.3#	83	-0.02	9.80
58	n-butyl alcohol	0.011	0.011	0.0	99	-0.02	10.21
59	benzene	1.463	1.377	5.9	99	-0.02	9.74
60	heptane	0.285	0.247	13.3	91	-0.01	9.98
61	isopropyl acetate	0.055	0.061	-10.9	100	0.00	9.68
62	1,2-dichloroethane	0.437	0.372	14.9	90	-0.02	9.72
63	trichloroethene	0.349	0.341	2.3	104	-0.01	10.47
64	ethyl acrylate	0.338	0.355	-5.0	100	0.00	10.46
65	2-nitropropane	0.069	0.061	11.6	92	-0.02	11.17
66	2-chloroethyl vinyl ether	0.165	0.171	-3.6	101	0.00	11.24
67	methyl methacrylate	0.068	0.078	-14.7	109	-0.02	10.73
68	1,2-dichloropropane	0.378	0.380	-0.5	99	-0.02	10.71
69	methylcyclohexane	0.697	0.610	12.5	94	-0.02	10.73
70	dibromomethane	0.198	0.199	-0.5	99	-0.01	10.86
71	bromodichloromethane	0.492	0.447	9.1	96	0.00	10.99
72	epichlorohydrin	0.029	0.030	-3.4	109	-0.02	11.34
73	cis-1,3-dichloropropene	0.556	0.578	-4.0	101	-0.02	11.46
74	4-methyl-2-pentanone	0.115	0.133	-15.7	107	-0.01	11.56
75	3-methyl-1-butanol	0.010	0.010	0.0	97	-0.01	11.57
76 I	chlorobenzene-d5	1.000	1.000	0.0	109	0.00	13.29
77 S	toluene-d8 (s)	1.359	1.265	6.9	101	-0.01	11.78
78	toluene	0.956	0.925	3.2	109	-0.01	11.86
79	trans-1,3-dichloropropene	0.570	0.519	8.9	104	-0.01	12.02
80	ethyl methacrylate	0.481	0.424	11.9	102	-0.01	12.05
81	1,1,2-trichloroethane	0.285	0.262	8.1	108	-0.01	12.23
82	2-hexanone	0.129	0.125	3.1	105	0.00	12.42
83	tetrachloroethene	0.381	0.406	-6.6	121	0.00	12.46
84	1,3-dichloropropane	0.511	0.507	0.8	113	-0.01	12.42
85	butyl acetate	0.209	0.224	-7.2	121	-0.01	12.52
86	dibromochloromethane	0.360	0.361	-0.3	112	-0.02	12.68
87	1,2-dibromoethane	0.318	0.340	-6.9	119	-0.01	12.83
88	3,3-Dimethyl-1-Butanol			-----NA-----			
89	n-butyl ether	1.854	1.682	9.3	103	-0.01	13.28
90	chlorobenzene	1.074	1.064	0.9	117	-0.01	13.32
91	1,1,1,2-tetrachloroethane	0.411	0.380	7.5	102	-0.01	13.37
92	ethylbenzene	1.878	1.743	7.2	114	-0.01	13.39
93	m,p-xylene	0.665	0.691	-3.9	119	-0.01	13.49
94	o-xylene	1.617	1.425	11.9	108	-0.01	13.91
95	styrene	1.177	1.134	3.7	112	-0.01	13.91
96	bromoform	0.231	0.256	-10.8	119	-0.02	14.14
97	butyl acrylate	0.687	0.581	15.4	92	-0.01	13.73
98	isopropylbenzene	1.854	1.755	5.3	111	-0.01	14.25
99	cis-1,4-dichloro-2-butene	0.127	0.125	1.6	106	-0.01	14.28

6.11.10
6

Continuing Calibration Summary

Page 3 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: VY7784-CC7713
Lab FileID: Y179939.D

100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	101	-0.01	15.60
101	S	4-bromofluorobenzene (s)	0.830	0.879	-5.9	106	-0.01	14.43
102		bromobenzene	0.846	0.935	-10.5	115	-0.01	14.63
103		1,1,2,2-tetrachloroethane	0.880	0.850	3.4	110	-0.01	14.51
104		trans-1,4-dichloro-2-bute	0.176	0.171	2.8	106	0.00	14.56
105		1,2,3-trichloropropane	0.178	0.198	-11.2	117	-0.02	14.58
106		n-propylbenzene	4.167	4.098	1.7	112	-0.01	14.66
107		4-Ethyltoluene			-----NA-----			
108		2-chlorotoluene	0.812	0.911	-12.2	116	-0.01	14.80
109		4-chlorotoluene	2.465	2.448	0.7	114	-0.01	14.89
110		1,3,5-trimethylbenzene	2.959	2.952	0.2	109	-0.01	14.81
111		tert-butylbenzene	0.500	0.546	-9.2	110	-0.01	15.16
112		1,2,4-trimethylbenzene	2.983	2.973	0.3	107	-0.01	15.20
113		sec-butylbenzene	3.828	3.832	-0.1	109	-0.01	15.37
114		1,3-dichlorobenzene	1.700	1.755	-3.2	111	-0.01	15.54
115		p-isopropyltoluene	3.224	3.213	0.3	107	0.00	15.50
116		1,4-dichlorobenzene	1.781	1.740	2.3	109	-0.01	15.62
117		1,2-dichlorobenzene	1.732	1.691	2.4	105	-0.02	16.00
118		1,4-Diethylbenzene			-----NA-----			
119		n-butylbenzene	1.742	1.696	2.6	103	-0.01	15.90
120		1,2,4,5-Tetramethylbenzen			-----NA-----			
121		1,2-dibromo-3-chloropropa	0.183	0.170	7.1	101	-0.02	16.75
122		1,3,5-Trichlorobenzene	1.738	1.657	4.7	105	-0.01	16.98
123		1,2,4-trichlorobenzene	1.397	1.279	8.4	97	-0.01	17.59
124		hexachlorobutadiene	0.885	0.869	1.8	104	-0.01	17.73
125		naphthalene	2.612	2.079	20.4#	90	-0.01	17.86
126		1,2,3-trichlorobenzene	1.248	1.121	10.2	95	-0.01	18.10
127		hexachloroethane	0.520	0.592	-13.8	107	-0.01	16.29
128		Benzyl chloride	1.598	1.414	11.5	98	-0.01	15.72
129		2-ethylhexyl acrylate	1.138	0.344	69.8#	35#	-0.01	17.60
130		2-methylnaphthalene	1.269	0.597	53.0#	52	-0.01	19.04

131		pentafluorobenzene(a)	1.000	1.000	0.0	98	-0.02	9.20
132		freon 142b	0.957	0.975	-1.9	92	0.00	4.10
133		freon 141b	0.834	0.906	-8.6	94	0.00	5.95

(#) = Out of Range
Y178412.D MYS7713.M

SPCC's out = 0 CCC's out = 0
Sun May 20 22:08:23 2018

6.11.10
6



MS Volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7784\
 Data File : y179961.d
 Acq On : 18 May 2018 7:39 pm
 Operator : Prashans
 Sample : JC66318-1 Inst : MSY
 Misc : MS26438,VY7784,5.6,,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M
 Quant Results File: MYS7713.RES
 Quant Time: May 20 22:37:29 2018
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Thu May 17 08:41:26 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.976	65	129075	500.00	ug/L	-0.03
5) pentafluorobenzene	9.199	168	219955	50.00	ug/L	-0.02
54) 1,4-difluorobenzene	10.109	114	348052	50.00	ug/L	-0.01
76) chlorobenzene-d5	13.284	117	294291	50.00	ug/L	-0.01
100) 1,4-dichlorobenzene-d4	15.596	152	105834	50.00	ug/L	-0.01
131) pentafluorobenzene(a)	9.199	168	219955	50.00	ug/L	-0.02
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.215	113	110133	56.03	ug/L	-0.02
Spiked Amount	50.000	Range 72 - 129	Recovery	=	112.06%	
55) 1,2-dichloroethane-d4 (s)	9.633	65	104722	51.43	ug/L	-0.02
Spiked Amount	50.000	Range 73 - 132	Recovery	=	102.86%	
77) toluene-d8 (s)	11.783	98	388318	48.56	ug/L	-0.01
Spiked Amount	50.000	Range 80 - 120	Recovery	=	97.12%	
101) 4-bromofluorobenzene (s)	14.434	95	110879	63.11	ug/L	-0.01
Spiked Amount	50.000	Range 77 - 125	Recovery	=	126.22%#	
Target Compounds						
22) acetone	6.380	58	2389	8.77	ug/L	Qvalue # 5

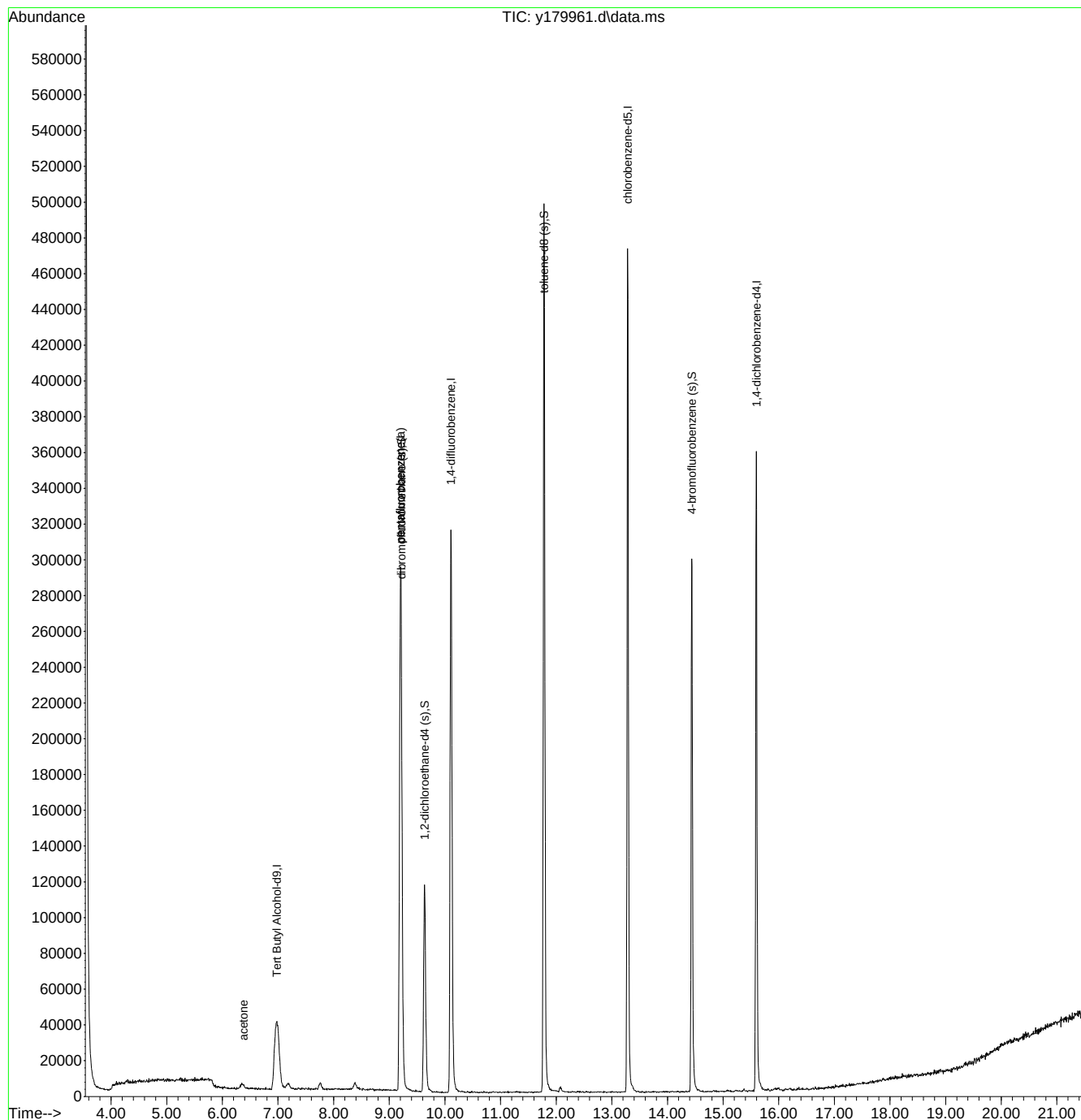
(#) = qualifier out of range (m) = manual integration (+) = signals summed

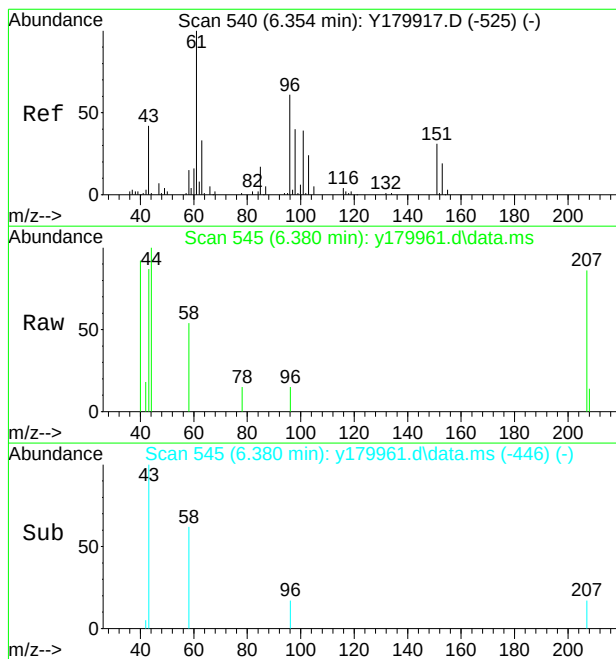
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7784\
Data File : y179961.d
Acq On : 18 May 2018 7:39 pm
Operator : PrashanS
Sample : JC66318-1
Misc : MS26438,VY7784,5.6,,,,,1
ALS Vial : 23 Sample Multiplier: 1

Inst : MSY

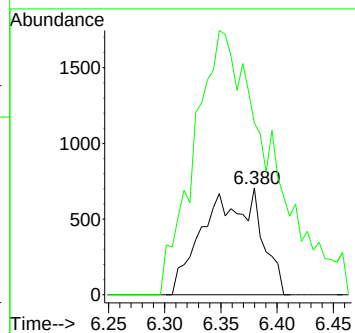
Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M
Quant Results File: MYS7713.RES
Quant Time: May 20 22:37:29 2018
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu May 17 08:41:26 2018
Response via : Initial Calibration





#22
acetone
Concen: 8.77 ug/L
RT: 6.380 min Scan# 545
Delta R.T. 0.016 min
Lab File: y179961.d
Acq: 18 May 2018 7:39 pm

Tgt Ion	Ratio	Lower	Upper
58	100		
43	114.0	270.7	330.7#



7.1.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\va9217\
 Data File : a241802.d
 Acq On : 21 May 2018 10:07 pm
 Operator : jessicap
 Sample : JC66318-1A Inst : MSA
 Misc : MS26493,VA9217,5,,,,,5
 ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
 Quant Results File: MA9165.RES
 Quant Time: May 23 00:47:30 2018
 Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Apr 17 15:31:13 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.797	65	328861	500.00	ug/L	-0.01
5) pentafluorobenzene	10.171	168	221495	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.108	114	318360	50.00	ug/L	0.00
76) chlorobenzene-d5	14.507	117	276038	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.112	152	168915	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.192	113	111421	50.47	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.94%
55) 1,2-dichloroethane-d4 (s)	10.626	65	108782	47.97	ug/L	-0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	95.94%
77) toluene-d8 (s)	12.854	98	353016	47.86	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	95.72%
101) 4-bromofluorobenzene (s)	15.799	95	129195	46.96	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.92%
Target Compounds						
25) methylene chloride	7.833	84	1921	0.81	ug/L	# 65
29) hexane	8.618	57	1844	0.62	ug/L	# 93
60) isopropyl acetate	10.653	87	4260	8.62	ug/L	# 70
64) trichloroethene	11.458	95	464	0.26	ug/L	# 76
126) naphthalene	19.685	128	5825	0.60	ug/L	# 98
129) 2-methylnaphthalene	20.977	142	1401	0.37	ug/L	# 95

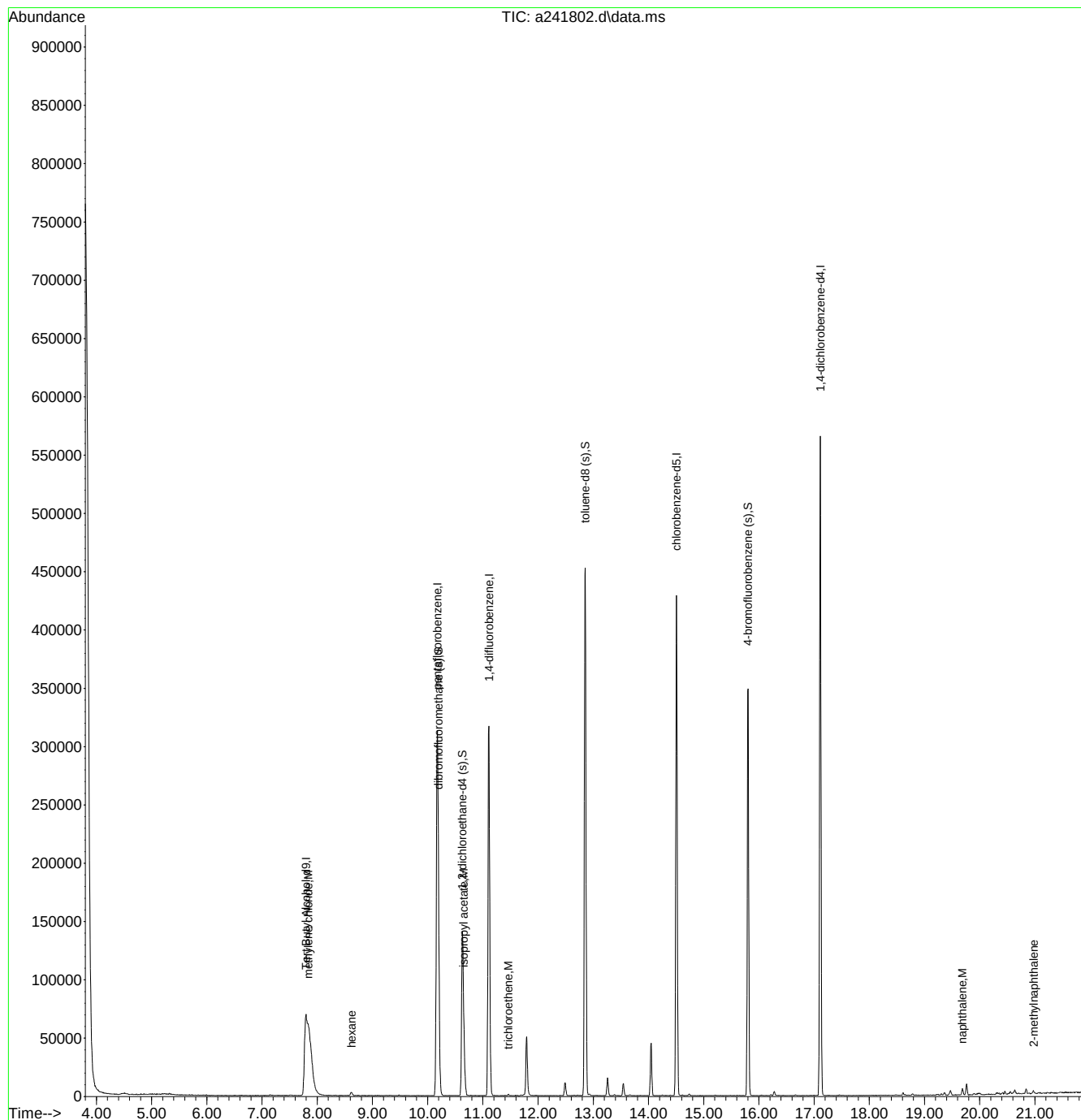
(#) = qualifier out of range (m) = manual integration (+) = signals summed

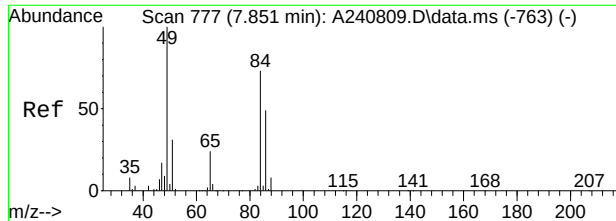
Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\data\kenrickb\va9217\  
Data File : a241802.d  
Acq On : 21 May 2018 10:07 pm  
Operator : jessicap  
Sample : JC66318-1A  
Misc : MS26493,VA9217,5,,,,5  
ALS Vial : 30 Sample Multiplier: 1
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Inst : MSA

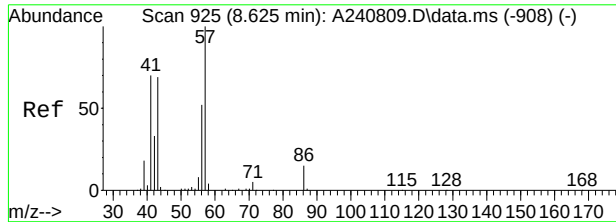
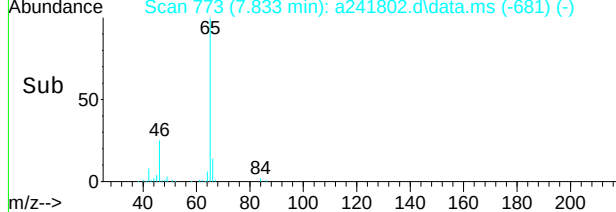
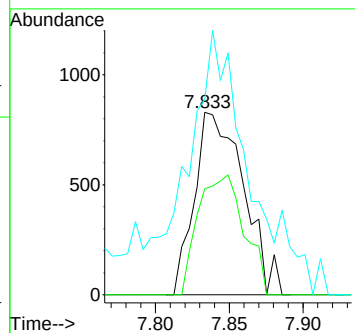
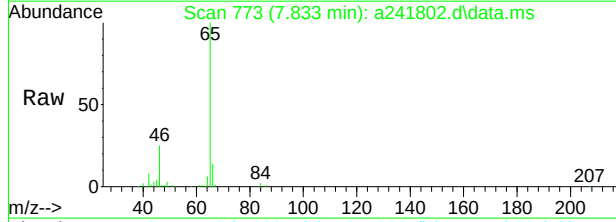
Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
Quant Results File: MA9165.RES
Quant Time: May 23 00:47:30 2018
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 17 15:31:13 2018
Response via : Initial Calibration





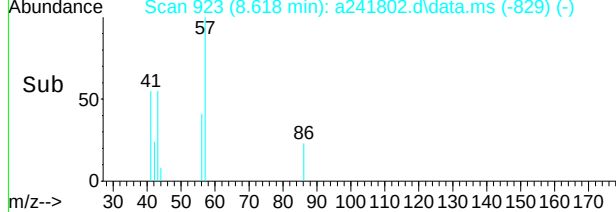
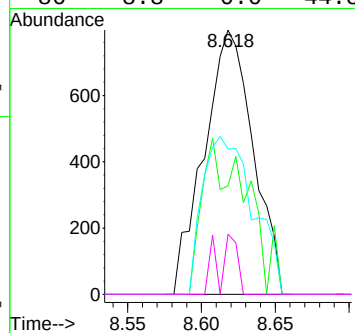
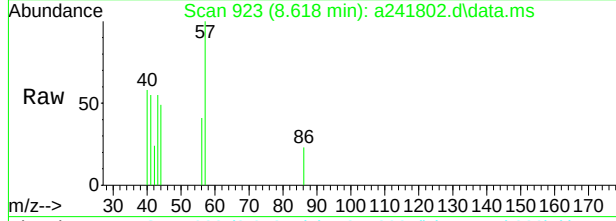
#25
methylene chloride
Concen: 0.81 ug/L
RT: 7.833 min Scan# 773
Delta R.T. -0.018 min
Lab File: a241802.d
Acq: 21 May 2018 10:07 pm

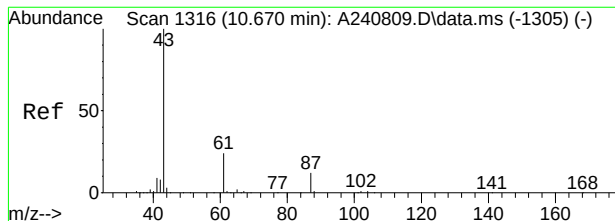
Tgt	Ion	84	Resp	1921
Ion	Ratio	Lower	Upper	
84	100			
86	58.1	36.4	96.4	
49	80.4	106.4	166.4	#



#29
hexane
Concen: 0.62 ug/L
RT: 8.618 min Scan# 923
Delta R.T. -0.007 min
Lab File: a241802.d
Acq: 21 May 2018 10:07 pm

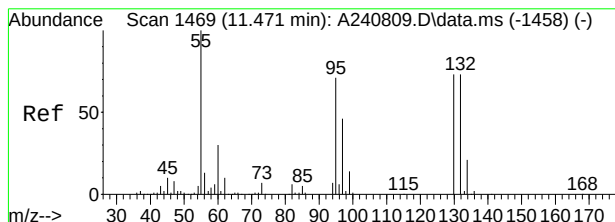
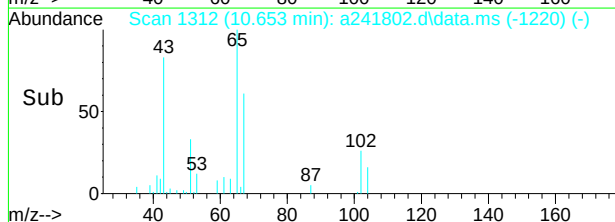
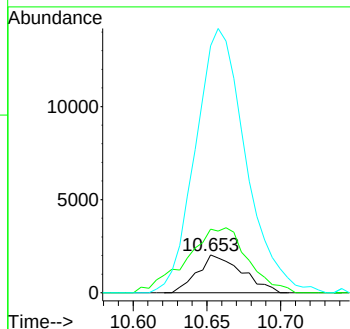
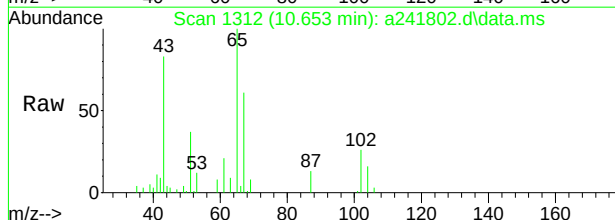
Tgt	Ion	57	Resp	1844
Ion	Ratio	Lower	Upper	
57	100			
56	53.9	21.6	81.6	
43	61.7	37.7	97.7	
86	8.8	0.0	44.8	





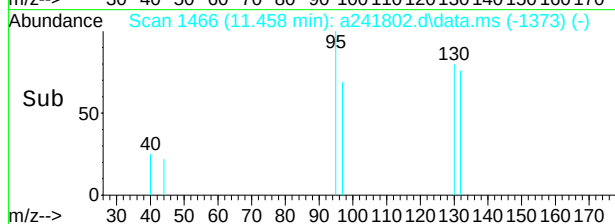
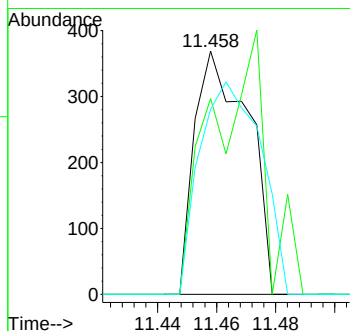
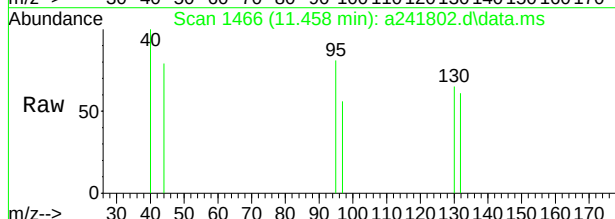
#60
isopropyl acetate
Concen: 8.62 ug/L
RT: 10.653 min Scan# 1312
Delta R.T. -0.018 min
Lab File: a241802.d
Acq: 21 May 2018 10:07 pm

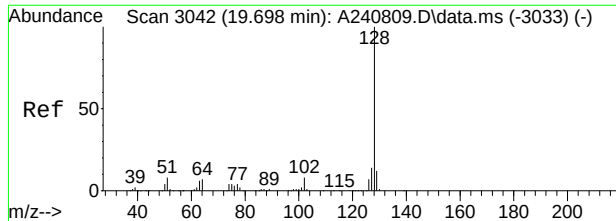
Tgt Ion:	87	Resp:	4260
Ion	Ratio	Lower	Upper
87	100		
61	236.7	178.6	238.6
43	789.0	899.0	959.0#



#64
trichloroethene
Concen: 0.26 ug/L
RT: 11.458 min Scan# 1466
Delta R.T. -0.013 min
Lab File: a241802.d
Acq: 21 May 2018 10:07 pm

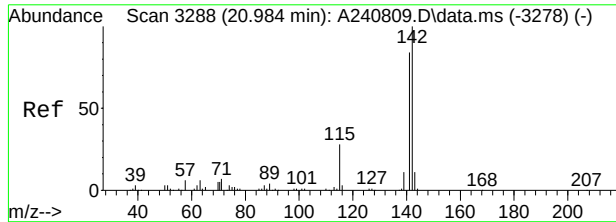
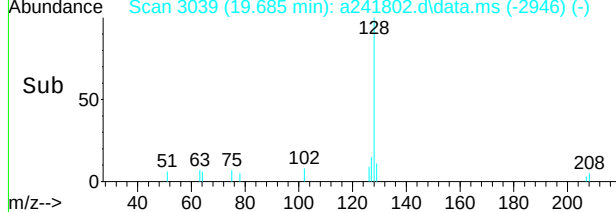
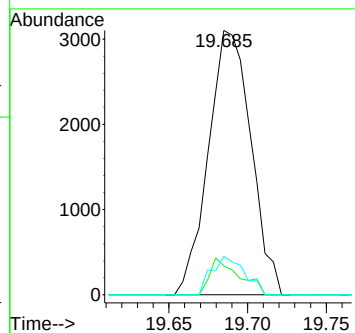
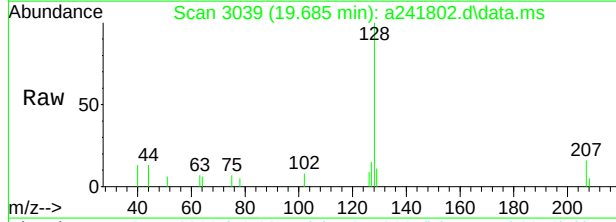
Tgt Ion:	95	Resp:	464
Ion	Ratio	Lower	Upper
95	100		
130	80.5	72.7	132.7
132	76.2	72.3	132.3





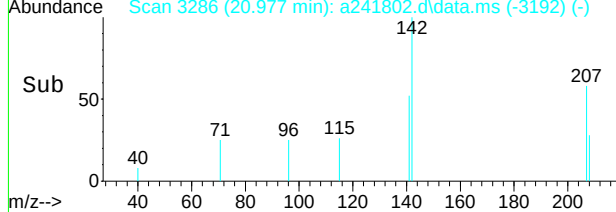
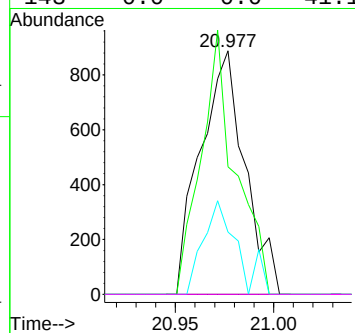
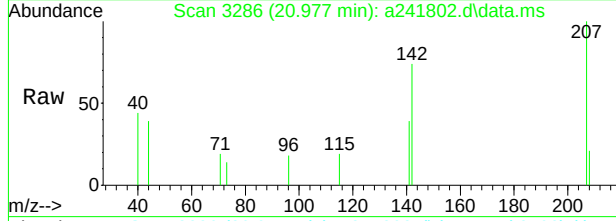
#126
naphthalene
Concen: 0.60 ug/L
RT: 19.685 min Scan# 3039
Delta R.T. -0.013 min
Lab File: a241802.d
Acq: 21 May 2018 10:07 pm

Tgt	Ion	128	Resp:	5825
	Ratio	100	Lower	Upper
	128	100		
	129	11.0	0.0	41.6
	127	14.5	0.0	43.5



#129
2-methylnaphthalene
Concen: 0.37 ug/L
RT: 20.977 min Scan# 3286
Delta R.T. -0.007 min
Lab File: a241802.d
Acq: 21 May 2018 10:07 pm

Tgt	Ion	142	Resp:	1401
	Ratio	100	Lower	Upper
	142	100		
	141	83.7	66.2	106.2
	115	29.3	0.0	59.7
	143	0.0	0.0	41.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\va9217\
 Data File : a241800.d
 Acq On : 21 May 2018 9:09 pm
 Operator : jessicap
 Sample : mb Inst : MSA
 Misc : MS26493,VA9217,5,,,,,1
 ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
 Quant Results File: MA9165.RES
 Quant Time: May 23 00:44:12 2018
 Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Apr 17 15:31:13 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.799	65	333137	500.00	ug/L	-0.01
5) pentafluorobenzene	10.174	168	240003	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.110	114	340630	50.00	ug/L	0.00
76) chlorobenzene-d5	14.509	117	286817	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	17.114	152	178980	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.195	113	121063	50.61	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.22%
55) 1,2-dichloroethane-d4 (s)	10.634	65	118562	48.86	ug/L	-0.01
Spiked Amount	50.000	Range	81 - 124	Recovery	=	97.72%
77) toluene-d8 (s)	12.851	98	374199	48.83	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	97.66%
101) 4-bromofluorobenzene (s)	15.801	95	134645	46.18	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.36%
Target Compounds						
24) carbon disulfide	7.511	76	1696	0.20	ug/L	72
25) methylene chloride	7.846	84	1924	0.75	ug/L #	64
29) hexane	8.615	57	2073	0.65	ug/L	92
64) trichloroethene	11.460	95	504	0.26	ug/L #	64
116) 1,4-dichlorobenzene	17.145	146	574	0.12	ug/L	95
122) 1,3,5-trichlorobenzene	18.657	180	798	0.17	ug/L	69
124) 1,2,4-trichlorobenzene	19.358	180	1080	0.26	ug/L	95
126) naphthalene	19.692	128	3454	0.33	ug/L	85
127) 1,2,3-trichlorobenzene	19.959	180	1255	0.34	ug/L	84
129) 2-methylnaphthalene	20.979	142	2297	0.57	ug/L	94

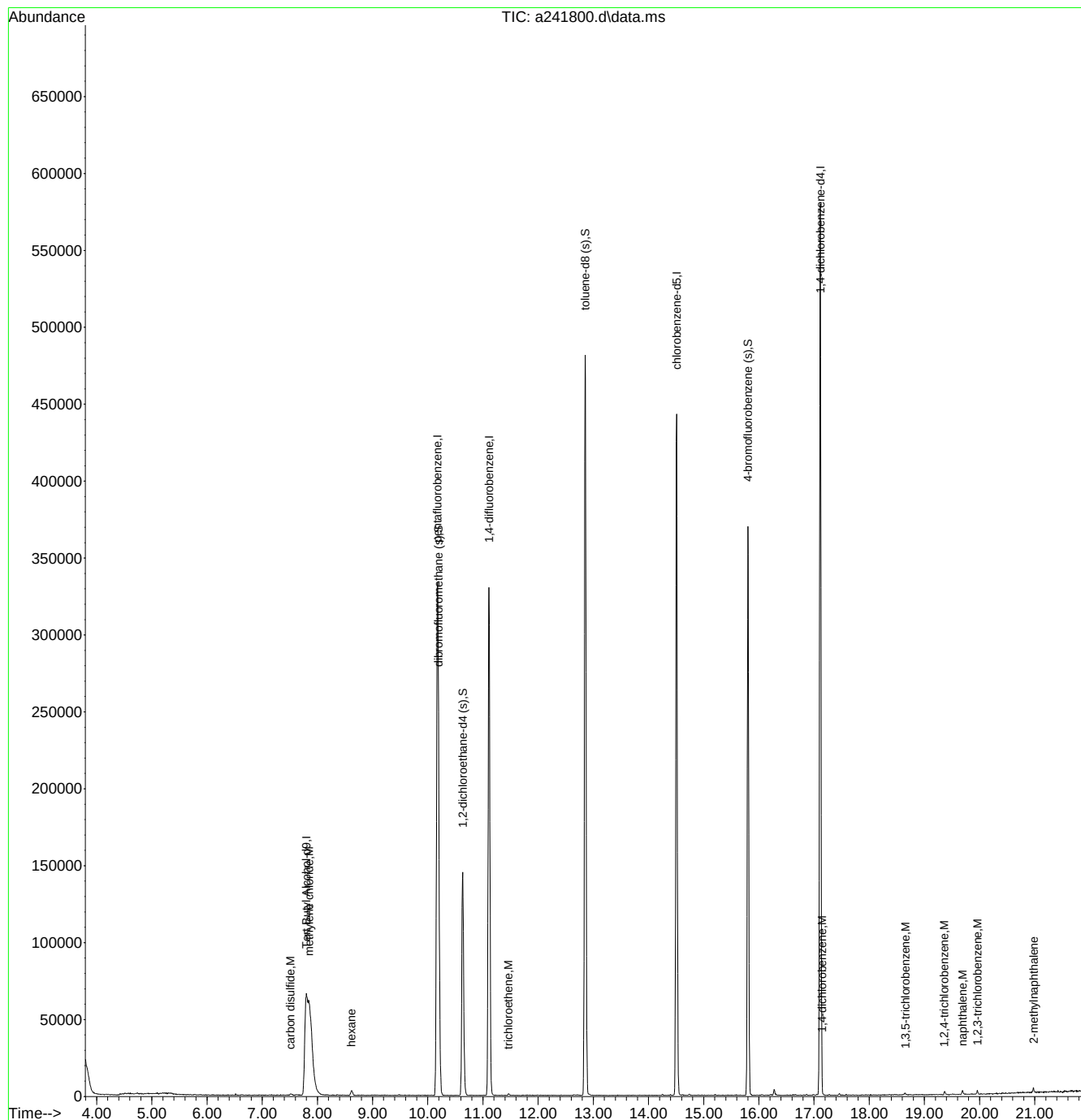
(#) = qualifier out of range (m) = manual integration (+) = signals summed

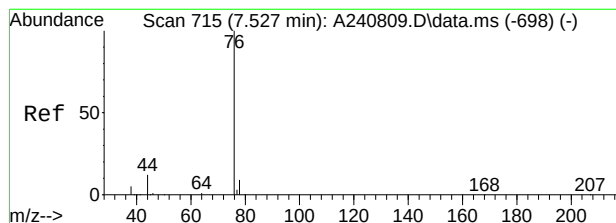
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\va9217\
Data File : a241800.d
Acq On : 21 May 2018 9:09 pm
Operator : jessicap
Sample : mb
Misc : MS26493,VA9217,5,,,,,1
ALS Vial : 28 Sample Multiplier: 1

Inst : MSA

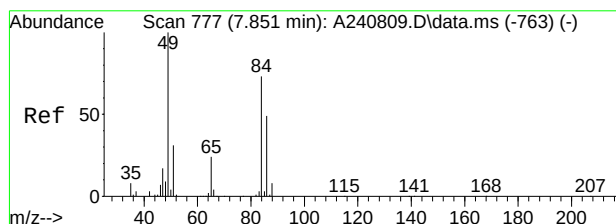
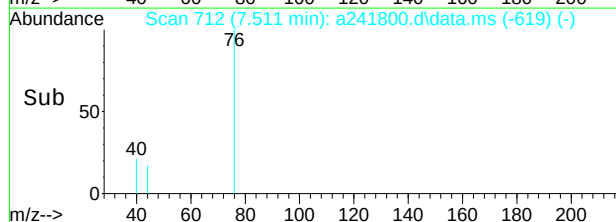
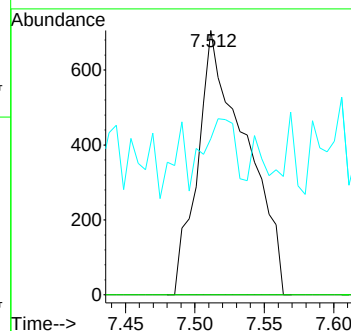
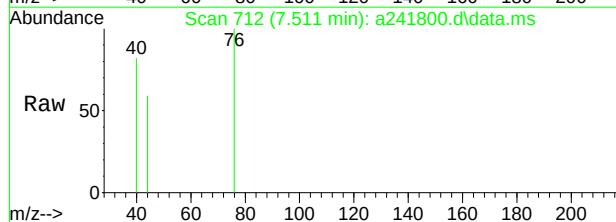
Quant Method : C:\MSDCHEM\1\METHODS\MA9165.M
Quant Results File: MA9165.RES
Quant Time: May 23 00:44:12 2018
Quant Title : SW 846 8260C DB624 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 17 15:31:13 2018
Response via : Initial Calibration





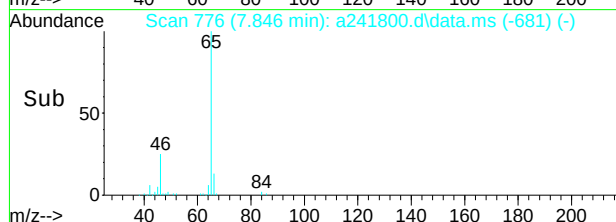
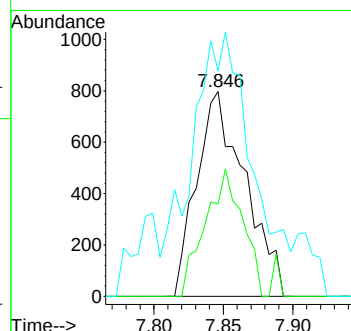
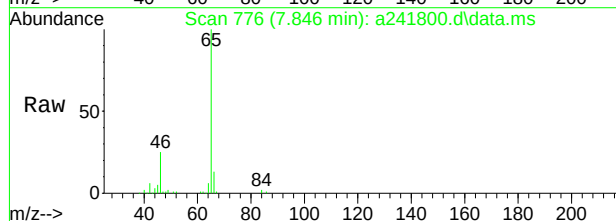
#24
carbon disulfide
Concen: 0.20 ug/L
RT: 7.511 min Scan# 712
Delta R.T. -0.016 min
Lab File: a241800.d
Acq: 21 May 2018 9:09 pm

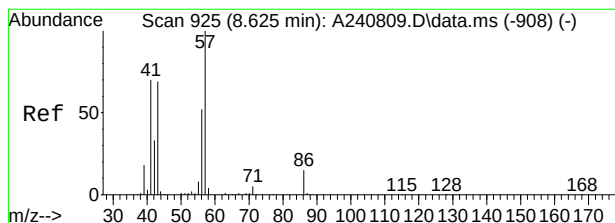
Tgt Ion: 76	Resp: 1696
Ion Ratio	Lower Upper
76 100	
78 0.0	0.0 39.3
44 0.0	0.0 41.7



#25
methylene chloride
Concen: 0.75 ug/L
RT: 7.846 min Scan# 776
Delta R.T. -0.005 min
Lab File: a241800.d
Acq: 21 May 2018 9:09 pm

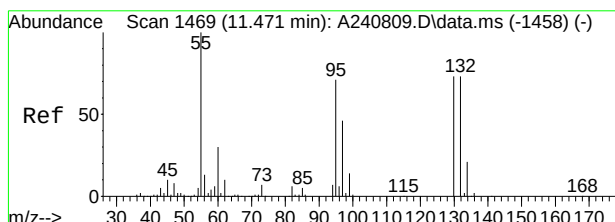
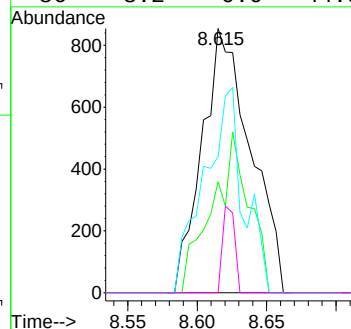
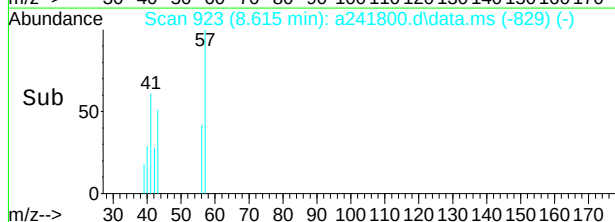
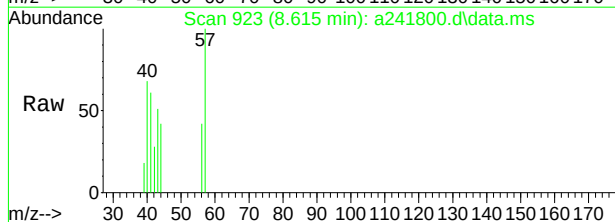
Tgt Ion: 84	Resp: 1924
Ion Ratio	Lower Upper
84 100	
86 45.0	36.4 96.4
49 88.2	106.4 166.4#





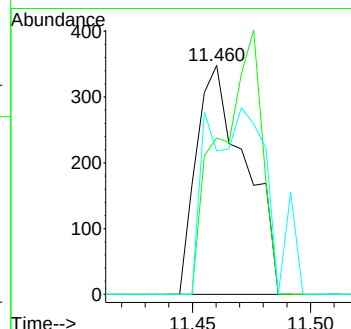
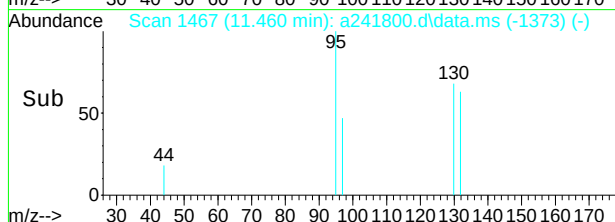
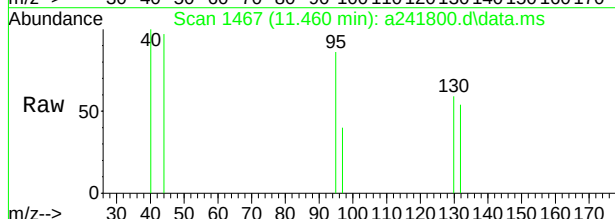
#29
hexane
Concen: 0.65 ug/L
RT: 8.615 min Scan# 923
Delta R.T. -0.010 min
Lab File: a241800.d
Acq: 21 May 2018 9:09 pm

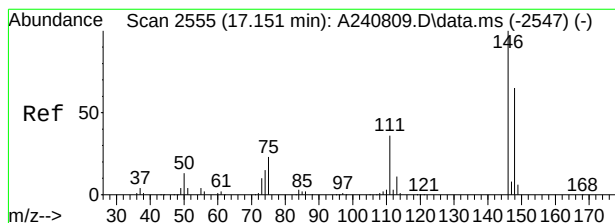
Tgt	Ion	57	Resp:	2073
	Ratio	100	Lower	Upper
	56	46.4	21.6	81.6
	43	62.9	37.7	97.7
	86	8.2	0.0	44.8



#64
trichloroethene
Concen: 0.26 ug/L
RT: 11.460 min Scan# 1467
Delta R.T. -0.010 min
Lab File: a241800.d
Acq: 21 May 2018 9:09 pm

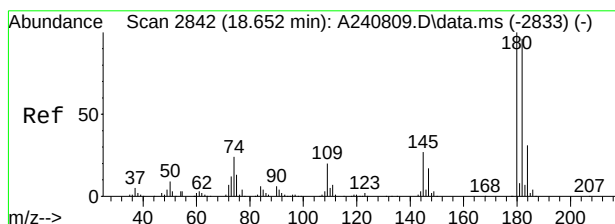
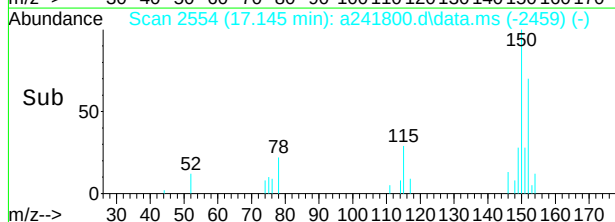
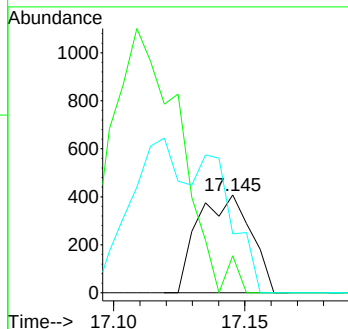
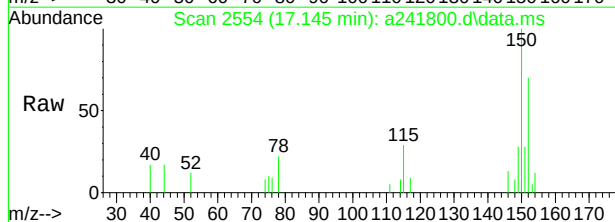
Tgt	Ion	95	Resp:	504
	Ratio	100	Lower	Upper
	130	68.4	72.7	132.7#
	132	62.6	72.3	132.3#





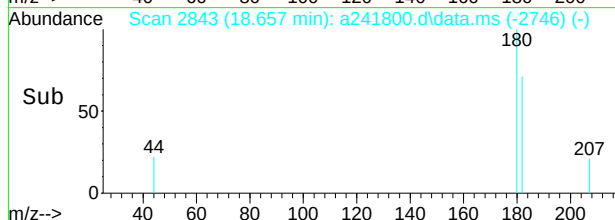
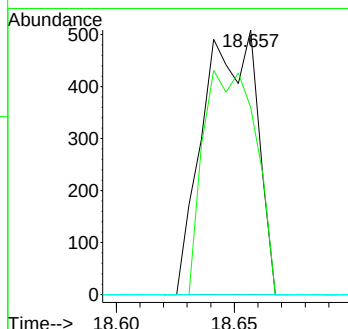
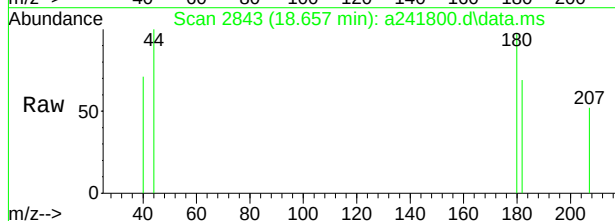
#116
1,4-dichlorobenzene
Concen: 0.12 ug/L
RT: 17.145 min Scan# 2554
Delta R.T. -0.005 min
Lab File: a241800.d
Acq: 21 May 2018 9:09 pm

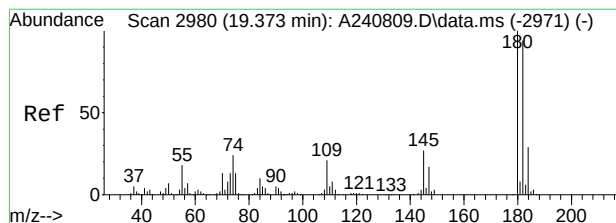
Tgt Ion	Ratio	Lower	Upper
146	100		
111	37.7	6.7	66.7
148	60.0	35.0	95.0



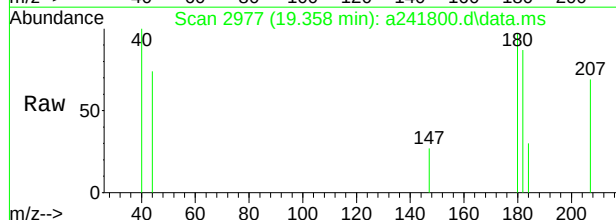
#122
1,3,5-trichlorobenzene
Concen: 0.17 ug/L
RT: 18.657 min Scan# 2843
Delta R.T. 0.005 min
Lab File: a241800.d
Acq: 21 May 2018 9:09 pm

Tgt Ion	Ratio	Lower	Upper
180	100		
182	70.7	65.9	125.9
145	0.0	0.0	56.7

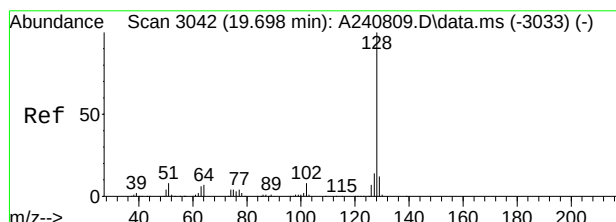
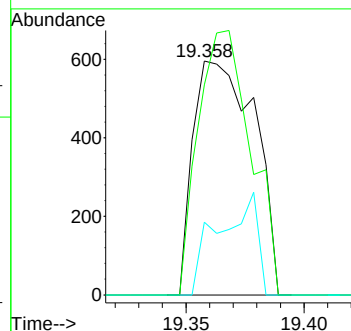
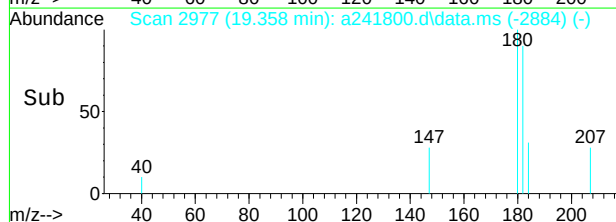




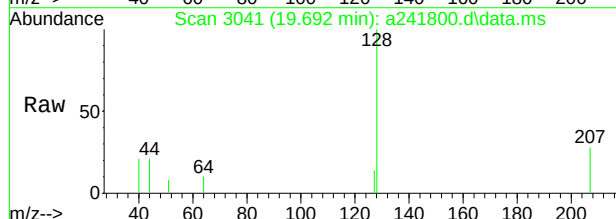
#124
1,2,4-trichlorobenzene
Concen: 0.26 ug/L
RT: 19.358 min Scan# 2977
Delta R.T. -0.016 min
Lab File: a241800.d
Acq: 21 May 2018 9:09 pm



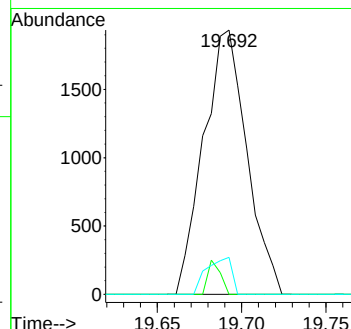
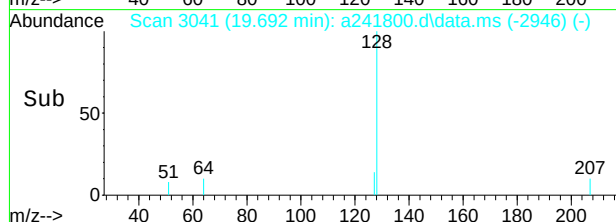
Tgt Ion:180 Resp: 1080
Ion Ratio Lower Upper
180 100
182 89.8 64.1 124.1
184 31.0 0.0 58.6

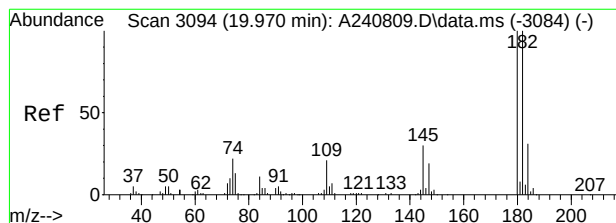


#126
naphthalene
Concen: 0.33 ug/L
RT: 19.692 min Scan# 3041
Delta R.T. -0.005 min
Lab File: a241800.d
Acq: 21 May 2018 9:09 pm



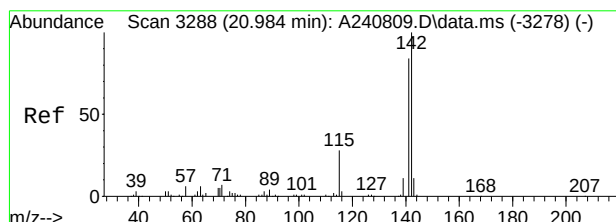
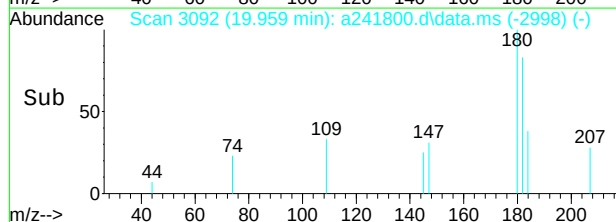
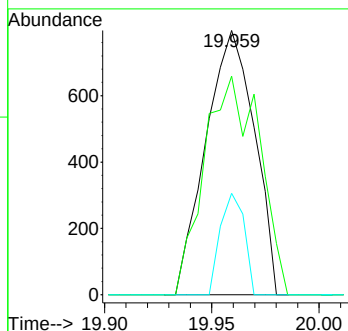
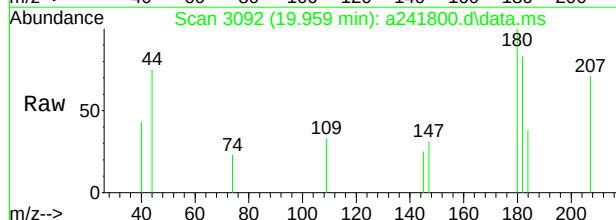
Tgt Ion:128 Resp: 3454
Ion Ratio Lower Upper
128 100
129 0.0 0.0 41.6
127 14.0 0.0 43.5





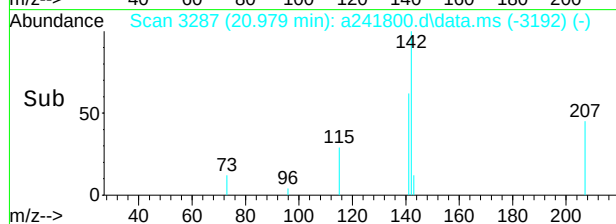
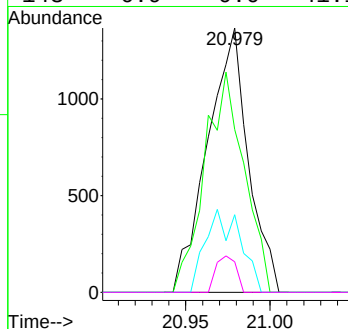
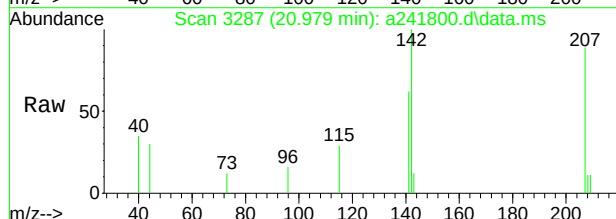
#127
1,2,3-trichlorobenzene
Concen: 0.34 ug/L
RT: 19.959 min Scan# 3092
Delta R.T. -0.010 min
Lab File: a241800.d
Acq: 21 May 2018 9:09 pm

Tgt Ion:	180	Resp:	1255
Ion Ratio	Lower	Upper	
180	100		
182	82.7	69.9	129.9
184	38.4	1.4	61.4



#129
2-methylnaphthalene
Concen: 0.57 ug/L
RT: 20.979 min Scan# 3287
Delta R.T. -0.005 min
Lab File: a241800.d
Acq: 21 May 2018 9:09 pm

Tgt Ion:	142	Resp:	2297
Ion Ratio	Lower	Upper	
142	100		
141	81.0	66.2	106.2
115	26.7	0.0	59.7
143	6.9	0.0	41.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7784\
 Data File : y179943.d
 Acq On : 18 May 2018 11:00 am
 Operator : Prashans
 Sample : MB Inst : MSY
 Misc : MS26438,VY7784,5.0,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M
 Quant Results File: MYS7713.RES
 Quant Time: May 20 22:10:55 2018
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Thu May 17 08:41:26 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.982	65	88664	500.00	ug/L	-0.02
5) pentafluorobenzene	9.199	168	190615	50.00	ug/L	-0.02
54) 1,4-difluorobenzene	10.109	114	294975	50.00	ug/L	-0.01
76) chlorobenzene-d5	13.289	117	284801	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.596	152	133614	50.00	ug/L	-0.01
131) pentafluorobenzene(a)	9.199	168	190615	50.00	ug/L	-0.02
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.220	113	84380	49.54	ug/L	-0.02
Spiked Amount	50.000	Range 72 - 129	Recovery	=	99.08%	
55) 1,2-dichloroethane-d4 (s)	9.633	65	77553	44.94	ug/L	-0.02
Spiked Amount	50.000	Range 73 - 132	Recovery	=	89.88%	
77) toluene-d8 (s)	11.783	98	354033	45.74	ug/L	-0.01
Spiked Amount	50.000	Range 80 - 120	Recovery	=	91.48%	
101) 4-bromofluorobenzene (s)	14.435	95	123174	55.53	ug/L	-0.01
Spiked Amount	50.000	Range 77 - 125	Recovery	=	111.06%	
Target Compounds						
30) hexane	7.756	57	4835	1.74	ug/L	Qvalue 85

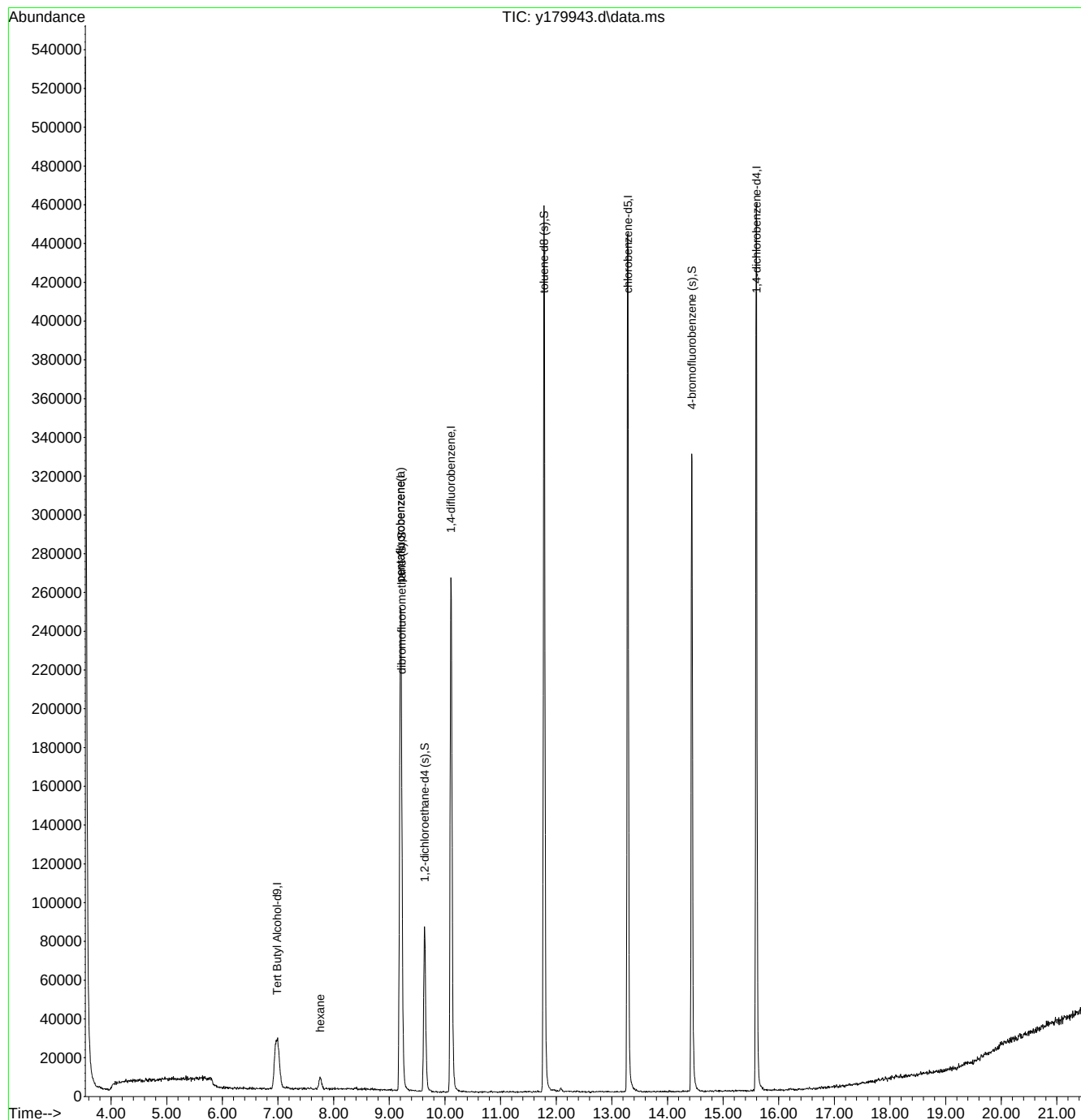
(#) = qualifier out of range (m) = manual integration (+) = signals summed

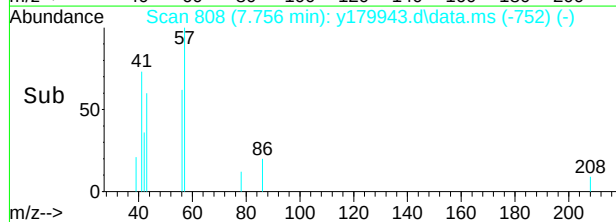
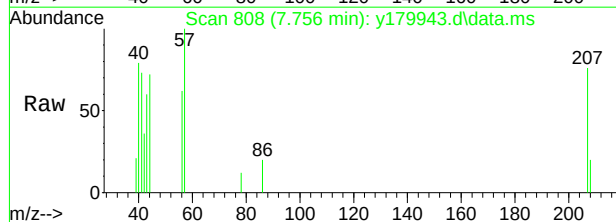
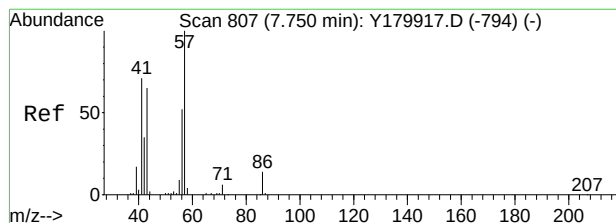
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7784\
Data File : y179943.d
Acq On : 18 May 2018 11:00 am
Operator : PrashanS
Sample : MB
Misc : MS26438,VY7784,5.0,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Inst : MSY

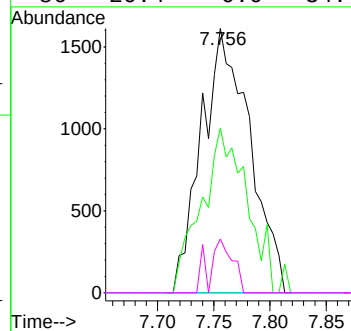
Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M
Quant Results File: MYS7713.RES
Quant Time: May 20 22:10:55 2018
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu May 17 08:41:26 2018
Response via : Initial Calibration





#30
hexane
Concen: 1.74 ug/L
RT: 7.756 min Scan# 808
Delta R.T. -0.005 min
Lab File: y179943.d
Acq: 18 May 2018 11:00 am

Tgt Ion: 57	Resp: 4835
Ion Ratio	Lower Upper
57 100	
56 62.3	31.6 71.6
71 0.0	0.0 25.3
86 20.4	0.0 34.4



MS Semi-volatiles

QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12130-MB1	5P50470.D	1	05/22/18	SA	05/21/18	OP12130	E5P2408

The QC reported here applies to the following samples: Method: SW846 8270D

JC66318-1

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	67	16	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	20	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	28	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	59	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	170	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	36	ug/kg	
95-48-7	2-Methylphenol	ND	67	21	ug/kg	
	3&4-Methylphenol	ND	67	27	ug/kg	
88-75-5	2-Nitrophenol	ND	170	22	ug/kg	
100-02-7	4-Nitrophenol	ND	330	89	ug/kg	
87-86-5	Pentachlorophenol	ND	130	31	ug/kg	
108-95-2	Phenol	ND	67	17	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	170	22	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	25	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	20	ug/kg	
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
98-86-2	Acetophenone	ND	170	7.2	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
1912-24-9	Atrazine	ND	67	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	67	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	67	8.1	ug/kg	
92-52-4	1,1'-Biphenyl	ND	67	4.6	ug/kg	
100-52-7	Benzaldehyde	ND	170	8.3	ug/kg	
91-58-7	2-Chloronaphthalene	ND	67	7.9	ug/kg	
106-47-8	4-Chloroaniline	ND	170	12	ug/kg	
86-74-8	Carbazole	ND	67	4.8	ug/kg	
105-60-2	Caprolactam	ND	67	13	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	67	7.1	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	67	14	ug/kg	

8.1.1
8

Method Blank Summary

Page 2 of 3

Job Number: JC66318

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12130-MB1	5P50470.D	1	05/22/18	SA	05/21/18	OP12130	E5P2408

The QC reported here applies to the following samples:

Method: SW846 8270D

JC66318-1

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	67	12	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	67	11	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	33	10	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	33	17	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	67	28	ug/kg	
123-91-1	1,4-Dioxane	ND	33	22	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
132-64-9	Dibenzofuran	ND	67	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	67	5.4	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	67	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	67	7.1	ug/kg	
131-11-3	Dimethyl phthalate	ND	67	5.9	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	67	7.8	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	67	8.4	ug/kg	
87-68-3	Hexachlorobutadiene	ND	33	13	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	330	13	ug/kg	
67-72-1	Hexachloroethane	ND	170	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
78-59-1	Isophorone	ND	67	7.1	ug/kg	
91-57-6	2-Methylnaphthalene	ND	33	7.5	ug/kg	
88-74-4	2-Nitroaniline	ND	170	7.9	ug/kg	
99-09-2	3-Nitroaniline	ND	170	8.3	ug/kg	
100-01-6	4-Nitroaniline	ND	170	8.6	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
98-95-3	Nitrobenzene	ND	67	13	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	67	9.6	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	12	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	170	8.5	ug/kg	

8.1.1

8

Method Blank Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12130-MB1	5P50470.D	1	05/22/18	SA	05/21/18	OP12130	E5P2408

The QC reported here applies to the following samples: Method: SW846 8270D

JC66318-1

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	68% 23-115%
4165-62-2	Phenol-d5	70% 27-114%
118-79-6	2,4,6-Tribromophenol	69% 19-152%
4165-60-0	Nitrobenzene-d5	65% 26-134%
321-60-8	2-Fluorobiphenyl	71% 39-124%
1718-51-0	Terphenyl-d14	72% 36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	1.90	210	ug/kg	J
	system artifact/aldol-condensation	3.11	410	ug/kg	J
	Total TIC, Semi-Volatile		0	ug/kg	

Method Blank Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12241-MB1	2M104343.D	1	05/24/18	CS	05/23/18	OP12241	E2M4637

The QC reported here applies to the following samples: Method: SW846 8270D

JC66318-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.17	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.0	0.55	ug/l	
118-74-1	Hexachlorobenzene	ND	2.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.39	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
110-86-1	Pyridine	ND	2.0	0.39	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	52% 14-88%
4165-62-2	Phenol-d5	36% 10-110%
118-79-6	2,4,6-Tribromophenol	91% 39-149%
4165-60-0	Nitrobenzene-d5	87% 32-128%
321-60-8	2-Fluorobiphenyl	86% 35-119%
1718-51-0	Terphenyl-d14	101% 10-126%

8.1.2
8

Leachate Blank Summary

Page 1 of 1

Job Number: JC66318

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12241-LB34	2M104347.D	1	05/24/18	CS	05/23/18	OP12241	E2M4637

The QC reported here applies to the following samples:

Method: SW846 8270D

JC66318-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	20	8.9	ug/l	
	3&4-Methylphenol	ND	20	8.8	ug/l	
87-86-5	Pentachlorophenol	ND	100	14	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	50	13	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	50	9.2	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	20	1.7	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	20	5.5	ug/l	
118-74-1	Hexachlorobenzene	ND	20	3.3	ug/l	
87-68-3	Hexachlorobutadiene	ND	10	4.9	ug/l	
67-72-1	Hexachloroethane	ND	50	3.9	ug/l	
98-95-3	Nitrobenzene	ND	20	6.4	ug/l	
110-86-1	Pyridine	ND	20	3.9	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	53% 14-88%
4165-62-2	Phenol-d5	35% 10-110%
118-79-6	2,4,6-Tribromophenol	86% 39-149%
4165-60-0	Nitrobenzene-d5	85% 32-128%
321-60-8	2-Fluorobiphenyl	84% 35-119%
1718-51-0	Terphenyl-d14	94% 10-126%

8.2.1
8

Blank Spike Summary

Page 1 of 3

Job Number: JC66318

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12130-BS1	5P50471.D	1	05/22/18	SA	05/21/18	OP12130	E5P2408

The QC reported here applies to the following samples:

Method: SW846 8270D

JC66318-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-57-8	2-Chlorophenol	1670	1370	82	44-122
59-50-7	4-Chloro-3-methyl phenol	1670	1380	83	50-123
120-83-2	2,4-Dichlorophenol	1670	1380	83	48-122
105-67-9	2,4-Dimethylphenol	1670	1510	91	48-124
51-28-5	2,4-Dinitrophenol	3330	2640	79	34-146
534-52-1	4,6-Dinitro-o-cresol	1670	1450	87	49-140
95-48-7	2-Methylphenol	1670	1370	82	40-126
	3&4-Methylphenol	1670	1470	88	40-127
88-75-5	2-Nitrophenol	1670	1430	86	44-133
100-02-7	4-Nitrophenol	1670	1280	77	35-153
87-86-5	Pentachlorophenol	1670	1290	77	15-149
108-95-2	Phenol	1670	1300	78	50-109
58-90-2	2,3,4,6-Tetrachlorophenol	1670	1380	83	44-132
95-95-4	2,4,5-Trichlorophenol	1670	1510	91	45-124
88-06-2	2,4,6-Trichlorophenol	1670	1610	97	57-122
83-32-9	Acenaphthene	1670	1540	92	53-119
208-96-8	Acenaphthylene	1670	1550	93	41-125
98-86-2	Acetophenone	1670	1320	79	52-112
120-12-7	Anthracene	1670	1470	88	51-120
1912-24-9	Atrazine	1670	1900	114	49-139
56-55-3	Benzo(a)anthracene	1670	1520	91	54-118
50-32-8	Benzo(a)pyrene	1670	1400	84	55-121
205-99-2	Benzo(b)fluoranthene	1670	1390	83	57-116
191-24-2	Benzo(g,h,i)perylene	1670	1530	92	40-124
207-08-9	Benzo(k)fluoranthene	1670	1440	86	59-116
101-55-3	4-Bromophenyl phenyl ether	1670	1500	90	60-122
85-68-7	Butyl benzyl phthalate	1670	1560	94	51-134
92-52-4	1,1'-Biphenyl	1670	1490	89	46-122
100-52-7	Benzaldehyde	1670	1560	94	14-139
91-58-7	2-Chloronaphthalene	1670	1510	91	49-120
106-47-8	4-Chloroaniline	1670	846	51	10-115
86-74-8	Carbazole	1670	1500	90	52-124
105-60-2	Caprolactam	1670	1280	77	16-139
218-01-9	Chrysene	1670	1470	88	51-115
111-91-1	bis(2-Chloroethoxy)methane	1670	1530	92	36-131
111-44-4	bis(2-Chloroethyl)ether	1670	1490	89	41-131

* = Outside of Control Limits.

Blank Spike Summary

Page 2 of 3

Job Number: JC66318

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12130-BS1	5P50471.D	1	05/22/18	SA	05/21/18	OP12130	E5P2408

The QC reported here applies to the following samples:

Method: SW846 8270D

JC66318-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
108-60-1	2,2'-Oxybis(1-chloropropane)	1670	1680	101	22-134
7005-72-3	4-Chlorophenyl phenyl ether	1670	1550	93	56-118
121-14-2	2,4-Dinitrotoluene	1670	1480	89	57-131
606-20-2	2,6-Dinitrotoluene	1670	1520	91	57-132
91-94-1	3,3'-Dichlorobenzidine	3330	2260	68	10-129
123-91-1	1,4-Dioxane	1670	948	57	10-110
53-70-3	Dibenzo(a,h)anthracene	1670	1440	86	48-121
132-64-9	Dibenzofuran	1670	1520	91	51-119
84-74-2	Di-n-butyl phthalate	1670	1490	89	59-125
117-84-0	Di-n-octyl phthalate	1670	1480	89	47-147
84-66-2	Diethyl phthalate	1670	1580	95	57-116
131-11-3	Dimethyl phthalate	1670	1550	93	56-116
117-81-7	bis(2-Ethylhexyl)phthalate	1670	1580	95	53-133
206-44-0	Fluoranthene	1670	1480	89	58-117
86-73-7	Fluorene	1670	1550	93	56-114
118-74-1	Hexachlorobenzene	1670	1550	93	50-128
87-68-3	Hexachlorobutadiene	1670	1510	91	43-129
77-47-4	Hexachlorocyclopentadiene	3330	3140	94	15-140
67-72-1	Hexachloroethane	1670	1380	83	43-123
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1470	88	49-124
78-59-1	Isophorone	1670	1380	83	38-128
91-57-6	2-Methylnaphthalene	1670	1330	80	37-124
88-74-4	2-Nitroaniline	1670	1580	95	45-144
99-09-2	3-Nitroaniline	1670	1260	76	10-134
100-01-6	4-Nitroaniline	1670	1440	86	41-130
91-20-3	Naphthalene	1670	1440	86	44-116
98-95-3	Nitrobenzene	1670	1320	79	36-132
621-64-7	N-Nitroso-di-n-propylamine	1670	1300	78	38-125
86-30-6	N-Nitrosodiphenylamine	1670	1390	83	51-122
85-01-8	Phenanthrene	1670	1490	89	53-119
129-00-0	Pyrene	1670	1530	92	54-124
95-94-3	1,2,4,5-Tetrachlorobenzene	1670	1670	100	45-128

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12130-BS1	5P50471.D	1	05/22/18	SA	05/21/18	OP12130	E5P2408

The QC reported here applies to the following samples: Method: SW846 8270D

JC66318-1

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	91%	23-115%
4165-62-2	Phenol-d5	87%	27-114%
118-79-6	2,4,6-Tribromophenol	97%	19-152%
4165-60-0	Nitrobenzene-d5	80%	26-134%
321-60-8	2-Fluorobiphenyl	84%	39-124%
1718-51-0	Terphenyl-d14	99%	36-134%

8.3.1
8

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12241-BS1	2M104349.D	1	05/24/18	CS	05/23/18	OP12241	E2M4637

The QC reported here applies to the following samples: Method: SW846 8270D

JC66318-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-48-7	2-Methylphenol	500	384	77	42-103
	3&4-Methylphenol	500	382	76	39-110
87-86-5	Pentachlorophenol	500	453	91	30-136
95-95-4	2,4,5-Trichlorophenol	500	496	99	55-116
88-06-2	2,4,6-Trichlorophenol	500	502	100	56-115
106-46-7	1,4-Dichlorobenzene	500	402	80	39-110
121-14-2	2,4-Dinitrotoluene	500	562	112	57-122
118-74-1	Hexachlorobenzene	500	457	91	49-122
87-68-3	Hexachlorobutadiene	500	452	90	24-112
67-72-1	Hexachloroethane	500	411	82	31-107
98-95-3	Nitrobenzene	500	442	88	44-116
110-86-1	Pyridine	500	156	31	10-110

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	69%	14-88%
4165-62-2	Phenol-d5	50%	10-110%
118-79-6	2,4,6-Tribromophenol	96%	39-149%
4165-60-0	Nitrobenzene-d5	93%	32-128%
321-60-8	2-Fluorobiphenyl	95%	35-119%
1718-51-0	Terphenyl-d14	105%	10-126%

* = Outside of Control Limits.

8.3.2
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Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12130-MS	5P50472.D	1	05/22/18	SA	05/21/18	OP12130	E5P2408
OP12130-MSD	5P50473.D	1	05/22/18	SA	05/21/18	OP12130	E5P2408
JC66368-2	5P50474.D	1	05/22/18	SA	05/21/18	OP12130	E5P2408

The QC reported here applies to the following samples:

Method: SW846 8270D

JC66318-1

CAS No.	Compound	JC66368-2 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND	1960	1490	76	1920	1520	79	2	10-137/34
59-50-7	4-Chloro-3-methyl phenol	ND	1960	1460	75	1920	1520	79	4	11-147/35
120-83-2	2,4-Dichlorophenol	ND	1960	1490	76	1920	1580	82	6	15-140/34
105-67-9	2,4-Dimethylphenol	ND	1960	1510	77	1920	1640	85	8	10-151/34
51-28-5	2,4-Dinitrophenol	ND	3910	2700	69	3840	2650	69	2	10-148/49
534-52-1	4,6-Dinitro-o-cresol	ND	1960	1510	77	1920	1650	86	9	10-150/48
95-48-7	2-Methylphenol	ND	1960	1410	72	1920	1420	74	1	10-138/33
	3&4-Methylphenol	ND	1960	1530	78	1920	1610	84	5	10-143/33
88-75-5	2-Nitrophenol	ND	1960	1510	77	1920	1660	87	9	10-150/39
100-02-7	4-Nitrophenol	ND	1960	1400	72	1920	1380	72	1	10-163/38
87-86-5	Pentachlorophenol	ND	1960	1440	74	1920	1520	79	5	10-148/39
108-95-2	Phenol	ND	1960	1330	68	1920	1370	71	3	24-114/32
58-90-2	2,3,4,6-Tetrachlorophenol	ND	1960	1540	79	1920	1540	80	0	14-140/38
95-95-4	2,4,5-Trichlorophenol	ND	1960	1550	79	1920	1680	88	8	10-146/36
88-06-2	2,4,6-Trichlorophenol	ND	1960	1650	84	1920	1670	87	1	16-148/36
83-32-9	Acenaphthene	ND	1960	1660	85	1920	1570	82	6	21-136/34
208-96-8	Acenaphthylene	ND	1960	1630	83	1920	1570	82	4	10-143/36
98-86-2	Acetophenone	ND	1960	2010	103	1920	1880	98	7	24-127/31
120-12-7	Anthracene	ND	1960	1540	79	1920	1530	80	1	10-147/39
1912-24-9	Atrazine	ND	1960	1990	102	1920	2070	108	4	10-161/38
56-55-3	Benzo(a)anthracene	ND	1960	1560	80	1920	1530	80	2	10-151/41
50-32-8	Benzo(a)pyrene	ND	1960	1510	77	1920	1450	76	4	10-149/40
205-99-2	Benzo(b)fluoranthene	ND	1960	1480	76	1920	1420	74	4	10-147/42
191-24-2	Benzo(g,h,i)perylene	ND	1960	1610	82	1920	1520	79	6	10-150/41
207-08-9	Benzo(k)fluoranthene	ND	1960	1520	78	1920	1450	76	5	12-142/41
101-55-3	4-Bromophenyl phenyl ether	ND	1960	1590	81	1920	1520	79	5	26-138/37
85-68-7	Butyl benzyl phthalate	ND	1960	1670	85	1920	1630	85	2	24-143/36
92-52-4	1,1'-Biphenyl	ND	1960	1620	83	1920	1620	84	0	18-138/32
100-52-7	Benzaldehyde	ND	1960	4480	229* a	1920	3620	189* a	21	10-149/37
91-58-7	2-Chloronaphthalene	ND	1960	1580	81	1920	1520	79	4	24-130/31
106-47-8	4-Chloroaniline	ND	1960	881	45	1920	846	44	4	10-111/52
86-74-8	Carbazole	ND	1960	1500	77	1920	1640	85	9	12-146/39
105-60-2	Caprolactam	ND	1960	1400	72	1920	1440	75	3	10-147/40
218-01-9	Chrysene	ND	1960	1540	79	1920	1540	80	0	10-151/41
111-91-1	bis(2-Chloroethoxy)methane	ND	1960	1620	83	1920	1600	83	1	10-144/35
111-44-4	bis(2-Chloroethyl)ether	ND	1960	1550	79	1920	1500	78	3	12-142/35

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12130-MS	5P50472.D	1	05/22/18	SA	05/21/18	OP12130	E5P2408
OP12130-MSD	5P50473.D	1	05/22/18	SA	05/21/18	OP12130	E5P2408
JC66368-2	5P50474.D	1	05/22/18	SA	05/21/18	OP12130	E5P2408

The QC reported here applies to the following samples:

Method: SW846 8270D

JC66318-1

CAS No.	Compound	JC66368-2	Spike	MS	MS	Spike	MSD	MSD	RPD	Limits	
		ug/kg	Q	ug/kg	ug/kg	%	ug/kg	ug/kg		%	Rec/RPD
108-60-1	2,2' -Oxybis(1-chloropropane)	ND		1960	1680	86	1920	1640	85	2	10-137/33
7005-72-3	4-Chlorophenyl phenyl ether	ND		1960	1600	82	1920	1520	79	5	21-136/35
121-14-2	2,4-Dinitrotoluene	ND		1960	1600	82	1920	1500	78	6	14-148/41
606-20-2	2,6-Dinitrotoluene	ND		1960	1540	79	1920	1510	79	2	14-152/40
91-94-1	3,3' -Dichlorobenzidine	ND		3910	2250	58	3840	2200	57	2	10-137/47
123-91-1	1,4-Dioxane	ND		1960	1000	51	1920	1090	57	9	10-110/40
53-70-3	Dibenzo(a,h)anthracene	ND		1960	1500	77	1920	1440	75	4	10-152/38
132-64-9	Dibenzofuran	ND		1960	1650	84	1920	1660	87	1	17-141/36
84-74-2	Di-n-butyl phthalate	ND		1960	1550	79	1920	1510	79	3	26-137/35
117-84-0	Di-n-octyl phthalate	ND		1960	1590	81	1920	1520	79	5	23-145/36
84-66-2	Diethyl phthalate	ND		1960	1620	83	1920	1560	81	4	25-133/35
131-11-3	Dimethyl phthalate	ND		1960	1630	83	1920	1510	79	8	21-134/36
117-81-7	bis(2-Ethylhexyl)phthalate	ND		1960	1640	84	1920	1630	85	1	26-144/39
206-44-0	Fluoranthene	ND		1960	1540	79	1920	1490	78	3	10-151/44
86-73-7	Fluorene	ND		1960	1620	83	1920	1540	80	5	19-133/36
118-74-1	Hexachlorobenzene	ND		1960	1630	83	1920	1550	81	5	18-142/37
87-68-3	Hexachlorobutadiene	ND		1960	1600	82	1920	1580	82	1	16-137/32
77-47-4	Hexachlorocyclopentadiene	ND		3910	3160	81	3840	3130	82	1	10-150/50
67-72-1	Hexachloroethane	ND		1960	1400	72	1920	1370	71	2	10-131/38
193-39-5	Indeno(1,2,3-cd)pyrene	ND		1960	1520	78	1920	1430	75	6	10-148/41
78-59-1	Isophorone	ND		1960	1360	70	1920	1370	71	1	11-142/33
91-57-6	2-Methylnaphthalene	873		1960	4170	169* a	1920	3310	127	23	10-141/35
88-74-4	2-Nitroaniline	ND		1960	1580	81	1920	1640	85	4	14-156/38
99-09-2	3-Nitroaniline	ND		1960	1340	69	1920	1330	69	1	10-144/45
100-01-6	4-Nitroaniline	ND		1960	1330	68	1920	1510	79	13	10-156/44
91-20-3	Naphthalene	378		1960	2630	115	1920	2260	98	15	10-136/36
98-95-3	Nitrobenzene	ND		1960	1440	74	1920	1400	73	3	10-142/34
621-64-7	N-Nitroso-di-n-propylamine	ND		1960	1360	70	1920	1310	68	4	10-142/31
86-30-6	N-Nitrosodiphenylamine	ND		1960	1480	76	1920	1470	77	1	10-156/37
85-01-8	Phenanthrene	ND		1960	1570	80	1920	1520	79	3	11-145/45
129-00-0	Pyrene	ND		1960	1660	85	1920	1670	87	1	11-155/44
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		1960	1710	87	1920	1700	89	1	23-136/32

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12130-MS	5P50472.D	1	05/22/18	SA	05/21/18	OP12130	E5P2408
OP12130-MSD	5P50473.D	1	05/22/18	SA	05/21/18	OP12130	E5P2408
JC66368-2	5P50474.D	1	05/22/18	SA	05/21/18	OP12130	E5P2408

The QC reported here applies to the following samples: Method: SW846 8270D

JC66318-1

CAS No.	Surrogate Recoveries	MS	MSD	JC66368-2	Limits
367-12-4	2-Fluorophenol	81%	86%		23-115%
4165-62-2	Phenol-d5	74%	81%		27-114%
118-79-6	2,4,6-Tribromophenol	90%	92%		19-152%
4165-60-0	Nitrobenzene-d5	71%	80%	77%	26-134%
321-60-8	2-Fluorobiphenyl	78%	81%	82%	39-124%
1718-51-0	Terphenyl-d14	94%	98%	89%	36-134%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12241-MS	2M104363.D	1	05/24/18	CS	05/23/18	OP12241	E2M4637
OP12241-MSD	2M104362.D	1	05/24/18	CS	05/23/18	OP12241	E2M4637
JC66426-1	2M104361.D	1	05/24/18	CS	05/23/18	OP12241	E2M4637

The QC reported here applies to the following samples: Method: SW846 8270D

JC66318-1A

CAS No.	Compound	JC66426-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-48-7	2-Methylphenol	ND	500	397	79	500	323	65	21* a	47-112/18
	3&4-Methylphenol	ND	500	390	78	500	321	64	19	44-113/19
87-86-5	Pentachlorophenol	ND	500	463	93	500	366	73	23	25-151/25
95-95-4	2,4,5-Trichlorophenol	ND	500	494	99	500	410	82	19	51-124/20
88-06-2	2,4,6-Trichlorophenol	ND	500	486	97	500	407	81	18	53-120/21
106-46-7	1,4-Dichlorobenzene	ND	500	405	81	500	319	64	24* a	40-105/22
121-14-2	2,4-Dinitrotoluene	ND	500	559	112	500	450	90	22	54-123/27
118-74-1	Hexachlorobenzene	ND	500	442	88	500	383	77	14	46-125/24
87-68-3	Hexachlorobutadiene	ND	500	459	92	500	371	74	21	26-121/24
67-72-1	Hexachloroethane	ND	500	421	84	500	325	65	26	35-111/26
98-95-3	Nitrobenzene	ND	500	444	89	500	372	74	18	35-130/25
110-86-1	Pyridine	ND	500	285	57	500	231	46	21	12-102/41

CAS No.	Surrogate Recoveries	MS	MSD	JC66426-1	Limits
367-12-4	2-Fluorophenol	65%	52%	50%	14-88%
4165-62-2	Phenol-d5	45%	37%	33%	10-110%
118-79-6	2,4,6-Tribromophenol	93%	77%	79%	39-149%
4165-60-0	Nitrobenzene-d5	92%	77%	78%	32-128%
321-60-8	2-Fluorobiphenyl	94%	79%	78%	35-119%
1718-51-0	Terphenyl-d14	98%	87%	82%	10-126%

(a) Outside of in house control limits.

* = Outside of Control Limits.

Leachate Spike Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12241-LS16	2M104363.D	1	05/24/18	CS	05/23/18	OP12241	E2M4637
JC66426-1	2M104361.D	1	05/24/18	CS	05/23/18	OP12241	E2M4637

The QC reported here applies to the following samples: Method: SW846 8270D

JC66318-1A

CAS No.	Compound	JC66426-1 ug/l	Spike Q	LS ug/l	LS %	Limits
95-48-7	2-Methylphenol	ND	500	397	79	47-112
	3&4-Methylphenol	ND	500	390	78	44-113
87-86-5	Pentachlorophenol	ND	500	463	93	25-151
95-95-4	2,4,5-Trichlorophenol	ND	500	494	99	51-124
88-06-2	2,4,6-Trichlorophenol	ND	500	486	97	53-120
106-46-7	1,4-Dichlorobenzene	ND	500	405	81	40-105
121-14-2	2,4-Dinitrotoluene	ND	500	559	112	54-123
118-74-1	Hexachlorobenzene	ND	500	442	88	46-125
87-68-3	Hexachlorobutadiene	ND	500	459	92	26-121
67-72-1	Hexachloroethane	ND	500	421	84	35-111
98-95-3	Nitrobenzene	ND	500	444	89	35-130
110-86-1	Pyridine	ND	500	285	57	12-102

CAS No.	Surrogate Recoveries	LS	JC66426-1	Limits
367-12-4	2-Fluorophenol	65%	50%	14-88%
4165-62-2	Phenol-d5	45%	33%	10-110%
118-79-6	2,4,6-Tribromophenol	93%	79%	39-149%
4165-60-0	Nitrobenzene-d5	92%	78%	32-128%
321-60-8	2-Fluorobiphenyl	94%	78%	35-119%
1718-51-0	Terphenyl-d14	98%	82%	10-126%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-DFTPP
Lab File ID: 2M103893.D
Instrument ID: GCMS2M
Injection Date: 05/09/18
Injection Time: 10:22

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	176008	35.4	Pass
68	Less than 2.0% of mass 69	2989	0.60 (1.53) ^a	Pass
69	Mass 69 relative abundance	194999	39.2	Pass
70	Less than 2.0% of mass 69	895	0.18 (0.46) ^a	Pass
127	40.0 - 60.0% of mass 198	246965	49.6	Pass
197	Less than 1.0% of mass 198	4345	0.87	Pass
198	Base peak, 100% relative abundance	497856	100.0	Pass
199	5.0 - 9.0% of mass 198	32775	6.58	Pass
275	10.0 - 30.0% of mass 198	122106	24.5	Pass
365	1.0 - 100.0% of mass 198	14865	2.99	Pass
441	Present, but less than mass 443	46565	9.35 (78.6) ^b	Pass
442	40.0 - 100.0% of mass 198	323541	65.0	Pass
443	17.0 - 23.0% of mass 442	59280	11.9 (18.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4618-IC4618	2M103895.D	05/09/18	11:56	01:34	Initial cal 100
E2M4618-IC4618	2M103896.D	05/09/18	12:22	02:00	Initial cal 80
E2M4618-ICC4618	2M103897.D	05/09/18	12:47	02:25	Initial cal 50
E2M4618-IC4618	2M103898.D	05/09/18	13:13	02:51	Initial cal 25
E2M4618-IC4618	2M103899.D	05/09/18	13:38	03:16	Initial cal 10
E2M4618-IC4618	2M103900.D	05/09/18	14:04	03:42	Initial cal 5
E2M4618-IC4618	2M103901.D	05/09/18	14:29	04:07	Initial cal 2
E2M4618-IC4618	2M103902.D	05/09/18	14:55	04:33	Initial cal 1

Instrument Performance Check (DFTPP)

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-DFTPP
Lab File ID: 2M103903.D
Instrument ID: GCMS2M
Injection Date: 05/09/18
Injection Time: 18:30

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	205172	37.4	Pass
68	Less than 2.0% of mass 69	3087	0.56 (1.34) ^a	Pass
69	Mass 69 relative abundance	230153	42.0	Pass
70	Less than 2.0% of mass 69	1679	0.31 (0.73) ^a	Pass
127	40.0 - 60.0% of mass 198	288469	52.6	Pass
197	Less than 1.0% of mass 198	4778	0.87	Pass
198	Base peak, 100% relative abundance	548117	100.0	Pass
199	5.0 - 9.0% of mass 198	37624	6.86	Pass
275	10.0 - 30.0% of mass 198	131669	24.0	Pass
365	1.0 - 100.0% of mass 198	14986	2.73	Pass
441	Present, but less than mass 443	45789	8.35 (75.2) ^b	Pass
442	40.0 - 100.0% of mass 198	314570	57.4	Pass
443	17.0 - 23.0% of mass 442	60857	11.1 (19.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4619-IC4619	2M103904.D	05/09/18	18:59	00:29	Initial cal 100
E2M4619-IC4619	2M103905.D	05/09/18	19:25	00:55	Initial cal 80
E2M4619-ICC4619	2M103906.D	05/09/18	19:50	01:20	Initial cal 50
E2M4619-IC4619	2M103907.D	05/09/18	20:16	01:46	Initial cal 25
E2M4619-IC4619	2M103908.D	05/09/18	20:41	02:11	Initial cal 10
E2M4619-IC4619	2M103909.D	05/09/18	21:06	02:36	Initial cal 5
E2M4619-IC4619	2M103910.D	05/09/18	21:32	03:02	Initial cal 2
E2M4619-IC4619	2M103911.D	05/09/18	21:57	03:27	Initial cal 1
E2M4619-ICV4618	2M103912.D	05/09/18	22:23	03:53	Initial cal verification 50
E2M4619-ICV4618	2M103913.D	05/09/18	22:48	04:18	Initial cal verification 50
E2M4619-ICV4619	2M103915A.D	05/09/18	23:38	05:08	Initial cal verification 50
E2M4619-ICV4618	2M103915.D	05/09/18	23:38	05:08	Initial cal verification 50
E2M4619-ICV4618	2M103916.D	05/10/18	00:04	05:34	Initial cal verification 50
E2M4619-ICV4619	2M103916A.D	05/10/18	00:04	05:34	Initial cal verification 50
E2M4619-ICV4618	2M103917.D	05/10/18	00:29	05:59	Initial cal verification 50
E2M4619-ICV4619	2M103918.D	05/10/18	02:14	07:44	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4620-DFTPP
Lab File ID: 2M103920.D
Instrument ID: GCMS2M
Injection Date: 05/11/18
Injection Time: 13:43

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	130877	34.6	Pass
68	Less than 2.0% of mass 69	2584	0.68 (1.71) ^a	Pass
69	Mass 69 relative abundance	151216	40.0	Pass
70	Less than 2.0% of mass 69	823	0.22 (0.54) ^a	Pass
127	40.0 - 60.0% of mass 198	189864	50.2	Pass
197	Less than 1.0% of mass 198	3129	0.83	Pass
198	Base peak, 100% relative abundance	378218	100.0	Pass
199	5.0 - 9.0% of mass 198	24697	6.53	Pass
275	10.0 - 30.0% of mass 198	90376	23.9	Pass
365	1.0 - 100.0% of mass 198	11279	2.98	Pass
441	Present, but less than mass 443	34077	9.01 (76.5) ^b	Pass
442	40.0 - 100.0% of mass 198	230490	60.9	Pass
443	17.0 - 23.0% of mass 442	44552	11.8 (19.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4620-ICV4619	2M103921A.D	05/11/18	13:55	00:12	Initial cal verification 50
E2M4620-ICV4618	2M103921.D	05/11/18	13:55	00:12	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4637-DFTPP
Lab File ID: 2M104341.D
Instrument ID: GCMS2M
Injection Date: 05/24/18
Injection Time: 01:01

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	87289	36.6	Pass
68	Less than 2.0% of mass 69	1304	0.55 (1.22) ^a	Pass
69	Mass 69 relative abundance	106998	44.8	Pass
70	Less than 2.0% of mass 69	543	0.23 (0.51) ^a	Pass
127	40.0 - 60.0% of mass 198	127045	53.3	Pass
197	Less than 1.0% of mass 198	1532	0.64	Pass
198	Base peak, 100% relative abundance	238581	100.0	Pass
199	5.0 - 9.0% of mass 198	16185	6.78	Pass
275	10.0 - 30.0% of mass 198	55986	23.5	Pass
365	1.0 - 100.0% of mass 198	6597	2.77	Pass
441	Present, but less than mass 443	18310	7.67 (88.9) ^b	Pass
442	40.0 - 100.0% of mass 198	112157	47.0	Pass
443	17.0 - 23.0% of mass 442	20597	8.63 (18.4) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4637-CC4618	2M104342.D	05/24/18	01:14	00:13	Continuing cal 25
OP12239-MB1	2M104343.D	05/24/18	01:39	00:38	Method Blank
OP12162-MB1	2M104343.D	05/24/18	01:39	00:38	Method Blank
OP12162-MB2	2M104343.D	05/24/18	01:39	00:38	Method Blank
OP12242-MB1	2M104343.D	05/24/18	01:39	00:38	Method Blank
OP12161-MB2	2M104343.D	05/24/18	01:39	00:38	Method Blank
OP12254-MB1	2M104343.D	05/24/18	01:39	00:38	Method Blank
OP12241-MB1	2M104343.D	05/24/18	01:39	00:38	Method Blank
OP12254-LB27	2M104344.D	05/24/18	02:05	01:04	Leachate Blank
OP12162-LB28	2M104345.D	05/24/18	02:31	01:30	Leachate Blank
OP12239-LB33	2M104346.D	05/24/18	02:56	01:55	Leachate Blank
OP12241-LB34	2M104347.D	05/24/18	03:22	02:21	Leachate Blank
OP12242-LB35	2M104348.D	05/24/18	03:47	02:46	Leachate Blank
OP12161-BS2	2M104349.D	05/24/18	04:13	03:12	Blank Spike
OP12242-BS1	2M104349.D	05/24/18	04:13	03:12	Blank Spike
OP12241-BS1	2M104349.D	05/24/18	04:13	03:12	Blank Spike
OP12254-BS1	2M104349.D	05/24/18	04:13	03:12	Blank Spike
OP12162-BS2	2M104349.D	05/24/18	04:13	03:12	Blank Spike
OP12239-BS1	2M104349.D	05/24/18	04:13	03:12	Blank Spike

Instrument Performance Check (DFTPP)

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	E2M4637-DFTPP	Injection Date:	05/24/18
Lab File ID:	2M104341.D	Injection Time:	01:01
Instrument ID:	GCMS2M		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
OP12161-BSD2	2M104350.D	05/24/18	04:38	03:37	Blank Spike Duplicate
OP12254-BSD	2M104350.D	05/24/18	04:38	03:37	Blank Spike Duplicate
OP12239-LS15	2M104351.D	05/24/18	05:04	04:03	Leachate Spike
OP12239-MS	2M104351.D	05/24/18	05:04	04:03	Matrix Spike
OP12239-MSD	2M104352.D	05/24/18	05:29	04:28	Matrix Spike Duplicate
JC66483-1	2M104353.D	05/24/18	05:55	04:54	(used for QC only; not part of job JC66318)
ZZZZZZ	2M104354.D	05/24/18	06:20	05:19	(unrelated sample)
ZZZZZZ	2M104355.D	05/24/18	06:46	05:45	(unrelated sample)
ZZZZZZ	2M104356.D	05/24/18	07:12	06:11	(unrelated sample)
DA5233-1	2M104357.D	05/24/18	07:37	06:36	(used for QC only; not part of job JC66318)
OP12242-MSD	2M104358.D	05/24/18	08:03	07:02	Matrix Spike Duplicate
OP12242-LS17	2M104359.D	05/24/18	08:28	07:27	Leachate Spike
OP12242-MS	2M104359.D	05/24/18	08:28	07:27	Matrix Spike
JC66318-1A	2M104360.D	05/24/18	08:54	07:53	WC-6
JC66426-1	2M104361.D	05/24/18	09:19	08:18	(used for QC only; not part of job JC66318)
OP12241-MSD	2M104362.D	05/24/18	09:45	08:44	Matrix Spike Duplicate
OP12241-LS16	2M104363.D	05/24/18	10:10	09:09	Leachate Spike
OP12241-MS	2M104363.D	05/24/18	10:10	09:09	Matrix Spike
ZZZZZZ	2M104364.D	05/24/18	10:36	09:35	(unrelated sample)
ZZZZZZ	2M104365.D	05/24/18	11:01	10:00	(unrelated sample)
ZZZZZZ	2M104366.D	05/24/18	11:27	10:26	(unrelated sample)
ZZZZZZ	2M104367.D	05/24/18	11:52	10:51	(unrelated sample)
ZZZZZZ	2M104368.D	05/24/18	12:18	11:17	(unrelated sample)

8.6.4

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Instrument Performance Check (DFTPP)

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2386-DFTPP
Lab File ID: 5P49973.D
Instrument ID: GCMS5P
Injection Date: 05/07/18
Injection Time: 14:10

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	36416	33.0	Pass
68	Less than 2.0% of mass 69	126	0.11 (0.33) ^a	Pass
69	Mass 69 relative abundance	38752	35.1	Pass
70	Less than 2.0% of mass 69	91	0.08 (0.23) ^a	Pass
127	40.0 - 60.0% of mass 198	55101	50.0	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	110309	100.0	Pass
199	5.0 - 9.0% of mass 198	7675	6.96	Pass
275	10.0 - 30.0% of mass 198	23723	21.5	Pass
365	1.0 - 100.0% of mass 198	3177	2.88	Pass
441	Present, but less than mass 443	14045	12.7 (77.0) ^b	Pass
442	40.0 - 100.0% of mass 198	89720	81.3	Pass
443	17.0 - 23.0% of mass 442	18237	16.5 (20.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E5P2386-IC2386	5P49974.D	05/07/18	14:23	00:13	Initial cal 100
E5P2386-IC2386	5P49975.D	05/07/18	14:48	00:38	Initial cal 80
E5P2386-ICC2386	5P49976.D	05/07/18	15:13	01:03	Initial cal 50
E5P2386-IC2386	5P49977.D	05/07/18	15:38	01:28	Initial cal 25
E5P2386-IC2386	5P49978.D	05/07/18	16:03	01:53	Initial cal 10
E5P2386-IC2386	5P49979.D	05/07/18	16:28	02:18	Initial cal 5
E5P2386-IC2386	5P49980.D	05/07/18	16:52	02:42	Initial cal 2
E5P2386-IC2386	5P49981.D	05/07/18	17:18	03:08	Initial cal 1
E5P2386-ICV2385	5P49982.D	05/07/18	17:43	03:33	Initial cal verification 50
E5P2386-ICV2385	5P49983.D	05/07/18	18:08	03:58	Initial cal verification 50
E5P2386-ICV2385	5P49984.D	05/07/18	18:33	04:23	Initial cal verification 50
E5P2386-ICV2386	5P49984A.D	05/07/18	18:33	04:23	Initial cal verification 50
E5P2386-ICV2385	5P49985.D	05/07/18	18:58	04:48	Initial cal verification 50
E5P2386-ICV2386	5P49985A.D	05/07/18	18:58	04:48	Initial cal verification 50
E5P2386-ICV2385	5P49986.D	05/07/18	19:23	05:13	Initial cal verification 50
E5P2386-ICV2386	5P49986A.D	05/07/18	19:23	05:13	Initial cal verification 50
E5P2386-ICV2385	5P49987.D	05/07/18	19:48	05:38	Initial cal verification 50
E5P2386-ICV2386	5P49988.D	05/07/18	20:13	06:03	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2387-DFTPP
Lab File ID: 5P49989.D
Instrument ID: GCMS5P
Injection Date: 05/07/18
Injection Time: 21:54

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	28928	30.6	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	31643	33.5	Pass
70	Less than 2.0% of mass 69	157	0.17 (0.50) ^a	Pass
127	40.0 - 60.0% of mass 198	44215	46.8	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	94522	100.0	Pass
199	5.0 - 9.0% of mass 198	5883	6.22	Pass
275	10.0 - 30.0% of mass 198	21208	22.4	Pass
365	1.0 - 100.0% of mass 198	2975	3.15	Pass
441	Present, but less than mass 443	3238	3.43 (21.7) ^b	Pass
442	40.0 - 100.0% of mass 198	75128	79.5	Pass
443	17.0 - 23.0% of mass 442	14937	15.8 (19.9) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E5P2387-IC2387	5P49990.D	05/07/18	22:16	00:22	Initial cal 100
E5P2387-IC2387	5P49991.D	05/07/18	22:41	00:47	Initial cal 80
E5P2387-ICC2387	5P49992.D	05/07/18	23:05	01:11	Initial cal 50
E5P2387-IC2387	5P49993.D	05/07/18	23:30	01:36	Initial cal 25
E5P2387-IC2387	5P49994.D	05/07/18	23:54	02:00	Initial cal 10
E5P2387-IC2387	5P49995.D	05/08/18	00:19	02:25	Initial cal 5
E5P2387-IC2387	5P49996.D	05/08/18	00:43	02:49	Initial cal 2
E5P2387-IC2387	5P49997.D	05/08/18	01:08	03:14	Initial cal 1
E5P2387-ICV2387	5P49998.D	05/08/18	01:32	03:38	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2399-DFTPP
Lab File ID: 5P50254.D
Instrument ID: GCMS5P
Injection Date: 05/15/18
Injection Time: 01:18

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	44822	37.9	Pass
68	Less than 2.0% of mass 69	350	0.30 (0.87) ^a	Pass
69	Mass 69 relative abundance	40115	33.9	Pass
70	Less than 2.0% of mass 69	290	0.25 (0.72) ^a	Pass
127	40.0 - 60.0% of mass 198	49878	42.2	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	118293	100.0	Pass
199	5.0 - 9.0% of mass 198	7599	6.42	Pass
275	10.0 - 30.0% of mass 198	31845	26.9	Pass
365	1.0 - 100.0% of mass 198	5186	4.38	Pass
441	Present, but less than mass 443	3600	3.04 (20.6) ^b	Pass
442	40.0 - 100.0% of mass 198	87840	74.3	Pass
443	17.0 - 23.0% of mass 442	17509	14.8 (19.9) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E5P2399-IC2399	5P50255.D	05/15/18	01:38	00:20	Initial cal 100
E5P2399-IC2399	5P50256.D	05/15/18	02:03	00:45	Initial cal 80
E5P2399-ICC2399	5P50257.D	05/15/18	02:28	01:10	Initial cal 50
E5P2399-IC2399	5P50258.D	05/15/18	02:53	01:35	Initial cal 25
E5P2399-IC2399	5P50259.D	05/15/18	03:18	02:00	Initial cal 10
E5P2399-IC2399	5P50260.D	05/15/18	03:43	02:25	Initial cal 5
E5P2399-IC2399	5P50261.D	05/15/18	04:08	02:50	Initial cal 2
E5P2399-IC2399	5P50262.D	05/15/18	04:33	03:15	Initial cal 1
E5P2399-ICV2399	5P50263.D	05/15/18	04:58	03:40	Initial cal verification 50
E5P2399-ICV2399	5P50264.D	05/15/18	05:23	04:05	Initial cal verification 50
E5P2399-ICV2399	5P50265.D	05/15/18	05:47	04:29	Initial cal verification 50
E5P2399-ICV2399	5P50266.D	05/15/18	06:12	04:54	Initial cal verification 50
E5P2399-ICV2399	5P50268.D	05/15/18	10:30	09:12	Initial cal verification 50
E5P2399-ICV2399	5P50269.D	05/15/18	10:55	09:37	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2408-DFTPP
Lab File ID: 5P50466.D
Instrument ID: GCMS5P
Injection Date: 05/21/18
Injection Time: 23:38

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	31095	35.4	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	29829	34.0	Pass
70	Less than 2.0% of mass 69	120	0.14 (0.40) ^a	Pass
127	40.0 - 60.0% of mass 198	37362	42.5	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	87816	100.0	Pass
199	5.0 - 9.0% of mass 198	5798	6.60	Pass
275	10.0 - 30.0% of mass 198	23930	27.3	Pass
365	1.0 - 100.0% of mass 198	3939	4.49	Pass
441	Present, but less than mass 443	5533	6.30 (33.2) ^b	Pass
442	40.0 - 100.0% of mass 198	86018	98.0	Pass
443	17.0 - 23.0% of mass 442	16673	19.0 (19.4) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E5P2408-CC2399	5P50467.D	05/21/18	23:53	00:15	Continuing cal 50
E5P2408-CC2386	5P50468.D	05/22/18	00:18	00:40	Continuing cal 50
OP12082-MB1	5P50469.D	05/22/18	00:44	01:06	Method Blank
OP12130-MB1	5P50470.D	05/22/18	01:09	01:31	Method Blank
OP12130-BS1	5P50471.D	05/22/18	01:36	01:58	Blank Spike
OP12130-MS	5P50472.D	05/22/18	02:02	02:24	Matrix Spike
OP12130-MSD	5P50473.D	05/22/18	02:27	02:49	Matrix Spike Duplicate
JC66368-2	5P50474.D	05/22/18	02:52	03:14	(used for QC only; not part of job JC66318)
ZZZZZZ	5P50475.D	05/22/18	03:18	03:40	(unrelated sample)
ZZZZZZ	5P50476.D	05/22/18	03:42	04:04	(unrelated sample)
ZZZZZZ	5P50477.D	05/22/18	04:08	04:30	(unrelated sample)
ZZZZZZ	5P50478.D	05/22/18	04:33	04:55	(unrelated sample)
ZZZZZZ	5P50479.D	05/22/18	04:58	05:20	(unrelated sample)
ZZZZZZ	5P50480.D	05/22/18	05:23	05:45	(unrelated sample)
ZZZZZZ	5P50481.D	05/22/18	05:48	06:10	(unrelated sample)
ZZZZZZ	5P50482.D	05/22/18	06:14	06:36	(unrelated sample)
ZZZZZZ	5P50483.D	05/22/18	06:39	07:01	(unrelated sample)
ZZZZZZ	5P50484.D	05/22/18	07:04	07:26	(unrelated sample)
ZZZZZZ	5P50485.D	05/22/18	07:29	07:51	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	E5P2408-DFTPP	Injection Date:	05/21/18
Lab File ID:	5P50466.D	Injection Time:	23:38
Instrument ID:	GCMS5P		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
JC66318-1	5P50486.D	05/22/18	07:54	08:16	WC-6
OP12082-MSD	5P50488.D	05/22/18	08:44	09:06	Matrix Spike Duplicate
OP12082-MS	5P50489.D	05/22/18	09:09	09:31	Matrix Spike
JC66208-1	5P50490.D	05/22/18	09:34	09:56	(used for QC only; not part of job JC66318)

Instrument Performance Check (DFTPP)

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2410-DFTPP
Lab File ID: 5P50521.D
Instrument ID: GCMS5P
Injection Date: 05/23/18
Injection Time: 08:47

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	36651	39.4	Pass
68	Less than 2.0% of mass 69	71	0.08 (0.20) ^a	Pass
69	Mass 69 relative abundance	34785	37.4	Pass
70	Less than 2.0% of mass 69	233	0.25 (0.67) ^a	Pass
127	40.0 - 60.0% of mass 198	39564	42.6	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	92968	100.0	Pass
199	5.0 - 9.0% of mass 198	5766	6.20	Pass
275	10.0 - 30.0% of mass 198	24638	26.5	Pass
365	1.0 - 100.0% of mass 198	3583	3.85	Pass
441	Present, but less than mass 443	11190	12.0 (75.5) ^b	Pass
442	40.0 - 100.0% of mass 198	77939	83.8	Pass
443	17.0 - 23.0% of mass 442	14830	16.0 (19.0) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E5P2410-CC2399	5P50522.D	05/23/18	09:00	00:13	Continuing cal 50
E5P2410-CC2386	5P50523.D	05/23/18	09:25	00:38	Continuing cal 50
E5P2410-CC2387	5P50524.D	05/23/18	09:50	01:03	Continuing cal 50
ZZZZZZ	5P50529.D	05/23/18	13:13	04:26	(unrelated sample)
ZZZZZZ	5P50530.D	05/23/18	13:39	04:52	(unrelated sample)
JC66318-1	5P50532.D	05/23/18	14:29	05:42	WC-6

Internal Standard Area Summary

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E2M4637-CC4618	Injection Date: 05/24/18
Lab File ID: 2M104342.D	Injection Time: 01:14
Instrument ID: GCMS2M	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	354993	4.56	1370631	5.64	756274	7.68	1342112	9.83	1211395	14.00	1189394	16.11
Upper Limit ^a	709986	5.06	2741262	6.14	1512548	8.18	2684224	10.33	2422790	14.50	2378788	16.61
Lower Limit ^b	177497	4.06	685316	5.14	378137	7.18	671056	9.33	605698	13.50	594697	15.61

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP12239-MB1	290995	4.56	1141024	5.63	573401	7.67	1080497	9.83	974172	14.00	980902	16.11
OP12162-MB1	290995	4.56	1141024	5.63	573401	7.67	1080497	9.83	974172	14.00	980902	16.11
OP12162-MB2	290995	4.56	1141024	5.63	573401	7.67	1080497	9.83	974172	14.00	980902	16.11
OP12242-MB1	290995	4.56	1141024	5.63	573401	7.67	1080497	9.83	974172	14.00	980902	16.11
OP12161-MB2	290995	4.56	1141024	5.63	573401	7.67	1080497	9.83	974172	14.00	980902	16.11
OP12254-MB1	290995	4.56	1141024	5.63	573401	7.67	1080497	9.83	974172	14.00	980902	16.11
OP12241-MB1	290995	4.56	1141024	5.63	573401	7.67	1080497	9.83	974172	14.00	980902	16.11
OP12254-LB27	318416	4.56	1246781	5.63	629310	7.67	1190307	9.83	1106741	14.00	1090449	16.11
OP12162-LB28	331381	4.56	1307983	5.63	647664	7.67	1220730	9.83	1124378	14.00	1123082	16.11
OP12239-LB33	301602	4.56	1169998	5.63	587192	7.67	1118437	9.83	1031598	14.00	1031957	16.11
OP12241-LB34	318086	4.56	1232435	5.63	619706	7.67	1173690	9.83	1085238	14.00	1095112	16.11
OP12242-LB35	303924	4.56	1174788	5.63	581663	7.67	1108131	9.83	1033054	13.99	1054031	16.11
OP12161-BS2	293492	4.56	1147074	5.63	572242	7.67	1074177	9.83	977663	14.00	969656	16.11
OP12241-BS1	293492	4.56	1147074	5.63	572242	7.67	1074177	9.83	977663	14.00	969656	16.11
OP12242-BS1	293492	4.56	1147074	5.63	572242	7.67	1074177	9.83	977663	14.00	969656	16.11
OP12254-BS1	293492	4.56	1147074	5.63	572242	7.67	1074177	9.83	977663	14.00	969656	16.11
OP12162-BS2	293492	4.56	1147074	5.63	572242	7.67	1074177	9.83	977663	14.00	969656	16.11
OP12239-BS1	293492	4.56	1147074	5.63	572242	7.67	1074177	9.83	977663	14.00	969656	16.11
OP12161-BSD2	285555	4.56	1109666	5.63	545160	7.67	1018470	9.83	944025	14.00	925228	16.11
OP12254-BSD	285555	4.56	1109666	5.63	545160	7.67	1018470	9.83	944025	14.00	925228	16.11
OP12239-MS	318849	4.56	1235089	5.63	618874	7.67	1137796	9.83	1029748	14.00	1021466	16.11
OP12239-LS15	318849	4.56	1235089	5.63	618874	7.67	1137796	9.83	1029748	14.00	1021466	16.11
OP12239-MSD	288670	4.56	1105482	5.63	549328	7.67	1026239	9.83	936200	14.00	916472	16.11
JC66483-1	310854	4.56	1219744	5.63	602882	7.67	1138395	9.83	1054447	14.00	1055972	16.10
ZZZZZZ	319914	4.56	1246806	5.63	622961	7.67	1191543	9.83	1104373	14.00	1116383	16.10
ZZZZZZ	307946	4.56	1186252	5.63	588813	7.67	1133526	9.83	1054297	13.99	1069315	16.11
ZZZZZZ	313927	4.56	1249532	5.63	619345	7.67	1168664	9.83	1118092	14.00	1129442	16.11
DA5233-1	297583	4.56	1160968	5.63	584035	7.67	1109444	9.83	1036140	13.99	1034810	16.11
OP12242-MSD	326810	4.56	1255507	5.64	626681	7.67	1164572	9.83	1058136	14.00	1048932	16.11
OP12242-MS	294949	4.56	1119922	5.64	564075	7.67	1052674	9.83	976880	14.00	955054	16.11
OP12242-LS17	294949	4.56	1119922	5.64	564075	7.67	1052674	9.83	976880	14.00	955054	16.11
JC66318-1A	327232	4.56	1266089	5.63	633858	7.67	1210519	9.83	1117720	13.99	1129353	16.10
JC66426-1	298072	4.56	1161259	5.63	576490	7.67	1095142	9.83	1018561	13.99	1045360	16.11
OP12241-MSD	306799	4.56	1166003	5.64	582932	7.67	1100423	9.83	1011670	14.00	992461	16.11
OP12241-MS	301306	4.56	1167601	5.64	581396	7.67	1097011	9.83	1026577	14.00	1017601	16.11

8.7.1
8

Internal Standard Area Summary

Page 2 of 2

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E2M4637-CC4618	Injection Date: 05/24/18
Lab File ID: 2M104342.D	Injection Time: 01:14
Instrument ID: GCMS2M	Method: SW846 8270D

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT
OP12241-LS16	301306	4.56	1167601	5.64	581396	7.67	1097011	9.83	1026577	14.00	1017601	16.11
ZZZZZZ	286613	4.56	1125372	5.63	552129	7.67	1047068	9.83	982722	13.99	994066	16.11
ZZZZZZ	288701	4.56	1130267	5.63	560143	7.67	1074830	9.83	1007358	13.99	1019872	16.11
ZZZZZZ	303564	4.56	1179944	5.63	591964	7.67	1121779	9.83	1035785	13.99	1043644	16.11
ZZZZZZ	299825	4.56	1159146	5.63	582437	7.67	1126879	9.83	1051995	13.99	1066851	16.11
ZZZZZZ	301185	4.56	1162394	5.63	585821	7.67	1110192	9.83	1045562	13.99	1055335	16.11

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.7.1
8

Internal Standard Area Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E5P2408-CC2399	Injection Date: 05/21/18
Lab File ID: 5P50467.D	Injection Time: 23:53
Instrument ID: GCMS5P	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	119943	4.55	462968	5.76	269151	7.45	506224	8.95	483888	12.41	555452	14.43
Upper Limit ^a	239886	5.05	925936	6.26	538302	7.95	1012448	9.45	967776	12.91	1110904	14.93
Lower Limit ^b	59972	4.05	231484	5.26	134576	6.95	253112	8.45	241944	11.91	277726	13.93

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP12082-MB1	145769	4.55	578919	5.75	294669	7.45	561603	8.94	538194	12.40	542011	14.42
OP12130-MB1	154456	4.55	615960	5.75	322526	7.45	600950	8.95	597329	12.40	618194	14.43
OP12130-BS1	114439	4.56	446266	5.76	231836	7.45	441637	8.95	410588	12.41	466139	14.43
OP12130-MS	114742	4.56	430957	5.76	239659	7.45	462223	8.95	427368	12.41	469825	14.43
OP12130-MSD	113266	4.56	420278	5.76	237659	7.45	450218	8.95	409395	12.41	465803	14.43
JC66368-2	132162	4.55	499019	5.76	270429	7.45	517937	8.95	505665	12.40	517853	14.42
ZZZZZZ	130557	4.55	522476	5.76	267314	7.45	527536	8.95	524318	12.41	529314	14.42
ZZZZZZ	136155	4.55	544592	5.75	280191	7.45	536860	8.95	509436	12.41	521430	14.43
ZZZZZZ	130191	4.55	523466	5.76	263397	7.45	505299	8.95	484208	12.41	483467	14.43
ZZZZZZ	127231	4.55	504024	5.76	255103	7.45	482884	8.95	452832	12.41	452222	14.43
ZZZZZZ	115854	4.56	450358	5.76	232725	7.45	444112	8.95	412267	12.41	434416	14.43
ZZZZZZ	102090	4.56	376987	5.76	225769	7.45	446574	8.95	399691	12.41	420915	14.43
ZZZZZZ	108251	4.56	394937	5.76	237629	7.45	452471	8.95	410993	12.41	404997	14.43
ZZZZZZ	132012	4.56	507078	5.76	252588	7.45	453593	8.95	405354	12.41	425727	14.43
ZZZZZZ	124644	4.56	493681	5.76	252044	7.45	469739	8.95	406097	12.41	426074	14.43
ZZZZZZ	116019	4.56	465613	5.76	239233	7.45	465102	8.95	437305	12.41	472003	14.43
ZZZZZZ	117871	4.56	481502	5.76	250941	7.45	472590	8.95	436464	12.41	463342	14.43
JC66318-1	117167	4.56	451186	5.76	221589	7.45	407688	8.95	360904	12.43	428251	14.46
OP12082-MSD	105773	4.56	417462	5.76	210689	7.46	388448	8.96	321049	12.43	381536	14.45
OP12082-MS	98080	4.56	382979	5.76	199154	7.46	354780	8.96	311158	12.43	353676	14.45
JC66208-1	127310	4.56	473471	5.76	227391	7.46	402537	8.96	336442	12.43	381951	14.45

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	E5P2410-CC2399	Injection Date:	05/23/18
Lab File ID:	5P50522.D	Injection Time:	09:00
Instrument ID:	GCMS5P	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	111325	4.53	447128	5.73	263771	7.44	491978	8.93	476521	12.40	533646	14.42
Upper Limit ^a	222650	5.03	894256	6.23	527542	7.94	983956	9.43	953042	12.90	1067292	14.92
Lower Limit ^b	55663	4.03	223564	5.23	131886	6.94	245989	8.43	238261	11.90	266823	13.92

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
ZZZZZZ	111443	4.53	433929	5.73	223342	7.44	410040	8.93	446796	12.39	483462	14.42
ZZZZZZ	102414	4.53	419501	5.73	218644	7.44	399896	8.93	444076	12.39	475810	14.42
JC66318-1	119629	4.53	478200	5.73	249428	7.44	482467	8.93	446065	12.40	490143	14.42

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.7.3
8

Surrogate Recovery Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8270D	Matrix: LEACHATE
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC66318-1A	2M104360.D	45	30	66	67	66	73
OP12241-BS1	2M104349.D	69	50	96	93	95	105
OP12241-LB34	2M104347.D	53	35	86	85	84	94
OP12241-LS16	2M104363.D	65	45	93	92	94	98
OP12241-MB1	2M104343.D	52	36	91	87	86	101
OP12241-MS	2M104363.D	65	45	93	92	94	98
OP12241-MSD	2M104362.D	52	37	77	77	79	87

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	14-88%
S2 = Phenol-d5	10-110%
S3 = 2,4,6-Tribromophenol	39-149%
S4 = Nitrobenzene-d5	32-128%
S5 = 2-Fluorobiphenyl	35-119%
S6 = Terphenyl-d14	10-126%

8.8.1
8

Surrogate Recovery Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8270D	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC66318-1	5P50486.D	65	67	74	66	76	77
JC66318-1	5P50532.D	67	68	76	67	76	78
OP12130-BS1	5P50471.D	91	87	97	80	84	99
OP12130-MB1	5P50470.D	68	70	69	65	71	72
OP12130-MS	5P50472.D	81	74	90	71	78	94
OP12130-MSD	5P50473.D	86	81	92	80	81	98

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	23-115%
S2 = Phenol-d5	27-114%
S3 = 2,4,6-Tribromophenol	19-152%
S4 = Nitrobenzene-d5	26-134%
S5 = 2-Fluorobiphenyl	39-124%
S6 = Terphenyl-d14	36-134%

8.8.2
8

Initial Calibration Summary

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-ICC4618
Lab FileID: 2M103897.D

Response Factor Report MS2M

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

Calibration Files

2 =2m103901.D 5 =2m103900.D 25 =2m103898.D 80 =2m103896.D
100 =2m103895.D 50 =2m103897.D 1 =2m103902.D 10 =2m103899.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	-----ISTD-----									
2) 1,4-Dioxane	0.629	0.598	0.596	0.576	0.591	0.598	0.637	0.615	0.605	3.36
3) Pyridine	1.526	1.559	1.597	1.500	1.499	1.488	1.575	1.674	1.552	4.06
4) N-Nitrosodim	0.914	0.887	0.926	0.908	0.919	0.926	0.933	0.953	0.921	2.09
5) 2-Fluorophen	1.326	1.258	1.311	1.293	1.319	1.322	1.241	1.356	1.303	2.90
6) Indene	2.170	2.166	2.226	2.234	2.233	2.285	2.221	2.299	2.229	2.12
7) Cumene	3.250	3.242	3.325	3.249	3.272	3.374	3.448	3.387	3.318	2.34
8) Phenol-d5	1.620	1.595	1.625	1.627	1.667	1.663	1.622	1.662	1.635	1.57
9) Phenol	1.883	1.787	1.854	1.867	1.899	1.894	1.877	1.959	1.877	2.56
10) Aniline	2.130	2.106	2.037	1.920	1.913	1.981	2.225	2.172	2.061	5.66
11) bis(2-Chloro	1.278	1.274	1.290	1.271	1.281	1.299	1.342	1.346	1.298	2.32
12) 2-Chlorophen	1.403	1.415	1.401	1.397	1.408	1.417	1.356	1.473	1.409	2.30
13) Decane	1.512	1.436	1.429	1.366	1.348	1.426	1.587	1.500	1.450	5.45
14) 1,3-Dichloro	1.585	1.573	1.574	1.545	1.547	1.589	1.621	1.666	1.588	2.51
15) 1,4-Dichloro	1.577	1.595	1.609	1.567	1.567	1.616	1.654	1.677	1.608	2.52
16) Benzyl alcoh	0.854	0.828	0.856	0.885	0.890	0.885	0.927	0.875	0.875	3.37
17) 1,2-Dichloro	1.482	1.435	1.491	1.464	1.456	1.508	1.624	1.553	1.502	4.07
18) Acetophenone	1.832	1.819	1.885	1.847	1.819	1.898	1.873	1.932	1.863	2.19
19) 2-Methylphen	1.240	1.193	1.215	1.239	1.227	1.253	1.221	1.264	1.231	1.83
20) 2,2'-oxybis(	1.624	1.552	1.558	1.504	1.488	1.552	1.685	1.624	1.573	4.22
21) 3&4-Methylph	1.268	1.252	1.293	1.334	1.322	1.328	1.233	1.315	1.293	2.93
22) n-Nitroso-di	0.963	0.956	0.999	0.994	0.980	1.024	1.032	1.034	0.998	3.05
23) Hexachloroet	0.505	0.502	0.510	0.506	0.503	0.516	0.535	0.554	0.516	3.60
24) I Naphthalene-d8	-----ISTD-----									
25) Nitrobenzene	0.369	0.357	0.366	0.366	0.360	0.367	0.357	0.382	0.366	2.19
26) Nitrobenzene	0.367	0.366	0.363	0.360	0.355	0.364	0.364	0.379	0.365	1.87
27) Quinoline	0.672	0.671	0.677	0.684	0.676	0.675	0.681	0.699	0.679	1.35
28) Isophorone	0.641	0.636	0.636	0.640	0.631	0.639	0.659	0.664	0.643	1.84
29) 2-Nitropheno	0.188	0.189	0.196	0.199	0.197	0.197	0.188	0.202	0.195	2.86
30) 2,4-Dimethyl	0.309	0.303	0.309	0.319	0.316	0.311	0.303	0.323	0.312	2.35
31) Benzoic acid	0.182	0.204	0.242	0.266	0.268	0.258		0.234	0.236	13.79
32) bis(2-Chloro	0.370	0.369	0.372	0.366	0.360	0.366	0.381	0.390	0.372	2.50
33) 2,4-Dichloro	0.297	0.290	0.289	0.291	0.290	0.290	0.293	0.294	0.292	0.90
34) 2,6-Dichloro	0.277	0.277	0.287	0.286	0.283	0.286	0.294	0.294	0.286	2.27
35) 1,3,5-Trichl	0.361	0.345	0.342	0.333	0.330	0.338	0.361	0.359	0.346	3.64
36) 1,2,4-Trichl	0.320	0.324	0.314	0.312	0.307	0.317	0.342	0.331	0.321	3.54
37) 1,2,3-Trichl	0.318	0.319	0.318	0.307	0.299	0.310	0.350	0.328	0.319	4.78
38) Naphthalene	1.046	1.023	1.024	1.016	1.003	1.021	1.081	1.070	1.036	2.66
39) 4-Chloroanil	0.438	0.445	0.439	0.440	0.427	0.435	0.445	0.456	0.441	1.96
40) 2,3-Dichloro	0.359	0.362	0.360	0.370	0.366	0.365	0.359	0.378	0.365	1.77
41) Caprolactam	0.140	0.148	0.150	0.155	0.152	0.152	0.145	0.157	0.150	3.58
42) Hexachlorobu	0.175	0.164	0.167	0.164	0.161	0.165	0.171	0.174	0.168	3.00
43) 4-Chloro-3-m	0.279	0.273	0.280	0.286	0.287	0.282	0.268	0.289	0.281	2.58
44) 2-Methylnaph	0.597	0.595	0.596	0.600	0.599	0.601	0.622	0.616	0.603	1.69
45) 1-Methylnaph	0.625	0.625	0.623	0.627	0.625	0.626	0.630	0.651	0.629	1.43

Initial Calibration Summary

Page 2 of 3

Job Number: JC66318
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-ICC4618
 Lab FileID: 2M103897.D

46)	Dimethylnaph	0.626	0.636	0.638	0.647	0.645	0.641	0.655	0.666	0.644	1.89
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.301	0.323	0.357	0.369	0.369	0.370	0.273	0.358	0.340	10.84
49)	2,4,6-Trichl	0.394	0.365	0.395	0.393	0.389	0.395	0.388	0.407	0.391	3.01
50)	2,4,5-Trichl	0.392	0.405	0.417	0.411	0.406	0.417	0.406	0.432	0.411	2.82
51)	2-Fluorobiph	1.434	1.477	1.454	1.421	1.415	1.462	1.477	1.549	1.461	2.93
52)	2-Chloronaph	1.255	1.234	1.209	1.182	1.168	1.213	1.265	1.275	1.225	3.18
53)	Biphenyl	1.673	1.612	1.627	1.628	1.617	1.652	1.639	1.718	1.646	2.14
54)	2-Nitroanili	0.323	0.319	0.344	0.345	0.348	0.349	0.328	0.350	0.338	3.77
55)	Dimethylphth	1.338	1.307	1.309	1.306	1.295	1.311	1.384	1.382	1.329	2.68
56)	Acenaphthyle	1.936	1.916	1.954	1.922	1.919	1.973	1.978	2.042	1.955	2.17
57)	2,6-Dinitrot	0.273	0.290	0.310	0.311	0.309	0.307	0.266	0.311	0.297	6.24
58)	3-Nitroanili	0.309	0.327	0.356	0.364	0.358	0.367	0.318	0.361	0.345	6.66
59)	Acenaphthene	1.268	1.268	1.277	1.267	1.261	1.283	1.306	1.334	1.283	1.95
60)	2,4-Dinitrop	0.076	0.110	0.156	0.187	0.190	0.178	0.069	0.134	0.137	35.30
---- Quadratic regression ---- Coefficient = 0.9997											
Response Ratio = -0.01252 + 0.16728 *A + 0.00532 *A^2											
61)	4-Nitropheno	0.125	0.142	0.161	0.160	0.164	0.162	0.123	0.155	0.149	11.15
62)	Dibenzofuran	1.712	1.715	1.724	1.715	1.695	1.733	1.727	1.783	1.725	1.50
63)	2,4-Dinitrot	0.367	0.362	0.416	0.431	0.430	0.428	0.331	0.407	0.396	9.61
64)	2,3,4,6-Tetr	0.327	0.333	0.344	0.348	0.349	0.347	0.317	0.350	0.339	3.56
65)	Diethylphtha	1.280	1.279	1.319	1.325	1.322	1.331	1.301	1.364	1.315	2.14
66)	Fluorene	1.405	1.379	1.394	1.398	1.399	1.411	1.367	1.432	1.398	1.41
67)	4-Chlorophen	0.643	0.628	0.641	0.619	0.608	0.625	0.658	0.661	0.635	2.93
68)	4-Nitroanili	0.317	0.345	0.345	0.353	0.350	0.358	0.306	0.369	0.343	6.15
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.093	0.099	0.135	0.149	0.148	0.145	0.083	0.123	0.122	21.91
---- Quadratic regression ---- Coefficient = 0.9990											
Response Ratio = -0.00195 + 0.13467 *A + 0.00646 *A^2											
71)	n-Nitrosodip	0.576	0.580	0.599	0.581	0.582	0.585	0.572	0.597	0.584	1.63
72)	1,2-Diphenyl	0.747	0.768	0.786	0.768	0.768	0.774	0.782	0.797	0.774	1.95
73)	2,4,6-Tribo	0.117	0.116	0.127	0.123	0.123	0.122	0.122	0.119	0.121	3.07
74)	4-Bromopheny	0.217	0.219	0.221	0.216	0.215	0.219	0.226	0.229	0.220	2.18
75)	Hexachlorobe	0.247	0.248	0.252	0.243	0.239	0.247	0.275	0.262	0.252	4.55
76)	Pentachlorop	0.136	0.147	0.162	0.167	0.169	0.166	0.122	0.157	0.153	11.07
77)	Phenanthrene	1.168	1.124	1.141	1.120	1.104	1.125	1.185	1.165	1.141	2.49
78)	Anthracene	1.136	1.145	1.158	1.133	1.127	1.151	1.139	1.184	1.147	1.57
79)	Carbazole	1.042	1.037	1.091	1.081	1.077	1.076	1.060	1.102	1.071	2.13
80)	Di-n-butylph	1.233	1.257	1.331	1.351	1.346	1.344	1.264	1.344	1.309	3.72
81)	Fluoranthene	1.150	1.117	1.184	1.191	1.182	1.189	1.166	1.190	1.171	2.22
82)	Octadecane	0.505	0.499	0.531	0.527	0.524	0.522	0.510	0.537	0.519	2.56
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.338	1.361	1.344	1.313	1.258	1.342	1.318	1.413	1.336	3.30
85)	Terphenyl-d1	0.862	0.876	0.880	0.875	0.844	0.883	0.861	0.936	0.877	3.08
86)	Butylbenzylp	0.622	0.595	0.615	0.624	0.606	0.628	0.611	0.635	0.617	2.09
87)	Benzo[a]anth	1.221	1.194	1.176	1.181	1.156	1.184	1.337	1.233	1.210	4.68
88)	3,3'-Dichlor	0.416	0.432	0.454	0.452	0.436	0.454	0.402	0.466	0.439	4.99
89)	Chrysene	1.170	1.145	1.148	1.130	1.093	1.136	1.188	1.190	1.150	2.81
90)	bis(2-Ethylh	0.816	0.833	0.850	0.876	0.848	0.876	0.828	0.879	0.851	2.87
91)	I Perylene-d12	-----ISTD-----									
92)	Di-n-octylph	1.353	1.387	1.463	1.495	1.469	1.495	1.396	1.499	1.445	3.96
93)	Benzo[b]fluo	1.181	1.196	1.248	1.232	1.213	1.266	1.170	1.288	1.224	3.39
94)	Benzo[k]fluo	1.120	1.165	1.124	1.119	1.079	1.123	1.166	1.198	1.137	3.26
95)	Benzo[a]pyre	1.028	1.053	1.070	1.069	1.041	1.089	1.014	1.126	1.061	3.36

Initial Calibration Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-ICC4618
Lab FileID: 2M103897.D

96)	Indeno[1,2,3	1.020	1.014	1.080	1.067	1.073	1.064	1.057	1.077	1.056	2.42
97)	Dibenz(a,h)a	0.927	0.941	0.966	0.961	0.944	0.977	0.929	0.999	0.956	2.60
98)	Dibenz[a,h]a	1.050	1.081	1.107	1.086	1.060	1.106	1.062	1.132	1.086	2.59
99)	7,12-Dimethy	0.505	0.517	0.538	0.549	0.532	0.553	0.517	0.554	0.533	3.51
100)	Benzo[g,h,i]	0.991	1.023	1.039	1.008	0.998	1.027	0.993	1.064	1.018	2.51

(#) = Out of Range ### Number of calibration levels exceeded format ###											

M2M4618.M Fri May 11 15:20:21 2018

8.9.1
8

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103912.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103912.D Vial: 10
Acq On : 9 May 2018 10:23 pm Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	137	0.00	4.66
5 S	2-Fluorophenol	1.303	1.284	1.5	133	0.00	3.67
8 S	Phenol-d5	1.635	1.564	4.3	129	0.00	4.39
24 I	Naphthalene-d8	1.000	1.000	0.0	129	0.00	5.76
25 S	Nitrobenzene-d5	0.366	0.370	-1.1	130	0.00	5.10
47 I	Acenaphthene-d10	1.000	1.000	0.0	131	0.00	7.82
51 S	2-Fluorobiphenyl	1.461	1.365	6.6	123	0.00	6.95
69 I	Phenanthrene-d10	1.000	1.000	0.0	119	0.00	9.98
73 S	2,4,6-Tribromophenol	0.121	0.118	2.5	115	0.00	8.94
83 I	Chrysene-d12	1.000	1.000	0.0	109	-0.01	14.15
85 S	Terphenyl-d14	0.877	0.971	-10.7	119	0.00	12.54

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:36 2018

8.9.2
8

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103913.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103913.D Vial: 11
Acq On : 9 May 2018 10:48 pm Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	135	0.00	4.66
9 t	Phenol	1.877	1.676	10.7	119	0.00	4.40
12 t	2-Chlorophenol	1.409	1.407	0.1	134	0.00	4.51
19 t	2-Methylphenol	1.231	1.174	4.6	126	0.00	4.86
21 t	3&4-Methylphenol	1.293	1.256	2.9	128	0.00	4.98
24 I	Naphthalene-d8	1.000	1.000	0.0	128	0.00	5.76
29 t	2-Nitrophenol	0.195	0.195	0.0	126	0.00	5.40
30 t	2,4-Dimethylphenol	0.312	0.299	4.2	123	0.00	5.43
31 t	Benzoic acid	0.236	0.229	3.0	113	0.00	5.55
33 t	2,4-Dichlorophenol	0.292	0.290	0.7	128	0.00	5.62
34 t	2,6-Dichlorophenol	0.286	0.288	-0.7	128	0.00	5.84
43 t	4-Chloro-3-methylphenol	0.281	0.276	1.8	125	-0.01	6.33
47 I	Acenaphthene-d10	1.000	1.000	0.0	116	0.00	7.82
49 t	2,4,6-Trichlorophenol	0.391	0.419	-7.2	124	0.00	6.85
50 t	2,4,5-Trichlorophenol	0.411	0.437	-6.3	122	-0.01	6.88
60 t	2,4-Dinitrophenol	50.000	45.968	8.1	111	-0.01	7.91
61 t	4-Nitrophenol	0.149	0.149	0.0	107	0.00	8.02
64	2,3,4,6-Tetrachlorophenol	0.339	0.346	-2.1	116	0.00	8.29
69 I	Phenanthrene-d10	1.000	1.000	0.0	116	0.00	9.98
70 t	4,6-Dinitro-2-methylpheno	50.000	48.080	3.8	108	0.00	8.68
76 t	Pentachlorophenol	0.153	0.179	-17.0	131	-0.01	9.71

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:38 2018

Initial Calibration Verification

Page 1 of 2

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103915.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103915.D Vial: 13
 Acq On : 9 May 2018 11:38 pm Operator: sufiyana
 Sample : icv4618-50 Inst : MS2M
 Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 Last Update : Fri May 11 12:53:20 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	138	0.00	4.66
4 t	N-Nitrosodimethylamine	0.921	0.735	20.2	109	0.02	2.50
11 t	bis(2-Chloroethyl)ether	1.298	1.311	-1.0	139	0.00	4.46
14 t	1,3-Dichlorobenzene	1.588	1.518	4.4	132	0.00	4.63
15 t	1,4-Dichlorobenzene	1.608	1.533	4.7	131	0.00	4.68
17 t	1,2-Dichlorobenzene	1.502	1.446	3.7	132	0.00	4.80
20 t	2,2'-oxybis(1-Chloropropa	1.573	1.647	-4.7	146	0.00	4.88
22 t	n-Nitroso-di-n-propylamin	0.998	0.915	8.3	123	0.00	4.98
23 t	Hexachloroethane	0.516	0.493	4.5	132	0.00	5.08
24 I	Naphthalene-d8	1.000	1.000	0.0	131	0.00	5.76
26 t	Nitrobenzene	0.365	0.337	7.7	122	0.00	5.12
28 t	Isophorone	0.643	0.623	3.1	128	-0.01	5.32
32 t	bis(2-Chloroethoxy)methan	0.372	0.379	-1.9	136	0.00	5.52
36 t	1,2,4-Trichlorobenzene	0.321	0.311	3.1	129	0.00	5.70
38 t	Naphthalene	1.036	1.004	3.1	129	0.00	5.78
42 t	Hexachlorobutadiene	0.168	0.169	-0.6	134	0.00	5.91
47 I	Acenaphthene-d10	1.000	1.000	0.0	129	0.00	7.82
48 t	Hexachlorocyclopentadiene	0.340	0.320	5.9	115	0.00	6.71
52 t	2-Chloronaphthalene	1.225	1.166	4.8	124	0.00	7.09
55 t	Dimethylphthalate	1.329	1.259	5.3	124	0.00	7.48
56 t	Acenaphthylene	1.955	1.831	6.3	120	0.00	7.62
57 t	2,6-Dinitrotoluene	0.297	0.275	7.4	116	0.00	7.55
59 t	Acenaphthene	1.283	1.229	4.2	124	0.00	7.86
63 t	2,4-Dinitrotoluene	0.396	0.338	14.6	102	0.00	8.10
65 t	Diethylphthalate	1.315	1.243	5.5	120	-0.01	8.47
66 t	Fluorene	1.398	1.320	5.6	121	0.00	8.59
67 t	4-Chlorophenyl-phenylethe	0.635	0.594	6.5	123	0.00	8.61
69 I	Phenanthrene-d10	1.000	1.000	0.0	122	0.00	9.98
71 t	n-Nitrosodiphenylamine	0.584	0.544	6.8	113	0.00	8.79
72 t	1,2-Diphenylhydrazine	0.774	0.775	-0.1	122	0.00	8.84
74 t	4-Bromophenyl-phenylether	0.220	0.215	2.3	120	0.00	9.33
75 t	Hexachlorobenzene	0.252	0.241	4.4	119	0.00	9.41
77 t	Phenanthrene	1.141	1.104	3.2	120	0.00	10.02
78 t	Anthracene	1.147	1.097	4.4	116	0.00	10.10
80 t	Di-n-butylphthalate	1.309	1.269	3.1	115	0.00	11.00
81 t	Fluoranthene	1.171	1.091	6.8	112	0.00	11.87
83 I	Chrysene-d12	1.000	1.000	0.0	109	0.00	14.16
84 t	Pyrene	1.336	1.336	0.0	108	0.00	12.22

Initial Calibration Verification

Page 2 of 2

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103915.D

86	t	Butylbenzylphthalate	0.617	0.615	0.3	107	0.00	13.38
87	t	Benzo[a]anthracene	1.210	1.122	7.3	103	0.00	14.14
89	t	Chrysene	1.150	1.068	7.1	102	0.00	14.20
90	t	bis(2-Ethylhexyl)phthalat	0.851	0.843	0.9	105	0.00	14.35
91	I	Perylene-d12	1.000	1.000	0.0	102	0.00	16.27
92	t	Di-n-octylphthalate	1.445	1.507	-4.3	103	0.00	15.33
93	t	Benzo[b]fluoranthene	1.224	1.103	9.9	89	0.00	15.75
94	t	Benzo[k]fluoranthene	1.137	1.114	2.0	101	-0.01	15.78
95	t	Benzo[a]pyrene	1.061	1.024	3.5	96	0.00	16.19
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.006	4.7	96	-0.01	17.78
98	t	Dibenz[a,h]anthracene	1.086	1.010	7.0	93	-0.01	17.82
100	t	Benzo[g,h,i]perylene	1.018	1.026	-0.8	102	-0.01	18.21

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:40 2018

8.9.4

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Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103916.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103916.D Vial: 14
Acq On : 10 May 2018 12:04 am Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	125	0.00	4.66
2 t	1,4-Dioxane	0.605	0.545	9.9	114	0.02	2.21
6 t	Indene	2.229	2.368	-6.2	130	0.00	4.87
7 t	Cumene	3.318	3.144	5.2	117	0.00	4.07
13 t	Decane	1.450	1.334	8.0	117	0.00	4.55
18 t	Acetophenone	1.863	1.748	6.2	115	0.00	4.98
24 I	Naphthalene-d8	1.000	1.000	0.0	121	0.00	5.76
27 t	Quinoline	0.679	0.660	2.8	119	-0.02	6.11
40 t	2,3-Dichloroaniline	0.365	0.303	17.0	101	0.00	6.84
41 t	Caprolactam	0.150	0.130	13.3	104	-0.03	6.16
45 t	1-Methylnaphthalene	0.629	0.558	11.3	108	0.00	6.62
46 t	Dimethylnaphthalene	0.644	0.603	6.4	114	0.00	7.27
47 I	Acenaphthene-d10	1.000	1.000	0.0	109	0.00	7.82
53 t	Biphenyl	1.646	1.721	-4.6	114	0.00	7.07
69 I	Phenanthrene-d10	1.000	1.000	0.0	111	0.00	9.98
82 t	Octadecane	0.519	0.524	-1.0	111	0.00	9.95

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:44 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103917.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103917.D Vial: 15
Acq On : 10 May 2018 12:29 am Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	106	-0.01	14.15
88 t	3,3'-Dichlorobenzidine	0.439	0.447	-1.8	105	0.00	14.15

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:48 2018

9.9.6
8

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4620-ICV4618
Lab FileID: 2M103921.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4620\2m103921.D Vial: 2
Acq On : 11 May 2018 1:55 pm Operator: christc2
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4620,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	4.67
3 t	Pyridine	1.552	1.520	2.1	112	0.10	2.61
10	Aniline	2.061	2.201	-6.8	122	0.00	4.42
16 t	Benzyl alcohol	0.875	0.939	-7.3	117	0.00	4.78
24 I	Naphthalene-d8	1.000	1.000	0.0	112	0.00	5.76
39 t	4-Chloroaniline	0.441	0.407	7.7	105	0.00	5.83
44 t	2-Methylnaphthalene	0.603	0.585	3.0	109	0.00	6.52
47 I	Acenaphthene-d10	1.000	1.000	0.0	114	0.00	7.82
54 t	2-Nitroaniline	0.338	0.323	4.4	105	0.00	7.22
58 t	3-Nitroaniline	0.345	0.342	0.9	106	0.00	7.77
62 t	Dibenzofuran	1.725	1.699	1.5	112	0.00	8.10
68 t	4-Nitroaniline	0.343	0.311	9.3	99	-0.01	8.63
69 I	Phenanthrene-d10	1.000	1.000	0.0	112	0.00	9.99
79 t	Carbazole	1.071	1.031	3.7	107	0.00	10.37

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:19:12 2018

8.9.7
8

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4637-CC4618
Lab FileID: 2M104342.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4637\2m104342.D Vial: 2
Acq On : 24 May 2018 1:14 am Operator: chriss2
Sample : cc4618-25 Inst : MS2M
Misc : op10486,e2m4637,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Thu May 17 13:00:25 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	56	-0.11	4.56
2 t	1,4-Dioxane	0.605	0.550	9.1	52	-0.12	2.07
3 t	Pyridine	1.552	1.384	10.8	49#	-0.10	2.41
4 t	N-Nitrosodimethylamine	0.921	0.860	6.6	52	-0.11	2.37
5 S	2-Fluorophenol	1.303	1.283	1.5	55	-0.08	3.59
6 t	Indene	2.229	2.181	2.2	55	-0.11	4.76
7 t	Cumene	3.318	3.284	1.0	56	-0.10	3.97
8 S	Phenol-d5	1.635	1.650	-0.9	57	-0.08	4.32
9 t	Phenol	1.877	1.852	1.3	56	-0.08	4.32
10	Aniline	2.061	1.738	15.7	48#	-0.10	4.32
11 t	bis(2-Chloroethyl)ether	1.298	1.277	1.6	56	-0.10	4.37
12 t	2-Chlorophenol	1.409	1.393	1.1	56	-0.10	4.41
13 t	Decane	1.450	1.374	5.2	54	-0.10	4.45
14 t	1,3-Dichlorobenzene	1.588	1.535	3.3	55	-0.11	4.52
15 t	1,4-Dichlorobenzene	1.608	1.601	0.4	56	-0.10	4.58
16 t	Benzyl alcohol	0.875	0.879	-0.5	58	-0.10	4.68
17 t	1,2-Dichlorobenzene	1.502	1.476	1.7	56	-0.10	4.70
18 t	Acetophenone	1.863	1.909	-2.5	57	-0.11	4.88
19 t	2-Methylphenol	1.231	1.212	1.5	56	-0.10	4.77
20 t	2,2'-oxybis(1-Chloropropa	1.573	1.507	4.2	54	-0.10	4.78
21 t	3&4-Methylphenol	1.293	1.288	0.4	56	-0.09	4.89
22 t	n-Nitroso-di-n-propylamin	0.998	1.029	-3.1	58	-0.11	4.88
23 t	Hexachloroethane	0.516	0.513	0.6	57	-0.11	4.96
24 I	Naphthalene-d8	1.000	1.000	0.0	57	-0.12	5.64
25 S	Nitrobenzene-d5	0.366	0.388	-6.0	60	-0.11	5.00
26 t	Nitrobenzene	0.365	0.379	-3.8	59	-0.11	5.02
27 t	Quinoline	0.679	0.689	-1.5	58	-0.13	5.99
28 t	Isophorone	0.643	0.655	-1.9	58	-0.12	5.22
29 t	2-Nitrophenol	0.195	0.203	-4.1	59	-0.11	5.29
30 t	2,4-Dimethylphenol	0.312	0.303	2.9	56	-0.11	5.33
31 t	Benzoic acid	0.236	0.299	-26.7#	70	-0.11	5.44
32 t	bis(2-Chloroethoxy)methan	0.372	0.374	-0.5	57	-0.11	5.41
33 t	2,4-Dichlorophenol	0.292	0.297	-1.7	58	-0.11	5.51
34 t	2,6-Dichlorophenol	0.286	0.292	-2.1	58	-0.12	5.72
35	1,3,5-Trichlorobenzene	0.346	0.326	5.8	54	-0.12	5.30
36 t	1,2,4-Trichlorobenzene	0.321	0.314	2.2	57	-0.12	5.58
37	1,2,3-Trichlorobenzene	0.319	0.318	0.3	57	-0.13	5.80
38 t	Naphthalene	1.036	1.023	1.3	57	-0.13	5.65
39 t	4-Chloroaniline	0.441	0.416	5.7	54	-0.12	5.71
40 t	2,3-Dichloroaniline	0.365	0.375	-2.7	59	-0.13	6.71
41 t	Caprolactam	0.150	0.158	-5.3	60	-0.13	6.06

Continuing Calibration Summary

Page 2 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4637-CC4618
Lab FileID: 2M104342.D

42 t	Hexachlorobutadiene	0.168	0.173	-3.0	59	-0.13	5.78
43 t	4-Chloro-3-methylphenol	0.281	0.305	-8.5	62	-0.11	6.23
44 t	2-Methylnaphthalene	0.603	0.612	-1.5	58	-0.14	6.38
45 t	1-Methylnaphthalene	0.629	0.641	-1.9	58	-0.14	6.49
46 t	Dimethylnaphthalene	0.644	0.655	-1.7	58	-0.14	7.13
47 I	Acenaphthene-d10	1.000	1.000	0.0	59	-0.14	7.68
48 t	Hexachlorocyclopentadiene	0.340	0.335	1.5	56	-0.14	6.57
49 t	2,4,6-Trichlorophenol	0.391	0.382	2.3	57	-0.13	6.72
50 t	2,4,5-Trichlorophenol	0.411	0.421	-2.4	60	-0.13	6.77
51 S	2-Fluorobiphenyl	1.461	1.431	2.1	58	-0.14	6.81
52 t	2-Chloronaphthalene	1.225	1.190	2.9	58	-0.14	6.95
53 t	Biphenyl	1.646	1.639	0.4	60	-0.14	6.93
54 t	2-Nitroaniline	0.338	0.371	-9.8	64	-0.14	7.09
55 t	Dimethylphthalate	1.329	1.356	-2.0	61	-0.14	7.34
56 t	Acenaphthylene	1.955	1.957	-0.1	59	-0.15	7.48
57 t	2,6-Dinitrotoluene	0.297	0.327	-10.1	63	-0.14	7.41
58 t	3-Nitroaniline	0.345	0.369	-7.0	62	-0.14	7.63
59 t	Acenaphthene	1.283	1.278	0.4	59	-0.15	7.72
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	50.000	53.084	-6.2	67	-0.13	7.79
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.149	0.201	-34.9#	74	-0.10	7.92
62 t	Dibenzofuran	1.725	1.720	0.3	59	-0.15	7.95
63 t	2,4-Dinitrotoluene	0.396	0.450	-13.6	64	-0.14	7.96
64	2,3,4,6-Tetrachlorophenol	0.339	0.341	-0.6	59	-0.14	8.15
65 t	Diethylphthalate	1.315	1.394	-6.0	63	-0.15	8.33
66 t	Fluorene	1.398	1.407	-0.6	60	-0.15	8.44
67 t	4-Chlorophenyl-phenylethe	0.635	0.634	0.2	59	-0.15	8.46
68 t	4-Nitroaniline	0.343	0.357	-4.1	61	-0.14	8.49
69 I	Phenanthrene-d10	1.000	1.000	0.0	63	-0.15	9.83
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	25.000	25.921	-3.7	65	-0.13	8.56
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.584	0.578	1.0	60	-0.15	8.64
72 t	1,2-Diphenylhydrazine	0.774	0.774	0.0	62	-0.15	8.69
73 S	2,4,6-Tribromophenol	0.121	0.115	5.0	57	-0.15	8.79
74 t	4-Bromophenyl-phenylether	0.220	0.208	5.5	59	-0.16	9.18
75 t	Hexachlorobenzene	0.252	0.232	7.9	57	-0.15	9.26
76 t	Pentachlorophenol	0.153	0.141	7.8	54	-0.14	9.58
77 t	Phenanthrene	1.141	1.102	3.4	60	-0.15	9.87
78 t	Anthracene	1.147	1.115	2.8	60	-0.15	9.94
79 t	Carbazole	1.071	1.088	-1.6	62	-0.15	10.22
80 t	Di-n-butylphthalate	1.309	1.388	-6.0	65	-0.15	10.85
81 t	Fluoranthene	1.171	1.172	-0.1	62	-0.16	11.72
82 t	Octadecane	0.519	0.521	-0.4	61	-0.15	9.80
83 I	Chrysene-d12	1.000	1.000	0.0	60	-0.16	14.00
84 t	Pyrene	1.336	1.342	-0.4	60	-0.16	12.07
85 S	Terphenyl-d14	0.877	0.874	0.3	60	-0.16	12.38
86 t	Butylbenzylphthalate	0.617	0.675	-9.4	66	-0.15	13.22
87 t	Benzo[a]anthracene	1.210	1.172	3.1	60	-0.16	13.99
88 t	3,3'-Dichlorobenzidine	0.439	0.430	2.1	57	-0.15	14.00
89 t	Chrysene	1.150	1.125	2.2	59	-0.16	14.04
90 t	bis(2-Ethylhexyl)phthalat	0.851	0.944	-10.9	67	-0.16	14.19

8.9.8

8

Continuing Calibration Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4637-CC4618
Lab FileID: 2M104342.D

91	I	Perylene-d12	1.000	1.000	0.0	59	-0.16	16.11
92	t	Di-n-octylphthalate	1.445	1.640	-13.5	66	-0.16	15.17
93	t	Benzo[b]fluoranthene	1.224	1.233	-0.7	58	-0.16	15.59
94	t	Benzo[k]fluoranthene	1.137	1.109	2.5	58	-0.17	15.63
95	t	Benzo[a]pyrene	1.061	1.063	-0.2	59	-0.16	16.03
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.058	-0.2	58	-0.21	17.58
97	t	Dibenz(a,h)acridine	0.956	0.939	1.8	57	-0.19	17.25
98	t	Dibenz[a,h]anthracene	1.086	1.071	1.4	57	-0.22	17.61
99	t	7,12-Dimethylbenz(a)anthr	0.533	0.500	6.2	55	-0.17	15.60
100	t	Benzo[g,h,i]perylene	1.018	1.008	1.0	57	-0.23	17.99

(#) = Out of Range
2m103907a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Thu May 24 12:09:00 2018

Initial Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2386-ICC2386
Lab FileID: 5P49976.D

Response Factor Report MS5P

Method : C:\MSDCHEM\1\METHODS\M5P2386.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Tue May 08 10:22:08 2018
Response via : Initial Calibration

Calibration Files

2 =5p49980 .D 5 =5p49979.D 25 =5p49977.D 80 =5p49975.D
100 =5p49974 .D 50 =5p49976.D 1 =5p49981.D 10 =5p49978.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
101) 1,4-Dichlorobenzene-d										
102) Benzaldehyde	1.161	0.970	0.866	0.790	0.766	0.840	0.911	0.962	0.908	13.88
103) Acenaphthene-d10a										
104) 1,2,4,5-Tetr	0.589	0.603	0.553	0.525	0.510	0.545	0.621	0.591	0.567	7.00
105) Chrysene-d12a										
106) Benzidine		0.458	0.417	0.418	0.360	0.421		0.513	0.431	11.82
107) 1-chloroocta	0.290	0.329	0.335	0.327	0.320	0.338	0.327	0.333	0.325	4.70
108) Phenanthrene-d10a										
109) o-terphenyl	0.524	0.516	0.502	0.481	0.460	0.508	0.493	0.523	0.501	4.43
110) Atrazine	0.085	0.096	0.094	0.096	0.095	0.096	0.075	0.093	0.091	8.28
111) Pentachloron	0.038	0.033	0.042	0.043	0.042	0.044		0.039	0.040#	9.38
112) I Naphthalene-d8a										
113) Hydroquinone	0.219	0.197	0.271	0.290	0.295	0.300		0.248	0.260	15.44

(#) = Out of Range ### Number of calibration levels exceeded format ###

M5P2385.M

Wed May 09 15:51:19 2018

RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2386-ICV2386
Lab FileID: 5P49984A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2386\5p49984a.D Vial: 12
Acq On : 7 May 2018 6:33 pm Operator: johnb1
Sample : icv2386-50 Inst : MS5P
Misc : op6115,e5p2386,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2385.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Tue May 08 10:22:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
108	Phenanthrene-d10a	1.000	1.000	0.0	127	0.00	9.12
111	Pentachloronitrobenzene	0.040	0.045#	-12.5	130	0.00	8.93

(#) = Out of Range
5p49976a.D M5P2385.M

SPCC's out = 0 CCC's out = 0
Tue May 08 10:46:06 2018 RPT1

8.9.10

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2386-ICV2386
Lab FileID: 5P49985A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2386\5p49985a.D Vial: 13
Acq On : 7 May 2018 6:58 pm Operator: johnb1
Sample : icv2386-50 Inst : MS5P
Misc : op6115,e5p2386,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2385.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Tue May 08 10:22:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
103	Acenaphthene-d10a	1.000	1.000	0.0	117	0.00	7.60
104	1,2,4,5-Tetrachlorobenzen	0.567	0.609	-7.4	130	0.00	6.75
105	Chrysene-d12a	1.000	1.000	0.0	93	0.01	12.63
106	Benzidine	0.431	0.363	15.8	97	0.00	10.79

(#) = Out of Range
5p49976a.D M5P2385.M

SPCC's out = 0 CCC's out = 0
Tue May 08 10:46:10 2018 RPT1

8.9.11

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2386-ICV2386
Lab FileID: 5P49986A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2386\5p49986a.D Vial: 14
Acq On : 7 May 2018 7:23 pm Operator: johnb1
Sample : icv2386-50 Inst : MS5P
Misc : op6115,e5p2386,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2385.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Tue May 08 10:22:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	124	0.00	4.69
102	Benzaldehyde	0.908	0.894	1.5	132	0.00	4.29
108	Phenanthrene-d10a	1.000	1.000	0.0	112	0.00	9.12
110	Atrazine	0.091	0.106	-16.5	125	0.00	8.82

(#) = Out of Range
5p49976a.D M5P2385.M

SPCC's out = 0 CCC's out = 0
Tue May 08 10:46:14 2018 RPT1

8.9.12

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2386-ICV2386
Lab FileID: 5P49988.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2386\5p49988.D Vial: 16
Acq On : 7 May 2018 8:13 pm Operator: johnb1
Sample : icv2386-50 Inst : MS5P
Misc : op6115,e5p2386,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2385.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Tue May 08 10:22:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
112 I	Naphthalene-d8a	1.000	1.000	0.0	129	0.00	5.89
113	Hydroquinone	0.260	0.294	-13.1	126	0.00	6.30

(#) = Out of Range
5p49976a.D M5P2385.M

SPCC's out = 0 CCC's out = 0
Tue May 08 10:46:18 2018 RPT1

89.13

8

Initial Calibration Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2387-ICC2387
Lab FileID: 5P49992.D

Response Factor Report MS5P

Method : C:\msdchem\1\METHODS\M5P2387.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Tue May 08 10:32:58 2018
Response via : Initial Calibration

Calibration Files
2 =5p49996.D 5 =5p49995.D 25 =5p49993.D 80 =5p49991.D
100 =5p49990.D 50 =5p49992.D 1 =5p49997.D 10 =5p49994.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
114) Chrysene-d12b										
115) Methyl Chrys	0.804	0.834	0.819	0.745	0.725	0.775	0.891	0.844	0.805	6.77
116) 1,4-Dichlorobenzene-d										
117) Benzenethiol	1.350	1.451	1.475	1.466	1.458	1.517	1.508	1.509	1.467	3.66

(#)= Out of Range ### Number of calibration levels exceeded format ###										

M5P2385sl.M Tue May 08 10:35:07 2018 RPT1

8.9.14
8

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2387-ICV2387
Lab FileID: 5P49998.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2387\5p49998.D Vial: 10
Acq On : 8 May 2018 1:32 am Operator: chriss2
Sample : icv2387-50 Inst : MS5P
Misc : op6115,e5p2387,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\METHODS\M5P2385sl.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Tue May 08 10:32:58 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
114	Chrysene-d12b	1.000	1.000	0.0	91	0.00	12.62
115	Methyl Chrysene	0.805	0.866	-7.6	101	0.00	13.34
116	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	98	0.00	4.69
117	Benzenethiol	1.467	1.425	2.9	92	0.00	4.33

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5p49992a.D M5P2385sl.M Tue May 08 10:34:59 2018 RPT1

8.9.15

8

Initial Calibration Summary

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2399-ICC2399
Lab FileID: 5P50257.D

Response Factor Report MS5P

Method : C:\MSDCHEM\1\METHODS\M5P2399.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Tue May 15 10:21:09 2018
Response via : Initial Calibration

Calibration Files

2 =5p50261.D 5 =5p50260.D 25 =5p50258.D 80 =5p50256.D
100 =5p50255.D 50 =5p50257.D 1 =5p50262.D 10 =5p50259.D

Compound	2	5	25	80	100	50	1	10	Avg %RSD
1) I 1,4-Dichlorobenzene-d	-----ISTD-----								
2) 1,4-Dioxane	0.683	0.610	0.633	0.620	0.649	0.641	0.690	0.642	4.35
3) Pyridine	1.541	1.359	1.557	1.491	1.490	1.646	1.594	1.610	5.87
4) N-Nitrosodim	0.891	0.796	0.884	0.878	0.890	0.945	0.847	0.872	4.84
5) 2-Fluorophen	1.400	1.315	1.403	1.405	1.444	1.509	1.334	1.419	4.32
6) Indene	2.575	2.298	2.317	2.150	2.114	2.310	2.435	2.436	6.55
7) Cumene	3.799	3.507	3.715	3.482	3.381	3.693	3.667	3.814	4.35
8) Phenol-d5	1.744	1.745	1.825	1.763	1.767	1.943	1.753	1.824	3.79
9) Phenol	2.074	1.975	2.030	1.828	1.815	2.022	2.003	2.145	5.73
10) Aniline	2.370	2.249	2.066	1.809	1.754	1.963	2.372	2.290	11.73
11) bis(2-Chloro	1.346	1.258	1.291	1.166	1.163	1.270	1.387	1.372	6.69
12) 2-Chlorophen	1.654	1.499	1.522	1.406	1.388	1.497	1.636	1.595	6.48
13) Decane	2.139	2.047	1.929	1.668	1.606	1.834	2.193	2.065	11.17
14) 1,3-Dichloro	1.771	1.715	1.652	1.504	1.484	1.638	1.837	1.797	7.81
15) 1,4-Dichloro	1.711	1.654	1.638	1.478	1.432	1.621	1.723	1.648	6.48
16) Benzyl alcoh	0.987	0.921	1.005	0.958	0.961	1.014	0.836	1.028	6.43
17) 1,2-Dichloro	1.664	1.565	1.544	1.402	1.370	1.537	1.760	1.626	8.29
18) Acetophenone	2.301	2.301	2.140	1.988	1.985	2.200	2.333	2.268	6.37
19) 2-Methylphen	1.462	1.404	1.316	1.201	1.199	1.291	1.593	1.387	9.86
20) 2,2'-oxybis(	2.533	2.398	2.334	2.010	1.950	2.247	2.507	2.611	10.41
21) 3&4-Methylph	1.484	1.434	1.391	1.274	1.263	1.385	1.369	1.551	6.98
22) n-Nitroso-di	1.076	1.015	1.008	0.894	0.879	0.997	1.248	1.107	11.56
23) Hexachloroet	0.748	0.712	0.687	0.634	0.617	0.671	0.743	0.722	7.00
24) I Naphthalene-d8	-----ISTD-----								
25) Nitrobenzene	0.383	0.416	0.400	0.374	0.381	0.388	0.404	0.416	4.08
26) Nitrobenzene	0.390	0.389	0.396	0.352	0.356	0.376	0.438	0.416	7.44
27) Quinoline	0.778	0.775	0.779	0.718	0.718	0.753	0.768	0.803	3.97
28) Isophorone	0.707	0.730	0.716	0.664	0.668	0.699	0.777	0.746	5.33
29) 2-Nitropheno	0.189	0.217	0.215	0.203	0.200	0.212	0.213	0.218	4.86
30) 2,4-Dimethyl	0.349	0.343	0.351	0.346	0.344	0.362	0.353	0.387	4.12
31) Benzoic acid	0.273	0.279	0.314	0.323	0.328	0.326	0.253	0.309	9.44
32) bis(2-Chloro	0.389	0.378	0.366	0.344	0.343	0.359	0.392	0.385	5.27
33) 2,4-Dichloro	0.344	0.342	0.340	0.310	0.306	0.334	0.344	0.359	5.37
34) 2,6-Dichloro	0.335	0.337	0.326	0.289	0.287	0.308	0.350	0.343	7.60
35) 1,3,5-Trichl	0.437	0.418	0.402	0.360	0.341	0.381	0.456	0.421	9.72
36) 1,2,4-Trichl	0.387	0.405	0.388	0.350	0.347	0.373	0.406	0.416	6.71
37) 1,2,3-Trichl	0.393	0.399	0.370	0.321	0.316	0.343	0.393	0.397	9.58
38) Naphthalene	1.063	1.044	1.004	0.933	0.927	0.982	1.088	1.054	5.97
39) 4-Chloroanil	0.411	0.475	0.457	0.409	0.411	0.442	0.467	0.485	6.99
40) 2,3-Dichloro	0.444	0.452	0.423	0.383	0.374	0.403	0.454	0.456	7.80
41) Caprolactam	0.219	0.245	0.237	0.221	0.230	0.232	0.292	0.253	9.82
42) Hexachlorobu	0.200	0.232	0.236	0.215	0.208	0.219	0.272	0.244	9.98
43) 4-Chloro-3-m	0.345	0.348	0.355	0.330	0.331	0.347	0.358	0.369	3.80
44) 2-Methylnaph	0.647	0.662	0.630	0.564	0.560	0.605	0.686	0.680	7.81
45) 1-Methylnaph	0.695	0.672	0.642	0.597	0.575	0.625	0.736	0.705	8.49

Initial Calibration Summary

Page 2 of 3

Job Number: JC66318
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2399-ICC2399
 Lab FileID: 5P50257.D

46)	Dimethylnaph	0.729	0.746	0.694	0.612	0.611	0.656	0.798	0.735	0.698	9.60
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.428	0.420	0.432	0.409	0.395	0.424	0.398	0.468	0.422	5.47
49)	2,4,6-Trichl	0.384	0.432	0.413	0.378	0.360	0.394	0.387	0.459	0.401	7.96
50)	2,4,5-Trichl	0.476	0.454	0.447	0.419	0.402	0.427	0.447	0.484	0.444	6.24
51)	2-Fluorobiph	1.508	1.469	1.389	1.258	1.241	1.322	1.555	1.551	1.411	9.03
52)	2-Chloronaph	1.232	1.267	1.200	1.040	1.019	1.098	1.282	1.311	1.181	9.61
53)	Biphenyl	1.660	1.695	1.589	1.481	1.446	1.539	1.805	1.742	1.620	7.86
54)	2-Nitroanili	0.361	0.383	0.407	0.378	0.370	0.383	0.355	0.420	0.382	5.75
55)	Dimethylphth	1.407	1.419	1.395	1.323	1.308	1.362	1.468	1.546	1.403	5.53
56)	Acenaphthyle	1.940	1.867	1.817	1.661	1.597	1.709	1.786	1.962	1.792	7.29
57)	2,6-Dinitrot	0.337	0.316	0.316	0.304	0.304	0.324	0.295	0.353	0.319	6.00
58)	3-Nitroanili	0.344	0.375	0.361	0.357	0.356	0.366	0.352	0.400	0.364	4.73
59)	Acenaphthene	1.322	1.261	1.214	1.135	1.089	1.180	1.338	1.327	1.233	7.64
60)	2,4-Dinitrop	0.119	0.145	0.198	0.200	0.199	0.202	0.117	0.185	0.171	22.06
----- Quadratic regression -----											
Response Ratio = -0.01000 + 0.20886 *A + -0.00155 *A^2											
Coefficient = 0.9999											
61)	4-Nitropheno	0.198	0.176	0.205	0.209	0.208	0.206	0.218	0.213	0.204	6.27
62)	Dibenzofuran	1.880	1.779	1.667	1.499	1.446	1.593	1.835	1.849	1.693	9.89
63)	2,4-Dinitrot	0.401	0.436	0.441	0.413	0.386	0.416	0.462	0.469	0.428	6.78
64)	2,3,4,6-Tetr	0.451	0.425	0.419	0.408	0.412	0.427	0.424	0.457	0.428	4.10
65)	Diethylphtha	1.358	1.370	1.354	1.264	1.228	1.295	1.222	1.431	1.315	5.69
66)	Fluorene	1.510	1.445	1.382	1.239	1.178	1.310	1.455	1.503	1.378	8.99
67)	4-Chlorophen	0.785	0.747	0.677	0.624	0.601	0.655	0.772	0.787	0.706	10.69
68)	4-Nitroanili	0.370	0.359	0.364	0.329	0.317	0.346	0.346	0.402	0.354	7.36
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.113	0.137	0.162	0.160	0.157	0.160	0.134	0.159	0.148	12.16
71)	n-Nitrosodip	0.574	0.544	0.535	0.505	0.482	0.510	0.575	0.580	0.538	6.84
72)	1,2-Diphenyl	0.710	0.722	0.700	0.637	0.607	0.651	0.735	0.750	0.689	7.45
73)	2,4,6-Tribo	0.171	0.175	0.182	0.172	0.168	0.174	0.175	0.200	0.177	5.78
74)	4-Bromopheny	0.272	0.274	0.278	0.262	0.252	0.274	0.294	0.301	0.276	5.73
75)	Hexachlorobe	0.342	0.338	0.316	0.292	0.281	0.306	0.333	0.329	0.317	7.09
76)	Pentachlorop	0.148	0.166	0.188	0.185	0.177	0.191	0.121	0.191	0.171	14.56
77)	Phenanthrene	1.134	1.092	1.094	1.009	0.954	1.032	1.182	1.179	1.084	7.53
78)	Anthracene	1.187	1.121	1.124	1.027	0.967	1.058	1.183	1.233	1.113	8.09
79)	Carbazole	1.044	1.089	1.055	0.978	0.937	1.010	1.062	1.126	1.038	5.86
80)	Di-n-butylph	1.207	1.250	1.296	1.220	1.172	1.259	1.225	1.339	1.246	4.24
81)	Fluoranthene	1.352	1.298	1.382	1.288	1.212	1.324	1.376	1.429	1.333	5.06
82)	Octadecane	0.582	0.625	0.600	0.533	0.498	0.561	0.660	0.637	0.587	9.30
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.377	1.368	1.394	1.344	1.294	1.369	1.347	1.419	1.364	2.73
85)	Terphenyl-d1	1.022	1.007	1.020	0.997	0.974	1.013	0.976	1.056	1.008	2.64
86)	Butylbenzylp	0.503	0.549	0.573	0.583	0.584	0.587	0.515	0.572	0.558	5.86
87)	Benzo[a]anth	1.294	1.268	1.286	1.211	1.182	1.238	1.354	1.338	1.271	4.66
88)	3,3'-Dichlor	0.540	0.540	0.572	0.538	0.515	0.562	0.528	0.586	0.548	4.32
89)	Chrysene	1.199	1.212	1.186	1.141	1.122	1.174	1.231	1.217	1.185	3.20
90)	bis(2-Ethylh	0.676	0.703	0.742	0.729	0.717	0.745	0.667	0.762	0.718	4.72
91)	I Perylene-d12	-----ISTD-----									
92)	Di-n-octylph	1.188	1.214	1.252	1.189	1.143	1.203	1.176	1.295	1.208	3.91
93)	Benzo[b]fluo	1.394	1.283	1.292	1.170	1.149	1.210	1.362	1.387	1.281	7.56
94)	Benzo[k]fluo	1.208	1.246	1.136	1.020	0.906	1.053	1.242	1.248	1.133	11.29
95)	Benzo[a]pyre	1.186	1.210	1.154	1.059	1.037	1.094	1.254	1.208	1.150	6.82
96)	Indeno[1,2,3	1.157	1.161	1.162	1.105	1.086	1.116	1.190	1.218	1.150	3.87
97)	Dibenz(a,h)a	1.075	1.054	1.051	1.003	0.961	1.017	1.070	1.096	1.041	4.23
98)	Dibenz[a,h]a	1.174	1.215	1.157	1.069	1.024	1.090	1.254	1.239	1.153	7.30

Initial Calibration Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2399-ICC2399
Lab FileID: 5P50257.D

99)	7,12-Dimethy	0.532	0.516	0.555	0.518	0.485	0.530	0.524	0.584	0.530	5.55
100)	Benzo[g,h,i]	1.146	1.107	1.105	1.050	1.004	1.073	1.154	1.182	1.102	5.34

(#) = Out of Range ### Number of calibration levels exceeded format ###

M5P2399.M Tue May 15 10:38:55 2018 RPT1

8.9.16
8

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2399-ICV2399
Lab FileID: 5P50263.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2399\5p50263.D Vial: 10
Acq On : 15 May 2018 4:58 am Operator: georges
Sample : icv2399-50 Inst : MS5P
Misc : op6115,e5p2399,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2399.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Tue May 15 10:21:09 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	137	0.00	4.63
5 S	2-Fluorophenol	1.404	1.307	6.9	119	0.00	3.47
8 S	Phenol-d5	1.796	1.675	6.7	118	0.00	4.31
24 I	Naphthalene-d8	1.000	1.000	0.0	126	0.00	5.84
25 S	Nitrobenzene-d5	0.395	0.400	-1.3	130	0.00	5.15
47 I	Acenaphthene-d10	1.000	1.000	0.0	127	0.00	7.54
51 S	2-Fluorobiphenyl	1.411	1.320	6.4	127	0.00	6.89
69 I	Phenanthrene-d10	1.000	1.000	0.0	121	0.00	9.04
73 S	2,4,6-Tribromophenol	0.177	0.175	1.1	122	0.00	8.31
83 I	Chrysene-d12	1.000	1.000	0.0	128	-0.01	12.54
85 S	Terphenyl-d14	1.008	0.936	7.1	118	0.00	11.06

(#) = Out of Range
5p50257a.D M5P2399.M

SPCC's out = 0 CCC's out = 0
Tue May 15 10:31:08 2018 RPT1

8.9.17

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2399-ICV2399
Lab FileID: 5P50264.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2399\5p50264.D Vial: 11
Acq On : 15 May 2018 5:23 am Operator: georges
Sample : icv2399-50 Inst : MS5P
Misc : op6115,e5p2399,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2399.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Tue May 15 10:21:09 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	124	0.00	4.63
9 t	Phenol	1.987	1.831	7.9	112	0.01	4.33
12 t	2-Chlorophenol	1.525	1.492	2.2	123	0.00	4.45
19 t	2-Methylphenol	1.357	1.343	1.0	129	0.00	4.88
21 t	3&4-Methylphenol	1.394	1.459	-4.7	130	0.00	5.02
24 I	Naphthalene-d8	1.000	1.000	0.0	114	0.00	5.84
29 t	2-Nitrophenol	0.208	0.216	-3.8	116	0.00	5.47
30 t	2,4-Dimethylphenol	0.354	0.351	0.8	110	0.00	5.53
31 t	Benzoic acid	0.301	0.300	0.3	105	0.02	5.65
33 t	2,4-Dichlorophenol	0.335	0.325	3.0	111	0.00	5.71
34 t	2,6-Dichlorophenol	0.322	0.322	0.0	119	0.00	5.92
43 t	4-Chloro-3-methylphenol	0.348	0.341	2.0	112	0.01	6.40
47 I	Acenaphthene-d10	1.000	1.000	0.0	108	0.00	7.54
49 t	2,4,6-Trichlorophenol	0.401	0.433	-8.0	119	0.00	6.81
50 t	2,4,5-Trichlorophenol	0.444	0.437	1.6	111	0.00	6.84
60 t	2,4-Dinitrophenol	50.000	49.487	1.0	103	0.00	7.60
61 t	4-Nitrophenol	0.204	0.202	1.0	106	0.02	7.69
64	2,3,4,6-Tetrachlorophenol	0.428	0.411	4.0	104	0.00	7.87
69 I	Phenanthrene-d10	1.000	1.000	0.0	109	0.00	9.05
70 t	4,6-Dinitro-2-methylpheno	0.148	0.164	-10.8	112	0.00	8.13
76 t	Pentachlorophenol	0.171	0.211	-23.4	120	0.00	8.85

(#) = Out of Range
5p50257a.D M5P2399.M

SPCC's out = 0 CCC's out = 0
Tue May 15 10:31:10 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2399-ICV2399
Lab FileID: 5P50265.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2399\5p50265.D Vial: 12
Acq On : 15 May 2018 5:47 am Operator: georges
Sample : icv2399-50 Inst : MS5P
Misc : op6115,e5p2399,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2399.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Tue May 15 10:21:09 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	105	0.00	4.63
3 t	Pyridine	1.536	1.540	-0.3	99	0.06	2.40
10	Aniline	2.109	2.284	-8.3	123	0.00	4.34
16 t	Benzyl alcohol	0.964	0.991	-2.8	103	0.00	4.77
24 I	Naphthalene-d8	1.000	1.000	0.0	107	0.00	5.84
39 t	4-Chloroaniline	0.445	0.415	6.7	100	0.00	5.91
44 t	2-Methylnaphthalene	0.629	0.565	10.2	100	0.00	6.53
47 I	Acenaphthene-d10	1.000	1.000	0.0	101	0.00	7.54
54 t	2-Nitroaniline	0.382	0.396	-3.7	104	0.00	7.10
58 t	3-Nitroaniline	0.364	0.369	-1.4	102	0.00	7.50
62 t	Dibenzofuran	1.693	1.668	1.5	105	0.00	7.74
68 t	4-Nitroaniline	0.354	0.354	0.0	103	0.00	8.10
69 I	Phenanthrene-d10	1.000	1.000	0.0	104	0.00	9.04
79 t	Carbazole	1.038	0.983	5.3	101	0.00	9.32

(#) = Out of Range
5p50257a.D M5P2399.M

SPCC's out = 0 CCC's out = 0
Tue May 15 10:31:12 2018 RPT1

8.9.19

8

Initial Calibration Verification

Page 1 of 2

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2399-ICV2399
Lab FileID: SP50266.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2399\5p50266.D Vial: 13
Acq On : 15 May 2018 6:12 am Operator: georges
Sample : icv2399-50 Inst : MS5P
Misc : op6115,e5p2399,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2399.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Tue May 15 10:21:09 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	107	0.00	4.63
4 t	N-Nitrosodimethylamine	0.875	0.733	16.2	83	-0.02	2.29
11 t	bis(2-Chloroethyl)ether	1.282	1.363	-6.3	114	0.00	4.39
14 t	1,3-Dichlorobenzene	1.675	1.684	-0.5	110	0.00	4.59
15 t	1,4-Dichlorobenzene	1.613	1.608	0.3	106	0.00	4.65
17 t	1,2-Dichlorobenzene	1.558	1.600	-2.7	111	0.00	4.79
20 t	2,2'-oxybis(1-Chloropropa	2.324	2.608	-12.2	124	0.00	4.90
22 t	n-Nitroso-di-n-propylamin	1.028	0.985	4.2	105	0.00	5.01
23 t	Hexachloroethane	0.692	0.675	2.5	107	0.00	5.11
24 I	Naphthalene-d8	1.000	1.000	0.0	101	0.00	5.84
26 t	Nitrobenzene	0.389	0.373	4.1	101	0.00	5.17
28 t	Isophorone	0.713	0.693	2.8	100	0.00	5.40
32 t	bis(2-Chloroethoxy)methan	0.369	0.407	-10.3	115	0.00	5.61
36 t	1,2,4-Trichlorobenzene	0.384	0.386	-0.5	105	0.00	5.78
38 t	Naphthalene	1.012	1.011	0.1	104	0.00	5.86
42 t	Hexachlorobutadiene	0.228	0.236	-3.5	109	0.00	5.99
47 I	Acenaphthene-d10	1.000	1.000	0.0	90	0.00	7.54
48 t	Hexachlorocyclopentadiene	0.422	0.483	-14.5	97	0.00	6.69
52 t	2-Chloronaphthalene	1.181	1.387	-17.4	113	0.00	7.00
55 t	Dimethylphthalate	1.403	1.521	-8.4	100	0.00	7.29
56 t	Acenaphthylene	1.792	1.900	-6.0	100	0.00	7.40
57 t	2,6-Dinitrotoluene	0.319	0.336	-5.3	93	0.00	7.34
59 t	Acenaphthene	1.233	1.292	-4.8	98	0.00	7.57
63 t	2,4-Dinitrotoluene	0.428	0.448	-4.7	97	0.00	7.73
65 t	Diethylphthalate	1.315	1.433	-9.0	99	0.00	7.98
66 t	Fluorene	1.378	1.404	-1.9	96	0.00	8.07
67 t	4-Chlorophenyl-phenylethe	0.706	0.725	-2.7	99	0.00	8.09
69 I	Phenanthrene-d10	1.000	1.000	0.0	96	0.00	9.05
71 t	n-Nitrosodiphenylamine	0.538	0.461	14.3	87	0.00	8.20
72 t	1,2-Diphenylhydrazine	0.689	0.671	2.6	99	0.00	8.23
74 t	4-Bromophenyl-phenylether	0.276	0.266	3.6	93	0.00	8.57
75 t	Hexachlorobenzene	0.317	0.303	4.4	95	0.00	8.64
77 t	Phenanthrene	1.084	1.072	1.1	99	0.00	9.07
78 t	Anthracene	1.113	1.058	4.9	96	0.00	9.13
80 t	Di-n-butylphthalate	1.246	1.209	3.0	92	0.00	9.76
81 t	Fluoranthene	1.333	1.265	5.1	91	0.00	10.52
83 I	Chrysene-d12	1.000	1.000	0.0	87	0.00	12.54
84 t	Pyrene	1.364	1.382	-1.3	88	-0.01	10.81

Initial Calibration Verification

Page 2 of 2

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2399-ICV2399
Lab FileID: 5P50266.D

86 t	Butylbenzylphthalate	0.558	0.610	-9.3	90	0.00	11.79
87 t	Benzo[a]anthracene	1.271	1.279	-0.6	90	0.00	12.52
89 t	Chrysene	1.185	1.187	-0.2	88	0.00	12.58
90 t	bis(2-Ethylhexyl)phthalat	0.718	0.761	-6.0	89	0.00	12.68
91 I	Perylene-d12	1.000	1.000	0.0	87	0.00	14.57
92 t	Di-n-octylphthalate	1.208	1.227	-1.6	89	-0.01	13.64
93 t	Benzo[b]fluoranthene	1.281	1.239	3.3	89	0.00	14.06
94 t	Benzo[k]fluoranthene	1.133	1.076	5.0	89	-0.01	14.10
95 t	Benzo[a]pyrene	1.150	1.127	2.0	90	0.00	14.49
96 t	Indeno[1,2,3-cd]pyrene	1.150	1.161	-1.0	90	-0.01	16.04
98 t	Dibenz[a,h]anthracene	1.153	1.121	2.8	89	-0.03	16.08
100 t	Benzo[g,h,i]perylene	1.102	1.148	-4.2	93	-0.04	16.46

(#) = Out of Range
 5p50257a.D M5P2399.M

SPCC's out = 0 CCC's out = 0
 Tue May 15 10:31:14 2018 RPT1

8.9.20

8

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2399-ICV2399
Lab FileID: 5P50268.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2399\5p50268.D Vial: 15
Acq On : 15 May 2018 10:30 am Operator: georges
Sample : icv2399-50 Inst : MS5P
Misc : op6115,e5p2399,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2399.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Tue May 15 10:21:09 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	117	0.00	4.63
2 t	1,4-Dioxane	0.646	0.615	4.8	112	-0.01	2.05
6 t	Indene	2.329	2.493	-7.0	126	0.00	4.87
7 t	Cumene	3.632	3.483	4.1	110	0.00	3.92
13 t	Decane	1.935	1.768	8.6	113	0.00	4.50
18 t	Acetophenone	2.189	2.040	6.8	109	0.00	5.01
24 I	Naphthalene-d8	1.000	1.000	0.0	118	0.00	5.84
27 t	Quinoline	0.761	0.691	9.2	108	0.00	6.18
40 t	2,3-Dichloroaniline	0.424	0.329	22.4	96	0.00	6.80
41 t	Caprolactam	0.241	0.187	22.4	95	0.00	6.24
45 t	1-Methylnaphthalene	0.656	0.512	22.0	97	0.00	6.62
46 t	Dimethylnaphthalene	0.698	0.589	15.6	106	0.01	7.14
47 I	Acenaphthene-d10	1.000	1.000	0.0	104	0.00	7.54
53 t	Biphenyl	1.620	1.562	3.6	106	0.00	6.98
69 I	Phenanthrene-d10	1.000	1.000	0.0	104	0.00	9.05
82 t	Octadecane	0.587	0.553	5.8	102	0.00	8.97
91 I	Perylene-d12	1.000	1.000	0.0	102	0.00	14.57
99 t	7,12-Dimethylbenz(a)anthr	0.530	0.512	3.4	98	-0.01	14.06

(#) = Out of Range
5p50257a.D M5P2399.M

SPCC's out = 0 CCC's out = 0
Tue May 15 10:52:53 2018 RPT1

8.9.21
8

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2399-ICV2399
Lab FileID: 5P50269.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2399\5p50269.D Vial: 16
Acq On : 15 May 2018 10:55 am Operator: georges
Sample : icv2399-50 Inst : MS5P
Misc : op6115,e5p2399,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2399.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Tue May 15 10:21:09 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	117	-0.01	12.54
88 t	3,3'-Dichlorobenzidine	0.548	0.541	1.3	113	0.00	12.52

(#) = Out of Range
5p50257a.D M5P2399.M

SPCC's out = 0 CCC's out = 0
Tue May 15 11:14:11 2018 RPT1

8.9.22

8

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2408-CC2399
Lab FileID: 5P50467.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2408\5p50467.D Vial: 2
Acq On : 21 May 2018 11:53 pm Operator: sufiyana
Sample : cc2399-50 Inst : MS5P
Misc : op6115,e5p2408,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2399.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Tue May 15 10:21:09 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	106	-0.08	4.55
2 t	1,4-Dioxane	0.646	0.717	-11.0	119	-0.10	1.97
3 t	Pyridine	1.536	1.617	-5.3	104	-0.09	2.25
4 t	N-Nitrosodimethylamine	0.875	0.958	-9.5	108	-0.10	2.21
5 S	2-Fluorophenol	1.404	1.491	-6.2	105	-0.05	3.43
6 t	Indene	2.329	2.254	3.2	103	-0.08	4.79
7 t	Cumene	3.632	3.673	-1.1	105	-0.09	3.84
8 S	Phenol-d5	1.796	1.749	2.6	95	-0.03	4.28
9 t	Phenol	1.987	1.831	7.9	96	-0.02	4.29
10	Aniline	2.109	1.877	11.0	101	-0.07	4.27
11 t	bis(2-Chloroethyl)ether	1.282	1.212	5.5	101	-0.07	4.32
12 t	2-Chlorophenol	1.525	1.439	5.6	102	-0.06	4.38
13 t	Decane	1.935	1.933	0.1	112	-0.08	4.42
14 t	1,3-Dichlorobenzene	1.675	1.612	3.8	104	-0.08	4.51
15 t	1,4-Dichlorobenzene	1.613	1.549	4.0	101	-0.08	4.57
16 t	Benzyl alcohol	0.964	0.970	-0.6	102	-0.06	4.70
17 t	1,2-Dichlorobenzene	1.558	1.483	4.8	102	-0.08	4.71
18 t	Acetophenone	2.189	1.996	8.8	96	-0.08	4.93
19 t	2-Methylphenol	1.357	1.266	6.7	104	-0.03	4.84
20 t	2,2'-oxybis(1-Chloropropa	2.324	2.371	-2.0	112	-0.07	4.82
21 t	3&4-Methylphenol	1.394	1.395	-0.1	107	-0.03	4.98
22 t	n-Nitroso-di-n-propylamin	1.028	0.944	8.2	100	-0.07	4.94
23 t	Hexachloroethane	0.692	0.656	5.2	104	-0.08	5.03
24 I	Naphthalene-d8	1.000	1.000	0.0	100	-0.08	5.76
25 S	Nitrobenzene-d5	0.395	0.387	2.0	99	-0.08	5.07
26 t	Nitrobenzene	0.389	0.369	5.1	98	-0.08	5.09
27 t	Quinoline	0.761	0.751	1.3	99	-0.08	6.10
28 t	Isophorone	0.713	0.680	4.6	97	-0.07	5.32
29 t	2-Nitrophenol	0.208	0.211	-1.4	99	-0.08	5.40
30 t	2,4-Dimethylphenol	0.354	0.350	1.1	96	-0.06	5.47
31 t	Benzoic acid	0.301	0.319	-6.0	98	-0.02	5.61
32 t	bis(2-Chloroethoxy)methan	0.369	0.363	1.6	101	-0.08	5.53
33 t	2,4-Dichlorophenol	0.335	0.332	0.9	99	-0.05	5.65
34 t	2,6-Dichlorophenol	0.322	0.308	4.3	100	-0.07	5.85
35	1,3,5-Trichlorobenzene	0.402	0.389	3.2	102	-0.08	5.41
36 t	1,2,4-Trichlorobenzene	0.384	0.375	2.3	100	-0.08	5.70
37	1,2,3-Trichlorobenzene	0.367	0.354	3.5	103	-0.08	5.92
38 t	Naphthalene	1.012	1.013	-0.1	103	-0.08	5.78
39 t	4-Chloroaniline	0.445	0.420	5.6	95	-0.07	5.84
40 t	2,3-Dichloroaniline	0.424	0.404	4.7	100	-0.07	6.72
41 t	Caprolactam	0.241	0.234	2.9	100	-0.07	6.18

Continuing Calibration Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2408-CC2399
Lab FileID: 5P50467.D

42 t	Hexachlorobutadiene	0.228	0.219	3.9	99	-0.08	5.91
43 t	4-Chloro-3-methylphenol	0.348	0.335	3.7	96	-0.04	6.35
44 t	2-Methylnaphthalene	0.629	0.591	6.0	97	-0.07	6.45
45 t	1-Methylnaphthalene	0.656	0.617	5.9	98	-0.07	6.54
46 t	Dimethylnaphthalene	0.698	0.653	6.4	99	-0.07	7.05
47 I	Acenaphthene-d10	1.000	1.000	0.0	96	-0.09	7.45
48 t	Hexachlorocyclopentadiene	0.422	0.415	1.7	94	-0.09	6.61
49 t	2,4,6-Trichlorophenol	0.401	0.402	-0.2	98	-0.07	6.74
50 t	2,4,5-Trichlorophenol	0.444	0.402	9.5	90	-0.11	6.74
51 S	2-Fluorobiphenyl	1.411	1.322	6.3	96	-0.09	6.81
52 t	2-Chloronaphthalene	1.181	1.130	4.3	99	-0.09	6.92
53 t	Biphenyl	1.620	1.553	4.1	97	-0.09	6.90
54 t	2-Nitroaniline	0.382	0.396	-3.7	99	-0.08	7.03
55 t	Dimethylphthalate	1.403	1.360	3.1	96	-0.08	7.21
56 t	Acenaphthylene	1.792	1.761	1.7	99	-0.09	7.32
57 t	2,6-Dinitrotoluene	0.319	0.310	2.8	92	-0.08	7.26
58 t	3-Nitroaniline	0.364	0.365	-0.3	96	-0.07	7.43
59 t	Acenaphthene	1.233	1.191	3.4	97	-0.09	7.49
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	100.000	89.770	10.2	86	-0.07	7.53
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.204	0.168	17.6	78	-0.01	7.66
62 t	Dibenzofuran	1.693	1.648	2.7	99	-0.08	7.66
63 t	2,4-Dinitrotoluene	0.428	0.411	4.0	95	-0.08	7.65
64	2,3,4,6-Tetrachlorophenol	0.428	0.419	2.1	94	-0.08	7.79
65 t	Diethylphthalate	1.315	1.278	2.8	95	-0.08	7.90
66 t	Fluorene	1.378	1.310	4.9	96	-0.09	7.99
67 t	4-Chlorophenyl-phenylethe	0.706	0.667	5.5	98	-0.08	8.00
68 t	4-Nitroaniline	0.354	0.330	6.8	92	-0.06	8.03
69 I	Phenanthrene-d10	1.000	1.000	0.0	97	-0.10	8.95
70 t	4,6-Dinitro-2-methylpheno	0.148	0.150	-1.4	91	-0.07	8.05
71 t	n-Nitrosodiphenylamine	0.538	0.519	3.5	99	-0.08	8.12
72 t	1,2-Diphenylhydrazine	0.689	0.661	4.1	99	-0.09	8.15
73 S	2,4,6-Tribromophenol	0.177	0.188	-6.2	105	-0.09	8.23
74 t	4-Bromophenyl-phenylether	0.276	0.271	1.8	96	-0.09	8.48
75 t	Hexachlorobenzene	0.317	0.314	0.9	100	-0.09	8.54
76 t	Pentachlorophenol	0.171	0.156	8.8	79	-0.08	8.76
77 t	Phenanthrene	1.084	1.027	5.3	97	-0.10	8.97
78 t	Anthracene	1.113	1.063	4.5	98	-0.10	9.03
79 t	Carbazole	1.038	1.015	2.2	98	-0.09	9.22
80 t	Di-n-butylphthalate	1.246	1.234	1.0	95	-0.10	9.66
81 t	Fluoranthene	1.333	1.324	0.7	97	-0.11	10.40
82 t	Octadecane	0.587	0.574	2.2	99	-0.09	8.87
83 I	Chrysene-d12	1.000	1.000	0.0	95	-0.13	12.41
84 t	Pyrene	1.364	1.388	-1.8	97	-0.13	10.69
85 S	Terphenyl-d14	1.008	1.028	-2.0	97	-0.13	10.94
86 t	Butylbenzylphthalate	0.558	0.580	-3.9	94	-0.12	11.67
87 t	Benzo[a]anthracene	1.271	1.239	2.5	95	-0.13	12.40
88 t	3,3'-Dichlorobenzidine	0.548	0.528	3.6	89	-0.12	12.40
89 t	Chrysene	1.185	1.161	2.0	94	-0.13	12.45
90 t	bis(2-Ethylhexyl)phthalat	0.718	0.732	-1.9	94	-0.13	12.56
91 I	Perylene-d12	1.000	1.000	0.0	96	-0.14	14.43
92 t	Di-n-octylphthalate	1.208	1.167	3.4	93	-0.14	13.51
93 t	Benzo[b]fluoranthene	1.281	1.209	5.6	96	-0.14	13.92

Continuing Calibration Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2408-CC2399
Lab FileID: 5P50467.D

94	t	Benzo[k]fluoranthene	1.133	1.085	4.2	99	-0.14	13.97
95	t	Benzo[a]pyrene	1.150	1.111	3.4	98	-0.14	14.35
96	t	Indeno[1,2,3-cd]pyrene	1.150	1.167	-1.5	100	-0.19	15.86
97	t	Dibenz(a,h)acridine	1.041	1.078	-3.6	102	-0.19	15.54
98	t	Dibenz[a,h]anthracene	1.153	1.147	0.5	101	-0.22	15.90
99	t	7,12-Dimethylbenz(a)anthr	0.530	0.528	0.4	96	-0.14	13.93
100	t	Benzo[g,h,i]perylene	1.102	1.126	-2.2	101	-0.24	16.26

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5p50257a.D M5P2399.M Tue May 22 09:20:02 2018 RPT1

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2408-CC2386
Lab FileID: 5P50468.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2408\5p50468.D Vial: 3
Acq On : 22 May 2018 12:18 am Operator: sufiyana
Sample : cc2386-50 Inst : MS5P
Misc : op6115,e5p2408,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2399.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Tue May 15 10:21:09 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	83	-0.08	4.55
102	Benzaldehyde	0.908	0.899	1.0	89	-0.08	4.15
103	Acenaphthene-d10a	1.000	1.000	0.0	93	-0.09	7.45
104	1,2,4,5-Tetrachlorobenzen	0.567	0.619	-9.2	106	-0.09	6.61
105	Chrysene-d12a	1.000	1.000	0.0	115	-0.14	12.41
106	Benzidine	0.431	0.353	18.1	96	-0.12	10.60
107 s	1-chlorooctadecane	0.325	0.364	-12.0	123	-0.12	10.31
108	Phenanthrene-d10a	1.000	1.000	0.0	100	-0.10	8.95
109 s	o-terphenyl	0.501	0.589	-17.6	116	-0.11	9.39
110	Atrazine	0.091	0.112	-23.1#	117	-0.09	8.67
111	Pentachloronitrobenzene	0.040	0.063	-57.5#	144	-0.09	8.77
112 I	Naphthalene-d8a	1.000	1.000	0.0	85	-0.08	5.76
113	Hydroquinone	0.260	0.377	-45.0#	107	0.00	6.23

(#) = Out of Range
5p50257a.D M5P2399.M

SPCC's out = 0 CCC's out = 0
Tue May 22 09:21:04 2018 RPT1

8.9.24

8

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2410-CC2399
Lab FileID: 5P50522.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\lotusa\e5p2410\5p50522.d Vial: 2
Acq On : 23 May 2018 9:00 am Operator: christc2
Sample : cc2399-50 Inst : MS5P
Misc : op6115,e5p2410,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2399.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Thu May 24 05:01:18 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	4.53
2 t	1,4-Dioxane	0.646	0.665	-2.9	102	-0.08	1.95
3 t	Pyridine	1.536	1.614	-5.1	97	-0.06	2.23
4 t	N-Nitrosodimethylamine	0.875	0.931	-6.4	97	-0.06	2.20
5 S	2-Fluorophenol	1.404	1.475	-5.1	96	0.00	3.40
6 t	Indene	2.329	2.292	1.6	98	0.00	4.77
7 t	Cumene	3.632	3.688	-1.5	98	-0.02	3.82
8 S	Phenol-d5	1.796	1.849	-3.0	94	0.04	4.25
9 t	Phenol	1.987	1.939	2.4	94	0.04	4.26
10	Aniline	2.109	1.809	14.2	91	0.00	4.24
11 t	bis(2-Chloroethyl)ether	1.282	1.262	1.6	98	0.00	4.30
12 t	2-Chlorophenol	1.525	1.481	2.9	97	0.00	4.36
13 t	Decane	1.935	1.993	-3.0	107	0.00	4.40
14 t	1,3-Dichlorobenzene	1.675	1.623	3.1	98	0.00	4.48
15 t	1,4-Dichlorobenzene	1.613	1.584	1.8	96	0.00	4.55
16 t	Benzyl alcohol	0.964	1.017	-5.5	99	0.02	4.68
17 t	1,2-Dichlorobenzene	1.558	1.499	3.8	96	0.00	4.69
18 t	Acetophenone	2.189	2.064	5.7	92	0.01	4.91
19 t	2-Methylphenol	1.357	1.260	7.1	96	0.04	4.81
20 t	2,2'-oxybis(1-Chloropropa	2.324	2.402	-3.4	105	0.00	4.79
21 t	3&4-Methylphenol	1.394	1.393	0.1	99	0.04	4.95
22 t	n-Nitroso-di-n-propylamin	1.028	0.978	4.9	97	0.02	4.92
23 t	Hexachloroethane	0.692	0.675	2.5	99	0.01	5.01
24 I	Naphthalene-d8	1.000	1.000	0.0	96	0.00	5.73
25 S	Nitrobenzene-d5	0.395	0.382	3.3	95	0.00	5.06
26 t	Nitrobenzene	0.389	0.364	6.4	93	-0.01	5.07
27 t	Quinoline	0.761	0.722	5.1	92	0.02	6.09
28 t	Isophorone	0.713	0.682	4.3	94	0.00	5.30
29 t	2-Nitrophenol	0.208	0.206	1.0	93	0.00	5.38
30 t	2,4-Dimethylphenol	0.354	0.345	2.5	92	0.02	5.45
31 t	Benzoic acid	0.301	0.327	-8.6	96	0.05	5.58
32 t	bis(2-Chloroethoxy)methan	0.369	0.363	1.6	97	0.00	5.52
33 t	2,4-Dichlorophenol	0.335	0.317	5.4	91	0.02	5.62
34 t	2,6-Dichlorophenol	0.322	0.308	4.3	96	0.01	5.83
35	1,3,5-Trichlorobenzene	0.402	0.378	6.0	95	0.00	5.39
36 t	1,2,4-Trichlorobenzene	0.384	0.364	5.2	94	0.00	5.69
37	1,2,3-Trichlorobenzene	0.367	0.340	7.4	95	0.00	5.89
38 t	Naphthalene	1.012	0.974	3.8	95	0.00	5.76
39 t	4-Chloroaniline	0.445	0.402	9.7	87	0.01	5.82
40 t	2,3-Dichloroaniline	0.424	0.398	6.1	95	0.03	6.71
41 t	Caprolactam	0.241	0.237	1.7	98	0.03	6.16

Continuing Calibration Summary

Page 2 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2410-CC2399
Lab FileID: 5P50522.D

42 t	Hexachlorobutadiene	0.228	0.219	3.9	96	0.00	5.88
43 t	4-Chloro-3-methylphenol	0.348	0.336	3.4	93	0.05	6.32
44 t	2-Methylnaphthalene	0.629	0.588	6.5	93	0.02	6.42
45 t	1-Methylnaphthalene	0.656	0.608	7.3	94	0.02	6.52
46 t	Dimethylnaphthalene	0.698	0.638	8.6	94	0.03	7.03
47 I	Acenaphthene-d10	1.000	1.000	0.0	94	0.00	7.44
48 t	Hexachlorocyclopentadiene	0.422	0.390	7.6	87	-0.02	6.58
49 t	2,4,6-Trichlorophenol	0.401	0.387	3.5	92	0.00	6.72
50 t	2,4,5-Trichlorophenol	0.444	0.420	5.4	93	0.02	6.77
51 S	2-Fluorobiphenyl	1.411	1.314	6.9	94	0.00	6.79
52 t	2-Chloronaphthalene	1.181	1.096	7.2	94	0.00	6.90
53 t	Biphenyl	1.620	1.505	7.1	92	0.00	6.88
54 t	2-Nitroaniline	0.382	0.378	1.0	93	0.00	7.01
55 t	Dimethylphthalate	1.403	1.327	5.4	92	0.00	7.19
56 t	Acenaphthylene	1.792	1.731	3.4	95	0.00	7.30
57 t	2,6-Dinitrotoluene	0.319	0.310	2.8	90	0.00	7.25
58 t	3-Nitroaniline	0.364	0.345	5.2	89	0.02	7.41
59 t	Acenaphthene	1.233	1.133	8.1	90	0.00	7.47
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	100.000	91.900	8.1	86	0.02	7.51
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.204	0.201	1.5	92	0.06	7.63
62 t	Dibenzofuran	1.693	1.576	6.9	93	0.00	7.64
63 t	2,4-Dinitrotoluene	0.428	0.388	9.3	88	0.01	7.64
64	2,3,4,6-Tetrachlorophenol	0.428	0.411	4.0	91	0.02	7.78
65 t	Diethylphthalate	1.315	1.266	3.7	92	0.01	7.88
66 t	Fluorene	1.378	1.290	6.4	93	0.01	7.97
67 t	4-Chlorophenyl-phenylethe	0.706	0.668	5.4	96	0.01	7.98
68 t	4-Nitroaniline	0.354	0.320	9.6	87	0.03	8.01
69 I	Phenanthrene-d10	1.000	1.000	0.0	94	0.00	8.93
70 t	4,6-Dinitro-2-methylpheno	0.148	0.150	-1.4	89	0.01	8.04
71 t	n-Nitrosodiphenylamine	0.538	0.511	5.0	95	0.00	8.10
72 t	1,2-Diphenylhydrazine	0.689	0.641	7.0	93	0.00	8.13
73 S	2,4,6-Tribromophenol	0.177	0.181	-2.3	98	0.00	8.21
74 t	4-Bromophenyl-phenylether	0.276	0.265	4.0	91	0.00	8.46
75 t	Hexachlorobenzene	0.317	0.301	5.0	93	0.00	8.53
76 t	Pentachlorophenol	0.171	0.184	-7.6	91	0.02	8.75
77 t	Phenanthrene	1.084	1.007	7.1	92	0.00	8.96
78 t	Anthracene	1.113	1.034	7.1	92	0.00	9.01
79 t	Carbazole	1.038	0.973	6.3	91	0.01	9.20
80 t	Di-n-butylphthalate	1.246	1.220	2.1	92	0.00	9.64
81 t	Fluoranthene	1.333	1.282	3.8	91	0.00	10.38
82 t	Octadecane	0.587	0.575	2.0	97	0.00	8.85
83 I	Chrysene-d12	1.000	1.000	0.0	94	0.00	12.40
84 t	Pyrene	1.364	1.345	1.4	92	-0.02	10.67
85 S	Terphenyl-d14	1.008	0.995	1.3	92	-0.01	10.92
86 t	Butylbenzylphthalate	0.558	0.562	-0.7	90	0.00	11.65
87 t	Benzo[a]anthracene	1.271	1.216	4.3	92	0.00	12.38
88 t	3,3'-Dichlorobenzidine	0.548	0.489	10.8	82	0.00	12.38
89 t	Chrysene	1.185	1.128	4.8	90	0.00	12.43
90 t	bis(2-Ethylhexyl)phthalat	0.718	0.729	-1.5	92	0.00	12.55
91 I	Perylene-d12	1.000	1.000	0.0	92	0.00	14.42
92 t	Di-n-octylphthalate	1.208	1.148	5.0	88	0.00	13.49
93 t	Benzo[b]fluoranthene	1.281	1.196	6.6	91	0.00	13.91

8.9.25

8

Continuing Calibration Summary

Page 3 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2410-CC2399
Lab FileID: 5P50522.D

94 t	Benzo[k]fluoranthene	1.133	1.025	9.5	90	0.00	13.96
95 t	Benzo[a]pyrene	1.150	1.067	7.2	90	0.00	14.34
96 t	Indeno[1,2,3-cd]pyrene	1.150	1.137	1.1	94	0.17	15.85
97 t	Dibenz(a,h)acridine	1.041	1.033	0.8	94	-0.04	15.53
98 t	Dibenz[a,h]anthracene	1.153	1.106	4.1	94	0.00	15.89
99 t	7,12-Dimethylbenz(a)anthr	0.530	0.502	5.3	87	0.00	13.92
100 t	Benzo[g,h,i]perylene	1.102	1.083	1.7	93	-0.08	16.25

(#) = Out of Range
5p50257a.D M5P2399.M

SPCC's out = 0 CCC's out = 0
Thu May 24 05:14:58 2018

8.9.25

8

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2410-CC2386
Lab FileID: 5P50523.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\lotusa\e5p2410\5p50523.d Vial: 3
Acq On : 23 May 2018 9:25 am Operator: christc2
Sample : cc2386-50 Inst : MS5P
Misc : op6115,e5p2410,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2399.M (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Thu May 24 05:01:18 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	72	0.00	4.53
102	Benzaldehyde	0.908	0.871	4.1	75	-0.01	4.13
103	Acenaphthene-d10a	1.000	1.000	0.0	80	0.00	7.44
104	1,2,4,5-Tetrachlorobenzen	0.567	0.635	-12.0	93	-0.02	6.59
105	Chrysene-d12a	1.000	1.000	0.0	103	0.00	12.39
106	Benzidine	0.431	0.336	22.0#	82	-0.02	10.58
107 s	1-chlorooctadecane	0.325	0.378	-16.3	116	-0.02	10.29
108	Phenanthrene-d10a	1.000	1.000	0.0	89	0.00	8.93
109 s	o-terphenyl	0.501	0.601	-20.0	105	0.00	9.38
110	Atrazine	0.091	0.112	-23.1#	104	0.02	8.66
111	Pentachloronitrobenzene	0.040	0.064	-60.0#	130	0.00	8.75
112 I	Naphthalene-d8a	1.000	1.000	0.0	74	0.00	5.73
113	Hydroquinone	0.260	0.378	-45.4#	93	0.07	6.19

(#) = Out of Range
5p50257a.D M5P2399.M

SPCC's out = 0 CCC's out = 0
Thu May 24 05:15:02 2018

8.9.26

8

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E5P2410-CC2387
Lab FileID: 5P50524.D

Evaluate Continuing Calibration Report

Data File : Z:\svoa\completed\05...usa\e5p2410\5p50524.d Vial: 4
Acq On : 23 May 2018 9:50 am Operator: christc2
Sample : cc2387-50 Inst : MS5P
Misc : op6115,e5p2410,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : Z:\svoa\methods\m5p2399sl.m (RTE Integrator)
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
Last Update : Wed May 23 09:33:08 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
114	Chrysene-d12b	1.000	1.000	0.0	117	-0.23	12.39
115	Methyl Chrysene	0.805	0.773	4.0	116	-0.24	13.10
116	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	69	-0.15	4.53
117	Benzenethiol	1.467	1.689	-15.1	76	-0.15	4.17

(#) = Out of Range

5p50257a.D m5p2399sl.m

SPCC's out = 0 CCC's out = 0

Fri May 25 09:35:31 2018 MANAGER

8.9.27

8



MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E5P2408\
 Data File : 5p50486.D
 Acq On : 22 May 2018 7:54 am
 Operator : sufiyana
 Sample : jc66318-1
 Misc : op12130,e5p2408,31.4,,,1,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 22 13:13:52 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M5P2399.M
 Quant Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
 QLast Update : Tue May 15 10:21:09 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.559	152	117167	40.00	ppm	-0.07
24) Naphthalene-d8	5.756	136	451186	40.00	ppm	-0.08
47) Acenaphthene-d10	7.455	164	221589	40.00	ppm	-0.09
69) Phenanthrene-d10	8.950	188	407688	40.00	ppm	-0.10
83) Chrysene-d12	12.434	240	360904	40.00	ppm	-0.11
91) Perylene-d12	14.464	264	428251	40.00	ppm	-0.11
101) 1,4-Dichlorobenzene-d4b	4.559	152	117167	40.00	ppm	-0.07
103) Acenaphthene-d10a	7.455	164	221589	40.00	ppm	-0.09
105) Chrysene-d12a	12.434	240	360904	40.00	ppm	-0.11
108) Phenanthrene-d10a	8.950	188	407688	40.00	ppm	-0.10
112) Naphthalene-d8a	5.756	136	451186	40.00	ppm	-0.08

System Monitoring Compounds						
5) 2-Fluorophenol	3.427	112	133367	32.44	ppm	-0.05
Spiked Amount	50.000		Recovery	=	64.88%	
8) Phenol-d5	4.276	99	176348	33.53	ppm	-0.03
Spiked Amount	50.000		Recovery	=	67.06%	
25) Nitrobenzene-d5	5.072	82	146944	32.96	ppm	-0.08
Spiked Amount	50.000		Recovery	=	65.92%	
51) 2-Fluorobiphenyl	6.808	172	298785	38.21	ppm	-0.09
Spiked Amount	50.000		Recovery	=	76.42%	
73) 2,4,6-Tribromophenol	8.235	330	67012	37.15	ppm	-0.08
Spiked Amount	50.000		Recovery	=	74.30%	
85) Terphenyl-d14	10.943	244	352338	38.74	ppm	-0.12
Spiked Amount	50.000		Recovery	=	77.48%	
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds						Qvalue
9) Phenol	4.292	94	13032	2.24	ppm	81
19) 2-Methylphenol	4.832	108	4575	1.15	ppm	82
21) 3&4-Methylphenol	4.987	108	14352	3.52	ppm	89
30) 2,4-Dimethylphenol	5.606	107	11871	2.97	ppm	76
38) Naphthalene	5.777	128	117333	10.28	ppm	98
44) 2-Methylnaphthalene	6.445	141	40195	5.66	ppm	93
53) Biphenyl	6.899	154	11291	1.26	ppm	98
56) Acenaphthylene	7.316	152	147011	14.81	ppm	98
59) Acenaphthene	7.487	153	81161	11.88	ppm	91
62) Dibenzofuran	7.658	168	79119	8.43	ppm	91
66) Fluorene	7.989	166	74581	9.77	ppm	94
77) Phenanthrene	8.977	178	925751	83.76	ppm	98
78) Anthracene	9.031	178	419345	36.98	ppm	99
79) Carbazole	9.223	167	146842	13.88	ppm	97
81) Fluoranthene	10.414	202	2041310	150.28	ppm	99
84) Pyrene	10.708	202	1893810	153.89	ppm	94
87) Benzo[a]anthracene	12.418	228	1705177	148.65	ppm	98
89) Chrysene	12.471	228	1405259	131.40	ppm	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E5P2408\
Data File : 5p50486.D
Acq On : 22 May 2018 7:54 am
Operator : sufiyana
Sample : jc66318-1
Misc : op12130,e5p2408,31.4,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 22 13:13:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\M5P2399.M
Quant Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
QLast Update : Tue May 15 10:21:09 2018
Response via : Initial Calibration

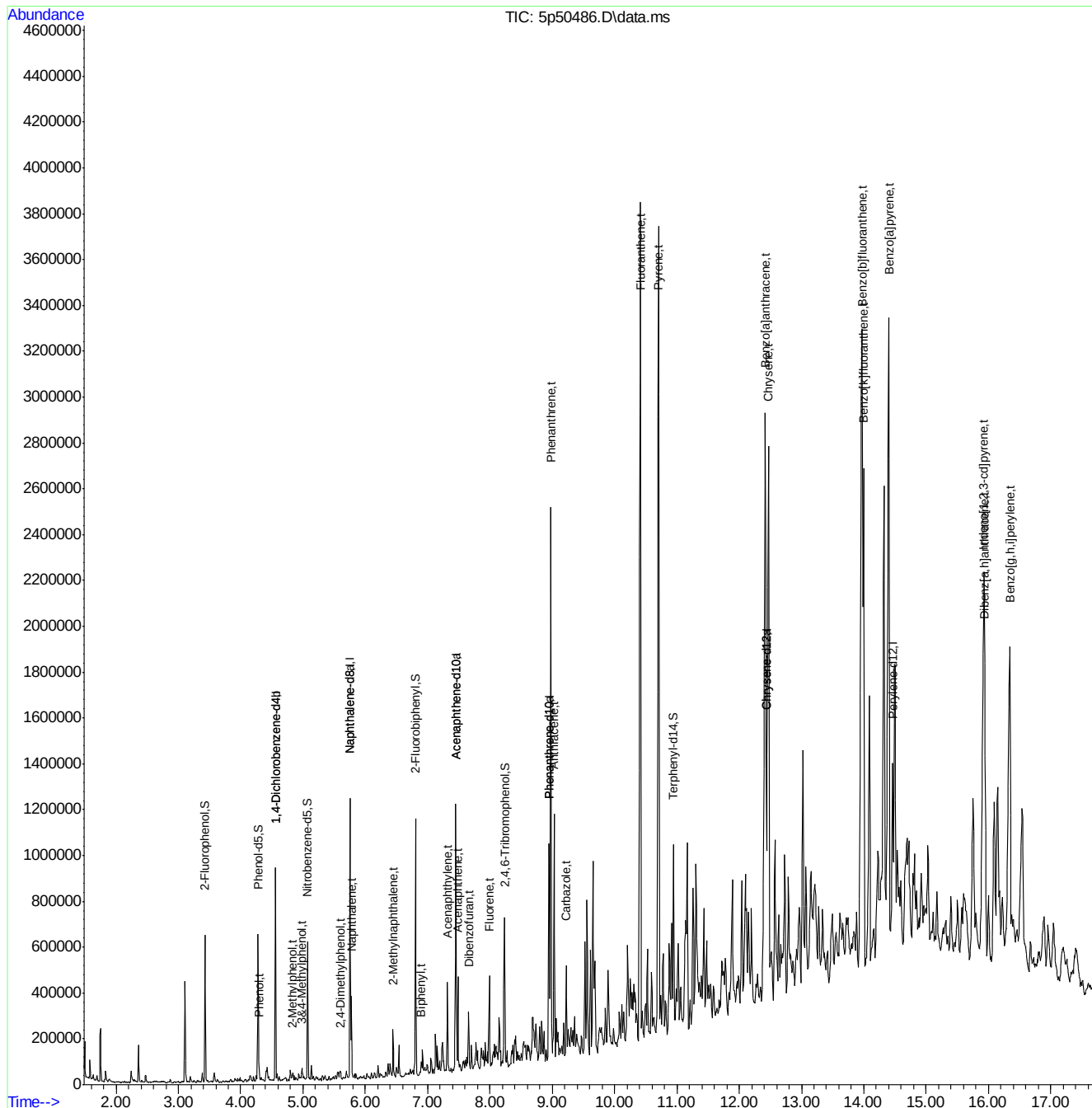
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) Benzo[b]fluoranthene	13.972	252	2658629	193.87	ppm	98
94) Benzo[k]fluoranthene	13.999	252	794558	65.53	ppm	93
95) Benzo[a]pyrene	14.405	252	2154665	174.98	ppm	97
96) Indeno[1,2,3-cd]pyrene	15.927	276	1722506	139.95	ppm	95
98) Dibenz[a,h]anthracene	15.943	278	445326m	36.09	ppm	
100) Benzo[g,h,i]perylene	16.344	276	1488109	126.07	ppm	89

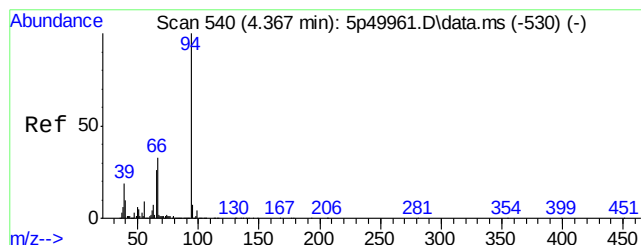
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path   : C:\msdchem\1\DATA\E5P2408\
Data File   : 5p50486.D
Acq On      : 22 May 2018    7:54 am
Operator    : sufiyana
Sample      : jc66318-1
Misc        : op12130,e5p2408,31.4,,,1,1
ALS Vial    : 21    Sample Multiplier: 1
```

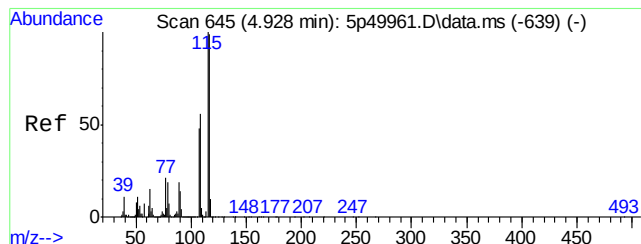
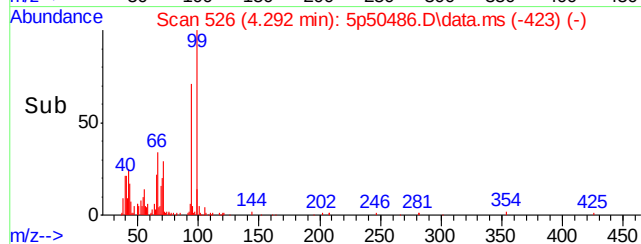
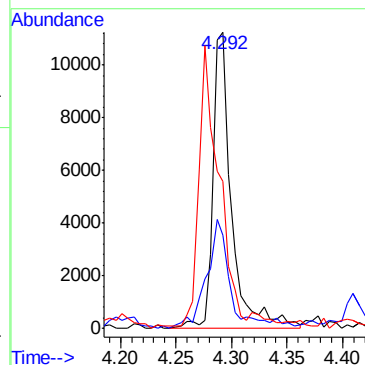
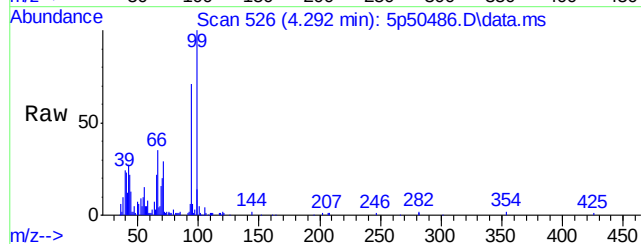
Quant Time: May 22 13:13:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\M5P2399.M
Quant Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
QLast Update : Tue May 15 10:21:09 2018
Response via : Initial Calibration





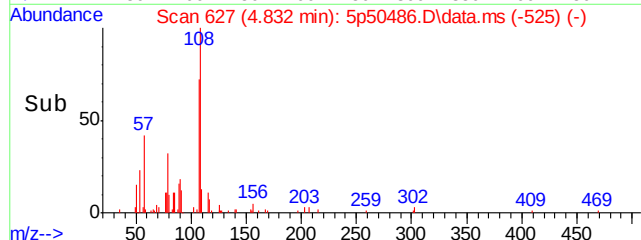
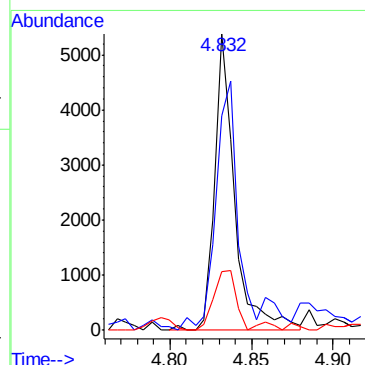
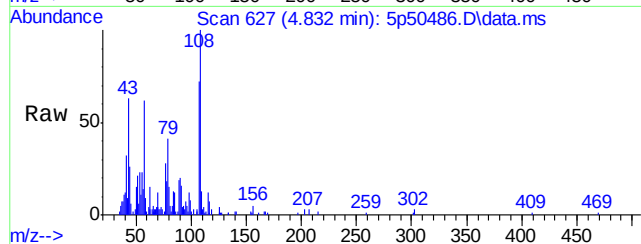
#9
Phenol
Concen: 2.24 ppm
RT: 4.292 min Scan# 526
Delta R.T. 0.050 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

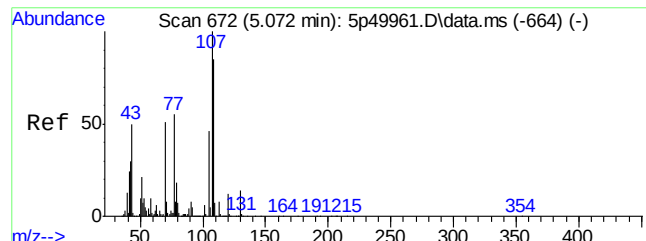
Tgt Ion	Ratio	Lower	Upper
94	100		
65	30.8	0.0	55.7
66	48.1	3.4	63.4



#19
2-Methylphenol
Concen: 1.15 ppm
RT: 4.832 min Scan# 627
Delta R.T. 0.044 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

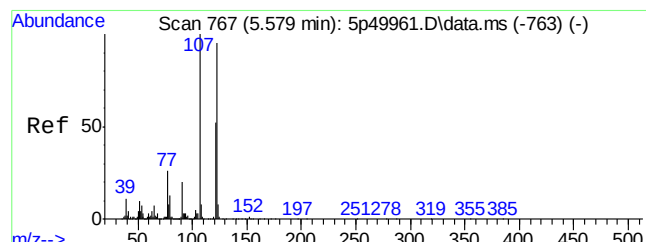
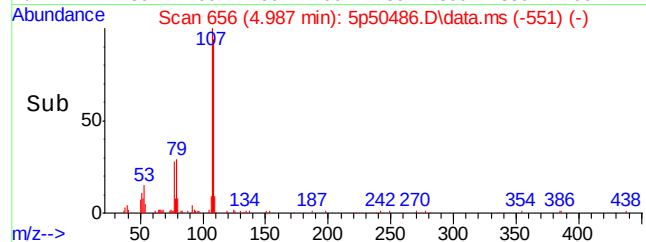
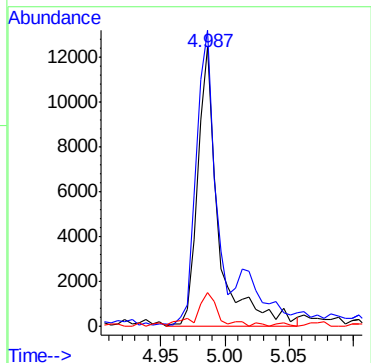
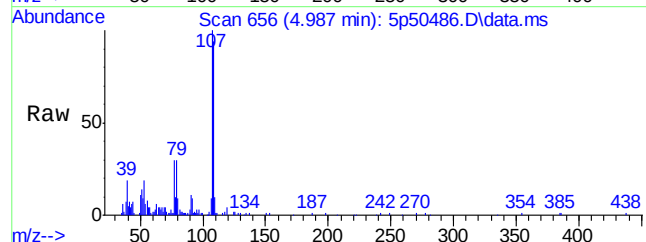
Tgt Ion	Ratio	Lower	Upper
108	100		
107	67.6	55.0	115.0
90	17.6	0.0	54.8





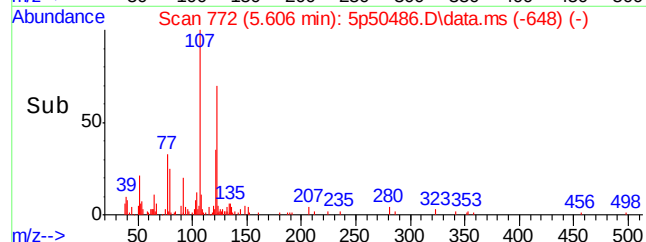
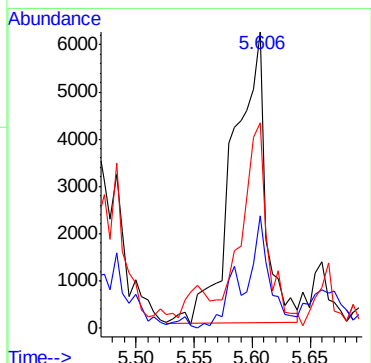
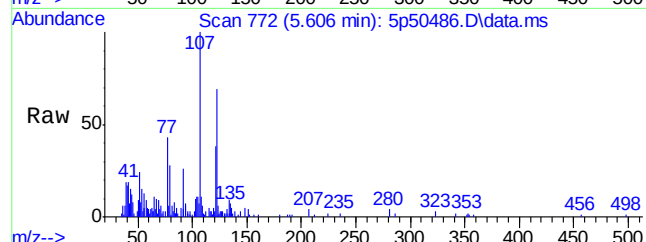
#21
3&4-Methylphenol
Concen: 3.52 ppm
RT: 4.987 min Scan# 656
Delta R.T. 0.059 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

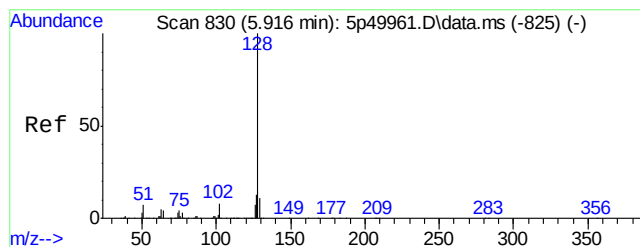
Tgt	Ion:108	Resp:	14352
Ion	Ratio	Lower	Upper
108	100		
107	105.0	87.7	147.7
90	12.1	0.0	39.3



#30
2,4-Dimethylphenol
Concen: 2.97 ppm
RT: 5.606 min Scan# 772
Delta R.T. 0.163 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

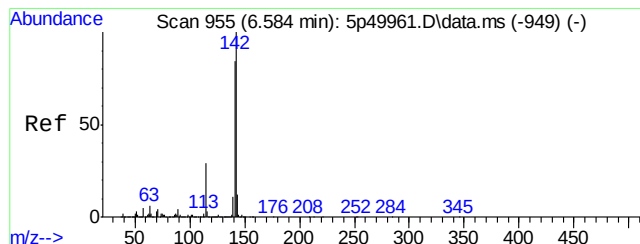
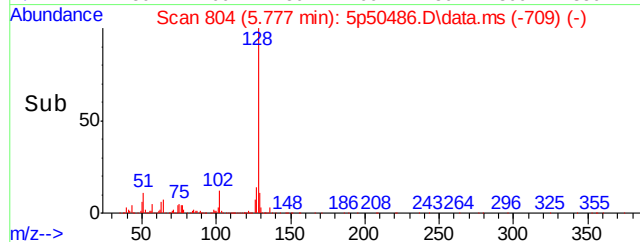
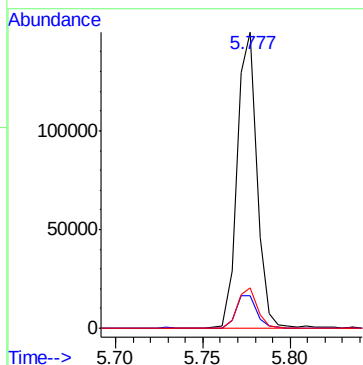
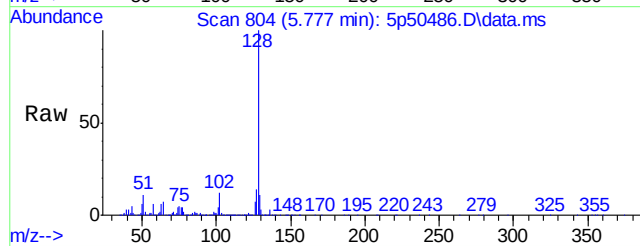
Tgt	Ion:107	Resp:	11871
Ion	Ratio	Lower	Upper
107	100		
121	36.6	22.4	82.4
122	66.6	60.5	120.5





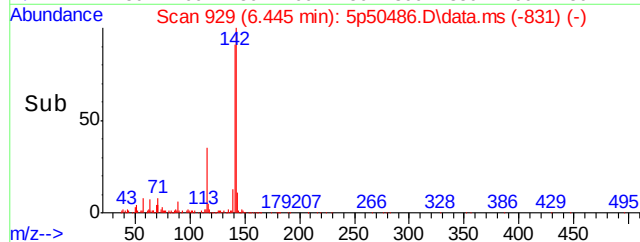
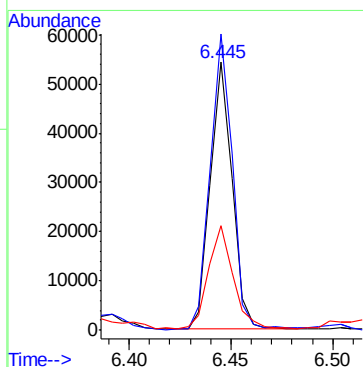
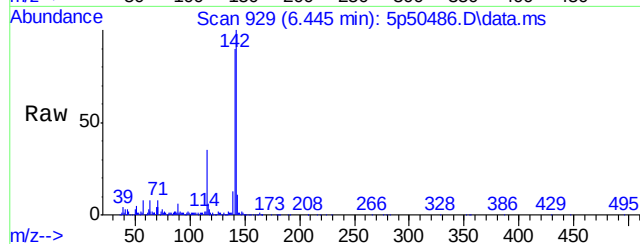
#38
Naphthalene
Concen: 10.28 ppm
RT: 5.777 min Scan# 804
Delta R.T. 0.006 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

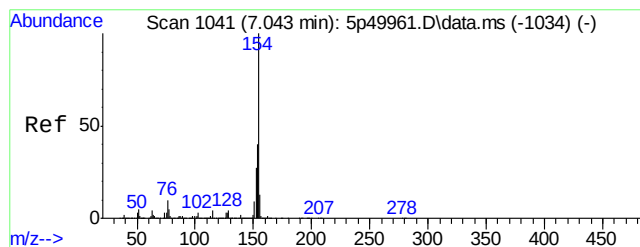
Tgt Ion:	128	Resp:	117333
Ion Ratio	Lower	Upper	
128	100		
129	11.0	0.0	40.7
127	13.6	0.0	42.7



#44
2-Methylnaphthalene
Concen: 5.66 ppm
RT: 6.445 min Scan# 929
Delta R.T. 0.022 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

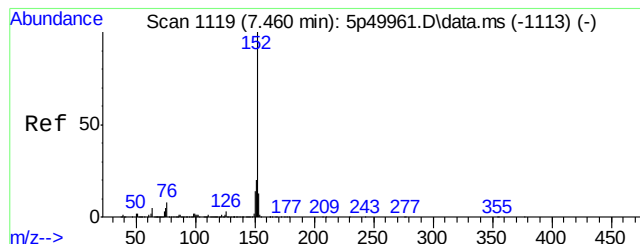
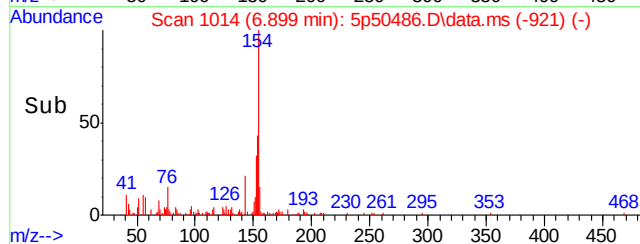
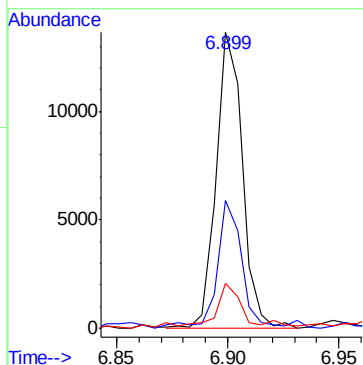
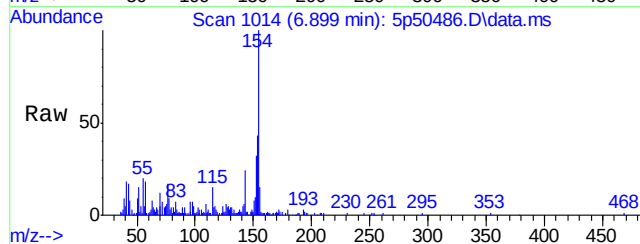
Tgt Ion:	141	Resp:	40195
Ion Ratio	Lower	Upper	
141	100		
142	110.6	89.2	149.2
115	38.4	5.1	65.1





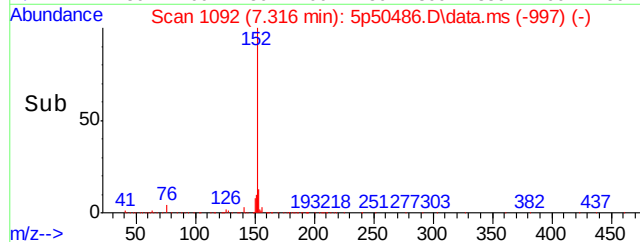
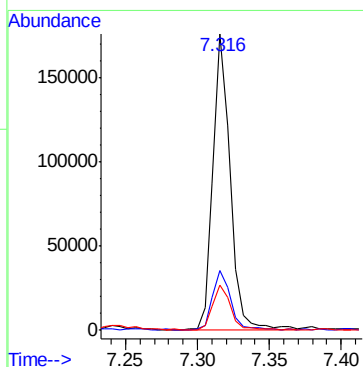
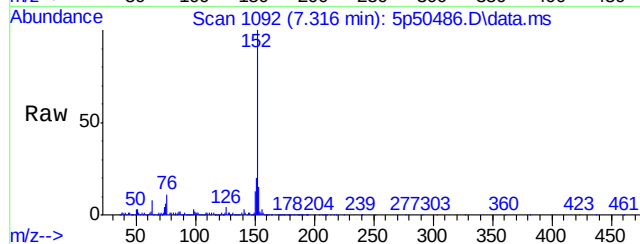
#53
Biphenyl
Concen: 1.26 ppm
RT: 6.899 min Scan# 1014
Delta R.T. -0.001 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

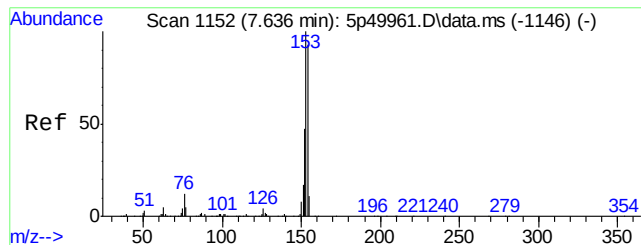
Tgt Ion:	154	Resp:	11291
Ion Ratio	Lower	Upper	
154	100		
153	41.4	10.3	70.3
155	13.8	0.0	43.3



#56
Acenaphthylene
Concen: 14.81 ppm
RT: 7.316 min Scan# 1092
Delta R.T. 0.008 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

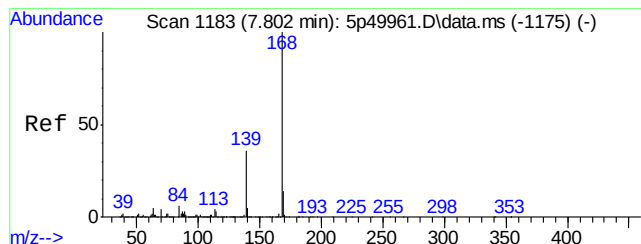
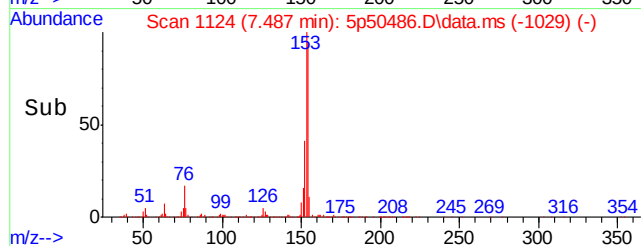
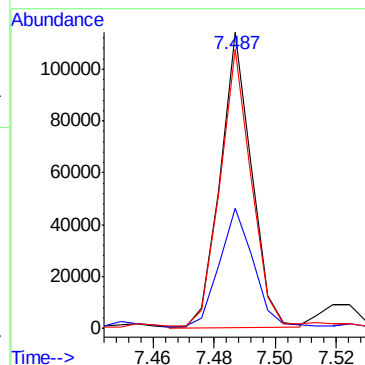
Tgt Ion:	152	Resp:	147011
Ion Ratio	Lower	Upper	
152	100		
151	19.8	0.0	49.8
153	15.2	0.0	43.2





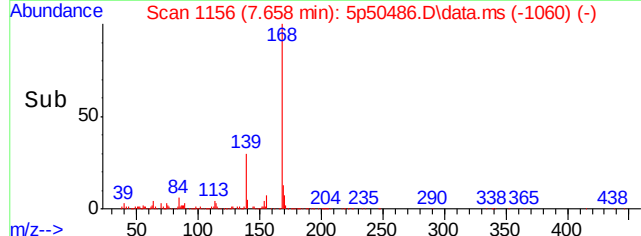
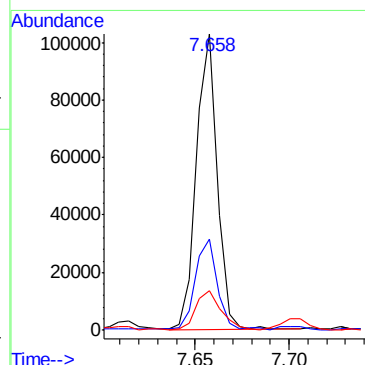
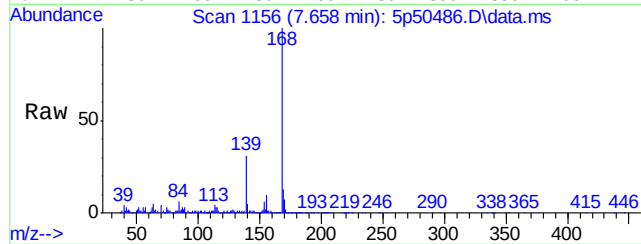
#59
Acenaphthene
Concen: 11.88 ppm
RT: 7.487 min Scan# 1124
Delta R.T. 0.006 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

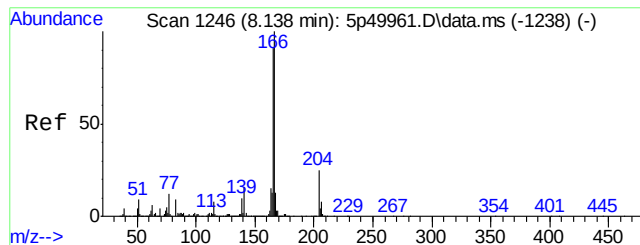
Tgt Ion	Ratio	Lower	Upper
153	100		
152	40.1	16.5	76.5
154	93.9	56.4	116.4



#62
Dibenzofuran
Concen: 8.43 ppm
RT: 7.658 min Scan# 1156
Delta R.T. 0.015 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

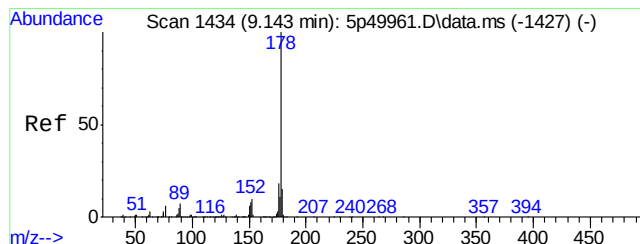
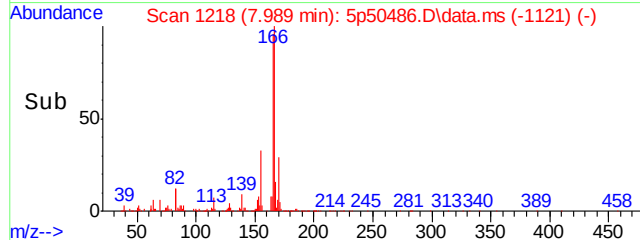
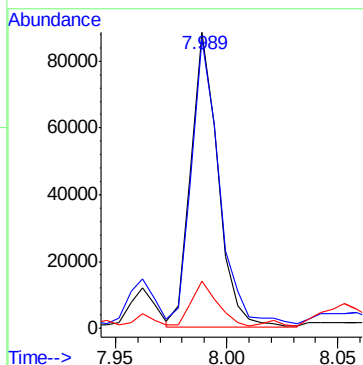
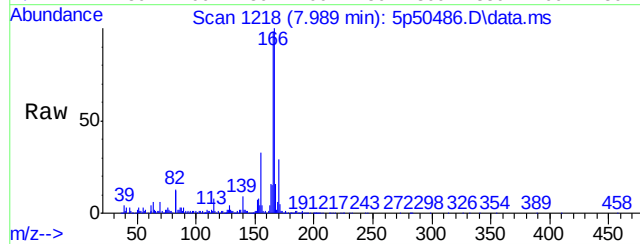
Tgt Ion	Ratio	Lower	Upper
168	100		
139	30.3	6.3	66.3
169	11.3	0.0	43.8





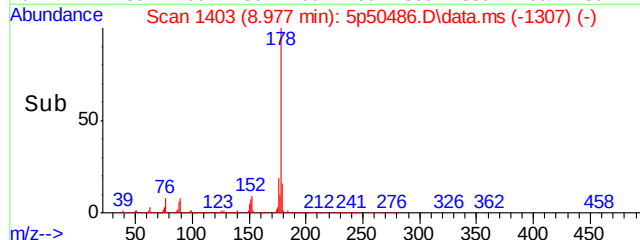
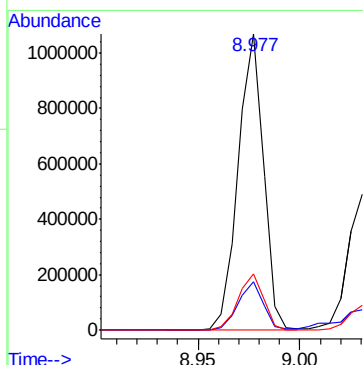
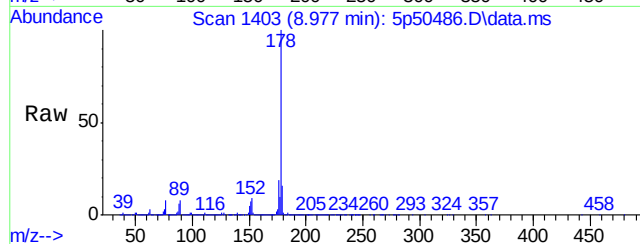
#66
Fluorene
Concen: 9.77 ppm
RT: 7.989 min Scan# 1218
Delta R.T. 0.016 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

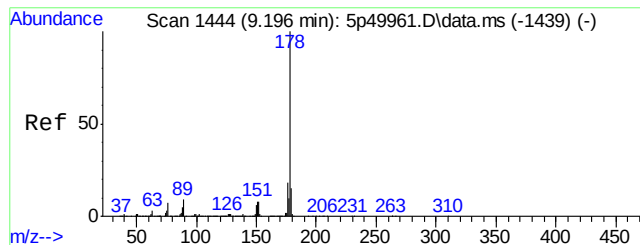
Tgt Ion	Ratio	Lower	Upper
166	100		
165	97.2	61.0	121.0
167	15.1	0.0	43.3



#77
Phenanthrene
Concen: 83.76 ppm
RT: 8.977 min Scan# 1403
Delta R.T. 0.011 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

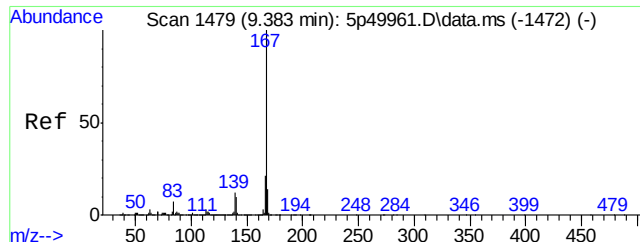
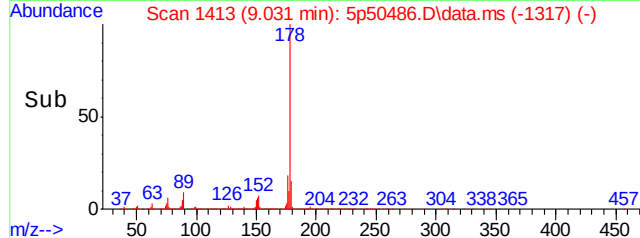
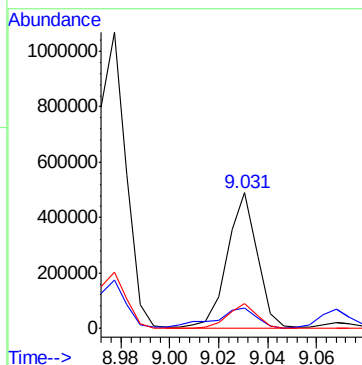
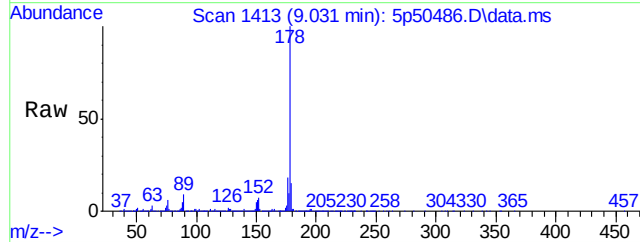
Tgt Ion	Ratio	Lower	Upper
178	100		
179	16.1	0.0	44.9
176	18.9	0.0	48.4





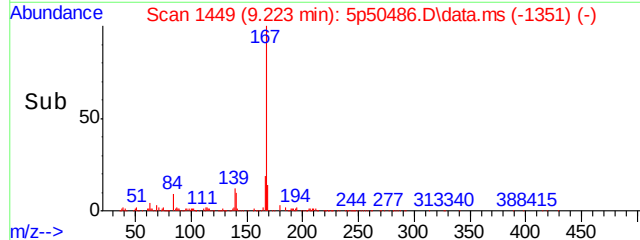
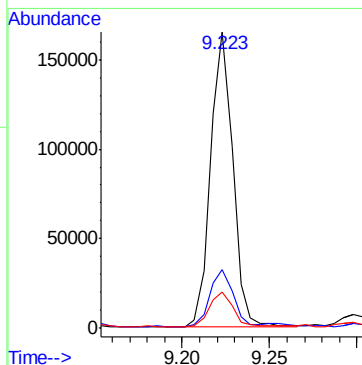
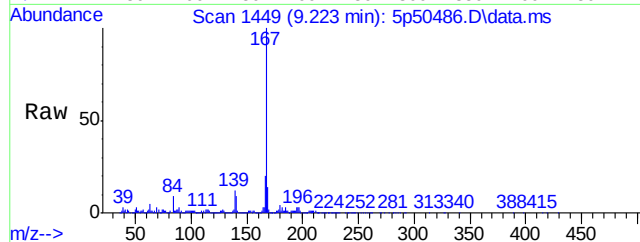
#78
 Anthracene
 Concen: 36.98 ppm
 RT: 9.031 min Scan# 1413
 Delta R.T. 0.012 min
 Lab File: 5p50486.D
 Acq: 22 May 18 7:54 am

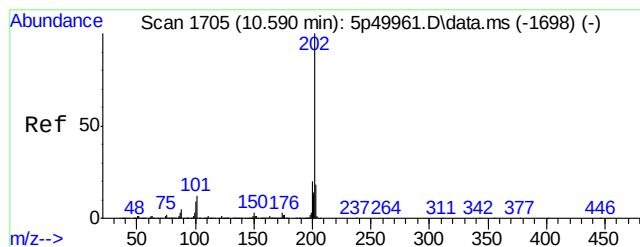
Tgt Ion:	178	Resp:	419345
Ion Ratio	Lower	Upper	
178	100		
179	14.9	0.0	45.4
176	18.1	0.0	48.3



#79
 Carbazole
 Concen: 13.88 ppm
 RT: 9.223 min Scan# 1449
 Delta R.T. 0.021 min
 Lab File: 5p50486.D
 Acq: 22 May 18 7:54 am

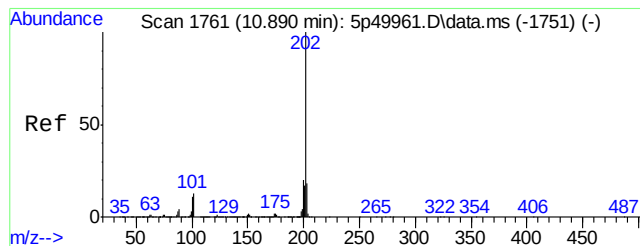
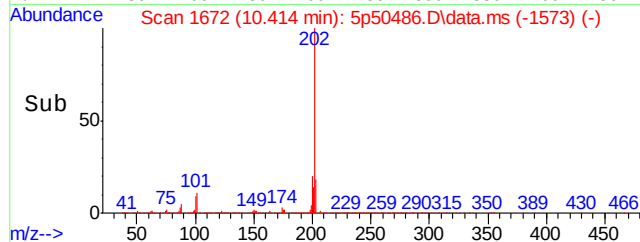
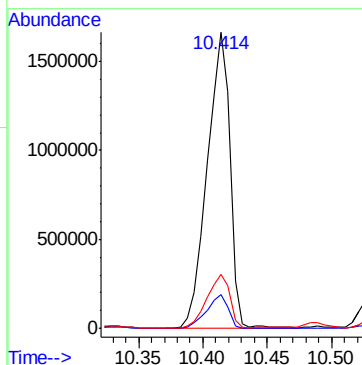
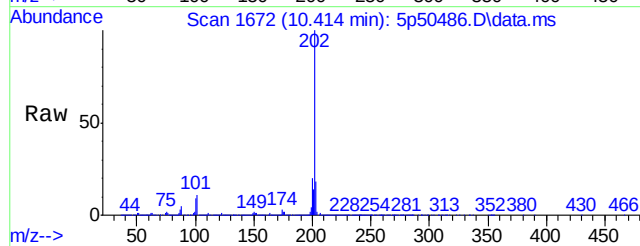
Tgt Ion:	167	Resp:	146842
Ion Ratio	Lower	Upper	
167	100		
166	19.3	0.0	50.8
139	11.7	0.0	42.5





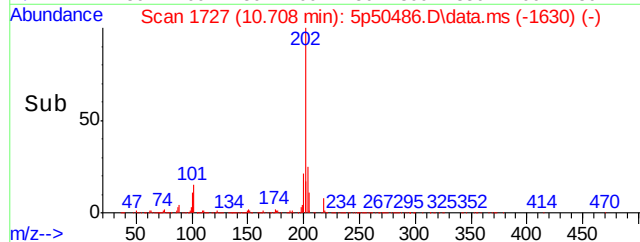
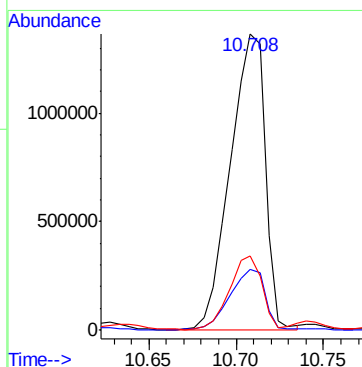
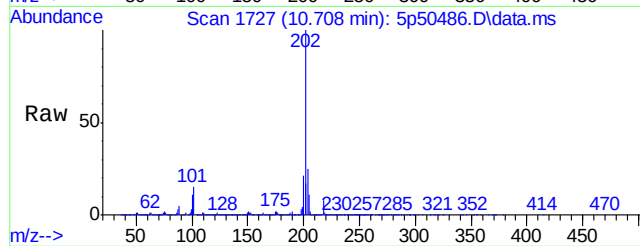
#81
Fluoranthene
Concen: 150.28 ppm
RT: 10.414 min Scan# 1672
Delta R.T. 0.028 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

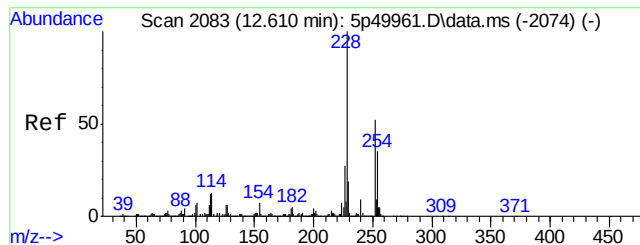
Tgt Ion:	202	Resp:	2041310
Ion Ratio	Lower	Upper	
202	100		
101	11.3	0.0	41.7
203	18.0	0.0	47.9



#84
Pyrene
Concen: 153.89 ppm
RT: 10.708 min Scan# 1727
Delta R.T. 0.016 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

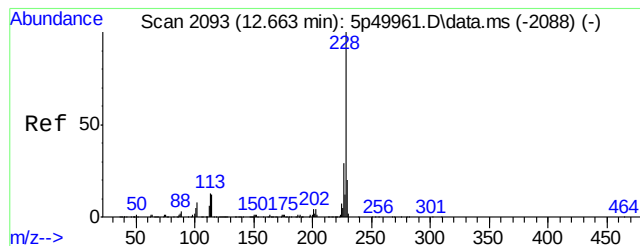
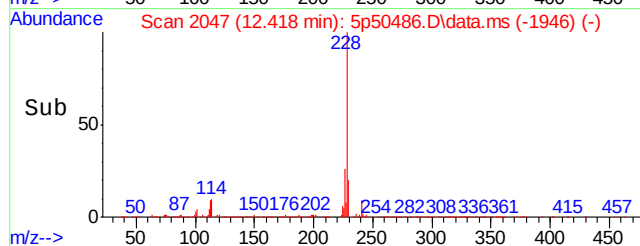
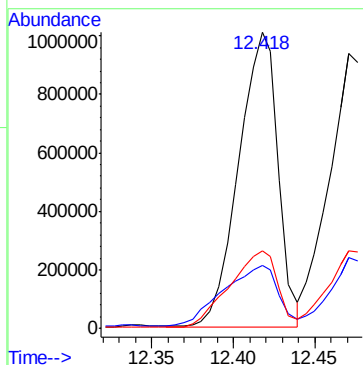
Tgt Ion:	202	Resp:	1893810
Ion Ratio	Lower	Upper	
202	100		
200	20.5	0.0	50.3
203	23.8	0.0	48.2





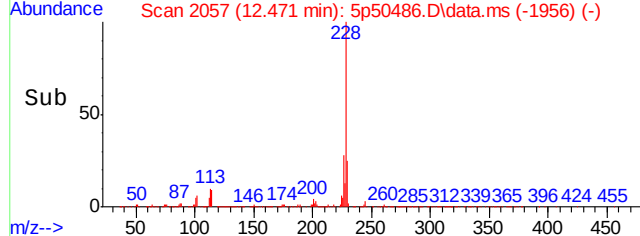
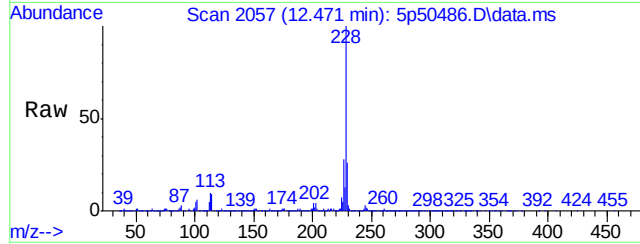
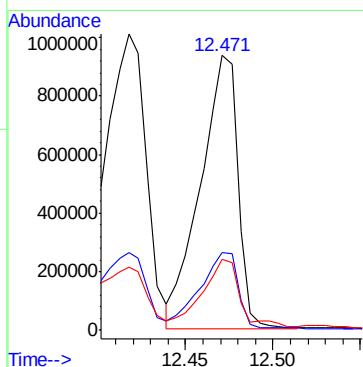
#87
Benzo[a]anthracene
Concen: 148.65 ppm
RT: 12.418 min Scan# 2047
Delta R.T. 0.037 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

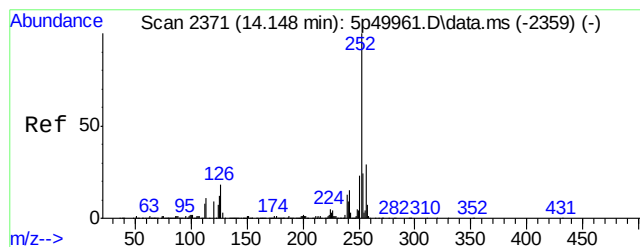
Tgt Ion	Ratio	Lower	Upper
228	100		
229	20.5	0.0	49.1
226	25.7	0.0	56.7



#89
Chrysene
Concen: 131.40 ppm
RT: 12.471 min Scan# 2057
Delta R.T. 0.038 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

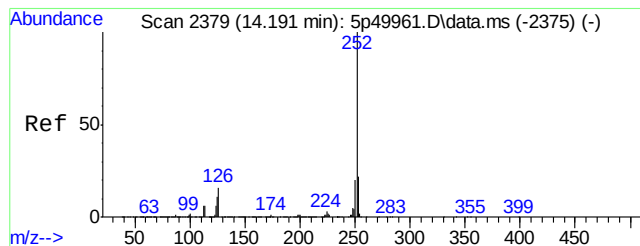
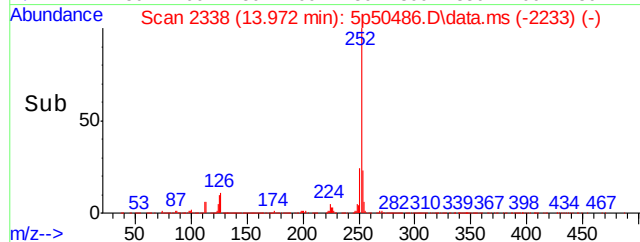
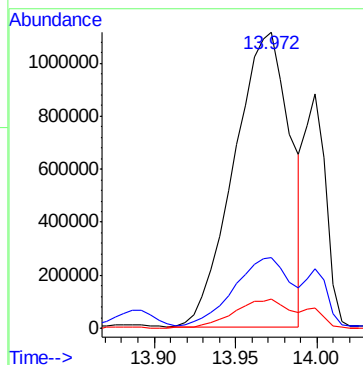
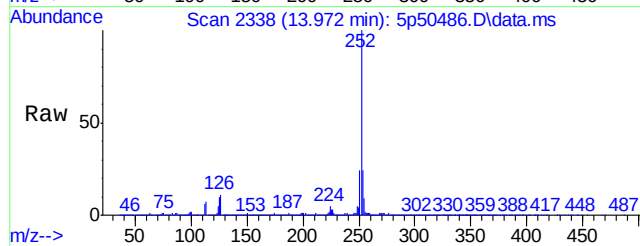
Tgt Ion	Ratio	Lower	Upper
228	100		
226	27.7	0.0	58.7
229	24.7	0.0	49.5





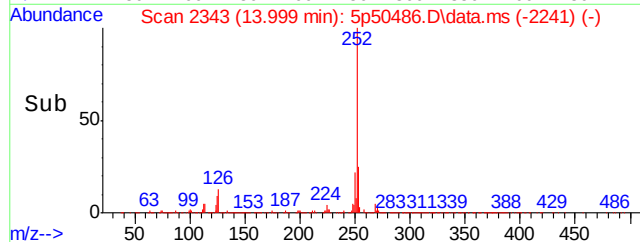
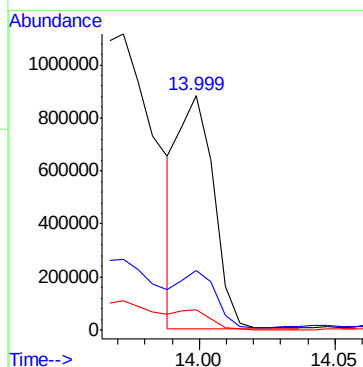
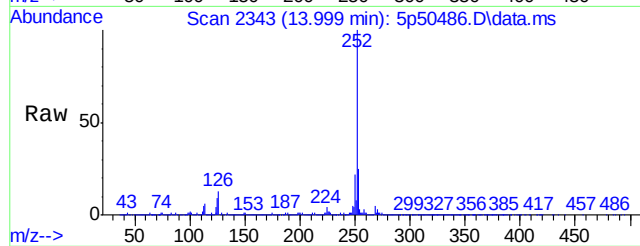
#93
Benzo[b]fluoranthene
Concen: 193.87 ppm
RT: 13.972 min Scan# 2338
Delta R.T. 0.061 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

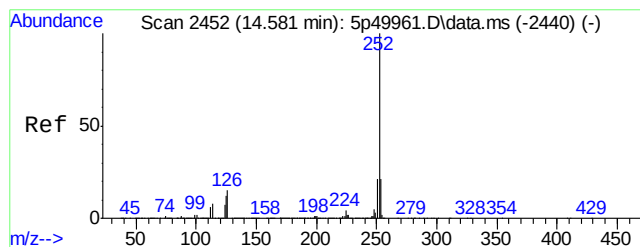
Tgt Ion:252 Resp: 2658629
Ion Ratio Lower Upper
252 100
253 23.0 0.0 53.5
125 10.2 0.0 42.0



#94
Benzo[k]fluoranthene
Concen: 65.53 ppm
RT: 13.999 min Scan# 2343
Delta R.T. 0.046 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

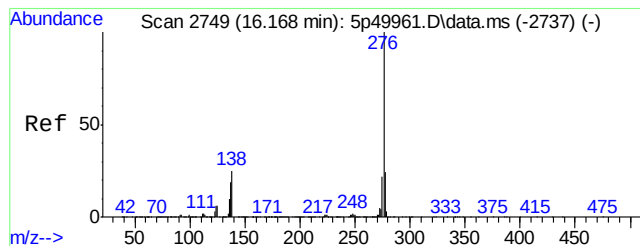
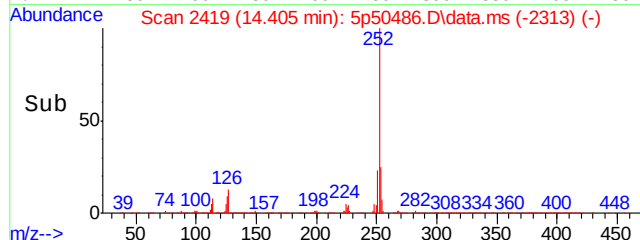
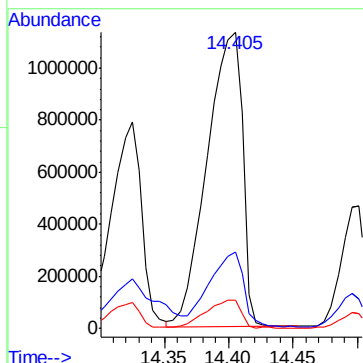
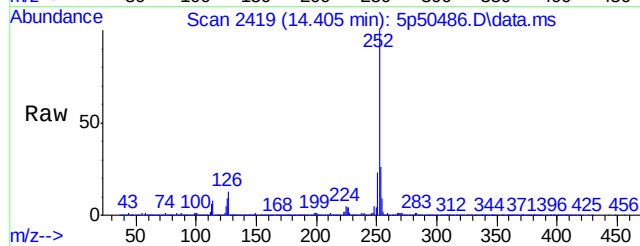
Tgt Ion:252 Resp: 794558
Ion Ratio Lower Upper
252 100
253 25.6 0.0 52.2
125 8.4 0.0 41.0





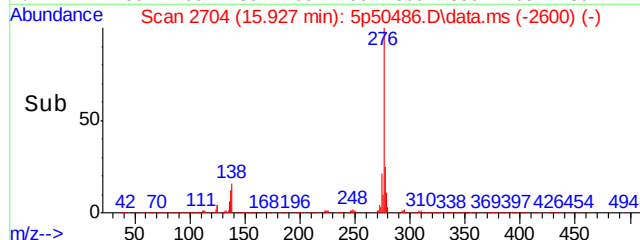
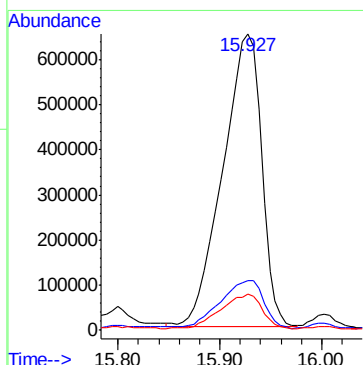
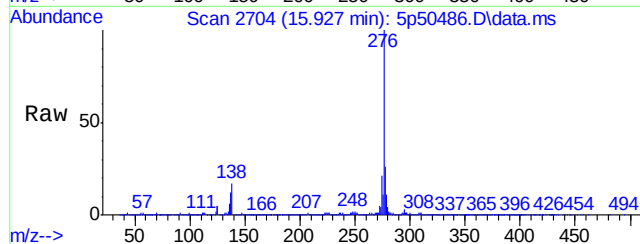
#95
Benzo[a]pyrene
Concen: 174.98 ppm
RT: 14.405 min Scan# 2419
Delta R.T. 0.068 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

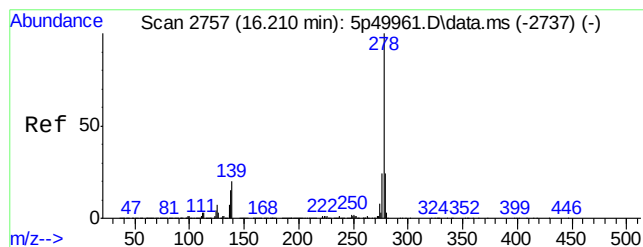
Tgt Ion:	252	Resp:	2154665
Ion Ratio	Lower	Upper	
252	100		
253	21.7	0.0	51.5
125	9.3	0.0	41.8



#96
Indeno[1,2,3-cd]pyrene
Concen: 139.95 ppm
RT: 15.927 min Scan# 2704
Delta R.T. 0.054 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

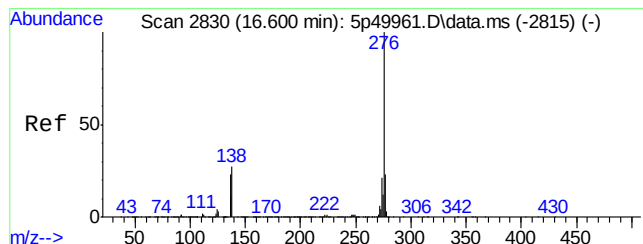
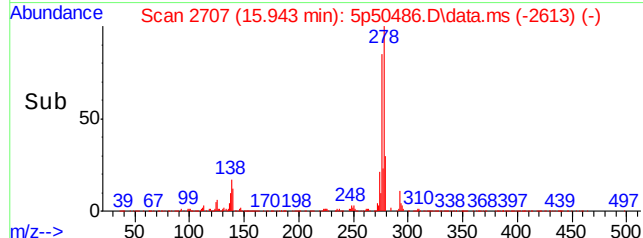
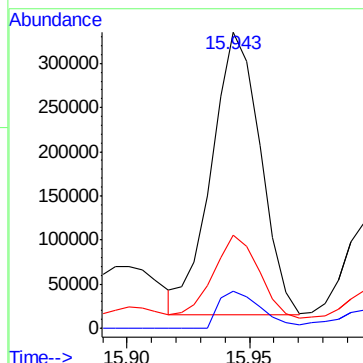
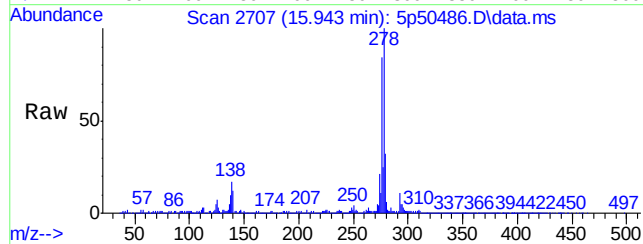
Tgt Ion:	276	Resp:	1722506
Ion Ratio	Lower	Upper	
276	100		
138	16.2	0.0	44.4
137	12.0	0.0	40.1





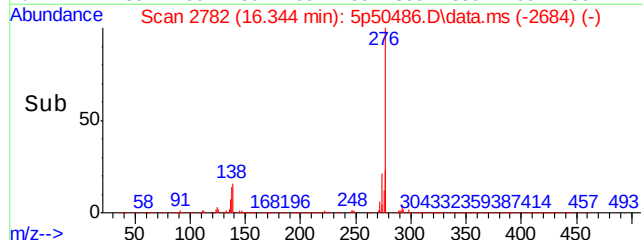
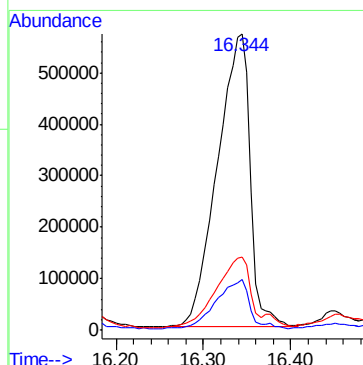
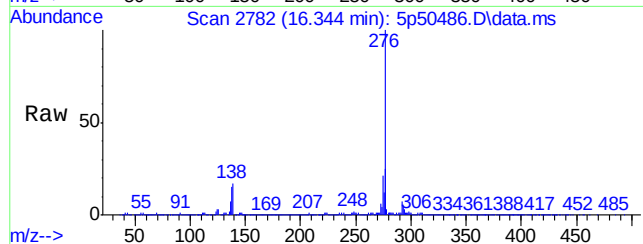
#98
Dibenz[a,h]anthracene
Concen: 36.09 ppm
RT: 15.943 min Scan# 2707
Delta R.T. 0.005 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

Tgt Ion:	278	Resp:	445326
Ion Ratio	Lower	Upper	
278	100		
139	12.5	0.0	49.9
279	31.7	0.0	53.7



#100
Benzo[g,h,i]perylene
Concen: 126.07 ppm
RT: 16.344 min Scan# 2782
Delta R.T. 0.022 min
Lab File: 5p50486.D
Acq: 22 May 18 7:54 am

Tgt Ion:	276	Resp:	1488109
Ion Ratio	Lower	Upper	
276	100		
138	16.5	0.0	56.7
277	23.6	0.0	53.1



Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-24-18\lotusa\e5p2410\
 Data File : 5p50532.d
 Acq On : 23 May 2018 2:29 pm
 Operator : christc2
 Sample : jc66318-1
 Misc : op12130,e5p2410,31.4,,,1,5
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 25 09:37:57 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M5P2399.M
 Quant Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
 QLast Update : Thu May 24 05:01:18 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.532	152	119629	40.00	ppm	0.00
24) Naphthalene-d8	5.735	136	478200	40.00	ppm	0.00
47) Acenaphthene-d10	7.439	164	249428	40.00	ppm	0.00
69) Phenanthrene-d10	8.929	188	482467	40.00	ppm	0.00
83) Chrysene-d12	12.396	240	446065	40.00	ppm	0.00
91) Perylene-d12	14.421	264	490143	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.532	152	119629	40.00	ppm	0.00
103) Acenaphthene-d10a	7.439	164	249428	40.00	ppm	0.00
105) Chrysene-d12a	12.396	240	445911	40.00	ppm	0.00
108) Phenanthrene-d10a	8.929	188	482467	40.00	ppm	0.00
112) Naphthalene-d8a	5.735	136	478200	40.00	ppm	0.00

System Monitoring Compounds

5) 2-Fluorophenol	3.400	112	28222	6.72	ppm	0.00
Spiked Amount	50.000		Recovery	=	13.44%	
8) Phenol-d5	4.244	99	36769	6.85	ppm	0.03
Spiked Amount	50.000		Recovery	=	13.70%	
25) Nitrobenzene-d5	5.051	82	31478	6.66	ppm	-0.01
Spiked Amount	50.000		Recovery	=	13.32%	
51) 2-Fluorobiphenyl	6.787	172	66655	7.57	ppm	0.00
Spiked Amount	50.000		Recovery	=	15.14%	
73) 2,4,6-Tribromophenol	8.213	330	16226	7.60	ppm	0.00
Spiked Amount	50.000		Recovery	=	15.20%	
85) Terphenyl-d14	10.916	244	87785	7.81	ppm	-0.02
Spiked Amount	50.000		Recovery	=	15.62%	
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

Target Compounds

Qvalue

38) Naphthalene	5.751	128	23913	1.98	ppm	97
44) 2-Methylnaphthalene	6.424	141	7605	1.01	ppm	89
53) Biphenyl	6.878	154	2240	0.22	ppm	89
56) Acenaphthylene	7.294	152	30597	2.74	ppm	96
59) Acenaphthene	7.465	153	17423	2.27	ppm	96
62) Dibenzofuran	7.636	168	16215	1.54	ppm	95
66) Fluorene	7.968	166	17334	2.02	ppm	85
77) Phenanthrene	8.951	178	232641	17.79	ppm	99
78) Anthracene	9.004	178	98184	7.32	ppm	99
79) Carbazole	9.202	167	35515	2.84	ppm	98
81) Fluoranthene	10.382	202	568068	35.34	ppm	96
84) Pyrene	10.671	202	532164	34.99	ppm	94
87) Benzo[a]anthracene	12.380	228	442682	31.22	ppm	96
89) Chrysene	12.434	228	364621	27.59	ppm	95
93) Benzo[b]fluoranthene	13.919	252	703244	44.81	ppm	97
94) Benzo[k]fluoranthene	13.951	252	213724	15.40	ppm	93
95) Benzo[a]pyrene	14.346	252	555302	39.40	ppm	94
96) Indeno[1,2,3-cd]pyrene	15.853	276	439357m	31.19	ppm	

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-24-18\lotusa\e5p2410\
Data File : 5p50532.d
Acq On : 23 May 2018 2:29 pm
Operator : christc2
Sample : jc66318-1
Misc : op12130,e5p2410,31.4,,,1,5
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 25 09:37:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\M5P2399.M
Quant Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
QLast Update : Thu May 24 05:01:18 2018
Response via : Initial Calibration

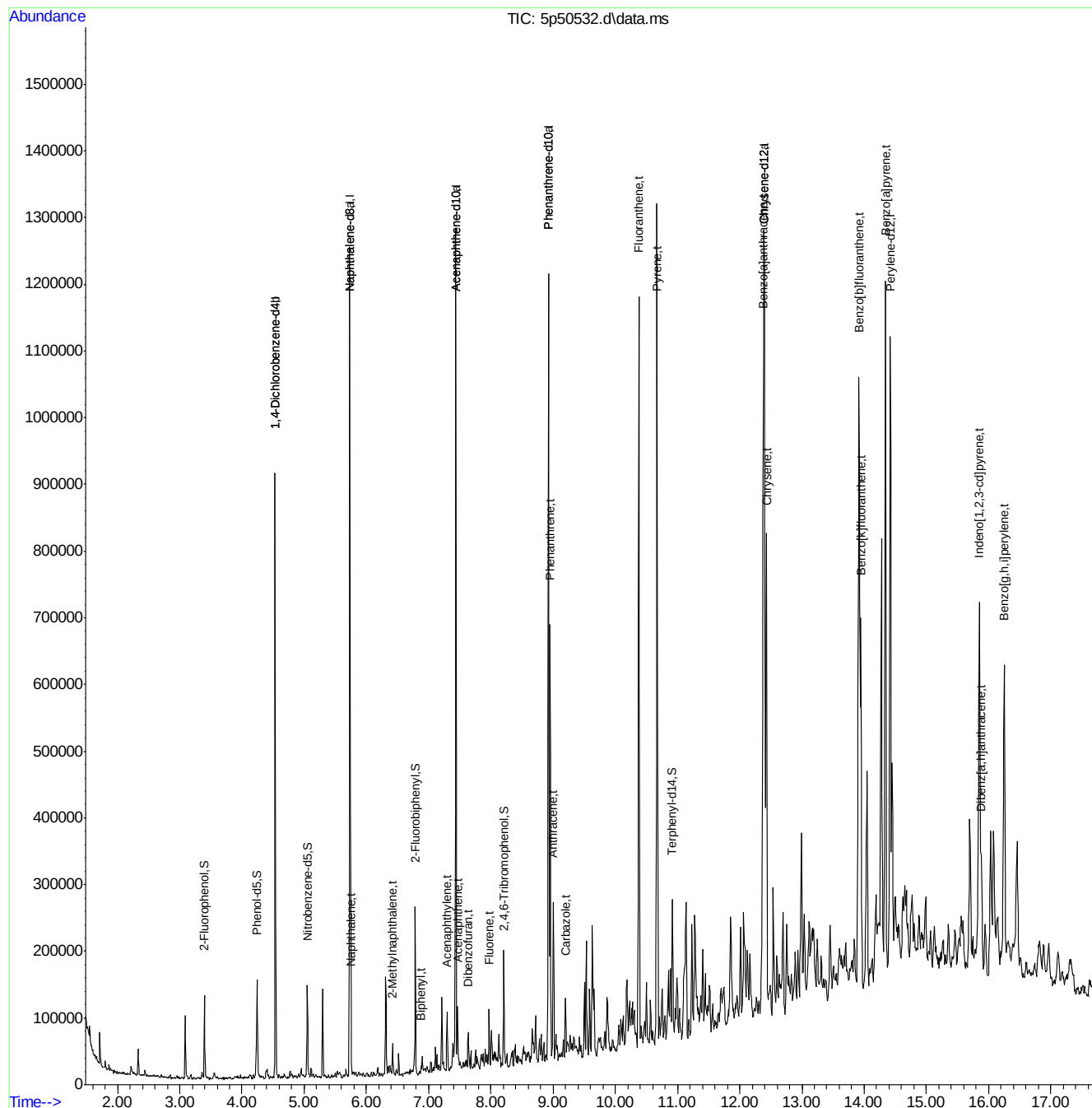
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98) Dibenz[a,h]anthracene	15.879	278	111532m	7.90	ppm	
100) Benzo[g,h,i]perylene	16.253	276	387804m	28.71	ppm	

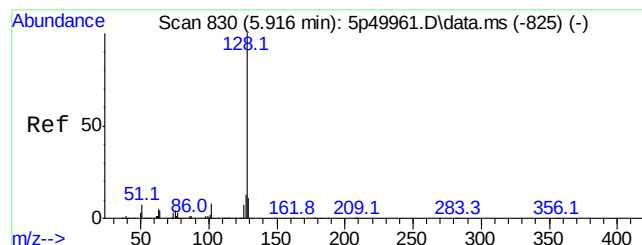
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-24-18\lotusa\e5p2410\
Data File : 5p50532.d
Acq On : 23 May 2018 2:29 pm
Operator : christc2
Sample : jc66318-1
Misc : op12130,e5p2410,31.4,,,1,5
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 25 09:37:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\M5P2399.M
Quant Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
QLast Update : Thu May 24 05:01:18 2018
Response via : Initial Calibration





#38

Naphthalene

Concen: 1.98 ppm

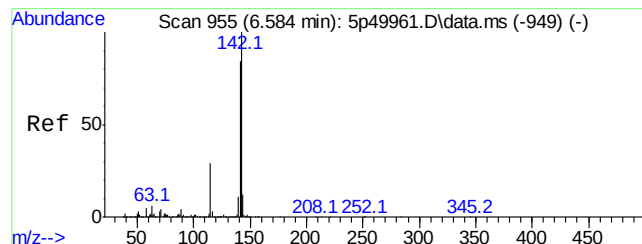
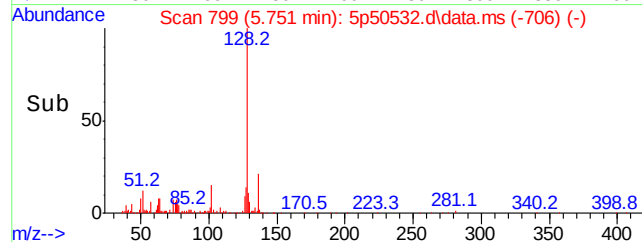
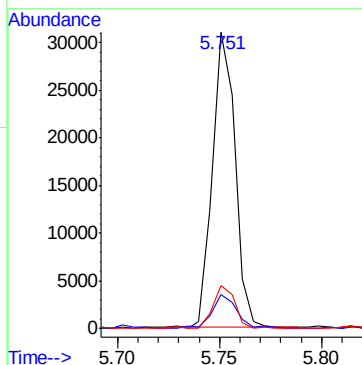
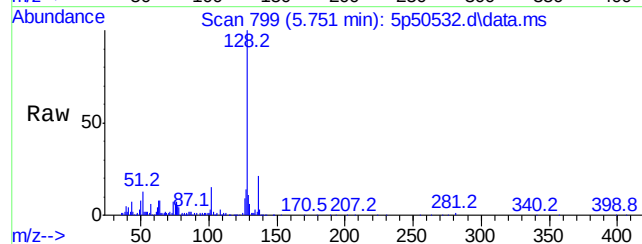
RT: 5.751 min Scan# 799

Delta R.T. -0.005 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

Tgt Ion	Ratio	Lower	Upper
128	100		
129	11.1	0.0	40.7
127	14.5	0.0	42.7



#44

2-Methylnaphthalene

Concen: 1.01 ppm

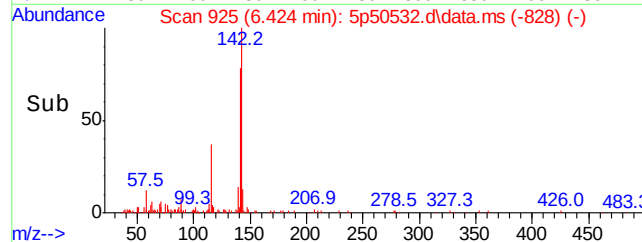
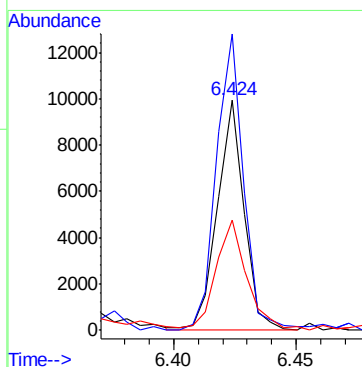
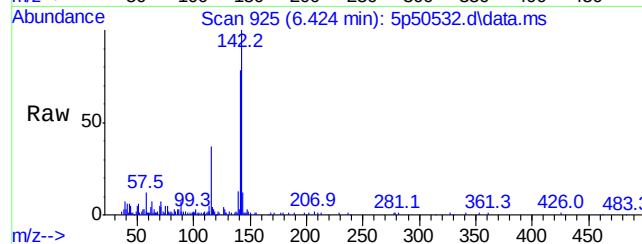
RT: 6.424 min Scan# 925

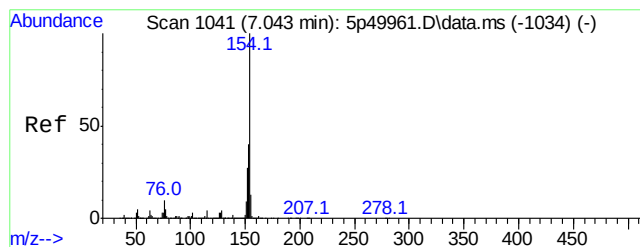
Delta R.T. 0.019 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

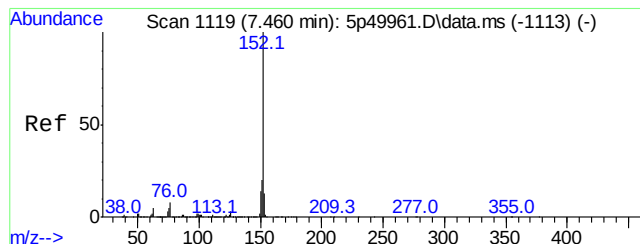
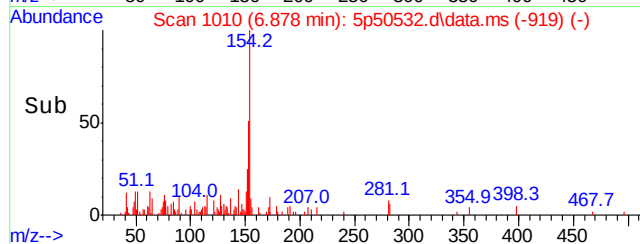
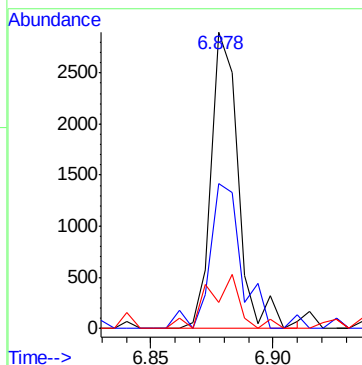
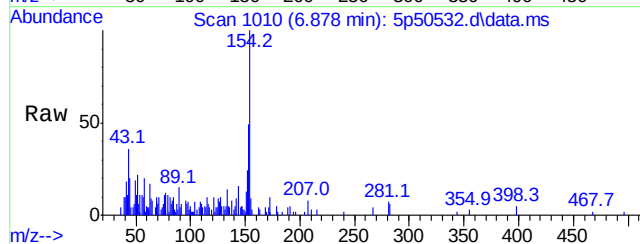
Tgt Ion	Ratio	Lower	Upper
141	100		
142	128.2	89.2	149.2
115	46.5	5.1	65.1





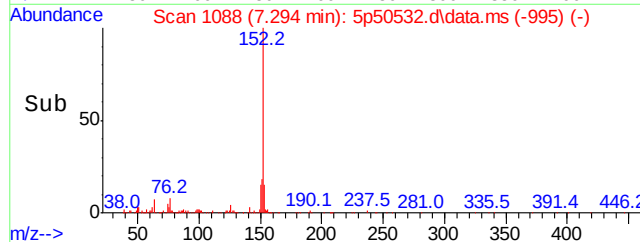
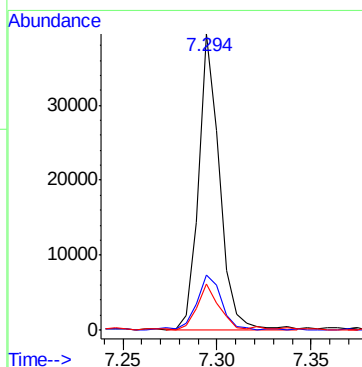
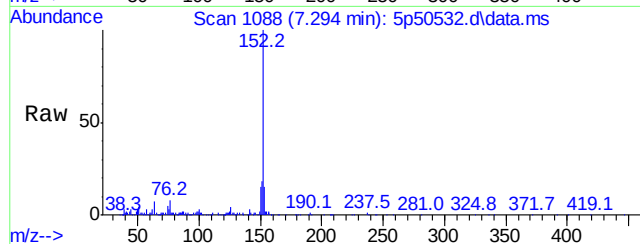
#53
Biphenyl
Concen: 0.22 ppm
RT: 6.878 min Scan# 1010
Delta R.T. -0.012 min
Lab File: 5p50532.d
Acq: 23 May 2018 2:29 pm

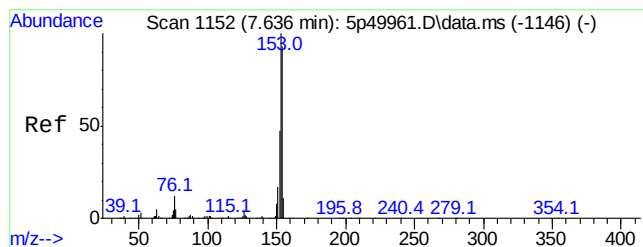
Tgt Ion:	154	Resp:	2240
Ion Ratio	Lower	Upper	
154	100		
153	47.1	10.3	70.3
155	9.0	0.0	43.3



#56
Acenaphthylene
Concen: 2.74 ppm
RT: 7.294 min Scan# 1088
Delta R.T. -0.003 min
Lab File: 5p50532.d
Acq: 23 May 2018 2:29 pm

Tgt Ion:	152	Resp:	30597
Ion Ratio	Lower	Upper	
152	100		
151	18.0	0.0	49.8
153	15.1	0.0	43.2





#59

Acenaphthene

Concen: 2.27 ppm

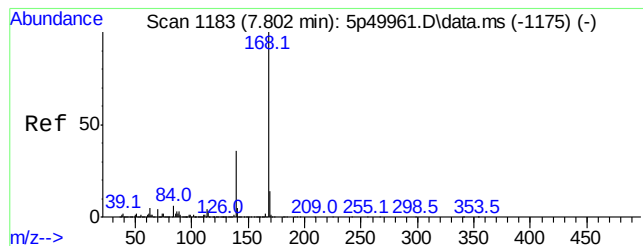
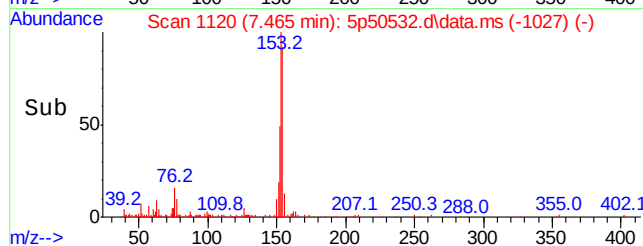
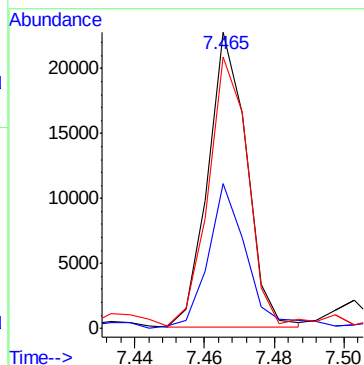
RT: 7.465 min Scan# 1120

Delta R.T. -0.005 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

Tgt Ion:	153	Resp:	17423
Ion Ratio	Lower	Upper	
153	100		
152	47.8	16.5	76.5
154	90.9	56.4	116.4



#62

Dibenzofuran

Concen: 1.54 ppm

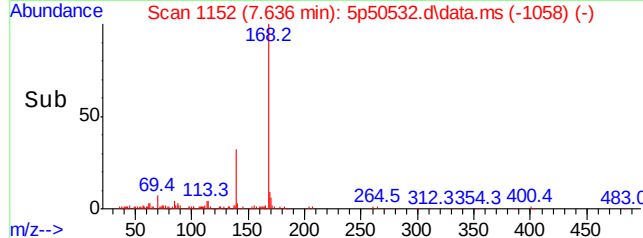
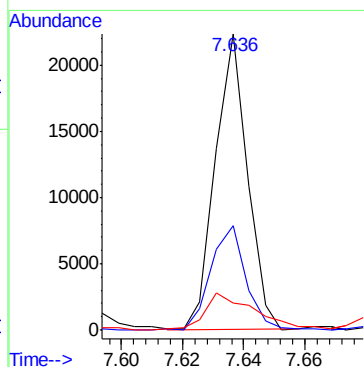
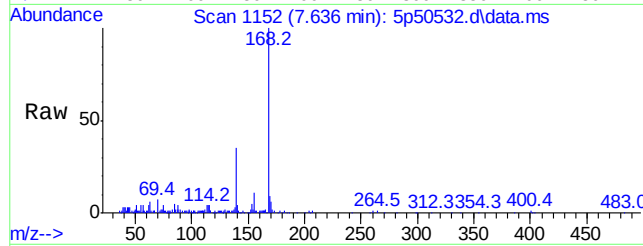
RT: 7.636 min Scan# 1152

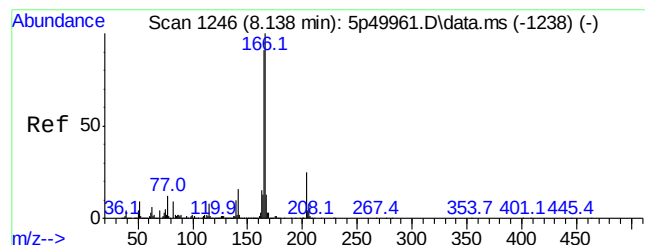
Delta R.T. 0.004 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

Tgt Ion:	168	Resp:	16215
Ion Ratio	Lower	Upper	
168	100		
139	34.8	6.3	66.3
169	8.4	0.0	43.8





#66

Fluorene

Concen: 2.02 ppm

RT: 7.968 min Scan# 1214

Delta R.T. 0.006 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

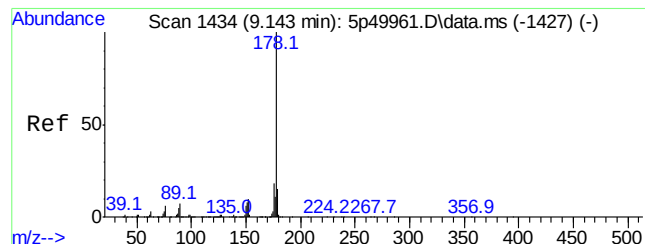
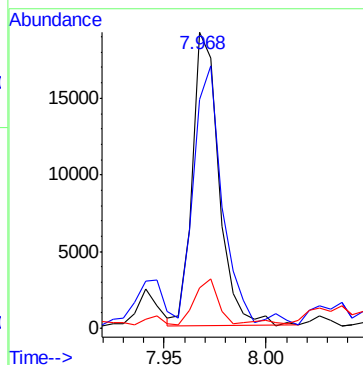
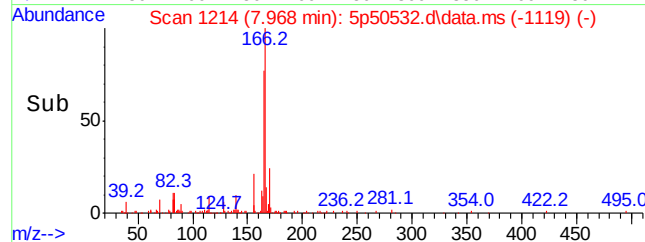
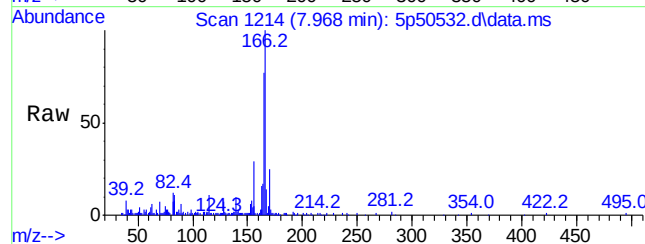
Tgt Ion:166 Resp: 17334

Ion Ratio Lower Upper

166 100

165 75.7 61.0 121.0

167 11.9 0.0 43.3



#77

Phenanthrene

Concen: 17.79 ppm

RT: 8.951 min Scan# 1398

Delta R.T. -0.005 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

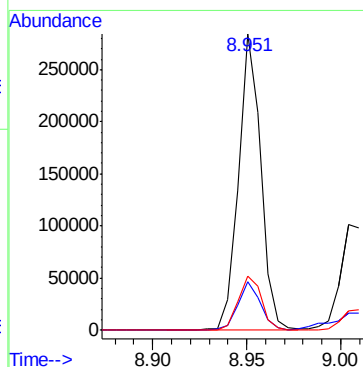
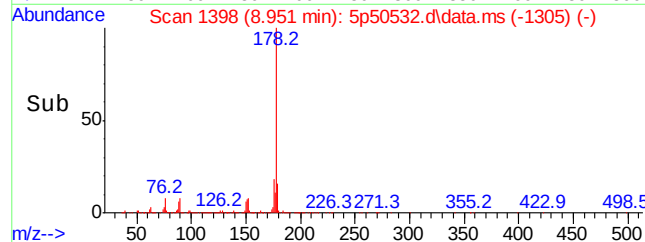
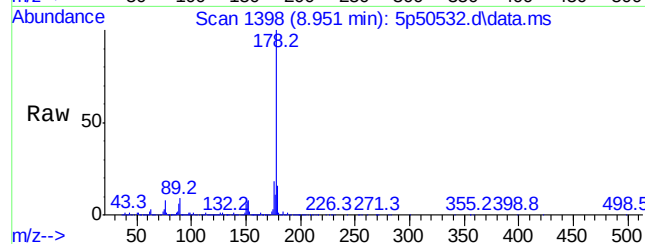
Tgt Ion:178 Resp: 232641

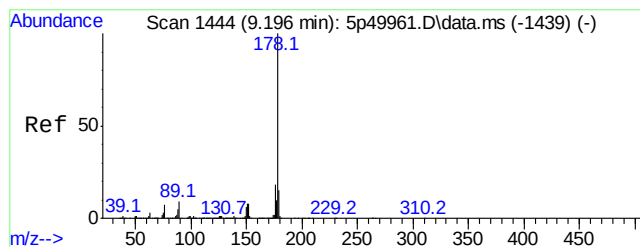
Ion Ratio Lower Upper

178 100

179 15.9 0.0 44.9

176 18.3 0.0 48.4





#78

Anthracene

Concen: 7.32 ppm

RT: 9.004 min Scan# 1408

Delta R.T. -0.004 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

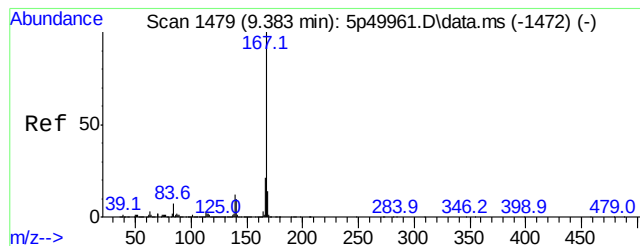
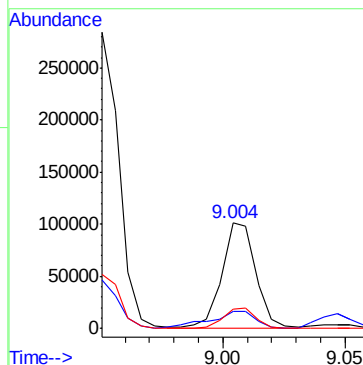
Tgt Ion:178 Resp: 98184

Ion Ratio Lower Upper

178 100

179 15.0 0.0 45.4

176 18.1 0.0 48.3



#79

Carbazole

Concen: 2.84 ppm

RT: 9.202 min Scan# 1445

Delta R.T. 0.011 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

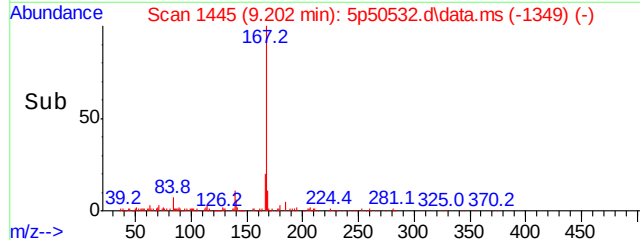
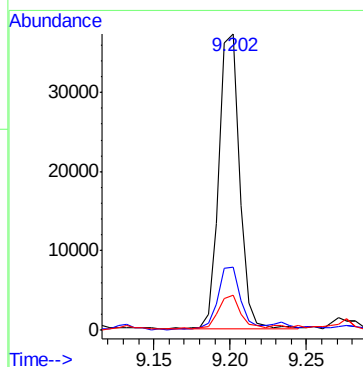
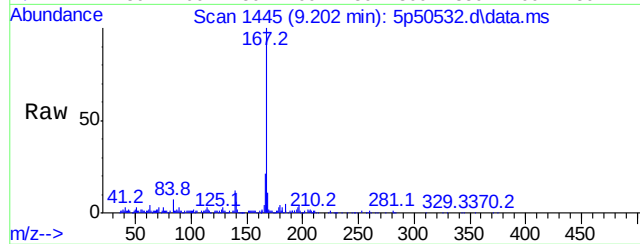
Tgt Ion:167 Resp: 35515

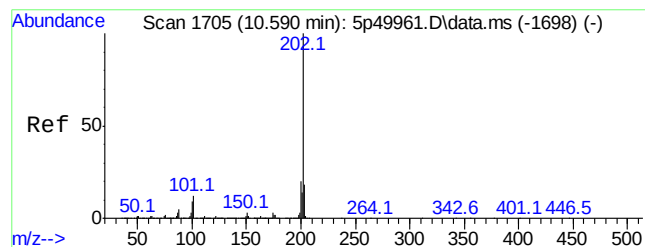
Ion Ratio Lower Upper

167 100

166 20.9 0.0 50.8

139 10.8 0.0 42.5





#81

Fluoranthene

Concen: 35.34 ppm

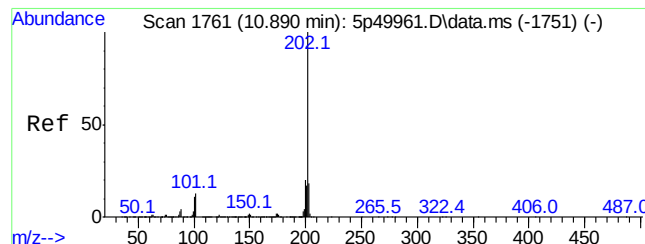
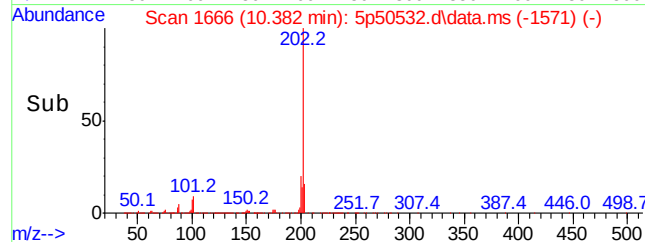
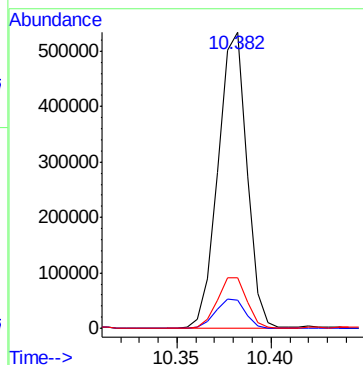
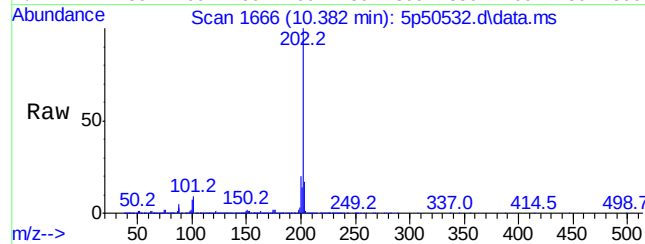
RT: 10.382 min Scan# 1666

Delta R.T. 0.009 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

Tgt	Ion:202	Resp:	568068
Ion	Ratio	Lower	Upper
202	100		
101	9.4	0.0	41.7
203	16.9	0.0	47.9



#84

Pyrene

Concen: 34.99 ppm

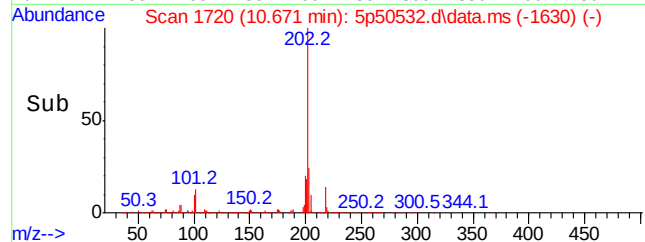
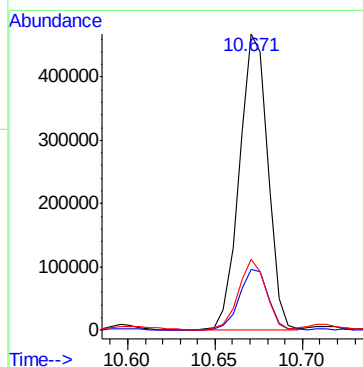
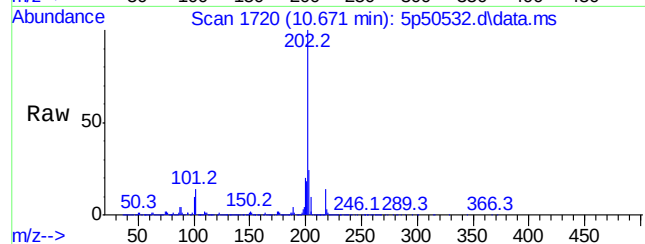
RT: 10.671 min Scan# 1720

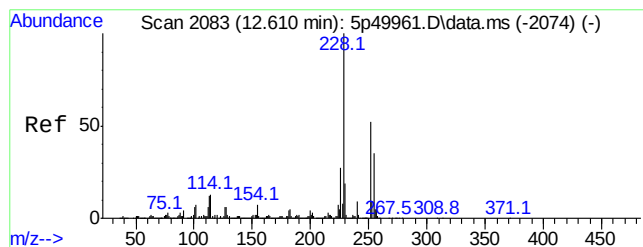
Delta R.T. -0.021 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

Tgt	Ion:202	Resp:	532164
Ion	Ratio	Lower	Upper
202	100		
200	20.3	0.0	50.3
203	23.7	0.0	48.2





#87

Benzo[a]anthracene

Concen: 31.22 ppm

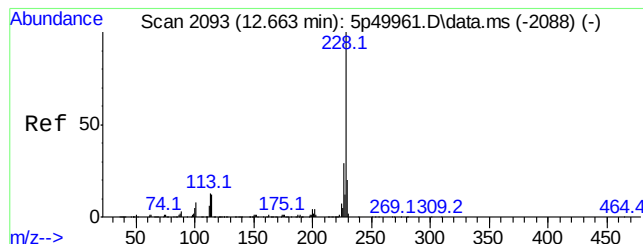
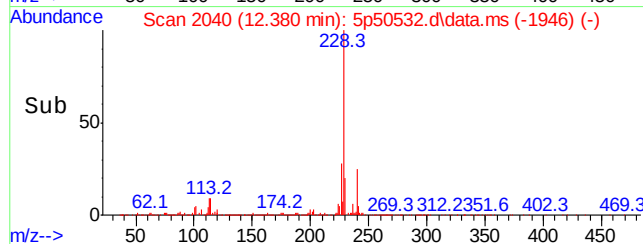
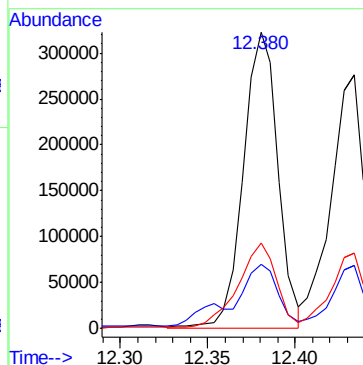
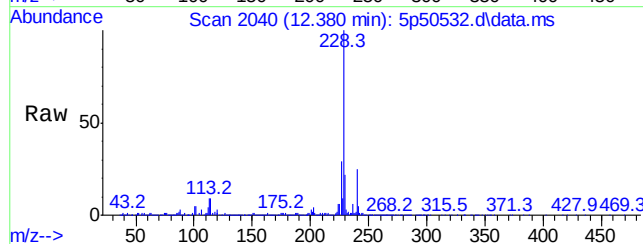
RT: 12.380 min Scan# 2040

Delta R.T. -0.000 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

Tgt Ion:	228	Resp:	442682
Ion Ratio	Lower	Upper	
228	100		
229	20.7	0.0	49.1
226	28.9	0.0	56.7



#89

Chrysene

Concen: 27.59 ppm

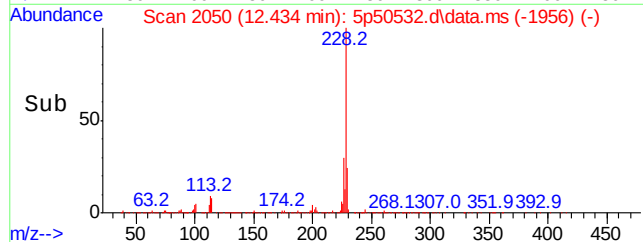
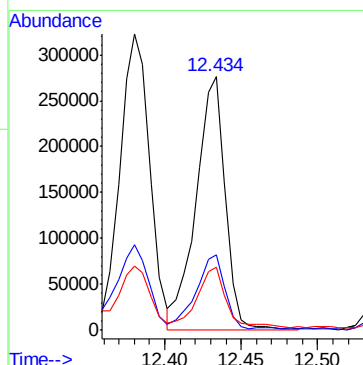
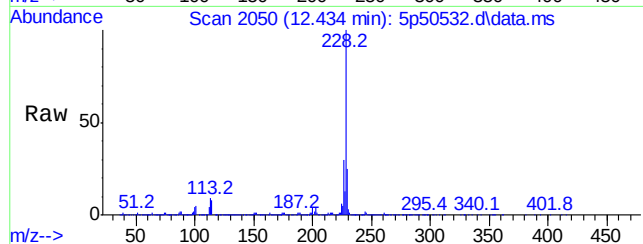
RT: 12.434 min Scan# 2050

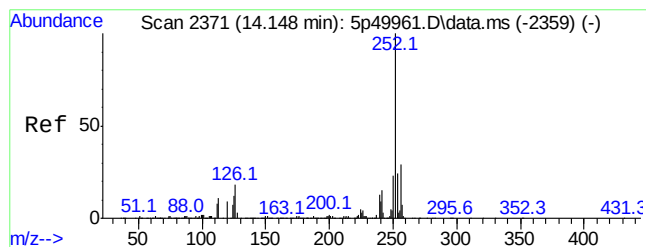
Delta R.T. 0.001 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

Tgt Ion:	228	Resp:	364621
Ion Ratio	Lower	Upper	
228	100		
226	29.7	0.0	58.7
229	23.6	0.0	49.5





#93

Benzo[b]fluoranthene

Concen: 44.81 ppm

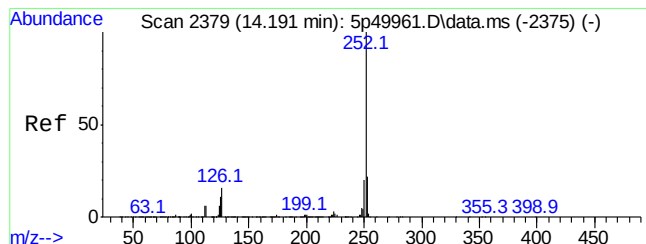
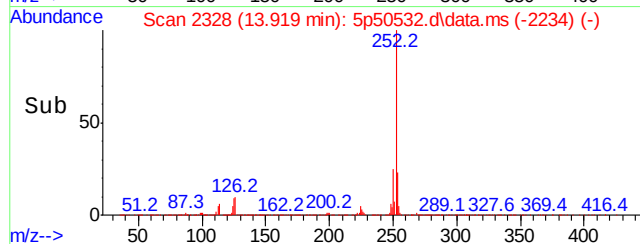
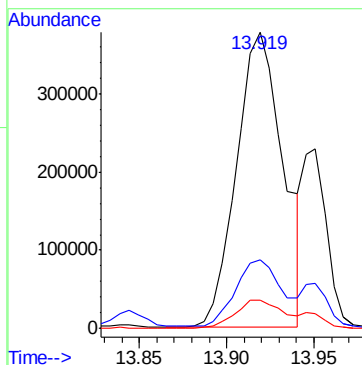
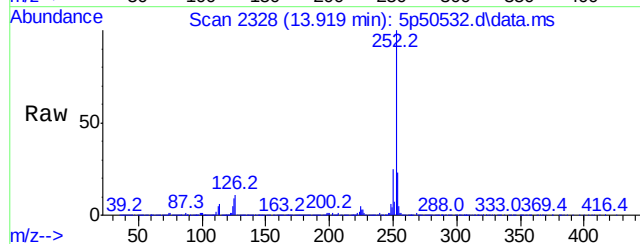
RT: 13.919 min Scan# 2328

Delta R.T. 0.002 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

Tgt Ion	Ratio	Lower	Upper
252	100		
253	22.9	0.0	53.5
125	9.2	0.0	42.0



#94

Benzo[k]fluoranthene

Concen: 15.40 ppm

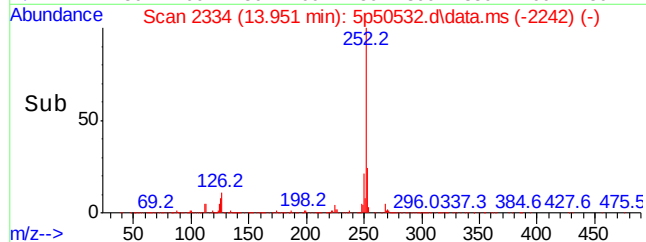
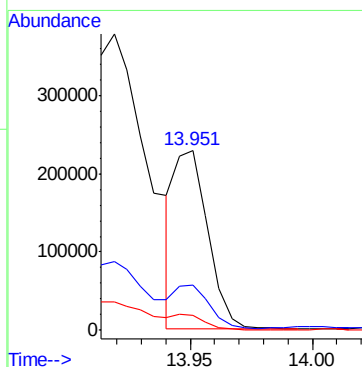
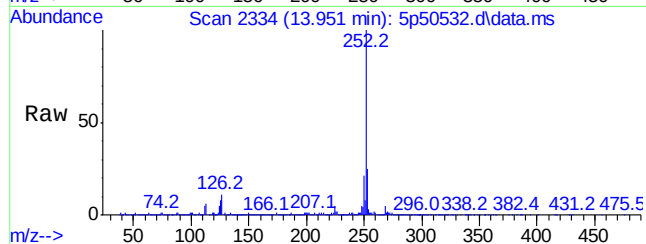
RT: 13.951 min Scan# 2334

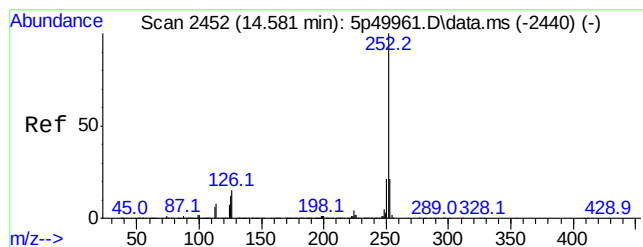
Delta R.T. -0.008 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

Tgt Ion	Ratio	Lower	Upper
252	100		
253	24.9	0.0	52.2
125	7.0	0.0	41.0





#95

Benzo[a]pyrene

Concen: 39.40 ppm

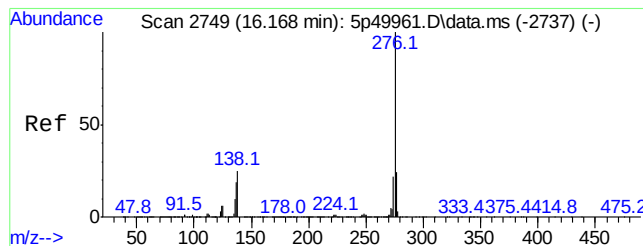
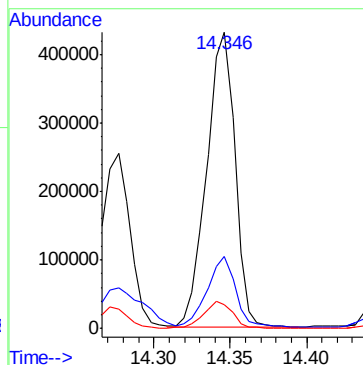
RT: 14.346 min Scan# 2408

Delta R.T. 0.004 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

Tgt Ion:	252	Resp:	555302
Ion Ratio	Lower	Upper	
252	100		
253	23.4	0.0	51.5
125	8.1	0.0	41.8



#96

Indeno[1,2,3-cd]pyrene

Concen: 31.19 ppm

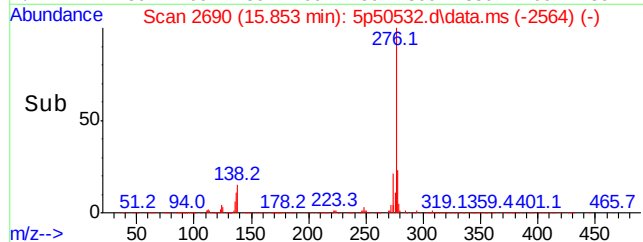
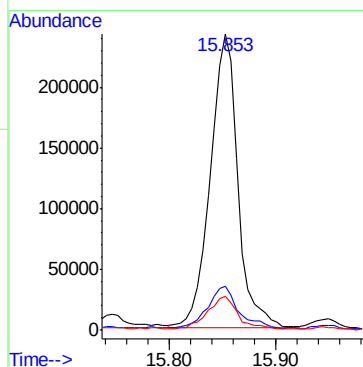
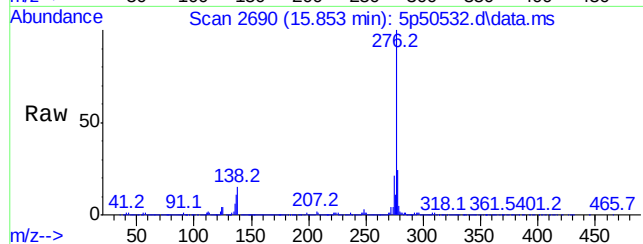
RT: 15.853 min Scan# 2690

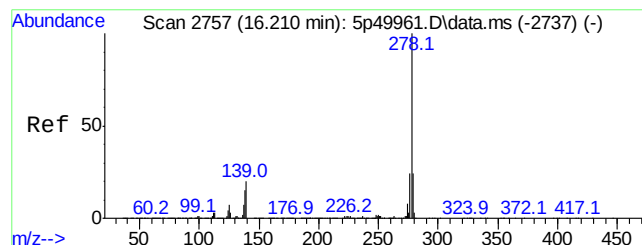
Delta R.T. 0.174 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

Tgt Ion:	276	Resp:	439357
Ion Ratio	Lower	Upper	
276	100		
138	15.0	0.0	55.3
137	11.4	0.0	48.7





#98

Dibenz[a,h]anthracene

Concen: 7.90 ppm m

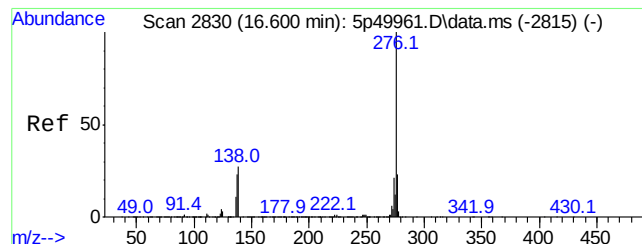
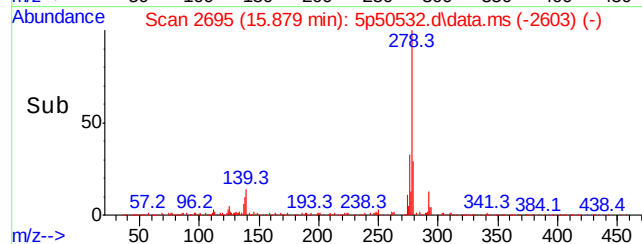
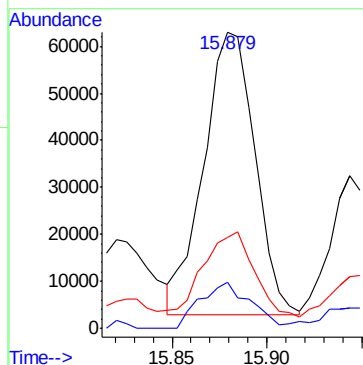
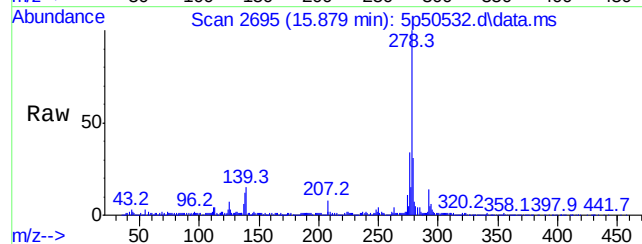
RT: 15.879 min Scan# 2695

Delta R.T. -0.011 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

Tgt Ion:	278	Resp:	111532
Ion Ratio	Lower	Upper	
278	100		
139	15.4	0.0	42.5
279	30.6	0.0	54.0



#100

Benzo[g,h,i]perylene

Concen: 28.71 ppm m

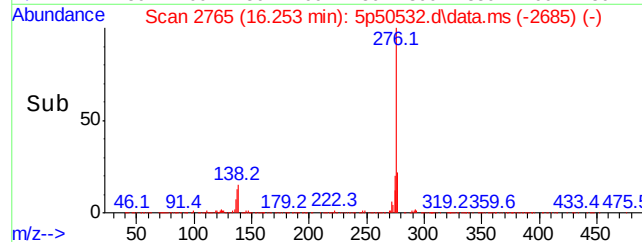
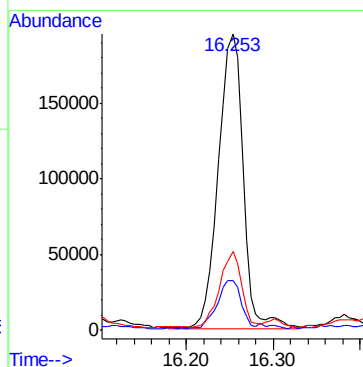
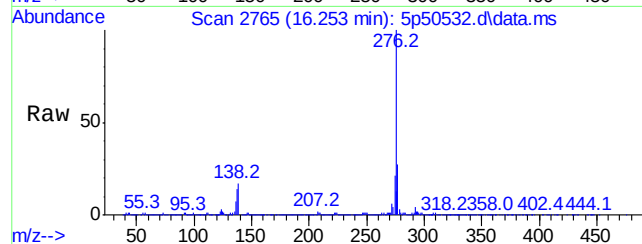
RT: 16.253 min Scan# 2765

Delta R.T. -0.075 min

Lab File: 5p50532.d

Acq: 23 May 2018 2:29 pm

Tgt Ion:	276	Resp:	387804
Ion Ratio	Lower	Upper	
276	100		
138	16.5	0.0	56.7
277	26.6	0.0	53.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4637\
 Data File : 2m104360.D
 Acq On : 24 May 2018 8:54 am
 Operator : chriss2
 Sample : jc66318-1a
 Misc : op12241,e2m4637,100,,,1,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 24 12:37:52 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
 Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 QLast Update : Thu May 17 13:00:25 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.563	152	327232	40.00	ppm	-0.11
24) Naphthalene-d8	5.632	136	1266089	40.00	ppm	-0.13
47) Acenaphthene-d10	7.670	164	633858	40.00	ppm	-0.15
69) Phenanthrene-d10	9.826	188	1210519	40.00	ppm	-0.16
83) Chrysene-d12	13.992	240	1117720	40.00	ppm	-0.17
91) Perylene-d12	16.105	264	1129353	40.00	ppm	-0.17
101) 1,4-Dichlorobenzene-d4a	4.563	152	327232	40.00	ppm	-0.10
103) Acenaphthene-d10a	7.670	164	633858	40.00	ppm	-0.15
105) Chrysene-d12a	13.992	240	1117720	40.00	ppm	-0.16
108) Phenanthrene-d10a	9.826	188	1210519	40.00	ppm	-0.16
112) Naphthalene-d8a	5.632	136	1266089	40.00	ppm	-0.12
114) Chrysene-d12b	13.992	240	1117720	40.00	ppm	-0.16
System Monitoring Compounds						
5) 2-Fluorophenol	3.584	112	237268	22.25	ppm	-0.09
Spiked Amount 50.000			Recovery	=	44.50%	
8) Phenol-d5	4.311	99	202159	15.11	ppm	-0.09
Spiked Amount 50.000			Recovery	=	30.22%	
25) Nitrobenzene-d5	4.996	82	390156	33.72	ppm	-0.11
Spiked Amount 50.000			Recovery	=	67.44%	
51) 2-Fluorobiphenyl	6.809	172	766627	33.11	ppm	-0.14
Spiked Amount 50.000			Recovery	=	66.22%	
73) 2,4,6-Tribromophenol	8.788	330	121533	33.19	ppm	-0.16
Spiked Amount 50.000			Recovery	=	66.38%	
85) Terphenyl-d14	12.382	244	896295	36.56	ppm	-0.16
Spiked Amount 50.000			Recovery	=	73.12%	
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	

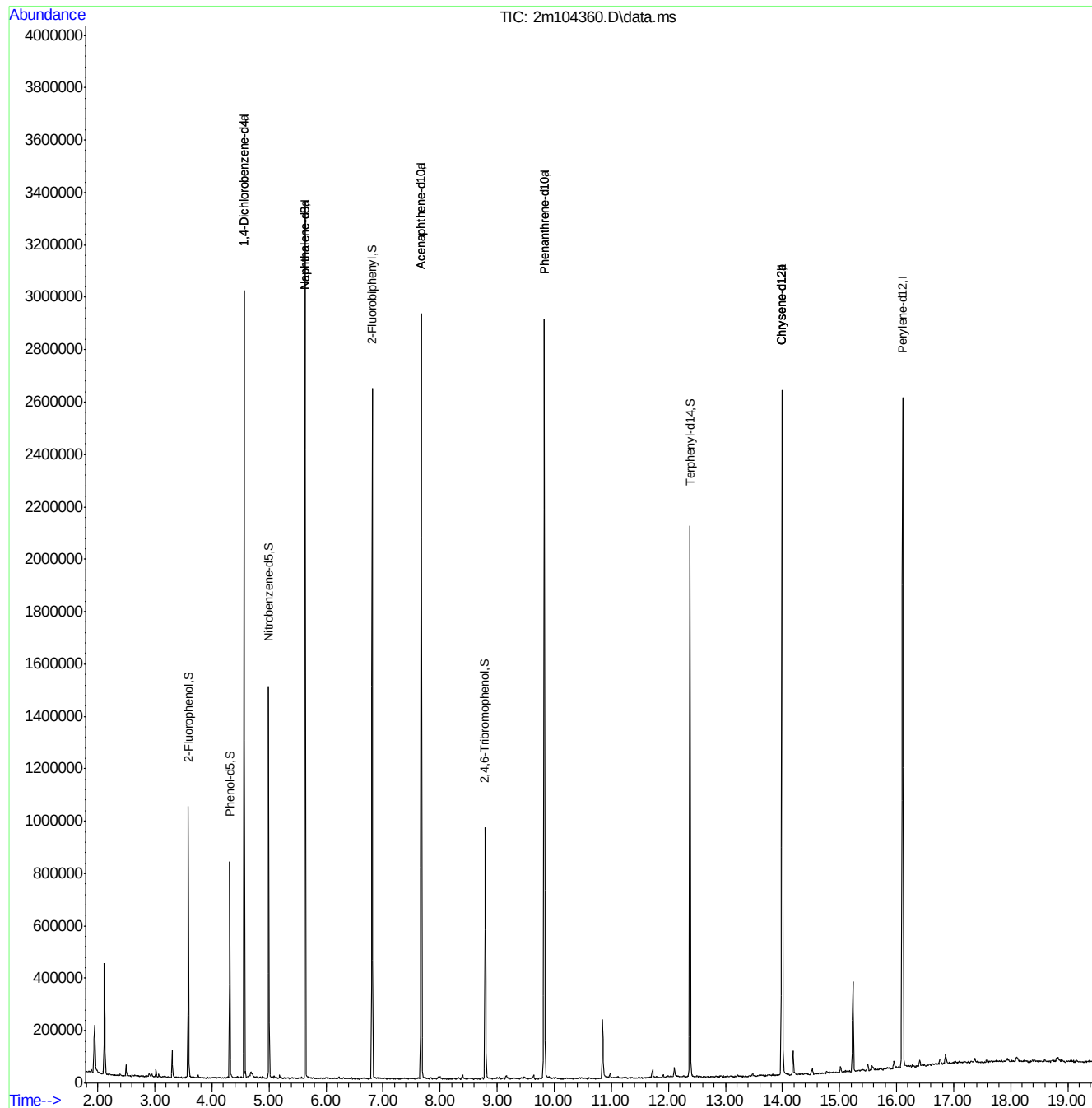
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4637\
Data File : 2m104360.D
Acq On : 24 May 2018 8:54 am
Operator : chriss2
Sample : jc66318-1a
Misc : op12241,e2m4637,100,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 24 12:37:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Thu May 17 13:00:25 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4637\
 Data File : 2m104343.D
 Acq On : 24 May 2018 1:39 am
 Operator : chriss2
 Sample : op12239-mb1
 Misc : op12239,e2m4637,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 24 12:16:51 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
 Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 QLast Update : Thu May 17 13:00:25 2018
 Response via : Initial Calibration

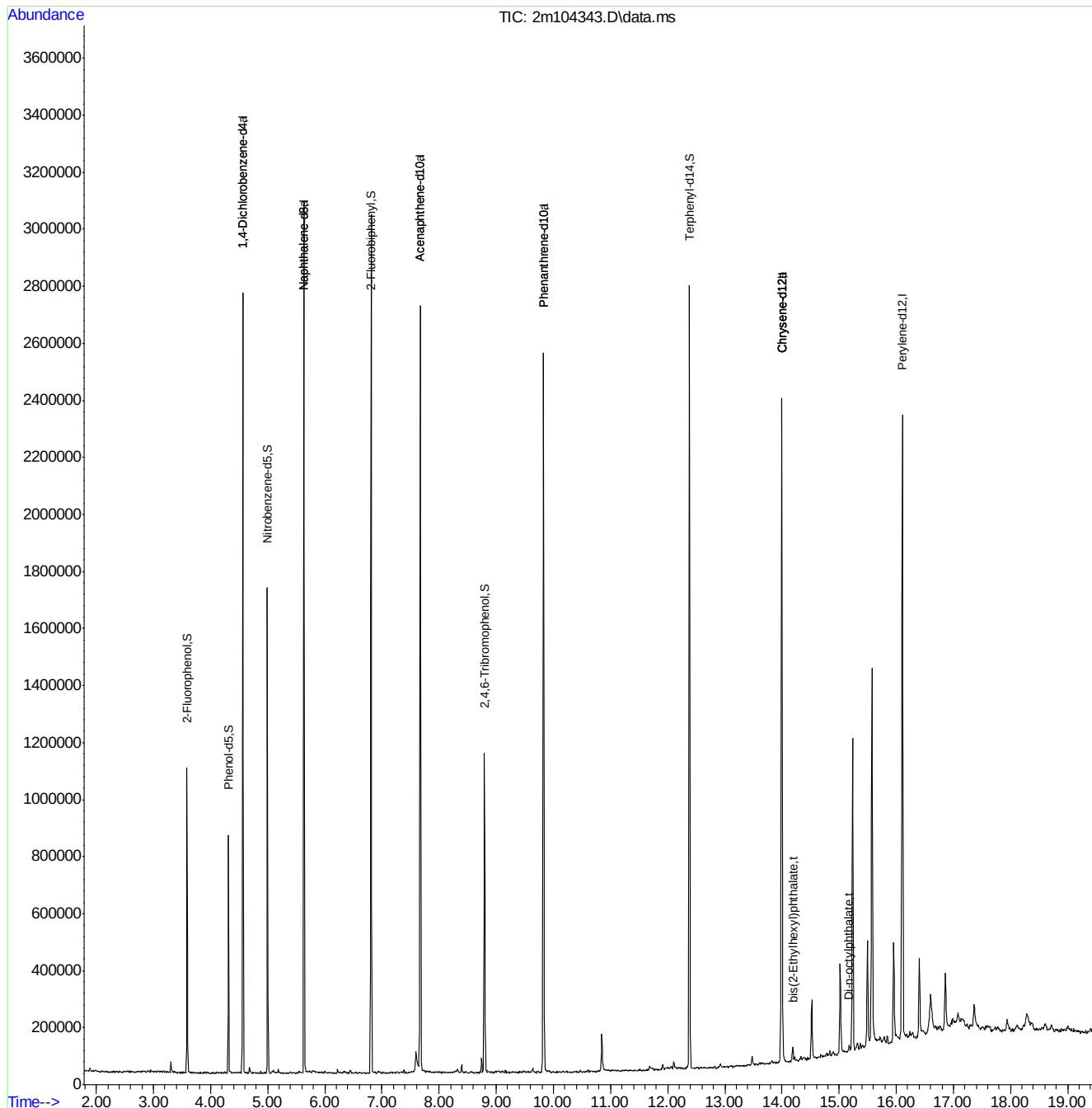
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.563	152	290995	40.00	ppm	-0.11
24) Naphthalene-d8	5.633	136	1141024	40.00	ppm	-0.13
47) Acenaphthene-d10	7.670	164	573401	40.00	ppm	-0.15
69) Phenanthrene-d10	9.826	188	1080497	40.00	ppm	-0.16
83) Chrysene-d12	13.998	240	974172	40.00	ppm	-0.17
91) Perylene-d12	16.111	264	980902	40.00	ppm	-0.16
101) 1,4-Dichlorobenzene-d4a	4.563	152	290995	40.00	ppm	-0.10
103) Acenaphthene-d10a	7.670	164	573401	40.00	ppm	-0.15
105) Chrysene-d12a	13.998	240	974172	40.00	ppm	-0.16
108) Phenanthrene-d10a	9.826	188	1080497	40.00	ppm	-0.16
112) Naphthalene-d8a	5.633	136	1141024	40.00	ppm	-0.12
114) Chrysene-d12b	13.998	240	974172	40.00	ppm	-0.16
System Monitoring Compounds						
5) 2-Fluorophenol	3.589	112	247566	26.11	ppm	-0.08
Spiked Amount 50.000			Recovery	=	52.22%	
8) Phenol-d5	4.311	99	211465	17.78	ppm	-0.09
Spiked Amount 50.000			Recovery	=	35.56%	
25) Nitrobenzene-d5	4.996	82	452133	43.35	ppm	-0.11
Spiked Amount 50.000			Recovery	=	86.70%	
51) 2-Fluorobiphenyl	6.809	172	901016	43.01	ppm	-0.14
Spiked Amount 50.000			Recovery	=	86.02%	
73) 2,4,6-Tribromophenol	8.794	330	148022	45.28	ppm	-0.15
Spiked Amount 50.000			Recovery	=	90.56%	
85) Terphenyl-d14	12.383	244	1081873	50.64	ppm	-0.16
Spiked Amount 50.000			Recovery	=	101.28%	
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
90) bis(2-Ethylhexyl)phtha...	14.190	149	22329	1.08	ppm	85
92) Di-n-octylphthalate	15.175	149	13871	0.39	ppm	91

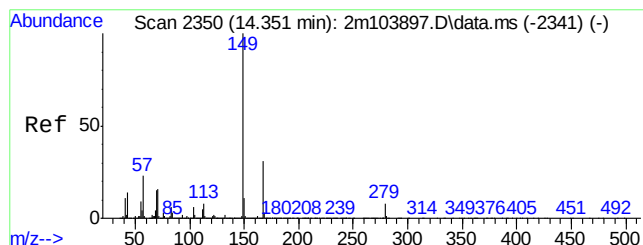
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4637\
Data File : 2m104343.D
Acq On : 24 May 2018 1:39 am
Operator : chriss2
Sample : op12239-mb1
Misc : op12239,e2m4637,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

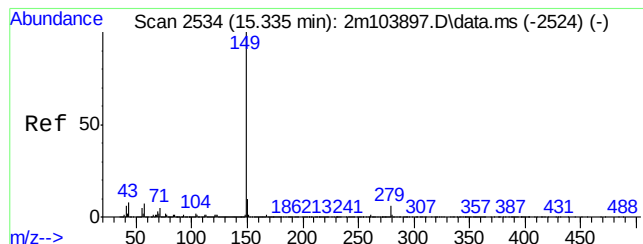
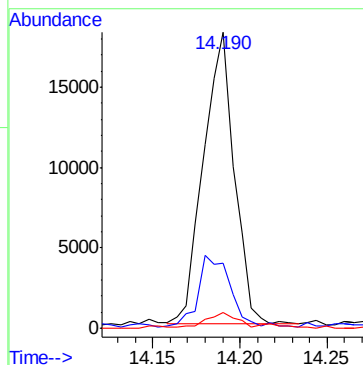
Quant Time: May 24 12:16:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Thu May 17 13:00:25 2018
Response via : Initial Calibration





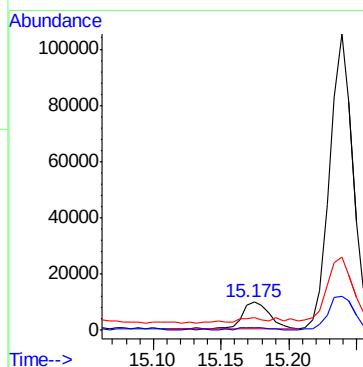
#90
bis(2-Ethylhexyl)phthalate
Concen: 1.08 ppm
RT: 14.190 min Scan# 2320
Delta R.T. -0.160 min
Lab File: 2m104343.D
Acq: 24 May 2018 1:39 am

Tgt	Ion:149	Resp:	22329
Ion	Ratio	Lower	Upper
149	100		
167	21.6	0.7	60.7
279	4.9	0.0	37.8



#92
Di-n-octylphthalate
Concen: 0.39 ppm
RT: 15.175 min Scan# 2504
Delta R.T. -0.160 min
Lab File: 2m104343.D
Acq: 24 May 2018 1:39 am

Tgt	Ion:149	Resp:	13871
Ion	Ratio	Lower	Upper
149	100		
150	7.8	0.0	39.6
43	12.6	0.0	38.0



Quantitation Report (LSC Reviewed)

Data Path : C:\msdchem\1\DATA\E5P2408\
 Data File : 5p50470.D
 Acq On : 22 May 2018 1:09 am
 Operator : sufiyana
 Sample : op12130-mb1
 Misc : op12130,e5p2408,30.0,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 22 09:31:09 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M5P2399.M
 Quant Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
 QLast Update : Tue May 15 10:21:09 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.554	152	154456	40.00	ppm	-0.08
24) Naphthalene-d8	5.751	136	615960	40.00	ppm	-0.09
47) Acenaphthene-d10	7.455	164	322526	40.00	ppm	-0.09
69) Phenanthrene-d10	8.945	188	600950	40.00	ppm	-0.10
83) Chrysene-d12	12.402	240	597329	40.00	ppm	-0.14
91) Perylene-d12	14.426	264	618194	40.00	ppm	-0.14
101) 1,4-Dichlorobenzene-d4b	4.554	152	154456	40.00	ppm	-0.08
103) Acenaphthene-d10a	7.455	164	322526	40.00	ppm	-0.09
105) Chrysene-d12a	12.402	240	597292	40.00	ppm	-0.14
108) Phenanthrene-d10a	8.945	188	600950	40.00	ppm	-0.10
112) Naphthalene-d8a	5.751	136	615960	40.00	ppm	-0.09
System Monitoring Compounds						
5) 2-Fluorophenol	3.427	112	185356	34.20	ppm	-0.05
Spiked Amount	50.000		Recovery	=	68.40%	
8) Phenol-d5	4.276	99	241505	34.83	ppm	-0.03
Spiked Amount	50.000		Recovery	=	69.66%	
25) Nitrobenzene-d5	5.072	82	198247	32.58	ppm	-0.08
Spiked Amount	50.000		Recovery	=	65.16%	
51) 2-Fluorobiphenyl	6.803	172	402988	35.41	ppm	-0.09
Spiked Amount	50.000		Recovery	=	70.82%	
73) 2,4,6-Tribromophenol	8.229	330	92063	34.63	ppm	-0.09
Spiked Amount	50.000		Recovery	=	69.26%	
85) Terphenyl-d14	10.938	244	542034	36.01	ppm	-0.13
Spiked Amount	50.000		Recovery	=	72.02%	
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	

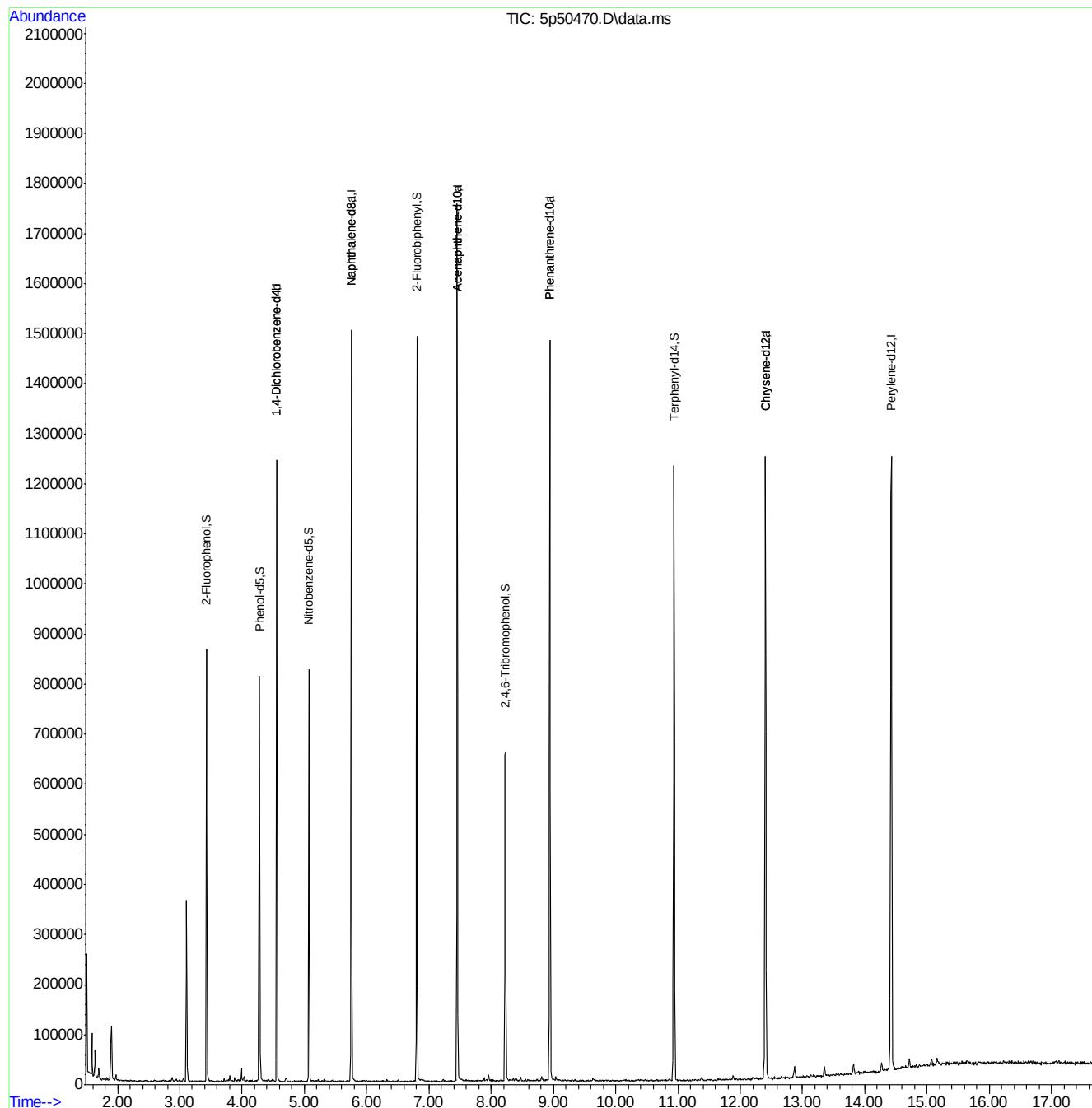
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (LSC Reviewed)

Data Path : C:\msdchem\1\DATA\E5P2408\
Data File : 5p50470.D
Acq On : 22 May 2018 1:09 am
Operator : sufiyana
Sample : op12130-mb1
Misc : op12130,e5p2408,30.0,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 22 09:31:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M5P2399.M
Quant Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um
QLast Update : Tue May 15 10:21:09 2018
Response via : Initial Calibration



GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLM3860-MB1	LM94906.D	1	05/21/18	KC	n/a	n/a	GLM3860

The QC reported here applies to the following samples: Method: SW846 8015C

JC66318-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
98-08-8	aaa-Trifluorotoluene	95% 70-116%

10.1.1
10

Blank Spike Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLM3860-BS	LM94913.D	1	05/21/18	KC	n/a	n/a	GLM3860

The QC reported here applies to the following samples: Method: SW846 8015C

JC66318-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	400	351	88	75-126

CAS No.	Surrogate Recoveries	BSP	Limits
98-08-8	aaa-Trifluorotoluene	106%	70-116%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66368-5MS	LM94911.D	1	05/21/18	KC	n/a	n/a	GLM3860
JC66368-5MSD	LM94912.D	1	05/21/18	KC	n/a	n/a	GLM3860
JC66368-5	LM94908.D	1	05/21/18	KC	n/a	n/a	GLM3860

The QC reported here applies to the following samples: Method: SW846 8015C

JC66318-1

CAS No.	Compound	JC66368-5 mg/kg	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	753	445	1740	222* a	445	1830	242* a	5	68-128/11

CAS No.	Surrogate Recoveries	MS	MSD	JC66368-5	Limits
98-08-8	aaa-Trifluorotoluene	131%* b	133%* b	111%	70-116%

(a) Outside control limits due to matrix interference.
(b) Outside control limits due to matrix interference. Confirmed by MS/MSD.

* = Outside of Control Limits.

Surrogate Recovery Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8015C	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a
JC66318-1	LM94907.D	96
GLM3860-BS	LM94913.D	106
GLM3860-MB1	LM94906.D	95
JC66368-5MS	LM94911.D	131* ^b
JC66368-5MSD	LM94912.D	133* ^b

Surrogate Compounds	Recovery Limits
S1 = aaa-Trifluorotoluene	70-116%

- (a) Recovery from GC signal #1
(b) Outside control limits due to matrix interference. Confirmed by MS/MSD.

GC Surrogate Retention Time Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GLM3860-CC3729	Injection Date:	05/21/18
Lab File ID:	LM94904.D	Injection Time:	08:59
Instrument ID:	GCLM	Method:	SW846 8015C

S1 ^a
RT

Check Std	10.83
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Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT
GLM3860-MB1	LM94906.D	05/21/18	09:57	10.82
JC66318-1	LM94907.D	05/21/18	10:33	10.82
JC66368-5	LM94908.D	05/21/18	11:02	10.82
ZZZZZZ	LM94909.D	05/21/18	11:24	10.82
ZZZZZZ	LM94910.D	05/21/18	11:55	10.82
JC66368-5MS	LM94911.D	05/21/18	12:24	10.82
JC66368-5MSD	LM94912.D	05/21/18	12:45	10.82
GLM3860-BS	LM94913.D	05/21/18	13:14	10.83

Surrogate
Compounds

S1 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

10.5.1
10

Initial Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GLM3729-ICC3729
Lab FileID: LM92038.D

Response Factor Report GCLM

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Initial Calibration

Calibration Files

0.2 =LM92035.D 0.8 =LM92036.D 4 =LM92037.D
8 =LM92038.D 20 =LM92039.D 40 =LM92041.D 30 =LM92040.D

Compound	0.2	0.8	4	8	20	40	30	Avg	%RSD
1)H TPH-GR0 (C6-C10)	1.411	2.302	2.836	2.614	2.206	2.185	2.310	2.266	E6 19.66
2)H TPH-GR0 (C6-C12)	1.390	2.112	2.586	2.370	1.967	1.946	2.061	2.062	E6 18.22
3)S a,a,a-Trifluoroto	2.212	2.318	2.467	2.680	3.184	3.485	3.439	2.827	E6 18.96

Average % RSD = 18.9

(100.0 %) 3 of 3 compounds'% RSD > 0

(#) = Out of Range

MLM3729.M

Wed Dec 13 09:39:21 2017

RPT1

10.6.1
10

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GLM3729-ICV3729
Lab FileID: LM92044.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\LM92044.D Vial: 13
Acq On : 12 Dec 2017 5:34 pm Operator: KRIZHKAC
Sample : ICV3729-8000 Inst : GCLM
Misc : GC51650, GLM3729, 10.0,, 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-GR0 (C6-C10)	2.266	2.680 E6	-18.3	103	0.00	8.54-15.10
2 H	TPH-GR0 (C6-C12)	2.062	2.394 E6	-16.1	101	0.00	8.32-15.32
3 S	a,a,a-Trifluorotoluene	2.827	2.745 E6	2.9	102	0.00	10.78-10.90

Average % D = 12.4

(0.0 %) 0 of 3 compounds '%D > 20

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LM92038.D MLM3729.M Wed Dec 13 09:41:01 2017 RPT1

10.6.2
10

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GLM3860-CC3729
Lab FileID: LM94904.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\LM94904.D Vial: 4
Acq On : 21 May 2018 8:59 am Operator: KRIZHKAC
Sample : CC3729-4000 Inst : GCLM
Misc : GC52536, GLM3860, 10.0, , 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GRO) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-GRO (C6-C10)	2.266	2.578 E6	-13.8	91	0.00	8.54-15.10
2 H	TPH-GRO (C6-C12)	2.062	2.378 E6	-15.3	92	0.00	8.32-15.32
3 S	a,a,a-Trifluorotoluene	2.827	2.950 E6	-4.4	120	-0.01	10.77-10.89

Average % D = 11.1

(0.0 %) 0 of 3 compounds '%D > 20

(#) = Out of Range
LM92037.D MLM3729.M

SPCC's out = 0 CCC's out = 0
Tue May 22 09:03:43 2018 RPT1

10.6.3
10

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GLM3860-CC3729
Lab FileID: LM94914.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\LM94914.D Vial: 14
Acq On : 21 May 2018 1:43 pm Operator: KRIZHKAC
Sample : CC3729-8000 Inst : GCLM
Misc : GC52536, GLM3860, 10.0,, 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GRO) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-GRO (C6-C10)	2.266	2.546 E6	-12.4	97	0.00	8.54-15.10
2 H	TPH-GRO (C6-C12)	2.062	2.347 E6	-13.8	99	0.00	8.32-15.32
3 S	a,a,a-Trifluorotoluene	2.827	3.207 E6	-13.4	120	-0.01	10.77-10.89

Average % D = 13.2

(0.0 %) 0 of 3 compounds '%D > 20

(#) = Out of Range
LM92038.D MLM3729.M

SPCC's out = 0 CCC's out = 0
Tue May 22 09:04:59 2018 RPT1

10.6.4
10



Dayton, NJ

Section 11

GC Volatiles

Raw Data

11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\LM94907.D Vial: 7
Acq On : 21 May 2018 10:33 am Operator: KRIZHKAC
Sample : JC66318-1 Inst : GCLM
Misc : GC52531, GLM3860, 4.30,, 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: May 22 9:06 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Initial Calibration
DataAcq Meth : MLM3729.M

Volume Inj. : N/A
Signal Phase : crossbond phenylmethyl polysiloxane
Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
3) S a,a,a-Trifluorotoluene	10.82	810131256	286.617 ug/l
Spiked Amount 300.000	Range 70 - 116	Recovery =	95.54%

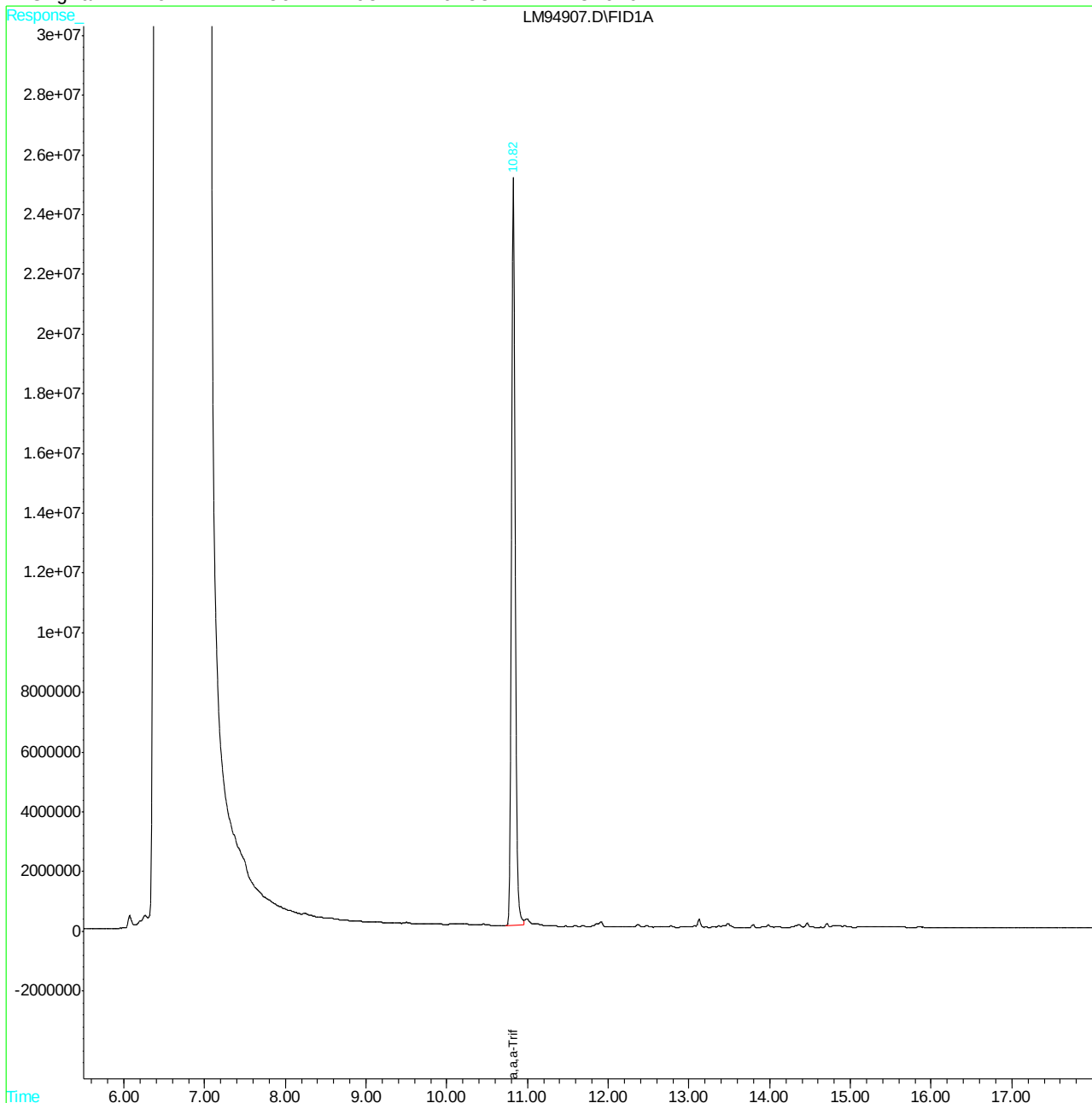
Target Compounds

Quantitation Report

Data File : C:\HPCHEM\1\DATA\LM94907.D Vial: 7
 Acq On : 21 May 2018 10:33 am Operator: KRIZHKAC
 Sample : JC66318-1 Inst : GCLM
 Misc : GC52531, GLM3860, 4.30,, 100, 10, 1 Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: May 22 9:06 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
 Title : Method SW846 8015C (GR0) .
 Last Update : Wed Dec 13 09:36:39 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : MLM3729.M

Volume Inj. : N/A
 Signal Phase : crossbond phenylmethyl polysiloxane
 Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\LM94906.D Vial: 6
Acq On : 21 May 2018 9:57 am Operator: KRIZHKAC
Sample : MB1 Inst : GCLM
Misc : GC52536, GLM3860, 10.0, , 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: May 22 9:05 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Initial Calibration
DataAcq Meth : MLM3729.M

Volume Inj. : N/A
Signal Phase : crossbond phenylmethyl polysiloxane
Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
3) S a,a,a-Trifluorotoluene	10.82	805959992	285.141 ug/l
Spiked Amount 300.000	Range 70 - 116	Recovery =	95.05%

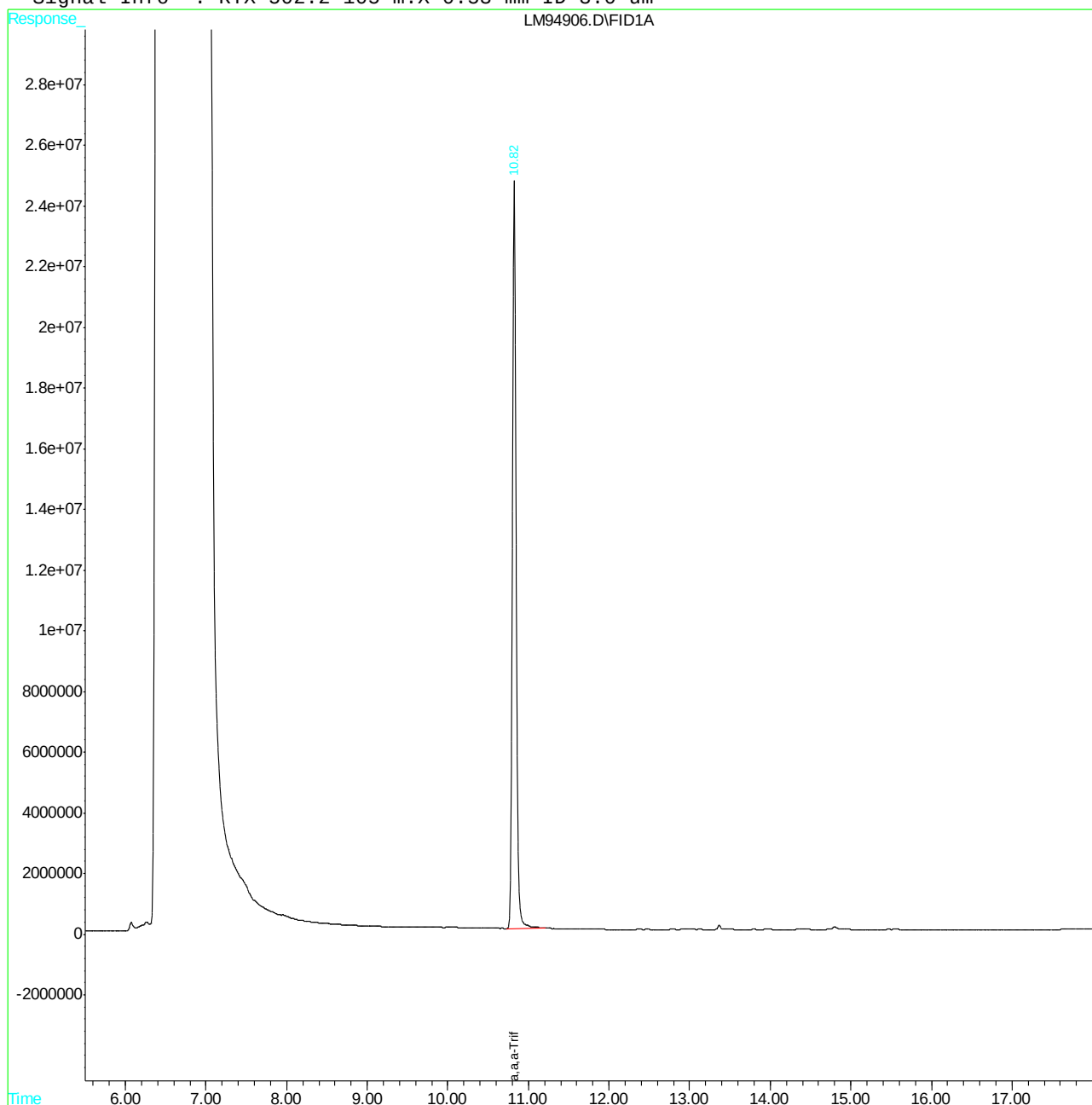
Target Compounds

Quantitation Report

Data File : C:\HPCHEM\1\DATA\LM94906.D Vial: 6
Acq On : 21 May 2018 9:57 am Operator: KRIZHKAC
Sample : MB1 Inst : GCLM
Misc : GC52536, GLM3860, 10.0, , 100, 10, 1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: May 22 9:05 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)
Title : Method SW846 8015C (GR0) .
Last Update : Wed Dec 13 09:36:39 2017
Response via : Multiple Level Calibration
DataAcq Meth : MLM3729.M

Volume Inj. : N/A
Signal Phase : crossbond phenylmethyl polysiloxane
Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um



GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- DDT/Endrin Breakdown Checks
- GC Identification Summaries (Hits)
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12300-MB1	3G116646.D	1	05/27/18	VDT	05/25/18	OP12300	G3G4054

The QC reported here applies to the following samples: Method: SW846 8151A

JC66318-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	0.42	0.12	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	0.12	0.025	ug/l	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	84% 50-142%
19719-28-9	2,4-DCAA	67% 50-142%

Method Blank Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12234-MB1	6G56505.D	1	05/23/18	CP	05/23/18	OP12234	G6G1689

The QC reported here applies to the following samples: Method: SW846 8081B

JC66318-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	0.0067	0.0040	ug/l	
12789-03-6	Chlordane	ND	0.33	0.14	ug/l	
72-20-8	Endrin	ND	0.0067	0.0040	ug/l	
76-44-8	Heptachlor	ND	0.0067	0.0030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0067	0.0040	ug/l	
72-43-5	Methoxychlor	ND	0.013	0.0045	ug/l	
8001-35-2	Toxaphene	ND	0.17	0.11	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	70% 30-137%
877-09-8	Tetrachloro-m-xylene	80% 30-137%
2051-24-3	Decachlorobiphenyl	49% 10-137%
2051-24-3	Decachlorobiphenyl	57% 10-137%

12.1.2
12

Method Blank Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12110-MB1	2G163841.D	1	05/20/18	EAL	05/19/18	OP12110	G2G4338

The QC reported here applies to the following samples: Method: SW846 8082A

JC66318-1

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	13	ug/kg	
11104-28-2	Aroclor 1221	ND	33	14	ug/kg	
11141-16-5	Aroclor 1232	ND	33	8.9	ug/kg	
53469-21-9	Aroclor 1242	ND	33	5.3	ug/kg	
12672-29-6	Aroclor 1248	ND	33	20	ug/kg	
11097-69-1	Aroclor 1254	ND	33	8.2	ug/kg	
11096-82-5	Aroclor 1260	ND	33	11	ug/kg	
11100-14-4	Aroclor 1268	ND	33	5.0	ug/kg	
37324-23-5	Aroclor 1262	ND	33	2.5	ug/kg	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	84% 24-152%
877-09-8	Tetrachloro-m-xylene	84% 24-152%
2051-24-3	Decachlorobiphenyl	87% 10-166%
2051-24-3	Decachlorobiphenyl	92% 10-166%

12.1.3
12

Method Blank Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12128-MB1	ZZ88967.D	1	05/21/18	RK	05/21/18	OP12128	GZZ3205

The QC reported here applies to the following samples: Method: SW846 8015C

JC66318-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	10	2.4	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	56% 18-132%
16416-32-3	Tetracosane-d50	69% 25-137%
438-22-2	5a-Androstane	67% 22-134%

12.1.4
12

Leachate Blank Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12300-LB11	3G116682.D	1	05/29/18	VDT	05/25/18	OP12300	G3G4055

The QC reported here applies to the following samples: Method: SW846 8151A

JC66318-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	4.2	1.2	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	1.2	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	99% 50-142%
19719-28-9	2,4-DCAA	82% 50-142%

Leachate Blank Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12234-LB34	6G56538.D	1	05/24/18	CP	05/23/18	OP12234	G6G1689

The QC reported here applies to the following samples: Method: SW846 8081B

JC66318-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	0.067	0.040	ug/l	
12789-03-6	Chlordane	ND	3.3	1.4	ug/l	
72-20-8	Endrin	ND	0.067	0.040	ug/l	
76-44-8	Heptachlor	ND	0.067	0.030	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.067	0.040	ug/l	
72-43-5	Methoxychlor	ND	0.13	0.045	ug/l	
8001-35-2	Toxaphene	ND	1.7	1.1	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	71% 30-137%
877-09-8	Tetrachloro-m-xylene	80% 30-137%
2051-24-3	Decachlorobiphenyl	68% 10-137%
2051-24-3	Decachlorobiphenyl	83% 10-137%

12.2.2
12

Blank Spike Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12300-BS1	3G116647.D	1	05/27/18	VDT	05/25/18	OP12300	G3G4054

The QC reported here applies to the following samples: Method: SW846 8151A

JC66318-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
94-75-7	2,4-D	13.3	9.9	74	46-153
93-72-1	2,4,5-TP (Silvex)	2.67	2.0	75	57-151

CAS No.	Surrogate Recoveries	BSP	Limits
19719-28-9	2,4-DCAA	66%	50-142%
19719-28-9	2,4-DCAA	56%	50-142%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12234-BS1	6G56506.D	1	05/24/18	CP	05/23/18	OP12234	G6G1689

The QC reported here applies to the following samples: Method: SW846 8081B

JC66318-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
58-89-9	gamma-BHC (Lindane)	1.67	1.3	78	37-178
72-20-8	Endrin	1.67	1.3	78	45-182
76-44-8	Heptachlor	1.67	1.3	78	26-172
1024-57-3	Heptachlor epoxide	1.67	1.2	72	43-173
72-43-5	Methoxychlor	1.67	1.2	72	40-192

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	64%	30-137%
877-09-8	Tetrachloro-m-xylene	71%	30-137%
2051-24-3	Decachlorobiphenyl	62%	10-137%
2051-24-3	Decachlorobiphenyl	72%	10-137%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12128-BS1	ZZ88968.D	1	05/21/18	RK	05/21/18	OP12128	GZZ3205

The QC reported here applies to the following samples: Method: SW846 8015C

JC66318-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	100	80.6	81	44-120

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	61%	18-132%
16416-32-3	Tetracosane-d50	67%	25-137%
438-22-2	5a-Androstane	64%	22-134%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12110-BS1	2G163842.D	1	05/20/18	EAL	05/19/18	OP12110	G2G4338
OP12110-BSD	2G163843.D	1	05/20/18	EAL	05/19/18	OP12110	G2G4338

The QC reported here applies to the following samples: Method: SW846 8082A

JC66318-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	133	130	97	137	103	5	61-146/30
11104-28-2	Aroclor 1221		ND		ND		nc	70-130/30
11141-16-5	Aroclor 1232		ND		ND		nc	70-130/30
53469-21-9	Aroclor 1242		ND		ND		nc	70-130/30
12672-29-6	Aroclor 1248		ND		ND		nc	70-130/30
11097-69-1	Aroclor 1254		ND		ND		nc	70-130/30
11096-82-5	Aroclor 1260	133	133	100	140	105	5	62-148/30
11100-14-4	Aroclor 1268		ND		ND		nc	-/30
37324-23-5	Aroclor 1262		ND		ND		nc	-/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	86%	91%	24-152%
877-09-8	Tetrachloro-m-xylene	84%	89%	24-152%
2051-24-3	Decachlorobiphenyl	90%	94%	10-166%
2051-24-3	Decachlorobiphenyl	95%	99%	10-166%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12300-MS	OA133573.D	1	05/29/18	VDT	05/25/18	OP12300	GOA4579
OP12300-MSD	OA133574.D	1	05/29/18	VDT	05/25/18	OP12300	GOA4579
JC66237-1	OA133550.D	1	05/27/18	VDT	05/25/18	OP12300	GOA4578

The QC reported here applies to the following samples: Method: SW846 8151A

JC66318-1A

CAS No.	Compound	JC66237-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
94-75-7	2,4-D	ND	13.3	17.7	133	13.3	18.0	135	2	43-136/44
93-72-1	2,4,5-TP (Silvex)	ND	2.67	2.8	105	2.67	3.3	124	16	47-141/41

CAS No.	Surrogate Recoveries	MS	MSD	JC66237-1	Limits
19719-28-9	2,4-DCAA	80%	93%	90%	50-142%
19719-28-9	2,4-DCAA	109%	137%	94%	50-142%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12234-MS	6G56519.D	1	05/24/18	CP	05/23/18	OP12234	G6G1689
OP12234-MSD	6G56520.D	1	05/24/18	CP	05/23/18	OP12234	G6G1689
JC66318-1A	6G56518.D	1	05/24/18	CP	05/23/18	OP12234	G6G1689

The QC reported here applies to the following samples: Method: SW846 8081B

JC66318-1A

CAS No.	Compound	JC66318-1A ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
58-89-9	gamma-BHC (Lindane)	ND	1.67	1.4	84	1.67	1.3	78	7	39-160/97
12789-03-6	Chlordane	ND		ND			ND		nc	81-123/10
72-20-8	Endrin	ND	1.67	1.5	90	1.67	1.3	78	14	43-169/95
76-44-8	Heptachlor	ND	1.67	1.4	84	1.67	1.2	72	15	35-152/102
1024-57-3	Heptachlor epoxide	ND	1.67	1.5	90	1.67	1.3	78	14	42-159/96
72-43-5	Methoxychlor	ND	1.67	1.4	84	1.67	1.2	72	15	47-170/99
8001-35-2	Toxaphene	ND		ND			ND		nc	50-150/8

CAS No.	Surrogate Recoveries	MS	MSD	JC66318-1A	Limits
877-09-8	Tetrachloro-m-xylene	72%	62%	66%	30-137%
877-09-8	Tetrachloro-m-xylene	79%	68%	74%	30-137%
2051-24-3	Decachlorobiphenyl	64%	54%	65%	10-137%
2051-24-3	Decachlorobiphenyl	75%	62%	78%	10-137%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12110-MS	2G163851.D	1	05/20/18	EAL	05/19/18	OP12110	G2G4338
OP12110-MSD	2G163852.D	1	05/20/18	EAL	05/19/18	OP12110	G2G4338
JC66309-7	2G163850.D	1	05/20/18	EAL	05/19/18	OP12110	G2G4338

The QC reported here applies to the following samples: Method: SW846 8082A

JC66318-1

CAS No.	Compound	JC66309-7 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	161	190	118	161	216	134	13	24-178/46
11104-28-2	Aroclor 1221	ND		ND			ND		nc	70-130/50
11141-16-5	Aroclor 1232	ND		ND			ND		nc	70-130/50
53469-21-9	Aroclor 1242	ND		ND			ND		nc	70-130/50
12672-29-6	Aroclor 1248	ND		ND			ND		nc	70-130/50
11097-69-1	Aroclor 1254	ND		ND			ND		nc	70-130/50
11096-82-5	Aroclor 1260	ND	161	202	126	161	209	130	3	15-185/45
11100-14-4	Aroclor 1268	ND		ND			ND		nc	-/50
37324-23-5	Aroclor 1262	ND		ND			ND		nc	-/50

CAS No.	Surrogate Recoveries	MS	MSD	JC66309-7	Limits
877-09-8	Tetrachloro-m-xylene	74%	82%	81%	24-152%
877-09-8	Tetrachloro-m-xylene	70%	81%	88%	24-152%
2051-24-3	Decachlorobiphenyl	101%	108%	68%	10-166%
2051-24-3	Decachlorobiphenyl	64%	62%	67%	10-166%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12128-MS ^a	ZZ88978.D	20	05/21/18	RK	05/21/18	OP12128	GZZ3205
OP12128-MSD ^a	ZZ88979.D	20	05/21/18	RK	05/21/18	OP12128	GZZ3205
JC66362-1 ^a	ZZ88977.D	20	05/21/18	RK	05/21/18	OP12128	GZZ3205

The QC reported here applies to the following samples: Method: SW846 8015C

JC66318-1

CAS No.	Compound	JC66362-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	17000		113	22100	4521* ^b	112	16300	-627* ^b	30	10-145/50

CAS No.	Surrogate Recoveries	MS	MSD	JC66362-1	Limits
84-15-1	o-Terphenyl	373%* ^c	238%* ^c	255%* ^c	18-132%
16416-32-3	Tetracosane-d50	188%* ^c	108%	161%* ^c	25-137%
438-22-2	5a-Androstane	626%* ^c	428%* ^c	422%* ^c	22-134%

- (a) Dilution required due to viscosity of the extract matrix.
(b) Outside control limits due to high level in sample relative to spike amount.
(c) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Leachate Spike Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12300-LS8	OA133573.D	1	05/29/18	VDT	05/25/18	OP12300	GOA4579
JC66237-1	OA133550.D	1	05/27/18	VDT	05/25/18	OP12300	GOA4578

The QC reported here applies to the following samples: Method: SW846 8151A

JC66318-1A

CAS No.	Compound	JC66237-1 ug/l	Spike Q	LS ug/l	LS %	Limits
94-75-7	2,4-D	ND	13.3	17.7	133	43-136
93-72-1	2,4,5-TP (Silvex)	ND	2.67	2.8	105	47-141

CAS No.	Surrogate Recoveries	LS	JC66237-1	Limits
19719-28-9	2,4-DCAA	80%	90%	50-142%
19719-28-9	2,4-DCAA	109%	94%	50-142%

* = Outside of Control Limits.

Leachate Spike Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12234-LS15	6G56519.D	1	05/24/18	CP	05/23/18	OP12234	G6G1689
JC66318-1A	6G56518.D	1	05/24/18	CP	05/23/18	OP12234	G6G1689

The QC reported here applies to the following samples: Method: SW846 8081B

JC66318-1A

CAS No.	Compound	JC66318-1A ug/l	Spike Q ug/l	LS ug/l	LS %	Limits
58-89-9	gamma-BHC (Lindane)	ND	1.67	1.4	84	39-160
12789-03-6	Chlordane	ND		ND		81-123
72-20-8	Endrin	ND	1.67	1.5	90	43-169
76-44-8	Heptachlor	ND	1.67	1.4	84	35-152
1024-57-3	Heptachlor epoxide	ND	1.67	1.5	90	42-159
72-43-5	Methoxychlor	ND	1.67	1.4	84	47-170
8001-35-2	Toxaphene	ND		ND		50-150

CAS No.	Surrogate Recoveries	LS	JC66318-1A	Limits
877-09-8	Tetrachloro-m-xylene	72%	66%	30-137%
877-09-8	Tetrachloro-m-xylene	79%	74%	30-137%
2051-24-3	Decachlorobiphenyl	64%	65%	10-137%
2051-24-3	Decachlorobiphenyl	75%	78%	10-137%

* = Outside of Control Limits.

Internal Standard Area Summary

Page 1 of 2

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G6G1689-CC1671	Injection Date:	05/23/18
Lab File ID:	G656503.D	Injection Time:	23:09
Instrument ID:	GC6G	Method:	SW846 8081B

	IS 1		IS 2	
	AREA	RT	AREA	RT
Check Std	274798161	2.15	387704059	1.95
Upper Limit ^a	549596322	2.65	775408118	2.45
Lower Limit ^b	137399081	1.65	193852030	1.45

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT
OP12234-MB1	232356936	2.15	357999833	1.95
OP12155-MB2	232356936	2.15	357999833	1.95
OP12236-MB1	232356936	2.15	357999833	1.95
OP12252-MB1	232356936	2.15	357999833	1.95
OP12233-MB1	232356936	2.15	357999833	1.95
OP12156-MB2	232356936	2.15	357999833	1.95
OP12156-BS2	250002395	2.15	383116504	1.95
OP12252-BS1	250002395	2.15	383116504	1.95
OP12233-BS1	250002395	2.15	383116504	1.95
OP12236-BS1	250002395	2.15	383116504	1.95
OP12155-BS2	250002395	2.15	383116504	1.95
OP12234-BS1	250002395	2.15	383116504	1.95
OP12252-BSD	243483021	2.15	375691376	1.95
JC65814-2AB	252274316	2.15	387580580	1.95
OP12233-LS14	259829404	2.15	403861214	1.95
OP12233-MS	259829404	2.15	403861214	1.95
OP12233-MSD	272437232	2.15	424259088	1.95
ZZZZZZ	229443471	2.15	347679523	1.95
ZZZZZZ	252255340	2.15	405004603	1.95
ZZZZZZ	254624472	2.14	395548908	1.94
ZZZZZZ	253016952	2.15	391386061	1.95
ZZZZZZ	235792645	2.15	364857874	1.95
ZZZZZZ	236416553	2.15	413526637	1.95
ZZZZZZ	252682670	2.15	381828285	1.95
JC66318-1A	275042426	2.15	427258935	1.95
OP12234-LS15	254513534	2.15	396826296	1.95
OP12234-MS	254513534	2.15	396826296	1.95
OP12234-MSD	291143916	2.15	449488835	1.95
OP12233-LB32	255674353	2.15	400986337	1.95
OP12156-LB28	262559059	2.15	412646054	1.95
OP12236-LB35	263084800	2.15	407005201	1.95

IS 1 = 1-Bromo-2-nitrobenzene (Signal #2)
IS 2 = 1-Bromo-2-nitrobenzene (Signal #1)

12.7.1
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Internal Standard Area Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G6G1689-CC1671	Injection Date:	05/23/18
Lab File ID:	6G56503.D	Injection Time:	23:09
Instrument ID:	GC6G	Method:	SW846 8081B

Lab	IS 1		IS 2	
Sample ID	AREA	RT	AREA	RT

- (a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G6G1689-CC1671	Injection Date:	05/24/18
Lab File ID:	6G56524.D	Injection Time:	05:36
Instrument ID:	GC6G	Method:	SW846 8081B

	IS 1		IS 2	
	AREA	RT	AREA	RT
Check Std	290181174	2.15	410999576	1.95
Upper Limit ^a	580362348	2.65	821999152	2.45
Lower Limit ^b	145090587	1.65	205499788	1.45

Lab Sample ID	IS 1		IS 2	
	AREA	RT	AREA	RT
ZZZZZZ	253903187	2.15	385759378	1.95
OP12252-LB27	251836677	2.15	397216140	1.95
ZZZZZZ	235086780	2.15	360520184	1.95
JC66032-1A	263523200	2.15	418656564	1.95
OP12236-MS	251560811	2.15	404270604	1.95
OP12236-LS16	251560811	2.15	404270604	1.95
OP12236-MSD	268808268	2.15	431208592	1.95
ZZZZZZ	255700803	2.15	388521192	1.95
ZZZZZZ	245872544	2.15	393681146	1.95
ZZZZZZ	259603042	2.15	395883342	1.95
ZZZZZZ	272003851	2.15	413068664	1.95
ZZZZZZ	245373528	2.15	394126559	1.95
OP12155-LB33	264777456	2.15	410092805	1.95
OP12234-LB34	243038773	2.15	388298994	1.95

IS 1 = 1-Bromo-2-nitrobenzene (Signal #2)
IS 2 = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

12.7.2
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DDT/Endrin Breakdown Check

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	G6G1671-DDT	Injection Date:	04/30/18
Lab File ID:	6G55778.D	Injection Time:	10:46
Instrument ID:	GC6G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	11318971	7536013
4,4'-DDE	11688813	6661386
4,4'-DDT	697113892	431734229

DDT Breakdown ^a	3.2 %	3.2 %
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Endrin aldehyde	0	0
Endrin ketone	3648777	6453656
Endrin	397383387	243111166

Endrin Breakdown ^b	0.9 %	2.6 %
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(a) Calculated as: $(\text{DDD} + \text{DDE}) / (\text{DDD} + \text{DDE} + \text{DDT}) \times 100$

(b) Calculated as: $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G6G1671-IC1671	6G55780.D	04/30/18	11:25	00:39	Initial cal 1
G6G1671-IC1671	6G55781.D	04/30/18	11:43	00:57	Initial cal 2
G6G1671-IC1671	6G55782.D	04/30/18	12:01	01:15	Initial cal 5
G6G1671-IC1671	6G55783.D	04/30/18	12:18	01:33	Initial cal 10
G6G1671-ICC1671	6G55784.D	04/30/18	12:36	01:50	Initial cal 25
G6G1671-IC1671	6G55785.D	04/30/18	12:54	02:08	Initial cal 50
G6G1671-IC1671	6G55786.D	04/30/18	13:12	02:26	Initial cal 75
G6G1671-IC1671	6G55787.D	04/30/18	13:29	02:44	Initial cal 100
G6G1671-IC1671	6G55788.D	04/30/18	13:47	03:02	Initial cal 500
G6G1671-IC1671	6G55789.D	04/30/18	14:05	03:19	Initial cal 500
G6G1671-ICV1671	6G55790.D	04/30/18	14:23	03:37	Initial cal verification 25
G6G1671-ICV1671	6G55791.D	04/30/18	14:41	03:55	Initial cal verification 500
G6G1671-ICV1671	6G55792.D	04/30/18	14:58	04:13	Initial cal verification 500
G6G1671-ICV1671	6G55793.D	04/30/18	15:16	04:31	Initial cal verification 50
G6G1671-ICV1671	6G55794.D	04/30/18	15:34	04:48	Initial cal verification 50

DDT/Endrin Breakdown Check

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1689-DDT	Injection Date: 05/23/18
Lab File ID: 6G56502.D	Injection Time: 22:51
Instrument ID: GC6G	

Compound	Response Signal 1	Response Signal 2
4,4' -DDD	11457188	11383935
4,4' -DDE	25721928	17841892
4,4' -DDT	687056397	470353197

DDT Breakdown ^a	5.1 %	5.9 %
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Endrin aldehyde	717193	1358230
Endrin ketone	2572847	2966120
Endrin	415257126	276920278

Endrin Breakdown ^b	0.8 %	1.5 %
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(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100

(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G6G1689-CC1671	6G56503.D	05/23/18	23:09	00:18	Continuing cal 25
OP12233-MB1	6G56505.D	05/23/18	23:57	01:06	Method Blank
OP12234-MB1	6G56505.D	05/23/18	23:57	01:06	Method Blank
OP12155-MB2	6G56505.D	05/23/18	23:57	01:06	Method Blank
OP12156-MB2	6G56505.D	05/23/18	23:57	01:06	Method Blank
OP12236-MB1	6G56505.D	05/23/18	23:57	01:06	Method Blank
OP12252-MB1	6G56505.D	05/23/18	23:57	01:06	Method Blank
OP12156-BS2	6G56506.D	05/24/18	00:15	01:23	Blank Spike
OP12155-BS2	6G56506.D	05/24/18	00:15	01:23	Blank Spike
OP12236-BS1	6G56506.D	05/24/18	00:15	01:23	Blank Spike
OP12252-BS1	6G56506.D	05/24/18	00:15	01:23	Blank Spike
OP12233-BS1	6G56506.D	05/24/18	00:15	01:23	Blank Spike
OP12234-BS1	6G56506.D	05/24/18	00:15	01:23	Blank Spike
OP12252-BSD	6G56507.D	05/24/18	00:32	01:41	Blank Spike Duplicate
JC65814-2AB	6G56508.D	05/24/18	00:50	01:59	(used for QC only; not part of job JC66318)
OP12233-MS	6G56509.D	05/24/18	01:08	02:17	Matrix Spike
OP12233-LS14	6G56509.D	05/24/18	01:08	02:17	Leachate Spike
OP12233-MSD	6G56510.D	05/24/18	01:26	02:35	Matrix Spike Duplicate
ZZZZZZ	6G56511.D	05/24/18	01:44	02:53	(unrelated sample)
ZZZZZZ	6G56512.D	05/24/18	02:02	03:11	(unrelated sample)
ZZZZZZ	6G56513.D	05/24/18	02:20	03:29	(unrelated sample)
ZZZZZZ	6G56514.D	05/24/18	02:37	03:46	(unrelated sample)
ZZZZZZ	6G56515.D	05/24/18	02:55	04:04	(unrelated sample)
ZZZZZZ	6G56516.D	05/24/18	03:13	04:22	(unrelated sample)

DDT/Endrin Breakdown Check

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	G6G1689-DDT	Injection Date:	05/23/18
Lab File ID:	6G56502.D	Injection Time:	22:51
Instrument ID:	GC6G		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	6G56517.D	05/24/18	03:31	04:40	(unrelated sample)
JC66318-1A	6G56518.D	05/24/18	03:49	04:58	WC-6
OP12234-LS15	6G56519.D	05/24/18	04:07	05:16	Leachate Spike
OP12234-MS	6G56519.D	05/24/18	04:07	05:16	Matrix Spike
OP12234-MSD	6G56520.D	05/24/18	04:24	05:33	Matrix Spike Duplicate
OP12233-LB32	6G56521.D	05/24/18	04:42	05:51	Leachate Blank
OP12156-LB28	6G56522.D	05/24/18	05:00	06:09	Leachate Blank
OP12236-LB35	6G56523.D	05/24/18	05:18	06:27	Leachate Blank
G6G1689-CC1671	6G56524.D	05/24/18	05:36	06:45	Continuing cal 50
ZZZZZZ	6G56526.D	05/24/18	06:12	07:21	(unrelated sample)
OP12252-LB27	6G56527.D	05/24/18	06:29	07:38	Leachate Blank
ZZZZZZ	6G56528.D	05/24/18	06:47	07:56	(unrelated sample)
JC66032-1A	6G56529.D	05/24/18	07:05	08:14	(used for QC only; not part of job JC66318)
OP12236-MS	6G56530.D	05/24/18	07:23	08:32	Matrix Spike
OP12236-LS16	6G56530.D	05/24/18	07:23	08:32	Leachate Spike
OP12236-MSD	6G56531.D	05/24/18	07:41	08:50	Matrix Spike Duplicate
ZZZZZZ	6G56532.D	05/24/18	07:59	09:07	(unrelated sample)
ZZZZZZ	6G56533.D	05/24/18	08:16	09:25	(unrelated sample)
ZZZZZZ	6G56534.D	05/24/18	08:34	09:43	(unrelated sample)
ZZZZZZ	6G56535.D	05/24/18	08:52	10:01	(unrelated sample)
ZZZZZZ	6G56536.D	05/24/18	09:10	10:19	(unrelated sample)
OP12155-LB33	6G56537.D	05/24/18	09:28	10:37	Leachate Blank
OP12234-LB34	6G56538.D	05/24/18	09:46	10:55	Leachate Blank

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GC Identification Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4054-CC4044	Injection Date:	05/27/18
Lab File ID:	3G116644.D	Injection Time:	11:33
Instrument ID:	GC3G	Method:	SW846 8151A
Sample ID:	OP12300-BS1	Injection Date:	05/27/18
Lab File ID:	3G116647.D	Injection Time:	13:02
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
2,4-D	1 ^a	8.91	8.91	9.9		ug/l	4.9
2,4-D	2	9.71	9.71	10.4		ug/l	
2,4,5-TP (Silvex)	1 ^a	10.22	10.22	2.0		ug/l	0.0
2,4,5-TP (Silvex)	2	11.11	11.11	2.0		ug/l	

(a) QC results reported from this column.

12.9.1
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GC Identification Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GOA4579-CC4559	Injection Date:	05/29/18
Lab File ID:	OA133569.D	Injection Time:	09:18
Instrument ID:	GCOA	Method:	SW846 8151A
Sample ID:	OP12300-MS	Injection Date:	05/29/18
Lab File ID:	OA133573.D	Injection Time:	11:19
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
2,4-D	1 ^a	8.87	8.89	17.7		ug/l	30.6
2,4-D	2	10.56	10.57	13.0		ug/l	
2,4,5-TP (Silvex)	1 ^a	10.18	10.19	2.8		ug/l	7.4
2,4,5-TP (Silvex)	2	12.08	12.09	2.6		ug/l	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GOA4579-CC4559	Injection Date:	05/29/18
Lab File ID:	OA133569.D	Injection Time:	09:18
Instrument ID:	GCOA	Method:	SW846 8151A
Sample ID:	OP12300-MSD	Injection Date:	05/29/18
Lab File ID:	OA133574.D	Injection Time:	11:48
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
2,4-D	1 ^a	8.87	8.89	18.0		ug/l	15.6
2,4-D	2	10.56	10.57	15.4		ug/l	
2,4,5-TP (Silvex)	1 ^a	10.18	10.19	3.3		ug/l	16.4
2,4,5-TP (Silvex)	2	12.08	12.09	2.8		ug/l	

(a) QC results reported from this column.

12.9.3
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GC Identification Summary

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: G6G1689-CC1671	Injection Date: 05/23/18
Lab File ID: 6G56503.D	Injection Time: 23:09
Instrument ID: GC6G	Method: SW846 8081B

Sample ID: OP12234-BS1	Injection Date: 05/24/18
Lab File ID: 6G56506.D	Injection Time: 00:15
Client ID: Blank Spike	

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
gamma-BHC (Lindane)	1 ^a	3.28	3.28	1.3		ug/l	0.0
gamma-BHC (Lindane)	2	3.96	3.96	1.3		ug/l	
Endrin	1 ^a	5.94	5.94	1.3		ug/l	7.4
Endrin	2	7.25	7.25	1.4		ug/l	
Heptachlor	1 ^a	3.77	3.77	1.3		ug/l	0.0
Heptachlor	2	4.52	4.52	1.3		ug/l	
Heptachlor epoxide	1 ^a	4.80	4.80	1.2		ug/l	15.4
Heptachlor epoxide	2	5.75	5.75	1.4		ug/l	
Methoxychlor	1 ^a	7.27	7.26	1.2		ug/l	15.4
Methoxychlor	2	9.20	9.20	1.4		ug/l	

(a) QC results reported from this column.

12.9.4
12

GC Identification Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G6G1689-CC1671	Injection Date:	05/23/18
Lab File ID:	6G56503.D	Injection Time:	23:09
Instrument ID:	GC6G	Method:	SW846 8081B

Sample ID:	OP12234-MS	Injection Date:	05/24/18
Lab File ID:	6G56519.D	Injection Time:	04:07
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
gamma-BHC (Lindane)	1 ^a	3.28	3.28	1.4		ug/l	6.9
gamma-BHC (Lindane)	2	3.96	3.96	1.5		ug/l	
Endrin	1 ^a	5.94	5.94	1.5		ug/l	6.5
Endrin	2	7.25	7.25	1.6		ug/l	
Heptachlor	1 ^a	3.77	3.77	1.4		ug/l	6.9
Heptachlor	2	4.51	4.52	1.5		ug/l	
Heptachlor epoxide	1 ^a	4.80	4.80	1.5		ug/l	6.5
Heptachlor epoxide	2	5.74	5.75	1.6		ug/l	
Methoxychlor	1 ^a	7.27	7.26	1.4		ug/l	13.3
Methoxychlor	2	9.20	9.20	1.6		ug/l	

(a) QC results reported from this column.

12.9.5
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GC Identification Summary

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: G6G1689-CC1671	Injection Date: 05/23/18
Lab File ID: 6G56503.D	Injection Time: 23:09
Instrument ID: GC6G	Method: SW846 8081B

Sample ID: OP12234-MSD	Injection Date: 05/24/18
Lab File ID: 6G56520.D	Injection Time: 04:24
Client ID: Matrix Spike Duplicate	

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
gamma-BHC (Lindane)	1 ^a	3.28	3.28	1.3		ug/l	0.0
gamma-BHC (Lindane)	2	3.96	3.96	1.3		ug/l	
Endrin	1 ^a	5.94	5.94	1.3		ug/l	7.4
Endrin	2	7.25	7.25	1.4		ug/l	
Heptachlor	1 ^a	3.77	3.77	1.2		ug/l	8.0
Heptachlor	2	4.51	4.52	1.3		ug/l	
Heptachlor epoxide	1 ^a	4.80	4.80	1.3		ug/l	0.0
Heptachlor epoxide	2	5.74	5.75	1.3		ug/l	
Methoxychlor	1 ^a	7.27	7.26	1.2		ug/l	15.4
Methoxychlor	2	9.20	9.20	1.4		ug/l	

(a) QC results reported from this column.

12.9.6
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GC Identification Summary

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: G2G4337-CC4311	Injection Date: 05/19/18
Lab File ID: 2G163826.D	Injection Time: 21:12
Instrument ID: GC2G	Method: SW846 8082A

Sample ID: OP12110-BS1	Injection Date: 05/20/18
Lab File ID: 2G163842.D	Injection Time: 01:43
Client ID: Blank Spike	

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 ^a			130		ug/kg	0.0
Aroclor 1016	2			130		ug/kg	
AR1016-A	1	3.16	3.16	160		ug/kg	
AR1016-A	2	4.09	4.09	167		ug/kg	
AR1016-B	1	3.55	3.55	135		ug/kg	
AR1016-B	2	4.62	4.62	128		ug/kg	
AR1016-C	1	4.10	4.09	115		ug/kg	
AR1016-C	2	5.27	5.26	111		ug/kg	
AR1016-D	1	4.26	4.26	110		ug/kg	
AR1016-D	2	5.45	5.45	121		ug/kg	
AR1016-E	1	4.76	4.76	128		ug/kg	
AR1016-E	2	6.09	6.09	121		ug/kg	
Aroclor 1260	1			129		ug/kg	3.1
Aroclor 1260	2 ^a			133		ug/kg	
AR1260-A	1	7.13	7.12	98.8		ug/kg	
AR1260-A	2	8.69	8.69	105		ug/kg	
AR1260-B	1	7.28	7.28	145		ug/kg	
AR1260-B	2	8.80	8.80	148		ug/kg	
AR1260-C	1	7.62	7.62	139		ug/kg	
AR1260-C	2	9.23	9.23	134		ug/kg	
AR1260-D	1	8.05	8.05	124		ug/kg	
AR1260-D	2	9.59	9.58	136		ug/kg	
AR1260-E	1	8.45	8.44	138		ug/kg	
AR1260-E	2	10.13	10.12	143		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2G4337-CC4311	Injection Date:	05/19/18
Lab File ID:	2G163826.D	Injection Time:	21:12
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	OP12110-BSD	Injection Date:	05/20/18
Lab File ID:	2G163843.D	Injection Time:	02:00
Client ID:	Blank Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1			137		ug/kg	0.0
Aroclor 1016	2 ^a			137		ug/kg	
AR1016-A	1	3.15	3.16	170		ug/kg	
AR1016-A	2	4.09	4.09	180		ug/kg	
AR1016-B	1	3.55	3.55	143		ug/kg	
AR1016-B	2	4.62	4.62	135		ug/kg	
AR1016-C	1	4.09	4.09	121		ug/kg	
AR1016-C	2	5.27	5.26	117		ug/kg	
AR1016-D	1	4.26	4.26	115		ug/kg	
AR1016-D	2	5.45	5.45	127		ug/kg	
AR1016-E	1	4.76	4.76	136		ug/kg	
AR1016-E	2	6.09	6.09	126		ug/kg	
Aroclor 1260	1			133		ug/kg	5.1
Aroclor 1260	2 ^a			140		ug/kg	
AR1260-A	1	7.13	7.12	104		ug/kg	
AR1260-A	2	8.69	8.69	111		ug/kg	
AR1260-B	1	7.28	7.28	150		ug/kg	
AR1260-B	2	8.80	8.80	157		ug/kg	
AR1260-C	1	7.62	7.62	137		ug/kg	
AR1260-C	2	9.23	9.23	140		ug/kg	
AR1260-D	1	8.05	8.05	131		ug/kg	
AR1260-D	2	9.59	9.58	143		ug/kg	
AR1260-E	1	8.45	8.44	142		ug/kg	
AR1260-E	2	10.13	10.12	150		ug/kg	

(a) QC results reported from this column.

12.9.8
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GC Identification Summary

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: G2G4338-CC4311	Injection Date: 05/20/18
Lab File ID: 2G163848.D	Injection Time: 03:25
Instrument ID: GC2G	Method: SW846 8082A

Sample ID: OP12110-MS	Injection Date: 05/20/18
Lab File ID: 2G163851.D	Injection Time: 04:16
Client ID: Matrix Spike	

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 ^a			190		ug/kg	37.5
Aroclor 1016	2			130		ug/kg	
AR1016-C	1	4.10	4.10	158		ug/kg	
AR1016-C	2	5.25	5.26	178		ug/kg	
AR1016-D	1	4.25	4.26	226		ug/kg	
AR1016-D	2	5.44	5.45	112		ug/kg	
AR1016-E	1	4.77	4.76	187		ug/kg	
AR1016-E	2	6.09	6.09	102		ug/kg	
Aroclor 1260	1 ^a			202		ug/kg	32.2
Aroclor 1260	2			146		ug/kg	
AR1260-A	1	7.11	7.12	200		ug/kg	
AR1260-A	2	8.68	8.68	121		ug/kg	
AR1260-B	1	7.27	7.28	219		ug/kg	
AR1260-B	2	8.80	8.80	125		ug/kg	
AR1260-C	1	7.61	7.61	185		ug/kg	
AR1260-C	2	9.23	9.23	146		ug/kg	
AR1260-D	1	8.04	8.04	189		ug/kg	
AR1260-D	2	9.57	9.58	152		ug/kg	
AR1260-E	1	8.42	8.43	216		ug/kg	
AR1260-E	2	10.11	10.12	187		ug/kg	

(a) QC results reported from this column.

12.9.9
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GC Identification Summary

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: G2G4338-CC4311	Injection Date: 05/20/18
Lab File ID: 2G163848.D	Injection Time: 03:25
Instrument ID: GC2G	Method: SW846 8082A

Sample ID: OP12110-MSD	Injection Date: 05/20/18
Lab File ID: 2G163852.D	Injection Time: 04:33
Client ID: Matrix Spike Duplicate	

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 ^a			216		ug/kg	33.5
Aroclor 1016	2			154		ug/kg	
AR1016-C	1	4.10	4.10	158		ug/kg	
AR1016-C	2	5.25	5.26	203		ug/kg	
AR1016-D	1	4.25	4.26	285		ug/kg	
AR1016-D	2	5.44	5.45	115		ug/kg	
AR1016-E	1	4.76	4.76	205		ug/kg	
AR1016-E	2	6.09	6.09	143		ug/kg	
Aroclor 1260	1 ^a			209		ug/kg	30.3
Aroclor 1260	2			154		ug/kg	
AR1260-A	1	7.11	7.12	204		ug/kg	
AR1260-A	2	8.68	8.68	124		ug/kg	
AR1260-B	1	7.27	7.28	227		ug/kg	
AR1260-B	2	8.80	8.80	141		ug/kg	
AR1260-C	1	7.61	7.61	188		ug/kg	
AR1260-C	2	9.23	9.23	151		ug/kg	
AR1260-D	1	8.04	8.04	196		ug/kg	
AR1260-D	2	9.57	9.58	155		ug/kg	
AR1260-E	1	8.42	8.43	229		ug/kg	
AR1260-E	2	10.11	10.12	200		ug/kg	

(a) QC results reported from this column.

12.9.10
12

Surrogate Recovery Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8151A	Matrix: LEACHATE
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b
JC66318-1A	3G116658.D	73	63
OP12300-BS1	3G116647.D	66	56
OP12300-LB11	3G116682.D	99	82
OP12300-LS8	OA133573.D	80	109
OP12300-MB1	3G116646.D	84	67
OP12300-MS	OA133573.D	80	109
OP12300-MSD	OA133574.D	93	137

Surrogate Compounds	Recovery Limits
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S1 = 2,4-DCAA	50-142%
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(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

Surrogate Recovery Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8081B	Matrix: LEACHATE
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a	S2 ^b
JC66318-1A	6G56518.D	66	74	65	78
OP12234-BS1	6G56506.D	64	71	62	72
OP12234-LB34	6G56538.D	71	80	68	83
OP12234-LS15	6G56519.D	72	79	64	75
OP12234-MB1	6G56505.D	70	80	49	57
OP12234-MS	6G56519.D	72	79	64	75
OP12234-MSD	6G56520.D	62	68	54	62

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	30-137%
S2 = Decachlorobiphenyl	10-137%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

12.10.2
12

Surrogate Recovery Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8082A	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a	S2 ^b
JC66318-1	2G163872.D	92	81	251* ^c	328* ^c
OP12110-BS1	2G163842.D	86	84	90	95
OP12110-BSD	2G163843.D	91	89	94	99
OP12110-MB1	2G163841.D	84	84	87	92
OP12110-MS	2G163851.D	74	70	101	64
OP12110-MSD	2G163852.D	82	81	108	62

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	24-152%
S2 = Decachlorobiphenyl	10-166%

- (a) Recovery from GC signal #1
- (b) Recovery from GC signal #2
- (c) Outside control limits due to matrix interference.

12.10.3
12

Surrogate Recovery Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8015C	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S2 ^a	S3 ^a
JC66318-1	ZZ88969.D	59	75	69
OP12128-BS1	ZZ88968.D	61	67	64
OP12128-MB1	ZZ88967.D	56	69	67
OP12128-MS	ZZ88978.D	373* ^b	188* ^b	626* ^b
OP12128-MSD	ZZ88979.D	238* ^b	108	428* ^b

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	18-132%
S2 = Tetracosane-d50	25-137%
S3 = 5a-Androstane	22-134%

- (a) Recovery from GC signal #1
(b) Outside control limits due to matrix interference.

12.10.4
12

GC Surrogate Retention Time Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4054-CC4044	Injection Date:	05/27/18
Lab File ID:	3G116644.D	Injection Time:	11:33
Instrument ID:	GC3G	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	7.90	7.38

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
OP12297-MB1	3G116646.D	05/27/18	12:34	7.90	7.38
OP12299-MB1	3G116646.D	05/27/18	12:34	7.90	7.38
OP12300-MB1	3G116646.D	05/27/18	12:34	7.90	7.38
OP12298-MB1	3G116646.D	05/27/18	12:34	7.90	7.38
OP12301-MB1	3G116646.D	05/27/18	12:34	7.90	7.38
OP12299-BS1	3G116647.D	05/27/18	13:02	7.90	7.38
OP12301-BS1	3G116647.D	05/27/18	13:02	7.90	7.38
OP12298-BS1	3G116647.D	05/27/18	13:02	7.90	7.38
OP12297-BS1	3G116647.D	05/27/18	13:02	7.90	7.38
OP12300-BS1	3G116647.D	05/27/18	13:02	7.90	7.38
ZZZZZZ	3G116648.D	05/27/18	13:30	7.88	7.38
ZZZZZZ	3G116649.D	05/27/18	13:59	7.90	7.38
ZZZZZZ	3G116650.D	05/27/18	14:27	7.88	7.38
ZZZZZZ	3G116651.D	05/27/18	14:55	7.88	7.38
ZZZZZZ	3G116652.D	05/27/18	15:24	7.88	7.38
ZZZZZZ	3G116653.D	05/27/18	15:52	7.90	7.38

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4054-CC4044	Injection Date:	05/27/18
Lab File ID:	3G116654.D	Injection Time:	16:20
Instrument ID:	GC3G	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	7.90	7.38

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
ZZZZZZ	3G116656.D	05/27/18	17:17	7.90	7.38
ZZZZZZ	3G116657.D	05/27/18	17:45	7.90	7.38
JC66318-1A	3G116658.D	05/27/18	18:14	7.90	7.38
JC66422-1	3G116659.D	05/27/18	18:42	7.90	7.38
ZZZZZZ	3G116660.D	05/27/18	19:10	7.90	7.38
LA44145-1A	3G116661.D	05/27/18	19:39	7.88	7.38
JC66319-1	3G116662.D	05/27/18	20:07	7.88	7.38
ZZZZZZ	3G116663.D	05/27/18	20:35	7.88	7.38

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G3G4055-CC4044	Injection Date:	05/29/18
Lab File ID:	3G116674.D	Injection Time:	08:48
Instrument ID:	GC3G	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	7.90	7.38

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
LA44160-1A	3G116677.D	05/29/18	10:43	7.91	7.30
OP12301-LS18	3G116679.D	05/29/18	11:41	7.90	7.38
OP12301-MS	3G116679.D	05/29/18	11:41	7.90	7.38
OP12301-MSD	3G116681.D	05/29/18	12:41	7.91	7.38
OP12300-LB11	3G116682.D	05/29/18	13:09	7.90	7.38
OP12301-LB36	3G116683.D	05/29/18	13:38	7.90	7.38
G3G4055-ECC4044	3G116684.D	05/29/18	14:07	7.90	7.38

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GOA4579-CC4559	Injection Date:	05/29/18
Lab File ID:	OA133569.D	Injection Time:	09:18
Instrument ID:	GCOA	Method:	SW846 8151A

	S1 ^a	S1 ^b
	RT	RT
Check Std	8.55	7.35

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
OP12306-MB1	OA133571.D	05/29/18	10:21	8.56	7.36
OP12306-BS1	OA133572.D	05/29/18	10:50	8.55	7.34
OP12300-MS	OA133573.D	05/29/18	11:19	8.55	7.35
OP12300-LS8	OA133573.D	05/29/18	11:19	8.55	7.35
OP12300-MSD	OA133574.D	05/29/18	11:48	8.55	7.35
OP12299-LB1	OA133575.D	05/29/18	12:17	8.56	7.36
OP12298-LB2	OA133576.D	05/29/18	12:46	8.56	7.36
OP12297-LB6	OA133577.D	05/29/18	13:16	8.56	7.36
GOA4579-ECC4559	OA133578.D	05/29/18	13:45	8.55	7.35

Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.11.4
12

GC Surrogate Retention Time Summary

Page 1 of 2

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: G6G1689-CC1671	Injection Date: 05/23/18
Lab File ID: 6G56503.D	Injection Time: 23:09
Instrument ID: GC6G	Method: SW846 8081B

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.53	2.93	9.81	11.71

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP12234-MB1	6G56505.D	05/23/18	23:57	2.53	2.93	9.82	11.71
OP12155-MB2	6G56505.D	05/23/18	23:57	2.53	2.93	9.82	11.71
OP12236-MB1	6G56505.D	05/23/18	23:57	2.53	2.93	9.82	11.71
OP12252-MB1	6G56505.D	05/23/18	23:57	2.53	2.93	9.82	11.71
OP12233-MB1	6G56505.D	05/23/18	23:57	2.53	2.93	9.82	11.71
OP12156-MB2	6G56505.D	05/23/18	23:57	2.53	2.93	9.82	11.71
OP12156-BS2	6G56506.D	05/24/18	00:15	2.53	2.93	9.81	11.71
OP12252-BS1	6G56506.D	05/24/18	00:15	2.53	2.93	9.81	11.71
OP12233-BS1	6G56506.D	05/24/18	00:15	2.53	2.93	9.81	11.71
OP12236-BS1	6G56506.D	05/24/18	00:15	2.53	2.93	9.81	11.71
OP12155-BS2	6G56506.D	05/24/18	00:15	2.53	2.93	9.81	11.71
OP12234-BS1	6G56506.D	05/24/18	00:15	2.53	2.93	9.81	11.71
OP12252-BSD	6G56507.D	05/24/18	00:32	2.53	2.93	9.81	11.71
JC65814-2AB	6G56508.D	05/24/18	00:50	2.53	2.93	9.81	11.71
OP12233-LS14	6G56509.D	05/24/18	01:08	2.53	2.93	9.81	11.71
OP12233-MS	6G56509.D	05/24/18	01:08	2.53	2.93	9.81	11.71
OP12233-MSD	6G56510.D	05/24/18	01:26	2.53	2.93	9.81	11.71
ZZZZZZ	6G56511.D	05/24/18	01:44	2.53	2.93	9.81	11.71
ZZZZZZ	6G56512.D	05/24/18	02:02	2.53	2.93	9.81	11.71
ZZZZZZ	6G56513.D	05/24/18	02:20	2.53	2.93	9.81	11.71
ZZZZZZ	6G56514.D	05/24/18	02:37	2.53	2.93	9.81	11.71
ZZZZZZ	6G56515.D	05/24/18	02:55	2.53	2.93	9.81	11.71
ZZZZZZ	6G56516.D	05/24/18	03:13	2.53	2.93	9.81	11.71
ZZZZZZ	6G56517.D	05/24/18	03:31	2.53	2.93	9.81	11.71
JC66318-1A	6G56518.D	05/24/18	03:49	2.53	2.93	9.81	11.71
OP12234-LS15	6G56519.D	05/24/18	04:07	2.53	2.93	9.81	11.71
OP12234-MS	6G56519.D	05/24/18	04:07	2.53	2.93	9.81	11.71
OP12234-MSD	6G56520.D	05/24/18	04:24	2.53	2.93	9.81	11.71
OP12233-LB32	6G56521.D	05/24/18	04:42	2.53	2.93	9.81	11.71
OP12156-LB28	6G56522.D	05/24/18	05:00	2.53	2.93	9.81	11.71
OP12236-LB35	6G56523.D	05/24/18	05:18	2.53	2.93	9.81	11.71

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

12.11.5
12

GC Surrogate Retention Time Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G6G1689-CC1671	Injection Date:	05/23/18
Lab File ID:	6G56503.D	Injection Time:	23:09
Instrument ID:	GC6G	Method:	SW846 8081B

Surrogate
Compounds

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G6G1689-CC1671	Injection Date:	05/24/18
Lab File ID:	6G56524.D	Injection Time:	05:36
Instrument ID:	GC6G	Method:	SW846 8081B

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.53	2.93	9.81	11.71

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
ZZZZZZ	6G56526.D	05/24/18	06:12	2.53	2.93	9.81	11.71
OP12252-LB27	6G56527.D	05/24/18	06:29	2.53	2.93	9.81	11.71
ZZZZZZ	6G56528.D	05/24/18	06:47	2.53	2.93	9.81	11.71
JC66032-1A	6G56529.D	05/24/18	07:05	2.53	2.93	9.81	11.71
OP12236-MS	6G56530.D	05/24/18	07:23	2.53	2.93	9.81	11.71
OP12236-LS16	6G56530.D	05/24/18	07:23	2.53	2.93	9.81	11.71
OP12236-MSD	6G56531.D	05/24/18	07:41	2.53	2.93	9.81	11.71
ZZZZZZ	6G56532.D	05/24/18	07:59	2.53	2.93	9.81	11.71
ZZZZZZ	6G56533.D	05/24/18	08:16	2.53	2.93	9.81	11.71
ZZZZZZ	6G56534.D	05/24/18	08:34	2.53	2.93	9.81	11.71
ZZZZZZ	6G56535.D	05/24/18	08:52	2.53	2.93	9.81	11.71
ZZZZZZ	6G56536.D	05/24/18	09:10	2.53	2.93	9.81	11.71
OP12155-LB33	6G56537.D	05/24/18	09:28	2.53	2.93	9.81	11.71
OP12234-LB34	6G56538.D	05/24/18	09:46	2.53	2.93	9.81	11.71

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

12.11.6
12

GC Surrogate Retention Time Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2G4337-CC4311	Injection Date:	05/19/18
Lab File ID:	2G163826.D	Injection Time:	21:12
Instrument ID:	GC2G	Method:	SW846 8082A

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.79	3.43	9.97	11.77

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP12124-MB1	2G163839.D	05/20/18	00:52	2.78	3.43	9.97	11.77
OP12124-BS1	2G163840.D	05/20/18	01:09	2.79	3.43	9.97	11.77
OP12110-MB1	2G163841.D	05/20/18	01:26	2.79	3.43	9.97	11.77
OP12110-BS1	2G163842.D	05/20/18	01:43	2.78	3.43	9.97	11.77
OP12110-BS1	2G163843.D	05/20/18	02:00	2.79	3.43	9.97	11.77
ZZZZZZ	2G163844.D	05/20/18	02:17	2.78	3.43	9.96	11.77
ZZZZZZ	2G163845.D	05/20/18	02:34	2.78	3.43	10.00	11.79

Surrogate
Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2G4338-CC4311	Injection Date:	05/20/18
Lab File ID:	2G163848.D	Injection Time:	03:25
Instrument ID:	GC2G	Method:	SW846 8082A

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.79	3.43	9.97	11.77

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
JC66309-7	2G163850.D	05/20/18	03:59	2.79	3.43	9.96	11.77
OP12110-MS	2G163851.D	05/20/18	04:16	2.79	3.43	9.96	11.77
OP12110-MSD	2G163852.D	05/20/18	04:33	2.79	3.43	9.96	11.77

Surrogate
Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	G2G4338-CC4311	Injection Date:	05/20/18
Lab File ID:	2G163870.D	Injection Time:	09:38
Instrument ID:	GC2G	Method:	SW846 8082A

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	2.79	3.43	9.97	11.77

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
JC66318-1	2G163872.D	05/20/18	10:12	2.79	3.43	9.99	11.78
ZZZZZZ	2G163873.D	05/20/18	10:29	2.79	3.43	9.97	11.77
ZZZZZZ	2G163874.D	05/20/18	10:46	2.79	3.43	9.96	11.77
ZZZZZZ	2G163875.D	05/20/18	11:03	2.78	3.43	9.96	11.77
ZZZZZZ	2G163876.D	05/20/18	11:20	2.79	3.43	9.96	11.77
ZZZZZZ	2G163877.D	05/20/18	11:37	2.79	3.43	9.96	11.77
ZZZZZZ	2G163878.D	05/20/18	11:54	2.79	3.43	9.97	11.77

Surrogate
Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GZZ3205-CC3143	Injection Date:	05/21/18
Lab File ID:	ZZ88965.D	Injection Time:	11:41
Instrument ID:	GCZZ	Method:	SW846 8015C

S1^a S2^a S3^a
RT RT RT

Check Std		
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Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT	S3 ^a RT
OP12128-MB1	ZZ88967.D	05/21/18	15:25	8.61	10.00	9.07
OP12128-BS1	ZZ88968.D	05/21/18	15:58	8.60	9.99	9.07
JC66318-1	ZZ88969.D	05/21/18	16:31	8.61	9.99	9.07
ZZZZZZ	ZZ88970.D	05/21/18	17:05	8.61	9.99	9.07
ZZZZZZ	ZZ88971.D	05/21/18	17:38	8.61	9.99	9.07
ZZZZZZ	ZZ88972.D	05/21/18	18:12	8.64	10.01	9.03

Surrogate
Compounds

S1 = o-Terphenyl
S2 = Tetracosane-d50
S3 = 5a-Androstane

(a) Retention time from GC signal #1

12.11.10
12

GC Surrogate Retention Time Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std:	GZZ3205-CC3143	Injection Date:	05/21/18
Lab File ID:	ZZ88975.D	Injection Time:	19:52
Instrument ID:	GCZZ	Method:	SW846 8015C

	S1 ^a	S2 ^a	S3 ^a
	RT	RT	RT
Check Std	8.61	9.99	9.07

Lab	Lab	Date	Time	S1 ^a	S2 ^a	S3 ^a
Sample ID	File ID	Analyzed	Analyzed	RT	RT	RT
JC66362-1	ZZ88977.D	05/21/18	20:59	8.60	10.00	9.07
OP12128-MS	ZZ88978.D	05/21/18	21:32	8.61	10.01	9.08
OP12128-MSD	ZZ88979.D	05/21/18	22:06	8.61	10.00	9.07
ZZZZZZ	ZZ88980.D	05/21/18	22:39	8.60	9.98	9.07
ZZZZZZ	ZZ88981.D	05/21/18	23:13	8.60	9.98	9.07
ZZZZZZ	ZZ88982.D	05/21/18	23:46	8.60	9.98	9.07

Surrogate
Compounds

S1 = o-Terphenyl
S2 = Tetracosane-d50
S3 = 5a-Androstane

(a) Retention time from GC signal #1

Initial Calibration Summary

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICC4311
Lab FileID: 2G162099.D

Response Factor Report HP G1530A

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 2PCB4311.M
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response Via : Initial Calibration

Calibration Files

50 =2G162102a.D 250 =2G162097.D 500 =2G162098.D
1000 =2G162099.D 2000 =2G162100.D 3000 =2G162101.D

	Compound	50	250	500	1000	2000	3000	Avg		%RSD
1)	S Tetrachloro-m...	3.853	3.487	3.538	3.692	3.667	3.785	3.670	E6	3.81
2)	AR1221-A				2.897			2.897	E4	0.00
3)	AR1221-B				4.202			4.202	E4	0.00
4)	AR1221-C				1.288			1.288	E5	0.00
5)	AR1221-D				1.466			1.466	E4	0.00
6)	AR1221-E				1.436			1.436	E4	0.00
7)	AR1232-A				9.734			9.734	E4	0.00
8)	AR1232-B				6.684			6.684	E4	0.00
9)	AR1232-C				1.305			1.305	E5	0.00
10)	AR1232-D				5.447			5.447	E4	0.00
11)	AR1232-E				5.149			5.149	E4	0.00
12)	AR1242-A				1.198			1.198	E5	0.00
13)	AR1242-B				2.525			2.525	E5	0.00
14)	AR1242-C				1.054			1.054	E5	0.00
15)	AR1242-D				1.090			1.090	E5	0.00
16)	AR1242-E				9.298			9.298	E4	0.00
17)	AR1248-A				5.917			5.917	E4	0.00
18)	AR1248-B				1.544			1.544	E5	0.00
19)	AR1248-C				1.652			1.652	E5	0.00
20)	AR1248-D				1.598			1.598	E5	0.00
21)	AR1248-E				1.421			1.421	E5	0.00
22)	AR1248-F				1.402			1.402	E5	0.00
23)	AR1248-G				1.572			1.572	E5	0.00
24)	AR1254-A				1.234			1.234	E5	0.00
25)	AR1254-B				2.588			2.588	E5	0.00
26)	AR1254-C				1.370			1.370	E5	0.00
27)	AR1254-D				2.459			2.459	E5	0.00
28)	AR1254-E				1.825			1.825	E5	0.00
29)	AR1254-F				1.712			1.712	E5	0.00
30)	AR1254-G				2.518			2.518	E5	0.00
31)	AR1016-A	9.451	7.869	7.627	7.558	7.126	7.105	7.789	E4	11.13
32)	AR1016-B	1.685	1.361	1.324	1.304	1.242	1.247	1.361	E5	12.16
33)	AR1016-C	3.261	2.840	2.792	2.854	2.797	2.854	2.900	E5	6.18
34)	AR1016-D	1.360	1.162	1.156	1.157	1.119	1.140	1.182	E5	7.49
35)	AR1016-E	1.424	1.227	1.184	1.176	1.145	1.161	1.219	E5	8.51
36)	AR1260-A	3.759	3.397	3.078	3.178	3.473	3.566	3.408	E5	7.36
37)	AR1260-B	1.602	1.368	1.501	1.530	1.316	1.349	1.444	E5	8.00
38)	AR1260-C	1.676	1.539	1.642	1.690	1.480	1.527	1.592	E5	5.54
39)	AR1260-D	3.627	3.372	3.743	3.953	3.621	3.712	3.671	E5	5.17
40)	AR1260-E	3.931	3.596	3.895	4.026	3.611	3.668	3.788	E5	4.88
41)	AR1262-A				1.935			1.935	E5	0.00
42)	AR1262-B				2.424			2.424	E5	0.00
43)	AR1262-C				2.270			2.270	E5	0.00
44)	AR1262-D				4.854			4.854	E5	0.00
45)	AR1262-E				5.588			5.588	E5	0.00
46)	AR1268-A				5.754			5.754	E5	0.00

12.12.1
12

Initial Calibration Summary

Page 2 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICC4311
Lab FileID: 2G162099.D

47)	AR1268-B				5.673			5.673	E5	0.00
48)	AR1268-C				4.730			4.730	E5	0.00
49)	AR1268-D				1.992			1.992	E5	0.00
50)	AR1268-E				1.615			1.615	E6	0.00
51) S	Decachlorobip...	4.697	4.061	3.924	3.931	3.825	3.897	4.056	E6	7.97

Signal #2 Calibration Files

50	=2G162102a.D	250	=2G162097.D	500	=2G162098.D
1000	=2G162099.D	2000	=2G162100.D	3000	=2G162101.D

	Compound	50	250	500	1000	2000	3000	Avg		%RSD
1) S	Tetrachloro-m...	2.359	2.161	2.233	2.322	2.300	2.354	2.288	E7	3.37
2)	AR1221-A				1.409			1.409	E5	0.00
3)	AR1221-B				2.507			2.507	E5	0.00
4)	AR1221-C				6.558			6.558	E5	0.00
5)	AR1221-D				1.222			1.222	E5	0.00
6)	AR1221-E				8.849			8.849	E4	0.00
7)	AR1232-A				5.020			5.020	E5	0.00
8)	AR1232-B				3.935			3.935	E5	0.00
9)	AR1232-C				8.152			8.152	E5	0.00
10)	AR1232-D				3.615			3.615	E5	0.00
11)	AR1232-E				2.173			2.173	E5	0.00
12)	AR1242-A				7.054			7.054	E5	0.00
13)	AR1242-B				1.548			1.548	E6	0.00
14)	AR1242-C				6.668			6.668	E5	0.00
15)	AR1242-D				4.564			4.564	E5	0.00
16)	AR1242-E				6.343			6.343	E5	0.00
17)	AR1248-A				3.627			3.627	E5	0.00
18)	AR1248-B				9.548			9.548	E5	0.00
19)	AR1248-C				5.697			5.697	E5	0.00
20)	AR1248-D				7.271			7.271	E5	0.00
21)	AR1248-E				8.799			8.799	E5	0.00
22)	AR1248-F				1.097			1.097	E6	0.00
23)	AR1248-G				1.220			1.220	E6	0.00
24)	AR1254-A				9.925			9.925	E5	0.00
25)	AR1254-B				9.839			9.839	E5	0.00
26)	AR1254-C				7.977			7.977	E5	0.00
27)	AR1254-D				1.634			1.634	E6	0.00
28)	AR1254-E				1.089			1.089	E6	0.00
29)	AR1254-F				1.181			1.181	E6	0.00
30)	AR1254-G				1.511			1.511	E6	0.00
31)	AR1016-A	4.464	3.663	3.554	3.667	3.532	3.597	3.746	E5	9.50
32)	AR1016-B	1.008	0.785	0.781	0.777	0.734	0.721	0.801	E6	13.07
33)	AR1016-C	1.870	1.661	1.687	1.744	1.719	1.721	1.734	E6	4.20
34)	AR1016-D	8.979	7.276	7.297	7.378	7.117	7.090	7.523	E5	9.59
35)	AR1016-E	5.760	4.925	4.923	5.029	5.023	5.124	5.131	E5	6.19
36)	AR1260-A	2.222	1.949	1.820	1.882	2.043	2.081	2.000	E6	7.30
37)	AR1260-B	1.009	0.803	0.897	0.917	0.804	0.816	0.874	E6	9.41
38)	AR1260-C	1.124	0.949	1.023	1.051	0.980	1.006	1.022	E6	5.98
39)	AR1260-D	2.347	1.930	2.170	2.256	2.063	2.114	2.146	E6	6.84
40)	AR1260-E	2.219	1.874	2.089	2.144	1.933	1.971	2.038	E6	6.55
41)	AR1262-A				1.044			1.044	E6	0.00
42)	AR1262-B				1.428			1.428	E6	0.00
43)	AR1262-C				1.336			1.336	E6	0.00
44)	AR1262-D				2.732			2.732	E6	0.00
45)	AR1262-E				3.034			3.034	E6	0.00
46)	AR1268-A				3.086			3.086	E6	0.00
47)	AR1268-B				3.099			3.099	E6	0.00
48)	AR1268-C				2.498			2.498	E6	0.00

Initial Calibration Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICC4311
Lab FileID: 2G162099.D

49)	AR1268-D				1.038				1.038	E6	0.00
50)	AR1268-E				8.238				8.238	E6	0.00
51) S	Decachlorobip...	2.219	1.845	1.796	1.874	1.841	1.884	1.910	E7	8.10	

(#) = Out of Range											

2PCB4311.M Thu Apr 19 15:44:17 2018 RPT1

Initial Calibration Verification

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Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD1A.CH Vial: 13
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD2B.CH
Acq On : 19 Apr 2018 3:17 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	3.975 E6	-8.3	108	0.00	2.75-	2.81
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	76.686 E3	1.5	101	0.00	3.12-	3.18
32	AR1016-B	136.058	141.949 E3	-4.3	109	0.00	3.53-	3.59
33	AR1016-C	289.965	305.729 E3	-5.4	107	0.00	4.08-	4.14
34	AR1016-D	118.235	126.283 E3	-6.8	109	0.00	4.24-	4.30
35	AR1016-E	121.934	124.361 E3	-2.0	106	0.00	4.75-	4.81
36	AR1260-A	340.850	344.355 E3	-1.0	108	0.00	7.12-	7.18
37	AR1260-B	144.444	147.854 E3	-2.4	97	0.00	7.28-	7.34
38	AR1260-C	159.229	170.106 E3	-6.8	101	0.00	7.62-	7.68
39	AR1260-D	367.146	387.161 E3	-5.5	98	0.00	8.05-	8.11
40	AR1260-E	378.788	394.757 E3	-4.2	98	0.00	8.39-	8.55
41	AR1262-A			-----NA-----				

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Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

12.12.2 12

Initial Calibration Verification

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162106.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	18.717	E6	2.0	100	0.00		11.78-11.84	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162099.D 2PCB4311.M Thu Apr 19 15:43:22 2018 RPT1

12.12.2
12

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162107.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD1A.CH Vial: 14
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD2B.CH
Acq On : 19 Apr 2018 3:34 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
2	AR1221-A	28.967	30.231 E3	-4.4	104	0.00	2.18-	2.38
3	AR1221-B	42.023	40.285 E3	4.1	96	0.00	2.85-	3.05
4	AR1221-C	128.795	122.705 E3	4.7	95	0.00	3.05-	3.25
5	AR1221-D	14.657	11.965 E3	18.4	82	0.00	3.46-	3.66
6	AR1221-E	14.364	14.535 E3	-1.2	101	0.00	3.60-	3.80
24	AR1254-A	123.364	129.470 E3	-4.9	105	0.00	4.78-	5.78
25	AR1254-B	258.753	268.829 E3	-3.9	104	0.00	5.52-	5.72
26	AR1254-C	136.952	143.562 E3	-4.8	105	0.00	5.88-	6.08
27	AR1254-D	245.908	257.604 E3	-4.8	105	0.00	6.04-	6.24
28	AR1254-E	182.509	189.827 E3	-4.0	104	0.00	6.42-	6.62
29	AR1254-F	171.196	179.789 E3	-5.0	105	0.00	6.67-	6.87
30	AR1254-G	251.778	263.449 E3	-4.6	105	0.00	7.05-	7.25

***** Signal #2 *****

2	AR1221-A	140.927	146.033 E3	-3.6	104	0.00	2.77-	2.97
3	AR1221-B	250.670	252.257 E3	-0.6	101	0.00	3.72-	3.92
4	AR1221-C	655.831	636.187 E3	3.0	97	0.00	3.99-	4.19
5	AR1221-D	122.166	105.889 E3	13.3	87	0.00	4.55-	4.75
6	AR1221-E	88.492	89.522 E3	-1.2	101	0.00	4.67-	4.87
24	AR1254-A	992.497	1051.994 E3	-6.0	106	0.00	6.20-	7.20
25	AR1254-B	983.915	1037.386 E3	-5.4	105	0.00	6.86-	7.06
26	AR1254-C	797.725	839.207 E3	-5.2	105	0.00	7.37-	7.56
27	AR1254-D	1.634	1.719 E6	-5.2	105	0.00	7.53-	7.73
28	AR1254-E	1.089	1.136 E6	-4.3	104	0.00	7.86-	8.06
29	AR1254-F	1.181	1.231 E6	-4.2	104	0.00	8.32-	8.52
30	AR1254-G	1.511	1.615 E6	-6.9	107	0.00	8.62-	8.82

(#) = Out of Range
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 16:15:57 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162108.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD1A.CH Vial: 15
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD2B.CH
Acq On : 19 Apr 2018 3:51 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
7	AR1232-A	97.343	98.365 E3	-1.0	101	0.00	3.05-	3.25
8	AR1232-B	66.843	68.498 E3	-2.5	102	0.00	3.46-	3.66
9	AR1232-C	130.487	135.897 E3	-4.1	104	0.00	4.01-	4.21
10	AR1232-D	54.474	56.766 E3	-4.2	104	0.00	4.17-	4.37
11	AR1232-E	51.489	53.116 E3	-3.2	103	0.00	4.68-	4.88
41	AR1262-A	193.481	203.733 E3	-5.3	105	0.00	6.67-	6.87
42	AR1262-B	242.383	258.534 E3	-6.7	107	0.00	7.21-	7.41
43	AR1262-C	227.005	238.593 E3	-5.1	105	0.00	7.55-	7.75
44	AR1262-D	485.357	514.218 E3	-5.9	106	0.00	7.98-	8.18
45	AR1262-E	558.779	598.920 E3	-7.2	107	0.00	8.43-	8.63

***** Signal #2 *****

7	AR1232-A	501.961	512.204 E3	-2.0	102	0.00	4.00-	4.20
8	AR1232-B	393.517	401.624 E3	-2.1	102	0.00	4.54-	4.74
9	AR1232-C	815.235	827.075 E3	-1.5	101	0.00	5.18-	5.38
10	AR1232-D	361.545	372.004 E3	-2.9	103	0.00	5.37-	5.57
11	AR1232-E	217.324	220.012 E3	-1.2	101	0.00	6.02-	6.22
41	AR1262-A	1.044	1.084 E6	-3.8	104	0.00	8.09-	8.29
42	AR1262-B	1.428	1.495 E6	-4.7	105	0.00	8.73-	8.93
43	AR1262-C	1.336	1.393 E6	-4.3	104	0.00	9.16-	9.36
44	AR1262-D	2.732	2.841 E6	-4.0	104	0.00	9.51-	9.71
45	AR1262-E	3.034	3.169 E6	-4.4	104	0.00	10.02-	10.22

(#) = Out of Range
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 16:15:59 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162109.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD1A.CH Vial: 16
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD2B.CH
Acq On : 19 Apr 2018 4:08 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
12	AR1242-A	119.785	114.904 E3	4.1	96	0.00	3.46-	3.66
13	AR1242-B	252.484	244.856 E3	3.0	97	0.00	4.01-	4.21
14	AR1242-C	105.443	101.790 E3	3.5	97	0.00	4.17-	4.37
15	AR1242-D	108.979	102.543 E3	5.9	94	0.00	4.68-	4.88
16	AR1242-E	92.981	87.846 E3	5.5	94	0.00	5.27-	5.47
46	AR1268-A	575.351	581.914 E3	-1.1	101	0.00	8.42-	8.62
47	AR1268-B	567.310	583.888 E3	-2.9	103	0.00	8.48-	8.68
48	AR1268-C	473.024	486.973 E3	-2.9	103	0.00	8.75-	8.95
49	AR1268-D	199.180	204.671 E3	-2.8	103	0.00	9.24-	9.44
50	AR1268-E	1.615	1.646 E6	-1.9	102	0.00	9.64-	9.84

***** Signal #2 *****

12	AR1242-A	705.391	679.662 E3	3.6	96	0.00	4.53-	4.73
13	AR1242-B	1.548	1.499 E6	3.2	97	0.00	5.18-	5.38
14	AR1242-C	666.761	667.573 E3	-0.1	100	0.00	5.37-	5.57
15	AR1242-D	456.404	438.896 E3	3.8	96	0.00	6.01-	6.21
16	AR1242-E	634.341	601.296 E3	5.2	95	0.00	6.63-	6.83
46	AR1268-A	3.086	3.010 E6	2.5	98	0.00	10.02-	10.22
47	AR1268-B	3.099	3.068 E6	1.0	99	0.00	10.09-	10.29
48	AR1268-C	2.498	2.444 E6	2.2	98	0.00	10.46-	10.66
49	AR1268-D	1.038	1.042 E6	-0.4	100	0.00	10.86-	11.06
50	AR1268-E	8.238	7.835 E6	4.9	95	0.00	11.33-	11.53

(#) = Out of Range
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 16:23:22 2018 RPT1

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4311-ICV4311
Lab FileID: 2G162110.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD1A.CH Vial: 17
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD2B.CH
Acq On : 19 Apr 2018 4:25 pm Operator: tianweir
Sample : icv4311-1000 Inst : HP G1530A
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)
Title :
Last Update : Thu Apr 19 15:41:07 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
17	AR1248-A	59.174	55.493 E3	6.2	94	0.00	3.45-	3.65
18	AR1248-B	154.398	154.781 E3	-0.2	100	0.00	4.01-	4.21
19	AR1248-C	165.207	165.431 E3	-0.1	100	0.00	4.40-	4.60
20	AR1248-D	159.827	163.966 E3	-2.6	103	0.00	4.68-	4.88
21	AR1248-E	142.066	146.330 E3	-3.0	103	0.00	4.79-	4.99
22	AR1248-F	140.157	154.154 E3	-10.0	110	0.00	5.26-	5.46
23	AR1248-G	157.220	168.971 E3	-7.5	107	0.00	5.12-	6.12

***** Signal #2 *****

17	AR1248-A	362.749	338.780 E3	6.6	93	0.00	4.53-	4.73
18	AR1248-B	954.786	932.709 E3	2.3	98	0.00	5.18-	5.38
19	AR1248-C	569.681	572.997 E3	-0.6	101	0.00	5.63-	5.83
20	AR1248-D	727.117	735.665 E3	-1.2	101	0.00	6.01-	6.21
21	AR1248-E	879.894	914.038 E3	-3.9	104	0.00	6.19-	6.39
22	AR1248-F	1.097	1.158 E6	-5.6	106	0.00	6.62-	6.82
23	AR1248-G	1.220	1.306 E6	-7.0	107	0.00	6.55-	7.55

(#) = Out of Range
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0
Thu Apr 19 16:41:13 2018 RPT1

12.12.6
12

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4337-CC4311
Lab FileID: 2G163826.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\2G4337\2G163826.D\ECD1A.CH Vial: 46
Signal #2 : C:\msdchem\1\data\2G4337\2G163826.D\ECD2B.CH
Acq On : 19 May 2018 9:12 pm Operator: edouarda
Sample : cc4311-500 Inst : HP G1530A
Misc : OP12093,G2G4337,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\msdchem\1\methods\2PCB4311.M (ChemStation Integrator)
Title :
Last Update : Mon May 14 13:05:01 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	3.817 E6	-4.0	108	0.00	2.75-	2.82
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	83.138 E3	-6.7	109	0.00	3.13-	3.19
32	AR1016-B	136.058	144.035 E3	-5.9	109	0.00	3.52-	3.58
33	AR1016-C	289.965	286.494 E3	1.2	103	0.00	4.06-	4.12
34	AR1016-D	118.235	122.566 E3	-3.7	106	0.00	4.23-	4.29
35	AR1016-E	121.934	123.818 E3	-1.5	105	0.00	4.73-	4.79
36	AR1260-A	340.850	318.115 E3	6.7	103	0.00	7.09-	7.15
37	AR1260-B	144.444	159.306 E3	-10.3	106	0.00	7.25-	7.31
38	AR1260-C	159.229	173.050 E3	-8.7	105	0.00	7.59-	7.65
39	AR1260-D	367.146	414.892 E3	-13.0	111	0.00	8.02-	8.08
40	AR1260-E	378.788	400.797 E3	-5.8	103	0.00	8.36-	8.52
41	AR1262-A			-----NA-----				

12.12.7
12

Continuing Calibration Summary

Page 2 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4337-CC4311
Lab FileID: 2G163826.D

42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								
48	AR1268-C								
49	AR1268-D								
50	AR1268-E								
51 S	Decachlorobiphenyl	4.056	3.858 E6	4.9	98	0.00		9.94-10.00	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	22.247 E6	2.8	100	0.00		3.40- 3.46	
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1016-A	374.605	390.080 E3	-4.1	110	0.00		4.06- 4.12	
32	AR1016-B	0.801	0.793 E6	1.0	102	0.00		4.59- 4.65	
33	AR1016-C	1.734	1.667 E6	3.9	99	0.00		5.23- 5.29	
34	AR1016-D	752.270	780.789 E3	-3.8	107	0.00		5.42- 5.48	
35	AR1016-E	513.080	504.320 E3	1.7	102	0.00		6.06- 6.12	
36	AR1260-A	2.000	1.734 E6	13.3	95	0.00		8.66- 8.72	
37	AR1260-B	0.874	0.886 E6	-1.4	99	0.00		8.77- 8.83	
38	AR1260-C	1.022	0.987 E6	3.4	96	0.00		9.20- 9.26	
39	AR1260-D	2.146	2.048 E6	4.6	94	0.00		9.55- 9.61	
40	AR1260-E	2.038	2.015 E6	1.1	96	0.00		10.09-10.15	
41	AR1262-A								
42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								

12.12.7
12

Continuing Calibration Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4337-CC4311
Lab FileID: 2G163826.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	17.881	E6	6.4	100	0.00	11.74	11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162098.D 2PCB4311.M Sun May 20 17:37:22 2018

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4337-CC4311
Lab FileID: 2G163837.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\2G4337\2G163837.D\ECD1A.CH Vial: 54
 Signal #2 : C:\msdchem\1\data\2G4337\2G163837.D\ECD2B.CH
 Acq On : 20 May 2018 12:19 am Operator: edouarda
 Sample : cc4311-1000 Inst : HP G1530A
 Misc : OP12085,G2G4337,15.0,,,10,1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\msdchem\1\methods\2PCB4311.M (ChemStation Integrator)
 Title :
 Last Update : Mon May 14 13:05:01 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	3.917 E6	-6.7	106	0.00	2.76-	2.82
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	81.128 E3	-4.2	107	0.00	3.13-	3.19
32	AR1016-B	136.058	140.756 E3	-3.5	108	0.00	3.52-	3.58
33	AR1016-C	289.965	292.138 E3	-0.7	102	0.00	4.07-	4.13
34	AR1016-D	118.235	121.556 E3	-2.8	105	0.00	4.23-	4.29
35	AR1016-E	121.934	122.512 E3	-0.5	104	0.00	4.73-	4.79
36	AR1260-A	340.850	327.755 E3	3.8	103	0.00	7.09-	7.15
37	AR1260-B	144.444	159.952 E3	-10.7	105	0.00	7.25-	7.31
38	AR1260-C	159.229	175.754 E3	-10.4	104	0.00	7.58-	7.64
39	AR1260-D	367.146	442.747 E3	-20.6#	112	0.00	8.02-	8.08
40	AR1260-E	378.788	405.632 E3	-7.1	101	0.00	8.36-	8.52
41	AR1262-A			-----NA-----				

12.12.8
12

Continuing Calibration Summary

Page 2 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4337-CC4311
Lab FileID: 2G163837.D

42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								
48	AR1268-C								
49	AR1268-D								
50	AR1268-E								
51 S	Decachlorobiphenyl	4.056	3.915 E6	3.5	100	0.00		9.94-10.00	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	22.843 E6	0.2	98	0.00		3.40- 3.46	
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1016-A	374.605	377.655 E3	-0.8	103	0.00		4.06- 4.12	
32	AR1016-B	0.801	0.775 E6	3.2	100	0.00		4.59- 4.65	
33	AR1016-C	1.734	1.705 E6	1.7	98	0.00		5.23- 5.29	
34	AR1016-D	752.270	748.519 E3	0.5	101	0.00		5.42- 5.48	
35	AR1016-E	513.080	505.511 E3	1.5	101	0.00		6.06- 6.12	
36	AR1260-A	2.000	1.839 E6	8.1	98	0.00		8.65- 8.71	
37	AR1260-B	0.874	0.913 E6	-4.5	100	0.00		8.77- 8.83	
38	AR1260-C	1.022	1.032 E6	-1.0	98	0.00		9.20- 9.26	
39	AR1260-D	2.146	2.208 E6	-2.9	98	0.00		9.55- 9.61	
40	AR1260-E	2.038	2.102 E6	-3.1	98	0.00		10.09-10.15	
41	AR1262-A								
42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								

12.12.8
12

Continuing Calibration Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4337-CC4311
Lab FileID: 2G163837.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	18.975	E6	0.6	101	0.00	11.74	11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G163402.D 2PCB4311.M Sun May 20 20:20:21 2018

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163848.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\2G4337\2G163848.D\ECD1A.CH Vial: 62
Signal #2 : C:\msdchem\1\data\2G4337\2G163848.D\ECD2B.CH
Acq On : 20 May 2018 3:25 am Operator: edouarda
Sample : cc4311-500 Inst : HP G1530A
Misc : OP12110,G2G4338,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\msdchem\1\methods\2PCB4311.M (ChemStation Integrator)
Title :
Last Update : Mon May 14 13:05:01 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	3.893 E6	-6.1	110	0.00	2.76-	2.82
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	85.033 E3	-9.2	111	0.00	3.13-	3.19
32	AR1016-B	136.058	145.714 E3	-7.1	110	0.00	3.52-	3.58
33	AR1016-C	289.965	288.682 E3	0.4	103	0.00	4.07-	4.13
34	AR1016-D	118.235	123.843 E3	-4.7	107	0.00	4.23-	4.29
35	AR1016-E	121.934	125.100 E3	-2.6	106	0.00	4.73-	4.79
36	AR1260-A	340.850	319.692 E3	6.2	104	0.00	7.09-	7.15
37	AR1260-B	144.444	158.601 E3	-9.8	106	0.00	7.25-	7.31
38	AR1260-C	159.229	173.541 E3	-9.0	106	0.00	7.58-	7.64
39	AR1260-D	367.146	423.452 E3	-15.3	113	0.00	8.01-	8.07
40	AR1260-E	378.788	402.482 E3	-6.3	103	0.00	8.36-	8.51
41	AR1262-A			-----NA-----				

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Continuing Calibration Summary

Page 2 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163848.D

42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								
48	AR1268-C								
49	AR1268-D								
50	AR1268-E								
51 S	Decachlorobiphenyl	4.056	3.989 E6	1.7	102	0.00		9.94-10.00	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	22.703 E6	0.8	102	0.00		3.40- 3.46	
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1016-A	374.605	396.346 E3	-5.8	112	0.00		4.06- 4.12	
32	AR1016-B	0.801	0.797 E6	0.5	102	0.00		4.59- 4.65	
33	AR1016-C	1.734	1.709 E6	1.4	101	0.00		5.23- 5.29	
34	AR1016-D	752.270	767.035 E3	-2.0	105	0.00		5.42- 5.48	
35	AR1016-E	513.080	502.217 E3	2.1	102	0.00		6.06- 6.12	
36	AR1260-A	2.000	1.884 E6	5.8	104	0.00		8.65- 8.71	
37	AR1260-B	0.874	0.941 E6	-7.7	105	0.00		8.77- 8.83	
38	AR1260-C	1.022	1.062 E6	-3.9	104	0.00		9.20- 9.26	
39	AR1260-D	2.146	2.231 E6	-4.0	103	0.00		9.55- 9.61	
40	AR1260-E	2.038	2.168 E6	-6.4	104	0.00		10.09-10.15	
41	AR1262-A								
42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								

12.12.9
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Continuing Calibration Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163848.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	19.777	E6	-3.5	110	0.00	11.74	11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162098.D 2PCB4311.M Sun May 20 20:20:47 2018

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163859.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\2G4337\2G163859.D\ECD1A.CH Vial: 70
Signal #2 : C:\msdchem\1\data\2G4337\2G163859.D\ECD2B.CH
Acq On : 20 May 2018 6:31 am Operator: edouarda
Sample : cc4311-1000 Inst : HP G1530A
Misc : OP12110,G2G4338,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\msdchem\1\methods\2PCB4311.M (ChemStation Integrator)
Title :
Last Update : Mon May 14 13:05:01 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	3.865 E6	-5.3	105	0.00	2.76-	2.82
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	80.759 E3	-3.7	107	0.00	3.13-	3.19
32	AR1016-B	136.058	139.144 E3	-2.3	107	0.00	3.52-	3.58
33	AR1016-C	289.965	285.721 E3	1.5	100	0.00	4.07-	4.13
34	AR1016-D	118.235	120.074 E3	-1.6	104	0.00	4.23-	4.29
35	AR1016-E	121.934	121.394 E3	0.4	103	0.00	4.74-	4.80
36	AR1260-A	340.850	326.992 E3	4.1	103	0.00	7.09-	7.15
37	AR1260-B	144.444	159.976 E3	-10.8	105	0.00	7.25-	7.31
38	AR1260-C	159.229	178.025 E3	-11.8	105	0.00	7.58-	7.64
39	AR1260-D	367.146	442.516 E3	-20.5#	112	0.00	8.01-	8.07
40	AR1260-E	378.788	411.668 E3	-8.7	102	0.00	8.36-	8.51
41	AR1262-A			-----NA-----				

Continuing Calibration Summary

Page 2 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163859.D

42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								
48	AR1268-C								
49	AR1268-D								
50	AR1268-E								
51 S	Decachlorobiphenyl	4.056	3.853 E6	5.0	98	0.00		9.94-10.00	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	22.716 E6	0.7	98	0.00		3.40- 3.46	
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1016-A	374.605	397.453 E3	-6.1	108	0.00		4.06- 4.12	
32	AR1016-B	0.801	0.772 E6	3.6	99	0.00		4.59- 4.65	
33	AR1016-C	1.734	1.710 E6	1.4	98	0.00		5.23- 5.29	
34	AR1016-D	752.270	765.416 E3	-1.7	104	0.00		5.42- 5.48	
35	AR1016-E	513.080	511.940 E3	0.2	102	0.00		6.06- 6.12	
36	AR1260-A	2.000	1.896 E6	5.2	101	0.00		8.65- 8.71	
37	AR1260-B	0.874	0.954 E6	-9.2	104	0.00		8.77- 8.83	
38	AR1260-C	1.022	1.075 E6	-5.2	102	0.00		9.20- 9.26	
39	AR1260-D	2.146	2.291 E6	-6.8	102	0.00		9.55- 9.61	
40	AR1260-E	2.038	2.196 E6	-7.8	102	0.00		10.09-10.15	
41	AR1262-A								
42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								

12.12.10
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Continuing Calibration Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163859.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	18.693	E6	2.1	100	0.00	11.74	11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G163402.D 2PCB4311.M Sun May 20 20:20:23 2018

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163870.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\2G4337\2G163870.D\ECD1A.CH Vial: 78
 Signal #2 : C:\msdchem\1\data\2G4337\2G163870.D\ECD2B.CH
 Acq On : 20 May 2018 9:38 am Operator: edouarda
 Sample : cc4311-500 Inst : HP G1530A
 Misc : OP12110,G2G4338,15.0,,,10,1 Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\msdchem\1\methods\2PCB4311.M (ChemStation Integrator)
 Title :
 Last Update : Mon May 14 13:05:01 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	3.911 E6	-6.6	111	0.00	2.76-	2.82
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	85.930 E3	-10.3	113	0.00	3.13-	3.19
32	AR1016-B	136.058	146.157 E3	-7.4	110	0.00	3.52-	3.58
33	AR1016-C	289.965	287.481 E3	0.9	103	0.00	4.07-	4.13
34	AR1016-D	118.235	125.638 E3	-6.3	109	0.00	4.23-	4.29
35	AR1016-E	121.934	127.972 E3	-5.0	108	0.00	4.73-	4.79
36	AR1260-A	340.850	327.371 E3	4.0	106	0.00	7.09-	7.15
37	AR1260-B	144.444	163.636 E3	-13.3	109	0.00	7.25-	7.31
38	AR1260-C	159.229	179.153 E3	-12.5	109	0.00	7.58-	7.64
39	AR1260-D	367.146	434.925 E3	-18.5	116	0.00	8.01-	8.07
40	AR1260-E	378.788	412.499 E3	-8.9	106	0.00	8.35-	8.51
41	AR1262-A			-----NA-----				

12.12.11
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Continuing Calibration Summary

Page 2 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163870.D

42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								
48	AR1268-C								
49	AR1268-D								
50	AR1268-E								
51 S	Decachlorobiphenyl	4.056	3.916 E6	3.5	100	0.00		9.94-10.00	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	22.791 E6	0.4	102	0.00		3.40- 3.46	
2	AR1221-A								
3	AR1221-B								
4	AR1221-C								
5	AR1221-D								
6	AR1221-E								
7	AR1232-A								
8	AR1232-B								
9	AR1232-C								
10	AR1232-D								
11	AR1232-E								
12	AR1242-A								
13	AR1242-B								
14	AR1242-C								
15	AR1242-D								
16	AR1242-E								
17	AR1248-A								
18	AR1248-B								
19	AR1248-C								
20	AR1248-D								
21	AR1248-E								
22	AR1248-F								
23	AR1248-G								
24	AR1254-A								
25	AR1254-B								
26	AR1254-C								
27	AR1254-D								
28	AR1254-E								
29	AR1254-F								
30	AR1254-G								
31	AR1016-A	374.605	398.720 E3	-6.4	112	0.00		4.06- 4.12	
32	AR1016-B	0.801	0.805 E6	-0.5	103	0.00		4.59- 4.65	
33	AR1016-C	1.734	1.713 E6	1.2	102	0.00		5.23- 5.29	
34	AR1016-D	752.270	790.987 E3	-5.1	108	0.00		5.42- 5.48	
35	AR1016-E	513.080	520.757 E3	-1.5	106	0.00		6.06- 6.12	
36	AR1260-A	2.000	1.889 E6	5.5	104	0.00		8.65- 8.71	
37	AR1260-B	0.874	0.953 E6	-9.0	106	0.00		8.77- 8.83	
38	AR1260-C	1.022	1.073 E6	-5.0	105	0.00		9.20- 9.26	
39	AR1260-D	2.146	2.243 E6	-4.5	103	0.00		9.55- 9.61	
40	AR1260-E	2.038	2.177 E6	-6.8	104	0.00		10.09-10.15	
41	AR1262-A								
42	AR1262-B								
43	AR1262-C								
44	AR1262-D								
45	AR1262-E								
46	AR1268-A								
47	AR1268-B								

12.12.11
12

Continuing Calibration Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163870.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	19.703	E6	-3.2	110	0.00	11.74	11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G162098.D 2PCB4311.M Sun May 20 20:20:49 2018

12.12.11
12

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163881.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\2G4337\2G163881.D\ECD1A.CH Vial: 86
Signal #2 : C:\msdchem\1\data\2G4337\2G163881.D\ECD2B.CH
Acq On : 20 May 2018 12:45 pm Operator: edouarda
Sample : cc4311-1000 Inst : HP G1530A
Misc : OP12124,G2G4338,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\msdchem\1\methods\2PCB4311.M (ChemStation Integrator)
Title :
Last Update : Mon May 14 13:05:01 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 S	Tetrachloro-m-xylene	3.670	3.958 E6	-7.8	107	0.00	2.76-	2.82
2	AR1221-A			-----NA-----				
3	AR1221-B			-----NA-----				
4	AR1221-C			-----NA-----				
5	AR1221-D			-----NA-----				
6	AR1221-E			-----NA-----				
7	AR1232-A			-----NA-----				
8	AR1232-B			-----NA-----				
9	AR1232-C			-----NA-----				
10	AR1232-D			-----NA-----				
11	AR1232-E			-----NA-----				
12	AR1242-A			-----NA-----				
13	AR1242-B			-----NA-----				
14	AR1242-C			-----NA-----				
15	AR1242-D			-----NA-----				
16	AR1242-E			-----NA-----				
17	AR1248-A			-----NA-----				
18	AR1248-B			-----NA-----				
19	AR1248-C			-----NA-----				
20	AR1248-D			-----NA-----				
21	AR1248-E			-----NA-----				
22	AR1248-F			-----NA-----				
23	AR1248-G			-----NA-----				
24	AR1254-A			-----NA-----				
25	AR1254-B			-----NA-----				
26	AR1254-C			-----NA-----				
27	AR1254-D			-----NA-----				
28	AR1254-E			-----NA-----				
29	AR1254-F			-----NA-----				
30	AR1254-G			-----NA-----				
31	AR1016-A	77.893	82.210 E3	-5.5	109	0.00	3.13-	3.19
32	AR1016-B	136.058	141.356 E3	-3.9	108	0.00	3.52-	3.58
33	AR1016-C	289.965	292.203 E3	-0.8	102	0.00	4.07-	4.13
34	AR1016-D	118.235	122.922 E3	-4.0	106	0.00	4.23-	4.29
35	AR1016-E	121.934	123.990 E3	-1.7	105	0.00	4.73-	4.79
36	AR1260-A	340.850	331.300 E3	2.8	104	0.00	7.09-	7.15
37	AR1260-B	144.444	160.141 E3	-10.9	105	0.00	7.25-	7.31
38	AR1260-C	159.229	178.267 E3	-12.0	106	0.00	7.58-	7.64
39	AR1260-D	367.146	440.029 E3	-19.9	111	0.00	8.01-	8.07
40	AR1260-E	378.788	404.088 E3	-6.7	100	0.00	8.35-	8.51
41	AR1262-A			-----NA-----				

12.12.12
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Continuing Calibration Summary

Page 2 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163881.D

42	AR1262-B												
43	AR1262-C												
44	AR1262-D												
45	AR1262-E												
46	AR1268-A												
47	AR1268-B												
48	AR1268-C												
49	AR1268-D												
50	AR1268-E												
51 S	Decachlorobiphenyl	4.056	3.804	E6	6.2	97	0.00					9.94-10.00	

***** Signal #2 *****

1 S	Tetrachloro-m-xylene	22.882	23.522	E6	-2.8	101	0.00					3.40- 3.46	
2	AR1221-A												
3	AR1221-B												
4	AR1221-C												
5	AR1221-D												
6	AR1221-E												
7	AR1232-A												
8	AR1232-B												
9	AR1232-C												
10	AR1232-D												
11	AR1232-E												
12	AR1242-A												
13	AR1242-B												
14	AR1242-C												
15	AR1242-D												
16	AR1242-E												
17	AR1248-A												
18	AR1248-B												
19	AR1248-C												
20	AR1248-D												
21	AR1248-E												
22	AR1248-F												
23	AR1248-G												
24	AR1254-A												
25	AR1254-B												
26	AR1254-C												
27	AR1254-D												
28	AR1254-E												
29	AR1254-F												
30	AR1254-G												
31	AR1016-A	374.605	402.906	E3	-7.6	110	0.00					4.05- 4.11	
32	AR1016-B	0.801	0.790	E6	1.4	102	0.00					4.59- 4.65	
33	AR1016-C	1.734	1.779	E6	-2.6	102	0.00					5.23- 5.29	
34	AR1016-D	752.270	772.173	E3	-2.6	105	0.00					5.41- 5.47	
35	AR1016-E	513.080	531.643	E3	-3.6	106	0.00					6.06- 6.12	
36	AR1260-A	2.000	1.932	E6	3.4	103	0.00					8.65- 8.71	
37	AR1260-B	0.874	0.951	E6	-8.8	104	0.00					8.77- 8.83	
38	AR1260-C	1.022	1.079	E6	-5.6	103	0.00					9.20- 9.26	
39	AR1260-D	2.146	2.299	E6	-7.1	102	0.00					9.55- 9.61	
40	AR1260-E	2.038	2.165	E6	-6.2	101	0.00					10.09-10.15	
41	AR1262-A												
42	AR1262-B												
43	AR1262-C												
44	AR1262-D												
45	AR1262-E												
46	AR1268-A												
47	AR1268-B												

12.12.12
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Continuing Calibration Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G2G4338-CC4311
Lab FileID: 2G163881.D

48	AR1268-C									-----NA-----
49	AR1268-D									-----NA-----
50	AR1268-E									-----NA-----
51 S	Decachlorobiphenyl	19.099	18.852	E6	1.3	101	0.00	11.74	11.80	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2G163402.D 2PCB4311.M Sun May 20 20:20:25 2018

Initial Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4044-ICC4044
Lab FileID: 3G116471.D

Response Factor Report GC3G

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Initial Calibration

Calibration Files

500 =3G116473.D 400 =3G116472.D 300 =3G116471.D 200 =3G116470.D
100 =3G116469.D 50 =3G116468.D

	Compound	500	400	300	200	100	50	Avg	%RSD
1)	Dalapon	8.040	8.239	8.702	9.079	9.619	9.930	8.935 E6	8.40
2) S	2,4-DCAA	4.007	4.096	4.334	4.703	5.227	5.977	4.724 E6	16.07
3)	Dicamba	2.039	2.115	2.263	2.366	2.515	2.748	2.341 E7	11.21
4)	MCP	9.961	9.720	9.698	9.279	7.271		9.186 E3	11.96
5)	MCPA	1.593	1.665	1.705	1.716	1.547		1.645 E4	4.44
6)	Dichloroprop	4.617	4.792	5.158	5.790	6.827	8.591	5.963 E6	25.45
7)	2,4-D	6.067	6.274	6.723	7.268	7.941	8.515	7.132 E6	13.48
8)	Pentachlorophenol	8.400	8.604	8.819	9.280	9.400	9.660	9.027 E7	5.47
9)	2,4,5-TP	3.353	3.396	3.553	3.815	3.907	4.255	3.713 E7	9.31
10)	2,4,5-T	3.485	3.558	3.722	3.899	4.086	4.098	3.808 E7	6.89
11)	2,4-DB	3.534	3.638	4.085	4.238	4.775	5.033	4.217 E6	14.22
12)	Dinoseb	1.789	1.791	1.956	2.100	2.257	2.422	2.052 E7	12.47
13)	Picloram	3.674	3.736	3.874	4.021	4.121	4.218	3.941 E7	5.48

Signal #2

1)	Dalapon	1.883	1.903	2.017	2.106	2.176	2.212	2.050 E6	6.75
2) S	2,4-DCAA	0.964	0.963	0.971	1.057	1.055	0.967	0.996 E6	4.64
3)	Dicamba	5.743	5.532	5.719	6.031	6.280	6.312	5.936 E6	5.41
4)	MCP	2.010	1.957	1.943	1.867	1.443		1.844 E3	12.46
5)	MCPA	3.317	3.267	3.294	3.247	2.706		3.166 E3	8.16
6)	Dichloroprop	1.262	1.272	1.333	1.414	1.475	1.599	1.392 E6	9.36
7)	2,4-D	1.553	1.573	1.640	1.747	1.819	1.849	1.697 E6	7.45
8)	Pentachlorophenol	2.935	2.935	2.929	3.004	2.887	2.706	2.899 E7	3.52
9)	2,4,5-TP	1.139	1.136	1.165	1.183	1.110	1.138	1.145 E7	2.23
10)	2,4,5-T	1.095	1.092	1.125	1.168	1.192	0.959	1.105 E7	7.42
11)	2,4-DB	0.851	0.859	0.887	0.929	0.944	1.040	0.918 E6	7.64
12)	Dinoseb	6.573	6.572	6.798	7.033	7.008	7.029	6.835 E6	3.24
13)	Picloram	1.495	1.492	1.500	1.494	1.414	1.284	1.447 E7	5.94

(#) = Out of Range

3H4044.M

Tue May 15 14:24:18 2018

GC3G

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4044-ICV4044
Lab FileID: 3G116474.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4044\3G116474.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\3G4044\3G116474.D\ECD2B.CH
Acq On : 15 May 2018 12:35 pm Operator: vinced
Sample : icv4044-300 Inst : GC3G
Misc : op11937,g3g4044,15.0,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.583 E6	3.9	99	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.462 E6	5.5	103	0.00	7.35-	7.42
3	Dicamba	23.412	23.941 E6	-2.3	106	0.00	7.56-	7.63
4	MCPD	9.186	10.165 E3	-10.7	105	0.00	7.84-	7.91
5	MCPA	16.451	17.089 E3	-3.9	100	0.00	8.03-	8.10
6	Dichloroprop	5.963	5.145 E6	13.7	100	0.00	8.55-	8.62
7	2,4-D	7.132	6.440 E6	9.7	96	0.00	8.87-	8.94
8	Pentachlorophenol	90.271	99.241 E6	-9.9	113	0.00	9.16-	9.23
9	2,4,5-TP	37.131	36.667 E6	1.2	103	0.00	10.19-	10.26
10	2,4,5-T	38.080	38.682 E6	-1.6	104	0.00	10.65-	10.72
11	2,4-DB	4.217	4.119 E6	2.3	101	0.00	11.60-	11.69
12	Dinoseb	20.525	20.454 E6	0.3	105	0.00	13.54-	13.61
13	Picloram	39.407	37.677 E6	4.4	97	0.00	13.19-	13.26

***** Signal #2 *****

1	Dalapon	2.050	1.984 E6	3.2	98	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	994.933 E3	0.1	103	0.00	7.87-	7.93
3	Dicamba	5.936	6.012 E6	-1.3	105	0.00	8.11-	8.18
4	MCPD	1.844	2.033 E3	-10.2	105	0.00	8.29-	8.36
5	MCPA	3.166	3.291 E3	-3.9	100	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.301 E6	6.5	98	0.00	9.16-	9.23
7	2,4-D	1.697	1.681 E6	0.9	102	0.00	9.68-	9.75
8	Pentachlorophenol	28.995	33.090 E6	-14.1	113	0.00	10.24-	10.31
9	2,4,5-TP	11.452	11.500 E6	-0.4	99	0.00	11.08-	11.15
10	2,4,5-T	11.051	11.496 E6	-4.0	102	0.00	11.79-	11.89
11	2,4-DB	918.292	890.981 E3	3.0	100	0.00	12.80-	12.87
12	Dinoseb	6.835	6.968 E6	-1.9	102	0.00	13.33-	13.40
13	Picloram	14.467	14.316 E6	1.0	95	0.00	15.37-	15.44

(#) = Out of Range
3G116471.D 3H4044.M

SPCC's out = 0 CCC's out = 0
Tue May 15 14:24:04 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4054-CC4044
Lab FileID: 3G116644.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4054\3G116644.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\3G4054\3G116644.D\ECD2B.CH
Acq On : 27 May 2018 11:33 am Operator: vinned
Sample : cc4044-200 Inst : GC3G
Misc : op12157,g3g4054,30,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.354 E6	6.5	92	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.567 E6	3.3	97	0.00	7.35-	7.42
3	Dicamba	23.412	20.104 E6	14.1	85	0.00	7.56-	7.63
4	MCPD	9.186	8.929 E3	2.8	96	0.00	7.84-	7.91
5	MCPA	16.451	15.233 E3	7.4	89	0.00	8.03-	8.10
6	Dichloroprop	5.963	5.194 E6	12.9	90	0.00	8.55-	8.62
7	2,4-D	7.132	6.868 E6	3.7	95	0.00	8.87-	8.94
8	Pentachlorophenol	90.271	87.628 E6	2.9	94	0.00	9.16-	9.23
9	2,4,5-TP	37.131	34.259 E6	7.7	90	0.00	10.19-	10.26
10	2,4,5-T	38.080	35.303 E6	7.3	91	0.00	10.65-	10.72
11	2,4-DB	4.217	3.679 E6	12.8	87	0.00	11.60-	11.69
12	Dinoseb	20.525	19.047 E6	7.2	91	0.00	13.54-	13.61
13	Picloram	39.407	36.051 E6	8.5	90	0.00	13.19-	13.26

***** Signal #2 *****

1	Dalapon	2.050	2.145 E6	-4.6	102	0.00	2.32-	2.39
2 S	2,4-DCAA	996.079	1069.180 E3	-7.3	101	0.00	7.87-	7.93
3	Dicamba	5.936	5.978 E6	-0.7	99	0.00	8.11-	8.18
4	MCPD	1.844	1.843 E3	0.1	99	0.00	8.29-	8.36
5	MCPA	3.166	3.229 E3	-2.0	99	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.462 E6	-5.0	103	0.00	9.16-	9.23
7	2,4-D	1.697	1.812 E6	-6.8	104	0.00	9.68-	9.75
8	Pentachlorophenol	28.995	30.923 E6	-6.6	103	0.00	10.23-	10.30
9	2,4,5-TP	11.452	11.908 E6	-4.0	101	0.00	11.07-	11.14
10	2,4,5-T	11.051	11.376 E6	-2.9	97	0.00	11.79-	11.88
11	2,4-DB	918.292	904.355 E3	1.5	97	0.00	12.80-	12.87
12	Dinoseb	6.835	7.328 E6	-7.2	104	0.00	13.33-	13.40
13	Picloram	14.467	15.258 E6	-5.5	102	0.00	15.36-	15.43

(#) = Out of Range
3G116470.D 3H4044.M

SPCC's out = 0 CCC's out = 0
Tue May 29 09:06:31 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4054-CC4044
Lab FileID: 3G116654.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4054\3G116654.D\ECD1A.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\3G4054\3G116654.D\ECD2B.CH
Acq On : 5-27-2018 04:20:49 PM Operator: vinced
Sample : cc4044-300 Inst : GC3G
Misc : op12300,g3g4054,30,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.120 E6	9.1	93	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.398 E6	6.9	101	0.00	7.35-	7.42
3	Dicamba	23.412	20.863 E6	10.9	92	0.00	7.56-	7.63
4	MCPP	9.186	9.844 E3	-7.2	102	0.00	7.84-	7.91
5	MCPA	16.451	16.477 E3	-0.2	97	0.00	8.03-	8.10
6	Dichloroprop	5.963	4.955 E6	16.9	96	0.00	8.54-	8.61
7	2,4-D	7.132	6.733 E6	5.6	100	0.00	8.87-	8.94
8	Pentachlorophenol	90.271	87.668 E6	2.9	99	0.00	9.16-	9.23
9	2,4,5-TP	37.131	34.584 E6	6.9	97	0.00	10.19-	10.26
10	2,4,5-T	38.080	34.347 E6	9.8	92	0.00	10.65-	10.72
11	2,4-DB	4.217	3.680 E6	12.7	90	0.00	11.60-	11.69
12	Dinoseb	20.525	17.902 E6	12.8	92	0.00	13.54-	13.61
13	Picloram	39.407	36.431 E6	7.6	94	0.01	13.20-	13.27

***** Signal #2 *****

1	Dalapon	2.050	1.938 E6	5.5	96	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	1043.829 E3	-4.8	108	0.00	7.87-	7.93
3	Dicamba	5.936	5.939 E6	-0.1	104	0.00	8.11-	8.18
4	MCPP	1.844	2.055 E3	-11.4	106	0.00	8.29-	8.36
5	MCPA	3.166	3.187 E3	-0.7	97	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.343 E6	3.5	101	0.00	9.16-	9.23
7	2,4-D	1.697	1.673 E6	1.4	102	0.00	9.68-	9.75
8	Pentachlorophenol	28.995	29.291 E6	-1.0	100	0.00	10.24-	10.31
9	2,4,5-TP	11.452	11.154 E6	2.6	96	0.00	11.08-	11.15
10	2,4,5-T	11.051	10.802 E6	2.3	96	0.00	11.79-	11.89
11	2,4-DB	918.292	876.419 E3	4.6	99	0.00	12.80-	12.87
12	Dinoseb	6.835	6.611 E6	3.3	97	0.00	13.33-	13.40
13	Picloram	14.467	14.674 E6	-1.4	98	0.00	15.37-	15.44

(#) = Out of Range
3G116471.D 3H4044.M

SPCC's out = 0 CCC's out = 0
Tue May 29 09:06:55 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4054-CC4044
Lab FileID: 3G116664.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4054\3G116664.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\3G4054\3G116664.D\ECD2B.CH
Acq On : 5-27-2018 09:03:54 PM Operator: vinced
Sample : cc4044-200 Inst : GC3G
Misc : op12297,g3g4054,30,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	8.207 E6	8.1	90	0.00	2.35-	2.41
2 S	2,4-DCAA	4.724	4.560 E6	3.5	97	0.00	7.35-	7.42
3	Dicamba	23.412	20.936 E6	10.6	88	0.00	7.56-	7.63
4	MCPD	9.186	9.060 E3	1.4	98	0.00	7.84-	7.91
5	MCPA	16.451	15.504 E3	5.8	90	0.00	8.03-	8.10
6	Dichloroprop	5.963	5.139 E6	13.8	89	0.00	8.55-	8.62
7	2,4-D	7.132	6.993 E6	1.9	96	0.00	8.87-	8.94
8	Pentachlorophenol	90.271	87.311 E6	3.3	94	0.00	9.16-	9.23
9	2,4,5-TP	37.131	33.579 E6	9.6	88	0.00	10.19-	10.26
10	2,4,5-T	38.080	35.759 E6	6.1	92	0.00	10.65-	10.72
11	2,4-DB	4.217	3.771 E6	10.6	89	0.00	11.61-	11.70
12	Dinoseb	20.525	18.336 E6	10.7	87	0.00	13.54-	13.61
13	Picloram	39.407	34.568 E6	12.3	86	0.01	13.20-	13.27

***** Signal #2 *****

1	Dalapon	2.050	1.919 E6	6.4	91	0.00	2.32-	2.39
2 S	2,4-DCAA	996.079	1037.638 E3	-4.2	98	0.00	7.87-	7.93
3	Dicamba	5.936	5.704 E6	3.9	95	0.00	8.11-	8.18
4	MCPD	1.844	1.883 E3	-2.1	101	0.00	8.29-	8.36
5	MCPA	3.166	3.217 E3	-1.6	99	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.325 E6	4.8	94	0.00	9.16-	9.23
7	2,4-D	1.697	1.667 E6	1.8	95	0.00	9.68-	9.75
8	Pentachlorophenol	28.995	27.622 E6	4.7	92	0.00	10.24-	10.31
9	2,4,5-TP	11.452	10.471 E6	8.6	89	0.00	11.08-	11.15
10	2,4,5-T	11.051	10.077 E6	8.8	86	0.00	11.80-	11.89
11	2,4-DB	918.292	845.146 E3	8.0	91	0.00	12.81-	12.88
12	Dinoseb	6.835	6.297 E6	7.9	90	0.00	13.33-	13.40
13	Picloram	14.467	12.811 E6	11.4	86	0.00	15.37-	15.44

(#) = Out of Range
3G116470.D 3H4044.M

SPCC's out = 0 CCC's out = 0
Tue May 29 09:06:32 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4055-CC4044
Lab FileID: 3G116674.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4055\3G116674.D\ECD1A.CH Vial: 2
 Signal #2 : C:\MSDCHEM\1\DATA\3G4055\3G116674.D\ECD2B.CH
 Acq On : 5-29-2018 08:48:41 AM Operator: vinced
 Sample : cc4044-200 Inst : GC3G
 Misc : op12299,g3g4055,30,,,2.5,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
 Title : HERB
 Last Update : Tue May 15 14:11:36 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	7.554 E6	15.5	83	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	4.291 E6	9.2	91	0.00	7.34-	7.41
3	Dicamba	23.412	17.914 E6	23.5#	76	0.00	7.56-	7.63
4	MCPD	9.186	7.607 E3	17.2	82	0.00	7.84-	7.91
5	MCPA	16.451	14.524 E3	11.7	85	0.00	8.03-	8.10
6	Dichloroprop	5.963	7.475 E6	-25.4#	129	0.00	8.54-	8.61
7	2,4-D	7.132	6.126 E6	14.1	84	0.00	8.87-	8.94
8	Pentachlorophenol	90.271	75.724 E6	16.1	82	0.00	9.16-	9.23
9	2,4,5-TP	37.131	30.367 E6	18.2	80	0.00	10.18-	10.25
10	2,4,5-T	38.080	29.901 E6	21.5#	77	0.00	10.64-	10.71
11	2,4-DB	4.217	3.977 E6	5.7	94	0.00	11.59-	11.69
12	Dinoseb	20.525	16.674 E6	18.8	79	0.00	13.54-	13.61
13	Picloram	39.407	30.903 E6	21.6#	77	0.00	13.18-	13.25

***** Signal #2 *****

1	Dalapon	2.050	1.909 E6	6.9	91	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	1049.754 E3	-5.4	99	0.00	7.87-	7.93
3	Dicamba	5.936	7.718 E6	-30.0#	128	0.00	8.10-	8.17
4	MCPD	1.844	1.572 E3	14.8	84	0.00	8.29-	8.36
5	MCPA	3.166	2.650 E3	16.3	82	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.330 E6	4.5	94	0.00	9.16-	9.23
7	2,4-D	1.697	1.794 E6	-5.7	103	0.00	9.67-	9.74
8	Pentachlorophenol	28.995	27.813 E6	4.1	93	0.00	10.23-	10.30
9	2,4,5-TP	11.452	10.889 E6	4.9	92	0.00	11.07-	11.14
10	2,4,5-T	11.051	10.525 E6	4.8	90	0.00	11.79-	11.88
11	2,4-DB	918.292	815.390 E3	11.2	88	0.00	12.79-	12.86
12	Dinoseb	6.835	6.756 E6	1.2	96	0.00	13.33-	13.40
13	Picloram	14.467	13.263 E6	8.3	89	0.00	15.36-	15.43

(#) = Out of Range
 3G116470.D 3H4044.M

SPCC's out = 0 CCC's out = 0
 Tue May 29 16:15:56 2018 GC3G

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G3G4055-ECC4044
Lab FileID: 3G116684.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4055\3G116684.D\ECD1A.CH Vial: 3
 Signal #2 : C:\MSDCHEM\1\DATA\3G4055\3G116684.D\ECD2B.CH
 Acq On : 5-29-2018 02:07:36 PM Operator: vinced
 Sample : ecc4044-300 Inst : GC3G
 Misc : op12301,g3g4055,30,,,2.5,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
 Title : HERB
 Last Update : Tue May 15 14:11:36 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	8.935	7.463 E6	16.5	86	0.00	2.36-	2.42
2 S	2,4-DCAA	4.724	3.799 E6	19.6	88	0.00	7.34-	7.41
3	Dicamba	23.412	15.816 E6	32.4#	70	0.00	7.56-	7.63
4	MCP	9.186	8.762 E3	4.6	90	0.00	7.84-	7.91
5	MCPA	16.451	14.724 E3	10.5	86	0.00	8.03-	8.10
6	Dichloroprop	5.963	3.063 E6	48.6#	59	0.00	8.54-	8.61
7	2,4-D	7.132	4.728 E6	33.7#	70	0.00	8.87-	8.94
8	Pentachlorophenol	90.271	60.194 E6	33.3#	68	0.00	9.15-	9.22
9	2,4,5-TP	37.131	23.847 E6	35.8#	67	0.00	10.18-	10.25
10	2,4,5-T	38.080	25.857 E6	32.1#	69	0.00	10.63-	10.70
11	2,4-DB	4.217	3.345 E6	20.7#	82	0.00	11.59-	11.68
12	Dinoseb	20.525	14.896 E6	27.4#	76	0.00	13.53-	13.60
13	Picloram	39.407	30.087 E6	23.7#	78	0.00	13.18-	13.25

***** Signal #2 *****

1	Dalapon	2.050	1.831 E6	10.7	91	0.00	2.33-	2.40
2 S	2,4-DCAA	996.079	962.023 E3	3.4	99	0.00	7.87-	7.93
3	Dicamba	5.936	4.993 E6	15.9	87	0.00	8.10-	8.17
4	MCP	1.844	1.775 E3	3.7	91	0.00	8.29-	8.36
5	MCPA	3.166	3.064 E3	3.2	93	0.00	8.64-	8.71
6	Dichloroprop	1.392	1.111 E6	20.2#	83	0.00	9.16-	9.23
7	2,4-D	1.697	1.538 E6	9.4	94	0.00	9.67-	9.74
8	Pentachlorophenol	28.995	24.895 E6	14.1	85	0.00	10.23-	10.30
9	2,4,5-TP	11.452	9.870 E6	13.8	85	0.00	11.07-	11.14
10	2,4,5-T	11.051	9.682 E6	12.4	86	0.00	11.78-	11.88
11	2,4-DB	918.292	834.038 E3	9.2	94	0.00	12.79-	12.86
12	Dinoseb	6.835	6.532 E6	4.4	96	0.00	13.32-	13.39
13	Picloram	14.467	14.208 E6	1.8	95	0.00	15.36-	15.43

(#) = Out of Range
 3G116471.D 3H4044.M

SPCC's out = 0 CCC's out = 0
 Tue May 29 14:48:11 2018 GC3G

Initial Calibration Summary

Page 1 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICC1671
Lab FileID: 6G55784.D

Response Factor Report GC6G

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Initial Calibration

Calibration Files

5 =6g55782.d 10 =6g55783.d 25 =6g55784.d 50 =6g55785.d
100 =6g55787.d 1 =6g55780.d 75 =6g55786.d 2 =6g55781.d
= =

Compound	5	10	25	50	100	1	75	2	Avg	%RSD
1) I 1-bromo-2-nitrobenzen -----ISTD-----										
2) Tetrachloro-m-xylene	0.937	0.914	0.936	0.973	1.007	1.084	0.982	0.943	0.972	5.57
3) hexachlorobenzene	1.022	1.033	1.042	1.079	1.085	1.271	1.095	1.053	1.085	7.34
4) alpha-BHC	1.184	1.208	1.340	1.459	1.524	1.314	1.516	1.163	1.338	11.04
5) gamma-BHC	1.132	1.137	1.236	1.325	1.368	1.415	1.374	1.152	1.267	9.25
6) Heptachlor	1.099	1.099	1.172	1.249	1.270	1.305	1.276	1.109	1.197	7.32
7) beta-BHC	0.560	0.531	0.543	0.559	0.560	0.645	0.568	0.567	0.567	6.05
8) delta-BHC	0.969	1.003	1.123	1.228	1.293	1.083	1.279	0.962	1.117	12.18
9) Aldrin	1.052	1.060	1.150	1.238	1.265	1.222	1.274	1.047	1.164	8.51
10) alachlor	0.145	0.140	0.140	0.142	0.134		0.140		0.140	2.52
11) Heptachlor Epoxide	1.019	0.991	1.060	1.124	1.145	1.121	1.155	0.991	1.076	6.40
12) gamma-Chlordane	0.964	0.976	1.051	1.129	1.174	1.059	1.174	0.952	1.060	8.65
13) alpha-Chlordane	1.019	0.982	1.040	1.103	1.136	1.224	1.139	1.039	1.085	7.33
14) Endosulfan I	0.944	0.924	0.979	1.039	1.058	1.118	1.068	0.963	1.012	6.79
15) 4,4'-DDE	0.934	0.922	1.009	1.096	1.140	1.095	1.140	0.931	1.033	9.24
16) Dieldrin	0.993	0.994	1.079	1.165	1.187	1.144	1.206	0.997	1.096	8.36
17) Endrin	0.953	0.899	0.964	1.033	1.049	1.054	1.068	0.913	0.992	6.79
18) 4,4'-DDD	0.797	0.774	0.836	0.900	0.920	0.899	0.934	0.788	0.856	7.56
19) Endosulfan II	0.970	0.933	0.963	1.012	1.017	1.406	1.039	1.074	1.052	14.27
20) 4,4'-DDT	0.737	0.743	0.802	0.870	0.903	0.844	0.914	0.751	0.821	8.84
21) Endrin Aldehyde	0.803	0.770	0.796	0.836	0.833	0.945	0.855	0.824	0.833	6.32
22) Endosulfan Sulfate	0.791	0.758	0.792	0.833	0.841	0.925	0.858	0.801	0.825	6.29
23) Methoxychlor										

12.12.20 12

Initial Calibration Summary

Page 2 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICC1671
Lab FileID: 6G55784.D

	0.516	0.458	0.468	0.480	0.473	0.552	0.487	0.482	0.490	6.24
24) Mirex	0.833	0.792	0.774	0.785	0.773	1.050	0.798	0.858	0.833	11.13
25) Endrin Ketone	0.924	0.912	0.956	1.006	1.005	1.086	1.029	0.931	0.981	6.17
26) Decachlorobiphenyl	0.983	0.929	0.914	0.922	0.892	1.300	0.929	1.055	0.991	13.66
27) I 1-bromo-2-nitrobenzen	-----ISTD-----									
28) Toxaphene{A}				0.016					0.016	0.00
29) Toxaphene{B}				0.041					0.041	0.00
30) Toxaphene{C}				0.033					0.033	0.00
31) Toxaphene{D}				0.026					0.026	0.00
32) Toxaphene{E}				0.027					0.027	0.00
33) I 1-bromo-2-nitrobenzen	-----ISTD-----									
34) Chlordane {A}				0.054					0.054	0.00
35) Chlordane {B}				0.045					0.045	0.00
36) Chlordane {C}				0.145					0.145	0.00
37) Chlordane {D}				0.228					0.228	0.00
38) Chlordane {E}				0.026					0.026	0.00

Signal #2

1) I 1-bromo-2-nitrobenzen	-----ISTD-----									
2) Tetrachloro-m-xylene	0.878	0.885	0.907	0.945	1.004	0.981	0.968	0.882	0.931	5.35
3) hexachlorobenzene	1.120	1.130	1.119	1.146	1.192	1.299	1.165	1.172	1.168	5.06
4) alpha-BHC	1.073	1.128	1.243	1.360	1.490	1.146	1.430	1.045	1.239	13.63
5) gamma-BHC	1.031	1.065	1.150	1.242	1.352	1.136	1.298	1.023	1.162	10.67
6) Heptachlor	1.093	1.097	1.153	1.225	1.303	1.223	1.267	1.097	1.182	7.06
7) beta-BHC	0.513	0.510	0.515	0.527	0.550	0.604	0.537	0.514	0.534	5.92
8) delta-BHC	0.923	0.964	1.051	1.160	1.279	1.110	1.225	0.921	1.079	12.73
9) Aldrin	0.939	0.957	1.022	1.101	1.190	1.050	1.147	0.919	1.041	9.61
10) alachlor	0.152	0.138	0.135	0.135	0.133		0.134		0.138	5.09
11) Heptachlor Epoxide	0.953	0.942	0.979	1.034	1.098	1.030	1.065	0.948	1.006	5.86
12) gamma-Chlordane	0.951	0.927	0.976	1.036	1.112	0.910	1.074	0.902	0.986	8.03
13) alpha-Chlordane	0.936	0.896	0.970	1.012	1.066	0.939	1.032	0.827	0.960	8.08

Initial Calibration Summary

Page 3 of 3

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICC1671
Lab FileID: 6G55784.D

14)	Endosulfan I	0.892	0.845	0.882	0.932	0.994	0.993	0.955	0.844	0.917	6.61
15)	4,4'-DDE	0.839	0.863	0.923	0.997	1.085	0.903	1.044	0.802	0.932	10.82
16)	Dieldrin	0.884	0.904	0.959	1.034	1.124	0.978	1.078	0.912	0.984	8.86
17)	Endrin	0.872	0.882	0.909	0.976	1.050	1.138	1.020	0.881	0.966	10.03
18)	4,4'-DDD	0.736	0.733	0.765	0.820	0.889	0.891	0.858	0.731	0.803	8.76
19)	Endosulfan II	0.900	0.876	0.885	0.926	0.978	1.323	0.951	0.983	0.978	14.84
20)	4,4'-DDT	0.670	0.708	0.760	0.820	0.901	0.776	0.863	0.703	0.775	10.51
21)	Endrin Aldehyde	0.703	0.697	0.710	0.734	0.774	0.847	0.755	0.721	0.743	6.71
22)	Endosulfan Sulfate	0.687	0.695	0.715	0.747	0.796	0.836	0.774	0.700	0.744	7.26
23)	Methoxychlor	0.423	0.429	0.438	0.449	0.467	0.431	0.460	0.426	0.440	3.73
24)	Mirex	0.734	0.730	0.711	0.712	0.735	0.885	0.725	0.736	0.746	7.67
25)	Endrin Ketone	0.879	0.850	0.879	0.915	0.975	1.451	0.953	0.981	0.985	19.70
26)	Decachlorobiphenyl	0.924	0.908	0.866	0.875	0.893	1.128	0.885	0.952	0.929	9.16
27)	I 1-bromo-2-nitrobenzen	-----ISTD-----									
28)	Toxaphene{A}	0.019								0.019	0.00
29)	Toxaphene{B}	0.025								0.025	0.00
30)	Toxaphene{C}	0.047								0.047	0.00
31)	Toxaphene{D}	0.026								0.026	0.00
32)	Toxaphene{E}	0.023								0.023	0.00
33)	I 1-bromo-2-nitrobenzen	-----ISTD-----									
34)	Chlordane {A}	0.054								0.054	0.00
35)	Chlordane {B}	0.040								0.040	0.00
36)	Chlordane {C}	0.126								0.126	0.00
37)	Chlordane {D}	0.206								0.206	0.00
38)	Chlordane {E}	0.021								0.021	0.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

6PST1671.M

Mon Apr 30 17:43:44 2018

12.12.20
12

Initial Calibration Verification

Page 1 of 2

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55790.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55790.d\ECD1A.CH Vial: 13
Signal #2 : C:\msdchem\1\data\G6G1671\6g55790.d\ECD2B.CH
Acq On : 30-Apr-18, 14:23:25 Operator: dharas
Sample : icv1671-25 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	-0.02	1.44-	2.44
2 SAB	Tetrachloro-m-xylene	0.972	1.010	-3.9	110	-0.02	2.50-	2.56
4 A	alpha-BHC	1.338	1.571	-17.4	119	-0.01	2.97-	3.03
5 MA	gamma-BHC	1.267	1.426	-12.5	117	-0.01	3.26-	3.32
6 MA	Heptachlor	1.197	1.362	-13.8	118	-0.01	3.75-	3.81
7 B	beta-BHC	0.567	0.628	-10.8	118	-0.01	3.33-	3.39
8 B	delta-BHC	1.117	1.334	-19.4	121	-0.01	3.51-	3.57
9 MB	Aldrin	1.164	1.327	-14.0	117	-0.01	4.08-	4.14
11 B	Heptachlor Epoxide	1.076	1.233	-14.6	118	-0.01	4.78-	4.84
12 B	gamma-Chlordane	1.060	1.261	-19.0	122	-0.01	4.95-	5.01
13 B	alpha-Chlordane	1.085	1.229	-13.3	120	-0.01	5.12-	5.18
14 A	Endosulfan I	1.012	1.180	-16.6	123	-0.01	5.29-	5.35
15 B	4,4'-DDE	1.033	1.198	-16.0	121	-0.01	5.23-	5.29
16 MA	Dieldrin	1.096	1.269	-15.8	120	-0.01	5.61-	5.67
17 MA	Endrin	0.992	1.152	-16.1	122	-0.01	5.93-	5.99
18 A	4,4'-DDD	0.856	0.999	-16.7	122	-0.01	6.06-	6.12
19 B	Endosulfan II	1.052	1.107	-5.2	117	-0.01	6.25-	6.31
20 MA	4,4'-DDT	0.821	0.930	-13.3	118	-0.01	6.47-	6.53
21 B	Endrin Aldehyde	0.833	0.937	-12.5	120	-0.01	6.88-	6.94
22 B	Endosulfan Sulfate	0.825	0.962	-16.6	124	-0.01	7.56-	7.62
23 A	Methoxychlor	0.490	0.535	-9.2	116	-0.01	7.26-	7.32
24	Mirex	0.833	0.886	-6.4	117	-0.01	7.41-	7.47
25 B	Endrin Ketone	0.981	1.108	-12.9	118	-0.01	8.00-	8.06
26 SA	Decachlorobiphenyl	0.991	1.025	-3.4	114	-0.01	9.81-	9.87

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	-0.01	1.65-	2.65
2 SAB	Tetrachloro-m-xylene	0.931	0.973	-4.5	107	0.00	2.90-	2.96
4 A	alpha-BHC	1.239	1.459	-17.8	117	0.00	3.53-	3.59
5 MA	gamma-BHC	1.162	1.337	-15.1	116	0.00	3.94-	4.00
6 MA	Heptachlor	1.182	1.342	-13.5	116	0.00	4.50-	4.56
7 B	beta-BHC	0.534	0.593	-11.0	115	0.00	4.02-	4.08
8 B	delta-BHC	1.079	1.250	-15.8	118	0.00	4.40-	4.46
9 MB	Aldrin	1.041	1.180	-13.4	115	0.00	4.93-	4.99
11 B	Heptachlor Epoxide	1.006	1.143	-13.6	116	0.00	5.73-	5.79
12 B	gamma-Chlordane	0.986	1.164	-18.1	119	0.00	6.01-	6.07
13 B	alpha-Chlordane	0.960	1.122	-16.9	115	0.00	6.23-	6.29

Initial Calibration Verification

Page 2 of 2

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55790.D

14	A	Endosulfan I	0.917	1.067	-16.4	120	0.00	6.32-	6.38
15	B	4,4'-DDE	0.932	1.097	-17.7	118	0.00	6.49-	6.55
16	MA	Dieldrin	0.984	1.136	-15.4	118	0.00	6.75-	6.81
17	MA	Endrin	0.966	1.101	-14.0	120	-0.01	7.24-	7.30
18	A	4,4'-DDD	0.803	0.923	-14.9	120	0.00	7.42-	7.48
19	B	Endosulfan II	0.978	1.021	-4.4	115	0.00	7.58-	7.64
20	MA	4,4'-DDT	0.775	0.887	-14.5	116	-0.01	7.95-	8.01
21	B	Endrin Aldehyde	0.743	0.843	-13.5	118	-0.01	8.15-	8.21
22	B	Endosulfan Sulfate	0.744	0.875	-17.6	122	-0.01	8.61-	8.67
23	A	Methoxychlor	0.440	0.516	-17.3	117	-0.02	9.18-	9.24
24		Mirex	0.746	0.824	-10.5	115	-0.02	9.49-	9.55
25	B	Endrin Ketone	0.985	1.028	-4.4	116	-0.02	9.56-	9.62
26	SA	Decachlorobiphenyl	0.929	0.998	-7.4	115	-0.02	11.69-	11.75

(#) = Out of Range
6g55784.d 6PST1671.M

SPCC's out = 0 CCC's out = 0
Mon Apr 30 17:38:40 2018

12.12.21
12

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55791.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55791.d\ECD1A.CH Vial: 14
Signal #2 : C:\msdchem\1\data\G6G1671\6g55791.d\ECD2B.CH
Acq On : 30-Apr-18, 14:41:11 Operator: dharas
Sample : icv1671-500 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
33 I 1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	-0.02	1.44-	2.44
34 Chlordane {A}	0.054	0.063	-16.7	117	-0.01	3.68-	3.88
35 Chlordane {B}	0.045	0.039	13.3	88	-0.01	4.15-	4.35
36 Chlordane {C}	0.145	0.145	0.0	99	-0.01	4.87-	5.07
37 Chlordane {D}	0.228	0.230	-0.9	101	-0.01	5.04-	5.24
38 Chlordane {E}	0.026	0.028	-7.7	110	-0.01	5.92-	6.12

***** Signal #2 *****

33 I 1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	-0.01	1.65-	2.65
34 Chlordane {A}	0.054	0.064	-18.5	116	0.00	4.43-	4.63
35 Chlordane {B}	0.040	0.036	10.0	89	0.00	5.05-	5.25
36 Chlordane {C}	0.126	0.128	-1.6	100	0.00	5.94-	6.14
37 Chlordane {D}	0.206	0.208	-1.0	100	0.00	6.16-	6.36
38 Chlordane {E}	0.021	0.023	-9.5	108	0.00	7.30-	7.50

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Mon Apr 30 17:38:57 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55792.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\G6G1671\6g55792.d\ECD1A.CH Vial: 15
Acq On : 30-Apr-18, 14:58:58 Operator: dharas
Sample : icv1671-500 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\msdchem\1\data\G6G1671\6g55792.d\ECD2B.CH Vial: 0
Acq On : 30-Apr-18, 14:58:59 Operator: dharas
Sample : icv1671-500 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	-0.02	1.44-	2.44
28 L8	Toxaphene{A}	0.016	0.017	-6.3	107	-0.01	5.55-	5.75
29 L8	Toxaphene{B}	0.041	0.044	-7.3	108	-0.01	6.17-	6.37
30 L8	Toxaphene{C}	0.033	0.035	-6.1	107	0.00	6.35-	6.55
31 L8	Toxaphene{D}	0.026	0.026	0.0	103	-0.01	6.69-	6.89
32 L8	Toxaphene{E}	0.027	0.029	-7.4	110	-0.01	7.33-	7.53

***** Signal #2 *****

27 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.65-	2.65
28 L8	Toxaphene{A}	0.019	0.021	-10.5	108	0.00	6.64-	6.84
29 L8	Toxaphene{B}	0.025	0.026	-4.0	102	-0.01	7.48-	7.68
30 L8	Toxaphene{C}	0.047	0.046	2.1	98	-0.01	7.64-	7.84
31 L8	Toxaphene{D}	0.026	0.027	-3.8	104	-0.01	8.08-	8.28
32 L8	Toxaphene{E}	0.023	0.024	-4.3	101	-0.02	8.97-	9.17

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Mon Apr 30 17:38:59 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55793.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55793.d\ECD1A.CH Vial: 16
Signal #2 : C:\msdchem\1\data\G6G1671\6g55793.d\ECD2B.CH
Acq On : 30-Apr-18, 15:16:44 Operator: dharas
Sample : icv1671-50 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	-0.02	1.44	2.44
10	alachlor	0.140	0.155	-10.7	109	-0.01	4.22	4.28

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	-0.01	1.65	2.65
10	alachlor	0.138	0.150	-8.7	109	0.00	4.75	4.81

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Mon Apr 30 17:39:01 2018

12.12.24
12

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1671-ICV1671
Lab FileID: 6G55794.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55794.d\ECD1A.CH Vial: 17
Signal #2 : C:\msdchem\1\data\G6G1671\6g55794.d\ECD2B.CH
Acq On : 30-Apr-18, 15:34:38 Operator: dharas
Sample : icv1671-50 Inst : GC6G
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Mon Apr 30 17:34:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	-0.02	1.44-	2.44
3	hexachlorobenzene	1.085	1.076	0.8	102	-0.01	2.83-	2.89

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	-0.01	1.65-	2.65
3	hexachlorobenzene	1.168	1.139	2.5	99	0.00	3.38-	3.44

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g55785.d 6PST1671.M Mon Apr 30 17:39:03 2018

12.12.25
12

Continuing Calibration Summary

Page 1 of 2

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1689-CC1671
Lab FileID: 6G56503.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1689\6g56503.d\ECD1A.CH Vial: 2
 Signal #2 : C:\msdchem\1\data\G6G1689\6g56503.d\ECD2B.CH
 Acq On : 23-May-18, 23:09:25 Operator: christp
 Sample : cc1671-25 Inst : GC6G
 Misc : OP12109,g6g1689,300,,,2,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
 Title : PEST/PCB
 Last Update : Thu May 17 23:56:16 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	96	0.00	1.45-	2.45
2 SAB	Tetrachloro-m-xylene	0.972	0.900	7.4	92	0.00	2.50-	2.56
3	hexachlorobenzene	1.085	0.994	8.4	92	0.00	2.82-	2.88
4 A	alpha-BHC	1.338	1.185	11.4	85	0.00	2.96-	3.02
5 MA	gamma-BHC	1.267	1.078	14.9	84	0.00	3.25-	3.31
6 MA	Heptachlor	1.197	1.100	8.1	90	0.00	3.74-	3.80
7 B	beta-BHC	0.567	0.473	16.6	84	0.00	3.32-	3.38
8 B	delta-BHC	1.117	0.850	23.9#	73	0.00	3.51-	3.57
9 MB	Aldrin	1.164	1.061	8.8	89	-0.01	4.07-	4.13
10	alachlor	0.140	0.153	-9.3	105	-0.01	4.20-	4.26
11 B	Heptachlor Epoxide	1.076	0.936	13.0	85	-0.01	4.77-	4.83
12 B	gamma-Chlordane	1.060	0.928	12.5	85	-0.01	4.93-	4.99
13 B	alpha-Chlordane	1.085	0.941	13.3	87	-0.01	5.10-	5.16
14 A	Endosulfan I	1.012	0.905	10.6	89	-0.01	5.27-	5.33
15 B	4,4'-DDE	1.033	0.925	10.5	88	-0.02	5.21-	5.27
16 MA	Dieldrin	1.096	0.983	10.3	88	-0.01	5.59-	5.65
17 MA	Endrin	0.992	0.937	5.5	93	-0.02	5.91-	5.97
18 A	4,4'-DDD	0.856	0.745	13.0	86	-0.02	6.04-	6.10
19 B	Endosulfan II	1.052	0.865	17.8	86	-0.01	6.23-	6.29
20 MA	4,4'-DDT	0.821	0.718	12.5	86	-0.02	6.45-	6.51
21 B	Endrin Aldehyde	0.833	0.739	11.3	89	-0.02	6.85-	6.91
22 B	Endosulfan Sulfate	0.825	0.685	17.0	83	-0.02	7.53-	7.59
23 A	Methoxychlor	0.490	0.446	9.0	91	-0.02	7.23-	7.29
24	Mirex	0.833	0.705	15.4	87	-0.02	7.38-	7.44
25 B	Endrin Ketone	0.981	0.846	13.8	85	-0.02	7.97-	8.03
26 SA	Decachlorobiphenyl	0.991	0.822	17.1	86	-0.02	9.78-	9.84

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	109	0.00	1.65-	2.65
2 SAB	Tetrachloro-m-xylene	0.931	0.870	6.6	104	0.00	2.90-	2.96
3	hexachlorobenzene	1.168	1.124	3.8	109	0.00	3.38-	3.44
4 A	alpha-BHC	1.239	1.120	9.6	98	0.00	3.52-	3.58
5 MA	gamma-BHC	1.162	1.036	10.8	98	0.00	3.93-	3.99
6 MA	Heptachlor	1.182	1.083	8.4	102	0.00	4.49-	4.55
7 B	beta-BHC	0.534	0.468	12.4	99	0.00	4.01-	4.07
8 B	delta-BHC	1.079	0.821	23.9#	85	0.00	4.39-	4.45
9 MB	Aldrin	1.041	0.953	8.5	101	0.00	4.92-	4.98

Continuing Calibration Summary

Page 2 of 2

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1689-CC1671
Lab FileID: 6G56503.D

10	alachlor	0.138	0.135	2.2	109	0.00	4.74-	4.80
11 B	Heptachlor Epoxide	1.006	0.973	3.3	108	0.00	5.72-	5.78
12 B	gamma-Chlordane	0.986	0.955	3.1	106	0.00	5.99-	6.05
13 B	alpha-Chlordane	0.960	1.019	-6.1	114	0.00	6.21-	6.27
14 A	Endosulfan I	0.917	0.910	0.8	112	0.00	6.31-	6.37
15 B	4,4'-DDE	0.932	0.962	-3.2	113	0.00	6.48-	6.54
16 MA	Dieldrin	0.984	0.975	0.9	110	0.00	6.73-	6.79
17 MA	Endrin	0.966	0.916	5.2	109	0.00	7.22-	7.28
18 A	4,4'-DDD	0.803	0.788	1.9	112	0.00	7.41-	7.47
19 B	Endosulfan II	0.978	0.888	9.2	109	0.00	7.57-	7.63
20 MA	4,4'-DDT	0.775	0.701	9.5	100	0.00	7.94-	8.00
21 B	Endrin Aldehyde	0.743	0.705	5.1	108	0.00	8.13-	8.19
22 B	Endosulfan Sulfate	0.744	0.629	15.5	96	0.00	8.60-	8.66
23 A	Methoxychlor	0.440	0.399	9.3	99	0.00	9.17-	9.23
24	Mirex	0.746	0.665	10.9	102	-0.01	9.47-	9.53
25 B	Endrin Ketone	0.985	0.786	20.2#	97	-0.01	9.54-	9.60
26 SA	Decachlorobiphenyl	0.929	0.823	11.4	103	-0.02	11.68-	11.74

(#) = Out of Range
6g55784.d 6PST1671.M

SPCC's out = 0 CCC's out = 0
Thu May 24 08:43:58 2018

12.12.26

12

Continuing Calibration Summary

Page 1 of 2

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1689-CC1671
Lab FileID: 6G56524.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1689\6g56524.d\ECD1A.CH Vial: 4
Signal #2 : C:\msdchem\1\data\G6G1689\6g56524.d\ECD2B.CH
Acq On : 24-May-18, 05:36:22 Operator: christp
Sample : cc1671-50 Inst : GC6G
Misc : OP12236,g6g1689,30,,,2,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Thu May 17 23:56:16 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	0.00	1.45-	2.45
2 SAB	Tetrachloro-m-xylene	0.972	0.947	2.6	99	0.00	2.50-	2.56
3	hexachlorobenzene	1.085	1.048	3.4	99	0.00	2.83-	2.89
4 A	alpha-BHC	1.338	1.328	0.7	93	0.00	2.96-	3.02
5 MA	gamma-BHC	1.267	1.217	3.9	94	0.00	3.25-	3.31
6 MA	Heptachlor	1.197	1.201	-0.3	98	0.00	3.74-	3.80
7 B	beta-BHC	0.567	0.515	9.2	94	0.00	3.32-	3.38
8 B	delta-BHC	1.117	0.986	11.7	82	0.00	3.51-	3.57
9 MB	Aldrin	1.164	1.176	-1.0	97	-0.01	4.07-	4.13
10	alachlor	0.140	0.149	-6.4	107	-0.01	4.20-	4.26
11 B	Heptachlor Epoxide	1.076	1.104	-2.6	100	-0.01	4.77-	4.83
12 B	gamma-Chlordane	1.060	1.102	-4.0	100	-0.01	4.93-	4.99
13 B	alpha-Chlordane	1.085	1.054	2.9	97	-0.01	5.10-	5.16
14 A	Endosulfan I	1.012	1.041	-2.9	102	-0.01	5.27-	5.33
15 B	4,4'-DDE	1.033	0.993	3.9	92	-0.01	5.21-	5.27
16 MA	Dieldrin	1.096	1.122	-2.4	98	-0.01	5.59-	5.65
17 MA	Endrin	0.992	1.026	-3.4	101	-0.02	5.91-	5.97
18 A	4,4'-DDD	0.856	0.800	6.5	91	-0.01	6.04-	6.10
19 B	Endosulfan II	1.052	0.960	8.7	97	-0.02	6.23-	6.29
20 MA	4,4'-DDT	0.821	0.783	4.6	92	-0.01	6.45-	6.51
21 B	Endrin Aldehyde	0.833	0.798	4.2	97	-0.02	6.85-	6.91
22 B	Endosulfan Sulfate	0.825	0.715	13.3	88	-0.02	7.53-	7.59
23 A	Methoxychlor	0.490	0.431	12.0	92	-0.01	7.24-	7.30
24	Mirex	0.833	0.756	9.2	98	-0.02	7.38-	7.44
25 B	Endrin Ketone	0.981	0.915	6.7	93	-0.02	7.97-	8.03
26 SA	Decachlorobiphenyl	0.991	0.840	15.2	93	-0.02	9.78-	9.84

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	114	0.00	1.65-	2.65
2 SAB	Tetrachloro-m-xylene	0.931	0.917	1.5	111	0.00	2.90-	2.96
3	hexachlorobenzene	1.168	1.194	-2.2	119	0.00	3.38-	3.44
4 A	alpha-BHC	1.239	1.260	-1.7	106	0.00	3.53-	3.59
5 MA	gamma-BHC	1.162	1.151	0.9	106	0.00	3.93-	3.99
6 MA	Heptachlor	1.182	1.173	0.8	110	0.00	4.48-	4.54
7 B	beta-BHC	0.534	0.495	7.3	107	0.00	4.02-	4.08
8 B	delta-BHC	1.079	0.939	13.0	93	0.00	4.39-	4.45
9 MB	Aldrin	1.041	1.072	-3.0	111	0.00	4.92-	4.98
10	alachlor	0.138	0.141	-2.2	120	0.00	4.74-	4.80

Continuing Calibration Summary

Page 2 of 2

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1689-CC1671
Lab FileID: 6G56524.D

11	B	Heptachlor Epoxide	1.006	1.017	-1.1	112	0.00	5.71-	5.77
12	B	gamma-Chlordane	0.986	1.028	-4.3	113	0.00	5.99-	6.05
13	B	alpha-Chlordane	0.960	0.984	-2.5	111	0.00	6.21-	6.27
14	A	Endosulfan I	0.917	0.917	0.0	112	0.00	6.30-	6.36
15	B	4,4'-DDE	0.932	0.987	-5.9	113	0.00	6.48-	6.54
16	MA	Dieldrin	0.984	1.029	-4.6	114	0.00	6.73-	6.79
17	MA	Endrin	0.966	0.961	0.5	113	0.00	7.22-	7.28
18	A	4,4'-DDD	0.803	0.752	6.4	105	0.00	7.41-	7.47
19	B	Endosulfan II	0.978	0.907	7.3	112	0.00	7.57-	7.63
20	MA	4,4'-DDT	0.775	0.747	3.6	104	0.00	7.93-	7.99
21	B	Endrin Aldehyde	0.743	0.727	2.2	113	0.00	8.13-	8.19
22	B	Endosulfan Sulfate	0.744	0.662	11.0	101	-0.01	8.60-	8.66
23	A	Methoxychlor	0.440	0.420	4.5	107	-0.01	9.17-	9.23
24		Mirex	0.746	0.713	4.4	115	-0.01	9.47-	9.53
25	B	Endrin Ketone	0.985	0.848	13.9	106	-0.01	9.54-	9.60
26	SA	Decachlorobiphenyl	0.929	0.885	4.7	116	-0.02	11.68-	11.74

(#) = Out of Range
6g55785.d 6PST1671.M

SPCC's out = 0 CCC's out = 0
Thu May 24 10:03:00 2018

12.12.27
12

Continuing Calibration Summary

Page 1 of 2

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1689-CC1671
Lab FileID: 6G56562.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1689\6g56562.d\ECD1A.CH Vial: 2
Signal #2 : C:\msdchem\1\data\G6G1689\6g56562.d\ECD2B.CH
Acq On : 24-May-18, 23:35:43 Operator: christp
Sample : cc1671-25 Inst : GC6G
Misc : OP12227,g6g1689,15.6,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Sat May 26 10:47:22 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	81	0.00	1.45-	2.45
2 SAB	Tetrachloro-m-xylene	0.972	0.962	1.0	84	0.00	2.50-	2.56
3	hexachlorobenzene	1.085	1.091	-0.6	85	0.00	2.83-	2.89
4 A	alpha-BHC	1.338	1.305	2.5	79	0.00	2.96-	3.02
5 MA	gamma-BHC	1.267	1.140	10.0	75	0.00	3.25-	3.31
6 MA	Heptachlor	1.197	1.158	3.3	80	0.00	3.74-	3.80
7 B	beta-BHC	0.567	0.502	11.5	75	0.00	3.32-	3.38
8 B	delta-BHC	1.117	1.034	7.4	75	0.00	3.51-	3.57
9 MB	Aldrin	1.164	1.109	4.7	79	0.00	4.07-	4.13
10	alachlor	0.140	0.147	-5.0	85	0.00	4.20-	4.26
11 B	Heptachlor Epoxide	1.076	0.983	8.6	75	0.00	4.77-	4.83
12 B	gamma-Chlordane	1.060	0.985	7.1	76	0.00	4.93-	4.99
13 B	alpha-Chlordane	1.085	1.003	7.6	79	0.00	5.10-	5.16
14 A	Endosulfan I	1.012	0.970	4.2	81	0.00	5.27-	5.33
15 B	4,4'-DDE	1.033	0.943	8.7	76	0.00	5.21-	5.27
16 MA	Dieldrin	1.096	1.045	4.7	79	0.00	5.59-	5.65
17 MA	Endrin	0.992	0.990	0.2	84	0.00	5.91-	5.97
18 A	4,4'-DDD	0.856	0.802	6.3	78	0.00	6.04-	6.10
19 B	Endosulfan II	1.052	0.941	10.6	80	0.00	6.23-	6.29
20 MA	4,4'-DDT	0.821	0.789	3.9	80	0.00	6.45-	6.51
21 B	Endrin Aldehyde	0.833	0.781	6.2	80	0.00	6.85-	6.91
22 B	Endosulfan Sulfate	0.825	0.846	-2.5	87	0.00	7.53-	7.59
23 A	Methoxychlor	0.490	0.473	3.5	82	0.00	7.23-	7.29
24	Mirex	0.833	0.761	8.6	80	0.00	7.38-	7.44
25 B	Endrin Ketone	0.981	0.985	-0.4	84	0.00	7.97-	8.03
26 SA	Decachlorobiphenyl	0.991	0.879	11.3	78	0.00	9.78-	9.84

***** Signal #2 *****

1 I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	93	0.00	1.65-	2.65
2 SAB	Tetrachloro-m-xylene	0.931	0.953	-2.4	98	0.00	2.90-	2.96
3	hexachlorobenzene	1.168	1.235	-5.7	103	0.00	3.38-	3.44
4 A	alpha-BHC	1.239	1.252	-1.0	94	0.00	3.53-	3.59
5 MA	gamma-BHC	1.162	1.144	1.5	93	0.00	3.93-	3.99
6 MA	Heptachlor	1.182	1.157	2.1	94	0.00	4.48-	4.54
7 B	beta-BHC	0.534	0.508	4.9	92	0.00	4.01-	4.07
8 B	delta-BHC	1.079	1.057	2.0	94	0.00	4.39-	4.45
9 MB	Aldrin	1.041	1.003	3.7	92	0.00	4.92-	4.98

Continuing Calibration Summary

Page 2 of 2

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: G6G1689-CC1671
Lab FileID: 6G56562.D

10	alachlor	0.138	0.141	-2.2	98	0.00	4.74-	4.80
11 B	Heptachlor Epoxide	1.006	0.980	2.6	93	0.00	5.71-	5.77
12 B	gamma-Chlordane	0.986	0.976	1.0	93	0.00	5.99-	6.05
13 B	alpha-Chlordane	0.960	0.950	1.0	91	0.00	6.21-	6.27
14 A	Endosulfan I	0.917	0.893	2.6	94	0.00	6.30-	6.36
15 B	4,4'-DDE	0.932	0.909	2.5	92	0.00	6.48-	6.54
16 MA	Dieldrin	0.984	0.970	1.4	94	0.00	6.73-	6.79
17 MA	Endrin	0.966	0.940	2.7	96	0.00	7.22-	7.28
18 A	4,4'-DDD	0.803	0.749	6.7	91	0.00	7.41-	7.47
19 B	Endosulfan II	0.978	0.901	7.9	95	0.00	7.57-	7.63
20 MA	4,4'-DDT	0.775	0.747	3.6	92	0.00	7.93-	7.99
21 B	Endrin Aldehyde	0.743	0.713	4.0	94	0.00	8.13-	8.19
22 B	Endosulfan Sulfate	0.744	0.794	-6.7	104	0.00	8.59-	8.65
23 A	Methoxychlor	0.440	0.434	1.4	93	0.00	9.17-	9.23
24	Mirex	0.746	0.723	3.1	95	0.00	9.47-	9.53
25 B	Endrin Ketone	0.985	0.911	7.5	97	0.00	9.54-	9.60
26 SA	Decachlorobiphenyl	0.929	0.899	3.2	97	0.00	11.68-	11.74

(#) = Out of Range
6g55784.d 6PST1671.M

SPCC's out = 0 CCC's out = 0
Tue May 29 09:29:14 2018

12.12.28

12

Initial Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4559-ICC4559
Lab FileID: OA133102.D

Response Factor Report SVOA0A

Method : C:\MSDCHEM\1\METHODS\H0A4559.M (ChemStation Integrator)
Title : HERB
Last Update : Thu May 03 09:51:17 2018
Response via : Initial Calibration

Calibration Files

500 =oa133104.d 400 =oa133103.d 300 =oa133102.d 200 =oa133101.d
100 =oa133100.d 50 =oa133099.d

	Compound	500	400	300	200	100	50	Avg	%RSD
1)	Dalapon	0.879	0.891	0.915	0.957	1.044	1.104	0.965 E6	9.38
2) S	2,4-DCAA	5.066	5.108	5.284	5.352	6.015	6.645	5.578 E5	11.20
3)	Dicamba	2.394	2.407	2.479	2.409	2.611	2.853	2.526 E6	7.11
4)	MCPD	1.472	1.507	1.511	1.512	1.506		1.502 E3	1.11
5)	MCPA	2.638	2.730	2.748	2.877	3.025		2.804 E3	5.35
6)	Dichloroprop	6.003	6.108	6.378	6.606	7.324	8.217	6.773 E5	12.54
7)	2,4-D	7.450	7.618	7.880	8.223	8.964	9.568	8.284 E5	9.98
8)	Pentachlorophenol	1.127	1.130	1.116	1.123	1.134	1.098	1.121 E7	1.16
9)	2,4,5-TP	4.300	4.307	4.332	4.320	4.391	4.511	4.360 E6	1.86
10)	2,4,5-T	4.168	4.277	4.308	4.315	4.378	4.553	4.333 E6	2.95
11)	2,4-DB	4.144	4.302	4.448	4.625	4.800	5.487	4.635 E5	10.31
12)	Dinoseb	2.716	2.826	2.952	2.911	3.152	3.449	3.001 E6	8.77
13)	Picloram	5.114	5.127	5.205	5.110	5.027	5.019	5.100 E6	1.36

Signal #2

1)	Dalapon	1.054	1.076	1.110	1.169	1.260	1.353	1.170 E7	9.92
2) S	2,4-DCAA	0.769	0.798	0.852	0.912	1.079	1.235	0.941 E7	19.27
3)	Dicamba	3.365	3.524	3.766	3.882	4.386	4.492	3.903 E7	11.65
4)	MCPD	2.714	2.796	2.809	2.828	2.584		2.746 E4	3.66
5)	MCPA	5.757	6.054	6.408	6.741	6.904		6.373 E4	7.45
6)	Dichloroprop	0.763	0.790	0.845	0.898	1.060	1.227	0.930 E7	19.27
7)	2,4-D	1.055	1.066	1.161	1.237	1.358	1.537	1.236 E7	15.05
8)	Pentachlorophenol	1.313	1.354	1.375	1.430	1.525	1.610	1.434 E8	7.87
9)	2,4,5-TP	4.878	4.992	5.212	5.398	5.663	6.258	5.400 E7	9.37
10)	2,4,5-T	5.176	5.342	5.558	5.728	5.887	6.352	5.674 E7	7.39
11)	2,4-DB	6.568	6.741	7.050	7.420	7.949	8.558	7.381 E6	10.30
12)	Dinoseb	2.420	2.534	2.714	2.861	3.258	3.641	2.905 E7	15.98
13)	Picloram	3.970	4.133	4.291	4.448	4.769	5.057	4.445 E7	9.14

(#) = Out of Range

H0A4559.M

Thu May 03 10:03:01 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4559-ICV4559
Lab FileID: OA133105.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4559\oa133105.d\ECD1A.CH Vial: 0
Signal #2 : C:\msdchem\1\data\OA4559\oa133105.d\ECD2B.CH
Acq On : 02-May-18, 18:42:11 Operator: vinced
Sample : icv4559-300 Inst : SV0A0A
Misc : op11359,goa4559,30,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Thu May 03 09:51:17 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	964.956	945.953	E3	2.0	103	0.00	2.32-	2.38
2 S	2,4-DCAA	557.841	561.020	E3	-0.6	106	0.00	7.32-	7.38
3	Dicamba	2.526	2.760	E6	-9.3	111	0.00	7.53-	7.59
4	MCPD	1.502	1.579	E3	-5.1	104	0.00	7.81-	7.87
5	MCPA	2.804	2.875	E3	-2.5	105	0.00	8.00-	8.06
6	Dichloroprop	677.279	676.760	E3	0.1	106	0.00	8.53-	8.59
7	2,4-D	828.384	843.668	E3	-1.8	107	0.00	8.86-	8.93
8	Pentachlorophenol	11.215	12.796	E6	-14.1	115	0.00	9.13-	9.19
9	2,4,5-TP	4.360	4.566	E6	-4.7	105	0.00	10.17-	10.23
10	2,4,5-T	4.333	4.550	E6	-5.0	106	0.00	10.63-	10.70
11	2,4-DB	463.455	479.684	E3	-3.5	108	0.01	11.58-	11.67
12	Dinoseb	3.001	3.161	E6	-5.3	107	0.00	13.50-	13.56
13	Picloram	5.100	5.288	E6	-3.7	102	0.00	13.17-	13.23

***** Signal #2 *****

1	Dalapon	11.702	11.136	E6	4.8	100	0.00	2.63-	2.69
2 S	2,4-DCAA	9.409	9.102	E6	3.3	107	0.00	8.52-	8.58
3	Dicamba	39.025	41.326	E6	-5.9	110	0.00	8.80-	8.86
4	MCPD	27.463	31.252	E3	-13.8	111	0.00	8.99-	9.05
5	MCPA	63.726	74.907	E3	-17.5	117	0.00	9.38-	9.44
6	Dichloroprop	9.304	8.672	E6	6.8	103	0.00	9.97-	10.03
7	2,4-D	12.358	12.382	E6	-0.2	107	0.00	10.55-	10.61
8	Pentachlorophenol	143.443	155.279	E6	-8.3	113	0.00	11.18-	11.24
9	2,4,5-TP	54.001	54.765	E6	-1.4	105	0.00	12.06-	12.12
10	2,4,5-T	56.738	59.311	E6	-4.5	107	0.00	12.82-	12.94
11	2,4-DB	7.381	7.534	E6	-2.1	107	0.00	13.88-	13.98
12	Dinoseb	29.046	28.284	E6	2.6	104	0.00	14.45-	14.52
13	Picloram	44.447	43.644	E6	1.8	102	0.00	16.62-	16.68

(#) = Out of Range
oa133102.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Thu May 03 10:02:29 2018

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4579-CC4559
Lab FileID: OA133569.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4579\oa133569.d\ECD1A.CH Vial: 0
Signal #2 : C:\msdchem\1\data\OA4579\oa133569.d\ECD2B.CH
Acq On : 29-May-18, 09:18:04 Operator: vinced
Sample : cc4559-200 Inst : SVOA0A
Misc : op12301,goa4579,30,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Thu May 24 16:27:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	964.956	944.680	E3	2.1	99	0.00	2.33- 2.39
2 S	2,4-DCAA	557.841	537.482	E3	3.6	100	0.00	7.32- 7.38
3	Dicamba	2.526	2.401	E6	4.9	100	0.00	7.53- 7.59
4	MCPD	1.502	1.474	E3	1.9	98	0.00	7.81- 7.87
5	MCPA	2.804	2.828	E3	-0.9	98	0.00	8.01- 8.07
6	Dichloroprop	677.279	694.053	E3	-2.5	105	0.00	8.53- 8.59
7	2,4-D	828.384	791.549	E3	4.4	96	0.00	8.85- 8.92
8	Pentachlorophenol	11.215	10.453	E6	6.8	93	0.00	9.14- 9.20
9	2,4,5-TP	4.360	4.209	E6	3.5	97	0.00	10.16-10.22
10	2,4,5-T	4.333	4.136	E6	4.5	96	0.01	10.62-10.69
11	2,4-DB	463.455	459.176	E3	0.9	99	0.00	11.57-11.66
12	Dinoseb	3.001	3.080	E6	-2.6	106	0.00	13.50-13.56
13	Picloram	5.100	4.147	E6	18.7	81	0.00	13.15-13.21

***** Signal #2 *****

1	Dalapon	11.702	11.233	E6	4.0	96	0.00	2.63- 2.69
2 S	2,4-DCAA	9.409	10.531	E6	-11.9	115	0.00	8.52- 8.58
3	Dicamba	39.025	39.094	E6	-0.2	101	0.00	8.80- 8.86
4	MCPD	27.463	69.440	E3	-152.8#	246#	0.00	8.99- 9.05
5	MCPA	63.726	109.428	E3	-71.7#	162	0.00	9.39- 9.45
6	Dichloroprop	9.304	9.559	E6	-2.7	106	0.00	9.97-10.03
7	2,4-D	12.358	11.747	E6	4.9	95	0.00	10.54-10.60
8	Pentachlorophenol	143.443	139.823	E6	2.5	98	0.00	11.18-11.26
9	2,4,5-TP	54.001	51.911	E6	3.9	96	0.00	12.06-12.12
10	2,4,5-T	56.738	49.750	E6	12.3	87	0.00	12.81-12.93
11	2,4-DB	7.381	7.530	E6	-2.0	101	0.00	13.88-13.97
12	Dinoseb	29.046	32.959	E6	-13.5	115	0.00	14.45-14.52
13	Picloram	44.447	26.868	E6	39.6#	60	0.00	16.61-16.67

(#) = Out of Range
oa133101.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Tue May 29 14:15:26 2018

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GOA4579-ECC4559
Lab FileID: OA133578.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\OA4579\oa133578.d\ECD1A.CH Vial: 0
Acq On : 29-May-18, 13:45:05 Operator: vinced
Sample : ecc4559-300 Inst : SVOA0A
Misc : op12297,goa4579,30,,,2.5,1 Multiplr: 1.00
IntFile : autoint1.e

Data File : C:\msdchem\1\data\OA4579\oa133578.d\ECD2B.CH Vial: 3
Acq On : 29-May-18, 13:45:05 Operator: vinced
Sample : cc4559-300 Inst : SVOA0A
Misc : op12297,goa4579,30,,,2.5,1 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)
Title : HERB
Last Update : Thu May 24 16:27:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT	Window
1	Dalapon	964.956	829.864 E3	14.0	91	0.00	2.32-	2.38
2 S	2,4-DCAA	557.841	555.125 E3	0.5	105	0.00	7.32-	7.38
3	Dicamba	2.526	2.534 E6	-0.3	102	0.00	7.53-	7.59
4	MCP	1.502	1.628 E3	-8.4	108	0.00	7.81-	7.87
5	MCPA	2.804	2.846 E3	-1.5	104	0.00	8.01-	8.07
6	Dichloroprop	677.279	658.920 E3	2.7	103	0.00	8.52-	8.58
7	2,4-D	828.384	812.228 E3	2.0	103	0.00	8.86-	8.93
8	Pentachlorophenol	11.215	10.987 E6	2.0	98	0.00	9.13-	9.19
9	2,4,5-TP	4.360	4.388 E6	-0.6	101	0.00	10.17-	10.23
10	2,4,5-T	4.333	4.340 E6	-0.2	101	0.01	10.62-	10.69
11	2,4-DB	463.455	437.819 E3	5.5	98	0.02	11.57-	11.67
12	Dinoseb	3.001	3.117 E6	-3.9	106	0.00	13.50-	13.56
13	Picloram	5.100	4.621 E6	9.4	89	0.00	13.17-	13.23

***** Signal #2 *****

1	Dalapon	11.702	10.243 E6	12.5	92	0.00	2.63-	2.69
2 S	2,4-DCAA	9.409	10.023 E6	-6.5	118	0.00	8.52-	8.58
3	Dicamba	39.025	41.854 E6	-7.2	111	0.00	8.80-	8.86
4	MCP	27.463	33.560 E3	-22.2#	119	0.00	8.99-	9.05
5	MCPA	63.726	63.097 E3	1.0	98	0.00	9.39-	9.45
6	Dichloroprop	9.304	9.159 E6	1.6	108	0.00	9.97-	10.03
7	2,4-D	12.358	12.215 E6	1.2	105	0.00	10.55-	10.61
8	Pentachlorophenol	143.443	140.976 E6	1.7	103	0.00	11.17-	11.25
9	2,4,5-TP	54.001	54.062 E6	-0.1	104	0.00	12.06-	12.12
10	2,4,5-T	56.738	55.741 E6	1.8	100	0.00	12.81-	12.93
11	2,4-DB	7.381	7.189 E6	2.6	102	0.00	13.88-	13.97
12	Dinoseb	29.046	31.409 E6	-8.1	116	0.00	14.45-	14.52
13	Picloram	44.447	35.331 E6	20.5#	82	0.00	16.61-	16.67

(#) = Out of Range
oa133102.d HOA4559.M

SPCC's out = 0 CCC's out = 0
Tue May 29 14:15:49 2018

Initial Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GZZ3143-ICC3143
Lab FileID: ZZ87292.D

Response Factor Report HP G1530A

Method : C:\MSDCHEM\1\METHODS\DR0ZZ3143.M (Chemstation Integrator)
Title : GCTPHS
Last Update : Thu Jan 25 14:15:34 2018
Response via : Initial Calibration

Calibration Files

5000=zz87294.D 250 =zz87290.D 1000=zz87292.D 500 =zz87291.D
10k =zz87295.D 100 =zz87289.D 25 =zz87287.D 50k =zz87296.D
2500=zz87293.D 50 =zz87288.D = =

Compound	5000	250	1000	500	10k	100	25	50k	2500	50	Avg	%RSD
1) TPH-DRO	1.580	1.492	1.670	1.631	1.548	1.643	1.844	1.595	1.619	1.796	1.642 E6	6.53
2) TPH-DRO (C10-C44)	1.580	1.492	1.670	1.631	1.548	1.643	1.844	1.595	1.619	1.796	1.642 E6	6.53
3) TPH-ORO (>C28-C40)	1.580	1.492	1.670	1.631	1.548	1.643	1.844	1.595	1.619	1.796	1.642 E6	6.53
4) TPH-DRO (C10-C20)	1.580	1.492	1.670	1.631	1.548	1.643	1.844	1.595	1.619	1.796	1.642 E6	6.53
5) TPH-ORO (C20-C34)	1.580	1.492	1.670	1.631	1.548	1.643	1.844	1.595	1.619	1.796	1.642 E6	6.53
6) o-TERPHENYL	2.450	2.325	2.588	2.543		2.626	2.941		2.514	2.741	2.591 E6	7.22
7) 5a-ANDROSTANE	1.905	1.798	2.014	1.972		1.982	2.139		1.978	2.091	1.985 E6	5.30
8) TETRACOSANE-d50	1.458	1.410	1.560	1.531		1.569	1.777		1.501	1.662	1.559 E6	7.46

(#) = Out of Range ### Number of calibration levels exceeded format ###

DR0ZZ3143.M Thu Jan 25 14:21:57 2018

12.12.33
12

Initial Calibration Verification

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GZZ3143-ICV3143
Lab FileID: ZZ87297.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\DATA\GZZ3143\zz87297.D Vial: 16
Acq On : 24 Jan 2018 7:10 pm Operator: dharas
Sample : icv3143-1000 Inst : HP G1530A
Misc : op9407,gzz3143,11.7,,,1,10 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DR0ZZ3143.M (Chemstation Integrator)
Title : GCTPHS
Last Update : Thu Jan 25 13:58:45 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H TPH-DRO	1.642	1.543 E6	6.0	92	0.00	4.13-11.44

(#) = Out of Range SPCC's out = 0 CCC's out = 0
zz87292.D DR0ZZ3143.M Thu Jan 25 14:09:37 2018

12.12.34
12

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GZZ3205-CC3143
Lab FileID: ZZ88965.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\DATA\GZZ3205\zz88965.D Vial: 3
Acq On : 21 May 2018 11:41 am Operator: rebeccak
Sample : cc3143-500 Inst : HP G1530A
Misc : op12034,gzz3205,1.0,,,10,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DR0ZZ3143.M (Chemstation Integrator)
Title : GCTPHS
Last Update : Wed May 09 09:55:01 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-DRO	1.642	1.634 E6	0.5	100	0.00	4.13-11.44
2 H	TPH-DRO (C10-C44)			-----NA-----			
3 H	TPH-ORO (>C28-C40)			-----NA-----			
4 H	TPH-DRO (C10-C20)			-----NA-----			
5 H	TPH-ORO (C20-C34)			-----NA-----			
6 S	o-TERPHENYL	2.591	2.580 E6	0.4	101	0.00	8.57- 8.63
7 S	5a-ANDROSTANE	1.985	1.828 E6	7.9	93	0.00	9.04- 9.10
8 S	TETRACOSANE-d50	1.559	1.412 E6	9.4	92	0.00	9.95-10.01

(#) = Out of Range

zz87291.D DR0ZZ3143.M

SPCC's out = 0 CCC's out = 0
Tue May 22 11:28:03 2018

12.12.35
12

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GZZ3205-CC3143
Lab FileID: ZZ88975.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\DATA\GZZ3205\zz88975.D Vial: 4
Acq On : 21 May 2018 7:52 pm Operator: rebeccak
Sample : cc3143-1000 Inst : HP G1530A
Misc : op12128,gzz3205,10.0,,,1,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DR0ZZ3143.M (Chemstation Integrator)
Title : GCTPHS
Last Update : Wed May 09 09:55:01 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-DRO	1.642	1.748 E6	-6.5	105	0.00	4.13-11.44
2 H	TPH-DRO (C10-C44)			-----NA-----			
3 H	TPH-ORO (>C28-C40)			-----NA-----			
4 H	TPH-DRO (C10-C20)			-----NA-----			
5 H	TPH-ORO (C20-C34)			-----NA-----			
6 S	o-TERPHENYL	2.591	2.754 E6	-6.3	106	0.00	8.58- 8.64
7 S	5a-ANDROSTANE	1.985	1.968 E6	0.9	98	0.00	9.04- 9.10
8 S	TETRACOSANE-d50	1.559	1.618 E6	-3.8	104	0.00	9.96-10.02

(#) = Out of Range

zz87292.D DR0ZZ3143.M

SPCC's out = 0 CCC's out = 0
Tue May 22 11:27:50 2018

12.12.36
12

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: GZZ3205-CC3143
Lab FileID: ZZ88985.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\DATA\GZZ3205\zz88985.D Vial: 3
Acq On : 22 May 2018 1:26 am Operator: rebeccak
Sample : cc3143-500 Inst : HP G1530A
Misc : op12128,gzz3205,10.0,,,1,1 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DR0ZZ3143.M (Chemstation Integrator)
Title : GCTPHS
Last Update : Wed May 09 09:55:01 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 H	TPH-DRO	1.642	1.683 E6	-2.5	103	0.00	4.13-11.44
2 H	TPH-DRO (C10-C44)			-----NA-----			
3 H	TPH-ORO (>C28-C40)			-----NA-----			
4 H	TPH-DRO (C10-C20)			-----NA-----			
5 H	TPH-ORO (C20-C34)			-----NA-----			
6 S	o-TERPHENYL	2.591	2.704 E6	-4.4	106	0.00	8.57- 8.63
7 S	5a-ANDROSTANE	1.985	1.878 E6	5.4	95	0.00	9.04- 9.10
8 S	TETRACOSANE-d50	1.559	1.532 E6	1.7	100	0.00	9.96-10.02

(#) = Out of Range

zz87291.D DR0ZZ3143.M

SPCC's out = 0 CCC's out = 0
Tue May 22 11:28:04 2018

12.12.37
12



Dayton, NJ

Section 13

GC/LC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4054\3G116658.D\ECD1A.CH Vial: 14
 Signal #2 : C:\MSDCHEM\1\DATA\3G4054\3G116658.D\ECD2B.CH
 Acq On : 5-27-2018 06:14:06 PM Operator: vinced
 Sample : JC66318-1A Inst : GC3G
 Misc : op12300,g3g4054,30,,,2.5,1 Multiplr: 1.00
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
 Quant Time: May 29 09:25:43 2018 Quant Results File: 3H4044.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
 Title : HERB
 Last Update : Tue May 15 14:11:36 2018
 Response via : Initial Calibration
 DataAcq Meth : 3H4044.M

Volume Inj. : 1ul/column
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2

System Monitoring Compounds						
2) S 2,4-DCAA	7.38	7.90	1486.1E6	365.5E6	314.579	366.946
Spiked Amount	500.000		Recovery	=	62.92%	73.39%

Target Compounds

 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
 3G116658.D 3H4044.M Tue May 29 09:26:56 2018 GC3G

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4054\3G116658.D\ECD1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\3G4054\3G116658.D\ECD2B.CH
Acq On : 5-27-2018 06:14:06 PM Operator: vinced
Sample : JC66318-1A Inst : GC3G
Misc : op12300,g3g4054,30,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 29 9:25 2018 Quant Results File: 3H4044.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : 3H4044.M

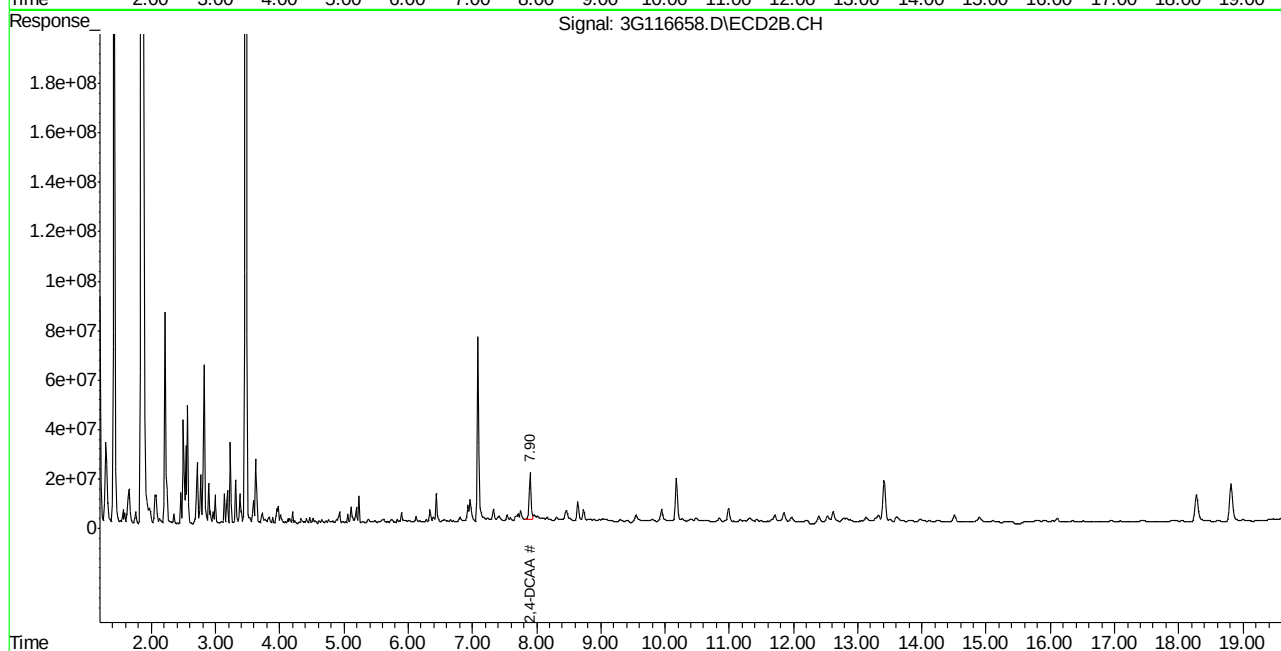
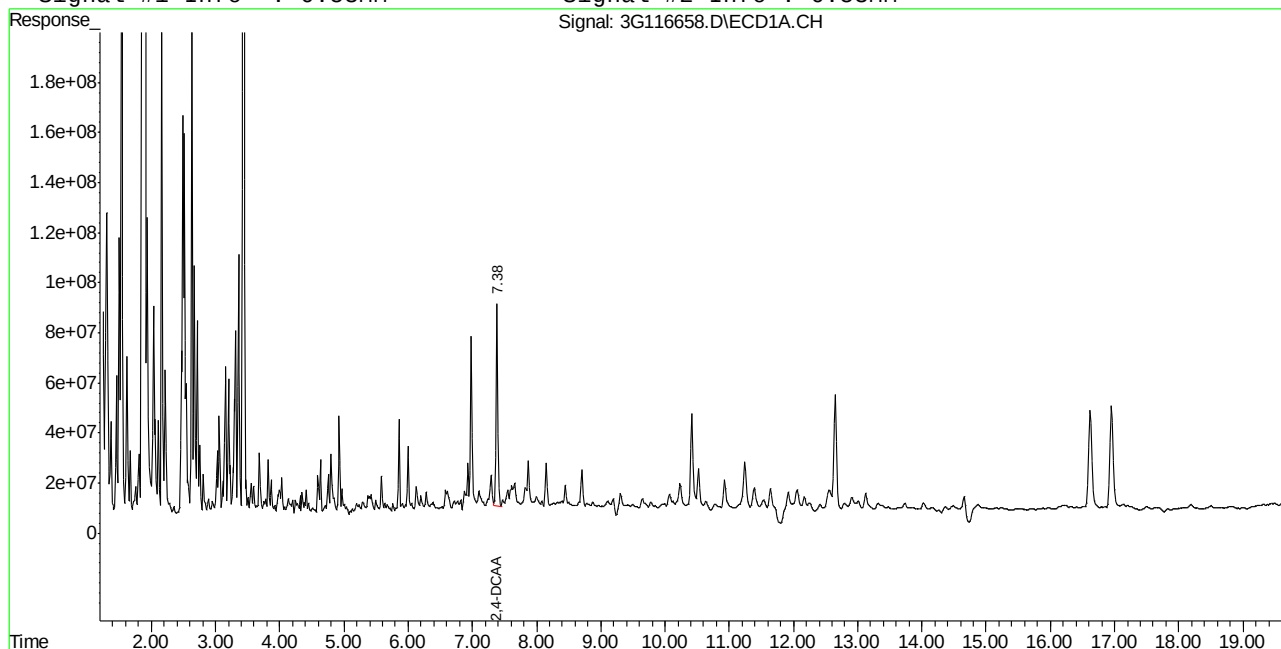
Volume Inj. : 1ul/column

Signal #1 Phase : RTX-CLP I

Signal #2 Phase: RTX-CLP II

Signal #1 Info : 0.53MM

Signal #2 Info : 0.53MM



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1689\
 Data File : 6g56518.d
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 24-May-18, 03:49:17
 Operator : christp
 Sample : jc66318-1a
 Misc : OP12234,g6g1689,30,,,2,1
 ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: May 24 08:56:56 2018
 Quant Method : C:\msdchem\1\methods\6PST1671.M
 Quant Title : PEST/PCB
 QLast Update : Thu May 17 23:56:16 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1)	I 1-bromo-2...	1.948	2.148	427.3E6	275.0E6	50.000	50.000
27)	I 1-bromo-2...	1.948	2.148	427.3E6	275.0E6	50.000	50.000
33)	I 1-bromo-2...	1.948	2.148	427.3E6	275.0E6	50.000	50.000
System Monitoring Compounds							
2)	SAB Tetrachlo...	2.531	2.928	218.4E6	150.7E6	26.304	29.416
	Spiked Amount	40.000	Range 30 - 150	Recovery	=	65.76%	73.54%
26)	SA Decachlor...	9.810f	11.708f	221.0E6	159.6E6	26.107	31.232
	Spiked Amount	40.000		Recovery	=	65.27%	78.08%
Target Compounds							
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

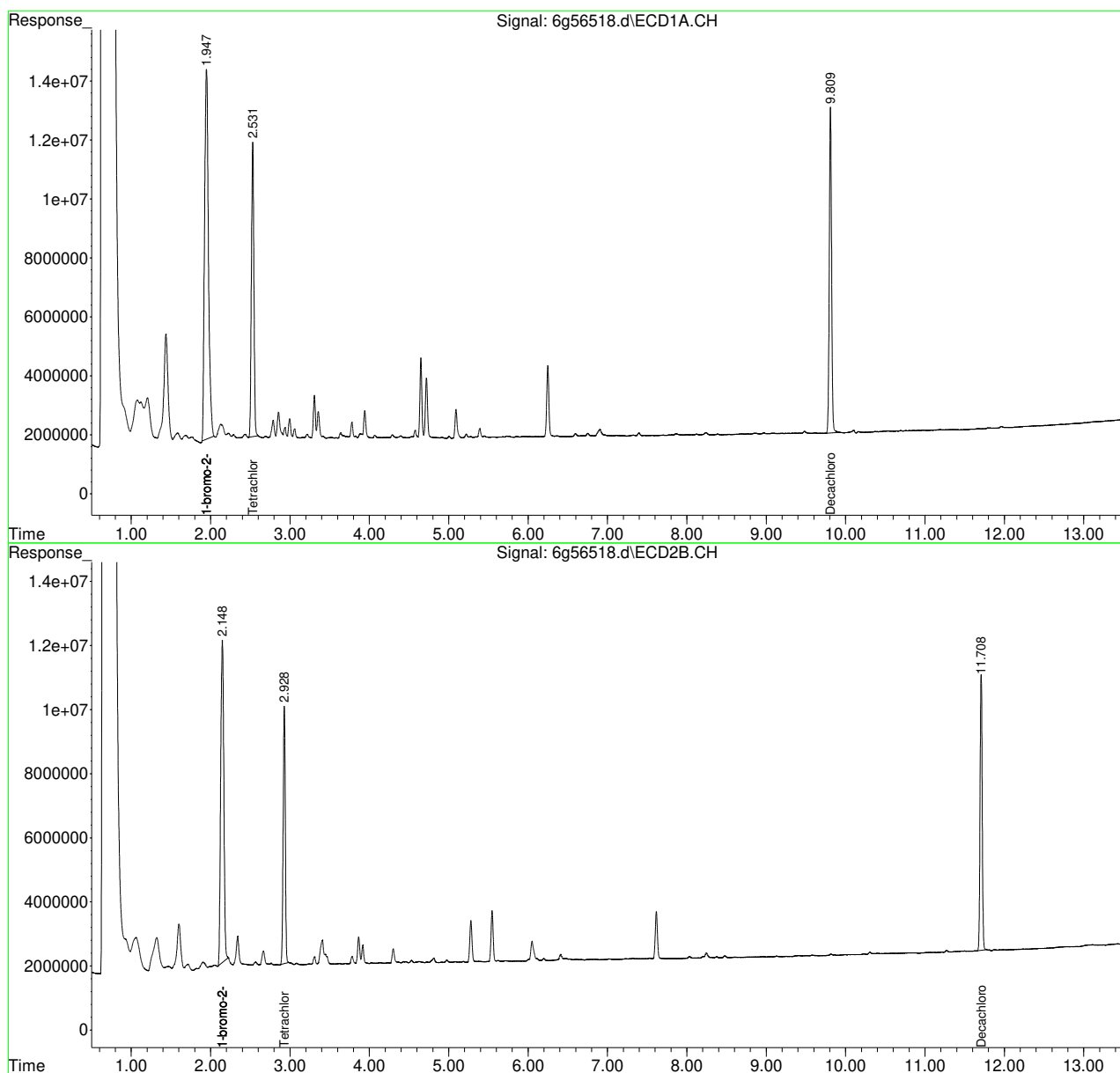
13.12
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1689\
Data File : 6g56518.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 24-May-18, 03:49:17
Operator : christp
Sample : jc66318-1a
Misc : OP12234,g6g1689,30,,,2,1
ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 24 08:56:56 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Thu May 17 23:56:16 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4337\
Data File : 2G163872.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 20 May 2018 10:12 am
Operator : edouarda
Sample : jc66318-1
Misc : OP12110,G2G4338,15.4,,,10,1
ALS Vial : 79 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 21 11:27:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.786	3.428	135.3E6	745.8E6	36.862	32.592
Spiked Amount	40.000		Recovery	=	92.16%	81.48%
51) S Decachlor...	9.987f	11.778	406.9E6	2503.5E6	100.315m	131.078m#
Spiked Amount	40.000		Recovery	=	250.79%	327.70%

Target Compounds

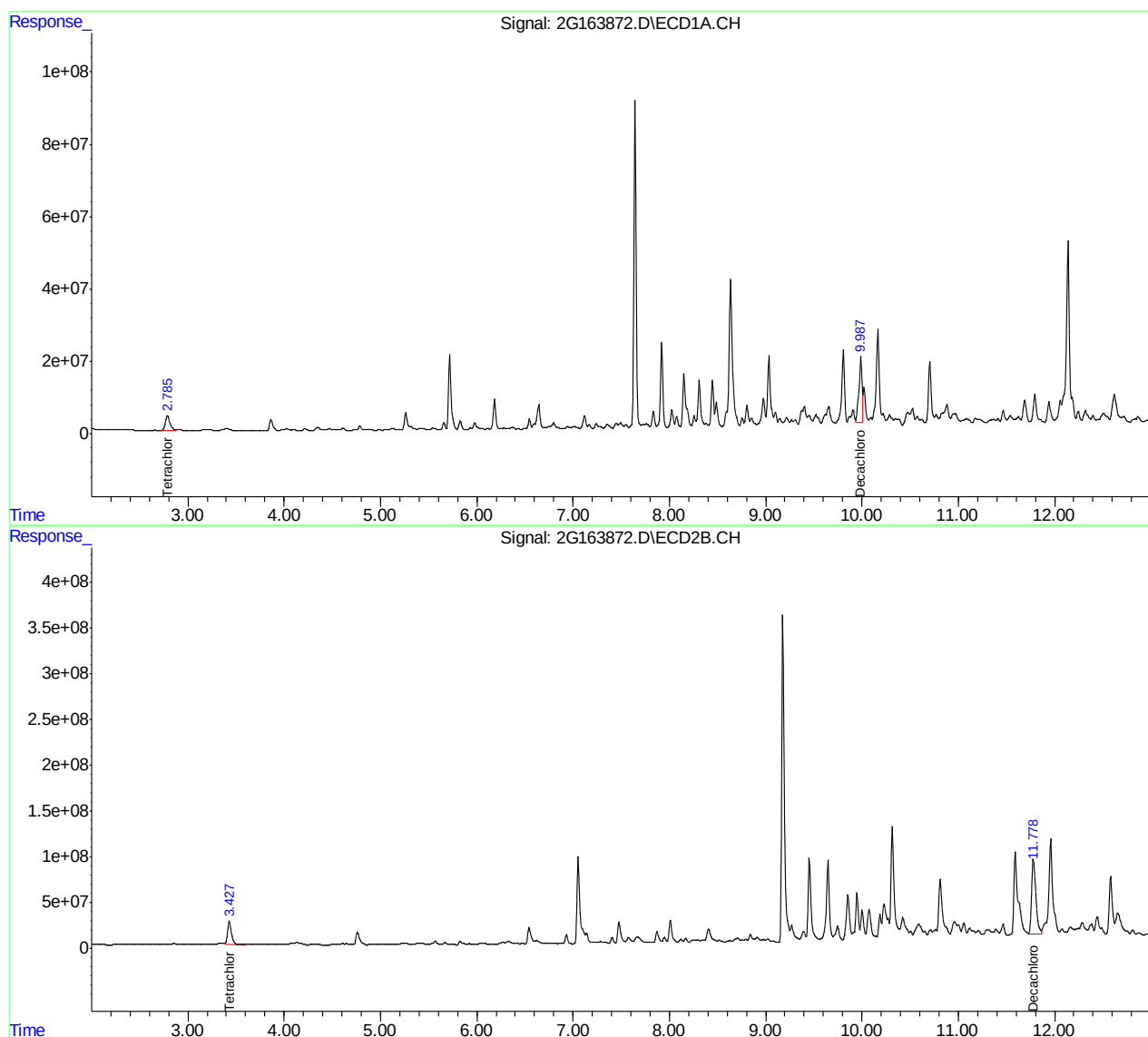
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4337\
Data File : 2G163872.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 20 May 2018 10:12 am
Operator : edouarda
Sample : jc66318-1
Misc : OP12110,G2G4338,15.4,,,10,1
ALS Vial : 79 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 21 11:27:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\GZZ3205\
Data File : zz88969.D
Signal(s) : FID2B.CH
Acq On : 21 May 2018 4:31 pm
Operator : rebeccak
Sample : jc66318-1
Misc : op12128,gzz3205,10.6,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 22 20:53:44 2018
Quant Method : C:\msdchem\1\methods\DROZZ3143.M
Quant Title : GCTPHS
QLast Update : Wed May 09 09:55:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
6) S o-TERPHENYL	8.606	76420460	29.497 PPM m
Spiked Amount 50.000		Recovery =	58.99%
7) S 5a-ANDROSTANE	9.069	68566814	34.547 PPM m
Spiked Amount 50.000		Recovery =	69.09%
8) S TETRACOSANE-d50	9.990	58585456	37.590 PPM m
Spiked Amount 50.000		Recovery =	75.18%
Target Compounds			
1) H TPH-DRO	7.785	3381936338	2059.977 PPM
2) H TPH-DRO (C10-C44)	11.925	4725111929	2878.120 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.

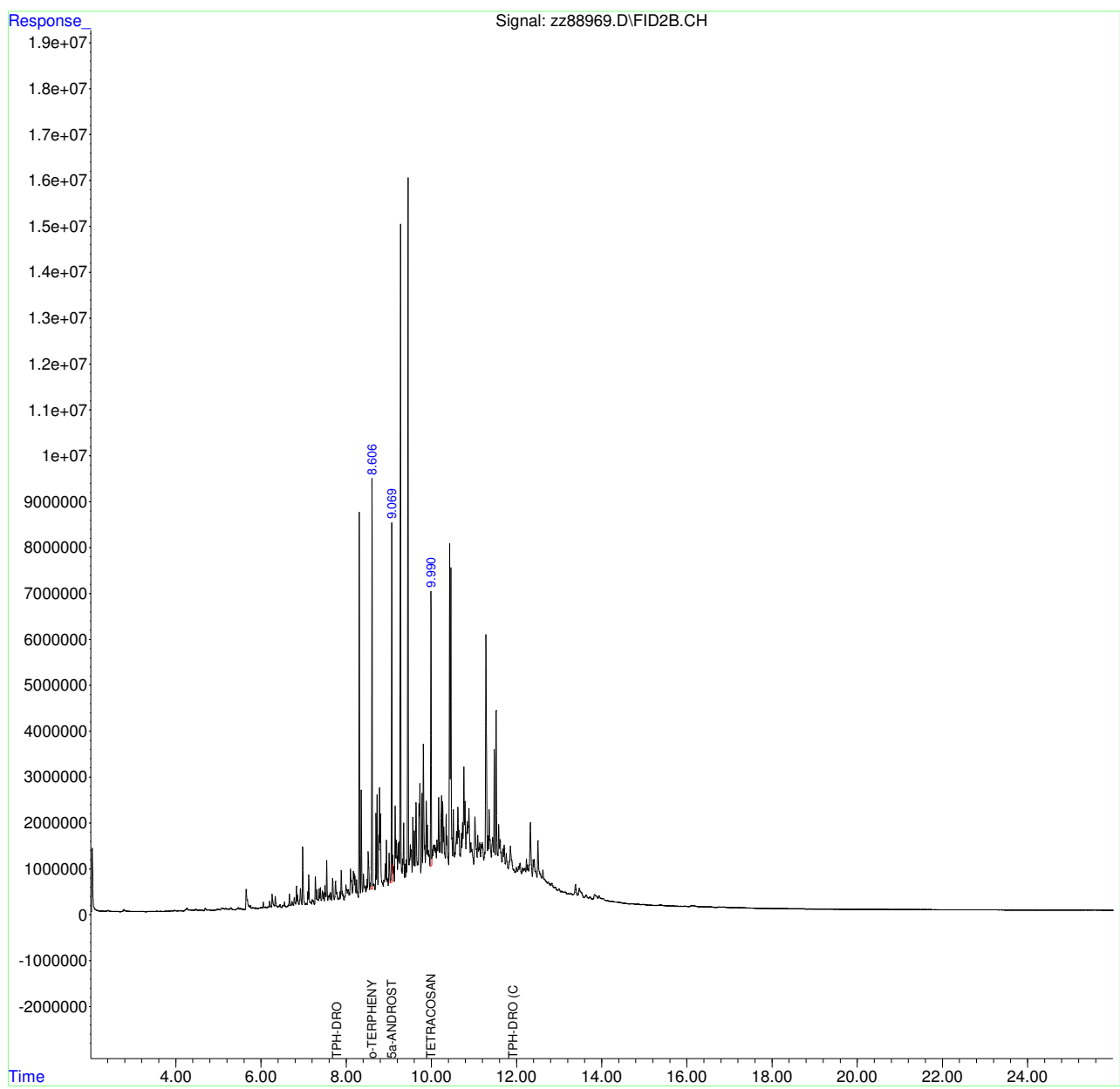
13.14
13

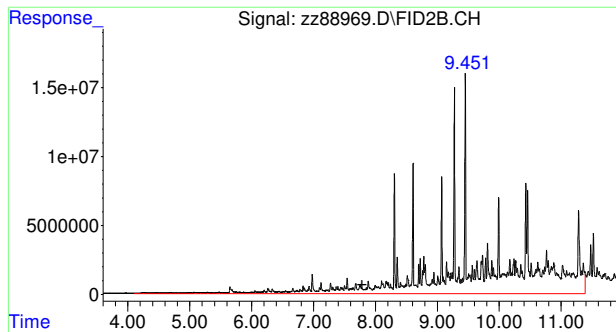
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\GZZ3205\
Data File : zz88969.D
Signal(s) : FID2B.CH
Acq On : 21 May 2018 4:31 pm
Operator : rebeccak
Sample : jc66318-1
Misc : op12128,gzz3205,10.6,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 22 20:53:44 2018
Quant Method : C:\msdchem\1\methods\DROZZ3143.M
Quant Title : GCTPHS
QLast Update : Wed May 09 09:55:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

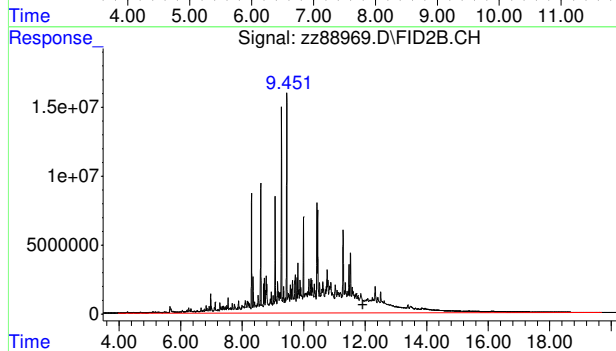
Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID





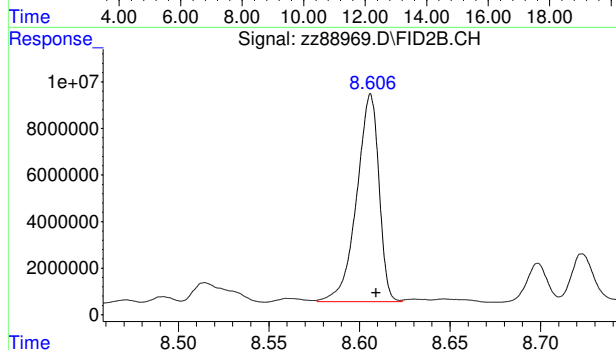
#1 TPH-DRO

R.T.: 7.785 min
Delta R.T.: 0.000 min
Response: 3381936338
Conc: 2059.98 PPM



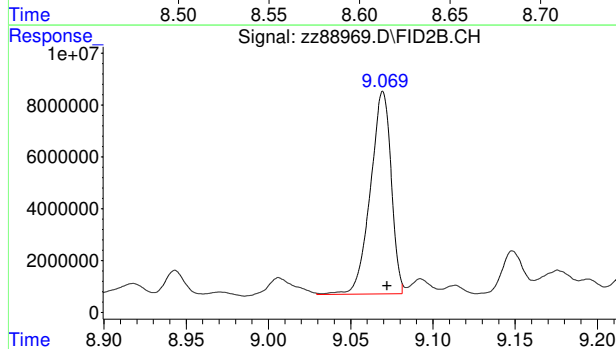
#2 TPH-DRO (C10-C44)

R.T.: 11.925 min
Delta R.T.: 0.000 min
Response: 4725111929
Conc: 2878.12 ppm



#6 o-TERPHENYL

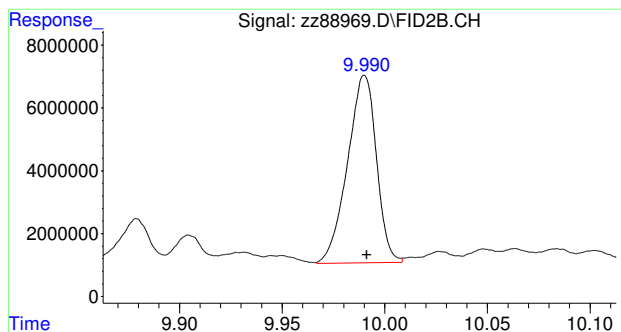
R.T.: 8.606 min
Delta R.T.: -0.003 min
Response: 76420460
Conc: 29.50 PPM m



#7 5a-ANDROSTANE

R.T.: 9.069 min
Delta R.T.: -0.003 min
Response: 68566814
Conc: 34.55 PPM m

13.14
13



#8 TETRACOSANE-d50

R.T.: 9.990 min
Delta R.T.: -0.001 min
Response: 58585456
Conc: 37.59 PPM m

13.14
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4337\
Data File : 2G163841.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 20 May 2018 1:26 am
Operator : edouarda
Sample : op12110-mb1
Misc : OP12110,G2G4338,15.0,,,10,1
ALS Vial : 57 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 21 10:11:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.786	3.432	123.7E6	769.8E6	33.689	33.644
Spiked Amount	40.000		Recovery	=	84.22%	84.11%
51) S Decachlor...	9.970	11.771	140.8E6	701.5E6	34.708	36.729m
Spiked Amount	40.000		Recovery	=	86.77%	91.82%

Target Compounds

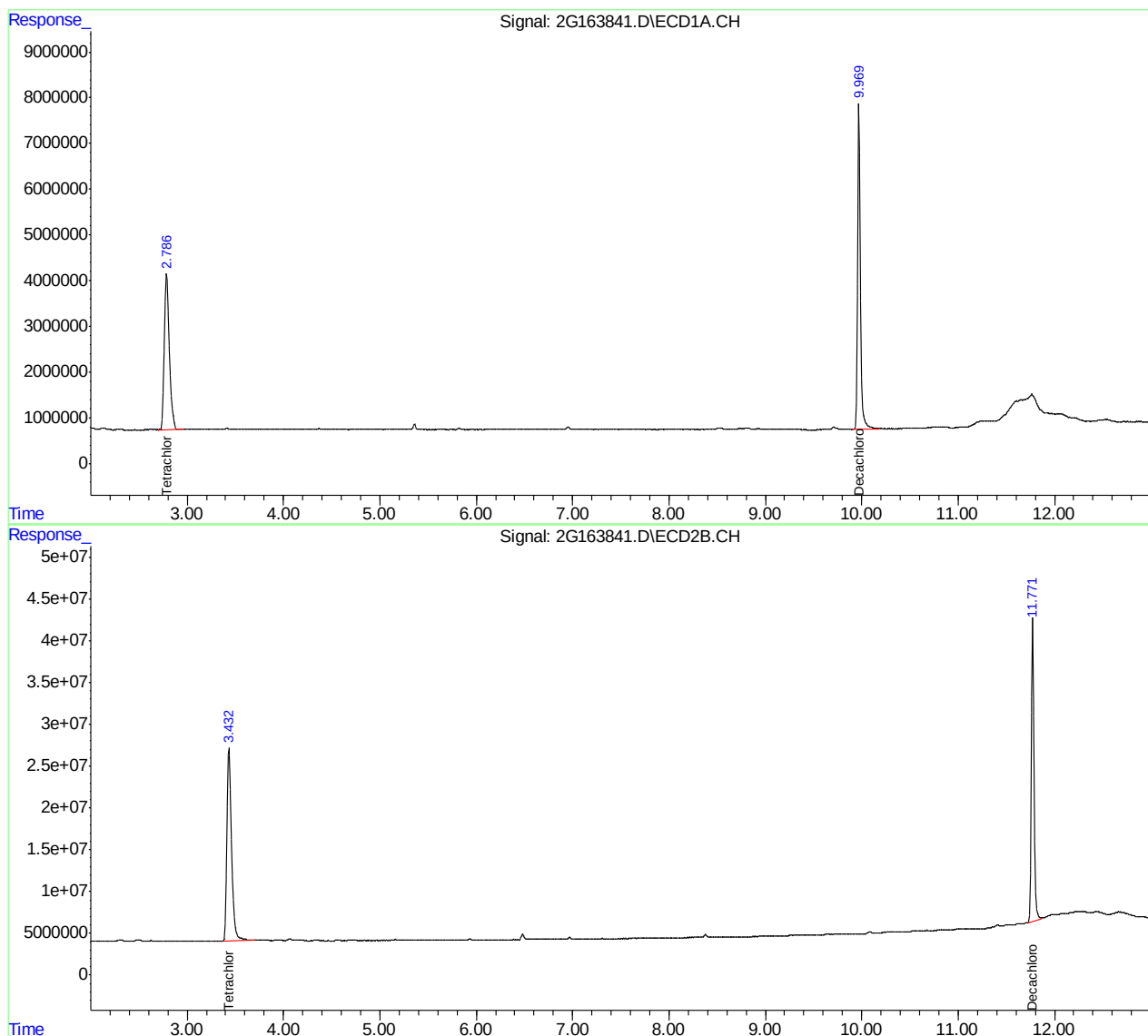
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4337\
Data File : 2G163841.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 20 May 2018 1:26 am
Operator : edouarda
Sample : op12110-mb1
Misc : OP12110,G2G4338,15.0,,,10,1
ALS Vial : 57 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: May 21 10:11:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Mon May 14 13:05:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4054\3G116646.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\3G4054\3G116646.D\ECD2B.CH
Acq On : 27 May 2018 12:34 pm Operator: vinced
Sample : op12300-mb1 Inst : GC3G
Misc : op12300,g3g4054,300,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 27 12:57:31 2018 Quant Results File: 3H4044.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Initial Calibration
DataAcq Meth : 3H4044.M

Volume Inj. : 1ul/column
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2

System Monitoring Compounds						
2) S 2,4-DCAA	7.38	7.90	1592.3E6	419.1E6	337.061	420.763
Spiked Amount	500.000		Recovery	=	67.41%	84.15%

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
3G116646.D 3H4044.M Tue May 29 08:58:10 2018 GC3G

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4054\3G116646.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\3G4054\3G116646.D\ECD2B.CH
Acq On : 27 May 2018 12:34 pm Operator: vined
Sample : op12300-mb1 Inst : GC3G
Misc : op12300,g3g4054,300,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e
Quant Time: May 29 8:57 2018 Quant Results File: 3H4044.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4044.M (Chemstation Integrator)
Title : HERB
Last Update : Tue May 15 14:11:36 2018
Response via : Multiple Level Calibration
DataAcq Meth : 3H4044.M

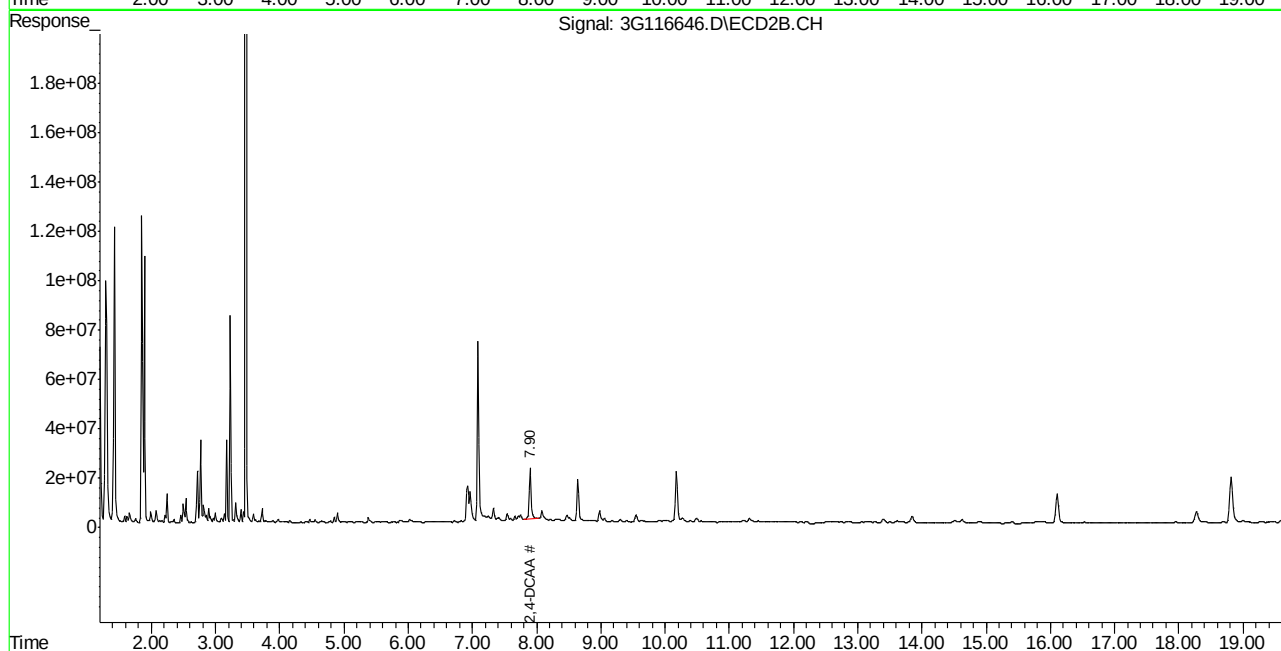
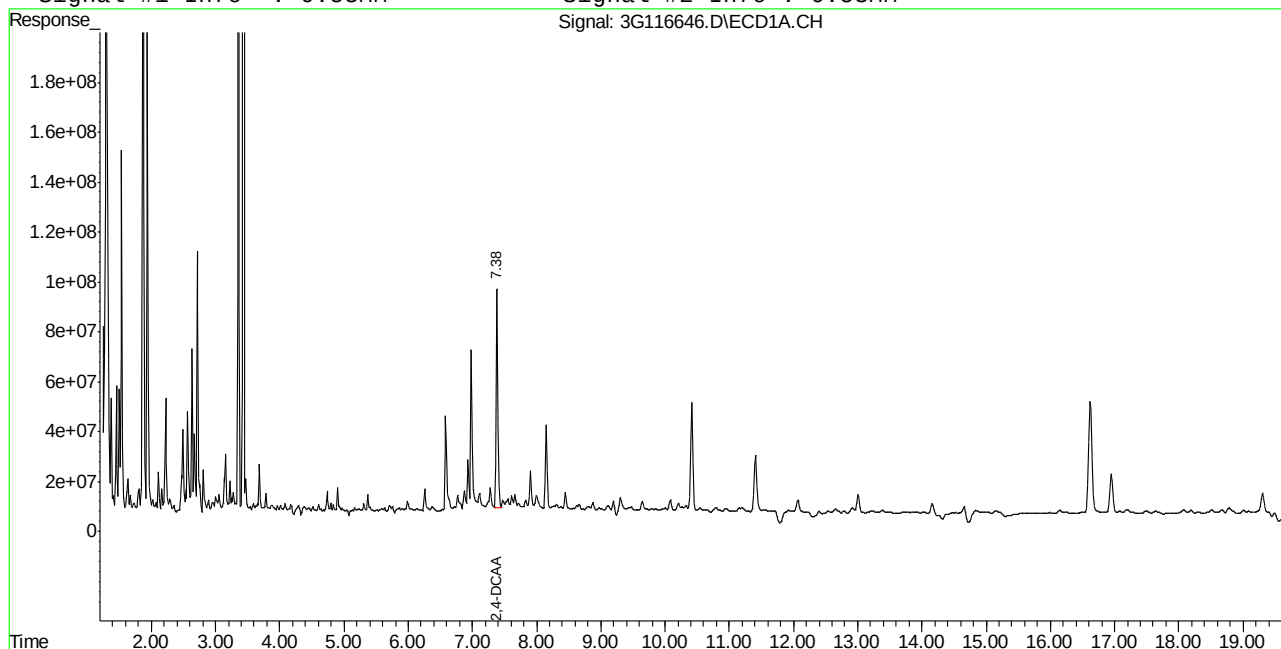
Volume Inj. : 1ul/column

Signal #1 Phase : RTX-CLP I

Signal #2 Phase: RTX-CLP II

Signal #1 Info : 0.53MM

Signal #2 Info : 0.53MM



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1689\
 Data File : 6g56505.d
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 23-May-18, 23:57:14
 Operator : christp
 Sample : op12236-mb1
 Misc : OP12236,g6g1689,300,,,2,1
 ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: May 24 08:27:56 2018
 Quant Method : C:\msdchem\1\methods\6PST1671.M
 Quant Title : PEST/PCB
 QLast Update : Thu May 17 23:56:16 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1) I	1-bromo-2...	1.948	2.147	358.0E6	232.4E6	50.000	50.000
27) I	1-bromo-2...	1.948	2.147	358.0E6	232.4E6	50.000	50.000
33) I	1-bromo-2...	1.948	2.147	358.0E6	232.4E6	50.000	50.000
System Monitoring Compounds							
2) SAB	Tetrachlo...	2.533	2.928	195.9E6	137.9E6	28.151	31.872
Spiked Amount		40.000	Range 30 - 150	Recovery	=	70.38%	79.68%
26) SA	Decachlor...	9.815	11.711	138.9E6	97847810	19.586	22.667
Spiked Amount		40.000		Recovery	=	48.96%	56.67%
Target Compounds							
Sum Toxaphene				0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

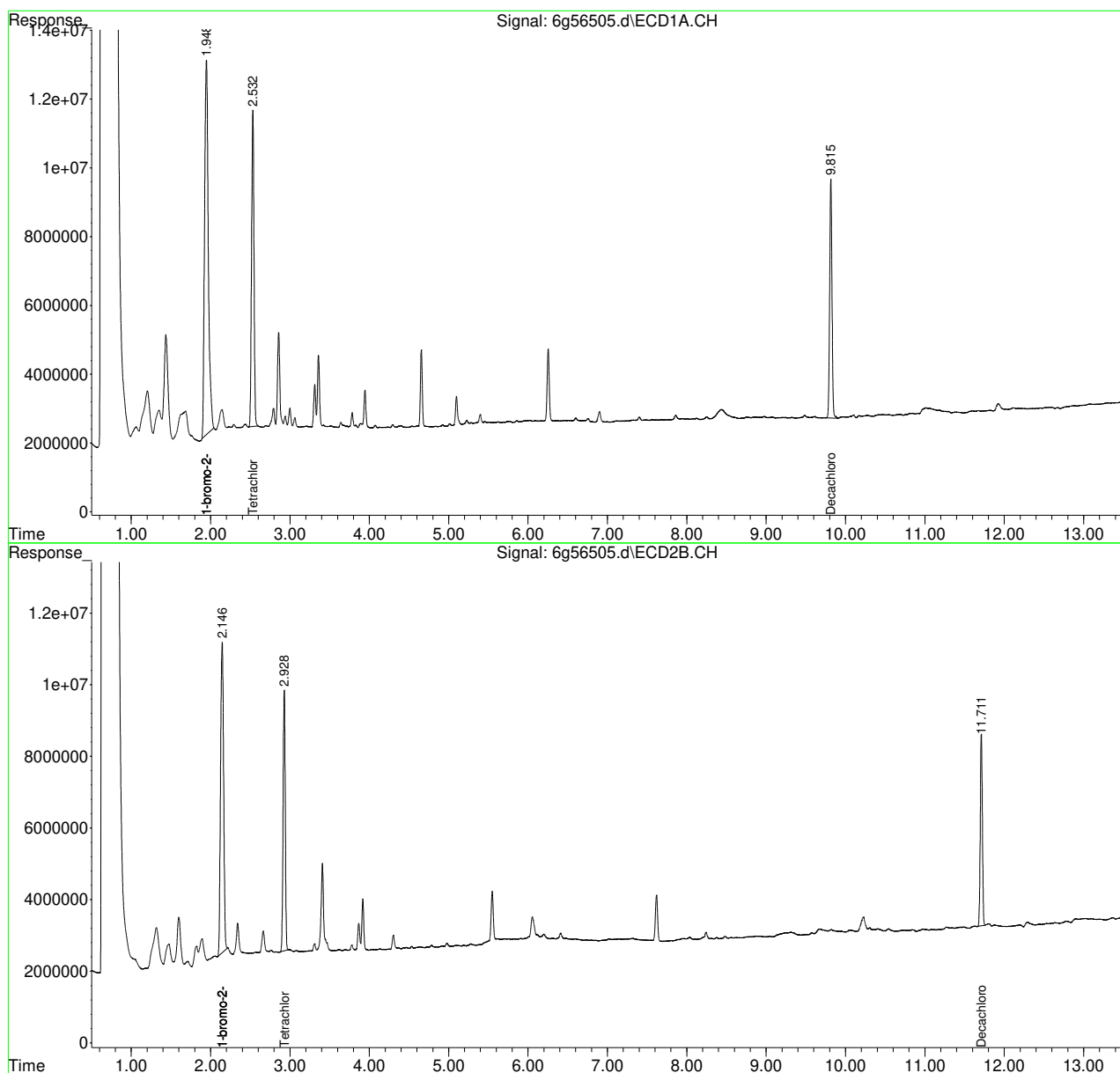
13.23
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1689\
Data File : 6g56505.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23-May-18, 23:57:14
Operator : christp
Sample : op12236-mb1
Misc : OP12236,g6g1689,300,,,2,1
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 24 08:27:56 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Thu May 17 23:56:16 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\GZZ3205\
Data File : zz88967.D
Signal(s) : FID2B.CH
Acq On : 21 May 2018 3:25 pm
Operator : rebeccak
Sample : op12128-mb1
Misc : op12128,gzz3205,10.0,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 22 20:52:08 2018
Quant Method : C:\msdchem\1\methods\DROZZ3143.M
Quant Title : GCTPHS
QLast Update : Wed May 09 09:55:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
6) S o-TERPHENYL	8.607	72835876	28.114 PPM
Spiked Amount 50.000		Recovery =	56.23%
7) S 5a-ANDROSTANE	9.069	66736613	33.624 PPM
Spiked Amount 50.000		Recovery =	67.25%
8) S TETRACOSANE-d50	9.997	53904132	34.586 PPM
Spiked Amount 50.000		Recovery =	69.17%

Target Compounds

(f)=RT Delta > 1/2 Window

(m)=manual int.

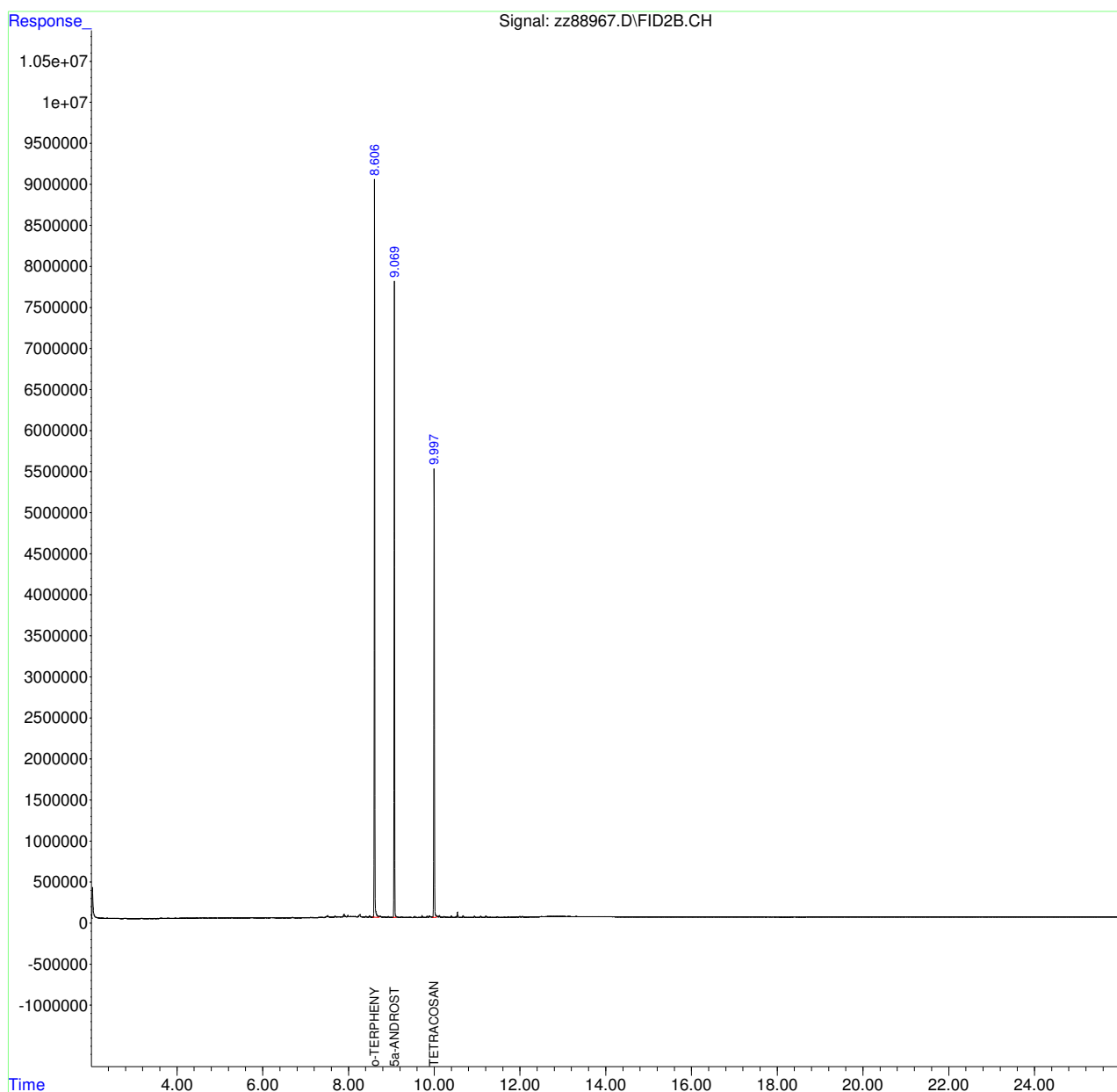
13.24
13

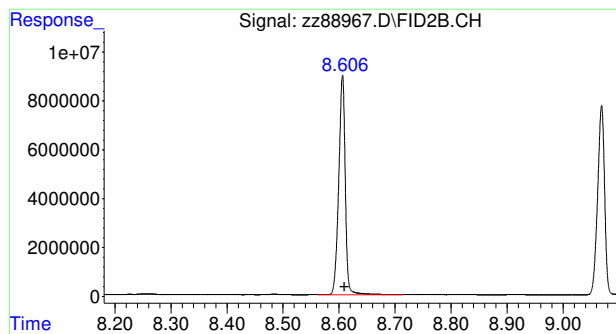
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\GZZ3205\
Data File : zz88967.D
Signal(s) : FID2B.CH
Acq On : 21 May 2018 3:25 pm
Operator : rebeccak
Sample : op12128-mb1
Misc : op12128,gzz3205,10.0,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 22 20:52:08 2018
Quant Method : C:\msdchem\1\methods\DROZZ3143.M
Quant Title : GCTPHS
QLast Update : Wed May 09 09:55:01 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

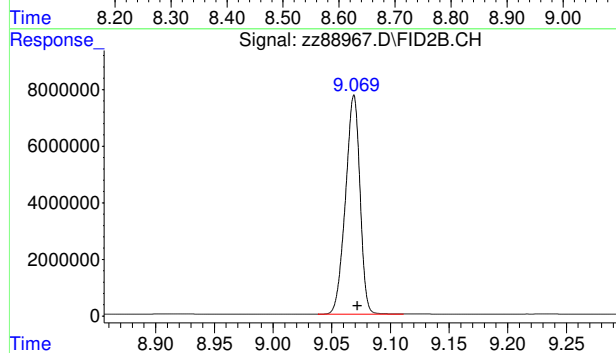
Volume Inj. : 1 ul
Signal Phase : ZB-5
Signal Info : .25 mm ID





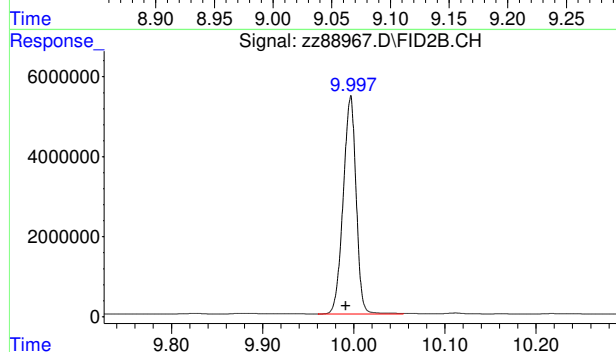
#6 o-TERPHENYL

R.T.: 8.607 min
Delta R.T.: -0.003 min
Response: 72835876
Conc: 28.11 PPM



#7 5a-ANDROSTANE

R.T.: 9.069 min
Delta R.T.: -0.003 min
Response: 66736613
Conc: 33.62 PPM



#8 TETRACOSANE-d50

R.T.: 9.997 min
Delta R.T.: 0.006 min
Response: 53904132
Conc: 34.59 PPM

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
 Data File : 6g55784.d
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 30-Apr-18, 12:36:33
 Operator : dharas
 Sample : icc1671-25
 Misc : OP11619,g6g1671,1000,,,5,1
 ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Apr 30 12:52:37 2018
 Quant Method : C:\msdchem\1\methods\6PST1671.M
 Quant Title : PEST/PCB
 QLast Update : Mon Apr 30 12:31:07 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1) I	1-bromo-2...	1.943	2.148	403.9E6	253.2E6	50.000	50.000
27) I	1-bromo-2...	1.943	2.148	403.9E6	253.2E6	50.000	50.000
33) I	1-bromo-2...	1.943	2.148	403.9E6	253.2E6	50.000	50.000
System Monitoring Compounds							
2) SAB	Tetrachlo...	2.530	2.932	189.1E6	114.8E6	23.658	23.388
Spiked Amount		40.000	Range	30 - 150	Recovery	=	59.15%
26) SA	Decachlor...	9.838	11.722	184.6E6	109.7E6	24.257	25.672
Spiked Amount		40.000		Recovery	=	60.64%	64.18%
Target Compounds							
3)	hexachlor...	2.857	3.415	210.3E6	141.6E6	21.917	22.707
4) A	alpha-BHC	2.996	3.563	270.6E6	157.3E6	22.926	22.462
5) MA	gamma-BHC	3.287	3.971	249.6E6	145.6E6	23.359	22.563
6) MA	Heptachlor	3.776	4.526	236.7E6	146.0E6	25.037	24.415
7) B	beta-BHC	3.359	4.051	109.6E6	65204342	24.369	24.037
8) B	delta-BHC	3.542	4.431	226.7E6	133.1E6	23.687	22.873
9) MB	Aldrin	4.107	4.962	232.3E6	129.4E6	24.904	22.686
10)	alachlor	4.246	4.780	28340673	17039946	23.696	23.431
11) B	Heptachlo...	4.813	5.760	214.1E6	124.0E6	25.673	24.804
12) B	gamma-Chl...	4.975	6.037	212.2E6	123.6E6	25.903	25.235
13) B	alpha-Chl...	5.145	6.257	210.1E6	122.8E6	25.048	25.615
14) A	Endosulfan I	5.322	6.349	197.6E6	111.7E6	24.765	24.460
15) B	4,4'-DDE	5.256	6.521	203.7E6	116.9E6	24.678	22.598
16) MA	Dieldrin	5.642	6.775	217.8E6	121.4E6	23.209	22.770
17) MA	Endrin	5.964	7.268	194.6E6	115.1E6	25.344	24.911
18) A	4,4'-DDD	6.085	7.452	168.7E6	96890160	24.374	24.290
19) B	Endosulfa...	6.283	7.612	194.5E6	112.1E6	25.092	24.729
20) MA	4,4'-DDT	6.503	7.980	162.0E6	96232017	24.375	23.954
21) B	Endrin Al...	6.907	8.177	160.7E6	89850605	25.017	24.937
22) B	Endosulfa...	7.588	8.641	159.9E6	90465081	25.757	25.546
23) A	Methoxychlor	7.285	9.213	94604672	55394201	26.255	27.313
24)	Mirex	7.436	9.520	156.3E6	89970523	24.892	24.562
25) B	Endrin Ke...	8.028	9.587	193.0E6	111.2E6	25.635	23.298
Sum Toxaphene				0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000

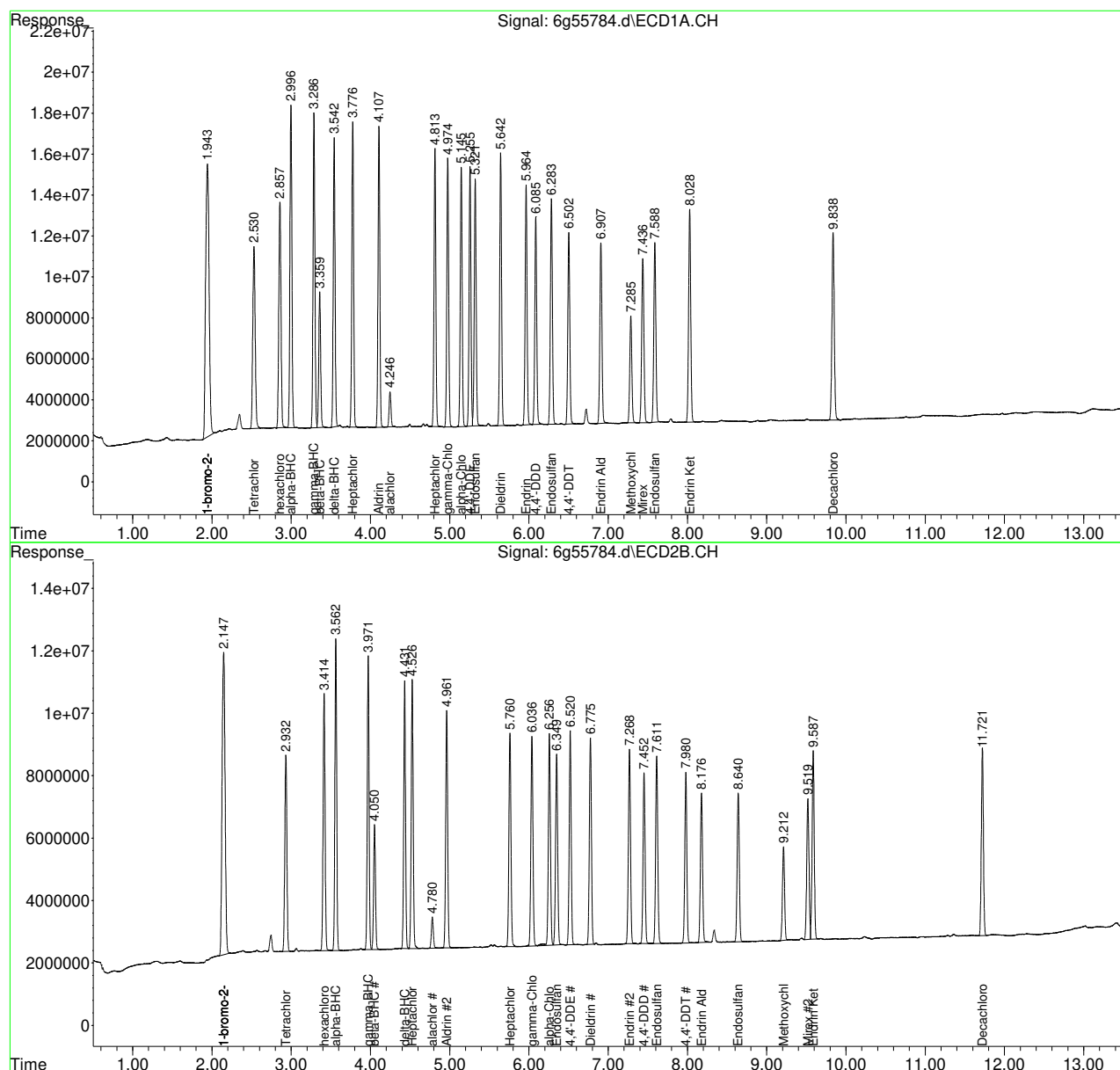
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55784.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 12:36:33
Operator : dharas
Sample : icc1671-25
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 12:52:37 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55788.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)
Operator : dharas
Sample : ic1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:25:49 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

Compound		RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1) I	1-bromo-2...	1.944	2.148	409.6E6	252.6E6	50.000	50.000
27) I	1-bromo-2...	1.944	2.148	409.6E6	252.6E6	50.000	50.000
33) I	1-bromo-2...	1.944	2.148	409.6E6	252.6E6	50.000	50.000
System Monitoring Compounds							
2) SAB	Tetrachlo...	2.531f	2.933	389.1E6	228.0E6	47.992	46.540
Spiked Amount		40.000	Range 30 - 150	Recovery	=	119.98%	116.35%
26) SA	Decachlor...	9.838	11.722f	351.2E6	206.2E6	45.509	48.373
Spiked Amount		40.000		Recovery	=	113.77%	120.93%
Target Compounds							
Sum Toxaphene				0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000
34)	Chlordane...	3.776	4.526	220.7E6	136.8E6	497.720	487.961
35)	Chlordane...	4.250	5.150	183.3E6	100.4E6	481.316	486.126
36)	Chlordane...	4.975	6.037	592.7E6	319.3E6	506.778	487.790
37)	Chlordane...	5.139	6.258	932.0E6	520.1E6	496.185	488.099m
38)	Chlordane...	6.024	7.396	105.2E6	54285316	450.659	528.699

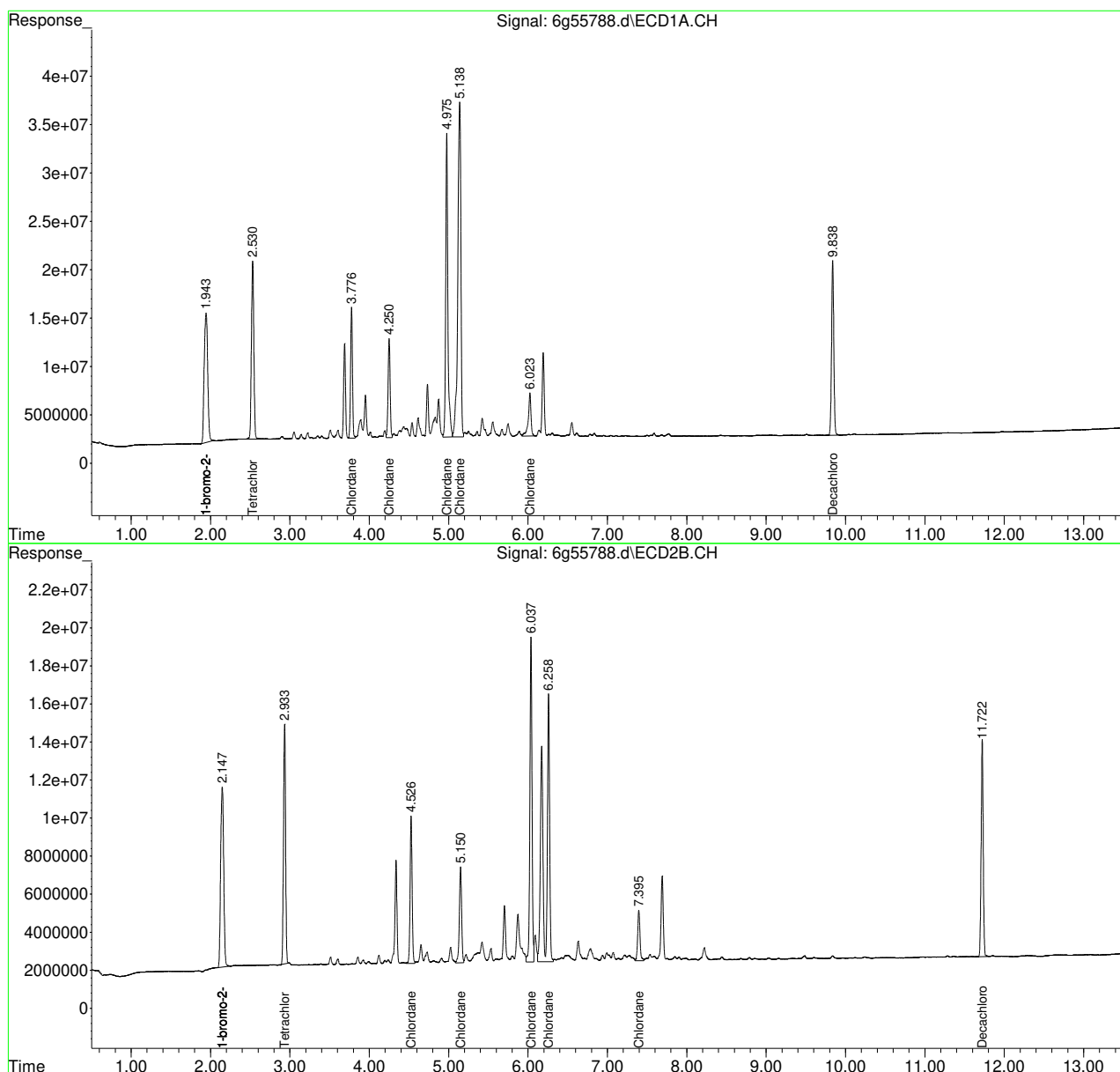
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55788.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)
Operator : dharas
Sample : ic1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:25:49 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
 Data File : 6g55789.d
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 30-Apr-18, 14:05:32
 Operator : dharas
 Sample : ic1671-500
 Misc : OP11619,g6g1671,1000,,,5,1
 ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Apr 30 17:26:17 2018
 Quant Method : C:\msdchem\1\methods\6PST1671.M
 Quant Title : PEST/PCB
 QLast Update : Mon Apr 30 12:31:07 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

Internal Standards							
1)	I 1-bromo-2...	1.940	2.144	402.5E6	250.1E6	50.000	50.000
27)	I 1-bromo-2...	1.940	2.144	402.5E6	250.1E6	50.000	50.000
33)	I 1-bromo-2...	1.940	2.144	402.5E6	250.1E6	50.000	50.000
System Monitoring Compounds							
2)	SAB Tetrachlo...	2.528f	2.931	385.1E6	233.3E6	48.334	48.108
	Spiked Amount	40.000	Range 30 - 150	Recovery	=	120.84%	120.27%
26)	SA Decachlor...	9.837	11.722f	358.9E6	213.2E6	47.319	50.528
	Spiked Amount	40.000		Recovery	=	118.30%	126.32%
Target Compounds							
28)	L8 Toxaphene{A}	5.652	6.741	63726000	48141894	470.271	486.445
29)	L8 Toxaphene{B}	6.272	7.583	164.9E6	62990732	478.558	515.469
30)	L8 Toxaphene{C}	6.447	7.744	133.5E6	117.7E6	480.051	512.531
31)	L8 Toxaphene{D}	6.787	8.178	104.7E6	65399372	492.281	529.767
32)	L8 Toxaphene{E}	7.434	9.066	107.3E6	58569705	475.346	551.126
	Sum Toxaphene			574.1E6	352.8E6	2396.507	2595.337
	Average Toxaphene					479.301	519.067

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

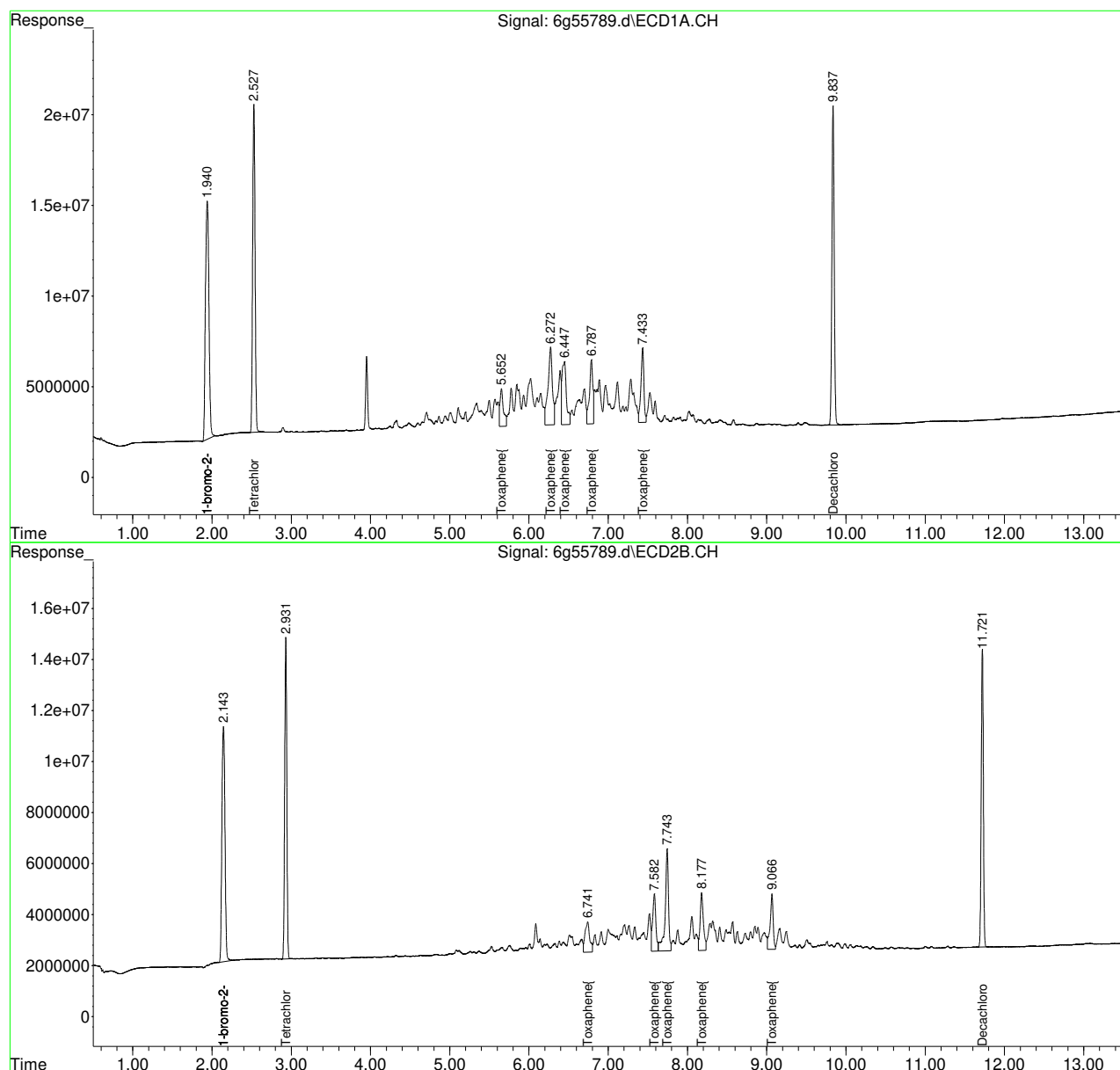
13.33
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\
Data File : 6g55789.d
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Apr-18, 14:05:32
Operator : dharas
Sample : ic1671-500
Misc : OP11619,g6g1671,1000,,,5,1
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 30 17:26:17 2018
Quant Method : C:\msdchem\1\methods\6PST1671.M
Quant Title : PEST/PCB
QLast Update : Mon Apr 30 12:31:07 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:33:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.778	3.432	147.7E6	928.7E6	33.797	30.364
Spiked Amount	40.000		Recovery	=	84.49%	75.91%
51) S Decachlor...	10.013	11.809	157.2E6	749.6E6	34.886	39.555
Spiked Amount	40.000		Recovery	=	87.22%	98.89%
Target Compounds						
31) AR1016-A	3.155	4.092	75576037	366.7E6	827.627	761.652
32) AR1016-B	3.557	4.630	130.4E6	777.2E6	1133.202	804.122 #
33) AR1016-C	4.107	5.275	285.4E6	1744.2E6	773.001	833.586
34) AR1016-D	4.268	5.461	115.7E6	737.8E6	860.556	953.596
35) AR1016-E	4.782	6.112	117.6E6	502.9E6	835.629m	883.134
36) AR1260-A	7.151	8.712	317.8E6	1882.4E6	835.813	1010.865m
37) AR1260-B	7.312	8.828	153.0E6	917.3E6	895.825	941.444
38) AR1260-C	7.650	9.260	169.0E6	1051.3E6	1020.047	1122.233
39) AR1260-D	8.080	9.610	395.3E6	2256.3E6	855.811	959.373
40) AR1260-E	8.472	10.153	402.6E6	2144.0E6	925.282m	1047.495m

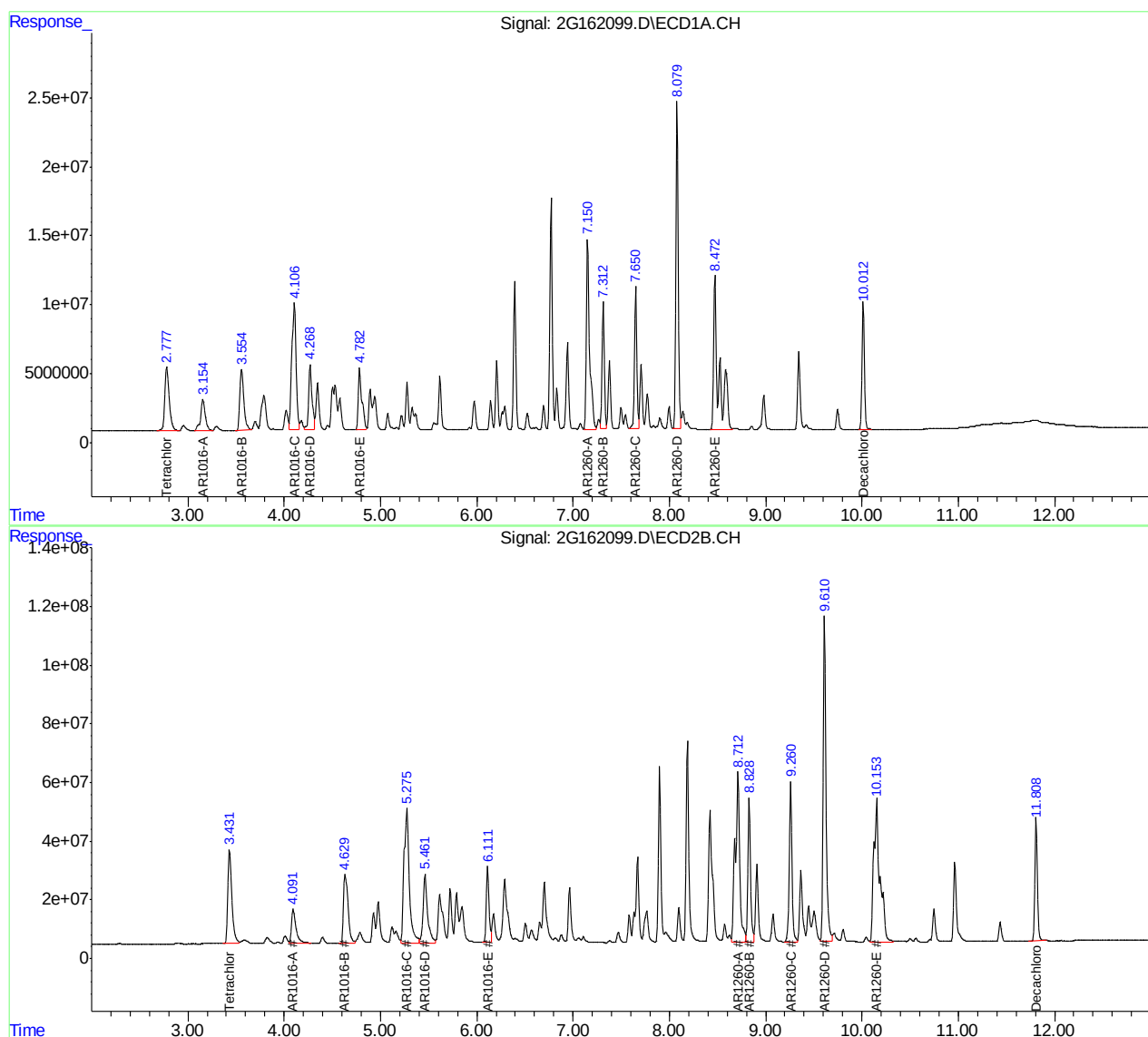
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162099.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:02 pm
Operator : tianweir
Sample : icc4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 13:33:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 13:32:09 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.779	3.431	163.8E6	987.2E6	47.199	46.623
Spiked Amount	40.000		Recovery	=	118.00%	116.56%
51) S Decachlor...	10.013	11.809	165.0E6	806.7E6	44.682	46.281
Spiked Amount	40.000		Recovery	=	111.71%	115.70%
Target Compounds						
2) AR1221-A	2.282	2.875	28967496	140.9E6	1023.276	1085.901
3) AR1221-B	2.954	3.821	42022816	250.7E6	983.648	970.364
4) AR1221-C	3.153	4.091	128.8E6	655.8E6	950.947m	1092.099
5) AR1221-D	3.558	4.650	14656903	122.2E6	1190.489	1041.062
6) AR1221-E	3.699	4.770	14363624	88492068	1222.278	1236.269
24) AR1254-A	5.275	6.700	123.4E6	992.5E6	961.679	1070.842
25) AR1254-B	5.616	6.960	258.8E6	983.9E6	1032.998m	1051.674
26) AR1254-C	5.981	7.464	137.0E6	797.7E6	999.447	1078.993
27) AR1254-D	6.143	7.630	245.9E6	1634.3E6	996.318	1197.753
28) AR1254-E	6.519	7.955	182.5E6	1088.9E6	1178.826	1169.607
29) AR1254-F	6.772	8.419	171.2E6	1181.2E6	1099.087	1059.697m
30) AR1254-G	7.152	8.714	251.8E6	1510.8E6	1013.161	1105.727

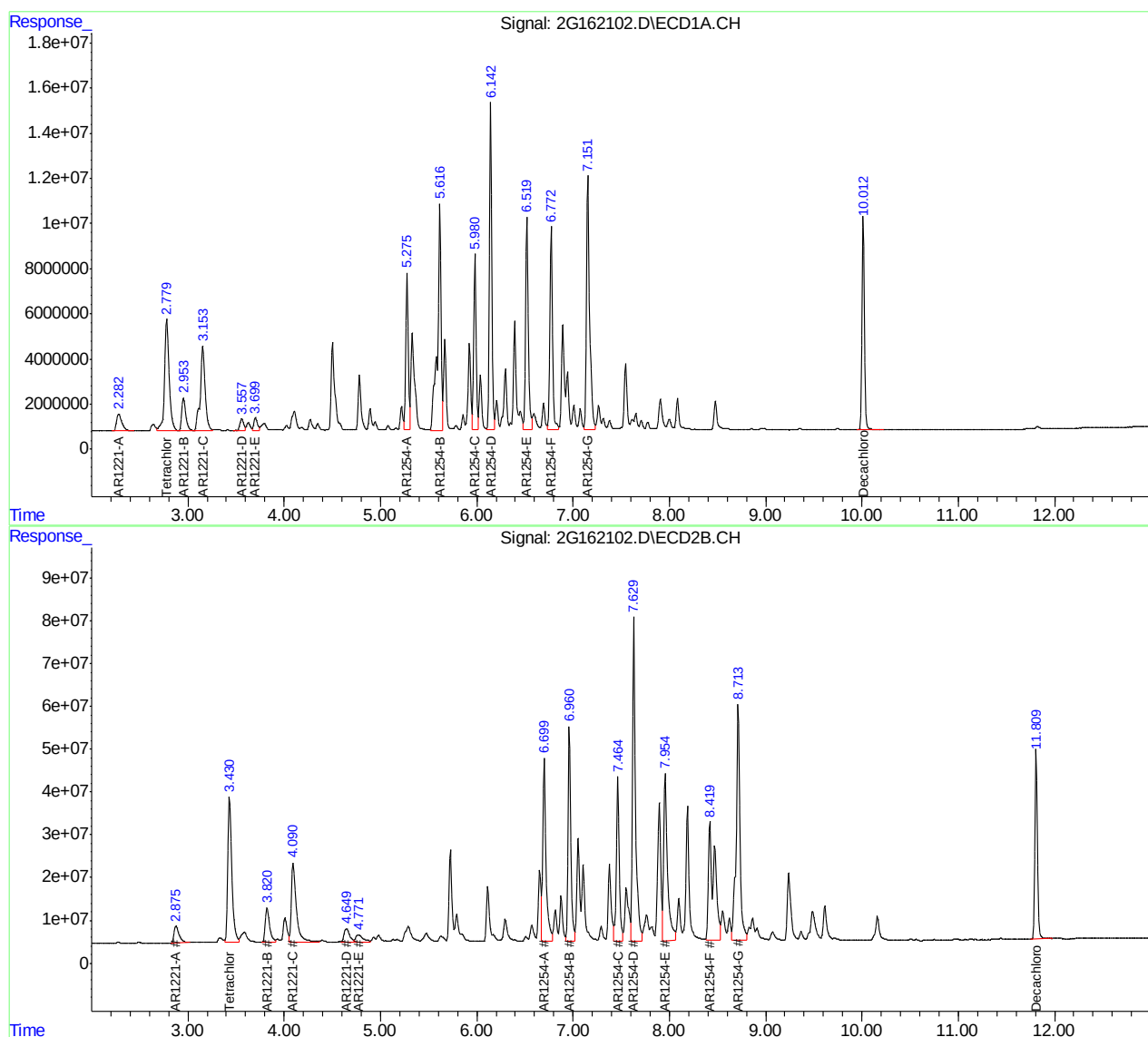
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162102.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 1:52 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:24:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:23:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.780	3.431	169.1E6	1049.9E6	9.839	9.841
Spiked Amount	40.000		Recovery	=	24.60%	24.60%
51) S Decachlor...	10.014	11.809	173.1E6	864.6E6	9.763	9.860
Spiked Amount	40.000		Recovery	=	24.41%	24.65%
Target Compounds						
7) AR1232-A	3.155	4.093	97343092	502.0E6	807.139m	801.687
8) AR1232-B	3.559	4.634	66842636	393.5E6	814.432	795.791
9) AR1232-C	4.109	5.281	130.5E6	815.2E6	748.996	817.807
10) AR1232-D	4.271	5.467	54473697	361.5E6	844.210	954.940
11) AR1232-E	4.785	6.115	51489431	217.3E6	836.532	879.986
41) AR1262-A	6.772	8.187	193.5E6	1044.2E6	608.178	987.107 #
42) AR1262-B	7.314	8.828	242.4E6	1428.2E6	818.303	912.354
43) AR1262-C	7.651	9.260	227.0E6	1336.0E6	936.108	1081.334
44) AR1262-D	8.081	9.610	485.4E6	2732.2E6	759.581	918.956
45) AR1262-E	8.525	10.123	558.8E6	3034.4E6	795.650m	942.420m

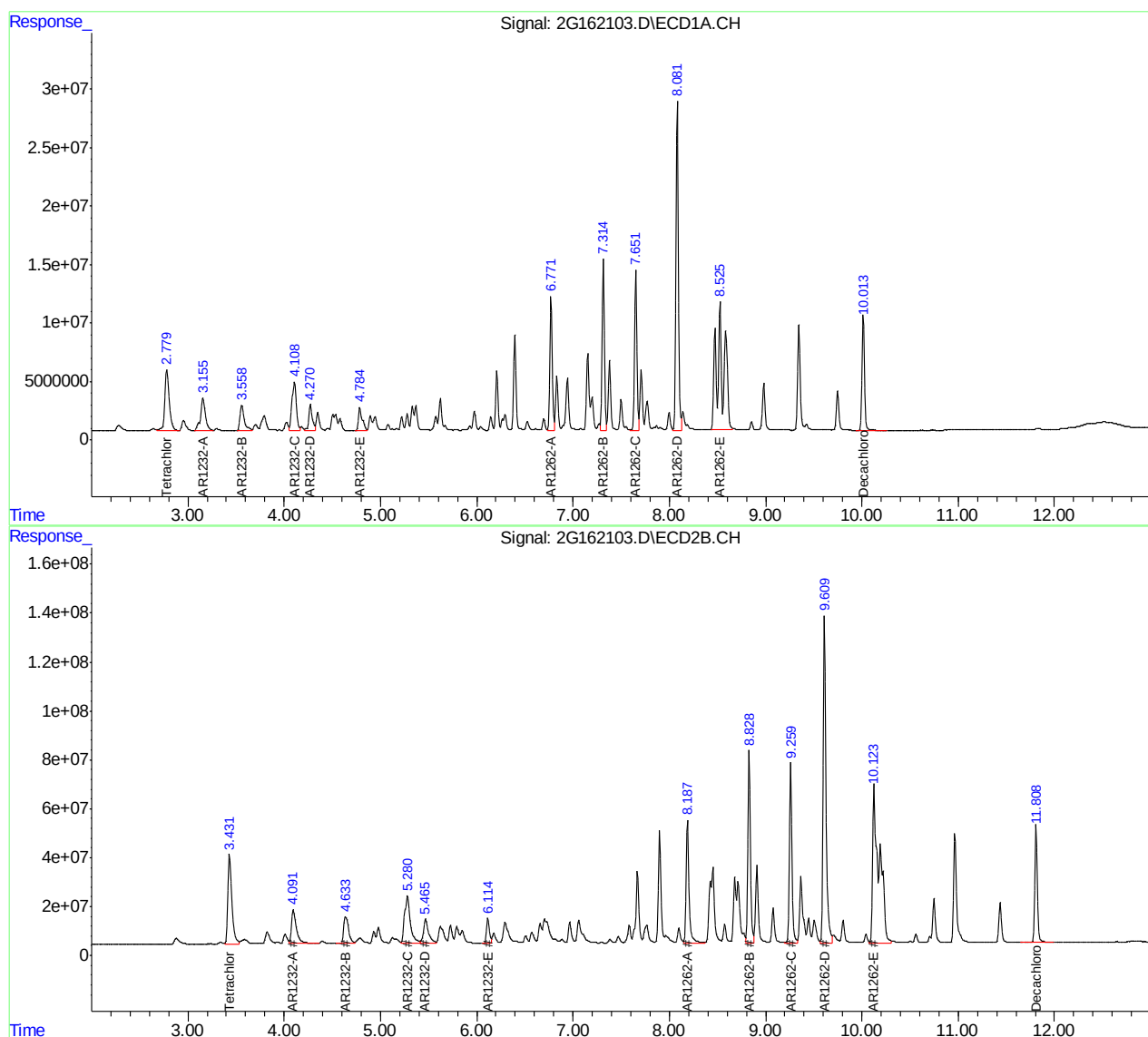
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162103.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 2:27 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 14:52:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 14:51:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
 Data File : 2G162104.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Apr 2018 2:44 pm
 Operator : tianweir
 Sample : ic4311-1000
 Misc : OP11095,G2G4311,15.0,,,10.0,1
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Apr 19 15:35:12 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu Apr 19 15:34:50 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds							
1)	S Tetrachlo...	2.779	3.432	164.4E6	1042.8E6	9.788	9.829
	Spiked Amount	40.000		Recovery	=	24.47%	24.57%
51)	S Decachlor...	10.010	11.807	482.0E6	2362.8E6	11.088	11.117
	Spiked Amount	40.000		Recovery	=	27.72%	27.79%
Target Compounds							
12)	AR1242-A	3.557	4.630	119.8E6	705.4E6	833.841	769.896
13)	AR1242-B	4.106	5.276	252.5E6	1547.7E6	766.774	823.562
14)	AR1242-C	4.268	5.463	105.4E6	666.8E6	881.574	956.816
15)	AR1242-D	4.782	6.113	109.0E6	456.4E6	869.789	894.747
16)	AR1242-E	5.364	6.725	92980758	634.3E6	872.039	977.929
46)	AR1268-A	8.523	10.121	575.4E6	3085.9E6	840.878	938.864
47)	AR1268-B	8.578	10.189	567.3E6	3099.0E6	712.876	817.926
48)	AR1268-C	8.851	10.557	473.0E6	2498.5E6	752.872	873.269
49)	AR1268-D	9.340	10.962	199.2E6	1037.7E6	826.458	946.346
50)	AR1268-E	9.742	11.430	1615.1E6	8238.1E6	809.035	1044.134 #

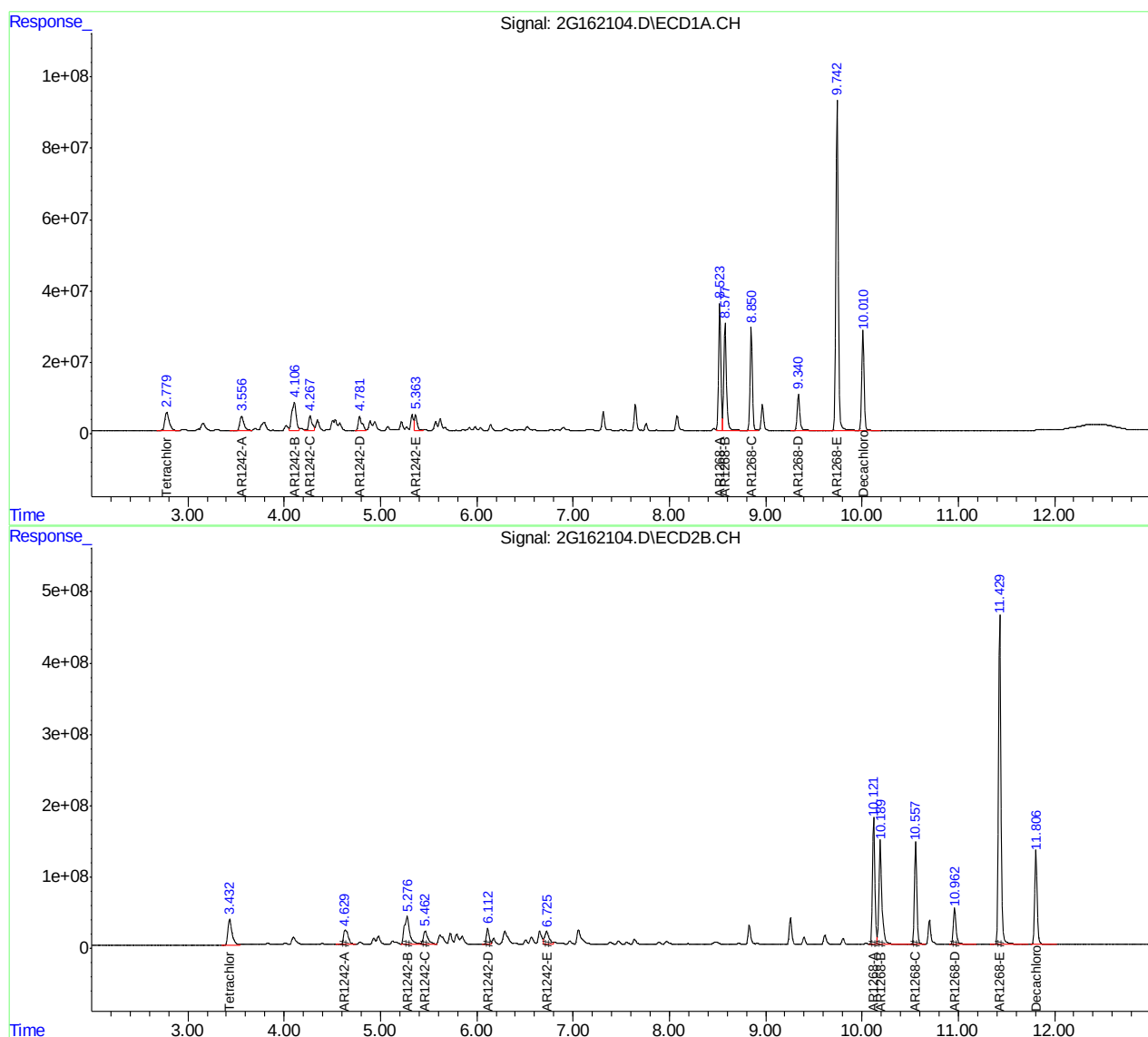
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
 Data File : 2G162104.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 19 Apr 2018 2:44 pm
 Operator : tianweir
 Sample : ic4311-1000
 Misc : OP11095,G2G4311,15.0,,,10.0,1
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Apr 19 15:35:12 2018
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
 Quant Title :
 QLast Update : Thu Apr 19 15:34:50 2018
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:38:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb

System Monitoring Compounds						
1) S Tetrachlo...	2.778	3.432	160.3E6	1054.2E6	9.743	9.848
Spiked Amount	40.000		Recovery	=	24.36%	24.62%
51) S Decachlor...	10.014	11.810	174.1E6	851.3E6	9.773	9.833
Spiked Amount	40.000		Recovery	=	24.43%	24.58%
Target Compounds						
17) AR1248-A	3.555	4.632	59173660	362.7E6	826.748	812.103
18) AR1248-B	4.105	5.281	154.4E6	954.8E6	820.696	837.930m
19) AR1248-C	4.501	5.724	165.2E6	569.7E6	812.299m	907.464
20) AR1248-D	4.782	6.112	159.8E6	727.1E6	860.353	930.188
21) AR1248-E	4.892	6.291	142.1E6	879.9E6	855.462m	1021.118
22) AR1248-F	5.364	6.722	140.2E6	1097.1E6	782.480	1016.890 #
23) AR1248-G	5.620	7.053	157.2E6	1220.2E6	600.449m	1102.458m#

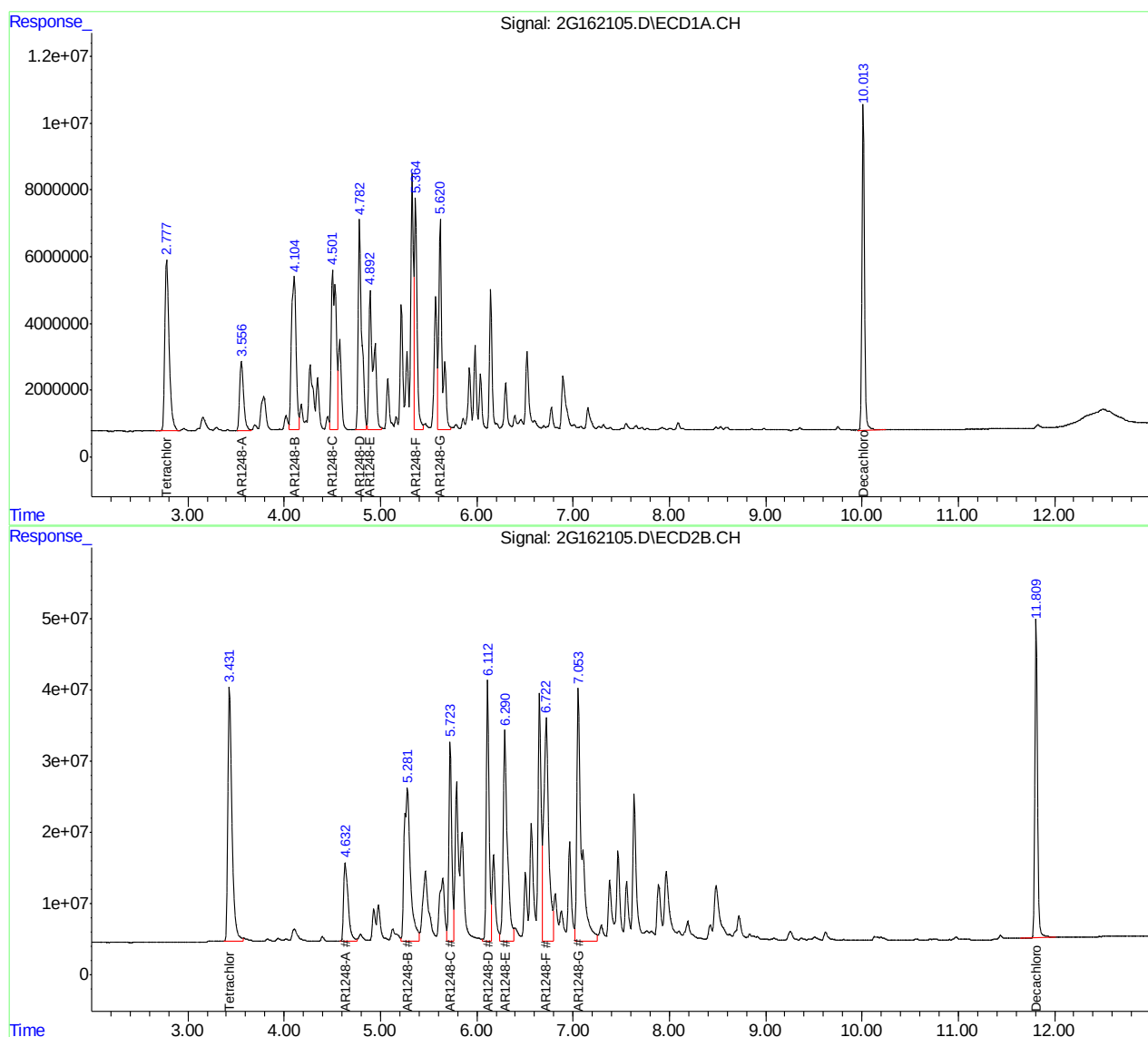
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\
Data File : 2G162105.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 19 Apr 2018 3:00 pm
Operator : tianweir
Sample : ic4311-1000
Misc : OP11095,G2G4311,15.0,,,10.0,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Apr 19 15:38:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M
Quant Title :
QLast Update : Thu Apr 19 15:36:57 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV
Analyst: JA
Parameters: Hg

Date Analyzed: 05/18/18 Methods: SW846 7471B
Run ID: MA44439

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:35	MA44439-STD1	1		B=1.1931E-004 C=2.1022E-002 R=0.9999383
08:37	MA44439-STD2	1		STDB
08:38	MA44439-STD3	1		STDC
08:39	MA44439-STD4	1		STDD
08:41	MA44439-STD5	1		STDE
08:42	MA44439-STD6	1		STDF
08:45	MA44439-ICV1	1		
08:47	MA44439-ICB1	1		
08:48	MA44439-CCV1	1		
08:50	MA44439-CCB1	1		
08:51	MA44439-CRI1	1		
08:53	ZZZZZZ	1		
08:56	MP7119-MB2	1		
08:57	MP7119-B2	1		
08:59	ZZZZZZ	1		
09:00	ZZZZZZ	1		
09:02	MP7226-MB1	1		
09:03	MP7226-B1	1		
09:05	MA44439-CCV2	1		
09:06	MA44439-CCB2	1		
09:08	MP7226-S1	1		%Sol
09:09	ZZZZZZ	1		
09:11	JC66322-4	1		(sample used for QC only; not part of login JC66318)
09:13	MP7226-S2	1		%Sol
09:15	ZZZZZZ	1		
09:16	ZZZZZZ	1		
09:18	ZZZZZZ	1		
09:20	ZZZZZZ	1		
09:21	MA44439-CCV3	1		
09:23	MA44439-CCB3	1		
09:24	ZZZZZZ	1		
09:26	ZZZZZZ	1		
09:27	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV
Analyst: JA
Parameters: Hg

Date Analyzed: 05/18/18 Methods: SW846 7471B
Run ID: MA44439

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:29	ZZZZZZ	1		
09:30	ZZZZZZ	1		
09:32	ZZZZZZ	1		
09:33	JC66318-1	1		%Sol
09:34	ZZZZZZ	5		
09:36	JC66318-1	5		%Sol
Last reportable sample/prep for job JC66318				
09:40	MA44439-CCV4	1		
09:41	MA44439-CCB4	1		
10:21	MA44439-CCV5	1		
10:22	MA44439-CCB5	1		
10:24	ZZZZZZ	1		
10:25	ZZZZZZ	1		
10:27	ZZZZZZ	1		
10:28	ZZZZZZ	1		
10:30	ZZZZZZ	1		
10:32	ZZZZZZ	1		
10:33	MP7227-MB1	1		
10:34	MP7227-B1	1		
10:35	MA44439-CCV6	1		
10:37	MA44439-CCB6	1		
10:39	MP7227-S1	1		%Sol
10:40	MP7227-S2	1		%Sol
10:43	JC66357-1	1		(sample used for QC only; not part of login JC66318)
10:44	ZZZZZZ	1		
10:45	ZZZZZZ	1		
10:47	ZZZZZZ	1		
10:48	ZZZZZZ	1		
10:50	ZZZZZZ	1		
10:51	ZZZZZZ	1		
10:52	MA44439-CCV7	1		
10:54	MA44439-CCB7	1		
10:55	ZZZZZZ	1		
10:57	ZZZZZZ	1		

----->

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV
Analyst: JA
Parameters: Hg

Date Analyzed: 05/18/18 Methods: SW846 7471B
Run ID: MA44439

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:58	ZZZZZZ	1		
10:59	ZZZZZZ	1		
11:01	MA44439-CRI2	1		
11:03	MA44439-CCV8	1		
11:04	MA44439-CCB8	1		
----->	Last reportable CCB for job JC66318			
12:37	MA44439-CCV9	1		
12:38	MA44439-CCB9	1		
12:40	ZZZZZZ	1		
12:43	MA44439-CCV10	1		
12:44	MA44439-CCB10	1		

Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA44439 Units: ug/l

Time: Sample ID:			08:47 ICB1		08:50 CCB1		09:06 CCB2		09:23 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.038	-0.0197	<0.20	-0.00360	<0.20	0.00730	<0.20	0.00290	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA44439 Units: ug/l

Time: Sample ID:			09:41 CCB4		10:22 CCB5		10:37 CCB6		10:54 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.038	0.0134	<0.20	0.00780	<0.20	0.00100	<0.20	0.00370	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA44439 Units: ug/l

Time:		11:04		
Sample ID:		CCB8		
Metal	RL	IDL	raw	final
Mercury	0.20	.038	0.00250	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44439 Units: ug/l

Time:		08:45		08:48		09:05	
Sample ID:	ICV	ICV1	CCV	CCV1	CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True
Mercury	3	2.98	99.3	2.5	2.56	102.4	2.5
							2.66
							106.4

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44439 Units: ug/l

Time:		09:21			09:40			10:21		
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	
Mercury	2.5	2.58	103.2	2.5	2.72	108.8	2.5	2.64	105.6	

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44439 Units: ug/l

Time:		10:35		10:52		11:03	
Sample ID:	CCV	CCV6		CCV	CCV7	CCV	CCV8
Metal	True	Results	% Rec	True	Results	% Rec	True
Mercury	2.5	2.60	104.0	2.5	2.54	101.6	2.5
							2.62
							104.8

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
 QC Limits: 70 to 130 % Recovery Run ID: MA44439 Units: ug/l

Time:				08:51		11:01	
Sample ID:	CRI	CRIA	CRI1		CRI2		
Metal	True	True	Results	% Rec	Results	% Rec	
Mercury	0.20		0.200	100.0	0.216	108.0	

(*) Outside of QC limits
 (anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9052118W1.CSV
Analyst: DP
Parameters: Hg

Date Analyzed: 05/21/18 Methods: SW846 7470A
Run ID: MA44455

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:48	MA44455-STD1	1		B=1.7868E-004, C=2.4394E-002, R=0.9999131
10:49	MA44455-STD2	1		STDB
10:50	MA44455-STD3	1		STDC
10:52	MA44455-STD4	1		STDD
10:53	MA44455-STD5	1		STDE
10:54	MA44455-STD6	1		STDF
10:58	MA44455-ICV1	1		
11:00	MA44455-ICB1	1		
11:01	MA44455-CCV1	1		
11:03	MA44455-CCB1	1		
11:04	MA44455-CRI1	1		
11:07	MP7263-MB1	1		
11:08	MP7263-B1	1		
11:09	MP7263-S1	1		
11:11	MP7263-S2	1		
11:13	JC66348-6A	1		(sample used for QC only; not part of login JC66318)
11:14	ZZZZZZ	1		
11:15	ZZZZZZ	1		
11:18	MA44455-CCV2	1		
11:20	MA44455-CCB2	1		
11:21	MP7264-B1	1		
11:23	MP7264-S1	1		
11:24	MP7264-S2	1		
11:26	JC65814-2AB	1		(sample used for QC only; not part of login JC66318)
11:27	ZZZZZZ	1		
11:29	ZZZZZZ	1		
11:30	ZZZZZZ	1		
11:31	MA44455-CCV3	1		
11:33	MA44455-CCB3	1		
11:34	ZZZZZZ	1		
11:36	ZZZZZZ	1		
11:37	ZZZZZZ	1		
11:44	MP7265-MB1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9052118W1.CSV
Analyst: DP
Parameters: Hg

Date Analyzed: 05/21/18 Methods: SW846 7470A
Run ID: MA44455

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:46	MP7265-B1	1		
11:47	MP7265-S1	1		
11:48	MP7265-S2	1		
11:50	JC66483-1	1		(sample used for QC only; not part of login JC66318)
11:52	MA44455-CCV4	1		
11:53	MA44455-CCB4	1		
11:54	MP7266-MB1	1		
11:56	MP7266-B1	1		
11:57	MP7266-S1	1		
11:59	MP7266-S2	1		
12:00	JC66318-1A	1		
----->	Last reportable sample/prep for job JC66318			
12:02	ZZZZZZ	1		
12:03	ZZZZZZ	1		
12:04	ZZZZZZ	1		
12:06	MA44455-CCV5	1		
12:07	MA44455-CCB5	1		
12:09	ZZZZZZ	1		
12:10	ZZZZZZ	1		
12:11	ZZZZZZ	1		
12:13	ZZZZZZ	1		
12:14	ZZZZZZ	1		
12:15	MP7267-MB1	1		
12:16	MP7267-B1	1		
12:18	MP7267-S1	1		
12:19	MA44455-CCV6	1		
12:21	MA44455-CCB6	1		
12:23	MP7267-S2	1		
12:24	JC66258-16	1		(sample used for QC only; not part of login JC66318)
12:25	ZZZZZZ	1		
12:27	ZZZZZZ	1		
12:28	ZZZZZZ	1		
12:29	ZZZZZZ	1		
12:31	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9052118W1.CSV
Analyst: DP
Parameters: Hg

Date Analyzed: 05/21/18 Methods: SW846 7470A
Run ID: MA44455

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:32	ZZZZZZ	1		
12:33	MA44455-CCV7	1		
12:35	MA44455-CCB7	1		
12:52	ZZZZZZ	1		
12:53	ZZZZZZ	1		
12:54	ZZZZZZ	1		
12:56	ZZZZZZ	1		
12:57	ZZZZZZ	1		
12:58	ZZZZZZ	1		
12:59	ZZZZZZ	1		
13:01	ZZZZZZ	1		
13:02	MA44455-CCV8	1		
13:03	MA44455-CCB8	1		
13:05	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:08	ZZZZZZ	1		
13:09	ZZZZZZ	1		
13:10	ZZZZZZ	1		
13:11	ZZZZZZ	1		
13:13	MA44455-CCV9	1		
13:14	MA44455-CCB9	1		
13:21	MA44455-CCV10	1		
13:23	MA44455-CCB10	1		
13:40	ZZZZZZ	100		
13:42	ZZZZZZ	2		
13:45	MA44455-CCV11	1		
13:46	MA44455-CCB11	1		
14:35	MA44455-CCV12	1		
14:36	MA44455-CCB12	1		
14:46	MP7264-MB1	1		
14:51	ZZZZZZ	1		
14:52	ZZZZZZ	1		
14:54	ZZZZZZ	100		

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9052118W1.CSV
Analyst: DP
Parameters: Hg

Date Analyzed: 05/21/18 Methods: SW846 7470A
Run ID: MA44455

Time	Sample Description	Dilution Factor	PS Recov	Comments
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14:55 ZZZZZZ 2

14:58 MA44455-CRI2 1

15:00 MA44455-CCV13 1

15:01 MA44455-CCB13 1

-----> Last reportable CCB for job JC66318
Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9052118W1.CSV Date Analyzed: 05/21/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44455 Units: ug/l

Time: Sample ID:			11:00 ICB1		11:03 CCB1		11:20 CCB2		11:33 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.016	-0.00940	<0.20	-0.0424	<0.20	0.0707	<0.20	-0.0435	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9052118W1.CSV Date Analyzed: 05/21/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44455 Units: ug/l

Time:		11:53		12:07		12:21		12:35		
Sample ID:		CCB4		CCB5		CCB6		CCB7		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.016	-0.0478	<0.20	-0.0428	<0.20	-0.0448	<0.20	-0.0314	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9052118W1.CSV Date Analyzed: 05/21/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44455 Units: ug/l

Time: Sample ID:			13:03 CCB8		13:14 CCB9		13:23 CCB10		13:46 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.016	-0.0385	<0.20	-0.0335	<0.20	-0.0387	<0.20	-0.0431	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9052118W1.CSV Date Analyzed: 05/21/18 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA44455 Units: ug/l

Time:		14:36		15:01		
Sample ID:		CCB12		CCB13		
Metal	RL	IDL	raw	final	raw	final
Mercury	0.20	.016	-0.0369	<0.20	-0.0355	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9052118W1.CSV Date Analyzed: 05/21/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44455 Units: ug/l

Time:		10:58			11:01			11:18		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	
Mercury	3	3.18	106.0	2.5	2.53	101.2	2.5	2.52	100.8	

(*) Outside of QC limits
(anr) Analyte not requested

14.2.2
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9052118W1.CSV Date Analyzed: 05/21/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44455 Units: ug/l

Time:		11:31		11:52		12:06	
Sample ID:	CCV	CCV3		CCV	CCV4	CCV	CCV5
Metal	True	Results	% Rec	True	Results	% Rec	True
Mercury	2.5	2.55	102.0	2.5	2.56	102.4	2.5
							2.50
							100.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9052118W1.CSV Date Analyzed: 05/21/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44455 Units: ug/l

Time:		12:19		12:33		13:02	
Sample ID:	CCV	CCV6	CCV	CCV7	CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True
Mercury	2.5	2.53	101.2	2.5	2.55	102.0	2.5
							2.53
							101.2

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9052118W1.CSV Date Analyzed: 05/21/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44455 Units: ug/l

Time:		13:13			13:21			13:45		
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	
Mercury	2.5	2.52	100.8	2.5	2.48	99.2	2.5	2.48	99.2	

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9052118W1.CSV Date Analyzed: 05/21/18 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA44455 Units: ug/l

Time:		14:35			15:00		
Sample ID:	CCV	CCV12		CCV	CCV13		
Metal	True	Results	% Rec	True	Results	% Rec	
Mercury	2.5	2.53	101.2	2.5	2.38	95.2	

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H9052118W1.CSV Date Analyzed: 05/21/18 Methods: SW846 7470A
 QC Limits: 70 to 130 % Recovery Run ID: MA44455 Units: ug/l

Time:				11:04		14:58	
Sample ID:	CRI	CRIA	CRI1			CRI2	
Metal	True	True	Results	% Rec		Results	% Rec
Mercury	0.20		0.225	112.5		0.207	103.5

(*) Outside of QC limits
 (anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44470
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:47	MA44470-STD1	1		STDA
13:52	MA44470-STD2	1		STDB
13:56	ZZZZZZ	1		
14:01	ZZZZZZ	1		
14:05	MA44470-ICV1	1		
14:09	MA44470-ICB1	1		
14:14	MA44470-CCV1	1		
14:18	MA44470-CCB1	1		
14:23	MA44470-CRI1	1		
14:27	MA44470-CRID1	1		
14:31	MA44470-ICSA1	1		
14:36	MA44470-ICSAB1	1		
14:40	MA44470-HSTD1	1		
14:45	MA44470-HSTD2	1		Minerals
14:49	ZZZZZZ	1		
14:54	ZZZZZZ	1		
14:58	ZZZZZZ	1		
15:03	ZZZZZZ	1		
15:07	MA44470-CCV2	1		
15:11	MA44470-CCB2	1		
15:16	MP7239-MB1	1		
15:20	MP7239-B1	1		
15:24	MP7239-S1	1		Y3710 elements high RSD.Nees PS.
15:29	ZZZZZZ	5		
15:33	ZZZZZZ	5		
15:37	MP7239-S2	1		Nees PS.
15:42	ZZZZZZ	5		
15:46	ZZZZZZ	5		
15:50	ZZZZZZ	5		
15:54	MA44470-CCV3	1		
15:59	MA44470-CCB3	1		
16:04	MP7239-D1	1		
16:08	TD21085-1	1		(sample used for QC only; not part of login JC66318)

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44470
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:13	MP7239-SD1	5		
16:17	ZZZZZZ	1		
16:21	ZZZZZZ	1		
16:26	ZZZZZZ	1		
16:30	ZZZZZZ	1		
16:34	ZZZZZZ	1		
16:39	ZZZZZZ	1		
16:43	MA44470-CCV4	1		
16:48	MA44470-CCB4	1		
16:55	ZZZZZZ	1		
17:00	ZZZZZZ	1		
17:04	ZZZZZZ	1		
17:09	ZZZZZZ	1		
17:13	ZZZZZZ	1		
17:17	ZZZZZZ	1		
17:22	ZZZZZZ	1		
17:26	ZZZZZZ	1		
17:31	ZZZZZZ	1		
17:35	MA44470-CCV5	1		
17:42	MA44470-CCB5	1		
17:46	ZZZZZZ	1		
17:50	ZZZZZZ	1		
17:55	ZZZZZZ	1		
17:59	ZZZZZZ	1		
18:04	MP7221-B1	1		
18:08	MP7221-MB1	1		
18:12	MP7221-S1	1		
18:17	MP7221-S2	1		
18:21	JC66122-13	1		(sample used for QC only; not part of login JC66318)
18:26	MA44470-CCV6	1		
18:30	MA44470-CCB6	1		
18:34	MP7221-SD1	5		
18:39	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44470
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:43	ZZZZZZ	1		
18:48	ZZZZZZ	1		
18:52	ZZZZZZ	1		
18:57	ZZZZZZ	1		
19:01	ZZZZZZ	1		
19:05	ZZZZZZ	1		
19:10	ZZZZZZ	1		
19:14	MA44470-CCV7	1		
19:18	MA44470-CCB7	1		
19:23	ZZZZZZ	1		
19:27	ZZZZZZ	1		
19:32	ZZZZZZ	1		
19:36	ZZZZZZ	1		
19:40	ZZZZZZ	1		
19:45	ZZZZZZ	1		
19:49	ZZZZZZ	1		
19:54	ZZZZZZ	1		
19:58	ZZZZZZ	1		
20:03	MA44470-CCV8	1		
20:07	MA44470-CCB8	1		
20:11	ZZZZZZ	1		
20:16	ZZZZZZ	1		
20:20	MP7220-B1	1		
20:24	MP7220-B2	1		
20:29	MP7220-MB1	1		
20:33	MP7220-S1	1		
20:37	MP7220-S2	1		
20:42	JC66030-33	1		(sample used for QC only; not part of login JC66318)
20:46	MP7220-SD1	5		
20:51	MA44470-CCV9	1		
20:55	MA44470-CCB9	1		
20:59	MA44470-CRI2	1		
21:04	MA44470-CRID2	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44470
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:08	MA44470-ICSA2	1		
21:13	MA44470-ICSAB2	1		
21:17	MA44470-CCV10	1		
21:21	MA44470-CCB10	1		
21:26	ZZZZZZ	1		
21:30	ZZZZZZ	1		
21:34	ZZZZZZ	1		
21:39	ZZZZZZ	1		
21:43	ZZZZZZ	1		
21:48	ZZZZZZ	1		
21:52	ZZZZZZ	1		
21:56	ZZZZZZ	1		
22:01	ZZZZZZ	1		
22:05	ZZZZZZ	1		
22:10	ZZZZZZ	1		
22:14	ZZZZZZ	1		
22:19	MA44470-CCV11	1		
22:23	MA44470-CCB11	1		
22:28	ZZZZZZ	1		
22:32	ZZZZZZ	1		
22:36	ZZZZZZ	1		
22:41	ZZZZZZ	1		
22:45	ZZZZZZ	1		
22:49	ZZZZZZ	1		
22:54	ZZZZZZ	1		
22:58	ZZZZZZ	1		
23:02	JC66318-1	1		Ca=700ppm
----->	Last reportable sample/prep for job JC66318			
23:07	MA44470-CCV12	1		
23:11	MA44470-CCB12	1		
23:16	ZZZZZZ	1		
23:20	ZZZZZZ	1		
23:25	ZZZZZZ	1		
23:29	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44470
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
23:33	ZZZZZZ	1		
23:38	ZZZZZZ	1		
23:42	ZZZZZZ	1		
23:47	ZZZZZZ	1		
23:51	ZZZZZZ	1		
23:55	ZZZZZZ	1		
00:00	MA44470-CCV13	1		
00:04	MA44470-CCB13	1		
00:09	MP7255-MB1	1		
00:13	MP7255-B1	1		
00:17	MP7255-S1	1		FE=290ppm
00:22	MP7255-S2	1		
00:27	JC66385-2	1		(sample used for QC only; not part of login JC66318)
00:31	MP7255-SD1	5		
00:35	ZZZZZZ	1		
00:40	ZZZZZZ	1		
00:44	ZZZZZZ	1		
00:49	MA44470-CCV14	1		
00:53	MA44470-CCB14	1		
00:58	ZZZZZZ	1		
01:02	ZZZZZZ	1		
01:07	ZZZZZZ	1		
01:11	ZZZZZZ	1		
01:16	ZZZZZZ	1		
01:20	ZZZZZZ	1		
01:25	ZZZZZZ	1		
01:29	ZZZZZZ	1		
01:33	ZZZZZZ	1		
01:38	MA44470-CCV15	1		
01:43	MA44470-CCB15	1		
01:47	ZZZZZZ	1		
01:52	ZZZZZZ	1		
01:56	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44470
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
02:00	ZZZZZZ	1		
02:05	ZZZZZZ	1		
02:09	ZZZZZZ	1		
02:13	ZZZZZZ	1		
02:18	MP7248-B1	1		
02:22	MP7248-MB1	1		
02:27	MA44470-CCV16	1		
02:31	MA44470-CCB16	1		
02:36	MP7248-S1	1		
02:40	MP7248-S2	1		
02:44	JC66348-6A	1		(sample used for QC only; not part of login JC66318)
02:49	MP7248-SD1	5		
02:53	ZZZZZZ	1		
02:57	ZZZZZZ	1		
03:02	ZZZZZZ	1		
03:06	ZZZZZZ	1		
03:10	ZZZZZZ	1		
03:15	ZZZZZZ	1		
03:19	MA44470-CCV17	1		
03:23	MA44470-CCB17	1		
03:28	MA44470-CRI3	1		
03:32	MA44470-CRID3	1		
03:37	MA44470-CCV18	1		
03:41	MA44470-CCB18	1		
----->	Last reportable CCB for job JC66318 Refer to raw data for calibration curve and standards.			

INTERNAL STANDARD SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44470
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:47	MA44470-STD1	6518 R	256280 R	47183 R	12130 R
13:52	MA44470-STD2	6067	237530	46312	10540
13:56	ZZZZZZ	6244	241980	45612	10950
14:01	ZZZZZZ	6489	255840	46297	12081
14:05	MA44470-ICV1	6232	243630	46025	10930
14:09	MA44470-ICB1	6453	257040	47029	12038
14:14	MA44470-CCV1	6266	245850	46591	10967
14:18	MA44470-CCB1	6458	255400	46070	12040
14:23	MA44470-CRI1	6402	253250	45924	11799
14:27	MA44470-CRID1	6514	255970	47119	12092
14:31	MA44470-ICSA1	5613	220170	44927	9555
14:36	MA44470-ICSAB1	5609	220330	44432	9569
14:40	MA44470-HSTD1	6447	248540	46377	11883
14:45	MA44470-HSTD2	5736	223660	44315	9648
14:49	ZZZZZZ	6390	249860	46409	11989
14:54	ZZZZZZ	6378	256530	46423	12037
14:58	ZZZZZZ	6471	256880	45964	12069
15:03	ZZZZZZ	6443	256660	46723	11989
15:07	MA44470-CCV2	6261	253120	46250	10970
15:11	MA44470-CCB2	6507	256760	46503	12115
15:16	MP7239-MB1	6496	257460	46982	12099
15:20	MP7239-B1	6185	240890	45901	10975
15:24	MP7239-S1	5417	217270	42399	11175
15:29	ZZZZZZ	6295	248000	47225	11167
15:33	ZZZZZZ	6596	257340	47218	11891
15:37	MP7239-S2	5509	221910	44426	11371
15:42	ZZZZZZ	6407	251340	45980	11748
15:46	ZZZZZZ	6403	245860	46072	11569
15:50	ZZZZZZ	6359	248740	45815	11576
15:54	MA44470-CCV3	6170	243940	45279	10840
15:59	MA44470-CCB3	6456	255810	46057	12032
16:04	MP7239-D1	5609	223850	44163	11544
16:08	TD21085-1	5826	230560	44497	11717

INTERNAL STANDARD SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44470
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:13	MP7239-SD1	6359	251030	46499	11874
16:17	ZZZZZZ	6449	254880	46997	11594
16:21	ZZZZZZ	6383	270700	46984	11411
16:26	ZZZZZZ	6548	254230	47372	11557
16:30	ZZZZZZ	6467	251690	47244	11791
16:34	ZZZZZZ	6330	248850	46977	10889
16:39	ZZZZZZ	6098	240980	46479	10276
16:43	MA44470-CCV4	6209	236930	45938	10892
16:48	MA44470-CCB4	6477	257250	46964	12061
16:55	ZZZZZZ	6447	254690	48171	11221
17:00	ZZZZZZ	6478	249750	47542	11306
17:04	ZZZZZZ	6468	252610	47721	11274
17:09	ZZZZZZ	6432	254260	48343	11126
17:13	ZZZZZZ	6641	262020	49368	11252
17:17	ZZZZZZ	6513	254370	48648	11160
17:22	ZZZZZZ	6517	257940	46677	12031
17:26	ZZZZZZ	6432	258460	47823	11187
17:31	ZZZZZZ	6343	248330	47018	11168
17:35	MA44470-CCV5	6187	239520	45833	10865
17:42	MA44470-CCB5	6520	255840	46777	12135
17:46	ZZZZZZ	6484	250440	48397	11169
17:50	ZZZZZZ	6397	246660	47409	11186
17:55	ZZZZZZ	6561	269800	47504	11400
17:59	ZZZZZZ	6393	251590	48548	11221
18:04	MP7221-B1	6228	242150	45709	11054
18:08	MP7221-MB1	6478	266640	46478	12039
18:12	MP7221-S1	5970	233330	45146	10681
18:17	MP7221-S2	5891	233710	45700	10562
18:21	JC66122-13	6273	244830	46348	11242
18:26	MA44470-CCV6	6183	244840	45804	10862
18:30	MA44470-CCB6	6462	255630	45862	12049
18:34	MP7221-SD1	6429	254300	44507	11614
18:39	ZZZZZZ	6574	253470	49730	11053

INTERNAL STANDARD SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44470
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:43	ZZZZZZ	6389	248550	46896	11169
18:48	ZZZZZZ	6369	249350	46822	11124
18:52	ZZZZZZ	6305	242290	46409	11126
18:57	ZZZZZZ	6186	244870	45858	11224
19:01	ZZZZZZ	6573	252300	48119	11309
19:05	ZZZZZZ	6455	252510	47721	11366
19:10	ZZZZZZ	6163	242830	46091	11181
19:14	MA44470-CCV7	6153	240380	45529	10798
19:18	MA44470-CCB7	6552	259430	46939	12184
19:23	ZZZZZZ	6152	241320	46316	11035
19:27	ZZZZZZ	6403	239360	46722	11436
19:32	ZZZZZZ	6326	247890	45357	11632
19:36	ZZZZZZ	6298	252460	47233	11413
19:40	ZZZZZZ	6491	251820	47817	11018
19:45	ZZZZZZ	6207	241910	45774	10754
19:49	ZZZZZZ	6238	243290	45553	11087
19:54	ZZZZZZ	6018	234240	45082	10494
19:58	ZZZZZZ	6307	248690	48192	11089
20:03	MA44470-CCV8	6340	247360	46833	11109
20:07	MA44470-CCB8	6576	261150	47603	12266
20:11	ZZZZZZ	6311	247560	47700	11202
20:16	ZZZZZZ	6308	246910	47821	11323
20:20	MP7220-B1	6136	244170	46061	10939
20:24	MP7220-B2	6231	245590	46754	11093
20:29	MP7220-MB1	6436	260000	47304	12019
20:33	MP7220-S1	6228	244640	47189	11003
20:37	MP7220-S2	6223	242480	47136	10984
20:42	JC66030-33	6434	254060	47436	11504
20:46	MP7220-SD1	6578	259910	48134	11983
20:51	MA44470-CCV9	6193	242130	46561	10866
20:55	MA44470-CCB9	6530	260730	47207	12187
20:59	MA44470-CRI2	6394	256500	46950	11803
21:04	MA44470-CRID2	6482	258060	47098	12050

INTERNAL STANDARD SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44470
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:08	MA44470-ICSA2	5626	222060	44858	9571
21:13	MA44470-ICSAB2	5619	221020	44437	9577
21:17	MA44470-CCV10	6271	244750	46677	10997
21:21	MA44470-CCB10	6514	264810	46711	12165
21:26	ZZZZZZ	5948	230230	45350	10427
21:30	ZZZZZZ	6496	240120	48818	10852
21:34	ZZZZZZ	5923	232950	45016	10409
21:39	ZZZZZZ	6585	263290	999999 !	12292
21:43	ZZZZZZ	6551	258310	47121	12196
21:48	ZZZZZZ	6484	256150	46400	12060
21:52	ZZZZZZ	6558	260900	46789	12258
21:56	ZZZZZZ	6504	254810	46964	12112
22:01	ZZZZZZ	6528	258830	46649	12148
22:05	ZZZZZZ	6471	257250	45820	12155
22:10	ZZZZZZ	6537	258600	46917	12225
22:14	ZZZZZZ	6515	260150	46488	12176
22:19	MA44470-CCV11	6255	244980	46538	10970
22:23	MA44470-CCB11	6530	259690	47186	12167
22:28	ZZZZZZ	6413	250340	48644	10860
22:32	ZZZZZZ	6450	253770	47894	10966
22:36	ZZZZZZ	6522	257230	48802	11374
22:41	ZZZZZZ	6564	263760	51307	11537
22:45	ZZZZZZ	6610	266750	50754	12051
22:49	ZZZZZZ	6628	265330	51944	11412
22:54	ZZZZZZ	6526	259030	51192	11232
22:58	ZZZZZZ	6547	265420	52223	11273
23:02	JC66318-1	5908	236660	49718	9616
23:07	MA44470-CCV12	6227	255350	48503	10967
23:11	MA44470-CCB12	6626	251650	49202	12434
23:16	ZZZZZZ	6219	249080	49537	11274
23:20	ZZZZZZ	6274	252650	49290	11383
23:25	ZZZZZZ	5906	243920	48170	10980
23:29	ZZZZZZ	6260	251030	48345	11179

INTERNAL STANDARD SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44470
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
23:33	ZZZZZZ	6300	250810	49279	11303
23:38	ZZZZZZ	6370	250150	48669	11378
23:42	ZZZZZZ	5982	236910	47013	11813
23:47	ZZZZZZ	6471	255140	48213	11755
23:51	ZZZZZZ	6041	242060	47769	10852
23:55	ZZZZZZ	6257	248830	49001	11266
00:00	MA44470-CCV13	6235	248450	47412	10965
00:04	MA44470-CCB13	6511	259780	48769	12170
00:09	MP7255-MB1	6387	255900	47127	11912
00:13	MP7255-B1	6207	245180	46919	11040
00:17	MP7255-S1	6325	244810	49241	10760
00:22	MP7255-S2	6284	237610	49364	10725
00:27	JC66385-2	6452	249560	50070	11089
00:31	MP7255-SD1	6525	259810	49714	11758
00:35	ZZZZZZ	6376	253080	50094	11006
00:40	ZZZZZZ	6747	262880	51987	11256
00:44	ZZZZZZ	5967	238210	48523	10091
00:49	MA44470-CCV14	6265	248350	48304	11020
00:53	MA44470-CCB14	6527	262430	48918	12240
00:58	ZZZZZZ	6543	259620	49446	11741
01:02	ZZZZZZ	6219	245550	48974	10747
01:07	ZZZZZZ	6474	256150	49300	11660
01:11	ZZZZZZ	6040	237690	47495	10695
01:16	ZZZZZZ	6495	257210	48933	11683
01:20	ZZZZZZ	5510	226510	46047	11178
01:25	ZZZZZZ	6160	245080	48262	10813
01:29	ZZZZZZ	6413	250700	49101	11245
01:33	ZZZZZZ	5855	233930	47070	10582
01:38	MA44470-CCV15	6244	244140	47644	10977
01:43	MA44470-CCB15	6544	259870	48562	12262
01:47	ZZZZZZ	6255	244730	49211	10900
01:52	ZZZZZZ	6104	230270	42264	10685
01:56	ZZZZZZ	5981	226830	41860	10356

INTERNAL STANDARD SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44470
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
02:00	ZZZZZZ	6451	241380	43486	11090
02:05	ZZZZZZ	6330	253400	42343	11821
02:09	ZZZZZZ	6482	244100	43251	12269
02:13	ZZZZZZ	5699	224760	41009	11073
02:18	MP7248-B1	6163	237440	41651	10977
02:22	MP7248-MB1	6407	247410	42099	11975
02:27	MA44470-CCV16	6148	230750	40976	10795
02:31	MA44470-CCB16	6414	244130	41166	11967
02:36	MP7248-S1	6170	230240	41396	10927
02:40	MP7248-S2	6121	232200	41324	10858
02:44	JC66348-6A	6310	242930	41246	11619
02:49	MP7248-SD1	6325	244600	41877	11787
02:53	ZZZZZZ	6362	243770	42090	11529
02:57	ZZZZZZ	6333	242620	42358	11442
03:02	ZZZZZZ	6290	239490	42149	11521
03:06	ZZZZZZ	6318	240150	42122	11516
03:10	ZZZZZZ	6408	242400	42048	11784
03:15	ZZZZZZ	6405	245160	42231	11747
03:19	MA44470-CCV17	6157	231850	41181	10764
03:23	MA44470-CCB17	6449	248580	41827	12002
03:28	MA44470-CRI3	6318	238200	41087	11608
03:32	MA44470-CRID3	6376	242610	41342	11820
03:37	MA44470-CCV18	6127	231630	40833	10726
03:41	MA44470-CCB18	6477	246150	41433	12036

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP
QC Limits: result < RL

Date Analyzed: 05/21/18
Run ID: MA44470

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			14:09 ICB1		14:18 CCB1		15:11 CCB2		15:59 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	2.60	<500	2.20	<500	5.30	<500	2.80	<500
Antimony	20	2.3	0.300	<20	1.10	<20	0.800	<20	0.900	<20
Arsenic	20	2.1	0.300	<20	0.200	<20	0.900	<20	1.70	<20
Barium	200	.3	0.100	<200	0.100	<200	0.100	<200	0.100	<200
Beryllium	2.0	.1	0.00	<2.0	0.00	<2.0	0.100	<2.0	0.00	<2.0
Bismuth	20	2.9								
Boron	100	1.2								
Cadmium	5.0	.3	0.00	<5.0	0.00	<5.0	0.00	<5.0	0.100	<5.0
Calcium	2000	4.7	-0.900	<5000	-0.600	<5000	2.90	<5000	0.500	<5000
Chromium	10	.4	0.100	<10	0.00	<10	0.100	<10	0.00	<10
Cobalt	50	.4	0.200	<50	-0.100	<50	0.100	<50	0.200	<50
Copper	10	1.1	0.100	<25	0.00	<25	0.00	<25	0.300	<25
Iron	100	2.2	0.00	<500	-1.30	<500	0.700	<500	0.600	<500
Lead	20	1.9	1.20	<20	1.50	<20	0.900	<20	0.100	<20
Lithium	50	1.6								
Magnesium	2000	18	8.50	<5000	-0.300	<5000	7.00	<5000	5.00	<5000
Manganese	15	.5	0.00	<15	0.00	<15	0.00	<15	0.00	<15
Molybdenum	20	.5								
Nickel	10	.5	-0.200	<40	-0.400	<40	-0.200	<40	-0.400	<40
Phosphorus	100	2.6								
Potassium	2000	56	16.7	<10000	27.9	<10000	17.3	<10000	24.6	<10000
Selenium	20	3.3	1.00	<20	0.300	<20	-1.30	<20	0.300	<20
Silicon	200	2								
Silver	5.0	.4	-0.200	<5.0	0.00	<5.0	0.100	<5.0	-0.400	<5.0
Sodium	2000	13	7.90	<10000	9.70	<10000	13.3	<10000	9.50	<10000
Strontium	10	.1								
Sulfur	50	5	anr							
Thallium	10	1.9	0.400	<10	-0.100	<10	0.300	<10	0.500	<10
Tin	10	1.1								
Titanium	10	.3								
Tungsten	50	1.7								
Vanadium	50	.4	0.00	<50	0.00	<50	0.100	<50	-0.200	<50
Zinc	20	.2	-0.100	<50	0.00	<50	-0.100	<50	0.00	<50

14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44470 Units: ug/l

Time: Sample ID:			14:09 ICB1		14:18 CCB1		15:11 CCB2		15:59 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested



14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP
QC Limits: result < RL

Date Analyzed: 05/21/18
Run ID: MA44470

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			16:48 CCB4		17:42 CCB5		18:30 CCB6		19:18 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	-4.90	<500	-0.900	<500	0.300	<500	-2.60	<500
Antimony	20	2.3	0.700	<20	0.700	<20	0.900	<20	0.200	<20
Arsenic	20	2.1	0.900	<20	0.00	<20	0.500	<20	0.00	<20
Barium	200	.3	0.00	<200	0.00	<200	0.100	<200	0.00	<200
Beryllium	2.0	.1	0.00	<2.0	0.00	<2.0	0.00	<2.0	0.00	<2.0
Bismuth	20	2.9								
Boron	100	1.2								
Cadmium	5.0	.3	0.00	<5.0	0.00	<5.0	0.100	<5.0	0.00	<5.0
Calcium	2000	4.7	-1.80	<5000	14.3	<5000	15.0	<5000	12.8	<5000
Chromium	10	.4	0.100	<10	0.00	<10	0.200	<10	0.200	<10
Cobalt	50	.4	0.200	<50	0.00	<50	0.200	<50	0.100	<50
Copper	10	1.1	0.100	<25	0.100	<25	0.100	<25	-0.200	<25
Iron	100	2.2	0.400	<500	1.90	<500	2.60	<500	1.70	<500
Lead	20	1.9	-0.500	<20	1.20	<20	0.400	<20	0.600	<20
Lithium	50	1.6								
Magnesium	2000	18	1.60	<5000	-3.00	<5000	8.70	<5000	1.60	<5000
Manganese	15	.5	0.00	<15	0.100	<15	0.100	<15	0.100	<15
Molybdenum	20	.5								
Nickel	10	.5	-0.100	<40	0.00	<40	-0.300	<40	0.100	<40
Phosphorus	100	2.6								
Potassium	2000	56	19.2	<10000	13.9	<10000	48.3	<10000	22.9	<10000
Selenium	20	3.3	1.20	<20	1.40	<20	-1.40	<20	-0.300	<20
Silicon	200	2								
Silver	5.0	.4	-0.600	<5.0	-0.400	<5.0	0.00	<5.0	-0.300	<5.0
Sodium	2000	13	10.4	<10000	7.70	<10000	9.60	<10000	7.00	<10000
Strontium	10	.1								
Sulfur	50	5	anr							
Thallium	10	1.9	0.00	<10	0.800	<10	0.700	<10	-0.700	<10
Tin	10	1.1								
Titanium	10	.3								
Tungsten	50	1.7								
Vanadium	50	.4	0.00	<50	0.00	<50	-0.100	<50	0.00	<50
Zinc	20	.2	0.00	<50	2.30	<50	2.30	<50	2.30	<50

14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44470 Units: ug/l

Time:		16:48		17:42		18:30		19:18		
Sample ID:		CCB4		CCB5		CCB6		CCB7		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested



14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP
QC Limits: result < RL

Date Analyzed: 05/21/18
Run ID: MA44470

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			20:07 CCB8		20:55 CCB9		21:21 CCB10		22:23 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	0.700	<500	-3.00	<500	-4.60	<500	-1.90	<500
Antimony	20	2.3	0.500	<20	0.300	<20	0.100	<20	0.700	<20
Arsenic	20	2.1	-0.400	<20	0.200	<20	-0.300	<20	0.400	<20
Barium	200	.3	-0.100	<200	0.00	<200	-0.100	<200	-0.100	<200
Beryllium	2.0	.1	0.00	<2.0	0.00	<2.0	0.00	<2.0	0.00	<2.0
Bismuth	20	2.9								
Boron	100	1.2								
Cadmium	5.0	.3	0.00	<5.0	-0.100	<5.0	0.00	<5.0	-0.100	<5.0
Calcium	2000	4.7	12.7	<5000	-6.10	<5000	-5.40	<5000	-8.80	<5000
Chromium	10	.4	0.200	<10	0.100	<10	-0.100	<10	0.00	<10
Cobalt	50	.4	0.00	<50	-0.100	<50	0.00	<50	0.00	<50
Copper	10	1.1	0.100	<25	0.00	<25	-0.100	<25	-0.200	<25
Iron	100	2.2	3.00	<500	0.200	<500	0.400	<500	-0.400	<500
Lead	20	1.9	0.500	<20	0.700	<20	0.500	<20	0.800	<20
Lithium	50	1.6								
Magnesium	2000	18	5.40	<5000	8.30	<5000	13.4	<5000	6.80	<5000
Manganese	15	.5	0.100	<15	0.00	<15	-0.100	<15	0.00	<15
Molybdenum	20	.5								
Nickel	10	.5	-0.300	<40	-0.400	<40	-0.200	<40	-0.300	<40
Phosphorus	100	2.6								
Potassium	2000	56	33.6	<10000	46.8	<10000	7.90	<10000	24.0	<10000
Selenium	20	3.3	0.00	<20	1.70	<20	-0.900	<20	0.00	<20
Silicon	200	2								
Silver	5.0	.4	-0.100	<5.0	-0.200	<5.0	0.100	<5.0	-0.400	<5.0
Sodium	2000	13	12.1	<10000	6.70	<10000	2.60	<10000	1.80	<10000
Strontium	10	.1								
Sulfur	50	5	anr							
Thallium	10	1.9	0.700	<10	0.100	<10	0.700	<10	0.00	<10
Tin	10	1.1								
Titanium	10	.3								
Tungsten	50	1.7								
Vanadium	50	.4	-0.200	<50	-0.100	<50	-0.300	<50	-0.200	<50
Zinc	20	.2	2.30	<50	-0.500	<50	-0.400	<50	-0.500	<50

14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44470 Units: ug/l

Time: Sample ID:			20:07 CCB8		20:55 CCB9		21:21 CCB10		22:23 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested



14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP
QC Limits: result < RL

Date Analyzed: 05/21/18
Run ID: MA44470

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			23:11 CCB12		00:04 CCB13		00:53 CCB14		01:43 CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	-7.00	<500	-2.10	<500	-4.90	<500	-5.00	<500
Antimony	20	2.3	0.700	<20	0.200	<20	0.100	<20	1.30	<20
Arsenic	20	2.1	0.600	<20	-0.700	<20	0.300	<20	-0.200	<20
Barium	200	.3	-0.300	<200	-0.100	<200	-0.300	<200	-0.200	<200
Beryllium	2.0	.1	-0.100	<2.0	0.00	<2.0	0.00	<2.0	-0.100	<2.0
Bismuth	20	2.9								
Boron	100	1.2								
Cadmium	5.0	.3	-0.200	<5.0	0.00	<5.0	-0.100	<5.0	0.00	<5.0
Calcium	2000	4.7	-8.60	<5000	-10.6	<5000	-10.2	<5000	-14.9	<5000
Chromium	10	.4	-0.200	<10	0.100	<10	0.00	<10	0.100	<10
Cobalt	50	.4	0.00	<50	-0.100	<50	0.100	<50	0.00	<50
Copper	10	1.1	0.400	<25	-0.300	<25	-0.600	<25	-0.500	<25
Iron	100	2.2	-1.00	<500	0.300	<500	-1.10	<500	-0.300	<500
Lead	20	1.9	0.500	<20	0.200	<20	0.00	<20	0.00	<20
Lithium	50	1.6								
Magnesium	2000	18	-2.70	<5000	-1.90	<5000	-1.40	<5000	0.800	<5000
Manganese	15	.5	0.00	<15	0.00	<15	0.00	<15	0.00	<15
Molybdenum	20	.5								
Nickel	10	.5	-0.300	<40	-0.200	<40	0.00	<40	-0.500	<40
Phosphorus	100	2.6								
Potassium	2000	56	24.3	<10000	63.6	<10000	49.8	<10000	47.8	<10000
Selenium	20	3.3	0.500	<20	0.200	<20	-2.00	<20	-1.70	<20
Silicon	200	2								
Silver	5.0	.4	-0.700	<5.0	-0.900	<5.0	-1.20	<5.0	-1.30	<5.0
Sodium	2000	13	5.70	<10000	6.20	<10000	6.70	<10000	4.00	<10000
Strontium	10	.1								
Sulfur	50	5	anr							
Thallium	10	1.9	-0.700	<10	0.800	<10	1.20	<10	0.00	<10
Tin	10	1.1								
Titanium	10	.3								
Tungsten	50	1.7								
Vanadium	50	.4	-0.200	<50	0.100	<50	-0.100	<50	-0.300	<50
Zinc	20	.2	-0.500	<50	-0.500	<50	-0.400	<50	-0.500	<50

14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44470 Units: ug/l

Time:		23:11		00:04		00:53		01:43		
Sample ID:		CCB12		CCB13		CCB14		CCB15		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested



14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP
QC Limits: result < RL

Date Analyzed: 05/21/18
Run ID: MA44470

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:	RL	IDL	02:31 CCB16 raw	final	03:23 CCB17 raw	final	03:41 CCB18 raw	final
Metal								
Aluminum	200	14	3.00	<200	0.00	<200	-0.800	<200
Antimony	20	2.3	0.800	<100	1.50	<100	1.70	<100
Arsenic	20	2.1	1.20	<100	0.300	<100	1.30	<100
Barium	200	.3	0.200	<200	0.200	<200	0.200	<200
Beryllium	2.0	.1	-0.100	<5.0	0.00	<5.0	-0.100	<5.0
Bismuth	20	2.9						
Boron	100	1.2						
Cadmium	5.0	.3	-0.100	<5.0	0.00	<5.0	0.00	<5.0
Calcium	2000	4.7	-10.6	<2000	-9.90	<2000	-6.60	<2000
Chromium	10	.4	0.100	<10	0.100	<10	-0.100	<10
Cobalt	50	.4	-0.100	<50	0.00	<50	0.100	<50
Copper	10	1.1	0.300	<10	0.400	<10	0.600	<10
Iron	100	2.2	-0.400	<100	-1.70	<100	0.100	<100
Lead	20	1.9	1.10	<100	1.40	<100	1.20	<100
Lithium	50	1.6						
Magnesium	2000	18	2.80	<2000	4.90	<2000	10.2	<2000
Manganese	15	.5	0.00	<15	0.00	<15	0.00	<15
Molybdenum	20	.5						
Nickel	10	.5	-0.200	<10	-0.300	<10	-0.100	<10
Phosphorus	100	2.6						
Potassium	2000	56	42.7	<2000	27.3	<2000	34.4	<2000
Selenium	20	3.3	0.600	<100	1.10	<100	0.00	<100
Silicon	200	2						
Silver	5.0	.4	-1.50	<10	-0.200	<10	-0.200	<10
Sodium	2000	13	-11.9	<2000	-3.60	<2000	-5.20	<2000
Strontium	10	.1						
Sulfur	50	5	anr					
Thallium	10	1.9	-0.100	<100	0.800	<100	0.300	<100
Tin	10	1.1						
Titanium	10	.3						
Tungsten	50	1.7						
Vanadium	50	.4	0.00	<50	-0.200	<50	0.00	<50
Zinc	20	.2	-0.400	<20	-0.400	<20	-0.500	<20

14.3.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

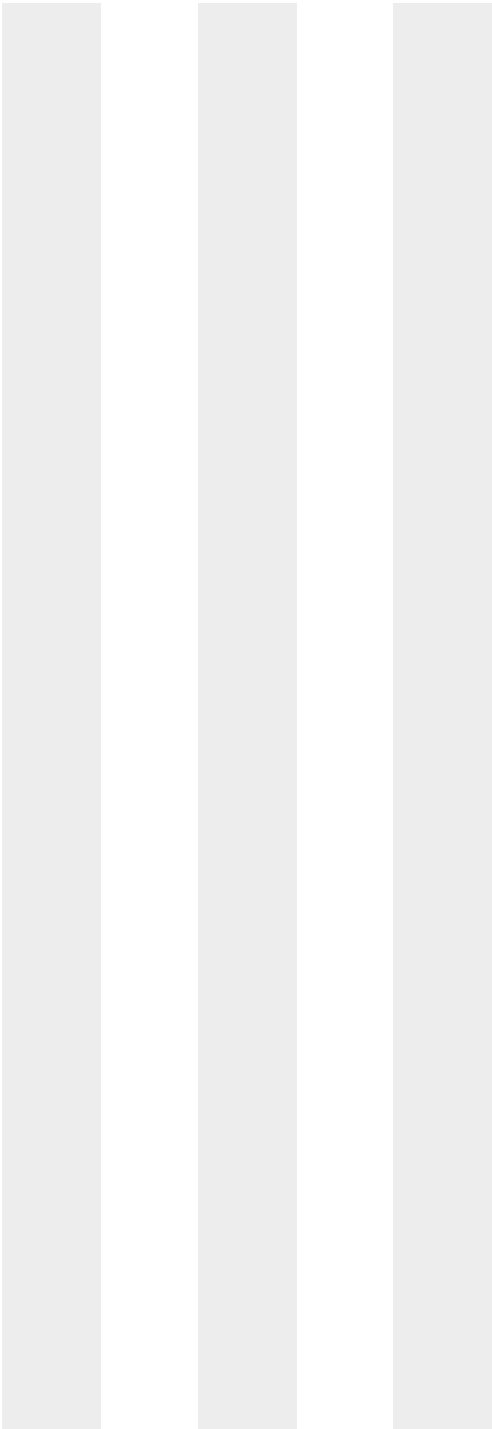
Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44470 Units: ug/l

Time:		02:31		03:23		03:41		
Sample ID:		CCB16		CCB17		CCB18		
Metal	RL	IDL	raw	final	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested



14.3.2
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44470 Units: ug/l

Time: Sample ID:	ICV	14:05 ICV1		CCV	14:14 CCV1		CCV	15:07 CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40700	101.8	40000	39700	99.3	40000	39900	99.8
Antimony	2000	2030	101.5	2000	2010	100.5	2000	2010	100.5
Arsenic	2000	2060	103.0	2000	2000	100.0	2000	2010	100.5
Barium	2000	2060	103.0	2000	2050	102.5	2000	2060	103.0
Beryllium	2000	2120	106.0	2000	2070	103.5	2000	2080	104.0
Bismuth									
Boron									
Cadmium	2000	1980	99.0	2000	1990	99.5	2000	2000	100.0
Calcium	40000	40300	100.8	40000	40300	100.8	40000	40500	101.3
Chromium	2000	1970	98.5	2000	2010	100.5	2000	1950	97.5
Cobalt	2000	2030	101.5	2000	2010	100.5	2000	2010	100.5
Copper	2000	1960	98.0	2000	1990	99.5	2000	1930	96.5
Iron	40000	39800	99.5	40000	40300	100.8	40000	40600	101.5
Lead	2000	2020	101.0	2000	2040	102.0	2000	2040	102.0
Lithium									
Magnesium	40000	40200	100.5	40000	40000	100.0	40000	40100	100.3
Manganese	2000	2050	102.5	2000	2030	101.5	2000	2000	100.0
Molybdenum									
Nickel	2000	1990	99.5	2000	2020	101.0	2000	2030	101.5
Phosphorus									
Potassium	40000	40400	101.0	40000	39800	99.5	40000	40300	100.8
Selenium	2000	2070	103.5	2000	2000	100.0	2000	2000	100.0
Silicon									
Silver	250	255	102.0	250	250	100.0	250	242	96.8
Sodium	40000	42000	105.0	40000	40200	100.5	40000	40500	101.3
Strontium									
Sulfur	anr								
Thallium	2000	2040	102.0	2000	2070	103.5	2000	2060	103.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	2020	101.0	2000	2010	100.5	2000	1950	97.5
Zinc	2000	2010	100.5	2000	2030	101.5	2000	2040	102.0

14.3.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44470 Units: ug/l

Time:		14:05			14:14			15:07		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44470 Units: ug/l

Time: Sample ID:	CCV	15:54 CCV3 Results	% Rec	CCV	16:43 CCV4 Results	% Rec	CCV	17:35 CCV5 Results	% Rec
Metal	True			True			True		
Aluminum	40000	40600	101.5	40000	40000	100.0	40000	40300	100.8
Antimony	2000	2050	102.5	2000	2030	101.5	2000	2040	102.0
Arsenic	2000	2040	102.0	2000	2020	101.0	2000	2030	101.5
Barium	2000	2100	105.0	2000	2080	104.0	2000	2100	105.0
Beryllium	2000	2100	105.0	2000	2070	103.5	2000	2080	104.0
Bismuth									
Boron									
Cadmium	2000	2030	101.5	2000	2010	100.5	2000	2010	100.5
Calcium	40000	41100	102.8	40000	40500	101.3	40000	40700	101.8
Chromium	2000	2030	101.5	2000	2080	104.0	2000	2060	103.0
Cobalt	2000	2040	102.0	2000	2020	101.0	2000	2030	101.5
Copper	2000	2010	100.5	2000	2060	103.0	2000	2060	103.0
Iron	40000	41000	102.5	40000	40300	100.8	40000	40500	101.3
Lead	2000	2060	103.0	2000	2050	102.5	2000	2040	102.0
Lithium									
Magnesium	40000	40800	102.0	40000	39900	99.8	40000	40000	100.0
Manganese	2000	2060	103.0	2000	2160	108.0	2000	2100	105.0
Molybdenum									
Nickel	2000	2050	102.5	2000	2030	101.5	2000	2040	102.0
Phosphorus									
Potassium	40000	41000	102.5	40000	40800	102.0	40000	41100	102.8
Selenium	2000	2040	102.0	2000	2020	101.0	2000	2040	102.0
Silicon									
Silver	250	252	100.8	250	256	102.4	250	255	102.0
Sodium	40000	41000	102.5	40000	40700	101.8	40000	41000	102.5
Strontium									
Sulfur	anr								
Thallium	2000	2080	104.0	2000	2060	103.0	2000	2060	103.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	2040	102.0	2000	2080	104.0	2000	2080	104.0
Zinc	2000	2070	103.5	2000	2050	102.5	2000	2050	102.5

14.3.3
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44470 Units: ug/l

Time:		15:54			16:43			17:35		
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44470 Units: ug/l

Time: Sample ID:	CCV	18:26 CCV6		CCV	19:14 CCV7		CCV	20:03 CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39800	99.5	40000	40300	100.8	40000	39300	98.3
Antimony	2000	2040	102.0	2000	2060	103.0	2000	2000	100.0
Arsenic	2000	2040	102.0	2000	2050	102.5	2000	1990	99.5
Barium	2000	2070	103.5	2000	2100	105.0	2000	2060	103.0
Beryllium	2000	2060	103.0	2000	2090	104.5	2000	2030	101.5
Bismuth									
Boron									
Cadmium	2000	2020	101.0	2000	2040	102.0	2000	1980	99.0
Calcium	40000	40300	100.8	40000	40800	102.0	40000	39400	98.5
Chromium	2000	2010	100.5	2000	2060	103.0	2000	2010	100.5
Cobalt	2000	2040	102.0	2000	2060	103.0	2000	1990	99.5
Copper	2000	2000	100.0	2000	2050	102.5	2000	2020	101.0
Iron	40000	40100	100.3	40000	40500	101.3	40000	39500	98.8
Lead	2000	2050	102.5	2000	2070	103.5	2000	2000	100.0
Lithium									
Magnesium	40000	39700	99.3	40000	40100	100.3	40000	38800	97.0
Manganese	2000	2050	102.5	2000	2100	105.0	2000	2040	102.0
Molybdenum									
Nickel	2000	2040	102.0	2000	2060	103.0	2000	2000	100.0
Phosphorus									
Potassium	40000	40700	101.8	40000	41500	103.8	40000	40500	101.3
Selenium	2000	2030	101.5	2000	2050	102.5	2000	1990	99.5
Silicon									
Silver	250	248	99.2	250	254	101.6	250	251	100.4
Sodium	40000	40600	101.5	40000	41300	103.3	40000	40500	101.3
Strontium									
Sulfur	anr								
Thallium	2000	2070	103.5	2000	2080	104.0	2000	2030	101.5
Tin									
Titanium									
Tungsten									
Vanadium	2000	2020	101.0	2000	2080	104.0	2000	2020	101.0
Zinc	2000	2070	103.5	2000	2090	104.5	2000	1990	99.5

14.3.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44470 Units: ug/l

Time:		18:26			19:14			20:03		
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44470 Units: ug/l

Time: Sample ID:	CCV	20:51 CCV9		CCV	21:17 CCV10		CCV	22:19 CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39600	99.0	40000	39400	98.5	40000	39100	97.8
Antimony	2000	2050	102.5	2000	2030	101.5	2000	2020	101.0
Arsenic	2000	2030	101.5	2000	2010	100.5	2000	2010	100.5
Barium	2000	2080	104.0	2000	2070	103.5	2000	2060	103.0
Beryllium	2000	2050	102.5	2000	2040	102.0	2000	2030	101.5
Bismuth									
Boron									
Cadmium	2000	2020	101.0	2000	2000	100.0	2000	1990	99.5
Calcium	40000	39800	99.5	40000	39500	98.8	40000	39500	98.8
Chromium	2000	2040	102.0	2000	2030	101.5	2000	2020	101.0
Cobalt	2000	2040	102.0	2000	2010	100.5	2000	2010	100.5
Copper	2000	2060	103.0	2000	2040	102.0	2000	2030	101.5
Iron	40000	39700	99.3	40000	39700	99.3	40000	39300	98.3
Lead	2000	2040	102.0	2000	2020	101.0	2000	2020	101.0
Lithium									
Magnesium	40000	39000	97.5	40000	38800	97.0	40000	38700	96.8
Manganese	2000	2090	104.5	2000	2060	103.0	2000	2070	103.5
Molybdenum									
Nickel	2000	2040	102.0	2000	2020	101.0	2000	2010	100.5
Phosphorus									
Potassium	40000	40800	102.0	40000	40700	101.8	40000	40700	101.8
Selenium	2000	2030	101.5	2000	2010	100.5	2000	2000	100.0
Silicon									
Silver	250	254	101.6	250	252	100.8	250	251	100.4
Sodium	40000	40800	102.0	40000	40500	101.3	40000	40100	100.3
Strontium									
Sulfur	anr								
Thallium	2000	2070	103.5	2000	2050	102.5	2000	2030	101.5
Tin									
Titanium									
Tungsten									
Vanadium	2000	2060	103.0	2000	2040	102.0	2000	2040	102.0
Zinc	2000	2040	102.0	2000	2010	100.5	2000	2020	101.0

14.3.3
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44470 Units: ug/l

Time:		20:51		21:17		22:19	
Sample ID:	CCV	CCV9	CCV	CCV10	CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44470 Units: ug/l

Time: Sample ID:	CCV	23:07 CCV12		CCV	00:00 CCV13		CCV	00:49 CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39600	99.0	40000	39100	97.8	40000	38700	96.8
Antimony	2000	2070	103.5	2000	2050	102.5	2000	2050	102.5
Arsenic	2000	2040	102.0	2000	2040	102.0	2000	2040	102.0
Barium	2000	2110	105.5	2000	2070	103.5	2000	2050	102.5
Beryllium	2000	2060	103.0	2000	2040	102.0	2000	2020	101.0
Bismuth									
Boron									
Cadmium	2000	2020	101.0	2000	2010	100.5	2000	2010	100.5
Calcium	40000	39300	98.3	40000	39300	98.3	40000	38900	97.3
Chromium	2000	1950	97.5	2000	1990	99.5	2000	2000	100.0
Cobalt	2000	2020	101.0	2000	2030	101.5	2000	2040	102.0
Copper	2000	2010	100.5	2000	2030	101.5	2000	2050	102.5
Iron	40000	39600	99.0	40000	39000	97.5	40000	38400	96.0
Lead	2000	2010	100.5	2000	2030	101.5	2000	2020	101.0
Lithium									
Magnesium	40000	38200	95.5	40000	38300	95.8	40000	37700	94.3
Manganese	2000	2010	100.5	2000	2060	103.0	2000	2080	104.0
Molybdenum									
Nickel	2000	2020	101.0	2000	2020	101.0	2000	2010	100.5
Phosphorus									
Potassium	40000	40900	102.3	40000	40400	101.0	40000	39800	99.5
Selenium	2000	2050	102.5	2000	2040	102.0	2000	2040	102.0
Silicon									
Silver	250	246	98.4	250	248	99.2	250	249	99.6
Sodium	40000	40600	101.5	40000	40000	100.0	40000	39200	98.0
Strontium									
Sulfur	anr								
Thallium	2000	2040	102.0	2000	2010	100.5	2000	2000	100.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	1990	99.5	2000	2050	102.5	2000	2070	103.5
Zinc	2000	2000	100.0	2000	2040	102.0	2000	2040	102.0

14.3.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44470 Units: ug/l

Time:	23:07	00:00	00:49
Sample ID:	CCV12	CCV13	CCV14
Metal	True	True	True
Results	% Rec	Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44470 Units: ug/l

Time: Sample ID:	CCV	01:38 CCV15		CCV	02:27 CCV16		CCV	03:19 CCV17	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	39000	97.5	40000	39800	99.5	40000	39800	99.5
Antimony	2000	2040	102.0	2000	2020	101.0	2000	2020	101.0
Arsenic	2000	2040	102.0	2000	2020	101.0	2000	2010	100.5
Barium	2000	2060	103.0	2000	2050	102.5	2000	2060	103.0
Beryllium	2000	2020	101.0	2000	2070	103.5	2000	2070	103.5
Bismuth									
Boron									
Cadmium	2000	2000	100.0	2000	2020	101.0	2000	2020	101.0
Calcium	40000	39200	98.0	40000	40900	102.3	40000	40800	102.0
Chromium	2000	2040	102.0	2000	2110	105.5	2000	2100	105.0
Cobalt	2000	2050	102.5	2000	2040	102.0	2000	2040	102.0
Copper	2000	2080	104.0	2000	2090	104.5	2000	2080	104.0
Iron	40000	38300	95.8	40000	39800	99.5	40000	40100	100.3
Lead	2000	2030	101.5	2000	2090	104.5	2000	2090	104.5
Lithium									
Magnesium	40000	38000	95.0	40000	40600	101.5	40000	40500	101.3
Manganese	2000	2110	105.5	2000	2170	108.5	2000	2170	108.5
Molybdenum									
Nickel	2000	2010	100.5	2000	2030	101.5	2000	2050	102.5
Phosphorus									
Potassium	40000	40100	100.3	40000	41000	102.5	40000	41000	102.5
Selenium	2000	2040	102.0	2000	2010	100.5	2000	2010	100.5
Silicon									
Silver	250	252	100.8	250	258	103.2	250	258	103.2
Sodium	40000	39200	98.0	40000	40100	100.3	40000	40400	101.0
Strontium									
Sulfur	anr								
Thallium	2000	1970	98.5	2000	2050	102.5	2000	2100	105.0
Tin									
Titanium									
Tungsten									
Vanadium	2000	2110	105.5	2000	2130	106.5	2000	2100	105.0
Zinc	2000	2060	103.0	2000	2130	106.5	2000	2110	105.5

14.3.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44470 Units: ug/l

Time:		01:38		02:27		03:19			
Sample ID:	CCV	CCV15		CCV	CCV16		CCV	CCV17	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44470 Units: ug/l

Time: Sample ID: CCV	03:37 CCV18		
Metal	True	Results	% Rec
Aluminum	40000	40000	100.0
Antimony	2000	2020	101.0
Arsenic	2000	2020	101.0
Barium	2000	2060	103.0
Beryllium	2000	2080	104.0
Bismuth			
Boron			
Cadmium	2000	2040	102.0
Calcium	40000	40800	102.0
Chromium	2000	2100	105.0
Cobalt	2000	2040	102.0
Copper	2000	2070	103.5
Iron	40000	40500	101.3
Lead	2000	2100	105.0
Lithium			
Magnesium	40000	40500	101.3
Manganese	2000	2150	107.5
Molybdenum			
Nickel	2000	2060	103.0
Phosphorus			
Potassium	40000	41000	102.5
Selenium	2000	2010	100.5
Silicon			
Silver	250	259	103.6
Sodium	40000	40700	101.8
Strontium			
Sulfur	anr		
Thallium	2000	2130	106.5
Tin			
Titanium			
Tungsten			
Vanadium	2000	2100	105.0
Zinc	2000	2100	105.0

14.3.3
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44470 Units: ug/l

Time:	03:37
Sample ID:	CCV
Metal	True
Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP
 QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/21/18
 Run ID: MA44470

Methods: SW846 6010C
 Units: ug/l

Time: Sample ID:	HSTD	14:40 HSTD1	% Rec	HSTD	14:45 HSTD2	% Rec
Metal	True	Results		True	Results	
Aluminum				300000	316000	105.3
Antimony	5000	5000	100.0			
Arsenic	5000	4910	98.2			
Barium	5000	5170	103.4			
Beryllium	5000	5190	103.8			
Bismuth						
Boron						
Cadmium	5000	4930	98.6			
Calcium				150000	152000	101.3
Chromium	5000	5270	105.4			
Cobalt	5000	4990	99.8			
Copper	5000	5160	103.2			
Iron				150000	154000	102.7
Lead	5000	5050	101.0			
Lithium						
Magnesium				300000	328000	109.3
Manganese	5000	5250	105.0			
Molybdenum						
Nickel	5000	4980	99.6			
Phosphorus						
Potassium				150000	157000	104.7
Selenium	5000	4920	98.4			
Silicon						
Silver	625	626	100.2			
Sodium				150000	153000	102.0
Strontium						
Sulfur	anr					
Thallium	5000	5210	104.2			
Tin						
Titanium						
Tungsten						
Vanadium	5000	5200	104.0			
Zinc	5000	5160	103.2			

14.3.4
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HIGH STANDARD CHECK SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44470 Units: ug/l

Time:		14:40		14:45	
Sample ID:		HSTD1		HSTD2	
Metal	HSTD	Results	% Rec	Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44470 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	14:23 CRI1	% Rec	14:27 CRID1	% Rec	20:59 CRI2	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	215	107.5	109	109.0	208	104.0
Antimony	6.0	20	3.0	7.10	118.3	-0.900U	0.0* (a)	5.90	98.3
Arsenic	8.0	20	3.0	9.20	115.0	3.20	106.7	9.40	117.5
Barium	200		4.0	214	107.0	4.30	107.5	215	107.5
Beryllium	2.0		1.0	2.10	105.0	1.00	100.0	2.00	100.0
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	3.00	100.0	0.900	90.0	3.00	100.0
Calcium	5000	2000	1000	5400	108.0	1090	109.0	5230	104.6
Chromium	10		2.0	10.6	106.0	1.90	95.0	10.5	105.0
Cobalt	50		3.0	50.1	100.2	2.80	93.3	50.6	101.2
Copper	10		2.0	10.0	100.0	0.200U	0.0* (a)	9.80	98.0
Iron	100	500		110	110.0			107	107.0
Lead	3.0	20	2.5	2.70	90.0	1.30U	0.0* (a)	3.40	113.3
Lithium	50								
Magnesium	5000	2000	100	5430	108.6	113	113.0	5160	103.2
Manganese	15		3.0	16.6	110.7	3.30	110.0	16.7	111.3
Molybdenum	20								
Nickel	10		4.0	10.0	100.0	4.00	100.0	10.0	100.0
Phosphorus	50								
Potassium	5000		2000	5340	106.8	2150	107.5	5400	108.0
Selenium	10	20	5.0	9.50	95.0	5.20	104.0	10.4	104.0
Silicon	200								
Silver	5.0		2.0	4.00	80.0	-0.200U	0.0* (a)	3.90	78.0
Sodium	5000		1000	5370	107.4	1090	109.0	5360	107.2
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	9.90	99.0	2.30	115.0	7.90	79.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	52.2	104.4	1.80	90.0	52.5	105.0
Zinc	20		10	21.5	107.5	10.5	105.0	21.2	106.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44470 Units: ug/l

Time:					14:23		14:27		20:59	
Sample ID:	CRI	CRIA	CRID	CRI1			CRID1		CRID2	
Metal	True	True	True	Results	% Rec		Results	% Rec	Results	% Rec

Zirconium 10

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element at this RL in the area bracketed by this QC.

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44470 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	21:04 CRID2	% Rec	03:28 CRI3	% Rec	03:32 CRID3	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	100	100.0	219	109.5	110	110.0
Antimony	6.0	20	3.0	0.200U	0.0* (a)	7.30	121.7	1.40U	0.0* (a)
Arsenic	8.0	20	3.0	2.80	93.3	9.30	116.3	3.60	120.0
Barium	200		4.0	4.30	107.5	214	107.0	4.70	117.5
Beryllium	2.0		1.0	1.00	100.0	2.10	105.0	1.00	100.0
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	1.00	100.0	3.20	106.7	1.00	100.0
Calcium	5000	2000	1000	1070	107.0	5390	107.8	1090	109.0
Chromium	10		2.0	2.30	115.0	11.0	110.0	2.30	115.0
Cobalt	50		3.0	3.10	103.3	50.9	101.8	3.10	103.3
Copper	10		2.0	-0.200U	0.0* (a)	11.4	114.0	0.600U	0.0* (a)
Iron	100	500				109	109.0		
Lead	3.0	20	2.5	0.400U	0.0* (a)	3.80	126.7	0.400U	0.0* (a)
Lithium	50								
Magnesium	5000	2000	100	107	107.0	5380	107.6	109	109.0
Manganese	15		3.0	3.30	110.0	17.6	117.3	3.50	116.7
Molybdenum	20								
Nickel	10		4.0	3.70	92.5	10.4	104.0	4.20	105.0
Phosphorus	50								
Potassium	5000		2000	2200	110.0	5440	108.8	2200	110.0
Selenium	10	20	5.0	6.70	134.0* (a)	10.1	101.0	6.20	124.0
Silicon	200								
Silver	5.0		2.0	-0.100U	0.0* (a)	3.90	78.0	-0.300U	0.0* (a)
Sodium	5000		1000	1100	110.0	5370	107.4	1090	109.0
Strontium	10								
Sulfur	50								
Thallium	10		2.0	2.40	120.0	8.60	86.0	2.30	115.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	2.20	110.0	54.8	109.6	2.50	125.0
Zinc	20		10	10.5	105.0	22.0	110.0	11.2	112.0

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44470 Units: ug/l

Time:					21:04		03:28		03:32	
Sample ID:	CRI	CRIA	CRID	CRID2	Results	% Rec	CRI3	Results	% Rec	CRID3
Metal	True	True	True	Results			Results			Results

Zirconium 10

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element at this RL in the area bracketed by this QC.

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44470 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	14:31 ICSA1 Results	% Rec	14:36 ICSAB1 Results	% Rec	21:08 ICSA2 Results	% Rec	21:13 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	519000	103.8	528000	105.6	509000	101.8	530000	106.0
Antimony		1000	-0.200		1070	107.0	0.700		1080	108.0
Arsenic		1000	0.400		1110	111.0	2.30		1110	111.0
Barium		500	3.60		540	108.0	3.40		544	108.8
Beryllium		500	1.60		523	104.6	1.40		513	102.6
Bismuth		500	5.70		534	106.8	5.40		539	107.8
Boron		500	2.10		521	104.2	1.60		521	104.2
Cadmium		1000	2.70		1070	107.0	2.20		1070	107.0
Calcium	400000	400000	398000	99.5	404000	101.0	389000	97.3	397000	99.3
Chromium		500	2.20		502	100.4	2.00		497	99.4
Cobalt		500	1.80		499	99.8	1.50		499	99.8
Copper		500	3.60		528	105.6	3.70		537	107.4
Iron	200000	200000	196000	98.0	204000	102.0	193000	96.5	198000	99.0
Lead		1000	4.90		998	99.8	3.50		987	98.7
Lithium		500	16.4		552	110.4	17.6		558	111.6
Magnesium	500000	500000	531000	106.2	538000	107.6	514000	102.8	520000	104.0
Manganese		500	0.300		525	105.0	-0.200		523	104.6
Molybdenum		500	0.500		508	101.6	0.00		508	101.6
Nickel		1000	0.900		1010	101.0	1.20		999	99.9
Phosphorus		500	10.4		528	105.6	10.8		531	106.2
Potassium			171		140		330		164	
Selenium		1000	-0.600		1030	103.0	0.200		1030	103.0
Silicon		500	11.7		523	104.6	9.30		522	104.4
Silver		1000	-2.00		1090	109.0	-2.90		1100	110.0
Sodium			65.9		50.6		44.7		36.5	
Strontium		500	2.70		533	106.6	3.00		534	106.8
Sulfur		500	4.50		530	106.0	11.8		535	107.0
Thallium		1000	2.40		1020	102.0	-1.90		1020	102.0
Tin		500	0.600		489	97.8	0.700		483	96.6
Titanium		500	1.20		513	102.6	1.20		514	102.8
Tungsten		500	1.70		503	100.6	1.10		503	100.6
Vanadium		500	0.800		509	101.8	1.00		510	102.0
Zinc		1000	5.50		999	99.9	5.00		980	98.0

14.3.6
14

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052118M2.ICP Date Analyzed: 05/21/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44470 Units: ug/l

Time:				14:31			14:36			21:08			21:13
Sample ID:	ICSA	ICSAB	ICSAB	ICSAB	ICSAB1	ICSAB1	ICSAB1	ICSAB1	ICSAB1	ICSAB2	ICSAB2	ICSAB2	ICSAB2
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec

Zirconium 500 1.60 522 104.4 1.10 525 105.0

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44481
Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:39	MA44481-STD1	1		STDA
10:43	MA44481-STD2	1		STDB
10:48	ZZZZZZ	1		
10:52	ZZZZZZ	1		
10:58	MA44481-ICV1	1		Saturation
11:03	MA44481-ICV2	1		
11:09	MA44481-ICB1	1		
11:13	MA44481-ICCV1	1		
11:20	MA44481-CCB1	1		
11:24	MA44481-CRI1	1		
11:28	MA44481-CRID1	1		
11:33	MA44481-ICSA1	1		
11:37	MA44481-ICSAB1	1		
11:41	ZZZZZZ	1		
11:46	MA44481-HSTD1	1		
11:51	ZZZZZZ	1		
11:58	MA44481-HSTD2	1		
12:02	MA44481-CCV1	1		
12:09	MA44481-CCB2	1		
12:14	ZZZZZZ	1		
12:19	ZZZZZZ	1		
12:23	ZZZZZZ	1		
12:27	MA44481-CCV2	1		
12:32	MA44481-CCB3	1		
12:37	ZZZZZZ	1		
12:42	ZZZZZZ	1		
12:46	ZZZZZZ	2		
12:50	MP7255-S2	2		To reanalysis undiluted for Ag
12:54	ZZZZZZ	1		
12:59	MP7255-SD1	5		
13:03	ZZZZZZ	2		
13:07	MP7255-SD1	10		Not needed
13:11	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44481
Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:16	MA44481-CCV3	1		
13:20	MA44481-CCB4	1		
13:25	MP7255-S1	2		To reanalysis undiluted for Ag.
13:29	JC66385-2	1		(sample used for QC only; not part of login JC66318)
13:33	JC66385-2	2		(sample used for QC only; not part of login JC66318)
13:38	ZZZZZZ	1		
13:42	ZZZZZZ	2		
13:47	ZZZZZZ	2		
13:51	ZZZZZZ	5		
13:55	ZZZZZZ	2		
14:00	ZZZZZZ	5		
14:04	MA44481-CCV4	1		
14:09	MA44481-CCB5	1		
14:13	ZZZZZZ	2		
14:18	ZZZZZZ	5		
14:22	ZZZZZZ	1		
14:26	ZZZZZZ	1		
14:31	ZZZZZZ	1		
14:35	ZZZZZZ	2		
14:39	ZZZZZZ	1		
14:44	ZZZZZZ	1		
14:48	MP7221-S1	2		To reanalysis for FE, CCV high RSD
14:52	MA44481-CCV5	1		Y3710 elements high RSD
14:56	MA44481-CCB6	1		
15:01	MP7221-S2	2		Cu high RSD. To reanalysis for Fe, CCV high RSD.
15:05	JC66122-13	2		(sample used for QC only; not part of login JC66318)
15:10	MP7221-SD1	10		To reanalysis for Fe, CCV high RSD.
15:14	ZZZZZZ	2		
15:18	ZZZZZZ	2		
15:23	ZZZZZZ	3		
15:27	ZZZZZZ	2		
15:31	ZZZZZZ	2		
15:35	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44481
Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:40	MA44481-CCV6	1		
15:46	MA44481-CCB7	1		
15:51	ZZZZZZ	1		
15:55	JC66318-1	3		
15:59	ZZZZZZ	2		
16:03	ZZZZZZ	2		
16:08	ZZZZZZ	5		
16:12	ZZZZZZ	2		
16:16	ZZZZZZ	3		
16:21	ZZZZZZ	5		
16:25	ZZZZZZ	5		
16:29	MA44481-CCV7	1		
16:33	MA44481-CCB8	1		
16:39	MP7278-MB1	1		
16:43	MP7278-B1	1		
16:48	MP7278-S1	1		No PS needed
16:52	MP7278-S2	1		No PS needed
16:56	MP7278-D1	1		
17:00	JC66519-1	1		(sample used for QC only; not part of login JC66318)
17:05	MP7278-SD1	5		
17:09	ZZZZZZ	1		
17:13	ZZZZZZ	1		
17:18	MA44481-CCV8	1		
17:39	MA44481-CCB9	1		
17:43	ZZZZZZ	1		
17:47	ZZZZZZ	1		
17:52	ZZZZZZ	1		
17:56	ZZZZZZ	1		
18:00	ZZZZZZ	1		
18:05	ZZZZZZ	1		
18:09	ZZZZZZ	1		
18:13	ZZZZZZ	1		
18:18	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44481
Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:22	MA44481-CCV9	1		
18:27	MA44481-CCB10	1		
18:31	MA44481-CRI2	1		
18:35	MA44481-CRID2	1		
18:40	MA44481-ICSA2	1		
18:44	MA44481-ICSAB2	1		
18:48	MA44481-CCV10	1		
18:53	MA44481-CCB11	1		
18:57	ZZZZZZ	1		
19:01	ZZZZZZ	1		
19:06	ZZZZZZ	1		
19:10	ZZZZZZ	1		
19:14	ZZZZZZ	1		
19:19	ZZZZZZ	1		
19:23	ZZZZZZ	1		
19:28	ZZZZZZ	1		
19:32	ZZZZZZ	1		
19:37	ZZZZZZ	1		
19:41	ZZZZZZ	1		
19:45	ZZZZZZ	1		
19:50	MA44481-CCV11	1		
19:54	MA44481-CCB12	1		
19:58	ZZZZZZ	1		
20:03	ZZZZZZ	1		
20:07	ZZZZZZ	1		
20:11	ZZZZZZ	1		
20:16	ZZZZZZ	1		
20:20	ZZZZZZ	1		
20:25	ZZZZZZ	1		
20:29	ZZZZZZ	1		
20:33	MP7276-B1	1		
20:38	MA44481-CCV12	1		
20:51	MA44481-CCB13	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44481
Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:55	MP7276-MB1	1		
21:00	MP7276-S1	1		Na=420ppm
21:04	MP7276-S2	1		Na=420ppm
21:09	JC66369-2	1		(sample used for QC only; not part of login JC66318)
21:13	MP7276-SD1	5		Na=420ppm
21:17	ZZZZZZ	1		
21:22	ZZZZZZ	1		
21:26	ZZZZZZ	1		
21:30	ZZZZZZ	1		
21:35	MA44481-CCV13	1		
21:39	MA44481-CCB14	1		
21:43	ZZZZZZ	1		
21:48	ZZZZZZ	1		
21:52	ZZZZZZ	1		
21:56	ZZZZZZ	1		
22:01	ZZZZZZ	1		
22:05	ZZZZZZ	1		
22:10	ZZZZZZ	1		
22:14	ZZZZZZ	1		
22:18	ZZZZZZ	1		
22:23	MA44481-CCV14	1		
22:27	MA44481-CCB15	1		
22:31	ZZZZZZ	1		
22:36	ZZZZZZ	1		
22:40	ZZZZZZ	1		
22:45	ZZZZZZ	1		
22:49	ZZZZZZ	1		
22:53	ZZZZZZ	1		
22:57	MP7268-B1	5		CCV high RSD
23:02	MP7268-MB1	5		CCV high RSD
23:06	MP7268-S1	5		CCV high RSD
23:10	MA44481-CCV15	1		Y3600 elements high RSD, Cr and V out of range on one rep
23:15	MA44481-CCB16	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44481
Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
23:19	MP7268-S2	5		CCV high RSD
23:26	MA44481-CCV16	1		
23:31	MA44481-CCB17	1		
23:35	JC66318-1A	5		
23:40	MP7268-SD1	25		
----->	Last reportable sample/prep for job JC66318			
23:44	ZZZZZZ	5		
23:48	ZZZZZZ	5		
23:53	ZZZZZZ	5		
23:57	ZZZZZZ	5		
00:01	ZZZZZZ	5		
00:06	ZZZZZZ	5		
00:10	MA44481-CCV17	1		
00:14	MA44481-CCB18	1		
00:19	ZZZZZZ	5		
00:23	ZZZZZZ	5		
00:28	ZZZZZZ	5		
00:32	ZZZZZZ	5		
00:36	ZZZZZZ	5		
00:41	ZZZZZZ	5		
00:45	MP7269-B1	5		
00:49	MP7269-MB1	5		
00:54	MP7269-S1	5		
00:58	MA44481-CCV18	1		
01:02	MA44481-CCB19	1		
01:07	MP7269-S2	5		
01:11	DA5233-1	5		(sample used for QC only; not part of login JC66318)
01:15	MP7269-SD1	25		
01:20	ZZZZZZ	5		
01:24	ZZZZZZ	5		
01:29	ZZZZZZ	5		
01:33	ZZZZZZ	5		
01:37	ZZZZZZ	5		
01:42	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44481
Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
01:46	MA44481-CCV19	1		
01:51	MA44481-CCB20	1		
01:55	MA44481-CRI3	1		
01:59	MA44481-CRID3	1		ASNJ out
02:04	MA44481-CCV20	1		
02:08	MA44481-CCB21	1		
----->	Last reportable CCB for job JC66318 Refer to raw data for calibration curve and standards.			

INTERNAL STANDARD SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44481
Parameters: As, Ba, Cd, Ca, Cr, Pb, Se, Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
10:39	MA44481-STD1	5952 R	230950 R	37898 R	11120 R
10:43	MA44481-STD2	5578	215550	37934	9729
10:48	ZZZZZZ	5747	236350	38245	10092
10:52	ZZZZZZ	6013	233180	38555	11256
10:58	MA44481-ICV1	No results reported for the elements associated with this internal standard.			
11:03	MA44481-ICV2	5734	221750	38170	10081
11:09	MA44481-ICB1	5984	232310	38882	11210
11:13	MA44481-ICCV1	5699	220750	38577	10035
11:20	MA44481-CCB1	6148	265200	38133	11495
11:24	MA44481-CRI1	5872	232570	38709	10856
11:28	MA44481-CRID1	5930	230220	38634	11081
11:33	MA44481-ICSA1	5165	199690	36909	8822
11:37	MA44481-ICSAB1	5208	196770	36920	8918
11:41	ZZZZZZ	5878	999999 !	40003	10905
11:46	MA44481-HSTD1	5484	203160	36961	9216
11:51	ZZZZZZ	5892	234430	38745	10910
11:58	MA44481-HSTD2	5902	227830	38636	10928
12:02	MA44481-CCV1	5726	221410	37834	10069
12:09	MA44481-CCB2	5968	232290	38496	11167
12:14	ZZZZZZ	6058	224140	38158	11385
12:19	ZZZZZZ	5876	233420	38642	11144
12:23	ZZZZZZ	5909	232300	38431	11049
12:27	MA44481-CCV2	5727	220140	38246	10072
12:32	MA44481-CCB3	5952	233530	37647	11120
12:37	ZZZZZZ	5893	232660	38493	10986
12:42	ZZZZZZ	5623	216390	37710	10014
12:46	ZZZZZZ	5835	223790	999999 !	10140
12:50	MP7255-S2	5809	220950	38984	10111
12:54	ZZZZZZ	5935	221630	999999 !	10227
12:59	MP7255-SD1	5954	228720	38983	10706
13:03	ZZZZZZ	5946	227830	38273	10460
13:07	MP7255-SD1	No results reported for the elements associated with this internal standard.			
13:11	ZZZZZZ	5889	228690	39776	10594

INTERNAL STANDARD SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44481
Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:16	MA44481-CCV3	5691	221150	38064	10008
13:20	MA44481-CCB4	6007	230420	38859	11226
13:25	MP7255-S1	5852	220640	39164	10173
13:29	JC66385-2	5914	223080	40159	10181
13:33	JC66385-2	No results reported for the elements associated with this internal standard.			
13:38	ZZZZZZ	5554	217170	38574	9874
13:42	ZZZZZZ	5695	222850	38169	10182
13:47	ZZZZZZ	5398	213030	37994	10448
13:51	ZZZZZZ	5708	223670	37991	10625
13:55	ZZZZZZ	5521	205360	37905	9944
14:00	ZZZZZZ	5783	232270	38398	10432
14:04	MA44481-CCV4	5699	219550	38025	10011
14:09	MA44481-CCB5	5966	206720	38287	11147
14:13	ZZZZZZ	No results reported for the elements associated with this internal standard.			
14:18	ZZZZZZ	5854	226540	38560	10827
14:22	ZZZZZZ	5866	225360	39842	10135
14:26	ZZZZZZ	5977	232390	38559	11195
14:31	ZZZZZZ	5658	222300	38035	10083
14:35	ZZZZZZ	6150	230140	40476	10557
14:39	ZZZZZZ	5998	233560	39504	11220
14:44	ZZZZZZ	5741	999999 !	38007	10248
14:48	MP7221-S1	5741	222540	38463	10264
14:52	MA44481-CCV5	5694	219820	36800	10035
14:56	MA44481-CCB6	5956	231290	38199	11151
15:01	MP7221-S2	5661	218630	38304	10147
15:05	JC66122-13	5852	235010	38056	10562
15:10	MP7221-SD1	5929	231250	38612	10861
15:14	ZZZZZZ	5671	234520	38450	10323
15:18	ZZZZZZ	5784	222950	38345	10538
15:23	ZZZZZZ	5795	225610	39513	10499
15:27	ZZZZZZ	5622	220440	38231	9998
15:31	ZZZZZZ	5840	224070	39786	10551
15:35	ZZZZZZ	5884	230320	38773	11024

INTERNAL STANDARD SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44481
Parameters: As, Ba, Cd, Ca, Cr, Pb, Se, Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:40	MA44481-CCV6	5764	219710	38138	10143
15:46	MA44481-CCB7	5860	222200	38238	10990
15:51	ZZZZZZ	5694	218830	38069	10171
15:55	JC66318-1	5610	217470	38935	9617
15:59	ZZZZZZ	5804	226680	38943	10519
16:03	ZZZZZZ	5798	223980	38217	10520
16:08	ZZZZZZ	5776	225710	38633	10575
16:12	ZZZZZZ	5705	211580	38735	10297
16:16	ZZZZZZ	5767	224280	37822	10464
16:21	ZZZZZZ	5700	221920	36829	10640
16:25	ZZZZZZ	5736	224380	38452	10413
16:29	MA44481-CCV7	5604	218060	37947	9873
16:33	MA44481-CCB8	5900	228100	38401	11042
16:39	MP7278-MB1	5803	229650	38526	10861
16:43	MP7278-B1	5565	217530	37115	9938
16:48	MP7278-S1	5656	219070	38870	9840
16:52	MP7278-S2	5643	220110	38777	9841
16:56	MP7278-D1	5879	227940	39331	10379
17:00	JC66519-1	5867	226100	39201	10415
17:05	MP7278-SD1	5918	227130	38437	10827
17:09	ZZZZZZ	5866	227530	39457	10397
17:13	ZZZZZZ	5907	226740	39659	10275
17:18	MA44481-CCV8	5645	219220	38114	9944
17:39	MA44481-CCB9	5890	229530	40015	10802
17:43	ZZZZZZ	5901	228360	41887	10357
17:47	ZZZZZZ	5624	218350	41002	9737
17:52	ZZZZZZ	5919	228910	43123	10265
17:56	ZZZZZZ	5910	228140	43106	10351
18:00	ZZZZZZ	5912	226990	41927	10412
18:05	ZZZZZZ	5696	220770	42318	9843
18:09	ZZZZZZ	5902	228940	42131	10279
18:13	ZZZZZZ	5682	219660	41071	10158
18:18	ZZZZZZ	5604	216840	42120	9160

INTERNAL STANDARD SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44481
Parameters: As, Ba, Cd, Ca, Cr, Pb, Se, Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:22	MA44481-CCV9	5624	217730	40440	9870
18:27	MA44481-CCB10	5899	230870	40391	10814
18:31	MA44481-CRI2	5799	225610	39627	10530
18:35	MA44481-CRID2	5851	228760	40299	10709
18:40	MA44481-ICSA2	5128	194640	38532	8820
18:44	MA44481-ICSAB2	5026	195310	38622	8697
18:48	MA44481-CCV10	5660	217940	40227	9936
18:53	MA44481-CCB11	5921	229720	40338	10850
18:57	ZZZZZZ	5410	211320	39489	9442
19:01	ZZZZZZ	5799	212310	42077	9796
19:06	ZZZZZZ	5463	210730	39053	9538
19:10	ZZZZZZ	5932	232270	40533	10894
19:14	ZZZZZZ	5931	231520	41178	10851
19:19	ZZZZZZ	5898	228500	40185	10795
19:23	ZZZZZZ	5920	230500	41013	10869
19:28	ZZZZZZ	5893	227390	40729	10805
19:32	ZZZZZZ	5853	228950	40936	10722
19:37	ZZZZZZ	5922	226810	41044	10840
19:41	ZZZZZZ	5786	230530	41147	10607
19:45	ZZZZZZ	5908	228080	40359	10826
19:50	MA44481-CCV11	5611	219630	39818	9857
19:54	MA44481-CCB12	5857	225110	40284	10747
19:58	ZZZZZZ	5798	222540	41641	10054
20:03	ZZZZZZ	5785	222110	41601	10199
20:07	ZZZZZZ	5858	223060	41911	10195
20:11	ZZZZZZ	5933	226380	43641	9990
20:16	ZZZZZZ	6002	224830	45468	10270
20:20	ZZZZZZ	5864	225180	41273	10338
20:25	ZZZZZZ	5921	227200	42257	10349
20:29	ZZZZZZ	5824	225970	42117	10149
20:33	MP7276-B1	5745	220160	40347	10187
20:38	MA44481-CCV12	5651	216830	39684	9918
20:51	MA44481-CCB13	5917	227730	40150	10845

INTERNAL STANDARD SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44481
Parameters: As, Ba, Cd, Ca, Cr, Pb, Se, Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:55	MP7276-MB1	5886	226390	40624	10809
21:00	MP7276-S1	5300	200820	39493	8904
21:04	MP7276-S2	5206	204640	39580	8751
21:09	JC66369-2	5296	199650	39786	8913
21:13	MP7276-SD1	5625	217260	39827	9863
21:17	ZZZZZZ	5669	215780	40210	9610
21:22	ZZZZZZ	5828	222900	41358	10328
21:26	ZZZZZZ	5624	215430	40898	9910
21:30	ZZZZZZ	5681	218860	40680	9751
21:35	MA44481-CCV13	5621	215590	39868	9871
21:39	MA44481-CCB14	5910	230780	40068	10827
21:43	ZZZZZZ	5695	218950	39847	10000
21:48	ZZZZZZ	5874	219560	43265	8688
21:52	ZZZZZZ	5419	210330	39969	9326
21:56	ZZZZZZ	5698	216720	40723	9909
22:01	ZZZZZZ	5588	215350	40112	9777
22:05	ZZZZZZ	5618	211560	39736	9717
22:10	ZZZZZZ	5685	218640	40241	9878
22:14	ZZZZZZ	5850	226990	40705	10743
22:18	ZZZZZZ	5594	217140	39771	9940
22:23	MA44481-CCV14	5624	216690	39767	9876
22:27	MA44481-CCB15	5921	227330	40421	10860
22:31	ZZZZZZ	5632	219660	40608	10017
22:36	ZZZZZZ	5836	221520	40288	10559
22:40	ZZZZZZ	5575	218460	40338	9918
22:45	ZZZZZZ	5640	216670	38920	9952
22:49	ZZZZZZ	5520	218930	40594	9701
22:53	ZZZZZZ	5602	216030	39686	9964
22:57	MP7268-B1	5529	213350	40165	9449
23:02	MP7268-MB1	5473	209250	39590	9419
23:06	MP7268-S1	5314	207810	39761	9043
23:10	MA44481-CCV15	5626	206190	39817	9884
23:15	MA44481-CCB16	5906	235420	40260	10827

INTERNAL STANDARD SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
Analyst: EAL Run ID: MA44481
Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
23:19	MP7268-S2	5379	207280	39042	9161
23:26	MA44481-CCV16	5564	215190	40236	9775
23:31	MA44481-CCB17	5893	226370	40780	10807
23:35	JC66318-1A	5403	207530	39479	9229
23:40	MP7268-SD1	5653	215520	39964	10033
23:44	ZZZZZZ	5540	207860	39546	9497
23:48	ZZZZZZ	5516	212890	39541	9465
23:53	ZZZZZZ	5553	210570	39593	9493
23:57	ZZZZZZ	5419	206840	38939	9252
00:01	ZZZZZZ	5502	211090	40146	9422
00:06	ZZZZZZ	5555	210180	39610	9547
00:10	MA44481-CCV17	5635	213580	39705	9876
00:14	MA44481-CCB18	5873	221960	40539	10776
00:19	ZZZZZZ	5564	212850	39521	9587
00:23	ZZZZZZ	5441	208650	39100	9307
00:28	ZZZZZZ	5414	210410	40538	9279
00:32	ZZZZZZ	5443	209590	39412	9357
00:36	ZZZZZZ	5503	208610	39615	9456
00:41	ZZZZZZ	5496	209080	39769	9488
00:45	MP7269-B1	5513	210390	40041	9418
00:49	MP7269-MB1	5487	209910	39689	9436
00:54	MP7269-S1	5516	206550	39972	9411
00:58	MA44481-CCV18	5548	216480	39846	9753
01:02	MA44481-CCB19	5953	230620	40527	10922
01:07	MP7269-S2	5586	209040	39831	9520
01:11	DA5233-1	5577	210690	39538	9538
01:15	MP7269-SD1	5708	217340	39955	10157
01:20	ZZZZZZ	5546	212350	40104	9502
01:24	ZZZZZZ	5561	214270	39993	9538
01:29	ZZZZZZ	5538	211520	40155	9495
01:33	ZZZZZZ	5427	212890	41314	9341
01:37	ZZZZZZ	5530	209610	39770	9502
01:42	ZZZZZZ	5496	206420	40041	9410

INTERNAL STANDARD SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
 Analyst: EAL Run ID: MA44481
 Parameters: As, Ba, Cd, Ca, Cr, Pb, Se, Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
01:46	MA44481-CCV19	5653	215010	40317	9915
01:51	MA44481-CCB20	5854	224430	40138	10741
01:55	MA44481-CRI3	5805	219820	40009	10557
01:59	MA44481-CRID3	5890	227300	40780	10773
02:04	MA44481-CCV20	5605	210450	40186	9845
02:08	MA44481-CCB21	5825	228870	40378	10681

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

14.4.1
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP
QC Limits: result < RL

Date Analyzed: 05/22/18
Run ID: MA44481

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			11:09 ICB1		11:20 CCB1		12:09 CCB2		12:32 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	6.0	2.3	anr							
Arsenic	3.0	2.1	-0.600	<3.0	-0.100	<3.0	0.300	<3.0	0.100	<3.0
Barium	200	.3	0.200	<200	0.100	<200	0.100	<200	0.100	<200
Beryllium	1.0	.1	anr							
Bismuth	20	2.9								
Boron	100	1.2								
Cadmium	3.0	.3	0.100	<3.0	0.100	<3.0	0.100	<3.0	0.200	<3.0
Calcium	5000	4.7	-2.20	<5000	-3.20	<5000	-1.10	<5000	1.40	<5000
Chromium	10	.4	0.100	<10	0.300	<10	0.200	<10	0.00	<10
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	2.2	anr							
Lead	3.0	1.9	0.100	<3.0	0.600	<3.0	0.800	<3.0	-0.500	<3.0
Lithium	50	1.6								
Magnesium	5000	18	anr							
Manganese	15	.5	anr							
Molybdenum	20	.5								
Nickel	10	.5	anr							
Phosphorus	50	2.6								
Potassium	10000	56	anr							
Selenium	10	3.3	0.400	<10	0.300	<10	1.30	<10	3.90	<10
Silicon	200	2								
Silver	10	.4	0.600	<10	4.20	<10	0.700	<10	1.20	<10
Sodium	10000	13	anr							
Strontium	10	.1								
Sulfur	50	5								
Thallium	2.0	1.9	anr							
Tin	10	1.1								
Titanium	10	.3								
Tungsten	50	1.7								
Vanadium	50	.4	anr							
Zinc	20	.2	anr							

14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44481 Units: ug/l

Time: Sample ID:			11:09 ICB1		11:20 CCB1		12:09 CCB2		12:32 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested



14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP
QC Limits: result < RL

Date Analyzed: 05/22/18
Run ID: MA44481

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			13:20 CCB4		14:09 CCB5		14:56 CCB6		15:46 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	6.0	2.3	anr							
Arsenic	3.0	2.1	-0.400	<3.0	0.500	<3.0	-0.300	<3.0	-0.700	<3.0
Barium	200	.3	0.200	<200	0.00	<200	0.100	<200	0.100	<200
Beryllium	1.0	.1	anr							
Bismuth	20	2.9								
Boron	100	1.2								
Cadmium	3.0	.3	0.00	<3.0	0.00	<3.0	-0.100	<3.0	0.00	<3.0
Calcium	5000	4.7	0.100	<5000	0.00	<5000	-0.200	<5000	-3.90	<5000
Chromium	10	.4	-0.200	<10	0.100	<10	0.100	<10	-0.100	<10
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	2.2	anr							
Lead	3.0	1.9	0.900	<3.0	0.100	<3.0	-0.800	<3.0	0.400	<3.0
Lithium	50	1.6								
Magnesium	5000	18	anr							
Manganese	15	.5	anr							
Molybdenum	20	.5								
Nickel	10	.5	anr							
Phosphorus	50	2.6								
Potassium	10000	56	anr							
Selenium	10	3.3	1.90	<10	3.20	<10	0.600	<10	2.10	<10
Silicon	200	2								
Silver	10	.4	0.700	<10	-2.70	<10	0.800	<10	-1.00	<10
Sodium	10000	13	anr							
Strontium	10	.1								
Sulfur	50	5								
Thallium	2.0	1.9	anr							
Tin	10	1.1								
Titanium	10	.3								
Tungsten	50	1.7								
Vanadium	50	.4	anr							
Zinc	20	.2	anr							

14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44481 Units: ug/l

Time: Sample ID:			13:20 CCB4		14:09 CCB5		14:56 CCB6		15:46 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested



14.4.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP
QC Limits: result < RL

Date Analyzed: 05/22/18
Run ID: MA44481

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			16:33 CCB8		17:39 CCB9		18:27 CCB10		18:53 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	6.0	2.3	anr							
Arsenic	3.0	2.1	-0.200	<3.0	-0.200	<3.0	0.200	<3.0	-0.100	<3.0
Barium	200	.3	0.100	<200	0.00	<200	-0.100	<200	0.00	<200
Beryllium	1.0	.1	anr							
Bismuth	20	2.9								
Boron	100	1.2								
Cadmium	3.0	.3	0.100	<3.0	0.00	<3.0	0.200	<3.0	0.00	<3.0
Calcium	5000	4.7	-5.60	<5000	-5.30	<5000	-6.30	<5000	-7.00	<5000
Chromium	10	.4	0.200	<10	0.00	<10	0.100	<10	0.00	<10
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	2.2	anr							
Lead	3.0	1.9	0.400	<3.0	0.400	<3.0	0.400	<3.0	1.20	<3.0
Lithium	50	1.6								
Magnesium	5000	18	anr							
Manganese	15	.5	anr							
Molybdenum	20	.5								
Nickel	10	.5	anr							
Phosphorus	50	2.6								
Potassium	10000	56	anr							
Selenium	10	3.3	0.900	<10	0.300	<10	0.900	<10	1.10	<10
Silicon	200	2								
Silver	10	.4	0.800	<10	0.800	<10	0.800	<10	0.700	<10
Sodium	10000	13	anr							
Strontium	10	.1								
Sulfur	50	5								
Thallium	2.0	1.9	anr							
Tin	10	1.1								
Titanium	10	.3								
Tungsten	50	1.7								
Vanadium	50	.4	anr							
Zinc	20	.2	anr							

14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44481 Units: ug/l

Time:		16:33		17:39		18:27		18:53		
Sample ID:		CCB8		CCB9		CCB10		CCB11		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested



14.4.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44481 Units: ug/l

Time: Sample ID:			19:54 CCB12		20:51 CCB13		21:39 CCB14		22:27 CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	6.0	2.3	anr							
Arsenic	3.0	2.1	0.900	<3.0	0.400	<3.0	0.100	<3.0	0.500	<3.0
Barium	200	.3	0.100	<200	0.100	<200	-0.100	<200	0.00	<200
Beryllium	1.0	.1	anr							
Bismuth	20	2.9								
Boron	100	1.2								
Cadmium	3.0	.3	0.00	<3.0	0.100	<3.0	-0.100	<3.0	-0.100	<3.0
Calcium	5000	4.7	-8.00	<5000	-7.00	<5000	-6.30	<5000	-7.80	<5000
Chromium	10	.4	0.100	<10	0.100	<10	0.00	<10	-0.100	<10
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	2.2	anr							
Lead	3.0	1.9	0.600	<3.0	0.700	<3.0	0.500	<3.0	0.500	<3.0
Lithium	50	1.6								
Magnesium	5000	18	anr							
Manganese	15	.5	anr							
Molybdenum	20	.5								
Nickel	10	.5	anr							
Phosphorus	50	2.6								
Potassium	10000	56	anr							
Selenium	10	3.3	0.700	<10	-0.700	<10	3.00	<10	0.700	<10
Silicon	200	2								
Silver	10	.4	0.800	<10	0.800	<10	1.20	<10	0.700	<10
Sodium	10000	13	anr							
Strontium	10	.1								
Sulfur	50	5								
Thallium	2.0	1.9	anr							
Tin	10	1.1								
Titanium	10	.3								
Tungsten	50	1.7								
Vanadium	50	.4	anr							
Zinc	20	.2	anr							

14.4.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44481 Units: ug/l

Time:		19:54		20:51		21:39		22:27		
Sample ID:		CCB12		CCB13		CCB14		CCB15		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested



14.4.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP
QC Limits: result < RL

Date Analyzed: 05/22/18
Run ID: MA44481

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:			23:15 CCB16		23:31 CCB17		00:14 CCB18		01:02 CCB19	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	6.0	2.3	anr							
Arsenic	3.0	2.1	0.300	<3.0	0.300	<3.0	-0.200	<3.0	-0.300	<3.0
Barium	200	.3	0.00	<200	0.00	<200	0.00	<200	0.00	<200
Beryllium	1.0	.1	anr							
Bismuth	20	2.9								
Boron	100	1.2								
Cadmium	3.0	.3	0.00	<3.0	0.100	<3.0	0.00	<3.0	0.00	<3.0
Calcium	5000	4.7	-10.7	<5000	-9.70	<5000	-11.7	<5000	-10.5	<5000
Chromium	10	.4	0.00	<10	-0.100	<10	-0.100	<10	0.00	<10
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	2.2	anr							
Lead	3.0	1.9	0.00	<3.0	-0.100	<3.0	0.500	<3.0	1.00	<3.0
Lithium	50	1.6								
Magnesium	5000	18	anr							
Manganese	15	.5	anr							
Molybdenum	20	.5								
Nickel	10	.5	anr							
Phosphorus	50	2.6								
Potassium	10000	56	anr							
Selenium	10	3.3	2.30	<10	2.10	<10	1.50	<10	1.90	<10
Silicon	200	2								
Silver	10	.4	1.60	<10	0.200	<10	0.100	<10	1.00	<10
Sodium	10000	13	anr							
Strontium	10	.1								
Sulfur	50	5								
Thallium	2.0	1.9	anr							
Tin	10	1.1								
Titanium	10	.3								
Tungsten	50	1.7								
Vanadium	50	.4	anr							
Zinc	20	.2	anr							

14.4.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44481 Units: ug/l

Time:		23:15		23:31		00:14		01:02		
Sample ID:		CCB16		CCB17		CCB18		CCB19		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested



14.4.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44481 Units: ug/l

Time: Sample ID:			01:51 CCB20		02:08 CCB21	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	14	anr			
Antimony	6.0	2.3	anr			
Arsenic	3.0	2.1	-0.300	<3.0	0.300	<3.0
Barium	200	.3	0.00	<200	0.100	<200
Beryllium	1.0	.1	anr			
Bismuth	20	2.9				
Boron	100	1.2				
Cadmium	3.0	.3	0.00	<3.0	0.100	<3.0
Calcium	5000	4.7	-11.1	<5000	-10.5	<5000
Chromium	10	.4	-0.100	<10	0.300	<10
Cobalt	50	.4	anr			
Copper	10	1.1	anr			
Iron	100	2.2	anr			
Lead	3.0	1.9	0.200	<3.0	0.600	<3.0
Lithium	50	1.6				
Magnesium	5000	18	anr			
Manganese	15	.5	anr			
Molybdenum	20	.5				
Nickel	10	.5	anr			
Phosphorus	50	2.6				
Potassium	10000	56	anr			
Selenium	10	3.3	0.300	<10	1.30	<10
Silicon	200	2				
Silver	10	.4	0.400	<10	0.300	<10
Sodium	10000	13	anr			
Strontium	10	.1				
Sulfur	50	5				
Thallium	2.0	1.9	anr			
Tin	10	1.1				
Titanium	10	.3				
Tungsten	50	1.7				
Vanadium	50	.4	anr			
Zinc	20	.2	anr			

14.4.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA44481 Units: ug/l

Time: Sample ID:			01:51 CCB20		02:08 CCB21	
Metal	RL	IDL	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP
QC Limits: to % Recovery

Date Analyzed: 05/22/18
Run ID: MA44481

Methods: SW846 6010C
Units: ug/l

Time: Sample ID: ICCV		11:13 ICCV1	% Rec
Metal	True	Results	
Aluminum	anr		
Antimony	anr		
Arsenic	2000	2010	100.5
Barium	2000	2030	101.5
Beryllium	anr		
Bismuth			
Boron			
Cadmium	2000	2010	100.5
Calcium	40000	40600	101.5
Chromium	2000	2040	102.0
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	2000	2050	102.5
Lithium			
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Phosphorus			
Potassium	anr		
Selenium	2000	2010	100.5
Silicon			
Silver	250	250	100.0
Sodium	anr		
Strontium			
Sulfur			
Thallium	anr		
Tin			
Titanium			
Tungsten			
Vanadium	anr		
Zinc	anr		

14.4.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: to % Recovery Run ID: MA44481 Units: ug/l

Time:	11:13
Sample ID:	ICCV
Metal	True
Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

14.4.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44481 Units: ug/l

Time: Sample ID:	ICV	11:03 ICV2	% Rec	CCV	12:02 CCV1	% Rec	CCV	12:27 CCV2	% Rec
Metal	True	Results		True	Results		True	Results	
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1990	99.5	2000	2000	100.0	2000	2000	100.0
Barium	2000	2030	101.5	2000	2070	103.5	2000	2060	103.0
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	2000	100.0	2000	2000	100.0	2000	2000	100.0
Calcium	40000	40700	101.8	40000	41400	103.5	40000	40900	102.3
Chromium	2000	2020	101.0	2000	2030	101.5	2000	2040	102.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2040	102.0	2000	2040	102.0	2000	2040	102.0
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	1990	99.5	2000	2000	100.0	2000	2000	100.0
Silicon									
Silver	250	249	99.6	250	250	100.0	250	250	100.0
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.4.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44481 Units: ug/l

Time:		11:03			12:02			12:27		
Sample ID:	ICV	ICV2		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44481 Units: ug/l

Time: Sample ID:		13:16 CCV3		14:04 CCV4		14:52 CCV5			
Metal	CCV True	Results	% Rec	CCV True	Results	% Rec	CCV True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2010	100.5	2000	1990	99.5	2000	2010	100.5
Barium	2000	2040	102.0	2000	2040	102.0	2000	2150	107.5
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	2010	100.5	2000	2010	100.5	2000	2010	100.5
Calcium	40000	40800	102.0	40000	40600	101.5	40000	42400	106.0
Chromium	2000	2020	101.0	2000	2040	102.0	2000	2030	101.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2050	102.5	2000	2040	102.0	2000	2040	102.0
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	2010	100.5	2000	2000	100.0	2000	2010	100.5
Silicon									
Silver	250	250	100.0	250	252	100.8	250	252	100.8
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.4.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44481 Units: ug/l

Time:		13:16			14:04			14:52		
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44481 Units: ug/l

Time: Sample ID:		15:40 CCV6			16:29 CCV7			17:18 CCV8		
Metal	CCV	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr									
Antimony	anr									
Arsenic	2000	1960	98.0		2000	2030	101.5	2000	2010	100.5
Barium	2000	2040	102.0		2000	2080	104.0	2000	2060	103.0
Beryllium	anr									
Bismuth										
Boron										
Cadmium	2000	1960	98.0		2000	2020	101.0	2000	1990	99.5
Calcium	40000	40400	101.0		40000	41000	102.5	40000	40700	101.8
Chromium	2000	2020	101.0		2000	2040	102.0	2000	2020	101.0
Cobalt	anr									
Copper	anr									
Iron	anr									
Lead	2000	2000	100.0		2000	2060	103.0	2000	2040	102.0
Lithium										
Magnesium	anr									
Manganese	anr									
Molybdenum										
Nickel	anr									
Phosphorus										
Potassium	anr									
Selenium	2000	1970	98.5		2000	2050	102.5	2000	2020	101.0
Silicon										
Silver	250	250	100.0		250	251	100.4	250	250	100.0
Sodium	anr									
Strontium										
Sulfur										
Thallium	anr									
Tin										
Titanium										
Tungsten										
Vanadium	anr									
Zinc	anr									

14.4.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44481 Units: ug/l

Time:		15:40			16:29			17:18		
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44481 Units: ug/l

Time: Sample ID:		18:22 CCV9			18:48 CCV10			19:50 CCV11		
Metal	CCV	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr									
Antimony	anr									
Arsenic	2000	2000	100.0	2000	2000	100.0	2000	2020	101.0	
Barium	2000	1990	99.5	2000	1990	99.5	2000	1990	99.5	
Beryllium	anr									
Bismuth										
Boron										
Cadmium	2000	1950	97.5	2000	1940	97.0	2000	1950	97.5	
Calcium	40000	38900	97.3	40000	39200	98.0	40000	39300	98.3	
Chromium	2000	2000	100.0	2000	2000	100.0	2000	1970	98.5	
Cobalt	anr									
Copper	anr									
Iron	anr									
Lead	2000	2020	101.0	2000	2010	100.5	2000	2020	101.0	
Lithium										
Magnesium	anr									
Manganese	anr									
Molybdenum										
Nickel	anr									
Phosphorus										
Potassium	anr									
Selenium	2000	2000	100.0	2000	1980	99.0	2000	2010	100.5	
Silicon										
Silver	250	244	97.6	250	243	97.2	250	240	96.0	
Sodium	anr									
Strontium										
Sulfur										
Thallium	anr									
Tin										
Titanium										
Tungsten										
Vanadium	anr									
Zinc	anr									

14.4.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44481 Units: ug/l

Time:		18:22			18:48			19:50		
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44481 Units: ug/l

Time: Sample ID:	CCV	20:38 CCV12		CCV	21:35 CCV13		CCV	22:23 CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1990	99.5	2000	2010	100.5	2000	2010	100.5
Barium	2000	1970	98.5	2000	2000	100.0	2000	1980	99.0
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	1930	96.5	2000	1950	97.5	2000	1940	97.0
Calcium	40000	39000	97.5	40000	39500	98.8	40000	39300	98.3
Chromium	2000	1990	99.5	2000	2020	101.0	2000	2000	100.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2000	100.0	2000	2030	101.5	2000	2020	101.0
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	1990	99.5	2000	2010	100.5	2000	2000	100.0
Silicon									
Silver	250	242	96.8	250	245	98.0	250	244	97.6
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.4.4
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44481 Units: ug/l

Time: Sample ID:	CCV	23:10 CCV15		CCV	23:26 CCV16		CCV	00:10 CCV17	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2010	100.5	2000	2030	101.5	2000	2010	100.5
Barium	2000	1980	99.0	2000	1990	99.5	2000	1990	99.5
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	1930	96.5	2000	1950	97.5	2000	1930	96.5
Calcium	40000	39300	98.3	40000	39300	98.3	40000	39300	98.3
Chromium	2000	2120	106.0	2000	1960	98.0	2000	2030	101.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2010	100.5	2000	2030	101.5	2000	2020	101.0
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	1990	99.5	2000	2020	101.0	2000	2000	100.0
Silicon									
Silver	250	256	102.4	250	240	96.0	250	246	98.4
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.4.4
14

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 6010C
Units: ug/l

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44481 Units: ug/l

Time: Sample ID:		00:58 CCV18			01:46 CCV19			02:04 CCV20		
Metal	CCV True	Results	% Rec	CCV True	Results	% Rec	CCV True	Results	% Rec	
Aluminum	anr									
Antimony	anr									
Arsenic	2000	2040	102.0	2000	1990	99.5	2000	2020	101.0	
Barium	2000	1990	99.5	2000	1970	98.5	2000	1980	99.0	
Beryllium	anr									
Bismuth										
Boron										
Cadmium	2000	1960	98.0	2000	1910	95.5	2000	1930	96.5	
Calcium	40000	39400	98.5	40000	39000	97.5	40000	39200	98.0	
Chromium	2000	1990	99.5	2000	2010	100.5	2000	2050	102.5	
Cobalt	anr									
Copper	anr									
Iron	anr									
Lead	2000	2040	102.0	2000	1990	99.5	2000	2020	101.0	
Lithium										
Magnesium	anr									
Manganese	anr									
Molybdenum										
Nickel	anr									
Phosphorus										
Potassium	anr									
Selenium	2000	2030	101.5	2000	1980	99.0	2000	2010	100.5	
Silicon										
Silver	250	243	97.2	250	244	97.6	250	249	99.6	
Sodium	anr									
Strontium										
Sulfur										
Thallium	anr									
Tin										
Titanium										
Tungsten										
Vanadium	anr									
Zinc	anr									

14.4.4
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CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44481 Units: ug/l

Time:		00:58		01:46		02:04			
Sample ID:	CCV	CCV18		CCV	CCV19		CCV	CCV20	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP
QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/22/18
Run ID: MA44481

Methods: SW846 6010C
Units: ug/l

Time: Sample ID:		11:46 HSTD1	% Rec	11:58 HSTD2	% Rec
Metal	HSTD True	Results		True	Results
Aluminum	anr				
Antimony					
Arsenic				5000	4950 99.0
Barium				5000	5070 101.4
Beryllium					
Bismuth					
Boron					
Cadmium				5000	4970 99.4
Calcium	150000	153000	102.0		
Chromium				5000	5230 104.6
Cobalt					
Copper					
Iron	anr				
Lead				5000	5100 102.0
Lithium					
Magnesium	anr				
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium	anr				
Selenium				5000	4980 99.6
Silicon					
Silver				625	626 100.2
Sodium	anr				
Strontium					
Sulfur					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium					
Zinc					

HIGH STANDARD CHECK SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44481 Units: ug/l

Time:		11:46		11:58	
Sample ID:		HSTD1		HSTD2	
Metal	HSTD	Results	% Rec	Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44481 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	11:24 CRI1	% Rec	11:28 CRID1	% Rec	18:31 CRI2	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	anr					
Antimony	6.0	20	3.0	anr					
Arsenic	8.0	20	3.0	8.80	110.0	3.90	130.0	7.90	98.8
Barium	200		4.0	209	104.5	4.50	112.5	210	105.0
Beryllium	2.0		1.0	anr					
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	3.10	103.3	1.10	110.0	3.10	103.3
Calcium	5000	2000	1000	5300	106.0	1110	111.0	5200	104.0
Chromium	10		2.0	10.7	107.0	2.10	105.0	10.7	107.0
Cobalt	50		3.0	anr					
Copper	10		2.0	anr					
Iron	100	500		anr					
Lead	3.0	20	2.5	2.50	83.3	0.200U	0.0* (a)	3.10	103.3
Lithium	50								
Magnesium	5000	2000	100	anr					
Manganese	15		3.0	anr					
Molybdenum	20								
Nickel	10		4.0	anr					
Phosphorus	50								
Potassium	5000		2000	anr					
Selenium	10	20	5.0	12.9	129.0	7.60	152.0*(a)	12.2	122.0
Silicon	200								
Silver	5.0		2.0	5.50	110.0	0.900	45.0*(a)	6.00	120.0
Sodium	5000		1000	anr					
Strontium	10								
Sulfur	50								
Thallium	10		2.0	anr					
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	anr					
Zinc	20		10	anr					

14.4.6
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44481 Units: ug/l

Time:					11:24		11:28		18:31	
Sample ID:	CRI	CRIA	CRID	CRI1	% Rec	CRID1	% Rec	CRI2	% Rec	
Metal	True	True	True	Results		Results		Results		

Zirconium 10

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element at this RL in the area bracketed by this QC.

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44481 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	18:35 CRID2	% Rec	01:55 CRI3	% Rec	01:59 CRID3	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	anr					
Antimony	6.0	20	3.0	anr					
Arsenic	8.0	20	3.0	3.90	130.0	8.40	105.0	4.40	146.7*(a
Barium	200		4.0	4.40	110.0	210	105.0	4.20	105.0
Beryllium	2.0		1.0	anr					
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	1.10	110.0	3.10	103.3	1.00	100.0
Calcium	5000	2000	1000	1060	106.0	5200	104.0	1050	105.0
Chromium	10		2.0	2.10	105.0	10.9	109.0	2.00	100.0
Cobalt	50		3.0	anr					
Copper	10		2.0	anr					
Iron	100	500							
Lead	3.0	20	2.5	0.700U	0.0* (a)	3.70	123.3	0.800U	0.0* (a)
Lithium	50								
Magnesium	5000	2000	100	anr					
Manganese	15		3.0	anr					
Molybdenum	20								
Nickel	10		4.0	anr					
Phosphorus	50								
Potassium	5000		2000	anr					
Selenium	10	20	5.0	7.10	142.0*(a	12.4	124.0	6.10	122.0
Silicon	200								
Silver	5.0		2.0	1.00	50.0*(a)	4.10	82.0	0.700	35.0*(a)
Sodium	5000		1000	anr					
Strontium	10								
Sulfur	50								
Thallium	10		2.0	anr					
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	anr					
Zinc	20		10	anr					

14.4.6
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44481 Units: ug/l

Time:					18:35		01:55		01:59	
Sample ID:	CRI	CRIA	CRID	CRID2	Results	% Rec	CRI3	Results	% Rec	CRID3
Metal	True	True	True	Results			Results			Results

Zirconium 10

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element at this RL in the area bracketed by this QC.

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44481 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	11:33 ICSA1 Results	% Rec	11:37 ICSAB1 Results	% Rec	18:40 ICSA2 Results	% Rec	18:44 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	531000	106.2	525000	105.0	508000	101.6	511000	102.2
Antimony		1000	1.00		1070	107.0	0.300		1080	108.0
Arsenic		1000	-0.400		1070	107.0	-2.00		1090	109.0
Barium		500	2.60		527	105.4	2.50		518	103.6
Beryllium		500	0.700		514	102.8	0.600		496	99.2
Bismuth		500	4.70		525	105.0	5.50		538	107.6
Boron		500	1.40		507	101.4	-1.00		516	103.2
Cadmium		1000	1.60		1050	105.0	1.40		1030	103.0
Calcium	400000	400000	400000	100.0	397000	99.3	383000	95.8	383000	95.8
Chromium		500	1.60		508	101.6	1.10		498	99.6
Cobalt		500	1.10		493	98.6	1.30		495	99.0
Copper		500	3.60		533	106.6	2.50		526	105.2
Iron	200000	200000	195000	97.5	200000	100.0	181000	90.5	188000	94.0
Lead		1000	5.70		987	98.7	4.90		977	97.7
Lithium		500	17.8		545	109.0	14.5		531	106.2
Magnesium	500000	500000	534000	106.8	530000	106.0	506000	101.2	504000	100.8
Manganese		500	-0.600		525	105.0	-3.60		510	102.0
Molybdenum		500	-0.300		500	100.0	-0.400		506	101.2
Nickel		1000	0.600		990	99.0	0.900		977	97.7
Phosphorus		500	10.4		520	104.0	12.8		529	105.8
Potassium			216		153		126		120	
Selenium		1000	-1.40		1080	108.0	-9.10		1100	110.0
Silicon		500	3.80		509	101.8	2.90		515	103.0
Silver		1000	-1.10		1110	111.0	-4.60		1080	108.0
Sodium			35.9		21.1		19.5		11.3	
Strontium		500	1.80		545	109.0	1.90		531	106.2
Sulfur		500	-27.3		492	98.4	-23.7		527	105.4
Thallium		1000	-1.40		1050	105.0	-0.100		1000	100.0
Tin		500	1.00		479	95.8	0.500		481	96.2
Titanium		500	0.400		515	103.0	0.400		511	102.2
Tungsten		500	1.40		496	99.2	0.700		502	100.4
Vanadium		500	0.200		517	103.4	0.500		522	104.4
Zinc		1000	1.00		981	98.1	1.60		992	99.2

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INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SD052218M1.ICP Date Analyzed: 05/22/18 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44481 Units: ug/l

Time:				11:33			11:37			18:40			18:44
Sample ID:	ICSAB	ICSAB	ICSAB	ICSAB1	% Rec	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Metal	True	True	True	Results				Results		Results		Results	

Zirconium 500 1.10 523 104.6 -0.600 514 102.8

(*) Outside of QC limits
(anr) Analyte not requested

14.4.7
14

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP
Analyst: ND
Parameters: Cr

Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44496

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:33	MA44496-STD1	1		STDA
15:36	MA44496-STD2	1		STDB
15:39	ZZZZZZ	1		
15:42	ZZZZZZ	1		
15:47	MA44496-ICV1	1		
15:50	MA44496-ICB1	1		
15:53	MA44496-CCV1	1		
15:59	MA44496-CCB1	1		
16:02	MA44496-CRI1	1		
16:05	MA44496-CRID1	1		
16:08	MA44496-ICSA1	1		
16:11	MA44496-ICSAB1	1		
16:14	MA44496-HSTD1	1		
16:17	MA44496-HSTD2	1		
16:20	ZZZZZZ	1		
16:23	ZZZZZZ	1		
16:26	ZZZZZZ	1		
16:29	MA44496-CCV2	1		
16:32	MA44496-CCB2	1		
16:35	MA44496-CRI2	1		
16:38	ZZZZZZ	1		
16:44	MP7275-MB1	1		
16:50	ZZZZZZ	1		
16:53	ZZZZZZ	1		
16:57	ZZZZZZ	5		
17:00	ZZZZZZ	1		
17:03	ZZZZZZ	1		
17:06	ZZZZZZ	1		
17:09	MA44496-CCV3	1		
17:12	MA44496-CCB3	1		
17:15	ZZZZZZ	25		
17:18	ZZZZZZ	1		
17:21	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP
Analyst: ND
Parameters: Cr

Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44496

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:24	ZZZZZZ	1		
17:27	ZZZZZZ	1		
17:30	MP7255-S1	1		
17:33	MP7255-S2	1		
17:36	ZZZZZZ	1		
17:39	ZZZZZZ	1		
17:42	MA44496-CCV4	1		
17:46	MA44496-CCB4	1		
17:49	ZZZZZZ	5		
17:52	ZZZZZZ	10		
17:55	ZZZZZZ	2		
17:58	ZZZZZZ	5		
18:01	ZZZZZZ	1		
18:04	MP7221-S1	2		
18:07	MP7221-S2	2		
18:10	JC66122-13	2		(sample used for QC only; not part of login JC66318)
18:12	MP7221-SD1	10		
18:15	MA44496-CCV5	1		
18:19	MA44496-CCB5	1		
18:22	ZZZZZZ	1		
18:25	ZZZZZZ	1		
18:28	ZZZZZZ	2		
18:31	ZZZZZZ	1		
18:33	ZZZZZZ	1		
18:36	ZZZZZZ	2		
18:39	ZZZZZZ	2		
18:42	ZZZZZZ	2		
18:44	ZZZZZZ	3		
18:47	MA44496-CCV6	1		
18:51	MA44496-CCB6	1		
18:54	ZZZZZZ	2		
18:56	ZZZZZZ	2		
18:59	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP
Analyst: ND
Parameters: Cr

Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44496

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:02	ZZZZZZ	2		
19:05	ZZZZZZ	2		
19:07	ZZZZZZ	2		
19:10	ZZZZZZ	1		
19:13	ZZZZZZ	5		
19:16	ZZZZZZ	1		
19:18	MA44496-CCV7	1		
19:21	MA44496-CCB7	1		
19:24	ZZZZZZ	1		
19:27	MP7276-S1	5		
19:29	MP7276-S2	5		
19:37	JC66369-2	5		(sample used for QC only; not part of login JC66318)
19:40	MP7276-SD1	25		
19:43	ZZZZZZ	5		
19:45	MA44496-CCV8	1		
19:48	MA44496-CCB8	1		
19:52	MP7268-MB1	5		
19:55	ZZZZZZ	5		
19:57	MP7268-S1	5		
20:00	MP7268-S2	5		
20:03	ZZZZZZ	1		
20:07	ZZZZZZ	1		
20:10	ZZZZZZ	25		
20:13	MP7268-B1	5		
----->	Last reportable sample/prep for job JC66318			
20:15	MA44496-CCV9	1		
20:18	MA44496-CCB9	1		
20:29	ZZZZZZ	2		
20:32	ZZZZZZ	2		
20:35	ZZZZZZ	2		
20:37	ZZZZZZ	2		
20:40	ZZZZZZ	2		
20:43	ZZZZZZ	2		
20:46	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP
Analyst: ND
Parameters: Cr

Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44496

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:50	ZZZZZZ	5		
20:52	MA44496-CCV10	1		
20:55	MA44496-CCB10	1		
20:59	MA44496-CRI3	1		
21:02	MA44496-CRID2	1		
21:05	MA44496-ICSA2	1		
21:08	MA44496-ICSAB2	1		
21:11	MA44496-CCV11	1		
21:13	MA44496-CCB11	1		
21:20	ZZZZZZ	1		
21:23	ZZZZZZ	1		
21:26	ZZZZZZ	1		
21:29	ZZZZZZ	1		
21:32	ZZZZZZ	1		
21:35	ZZZZZZ	1		
21:38	ZZZZZZ	1		
21:40	ZZZZZZ	1		
21:43	ZZZZZZ	1		
21:46	ZZZZZZ	1		
21:49	MA44496-CCV12	1		
21:51	MA44496-CCB12	1		
21:54	ZZZZZZ	1		
21:57	ZZZZZZ	1		
22:00	ZZZZZZ	1		
22:02	ZZZZZZ	1		
22:05	ZZZZZZ	1		
22:08	ZZZZZZ	5		
22:11	ZZZZZZ	1		
22:13	ZZZZZZ	1		
22:16	ZZZZZZ	1		
22:19	MA44496-CCV13	1		
22:21	MA44496-CCB13	1		
22:24	ZZZZZZ	1		

-----> Last reportable CCB for job JC66318

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP
Analyst: ND
Parameters: Cr

Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44496

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:27	ZZZZZZ	1		
22:30	ZZZZZZ	1		
22:32	ZZZZZZ	1		
22:35	ZZZZZZ	1		
22:45	MA44496-CCV14	1		
22:48	MA44496-CCB14	1		
22:54	ZZZZZZ	1		
22:56	ZZZZZZ	1		
22:59	ZZZZZZ	1		
23:02	ZZZZZZ	1		
23:05	ZZZZZZ	1		
23:07	ZZZZZZ	1		
23:10	ZZZZZZ	1		
23:13	ZZZZZZ	1		
23:16	ZZZZZZ	1		
23:18	MA44496-CCV15	1		
23:30	MA44496-CCB15	1		
23:33	MP7303-MB1	1		
23:36	MP7303-B1	1		
23:39	MP7303-S1	1		FE high
23:41	MP7303-S2	1		FE high
23:44	JC66528-2	1		(sample used for QC only; not part of login JC66318)
23:47	MP7303-SD1	5		
23:50	ZZZZZZ	1		
23:52	ZZZZZZ	1		
23:55	ZZZZZZ	1		
23:58	MA44496-CCV16	1		
00:02	MA44496-CCB16	1		
00:05	ZZZZZZ	1		
00:07	ZZZZZZ	2		
00:10	ZZZZZZ	3		
00:15	MA44496-CRI4	1		
00:18	MA44496-CRID3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP
Analyst: ND
Parameters: Cr

Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44496

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:21	MA44496-CCV17	1		
00:24	MA44496-CCB17	1		
00:26	ZZZZZZ	1		
00:29	ZZZZZZ	1		
00:32	ZZZZZZ	1		
00:34	ZZZZZZ	1		
00:37	ZZZZZZ	1		
00:40	ZZZZZZ	5		
00:43	MA44496-CCV18	1		
00:45	MA44496-CCB18	1		
00:48	ZZZZZZ	1		
00:51	ZZZZZZ	1		
00:54	ZZZZZZ	1		
00:56	ZZZZZZ	1		
00:59	ZZZZZZ	1		
01:02	ZZZZZZ	1		
01:05	MA44496-CCV19	1		
01:07	MA44496-CCB19	1		
Refer to raw data for calibration curve and standards.				

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INTERNAL STANDARD SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP
Analyst: ND
Parameters: Cr

Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44496

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:33	MA44496-STD1	6408 R	154930 R	22798 R	9747 R
15:36	MA44496-STD2	6013	143260	22121	8955
15:39	ZZZZZZ	6199	149120	22322	9201
15:42	ZZZZZZ	6374	153480	22671	9695
15:47	MA44496-ICV1	6245	149740	22447	9265
15:50	MA44496-ICB1	6419	154940	23049	9756
15:53	MA44496-CCV1	6260	150210	22658	9303
15:59	MA44496-CCB1	6390	154200	22811	9732
16:02	MA44496-CRI1	No results reported for the elements associated with this internal standard.			
16:05	MA44496-CRID1	6368	154000	22640	9680
16:08	MA44496-ICSA1	5928	140140	22244	8671
16:11	MA44496-ICSAB1	5945	139510	22102	8734
16:14	MA44496-HSTD1	6380	154130	22677	9770
16:17	MA44496-HSTD2	6043	142430	22171	8747
16:20	ZZZZZZ	6285	150970	22414	9739
16:23	ZZZZZZ	6370	156620	22845	9840
16:26	ZZZZZZ	6471	156000	22764	9838
16:29	MA44496-CCV2	6244	149560	22314	9279
16:32	MA44496-CCB2	6464	155160	22808	9842
16:35	MA44496-CRI2	6438	154090	22883	9749
16:38	ZZZZZZ	6524	157690	22983	9906
16:44	MP7275-MB1	6488	156330	22837	9875
16:50	ZZZZZZ	5968	139580	22020	8560
16:53	ZZZZZZ	6146	146080	22655	9045
16:57	ZZZZZZ	6335	151160	22643	9516
17:00	ZZZZZZ	6467	157510	23005	9826
17:03	ZZZZZZ	6029	139420	22352	8538
17:06	ZZZZZZ	6429	153910	23300	9605
17:09	MA44496-CCV3	6159	147650	22071	9180
17:12	MA44496-CCB3	6404	154500	22385	9773
17:15	ZZZZZZ	6372	153740	22738	9677
17:18	ZZZZZZ	6499	156810	22943	9894
17:21	ZZZZZZ	6360	153450	22777	9529

INTERNAL STANDARD SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP
Analyst: ND
Parameters: Cr

Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44496

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
17:24	ZZZZZZ	6528	157550	23122	9918
17:27	ZZZZZZ	6366	152630	22815	9470
17:30	MP7255-S1	6520	152680	23788	9502
17:33	MP7255-S2	6476	153200	23583	9449
17:36	ZZZZZZ	6562	158130	23176	9938
17:39	ZZZZZZ	6328	152450	22847	9458
17:42	MA44496-CCV4	6255	150560	22419	9295
17:46	MA44496-CCB4	6296	152280	21755	9599
17:49	ZZZZZZ	6197	149100	22004	9245
17:52	ZZZZZZ	6228	149250	21813	9572
17:55	ZZZZZZ	6168	147300	22204	9184
17:58	ZZZZZZ	6234	150550	22253	9569
18:01	ZZZZZZ	6358	153380	22440	9654
18:04	MP7221-S1	6195	146430	21943	9337
18:07	MP7221-S2	6170	147380	22064	9320
18:10	JC66122-13	6274	148840	21882	9472
18:12	MP7221-SD1	6302	150470	21998	9501
18:15	MA44496-CCV5	6120	145840	21739	9120
18:19	MA44496-CCB5	6376	152220	22123	9681
18:22	ZZZZZZ	6301	150530	22149	9387
18:25	ZZZZZZ	6498	155740	22656	9807
18:28	ZZZZZZ	6338	153440	22531	9518
18:31	ZZZZZZ	6475	156140	22759	9774
18:33	ZZZZZZ	6314	152110	22347	9422
18:36	ZZZZZZ	6503	155600	22755	9653
18:39	ZZZZZZ	6427	153150	22794	9460
18:42	ZZZZZZ	6554	156230	22988	9664
18:44	ZZZZZZ	No results reported for the elements associated with this internal standard.			
18:47	MA44496-CCV6	6228	148000	21930	9252
18:51	MA44496-CCB6	6420	153650	22128	9734
18:54	ZZZZZZ	6481	154450	22813	9636
18:56	ZZZZZZ	6384	153080	22503	9439
18:59	ZZZZZZ	6480	153630	22749	9600

INTERNAL STANDARD SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP
Analyst: ND
Parameters: Cr

Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44496

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:02	ZZZZZZ	6372	151280	22585	9556
19:05	ZZZZZZ	6340	150570	22788	9098
19:07	ZZZZZZ	6627	158080	23689	9646
19:10	ZZZZZZ	6912	162420	24967	9970
19:13	ZZZZZZ	6441	153310	22842	9574
19:16	ZZZZZZ	6339	153190	22334	9478
19:18	MA44496-CCV7	6205	146380	21956	9241
19:21	MA44496-CCB7	6452	999999 !a	22006	9802
19:24	ZZZZZZ	6472	154740	22464	9825
19:27	MP7276-S1	6251	149450	21759	9261
19:29	MP7276-S2	6222	147520	21858	9234
19:37	JC66369-2	6280	148300	21934	9361
19:40	MP7276-SD1	6329	151530	21896	9576
19:43	ZZZZZZ	6356	150510	22206	9197
19:45	MA44496-CCV8	6208	148980	21746	9272
19:48	MA44496-CCB8	6367	152960	21884	9740
19:52	MP7268-MB1	6201	146000	22022	9137
19:55	ZZZZZZ	6147	999999 !	22166	9017
19:57	MP7268-S1	6086	144700	21738	8891
20:00	MP7268-S2	6093	144620	21725	8902
20:03	ZZZZZZ	6366	152440	22369	9542
20:07	ZZZZZZ	6202	148990	21941	9257
20:10	ZZZZZZ	6315	151660	21885	9596
20:13	MP7268-B1	6099	144850	21878	8954
20:15	MA44496-CCV9	6108	146290	21499	9146
20:18	MA44496-CCB9	6292	151970	21788	9612
20:29	ZZZZZZ	6497	152550	22802	9724
20:32	ZZZZZZ	6376	149360	22759	9478
20:35	ZZZZZZ	6493	155440	22777	9669
20:37	ZZZZZZ	6385	152390	22510	9620
20:40	ZZZZZZ	6358	150130	23179	9166
20:43	ZZZZZZ	6520	156440	23198	9565
20:46	ZZZZZZ	6901	164390	25130	10001

INTERNAL STANDARD SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP
Analyst: ND
Parameters: Cr

Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44496

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:50	ZZZZZZ	6452	154650	22807	9650
20:52	MA44496-CCV10	6215	148840	21677	9315
20:55	MA44496-CCB10	6388	153580	22137	9776
20:59	MA44496-CRI3	6351	152750	22200	9666
21:02	MA44496-CRID2	6418	154100	21972	9802
21:05	MA44496-ICSA2	5848	139150	21377	8655
21:08	MA44496-ICSAB2	5839	138580	21754	8679
21:11	MA44496-CCV11	6213	150580	22302	9325
21:13	MA44496-CCB11	6394	153440	22400	9798
21:20	ZZZZZZ	6222	143200	22410	9120
21:23	ZZZZZZ	5890	141630	21238	8840
21:26	ZZZZZZ	5880	142130	21163	8756
21:29	ZZZZZZ	6181	150850	21741	9486
21:32	ZZZZZZ	6220	149710	21632	9533
21:35	ZZZZZZ	6223	150200	21820	9549
21:38	ZZZZZZ	6224	150020	21474	9549
21:40	ZZZZZZ	6198	150140	21865	9542
21:43	ZZZZZZ	6205	150140	21711	9502
21:46	ZZZZZZ	6278	150650	21710	9658
21:49	MA44496-CCV12	5982	142630	21171	8996
21:51	MA44496-CCB12	6175	149460	21161	9475
21:54	ZZZZZZ	6327	152340	22178	9667
21:57	ZZZZZZ	6139	148460	22046	9265
22:00	ZZZZZZ	6201	147770	22345	9380
22:02	ZZZZZZ	6142	147770	22343	9298
22:05	ZZZZZZ	6224	149700	22458	9444
22:08	ZZZZZZ	6161	150180	21892	9366
22:11	ZZZZZZ	6238	151180	22416	9271
22:13	ZZZZZZ	6432	157730	23341	9289
22:16	ZZZZZZ	6480	154740	23125	9561
22:19	MA44496-CCV13	6227	151020	22710	9308
22:21	MA44496-CCB13	6561	999999	26224	9971
22:24	ZZZZZZ	6401	153340	23677	9457

INTERNAL STANDARD SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP
Analyst: ND
Parameters: Cr

Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
Run ID: MA44496

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:27	ZZZZZZ	6229	151420	23295	9368
22:30	ZZZZZZ	3943 !	123520	20927	6481 !
22:32	ZZZZZZ	1524 !	48835 !	8436 !	3303 !
22:35	ZZZZZZ	626 !	14003 !	1839 !	2024 !
22:45	MA44496-CCV14	6222	149280	22327	9311
22:48	MA44496-CCB14	6400	155890	22228	9799
22:54	ZZZZZZ	6551	156540	23685	9655
22:56	ZZZZZZ	6414	153720	22981	9648
22:59	ZZZZZZ	No results reported for the elements associated with this internal standard.			
23:02	ZZZZZZ	6453	153650	23122	10214
23:05	ZZZZZZ	6586	156290	24039	9644
23:07	ZZZZZZ	6545	156460	23136	9845
23:10	ZZZZZZ	6457	154870	22949	9622
23:13	ZZZZZZ	6367	150230	22304	9443
23:16	ZZZZZZ	6803	160870	23593	10002
23:18	MA44496-CCV15	6687	163650	24653	9980
23:30	MA44496-CCB15	6173	149180	21512	9502
23:33	MP7303-MB1	6229	151420	21873	9566
23:36	MP7303-B1	6075	147030	21664	9218
23:39	MP7303-S1	6221	148070	22540	9441
23:41	MP7303-S2	6106	145730	21979	9276
23:44	JC66528-2	6194	147030	21695	9414
23:47	MP7303-SD1	6125	148440	21485	9336
23:50	ZZZZZZ	6231	148410	21987	9521
23:52	ZZZZZZ	6363	153800	22910	9272
23:55	ZZZZZZ	6409	152870	22696	9534
23:58	MA44496-CCV16	6052	144770	21146	9143
00:02	MA44496-CCB16	6215	149130	21371	9582
00:05	ZZZZZZ	6339	150850	22173	9449
00:07	ZZZZZZ	6230	148410	21703	9517
00:10	ZZZZZZ	6212	148130	21724	9623
00:15	MA44496-CRI4	6219	148980	21261	9549
00:18	MA44496-CRID3	6253	148770	21352	9646

INTERNAL STANDARD SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP
 Analyst: ND
 Parameters: Cr

Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
 Run ID: MA44496

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:21	MA44496-CCV17	6092	145390	21301	9213
00:24	MA44496-CCB17	6265	149650	21812	9669
00:26	ZZZZZZ	6393	152180	21942	9893
00:29	ZZZZZZ	6241	999999 !	21657	9505
00:32	ZZZZZZ	6113	147030	21533	9230
00:34	ZZZZZZ	6104	146340	21667	9221
00:37	ZZZZZZ	6179	148210	21825	9402
00:40	ZZZZZZ	6210	149270	21731	9573
00:43	MA44496-CCV18	6137	144980	21288	9265
00:45	MA44496-CCB18	6133	151030	21439	9497
00:48	ZZZZZZ	6169	148170	21556	9394
00:51	ZZZZZZ	6443	147960	21416	9759
00:54	ZZZZZZ	6153	999999 !	21422	9385
00:56	ZZZZZZ	6188	148000	21896	9429
00:59	ZZZZZZ	6157	148570	21603	9370
01:02	ZZZZZZ	6268	153270	22070	9730
01:05	MA44496-CCV19	6042	145340	21076	9129
01:07	MA44496-CCB19	6237	149950	21169	9628

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

(a) No samples reported for the elements associated with this internal standard.

14.5.1
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP
QC Limits: result < RL

Date Analyzed: 05/23/18
Run ID: MA44496

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:			15:50 ICB1		15:59 CCB1		16:32 CCB2		17:12 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	anr							
Antimony	6.0	2.4	anr							
Arsenic	3.0	1.2	anr							
Barium	200	.6	anr							
Beryllium	1.0	.2	anr							
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	anr							
Calcium	5000	5.5	anr							
Chromium	10	.7	-0.200	<10	0.100	<10	0.00	<10	-0.100	<10
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	3.5	anr							
Lead	3.0	2.2	anr							
Lithium	50	3.4								
Magnesium	5000	25	anr							
Manganese	15	.14	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	2								
Potassium	10000	60	anr							
Selenium	10	3.7	anr							
Silicon	200	1.8								
Silver	10	.7	anr							
Sodium	10000	35	anr							
Strontium	10	.2								
Sulfur	50	3.1								
Thallium	2.0	1.8	anr							
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	anr							
Zinc	20	.2	anr							

14.5.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44496 Units: ug/l

Time: Sample ID:			15:50 ICB1		15:59 CCB1		16:32 CCB2		17:12 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested



BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP
QC Limits: result < RL

Date Analyzed: 05/23/18
Run ID: MA44496

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:			17:46 CCB4		18:19 CCB5		18:51 CCB6		19:21 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	anr							
Antimony	6.0	2.4	anr							
Arsenic	3.0	1.2	anr							
Barium	200	.6	anr							
Beryllium	1.0	.2	anr							
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	anr							
Calcium	5000	5.5	anr							
Chromium	10	.7	-0.200	<10	0.400	<10	0.400	<10	0.300	<10
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	3.5	anr							
Lead	3.0	2.2	anr							
Lithium	50	3.4								
Magnesium	5000	25	anr							
Manganese	15	.14	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	2								
Potassium	10000	60	anr							
Selenium	10	3.7	anr							
Silicon	200	1.8								
Silver	10	.7	anr							
Sodium	10000	35	anr							
Strontium	10	.2								
Sulfur	50	3.1								
Thallium	2.0	1.8	anr							
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	anr							
Zinc	20	.2	anr							

14.5.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44496 Units: ug/l

Time: Sample ID:			17:46 CCB4		18:19 CCB5		18:51 CCB6		19:21 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested



14.5.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP
QC Limits: result < RL

Date Analyzed: 05/23/18
Run ID: MA44496

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:			19:48 CCB8		20:18 CCB9		20:55 CCB10		21:13 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	19	anr							
Antimony	6.0	2.4	anr							
Arsenic	3.0	1.2	anr							
Barium	200	.6	anr							
Beryllium	1.0	.2	anr							
Bismuth	20	3.2								
Boron	100	1.5								
Cadmium	3.0	.4	anr							
Calcium	5000	5.5	anr							
Chromium	10	.7	0.600	<10	0.600	<10	0.00	<10	0.300	<10
Cobalt	50	.4	anr							
Copper	10	1.1	anr							
Iron	100	3.5	anr							
Lead	3.0	2.2	anr							
Lithium	50	3.4								
Magnesium	5000	25	anr							
Manganese	15	.14	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	2								
Potassium	10000	60	anr							
Selenium	10	3.7	anr							
Silicon	200	1.8								
Silver	10	.7	anr							
Sodium	10000	35	anr							
Strontium	10	.2								
Sulfur	50	3.1								
Thallium	2.0	1.8	anr							
Tin	10	.9								
Titanium	10	.7								
Tungsten	50	2.2								
Vanadium	50	.8	anr							
Zinc	20	.2	anr							

14.5.2
14

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44496 Units: ug/l

Time: Sample ID:			19:48 CCB8		20:18 CCB9		20:55 CCB10		21:13 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .3

(*) Outside of QC limits
(anr) Analyte not requested



CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44496 Units: ug/l

Time: Sample ID:		15:47 ICV1	% Rec	CCV	15:53 CCV1	% Rec	CCV	16:29 CCV2	% Rec
Metal	ICV	Results		True	Results		True	Results	
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	2000	1950	97.5	2000	1970	98.5	2000	1970	98.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.5.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44496 Units: ug/l

Time:		15:47			15:53			16:29		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44496 Units: ug/l

Time: Sample ID:		17:09 CCV3		17:42 CCV4		18:15 CCV5			
Metal	CCV	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	2000	1990	99.5	2000	1960	98.0	2000	2040	102.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.5.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44496 Units: ug/l

Time:		17:09			17:42			18:15		
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44496 Units: ug/l

Time: Sample ID:		18:47 CCV6		19:18 CCV7		19:45 CCV8			
Metal	CCV	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	2000	1980	99.0	2000	2030	101.5	2000	1980	99.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.5.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44496 Units: ug/l

Time:		18:47			19:18			19:45		
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44496 Units: ug/l

Time: Sample ID:		20:15 CCV9		20:52 CCV10		21:11 CCV11			
Metal	CCV	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	2000	2030	101.5	2000	1990	99.5	2000	1960	98.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

14.5.3
14

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44496 Units: ug/l

Time:		20:15			20:52			21:11		
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: 90 to 110 % Recovery Run ID: MA44496 Units: ug/l

Time:		16:14		16:17	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2
Metal	True	Results	% Rec	True	Results
Aluminum					
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Bismuth					
Boron					
Cadmium	anr				
Calcium					
Chromium	5000	4980	99.6		
Cobalt	anr				
Copper	anr				
Iron					
Lead	anr				
Lithium					
Magnesium					
Manganese	anr				
Molybdenum					
Nickel	anr				
Phosphorus					
Potassium					
Selenium	anr				
Silicon					
Silver	anr				
Sodium					
Strontium					
Sulfur					
Thallium	anr				
Tin					
Titanium					
Tungsten					
Vanadium	anr				
Zinc	anr				

14.5.4
14

HIGH STANDARD CHECK SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA44496 Units: ug/l

Time:		16:14		16:17	
Sample ID:		HSTD1		HSTD2	
Metal	HSTD	Results	% Rec	Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP
QC Limits: 70 to 130 % Recovery

Date Analyzed: 05/23/18
Run ID: MA44496

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	16:05 CRID1	% Rec	16:35 CRI2	% Rec	20:59 CRI3	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	anr					
Antimony	6.0	20	3.0						
Arsenic	8.0	20	3.0	anr					
Barium	200		4.0	anr					
Beryllium	2.0		1.0	anr					
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	anr					
Calcium	5000	2000	1000	anr					
Chromium	10		2.0	2.00	100.0	10.3	103.0	9.90	99.0
Cobalt	50		3.0	anr					
Copper	10		2.0						
Iron	100	500							
Lead	3.0	20	2.5						
Lithium	50								
Magnesium	5000	2000	100	anr					
Manganese	15		3.0	anr					
Molybdenum	20								
Nickel	10		4.0	anr					
Phosphorus	50								
Potassium	5000		2000	anr					
Selenium	10	20	5.0	anr					
Silicon	200								
Silver	5.0		2.0						
Sodium	5000		1000	anr					
Strontium	10								
Sulfur	50								
Thallium	10		2.0	anr					
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	anr					
Zinc	20		10	anr					

14.5.5
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44496 Units: ug/l

Time:						16:05		16:35		20:59	
Sample ID:	CRI	CRIA	CRID	CRID1		CRID1		CRI2		CRI3	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec

Zirconium 10

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP
QC Limits: 70 to 130 % Recovery

Date Analyzed: 05/23/18
Run ID: MA44496

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	21:02 CRID2	
Metal	True	True	True	Results	% Rec
Aluminum	200	500	100	anr	
Antimony	6.0	20	3.0		
Arsenic	8.0	20	3.0	anr	
Barium	200		4.0	anr	
Beryllium	2.0		1.0	anr	
Bismuth	20				
Boron	100		10		
Cadmium	3.0		1.0	anr	
Calcium	5000	2000	1000	anr	
Chromium	10		2.0	2.20	110.0
Cobalt	50		3.0	anr	
Copper	10		2.0		
Iron	100	500			
Lead	3.0	20	2.5		
Lithium	50				
Magnesium	5000	2000	100	anr	
Manganese	15		3.0	anr	
Molybdenum	20				
Nickel	10		4.0	anr	
Phosphorus	50				
Potassium	5000		2000	anr	
Selenium	10	20	5.0		
Silicon	200				
Silver	5.0		2.0		
Sodium	5000		1000	anr	
Strontium	10				
Sulfur	50				
Thallium	10		2.0	anr	
Tin	10				
Titanium	10				
Tungsten	50				
Vanadium	50		2.0	anr	
Zinc	20		10	anr	

14.5.5
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44496 Units: ug/l

Time:				21:02	
Sample ID:	CRI	CRIA	CRID	CRID2	
Metal	True	True	True	Results	% Rec

Zirconium 10

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44496 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	16:08 ICSA1 Results	% Rec	16:11 ICSAB1 Results	% Rec	21:05 ICSA2 Results	% Rec	21:08 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	515000	103.0	489000	97.8	525000	105.0	499000	99.8
Antimony		1000	0.100		1040	104.0	2.20		1050	105.0
Arsenic		1000	0.400		1010	101.0	-1.20		1020	102.0
Barium		500	0.900		490	98.0	1.70		493	98.6
Beryllium		500	0.100		477	95.4	0.00		474	94.8
Bismuth		500	4.70		504	100.8	7.00		513	102.6
Boron		500	3.00		486	97.2	0.800		488	97.6
Cadmium		1000	0.300		974	97.4	0.200		995	99.5
Calcium	400000	400000	375000	93.8	384000	96.0	384000	96.0	379000	94.8
Chromium		500	1.00		473	94.6	1.10		482	96.4
Cobalt		500	-0.100		479	95.8	0.00		487	97.4
Copper		500	1.20		487	97.4	1.40		489	97.8
Iron	200000	200000	185000	92.5	195000	97.5	187000	93.5	194000	97.0
Lead		1000	3.90		942	94.2	2.20		956	95.6
Lithium		500	2.60		507	101.4	0.800		507	101.4
Magnesium	500000	500000	489000	97.8	485000	97.0	493000	98.6	480000	96.0
Manganese		500	-0.400		490	98.0	-0.100		502	100.4
Molybdenum		500	0.800		479	95.8	0.700		485	97.0
Nickel		1000	-0.200		946	94.6	-0.100		956	95.6
Phosphorus		500	5.70		487	97.4	0.900		491	98.2
Potassium			184		126		78.1		113	
Selenium		1000	6.30		1060	106.0	3.70		1070	107.0
Silicon		500	4.30		504	100.8	6.10		518	103.6
Silver		1000	2.30		1020	102.0	3.20		1030	103.0
Sodium			5.50		-2.10		-27.4		-14.6	
Strontium		500	-2.40		511	102.2	-2.70		512	102.4
Sulfur		500	-10.4		470	94.0	-17.8		481	96.2
Thallium		1000	1.30		1010	101.0	3.40		1030	103.0
Tin		500	-2.40		465	93.0	-2.00		479	95.8
Titanium		500	-1.80		489	97.8	-2.60		497	99.4
Tungsten		500	3.00		481	96.2	2.00		487	97.4
Vanadium		500	3.70		488	97.6	3.80		502	100.4
Zinc		1000	4.90		934	93.4	4.90		958	95.8

14.5.6
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INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: SC052318M3.ICP Date Analyzed: 05/23/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44496 Units: ug/l

Time:				16:08		16:11		21:05		21:08	
Sample ID:	ICSAB	ICSAB	ICSAB	% Rec	Results	% Rec	Results	% Rec	Results	% Rec	Results
Metal	True	True	True								

Zirconium 500 -2.60 467 93.4 -2.50 476 95.2

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7220
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/18/18

Metal	RL	IDL	MDL	MB raw	final
Aluminum	52	1.4	5.4	0.18	<52
Antimony	2.1	.24	.39	0.12	<2.1
Arsenic	2.1	.22	.26	-0.010	<2.1
Barium	21	.031	.18	0.031	<21
Beryllium	0.21	.01	.051	0.0	<0.21
Bismuth	2.1	.3	.5		
Boron	10	.12	1.3		
Cadmium	0.52	.031	.059	0.010	<0.52
Calcium	520	.48	43	12.5	<520
Chromium	1.0	.041	.18	0.093	<1.0
Cobalt	5.2	.041	.072	0.010	<5.2
Copper	2.6	.11	.41	0.082	<2.6
Iron	52	.23	4.7	2.2	<52
Lead	2.1	.2	.35	0.062	<2.1
Lithium	5.2	.16	1.2		
Magnesium	520	1.8	14	3.4	<520
Manganese	1.5	.052	.09	0.031	<1.5
Molybdenum	2.1	.052	.16		
Nickel	4.1	.052	.25	0.010	<4.1
Phosphorus	10	.27	4.2		
Potassium	1000	5.8	31	7.2	<1000
Selenium	2.1	.34	.66	0.11	<2.1
Silicon	21	.21	2.6		
Silver	0.52	.041	.3	-0.010	<0.52
Sodium	1000	1.3	14	11.7	<1000
Strontium	5.2	.01	.98		
Sulfur	10	.52	3		
Thallium	1.0	.2	.42	-0.11	<1.0
Tin	10	.11	2.7		
Titanium	1.0	.031	.28		
Tungsten	5.2	.18	1.2		
Vanadium	5.2	.041	.091	0.0	<5.2
Zinc	5.2	.021	3.9	0.53	<5.2

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7220
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/18/18

Metal	RL	IDL	MDL	MB raw	final
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Zirconium 2.1 .031 .25

Associated samples MP7220: JC66318-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7220
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/18/18

Metal	JC66030-33 Original MS	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	6980	12300	2740	194.0N(a) 75-125
Antimony	0.0	132	219	60.2N(a) 75-125
Arsenic	5.6	200	219	88.6 75-125
Barium	9.5	220	219	95.9 75-125
Beryllium	0.48	203	219	92.3 75-125
Bismuth				
Boron				
Cadmium	0.0	197	219	89.8 75-125
Calcium	106	2540	2740	88.7 75-125
Chromium	43.6	244	219	91.3 75-125
Cobalt	1.7	196	219	88.6 75-125
Copper	3.8	205	219	91.7 75-125
Iron	17600	19900	2740	83.9 75-125
Lead	4.5	199	219	88.6 75-125
Lithium				
Magnesium	1280	3850	2740	93.7 75-125
Manganese	49.2	244	219	88.8 75-125
Molybdenum				
Nickel	3.3	199	219	89.2 75-125
Phosphorus				
Potassium	2570	5740	2740	115.6 75-125
Selenium	0.56	192	219	87.3 75-125
Silicon				
Silver	0.0	23.8	27.4	86.8 75-125
Sodium	28.5	2540	2740	91.6 75-125
Strontium				
Sulfur				
Thallium	0.0	199	219	90.7 75-125
Tin				
Titanium				
Tungsten				
Vanadium	27.1	229	219	92.0 75-125
Zinc	17.4	214	219	89.6 75-125

14.6.2
14

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 6010C
Units: mg/kg

Metal	JC66030-33 Original MS	Spikelot MPSPK2	% Rec	QC Limits
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Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7220
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/18/18

Metal	JC66030-33 Original	MSD	Spike lot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum	6980	14400	2820	262.7N(a)	15.7	20
Antimony	0.0	154	226	68.1N(a)	15.4	20
Arsenic	5.6	235	226	101.5	16.1	20
Barium	9.5	260	226	110.8	16.7	20
Beryllium	0.48	240	226	106.0	16.7	20
Bismuth						
Boron						
Cadmium	0.0	232	226	102.7	16.3	20
Calcium	106	3000	2820	102.4	16.6	20
Chromium	43.6	289	226	108.6	16.9	20
Cobalt	1.7	232	226	101.9	16.8	20
Copper	3.8	246	226	107.2	18.2	20
Iron	17600	22600	2820	177.0(b)	12.7	20
Lead	4.5	234	226	101.6	16.2	20
Lithium						
Magnesium	1280	4460	2820	112.6	14.7	20
Manganese	49.2	290	226	106.6	17.2	20
Molybdenum						
Nickel	3.3	235	226	102.5	16.6	20
Phosphorus						
Potassium	2570	6560	2820	141.2N(a)	13.3	20
Selenium	0.56	228	226	100.6	17.1	20
Silicon						
Silver	0.0	28.5	28.2	100.9	18.0	20
Sodium	28.5	3010	2820	105.5	16.9	20
Strontium						
Sulfur						
Thallium	0.0	233	226	103.1	15.7	20
Tin						
Titanium						
Tungsten						
Vanadium	27.1	272	226	108.4	17.2	20
Zinc	17.4	251	226	103.4	15.9	20

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Prep Date: 05/18/18

Metal	JC66030-33 Original MSD	SpikeLot MPSPK2	% Rec	MSD RPD	QC Limit
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Zirconium

Associated samples MP7220: JC66318-1

Results < IDL are shown as zero for calculation purposes

- (*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7220
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/18/18

05/18/18

Metal	BSP Result	SpikeLot MPSPK2	% Rec	QC Limits	BSD Result	SpikeLot MPSPK2	% Rec	BSD RPD	QC Limit
Aluminum	2490	2480	100.6	80-120	2380	2400	99.0	4.5	20
Antimony	205	198	103.5	80-120	197	192	102.4	4.0	20
Arsenic	203	198	102.5	80-120	195	192	101.4	4.0	20
Barium	213	198	107.6	80-120	203	192	105.6	4.8	20
Beryllium	211	198	106.6	80-120	201	192	104.5	4.9	20
Bismuth									
Boron									
Cadmium	200	198	101.0	80-120	193	192	100.4	3.6	20
Calcium	2520	2480	101.8	80-120	2420	2400	100.7	4.0	20
Chromium	205	198	103.5	80-120	198	192	103.0	3.5	20
Cobalt	203	198	102.5	80-120	195	192	101.4	4.0	20
Copper	205	198	103.5	80-120	199	192	103.5	3.0	20
Iron	2530	2480	102.2	80-120	2420	2400	100.7	4.4	20
Lead	203	198	102.5	80-120	195	192	101.4	4.0	20
Lithium									
Magnesium	2450	2480	99.0	80-120	2350	2400	97.8	4.2	20
Manganese	208	198	105.0	80-120	203	192	105.6	2.4	20
Molybdenum									
Nickel	204	198	103.0	80-120	196	192	101.9	4.0	20
Phosphorus									
Potassium	2580	2480	104.2	80-120	2460	2400	102.3	4.8	20
Selenium	201	198	101.5	80-120	193	192	100.4	4.1	20
Silicon									
Silver	23.7	24.8	95.7	80-120	23.1	24	96.1	2.6	20
Sodium	2600	2480	105.0	80-120	2480	2400	103.2	4.7	20
Strontium									
Sulfur									
Thallium	207	198	104.5	80-120	200	192	104.0	3.4	20
Tin									
Titanium									
Tungsten									
Vanadium	207	198	104.5	80-120	201	192	104.5	2.9	20
Zinc	204	198	103.0	80-120	197	192	102.4	3.5	20

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7220
Matrix Type: SOLID
Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/18/18 05/18/18

Metal	BSP Result	Spike lot MPSPK2	% Rec	QC Limits	BSD Result	Spike lot MPSPK2	% Rec	BSD RPD	QC Limit
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Zirconium

Associated samples MP7220: JC66318-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7220
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/18/18

Metal	JC66030-33 Original	SDL 1:5	%DIF	QC Limits
Aluminum	63000	66800	6.0	0-10
Antimony	0.00	0.00	NC	0-10
Arsenic	50.4	52.9	5.0	0-10
Barium	86.0	96.3	12.0*(a)	0-10
Beryllium	4.30	4.20	2.3	0-10
Bismuth				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium	955	1080	13.2*(a)	0-10
Chromium	393	428	8.8	0-10
Cobalt	15.5	17.7	14.2 (b)	0-10
Copper	34.6	38.6	11.6 (b)	0-10
Iron	159000	177000	11.8*(a)	0-10
Lead	40.8	45.3	11.0 (b)	0-10
Lithium				
Magnesium	11500	12400	7.7	0-10
Manganese	444	487	9.5	0-10
Molybdenum				
Nickel	29.8	30.7	3.0	0-10
Phosphorus				
Potassium	23200	25000	7.6	0-10
Selenium	5.10	0.00	100.0(b)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	258	354	37.5 (b)	0-10
Strontium				
Sulfur				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Tungsten				
Vanadium	245	265	8.5	0-10
Zinc	157	228	44.8*(a)	0-10

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SERIAL DILUTION RESULTS SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7220
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/18/18

Metal	JC66030-33	QC	
	Original SDL 1:5	%DIF	Limits

Zirconium

Associated samples MP7220: JC66318-1

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Serial dilution indicates possible matrix interference.

(b) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7226
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/18/18

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0063	.015	0.0039	<0.033

Associated samples MP7226: JC66318-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 7471B
Units: mg/kg

Metal	JC66322-4 Original MS	Spikelet HGPWS1	% Rec	QC Limits	
Mercury	0.43	0.76	0.347	95.2	80-120

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/18/18

Metal	JC66322-4 Original MSD		Spikelot HGPWS1 % Rec		MSD RPD	QC Limit
Mercury	0.43	0.74	0.35	88.5	2.7	20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 7471B
Units: mg/kg

Metal	BSP Result	Spikelot HGPWS1	% Rec	QC Limits
Mercury	0.36	0.333	108.1	80-120

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7266
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 05/21/18

Metal	RL	IDL	MDL	MB raw	final
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Mercury	0.00020	.000016	.00013	0.000029	<0.00020
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Associated samples MP7266: JC66318-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7266
 Matrix Type: LEACHATE

Methods: SW846 7470A
 Units: mg/l

Prep Date: 05/21/18

Metal	JC66318-1A Original MS	Spikelot HGPW3	% Rec	QC Limits
Mercury	0.0	0.0020	0.0020	100.0 75-125

Associated samples MP7266: JC66318-1A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 7470A
Units: mg/l

Prep Date: 05/21/18

Metal	JC66318-1A Original MSD		Spikelot HGPW3	% Rec	MSD RPD	QC Limit
Mercury	0.0	0.0021	0.0020	105.0	4.9	20

Associated samples MP7266: JC66318-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7266
 Matrix Type: LEACHATE

Methods: SW846 7470A
 Units: mg/l

Prep Date: 05/21/18

Metal	BSP Result	Spike lot HGPW3	% Rec	QC Limits
Mercury	0.0019	0.0020	95.0	80-120

Associated samples MP7266: JC66318-1A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7268
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/21/18

Metal	RL	IDL	MDL	MB raw	final
Aluminum	1.0	.069	.17		
Antimony	0.50	.012	.022		
Arsenic	0.50	.006	.014	0.0029	<0.50
Barium	1.0	.0015	.0063	0.0062	<1.0
Beryllium	0.025	.0005	.002		
Bismuth	0.10	.015	.025		
Boron	0.50	.006	.067		
Cadmium	0.025	.0015	.0035	0.00060	<0.025
Calcium	10	.024	.14		
Chromium	0.050	.0035	.0043	0.0019	<0.050
Cobalt	0.25	.002	.0036		
Copper	0.050	.0055	.016		
Iron	0.50	.011	.16		
Lead	0.50	.0095	.013	0.0038	<0.50
Lithium	0.25	.008	.076		
Magnesium	10	.09	.32		
Manganese	0.075	.0007	.0021		
Molybdenum	0.10	.002	.007		
Nickel	0.050	.0025	.0067		
Potassium	10	.28	1.2		
Selenium	0.50	.017	.033	0.011	<0.50
Silicon	1.0	.009	.22		
Silver	0.050	.002	.016	0.0041	<0.050
Sodium	10	.065	.64		
Strontium	0.050	.0005	.0015		
Sulfur	0.25	.016	.075		
Thallium	0.50	.009	.0082		
Tin	0.050	.0045	.012		
Titanium	0.050	.0015	.0092		
Tungsten	0.25	.0085	.071		
Vanadium	0.25	.004	.0064		
Zinc	0.10	.001	.002		
Zirconium	0.050	.0015	.01		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7268
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/21/18

Metal	RL	IDL	MDL	MB raw	final
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Associated samples MP7268: JC66318-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7268
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 05/21/18

Metal	JC66318-1A Original MS	Spikelot MPSPK2	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	0.0	2.2	2.0	110.0
Barium	0.43	2.5	2.0	103.5
Beryllium	anr			
Bismuth				
Boron				
Cadmium	0.0030	2.1	2.0	104.9
Calcium				
Chromium	0.0	2.0	2.0	100.0
Cobalt				
Copper	anr			
Iron				
Lead	0.012	2.2	2.0	109.4
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium	0.0	2.2	2.0	110.0
Silicon				
Silver	0.0	0.25	0.25	100.0
Sodium				
Strontium				
Sulfur				
Thallium	anr			
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	anr			
Zirconium				

14.9.2
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Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/21/18

Metal	JC66318-1A Original MS	Spikelot MPSPK2	% Rec	QC Limits
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Associated samples MP7268: JC66318-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7268
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 05/21/18

Metal	JC66318-1A Original	MSD	Spike lot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	0.0	2.1	2.0	105.0	4.7	20
Barium	0.43	2.5	2.0	103.5	0.0	20
Beryllium	anr					
Bismuth						
Boron						
Cadmium	0.0030	2.0	2.0	99.9	4.9	20
Calcium						
Chromium	0.0	2.0	2.0	100.0	0.0	20
Cobalt						
Copper	anr					
Iron						
Lead	0.012	2.1	2.0	104.4	4.7	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium	0.0	2.1	2.0	105.0	4.7	20
Silicon						
Silver	0.0	0.25	0.25	100.0	0.0	20
Sodium						
Strontium						
Sulfur						
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc	anr					
Zirconium						

14.9.2
14

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 6010C
Units: mg/l

05/21/18

Metal	JC66318-1A Original MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
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Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7268
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 05/21/18

Metal	BSP Result	Spike lot MPSPK2	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	2.1	2.0	105.0	80-120
Barium	2.0	2.0	100.0	80-120
Beryllium	anr			
Bismuth				
Boron				
Cadmium	2.0	2.0	100.0	80-120
Calcium				
Chromium	2.0	2.0	100.0	80-120
Cobalt				
Copper	anr			
Iron				
Lead	2.1	2.0	105.0	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium	2.1	2.0	105.0	80-120
Silicon				
Silver	0.24	0.25	96.0	80-120
Sodium				
Strontium				
Sulfur				
Thallium	anr			
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	anr			
Zirconium				

14.9.3
14

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 6010C
Units: mg/l

Prep Date: 05/21/18

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
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Associated samples MP7268: JC66318-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7268
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/21/18

Metal	JC66318-1A Original	SDL 5:25	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	0.00	0.00	NC	0-10
Barium	435	449	3.2	0-10
Beryllium	anr			
Bismuth				
Boron				
Cadmium	3.00	0.00	100.0(a)	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper	anr			
Iron				
Lead	11.6	0.00	100.0(a)	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	14.3	NC	0-10
Sodium				
Strontium				
Sulfur				
Thallium	anr			
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	anr			
Zirconium				

14.9.4
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SERIAL DILUTION RESULTS SUMMARY

Login Number: JC66318
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7268
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/21/18

Metal	JC66318-1A	QC
	Original SDL 5:25 %DIF	Limits

Associated samples MP7268: JC66318-1A

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC
- Percent Solids Raw Data Summary

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Cyanide	GP13150/GN80163	0.12	0.0	mg/kg	1	0.965	96.5	90-110%
Cyanide Reactivity	GP13164/GN80264	10	0.0	mg/kg	100	9.95	10.0	.25-27%
Percent Sulfur	GP13154/GN80195	0.10	0.0	%	.667	0.77	114.8	80-120%
Percent Sulfur	GP13154/GN80242	0.10	0.0	%	0.667	0.62	93.4	80-120%
Sulfide Reactivity	GP13165/GN80263	100	0.0	mg/kg	390	250	64.1	42-107%

Associated Samples:

Batch GP13150: JC66318-1
Batch GP13154: JC66318-1
Batch GP13164: JC66318-1A
Batch GP13165: JC66318-1A
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Corrosivity as pH	GN80332	JC66333-1	su	7.28	7.38	1.4	0-5%
Cyanide	GP13150/GN80163	DA5367-3	mg/kg	0.69	7.8	167.5*(a)	0-49%
Cyanide Reactivity	GP13164/GN80264	JC65281-110	mg/kg	0.0	0.0	0.0	0-20%
Heat Content, BTU	GP13163/GN80194	JC64996-7	BTU/lb	1950	1850	5.3	0-32%
Ignitability (Flashpoint)	GN80318	JC66426-1	Deg. F	>200	>200	0.0	0-10%
Percent Sulfur	GP13154/GN80195	JC64996-7	%	0.0	0.0	0.0	0-20%
Sulfide Reactivity	GP13165/GN80263	JC65281-110	mg/kg	0.00	0.00	0.0	0-20%

Associated Samples:

Batch GN80318: JC66318-1A

Batch GN80332: JC66318-1A

Batch GP13150: JC66318-1

Batch GP13154: JC66318-1

Batch GP13163: JC66318-1

Batch GP13164: JC66318-1A

Batch GP13165: JC66318-1A

(*) Outside of QC limits

(a) High RPD due to possible sample nonhomogeneity.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Cyanide	GP13150/GN80163	DA5367-3	mg/kg	0.69	3.02	6.7	198.7N(a)	75-125%
Sulfide Reactivity	GP13165/GN80263	JC65281-110	mg/kg	0.00	491	137	27.9	20-82%

Associated Samples:

Batch GP13150: JC66318-1

Batch GP13165: JC66318-1A

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051818W1.CN
Analyst: BM
Parameters: Cyanide

Date Analyzed: 05/18/18
Run ID: GN80163

Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:49	GN80163-STD1	1		STDA
10:51	GN80163-STD2	1		STDB
10:52	GN80163-STD3	1		STDC
10:54	GN80163-STD4	1		STDD
10:55	GN80163-STD5	1		STDE
10:56	GN80163-STD6	1		STDF
10:58	GN80163-STD7	1		STDG
10:59	GN80163-ICV1	1		
11:00	GN80163-ICB1	1		
11:02	GN80163-CCV7	1		
11:03	GN80163-CCB7	1		
11:04	GP13148-MB1	1		
11:06	GP13148-B1	1		
11:07	GP13148-D1	1		
11:08	TD20830-1R	1		(sample used for QC only; not part of login JC66318)
11:10	ZZZZZZ	1		
11:11	ZZZZZZ	1		
11:13	ZZZZZZ	1		
11:14	ZZZZZZ	1		
11:15	ZZZZZZ	1		
11:17	ZZZZZZ	1		
11:18	GN80163-CCV8	1		
11:19	GN80163-CCB8	1		
11:21	ZZZZZZ	1		
11:22	ZZZZZZ	1		
11:23	ZZZZZZ	1		
11:27	GN80163-CCV9	1		
11:28	GN80163-CCB9	1		
11:49	GN80163-CCV1	1		
11:50	GN80163-CCB1	1		
11:52	GP13150-MB1	1		
11:53	GP13150-B1	1		
11:54	GP13150-S1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051818W1.CN
Analyst: BM
Parameters: Cyanide

Date Analyzed: 05/18/18
Run ID: GN80163

Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:56	GP13150-S2	1		
11:57	GP13150-D1	1		
11:58	DA5367-3	1		(sample used for QC only; not part of login JC66318)
12:00	JC66138-4A	1		(sample used for QC only; not part of login JC66318)
12:01	ZZZZZZ	1		
12:03	ZZZZZZ	1		
12:04	ZZZZZZ	1		
12:05	GN80163-CCV2	1		
12:07	GN80163-CCB2	1		
12:08	ZZZZZZ	1		
12:09	ZZZZZZ	1		
12:11	ZZZZZZ	1		
12:12	ZZZZZZ	1		
12:13	ZZZZZZ	1		
12:15	ZZZZZZ	1		
12:16	ZZZZZZ	1		
12:17	ZZZZZZ	1		
12:19	ZZZZZZ	1		
12:20	ZZZZZZ	1		
12:22	GN80163-CCV3	1		
12:23	GN80163-CCB3	1		
12:24	ZZZZZZ	1		
12:26	ZZZZZZ	1		
12:27	JC66318-1	1		
12:28	GP13133-MB1	1		
12:30	GP13133-B1	1		
12:31	GP13133-S1	1		
12:32	GP13133-S2	1		
12:34	GP13133-D1	1		
12:35	JC65872-1	1		(sample used for QC only; not part of login JC66318)
12:37	ZZZZZZ	1		
12:38	GN80163-CCV4	1		
12:39	GN80163-CCB4	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051818W1.CN
Analyst: BM
Parameters: Cyanide

Date Analyzed: 05/18/18
Run ID: GN80163

Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:41	ZZZZZZ	1		
12:42	ZZZZZZ	1		
12:43	ZZZZZZ	1		
12:45	ZZZZZZ	1		
12:46	ZZZZZZ	1		
12:47	JC65898-16	1		(sample used for QC only; not part of login JC66318)
12:49	ZZZZZZ	1		
12:50	ZZZZZZ	1		
12:52	ZZZZZZ	1		
12:53	ZZZZZZ	1		
12:54	GN80163-CCV5	1		
12:56	GN80163-CCB5	1		
12:57	ZZZZZZ	1		
12:58	ZZZZZZ	1		
13:00	ZZZZZZ	1		
13:01	ZZZZZZ	1		
13:02	ZZZZZZ	1		
13:04	ZZZZZZ	1		
13:05	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:08	ZZZZZZ	4		
13:11	GN80163-CCV6	1		
13:12	GN80163-CCB6	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E051818W1.CN

Date Analyzed: 05/18/18
Run ID: GN80163

Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN80163-ICV1	Cyanide	0.290	0.010	0.0058	.3	96.7	90-110
GN80163-ICB1	Cyanide	0.0058 U	0.010	0.0058			
GN80163-CCV7	Cyanide	0.411	0.010	0.0058	.4	102.8	90-110
GN80163-CCB7	Cyanide	-0.00733	0.010	0.0058			
GN80163-CCV8	Cyanide	0.413	0.010	0.0058	.4	103.3	90-110
GN80163-CCB8	Cyanide	0.0058 U	0.010	0.0058			
GN80163-CCV9	Cyanide	0.412	0.010	0.0058	.4	103.0	90-110
GN80163-CCB9	Cyanide	0.0058 U	0.010	0.0058			
GN80163-CCV1	Cyanide	0.412	0.010	0.0058	.4	103.0	90-110
GN80163-CCB1	Cyanide	-0.00694	0.010	0.0058			
GN80163-CCV2	Cyanide	0.406	0.010	0.0058	.4	101.5	90-110
GN80163-CCB2	Cyanide	0.0058 U	0.010	0.0058			
GN80163-CCV3	Cyanide	0.407	0.010	0.0058	.4	101.8	90-110
GN80163-CCB3	Cyanide	0.0058 U	0.010	0.0058			
GN80163-CCV4	Cyanide	0.407	0.010	0.0058	.4	101.8	90-110
GN80163-CCB4	Cyanide	0.0058 U	0.010	0.0058			
GN80163-CCV5	Cyanide	0.408	0.010	0.0058	.4	102.0	90-110
GN80163-CCB5	Cyanide	0.0058 U	0.010	0.0058			
GN80163-CCV6	Cyanide	0.408	0.010	0.0058	.4	102.0	90-110
GN80163-CCB6	Cyanide	0.0058 U	0.010	0.0058			

(!) Outside of QC limits

15.4
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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E052118W1.CN

Date Analyzed: 05/21/18

Methods: EPA 335.4/LACHAT, SW846 9012B, SW846 CHAP7/9012

Analyst: BM

Run ID: GN80264

Parameters: Cyanide Reactivity

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:48	GN80264-STD1	1		STDA
09:49	GN80264-STD2	1		STDB
09:51	GN80264-STD3	1		STDC
09:52	GN80264-STD4	1		STDD
09:54	GN80264-STD5	1		STDE
09:55	GN80264-STD6	1		STDF
09:56	GN80264-STD7	1		STDG
09:58	GN80264-ICV1	1		
09:59	GN80264-ICB1	1		
10:00	GN80264-CCV1	1		
10:02	GN80264-CCB1	1		
10:03	GP13162-MB1	1		BSP failed, back to need.
10:04	GP13162-B1	1		BSP failed, back to need.
10:06	GP13162-B2	1		BSP failed, back to need.
10:07	GP13162-D1	1		BSP failed, back to need.
10:08	JC64404-7P	1		(sample used for QC only; not part of login JC66318)
10:10	GP13168-MB1	1		
10:11	GP13168-B1	1		
10:13	GP13168-S1	1		
10:14	GP13168-S2	1		
10:15	GP13168-D1	1		
10:17	GN80264-CCV2	1		
10:18	GN80264-CCB2	1		
10:19	JC66146-2	1		(sample used for QC only; not part of login JC66318)
10:21	JC66147-1	1		(sample used for QC only; not part of login JC66318)
10:22	ZZZZZZ	1		
10:23	ZZZZZZ	1		
10:25	ZZZZZZ	1		
10:26	ZZZZZZ	1		
10:28	ZZZZZZ	1		
10:29	ZZZZZZ	1		
10:30	ZZZZZZ	1		
10:32	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E052118W1.CN Date Analyzed: 05/21/18 Methods: EPA 335.4/LACHAT, SW846 9012B, SW846 CHAP7/9012
Analyst: BM Run ID: GN80264
Parameters: Cyanide Reactivity

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:33	GN80264-CCV3	1		
10:34	GN80264-CCB3	1		
10:36	ZZZZZZ	1		
10:37	GP13164-MB1	1		
10:38	GP13164-B1	1		
10:40	GP13164-D1	1		
10:41	JC65281-110	1		(sample used for QC only; not part of login JC66318)
10:43	ZZZZZZ	1		
10:44	ZZZZZZ	1		
10:45	ZZZZZZ	1		
10:47	ZZZZZZ	1		
10:48	ZZZZZZ	1		
10:49	GN80264-CCV4	1		
10:51	GN80264-CCB4	1		
10:52	ZZZZZZ	1		
10:53	ZZZZZZ	1		
10:55	ZZZZZZ	1		
10:56	ZZZZZZ	1		
10:57	ZZZZZZ	1		
10:59	JC66318-1A	1		
11:00	ZZZZZZ	1		
11:02	ZZZZZZ	1		
11:03	ZZZZZZ	1		
11:06	GN80264-CCV5	1		
11:07	GN80264-CCB5	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC66318
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: E052118W1.CN

Date Analyzed: 05/21/18
Run ID: GN80264

Methods: EPA 335.4/LACHAT, SW846 9012B, SW846 CHAP7/9012
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN80264-ICV1	Cyanide	0.289	0.010	0.0058	.3	96.3	90-110
GN80264-ICB1	Cyanide	-0.00832	0.010	0.0058			
GN80264-CCV1	Cyanide	0.375	0.010	0.0058	.4	93.8	90-110
GN80264-CCB1	Cyanide	-0.00724	0.010	0.0058			
GN80264-CCV2	Cyanide	0.378	0.010	0.0058	.4	94.5	90-110
GN80264-CCB2	Cyanide	-0.00878	0.010	0.0058			
GN80264-CCV3	Cyanide	0.380	0.010	0.0058	.4	95.0	90-110
GN80264-CCB3	Cyanide	-0.00942	0.010	0.0058			
GN80264-CCV4	Cyanide	0.381	0.010	0.0058	.4	95.3	90-110
GN80264-CCB4	Cyanide	-0.00825	0.010	0.0058			
GN80264-CCV5	Cyanide	0.380	0.010	0.0058	.4	95.0	90-110
GN80264-CCB5	Cyanide	-0.00820	0.010	0.0058			

(!) Outside of QC limits

Percent Solids Raw Data Summary

Job Number: JC66318
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	JC66318-1	Analyzed:	21-MAY-18 by RI	Method:	SM2540 G-97
ClientID:	WC-6				
Wet Weight (Total)	36.36	g			
Tare Weight	28.04	g			
Dry Weight (Total)	35.69	g			
Solids, Percent	91.9	%			

15.6
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The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Arcadis

NYSEG - Lyons MGP Site, Lyons NY

SGS Job Number: JC66322

Sampling Dates: 05/15/18 - 05/16/18

Report to:

Arcadis
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Fairport, NY 14450
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ATTN: Matthew Hysell

Total number of pages in report: **195**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads 'Nancy Cole'.

Nancy Cole
Laboratory Director

Client Service contact: Diane Komar 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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Sample Summary

Arcadis

Job No: JC66322

NYSEG - Lyons MGP Site, Lyons NY

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JC66322-1	05/15/18	13:45 RDC	05/17/18	SO	Soil	SB-118(7-9)
JC66322-2	05/16/18	09:30 RDC	05/17/18	SO	Soil	SB-113(11-13)
JC66322-3	05/16/18	11:00 RDC	05/17/18	SO	Soil	SB-116(3-5)
JC66322-4	05/16/18	11:50 RDC	05/17/18	SO	Soil	SB-114(3-5)
JC66322-4D	05/16/18	11:50 RDC	05/17/18	SO	Soil Dup/MSD	SB-114(3-5)MS/MSD
JC66322-4S	05/16/18	11:50 RDC	05/17/18	SO	Soil Matrix Spike	SB-114(3-5)MS/MSD
JC66322-5	05/16/18	11:55 RDC	05/17/18	SO	Soil	SB-114(3-5)
JC66322-5D	05/16/18	11:55 RDC	05/17/18	SO	Soil Dup/MSD	SB-114(3-5)MS/MSD
JC66322-5S	05/16/18	11:55 RDC	05/17/18	SO	Soil Matrix Spike	SB-114(3-5)MS/MSD
JC66322-6	05/16/18	12:40 RDC	05/17/18	SO	Soil	SB-115(2-4)
JC66322-7	05/16/18	15:00 RDC	05/17/18	SO	Soil	SB-102(12-14)
JC66322-8	05/16/18	00:00 RDC	05/17/18	SO	Soil	DUP-051618
JC66322-9	05/16/18	00:00 RDC	05/17/18	SO	Soil	DUP-051618

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Arcadis

Job No JC66322

Site: NYSEG - Lyons MGP Site, Lyons NY

Report Date 5/25/2018 8:44:49 AM

On 05/17/2018, 8 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.9 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC66322 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Semi-volatiles By Method SW846 8270D

Matrix: SO

Batch ID: OP12121

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66322-5MS, JC66322-5MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Benzo(a)pyrene, Benzo(b)fluoranthene, Fluoranthene, Pyrene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- Matrix Spike Duplicate Recovery(s) for Fluoranthene, Pyrene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- JC66322-5: Dilution required due to matrix interference.
- JC66322-7: Dilution required due to matrix interference.

Metals Analysis By Method SW846 7471B

Matrix: SO

Batch ID: MP7226

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66322-4MS, JC66322-4MSD were used as the QC samples for metals.

General Chemistry By Method SM2540 G-97

Matrix: SO

Batch ID: GN80201

- The data for SM2540 G-97 meets quality control requirements.

Matrix: SO

Batch ID: GN80204

- The data for SM2540 G-97 meets quality control requirements.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Friday, May 25, 2018

Page 1 of 1

Summary of Hits

Job Number: JC66322
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/15/18 thru 05/16/18



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC66322-1 SB-118(7-9)						
Acenaphthene		747	35	12	ug/kg	SW846 8270D
Acenaphthylene		5880	710	360	ug/kg	SW846 8270D
Anthracene		8310	710	430	ug/kg	SW846 8270D
Benzo(a)anthracene		11100	710	200	ug/kg	SW846 8270D
Benzo(a)pyrene		8310	710	320	ug/kg	SW846 8270D
Benzo(b)fluoranthene		9280	710	310	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		3120	35	18	ug/kg	SW846 8270D
Benzo(k)fluoranthene		3090	35	17	ug/kg	SW846 8270D
Chrysene		9300	710	220	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		1080	35	16	ug/kg	SW846 8270D
Fluoranthene		24000	710	320	ug/kg	SW846 8270D
Fluorene		5820	710	330	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		4280	710	330	ug/kg	SW846 8270D
Naphthalene		9050	710	200	ug/kg	SW846 8270D
Phenanthrene		29900	710	240	ug/kg	SW846 8270D
Pyrene		18600	710	230	ug/kg	SW846 8270D
JC66322-2 SB-113(11-13)						
Acenaphthene		833	35	12	ug/kg	SW846 8270D
Acenaphthylene		4730	710	360	ug/kg	SW846 8270D
Anthracene		7630	710	430	ug/kg	SW846 8270D
Benzo(a)anthracene		34500	710	200	ug/kg	SW846 8270D
Benzo(a)pyrene		26400	710	320	ug/kg	SW846 8270D
Benzo(b)fluoranthene		28000	710	310	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		10700	710	350	ug/kg	SW846 8270D
Benzo(k)fluoranthene		12400	710	330	ug/kg	SW846 8270D
Chrysene		27200	710	220	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		3580	710	310	ug/kg	SW846 8270D
Fluoranthene		68600	710	320	ug/kg	SW846 8270D
Fluorene		1690	35	16	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		13500	710	330	ug/kg	SW846 8270D
Naphthalene		756	35	10	ug/kg	SW846 8270D
Phenanthrene		8020	710	240	ug/kg	SW846 8270D
Pyrene		54800	710	230	ug/kg	SW846 8270D
JC66322-3 SB-116(3-5)						
Mercury		0.21	0.035		mg/kg	SW846 7471B
JC66322-4 SB-114(3-5)						
Mercury		0.43	0.035		mg/kg	SW846 7471B

Summary of Hits

Job Number: JC66322
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/15/18 thru 05/16/18



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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JC66322-5 SB-114(3-5)

Acenaphthene ^a	235	73	25	ug/kg	SW846 8270D
Acenaphthylene ^a	384	73	37	ug/kg	SW846 8270D
Anthracene ^a	788	73	45	ug/kg	SW846 8270D
Benzo(a)anthracene ^a	3280	73	21	ug/kg	SW846 8270D
Benzo(a)pyrene ^a	4330	73	33	ug/kg	SW846 8270D
Benzo(b)fluoranthene ^a	4530	73	32	ug/kg	SW846 8270D
Benzo(g,h,i)perylene ^a	2890	73	37	ug/kg	SW846 8270D
Benzo(k)fluoranthene ^a	1660	73	34	ug/kg	SW846 8270D
Chrysene ^a	2890	73	23	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene ^a	810	73	32	ug/kg	SW846 8270D
Fluoranthene ^a	4320	73	33	ug/kg	SW846 8270D
Fluorene ^a	203	73	34	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene ^a	3350	73	34	ug/kg	SW846 8270D
Naphthalene ^a	233	73	21	ug/kg	SW846 8270D
Phenanthrene ^a	1890	73	25	ug/kg	SW846 8270D
Pyrene ^a	4030	73	24	ug/kg	SW846 8270D

JC66322-6 SB-115(2-4)

Mercury	1.6	0.17		mg/kg	SW846 7471B
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JC66322-7 SB-102(12-14)

Acenaphthene ^a	5970	84	29	ug/kg	SW846 8270D
Acenaphthylene	11300	4200	2100	ug/kg	SW846 8270D
Anthracene	66400	4200	2600	ug/kg	SW846 8270D
Benzo(a)anthracene	55800	4200	1200	ug/kg	SW846 8270D
Benzo(a)pyrene	37300	4200	1900	ug/kg	SW846 8270D
Benzo(b)fluoranthene	38200	4200	1900	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	12200	4200	2100	ug/kg	SW846 8270D
Benzo(k)fluoranthene	15700	4200	2000	ug/kg	SW846 8270D
Chrysene	43100	4200	1300	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene ^a	4210	84	37	ug/kg	SW846 8270D
Fluoranthene	111000	4200	1900	ug/kg	SW846 8270D
Fluorene	45000	4200	1900	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	15200	4200	2000	ug/kg	SW846 8270D
Naphthalene	13200	4200	1200	ug/kg	SW846 8270D
Phenanthrene	145000	4200	1400	ug/kg	SW846 8270D
Pyrene	85500	4200	1300	ug/kg	SW846 8270D

Summary of Hits

Page 3 of 3

Job Number: JC66322
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/15/18 thru 05/16/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC66322-8	DUP-051618					
Acenaphthene		869	36	12	ug/kg	SW846 8270D
Acenaphthylene		4710	1400	730	ug/kg	SW846 8270D
Anthracene		7600	1400	880	ug/kg	SW846 8270D
Benzo(a)anthracene		34900	1400	410	ug/kg	SW846 8270D
Benzo(a)pyrene		26200	1400	650	ug/kg	SW846 8270D
Benzo(b)fluoranthene		29300	1400	630	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		10700	1400	720	ug/kg	SW846 8270D
Benzo(k)fluoranthene		10400	1400	670	ug/kg	SW846 8270D
Chrysene		26800	1400	450	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		3580	1400	630	ug/kg	SW846 8270D
Fluoranthene		70500	1400	640	ug/kg	SW846 8270D
Fluorene		1730	36	16	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		13200	1400	670	ug/kg	SW846 8270D
Naphthalene		721	36	10	ug/kg	SW846 8270D
Phenanthrene		8210	1400	480	ug/kg	SW846 8270D
Pyrene		54900	1400	460	ug/kg	SW846 8270D
JC66322-9	DUP-051618					
Mercury		0.16	0.036		mg/kg	SW846 7471B

(a) Dilution required due to matrix interference.

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SB-118(7-9)	Date Sampled:	05/15/18
Lab Sample ID:	JC66322-1	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	92.9
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M104247.D	1	05/21/18 23:31	JB	05/21/18 08:45	OP12121	E2M4633
Run #2	2M104268.D	20	05/22/18 12:34	CC	05/21/18 08:45	OP12121	E2M4634

	Initial Weight	Final Volume
Run #1	30.4 g	1.0 ml
Run #2	30.4 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	747	35	12	ug/kg	
208-96-8	Acenaphthylene	5880 ^a	710	360	ug/kg	
120-12-7	Anthracene	8310 ^a	710	430	ug/kg	
56-55-3	Benzo(a)anthracene	11100 ^a	710	200	ug/kg	
50-32-8	Benzo(a)pyrene	8310 ^a	710	320	ug/kg	
205-99-2	Benzo(b)fluoranthene	9280 ^a	710	310	ug/kg	
191-24-2	Benzo(g,h,i)perylene	3120	35	18	ug/kg	
207-08-9	Benzo(k)fluoranthene	3090	35	17	ug/kg	
218-01-9	Chrysene	9300 ^a	710	220	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1080	35	16	ug/kg	
206-44-0	Fluoranthene	24000 ^a	710	320	ug/kg	
86-73-7	Fluorene	5820 ^a	710	330	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	4280 ^a	710	330	ug/kg	
91-20-3	Naphthalene	9050 ^a	710	200	ug/kg	
85-01-8	Phenanthrene	29900 ^a	710	240	ug/kg	
129-00-0	Pyrene	18600 ^a	710	230	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%	78%	26-134%
321-60-8	2-Fluorobiphenyl	81%	90%	39-124%
1718-51-0	Terphenyl-d14	88%	103%	36-134%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SB-113(11-13)	Date Sampled:	05/16/18
Lab Sample ID:	JC66322-2	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	91.7
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M104255.D	1	05/22/18 02:55	JB	05/21/18 08:45	OP12121	E2M4633
Run #2	2M104312.D	20	05/23/18 09:08	GS	05/21/18 08:45	OP12121	E2M4635

	Initial Weight	Final Volume
Run #1	30.8 g	1.0 ml
Run #2	30.8 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	833	35	12	ug/kg	
208-96-8	Acenaphthylene	4730 ^a	710	360	ug/kg	
120-12-7	Anthracene	7630 ^a	710	430	ug/kg	
56-55-3	Benzo(a)anthracene	34500 ^a	710	200	ug/kg	
50-32-8	Benzo(a)pyrene	26400 ^a	710	320	ug/kg	
205-99-2	Benzo(b)fluoranthene	28000 ^a	710	310	ug/kg	
191-24-2	Benzo(g,h,i)perylene	10700 ^a	710	350	ug/kg	
207-08-9	Benzo(k)fluoranthene	12400 ^a	710	330	ug/kg	
218-01-9	Chrysene	27200 ^a	710	220	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	3580 ^a	710	310	ug/kg	
206-44-0	Fluoranthene	68600 ^a	710	320	ug/kg	
86-73-7	Fluorene	1690	35	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	13500 ^a	710	330	ug/kg	
91-20-3	Naphthalene	756	35	10	ug/kg	
85-01-8	Phenanthrene	8020 ^a	710	240	ug/kg	
129-00-0	Pyrene	54800 ^a	710	230	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	64%	69%	26-134%
321-60-8	2-Fluorobiphenyl	68%	74%	39-124%
1718-51-0	Terphenyl-d14	67%	81%	36-134%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-116(3-5)	Date Sampled:	05/16/18
Lab Sample ID:	JC66322-3	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	86.2
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	0.21	0.035	mg/kg	1	05/18/18	05/18/18 JA	SW846 7471B ¹	SW846 7471B ²

(1) Instrument QC Batch: MA44439
(2) Prep QC Batch: MP7226

RL = Reporting Limit

4.3
4

Report of Analysis

Client Sample ID:	SB-114(3-5)	Date Sampled:	05/16/18
Lab Sample ID:	JC66322-4	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	90.4
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	0.43	0.035	mg/kg	1	05/18/18	05/18/18 JA	SW846 7471B ¹	SW846 7471B ²

(1) Instrument QC Batch: MA44439
(2) Prep QC Batch: MP7226

RL = Reporting Limit

4.4
4

SGS North America Inc.

Report of Analysis

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Client Sample ID:	SB-114(3-5)	Date Sampled:	05/16/18
Lab Sample ID:	JC66322-5	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	88.1
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	2M104271.D	2	05/22/18 13:51	CC	05/21/18 08:45	OP12121	E2M4634
Run #2							

	Initial Weight	Final Volume
Run #1	30.9 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	235	73	25	ug/kg	
208-96-8	Acenaphthylene	384	73	37	ug/kg	
120-12-7	Anthracene	788	73	45	ug/kg	
56-55-3	Benzo(a)anthracene	3280	73	21	ug/kg	
50-32-8	Benzo(a)pyrene	4330	73	33	ug/kg	
205-99-2	Benzo(b)fluoranthene	4530	73	32	ug/kg	
191-24-2	Benzo(g,h,i)perylene	2890	73	37	ug/kg	
207-08-9	Benzo(k)fluoranthene	1660	73	34	ug/kg	
218-01-9	Chrysene	2890	73	23	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	810	73	32	ug/kg	
206-44-0	Fluoranthene	4320	73	33	ug/kg	
86-73-7	Fluorene	203	73	34	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	3350	73	34	ug/kg	
91-20-3	Naphthalene	233	73	21	ug/kg	
85-01-8	Phenanthrene	1890	73	25	ug/kg	
129-00-0	Pyrene	4030	73	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	88%		26-134%
321-60-8	2-Fluorobiphenyl	95%		39-124%
1718-51-0	Terphenyl-d14	105%		36-134%

(a) Dilution required due to matrix interference.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-115(2-4)	Date Sampled:	05/16/18
Lab Sample ID:	JC66322-6	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	90.6
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	1.6	0.17	mg/kg	5	05/18/18	05/18/18 JA	SW846 7471B ¹	SW846 7471B ²

(1) Instrument QC Batch: MA44439
(2) Prep QC Batch: MP7226

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SB-102(12-14)	Date Sampled:	05/16/18
Lab Sample ID:	JC66322-7	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	76.4
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	2M104313.D	2	05/23/18 09:33	GS	05/21/18 08:45	OP12121	E2M4635
Run #2	2M104309.D	100	05/23/18 07:47	GS	05/21/18 08:45	OP12121	E2M4635

	Initial Weight	Final Volume
Run #1	31.2 g	1.0 ml
Run #2	31.2 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	5970	84	29	ug/kg	
208-96-8	Acenaphthylene	11300 ^b	4200	2100	ug/kg	
120-12-7	Anthracene	66400 ^b	4200	2600	ug/kg	
56-55-3	Benzo(a)anthracene	55800 ^b	4200	1200	ug/kg	
50-32-8	Benzo(a)pyrene	37300 ^b	4200	1900	ug/kg	
205-99-2	Benzo(b)fluoranthene	38200 ^b	4200	1900	ug/kg	
191-24-2	Benzo(g,h,i)perylene	12200 ^b	4200	2100	ug/kg	
207-08-9	Benzo(k)fluoranthene	15700 ^b	4200	2000	ug/kg	
218-01-9	Chrysene	43100 ^b	4200	1300	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	4210	84	37	ug/kg	
206-44-0	Fluoranthene	111000 ^b	4200	1900	ug/kg	
86-73-7	Fluorene	45000 ^b	4200	1900	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	15200 ^b	4200	2000	ug/kg	
91-20-3	Naphthalene	13200 ^b	4200	1200	ug/kg	
85-01-8	Phenanthrene	145000 ^b	4200	1400	ug/kg	
129-00-0	Pyrene	85500 ^b	4200	1300	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%	80%	26-134%
321-60-8	2-Fluorobiphenyl	70%	81%	39-124%
1718-51-0	Terphenyl-d14	78%	102%	36-134%

(a) Dilution required due to matrix interference.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	DUP-051618	
Lab Sample ID:	JC66322-8	Date Sampled: 05/16/18
Matrix:	SO - Soil	Date Received: 05/17/18
Method:	SW846 8270D SW846 3546	Percent Solids: 91.1
Project:	NYSEG - Lyons MGP Site, Lyons NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M104253.D	1	05/22/18 02:04	JB	05/21/18 08:45	OP12121	E2M4633
Run #2	2M104311.D	40	05/23/18 08:42	GS	05/21/18 08:45	OP12121	E2M4635

	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2	30.6 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	869	36	12	ug/kg	
208-96-8	Acenaphthylene	4710 ^a	1400	730	ug/kg	
120-12-7	Anthracene	7600 ^a	1400	880	ug/kg	
56-55-3	Benzo(a)anthracene	34900 ^a	1400	410	ug/kg	
50-32-8	Benzo(a)pyrene	26200 ^a	1400	650	ug/kg	
205-99-2	Benzo(b)fluoranthene	29300 ^a	1400	630	ug/kg	
191-24-2	Benzo(g,h,i)perylene	10700 ^a	1400	720	ug/kg	
207-08-9	Benzo(k)fluoranthene	10400 ^a	1400	670	ug/kg	
218-01-9	Chrysene	26800 ^a	1400	450	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	3580 ^a	1400	630	ug/kg	
206-44-0	Fluoranthene	70500 ^a	1400	640	ug/kg	
86-73-7	Fluorene	1730	36	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	13200 ^a	1400	670	ug/kg	
91-20-3	Naphthalene	721	36	10	ug/kg	
85-01-8	Phenanthrene	8210 ^a	1400	480	ug/kg	
129-00-0	Pyrene	54900 ^a	1400	460	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	65%	75%	26-134%
321-60-8	2-Fluorobiphenyl	70%	78%	39-124%
1718-51-0	Terphenyl-d14	71%	87%	36-134%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-051618	Date Sampled:	05/16/18
Lab Sample ID:	JC66322-9	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	86.3
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	0.16	0.036	mg/kg	1	05/18/18	05/18/18 JA	SW846 7471B ¹	SW846 7471B ²

(1) Instrument QC Batch: MA44439
(2) Prep QC Batch: MP7226

RL = Reporting Limit

4.9
4

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

FED-EX Tracking #	Bottle Order Control # <i>DR-0518-27</i>
SGS Accutest Quote #	SGS Accutest Job # <i>JL66322</i>

Client / Reporting Information				Project Information				Requested Analysis (see TEST CODE sheet)												Matrix Codes											
Company Name Arcadis				Project Name: NYSEG - Lyons MGP Site																											
Street Address 295 Woodcliff Dr. Suite 301				Street 2 Water St.																											
City State Zip Fairport NY 14550				City State Lyons NY				Billing Information (if different from Report to)																							
E-mail Matt.Hysell@arcadis.com				Project # R0013143.0000				Company Name																							
Phone # Fax # 315-671-9189				Client Purchase Order #				Street Address																							
Sampler(s) Name(s) Ryan Claire 585-880-7747				Project Manager Jason Brien				City State Zip																							
Attention:																															
SGS Account Sample #				Collection				Number of preserved Bottles																							
Field ID / Point of Collection				MEOH/DI Val #		Date Time		Sampled by Matrix		# of bottles		HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEDH	ENFORCE												
1 SB-118(7-9)						5-15-18 1345		RDC SO		1							1				X										
2 SB-113(11-13)						5-16-18 0930		RDC SO		1							1				X										
3 SB-116(3-5)						5-16-18 1100		RDC SO		1							1					X									
4 SB-114(3-5)						5-16-18 1150		RDC SO		1							1					X									
5 SB-114(3-5) MS/MSD						5-16-18 1150		RDC SO		1							1				X										
6 SB-115(3-5) MS/MSD						5-16-18 1155		RDC SO		1							1				X										
7 SB-115(2-4)						5-16-18 1240		RDC SO		1							1					X									
8 SB-102(12-14)						5-16-18 1500		RDC SO		1							1				X										
9 DUP-051618						5-16-18 -		RDC SO		1							1				X										
10 DUP-051618						5-16-18 -		RDC SO		1							1				X										
Turnaround Time (Business days)												Data Deliverable Information										Comments / Special Instructions									
☐ Std. 10 Business Days ☒ 5 Day RUSH ☐ 3 Day RUSH ☐ 2 Day RUSH ☐ 1 Day RUSH ☐ other _____						Approved By (SGS Accutest PM): / Date: INITIAL ASSESSMENT [Signature] LABEL VERIFICATION _____						☐ Commercial "A" (Level 1) ☐ Commercial "B" (Level 2) ☐ FULLT1 (Level 3+4) ☐ NJ Reduced ☐ Commercial "C" ☐ NJ Data of Known Quality Protocol Reporting Commercial "A" = Results Only, Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data										PAA Delineation Mercury Delineation ACUSE									
Emergency & Rush TIA data available VIA Lablink																		Sample inventory is verified upon receipt in the Laboratory													
Relinquished by Sampler: [Signature] Date Time: 5/16/18 15:20 Relinquished by Sampler: FX Date Time: 5/17/18 9:15 Relinquished by: [Signature] Date Time: Custody Seal #																		Relinquished By: [Signature] Date Time: 5/17/18 13:29 Relinquished By: [Signature] Date Time: Custody Seal #										Preserved where applicable ☐ In tact ☐ Not intact On Ice ☐ Cooler Temp. 1.9°C			

SGS Sample Receipt Summary

Job Number: JC66322

Client: ARCADIS

Project: NYSEG - LYONS MGP SITE, LYONS NY - SUBS

Date / Time Received: 5/17/2018 9:15:00 AM

Delivery Method:
Airbill #s:
Cooler Temps (Raw Measured) °C: Cooler 1: (1.9);

Cooler Temps (Corrected) °C: Cooler 1: (1.9);

Cooler Security
Y or N
Y or N

- | | |
|--|---|
| 1. Custody Seals Present: ☒ Y ☐ N | 3. COC Present: ☒ Y ☐ N |
| 2. Custody Seals Intact: ☒ Y ☐ N | 4. Smpl Dates/Time OK: ☒ Y ☐ N |

Cooler Temperature
Y or N

- | | |
|---|-----------|
| 1. Temp criteria achieved: ☒ Y ☐ N | IR Gun |
| 2. Cooler temp verification: | |
| 3. Cooler media: | Ice (Bag) |
| 4. No. Coolers: | 1 |

Quality Control Preservation
Y or N
N/A

- | | |
|---|--|
| 1. Trip Blank present / cooler: ☐ Y ☒ N ☐ N/A | |
| 2. Trip Blank listed on COC: ☐ Y ☒ N ☐ N/A | |
| 3. Samples preserved properly: ☒ Y ☐ N ☐ N/A | |
| 4. VOCs headspace free: ☐ Y ☐ N ☒ N/A | |

Sample Integrity - Documentation
Y or N

- | | |
|---|--|
| 1. Sample labels present on bottles: ☒ Y ☐ N | |
| 2. Container labeling complete: ☒ Y ☐ N | |
| 3. Sample container label / COC agree: ☒ Y ☐ N | |

Sample Integrity - Condition
Y or N

- | | |
|---|--------|
| 1. Sample recvd within HT: ☒ Y ☐ N | |
| 2. All containers accounted for: ☒ Y ☐ N | |
| 3. Condition of sample: ☐ Y ☐ N | Intact |

Sample Integrity - Instructions
Y or N N/A

- | | |
|---|---|
| 1. Analysis requested is clear: ☒ Y ☐ N | |
| 2. Bottles received for unspecified tests: ☐ Y ☒ N | |
| 3. Sufficient volume recvd for analysis: ☒ Y ☐ N | |
| 4. Compositing instructions clear: ☐ Y ☐ N | ☒ N/A |
| 5. Filtering instructions clear: ☐ Y ☐ N | ☒ N/A |

Test Strip Lot #s:	pH 1-12: 216017	pH 12+: 208717
Other: (Specify) _____		

Comments

SM089-03
Rev. Date 12/7/17

JC66322: Chain of Custody

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Internal Sample Tracking Chronicle

Arcadis

Job No: JC66322

NYSEG - Lyons MGP Site, Lyons NY

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC66322-1 Collected: 15-MAY-18 13:45 By: RDC Received: 17-MAY-18 By: RL SB-118(7-9)						
JC66322-1	SM2540 G-97	18-MAY-18 17:00	SF			SOL104
JC66322-1	SW846 8270D	21-MAY-18 23:31	JB	21-MAY-18 SLM		B8270PAH
JC66322-1	SW846 8270D	22-MAY-18 12:34	CC	21-MAY-18 SLM		B8270PAH
JC66322-2 Collected: 16-MAY-18 09:30 By: RDC Received: 17-MAY-18 By: RL SB-113(11-13)						
JC66322-2	SM2540 G-97	18-MAY-18 17:00	SF			SOL104
JC66322-2	SW846 8270D	22-MAY-18 02:55	JB	21-MAY-18 SLM		B8270PAH
JC66322-2	SW846 8270D	23-MAY-18 09:08	GS	21-MAY-18 SLM		B8270PAH
JC66322-3 Collected: 16-MAY-18 11:00 By: RDC Received: 17-MAY-18 By: RL SB-116(3-5)						
JC66322-3	SW846 7471B	18-MAY-18 09:15	JA	18-MAY-18 JA		HG
JC66322-3	SM2540 G-97	18-MAY-18 17:00	SF			SOL104
JC66322-4 Collected: 16-MAY-18 11:50 By: RDC Received: 17-MAY-18 By: RL SB-114(3-5)						
JC66322-4	SW846 7471B	18-MAY-18 09:11	JA	18-MAY-18 JA		HG
JC66322-4	SM2540 G-97	18-MAY-18 17:00	SF			SOL104
JC66322-5 Collected: 16-MAY-18 11:55 By: RDC Received: 17-MAY-18 By: RL SB-114(3-5)						
JC66322-5	SM2540 G-97	18-MAY-18 17:00	SF			SOL104
JC66322-5	SW846 8270D	22-MAY-18 13:51	CC	21-MAY-18 SLM		B8270PAH
JC66322-6 Collected: 16-MAY-18 12:40 By: RDC Received: 17-MAY-18 By: RL SB-115(2-4)						
JC66322-6	SW846 7471B	18-MAY-18 09:34	JA	18-MAY-18 JA		HG
JC66322-6	SM2540 G-97	18-MAY-18 17:00	SF			SOL104

Internal Sample Tracking Chronicle

Arcadis

Job No: JC66322

NYSEG - Lyons MGP Site, Lyons NY

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
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JC66322-7 Collected: 16-MAY-18 15:00 By: RDC Received: 17-MAY-18 By: RL
SB-102(12-14)

JC66322-7	SM2540 G-97	18-MAY-18 17:00	SF			SOL104
JC66322-7	SW846 8270D	23-MAY-18 07:47	GS	21-MAY-18 SLM		B8270PAH
JC66322-7	SW846 8270D	23-MAY-18 09:33	GS	21-MAY-18 SLM		B8270PAH

JC66322-8 Collected: 16-MAY-18 00:00 By: RDC Received: 17-MAY-18 By: RL
DUP-051618

JC66322-8	SM2540 G-97	18-MAY-18 17:00	SF			SOL104
JC66322-8	SW846 8270D	22-MAY-18 02:04	JB	21-MAY-18 SLM		B8270PAH
JC66322-8	SW846 8270D	23-MAY-18 08:42	GS	21-MAY-18 SLM		B8270PAH

JC66322-9 Collected: 16-MAY-18 00:00 By: RDC Received: 17-MAY-18 By: RL
DUP-051618

JC66322-9	SW846 7471B	18-MAY-18 09:18	JA	18-MAY-18 JA		HG
JC66322-9	SM2540 G-97	18-MAY-18 17:00	SF			SOL104

SGS Internal Chain of Custody

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Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/17/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66322-1.1	Secured Storage	Sahara Feliciano	05/18/18 12:50	Retrieve from Storage
JC66322-1.1	Sahara Feliciano	Secured Staging Area	05/18/18 12:50	Return to Storage
JC66322-1.1	Secured Staging Area	Sahara Feliciano	05/18/18 15:45	Retrieve from Storage
JC66322-1.1	Sahara Feliciano	Secured Storage	05/18/18 17:13	Return to Storage
JC66322-1.1	Secured Storage	Sahara Feliciano	05/20/18 08:33	Retrieve from Storage
JC66322-1.1	Sahara Feliciano	Secured Staging Area	05/20/18 08:33	Return to Storage
JC66322-1.1	Secured Staging Area	Sauvelson Auguste	05/21/18 04:22	Retrieve from Storage
JC66322-1.1	Sauvelson Auguste	Secured Storage	05/21/18 11:32	Return to Storage
JC66322-1.1.1	Sauvelson Auguste	Organics Prep	05/21/18 04:33	Extract from JC66322-1.1
JC66322-1.1.1	Organics Prep	Sora Lynn Mathurin	05/21/18 12:31	Extract from JC66322-1.1
JC66322-1.1.1	Sora Lynn Mathurin	Extract Storage	05/21/18 12:31	Return to Storage
JC66322-1.1.1	Extract Storage	Sean Block	05/21/18 17:28	Retrieve from Storage
JC66322-1.1.1	Sean Block	GCMS2M	05/21/18 17:28	Load on Instrument
JC66322-1.1.1	GCMS2M	Christine Change	05/23/18 11:40	Unload from Instrument
JC66322-1.1.1	Christine Change	Extract Freezer	05/23/18 11:40	Return to Storage
JC66322-2.1	Secured Storage	Sahara Feliciano	05/18/18 12:50	Retrieve from Storage
JC66322-2.1	Sahara Feliciano	Secured Staging Area	05/18/18 12:50	Return to Storage
JC66322-2.1	Secured Staging Area	Sahara Feliciano	05/18/18 15:45	Retrieve from Storage
JC66322-2.1	Sahara Feliciano	Secured Storage	05/18/18 17:13	Return to Storage
JC66322-2.1	Secured Storage	Sahara Feliciano	05/20/18 08:33	Retrieve from Storage
JC66322-2.1	Sahara Feliciano	Secured Staging Area	05/20/18 08:33	Return to Storage
JC66322-2.1	Secured Staging Area	Sauvelson Auguste	05/21/18 04:22	Retrieve from Storage
JC66322-2.1	Sauvelson Auguste	Secured Storage	05/21/18 11:32	Return to Storage
JC66322-2.1.1	Sauvelson Auguste	Organics Prep	05/21/18 04:33	Extract from JC66322-2.1
JC66322-2.1.1	Organics Prep	Sora Lynn Mathurin	05/21/18 12:31	Extract from JC66322-2.1
JC66322-2.1.1	Sora Lynn Mathurin	Extract Storage	05/21/18 12:31	Return to Storage
JC66322-2.1.1	Extract Storage	Sean Block	05/21/18 17:28	Retrieve from Storage
JC66322-2.1.1	Sean Block	GCMS2M	05/21/18 17:28	Load on Instrument
JC66322-2.1.1	GCMS2M	Christine Change	05/23/18 15:05	Unload from Instrument
JC66322-2.1.1	Christine Change	Extract Freezer	05/23/18 15:05	Return to Storage
JC66322-3.1	Secured Storage	Dwayne Johnson	05/17/18 13:21	Retrieve from Storage
JC66322-3.1	Dwayne Johnson	Secured Staging Area	05/17/18 13:21	Return to Storage
JC66322-3.1	Secured Staging Area	Jessica Adametz	05/17/18 14:23	Retrieve from Storage
JC66322-3.1	Jessica Adametz	Secured Storage	05/17/18 14:59	Return to Storage
JC66322-3.1	Secured Storage	Sahara Feliciano	05/18/18 12:50	Retrieve from Storage
JC66322-3.1	Sahara Feliciano	Secured Staging Area	05/18/18 12:50	Return to Storage
JC66322-3.1	Secured Staging Area	Sahara Feliciano	05/18/18 15:45	Retrieve from Storage
JC66322-3.1	Sahara Feliciano	Secured Storage	05/18/18 17:13	Return to Storage
JC66322-4.1	Secured Storage	Dwayne Johnson	05/17/18 13:21	Retrieve from Storage

SGS Internal Chain of Custody

Page 2 of 3

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/17/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66322-4.1	Dwayne Johnson	Secured Staging Area	05/17/18 13:21	Return to Storage
JC66322-4.1	Secured Staging Area	Jessica Adametz	05/17/18 14:23	Retrieve from Storage
JC66322-4.1	Jessica Adametz	Secured Storage	05/17/18 14:59	Return to Storage
JC66322-4.2	Secured Storage	Dwayne Johnson	05/17/18 13:21	Retrieve from Storage
JC66322-4.2	Dwayne Johnson	Secured Staging Area	05/17/18 13:21	Return to Storage
JC66322-4.2	Secured Staging Area	Jessica Adametz	05/17/18 14:23	Retrieve from Storage
JC66322-4.2	Jessica Adametz	Secured Storage	05/17/18 14:59	Return to Storage
JC66322-4.2	Secured Storage	Sahara Feliciano	05/18/18 12:50	Retrieve from Storage
JC66322-4.2	Sahara Feliciano	Secured Staging Area	05/18/18 12:50	Return to Storage
JC66322-4.2	Secured Staging Area	Sahara Feliciano	05/18/18 15:45	Retrieve from Storage
JC66322-4.2	Sahara Feliciano	Secured Storage	05/18/18 17:13	Return to Storage
JC66322-5.1	Secured Storage	Sahara Feliciano	05/18/18 12:50	Retrieve from Storage
JC66322-5.1	Sahara Feliciano	Secured Staging Area	05/18/18 12:50	Return to Storage
JC66322-5.1	Secured Staging Area	Sahara Feliciano	05/18/18 15:45	Retrieve from Storage
JC66322-5.1	Sahara Feliciano	Secured Storage	05/18/18 17:13	Return to Storage
JC66322-5.2	Secured Storage	Sahara Feliciano	05/20/18 08:33	Retrieve from Storage
JC66322-5.2	Sahara Feliciano	Secured Staging Area	05/20/18 08:33	Return to Storage
JC66322-5.2	Secured Staging Area	Sauvelson Auguste	05/21/18 04:22	Retrieve from Storage
JC66322-5.2	Sauvelson Auguste	Secured Storage	05/21/18 11:32	Return to Storage
JC66322-5.2.1	Sauvelson Auguste	Organics Prep	05/21/18 04:33	Extract from JC66322-5.2
JC66322-5.2.1	Organics Prep	Sora Lynn Mathurin	05/21/18 12:31	Extract from JC66322-5.2
JC66322-5.2.1	Sora Lynn Mathurin	Extract Storage	05/21/18 12:31	Return to Storage
JC66322-5.2.1	Extract Storage	Sean Block	05/21/18 17:28	Retrieve from Storage
JC66322-5.2.1	Sean Block	GCMS2M	05/21/18 17:28	Load on Instrument
JC66322-5.2.1	GCMS2M	Christine Change	05/23/18 11:40	Unload from Instrument
JC66322-5.2.1	Christine Change	Extract Freezer	05/23/18 11:40	Return to Storage
JC66322-6.1	Secured Storage	Dwayne Johnson	05/17/18 13:21	Retrieve from Storage
JC66322-6.1	Dwayne Johnson	Secured Staging Area	05/17/18 13:21	Return to Storage
JC66322-6.1	Secured Staging Area	Jessica Adametz	05/17/18 14:23	Retrieve from Storage
JC66322-6.1	Jessica Adametz	Secured Storage	05/17/18 14:59	Return to Storage
JC66322-6.1	Secured Storage	Sahara Feliciano	05/18/18 12:50	Retrieve from Storage
JC66322-6.1	Sahara Feliciano	Secured Staging Area	05/18/18 12:50	Return to Storage
JC66322-6.1	Secured Staging Area	Sahara Feliciano	05/18/18 15:45	Retrieve from Storage
JC66322-6.1	Sahara Feliciano	Secured Storage	05/18/18 17:13	Return to Storage
JC66322-7.1	Secured Storage	Sahara Feliciano	05/18/18 12:50	Retrieve from Storage
JC66322-7.1	Sahara Feliciano	Secured Staging Area	05/18/18 12:50	Return to Storage
JC66322-7.1	Secured Staging Area	Sahara Feliciano	05/18/18 15:45	Retrieve from Storage
JC66322-7.1	Sahara Feliciano	Secured Storage	05/18/18 17:13	Return to Storage

SGS Internal Chain of Custody

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/17/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66322-7.1	Secured Storage	Sahara Feliciano	05/20/18 08:33	Retrieve from Storage
JC66322-7.1	Sahara Feliciano	Secured Staging Area	05/20/18 08:33	Return to Storage
JC66322-7.1	Secured Staging Area	Sauvelson Auguste	05/21/18 04:22	Retrieve from Storage
JC66322-7.1	Sauvelson Auguste	Secured Storage	05/21/18 11:32	Return to Storage
JC66322-7.1.1	Sauvelson Auguste	Organics Prep	05/21/18 04:33	Extract from JC66322-7.1
JC66322-7.1.1	Organics Prep	Sora Lynn Mathurin	05/21/18 12:31	Extract from JC66322-7.1
JC66322-7.1.1	Sora Lynn Mathurin	Extract Storage	05/21/18 12:31	Return to Storage
JC66322-7.1.1	Extract Storage	Sean Block	05/21/18 17:28	Retrieve from Storage
JC66322-7.1.1	Sean Block	GCMS2M	05/21/18 17:28	Load on Instrument
JC66322-7.1.1	GCMS2M	Christine Change	05/22/18 10:12	Unload from Instrument
JC66322-7.1.1	Christine Change	Extract Freezer	05/22/18 10:12	Return to Storage
JC66322-7.1.1	Extract Freezer	George Sleem	05/23/18 02:30	Retrieve from Storage
JC66322-7.1.1	George Sleem	GCMS2M	05/23/18 02:30	Load on Instrument
JC66322-7.1.1	GCMS2M	Christine Change	05/23/18 15:05	Unload from Instrument
JC66322-7.1.1	Christine Change	Extract Freezer	05/23/18 15:05	Return to Storage
JC66322-8.1	Secured Storage	Sahara Feliciano	05/18/18 12:50	Retrieve from Storage
JC66322-8.1	Sahara Feliciano	Secured Staging Area	05/18/18 12:50	Return to Storage
JC66322-8.1	Secured Staging Area	Sahara Feliciano	05/18/18 15:45	Retrieve from Storage
JC66322-8.1	Sahara Feliciano	Secured Storage	05/18/18 17:13	Return to Storage
JC66322-8.1	Secured Storage	Sahara Feliciano	05/20/18 08:33	Retrieve from Storage
JC66322-8.1	Sahara Feliciano	Secured Staging Area	05/20/18 08:33	Return to Storage
JC66322-8.1	Secured Staging Area	Sauvelson Auguste	05/21/18 04:22	Retrieve from Storage
JC66322-8.1	Sauvelson Auguste	Secured Storage	05/21/18 11:32	Return to Storage
JC66322-8.1.1	Sauvelson Auguste	Organics Prep	05/21/18 04:33	Extract from JC66322-8.1
JC66322-8.1.1	Organics Prep	Sora Lynn Mathurin	05/21/18 12:31	Extract from JC66322-8.1
JC66322-8.1.1	Sora Lynn Mathurin	Extract Storage	05/21/18 12:31	Return to Storage
JC66322-8.1.1	Extract Storage	Sean Block	05/21/18 17:28	Retrieve from Storage
JC66322-8.1.1	Sean Block	GCMS2M	05/21/18 17:28	Load on Instrument
JC66322-8.1.1	GCMS2M	Christine Change	05/23/18 15:05	Unload from Instrument
JC66322-8.1.1	Christine Change	Extract Freezer	05/23/18 15:05	Return to Storage
JC66322-9.1	Secured Storage	Dwayne Johnson	05/17/18 13:21	Retrieve from Storage
JC66322-9.1	Dwayne Johnson	Secured Staging Area	05/17/18 13:21	Return to Storage
JC66322-9.1	Secured Staging Area	Jessica Adametz	05/17/18 14:23	Retrieve from Storage
JC66322-9.1	Jessica Adametz	Secured Storage	05/17/18 14:59	Return to Storage
JC66322-9.1	Secured Storage	Sahara Feliciano	05/18/18 12:50	Retrieve from Storage
JC66322-9.1	Sahara Feliciano	Secured Staging Area	05/18/18 12:50	Return to Storage
JC66322-9.1	Secured Staging Area	Sahara Feliciano	05/18/18 15:45	Retrieve from Storage
JC66322-9.1	Sahara Feliciano	Secured Storage	05/18/18 17:13	Return to Storage

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: JC66322

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12121-MB1	2M104233.D	1	05/21/18	JB	05/21/18	OP12121	E2M4633

The QC reported here applies to the following samples:

Method: SW846 8270D

JC66322-1, JC66322-2, JC66322-5, JC66322-7, JC66322-8

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	93% 23-115%
4165-62-2	Phenol-d5	92% 27-114%
118-79-6	2,4,6-Tribromophenol	90% 19-152%
4165-60-0	Nitrobenzene-d5	89% 26-134%
321-60-8	2-Fluorobiphenyl	94% 39-124%
1718-51-0	Terphenyl-d14	105% 36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	2.00	180	ug/kg	J
	system artifact/aldol-condensation	3.33	390	ug/kg	J
	Total TIC, Semi-Volatile		0	ug/kg	

Blank Spike Summary

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Job Number: JC66322

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12121-BS1	2M104234.D	1	05/21/18	JB	05/21/18	OP12121	E2M4633

The QC reported here applies to the following samples:

Method: SW846 8270D

JC66322-1, JC66322-2, JC66322-5, JC66322-7, JC66322-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	1670	1710	103	53-119
208-96-8	Acenaphthylene	1670	1670	100	41-125
120-12-7	Anthracene	1670	1590	95	51-120
56-55-3	Benzo(a)anthracene	1670	1550	93	54-118
50-32-8	Benzo(a)pyrene	1670	1580	95	55-121
205-99-2	Benzo(b)fluoranthene	1670	1590	95	57-116
191-24-2	Benzo(g,h,i)perylene	1670	1680	101	40-124
207-08-9	Benzo(k)fluoranthene	1670	1520	91	59-116
218-01-9	Chrysene	1670	1550	93	51-115
53-70-3	Dibenzo(a,h)anthracene	1670	1570	94	48-121
206-44-0	Fluoranthene	1670	1570	94	58-117
86-73-7	Fluorene	1670	1710	103	56-114
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1610	97	49-124
91-20-3	Naphthalene	1670	1530	92	44-116
85-01-8	Phenanthrene	1670	1590	95	53-119
129-00-0	Pyrene	1670	1630	98	54-124

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	95%	23-115%
4165-62-2	Phenol-d5	95%	27-114%
118-79-6	2,4,6-Tribromophenol	97%	19-152%
4165-60-0	Nitrobenzene-d5	92%	26-134%
321-60-8	2-Fluorobiphenyl	97%	39-124%
1718-51-0	Terphenyl-d14	104%	36-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12121-MS	2M104251.D	1	05/22/18	JB	05/21/18	OP12121	E2M4633
OP12121-MSD	2M104252.D	1	05/22/18	JB	05/21/18	OP12121	E2M4633
JC66322-5 ^a	2M104271.D	2	05/22/18	CC	05/21/18	OP12121	E2M4634

The QC reported here applies to the following samples:

Method: SW846 8270D

JC66322-1, JC66322-2, JC66322-5, JC66322-7, JC66322-8

CAS No.	Compound	JC66322-5 ug/kg	Spike Q	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	235		1760	72	1780	1550	74	3	21-136/34
208-96-8	Acenaphthylene	384		1760	69	1780	1720	70	1	10-143/36
120-12-7	Anthracene	788		1760	56	1780	1820	56	1	10-147/39
56-55-3	Benzo(a)anthracene	3280		1760	19	1780	3550	20	0	10-151/41
50-32-8	Benzo(a)pyrene	4330		1760	0* ^b	1780	4580	18	9	10-149/40
205-99-2	Benzo(b)fluoranthene	4530		1760	0* ^b	1780	4820	26	10	10-147/42
191-24-2	Benzo(g,h,i)perylene	2890		1760	18	1780	3600	40	12	10-150/41
207-08-9	Benzo(k)fluoranthene	1660		1760	30	1780	2280	30	0	12-142/41
218-01-9	Chrysene	2890		1760	24	1780	3240	22	1	10-151/41
53-70-3	Dibenzo(a,h)anthracene	810		1760	53	1780	1840	57	4	10-152/38
206-44-0	Fluoranthene	4320		1760	0* ^b	1780	4130	0* ^b	2	10-151/44
86-73-7	Fluorene	203		1760	73	1780	1540	75	3	19-133/36
193-39-5	Indeno(1,2,3-cd)pyrene	3350		1760	18	1780	4050	44	12	10-148/41
91-20-3	Naphthalene	233		1760	72	1780	1500	72	1	10-136/36
85-01-8	Phenanthrene	1890		1760	25	1780	2420	30	4	11-145/45
129-00-0	Pyrene	4030		1760	0* ^b	1780	3710	0* ^b	0	11-155/44

CAS No.	Surrogate Recoveries	MS	MSD	JC66322-5	Limits
367-12-4	2-Fluorophenol	81%	79%		23-115%
4165-62-2	Phenol-d5	79%	79%		27-114%
118-79-6	2,4,6-Tribromophenol	75%	74%		19-152%
4165-60-0	Nitrobenzene-d5	79%	78%	88%	26-134%
321-60-8	2-Fluorobiphenyl	79%	80%	95%	39-124%
1718-51-0	Terphenyl-d14	79%	76%	105%	36-134%

(a) Dilution required due to matrix interference.

(b) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

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Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-DFTPP	Injection Date: 05/09/18
Lab File ID: 2M103893.D	Injection Time: 10:22
Instrument ID: GCMS2M	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	176008	35.4	Pass
68	Less than 2.0% of mass 69	2989	0.60 (1.53) ^a	Pass
69	Mass 69 relative abundance	194999	39.2	Pass
70	Less than 2.0% of mass 69	895	0.18 (0.46) ^a	Pass
127	40.0 - 60.0% of mass 198	246965	49.6	Pass
197	Less than 1.0% of mass 198	4345	0.87	Pass
198	Base peak, 100% relative abundance	497856	100.0	Pass
199	5.0 - 9.0% of mass 198	32775	6.58	Pass
275	10.0 - 30.0% of mass 198	122106	24.5	Pass
365	1.0 - 100.0% of mass 198	14865	2.99	Pass
441	Present, but less than mass 443	46565	9.35 (78.6) ^b	Pass
442	40.0 - 100.0% of mass 198	323541	65.0	Pass
443	17.0 - 23.0% of mass 442	59280	11.9 (18.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4618-IC4618	2M103895.D	05/09/18	11:56	01:34	Initial cal 100
E2M4618-IC4618	2M103896.D	05/09/18	12:22	02:00	Initial cal 80
E2M4618-ICC4618	2M103897.D	05/09/18	12:47	02:25	Initial cal 50
E2M4618-IC4618	2M103898.D	05/09/18	13:13	02:51	Initial cal 25
E2M4618-IC4618	2M103899.D	05/09/18	13:38	03:16	Initial cal 10
E2M4618-IC4618	2M103900.D	05/09/18	14:04	03:42	Initial cal 5
E2M4618-IC4618	2M103901.D	05/09/18	14:29	04:07	Initial cal 2
E2M4618-IC4618	2M103902.D	05/09/18	14:55	04:33	Initial cal 1

Instrument Performance Check (DFTPP)

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Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-DFTPP
Lab File ID: 2M103903.D
Instrument ID: GCMS2M
Injection Date: 05/09/18
Injection Time: 18:30

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	205172	37.4	Pass
68	Less than 2.0% of mass 69	3087	0.56 (1.34) ^a	Pass
69	Mass 69 relative abundance	230153	42.0	Pass
70	Less than 2.0% of mass 69	1679	0.31 (0.73) ^a	Pass
127	40.0 - 60.0% of mass 198	288469	52.6	Pass
197	Less than 1.0% of mass 198	4778	0.87	Pass
198	Base peak, 100% relative abundance	548117	100.0	Pass
199	5.0 - 9.0% of mass 198	37624	6.86	Pass
275	10.0 - 30.0% of mass 198	131669	24.0	Pass
365	1.0 - 100.0% of mass 198	14986	2.73	Pass
441	Present, but less than mass 443	45789	8.35 (75.2) ^b	Pass
442	40.0 - 100.0% of mass 198	314570	57.4	Pass
443	17.0 - 23.0% of mass 442	60857	11.1 (19.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4619-IC4619	2M103904.D	05/09/18	18:59	00:29	Initial cal 100
E2M4619-IC4619	2M103905.D	05/09/18	19:25	00:55	Initial cal 80
E2M4619-ICC4619	2M103906.D	05/09/18	19:50	01:20	Initial cal 50
E2M4619-IC4619	2M103907.D	05/09/18	20:16	01:46	Initial cal 25
E2M4619-IC4619	2M103908.D	05/09/18	20:41	02:11	Initial cal 10
E2M4619-IC4619	2M103909.D	05/09/18	21:06	02:36	Initial cal 5
E2M4619-IC4619	2M103910.D	05/09/18	21:32	03:02	Initial cal 2
E2M4619-IC4619	2M103911.D	05/09/18	21:57	03:27	Initial cal 1
E2M4619-ICV4618	2M103912.D	05/09/18	22:23	03:53	Initial cal verification 50
E2M4619-ICV4618	2M103913.D	05/09/18	22:48	04:18	Initial cal verification 50
E2M4619-ICV4619	2M103915A.D	05/09/18	23:38	05:08	Initial cal verification 50
E2M4619-ICV4618	2M103915.D	05/09/18	23:38	05:08	Initial cal verification 50
E2M4619-ICV4618	2M103916.D	05/10/18	00:04	05:34	Initial cal verification 50
E2M4619-ICV4619	2M103916A.D	05/10/18	00:04	05:34	Initial cal verification 50
E2M4619-ICV4618	2M103917.D	05/10/18	00:29	05:59	Initial cal verification 50
E2M4619-ICV4619	2M103918.D	05/10/18	02:14	07:44	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4620-DFTPP
Lab File ID: 2M103920.D
Instrument ID: GCMS2M
Injection Date: 05/11/18
Injection Time: 13:43

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	130877	34.6	Pass
68	Less than 2.0% of mass 69	2584	0.68 (1.71) ^a	Pass
69	Mass 69 relative abundance	151216	40.0	Pass
70	Less than 2.0% of mass 69	823	0.22 (0.54) ^a	Pass
127	40.0 - 60.0% of mass 198	189864	50.2	Pass
197	Less than 1.0% of mass 198	3129	0.83	Pass
198	Base peak, 100% relative abundance	378218	100.0	Pass
199	5.0 - 9.0% of mass 198	24697	6.53	Pass
275	10.0 - 30.0% of mass 198	90376	23.9	Pass
365	1.0 - 100.0% of mass 198	11279	2.98	Pass
441	Present, but less than mass 443	34077	9.01 (76.5) ^b	Pass
442	40.0 - 100.0% of mass 198	230490	60.9	Pass
443	17.0 - 23.0% of mass 442	44552	11.8 (19.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4620-ICV4619	2M103921A.D	05/11/18	13:55	00:12	Initial cal verification 50
E2M4620-ICV4618	2M103921.D	05/11/18	13:55	00:12	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4633-DFTPP
Lab File ID: 2M104230.D
Instrument ID: GCMS2M
Injection Date: 05/21/18
Injection Time: 16:29

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	132675	34.6	Pass
68	Less than 2.0% of mass 69	2677	0.70 (1.72) ^a	Pass
69	Mass 69 relative abundance	155197	40.4	Pass
70	Less than 2.0% of mass 69	785	0.20 (0.51) ^a	Pass
127	40.0 - 60.0% of mass 198	195037	50.8	Pass
197	Less than 1.0% of mass 198	984	0.26	Pass
198	Base peak, 100% relative abundance	383808	100.0	Pass
199	5.0 - 9.0% of mass 198	26384	6.87	Pass
275	10.0 - 30.0% of mass 198	93963	24.5	Pass
365	1.0 - 100.0% of mass 198	12585	3.28	Pass
441	Present, but less than mass 443	31238	8.14 (79.3) ^b	Pass
442	40.0 - 100.0% of mass 198	207589	54.1	Pass
443	17.0 - 23.0% of mass 442	39402	10.3 (19.0) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4633-CC4618	2M104231.D	05/21/18	16:41	00:12	Continuing cal 25
E2M4633-CC4619	2M104232.D	05/21/18	17:06	00:37	Continuing cal 25
OP12121-MB1	2M104233.D	05/21/18	17:32	01:03	Method Blank
OP12121-BS1	2M104234.D	05/21/18	17:58	01:29	Blank Spike
ZZZZZZ	2M104235.D	05/21/18	18:23	01:54	(unrelated sample)
ZZZZZZ	2M104236.D	05/21/18	18:49	02:20	(unrelated sample)
ZZZZZZ	2M104237.D	05/21/18	19:15	02:46	(unrelated sample)
ZZZZZZ	2M104238.D	05/21/18	19:40	03:11	(unrelated sample)
ZZZZZZ	2M104239.D	05/21/18	20:06	03:37	(unrelated sample)
ZZZZZZ	2M104240.D	05/21/18	20:32	04:03	(unrelated sample)
ZZZZZZ	2M104241.D	05/21/18	20:57	04:28	(unrelated sample)
ZZZZZZ	2M104242.D	05/21/18	21:23	04:54	(unrelated sample)
ZZZZZZ	2M104243.D	05/21/18	21:49	05:20	(unrelated sample)
ZZZZZZ	2M104244.D	05/21/18	22:14	05:45	(unrelated sample)
ZZZZZZ	2M104245.D	05/21/18	22:40	06:11	(unrelated sample)
ZZZZZZ	2M104246.D	05/21/18	23:05	06:36	(unrelated sample)
JC66322-1	2M104247.D	05/21/18	23:31	07:02	SB-118(7-9)
ZZZZZZ	2M104248.D	05/21/18	23:56	07:27	(unrelated sample)
ZZZZZZ	2M104249.D	05/22/18	00:22	07:53	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	E2M4633-DFTPP	Injection Date:	05/21/18
Lab File ID:	2M104230.D	Injection Time:	16:29
Instrument ID:	GCMS2M		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
OP12121-MS	2M104251.D	05/22/18	01:13	08:44	Matrix Spike
OP12121-MSD	2M104252.D	05/22/18	01:38	09:09	Matrix Spike Duplicate
JC66322-8	2M104253.D	05/22/18	02:04	09:35	DUP-051618
ZZZZZZ	2M104254.D	05/22/18	02:29	10:00	(unrelated sample)
JC66322-2	2M104255.D	05/22/18	02:55	10:26	SB-113(11-13)

Instrument Performance Check (DFTPP)

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Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4634-DFTPP	Injection Date: 05/22/18
Lab File ID: 2M104259.D	Injection Time: 09:38
Instrument ID: GCMS2M	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	91702	36.8	Pass
68	Less than 2.0% of mass 69	1774	0.71 (1.66) ^a	Pass
69	Mass 69 relative abundance	106769	42.9	Pass
70	Less than 2.0% of mass 69	944	0.38 (0.88) ^a	Pass
127	40.0 - 60.0% of mass 198	129595	52.1	Pass
197	Less than 1.0% of mass 198	647	0.26	Pass
198	Base peak, 100% relative abundance	248875	100.0	Pass
199	5.0 - 9.0% of mass 198	15668	6.30	Pass
275	10.0 - 30.0% of mass 198	62059	24.9	Pass
365	1.0 - 100.0% of mass 198	7716	3.10	Pass
441	Present, but less than mass 443	19351	7.78 (78.8) ^b	Pass
442	40.0 - 100.0% of mass 198	131245	52.7	Pass
443	17.0 - 23.0% of mass 442	24562	9.87 (18.7) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4634-CC4618	2M104262.D	05/22/18	10:01	00:23	Continuing cal 50
E2M4634-CC4619	2M104263.D	05/22/18	10:26	00:48	Continuing cal 50
OP12115-MB1	2M104264.D	05/22/18	10:52	01:14	Method Blank
OP12115-BS1	2M104265.D	05/22/18	11:18	01:40	Blank Spike
OP12115-BSD	2M104266.D	05/22/18	11:43	02:05	Blank Spike Duplicate
JC66322-1	2M104268.D	05/22/18	12:34	02:56	SB-118(7-9)
ZZZZZZ	2M104269.D	05/22/18	13:00	03:22	(unrelated sample)
ZZZZZZ	2M104270.D	05/22/18	13:25	03:47	(unrelated sample)
JC66322-5	2M104271.D	05/22/18	13:51	04:13	SB-114(3-5)
ZZZZZZ	2M104273.D	05/22/18	14:42	05:04	(unrelated sample)
ZZZZZZ	2M104276.D	05/22/18	15:58	06:20	(unrelated sample)
ZZZZZZ	2M104277.D	05/22/18	16:24	06:46	(unrelated sample)
ZZZZZZ	2M104278.D	05/22/18	16:49	07:11	(unrelated sample)
ZZZZZZ	2M104279.D	05/22/18	17:15	07:37	(unrelated sample)
ZZZZZZ	2M104280.D	05/22/18	17:40	08:02	(unrelated sample)
ZZZZZZ	2M104283.D	05/22/18	18:57	09:19	(unrelated sample)
ZZZZZZ	2M104284.D	05/22/18	19:22	09:44	(unrelated sample)
ZZZZZZ	2M104285.D	05/22/18	19:48	10:10	(unrelated sample)
ZZZZZZ	2M104286.D	05/22/18	20:13	10:35	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	E2M4634-DFTPP	Injection Date:	05/22/18
Lab File ID:	2M104259.D	Injection Time:	09:38
Instrument ID:	GCMS2M		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	2M104287.D	05/22/18	20:39	11:01	(unrelated sample)

6.4.5
6

Instrument Performance Check (DFTPP)

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Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4635-DFTPP	Injection Date: 05/22/18
Lab File ID: 2M104289.D	Injection Time: 23:32
Instrument ID: GCMS2M	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	78426	34.3	Pass
68	Less than 2.0% of mass 69	1415	0.62 (1.50) ^a	Pass
69	Mass 69 relative abundance	94026	41.1	Pass
70	Less than 2.0% of mass 69	454	0.20 (0.48) ^a	Pass
127	40.0 - 60.0% of mass 198	117229	51.2	Pass
197	Less than 1.0% of mass 198	1417	0.62	Pass
198	Base peak, 100% relative abundance	228941	100.0	Pass
199	5.0 - 9.0% of mass 198	16200	7.08	Pass
275	10.0 - 30.0% of mass 198	57845	25.3	Pass
365	1.0 - 100.0% of mass 198	7287	3.18	Pass
441	Present, but less than mass 443	19613	8.57 (81.6) ^b	Pass
442	40.0 - 100.0% of mass 198	132226	57.8	Pass
443	17.0 - 23.0% of mass 442	24042	10.5 (18.2) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E2M4635-CC4618	2M104290.D	05/22/18	23:43	00:11	Continuing cal 25
E2M4635-CC4619	2M104291.D	05/23/18	00:09	00:37	Continuing cal 25
OP12132-MB1	2M104293.D	05/23/18	01:00	01:28	Method Blank
OP12169-MB1	2M104294.D	05/23/18	01:25	01:53	Method Blank
OP12169-BS1	2M104295.D	05/23/18	01:51	02:19	Blank Spike
OP12169-BSD	2M104296.D	05/23/18	02:16	02:44	Blank Spike Duplicate
OP12169-BS13	2M104297.D	05/23/18	02:42	03:10	Blank Spike
ZZZZZZ	2M104298.D	05/23/18	03:07	03:35	(unrelated sample)
ZZZZZZ	2M104299.D	05/23/18	03:33	04:01	(unrelated sample)
ZZZZZZ	2M104300.D	05/23/18	03:58	04:26	(unrelated sample)
ZZZZZZ	2M104301.D	05/23/18	04:24	04:52	(unrelated sample)
ZZZZZZ	2M104302.D	05/23/18	04:49	05:17	(unrelated sample)
ZZZZZZ	2M104303.D	05/23/18	05:15	05:43	(unrelated sample)
ZZZZZZ	2M104304.D	05/23/18	05:40	06:08	(unrelated sample)
ZZZZZZ	2M104306.D	05/23/18	06:31	06:59	(unrelated sample)
ZZZZZZ	2M104308.D	05/23/18	07:22	07:50	(unrelated sample)
JC66322-7	2M104309.D	05/23/18	07:47	08:15	SB-102(12-14)
JC66322-8	2M104311.D	05/23/18	08:42	09:10	DUP-051618
JC66322-2	2M104312.D	05/23/18	09:08	09:36	SB-113(11-13)

Instrument Performance Check (DFTPP)

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	E2M4635-DFTPP	Injection Date:	05/22/18
Lab File ID:	2M104289.D	Injection Time:	23:32
Instrument ID:	GCMS2M		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
JC66322-7	2M104313.D	05/23/18	09:33	10:01	SB-102(12-14)
ZZZZZZ	2M104315.D	05/23/18	10:24	10:52	(unrelated sample)

Internal Standard Area Summary

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Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E2M4633-CC4618	Injection Date: 05/21/18
Lab File ID: 2M104231.D	Injection Time: 16:41
Instrument ID: GCMS2M	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	393277	4.59	1498986	5.67	811574	7.71	1425288	9.87	1340714	14.04	1339373	16.15
Upper Limit ^a	786554	5.09	2997972	6.17	1623148	8.21	2850576	10.37	2681428	14.54	2678746	16.65
Lower Limit ^b	196639	4.09	749493	5.17	405787	7.21	712644	9.37	670357	13.54	669687	15.65

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP12121-MB1	428168	4.59	1642969	5.66	774998	7.71	1358298	9.86	1137033	14.04	1100496	16.14
OP12121-BS1	357495	4.59	1354561	5.67	646367	7.71	1145633	9.87	990826	14.04	977393	16.15
ZZZZZZ	419343	4.59	1588716	5.66	751796	7.71	1332742	9.86	1150630	14.04	1131752	16.14
ZZZZZZ	405873	4.59	1542796	5.66	734677	7.71	1289552	9.86	1079167	14.03	1049033	16.14
ZZZZZZ	398522	4.59	1489441	5.66	704081	7.71	1239046	9.86	1051617	14.03	1033163	16.14
ZZZZZZ	374370	4.59	1427168	5.66	668081	7.71	1209849	9.86	1021166	14.03	1003215	16.14
ZZZZZZ	381477	4.59	1440619	5.66	671747	7.71	1201934	9.86	1030566	14.03	1023325	16.14
ZZZZZZ	371987	4.59	1330950	5.66	630562	7.72	1120060	9.87	1030408	14.04	1043401	16.14
ZZZZZZ	346054	4.59	1256483	5.66	591450	7.71	1044208	9.87	935699	14.03	975178	16.14
ZZZZZZ	362593	4.59	1372313	5.66	646549	7.71	1146383	9.86	967021	14.03	1006053	16.14
ZZZZZZ	362116	4.59	1363614	5.66	629724	7.71	1099898	9.86	924881	14.04	969708	16.15
ZZZZZZ	294826	4.59	1103974	5.66	535923	7.71	977152	9.86	883176	14.04	933134	16.14
ZZZZZZ	347381	4.59	1277478	5.66	574551	7.71	993782	9.87	924977	14.04	984205	16.15
ZZZZZZ	328118	4.59	1223588	5.66	562049	7.71	969875	9.87	862203	14.04	920374	16.15
JC66322-1	342655	4.59	1258267	5.67	590415	7.71	1017839	9.88	950195	14.07	1033151	16.18
ZZZZZZ	325371	4.59	1215377	5.67	549976	7.71	947702	9.87	904481	14.06	956462	16.16
ZZZZZZ	305736	4.59	1132168	5.67	523823	7.71	911994	9.88	866949	14.08	940034	16.19
OP12121-MS	319642	4.59	1208735	5.67	574326	7.72	1022450	9.88	969623	14.07	1014291	16.18
OP12121-MSD	337947	4.59	1286815	5.67	601671	7.72	1086281	9.88	1056025	14.07	1099051	16.19
JC66322-8	348212	4.59	1295922	5.67	594076	7.72	1087232	9.89	1024569	14.14	1156537	16.25
ZZZZZZ	297980	4.60	896941	5.70	632075	7.80	840017	9.97	840833	14.10	863291	16.21
JC66322-2	299726	4.59	1102489	5.68	505727	7.72	909922	9.90	877824	14.14	979728	16.26

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Page 1 of 1

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E2M4634-CC4618	Injection Date: 05/22/18
Lab File ID: 2M104262.D	Injection Time: 10:01
Instrument ID: GCMS2M	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	357538	4.58	1342976	5.66	743289	7.71	1294076	9.87	1216954	14.05	1157802	16.15
Upper Limit ^a	715076	5.08	2685952	6.16	1486578	8.21	2588152	10.37	2433908	14.55	2315604	16.65
Lower Limit ^b	178769	4.08	671488	5.16	371645	7.21	647038	9.37	608477	13.55	578901	15.65

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP12115-MB1	312227	4.58	1220389	5.66	604888	7.70	1136019	9.86	1039737	14.03	1055819	16.14
OP12115-BS1	303098	4.58	1149917	5.66	575102	7.70	1043089	9.86	941294	14.04	948923	16.15
OP12115-BSD	325102	4.58	1251305	5.66	610902	7.70	1135948	9.86	1016852	14.04	1034410	16.15
JC66322-1	316429	4.58	1229265	5.66	594482	7.70	1102869	9.86	1013441	14.03	1019326	16.14
ZZZZZZ	312949	4.58	1201893	5.65	593297	7.70	1084728	9.86	971396	14.03	1016527	16.14
ZZZZZZ	290863	4.58	1146153	5.65	576660	7.70	1089838	9.86	1000960	14.03	1009924	16.14
JC66322-5 ^c	291224	4.58	1130843	5.66	550720	7.70	1013324	9.86	909602	14.04	964781	16.15
ZZZZZZ	292838	4.58	1093416	5.66	550110	7.71	1016807	9.86	987982	14.04	1010524	16.15
ZZZZZZ	326533	4.58	1261140	5.66	627792	7.70	1160501	9.86	1080719	14.04	1080265	16.15
ZZZZZZ	285859	4.58	1105159	5.66	543497	7.70	1011855	9.86	934427	14.03	948025	16.15
ZZZZZZ	284740	4.58	1121905	5.66	558931	7.70	1048805	9.86	961898	14.03	970082	16.15
ZZZZZZ	303529	4.58	1193301	5.66	587438	7.70	1106223	9.86	1024880	14.03	1031098	16.14
ZZZZZZ	299896	4.58	1176245	5.66	585871	7.70	1075356	9.86	990934	14.03	1001646	16.15
ZZZZZZ	302884	4.58	1174406	5.66	584270	7.70	1085087	9.86	1014844	14.03	1016657	16.14
ZZZZZZ	283387	4.58	1084078	5.66	533228	7.70	1005261	9.86	933568	14.03	937199	16.14
ZZZZZZ	277600	4.58	1073020	5.66	540657	7.70	1029201	9.86	988858	14.03	1008214	16.14
ZZZZZZ	298937	4.58	1152227	5.65	562661	7.70	1046824	9.86	963954	14.03	985753	16.14
ZZZZZZ	300054	4.58	1121475	5.65	543675	7.70	1003575	9.86	934000	14.03	964528	16.14

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Dilution required due to matrix interference.

Internal Standard Area Summary

Page 1 of 1

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: E2M4635-CC4618	Injection Date: 05/22/18
Lab File ID: 2M104290.D	Injection Time: 23:43
Instrument ID: GCMS2M	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	452581	4.58	1775592	5.65	993901	7.70	1777514	9.86	1636659	14.04	1632899	16.15
Upper Limit ^a	905162	5.08	3551184	6.15	1987802	8.20	3555028	10.36	3273318	14.54	3265798	16.65
Lower Limit ^b	226291	4.08	887796	5.15	496951	7.20	888757	9.36	818330	13.54	816450	15.65

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP12132-MB1 ^c	326061	4.58	1306528	5.65	653940	7.69	1229018	9.85	1123766	14.02	1105927	16.13
OP12169-MB1	324524	4.58	1277913	5.65	631597	7.69	1185508	9.85	1105477	14.02	1102496	16.13
OP12169-BS1	298454	4.58	1145155	5.65	570330	7.69	1044384	9.85	933565	14.02	955354	16.13
OP12169-BSD	298460	4.58	1159744	5.65	585928	7.69	1097055	9.85	1007319	14.02	995844	16.13
OP12169-BS13	318723	4.58	1235913	5.65	606273	7.69	1145296	9.85	1049706	14.02	1065494	16.13
ZZZZZZ	295899	4.58	1149144	5.65	568811	7.69	1054107	9.85	984008	14.02	995501	16.13
ZZZZZZ	327578	4.58	1287953	5.65	635176	7.69	1170149	9.85	1065076	14.02	1065405	16.13
ZZZZZZ	267519	4.58	1050679	5.65	536983	7.69	1031119	9.85	965987	14.02	987253	16.13
ZZZZZZ	312589	4.60	1258763	5.66	647456	7.69	1230357	9.85	1130605	14.02	1131207	16.13
ZZZZZZ	278208	4.58	1069239	5.69	568353	7.69	1066896	9.85	995151	14.02	1000938	16.13
ZZZZZZ	286149	4.58	1117773	5.66	588777	7.69	1104377	9.85	1021126	14.02	1005551	16.13
ZZZZZZ	288130	4.58	1088236	5.69	582902	7.69	1095605	9.85	1021098	14.02	1019446	16.13
ZZZZZZ	338247	4.58	1317428	5.65	642940	7.69	1204256	9.85	1083447	14.02	1105755	16.13
ZZZZZZ	314168	4.58	1245561	5.65	633731	7.69	1212378	9.85	1125836	14.02	1158799	16.13
JC66322-7	309114	4.58	1219362	5.65	603716	7.69	1131368	9.85	1048546	14.02	1068685	16.13
JC66322-8	334352	4.58	1312028	5.65	655410	7.69	1216586	9.85	1114557	14.02	1157484	16.14
JC66322-2	304751	4.58	1208222	5.65	593781	7.69	1093938	9.85	988675	14.03	1018918	16.14
JC66322-7 ^d	297575	4.58	1133757	5.65	569889	7.70	1024204	9.87	904229	14.08	995216	16.19
ZZZZZZ	303608	4.58	1181784	5.66	602624	7.70	1116707	9.85	969454	14.02	953070	16.14

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

- (a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) CORR/RE sur high. re-extraction
(d) Dilution required due to matrix interference.

Surrogate Recovery Summary

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8270D	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
JC66322-1	2M104268.D	78	90	103
JC66322-1	2M104247.D	69	81	88
JC66322-2	2M104312.D	69	74	81
JC66322-2	2M104255.D	64	68	67
JC66322-5	2M104271.D	88	95	105
JC66322-7	2M104309.D	80	81	102
JC66322-7	2M104313.D	69	70	78
JC66322-8	2M104311.D	75	78	87
JC66322-8	2M104253.D	65	70	71
OP12121-BS1	2M104234.D	92	97	104
OP12121-MB1	2M104233.D	89	94	105
OP12121-MS	2M104251.D	79	79	79
OP12121-MSD	2M104252.D	78	80	76

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-134%
S2 = 2-Fluorobiphenyl	39-124%
S3 = Terphenyl-d14	36-134%

Initial Calibration Summary

Page 1 of 3

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-ICC4618
Lab FileID: 2M103897.D

Response Factor Report MS2M

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

Calibration Files

2 =2m103901.D 5 =2m103900.D 25 =2m103898.D 80 =2m103896.D
100 =2m103895.D 50 =2m103897.D 1 =2m103902.D 10 =2m103899.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	-----ISTD-----									
2) 1,4-Dioxane	0.629	0.598	0.596	0.576	0.591	0.598	0.637	0.615	0.605	3.36
3) Pyridine	1.526	1.559	1.597	1.500	1.499	1.488	1.575	1.674	1.552	4.06
4) N-Nitrosodim	0.914	0.887	0.926	0.908	0.919	0.926	0.933	0.953	0.921	2.09
5) 2-Fluorophen	1.326	1.258	1.311	1.293	1.319	1.322	1.241	1.356	1.303	2.90
6) Indene	2.170	2.166	2.226	2.234	2.233	2.285	2.221	2.299	2.229	2.12
7) Cumene	3.250	3.242	3.325	3.249	3.272	3.374	3.448	3.387	3.318	2.34
8) Phenol-d5	1.620	1.595	1.625	1.627	1.667	1.663	1.622	1.662	1.635	1.57
9) Phenol	1.883	1.787	1.854	1.867	1.899	1.894	1.877	1.959	1.877	2.56
10) Aniline	2.130	2.106	2.037	1.920	1.913	1.981	2.225	2.172	2.061	5.66
11) bis(2-Chloro	1.278	1.274	1.290	1.271	1.281	1.299	1.342	1.346	1.298	2.32
12) 2-Chlorophen	1.403	1.415	1.401	1.397	1.408	1.417	1.356	1.473	1.409	2.30
13) Decane	1.512	1.436	1.429	1.366	1.348	1.426	1.587	1.500	1.450	5.45
14) 1,3-Dichloro	1.585	1.573	1.574	1.545	1.547	1.589	1.621	1.666	1.588	2.51
15) 1,4-Dichloro	1.577	1.595	1.609	1.567	1.567	1.616	1.654	1.677	1.608	2.52
16) Benzyl alcoh	0.854	0.828	0.856	0.885	0.890	0.885	0.927	0.875	0.875	3.37
17) 1,2-Dichloro	1.482	1.435	1.491	1.464	1.456	1.508	1.624	1.553	1.502	4.07
18) Acetophenone	1.832	1.819	1.885	1.847	1.819	1.898	1.873	1.932	1.863	2.19
19) 2-Methylphen	1.240	1.193	1.215	1.239	1.227	1.253	1.221	1.264	1.231	1.83
20) 2,2'-oxybis(	1.624	1.552	1.558	1.504	1.488	1.552	1.685	1.624	1.573	4.22
21) 3&4-Methylph	1.268	1.252	1.293	1.334	1.322	1.328	1.233	1.315	1.293	2.93
22) n-Nitroso-di	0.963	0.956	0.999	0.994	0.980	1.024	1.032	1.034	0.998	3.05
23) Hexachloroet	0.505	0.502	0.510	0.506	0.503	0.516	0.535	0.554	0.516	3.60
24) I Naphthalene-d8	-----ISTD-----									
25) Nitrobenzene	0.369	0.357	0.366	0.366	0.360	0.367	0.357	0.382	0.366	2.19
26) Nitrobenzene	0.367	0.366	0.363	0.360	0.355	0.364	0.364	0.379	0.365	1.87
27) Quinoline	0.672	0.671	0.677	0.684	0.676	0.675	0.681	0.699	0.679	1.35
28) Isophorone	0.641	0.636	0.636	0.640	0.631	0.639	0.659	0.664	0.643	1.84
29) 2-Nitropheno	0.188	0.189	0.196	0.199	0.197	0.197	0.188	0.202	0.195	2.86
30) 2,4-Dimethyl	0.309	0.303	0.309	0.319	0.316	0.311	0.303	0.323	0.312	2.35
31) Benzoic acid	0.182	0.204	0.242	0.266	0.268	0.258		0.234	0.236	13.79
32) bis(2-Chloro	0.370	0.369	0.372	0.366	0.360	0.366	0.381	0.390	0.372	2.50
33) 2,4-Dichloro	0.297	0.290	0.289	0.291	0.290	0.290	0.293	0.294	0.292	0.90
34) 2,6-Dichloro	0.277	0.277	0.287	0.286	0.283	0.286	0.294	0.294	0.286	2.27
35) 1,3,5-Trichl	0.361	0.345	0.342	0.333	0.330	0.338	0.361	0.359	0.346	3.64
36) 1,2,4-Trichl	0.320	0.324	0.314	0.312	0.307	0.317	0.342	0.331	0.321	3.54
37) 1,2,3-Trichl	0.318	0.319	0.318	0.307	0.299	0.310	0.350	0.328	0.319	4.78
38) Naphthalene	1.046	1.023	1.024	1.016	1.003	1.021	1.081	1.070	1.036	2.66
39) 4-Chloroanil	0.438	0.445	0.439	0.440	0.427	0.435	0.445	0.456	0.441	1.96
40) 2,3-Dichloro	0.359	0.362	0.360	0.370	0.366	0.365	0.359	0.378	0.365	1.77
41) Caprolactam	0.140	0.148	0.150	0.155	0.152	0.152	0.145	0.157	0.150	3.58
42) Hexachlorobu	0.175	0.164	0.167	0.164	0.161	0.165	0.171	0.174	0.168	3.00
43) 4-Chloro-3-m	0.279	0.273	0.280	0.286	0.287	0.282	0.268	0.289	0.281	2.58
44) 2-Methylnaph	0.597	0.595	0.596	0.600	0.599	0.601	0.622	0.616	0.603	1.69
45) 1-Methylnaph	0.625	0.625	0.623	0.627	0.625	0.626	0.630	0.651	0.629	1.43

Initial Calibration Summary

Page 2 of 3

Job Number: JC66322
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-ICC4618
 Lab FileID: 2M103897.D

46)	Dimethylnaph	0.626	0.636	0.638	0.647	0.645	0.641	0.655	0.666	0.644	1.89
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.301	0.323	0.357	0.369	0.369	0.370	0.273	0.358	0.340	10.84
49)	2,4,6-Trichl	0.394	0.365	0.395	0.393	0.389	0.395	0.388	0.407	0.391	3.01
50)	2,4,5-Trichl	0.392	0.405	0.417	0.411	0.406	0.417	0.406	0.432	0.411	2.82
51)	2-Fluorobiph	1.434	1.477	1.454	1.421	1.415	1.462	1.477	1.549	1.461	2.93
52)	2-Chloronaph	1.255	1.234	1.209	1.182	1.168	1.213	1.265	1.275	1.225	3.18
53)	Biphenyl	1.673	1.612	1.627	1.628	1.617	1.652	1.639	1.718	1.646	2.14
54)	2-Nitroanili	0.323	0.319	0.344	0.345	0.348	0.349	0.328	0.350	0.338	3.77
55)	Dimethylphth	1.338	1.307	1.309	1.306	1.295	1.311	1.384	1.382	1.329	2.68
56)	Acenaphthyle	1.936	1.916	1.954	1.922	1.919	1.973	1.978	2.042	1.955	2.17
57)	2,6-Dinitrot	0.273	0.290	0.310	0.311	0.309	0.307	0.266	0.311	0.297	6.24
58)	3-Nitroanili	0.309	0.327	0.356	0.364	0.358	0.367	0.318	0.361	0.345	6.66
59)	Acenaphthene	1.268	1.268	1.277	1.267	1.261	1.283	1.306	1.334	1.283	1.95
60)	2,4-Dinitrop	0.076	0.110	0.156	0.187	0.190	0.178	0.069	0.134	0.137	35.30
---- Quadratic regression ---- Coefficient = 0.9997											
Response Ratio = -0.01252 + 0.16728 *A + 0.00532 *A^2											
61)	4-Nitropheno	0.125	0.142	0.161	0.160	0.164	0.162	0.123	0.155	0.149	11.15
62)	Dibenzofuran	1.712	1.715	1.724	1.715	1.695	1.733	1.727	1.783	1.725	1.50
63)	2,4-Dinitrot	0.367	0.362	0.416	0.431	0.430	0.428	0.331	0.407	0.396	9.61
64)	2,3,4,6-Tetr	0.327	0.333	0.344	0.348	0.349	0.347	0.317	0.350	0.339	3.56
65)	Diethylphtha	1.280	1.279	1.319	1.325	1.322	1.331	1.301	1.364	1.315	2.14
66)	Fluorene	1.405	1.379	1.394	1.398	1.399	1.411	1.367	1.432	1.398	1.41
67)	4-Chlorophen	0.643	0.628	0.641	0.619	0.608	0.625	0.658	0.661	0.635	2.93
68)	4-Nitroanili	0.317	0.345	0.345	0.353	0.350	0.358	0.306	0.369	0.343	6.15
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.093	0.099	0.135	0.149	0.148	0.145	0.083	0.123	0.122	21.91
---- Quadratic regression ---- Coefficient = 0.9990											
Response Ratio = -0.00195 + 0.13467 *A + 0.00646 *A^2											
71)	n-Nitrosodip	0.576	0.580	0.599	0.581	0.582	0.585	0.572	0.597	0.584	1.63
72)	1,2-Diphenyl	0.747	0.768	0.786	0.768	0.768	0.774	0.782	0.797	0.774	1.95
73)	2,4,6-Tribo	0.117	0.116	0.127	0.123	0.123	0.122	0.122	0.119	0.121	3.07
74)	4-Bromopheny	0.217	0.219	0.221	0.216	0.215	0.219	0.226	0.229	0.220	2.18
75)	Hexachlorobe	0.247	0.248	0.252	0.243	0.239	0.247	0.275	0.262	0.252	4.55
76)	Pentachlorop	0.136	0.147	0.162	0.167	0.169	0.166	0.122	0.157	0.153	11.07
77)	Phenanthrene	1.168	1.124	1.141	1.120	1.104	1.125	1.185	1.165	1.141	2.49
78)	Anthracene	1.136	1.145	1.158	1.133	1.127	1.151	1.139	1.184	1.147	1.57
79)	Carbazole	1.042	1.037	1.091	1.081	1.077	1.076	1.060	1.102	1.071	2.13
80)	Di-n-butylph	1.233	1.257	1.331	1.351	1.346	1.344	1.264	1.344	1.309	3.72
81)	Fluoranthene	1.150	1.117	1.184	1.191	1.182	1.189	1.166	1.190	1.171	2.22
82)	Octadecane	0.505	0.499	0.531	0.527	0.524	0.522	0.510	0.537	0.519	2.56
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.338	1.361	1.344	1.313	1.258	1.342	1.318	1.413	1.336	3.30
85)	Terphenyl-d1	0.862	0.876	0.880	0.875	0.844	0.883	0.861	0.936	0.877	3.08
86)	Butylbenzylp	0.622	0.595	0.615	0.624	0.606	0.628	0.611	0.635	0.617	2.09
87)	Benzo[a]anth	1.221	1.194	1.176	1.181	1.156	1.184	1.337	1.233	1.210	4.68
88)	3,3'-Dichlor	0.416	0.432	0.454	0.452	0.436	0.454	0.402	0.466	0.439	4.99
89)	Chrysene	1.170	1.145	1.148	1.130	1.093	1.136	1.188	1.190	1.150	2.81
90)	bis(2-Ethylh	0.816	0.833	0.850	0.876	0.848	0.876	0.828	0.879	0.851	2.87
91)	I Perylene-d12	-----ISTD-----									
92)	Di-n-octylph	1.353	1.387	1.463	1.495	1.469	1.495	1.396	1.499	1.445	3.96
93)	Benzo[b]fluo	1.181	1.196	1.248	1.232	1.213	1.266	1.170	1.288	1.224	3.39
94)	Benzo[k]fluo	1.120	1.165	1.124	1.119	1.079	1.123	1.166	1.198	1.137	3.26
95)	Benzo[a]pyre	1.028	1.053	1.070	1.069	1.041	1.089	1.014	1.126	1.061	3.36

Initial Calibration Summary

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4618-ICC4618
Lab FileID: 2M103897.D

96)	Indeno[1,2,3	1.020	1.014	1.080	1.067	1.073	1.064	1.057	1.077	1.056	2.42
97)	Dibenz(a,h)a	0.927	0.941	0.966	0.961	0.944	0.977	0.929	0.999	0.956	2.60
98)	Dibenz[a,h]a	1.050	1.081	1.107	1.086	1.060	1.106	1.062	1.132	1.086	2.59
99)	7,12-Dimethy	0.505	0.517	0.538	0.549	0.532	0.553	0.517	0.554	0.533	3.51
100)	Benzo[g,h,i]	0.991	1.023	1.039	1.008	0.998	1.027	0.993	1.064	1.018	2.51

(#) = Out of Range ### Number of calibration levels exceeded format ###											

M2M4618.M Fri May 11 15:20:21 2018

6.7.1
6

Initial Calibration Summary

Page 1 of 1

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICC4619
Lab FileID: 2M103906.D

Response Factor Report MS2M

Method : C:\MSDCHEM\1\METHODS\M2M4619.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Initial Calibration

Calibration Files

2 =2m103910.D 5 =2m103909.D 25 =2m103907.D 80 =2m103905.D
100 =2m103904.D 50 =2m103906.D 1 =2m103911.D 10 =2m103908.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
101) 1,4-Dichlorobenzene-d	-----ISTD-----									
102) Benzaldehyde	1.101	1.014	0.930	0.874	0.860	0.882	1.137	1.003	0.975	10.87
103) Acenaphthene-d10a	-----ISTD-----									
104) 1,2,4,5-Tetr	0.599	0.577	0.580	0.583	0.578	0.579	0.607	0.596	0.587	1.99
105) Chrysene-d12a	-----ISTD-----									
106) Benzidine	0.349	0.441	0.364	0.366	0.372	0.385		0.450	0.389	10.24
107) 1-chloroocta	0.315	0.310	0.318	0.328	0.340	0.319	0.319	0.313	0.320	2.99
108) Phenanthrene-d10a	-----ISTD-----									
109) Atrazine	0.106	0.108	0.112	0.111	0.112	0.113	0.104	0.108	0.109	3.06
110) o-terphenyl	0.556	0.534	0.552	0.554	0.554	0.550	0.553	0.551	0.550	1.28
111) Pentachloron	0.038	0.040	0.043	0.044	0.045	0.043	0.044	0.042	0.042#	5.75
112) Naphthalene-d8a	-----ISTD-----									
113) Hydroquinone	0.208	0.235	0.305	0.314	0.322	0.333		0.258	0.282	17.13

(#) = Out of Range ### Number of calibration levels exceeded format ###

M2M4618.M

Fri May 11 15:21:52 2018

6.7.2
6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103912.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103912.D Vial: 10
Acq On : 9 May 2018 10:23 pm Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	137	0.00	4.66
5 S	2-Fluorophenol	1.303	1.284	1.5	133	0.00	3.67
8 S	Phenol-d5	1.635	1.564	4.3	129	0.00	4.39
24 I	Naphthalene-d8	1.000	1.000	0.0	129	0.00	5.76
25 S	Nitrobenzene-d5	0.366	0.370	-1.1	130	0.00	5.10
47 I	Acenaphthene-d10	1.000	1.000	0.0	131	0.00	7.82
51 S	2-Fluorobiphenyl	1.461	1.365	6.6	123	0.00	6.95
69 I	Phenanthrene-d10	1.000	1.000	0.0	119	0.00	9.98
73 S	2,4,6-Tribromophenol	0.121	0.118	2.5	115	0.00	8.94
83 I	Chrysene-d12	1.000	1.000	0.0	109	-0.01	14.15
85 S	Terphenyl-d14	0.877	0.971	-10.7	119	0.00	12.54

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:36 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103913.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103913.D Vial: 11
Acq On : 9 May 2018 10:48 pm Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	135	0.00	4.66
9 t	Phenol	1.877	1.676	10.7	119	0.00	4.40
12 t	2-Chlorophenol	1.409	1.407	0.1	134	0.00	4.51
19 t	2-Methylphenol	1.231	1.174	4.6	126	0.00	4.86
21 t	3&4-Methylphenol	1.293	1.256	2.9	128	0.00	4.98
24 I	Naphthalene-d8	1.000	1.000	0.0	128	0.00	5.76
29 t	2-Nitrophenol	0.195	0.195	0.0	126	0.00	5.40
30 t	2,4-Dimethylphenol	0.312	0.299	4.2	123	0.00	5.43
31 t	Benzoic acid	0.236	0.229	3.0	113	0.00	5.55
33 t	2,4-Dichlorophenol	0.292	0.290	0.7	128	0.00	5.62
34 t	2,6-Dichlorophenol	0.286	0.288	-0.7	128	0.00	5.84
43 t	4-Chloro-3-methylphenol	0.281	0.276	1.8	125	-0.01	6.33
47 I	Acenaphthene-d10	1.000	1.000	0.0	116	0.00	7.82
49 t	2,4,6-Trichlorophenol	0.391	0.419	-7.2	124	0.00	6.85
50 t	2,4,5-Trichlorophenol	0.411	0.437	-6.3	122	-0.01	6.88
60 t	2,4-Dinitrophenol	50.000	45.968	8.1	111	-0.01	7.91
61 t	4-Nitrophenol	0.149	0.149	0.0	107	0.00	8.02
64	2,3,4,6-Tetrachlorophenol	0.339	0.346	-2.1	116	0.00	8.29
69 I	Phenanthrene-d10	1.000	1.000	0.0	116	0.00	9.98
70 t	4,6-Dinitro-2-methylpheno	50.000	48.080	3.8	108	0.00	8.68
76 t	Pentachlorophenol	0.153	0.179	-17.0	131	-0.01	9.71

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:38 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4619
Lab FileID: 2M103915A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103915a.D Vial: 13
Acq On : 9 May 2018 11:38 pm Operator: sufiyana
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
103	Acenaphthene-d10a	1.000	1.000	0.0	146	0.00	7.82
104	1,2,4,5-Tetrachlorobenzen	0.587	0.655	-11.6	166	0.00	6.71
105	Chrysene-d12a	1.000	1.000	0.0	110	0.00	14.16
106	Benzidine	0.389	0.291	25.2	95	0.00	12.13

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:42 2018

6.7.5

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Initial Calibration Verification

Page 1 of 2

Job Number: JC66322
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
 Lab FileID: 2M103915.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103915.D Vial: 13
 Acq On : 9 May 2018 11:38 pm Operator: sufiyana
 Sample : icv4618-50 Inst : MS2M
 Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 Last Update : Fri May 11 12:53:20 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	138	0.00	4.66
4 t	N-Nitrosodimethylamine	0.921	0.735	20.2	109	0.02	2.50
11 t	bis(2-Chloroethyl)ether	1.298	1.311	-1.0	139	0.00	4.46
14 t	1,3-Dichlorobenzene	1.588	1.518	4.4	132	0.00	4.63
15 t	1,4-Dichlorobenzene	1.608	1.533	4.7	131	0.00	4.68
17 t	1,2-Dichlorobenzene	1.502	1.446	3.7	132	0.00	4.80
20 t	2,2'-oxybis(1-Chloropropa	1.573	1.647	-4.7	146	0.00	4.88
22 t	n-Nitroso-di-n-propylamin	0.998	0.915	8.3	123	0.00	4.98
23 t	Hexachloroethane	0.516	0.493	4.5	132	0.00	5.08
24 I	Naphthalene-d8	1.000	1.000	0.0	131	0.00	5.76
26 t	Nitrobenzene	0.365	0.337	7.7	122	0.00	5.12
28 t	Isophorone	0.643	0.623	3.1	128	-0.01	5.32
32 t	bis(2-Chloroethoxy)methan	0.372	0.379	-1.9	136	0.00	5.52
36 t	1,2,4-Trichlorobenzene	0.321	0.311	3.1	129	0.00	5.70
38 t	Naphthalene	1.036	1.004	3.1	129	0.00	5.78
42 t	Hexachlorobutadiene	0.168	0.169	-0.6	134	0.00	5.91
47 I	Acenaphthene-d10	1.000	1.000	0.0	129	0.00	7.82
48 t	Hexachlorocyclopentadiene	0.340	0.320	5.9	115	0.00	6.71
52 t	2-Chloronaphthalene	1.225	1.166	4.8	124	0.00	7.09
55 t	Dimethylphthalate	1.329	1.259	5.3	124	0.00	7.48
56 t	Acenaphthylene	1.955	1.831	6.3	120	0.00	7.62
57 t	2,6-Dinitrotoluene	0.297	0.275	7.4	116	0.00	7.55
59 t	Acenaphthene	1.283	1.229	4.2	124	0.00	7.86
63 t	2,4-Dinitrotoluene	0.396	0.338	14.6	102	0.00	8.10
65 t	Diethylphthalate	1.315	1.243	5.5	120	-0.01	8.47
66 t	Fluorene	1.398	1.320	5.6	121	0.00	8.59
67 t	4-Chlorophenyl-phenylethe	0.635	0.594	6.5	123	0.00	8.61
69 I	Phenanthrene-d10	1.000	1.000	0.0	122	0.00	9.98
71 t	n-Nitrosodiphenylamine	0.584	0.544	6.8	113	0.00	8.79
72 t	1,2-Diphenylhydrazine	0.774	0.775	-0.1	122	0.00	8.84
74 t	4-Bromophenyl-phenylether	0.220	0.215	2.3	120	0.00	9.33
75 t	Hexachlorobenzene	0.252	0.241	4.4	119	0.00	9.41
77 t	Phenanthrene	1.141	1.104	3.2	120	0.00	10.02
78 t	Anthracene	1.147	1.097	4.4	116	0.00	10.10
80 t	Di-n-butylphthalate	1.309	1.269	3.1	115	0.00	11.00
81 t	Fluoranthene	1.171	1.091	6.8	112	0.00	11.87
83 I	Chrysene-d12	1.000	1.000	0.0	109	0.00	14.16
84 t	Pyrene	1.336	1.336	0.0	108	0.00	12.22

Initial Calibration Verification

Page 2 of 2

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103915.D

86	t	Butylbenzylphthalate	0.617	0.615	0.3	107	0.00	13.38
87	t	Benzo[a]anthracene	1.210	1.122	7.3	103	0.00	14.14
89	t	Chrysene	1.150	1.068	7.1	102	0.00	14.20
90	t	bis(2-Ethylhexyl)phthalat	0.851	0.843	0.9	105	0.00	14.35
91	I	Perylene-d12	1.000	1.000	0.0	102	0.00	16.27
92	t	Di-n-octylphthalate	1.445	1.507	-4.3	103	0.00	15.33
93	t	Benzo[b]fluoranthene	1.224	1.103	9.9	89	0.00	15.75
94	t	Benzo[k]fluoranthene	1.137	1.114	2.0	101	-0.01	15.78
95	t	Benzo[a]pyrene	1.061	1.024	3.5	96	0.00	16.19
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.006	4.7	96	-0.01	17.78
98	t	Dibenz[a,h]anthracene	1.086	1.010	7.0	93	-0.01	17.82
100	t	Benzo[g,h,i]perylene	1.018	1.026	-0.8	102	-0.01	18.21

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:40 2018

6.7.6
6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4619
Lab FileID: 2M103916A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103916a.D Vial: 14
Acq On : 10 May 2018 12:04 am Operator: sufiyana
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	131	0.00	4.66
102	Benzaldehyde	0.975	0.943	3.3	140	0.00	4.33
108	Phenanthrene-d10a	1.000	1.000	0.0	120	0.00	9.98
109	Atrazine	0.109	0.120	-10.1	127	0.00	9.63

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:46 2018

Initial Calibration Verification

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103916.D

Page 1 of 1

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103916.D Vial: 14
Acq On : 10 May 2018 12:04 am Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	125	0.00	4.66
2 t	1,4-Dioxane	0.605	0.545	9.9	114	0.02	2.21
6 t	Indene	2.229	2.368	-6.2	130	0.00	4.87
7 t	Cumene	3.318	3.144	5.2	117	0.00	4.07
13 t	Decane	1.450	1.334	8.0	117	0.00	4.55
18 t	Acetophenone	1.863	1.748	6.2	115	0.00	4.98
24 I	Naphthalene-d8	1.000	1.000	0.0	121	0.00	5.76
27 t	Quinoline	0.679	0.660	2.8	119	-0.02	6.11
40 t	2,3-Dichloroaniline	0.365	0.303	17.0	101	0.00	6.84
41 t	Caprolactam	0.150	0.130	13.3	104	-0.03	6.16
45 t	1-Methylnaphthalene	0.629	0.558	11.3	108	0.00	6.62
46 t	Dimethylnaphthalene	0.644	0.603	6.4	114	0.00	7.27
47 I	Acenaphthene-d10	1.000	1.000	0.0	109	0.00	7.82
53 t	Biphenyl	1.646	1.721	-4.6	114	0.00	7.07
69 I	Phenanthrene-d10	1.000	1.000	0.0	111	0.00	9.98
82 t	Octadecane	0.519	0.524	-1.0	111	0.00	9.95

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:44 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4618
Lab FileID: 2M103917.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103917.D Vial: 15
Acq On : 10 May 2018 12:29 am Operator: sufiyana
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	106	-0.01	14.15
88 t	3,3'-Dichlorobenzidine	0.439	0.447	-1.8	105	0.00	14.15

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:48 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4619-ICV4619
Lab FileID: 2M103918.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4619\2m103918.D Vial: 16
Acq On : 10 May 2018 2:14 am Operator: chriss2
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4619,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
112	Naphthalene-d8a	1.000	1.000	0.0	143	0.00	5.76
113	Hydroquinone	0.282	0.320	-13.5	138	0.00	6.17

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:09:50 2018

6.7.10

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4620-ICV4618
Lab FileID: 2M103921.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4620\2m103921.D Vial: 2
Acq On : 11 May 2018 1:55 pm Operator: christc2
Sample : icv4618-50 Inst : MS2M
Misc : op10486,e2m4620,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	4.67
3 t	Pyridine	1.552	1.520	2.1	112	0.10	2.61
10	Aniline	2.061	2.201	-6.8	122	0.00	4.42
16 t	Benzyl alcohol	0.875	0.939	-7.3	117	0.00	4.78
24 I	Naphthalene-d8	1.000	1.000	0.0	112	0.00	5.76
39 t	4-Chloroaniline	0.441	0.407	7.7	105	0.00	5.83
44 t	2-Methylnaphthalene	0.603	0.585	3.0	109	0.00	6.52
47 I	Acenaphthene-d10	1.000	1.000	0.0	114	0.00	7.82
54 t	2-Nitroaniline	0.338	0.323	4.4	105	0.00	7.22
58 t	3-Nitroaniline	0.345	0.342	0.9	106	0.00	7.77
62 t	Dibenzofuran	1.725	1.699	1.5	112	0.00	8.10
68 t	4-Nitroaniline	0.343	0.311	9.3	99	-0.01	8.63
69 I	Phenanthrene-d10	1.000	1.000	0.0	112	0.00	9.99
79 t	Carbazole	1.071	1.031	3.7	107	0.00	10.37

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 15:19:12 2018

6.7.11

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4620-ICV4619
Lab FileID: 2M103921A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4620\2m103921a.D Vial: 2
Acq On : 11 May 2018 1:55 pm Operator: christc2
Sample : icv4619-50 Inst : MS2M
Misc : op10486,e2m4620,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Fri May 11 12:53:20 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
108	Phenanthrene-d10a	1.000	1.000	0.0	122	0.00	9.99
111	Pentachloronitrobenzene	0.042	0.041#	2.4	114	0.00	9.74

(#) = Out of Range
2m103906a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Fri May 11 16:40:21 2018

6.7.12

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4633-CC4618
Lab FileID: 2M104231.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\lotusa\e2m4633\2m104231.d Vial: 2
Acq On : 21 May 2018 4:41 pm Operator: johnb1
Sample : cc4618-25 Inst : MS2M
Misc : op10486,e2m4633,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Mon May 21 22:40:05 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	62	0.00	4.59
2 t	1,4-Dioxane	0.605	0.571	5.6	60	-0.06	2.10
3 t	Pyridine	1.552	1.467	5.5	57	-0.04	2.43
4 t	N-Nitrosodimethylamine	0.921	0.853	7.4	57	-0.04	2.39
5 S	2-Fluorophenol	1.303	1.273	2.3	60	0.00	3.61
6 t	Indene	2.229	2.167	2.8	61	0.00	4.79
7 t	Cumene	3.318	3.269	1.5	61	-0.01	3.99
8 S	Phenol-d5	1.635	1.609	1.6	62	0.01	4.33
9 t	Phenol	1.877	1.813	3.4	61	0.02	4.34
10	Aniline	2.061	1.790	13.1	55	0.00	4.34
11 t	bis(2-Chloroethyl)ether	1.298	1.265	2.5	61	0.00	4.39
12 t	2-Chlorophenol	1.409	1.375	2.4	61	0.00	4.44
13 t	Decane	1.450	1.372	5.4	60	0.00	4.48
14 t	1,3-Dichlorobenzene	1.588	1.555	2.1	61	0.00	4.55
15 t	1,4-Dichlorobenzene	1.608	1.572	2.2	61	0.00	4.60
16 t	Benzyl alcohol	0.875	0.805	8.0	59	0.00	4.70
17 t	1,2-Dichlorobenzene	1.502	1.449	3.5	61	0.00	4.72
18 t	Acetophenone	1.863	1.827	1.9	60	0.00	4.90
19 t	2-Methylphenol	1.231	1.198	2.7	61	0.01	4.80
20 t	2,2'-oxybis(1-Chloropropa	1.573	1.462	7.1	58	0.00	4.80
21 t	3&4-Methylphenol	1.293	1.261	2.5	61	0.02	4.92
22 t	n-Nitroso-di-n-propylamin	0.998	0.971	2.7	60	0.00	4.90
23 t	Hexachloroethane	0.516	0.513	0.6	63	0.00	4.99
24 I	Naphthalene-d8	1.000	1.000	0.0	62	0.00	5.67
25 S	Nitrobenzene-d5	0.366	0.372	-1.6	63	0.00	5.03
26 t	Nitrobenzene	0.365	0.366	-0.3	63	0.00	5.04
27 t	Quinoline	0.679	0.675	0.6	62	0.00	6.02
28 t	Isophorone	0.643	0.630	2.0	62	0.00	5.24
29 t	2-Nitrophenol	0.195	0.202	-3.6	64	0.00	5.32
30 t	2,4-Dimethylphenol	0.312	0.293	6.1	59	0.00	5.36
31 t	Benzoic acid	0.236	0.266	-12.7	68	0.00	5.46
32 t	bis(2-Chloroethoxy)methan	0.372	0.365	1.9	61	0.00	5.43
33 t	2,4-Dichlorophenol	0.292	0.292	0.0	63	0.00	5.54
34 t	2,6-Dichlorophenol	0.286	0.285	0.3	62	0.00	5.75
35	1,3,5-Trichlorobenzene	0.346	0.341	1.4	62	0.00	5.33
36 t	1,2,4-Trichlorobenzene	0.321	0.310	3.4	61	0.00	5.62
37	1,2,3-Trichlorobenzene	0.319	0.312	2.2	61	0.00	5.83
38 t	Naphthalene	1.036	1.004	3.1	61	0.00	5.69
39 t	4-Chloroaniline	0.441	0.428	2.9	61	0.00	5.74
40 t	2,3-Dichloroaniline	0.365	0.366	-0.3	63	0.01	6.74
41 t	Caprolactam	0.150	0.152	-1.3	63	0.00	6.08

Continuing Calibration Summary

Page 2 of 3

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4633-CC4618
Lab FileID: 2M104231.D

42 t	Hexachlorobutadiene	0.168	0.175	-4.2	65	0.00	5.81
43 t	4-Chloro-3-methylphenol	0.281	0.288	-2.5	64	0.01	6.26
44 t	2-Methylnaphthalene	0.603	0.592	1.8	62	0.00	6.41
45 t	1-Methylnaphthalene	0.629	0.620	1.4	62	0.00	6.53
46 t	Dimethylnaphthalene	0.644	0.648	-0.6	63	0.00	7.17
47 I	Acenaphthene-d10	1.000	1.000	0.0	64	0.00	7.71
48 t	Hexachlorocyclopentadiene	0.340	0.341	-0.3	61	0.00	6.61
49 t	2,4,6-Trichlorophenol	0.391	0.387	1.0	62	0.00	6.75
50 t	2,4,5-Trichlorophenol	0.411	0.412	-0.2	63	0.00	6.80
51 S	2-Fluorobiphenyl	1.461	1.432	2.0	63	-0.01	6.85
52 t	2-Chloronaphthalene	1.225	1.207	1.5	64	0.00	6.99
53 t	Biphenyl	1.646	1.615	1.9	63	-0.01	6.97
54 t	2-Nitroaniline	0.338	0.349	-3.3	65	0.00	7.12
55 t	Dimethylphthalate	1.329	1.328	0.1	65	0.00	7.37
56 t	Acenaphthylene	1.955	1.919	1.8	63	0.00	7.52
57 t	2,6-Dinitrotoluene	0.297	0.317	-6.7	65	0.00	7.45
58 t	3-Nitroaniline	0.345	0.367	-6.4	66	0.00	7.66
59 t	Acenaphthene	1.283	1.266	1.3	63	0.00	7.76
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	50.000	54.854	-9.7	74	0.00	7.81
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.149	0.162	-8.7	64	0.03	7.95
62 t	Dibenzofuran	1.725	1.716	0.5	63	0.00	8.00
63 t	2,4-Dinitrotoluene	0.396	0.441	-11.4	68	0.00	8.00
64	2,3,4,6-Tetrachlorophenol	0.339	0.339	0.0	63	0.00	8.18
65 t	Diethylphthalate	1.315	1.351	-2.7	65	0.00	8.37
66 t	Fluorene	1.398	1.408	-0.7	64	0.00	8.48
67 t	4-Chlorophenyl-phenylethe	0.635	0.630	0.8	63	0.00	8.50
68 t	4-Nitroaniline	0.343	0.364	-6.1	67	0.00	8.53
69 I	Phenanthrene-d10	1.000	1.000	0.0	66	0.00	9.87
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	25.000	26.584	-6.3	71	0.00	8.58
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.584	0.578	1.0	64	0.00	8.68
72 t	1,2-Diphenylhydrazine	0.774	0.756	2.3	64	-0.01	8.73
73 S	2,4,6-Tribromophenol	0.121	0.118	2.5	62	0.00	8.83
74 t	4-Bromophenyl-phenylether	0.220	0.218	0.9	65	0.00	9.22
75 t	Hexachlorobenzene	0.252	0.238	5.6	63	0.00	9.30
76 t	Pentachlorophenol	0.153	0.141	7.8	58	0.00	9.61
77 t	Phenanthrene	1.141	1.114	2.4	65	0.00	9.91
78 t	Anthracene	1.147	1.109	3.3	64	0.00	9.98
79 t	Carbazole	1.071	1.073	-0.2	65	0.00	10.25
80 t	Di-n-butylphthalate	1.309	1.315	-0.5	66	0.01	10.89
81 t	Fluoranthene	1.171	1.179	-0.7	66	0.02	11.76
82 t	Octadecane	0.519	0.510	1.7	64	0.00	9.84
83 I	Chrysene-d12	1.000	1.000	0.0	67	0.00	14.04
84 t	Pyrene	1.336	1.318	1.3	66	-0.02	12.10
85 S	Terphenyl-d14	0.877	0.866	1.3	66	0.00	12.43
86 t	Butylbenzylphthalate	0.617	0.619	-0.3	67	0.00	13.26
87 t	Benzo[a]anthracene	1.210	1.175	2.9	67	0.00	14.02
88 t	3,3'-Dichlorobenzidine	0.439	0.443	-0.9	65	0.00	14.04
89 t	Chrysene	1.150	1.119	2.7	65	0.00	14.08
90 t	bis(2-Ethylhexyl)phthalat	0.851	0.850	0.1	67	0.00	14.23

6.7.13
6

Continuing Calibration Summary

Page 3 of 3

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4633-CC4618
Lab FileID: 2M104231.D

91	I	Perylene-d12	1.000	1.000	0.0	66	0.00	16.15
92	t	Di-n-octylphthalate	1.445	1.490	-3.1	68	0.00	15.21
93	t	Benzo[b]fluoranthene	1.224	1.221	0.2	65	0.00	15.63
94	t	Benzo[k]fluoranthene	1.137	1.125	1.1	66	0.00	15.67
95	t	Benzo[a]pyrene	1.061	1.063	-0.2	66	0.00	16.07
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.051	0.5	65	-0.03	17.62
97	t	Dibenz(a,h)acridine	0.956	0.945	1.2	65	-0.02	17.29
98	t	Dibenz[a,h]anthracene	1.086	1.064	2.0	64	-0.03	17.67
99	t	7,12-Dimethylbenz(a)anthr	0.533	0.499	6.4	61	0.00	15.63
100	t	Benzo[g,h,i]perylene	1.018	1.003	1.5	64	-0.04	18.04

(#) = Out of Range
2m103907a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Mon May 21 23:02:23 2018

6.7.13

6

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4633-CC4619
Lab FileID: 2M104232.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\lotusa\e2m4633\2m104232.d Vial: 3
Acq On : 21 May 2018 5:06 pm Operator: johnb1
Sample : cc4619-25 Inst : MS2M
Misc : op10486,e2m4633,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Mon May 21 22:40:05 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	72	0.00	4.59
102	Benzaldehyde	0.975	0.897	8.0	70	0.00	4.26
103	Acenaphthene-d10a	1.000	1.000	0.0	72	0.00	7.71
104	1,2,4,5-Tetrachlorobenzen	0.587	0.576	1.9	72	0.00	6.61
105	Chrysene-d12a	1.000	1.000	0.0	71	0.00	14.04
106	Benzidine	0.389	0.522	-34.2#	101	-0.02	12.02
107 s	1-chlorooctadecane	0.320	0.326	-1.9	72	-0.02	11.72
108	Phenanthrene-d10a	1.000	1.000	0.0	72	0.00	9.87
109	Atrazine	0.109	0.110	-0.9	70	0.00	9.52
110 s	o-terphenyl	0.550	0.534	2.9	70	0.00	10.51
111	Pentachloronitrobenzene	0.042	0.044#	-4.8	74	0.00	9.63
112	Naphthalene-d8a	1.000	1.000	0.0	72	0.00	5.66
113	Hydroquinone	0.282	0.340	-20.6#	80	0.02	6.09
114	Chrysene-d12b	1.000	1.000	0.0	70	0.00	14.04
115	2,3,7,8-TCDD			-----NA-----			

(#) = Out of Range
2m103907a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Mon May 21 23:02:26 2018

6.7.14

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Continuing Calibration Summary

Page 1 of 3

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4634-CC4618
Lab FileID: 2M104262.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...el\2m4634\2m104262.d Vial: 2
 Acq On : 22 May 2018 10:01 am Operator: christc2
 Sample : cc4618-50 Inst : MS2M
 Misc : op10486,e2m4634,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 Last Update : Tue May 22 21:24:06 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	58	0.00	4.58
2 t	1,4-Dioxane	0.605	0.559	7.6	55	-0.07	2.08
3 t	Pyridine	1.552	1.475	5.0	58	-0.04	2.42
4 t	N-Nitrosodimethylamine	0.921	0.867	5.9	55	-0.05	2.38
5 S	2-Fluorophenol	1.303	1.318	-1.2	58	0.00	3.61
6 t	Indene	2.229	2.203	1.2	56	0.00	4.78
7 t	Cumene	3.318	3.406	-2.7	59	-0.01	3.99
8 S	Phenol-d5	1.635	1.651	-1.0	58	0.02	4.34
9 t	Phenol	1.877	1.862	0.8	57	0.02	4.34
10	Aniline	2.061	1.835	11.0	54	0.00	4.34
11 t	bis(2-Chloroethyl)ether	1.298	1.278	1.5	58	0.00	4.39
12 t	2-Chlorophenol	1.409	1.423	-1.0	59	0.00	4.43
13 t	Decane	1.450	1.380	4.8	57	0.00	4.47
14 t	1,3-Dichlorobenzene	1.588	1.578	0.6	58	0.00	4.54
15 t	1,4-Dichlorobenzene	1.608	1.590	1.1	58	0.00	4.60
16 t	Benzyl alcohol	0.875	0.878	-0.3	58	0.01	4.70
17 t	1,2-Dichlorobenzene	1.502	1.488	0.9	58	0.00	4.72
18 t	Acetophenone	1.863	1.875	-0.6	58	0.00	4.90
19 t	2-Methylphenol	1.231	1.223	0.6	57	0.01	4.79
20 t	2,2'-oxybis(1-Chloropropa	1.573	1.458	7.3	55	0.00	4.80
21 t	3&4-Methylphenol	1.293	1.274	1.5	56	0.02	4.92
22 t	n-Nitroso-di-n-propylamin	0.998	1.002	-0.4	57	0.01	4.91
23 t	Hexachloroethane	0.516	0.530	-2.7	60	0.00	4.99
24 I	Naphthalene-d8	1.000	1.000	0.0	56	0.00	5.66
25 S	Nitrobenzene-d5	0.366	0.385	-5.2	59	0.00	5.02
26 t	Nitrobenzene	0.365	0.377	-3.3	58	0.00	5.04
27 t	Quinoline	0.679	0.706	-4.0	59	0.00	6.03
28 t	Isophorone	0.643	0.660	-2.6	58	0.00	5.24
29 t	2-Nitrophenol	0.195	0.212	-8.7	60	0.00	5.31
30 t	2,4-Dimethylphenol	0.312	0.324	-3.8	59	0.01	5.36
31 t	Benzoic acid	0.236	0.300	-27.1#	65	0.03	5.48
32 t	bis(2-Chloroethoxy)methan	0.372	0.373	-0.3	57	0.00	5.43
33 t	2,4-Dichlorophenol	0.292	0.312	-6.8	61	0.01	5.54
34 t	2,6-Dichlorophenol	0.286	0.301	-5.2	59	0.00	5.75
35	1,3,5-Trichlorobenzene	0.346	0.344	0.6	57	0.00	5.33
36 t	1,2,4-Trichlorobenzene	0.321	0.323	-0.6	57	0.00	5.61
37	1,2,3-Trichlorobenzene	0.319	0.322	-0.9	58	0.00	5.83
38 t	Naphthalene	1.036	1.051	-1.4	58	0.00	5.69
39 t	4-Chloroaniline	0.441	0.436	1.1	56	0.00	5.74
40 t	2,3-Dichloroaniline	0.365	0.381	-4.4	59	0.01	6.74
41 t	Caprolactam	0.150	0.156	-4.0	58	0.02	6.10

Continuing Calibration Summary

Page 2 of 3

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4634-CC4618
Lab FileID: 2M104262.D

42 t	Hexachlorobutadiene	0.168	0.178	-6.0	61	0.00	5.81
43 t	4-Chloro-3-methylphenol	0.281	0.304	-8.2	61	0.03	6.26
44 t	2-Methylnaphthalene	0.603	0.619	-2.7	58	0.00	6.41
45 t	1-Methylnaphthalene	0.629	0.658	-4.6	59	0.00	6.52
46 t	Dimethylnaphthalene	0.644	0.669	-3.9	59	0.00	7.16
47 I	Acenaphthene-d10	1.000	1.000	0.0	59	0.00	7.71
48 t	Hexachlorocyclopentadiene	0.340	0.355	-4.4	56	-0.02	6.60
49 t	2,4,6-Trichlorophenol	0.391	0.398	-1.8	59	0.00	6.75
50 t	2,4,5-Trichlorophenol	0.411	0.421	-2.4	59	0.00	6.80
51 S	2-Fluorobiphenyl	1.461	1.465	-0.3	59	-0.01	6.84
52 t	2-Chloronaphthalene	1.225	1.203	1.8	58	0.00	6.99
53 t	Biphenyl	1.646	1.659	-0.8	59	-0.01	6.96
54 t	2-Nitroaniline	0.338	0.368	-8.9	62	0.00	7.12
55 t	Dimethylphthalate	1.329	1.358	-2.2	61	0.00	7.37
56 t	Acenaphthylene	1.955	1.974	-1.0	59	0.00	7.52
57 t	2,6-Dinitrotoluene	0.297	0.329	-10.8	63	0.00	7.45
58 t	3-Nitroaniline	0.345	0.375	-8.7	60	0.00	7.67
59 t	Acenaphthene	1.283	1.298	-1.2	59	0.00	7.75
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	100.000	115.358	-15.4	68	0.02	7.83
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.149	0.183	-22.8#	66	0.05	7.96
62 t	Dibenzofuran	1.725	1.737	-0.7	59	0.00	7.99
63 t	2,4-Dinitrotoluene	0.396	0.445	-12.4	61	0.01	8.00
64	2,3,4,6-Tetrachlorophenol	0.339	0.351	-3.5	59	0.01	8.18
65 t	Diethylphthalate	1.315	1.400	-6.5	62	0.00	8.37
66 t	Fluorene	1.398	1.441	-3.1	60	0.00	8.48
67 t	4-Chlorophenyl-phenylethe	0.635	0.645	-1.6	61	0.00	8.49
68 t	4-Nitroaniline	0.343	0.371	-8.2	61	0.02	8.53
69 I	Phenanthrene-d10	1.000	1.000	0.0	59	0.00	9.87
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	50.000	57.170	-14.3	66	0.00	8.60
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.584	0.593	-1.5	60	0.00	8.68
72 t	1,2-Diphenylhydrazine	0.774	0.774	0.0	59	-0.01	8.73
73 S	2,4,6-Tribromophenol	0.121	0.123	-1.7	60	0.00	8.83
74 t	4-Bromophenyl-phenylether	0.220	0.222	-0.9	60	-0.01	9.22
75 t	Hexachlorobenzene	0.252	0.243	3.6	58	0.00	9.31
76 t	Pentachlorophenol	0.153	0.155	-1.3	56	0.00	9.62
77 t	Phenanthrene	1.141	1.154	-1.1	61	0.00	9.91
78 t	Anthracene	1.147	1.159	-1.0	60	0.00	9.98
79 t	Carbazole	1.071	1.115	-4.1	61	0.02	10.26
80 t	Di-n-butylphthalate	1.309	1.414	-8.0	62	0.01	10.89
81 t	Fluoranthene	1.171	1.239	-5.8	62	0.02	11.76
82 t	Octadecane	0.519	0.516	0.6	59	0.00	9.84
83 I	Chrysene-d12	1.000	1.000	0.0	60	0.00	14.05
84 t	Pyrene	1.336	1.358	-1.6	61	-0.02	12.11
85 S	Terphenyl-d14	0.877	0.885	-0.9	60	-0.01	12.43
86 t	Butylbenzylphthalate	0.617	0.657	-6.5	63	0.00	13.26
87 t	Benzo[a]anthracene	1.210	1.201	0.7	61	0.00	14.03
88 t	3,3'-Dichlorobenzidine	0.439	0.461	-5.0	61	0.00	14.04
89 t	Chrysene	1.150	1.160	-0.9	61	0.00	14.09
90 t	bis(2-Ethylhexyl)phthalat	0.851	0.918	-7.9	63	0.00	14.23

6.7.15
6

Continuing Calibration Summary

Page 3 of 3

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4634-CC4618
Lab FileID: 2M104262.D

91	I	Perylene-d12	1.000	1.000	0.0	57	0.00	16.15
92	t	Di-n-octylphthalate	1.445	1.655	-14.5	63	-0.01	15.21
93	t	Benzo[b]fluoranthene	1.224	1.279	-4.5	57	0.00	15.64
94	t	Benzo[k]fluoranthene	1.137	1.150	-1.1	58	0.00	15.68
95	t	Benzo[a]pyrene	1.061	1.095	-3.2	57	0.00	16.08
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.101	-4.3	59	-0.02	17.65
97	t	Dibenz(a,h)acridine	0.956	0.956	0.0	56	0.00	17.31
98	t	Dibenz[a,h]anthracene	1.086	1.075	1.0	55	-0.02	17.68
99	t	7,12-Dimethylbenz(a)anthr	0.533	0.558	-4.7	57	0.00	15.65
100	t	Benzo[g,h,i]perylene	1.018	1.008	1.0	56	-0.02	18.06

(#) = Out of Range
2m104262.d M2M4618.M

SPCC's out = 0 CCC's out = 0
Tue May 22 21:35:09 2018

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4634-CC4619
Lab FileID: 2M104263.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...el\2m4634\2m104263.d Vial: 3
Acq On : 22 May 2018 10:26 am Operator: christc2
Sample : cc4619-50 Inst : MS2M
Misc : op10486,e2m4634,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Tue May 22 21:24:06 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	61	0.00	4.58
102	Benzaldehyde	0.975	0.892	8.5	62	0.00	4.25
103	Acenaphthene-d10a	1.000	1.000	0.0	66	0.00	7.70
104	1,2,4,5-Tetrachlorobenzen	0.587	0.573	2.4	66	-0.02	6.60
105	Chrysene-d12a	1.000	1.000	0.0	67	-0.01	14.04
106	Benzidine	0.389	0.376	3.3	66	-0.03	12.01
107 s	1-chlorooctadecane	0.320	0.333	-4.1	70	-0.03	11.72
108	Phenanthrene-d10a	1.000	1.000	0.0	69	0.00	9.86
109	Atrazine	0.109	0.113	-3.7	69	0.00	9.52
110 s	o-terphenyl	0.550	0.545	0.9	68	0.00	10.51
111	Pentachloronitrobenzene	0.042	0.045#	-7.1	71	0.00	9.63
112	Naphthalene-d8a	1.000	1.000	0.0	64	0.00	5.66
113	Hydroquinone	0.282	0.379	-34.4#	72	0.02	6.09
114	Chrysene-d12b	1.000	1.000	0.0	67	-0.01	14.04
115	2,3,7,8-TCDD			-----NA-----			

(#) = Out of Range
2m104262.d M2M4618.M

SPCC's out = 0 CCC's out = 0
Tue May 22 21:35:12 2018

6.7.16

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4635-CC4618
Lab FileID: 2M104290.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4635\2m104290.D Vial: 2
Acq On : 22 May 2018 11:43 pm Operator: georges
Sample : cc4618-25 Inst : MS2M
Misc : op10486,e2m4635,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Thu May 17 13:00:25 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	72	-0.09	4.58
2 t	1,4-Dioxane	0.605	0.546	9.8	66	-0.11	2.09
3 t	Pyridine	1.552	1.532	1.3	69	-0.09	2.42
4 t	N-Nitrosodimethylamine	0.921	0.871	5.4	67	-0.09	2.39
5 S	2-Fluorophenol	1.303	1.321	-1.4	72	-0.06	3.61
6 t	Indene	2.229	2.242	-0.6	72	-0.09	4.78
7 t	Cumene	3.318	3.378	-1.8	73	-0.09	3.98
8 S	Phenol-d5	1.635	1.687	-3.2	74	-0.06	4.33
9 t	Phenol	1.877	1.901	-1.3	73	-0.06	4.34
10	Aniline	2.061	1.798	12.8	63	-0.08	4.34
11 t	bis(2-Chloroethyl)ether	1.298	1.314	-1.2	73	-0.09	4.38
12 t	2-Chlorophenol	1.409	1.442	-2.3	74	-0.08	4.43
13 t	Decane	1.450	1.386	4.4	69	-0.09	4.46
14 t	1,3-Dichlorobenzene	1.588	1.592	-0.3	72	-0.09	4.54
15 t	1,4-Dichlorobenzene	1.608	1.596	0.7	71	-0.09	4.59
16 t	Benzyl alcohol	0.875	0.900	-2.9	75	-0.08	4.69
17 t	1,2-Dichlorobenzene	1.502	1.501	0.1	72	-0.09	4.71
18 t	Acetophenone	1.863	1.966	-5.5	75	-0.09	4.89
19 t	2-Methylphenol	1.231	1.233	-0.2	73	-0.07	4.79
20 t	2,2'-oxybis(1-Chloropropa	1.573	1.521	3.3	70	-0.09	4.79
21 t	3&4-Methylphenol	1.293	1.308	-1.2	72	-0.07	4.91
22 t	n-Nitroso-di-n-propylamin	0.998	1.056	-5.8	76	-0.09	4.89
23 t	Hexachloroethane	0.516	0.536	-3.9	75	-0.10	4.98
24 I	Naphthalene-d8	1.000	1.000	0.0	74	-0.11	5.65
25 S	Nitrobenzene-d5	0.366	0.390	-6.6	78	-0.09	5.02
26 t	Nitrobenzene	0.365	0.376	-3.0	76	-0.09	5.03
27 t	Quinoline	0.679	0.720	-6.0	78	-0.11	6.01
28 t	Isophorone	0.643	0.668	-3.9	77	-0.10	5.24
29 t	2-Nitrophenol	0.195	0.212	-8.7	80	-0.10	5.31
30 t	2,4-Dimethylphenol	0.312	0.297	4.8	71	-0.09	5.35
31 t	Benzoic acid	0.236	0.292	-23.7#	89	-0.08	5.47
32 t	bis(2-Chloroethoxy)methan	0.372	0.376	-1.1	74	-0.10	5.42
33 t	2,4-Dichlorophenol	0.292	0.303	-3.8	77	-0.09	5.53
34 t	2,6-Dichlorophenol	0.286	0.299	-4.5	77	-0.10	5.74
35	1,3,5-Trichlorobenzene	0.346	0.333	3.8	72	-0.10	5.32
36 t	1,2,4-Trichlorobenzene	0.321	0.320	0.3	75	-0.10	5.61
37	1,2,3-Trichlorobenzene	0.319	0.319	0.0	74	-0.11	5.82
38 t	Naphthalene	1.036	1.035	0.1	74	-0.11	5.68
39 t	4-Chloroaniline	0.441	0.433	1.8	73	-0.10	5.73
40 t	2,3-Dichloroaniline	0.365	0.387	-6.0	79	-0.11	6.73
41 t	Caprolactam	0.150	0.166	-10.7	81	-0.10	6.09

Continuing Calibration Summary

Page 2 of 3

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4635-CC4618
Lab FileID: 2M104290.D

42 t	Hexachlorobutadiene	0.168	0.172	-2.4	76	-0.11	5.80
43 t	4-Chloro-3-methylphenol	0.281	0.311	-10.7	82	-0.09	6.25
44 t	2-Methylnaphthalene	0.603	0.624	-3.5	77	-0.12	6.40
45 t	1-Methylnaphthalene	0.629	0.652	-3.7	77	-0.12	6.51
46 t	Dimethylnaphthalene	0.644	0.679	-5.4	78	-0.12	7.15
47 I	Acenaphthene-d10	1.000	1.000	0.0	78	-0.12	7.70
48 t	Hexachlorocyclopentadiene	0.340	0.322	5.3	70	-0.12	6.59
49 t	2,4,6-Trichlorophenol	0.391	0.396	-1.3	78	-0.11	6.74
50 t	2,4,5-Trichlorophenol	0.411	0.417	-1.5	78	-0.10	6.79
51 S	2-Fluorobiphenyl	1.461	1.443	1.2	77	-0.12	6.84
52 t	2-Chloronaphthalene	1.225	1.215	0.8	78	-0.12	6.97
53 t	Biphenyl	1.646	1.642	0.2	79	-0.12	6.95
54 t	2-Nitroaniline	0.338	0.368	-8.9	83	-0.11	7.11
55 t	Dimethylphthalate	1.329	1.386	-4.3	83	-0.12	7.36
56 t	Acenaphthylene	1.955	1.965	-0.5	78	-0.12	7.50
57 t	2,6-Dinitrotoluene	0.297	0.330	-11.1	83	-0.11	7.43
58 t	3-Nitroaniline	0.345	0.381	-10.4	83	-0.11	7.66
59 t	Acenaphthene	1.283	1.282	0.1	78	-0.13	7.74
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	50.000	43.620	12.8	71	-0.10	7.81
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.149	0.195	-30.9#	95	-0.07	7.95
62 t	Dibenzofuran	1.725	1.763	-2.2	80	-0.13	7.98
63 t	2,4-Dinitrotoluene	0.396	0.467	-17.9	87	-0.11	7.99
64	2,3,4,6-Tetrachlorophenol	0.339	0.345	-1.8	78	-0.11	8.18
65 t	Diethylphthalate	1.315	1.427	-8.5	84	-0.13	8.35
66 t	Fluorene	1.398	1.442	-3.1	81	-0.13	8.47
67 t	4-Chlorophenyl-phenylethe	0.635	0.650	-2.4	79	-0.13	8.48
68 t	4-Nitroaniline	0.343	0.370	-7.9	83	-0.12	8.52
69 I	Phenanthrene-d10	1.000	1.000	0.0	83	-0.13	9.86
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	25.000	23.662	5.4	79	-0.11	8.58
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.584	0.587	-0.5	81	-0.12	8.67
72 t	1,2-Diphenylhydrazine	0.774	0.778	-0.5	82	-0.13	8.71
73 S	2,4,6-Tribromophenol	0.121	0.117	3.3	76	-0.12	8.82
74 t	4-Bromophenyl-phenylether	0.220	0.217	1.4	81	-0.13	9.21
75 t	Hexachlorobenzene	0.252	0.240	4.8	79	-0.13	9.29
76 t	Pentachlorophenol	0.153	0.105	31.4#	54	-0.12	9.61
77 t	Phenanthrene	1.141	1.131	0.9	82	-0.13	9.90
78 t	Anthracene	1.147	1.153	-0.5	82	-0.13	9.97
79 t	Carbazole	1.071	1.103	-3.0	84	-0.12	10.25
80 t	Di-n-butylphthalate	1.309	1.403	-7.2	87	-0.13	10.88
81 t	Fluoranthene	1.171	1.215	-3.8	85	-0.13	11.75
82 t	Octadecane	0.519	0.517	0.4	81	-0.13	9.83
83 I	Chrysene-d12	1.000	1.000	0.0	82	-0.13	14.04
84 t	Pyrene	1.336	1.379	-3.2	84	-0.13	12.09
85 S	Terphenyl-d14	0.877	0.896	-2.2	83	-0.13	12.41
86 t	Butylbenzylphthalate	0.617	0.683	-10.7	91	-0.13	13.24
87 t	Benzo[a]anthracene	1.210	1.225	-1.2	85	-0.13	14.02
88 t	3,3'-Dichlorobenzidine	0.439	0.455	-3.6	82	-0.13	14.02
89 t	Chrysene	1.150	1.151	-0.1	82	-0.13	14.07
90 t	bis(2-Ethylhexyl)phthalat	0.851	0.941	-10.6	90	-0.14	14.21

6.7.17
6

Continuing Calibration Summary

Page 3 of 3

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4635-CC4618
Lab FileID: 2M104290.D

91	I	Perylene-d12	1.000	1.000	0.0	81	-0.12	16.15
92	t	Di-n-octylphthalate	1.445	1.642	-13.6	91	-0.14	15.20
93	t	Benzo[b]fluoranthene	1.224	1.281	-4.7	83	-0.13	15.62
94	t	Benzo[k]fluoranthene	1.137	1.152	-1.3	83	-0.13	15.67
95	t	Benzo[a]pyrene	1.061	1.085	-2.3	82	-0.13	16.06
96	t	Indeno[1,2,3-cd]pyrene	1.056	1.102	-4.4	83	-0.17	17.62
97	t	Dibenz(a,h)acridine	0.956	0.971	-1.6	81	-0.16	17.29
98	t	Dibenz[a,h]anthracene	1.086	1.105	-1.7	81	-0.18	17.66
99	t	7,12-Dimethylbenz(a)anthr	0.533	0.520	2.4	78	-0.13	15.63
100	t	Benzo[g,h,i]perylene	1.018	1.023	-0.5	80	-0.18	18.04

(#) = Out of Range

2m103907a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Wed May 23 17:29:38 2018

6.7.17

6

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: E2M4635-CC4619
Lab FileID: 2M104291.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E2M4635\2m104291.D Vial: 3
Acq On : 23 May 2018 12:09 am Operator: georges
Sample : cc4619-25 Inst : MS2M
Misc : op10486,e2m4635,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2M4618.M (RTE Integrator)
Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
Last Update : Thu May 17 13:00:25 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	60	-0.09	4.58
102	Benzaldehyde	0.975	0.977	-0.2	63	-0.08	4.25
103	Acenaphthene-d10a	1.000	1.000	0.0	66	-0.13	7.69
104	1,2,4,5-Tetrachlorobenzen	0.587	0.562	4.3	64	-0.12	6.60
105	Chrysene-d12a	1.000	1.000	0.0	68	-0.13	14.02
106	Benzidine	0.389	0.553	-42.2#	104	-0.12	12.01
107 s	1-chlorooctadecane	0.320	0.333	-4.1	72	-0.13	11.71
108	Phenanthrene-d10a	1.000	1.000	0.0	68	-0.13	9.85
109	Atrazine	0.109	0.115	-5.5	70	-0.12	9.50
110 s	o-terphenyl	0.550	0.548	0.4	68	-0.14	10.49
111	Pentachloronitrobenzene	0.042	0.044#	-4.8	70	-0.12	9.62
112	Naphthalene-d8a	1.000	1.000	0.0	62	-0.10	5.65
113	Hydroquinone	0.282	0.375	-33.0#	76	-0.08	6.08

(#) = Out of Range
2m103907a.D M2M4618.M

SPCC's out = 0 CCC's out = 0
Wed May 23 17:29:40 2018

6.7.18

6



MS Semi-volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4633\
 Data File : 2m104247.D
 Acq On : 21 May 2018 11:31 pm
 Operator : johnb1
 Sample : jc66322-1
 Misc : op12121,e2m4633,30.4,,,1,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 22 16:41:29 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
 Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 QLast Update : Thu May 17 13:00:25 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.589	152	342655	40.00	ppm	-0.08
24) Naphthalene-d8	5.670	136	1258267	40.00	ppm	-0.09
47) Acenaphthene-d10	7.713	164	590415	40.00	ppm	-0.11
69) Phenanthrene-d10	9.879	188	1017839	40.00	ppm	-0.11
83) Chrysene-d12	14.073	240	950195	40.00	ppm	-0.09
91) Perylene-d12	16.180	264	1033151	40.00	ppm	-0.09
101) 1,4-Dichlorobenzene-d4a	4.589	152	342655	40.00	ppm	-0.07
103) Acenaphthene-d10a	7.713	164	590415	40.00	ppm	-0.11
105) Chrysene-d12a	14.073	240	950857	40.00	ppm	-0.08
108) Phenanthrene-d10a	9.879	188	1017839	40.00	ppm	-0.11
112) Naphthalene-d8a	5.670	136	1258267	40.00	ppm	-0.09
114) Chrysene-d12b	14.073	240	950195	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	3.616	112	373188	33.42	ppm	-0.05
Spiked Amount 50.000			Recovery	=	66.84%	
8) Phenol-d5	4.338	99	513553	36.66	ppm	-0.06
Spiked Amount 50.000			Recovery	=	73.32%	
25) Nitrobenzene-d5	5.028	82	399209	34.71	ppm	-0.08
Spiked Amount 50.000			Recovery	=	69.42%	
51) 2-Fluorobiphenyl	6.847	172	874397	40.54	ppm	-0.11
Spiked Amount 50.000			Recovery	=	81.08%	
73) 2,4,6-Tribromophenol	8.842	330	128494	41.73	ppm	-0.10
Spiked Amount 50.000			Recovery	=	83.46%	
85) Terphenyl-d14	12.436	244	920380	44.17	ppm	-0.11
Spiked Amount 50.000			Recovery	=	88.34%	
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0d	0.00	ppm	
Target Compounds						
38) Naphthalene	5.691	128	7314366	224.54	ppm	99
44) 2-Methylnaphthalene	6.419	141	2079147	109.59	ppm	97
56) Acenaphthylene	7.526	152	4421257	153.20	ppm	99
59) Acenaphthene	7.756	153	399460	21.09	ppm	99
66) Fluorene	8.489	166	2935247	142.23	ppm	99
77) Phenanthrene	9.933	178	18075390	622.38	ppm	92
78) Anthracene	10.008	178	6461329	221.44	ppm	99
81) Fluoranthene	11.799	202	16740630	561.76	ppm	93
84) Pyrene	12.147	202	14420727	454.43	ppm	93
87) Benzo[a]anthracene	14.062	228	8164581	283.95	ppm	100
89) Chrysene	14.121	228	6479104	237.15	ppm	96
93) Benzo[b]fluoranthene	15.677	252	7057378	223.18	ppm	97
94) Benzo[k]fluoranthene	15.709	252	2561764	87.26	ppm	91
95) Benzo[a]pyrene	16.121	252	5557072	202.73	ppm	99
96) Indeno[1,2,3-cd]pyrene	17.683	276	2947484	108.03	ppm	92
98) Dibenz[a,h]anthracene	17.699	278	858260m	30.61	ppm	
100) Benzo[g,h,i]perylene	18.105	276	2317450	88.16	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4633\
Data File : 2m104247.D
Acq On : 21 May 2018 11:31 pm
Operator : johnb1
Sample : jc66322-1
Misc : op12121,e2m4633,30.4,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 22 16:41:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Thu May 17 13:00:25 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

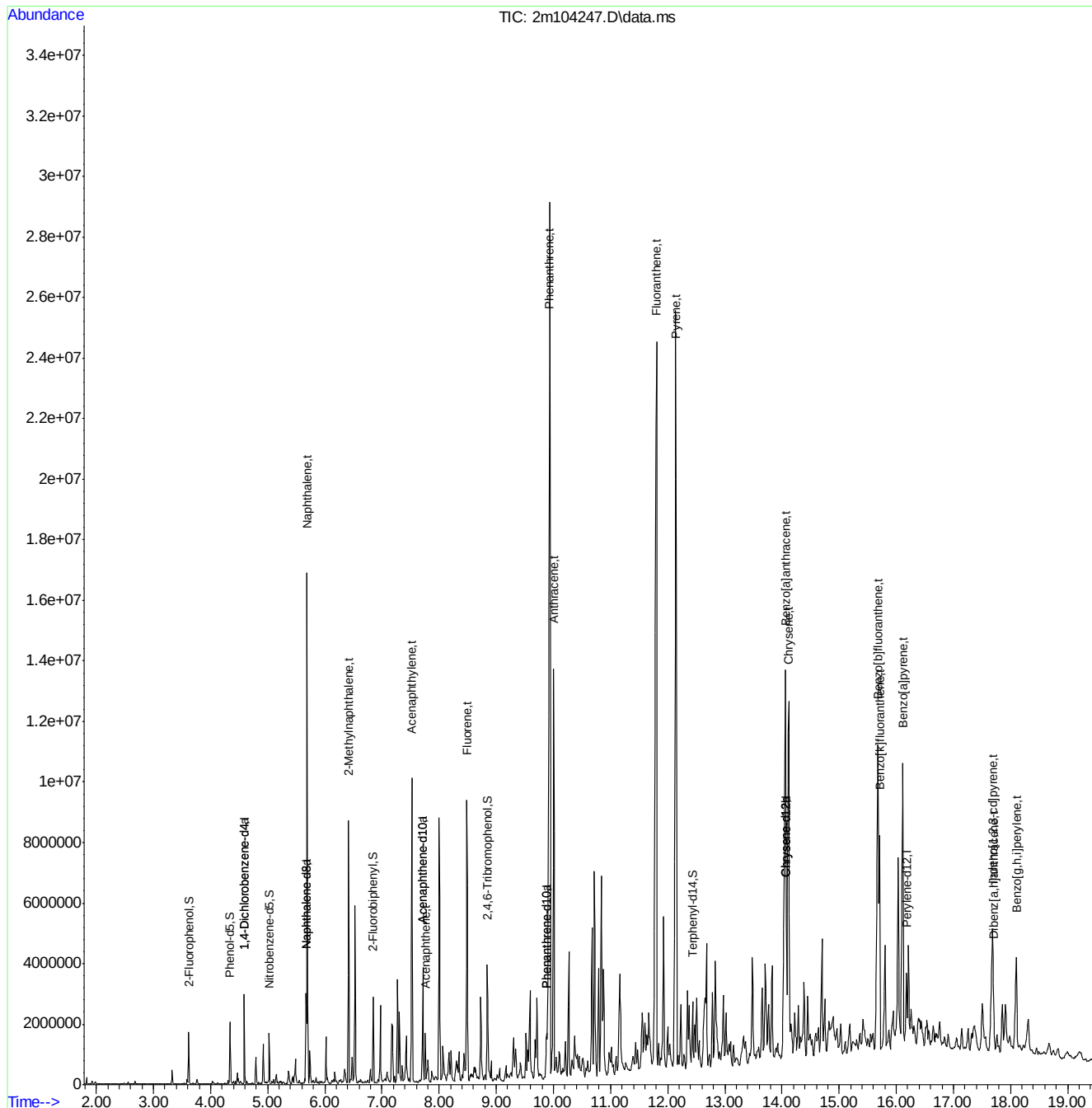
(#) = qualifier out of range (m) = manual integration (+) = signals summed						

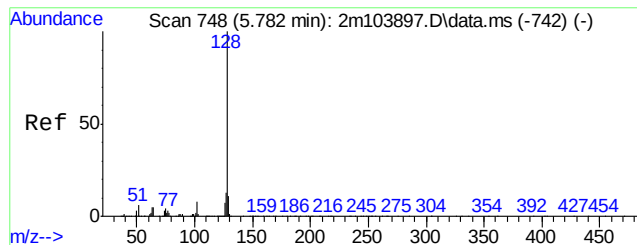
7.1.1
7

Quantitation Report (QT Reviewed)

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Data Path   : C:\msdchem\1\DATA\E2M4633\
Data File   : 2m104247.D
Acq On      : 21 May 2018   11:31 pm
Operator    : johnb1
Sample      : jc66322-1
Misc        : op12121,e2m4633,30.4,,,1,1
ALS Vial    : 18   Sample Multiplier: 1
```

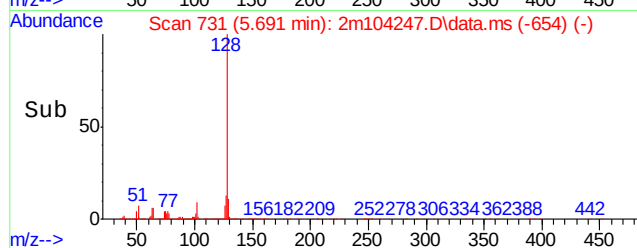
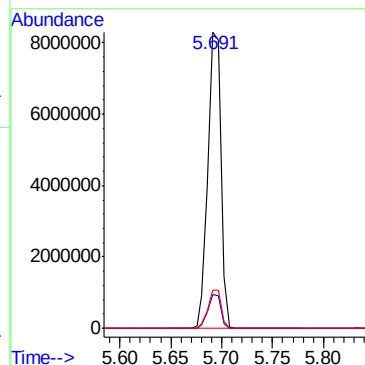
Quant Time: May 22 16:41:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Thu May 17 13:00:25 2018
Response via : Initial Calibration





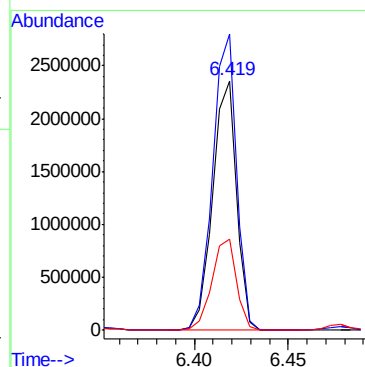
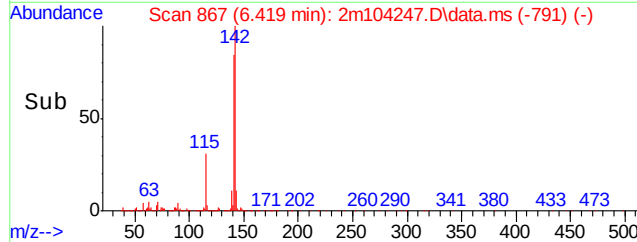
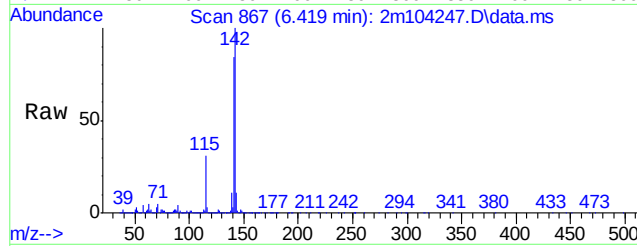
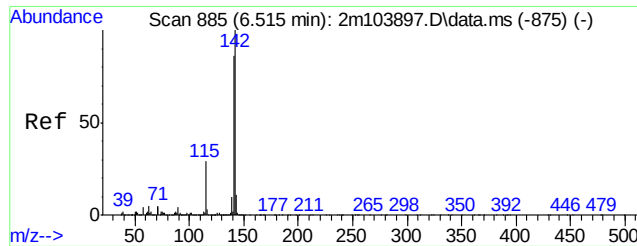
#38
Naphthalene
Concen: 224.54 ppm
RT: 5.691 min Scan# 731
Delta R.T. -0.091 min
Lab File: 2m104247.D
Acq: 21 May 2018 11:31 pm

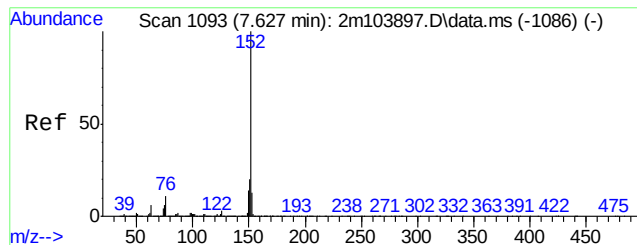
Tgt Ion:	128	Resp:	7314366
Ion Ratio	Lower	Upper	
128	100		
129	11.5	0.0	40.7
127	12.9	0.0	42.5



#44
2-Methylnaphthalene
Concen: 109.59 ppm
RT: 6.419 min Scan# 867
Delta R.T. -0.096 min
Lab File: 2m104247.D
Acq: 21 May 2018 11:31 pm

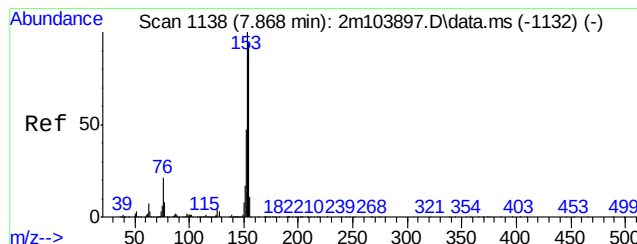
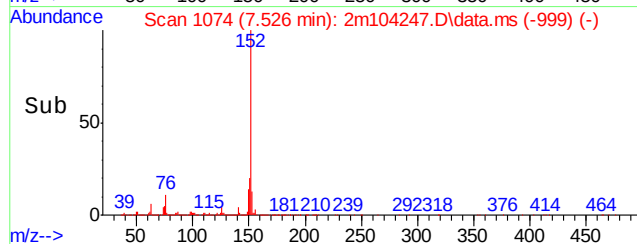
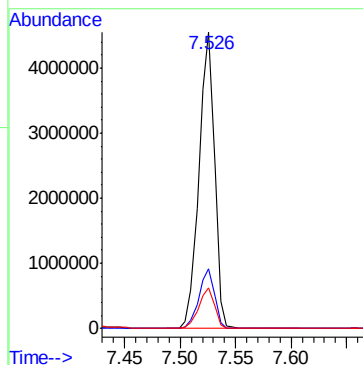
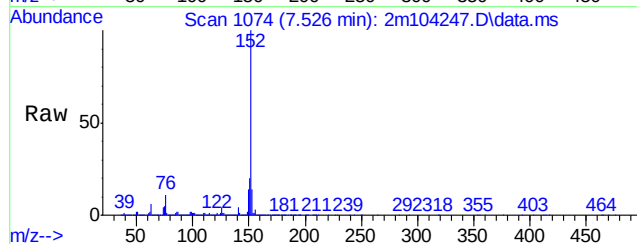
Tgt Ion:	141	Resp:	2079147
Ion Ratio	Lower	Upper	
141	100		
142	118.7	86.4	146.4
115	36.3	3.6	63.6





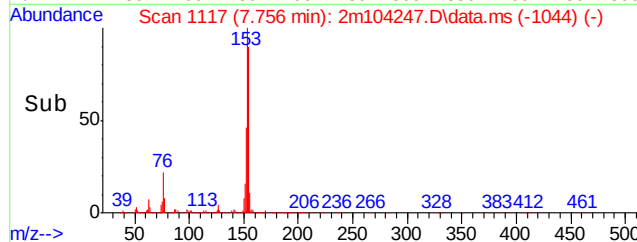
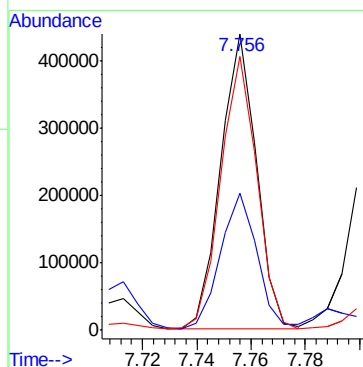
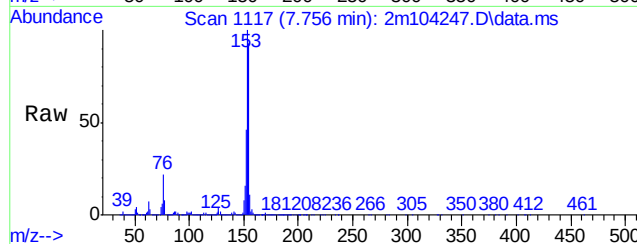
#56
Acenaphthylene
Concen: 153.20 ppm
RT: 7.526 min Scan# 1074
Delta R.T. -0.102 min
Lab File: 2m104247.D
Acq: 21 May 2018 11:31 pm

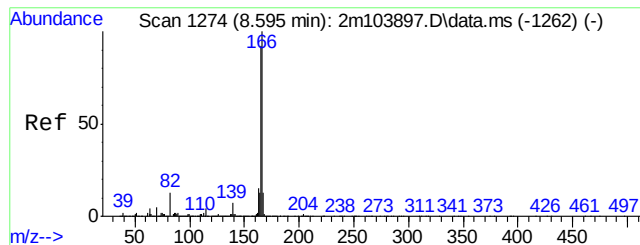
Tgt Ion:	152	Resp:	4421257
Ion Ratio	Lower	Upper	
152	100		
151	20.0	0.0	49.6
153	13.5	0.0	42.8



#59
Acenaphthene
Concen: 21.09 ppm
RT: 7.756 min Scan# 1117
Delta R.T. -0.112 min
Lab File: 2m104247.D
Acq: 21 May 2018 11:31 pm

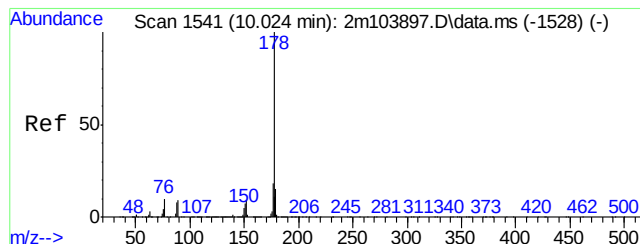
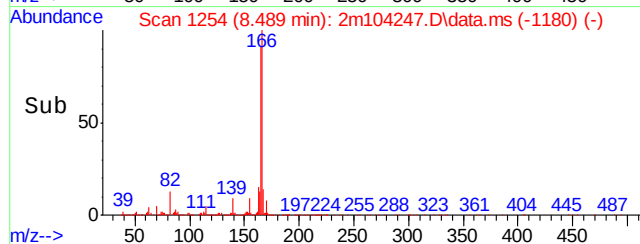
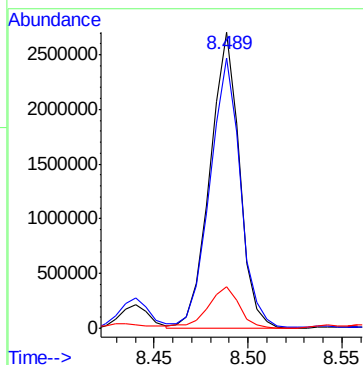
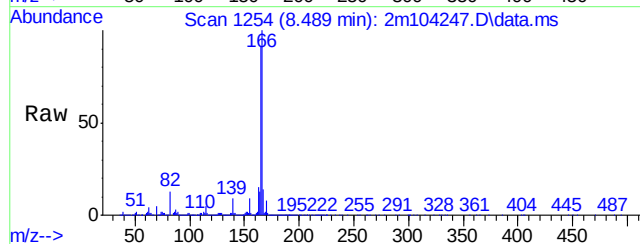
Tgt Ion:	153	Resp:	399460
Ion Ratio	Lower	Upper	
153	100		
152	45.4	17.1	77.1
154	92.7	62.8	122.8





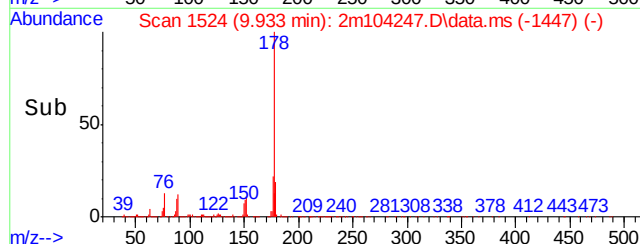
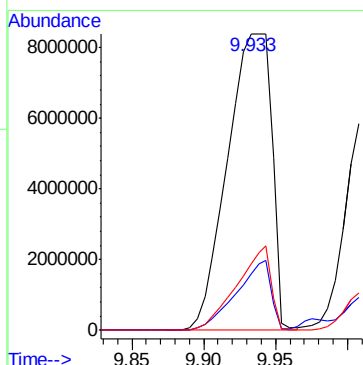
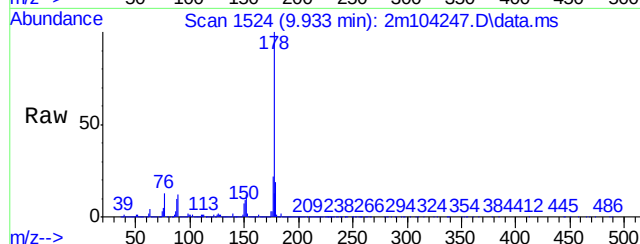
#66
Fluorene
Concen: 142.23 ppm
RT: 8.489 min Scan# 1254
Delta R.T. -0.107 min
Lab File: 2m104247.D
Acq: 21 May 2018 11:31 pm

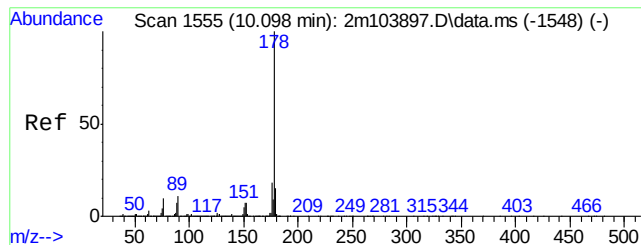
Tgt Ion:	166	Resp:	2935247
Ion Ratio	Lower	Upper	
166	100		
165	90.7	62.0	122.0
167	13.6	0.0	42.9



#77
Phenanthrene
Concen: 622.38 ppm
RT: 9.933 min Scan# 1524
Delta R.T. -0.091 min
Lab File: 2m104247.D
Acq: 21 May 2018 11:31 pm

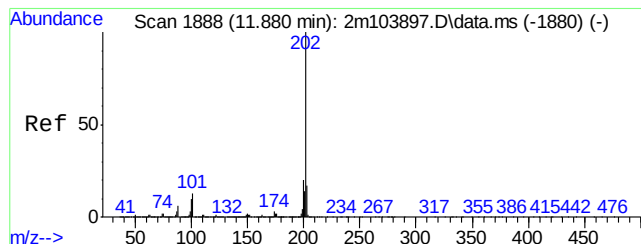
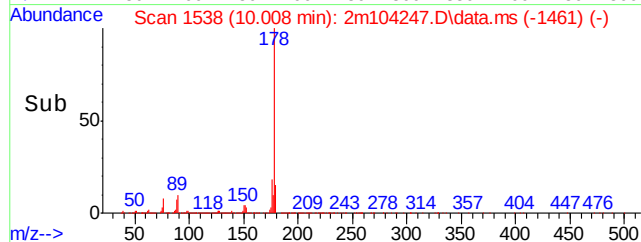
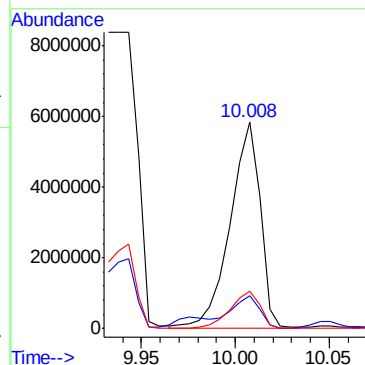
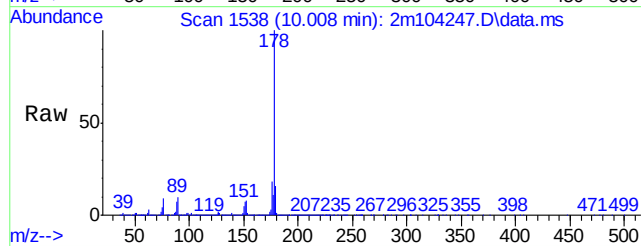
Tgt Ion:	178	Resp:	18075390
Ion Ratio	Lower	Upper	
178	100		
179	18.4	0.0	45.2
176	22.5	0.0	48.5





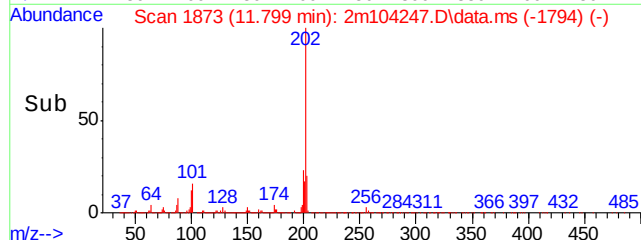
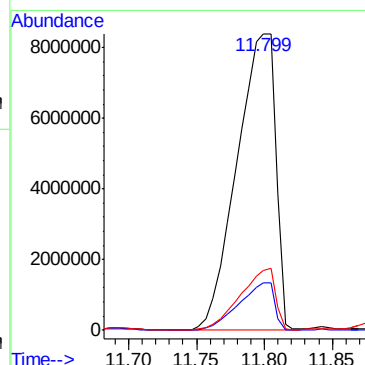
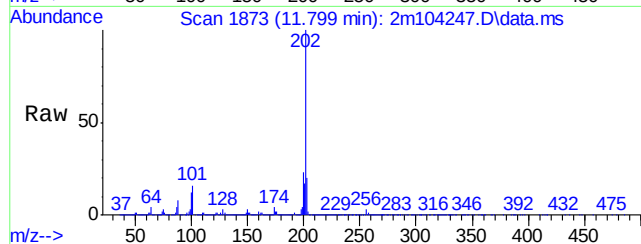
#78
 Anthracene
 Concen: 221.44 ppm
 RT: 10.008 min Scan# 1538
 Delta R.T. -0.091 min
 Lab File: 2m104247.D
 Acq: 21 May 2018 11:31 pm

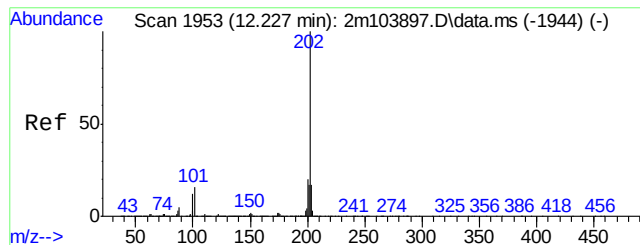
Tgt Ion:	178	Resp:	6461329
Ion Ratio	Lower	Upper	
178	100		
179	14.5	0.0	45.1
176	18.2	0.0	47.7



#81
 Fluoranthene
 Concen: 561.76 ppm
 RT: 11.799 min Scan# 1873
 Delta R.T. -0.080 min
 Lab File: 2m104247.D
 Acq: 21 May 2018 11:31 pm

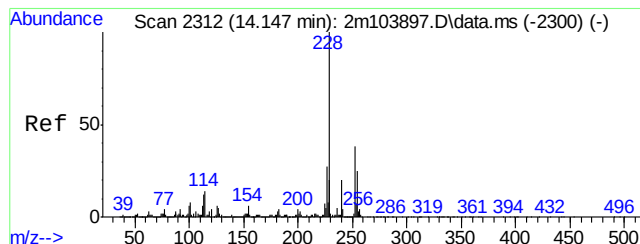
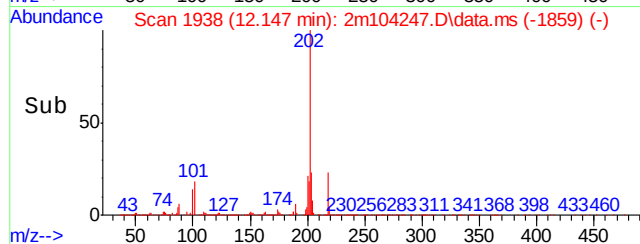
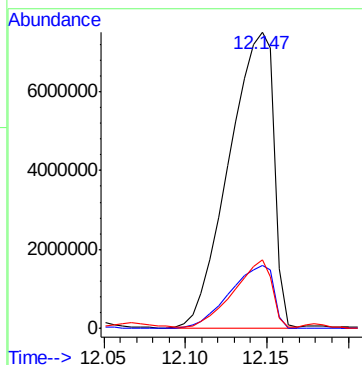
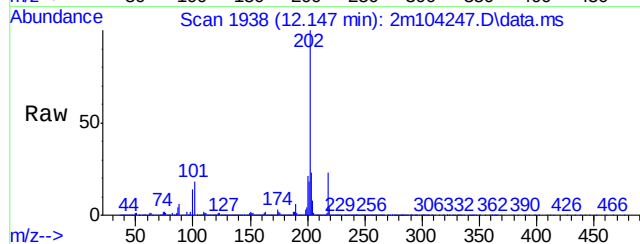
Tgt Ion:	202	Resp:	16740630
Ion Ratio	Lower	Upper	
202	100		
101	15.9	0.0	43.1
203	20.1	0.0	47.0





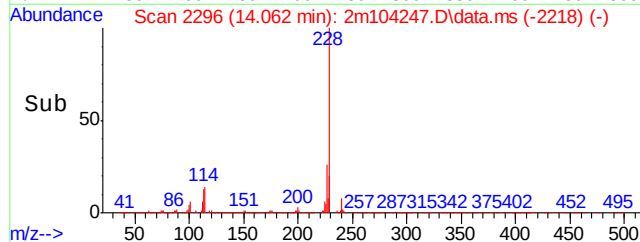
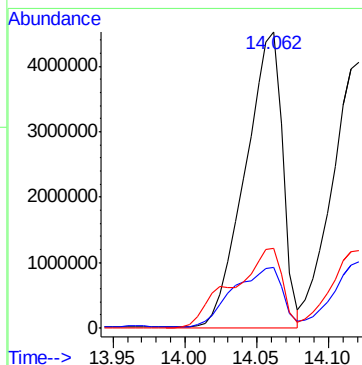
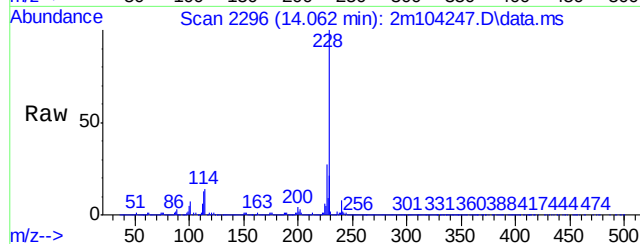
#84
Pyrene
Concen: 454.43 ppm
RT: 12.147 min Scan# 1938
Delta R.T. -0.080 min
Lab File: 2m104247.D
Acq: 21 May 2018 11:31 pm

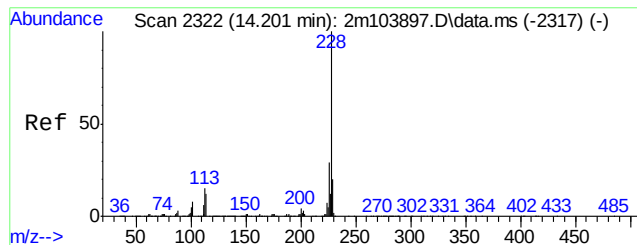
Tgt Ion	Ratio	Lower	Upper
202	100		
200	21.1	0.0	50.0
203	22.5	0.0	47.3



#87
Benzo[a]anthracene
Concen: 283.95 ppm
RT: 14.062 min Scan# 2296
Delta R.T. -0.085 min
Lab File: 2m104247.D
Acq: 21 May 2018 11:31 pm

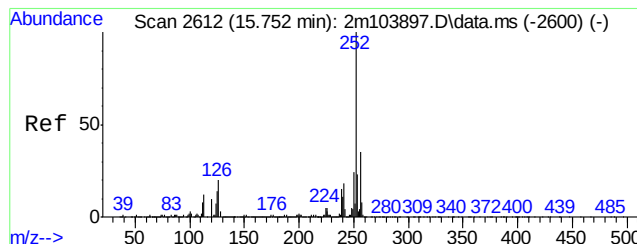
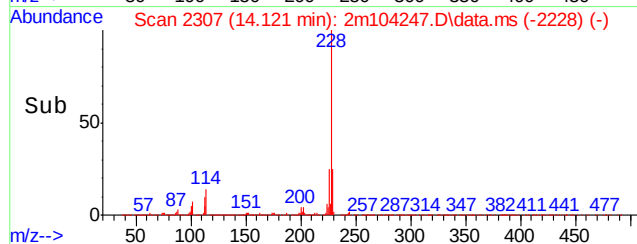
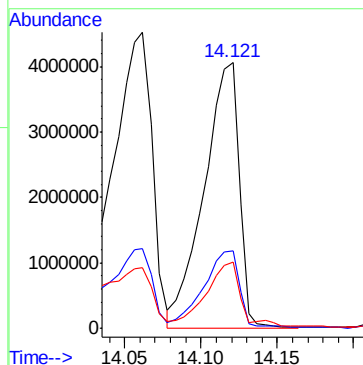
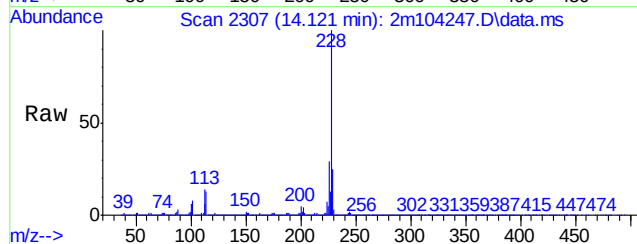
Tgt Ion	Ratio	Lower	Upper
228	100		
229	19.8	0.0	49.8
226	26.7	0.0	56.6





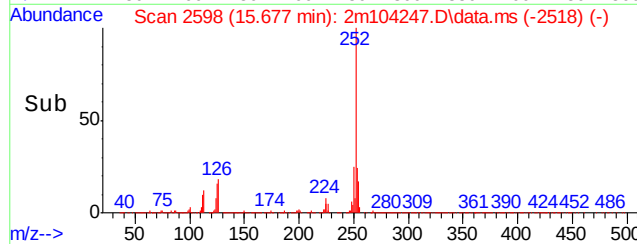
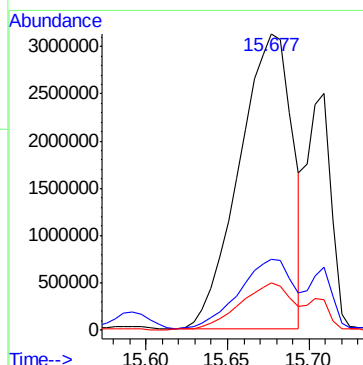
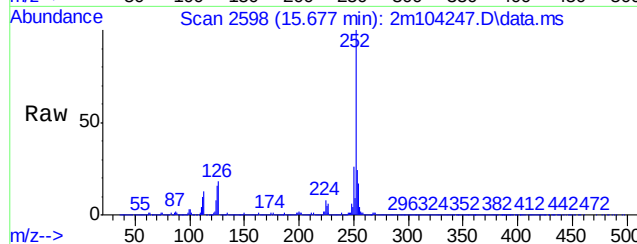
#89
Chrysene
Concen: 237.15 ppm
RT: 14.121 min Scan# 2307
Delta R.T. -0.080 min
Lab File: 2m104247.D
Acq: 21 May 2018 11:31 pm

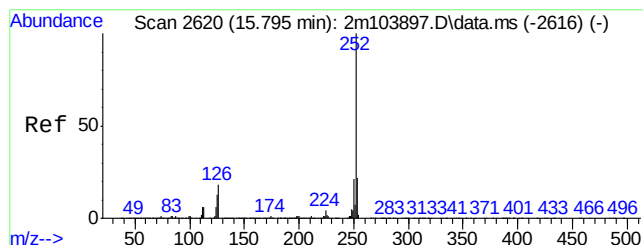
Tgt Ion	Ratio	Lower	Upper
228	100		
226	29.0	0.0	58.8
229	23.9	0.0	49.8



#93
Benzo[b]fluoranthene
Concen: 223.18 ppm
RT: 15.677 min Scan# 2598
Delta R.T. -0.075 min
Lab File: 2m104247.D
Acq: 21 May 2018 11:31 pm

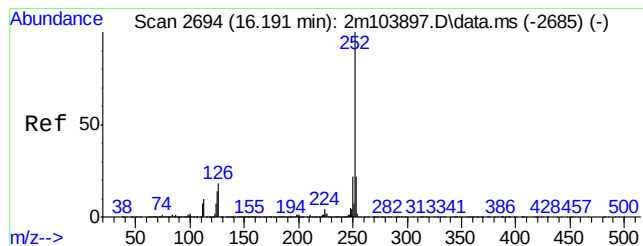
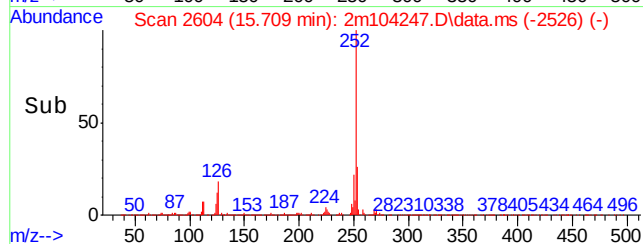
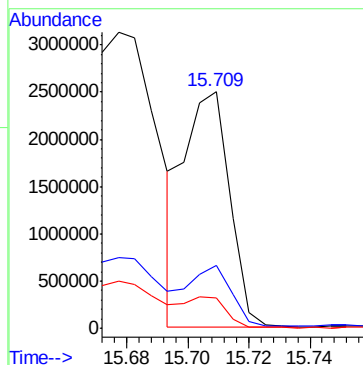
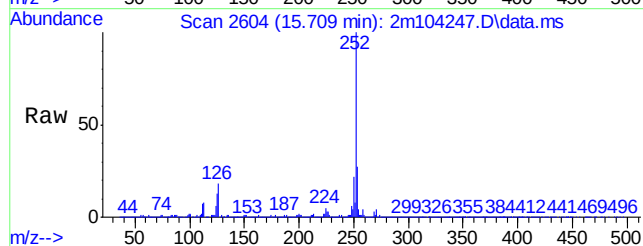
Tgt Ion	Ratio	Lower	Upper
252	100		
253	23.4	0.0	52.5
125	16.2	0.0	44.3





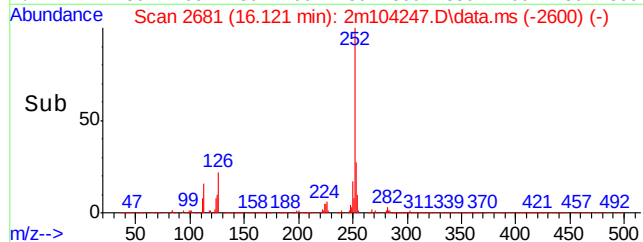
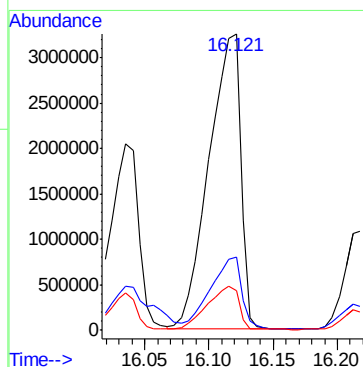
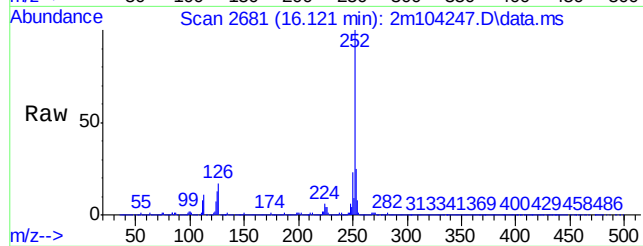
#94
Benzo[k]fluoranthene
Concen: 87.26 ppm
RT: 15.709 min Scan# 2604
Delta R.T. -0.085 min
Lab File: 2m104247.D
Acq: 21 May 2018 11:31 pm

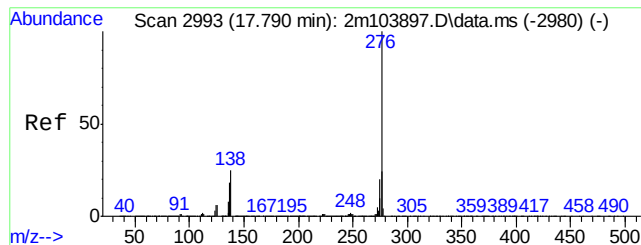
Tgt Ion:	252	Resp:	2561764
Ion Ratio	Lower	Upper	
252	100		
253	27.5	0.0	51.8
125	11.5	0.0	42.9



#95
Benzo[a]pyrene
Concen: 202.73 ppm
RT: 16.121 min Scan# 2681
Delta R.T. -0.069 min
Lab File: 2m104247.D
Acq: 21 May 2018 11:31 pm

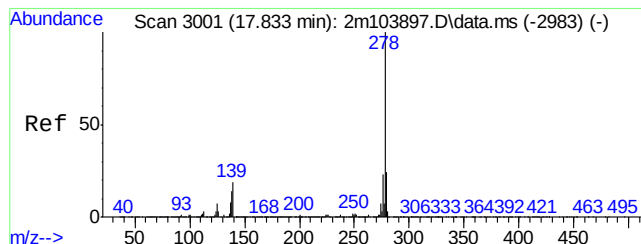
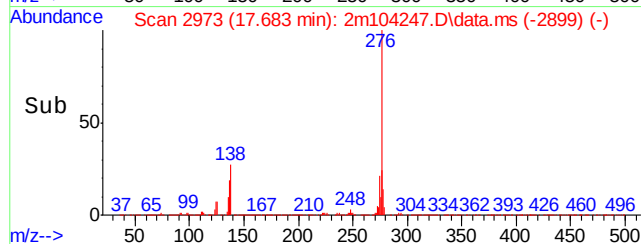
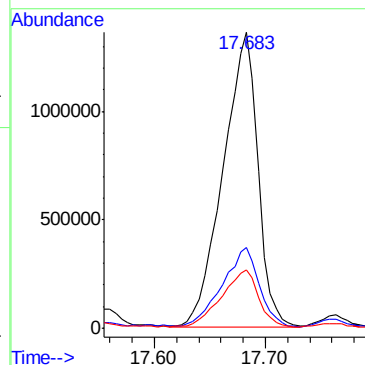
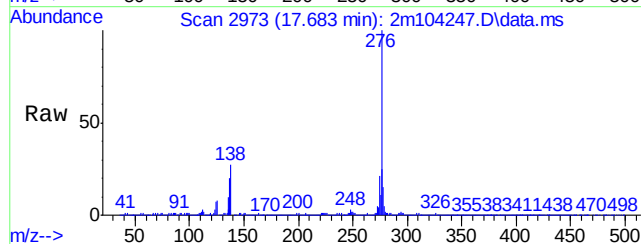
Tgt Ion:	252	Resp:	5557072
Ion Ratio	Lower	Upper	
252	100		
253	22.2	0.0	51.6
125	13.3	0.0	44.0





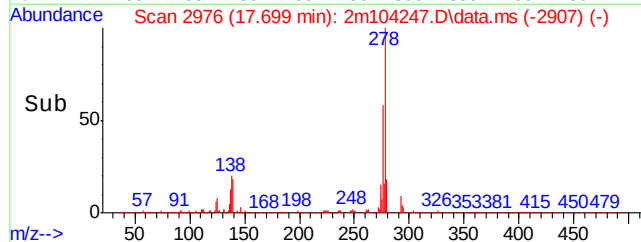
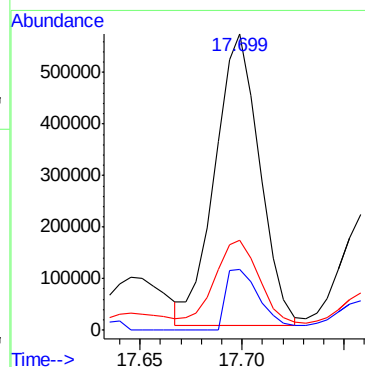
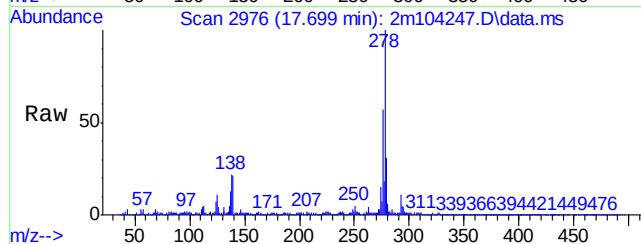
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 108.03 ppm
 RT: 17.683 min Scan# 2973
 Delta R.T. -0.107 min
 Lab File: 2m104247.D
 Acq: 21 May 2018 11:31 pm

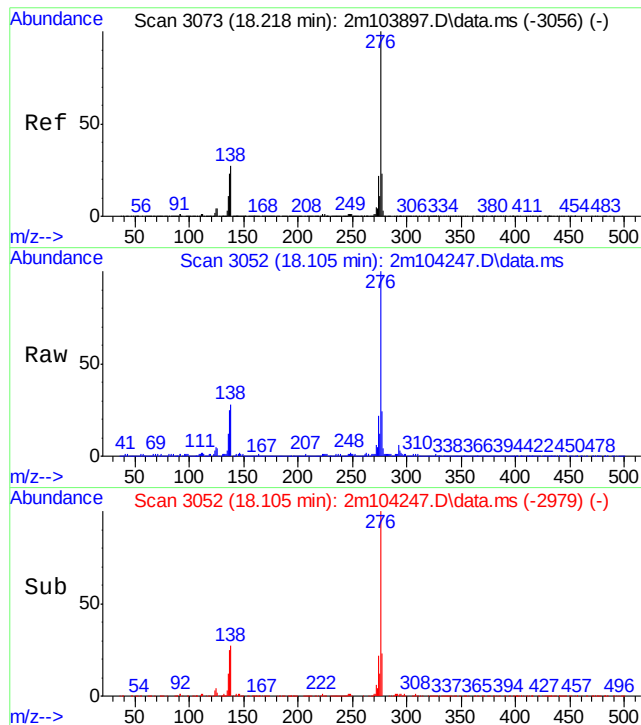
Tgt Ion:	276	Resp:	2947484
Ion Ratio	Lower	Upper	
276	100		
138	26.9	0.0	52.7
137	19.3	0.0	46.8



#98
 Dibenz[a,h]anthracene
 Concen: 30.61 ppm m
 RT: 17.699 min Scan# 2976
 Delta R.T. -0.134 min
 Lab File: 2m104247.D
 Acq: 21 May 2018 11:31 pm

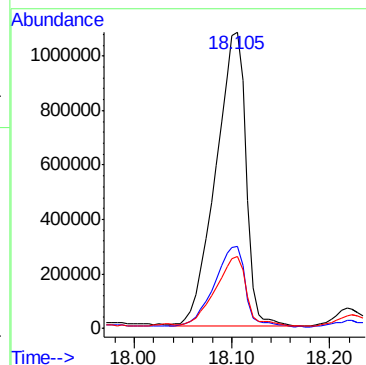
Tgt Ion:	278	Resp:	858260
Ion Ratio	Lower	Upper	
278	100		
139	20.6	0.0	48.9
279	30.5	0.0	53.6





#100
 Benzo[g,h,i]perylene
 Concen: 88.16 ppm
 RT: 18.105 min Scan# 3052
 Delta R.T. -0.112 min
 Lab File: 2m104247.D
 Acq: 21 May 2018 11:31 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	27.2	0.0	57.0
277	23.5	0.0	53.4



Quantitation Report (QT Reviewed)

Data Path : R:\svoa\completed\05-23-18\aimeel\2m4634\
 Data File : 2m104268.d
 Acq On : 22 May 2018 12:34 pm
 Operator : christc2
 Sample : jc66322-1
 Misc : op12121,e2m4634,30.4,,,1,20
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 23 23:38:48 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
 Quant Title : Semi Volatile GC/MS,rx1 5sil ms 30m .25mm .25um
 QLast Update : Tue May 22 21:24:06 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

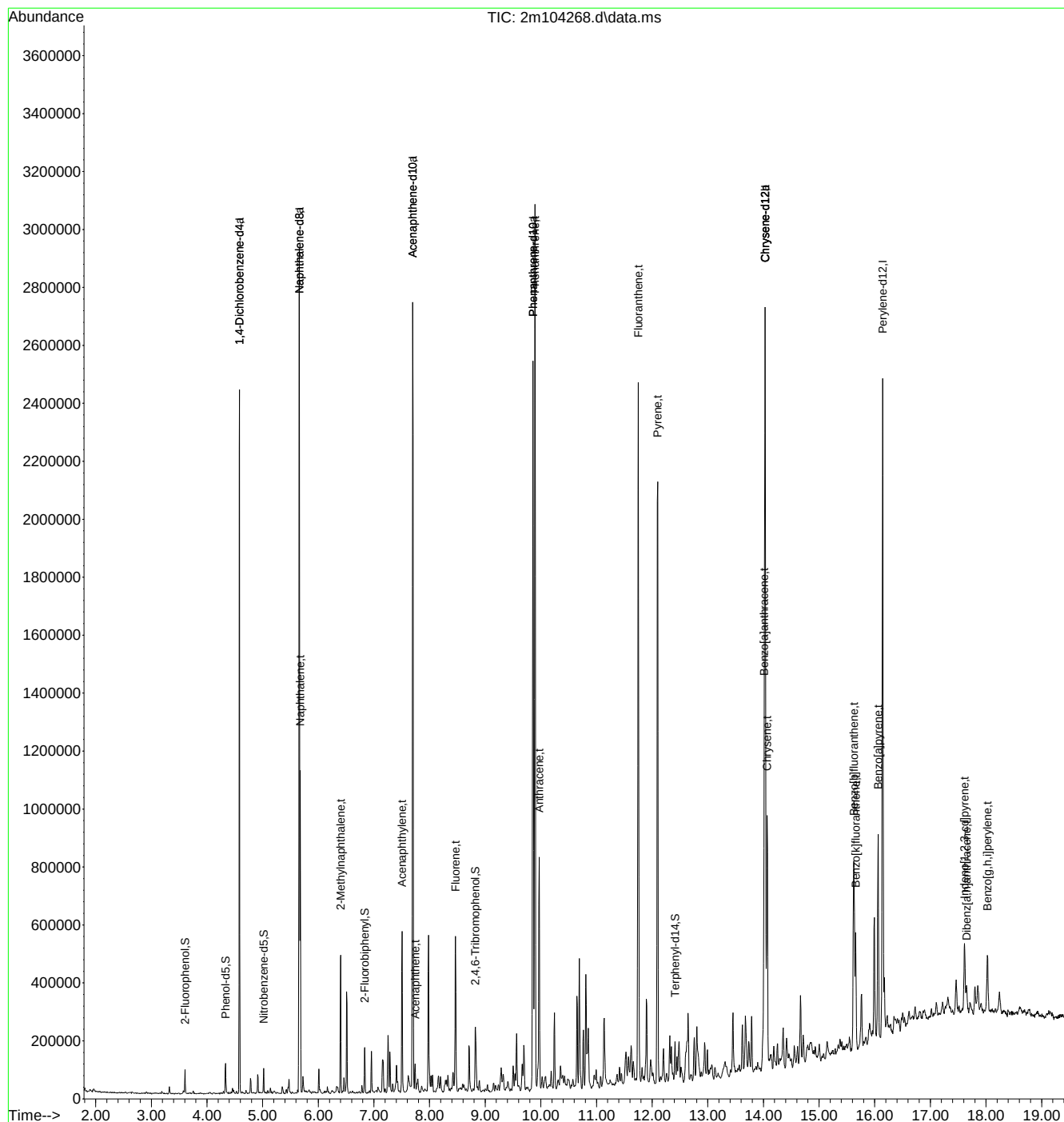
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.584	152	316429	40.00	ppm	0.00
24) Naphthalene-d8	5.659	136	1229265	40.00	ppm	0.00
47) Acenaphthene-d10	7.697	164	594482	40.00	ppm	-0.01
69) Phenanthrene-d10	9.858	188	1102869	40.00	ppm	-0.01
83) Chrysene-d12	14.030	240	1013441	40.00	ppm	-0.02
91) Perylene-d12	16.142	264	1019326	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.584	152	316429	40.00	ppm	0.00
103) Acenaphthene-d10a	7.697	164	594482	40.00	ppm	-0.01
105) Chrysene-d12a	14.030	240	1013441	40.00	ppm	-0.02
108) Phenanthrene-d10a	9.858	188	1102869	40.00	ppm	-0.01
112) Naphthalene-d8a	5.659	136	1229265	40.00	ppm	0.00
114) Chrysene-d12b	14.030	240	1013441	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.605	112	19116	1.85	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.70%	
8) Phenol-d5	4.333	99	26752	2.07	ppm	0.02
Spiked Amount 50.000			Recovery	=	4.14%	
25) Nitrobenzene-d5	5.017	82	21984	1.96	ppm	0.00
Spiked Amount 50.000			Recovery	=	3.92%	
51) 2-Fluorobiphenyl	6.836	172	49020	2.26	ppm	-0.02
Spiked Amount 50.000			Recovery	=	4.52%	
73) 2,4,6-Tribromophenol	8.820	330	7544	2.26	ppm	-0.02
Spiked Amount 50.000			Recovery	=	4.52%	
85) Terphenyl-d14	12.409	244	57287	2.58	ppm	-0.03
Spiked Amount 50.000			Recovery	=	5.16%	
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
38) Naphthalene	5.675	128	406553	12.77	ppm	99
44) 2-Methylnaphthalene	6.403	141	117127	6.32	ppm	95
56) Acenaphthylene	7.504	152	241354	8.31	ppm	98
59) Acenaphthene	7.740	153	23909	1.25	ppm	97
66) Fluorene	8.467	166	170776	8.22	ppm	98
77) Phenanthrene	9.895	178	1328774	42.23	ppm	99
78) Anthracene	9.970	178	370903	11.73	ppm	98
81) Fluoranthene	11.751	202	1093460	33.86	ppm	99
84) Pyrene	12.099	202	891132	26.33	ppm	98
87) Benzo[a]anthracene	14.014	228	480401	15.66	ppm	99
89) Chrysene	14.067	228	382859	13.14	ppm	97
93) Benzo[b]fluoranthene	15.624	252	408717	13.10	ppm	98
94) Benzo[k]fluoranthene	15.656	252	156297	5.40	ppm	91
95) Benzo[a]pyrene	16.062	252	317350	11.73	ppm	96
96) Indeno[1,2,3-cd]pyrene	17.613	276	162675	6.04	ppm	92
98) Dibenz[a,h]anthracene	17.651	278	49688m	1.80	ppm	
100) Benzo[g,h,i]perylene	18.025	276	126678	4.88	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path : R:\svoa\completed\05-23-18\aimeel\e2m4634\  
Data File : 2m104268.d  
Acq On : 22 May 2018 12:34 pm  
Operator : christc2  
Sample : jc66322-1  
Misc : op12121,e2m4634,30.4,,,1,20  
ALS Vial : 8 Sample Multiplier: 1
```

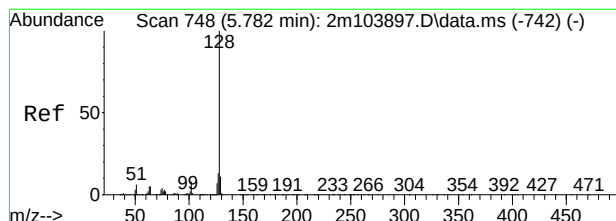
Quant Time: May 23 23:38:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Tue May 22 21:24:06 2018
Response via : Initial Calibration



m2m4618.m Wed May 23 23:39:56 2018

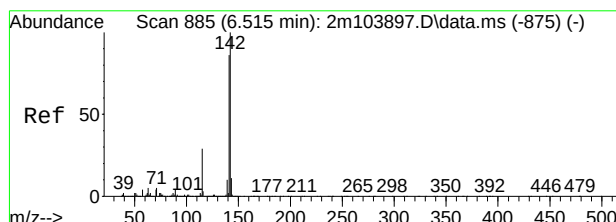
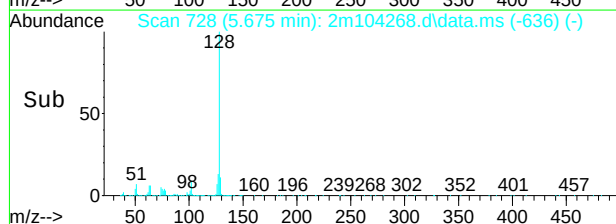
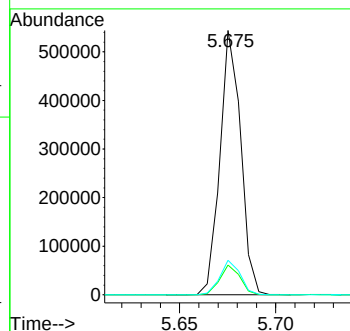
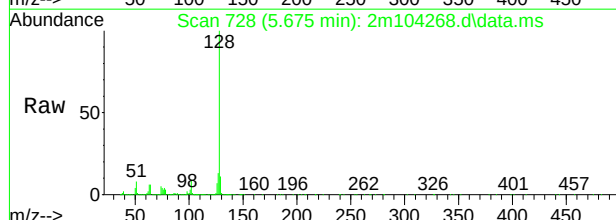
Page: 2

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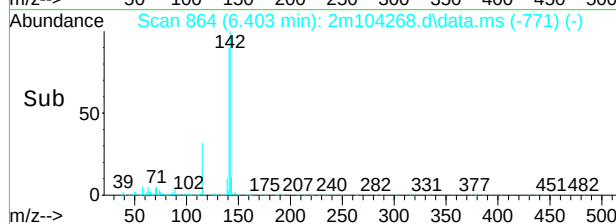
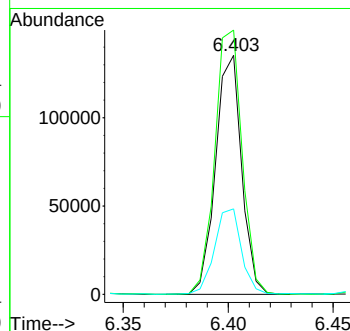
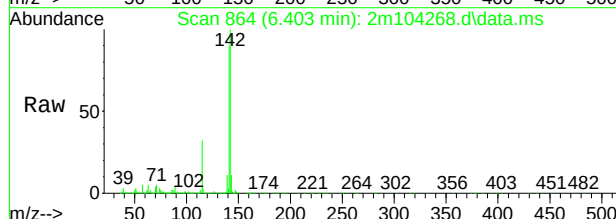
#38
Naphthalene
Concen: 12.77 ppm
RT: 5.675 min Scan# 728
Delta R.T. -0.011 min
Lab File: 2m104268.d
Acq: 22 May 2018 12:34 pm

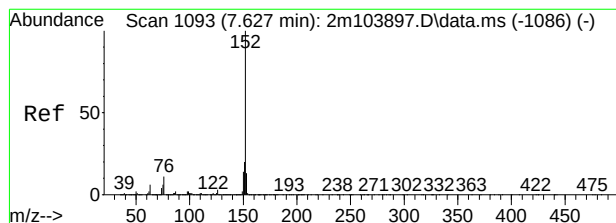
Tgt	Ion:128	Resp:	406553
Ion	Ratio	Lower	Upper
128	100		
129	11.3	0.0	40.6
127	13.1	0.0	42.7



#44
2-Methylnaphthalene
Concen: 6.32 ppm
RT: 6.403 min Scan# 864
Delta R.T. -0.004 min
Lab File: 2m104268.d
Acq: 22 May 2018 12:34 pm

Tgt	Ion:141	Resp:	117127
Ion	Ratio	Lower	Upper
141	100		
142	110.6	87.5	147.5
115	35.6	6.3	66.3





#56

Acenaphthylene

Concen: 8.31 ppm

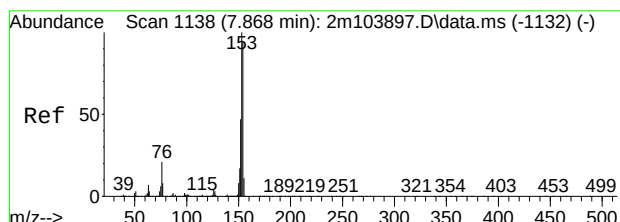
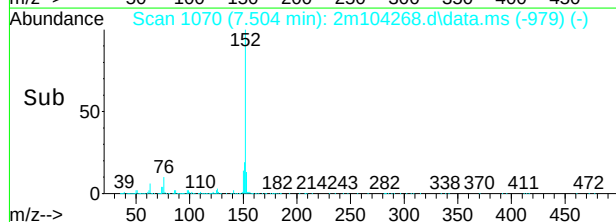
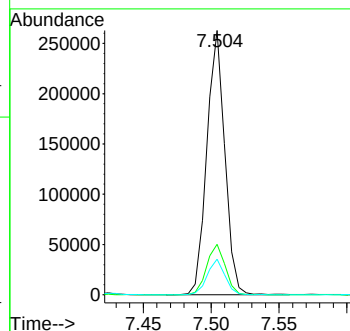
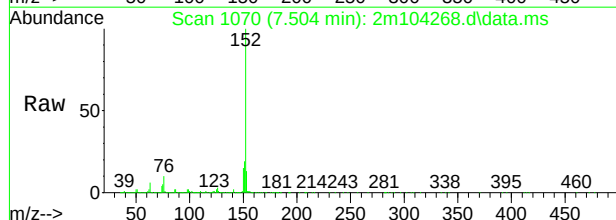
RT: 7.504 min Scan# 1070

Delta R.T. -0.014 min

Lab File: 2m104268.d

Acq: 22 May 2018 12:34 pm

Tgt Ion:	152	Resp:	241354
Ion Ratio	Lower	Upper	
152	100		
151	19.1	0.0	49.8
153	13.4	0.0	42.8



#59

Acenaphthene

Concen: 1.25 ppm

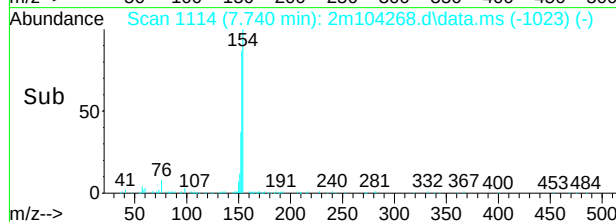
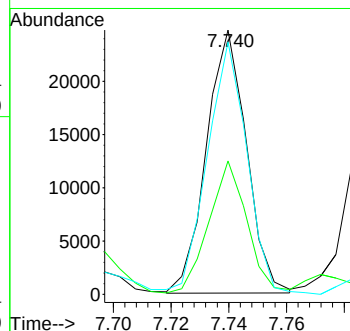
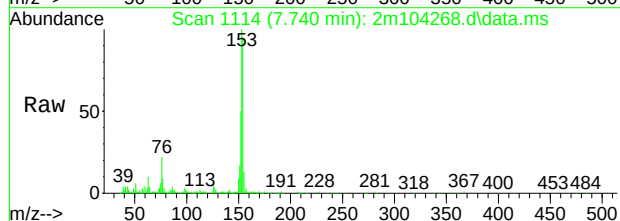
RT: 7.740 min Scan# 1114

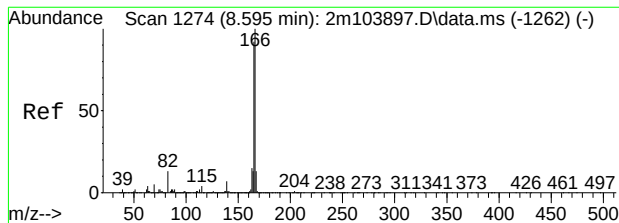
Delta R.T. -0.016 min

Lab File: 2m104268.d

Acq: 22 May 2018 12:34 pm

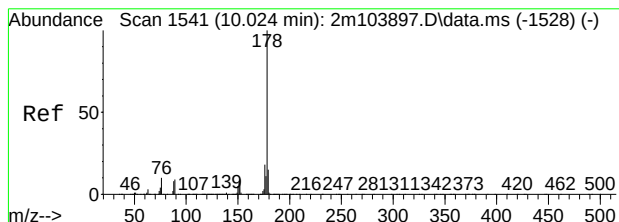
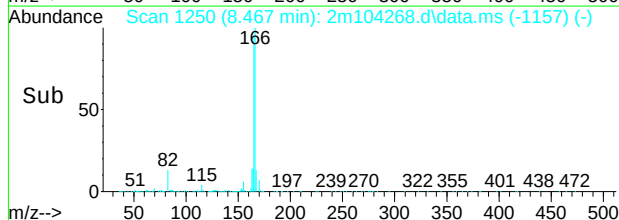
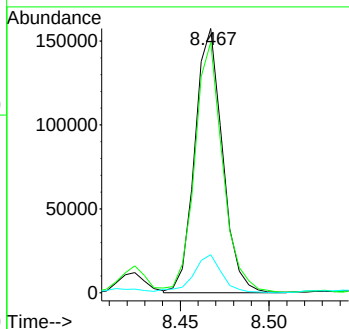
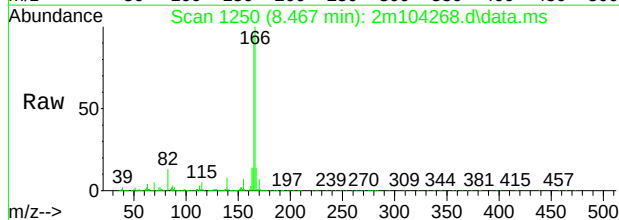
Tgt Ion:	153	Resp:	23909
Ion Ratio	Lower	Upper	
153	100		
152	50.0	16.4	76.4
154	95.5	64.2	124.2





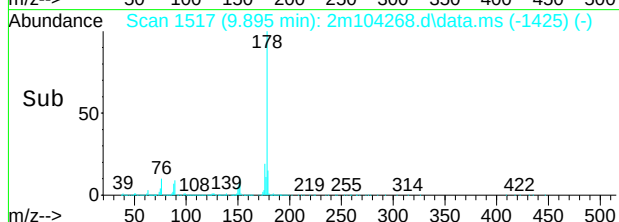
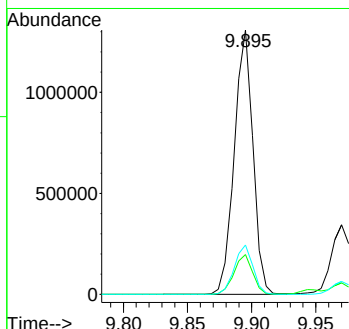
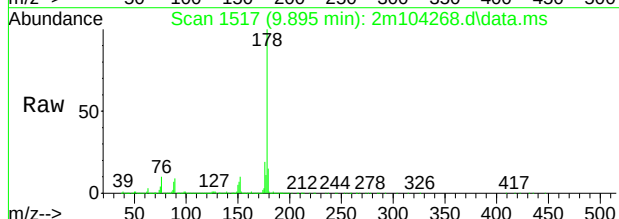
#66
Fluorene
Concen: 8.22 ppm
RT: 8.467 min Scan# 1250
Delta R.T. -0.005 min
Lab File: 2m104268.d
Acq: 22 May 2018 12:34 pm

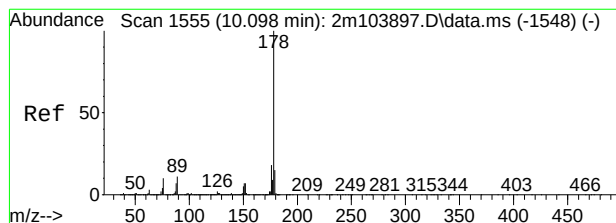
Tgt Ion:166	Resp: 170776
Ion Ratio Lower Upper	
166 100	
165 94.3	62.1 122.1
167 13.8	0.0 42.7



#77
Phenanthrene
Concen: 42.23 ppm
RT: 9.895 min Scan# 1517
Delta R.T. -0.010 min
Lab File: 2m104268.d
Acq: 22 May 2018 12:34 pm

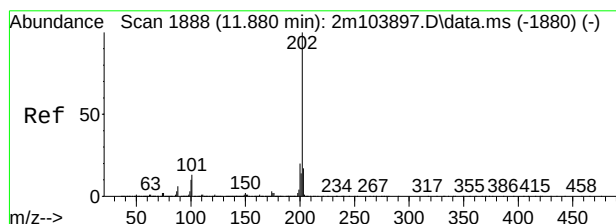
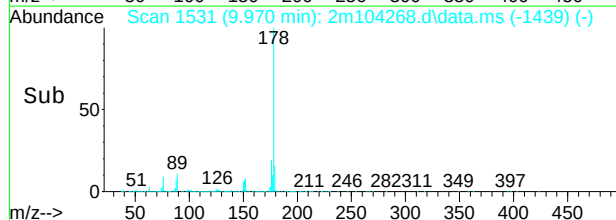
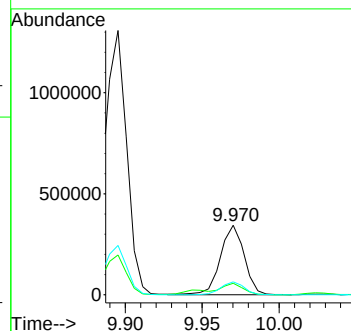
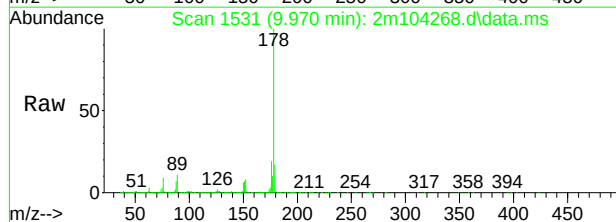
Tgt Ion:178	Resp: 1328774
Ion Ratio Lower Upper	
178 100	
179 15.0	0.0 44.7
176 18.6	0.0 48.3





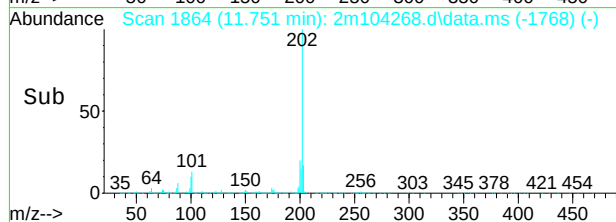
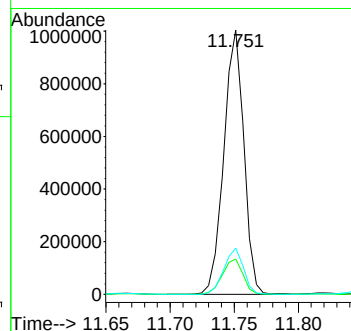
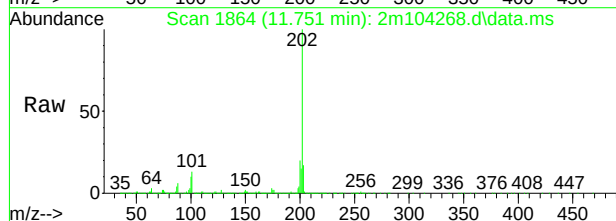
#78
 Anthracene
 Concen: 11.73 ppm
 RT: 9.970 min Scan# 1531
 Delta R.T. -0.010 min
 Lab File: 2m104268.d
 Acq: 22 May 2018 12:34 pm

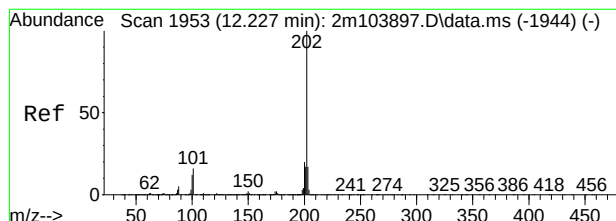
Tgt Ion	Ratio	Lower	Upper
178	100		
179	16.2	0.0	45.4
176	18.7	0.0	48.1



#81
 Fluoranthene
 Concen: 33.86 ppm
 RT: 11.751 min Scan# 1864
 Delta R.T. 0.011 min
 Lab File: 2m104268.d
 Acq: 22 May 2018 12:34 pm

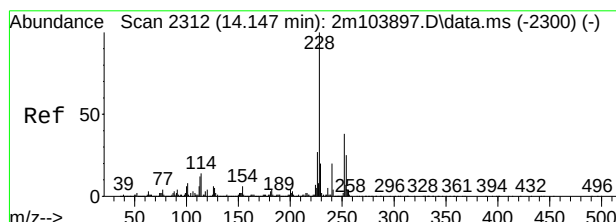
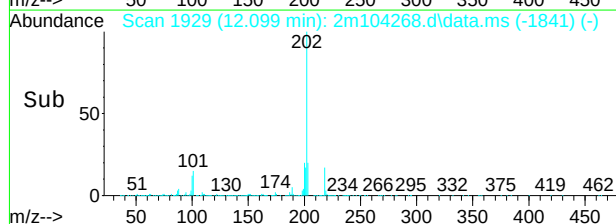
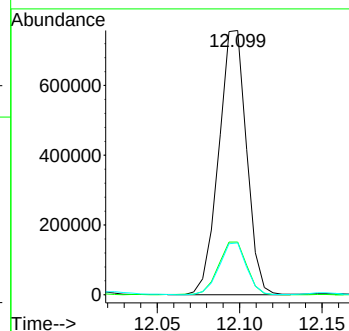
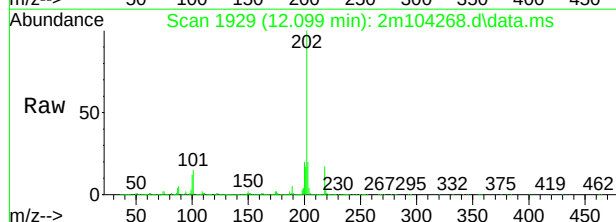
Tgt Ion	Ratio	Lower	Upper
202	100		
101	13.3	0.0	42.8
203	17.5	0.0	47.2





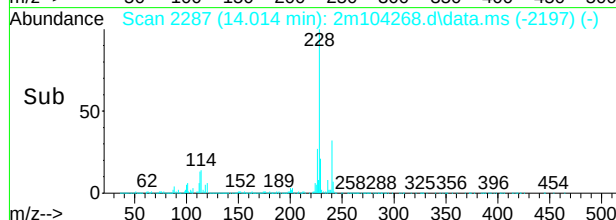
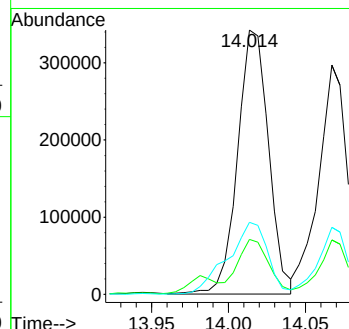
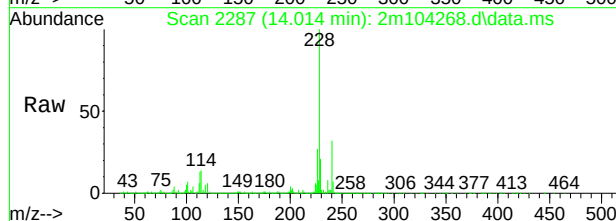
#84
Pyrene
Concen: 26.33 ppm
RT: 12.099 min Scan# 1929
Delta R.T. -0.027 min
Lab File: 2m104268.d
Acq: 22 May 2018 12:34 pm

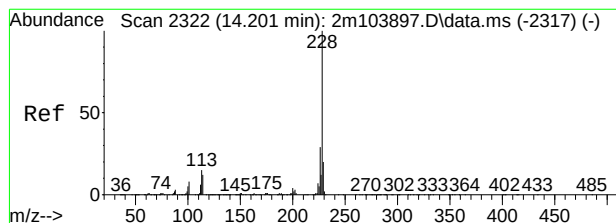
Tgt Ion	202	Resp	891132
Ion Ratio	Lower	Upper	
202	100		
200	19.9	0.0	49.9
203	19.5	0.0	48.1



#87
Benzo[a]anthracene
Concen: 15.66 ppm
RT: 14.014 min Scan# 2287
Delta R.T. -0.016 min
Lab File: 2m104268.d
Acq: 22 May 2018 12:34 pm

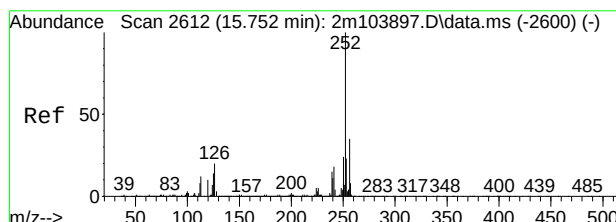
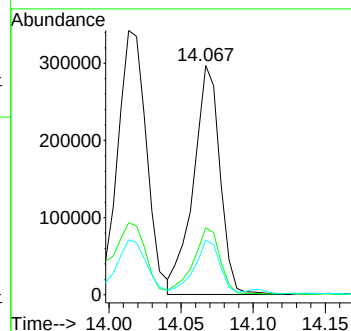
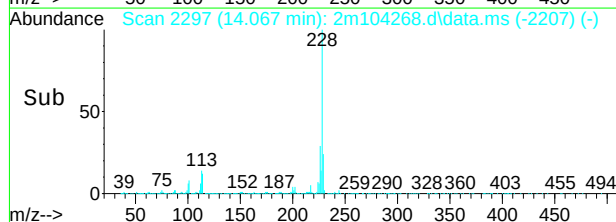
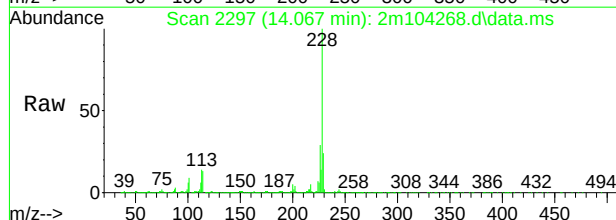
Tgt Ion	228	Resp	480401
Ion Ratio	Lower	Upper	
228	100		
229	20.3	0.0	49.5
226	27.2	0.0	57.0





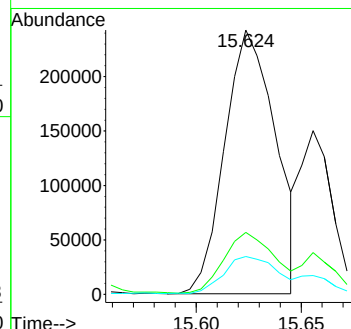
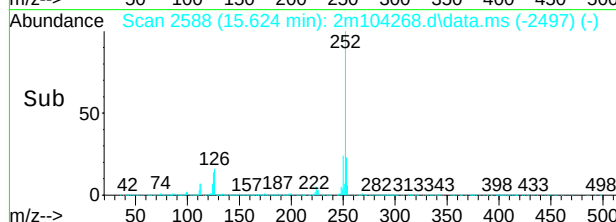
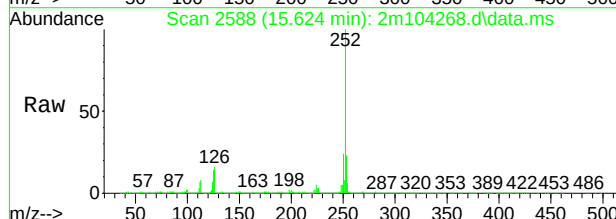
#89
Chrysene
Concen: 13.14 ppm
RT: 14.067 min Scan# 2297
Delta R.T. -0.016 min
Lab File: 2m104268.d
Acq: 22 May 2018 12:34 pm

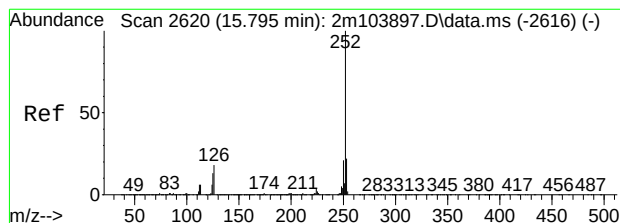
Tgt Ion	Ratio	Resp	Lower	Upper
228	100	382859		
226	28.9		0.0	58.9
229	23.1		0.0	49.4



#93
Benzo[b]fluoranthene
Concen: 13.10 ppm
RT: 15.624 min Scan# 2588
Delta R.T. -0.015 min
Lab File: 2m104268.d
Acq: 22 May 2018 12:34 pm

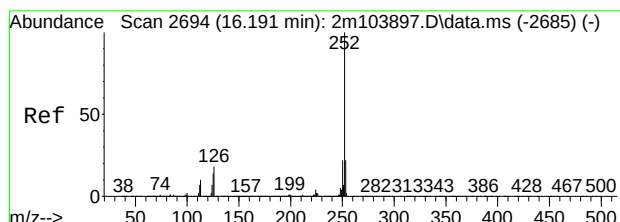
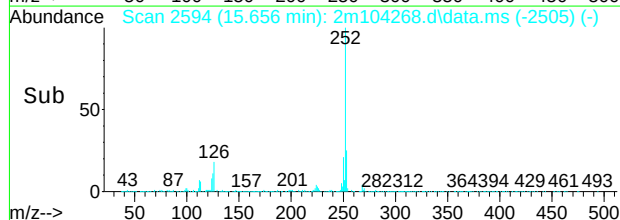
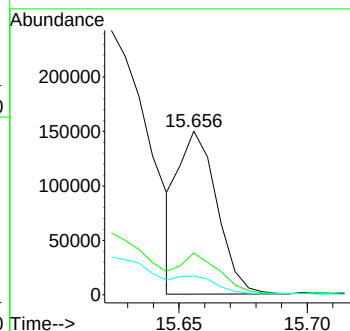
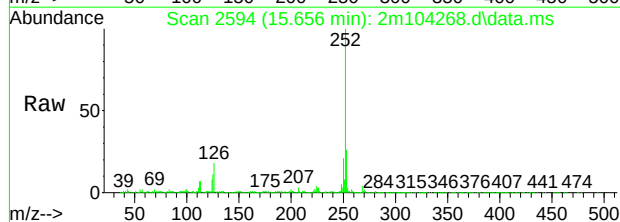
Tgt Ion	Ratio	Resp	Lower	Upper
252	100	408717		
253	23.2		0.0	53.5
125	14.1		0.0	46.0





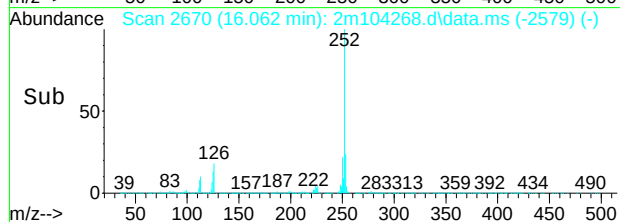
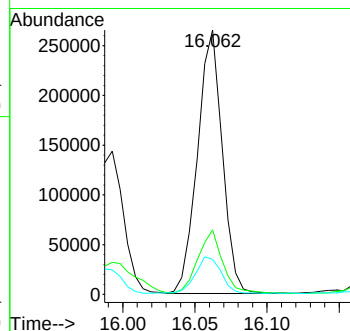
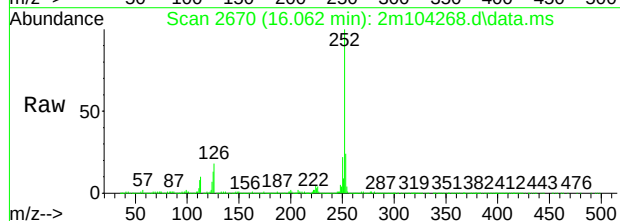
#94
Benzo[k]fluoranthene
Concen: 5.40 ppm
RT: 15.656 min Scan# 2594
Delta R.T. -0.025 min
Lab File: 2m104268.d
Acq: 22 May 2018 12:34 pm

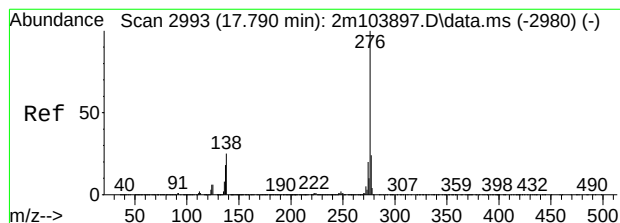
Tgt Ion	Ratio	Lower	Upper
252	100		
253	26.5	0.0	51.7
125	9.5	0.0	42.3



#95
Benzo[a]pyrene
Concen: 11.73 ppm
RT: 16.062 min Scan# 2670
Delta R.T. -0.011 min
Lab File: 2m104268.d
Acq: 22 May 2018 12:34 pm

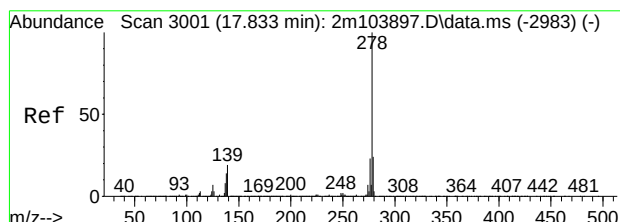
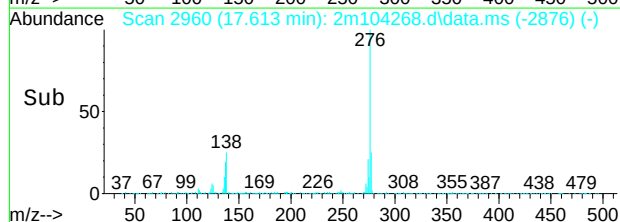
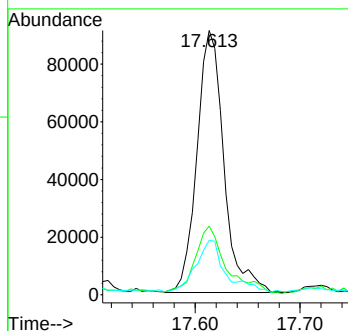
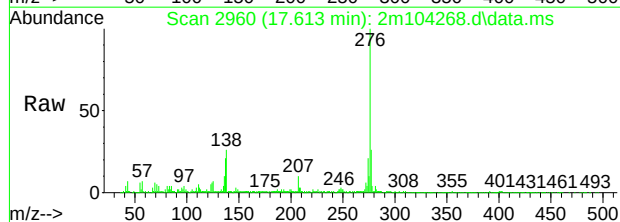
Tgt Ion	Ratio	Lower	Upper
252	100		
253	24.1	0.0	51.6
125	12.7	0.0	43.3





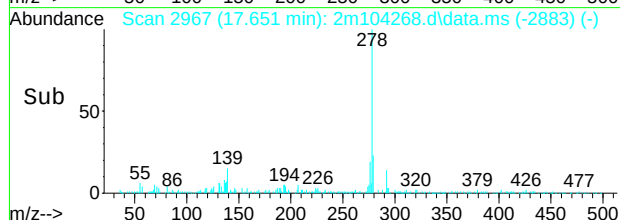
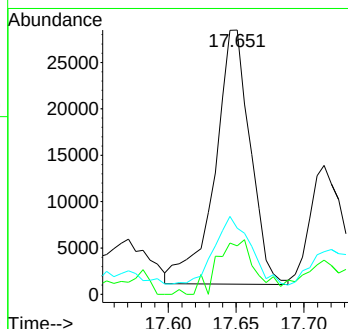
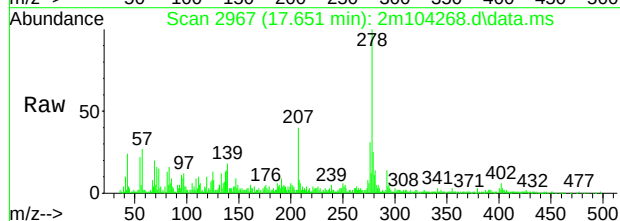
#96
Indeno[1,2,3-cd]pyrene
Concen: 6.04 ppm
RT: 17.613 min Scan# 2960
Delta R.T. -0.048 min
Lab File: 2m104268.d
Acq: 22 May 2018 12:34 pm

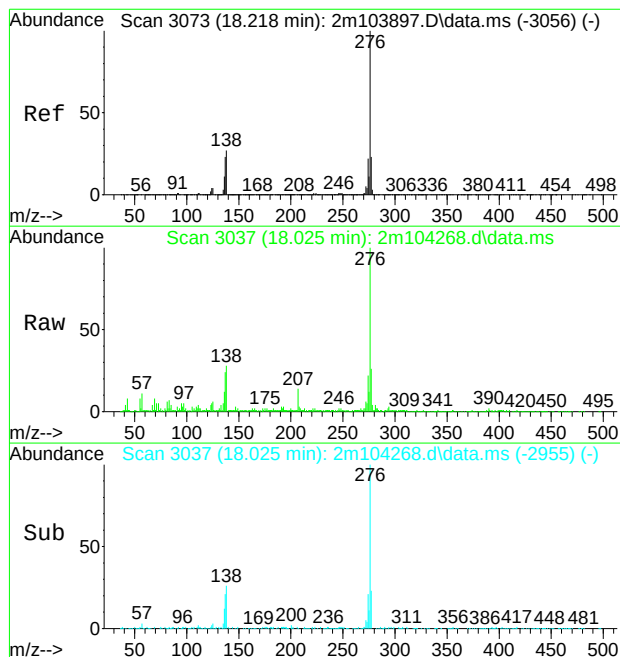
Tgt Ion: 276 Resp: 162675
Ion Ratio Lower Upper
276 100
138 25.0 0.0 50.5
137 19.6 0.0 46.8



#98
Dibenzo[a,h]anthracene
Concen: 1.80 ppm m
RT: 17.651 min Scan# 2967
Delta R.T. -0.053 min
Lab File: 2m104268.d
Acq: 22 May 2018 12:34 pm

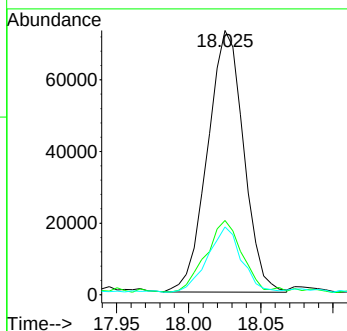
Tgt Ion: 278 Resp: 49688
Ion Ratio Lower Upper
278 100
139 18.4 0.0 50.3
279 25.0 0.0 53.5





#100
 Benzo[g,h,i]perylene
 Concen: 4.88 ppm
 RT: 18.025 min Scan# 3037
 Delta R.T. -0.061 min
 Lab File: 2m104268.d
 Acq: 22 May 2018 12:34 pm

Tgt Ion:	276	Resp:	126678
Ion Ratio	Lower	Upper	
276	100		
138	27.2	0.0	56.5
277	24.6	0.0	53.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4633\
 Data File : 2m104255.D
 Acq On : 22 May 2018 2:55 am
 Operator : johnb1
 Sample : jc66322-2
 Misc : op12121,e2m4633,30.8,,,1,1
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 24 16:59:11 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
 Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 QLast Update : Thu May 24 16:57:19 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.595	152	299726	40.00	ppm	0.00
24) Naphthalene-d8	5.675	136	1102489	40.00	ppm	0.00
47) Acenaphthene-d10	7.724	164	505727	40.00	ppm	0.01
69) Phenanthrene-d10	9.895	188	909922	40.00	ppm	0.03
83) Chrysene-d12	14.142	240	877824	40.00	ppm	0.10
91) Perylene-d12	16.260	264	979728	40.00	ppm	0.11
101) 1,4-Dichlorobenzene-d4a	4.595	152	299726	40.00	ppm	0.00
103) Acenaphthene-d10a	7.724	164	505727	40.00	ppm	0.01
105) Chrysene-d12a	14.142	240	877824	40.00	ppm	0.10
108) Phenanthrene-d10a	9.895	188	909922	40.00	ppm	0.03
112) Naphthalene-d8a	5.675	136	1102489	40.00	ppm	0.00
114) Chrysene-d12b	14.142	240	885114	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.621	112	308016	31.54	ppm	0.02
Spiked Amount 50.000			Recovery	=	63.08%	
8) Phenol-d5	4.349	99	389768	31.81	ppm	0.02
Spiked Amount 50.000			Recovery	=	63.62%	
25) Nitrobenzene-d5	5.033	82	323657	32.12	ppm	0.00
Spiked Amount 50.000			Recovery	=	64.24%	
51) 2-Fluorobiphenyl	6.857	172	628731	34.03	ppm	0.01
Spiked Amount 50.000			Recovery	=	68.06%	
73) 2,4,6-Tribromophenol	8.858	330	86014	31.25	ppm	0.03
Spiked Amount 50.000			Recovery	=	62.50%	
85) Terphenyl-d14	12.468	244	640965	33.29	ppm	0.04
Spiked Amount 50.000			Recovery	=	66.58%	
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
38) Naphthalene	5.697	128	609221	21.34	ppm	99
44) 2-Methylnaphthalene	6.419	141	108390	6.52	ppm	94
56) Acenaphthylene	7.537	152	3557873	143.93	ppm	99
59) Acenaphthene	7.767	153	381495	23.52	ppm	98
66) Fluorene	8.499	166	844729	47.79	ppm	97
77) Phenanthrene	9.938	178	5357522	206.35	ppm	99
78) Anthracene	10.018	178	5791311	222.02	ppm	98
81) Fluoranthene	11.831	202	32849412m	1233.05	ppm	
84) Pyrene	12.185	202	31962964m	1090.27	ppm	
87) Benzo[a]anthracene	14.126	228	22864334	860.74	ppm	88
89) Chrysene	14.196	228	17080226	676.72	ppm	89
93) Benzo[b]fluoranthene	15.768	252	23233275	774.78	ppm	98
94) Benzo[k]fluoranthene	15.795	252	4802857m	172.51	ppm	
95) Benzo[a]pyrene	16.207	252	16583000	637.96	ppm	97
96) Indeno[1,2,3-cd]pyrene	17.817	276	8526116	329.54	ppm	86
98) Dibenz[a,h]anthracene	17.827	278	3036595	114.21	ppm	79
100) Benzo[g,h,i]perylene	18.250	276	6654771	266.96	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4633\
Data File : 2m104255.D
Acq On : 22 May 2018 2:55 am
Operator : johnb1
Sample : jc66322-2
Misc : op12121,e2m4633,30.8,,,1,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 24 16:59:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Thu May 24 16:57:19 2018
Response via : Initial Calibration

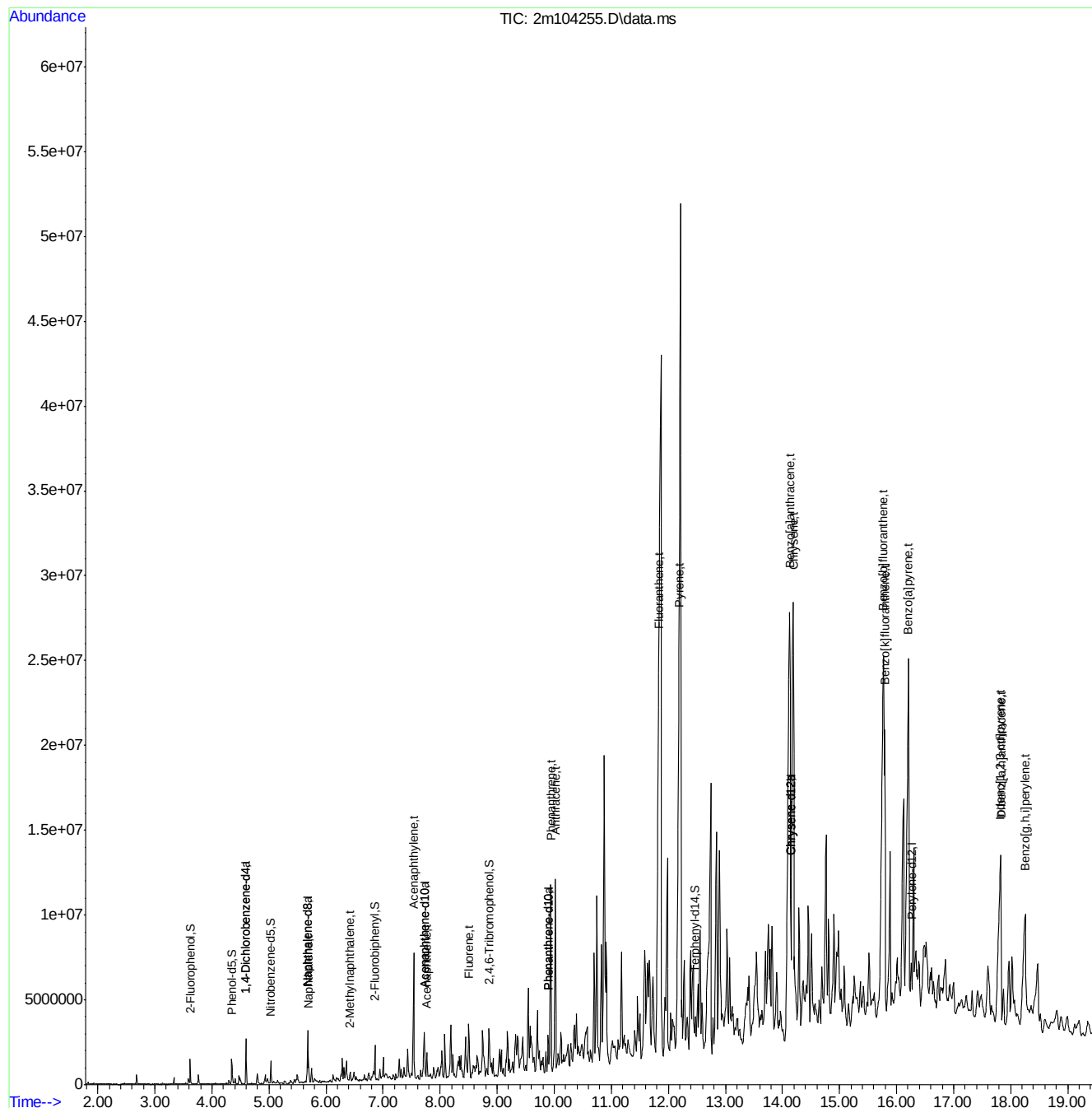
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

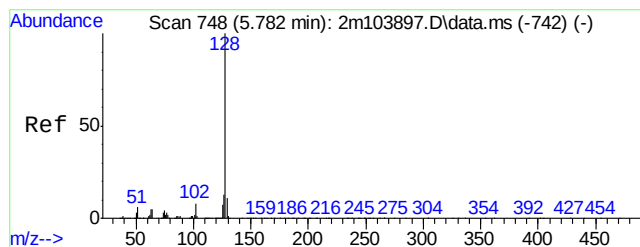
(#) = qualifier out of range (m) = manual integration (+) = signals summed						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4633\
Data File : 2m104255.D
Acq On : 22 May 2018 2:55 am
Operator : johnb1
Sample : jc66322-2
Misc : op12121,e2m4633,30.8,,,1,1
ALS Vial : 26 Sample Multiplier: 1

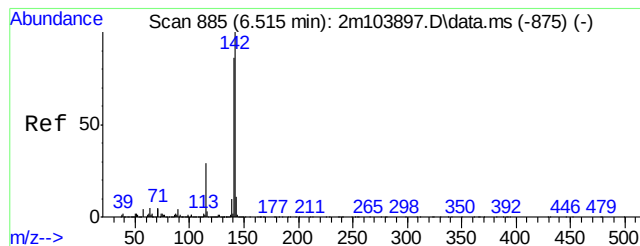
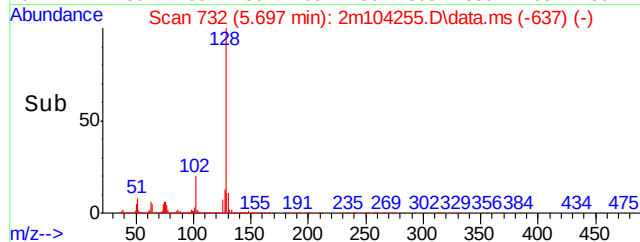
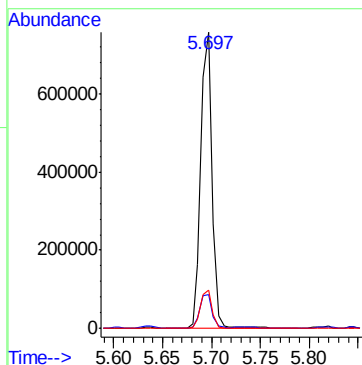
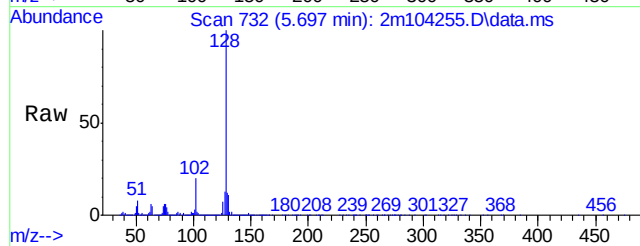
Quant Time: May 24 16:59:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Thu May 24 16:57:19 2018
Response via : Initial Calibration





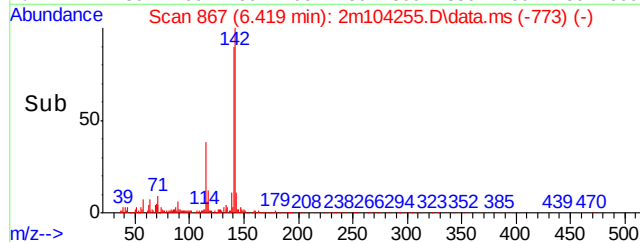
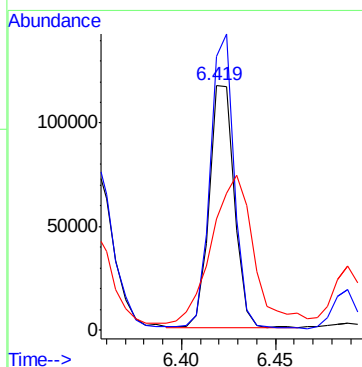
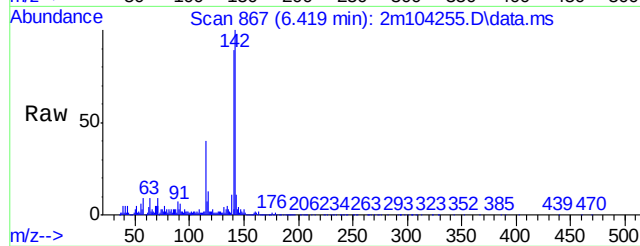
#38
Naphthalene
Concen: 21.34 ppm
RT: 5.697 min Scan# 732
Delta R.T. 0.011 min
Lab File: 2m104255.D
Acq: 22 May 2018 2:55 am

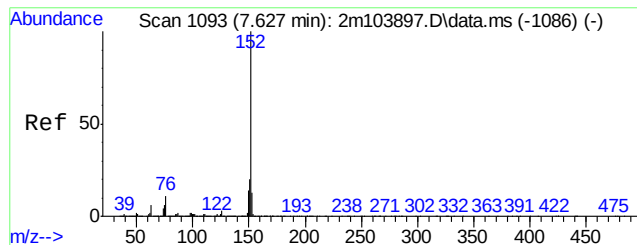
Tgt Ion	Ratio	Lower	Upper
128	100		
129	11.4	0.0	40.7
127	13.0	0.0	42.5



#44
2-Methylnaphthalene
Concen: 6.52 ppm
RT: 6.419 min Scan# 867
Delta R.T. 0.005 min
Lab File: 2m104255.D
Acq: 22 May 2018 2:55 am

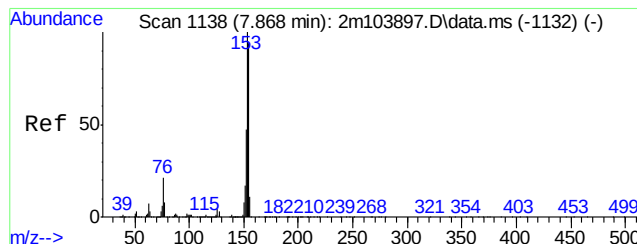
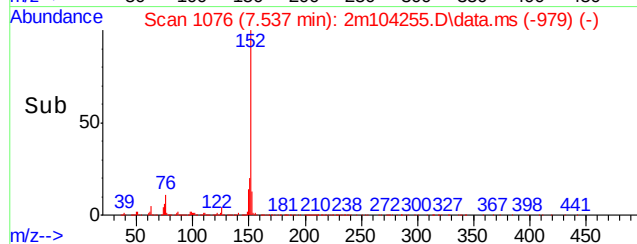
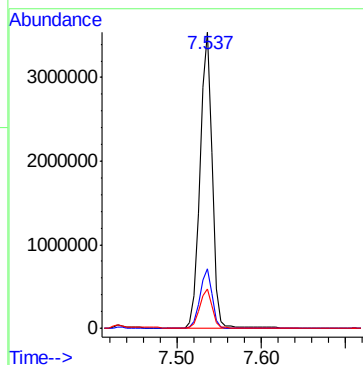
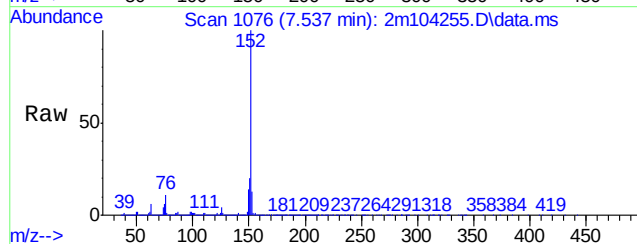
Tgt Ion	Ratio	Lower	Upper
141	100		
142	111.9	86.4	146.4
115	40.9	3.6	63.6





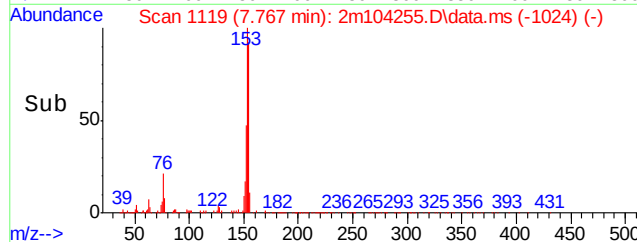
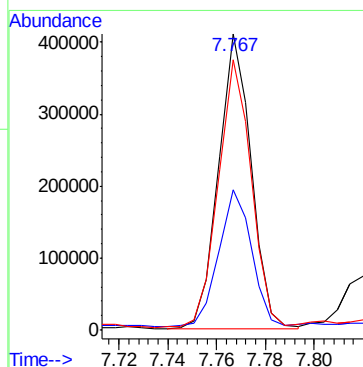
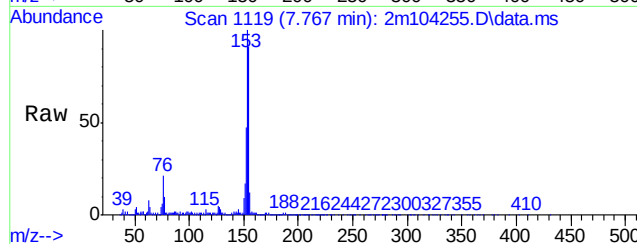
#56
Acenaphthylene
Concen: 143.93 ppm
RT: 7.537 min Scan# 1076
Delta R.T. 0.021 min
Lab File: 2m104255.D
Acq: 22 May 2018 2:55 am

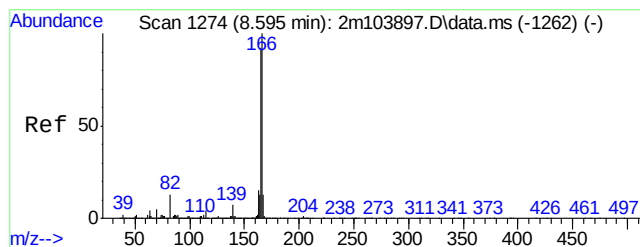
Tgt Ion:	152	Resp:	3557873
Ion Ratio	Lower	Upper	
152	100		
151	20.2	0.0	49.6
153	13.0	0.0	42.8



#59
Acenaphthene
Concen: 23.52 ppm
RT: 7.767 min Scan# 1119
Delta R.T. 0.011 min
Lab File: 2m104255.D
Acq: 22 May 2018 2:55 am

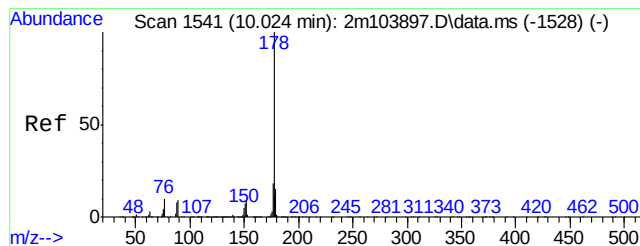
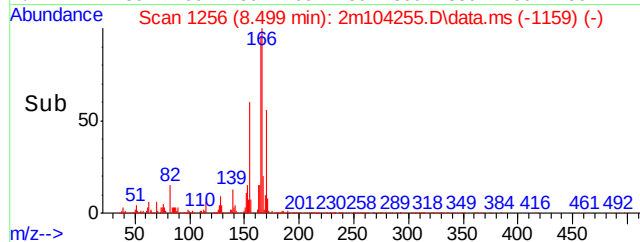
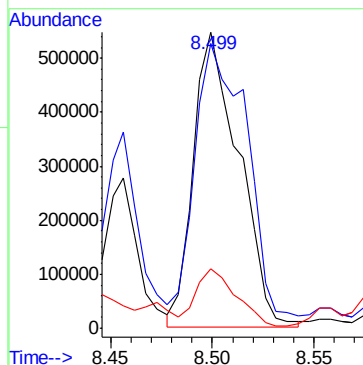
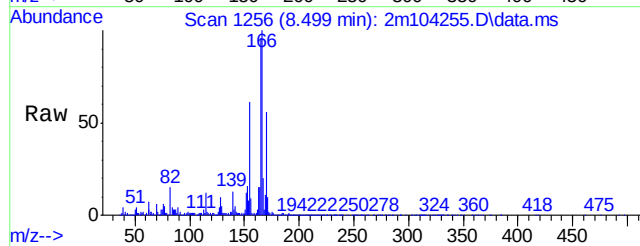
Tgt Ion:	153	Resp:	381495
Ion Ratio	Lower	Upper	
153	100		
152	46.1	17.1	77.1
154	90.5	62.8	122.8





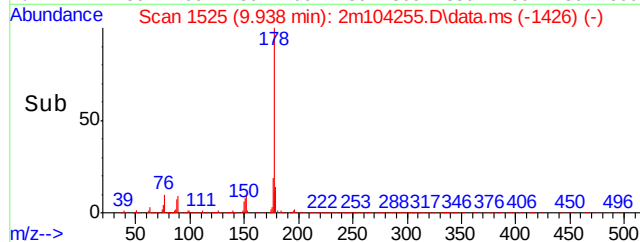
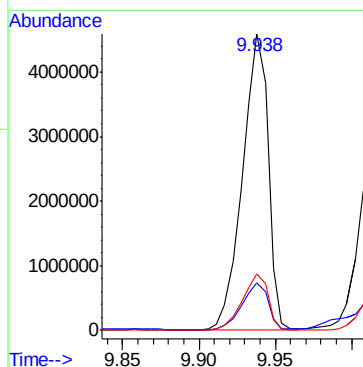
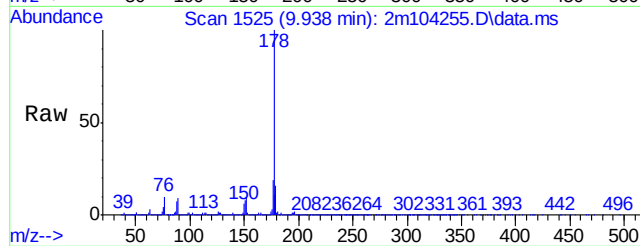
#66
Fluorene
Concen: 47.79 ppm
RT: 8.499 min Scan# 1256
Delta R.T. 0.021 min
Lab File: 2m104255.D
Acq: 22 May 2018 2:55 am

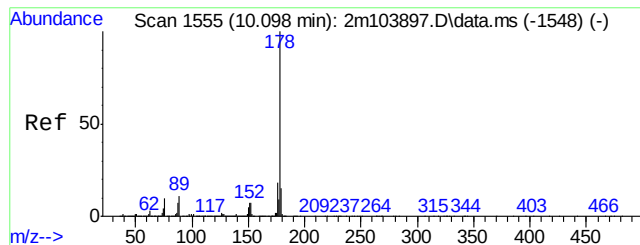
Tgt Ion	Ratio	Lower	Upper
166	100		
165	93.4	62.0	122.0
167	16.9	0.0	42.9



#77
Phenanthrene
Concen: 206.35 ppm
RT: 9.938 min Scan# 1525
Delta R.T. 0.032 min
Lab File: 2m104255.D
Acq: 22 May 2018 2:55 am

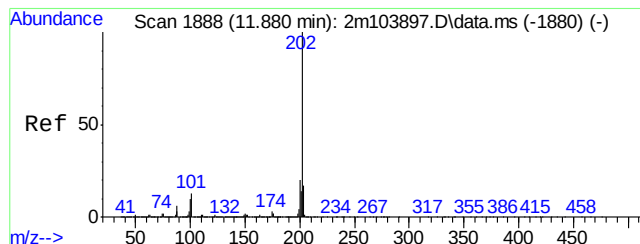
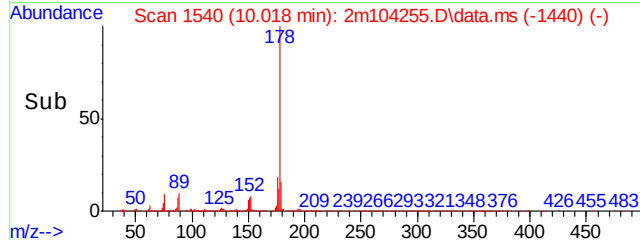
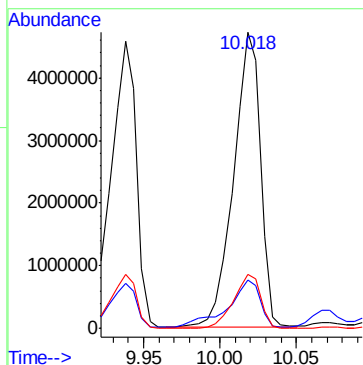
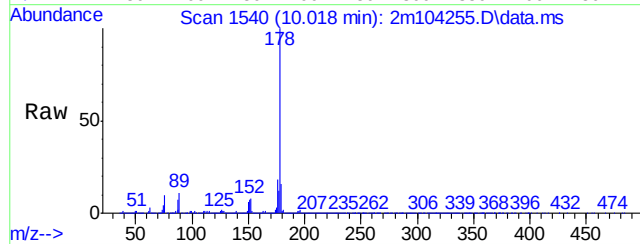
Tgt Ion	Ratio	Lower	Upper
178	100		
179	15.6	0.0	45.2
176	18.9	0.0	48.5





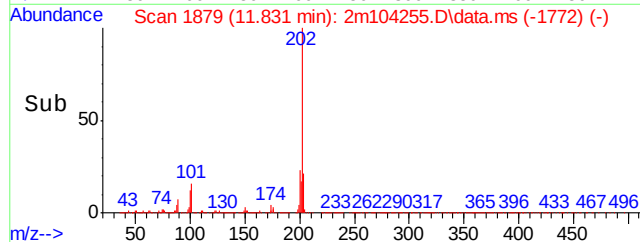
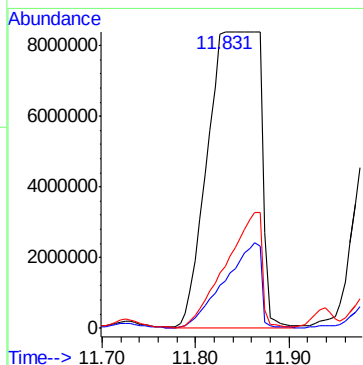
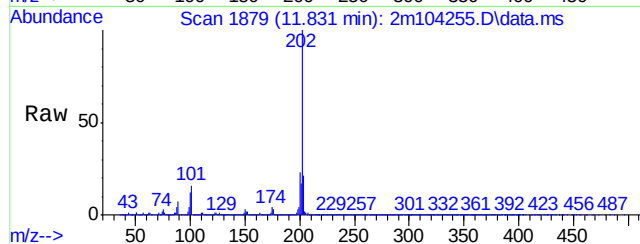
#78
 Anthracene
 Concen: 222.02 ppm
 RT: 10.018 min Scan# 1540
 Delta R.T. 0.037 min
 Lab File: 2m104255.D
 Acq: 22 May 2018 2:55 am

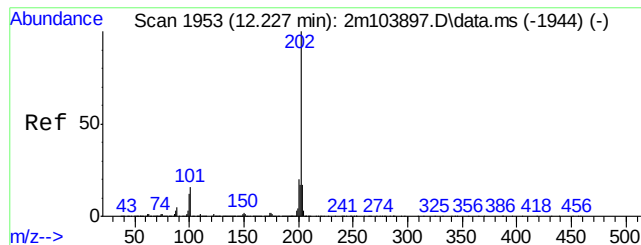
Tgt Ion:178 Resp: 5791311
 Ion Ratio Lower Upper
 178 100
 179 16.0 0.0 45.1
 176 18.1 0.0 47.7



#81
 Fluoranthene
 Concen: 1233.05 ppm m
 RT: 11.831 min Scan# 1879
 Delta R.T. 0.075 min
 Lab File: 2m104255.D
 Acq: 22 May 2018 2:55 am

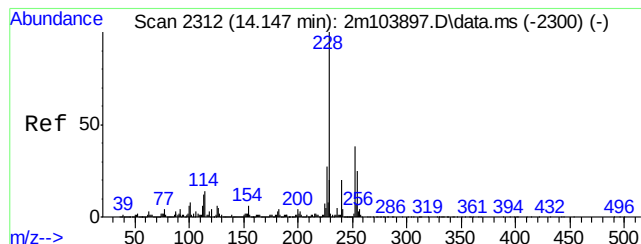
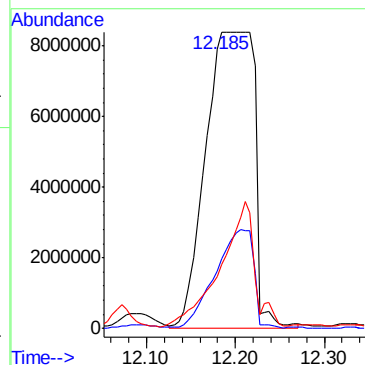
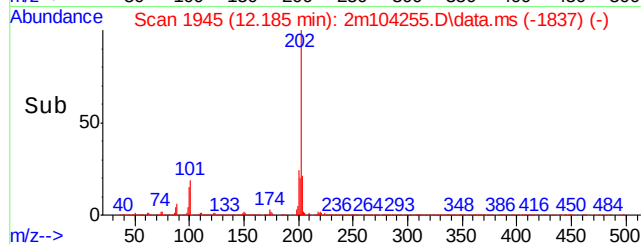
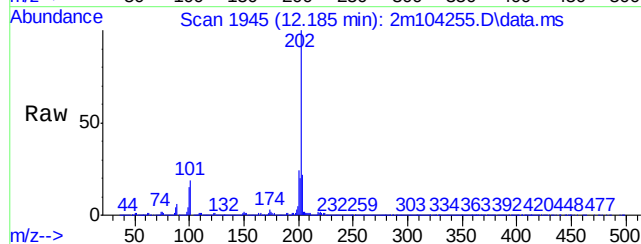
Tgt Ion:202 Resp:32849412
 Ion Ratio Lower Upper
 202 100
 101 15.9 0.0 43.1
 203 21.0 0.0 47.0





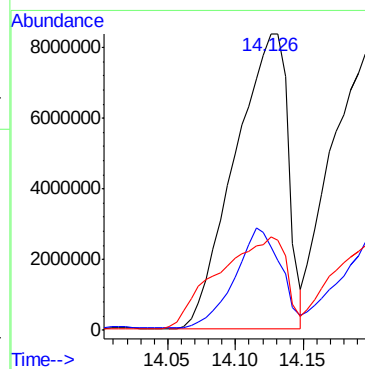
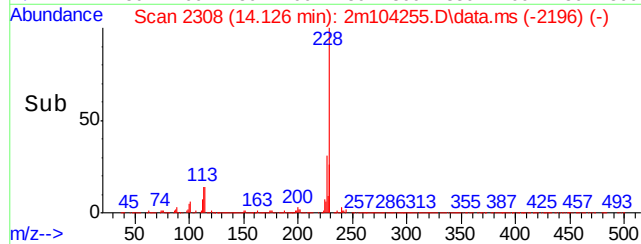
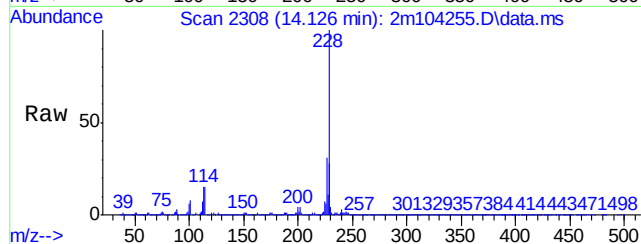
#84
Pyrene
Concen: 1090.27 ppm
RT: 12.185 min Scan# 1945
Delta R.T. 0.080 min
Lab File: 2m104255.D
Acq: 22 May 2018 2:55 am

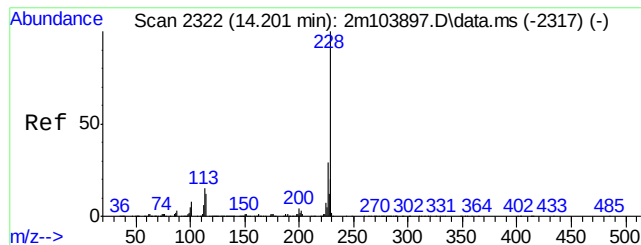
Tgt Ion:	202	Resp:	31962964
Ion Ratio	Lower	Upper	
202	100		
200	23.7	0.0	50.0
203	21.7	0.0	47.3



#87
Benzo[a]anthracene
Concen: 860.74 ppm
RT: 14.126 min Scan# 2308
Delta R.T. 0.102 min
Lab File: 2m104255.D
Acq: 22 May 2018 2:55 am

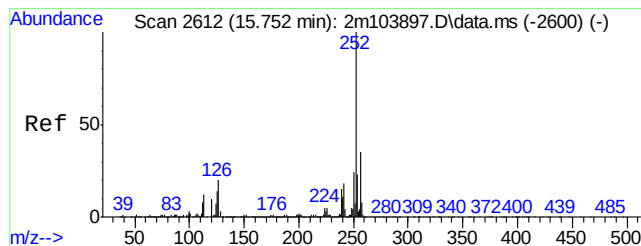
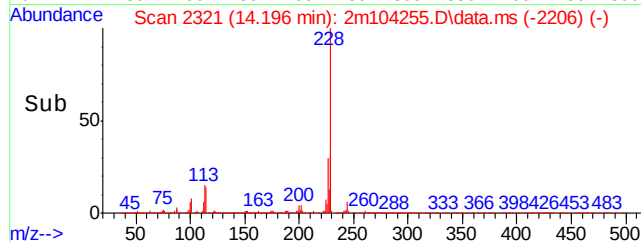
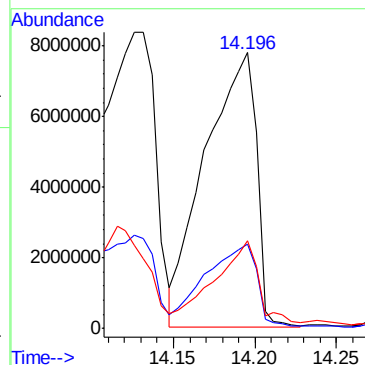
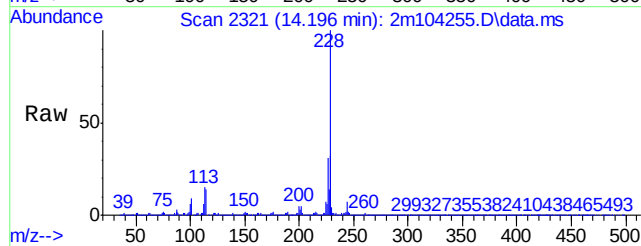
Tgt Ion:	228	Resp:	22864334
Ion Ratio	Lower	Upper	
228	100		
229	27.3	0.0	49.8
226	30.8	0.0	56.6





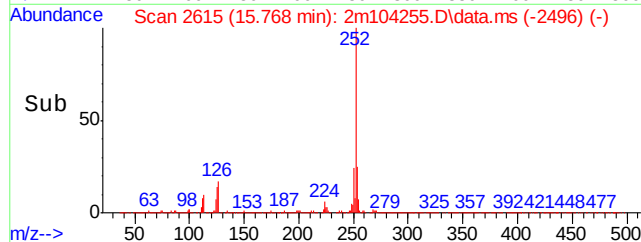
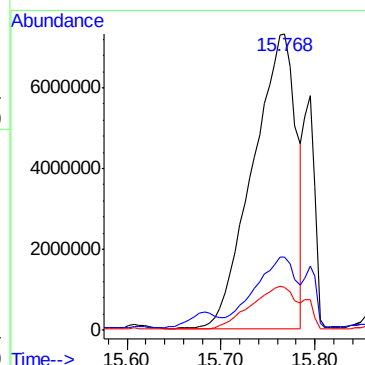
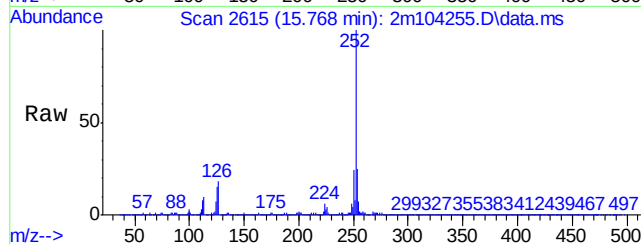
#89
Chrysene
Concen: 676.72 ppm
RT: 14.196 min Scan# 2321
Delta R.T. 0.118 min
Lab File: 2m104255.D
Acq: 22 May 2018 2:55 am

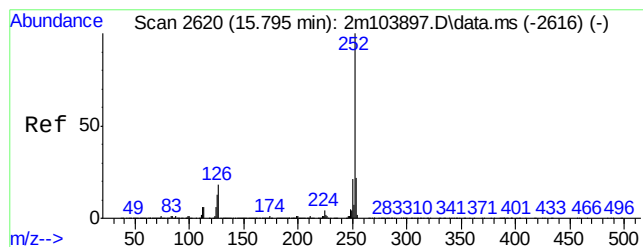
Tgt Ion:	228	Resp:	17080226
Ion Ratio	Lower	Upper	
228	100		
226	30.3	0.0	58.8
229	30.5	0.0	49.8



#93
Benzo[b]fluoranthene
Concen: 774.78 ppm
RT: 15.768 min Scan# 2615
Delta R.T. 0.139 min
Lab File: 2m104255.D
Acq: 22 May 2018 2:55 am

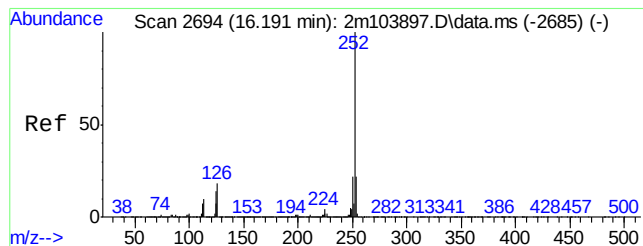
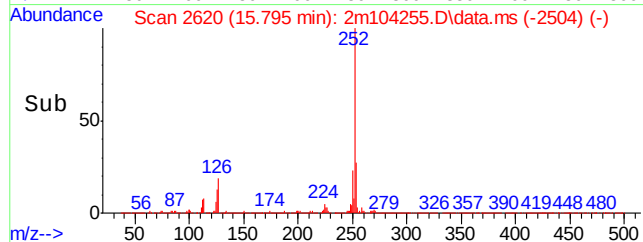
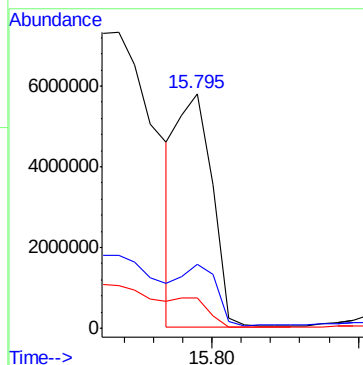
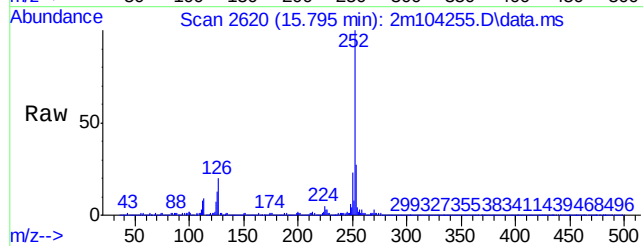
Tgt Ion:	252	Resp:	23233275
Ion Ratio	Lower	Upper	
252	100		
253	24.4	0.0	52.5
125	14.3	0.0	44.3





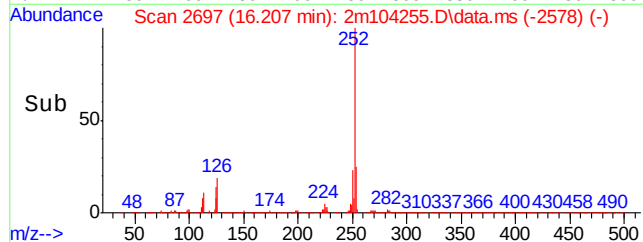
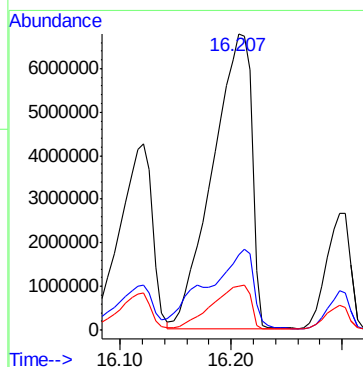
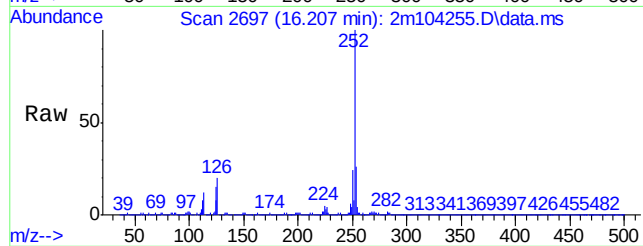
#94
Benzo[k]fluoranthene
Concen: 172.51 ppm
RT: 15.795 min Scan# 2620
Delta R.T. 0.123 min
Lab File: 2m104255.D
Acq: 22 May 2018 2:55 am

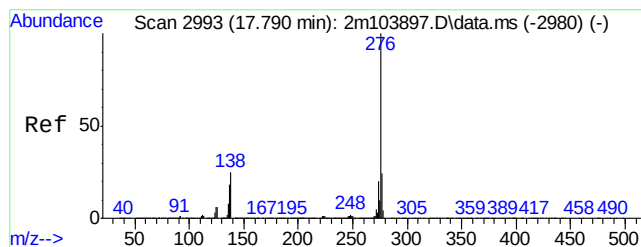
Tgt Ion:	252	Resp:	4802857
Ion Ratio	Lower	Upper	
252	100		
253	27.2	0.0	51.8
125	13.1	0.0	42.9



#95
Benzo[a]pyrene
Concen: 637.96 ppm
RT: 16.207 min Scan# 2697
Delta R.T. 0.139 min
Lab File: 2m104255.D
Acq: 22 May 2018 2:55 am

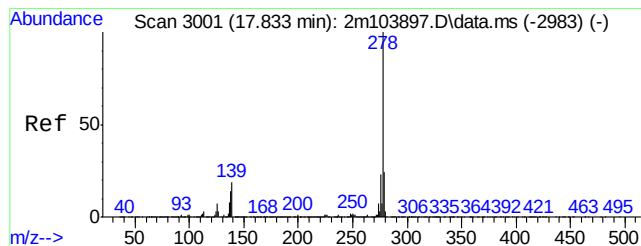
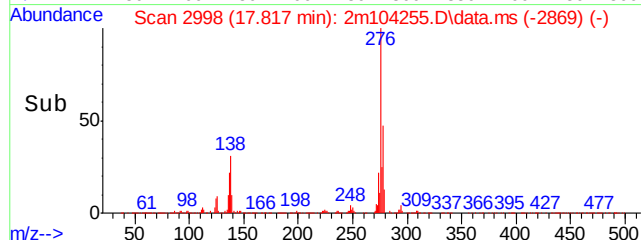
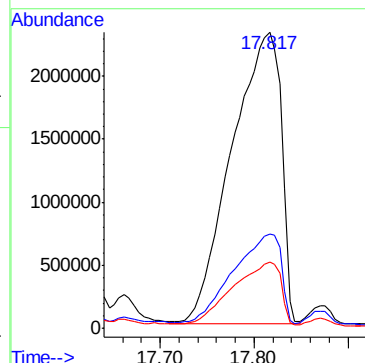
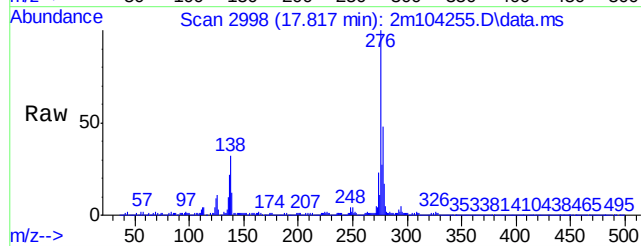
Tgt Ion:	252	Resp:	16583000
Ion Ratio	Lower	Upper	
252	100		
253	23.7	0.0	51.6
125	14.5	0.0	44.0





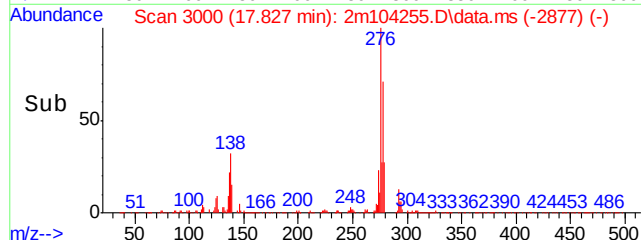
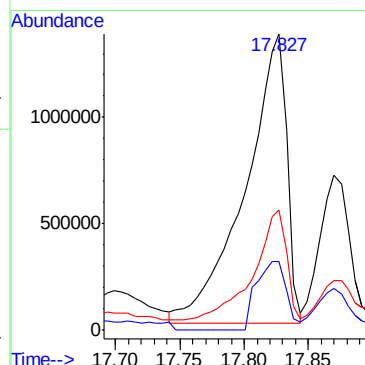
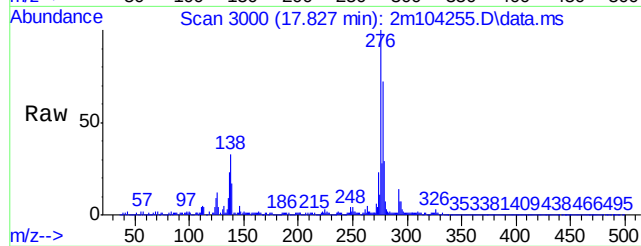
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 329.54 ppm
 RT: 17.817 min Scan# 2998
 Delta R.T. 0.193 min
 Lab File: 2m104255.D
 Acq: 22 May 2018 2:55 am

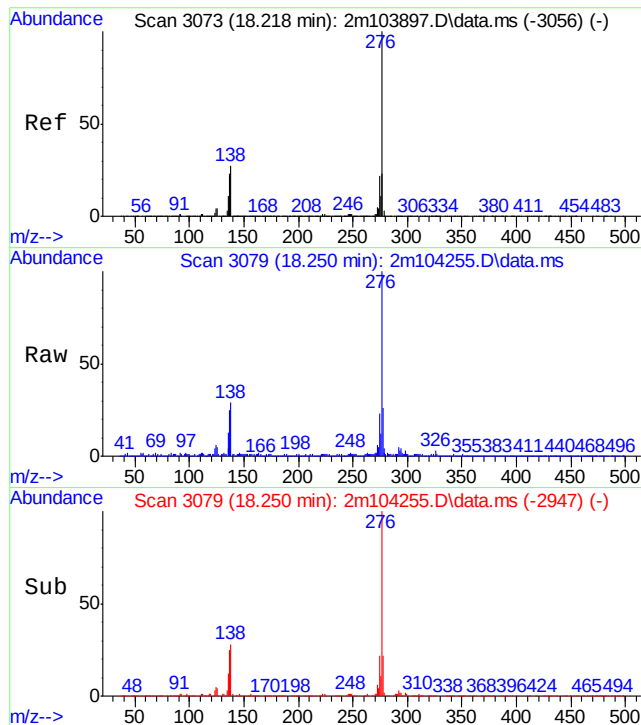
Tgt Ion:	276	Resp:	8526116
Ion Ratio	Lower	Upper	
276	100		
138	30.7	0.0	52.7
137	21.5	0.0	46.8



#98
 Dibenzo[a,h]anthracene
 Concen: 114.21 ppm
 RT: 17.827 min Scan# 3000
 Delta R.T. 0.160 min
 Lab File: 2m104255.D
 Acq: 22 May 2018 2:55 am

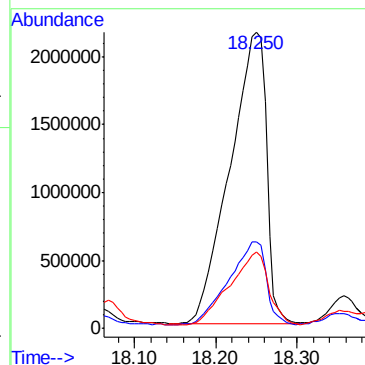
Tgt Ion:	278	Resp:	3036595
Ion Ratio	Lower	Upper	
278	100		
139	22.0	0.0	48.9
279	39.2	0.0	53.6





#100
Benzo[g,h,i]perylene
Concen: 266.96 ppm
RT: 18.250 min Scan# 3079
Delta R.T. 0.209 min
Lab File: 2m104255.D
Acq: 22 May 2018 2:55 am

Tgt Ion: 276 Resp: 6654771
Ion Ratio Lower Upper
276 100
138 28.4 0.0 57.0
277 24.8 0.0 53.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4635\
 Data File : 2m104312.D
 Acq On : 23 May 2018 9:08 am
 Operator : georges
 Sample : jc66322-2
 Misc : op12121,e2m4635,30.8,,,1,20
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 23 18:11:36 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
 Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 QLast Update : Thu May 17 13:00:25 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.579	152	304751	40.00	ppm	-0.09
24) Naphthalene-d8	5.654	136	1208222	40.00	ppm	-0.11
47) Acenaphthene-d10	7.692	164	593781	40.00	ppm	-0.13
69) Phenanthrene-d10	9.853	188	1093938	40.00	ppm	-0.13
83) Chrysene-d12	14.030	240	988675	40.00	ppm	-0.13
91) Perylene-d12	16.137	264	1018918	40.00	ppm	-0.13
101) 1,4-Dichlorobenzene-d4a	4.579	152	304751	40.00	ppm	-0.09
103) Acenaphthene-d10a	7.692	164	593781	40.00	ppm	-0.13
105) Chrysene-d12a	14.030	240	988675	40.00	ppm	-0.12
108) Phenanthrene-d10a	9.853	188	1093938	40.00	ppm	-0.13
112) Naphthalene-d8a	5.654	136	1208222	40.00	ppm	-0.10
114) Chrysene-d12b	14.030	240	988675	40.00	ppm	-0.12
System Monitoring Compounds						
5) 2-Fluorophenol	3.600	112	17993	1.81	ppm	-0.07
Spiked Amount	50.000		Recovery	=	3.62%	
8) Phenol-d5	4.327	99	23605	1.89	ppm	-0.07
Spiked Amount	50.000		Recovery	=	3.78%	
25) Nitrobenzene-d5	5.012	82	19118	1.73	ppm	-0.10
Spiked Amount	50.000		Recovery	=	3.46%	
51) 2-Fluorobiphenyl	6.831	172	40102	1.85	ppm	-0.12
Spiked Amount	50.000		Recovery	=	3.70%	
73) 2,4,6-Tribromophenol	8.815	330	5754	1.74	ppm	-0.13
Spiked Amount	50.000		Recovery	=	3.48%	
85) Terphenyl-d14	12.404	244	43796	2.02	ppm	-0.14
Spiked Amount	50.000		Recovery	=	4.04%	
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
38) Naphthalene	5.670	128	36786	1.18	ppm	98
56) Acenaphthylene	7.499	152	193855	6.68	ppm	99
59) Acenaphthene	7.735	153	24124	1.27	ppm	97
66) Fluorene	8.462	166	54861	2.64	ppm	98
77) Phenanthrene	9.885	178	353724	11.33	ppm	99
78) Anthracene	9.965	178	338005	10.78	ppm	99
79) Carbazole	10.238	167	29094	0.99	ppm	99
81) Fluoranthene	11.751	202	3104689	96.94	ppm	99
84) Pyrene	12.094	202	2553276	77.33	ppm	96
87) Benzo[a]anthracene	14.014	228	1459375	48.78	ppm	100
89) Chrysene	14.067	228	1090008	38.34	ppm	97
93) Benzo[b]fluoranthene	15.624	252	1232063	39.51	ppm	100
94) Benzo[k]fluoranthene	15.651	252	505264	17.45	ppm	97
95) Benzo[a]pyrene	16.057	252	1006043	37.21	ppm	98
96) Indeno[1,2,3-cd]pyrene	17.608	276	511479	19.01	ppm	98
98) Dibenzo[a,h]anthracene	17.640	278	139720m	5.05	ppm	
100) Benzo[g,h,i]perylene	18.020	276	393118	15.16	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4635\
Data File : 2m104312.D
Acq On : 23 May 2018 9:08 am
Operator : georges
Sample : jc66322-2
Misc : op12121,e2m4635,30.8,,,1,20
ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 23 18:11:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Thu May 17 13:00:25 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

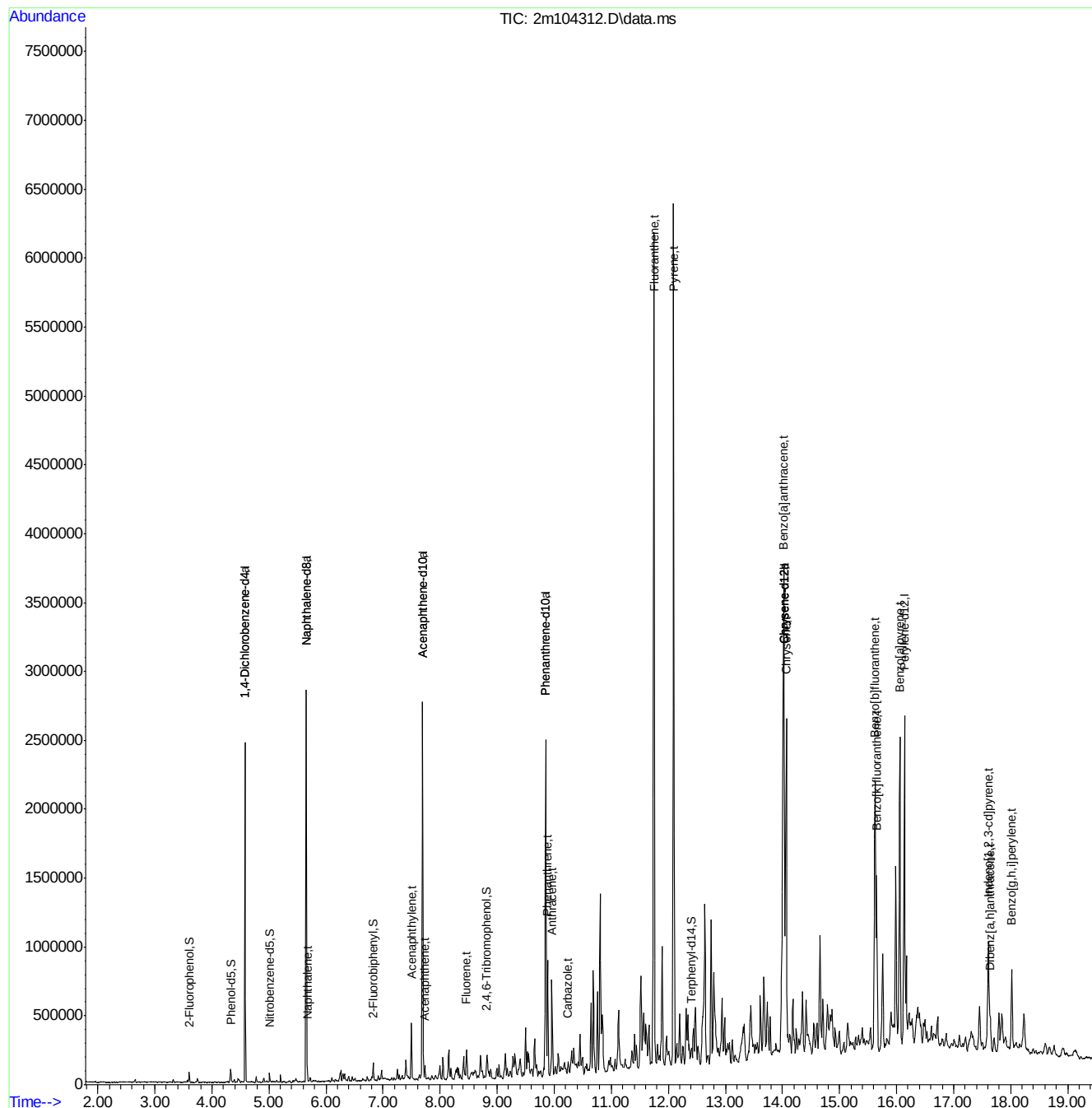
(#) = qualifier out of range (m) = manual integration (+) = signals summed						

7.1.4
7

Quantitation Report (QT Reviewed)

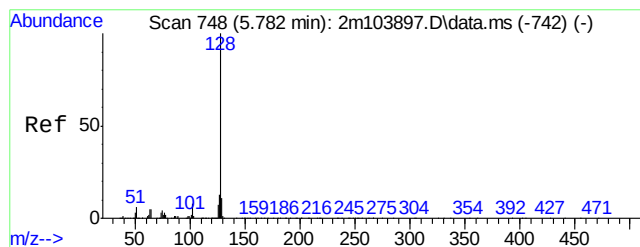
Data Path : C:\msdchem\1\DATA\E2M4635\
Data File : 2m104312.D
Acq On : 23 May 2018 9:08 am
Operator : georges
Sample : jc66322-2
Misc : op12121,e2m4635,30.8,,,1,20
ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 23 18:11:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Thu May 17 13:00:25 2018
Response via : Initial Calibration



M2M4618.M Thu May 24 17:13:37 2018

Page: 3



#38

Naphthalene

Concen: 1.18 ppm

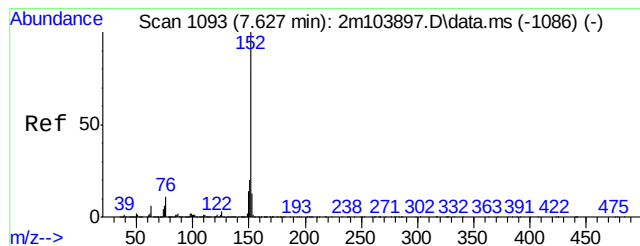
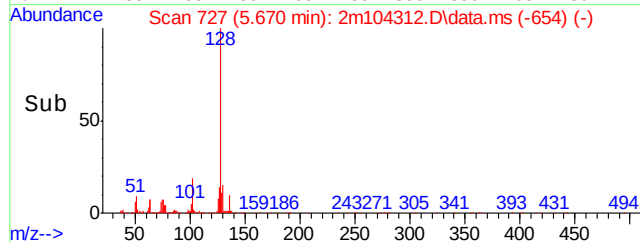
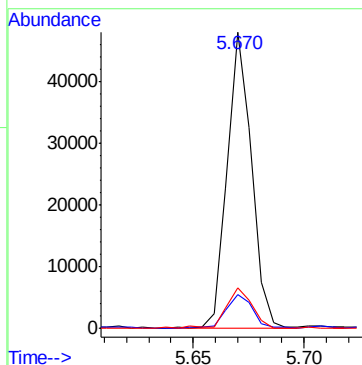
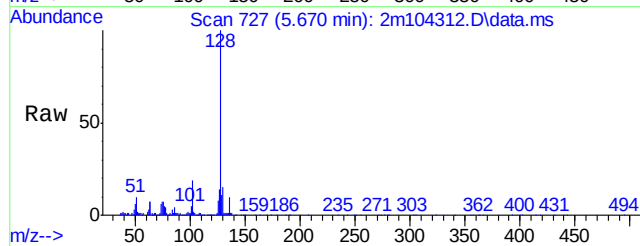
RT: 5.670 min Scan# 727

Delta R.T. -0.112 min

Lab File: 2m104312.D

Acq: 23 May 2018 9:08 am

Tgt Ion:	128	Resp:	36786
Ion Ratio	Lower	Upper	
128	100		
129	11.1	0.0	40.7
127	13.6	0.0	42.5



#56

Acenaphthylene

Concen: 6.68 ppm

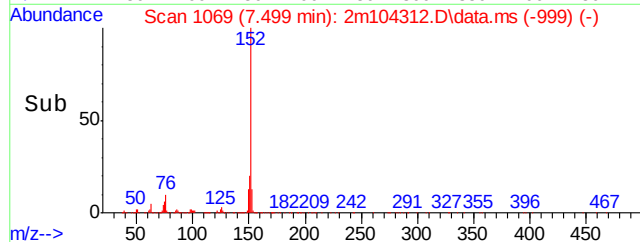
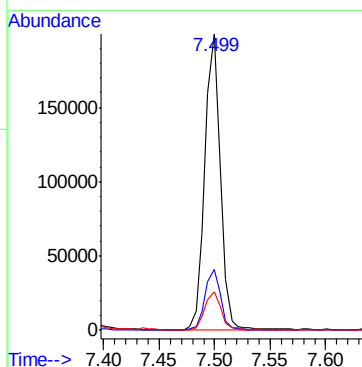
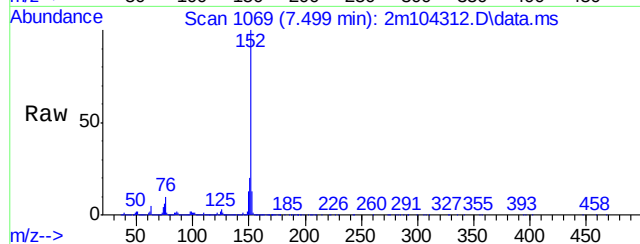
RT: 7.499 min Scan# 1069

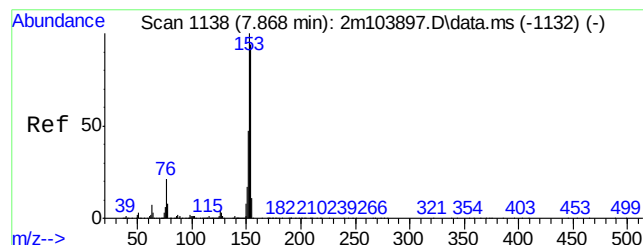
Delta R.T. -0.128 min

Lab File: 2m104312.D

Acq: 23 May 2018 9:08 am

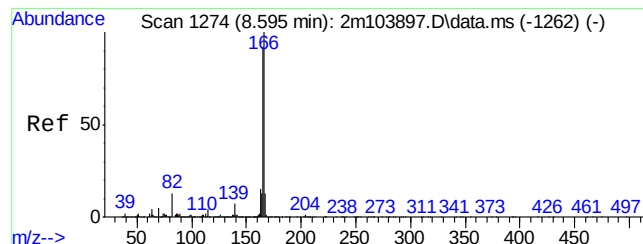
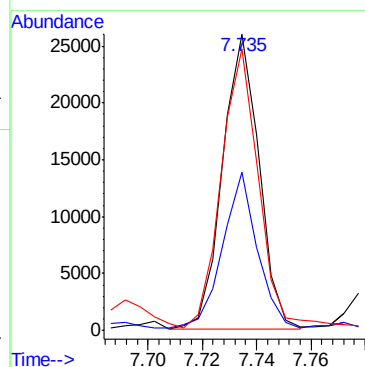
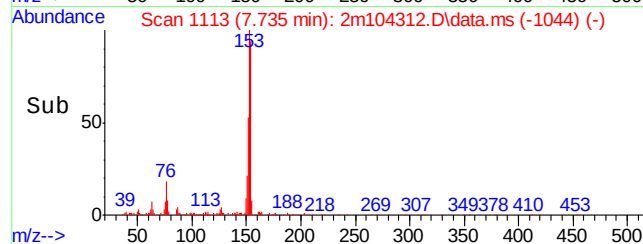
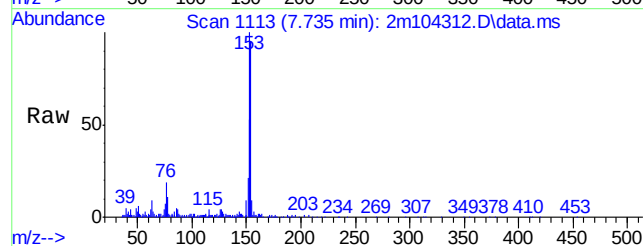
Tgt Ion:	152	Resp:	193855
Ion Ratio	Lower	Upper	
152	100		
151	20.4	0.0	49.6
153	12.8	0.0	42.8





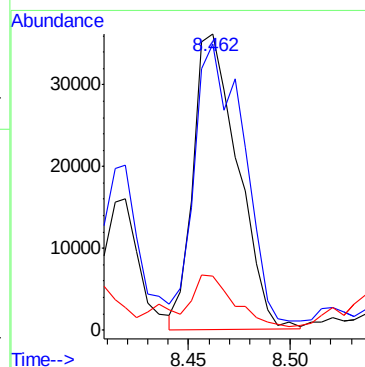
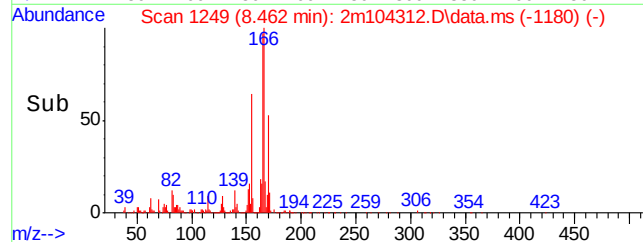
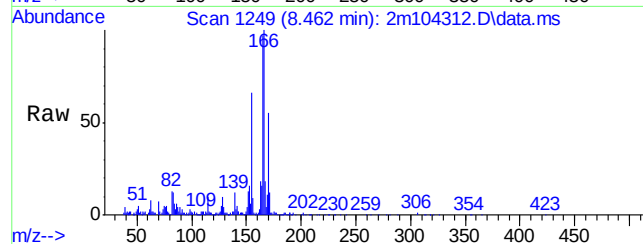
#59
Acenaphthene
Concen: 1.27 ppm
RT: 7.735 min Scan# 1113
Delta R.T. -0.134 min
Lab File: 2m104312.D
Acq: 23 May 2018 9:08 am

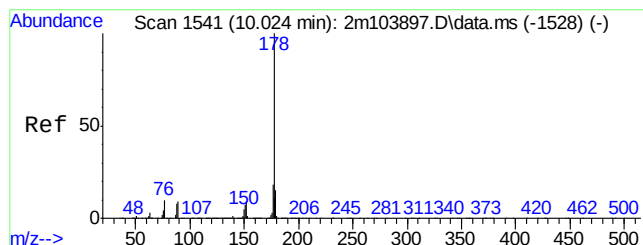
Tgt Ion	Ratio	Lower	Upper
153	100		
152	53.1	17.1	77.1
154	93.0	62.8	122.8



#66
Fluorene
Concen: 2.64 ppm
RT: 8.462 min Scan# 1249
Delta R.T. -0.134 min
Lab File: 2m104312.D
Acq: 23 May 2018 9:08 am

Tgt Ion	Ratio	Lower	Upper
166	100		
165	93.6	62.0	122.0
167	14.4	0.0	42.9





#77

Phenanthrene

Concen: 11.33 ppm

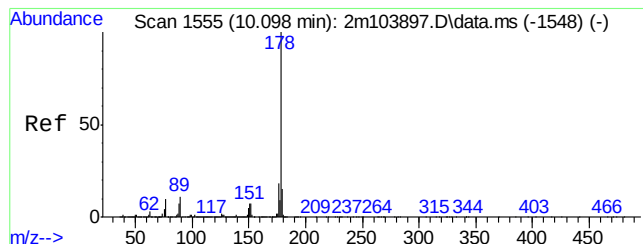
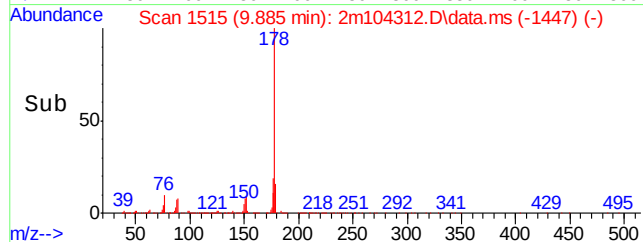
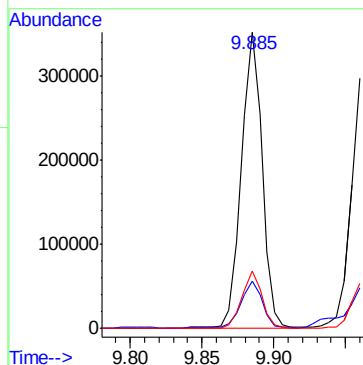
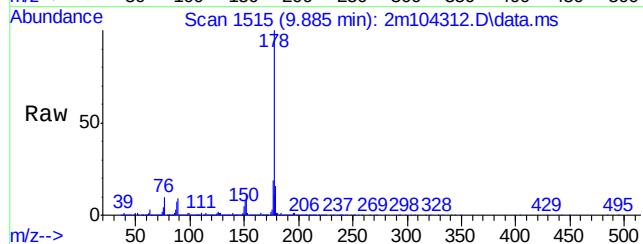
RT: 9.885 min Scan# 1515

Delta R.T. -0.139 min

Lab File: 2m104312.D

Acq: 23 May 2018 9:08 am

Tgt Ion:	178	Resp:	353724
Ion Ratio	Lower	Upper	
178	100		
179	15.7	0.0	45.2
176	19.2	0.0	48.5



#78

Anthracene

Concen: 10.78 ppm

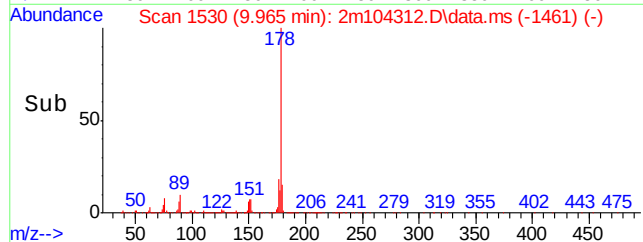
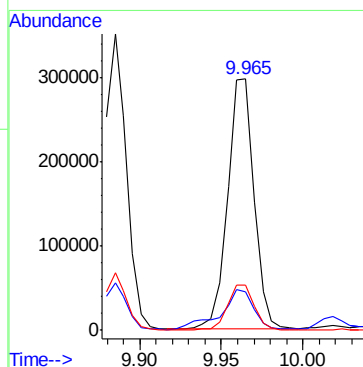
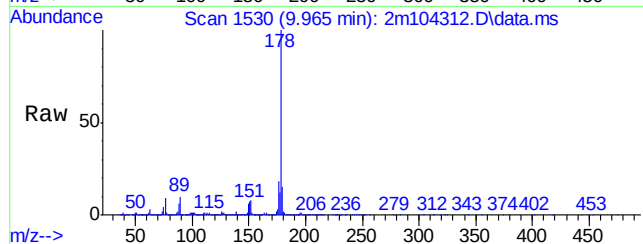
RT: 9.965 min Scan# 1530

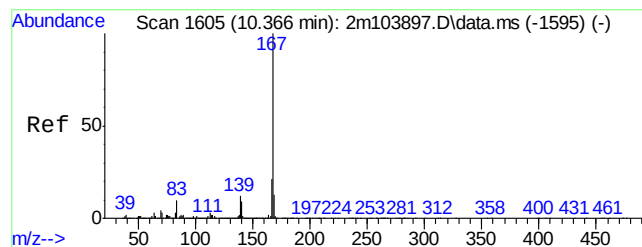
Delta R.T. -0.134 min

Lab File: 2m104312.D

Acq: 23 May 2018 9:08 am

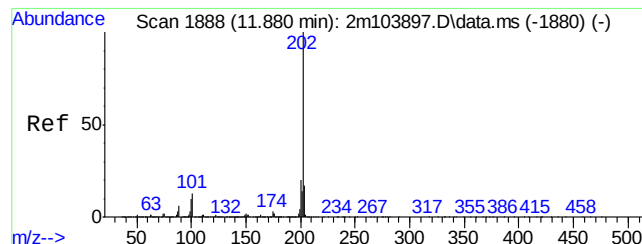
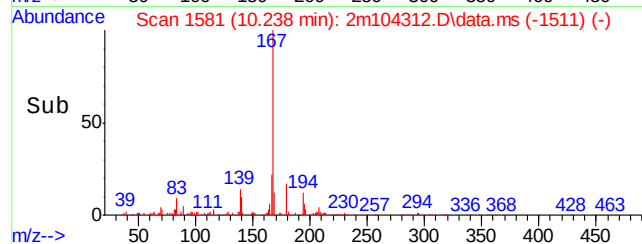
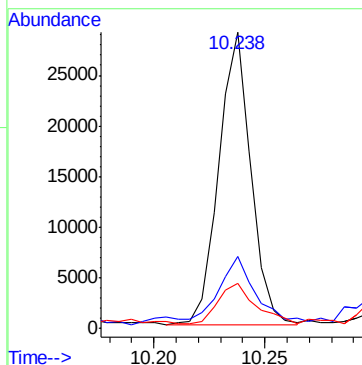
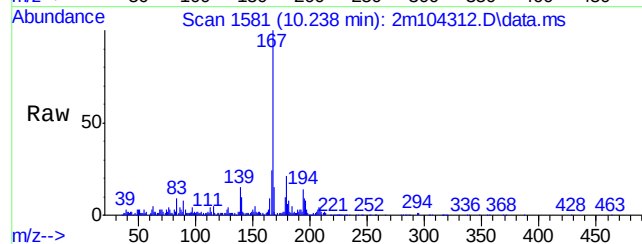
Tgt Ion:	178	Resp:	338005
Ion Ratio	Lower	Upper	
178	100		
179	14.7	0.0	45.1
176	17.9	0.0	47.7





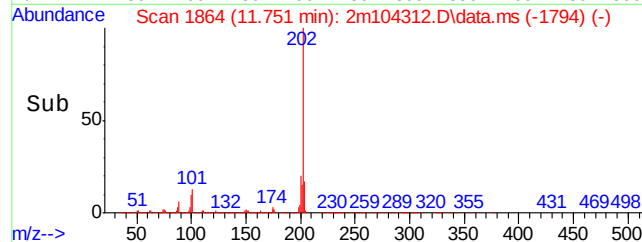
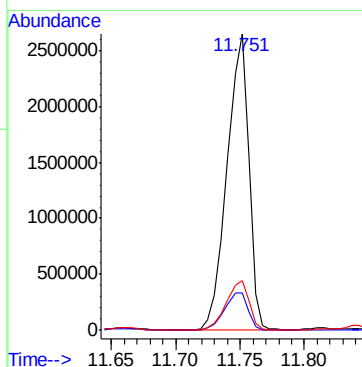
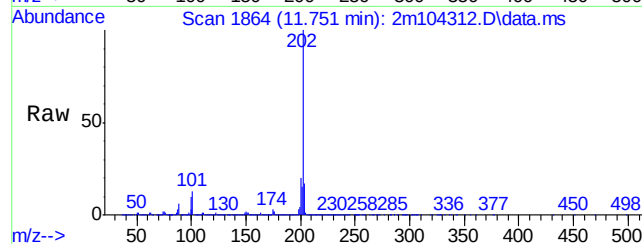
#79
Carbazole
Concen: 0.99 ppm
RT: 10.238 min Scan# 1581
Delta R.T. -0.128 min
Lab File: 2m104312.D
Acq: 23 May 2018 9:08 am

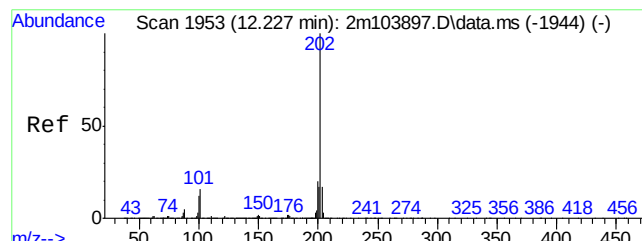
Tgt Ion	Ratio	Lower	Upper
167	100		
166	21.0	0.0	50.9
139	13.3	0.0	42.3



#81
Fluoranthene
Concen: 96.94 ppm
RT: 11.751 min Scan# 1864
Delta R.T. -0.128 min
Lab File: 2m104312.D
Acq: 23 May 2018 9:08 am

Tgt Ion	Ratio	Lower	Upper
202	100		
101	12.7	0.0	43.1
203	16.8	0.0	47.0





#84

Pyrene

Concen: 77.33 ppm

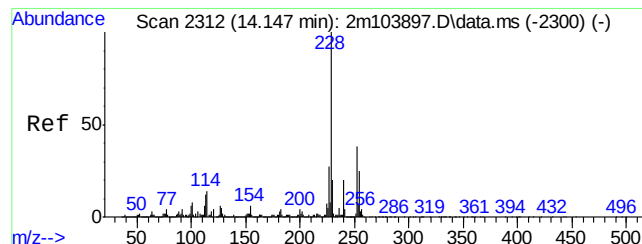
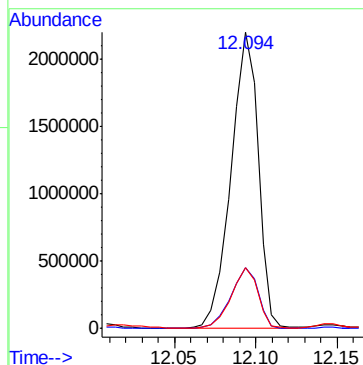
RT: 12.094 min Scan# 1928

Delta R.T. -0.133 min

Lab File: 2m104312.D

Acq: 23 May 2018 9:08 am

Tgt Ion:	202	Resp:	2553276
Ion Ratio	Lower	Upper	
202	100		
200	20.4	0.0	50.0
203	20.2	0.0	47.3



#87

Benzo[a]anthracene

Concen: 48.78 ppm

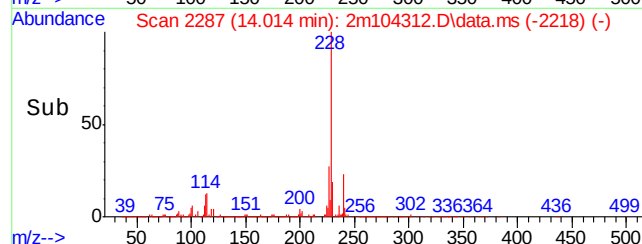
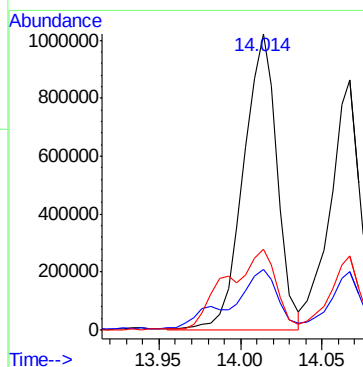
RT: 14.014 min Scan# 2287

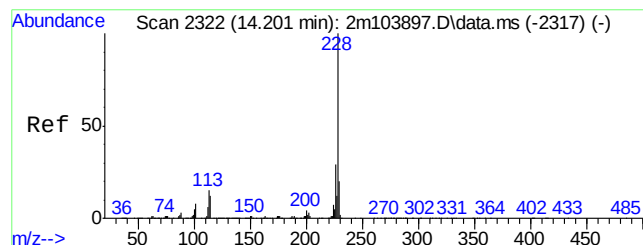
Delta R.T. -0.134 min

Lab File: 2m104312.D

Acq: 23 May 2018 9:08 am

Tgt Ion:	228	Resp:	1459375
Ion Ratio	Lower	Upper	
228	100		
229	19.8	0.0	49.8
226	27.0	0.0	56.6





#89

Chrysene

Concen: 38.34 ppm

RT: 14.067 min Scan# 2297

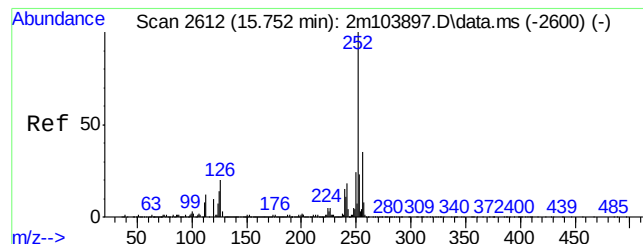
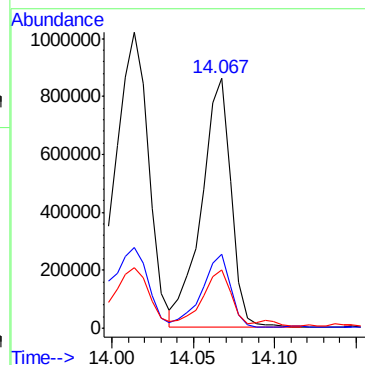
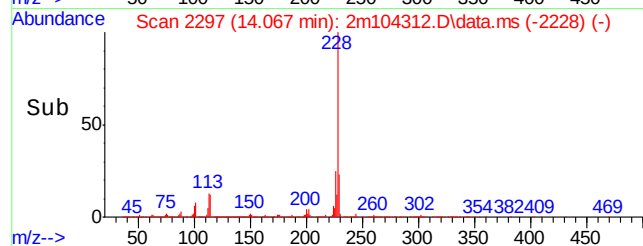
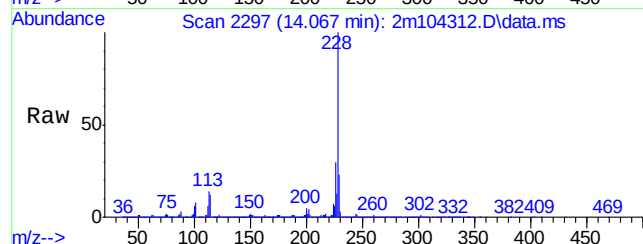
Delta R.T. -0.134 min

Lab File: 2m104312.D

Acq: 23 May 2018 9:08 am

Tgt Ion: 228 Resp: 1090008

Ion	Ratio	Lower	Upper
228	100		
226	29.2	0.0	58.8
229	22.5	0.0	49.8



#93

Benzo[b]fluoranthene

Concen: 39.51 ppm

RT: 15.624 min Scan# 2588

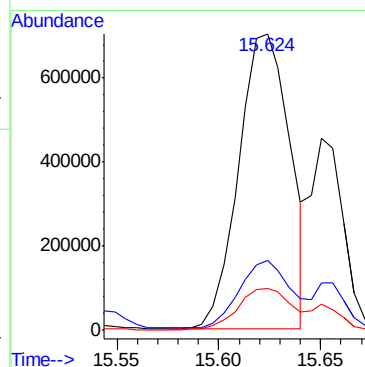
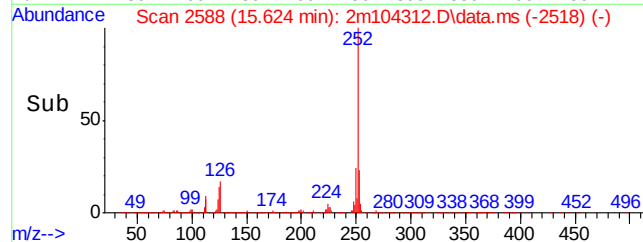
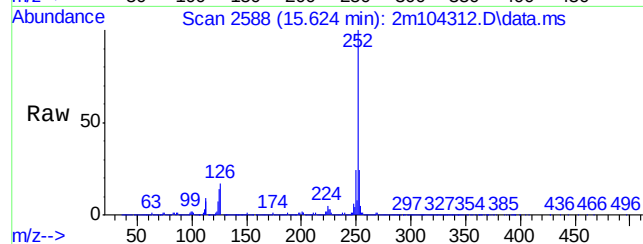
Delta R.T. -0.128 min

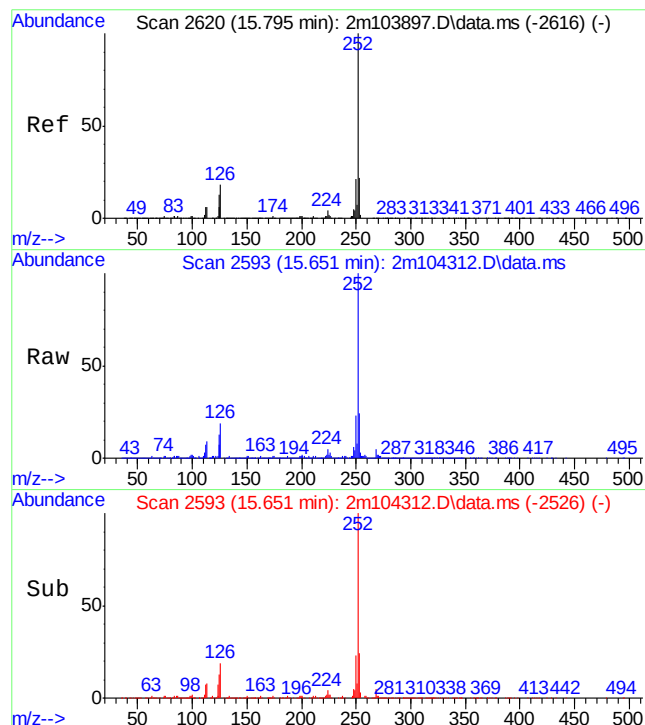
Lab File: 2m104312.D

Acq: 23 May 2018 9:08 am

Tgt Ion: 252 Resp: 1232063

Ion	Ratio	Lower	Upper
252	100		
253	22.8	0.0	52.5
125	14.2	0.0	44.3





#94

Benzo[k]fluoranthene

Concen: 17.45 ppm

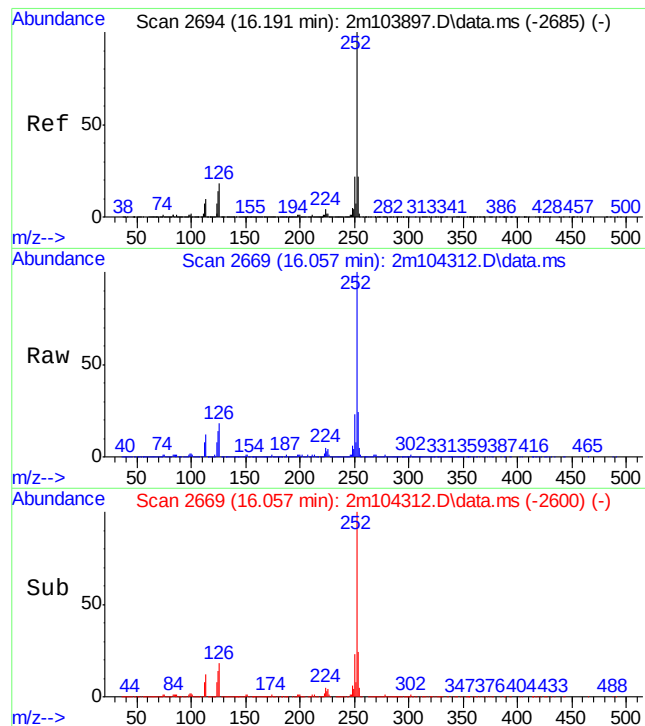
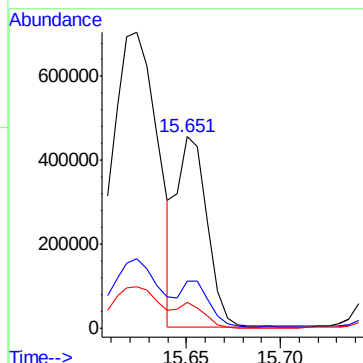
RT: 15.651 min Scan# 2593

Delta R.T. -0.144 min

Lab File: 2m104312.D

Acq: 23 May 2018 9:08 am

Tgt Ion:	252	Resp:	505264
Ion Ratio	Lower	Upper	
252	100		
253	23.5	0.0	51.8
125	12.7	0.0	42.9



#95

Benzo[a]pyrene

Concen: 37.21 ppm

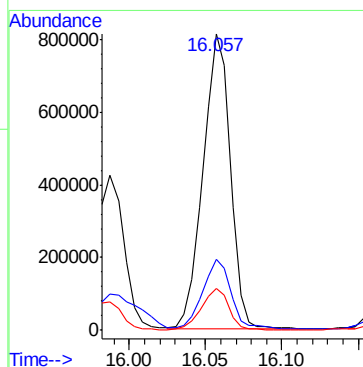
RT: 16.057 min Scan# 2669

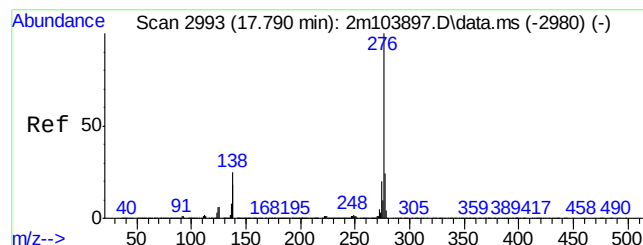
Delta R.T. -0.134 min

Lab File: 2m104312.D

Acq: 23 May 2018 9:08 am

Tgt Ion:	252	Resp:	1006043
Ion Ratio	Lower	Upper	
252	100		
253	23.5	0.0	51.6
125	14.1	0.0	44.0





#96

Indeno[1,2,3-cd]pyrene

Concen: 19.01 ppm

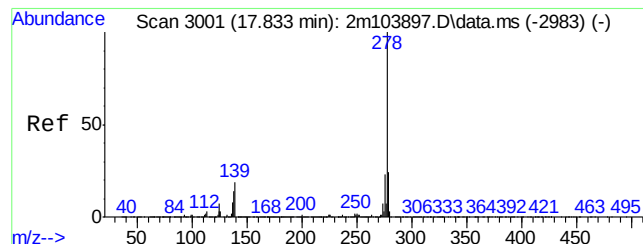
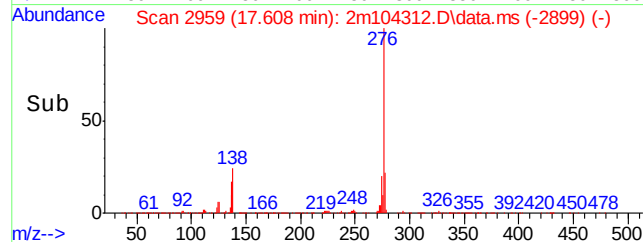
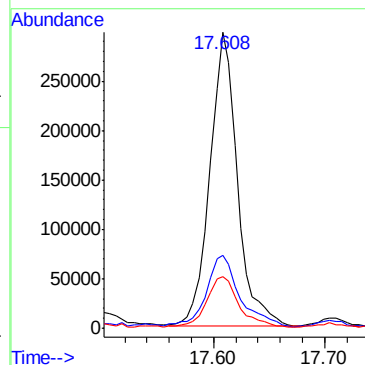
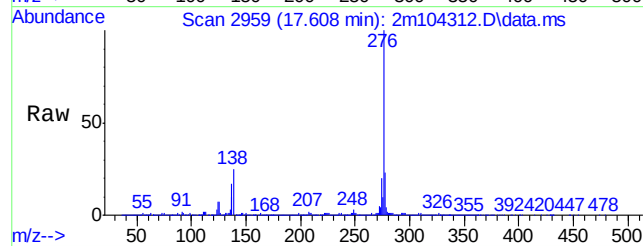
RT: 17.608 min Scan# 2959

Delta R.T. -0.182 min

Lab File: 2m104312.D

Acq: 23 May 2018 9:08 am

Tgt Ion	Ratio	Lower	Upper
276	100		
138	23.9	0.0	52.7
137	17.0	0.0	46.8



#98

Dibenz[a,h]anthracene

Concen: 5.05 ppm m

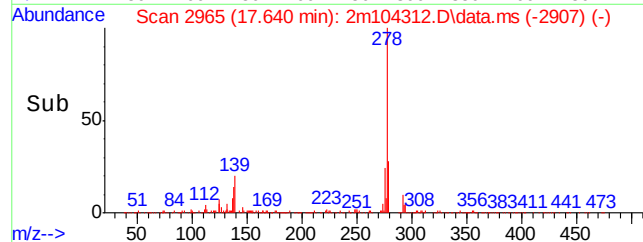
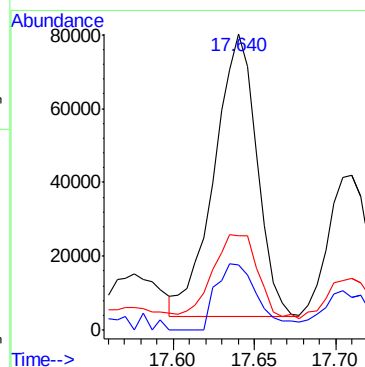
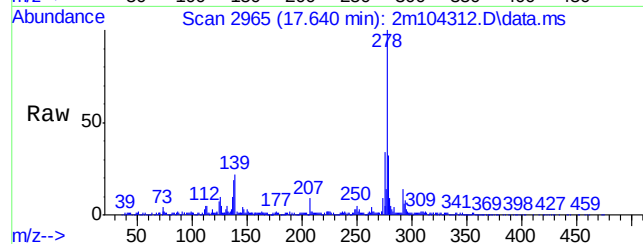
RT: 17.640 min Scan# 2965

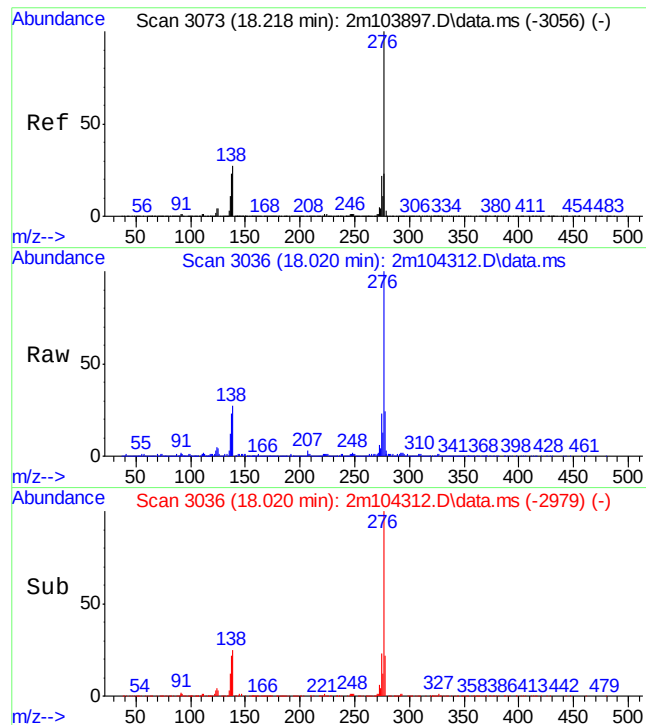
Delta R.T. -0.192 min

Lab File: 2m104312.D

Acq: 23 May 2018 9:08 am

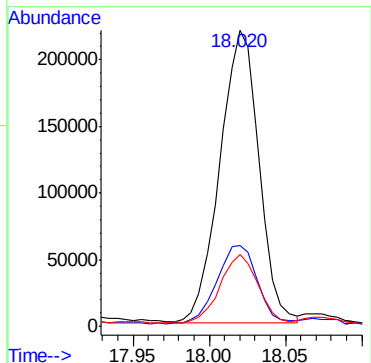
Tgt Ion	Ratio	Lower	Upper
278	100		
139	22.0	0.0	48.9
279	31.9	0.0	53.6





#100
Benzo[g,h,i]perylene
Concen: 15.16 ppm
RT: 18.020 min Scan# 3036
Delta R.T. -0.198 min
Lab File: 2m104312.D
Acq: 23 May 2018 9:08 am

Tgt	Ion	Ratio	Lower	Upper
276	100			
138	26.5	0.0	57.0	
277	23.4	0.0	53.4	



7.1.4
7

Quantitation Report (QT Reviewed)

Data Path : R:\svoa\completed\05-23-18\aimeel\2m4634\
 Data File : 2m104271.d
 Acq On : 22 May 2018 1:51 pm
 Operator : christc2
 Sample : jc66322-5
 Misc : op12121,e2m4634,30.9,,,1,2
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 23 23:46:15 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
 Quant Title : Semi Volatile GC/MS,rx1 5sil ms 30m .25mm .25um
 QLast Update : Tue May 22 21:24:06 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

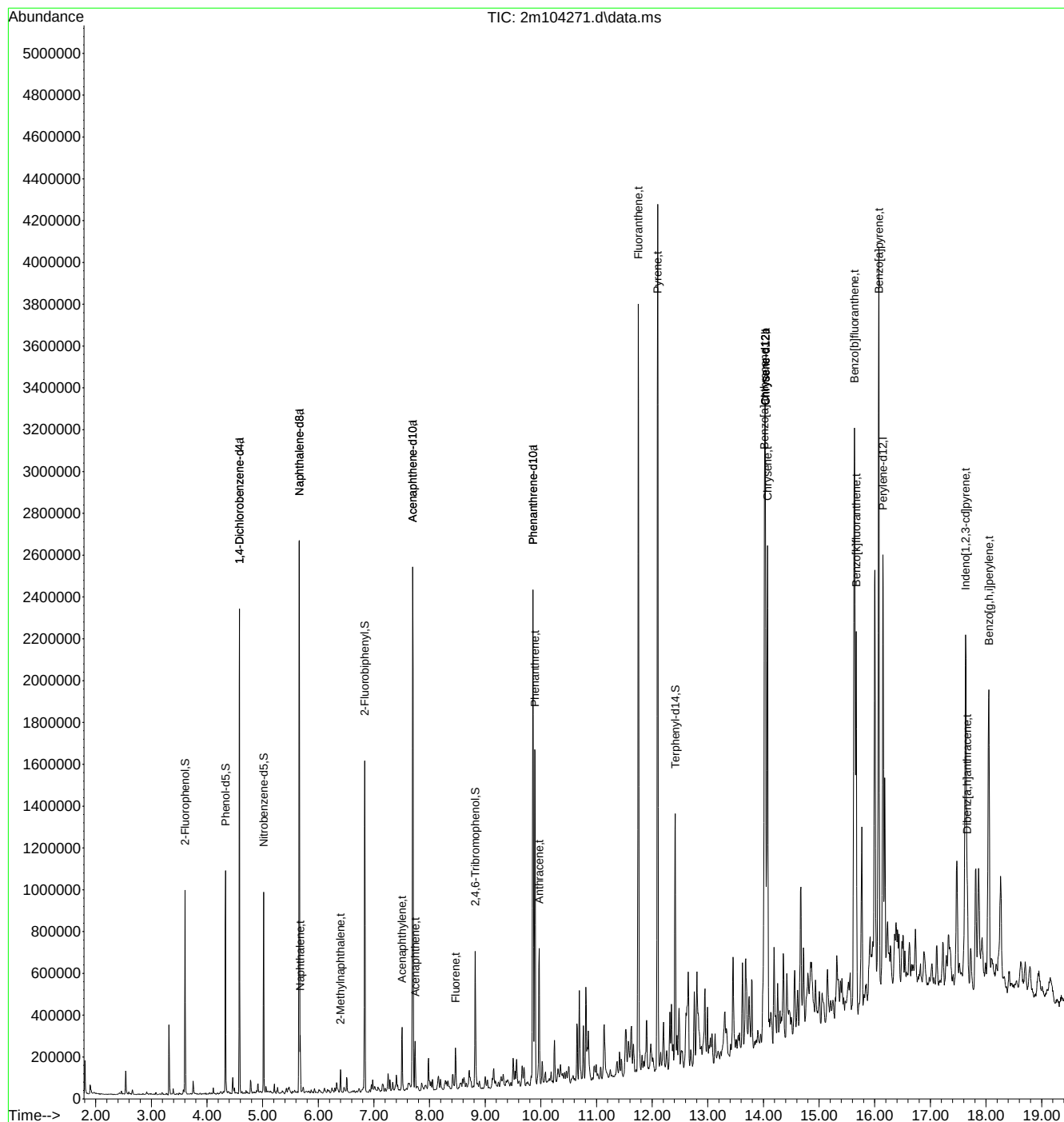
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.584	152	291224	40.00	ppm	0.00
24) Naphthalene-d8	5.659	136	1130843	40.00	ppm	0.00
47) Acenaphthene-d10	7.697	164	550720	40.00	ppm	-0.01
69) Phenanthrene-d10	9.858	188	1013324	40.00	ppm	-0.01
83) Chrysene-d12	14.035	240	909602	40.00	ppm	-0.01
91) Perylene-d12	16.148	264	964781	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.584	152	291224	40.00	ppm	0.00
103) Acenaphthene-d10a	7.697	164	550720	40.00	ppm	-0.01
105) Chrysene-d12a	14.035	240	909152	40.00	ppm	-0.01
108) Phenanthrene-d10a	9.858	188	1013324	40.00	ppm	-0.01
112) Naphthalene-d8a	5.659	136	1130843	40.00	ppm	0.00
114) Chrysene-d12b	14.035	240	909602	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.605	112	212912	22.44	ppm	0.00
Spiked Amount 50.000			Recovery	=	44.88%	
8) Phenol-d5	4.333	99	283707	23.83	ppm	0.02
Spiked Amount 50.000			Recovery	=	47.66%	
25) Nitrobenzene-d5	5.017	82	228233	22.08	ppm	0.00
Spiked Amount 50.000			Recovery	=	44.16%	
51) 2-Fluorobiphenyl	6.836	172	479892	23.85	ppm	-0.02
Spiked Amount 50.000			Recovery	=	47.70%	
73) 2,4,6-Tribromophenol	8.820	330	71533	23.33	ppm	-0.02
Spiked Amount 50.000			Recovery	=	46.66%	
85) Terphenyl-d14	12.415	244	523805	26.26	ppm	-0.02
Spiked Amount 50.000			Recovery	=	52.52%	
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
38) Naphthalene	5.675	128	92788	3.17	ppm	98
44) 2-Methylnaphthalene	6.397	141	23374	1.37	ppm	92
56) Acenaphthylene	7.504	152	140794	5.23	ppm	97
59) Acenaphthene	7.740	153	56416	3.19	ppm	99
66) Fluorene	8.467	166	53175	2.76	ppm	95
77) Phenanthrene	9.895	178	742073	25.67	ppm	99
78) Anthracene	9.970	178	311668	10.73	ppm	98
81) Fluoranthene	11.751	202	1745931	58.85	ppm	98
84) Pyrene	12.099	202	1667780	54.90	ppm	94
87) Benzo[a]anthracene	14.019	228	1227564	44.60	ppm	99
89) Chrysene	14.073	228	1029554	39.37	ppm	97
93) Benzo[b]fluoranthene	15.634	252	1822498	61.72	ppm	97
94) Benzo[k]fluoranthene	15.666	252	620177	22.62	ppm	97
95) Benzo[a]pyrene	16.073	252	1508590	58.94	ppm	98
96) Indeno[1,2,3-cd]pyrene	17.635	276	1160419	45.55	ppm	93
98) Dibenz[a,h]anthracene	17.662	278	288739m	11.03	ppm	
100) Benzo[g,h,i]perylene	18.052	276	965241	39.32	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

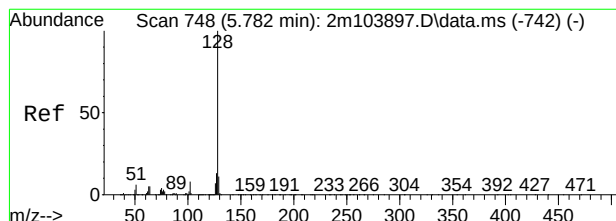
Quantitation Report (QT Reviewed)

Data Path : R:\svoa\completed\05-23-18\aimeel\e2m4634\
Data File : 2m104271.d
Acq On : 22 May 2018 1:51 pm
Operator : christc2
Sample : jc66322-5
Misc : op12121,e2m4634,30.9,,,1,2
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 23 23:46:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Tue May 22 21:24:06 2018
Response via : Initial Calibration

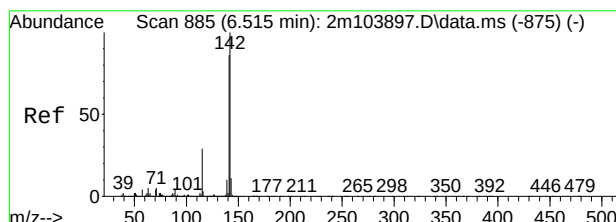
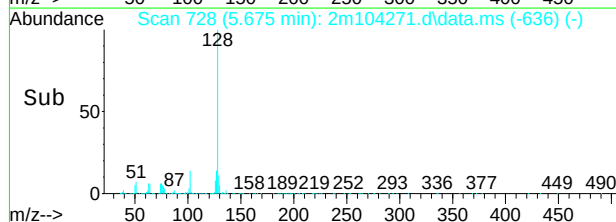
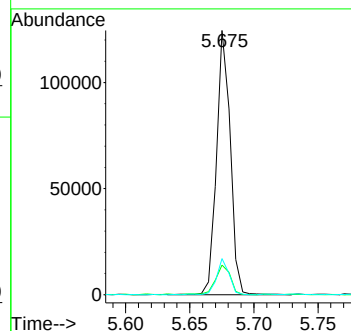
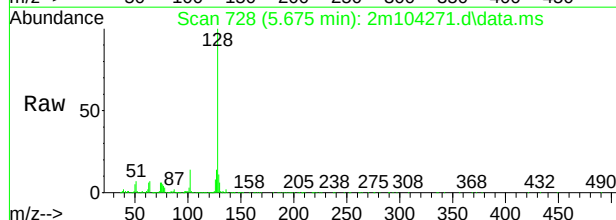


7.1.5



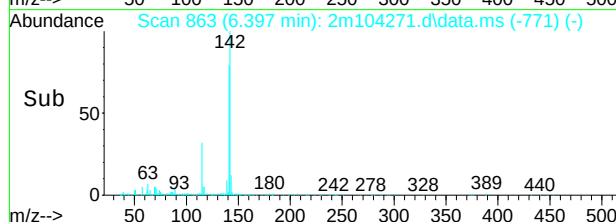
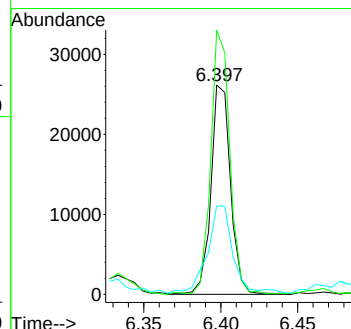
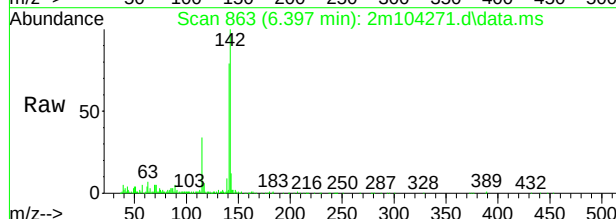
#38
Naphthalene
Concen: 3.17 ppm
RT: 5.675 min Scan# 728
Delta R.T. -0.011 min
Lab File: 2m104271.d
Acq: 22 May 2018 1:51 pm

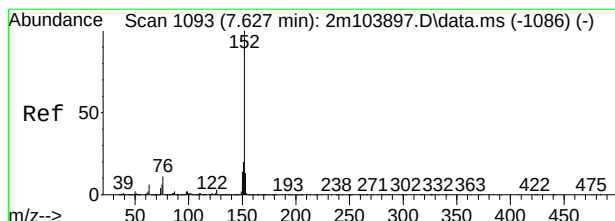
Tgt Ion:	128	Resp:	92788
Ion Ratio	Lower	Upper	
128	100		
129	11.0	0.0	40.6
127	13.6	0.0	42.7



#44
2-Methylnaphthalene
Concen: 1.37 ppm
RT: 6.397 min Scan# 863
Delta R.T. -0.009 min
Lab File: 2m104271.d
Acq: 22 May 2018 1:51 pm

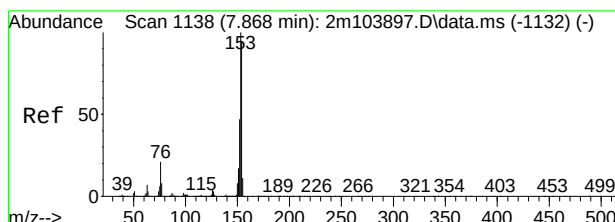
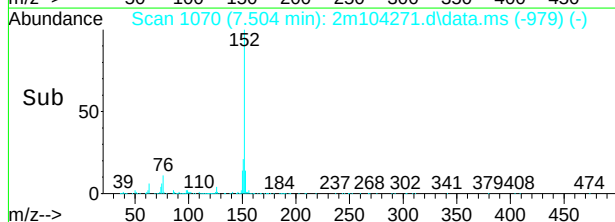
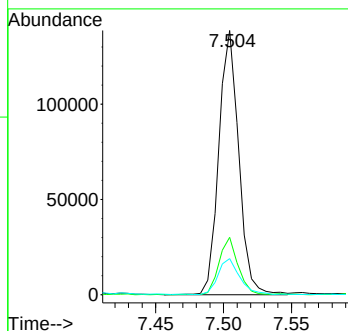
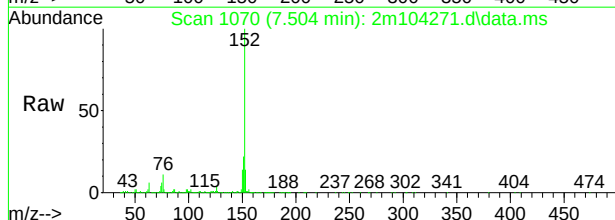
Tgt Ion:	141	Resp:	23374
Ion Ratio	Lower	Upper	
141	100		
142	126.3	87.5	147.5
115	41.8	6.3	66.3





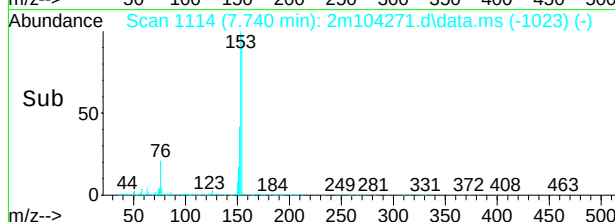
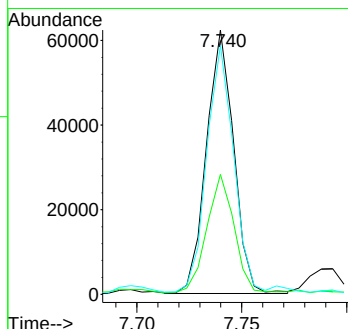
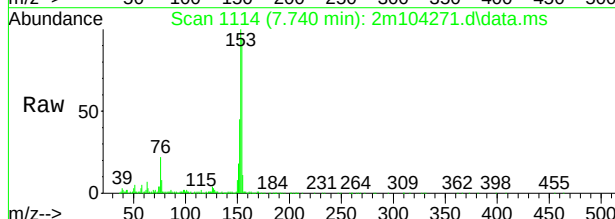
#56
Acenaphthylene
Concen: 5.23 ppm
RT: 7.504 min Scan# 1070
Delta R.T. -0.014 min
Lab File: 2m104271.d
Acq: 22 May 2018 1:51 pm

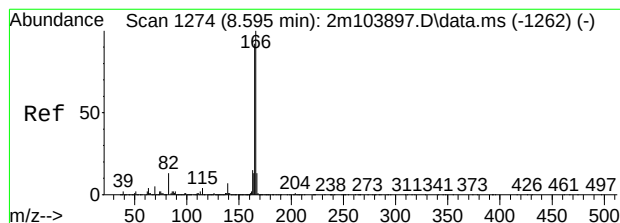
Tgt Ion:	152	Resp:	140794
Ion Ratio	Lower	Upper	
152	100		
151	21.7	0.0	49.8
153	13.6	0.0	42.8



#59
Acenaphthene
Concen: 3.19 ppm
RT: 7.740 min Scan# 1114
Delta R.T. -0.015 min
Lab File: 2m104271.d
Acq: 22 May 2018 1:51 pm

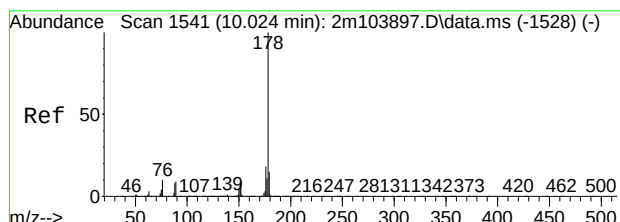
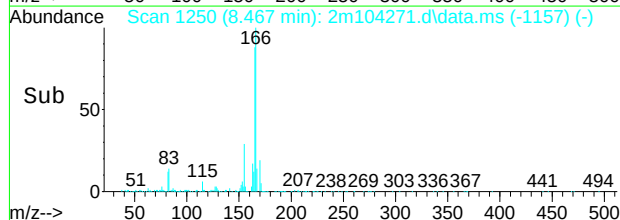
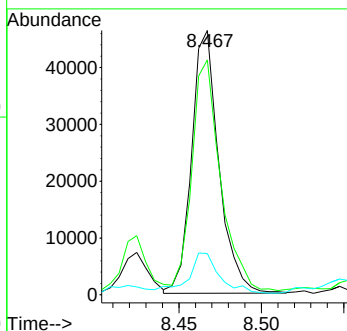
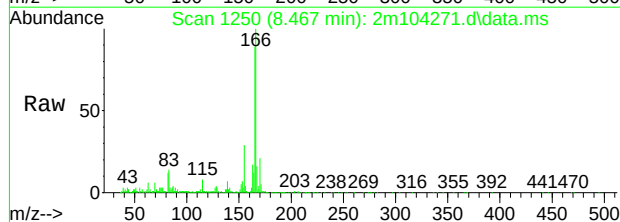
Tgt Ion:	153	Resp:	56416
Ion Ratio	Lower	Upper	
153	100		
152	45.0	16.4	76.4
154	93.2	64.2	124.2





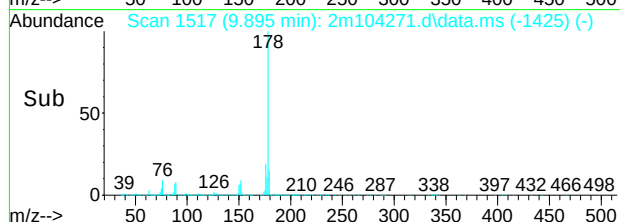
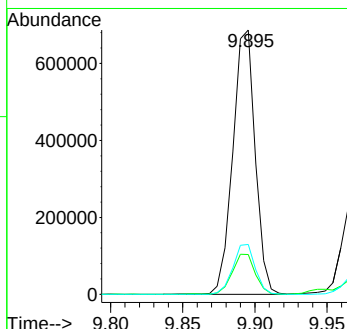
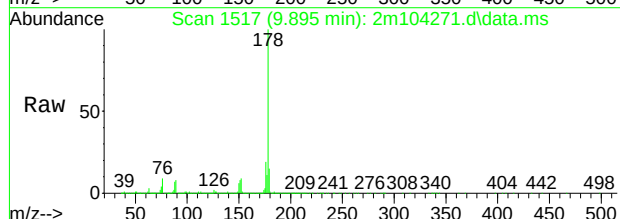
#66
Fluorene
Concen: 2.76 ppm
RT: 8.467 min Scan# 1250
Delta R.T. -0.005 min
Lab File: 2m104271.d
Acq: 22 May 2018 1:51 pm

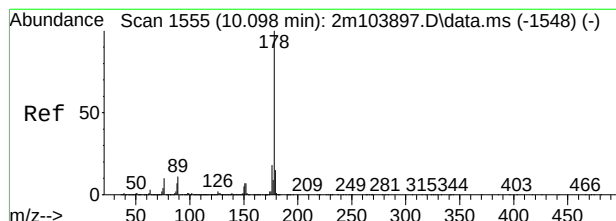
Tgt Ion:	166	Resp:	53175
Ion Ratio	Lower	Upper	
166	100		
165	87.0	62.1	122.1
167	13.6	0.0	42.7



#77
Phenanthrene
Concen: 25.67 ppm
RT: 9.895 min Scan# 1517
Delta R.T. -0.010 min
Lab File: 2m104271.d
Acq: 22 May 2018 1:51 pm

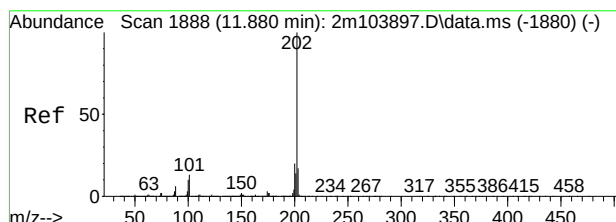
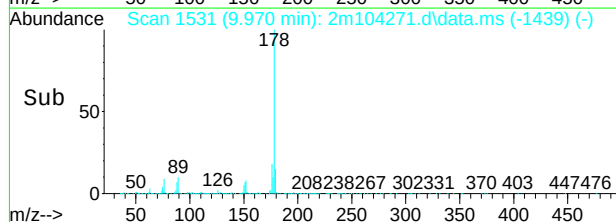
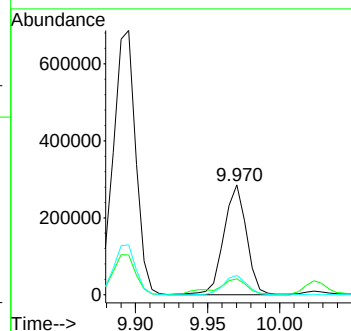
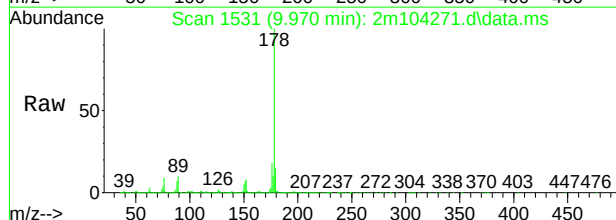
Tgt Ion:	178	Resp:	742073
Ion Ratio	Lower	Upper	
178	100		
179	15.0	0.0	44.7
176	18.9	0.0	48.3





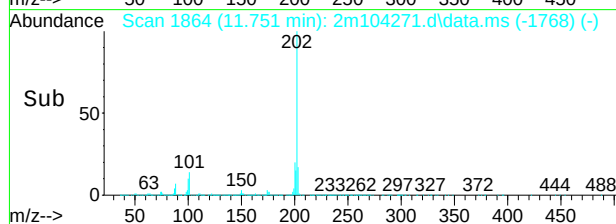
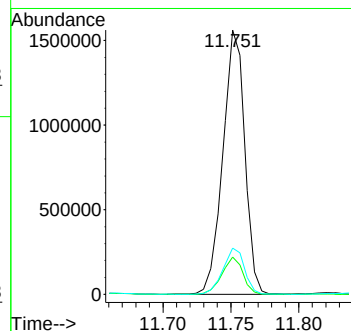
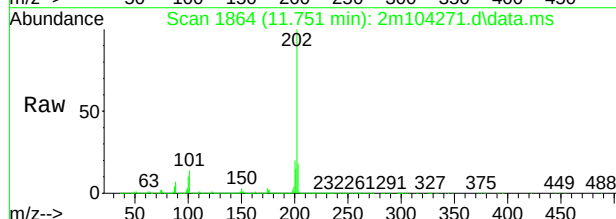
#78
 Anthracene
 Concen: 10.73 ppm
 RT: 9.970 min Scan# 1531
 Delta R.T. -0.010 min
 Lab File: 2m104271.d
 Acq: 22 May 2018 1:51 pm

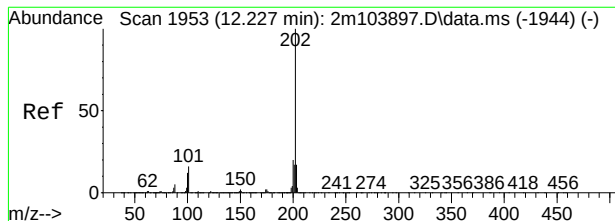
Tgt Ion:	178	Resp:	311668
Ion Ratio	Lower	Upper	
178	100		
179	14.3	0.0	45.4
176	17.7	0.0	48.1



#81
 Fluoranthene
 Concen: 58.85 ppm
 RT: 11.751 min Scan# 1864
 Delta R.T. 0.011 min
 Lab File: 2m104271.d
 Acq: 22 May 2018 1:51 pm

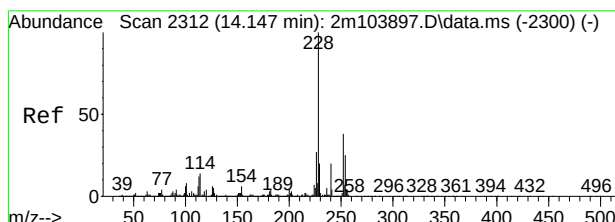
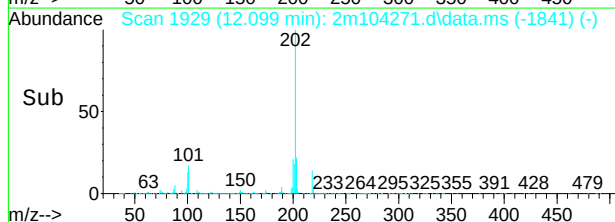
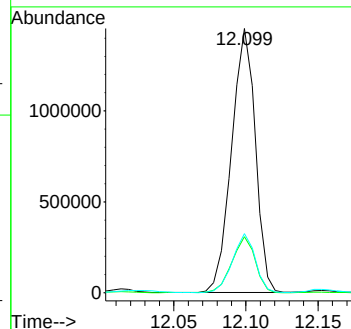
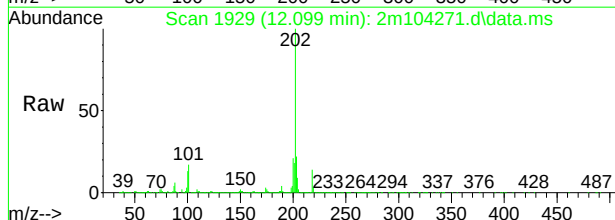
Tgt Ion:	202	Resp:	1745931
Ion Ratio	Lower	Upper	
202	100		
101	14.1	0.0	42.8
203	17.5	0.0	47.2





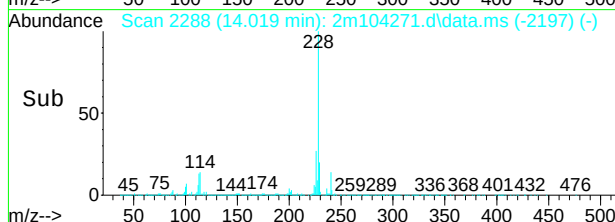
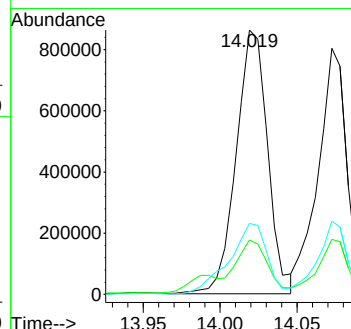
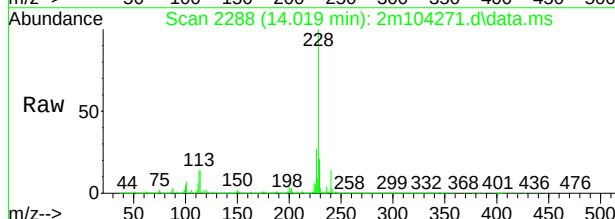
#84
Pyrene
Concen: 54.90 ppm
RT: 12.099 min Scan# 1929
Delta R.T. -0.027 min
Lab File: 2m104271.d
Acq: 22 May 2018 1:51 pm

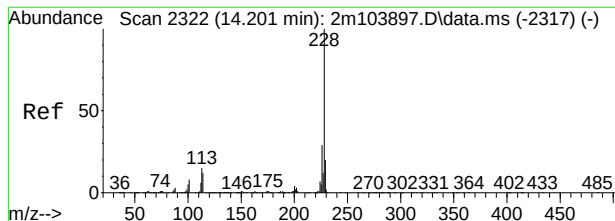
Tgt Ion:	202	Resp:	1667780
Ion	Ratio	Lower	Upper
202	100		
200	21.2	0.0	49.9
203	22.2	0.0	48.1



#87
Benzo[a]anthracene
Concen: 44.60 ppm
RT: 14.019 min Scan# 2288
Delta R.T. -0.011 min
Lab File: 2m104271.d
Acq: 22 May 2018 1:51 pm

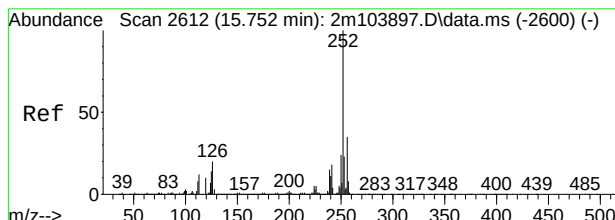
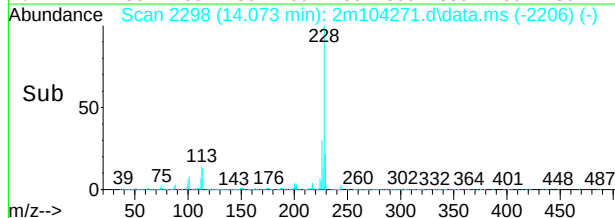
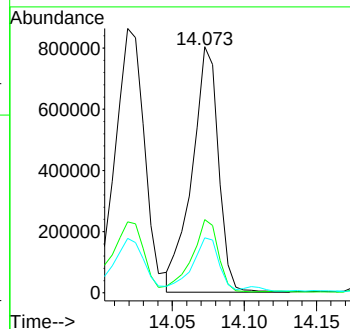
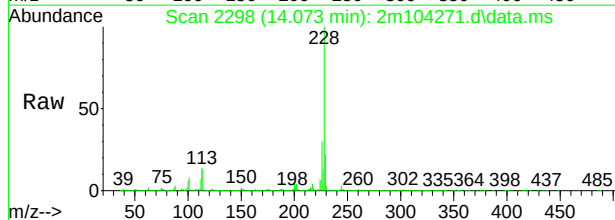
Tgt Ion:	228	Resp:	1227564
Ion	Ratio	Lower	Upper
228	100		
229	19.8	0.0	49.5
226	26.5	0.0	57.0





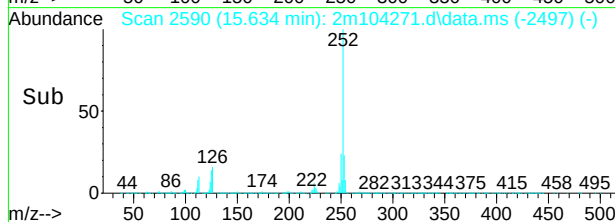
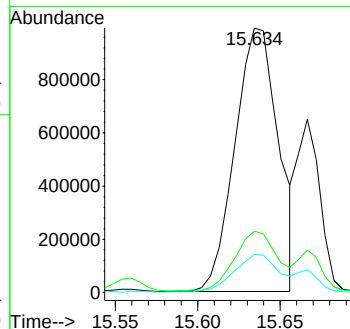
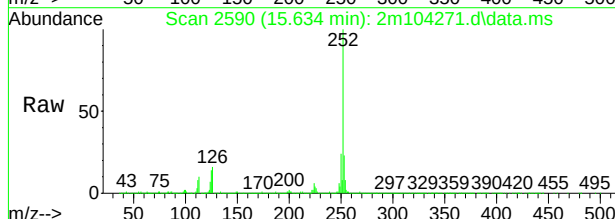
#89
Chrysene
Concen: 39.37 ppm
RT: 14.073 min Scan# 2298
Delta R.T. -0.011 min
Lab File: 2m104271.d
Acq: 22 May 2018 1:51 pm

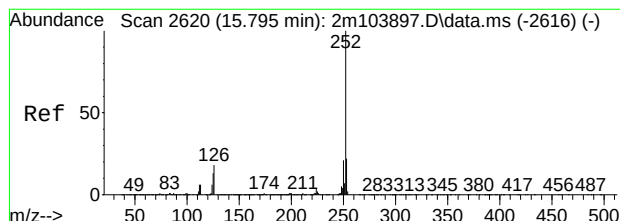
Tgt Ion:228 Resp: 1029554
Ion Ratio Lower Upper
228 100
226 29.5 0.0 58.9
229 21.6 0.0 49.4



#93
Benzo[b]fluoranthene
Concen: 61.72 ppm
RT: 15.634 min Scan# 2590
Delta R.T. -0.004 min
Lab File: 2m104271.d
Acq: 22 May 2018 1:51 pm

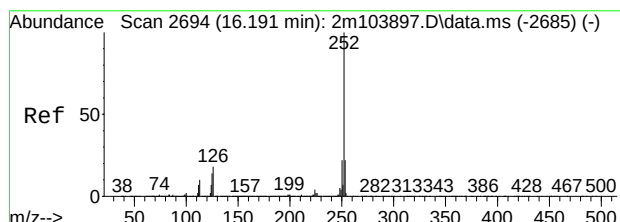
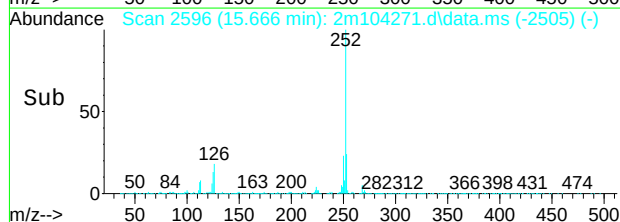
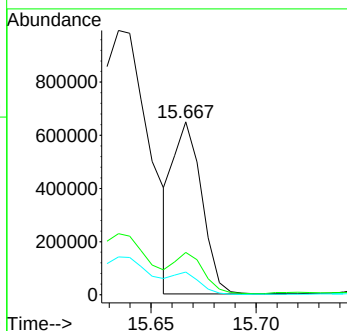
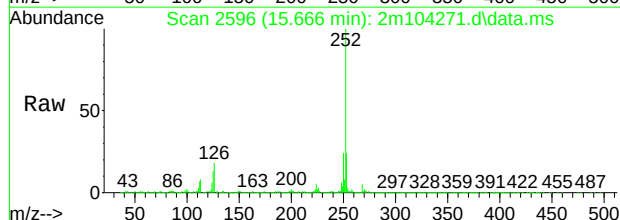
Tgt Ion:252 Resp: 1822498
Ion Ratio Lower Upper
252 100
253 22.7 0.0 53.5
125 14.1 0.0 46.0





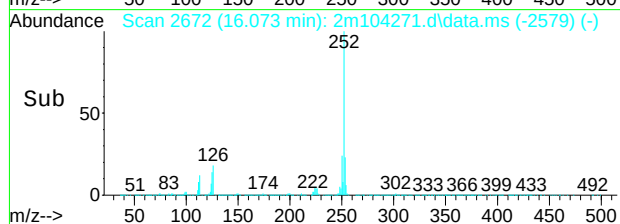
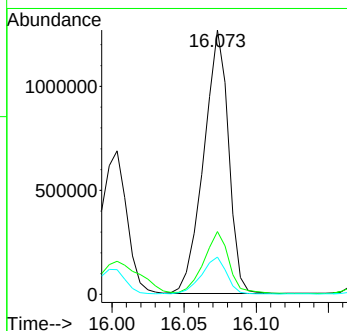
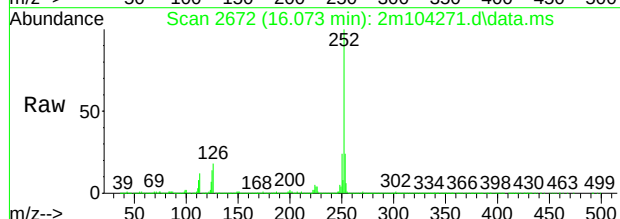
#94
Benzo[k]fluoranthene
Concen: 22.62 ppm
RT: 15.666 min Scan# 2596
Delta R.T. -0.014 min
Lab File: 2m104271.d
Acq: 22 May 2018 1:51 pm

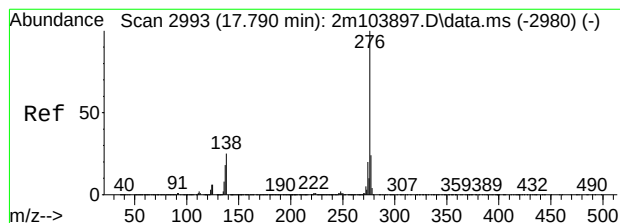
Tgt Ion:252 Resp: 620177
Ion Ratio Lower Upper
252 100
253 24.1 0.0 51.7
125 12.2 0.0 42.3



#95
Benzo[a]pyrene
Concen: 58.94 ppm
RT: 16.073 min Scan# 2672
Delta R.T. -0.001 min
Lab File: 2m104271.d
Acq: 22 May 2018 1:51 pm

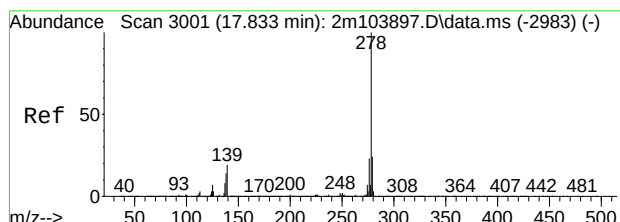
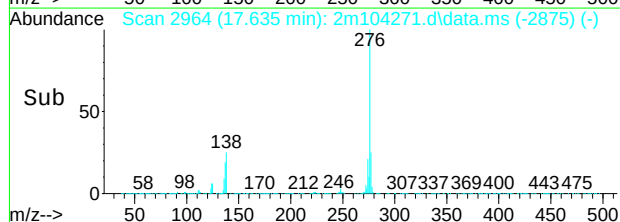
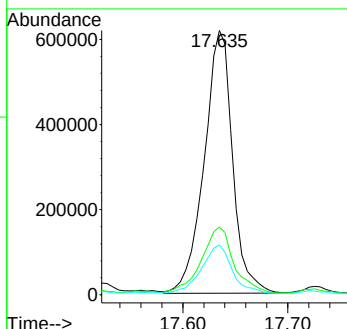
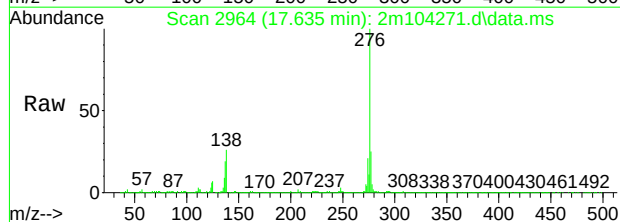
Tgt Ion:252 Resp: 1508590
Ion Ratio Lower Upper
252 100
253 23.0 0.0 51.6
125 13.9 0.0 43.3





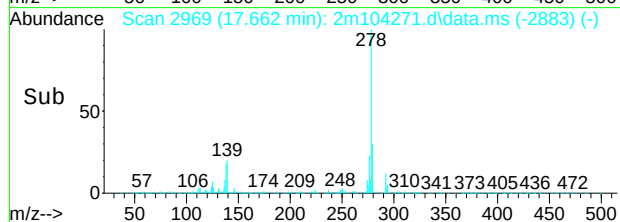
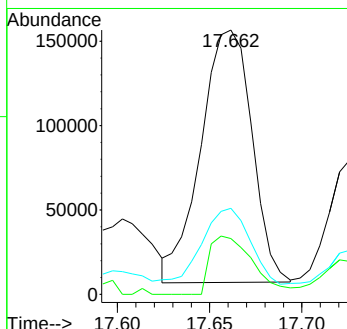
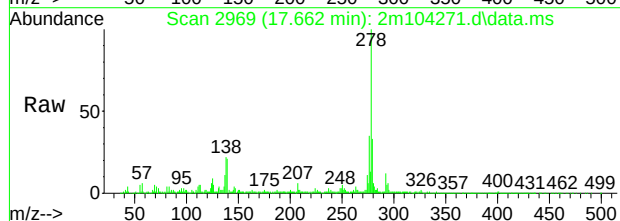
#96
Indeno[1,2,3-cd]pyrene
Concen: 45.55 ppm
RT: 17.635 min Scan# 2964
Delta R.T. -0.027 min
Lab File: 2m104271.d
Acq: 22 May 2018 1:51 pm

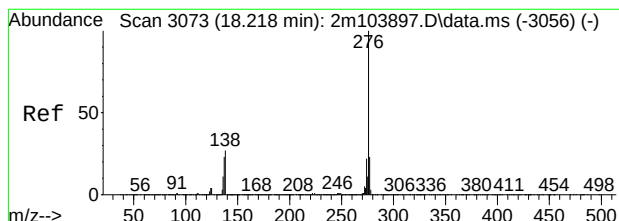
Tgt Ion:	276	Resp:	1160419
Ion Ratio	Lower	Upper	
276	100		
138	25.1	0.0	50.5
137	18.5	0.0	46.8



#98
Dibenzo[a,h]anthracene
Concen: 11.03 ppm m
RT: 17.662 min Scan# 2969
Delta R.T. -0.042 min
Lab File: 2m104271.d
Acq: 22 May 2018 1:51 pm

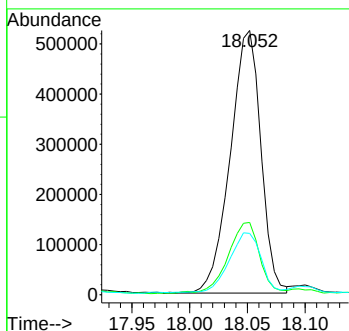
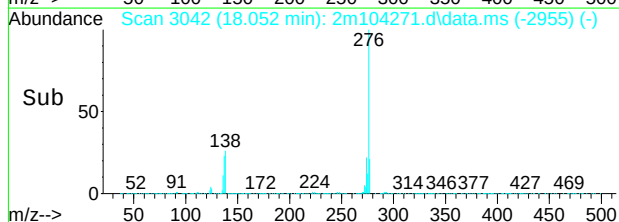
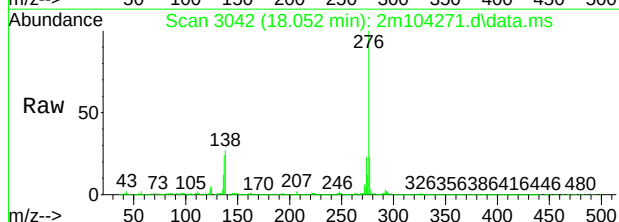
Tgt Ion:	278	Resp:	288739
Ion Ratio	Lower	Upper	
278	100		
139	21.1	0.0	50.3
279	32.5	0.0	53.5





#100
 Benzo[g,h,i]perylene
 Concen: 39.32 ppm
 RT: 18.052 min Scan# 3042
 Delta R.T. -0.034 min
 Lab File: 2m104271.d
 Acq: 22 May 2018 1:51 pm

Tgt Ion:	276	Resp:	965241
Ion Ratio	Lower	Upper	
276	100		
138	26.7	0.0	56.5
277	22.2	0.0	53.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4635\
 Data File : 2m104309.D
 Acq On : 23 May 2018 7:47 am
 Operator : georges
 Sample : jc66322-7
 Misc : op12121,e2m4635,31.2,,,1,100
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 24 17:33:43 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
 Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 QLast Update : Thu May 17 13:00:25 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.579	152	309114	40.00	ppm	-0.09
24) Naphthalene-d8	5.649	136	1219362	40.00	ppm	-0.11
47) Acenaphthene-d10	7.692	164	603716	40.00	ppm	-0.13
69) Phenanthrene-d10	9.853	188	1131368	40.00	ppm	-0.13
83) Chrysene-d12	14.025	240	1048546	40.00	ppm	-0.14
91) Perylene-d12	16.132	264	1068685	40.00	ppm	-0.14
101) 1,4-Dichlorobenzene-d4a	4.579	152	309114	40.00	ppm	-0.09
103) Acenaphthene-d10a	7.692	164	603716	40.00	ppm	-0.13
105) Chrysene-d12a	14.025	240	1048546	40.00	ppm	-0.13
108) Phenanthrene-d10a	9.853	188	1131368	40.00	ppm	-0.13
112) Naphthalene-d8a	5.649	136	1219362	40.00	ppm	-0.11
114) Chrysene-d12b	14.025	240	1048546	40.00	ppm	-0.13
System Monitoring Compounds						
5) 2-Fluorophenol	3.600	112	3411	0.34	ppm	-0.07
Spiked Amount 50.000			Recovery	=	0.68%	
8) Phenol-d5	4.328	99	5163	0.41	ppm	-0.07
Spiked Amount 50.000			Recovery	=	0.82%	
25) Nitrobenzene-d5	5.012	82	4479	0.40	ppm	-0.10
Spiked Amount 50.000			Recovery	=	0.80%	
51) 2-Fluorobiphenyl	6.831	172	8957	0.41	ppm	-0.12
Spiked Amount 50.000			Recovery	=	0.82%	
73) 2,4,6-Tribromophenol	8.810	330	1137	0.33	ppm	-0.13
Spiked Amount 50.000			Recovery	=	0.66%	
85) Terphenyl-d14	12.404	244	11675	0.51	ppm	-0.14
Spiked Amount 50.000			Recovery	=	1.02%	
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
38) Naphthalene	5.670	128	99331	3.15	ppm	99
44) 2-Methylnaphthalene	6.392	141	16896	0.92	ppm	86
56) Acenaphthylene	7.499	152	79142	2.68	ppm	99
59) Acenaphthene	7.735	153	30680	1.58	ppm	97
66) Fluorene	8.457	166	226309	10.72	ppm	98
77) Phenanthrene	9.885	178	1113472	34.49	ppm	99
78) Anthracene	9.960	178	513336	15.83	ppm	98
81) Fluoranthene	11.741	202	872633	26.34	ppm	98
84) Pyrene	12.083	202	714094	20.39	ppm	97
87) Benzo[a]anthracene	14.009	228	421809	13.29	ppm	96
89) Chrysene	14.057	228	309407	10.26	ppm	96
93) Benzo[b]fluoranthene	15.613	252	297982	9.11	ppm	97
94) Benzo[k]fluoranthene	15.645	252	113978	3.75	ppm	97
95) Benzo[a]pyrene	16.052	252	252198	8.89	ppm	97
96) Indeno[1,2,3-cd]pyrene	17.598	276	102268	3.62	ppm	99
98) Dibenz[a,h]anthracene	17.635	278	34151m	1.18	ppm	
100) Benzo[g,h,i]perylene	18.004	276	78907	2.90	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4635\
Data File : 2m104309.D
Acq On : 23 May 2018 7:47 am
Operator : georges
Sample : jc66322-7
Misc : op12121,e2m4635,31.2,,,1,100
ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 24 17:33:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Thu May 17 13:00:25 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

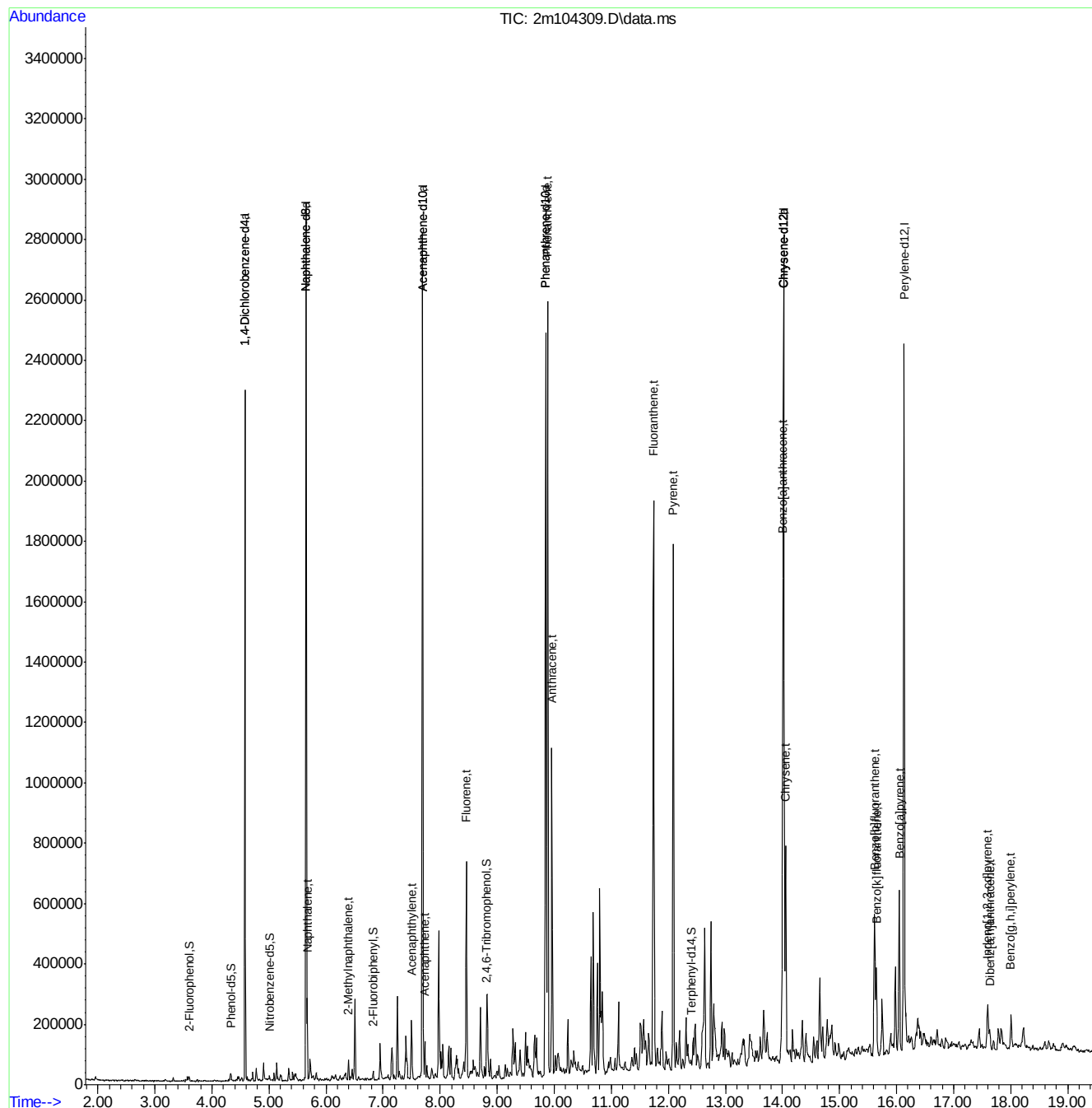
(#) = qualifier out of range (m) = manual integration (+) = signals summed						

7.1.6
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4635\
Data File : 2m104309.D
Acq On : 23 May 2018 7:47 am
Operator : georges
Sample : jc66322-7
Misc : op12121,e2m4635,31.2,,,1,100
ALS Vial : 21 Sample Multiplier: 1

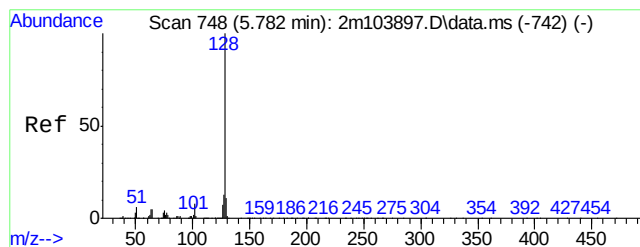
Quant Time: May 24 17:33:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Thu May 17 13:00:25 2018
Response via : Initial Calibration



M2M4618.M Thu May 24 17:33:50 2018

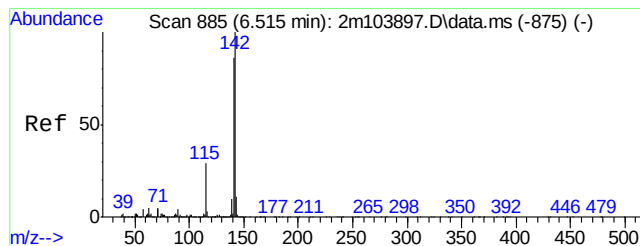
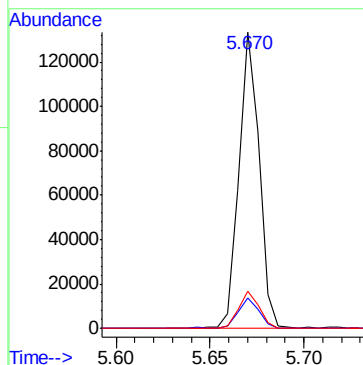
Page: 3

7.1.6



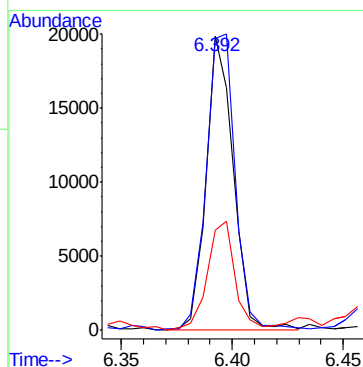
#38
Naphthalene
Concen: 3.15 ppm
RT: 5.670 min Scan# 727
Delta R.T. -0.112 min
Lab File: 2m104309.D
Acq: 23 May 2018 7:47 am

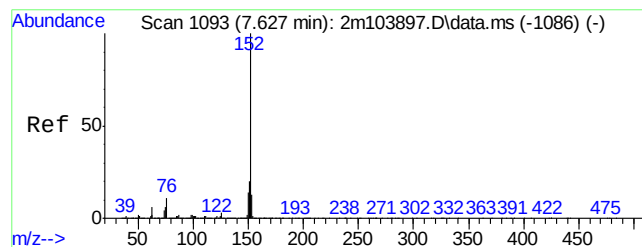
Tgt Ion:	128	Resp:	99331
Ion Ratio	Lower	Upper	
128	100		
129	10.2	0.0	40.7
127	12.5	0.0	42.5



#44
2-Methylnaphthalene
Concen: 0.92 ppm
RT: 6.392 min Scan# 862
Delta R.T. -0.123 min
Lab File: 2m104309.D
Acq: 23 May 2018 7:47 am

Tgt Ion:	141	Resp:	16896
Ion Ratio	Lower	Upper	
141	100		
142	98.2	86.4	146.4
115	32.0	3.6	63.6





#56

Acenaphthylene

Concen: 2.68 ppm

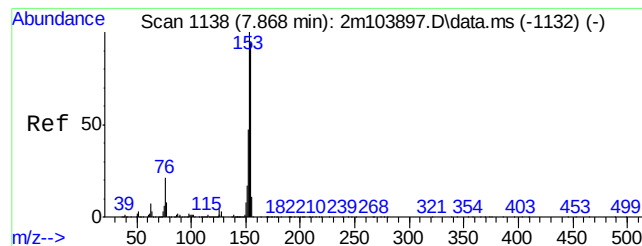
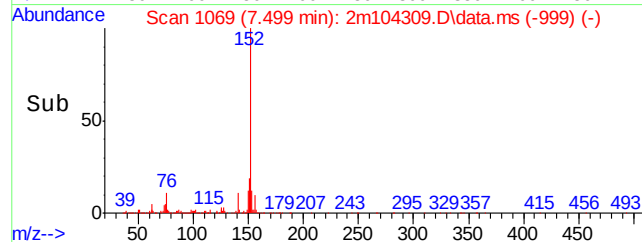
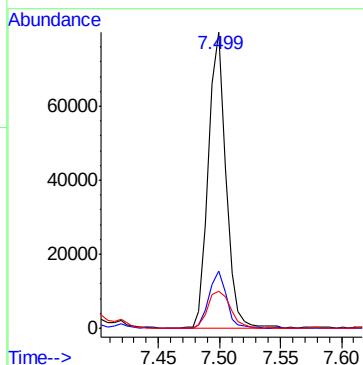
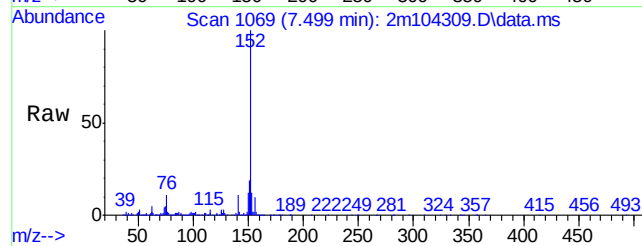
RT: 7.499 min Scan# 1069

Delta R.T. -0.128 min

Lab File: 2m104309.D

Acq: 23 May 2018 7:47 am

Tgt Ion:	152	Resp:	79142
Ion Ratio	Lower	Upper	
152	100		
151	19.4	0.0	49.6
153	12.3	0.0	42.8



#59

Acenaphthene

Concen: 1.58 ppm

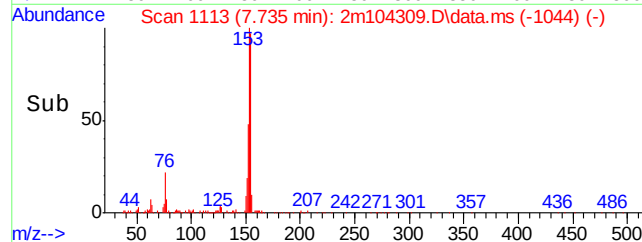
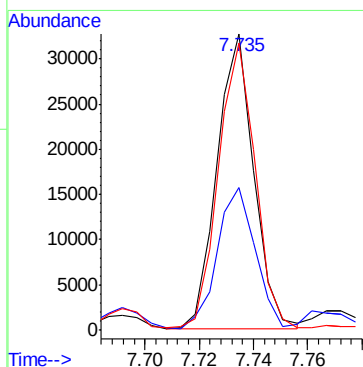
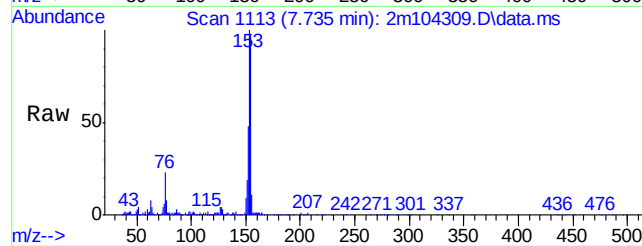
RT: 7.735 min Scan# 1113

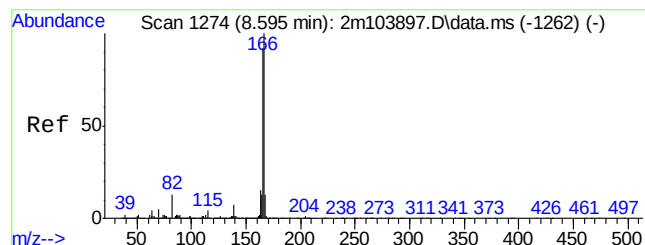
Delta R.T. -0.133 min

Lab File: 2m104309.D

Acq: 23 May 2018 7:47 am

Tgt Ion:	153	Resp:	30680
Ion Ratio	Lower	Upper	
153	100		
152	47.4	17.1	77.1
154	97.5	62.8	122.8





#66

Fluorene

Concen: 10.72 ppm

RT: 8.457 min Scan# 1248

Delta R.T. -0.139 min

Lab File: 2m104309.D

Acq: 23 May 2018 7:47 am

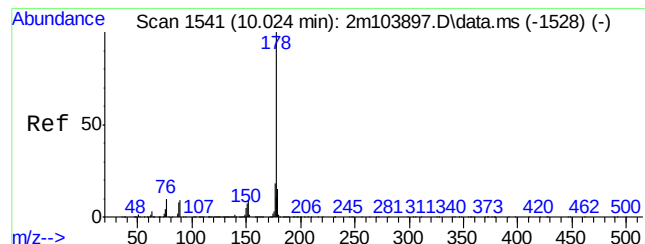
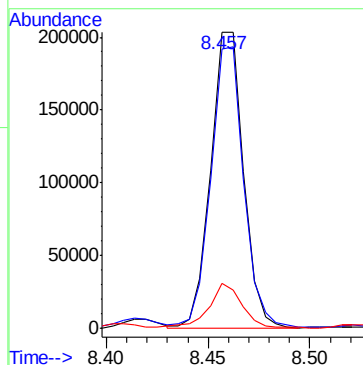
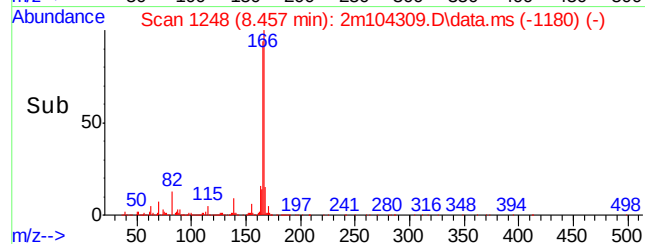
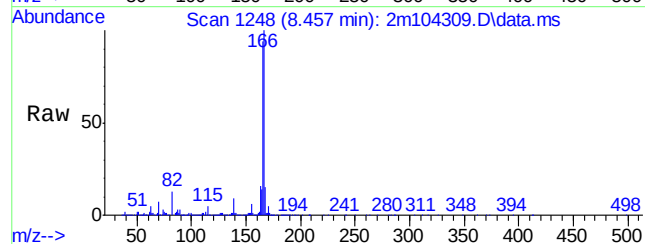
Tgt Ion:166 Resp: 226309

Ion Ratio Lower Upper

166 100

165 94.0 62.0 122.0

167 14.6 0.0 42.9



#77

Phenanthrene

Concen: 34.49 ppm

RT: 9.885 min Scan# 1515

Delta R.T. -0.139 min

Lab File: 2m104309.D

Acq: 23 May 2018 7:47 am

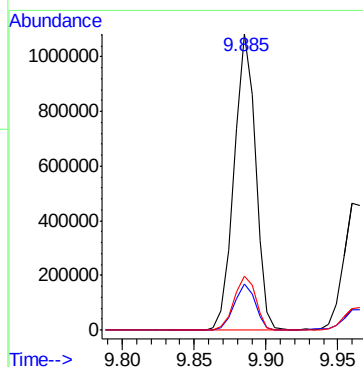
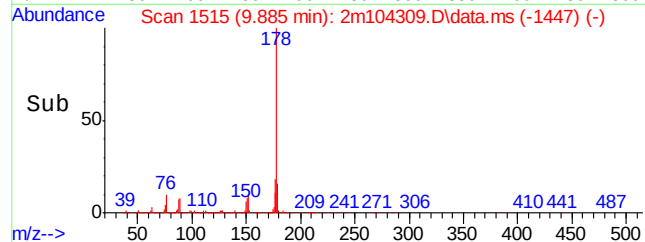
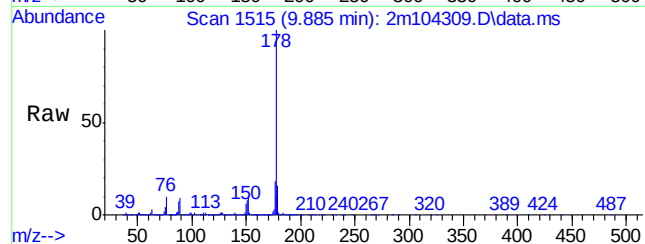
Tgt Ion:178 Resp: 1113472

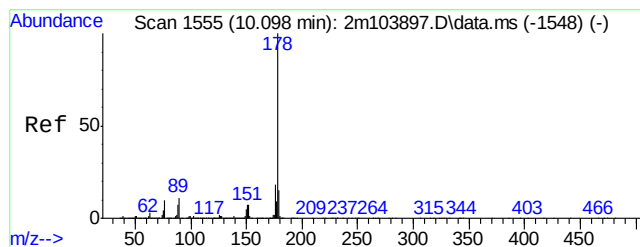
Ion Ratio Lower Upper

178 100

179 15.6 0.0 45.2

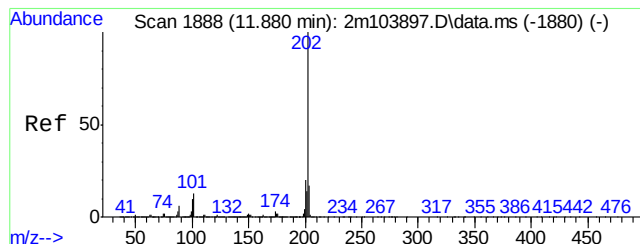
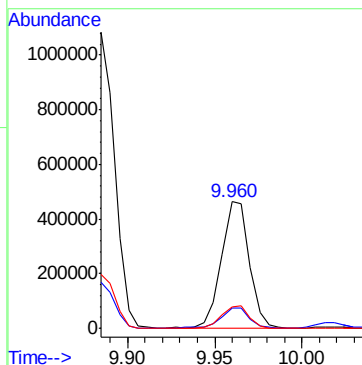
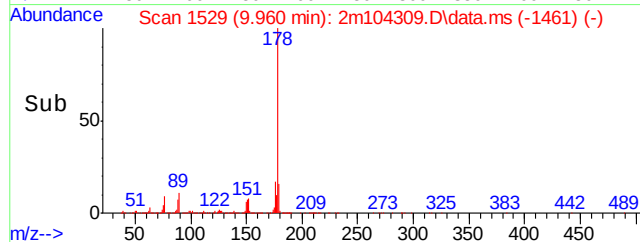
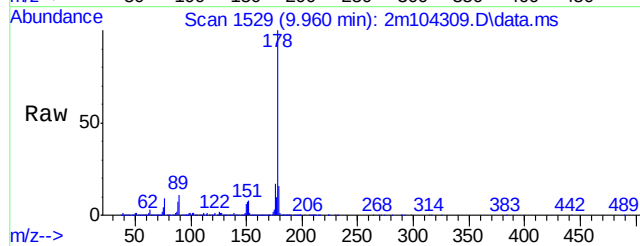
176 18.2 0.0 48.5





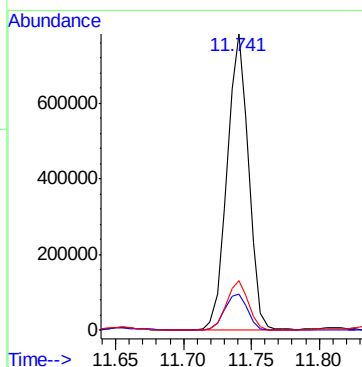
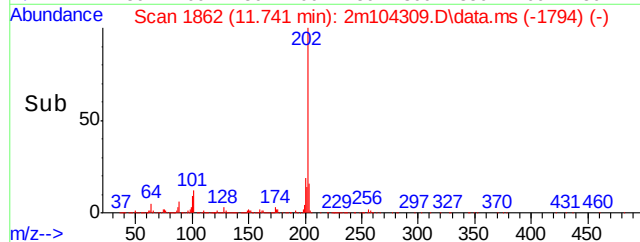
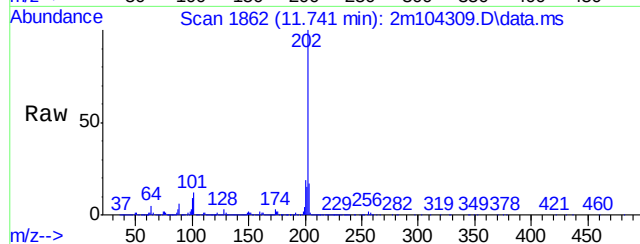
#78
Anthracene
Concen: 15.83 ppm
RT: 9.960 min Scan# 1529
Delta R.T. -0.139 min
Lab File: 2m104309.D
Acq: 23 May 2018 7:47 am

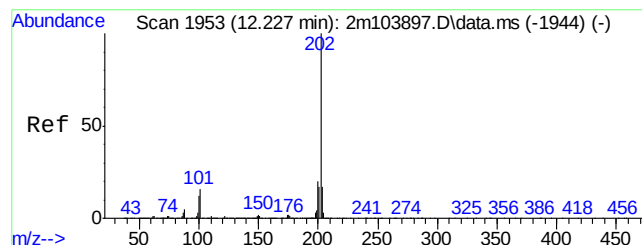
Tgt Ion	Ratio	Lower	Upper
178	100		
179	16.0	0.0	45.1
176	17.2	0.0	47.7



#81
Fluoranthene
Concen: 26.34 ppm
RT: 11.741 min Scan# 1862
Delta R.T. -0.139 min
Lab File: 2m104309.D
Acq: 23 May 2018 7:47 am

Tgt Ion	Ratio	Lower	Upper
202	100		
101	12.2	0.0	43.1
203	16.5	0.0	47.0





#84

Pyrene

Concen: 20.39 ppm

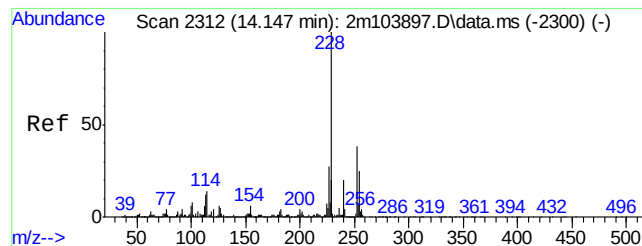
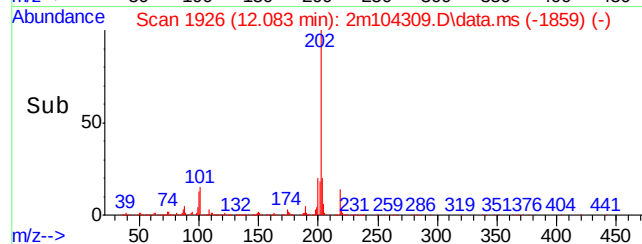
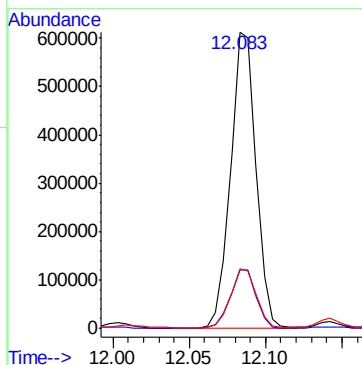
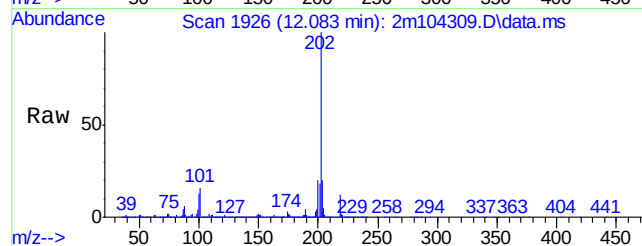
RT: 12.083 min Scan# 1926

Delta R.T. -0.144 min

Lab File: 2m104309.D

Acq: 23 May 2018 7:47 am

Tgt	Ion:202	Resp:	714094
Ion	Ratio	Lower	Upper
202	100		
200	19.8	0.0	50.0
203	19.9	0.0	47.3



#87

Benzo[a]anthracene

Concen: 13.29 ppm

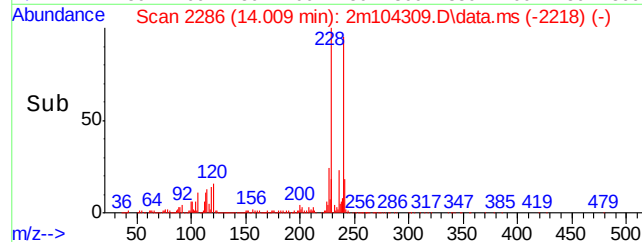
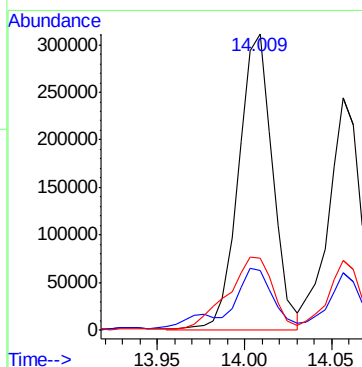
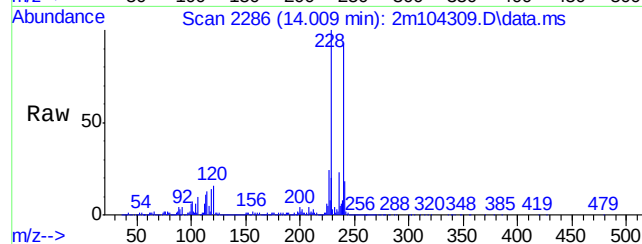
RT: 14.009 min Scan# 2286

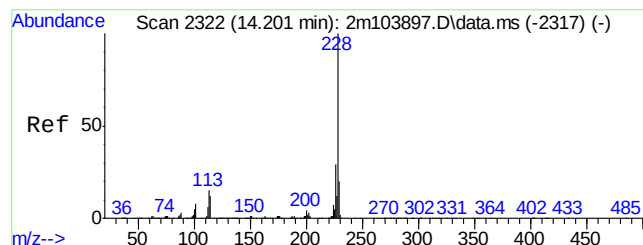
Delta R.T. -0.139 min

Lab File: 2m104309.D

Acq: 23 May 2018 7:47 am

Tgt	Ion:228	Resp:	421809
Ion	Ratio	Lower	Upper
228	100		
229	19.0	0.0	49.8
226	24.1	0.0	56.6





#89

Chrysene

Concen: 10.26 ppm

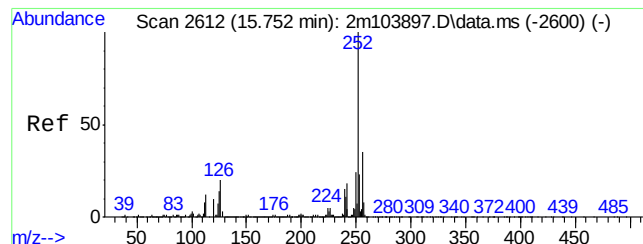
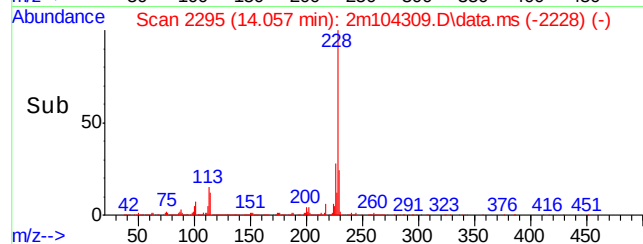
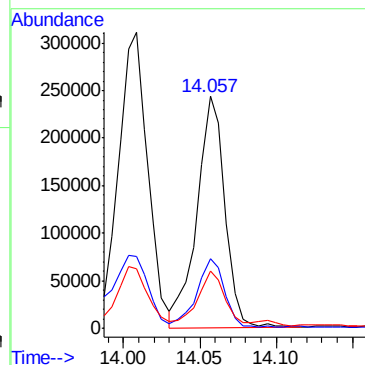
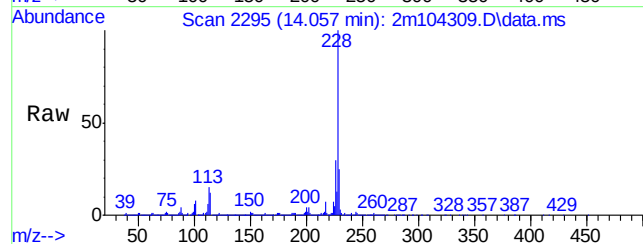
RT: 14.057 min Scan# 2295

Delta R.T. -0.144 min

Lab File: 2m104309.D

Acq: 23 May 2018 7:47 am

Tgt Ion:	228	Resp:	309407
Ion Ratio	Lower	Upper	
228	100		
226	29.6	0.0	58.8
229	23.6	0.0	49.8



#93

Benzo[b]fluoranthene

Concen: 9.11 ppm

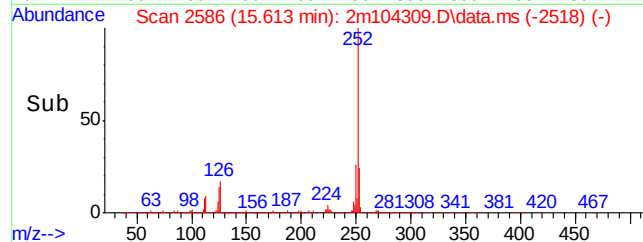
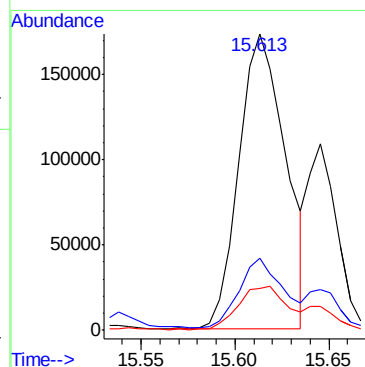
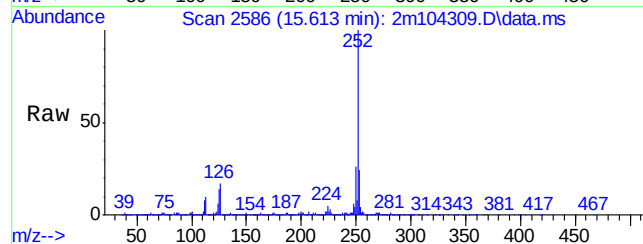
RT: 15.613 min Scan# 2586

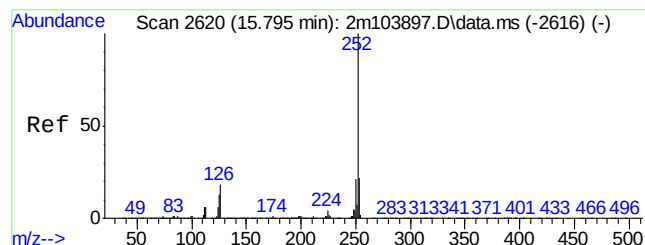
Delta R.T. -0.139 min

Lab File: 2m104309.D

Acq: 23 May 2018 7:47 am

Tgt Ion:	252	Resp:	297982
Ion Ratio	Lower	Upper	
252	100		
253	24.0	0.0	52.5
125	13.7	0.0	44.3





#94

Benzo[k]fluoranthene

Concen: 3.75 ppm

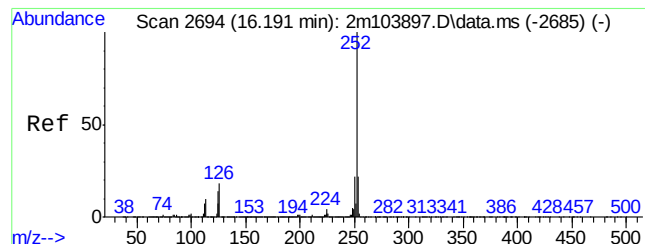
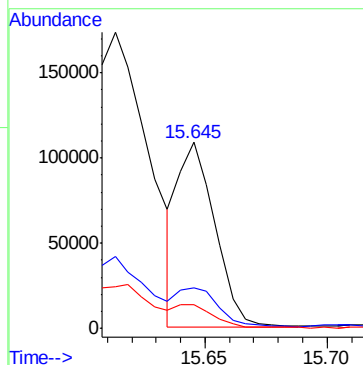
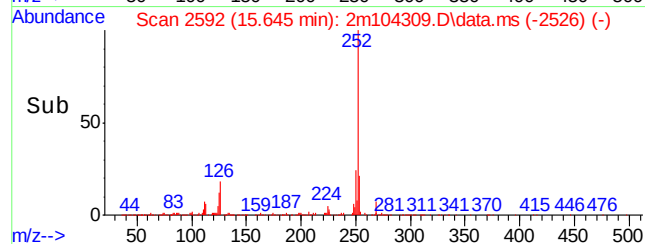
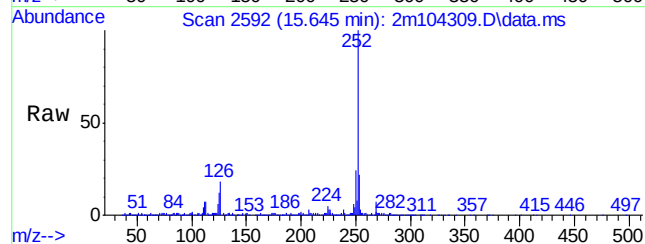
RT: 15.645 min Scan# 2592

Delta R.T. -0.149 min

Lab File: 2m104309.D

Acq: 23 May 2018 7:47 am

Tgt Ion:	252	Resp:	113978
Ion Ratio	Lower	Upper	
252	100		
253	21.0	0.0	51.8
125	10.8	0.0	42.9



#95

Benzo[a]pyrene

Concen: 8.89 ppm

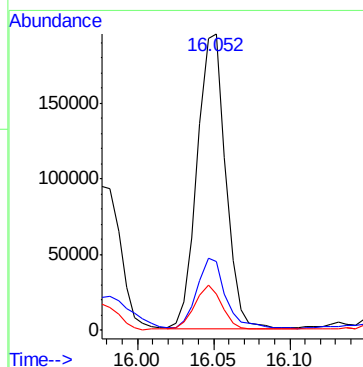
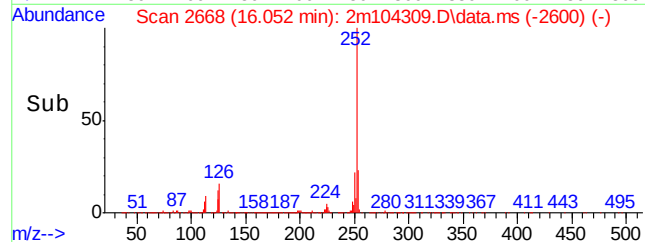
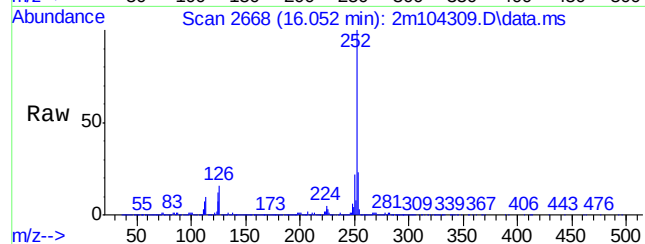
RT: 16.052 min Scan# 2668

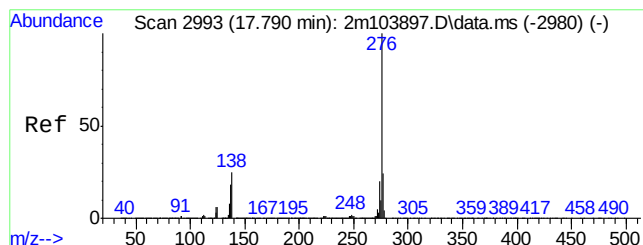
Delta R.T. -0.139 min

Lab File: 2m104309.D

Acq: 23 May 2018 7:47 am

Tgt Ion:	252	Resp:	252198
Ion Ratio	Lower	Upper	
252	100		
253	22.4	0.0	51.6
125	11.9	0.0	44.0





#96

Indeno[1,2,3-cd]pyrene

Concen: 3.62 ppm

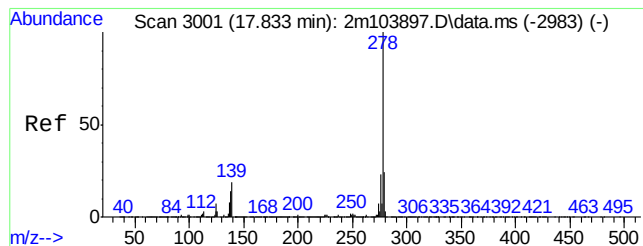
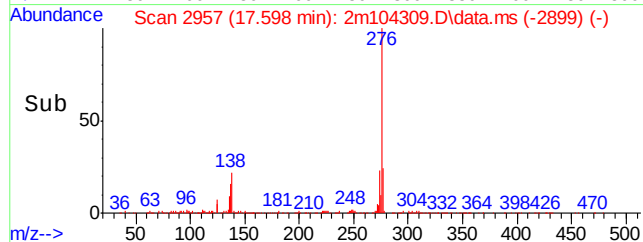
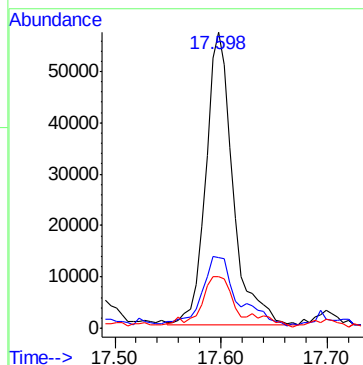
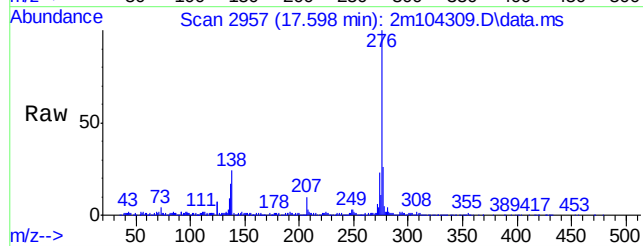
RT: 17.598 min Scan# 2957

Delta R.T. -0.192 min

Lab File: 2m104309.D

Acq: 23 May 2018 7:47 am

Tgt Ion:	276	Resp:	102268
Ion Ratio	Lower	Upper	
276	100		
138	21.9	0.0	52.7
137	16.3	0.0	46.8



#98

Dibenz[a,h]anthracene

Concen: 1.18 ppm m

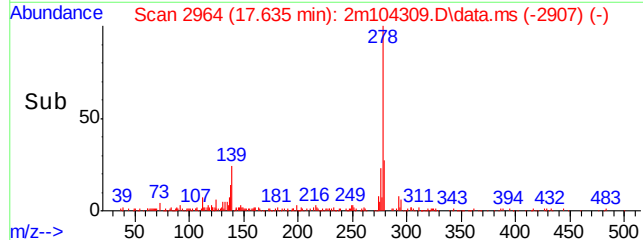
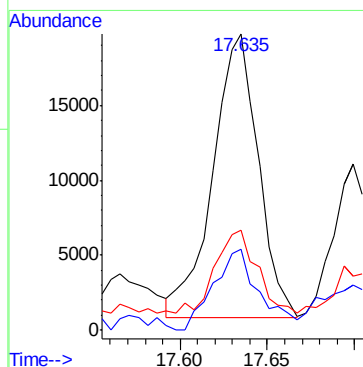
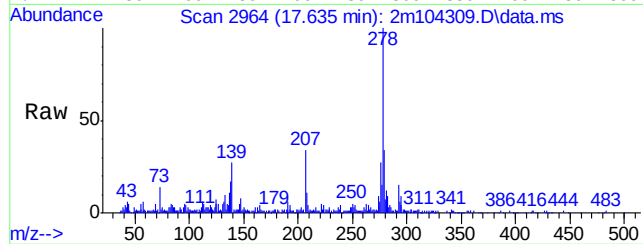
RT: 17.635 min Scan# 2964

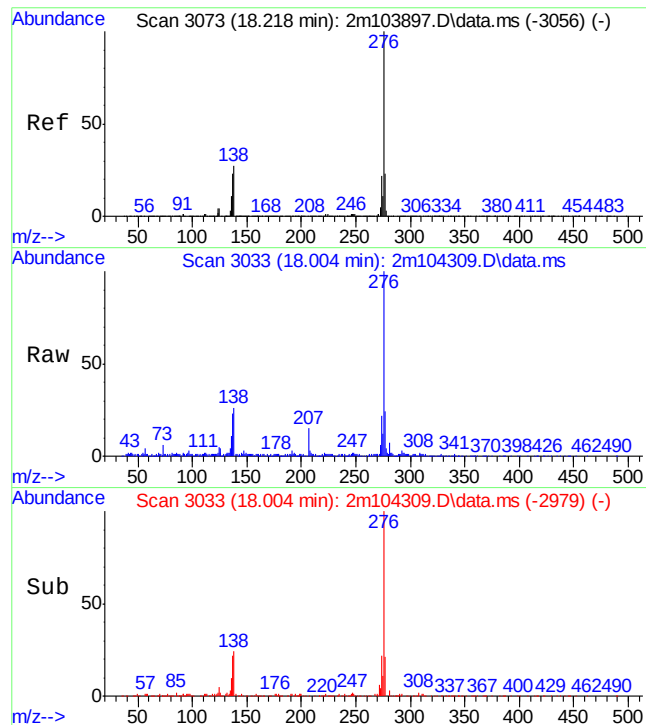
Delta R.T. -0.198 min

Lab File: 2m104309.D

Acq: 23 May 2018 7:47 am

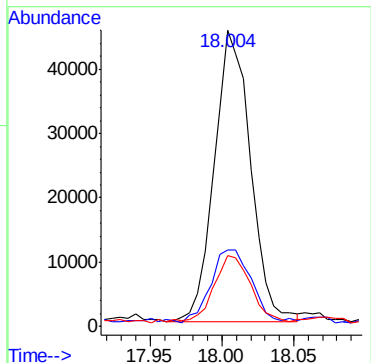
Tgt Ion:	278	Resp:	34151
Ion Ratio	Lower	Upper	
278	100		
139	27.2	0.0	48.9
279	33.6	0.0	53.6





#100
Benzo[g,h,i]perylene
Concen: 2.90 ppm
RT: 18.004 min Scan# 3033
Delta R.T. -0.214 min
Lab File: 2m104309.D
Acq: 23 May 2018 7:47 am

Tgt	Ion:276	Resp:	78907
Ion	Ratio	Lower	Upper
276	100		
138	24.5	0.0	57.0
277	22.5	0.0	53.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4635\
 Data File : 2m104313.D
 Acq On : 23 May 2018 9:33 am
 Operator : georges
 Sample : jc66322-7
 Misc : op12121,e2m4635,31.2,,,1,2
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: May 24 17:34:43 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
 Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 QLast Update : Thu May 17 13:00:25 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.579	152	297575	40.00	ppm	-0.09
24) Naphthalene-d8	5.654	136	1133757	40.00	ppm	-0.11
47) Acenaphthene-d10	7.697	164	569889	40.00	ppm	-0.12
69) Phenanthrene-d10	9.874	188	1024204	40.00	ppm	-0.11
83) Chrysene-d12	14.078	240	904229	40.00	ppm	-0.09
91) Perylene-d12	16.185	264	995216	40.00	ppm	-0.09
101) 1,4-Dichlorobenzene-d4a	4.579	152	297575	40.00	ppm	-0.09
103) Acenaphthene-d10a	7.697	164	569889	40.00	ppm	-0.12
105) Chrysene-d12a	14.078	240	904229	40.00	ppm	-0.07
108) Phenanthrene-d10a	9.874	188	1024204	40.00	ppm	-0.11
112) Naphthalene-d8a	5.654	136	1133757	40.00	ppm	-0.10
114) Chrysene-d12b	14.078	240	904229	40.00	ppm	-0.07
System Monitoring Compounds						
5) 2-Fluorophenol	3.600	112	163615	16.87	ppm	-0.07
Spiked Amount 50.000			Recovery	=	33.74%	
8) Phenol-d5	4.327	99	216124	17.77	ppm	-0.07
Spiked Amount 50.000			Recovery	=	35.54%	
25) Nitrobenzene-d5	5.012	82	177778	17.16	ppm	-0.10
Spiked Amount 50.000			Recovery	=	34.32%	
51) 2-Fluorobiphenyl	6.831	172	365237	17.54	ppm	-0.12
Spiked Amount 50.000			Recovery	=	35.08%	
73) 2,4,6-Tribromophenol	8.836	330	51180	16.52	ppm	-0.11
Spiked Amount 50.000			Recovery	=	33.04%	
85) Terphenyl-d14	12.425	244	387345	19.53	ppm	-0.12
Spiked Amount 50.000			Recovery	=	39.06%	
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0d	0.00	ppm	
Target Compounds						
38) Naphthalene	5.675	128	3990675	135.96	ppm	99
44) 2-Methylnaphthalene	6.397	141	661098	38.67	ppm	98
56) Acenaphthylene	7.510	152	3412618	122.51	ppm	97
59) Acenaphthene	7.740	153	1300971	71.18	ppm	99
66) Fluorene	8.489	166	9247759	464.24	ppm	98
77) Phenanthrene	9.917	178	29602575m	1012.96	ppm	
78) Anthracene	10.008	178	16869007	574.55	ppm	96
81) Fluoranthene	11.794	202	25799463m	860.36	ppm	
84) Pyrene	12.142	202	25517839m	845.01	ppm	
87) Benzo[a]anthracene	14.067	228	16218748	592.73	ppm	97
89) Chrysene	14.132	228	11666275	448.72	ppm	92
93) Benzo[b]fluoranthene	15.688	252	12146773	398.76	ppm	99
94) Benzo[k]fluoranthene	15.715	252	3675550	129.97	ppm	95
95) Benzo[a]pyrene	16.132	252	9965417	377.41	ppm	98
96) Indeno[1,2,3-cd]pyrene	17.694	276	4300228	163.62	ppm	90
98) Dibenz[a,h]anthracene	17.704	278	1356007m	50.21	ppm	
100) Benzo[g,h,i]perylene	18.116	276	3249386	128.32	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4635\
Data File : 2m104313.D
Acq On : 23 May 2018 9:33 am
Operator : georges
Sample : jc66322-7
Misc : op12121,e2m4635,31.2,,,1,2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: May 24 17:34:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Thu May 17 13:00:25 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
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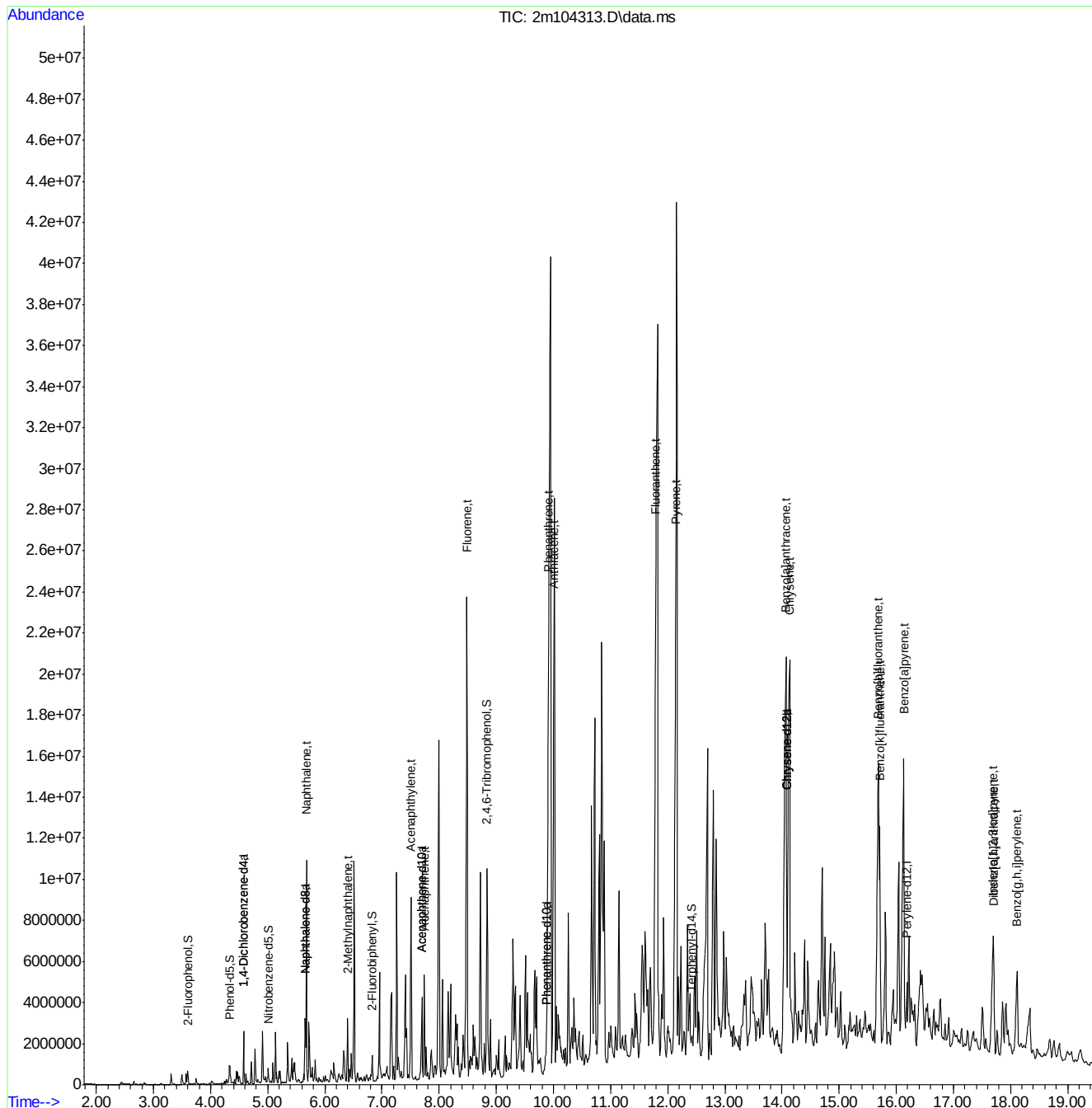
(#) = qualifier out of range (m) = manual integration (+) = signals summed

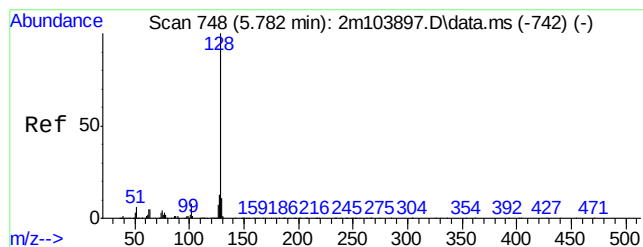
7.1.7
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4635\
Data File : 2m104313.D
Acq On : 23 May 2018 9:33 am
Operator : georges
Sample : jc66322-7
Misc : op12121,e2m4635,31.2,,,1,2
ALS Vial : 25 Sample Multiplier: 1

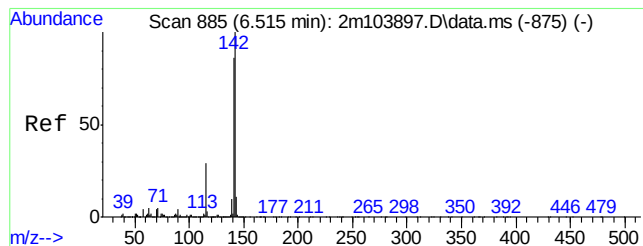
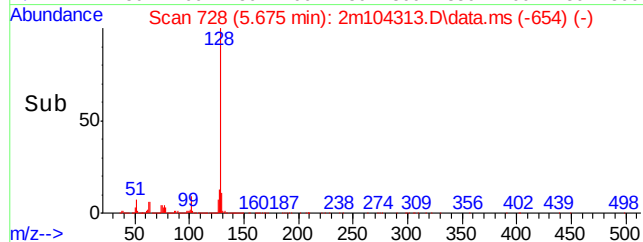
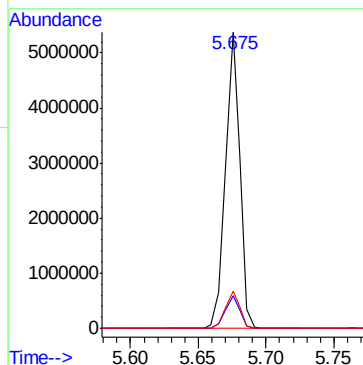
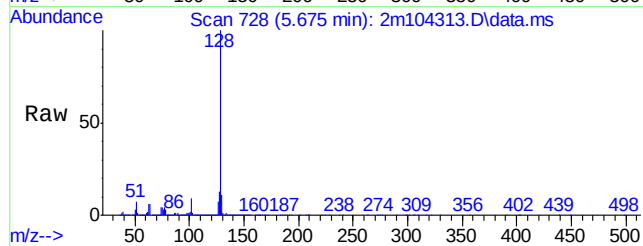
Quant Time: May 24 17:34:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Thu May 17 13:00:25 2018
Response via : Initial Calibration





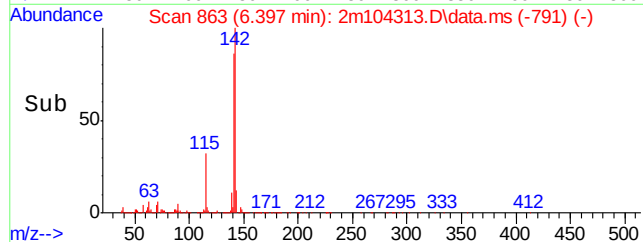
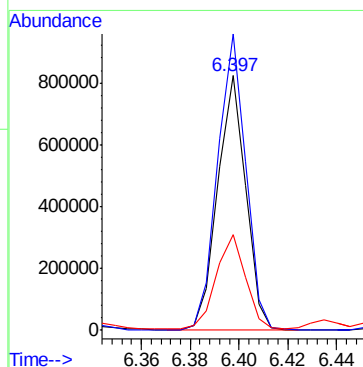
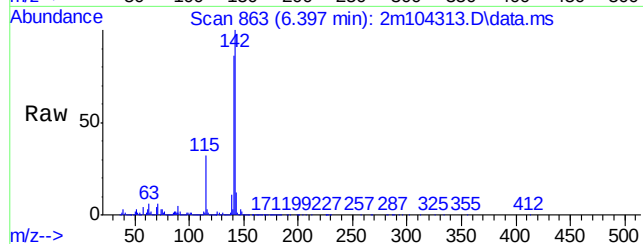
#38
Naphthalene
Concen: 135.96 ppm
RT: 5.675 min Scan# 728
Delta R.T. -0.107 min
Lab File: 2m104313.D
Acq: 23 May 2018 9:33 am

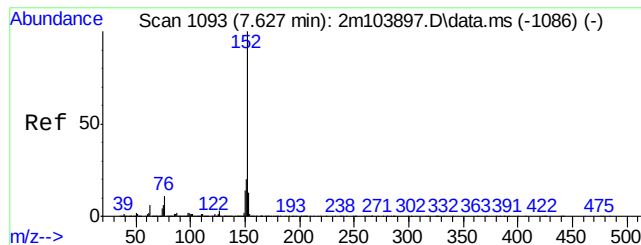
Tgt Ion:	128	Resp:	3990675
Ion Ratio	Lower	Upper	
128	100		
129	11.0	0.0	40.7
127	12.7	0.0	42.5



#44
2-Methylnaphthalene
Concen: 38.67 ppm
RT: 6.397 min Scan# 863
Delta R.T. -0.118 min
Lab File: 2m104313.D
Acq: 23 May 2018 9:33 am

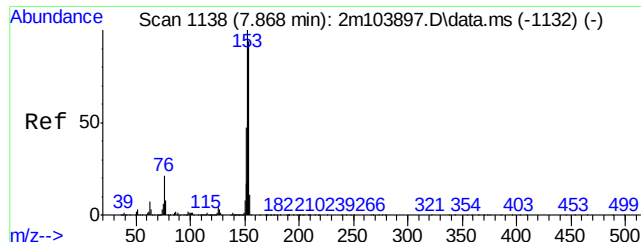
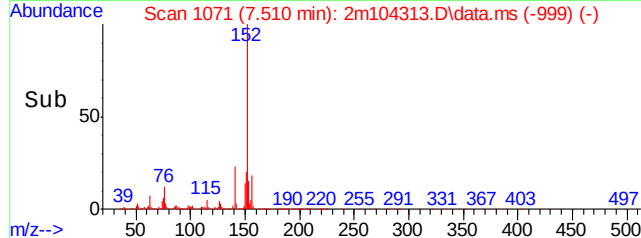
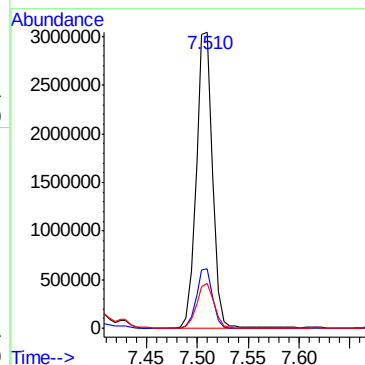
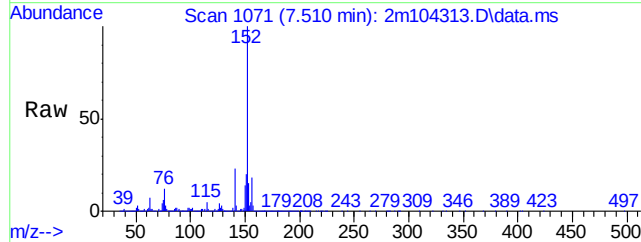
Tgt Ion:	141	Resp:	661098
Ion Ratio	Lower	Upper	
141	100		
142	116.5	86.4	146.4
115	37.2	3.6	63.6





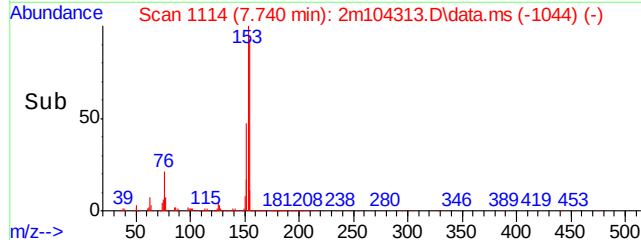
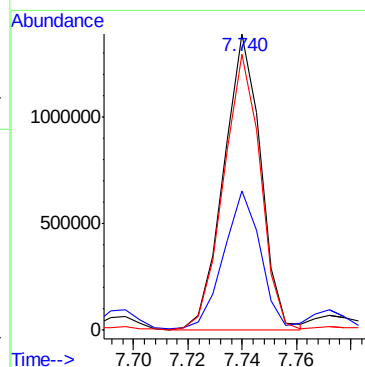
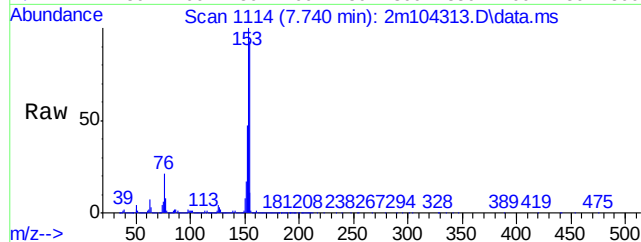
#56
Acenaphthylene
Concen: 122.51 ppm
RT: 7.510 min Scan# 1071
Delta R.T. -0.117 min
Lab File: 2m104313.D
Acq: 23 May 2018 9:33 am

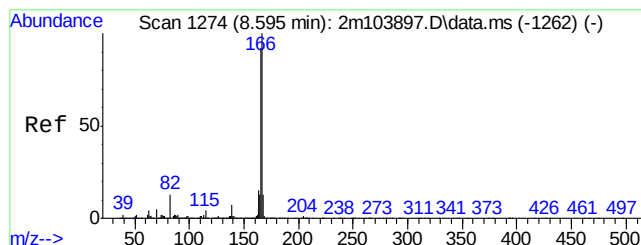
Tgt Ion:	152	Resp:	3412618
Ion Ratio	Lower	Upper	
152	100		
151	20.2	0.0	49.6
153	15.3	0.0	42.8



#59
Acenaphthene
Concen: 71.18 ppm
RT: 7.740 min Scan# 1114
Delta R.T. -0.128 min
Lab File: 2m104313.D
Acq: 23 May 2018 9:33 am

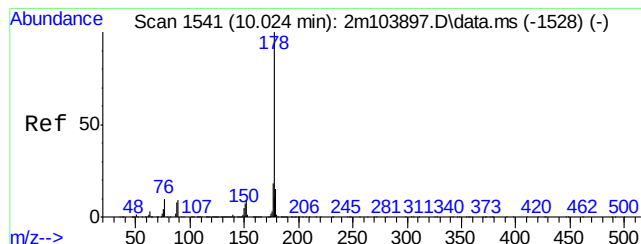
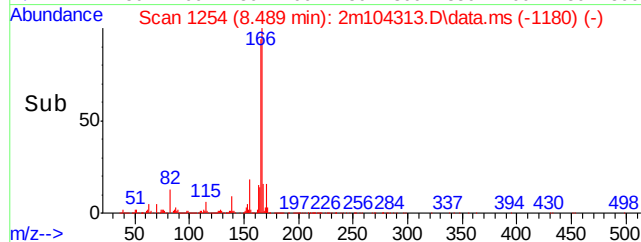
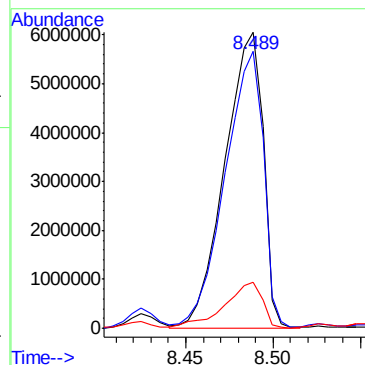
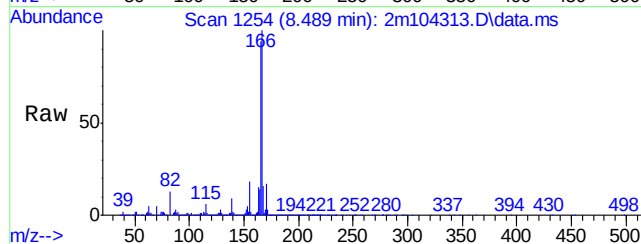
Tgt Ion:	153	Resp:	1300971
Ion Ratio	Lower	Upper	
153	100		
152	46.0	17.1	77.1
154	94.0	62.8	122.8





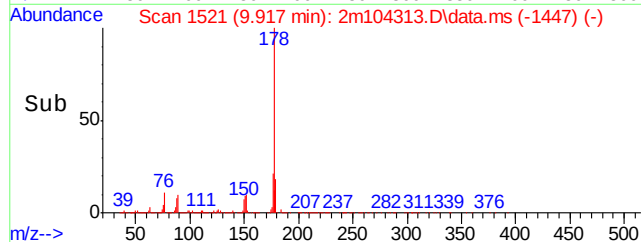
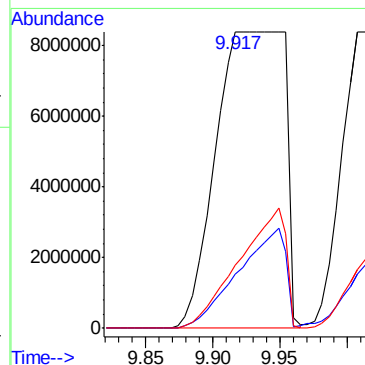
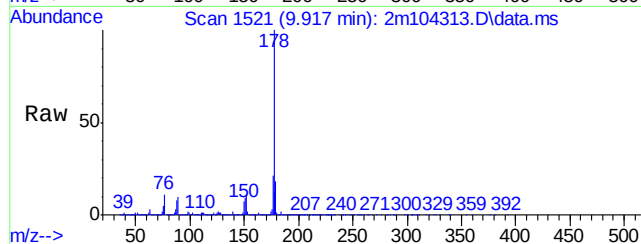
#66
Fluorene
Concen: 464.24 ppm
RT: 8.489 min Scan# 1254
Delta R.T. -0.107 min
Lab File: 2m104313.D
Acq: 23 May 2018 9:33 am

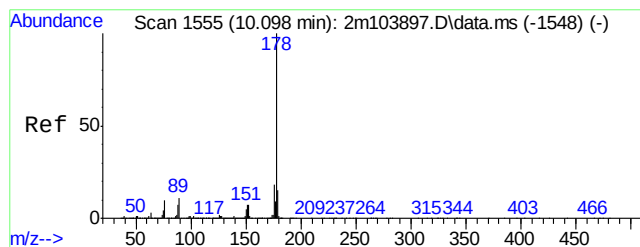
Tgt Ion	Ratio	Lower	Upper
166	100		
165	93.3	62.0	122.0
167	15.3	0.0	42.9



#77
Phenanthrene
Concen: 1012.96 ppm m
RT: 9.917 min Scan# 1521
Delta R.T. -0.107 min
Lab File: 2m104313.D
Acq: 23 May 2018 9:33 am

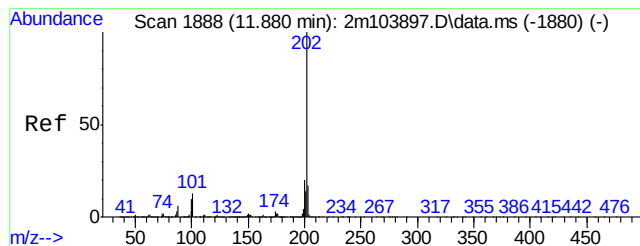
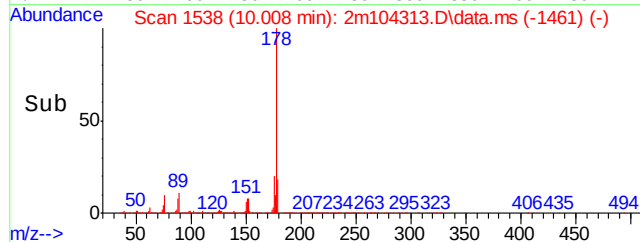
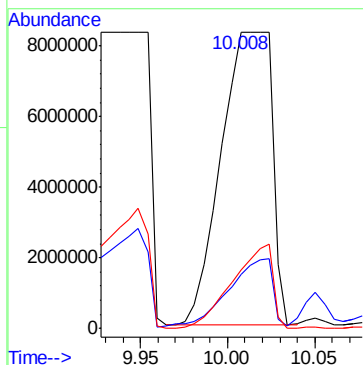
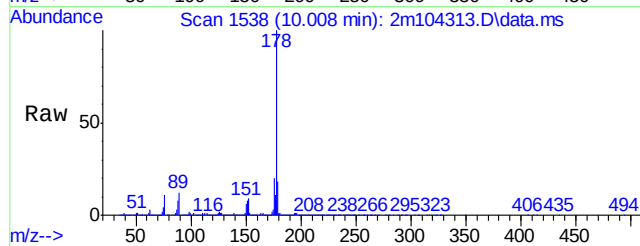
Tgt Ion	Ratio	Lower	Upper
178	100		
179	18.1	0.0	45.2
176	21.2	0.0	48.5





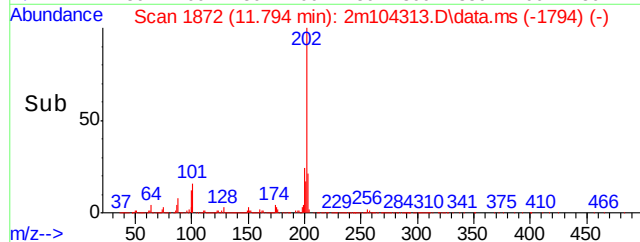
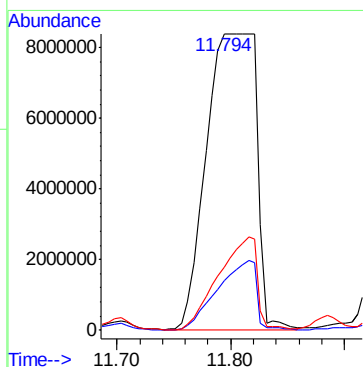
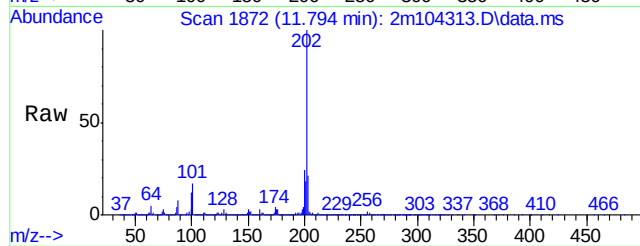
#78
 Anthracene
 Concen: 574.55 ppm
 RT: 10.008 min Scan# 1538
 Delta R.T. -0.091 min
 Lab File: 2m104313.D
 Acq: 23 May 2018 9:33 am

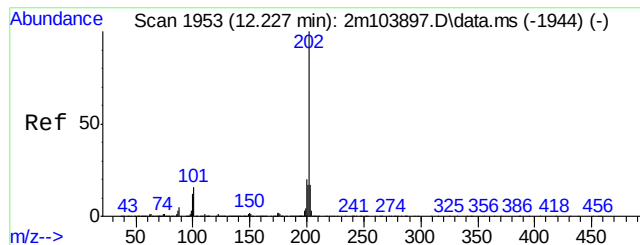
Tgt Ion:	178	Resp:	16869007
Ion Ratio	Lower	Upper	
178	100		
179	16.5	0.0	45.1
176	19.8	0.0	47.7



#81
 Fluoranthene
 Concen: 860.36 ppm m
 RT: 11.794 min Scan# 1872
 Delta R.T. -0.085 min
 Lab File: 2m104313.D
 Acq: 23 May 2018 9:33 am

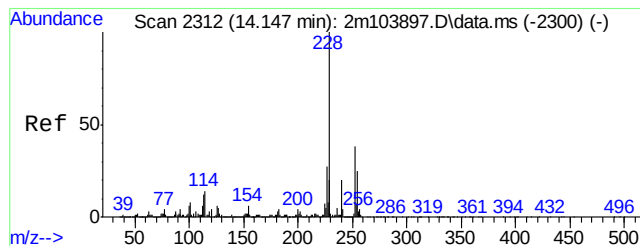
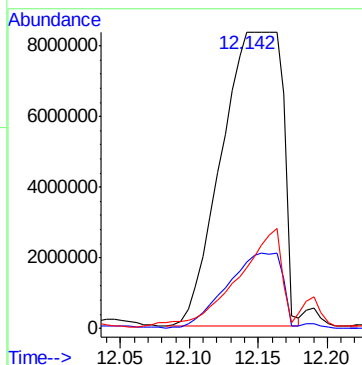
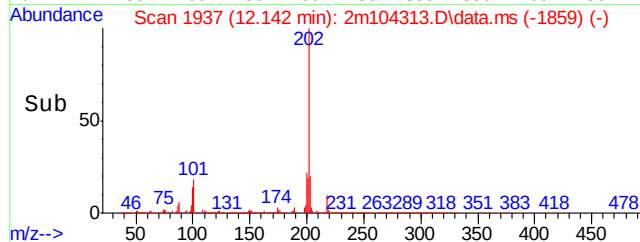
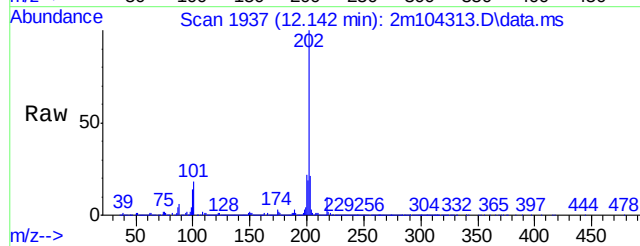
Tgt Ion:	202	Resp:	25799463
Ion Ratio	Lower	Upper	
202	100		
101	16.7	0.0	43.1
203	21.2	0.0	47.0





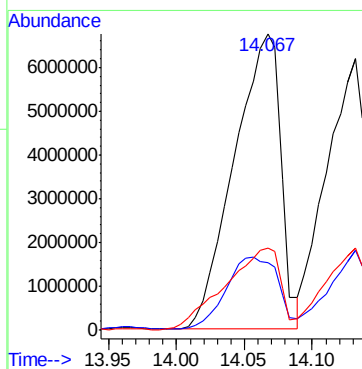
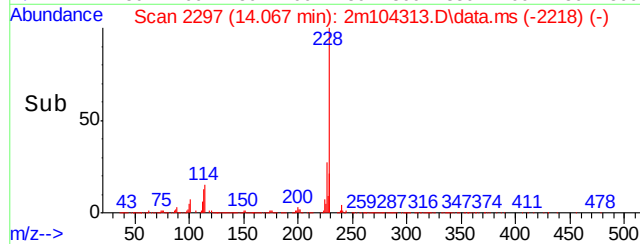
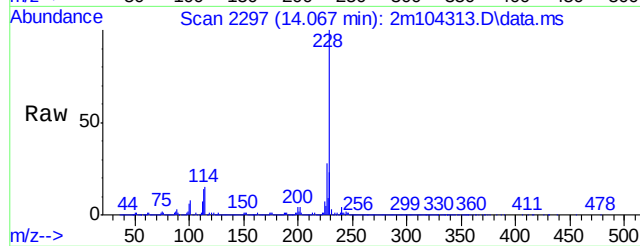
#84
Pyrene
Concen: 845.01 ppm
RT: 12.142 min Scan# 1937
Delta R.T. -0.085 min
Lab File: 2m104313.D
Acq: 23 May 2018 9:33 am

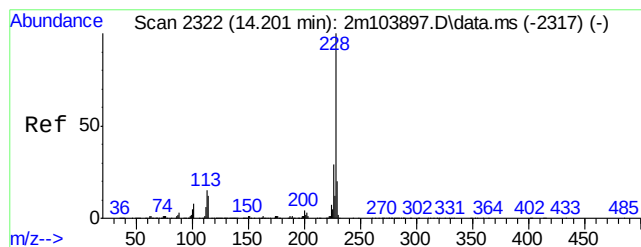
Tgt Ion	Ratio	Lower	Upper
202	100		
200	22.3	0.0	50.0
203	20.6	0.0	47.3



#87
Benzo[a]anthracene
Concen: 592.73 ppm
RT: 14.067 min Scan# 2297
Delta R.T. -0.080 min
Lab File: 2m104313.D
Acq: 23 May 2018 9:33 am

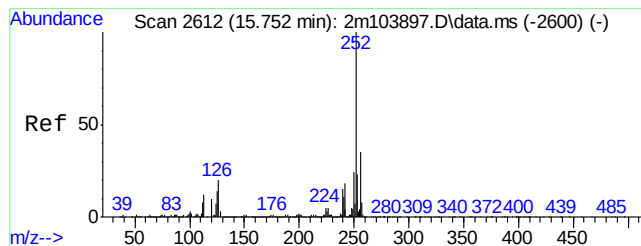
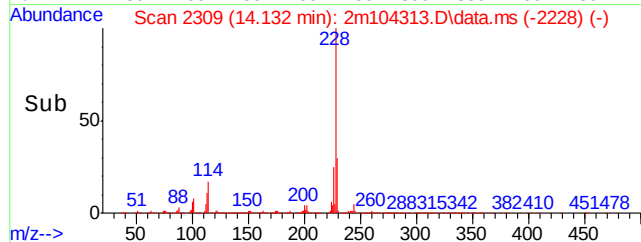
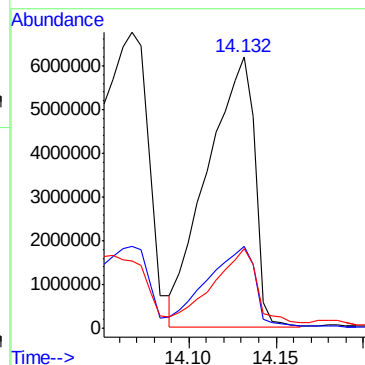
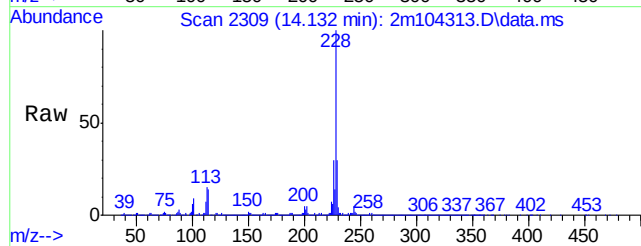
Tgt Ion	Ratio	Lower	Upper
228	100		
229	21.9	0.0	49.8
226	27.4	0.0	56.6





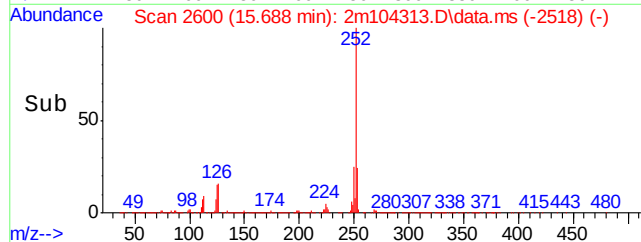
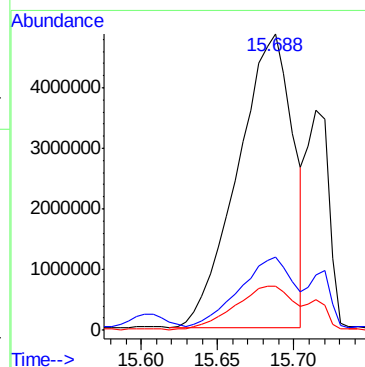
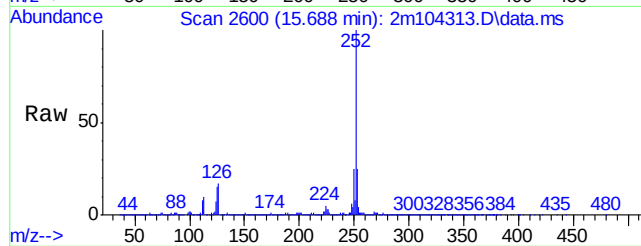
#89
Chrysene
Concen: 448.72 ppm
RT: 14.132 min Scan# 2309
Delta R.T. -0.069 min
Lab File: 2m104313.D
Acq: 23 May 2018 9:33 am

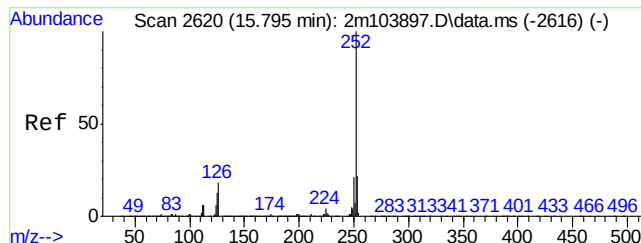
Tgt Ion:	228	Resp:	11666275
Ion	Ratio	Lower	Upper
228	100		
226	29.6	0.0	58.8
229	28.3	0.0	49.8



#93
Benzo[b]fluoranthene
Concen: 398.76 ppm
RT: 15.688 min Scan# 2600
Delta R.T. -0.064 min
Lab File: 2m104313.D
Acq: 23 May 2018 9:33 am

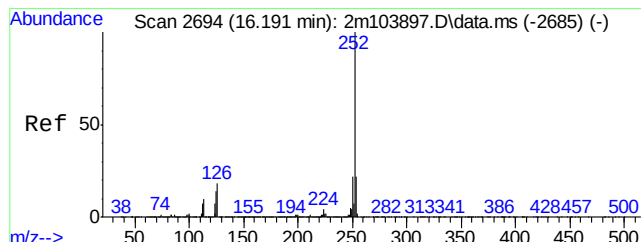
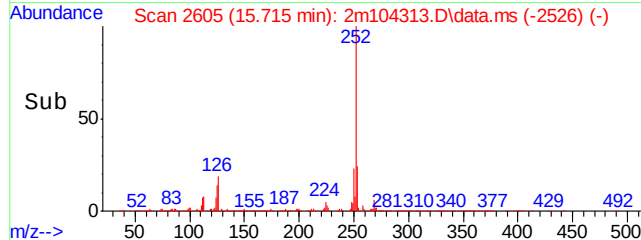
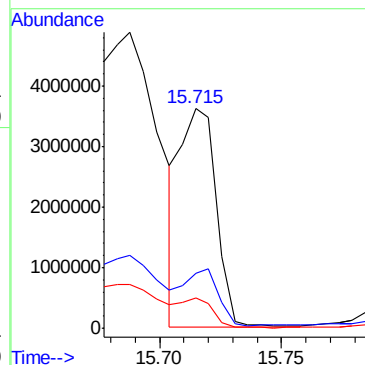
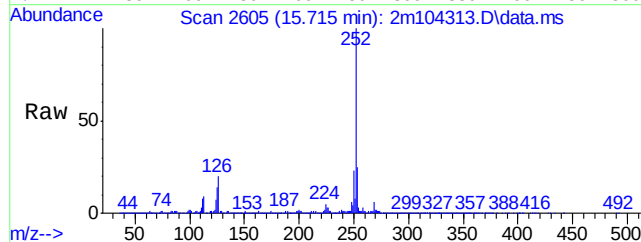
Tgt Ion:	252	Resp:	12146773
Ion	Ratio	Lower	Upper
252	100		
253	23.1	0.0	52.5
125	15.0	0.0	44.3





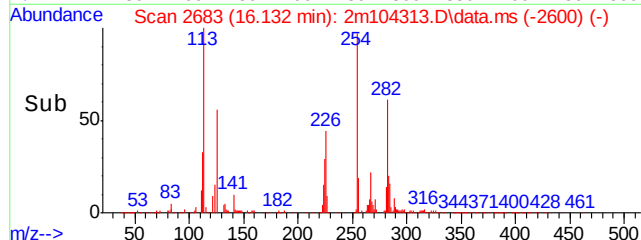
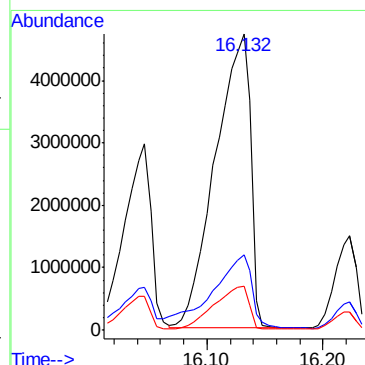
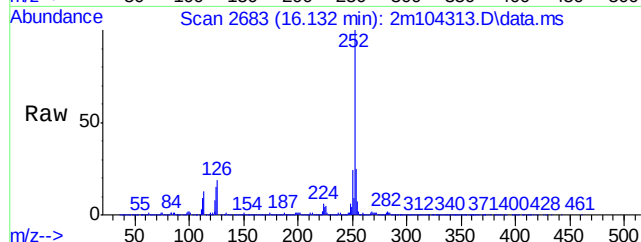
#94
Benzo[k]fluoranthene
Concen: 129.97 ppm
RT: 15.715 min Scan# 2605
Delta R.T. -0.080 min
Lab File: 2m104313.D
Acq: 23 May 2018 9:33 am

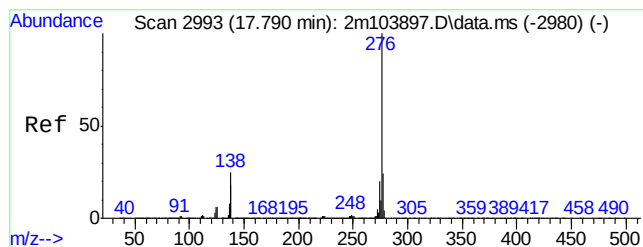
Tgt Ion:	252	Resp:	3675550
Ion Ratio	Lower	Upper	
252	100		
253	24.9	0.0	51.8
125	13.5	0.0	42.9



#95
Benzo[a]pyrene
Concen: 377.41 ppm
RT: 16.132 min Scan# 2683
Delta R.T. -0.059 min
Lab File: 2m104313.D
Acq: 23 May 2018 9:33 am

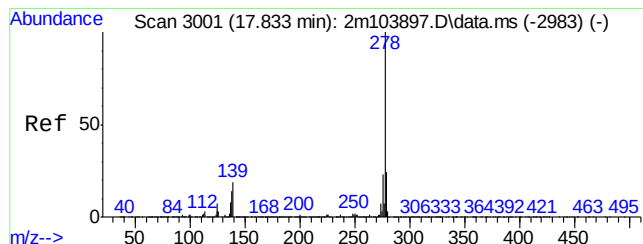
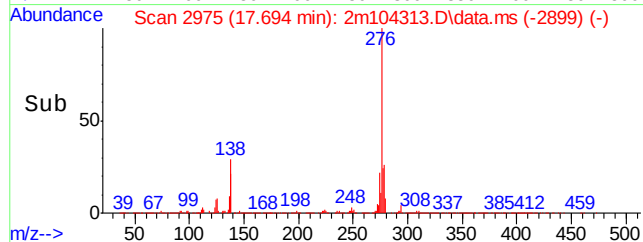
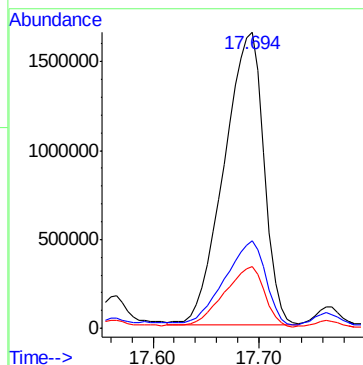
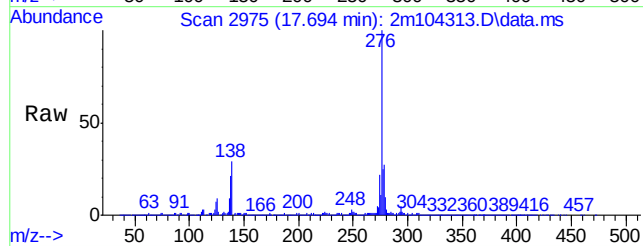
Tgt Ion:	252	Resp:	9965417
Ion Ratio	Lower	Upper	
252	100		
253	23.0	0.0	51.6
125	14.6	0.0	44.0





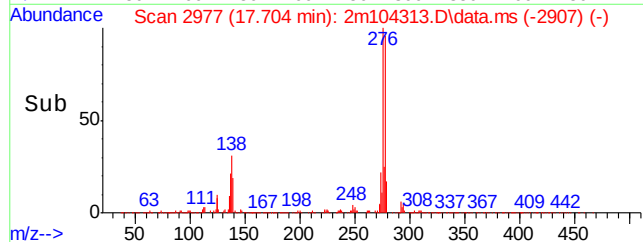
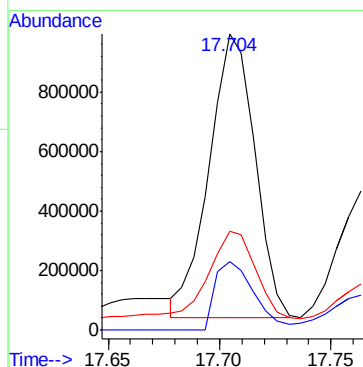
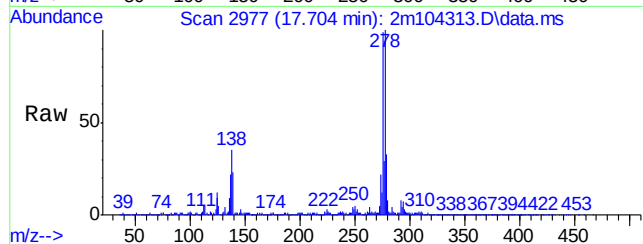
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 163.62 ppm
 RT: 17.694 min Scan# 2975
 Delta R.T. -0.096 min
 Lab File: 2m104313.D
 Acq: 23 May 2018 9:33 am

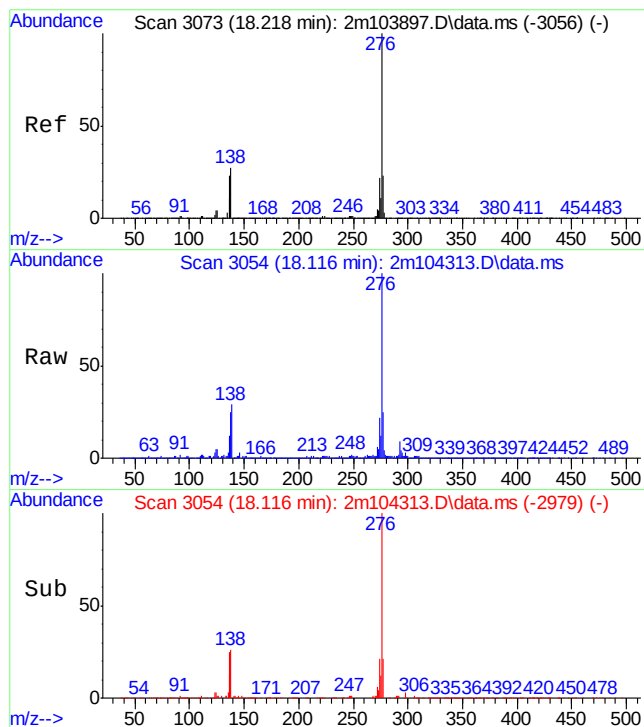
Tgt Ion:	276	Resp:	4300228
Ion Ratio	Lower	Upper	
276	100		
138	28.5	0.0	52.7
137	20.4	0.0	46.8



#98
 Dibenz[a,h]anthracene
 Concen: 50.21 ppm m
 RT: 17.704 min Scan# 2977
 Delta R.T. -0.128 min
 Lab File: 2m104313.D
 Acq: 23 May 2018 9:33 am

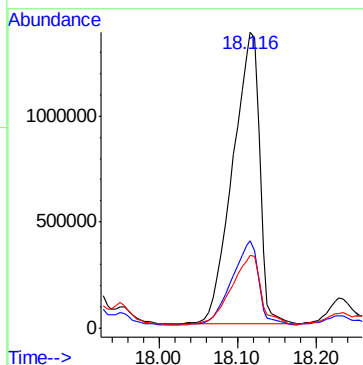
Tgt Ion:	278	Resp:	1356007
Ion Ratio	Lower	Upper	
278	100		
139	23.0	0.0	48.9
279	33.3	0.0	53.6





#100
 Benzo[g,h,i]perylene
 Concen: 128.32 ppm
 RT: 18.116 min Scan# 3054
 Delta R.T. -0.101 min
 Lab File: 2m104313.D
 Acq: 23 May 2018 9:33 am

Tgt Ion	Ratio	Lower	Upper
276	100		
138	28.6	0.0	57.0
277	23.6	0.0	53.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4633\
 Data File : 2m104253.D
 Acq On : 22 May 2018 2:04 am
 Operator : johnb1
 Sample : jc66322-8
 Misc : op12121,e2m4633,30.6,,,1,1
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 24 17:52:45 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
 Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 QLast Update : Thu May 17 13:00:25 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.595	152	348212	40.00	ppm	-0.07
24) Naphthalene-d8	5.670	136	1295922	40.00	ppm	-0.09
47) Acenaphthene-d10	7.718	164	594076	40.00	ppm	-0.10
69) Phenanthrene-d10	9.890	188	1087232	40.00	ppm	-0.10
83) Chrysene-d12	14.142	240	1024569	40.00	ppm	-0.02
91) Perylene-d12	16.255	264	1156537	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.595	152	348212	40.00	ppm	-0.07
103) Acenaphthene-d10a	7.718	164	594076	40.00	ppm	-0.10
105) Chrysene-d12a	14.142	240	1024569	40.00	ppm	-0.01
108) Phenanthrene-d10a	9.890	188	1087232	40.00	ppm	-0.10
112) Naphthalene-d8a	5.670	136	1295922	40.00	ppm	-0.09
114) Chrysene-d12b	14.142	240	1036891m	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.621	112	363256	32.01	ppm	-0.05
Spiked Amount 50.000			Recovery	=	64.02%	
8) Phenol-d5	4.343	99	469470	32.98	ppm	-0.05
Spiked Amount 50.000			Recovery	=	65.96%	
25) Nitrobenzene-d5	5.033	82	382049	32.26	ppm	-0.07
Spiked Amount 50.000			Recovery	=	64.52%	
51) 2-Fluorobiphenyl	6.852	172	759088	34.98	ppm	-0.10
Spiked Amount 50.000			Recovery	=	69.96%	
73) 2,4,6-Tribromophenol	8.852	330	103216	31.38	ppm	-0.09
Spiked Amount 50.000			Recovery	=	62.76%	
85) Terphenyl-d14	12.468	244	792818	35.28	ppm	-0.07
Spiked Amount 50.000			Recovery	=	70.56%	
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0d	0.00	ppm	
Target Compounds						
38) Naphthalene	5.691	128	674281	20.10	ppm	98
44) 2-Methylnaphthalene	6.419	141	122623	6.28	ppm	94
56) Acenaphthylene	7.531	152	4284826	147.56	ppm	99
59) Acenaphthene	7.761	153	461490	24.22	ppm	99
66) Fluorene	8.494	166	998671	48.09	ppm	99
77) Phenanthrene	9.933	178	6441943	207.66	ppm	98
78) Anthracene	10.018	178	6866335	220.30	ppm	98
81) Fluoranthene	11.821	202	37787699m	1187.09	ppm	
84) Pyrene	12.179	202	35774145m	1045.50	ppm	
87) Benzo[a]anthracene	14.121	228	27435260	884.89	ppm	74
89) Chrysene	14.196	228	20307984	689.37	ppm	86
93) Benzo[b]fluoranthene	15.768	252	28298394	799.42	ppm	94
94) Benzo[k]fluoranthene	15.795	252	5750195m	174.97	ppm	
95) Benzo[a]pyrene	16.212	252	20171041	657.36	ppm	94
96) Indeno[1,2,3-cd]pyrene	17.817	276	10456382	342.36	ppm	86
98) Dibenz[a,h]anthracene	17.827	278	3690511	117.58	ppm	75
100) Benzo[g,h,i]perylene	18.250	276	8115702	275.80	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4633\
Data File : 2m104253.D
Acq On : 22 May 2018 2:04 am
Operator : johnb1
Sample : jc66322-8
Misc : op12121,e2m4633,30.6,,,1,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 24 17:52:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Thu May 17 13:00:25 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

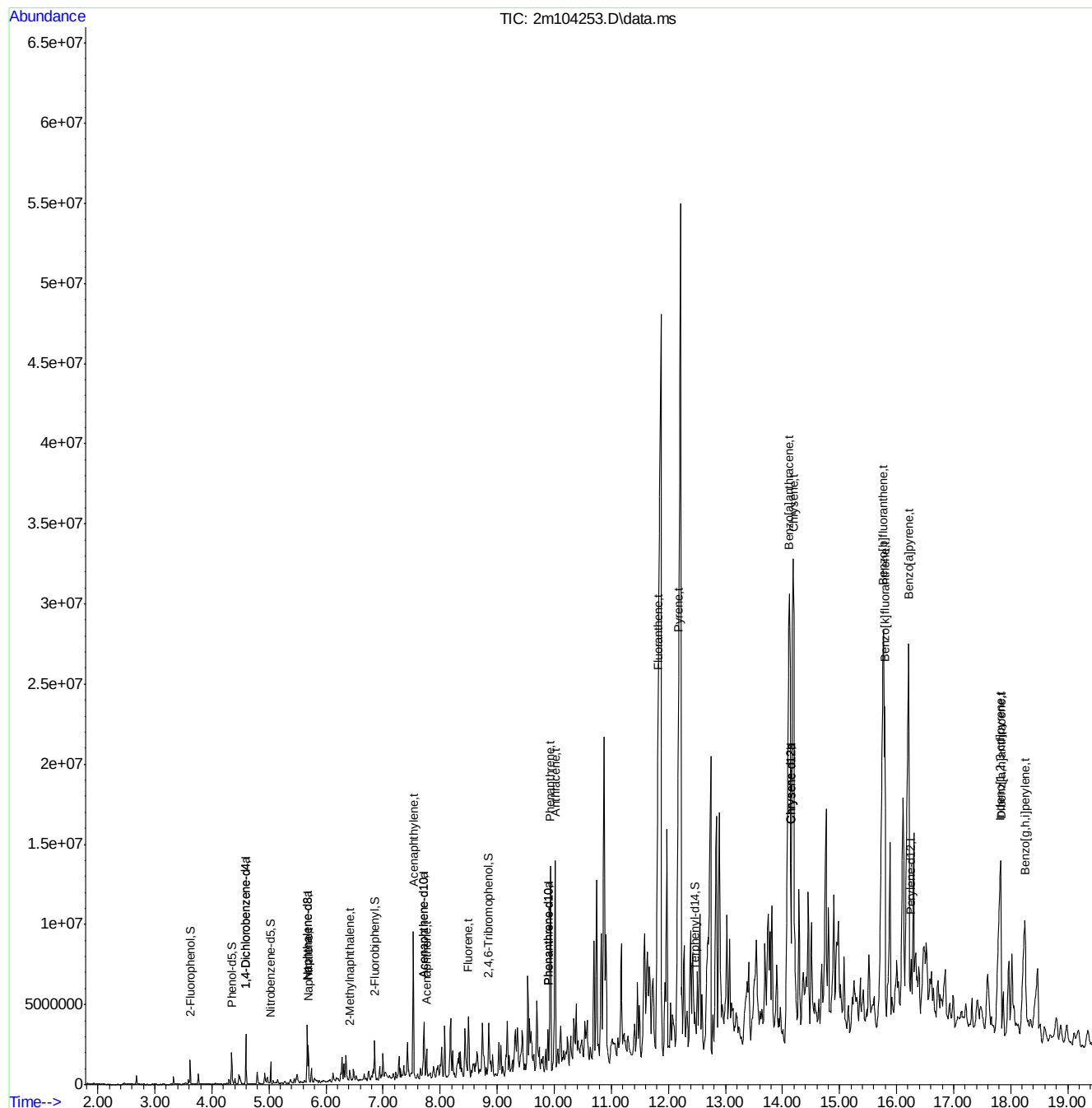
(#) = qualifier out of range (m) = manual integration (+) = signals summed						

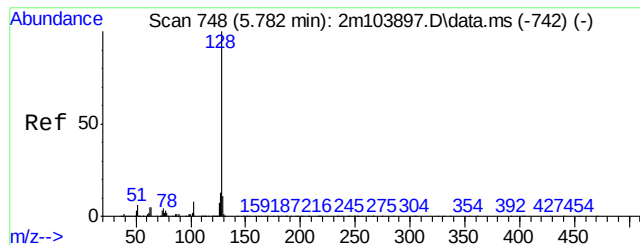
7.1.8
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4633\
Data File : 2m104253.D
Acq On : 22 May 2018 2:04 am
Operator : johnb1
Sample : jc66322-8
Misc : op12121,e2m4633,30.6,,,1,1
ALS Vial : 24 Sample Multiplier: 1

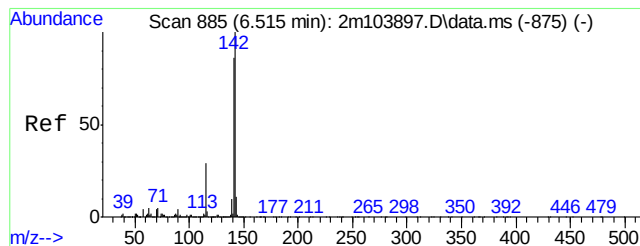
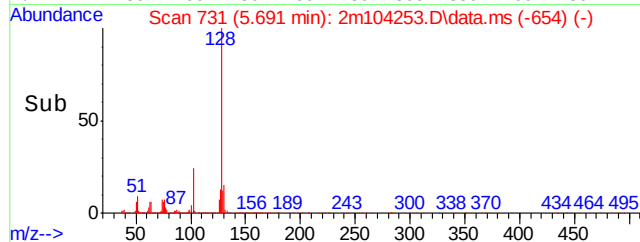
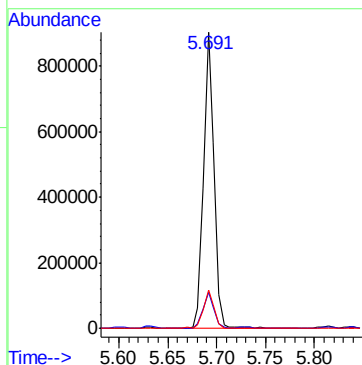
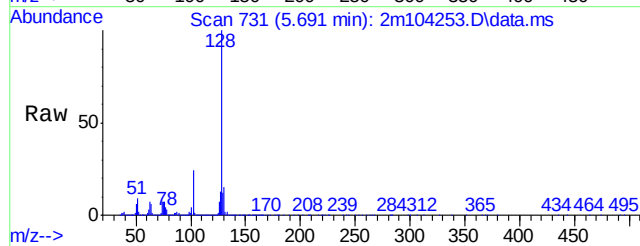
Quant Time: May 24 17:52:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Thu May 17 13:00:25 2018
Response via : Initial Calibration





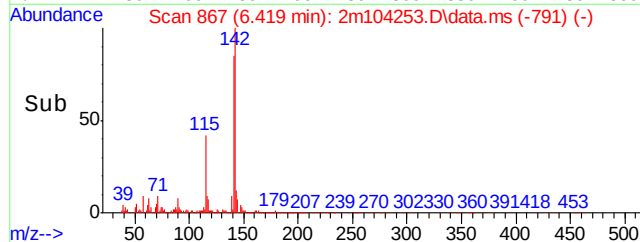
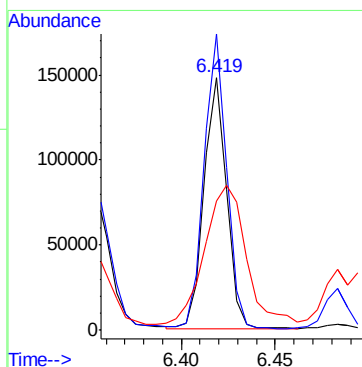
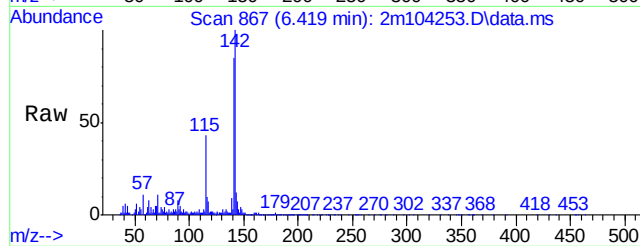
#38
Naphthalene
Concen: 20.10 ppm
RT: 5.691 min Scan# 731
Delta R.T. -0.091 min
Lab File: 2m104253.D
Acq: 22 May 2018 2:04 am

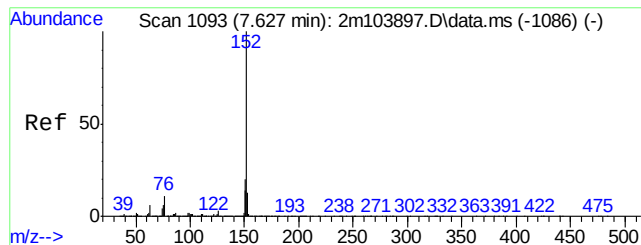
Tgt Ion:	128	Resp:	674281
Ion Ratio	Lower	Upper	
128	100		
129	12.0	0.0	40.7
127	12.8	0.0	42.5



#44
2-Methylnaphthalene
Concen: 6.28 ppm
RT: 6.419 min Scan# 867
Delta R.T. -0.096 min
Lab File: 2m104253.D
Acq: 22 May 2018 2:04 am

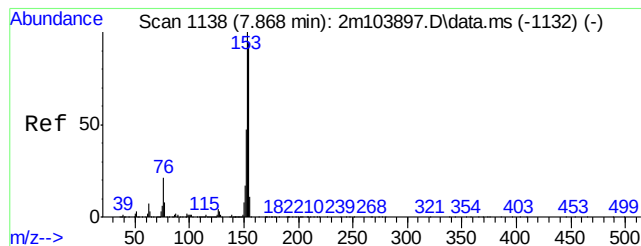
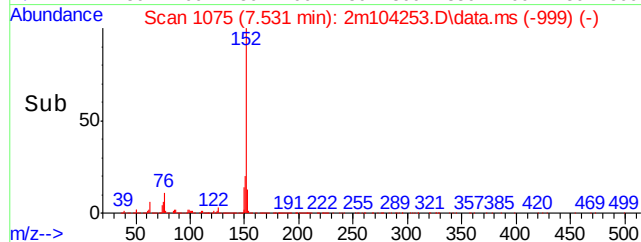
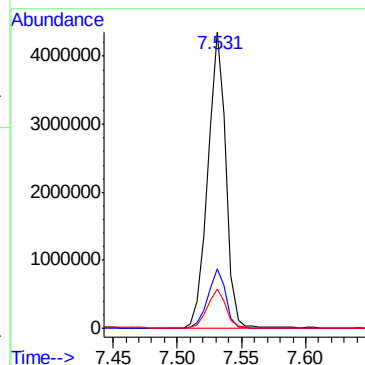
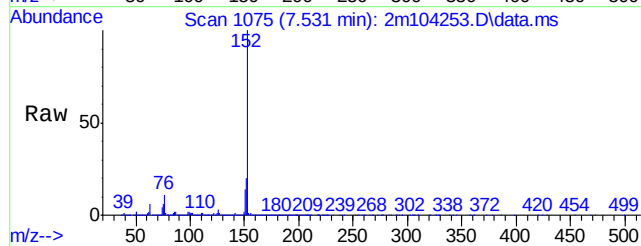
Tgt Ion:	141	Resp:	122623
Ion Ratio	Lower	Upper	
141	100		
142	117.4	86.4	146.4
115	48.3	3.6	63.6





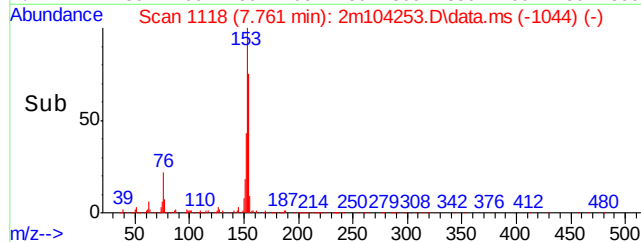
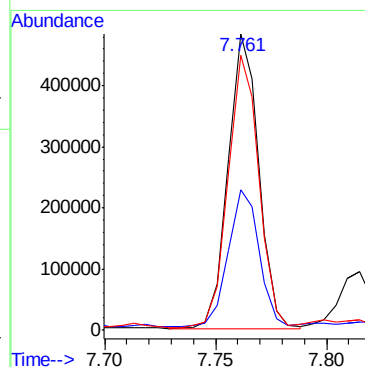
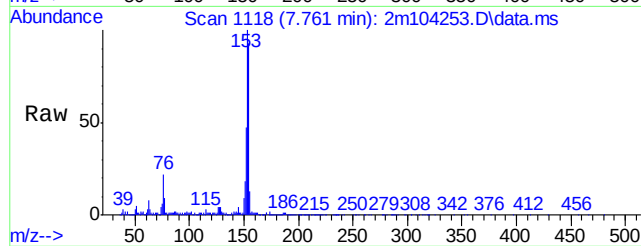
#56
Acenaphthylene
Concen: 147.56 ppm
RT: 7.531 min Scan# 1075
Delta R.T. -0.096 min
Lab File: 2m104253.D
Acq: 22 May 2018 2:04 am

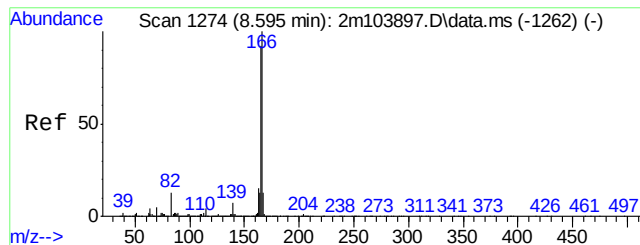
Tgt Ion:	152	Resp:	4284826
Ion Ratio	Lower	Upper	
152	100		
151	19.9	0.0	49.6
153	13.3	0.0	42.8



#59
Acenaphthene
Concen: 24.22 ppm
RT: 7.761 min Scan# 1118
Delta R.T. -0.107 min
Lab File: 2m104253.D
Acq: 22 May 2018 2:04 am

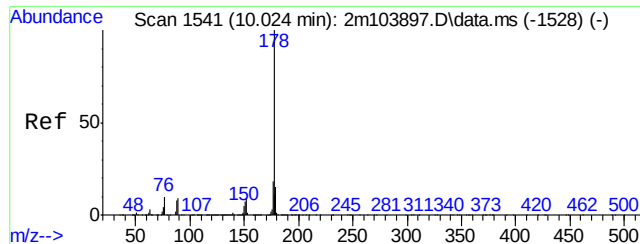
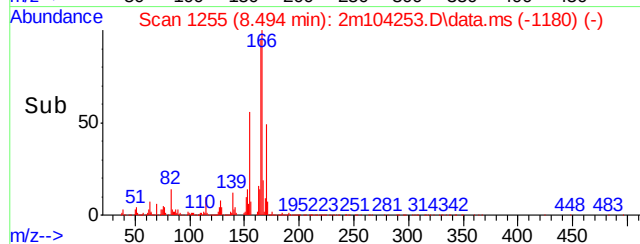
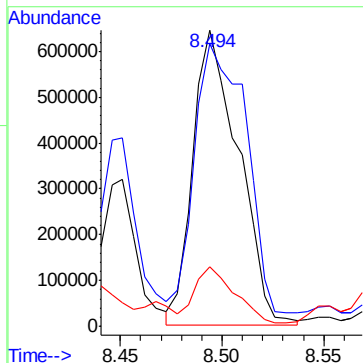
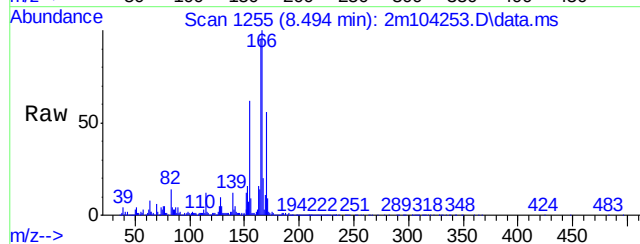
Tgt Ion:	153	Resp:	461490
Ion Ratio	Lower	Upper	
153	100		
152	46.3	17.1	77.1
154	92.3	62.8	122.8





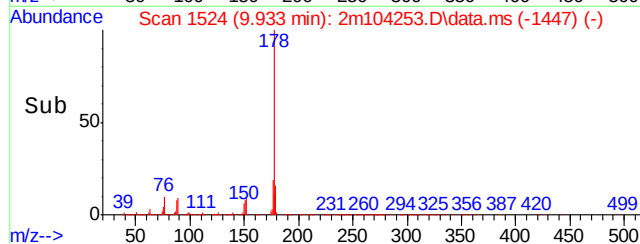
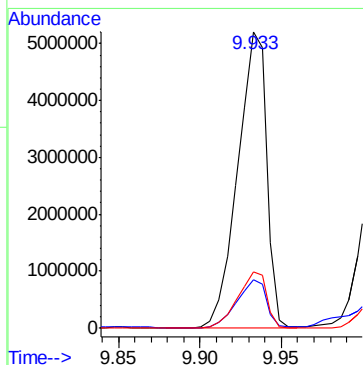
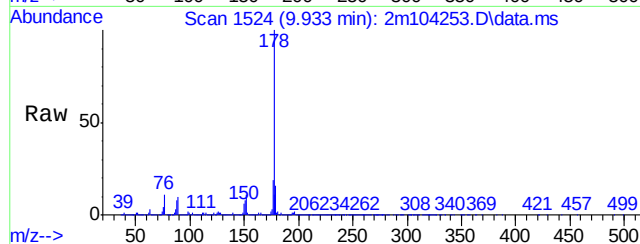
#66
Fluorene
Concen: 48.09 ppm
RT: 8.494 min Scan# 1255
Delta R.T. -0.101 min
Lab File: 2m104253.D
Acq: 22 May 2018 2:04 am

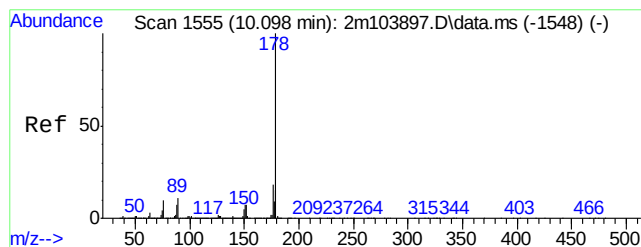
Tgt Ion	Ratio	Lower	Upper
166	100		
165	92.3	62.0	122.0
167	16.4	0.0	42.9



#77
Phenanthrene
Concen: 207.66 ppm
RT: 9.933 min Scan# 1524
Delta R.T. -0.091 min
Lab File: 2m104253.D
Acq: 22 May 2018 2:04 am

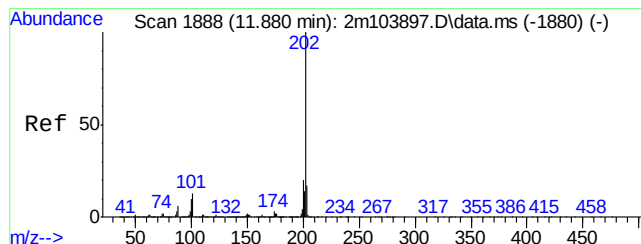
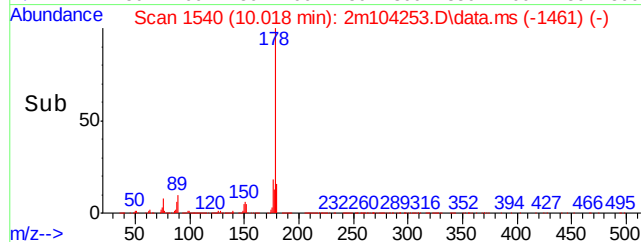
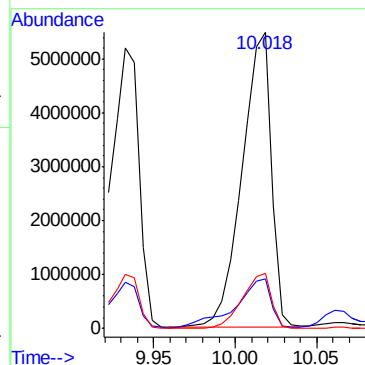
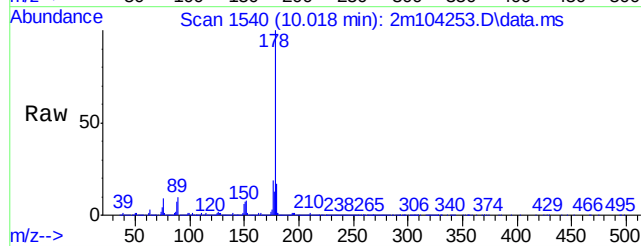
Tgt Ion	Ratio	Lower	Upper
178	100		
179	16.2	0.0	45.2
176	19.1	0.0	48.5





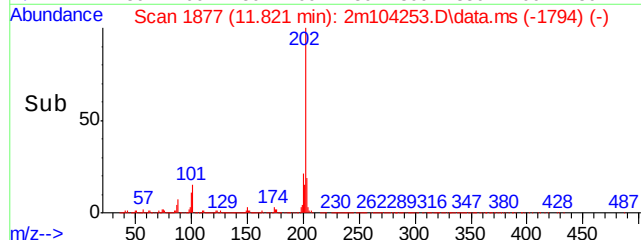
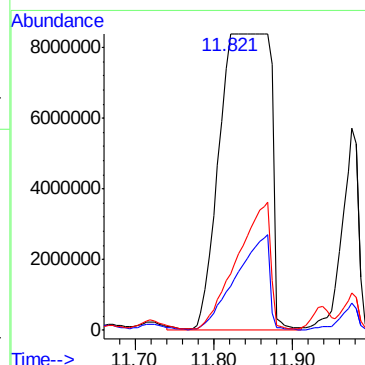
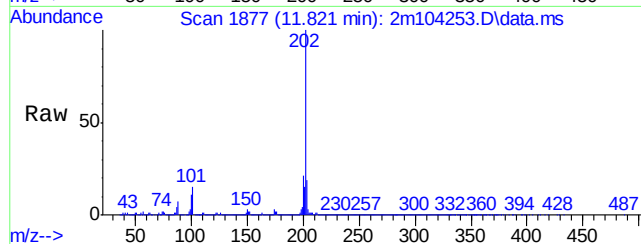
#78
 Anthracene
 Concen: 220.30 ppm
 RT: 10.018 min Scan# 1540
 Delta R.T. -0.080 min
 Lab File: 2m104253.D
 Acq: 22 May 2018 2:04 am

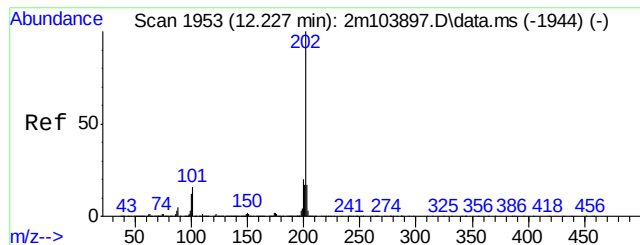
Tgt Ion:	178	Resp:	6866335
Ion Ratio	Lower	Upper	
178	100		
179	16.3	0.0	45.1
176	18.5	0.0	47.7



#81
 Fluoranthene
 Concen: 1187.09 ppm m
 RT: 11.821 min Scan# 1877
 Delta R.T. -0.059 min
 Lab File: 2m104253.D
 Acq: 22 May 2018 2:04 am

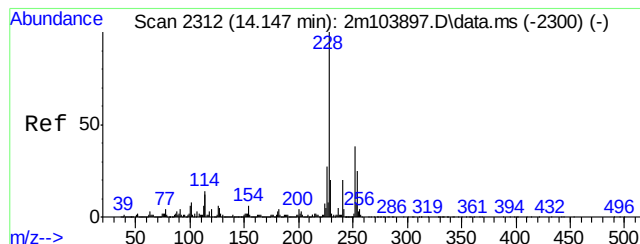
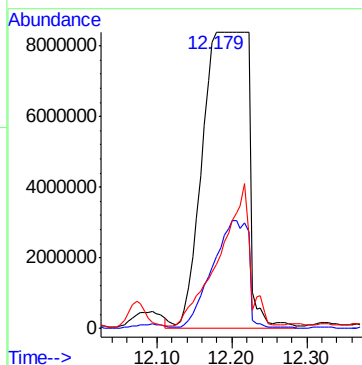
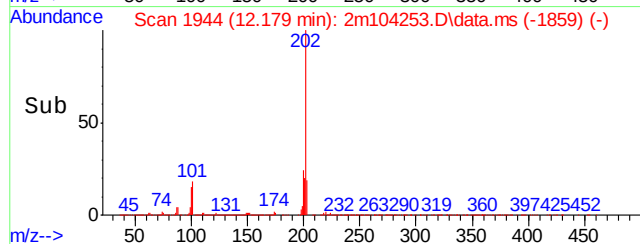
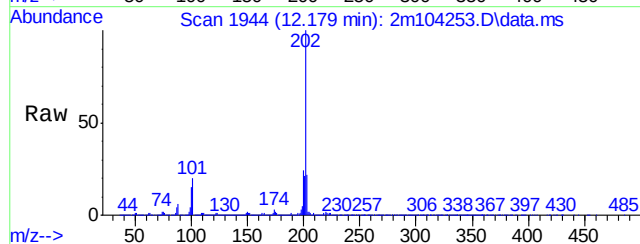
Tgt Ion:	202	Resp:	37787699
Ion Ratio	Lower	Upper	
202	100		
101	15.0	0.0	43.1
203	19.0	0.0	47.0





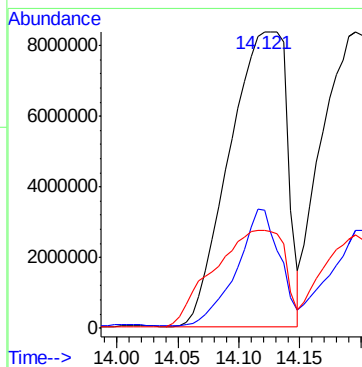
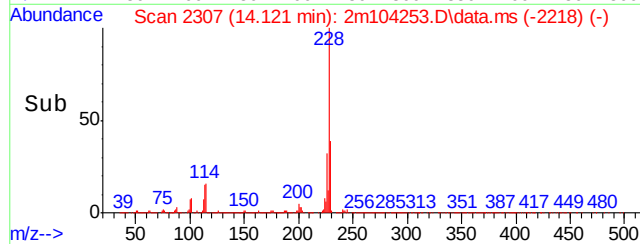
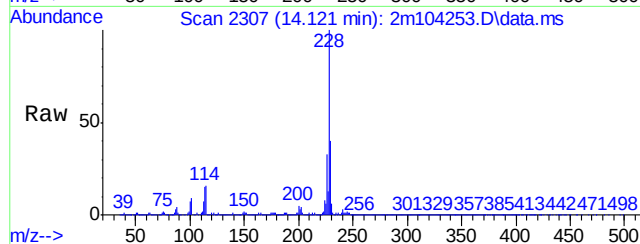
#84
Pyrene
Concen: 1045.50 ppm m
RT: 12.179 min Scan# 1944
Delta R.T. -0.048 min
Lab File: 2m104253.D
Acq: 22 May 2018 2:04 am

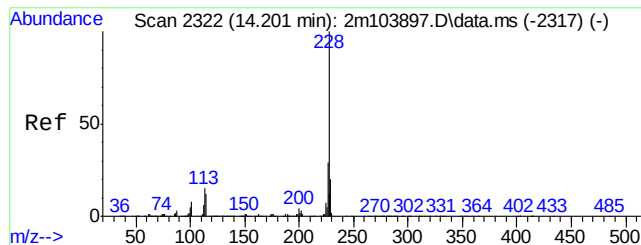
Tgt Ion:	202	Resp:	35774145
Ion Ratio	Lower	Upper	
202	100		
200	24.1	0.0	50.0
203	21.7	0.0	47.3



#87
Benzo[a]anthracene
Concen: 884.89 ppm
RT: 14.121 min Scan# 2307
Delta R.T. -0.027 min
Lab File: 2m104253.D
Acq: 22 May 2018 2:04 am

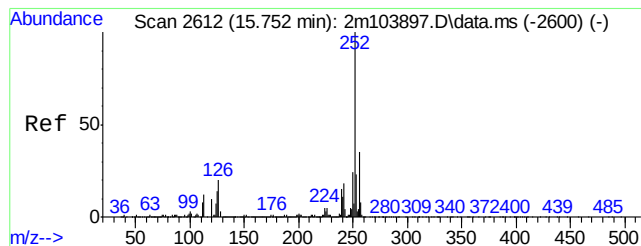
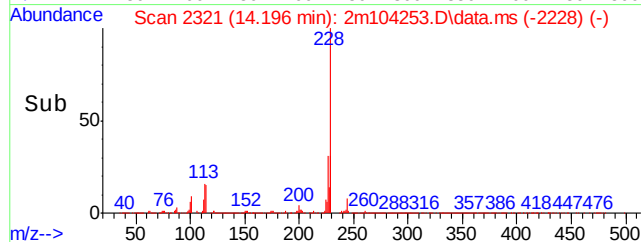
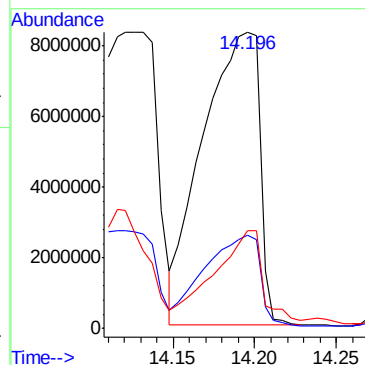
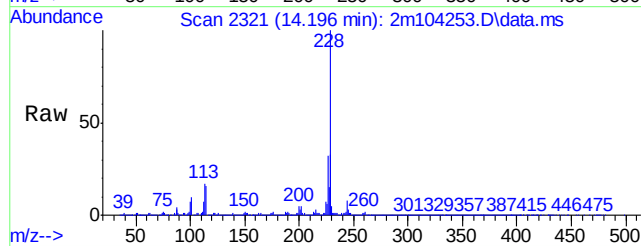
Tgt Ion:	228	Resp:	27435260
Ion Ratio	Lower	Upper	
228	100		
229	40.2	0.0	49.8
226	32.9	0.0	56.6





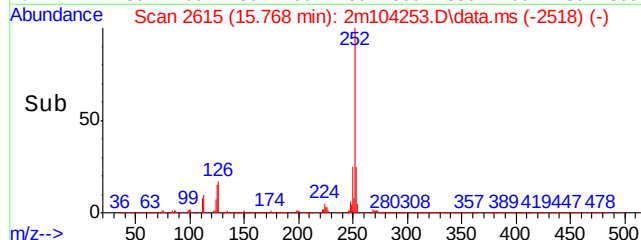
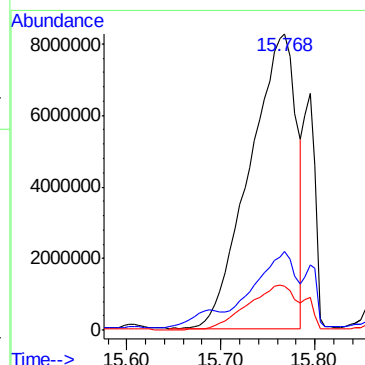
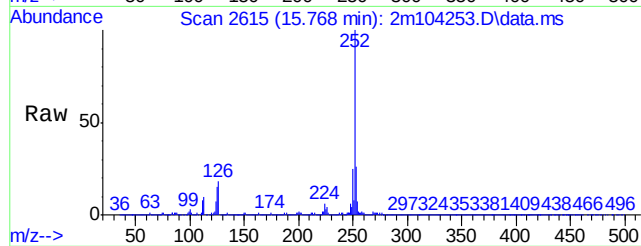
#89
Chrysene
Concen: 689.37 ppm
RT: 14.196 min Scan# 2321
Delta R.T. -0.005 min
Lab File: 2m104253.D
Acq: 22 May 2018 2:04 am

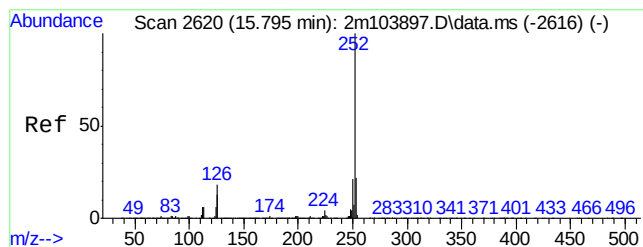
Tgt Ion:	228	Resp:	20307984
Ion Ratio	Lower	Upper	
228	100		
226	31.3	0.0	58.8
229	32.0	0.0	49.8



#93
Benzo[b]fluoranthene
Concen: 799.42 ppm
RT: 15.768 min Scan# 2615
Delta R.T. 0.016 min
Lab File: 2m104253.D
Acq: 22 May 2018 2:04 am

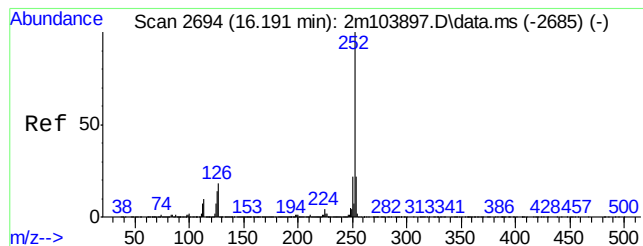
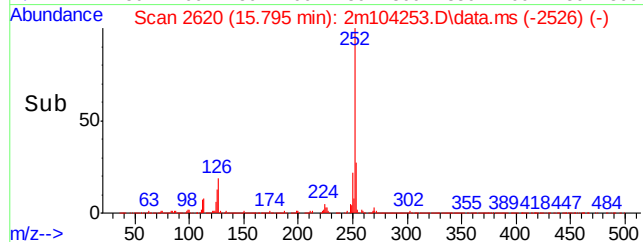
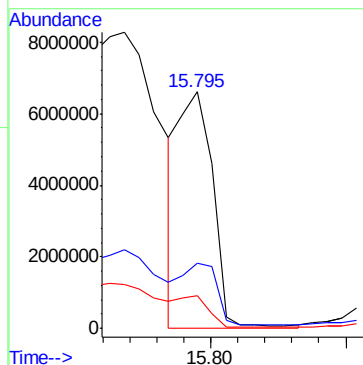
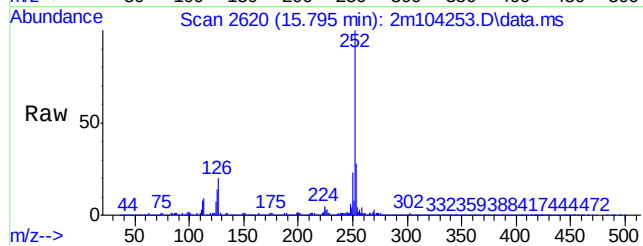
Tgt Ion:	252	Resp:	28298394
Ion Ratio	Lower	Upper	
252	100		
253	26.6	0.0	52.5
125	15.1	0.0	44.3





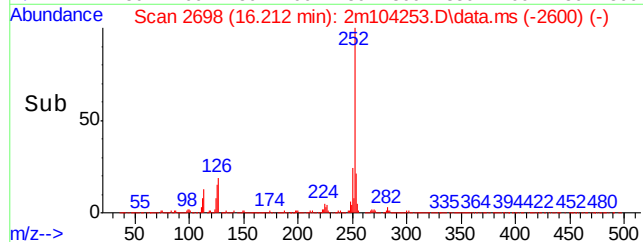
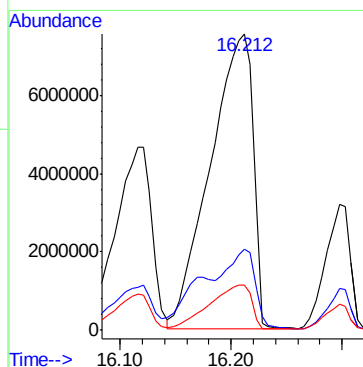
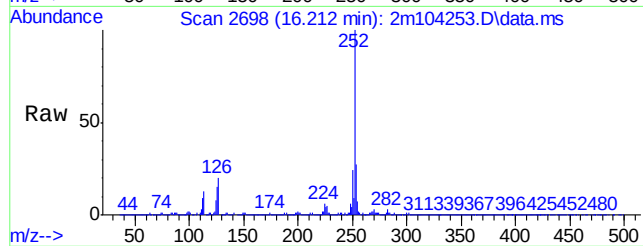
#94
Benzo[k]fluoranthene
Concen: 174.97 ppm
RT: 15.795 min Scan# 2620
Delta R.T. 0.000 min
Lab File: 2m104253.D
Acq: 22 May 2018 2:04 am

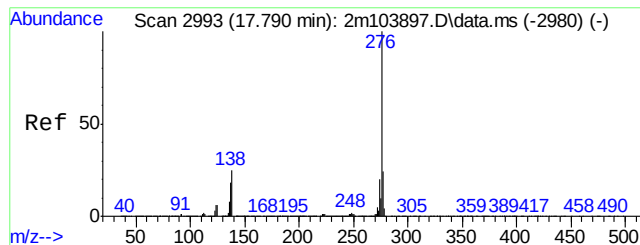
Tgt Ion	Ratio	Lower	Upper
252	100		
253	27.6	0.0	51.8
125	13.7	0.0	42.9



#95
Benzo[a]pyrene
Concen: 657.36 ppm
RT: 16.212 min Scan# 2698
Delta R.T. 0.022 min
Lab File: 2m104253.D
Acq: 22 May 2018 2:04 am

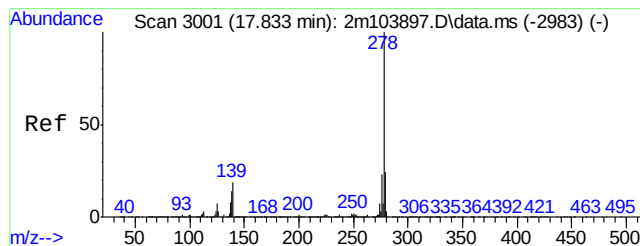
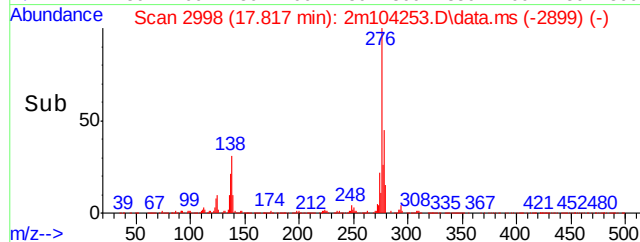
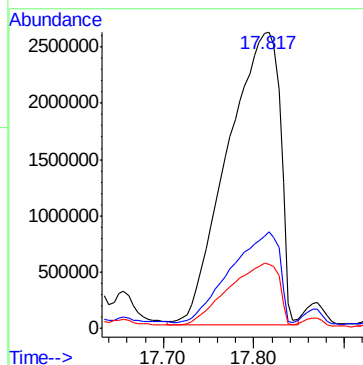
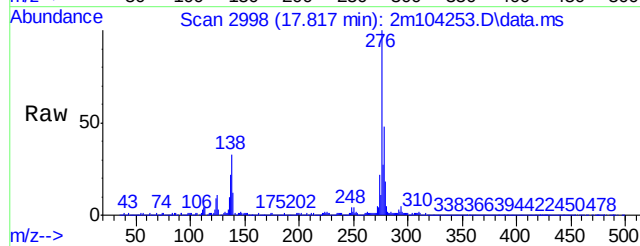
Tgt Ion	Ratio	Lower	Upper
252	100		
253	25.7	0.0	51.6
125	14.8	0.0	44.0





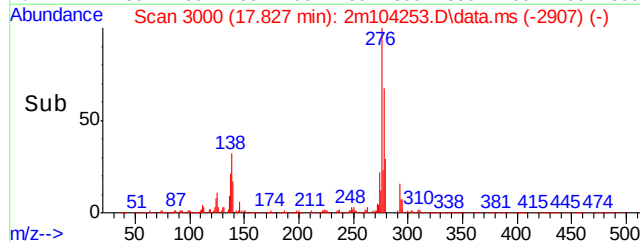
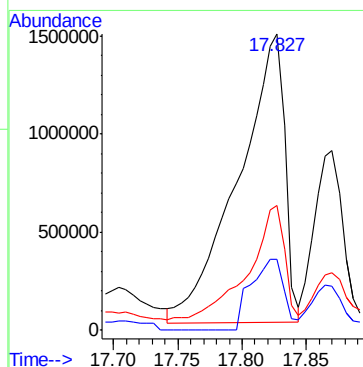
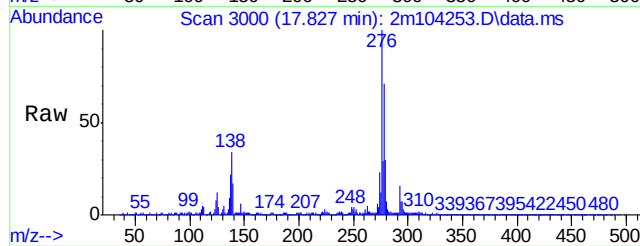
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 342.36 ppm
 RT: 17.817 min Scan# 2998
 Delta R.T. 0.027 min
 Lab File: 2m104253.D
 Acq: 22 May 2018 2:04 am

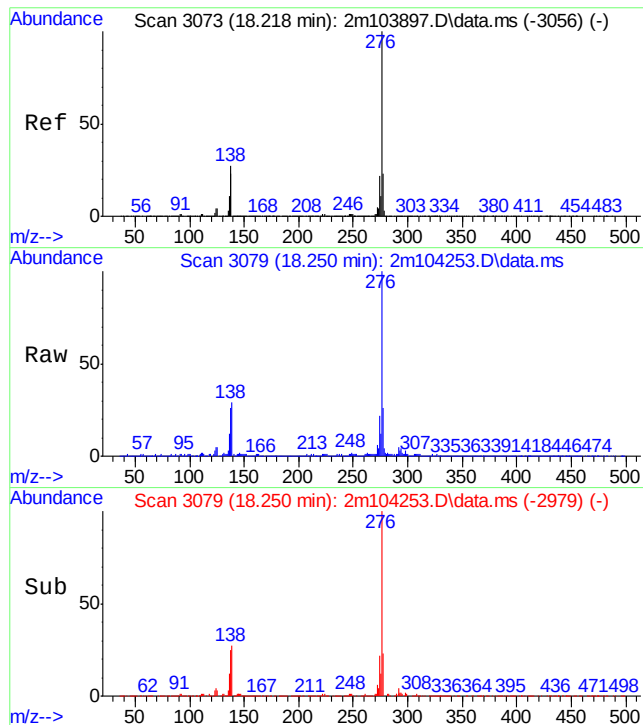
Tgt Ion:	276	Resp:	10456382
Ion Ratio	Lower	Upper	
276	100		
138	30.9	0.0	52.7
137	21.0	0.0	46.8



#98
 Dibenz[a,h]anthracene
 Concen: 117.58 ppm
 RT: 17.827 min Scan# 3000
 Delta R.T. -0.005 min
 Lab File: 2m104253.D
 Acq: 22 May 2018 2:04 am

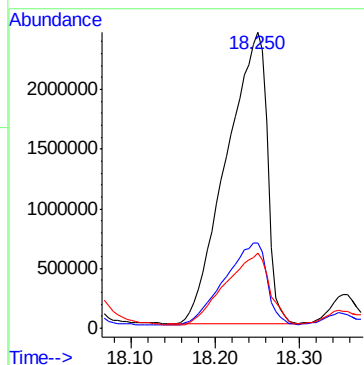
Tgt Ion:	278	Resp:	3690511
Ion Ratio	Lower	Upper	
278	100		
139	24.1	0.0	48.9
279	41.0	0.0	53.6





#100
Benzo[g,h,i]perylene
Concen: 275.80 ppm
RT: 18.250 min Scan# 3079
Delta R.T. 0.032 min
Lab File: 2m104253.D
Acq: 22 May 2018 2:04 am

Tgt Ion: 276 Resp: 8115702
Ion Ratio Lower Upper
276 100
138 28.1 0.0 57.0
277 24.7 0.0 53.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4635\
 Data File : 2m104311.D
 Acq On : 23 May 2018 8:42 am
 Operator : georges
 Sample : jc66322-8
 Misc : op12121,e2m4635,30.6,,,1,40
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: May 23 18:10:00 2018
 Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
 Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 QLast Update : Thu May 17 13:00:25 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.579	152	334352	40.00	ppm	-0.09
24) Naphthalene-d8	5.654	136	1312028	40.00	ppm	-0.11
47) Acenaphthene-d10	7.692	164	655410	40.00	ppm	-0.13
69) Phenanthrene-d10	9.853	188	1216586	40.00	ppm	-0.13
83) Chrysene-d12	14.025	240	1114557	40.00	ppm	-0.14
91) Perylene-d12	16.137	264	1157484	40.00	ppm	-0.13
101) 1,4-Dichlorobenzene-d4a	4.579	152	334352	40.00	ppm	-0.09
103) Acenaphthene-d10a	7.692	164	655410	40.00	ppm	-0.13
105) Chrysene-d12a	14.025	240	1114557	40.00	ppm	-0.13
108) Phenanthrene-d10a	9.853	188	1216586	40.00	ppm	-0.13
112) Naphthalene-d8a	5.654	136	1312028	40.00	ppm	-0.10
114) Chrysene-d12b	14.025	240	1114557	40.00	ppm	-0.13
System Monitoring Compounds						
5) 2-Fluorophenol	3.600	112	10130	0.93	ppm	-0.07
Spiked Amount 50.000			Recovery	=	1.86%	
8) Phenol-d5	4.327	99	12863	0.94	ppm	-0.07
Spiked Amount 50.000			Recovery	=	1.88%	
25) Nitrobenzene-d5	5.012	82	11174	0.93	ppm	-0.10
Spiked Amount 50.000			Recovery	=	1.86%	
51) 2-Fluorobiphenyl	6.831	172	23240	0.97	ppm	-0.12
Spiked Amount 50.000			Recovery	=	1.94%	
73) 2,4,6-Tribromophenol	8.815	330	3270	0.89	ppm	-0.13
Spiked Amount 50.000			Recovery	=	1.78%	
85) Terphenyl-d14	12.404	244	26579	1.09	ppm	-0.14
Spiked Amount 50.000			Recovery	=	2.18%	
107) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
38) Naphthalene	5.670	128	19810	0.58	ppm	97
56) Acenaphthylene	7.499	152	105046	3.28	ppm	99
59) Acenaphthene	7.735	153	14430	0.69	ppm	96
66) Fluorene	8.457	166	29840	1.30	ppm	89
77) Phenanthrene	9.885	178	198662	5.72	ppm	99
78) Anthracene	9.960	178	184800	5.30	ppm	98
81) Fluoranthene	11.746	202	1750611	49.15	ppm	99
84) Pyrene	12.088	202	1425265	38.29	ppm	97
87) Benzo[a]anthracene	14.009	228	819302	24.29	ppm	100
89) Chrysene	14.062	228	597760	18.65	ppm	96
93) Benzo[b]fluoranthene	15.618	252	723442	20.42	ppm	99
94) Benzo[k]fluoranthene	15.651	252	238842	7.26	ppm	97
95) Benzo[a]pyrene	16.052	252	560805	18.26	ppm	99
96) Indeno[1,2,3-cd]pyrene	17.603	276	282157	9.23	ppm	95
98) Dibenz[a,h]anthracene	17.640	278	78452m	2.50	ppm	
100) Benzo[g,h,i]perylene	18.015	276	219694	7.46	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4635\
Data File : 2m104311.D
Acq On : 23 May 2018 8:42 am
Operator : georges
Sample : jc66322-8
Misc : op12121,e2m4635,30.6,,,1,40
ALS Vial : 23 Sample Multiplier: 1

Quant Time: May 23 18:10:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Thu May 17 13:00:25 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

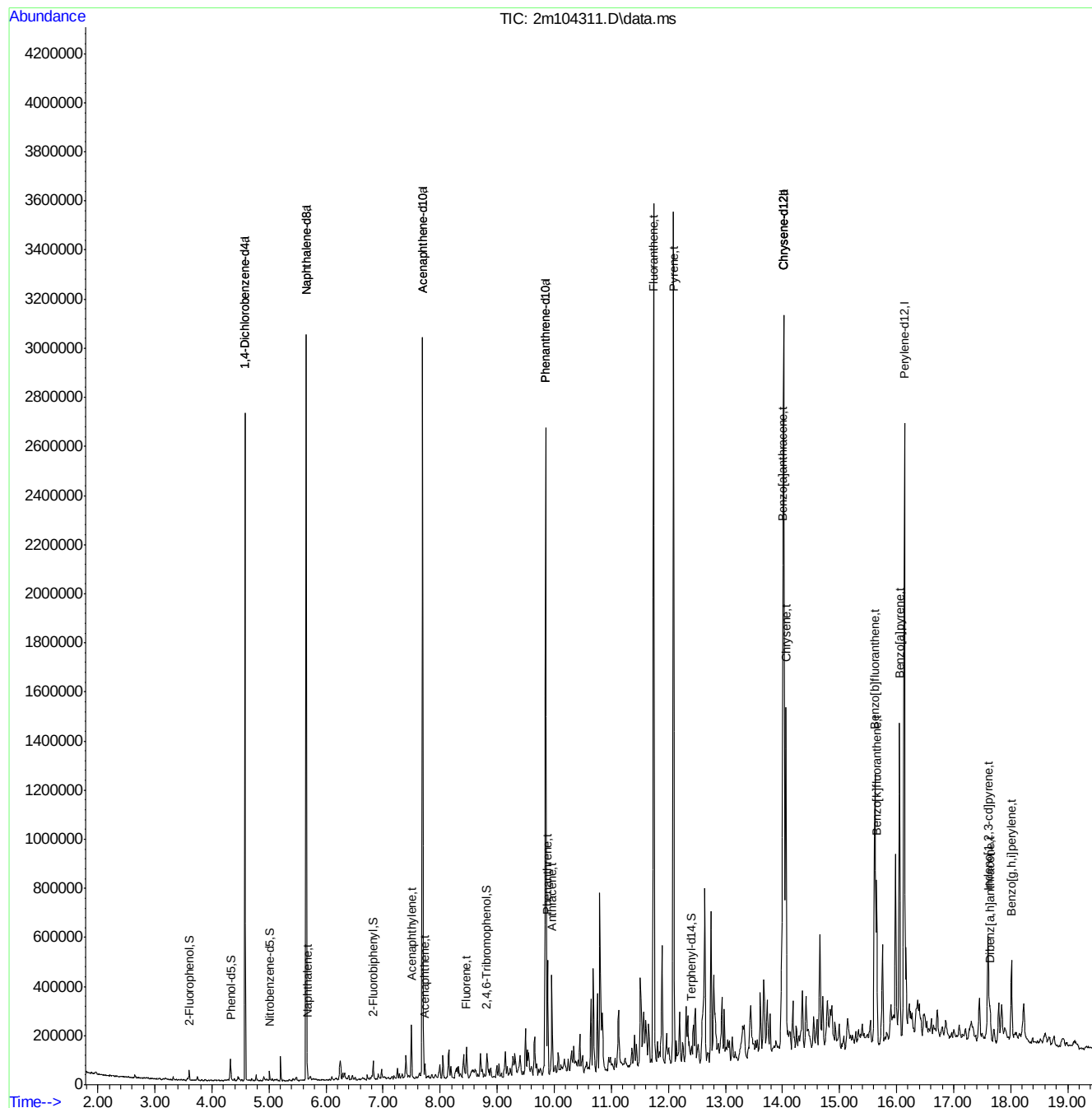
(#)=qualifier out of range (m)=manual integration (+)=signals summed						

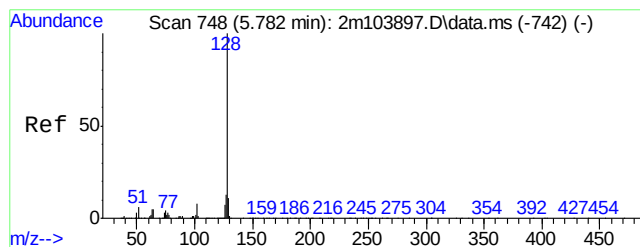
7.1.9
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E2M4635\
Data File : 2m104311.D
Acq On : 23 May 2018 8:42 am
Operator : georges
Sample : jc66322-8
Misc : op12121,e2m4635,30.6,,,1,40
ALS Vial : 23 Sample Multiplier: 1

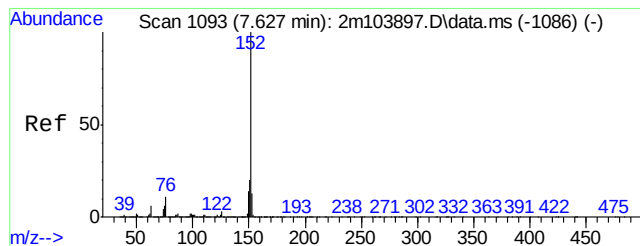
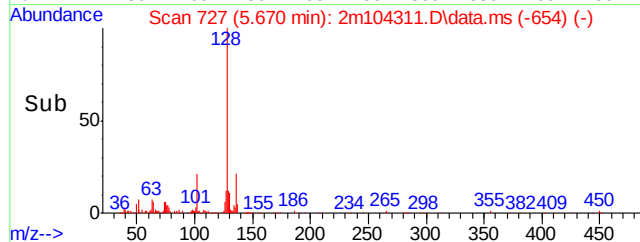
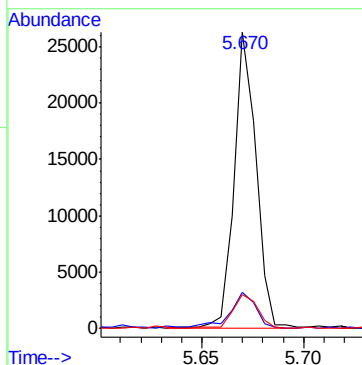
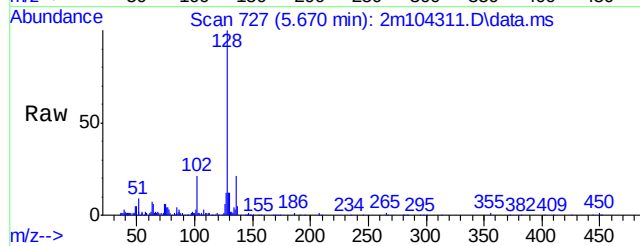
Quant Time: May 23 18:10:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Thu May 17 13:00:25 2018
Response via : Initial Calibration





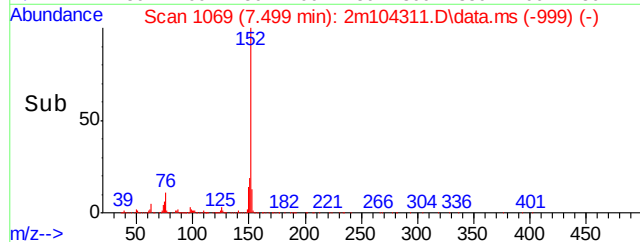
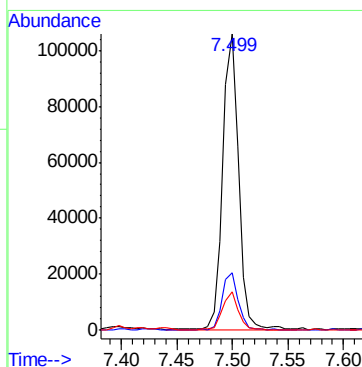
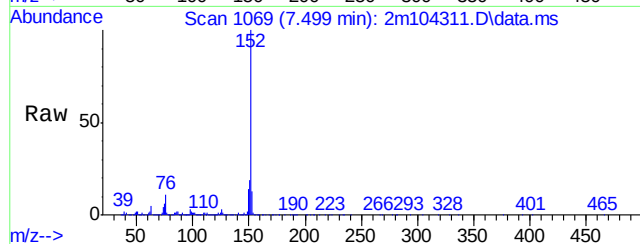
#38
Naphthalene
Concen: 0.58 ppm
RT: 5.670 min Scan# 727
Delta R.T. -0.112 min
Lab File: 2m104311.D
Acq: 23 May 2018 8:42 am

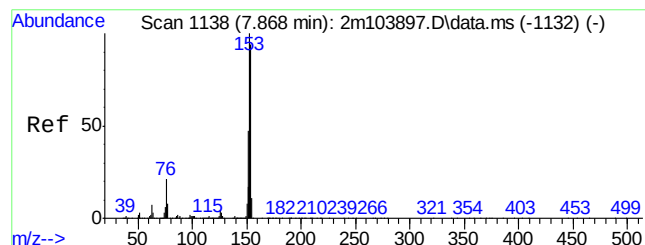
Tgt Ion	Ratio	Lower	Upper
128	100		
129	11.8	0.0	40.7
127	11.3	0.0	42.5



#56
Acenaphthylene
Concen: 3.28 ppm
RT: 7.499 min Scan# 1069
Delta R.T. -0.128 min
Lab File: 2m104311.D
Acq: 23 May 2018 8:42 am

Tgt Ion	Ratio	Lower	Upper
152	100		
151	19.1	0.0	49.6
153	12.5	0.0	42.8





#59

Acenaphthene

Concen: 0.69 ppm

RT: 7.735 min Scan# 1113

Delta R.T. -0.134 min

Lab File: 2m104311.D

Acq: 23 May 2018 8:42 am

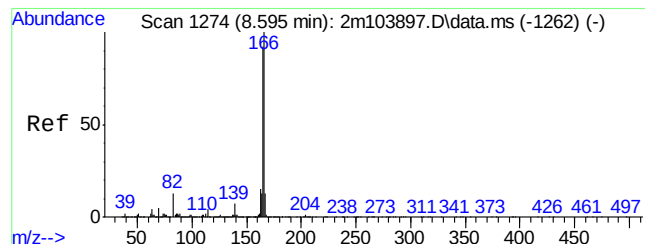
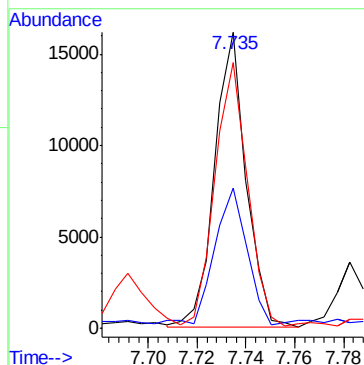
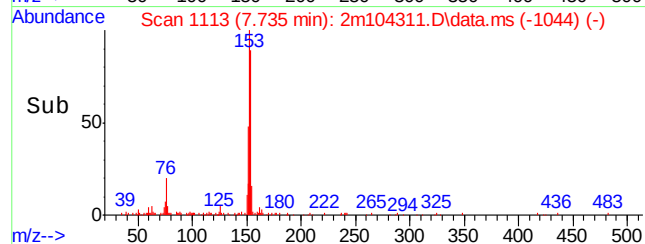
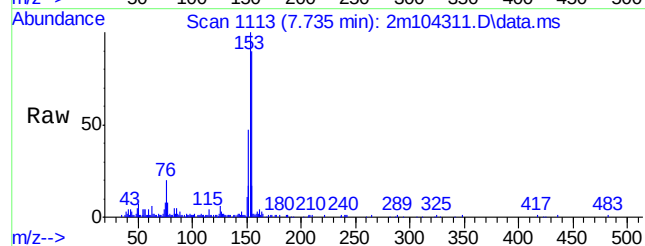
Tgt Ion:153 Resp: 14430

Ion Ratio Lower Upper

153 100

152 44.9 17.1 77.1

154 88.2 62.8 122.8



#66

Fluorene

Concen: 1.30 ppm

RT: 8.457 min Scan# 1248

Delta R.T. -0.139 min

Lab File: 2m104311.D

Acq: 23 May 2018 8:42 am

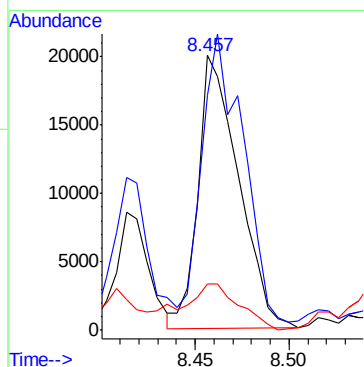
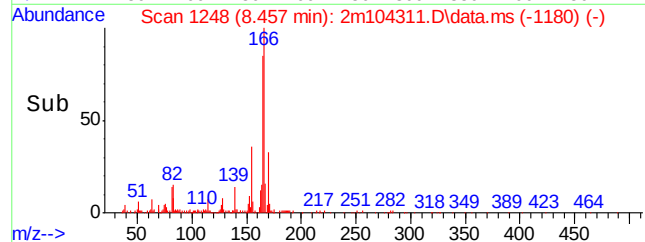
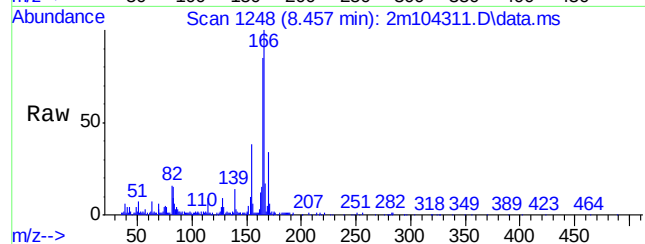
Tgt Ion:166 Resp: 29840

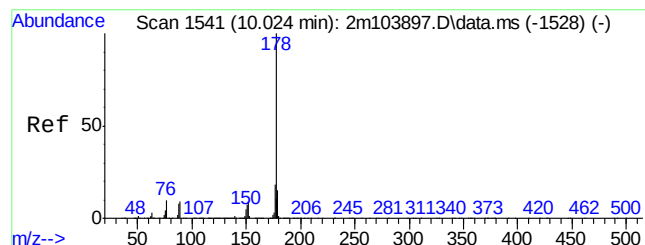
Ion Ratio Lower Upper

166 100

165 80.4 62.0 122.0

167 12.1 0.0 42.9





#77

Phenanthrene

Concen: 5.72 ppm

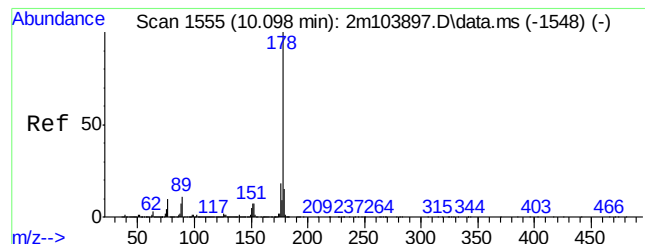
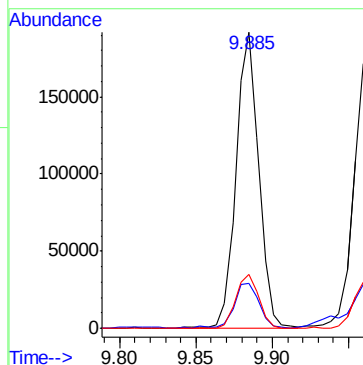
RT: 9.885 min Scan# 1515

Delta R.T. -0.139 min

Lab File: 2m104311.D

Acq: 23 May 2018 8:42 am

Tgt Ion:	178	Resp:	198662
Ion Ratio	Lower	Upper	
178	100		
179	14.8	0.0	45.2
176	18.2	0.0	48.5



#78

Anthracene

Concen: 5.30 ppm

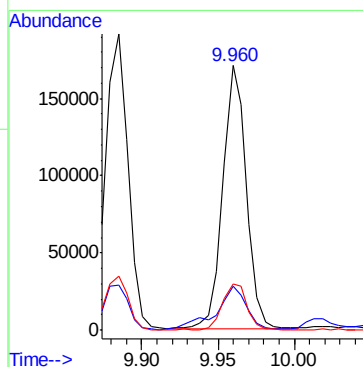
RT: 9.960 min Scan# 1529

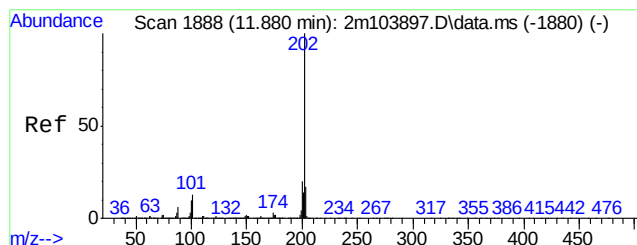
Delta R.T. -0.139 min

Lab File: 2m104311.D

Acq: 23 May 2018 8:42 am

Tgt Ion:	178	Resp:	184800
Ion Ratio	Lower	Upper	
178	100		
179	16.2	0.0	45.1
176	17.2	0.0	47.7





#81

Fluoranthene

Concen: 49.15 ppm

RT: 11.746 min Scan# 1863

Delta R.T. -0.134 min

Lab File: 2m104311.D

Acq: 23 May 2018 8:42 am

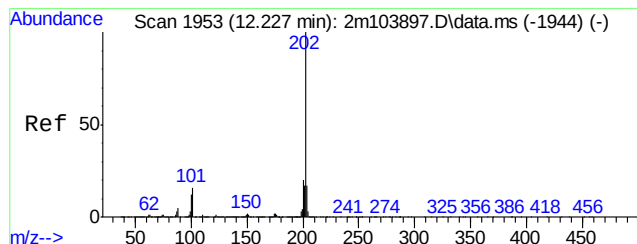
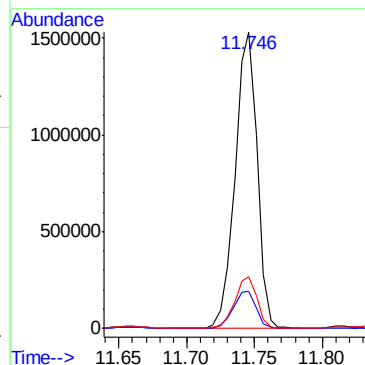
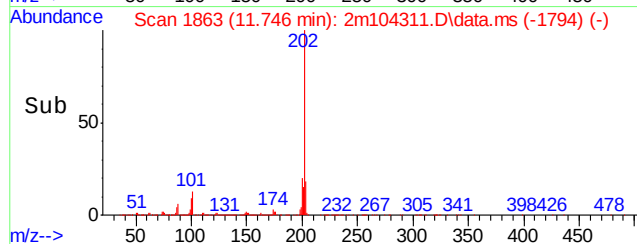
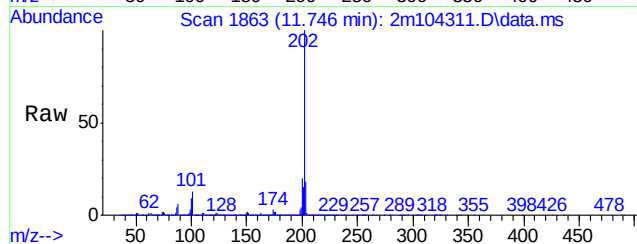
Tgt Ion: 202 Resp: 1750611

Ion Ratio Lower Upper

202 100

101 12.7 0.0 43.1

203 17.6 0.0 47.0



#84

Pyrene

Concen: 38.29 ppm

RT: 12.088 min Scan# 1927

Delta R.T. -0.139 min

Lab File: 2m104311.D

Acq: 23 May 2018 8:42 am

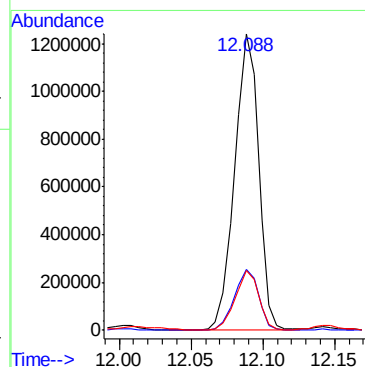
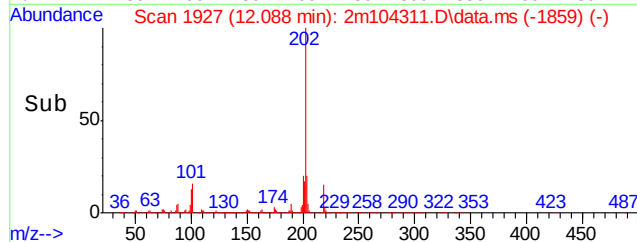
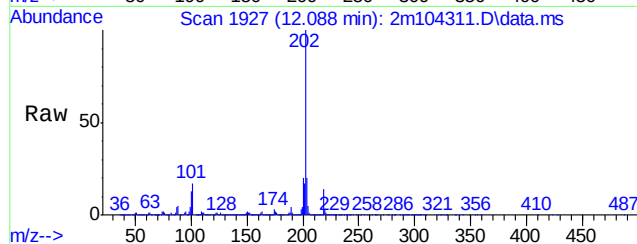
Tgt Ion: 202 Resp: 1425265

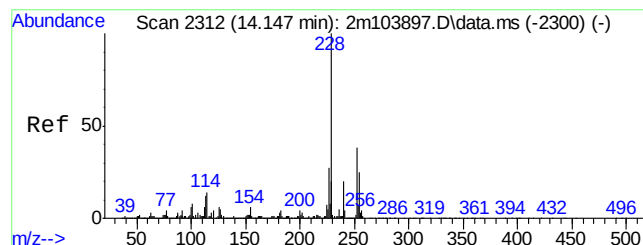
Ion Ratio Lower Upper

202 100

200 20.4 0.0 50.0

203 19.7 0.0 47.3





#87

Benzo[a]anthracene

Concen: 24.29 ppm

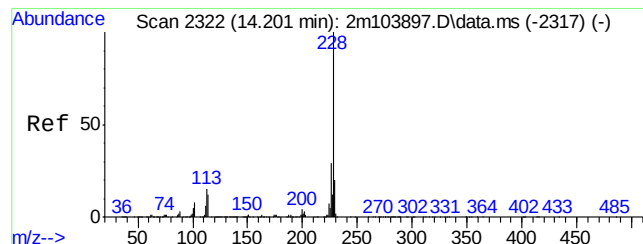
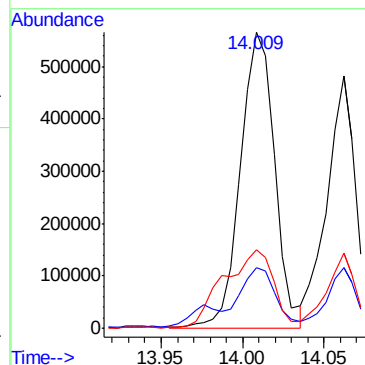
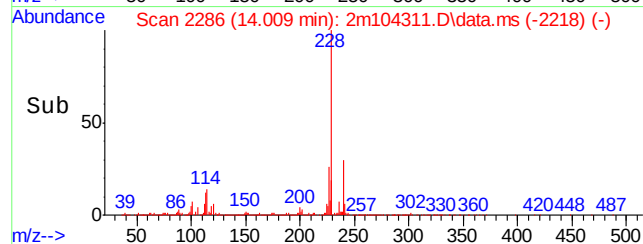
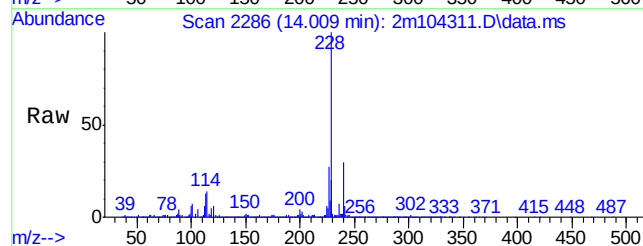
RT: 14.009 min Scan# 2286

Delta R.T. -0.139 min

Lab File: 2m104311.D

Acq: 23 May 2018 8:42 am

Tgt	Ion:228	Resp:	819302
Ion	Ratio	Lower	Upper
228	100		
229	19.8	0.0	49.8
226	26.3	0.0	56.6



#89

Chrysene

Concen: 18.65 ppm

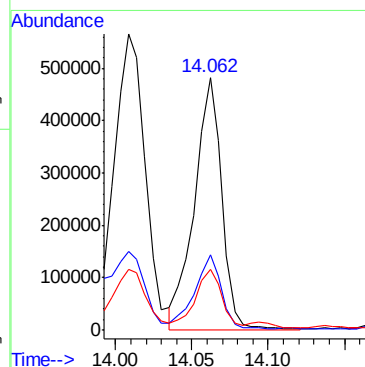
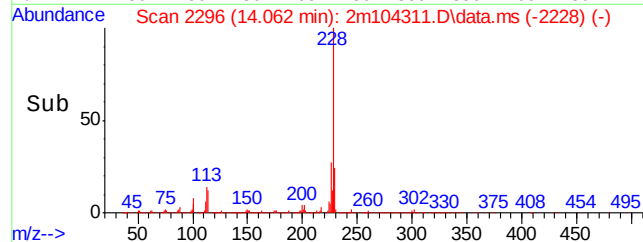
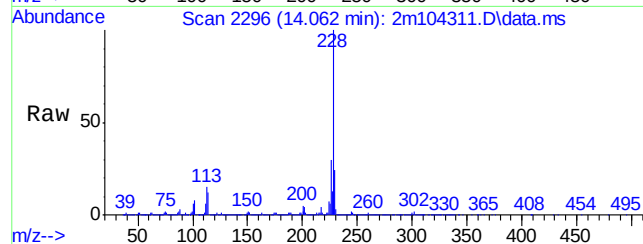
RT: 14.062 min Scan# 2296

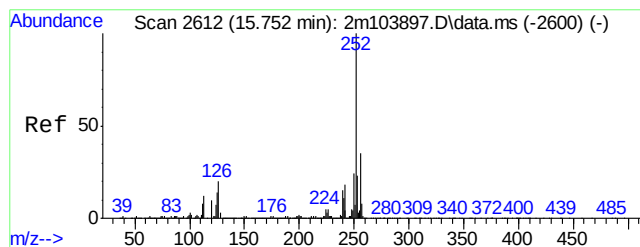
Delta R.T. -0.139 min

Lab File: 2m104311.D

Acq: 23 May 2018 8:42 am

Tgt	Ion:228	Resp:	597760
Ion	Ratio	Lower	Upper
228	100		
226	29.8	0.0	58.8
229	23.2	0.0	49.8





#93

Benzo[b]fluoranthene

Concen: 20.42 ppm

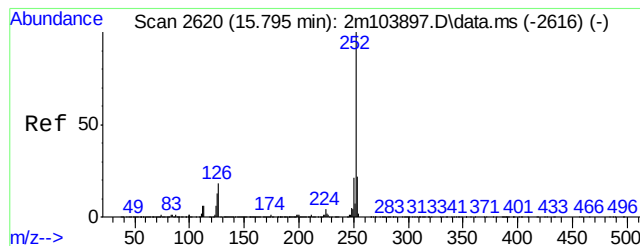
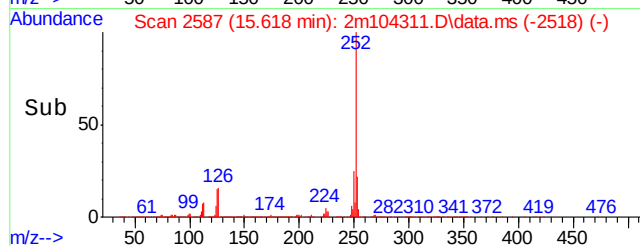
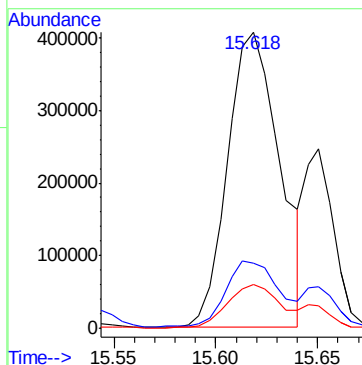
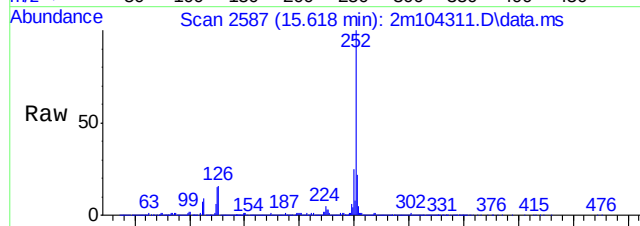
RT: 15.618 min Scan# 2587

Delta R.T. -0.134 min

Lab File: 2m104311.D

Acq: 23 May 2018 8:42 am

Tgt Ion:	252	Resp:	723442
Ion Ratio	Lower	Upper	
252	100		
253	21.7	0.0	52.5
125	14.7	0.0	44.3



#94

Benzo[k]fluoranthene

Concen: 7.26 ppm

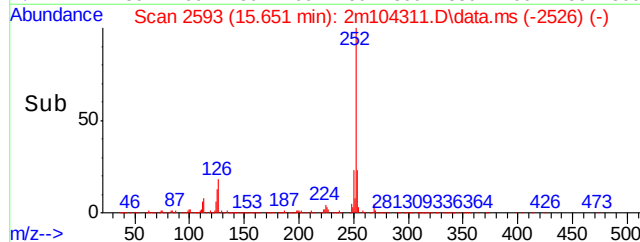
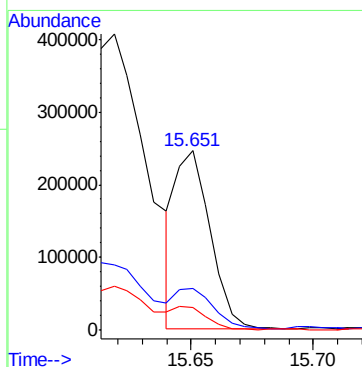
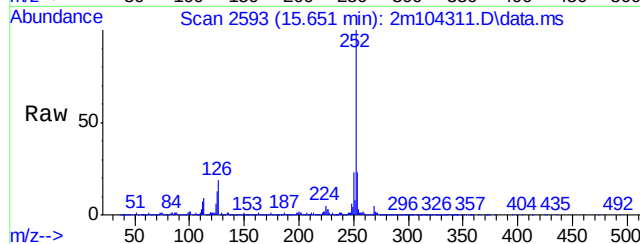
RT: 15.651 min Scan# 2593

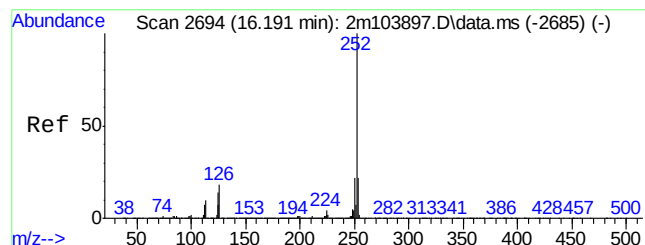
Delta R.T. -0.144 min

Lab File: 2m104311.D

Acq: 23 May 2018 8:42 am

Tgt Ion:	252	Resp:	238842
Ion Ratio	Lower	Upper	
252	100		
253	22.8	0.0	51.8
125	10.9	0.0	42.9





#95

Benzo[a]pyrene

Concen: 18.26 ppm

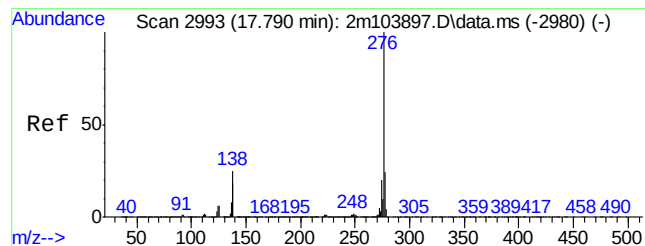
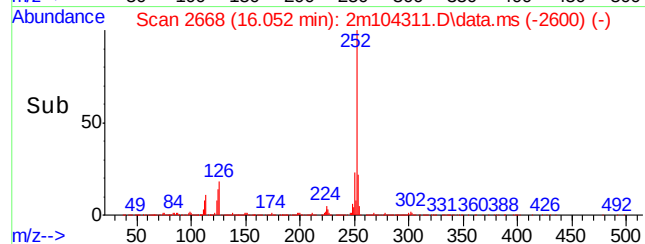
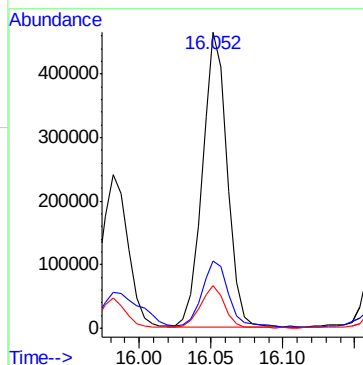
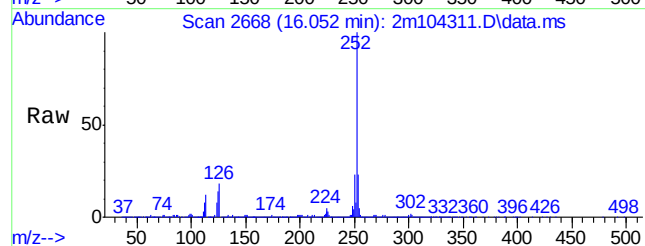
RT: 16.052 min Scan# 2668

Delta R.T. -0.139 min

Lab File: 2m104311.D

Acq: 23 May 2018 8:42 am

Tgt Ion:	252	Resp:	560805
Ion Ratio	Lower	Upper	
252	100		
253	22.2	0.0	51.6
125	14.3	0.0	44.0



#96

Indeno[1,2,3-cd]pyrene

Concen: 9.23 ppm

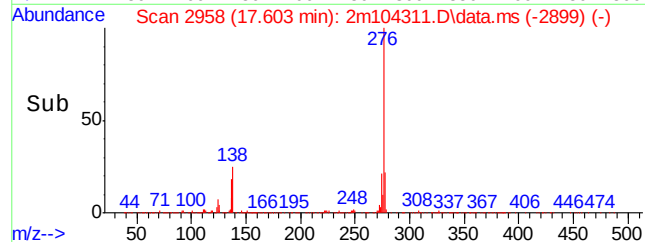
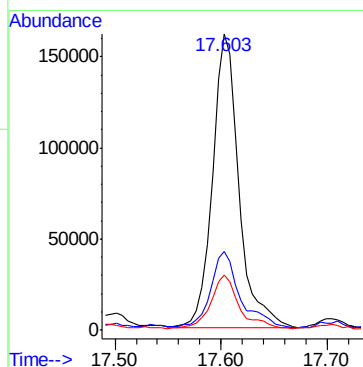
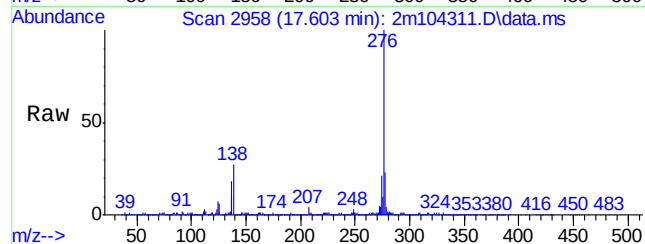
RT: 17.603 min Scan# 2958

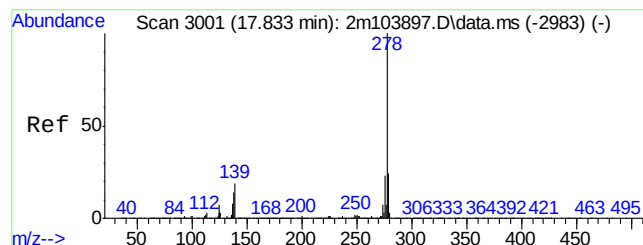
Delta R.T. -0.187 min

Lab File: 2m104311.D

Acq: 23 May 2018 8:42 am

Tgt Ion:	276	Resp:	282157
Ion Ratio	Lower	Upper	
276	100		
138	25.9	0.0	52.7
137	18.1	0.0	46.8





#98

Dibenz[a,h]anthracene

Concen: 2.50 ppm

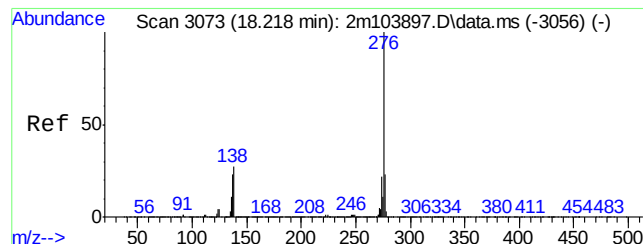
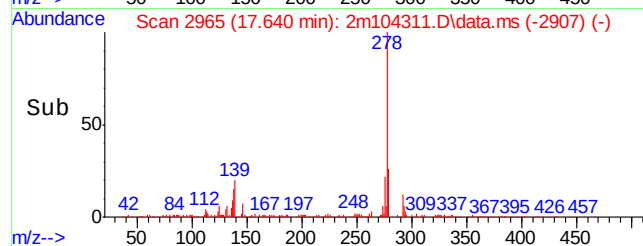
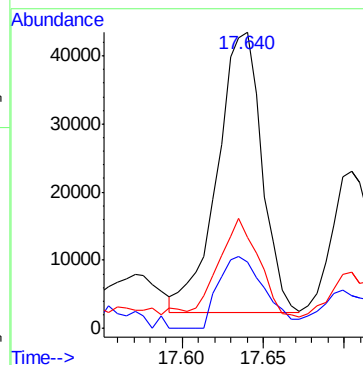
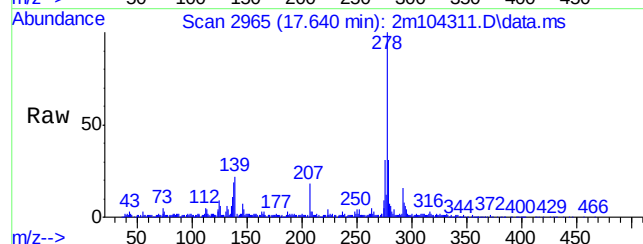
RT: 17.640 min Scan# 2965

Delta R.T. -0.192 min

Lab File: 2m104311.D

Acq: 23 May 2018 8:42 am

Tgt Ion:	278	Resp:	78452
Ion Ratio	Lower	Upper	
278	100		
139	22.5	0.0	48.9
279	30.8	0.0	53.6



#100

Benzo[g,h,i]perylene

Concen: 7.46 ppm

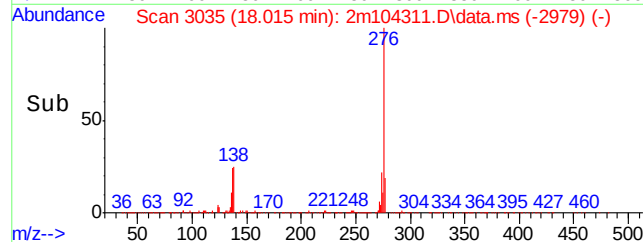
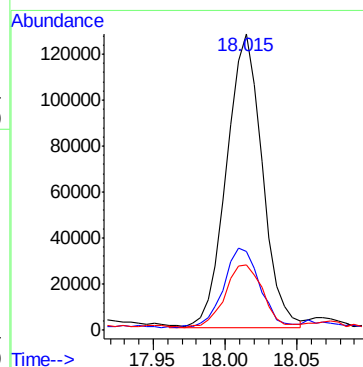
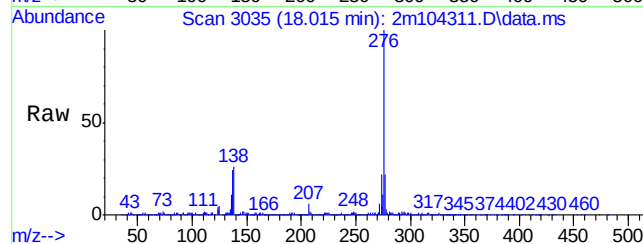
RT: 18.015 min Scan# 3035

Delta R.T. -0.203 min

Lab File: 2m104311.D

Acq: 23 May 2018 8:42 am

Tgt Ion:	276	Resp:	219694
Ion Ratio	Lower	Upper	
276	100		
138	25.5	0.0	57.0
277	20.8	0.0	53.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\2m4633\
 Data File : 2m104233.d
 Acq On : 21 May 2018 5:32 pm
 Operator : johnb1
 Sample : op12121-mb1 Inst : MS2M
 Misc : op12121,2m4633,30.0,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
 Quant Results File: M2M4618.RES
 Quant Time: May 21 23:16:38 2018
 Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
 QLast Update : Mon May 21 22:40:05 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.589	152	428168	40.00	ppm	0.00
24) Naphthalene-d8	5.664	136	1642969	40.00	ppm	0.00
47) Acenaphthene-d10	7.708	164	774998	40.00	ppm	0.00
69) Phenanthrene-d10	9.863	188	1358298	40.00	ppm	0.00
83) Chrysene-d12	14.035	240	1137033	40.00	ppm	0.00
91) Perylene-d12	16.142	264	1100496	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.589	152	428168	40.00	ppm	0.00
103) Acenaphthene-d10a	7.708	164	774998	40.00	ppm	0.00
105) Chrysene-d12a	14.035	240	1137033	40.00	ppm	0.00
108) Phenanthrene-d10a	9.863	188	1358298	40.00	ppm	0.00
112) Naphthalene-d8a	5.664	136	1642969	40.00	ppm	0.00
114) Chrysene-d12b	14.035	240	1137033	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.616	112	645861	46.29	ppm	0.00
Spiked Amount	50.000		Recovery	=	92.58%	
8) Phenol-d5	4.333	99	802915	45.87	ppm	0.01
Spiked Amount	50.000		Recovery	=	91.74%	
25) Nitrobenzene-d5	5.028	82	671395	44.71	ppm	0.00
Spiked Amount	50.000		Recovery	=	89.42%	
51) 2-Fluorobiphenyl	6.846	172	1336654	47.21	ppm	-0.01
Spiked Amount	50.000		Recovery	=	94.42%	
73) 2,4,6-Tribromophenol	8.831	330	185285	45.09	ppm	0.00
Spiked Amount	50.000		Recovery	=	90.18%	
85) Terphenyl-d14	12.420	244	1303066	52.26	ppm	-0.01
Spiked Amount	50.000		Recovery	=	104.52%	
107) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
110) o-terphenyl	0.000	230	0	0.00	ppm	

Target Compounds Qvalue

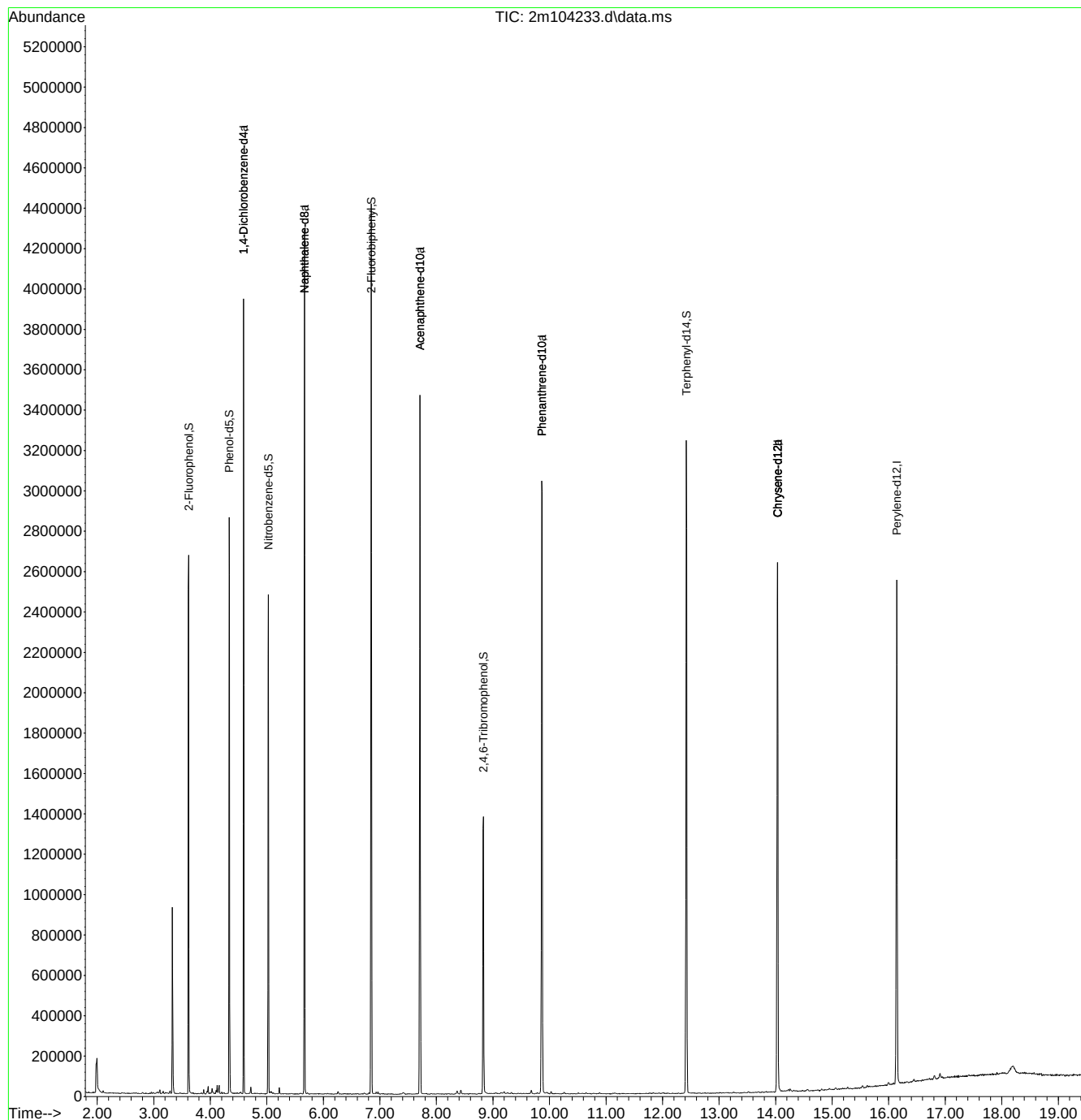
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\e2m4633\
Data File : 2m104233.d
Acq On : 21 May 2018 5:32 pm
Operator : johnb1
Sample : op12121-mb1
Misc : op12121,e2m4633,30.0,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Inst : MS2M

Quant Method : C:\MSDCHEM\1\METHODS\M2M4618.M
Quant Results File: M2M4618.RES
Quant Time: May 21 23:16:38 2018
Quant Title : Semi Volatile GC/MS, rxi 5sil ms 30m .25mm .25um
QLast Update : Mon May 21 22:40:05 2018
Response via : Initial Calibration



Metals Analysis

QC Data Summaries



Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66322
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV
Analyst: JA
Parameters: Hg

Date Analyzed: 05/18/18 Methods: SW846 7471B
Run ID: MA44439

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:35	MA44439-STD1	1		B=1.1931E-004 C=2.1022E-002 R=0.9999383
08:37	MA44439-STD2	1		STDB
08:38	MA44439-STD3	1		STDC
08:39	MA44439-STD4	1		STDD
08:41	MA44439-STD5	1		STDE
08:42	MA44439-STD6	1		STDF
08:45	MA44439-ICV1	1		
08:47	MA44439-ICB1	1		
08:48	MA44439-CCV1	1		
08:50	MA44439-CCB1	1		
08:51	MA44439-CRI1	1		
08:53	ZZZZZZ	1		
08:56	MP7119-MB2	1		
08:57	MP7119-B2	1		
08:59	ZZZZZZ	1		
09:00	ZZZZZZ	1		
09:02	MP7226-MB1	1		
09:03	MP7226-B1	1		
09:05	MA44439-CCV2	1		
09:06	MA44439-CCB2	1		
09:08	MP7226-S1	1		%Sol
09:09	ZZZZZZ	1		
09:11	JC66322-4	1		%Sol
09:13	MP7226-S2	1		%Sol
09:15	JC66322-3	1		%Sol
09:16	JC66322-6	1		%Sol
09:18	JC66322-9	1		%Sol
09:20	ZZZZZZ	1		
09:21	MA44439-CCV3	1		
09:23	MA44439-CCB3	1		
09:24	ZZZZZZ	1		
09:26	ZZZZZZ	1		
09:27	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66322
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV
Analyst: JA
Parameters: Hg

Date Analyzed: 05/18/18 Methods: SW846 7471B
Run ID: MA44439

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:29	ZZZZZZ	1		
09:30	ZZZZZZ	1		
09:32	ZZZZZZ	1		
09:33	ZZZZZZ	1		
09:34	JC66322-6	5		%Sol
----->	Last reportable sample/			
09:36	ZZZZZZ	5		prep for job JC66322
09:40	MA44439-CCV4	1		
09:41	MA44439-CCB4	1		
10:21	MA44439-CCV5	1		
10:22	MA44439-CCB5	1		
10:24	ZZZZZZ	1		
10:25	ZZZZZZ	1		
10:27	ZZZZZZ	1		
10:28	ZZZZZZ	1		
10:30	ZZZZZZ	1		
10:32	ZZZZZZ	1		
10:33	MP7227-MB1	1		
10:34	MP7227-B1	1		
10:35	MA44439-CCV6	1		
10:37	MA44439-CCB6	1		
10:39	MP7227-S1	1		%Sol
10:40	MP7227-S2	1		%Sol
10:43	JC66357-1	1		(sample used for QC only; not part of login JC66322)
10:44	ZZZZZZ	1		
10:45	ZZZZZZ	1		
10:47	ZZZZZZ	1		
10:48	ZZZZZZ	1		
10:50	ZZZZZZ	1		
10:51	ZZZZZZ	1		
10:52	MA44439-CCV7	1		
10:54	MA44439-CCB7	1		
10:55	ZZZZZZ	1		
10:57	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66322
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV
Analyst: JA
Parameters: Hg

Date Analyzed: 05/18/18 Methods: SW846 7471B
Run ID: MA44439

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:58	ZZZZZZ	1		
10:59	ZZZZZZ	1		
11:01	MA44439-CRI2	1		
11:03	MA44439-CCV8	1		
11:04	MA44439-CCB8	1		
----->	Last reportable CCB for job JC66322			
12:37	MA44439-CCV9	1		
12:38	MA44439-CCB9	1		
12:40	ZZZZZZ	1		
12:43	MA44439-CCV10	1		
12:44	MA44439-CCB10	1		

Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66322
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA44439 Units: ug/l

Time: Sample ID:			08:47 ICB1		08:50 CCB1		09:06 CCB2		09:23 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.038	-0.0197	<0.20	-0.00360	<0.20	0.00730	<0.20	0.00290	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66322
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA44439 Units: ug/l

Time: Sample ID:			09:41 CCB4		10:22 CCB5		10:37 CCB6		10:54 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.038	0.0134	<0.20	0.00780	<0.20	0.00100	<0.20	0.00370	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66322
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA44439 Units: ug/l

Time:		11:04	
Sample ID:		CCB8	
Metal	RL	IDL	raw final
Mercury	0.20	.038	0.00250 <0.20

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66322
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44439 Units: ug/l

Time:		08:45		08:48		09:05	
Sample ID:	ICV	ICV1	CCV	CCV1	CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True
Mercury	3	2.98	99.3	2.5	2.56	102.4	2.5
							2.66
							106.4

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66322
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44439 Units: ug/l

Time:		09:21		09:40		10:21			
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.58	103.2	2.5	2.72	108.8	2.5	2.64	105.6

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66322
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44439 Units: ug/l

Time:		10:35		10:52		11:03			
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.60	104.0	2.5	2.54	101.6	2.5	2.62	104.8

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66322
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

File ID: H7051818S1.CSV Date Analyzed: 05/18/18 Methods: SW846 7471B
 QC Limits: 70 to 130 % Recovery Run ID: MA44439 Units: ug/l

Time:				08:51		11:01	
Sample ID:	CRI	CRIA	CRI1			CRI2	
Metal	True	True	Results	% Rec		Results	% Rec
Mercury	0.20		0.200	100.0		0.216	108.0

(*) Outside of QC limits
 (anr) Analyte not requested

8.1.3

8

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC66322
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7226
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/18/18

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0063	.015	0.0039	<0.033

Associated samples MP7226: JC66322-3, JC66322-4, JC66322-6, JC66322-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66322
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7226
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 05/18/18

Metal	JC66322-4		SpikeLot		QC
	Original	MS	HGPWS1	% Rec	Limits
Mercury	0.43	0.76	0.347	95.2	80-120

Associated samples MP7226: JC66322-3, JC66322-4, JC66322-6, JC66322-9

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

8.2.2

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66322
 Account: AGMNYF - Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

QC Batch ID: MP7226
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 05/18/18

Metal	JC66322-4 Original MSD		Spikelot HGPWS1	% Rec	MSD RPD	QC Limit
Mercury	0.43	0.74	0.35	88.5	2.7	20

Associated samples MP7226: JC66322-3, JC66322-4, JC66322-6, JC66322-9

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

8.2.2

8

Login Number: JC66322
Account: AGMNYF - Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Methods: SW846 7471B
Units: mg/kg

Metal	BSP Result	Spikelot HGPWS1	% Rec	QC Limits
Mercury	0.36	0.333	108.1	80-120

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Page 1 of 2

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: JC66322-1 **Analyzed:** 18-MAY-18 by SF **Method:** SM2540 G-97
ClientID: SB-118(7-9)

Wet Weight (Total)	34.03	g
Tare Weight	26.69	g
Dry Weight (Total)	33.51	g
Solids, Percent	92.9	%

Sample: JC66322-2 **Analyzed:** 18-MAY-18 by SF **Method:** SM2540 G-97
ClientID: SB-113(11-13)

Wet Weight (Total)	35.81	g
Tare Weight	26.61	g
Dry Weight (Total)	35.05	g
Solids, Percent	91.7	%

Sample: JC66322-3 **Analyzed:** 18-MAY-18 by SF **Method:** SM2540 G-97
ClientID: SB-116(3-5)

Wet Weight (Total)	26.47	g
Tare Weight	18.95	g
Dry Weight (Total)	25.43	g
Solids, Percent	86.2	%

Sample: JC66322-4 **Analyzed:** 18-MAY-18 by SF **Method:** SM2540 G-97
ClientID: SB-114(3-5)

Wet Weight (Total)	34.06	g
Tare Weight	24.39	g
Dry Weight (Total)	33.13	g
Solids, Percent	90.4	%

Sample: JC66322-5 **Analyzed:** 18-MAY-18 by SF **Method:** SM2540 G-97
ClientID: SB-114(3-5)

Wet Weight (Total)	30.01	g
Tare Weight	21.79	g
Dry Weight (Total)	29.03	g
Solids, Percent	88.1	%

Sample: JC66322-6 **Analyzed:** 18-MAY-18 by SF **Method:** SM2540 G-97
ClientID: SB-115(2-4)

Wet Weight (Total)	30.18	g
Tare Weight	20.52	g
Dry Weight (Total)	29.27	g
Solids, Percent	90.6	%

9.1
6

Percent Solids Raw Data Summary

Job Number: JC66322
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: JC66322-7		Analyzed: 18-MAY-18 by SF		Method: SM2540 G-97	
ClientID: SB-102(12-14)					
Wet Weight (Total)	32.76	g			
Tare Weight	25.08	g			
Dry Weight (Total)	30.95	g			
Solids, Percent	76.4	%			
Sample: JC66322-8		Analyzed: 18-MAY-18 by SF		Method: SM2540 G-97	
ClientID: DUP-051618					
Wet Weight (Total)	31.37	g			
Tare Weight	22.27	g			
Dry Weight (Total)	30.56	g			
Solids, Percent	91.1	%			
Sample: JC66322-9		Analyzed: 18-MAY-18 by SF		Method: SM2540 G-97	
ClientID: DUP-051618					
Wet Weight (Total)	24.92	g			
Tare Weight	18.35	g			
Dry Weight (Total)	24.02	g			
Solids, Percent	86.3	%			

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Arcadis

NYSEG - Lyons MGP Site, Lyons NY

B0013143.0000

SGS Job Number: JC66554

Sampling Dates: 05/17/18 - 05/21/18

Report to:

Arcadis
295 Woodcliff Drive Suite 301
Fairport, NY 14450
matt.hysell@arcadis.com; Nicholas.Beyrle@arcadis.com

ATTN: Matthew Hysell

Total number of pages in report: **104**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy F. Cole

Nancy Cole
Laboratory Director

Client Service contact: Diane Komar 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS.
Test results relate only to samples analyzed.

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Sample Summary

Arcadis

Job No: JC66554

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.0000

Sample Number	Collected		Matrix Code	Type	Client Sample ID	
	Date	Time By			Received	
JC66554-1	05/17/18	09:30 RDC	05/22/18	SO	Soil	SB-110(7-9)
JC66554-2	05/21/18	10:00 RDC	05/22/18	SO	Soil	SB-119(4-6)

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Arcadis

Job No JC66554

Site: NYSEG - Lyons MGP Site, Lyons NY

Report Date 5/30/2018 5:50:40 PM

On 05/22/2018, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 3.9 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC66554 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Semi-volatiles By Method SW846 8270D

Matrix: SO

Batch ID: OP12229

- All samples were extracted within the recommended method holding time.
- Sample(s) JC66583-1MS, JC66583-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC66554-1: Dilution required due to matrix interference.

General Chemistry By Method SM2540 G-97

Matrix: SO

Batch ID: GN80399

- The data for SM2540 G-97 meets quality control requirements.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC66554
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/17/18 thru 05/21/18

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

JC66554-1 SB-110(7-9)

Acenaphthene ^a	2110	190	66	ug/kg	SW846 8270D
Acenaphthylene ^a	11000	190	98	ug/kg	SW846 8270D
Anthracene ^a	16400	190	120	ug/kg	SW846 8270D
Benzo(a)anthracene	67400	1900	540	ug/kg	SW846 8270D
Benzo(a)pyrene	65700	1900	880	ug/kg	SW846 8270D
Benzo(b)fluoranthene	70000	1900	850	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	30200	1900	960	ug/kg	SW846 8270D
Benzo(k)fluoranthene	26000	1900	900	ug/kg	SW846 8270D
Chrysene	51800	1900	610	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene ^a	6990	190	85	ug/kg	SW846 8270D
Fluoranthene	122000	1900	860	ug/kg	SW846 8270D
Fluorene ^a	9000	190	88	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	36700	1900	900	ug/kg	SW846 8270D
Naphthalene	55700	1900	540	ug/kg	SW846 8270D
Phenanthrene	74300	1900	650	ug/kg	SW846 8270D
Pyrene	99400	1900	620	ug/kg	SW846 8270D

JC66554-2 SB-119(4-6)

Acenaphthene	1590	39	14	ug/kg	SW846 8270D
Acenaphthylene	850	39	20	ug/kg	SW846 8270D
Anthracene	3370	39	24	ug/kg	SW846 8270D
Benzo(a)anthracene	16000	390	110	ug/kg	SW846 8270D
Benzo(a)pyrene	24300	390	180	ug/kg	SW846 8270D
Benzo(b)fluoranthene	23100	390	170	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	14200	390	200	ug/kg	SW846 8270D
Benzo(k)fluoranthene	3700	39	18	ug/kg	SW846 8270D
Chrysene	13700	390	120	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	4550	390	170	ug/kg	SW846 8270D
Fluoranthene	14700	390	180	ug/kg	SW846 8270D
Fluorene	934	39	18	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	16900	390	180	ug/kg	SW846 8270D
Naphthalene	769	39	11	ug/kg	SW846 8270D
Phenanthrene	8960	390	130	ug/kg	SW846 8270D
Pyrene	13900	390	130	ug/kg	SW846 8270D

(a) Dilution required due to matrix interference.



Dayton, NJ

Section 4

4

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SB-110(7-9)	Date Sampled:	05/17/18
Lab Sample ID:	JC66554-1	Date Received:	05/22/18
Matrix:	SO - Soil	Percent Solids:	82.8
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P123150.D	5	05/30/18 14:31	AR	05/24/18 06:45	OP12229	EP5525
Run #2	P123107.D	50	05/29/18 14:16	AR	05/24/18 06:45	OP12229	EP5524

	Initial Weight	Final Volume
Run #1	31.4 g	1.0 ml
Run #2	31.4 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	2110	190	66	ug/kg	
208-96-8	Acenaphthylene	11000	190	98	ug/kg	
120-12-7	Anthracene	16400	190	120	ug/kg	
56-55-3	Benzo(a)anthracene	67400 ^b	1900	540	ug/kg	
50-32-8	Benzo(a)pyrene	65700 ^b	1900	880	ug/kg	
205-99-2	Benzo(b)fluoranthene	70000 ^b	1900	850	ug/kg	
191-24-2	Benzo(g,h,i)perylene	30200 ^b	1900	960	ug/kg	
207-08-9	Benzo(k)fluoranthene	26000 ^b	1900	900	ug/kg	
218-01-9	Chrysene	51800 ^b	1900	610	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	6990	190	85	ug/kg	
206-44-0	Fluoranthene	122000 ^b	1900	860	ug/kg	
86-73-7	Fluorene	9000	190	88	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	36700 ^b	1900	900	ug/kg	
91-20-3	Naphthalene	55700 ^b	1900	540	ug/kg	
85-01-8	Phenanthrene	74300 ^b	1900	650	ug/kg	
129-00-0	Pyrene	99400 ^b	1900	620	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	67%	92%	26-134%
321-60-8	2-Fluorobiphenyl	75%	111%	39-124%
1718-51-0	Terphenyl-d14	60%	86%	36-134%

(a) Dilution required due to matrix interference.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SB-119(4-6)	Date Sampled:	05/21/18
Lab Sample ID:	JC66554-2	Date Received:	05/22/18
Matrix:	SO - Soil	Percent Solids:	81.0
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P123095.D	1	05/26/18 07:26	SA	05/24/18 06:45	OP12229	EP5523
Run #2	P123108.D	10	05/29/18 14:43	AR	05/24/18 06:45	OP12229	EP5524

	Initial Weight	Final Volume
Run #1	31.4 g	1.0 ml
Run #2	31.4 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1590	39	14	ug/kg	
208-96-8	Acenaphthylene	850	39	20	ug/kg	
120-12-7	Anthracene	3370	39	24	ug/kg	
56-55-3	Benzo(a)anthracene	16000 ^a	390	110	ug/kg	
50-32-8	Benzo(a)pyrene	24300 ^a	390	180	ug/kg	
205-99-2	Benzo(b)fluoranthene	23100 ^a	390	170	ug/kg	
191-24-2	Benzo(g,h,i)perylene	14200 ^a	390	200	ug/kg	
207-08-9	Benzo(k)fluoranthene	3700	39	18	ug/kg	
218-01-9	Chrysene	13700 ^a	390	120	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	4550 ^a	390	170	ug/kg	
206-44-0	Fluoranthene	14700 ^a	390	180	ug/kg	
86-73-7	Fluorene	934	39	18	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	16900 ^a	390	180	ug/kg	
91-20-3	Naphthalene	769	39	11	ug/kg	
85-01-8	Phenanthrene	8960 ^a	390	130	ug/kg	
129-00-0	Pyrene	13900 ^a	390	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	49%	58%	26-134%
321-60-8	2-Fluorobiphenyl	55%	68%	39-124%
1718-51-0	Terphenyl-d14	46%	62%	36-134%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

50

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

PAGE 1 OF

SGS 2325 Route 130, Dayton, NJ 08810 TEL. 732-329-0200 FAX 732-329-3499 www.sgs.com/ehsusa		FED-EX Tracking # 6357 6345 997 Bottle Order Control # 5C66554					
Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)		Matrix Codes	
Company Name: Arcadis Street Address: 295 woodcliff Dr Suite 301 City: Fairport State: NY Zip: 14450 Project Contact: Math.hys@arcadis.com E-mail: Phone #: 315-671-9189 Fax #: Sampler(s) Name(s): Ryan Clave Phone #: 585 880 7747		Project Name: NYSEG - Lyons MGP Site Street: 2 water st City: Lyons State: NY Project #: B003143, 0000 Client Purchase Order #: Project Manager: Jason Brien Attention:		Street Address: City: State: Zip:		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WIP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Lab Sample # Field ID / Point of Collection		Collection MEQH/DI Vial # Date Time Sampled by Matrix # of bottles HCl HNO3 H2SO4 DI Water MCH ENCORE		PAHs by 6/2/00 INITIAL ASSESSMENT LABEL VERIFICATION		LAB USE ONLY	
1 SB-110 (7-9) 2 SB-119 (4-6)		5-17-18 0920 RDC SO 1 5-21-18 1000 RDC SO 1					
Turnaround Time (Business days) ☐ Std. 10 Business Days ☒ 5 Day RUSH ☐ 3 Day RUSH ☐ 2 Day RUSH ☐ 1 Day RUSH ☐ other		Approved by (SGS Project Manager)/Date: ☐ Commercial "A" (Level 1) ☐ Commercial "B" (Level 2) ☐ FULLT1 (Level 3+4) ☐ NJ Reduced ☐ Commercial "C" ☐ NJ Data of Known Quality Protocol Requesting Commercial "A" = Results Only; Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data		Data Deliverable Information ☐ NYASP Category A ☐ NYASP Category B ☐ State Forms ☐ EDD Format ☐ Other		Comments / Special Instructions PAH Determination ACCURATE SAMPLES	
Emergency & Rush T/A data available via LabLink		Sample Custody must be documented below each time samples change possession, including courier delivery.		Sample inventory is verified upon receipt in the Laboratory			
Relinquished by Sampler: Relinquished by Sampler: Relinquished by: FED-EX Date Time: 5-22-18 1035		Received By: Jason Brien Date Time: 5/21/18 17:00 Relinquished By: Date Time:		Date Time: 5/21/18 17:00 Received By: FEDEX Date Time:			

Form:SM088-03C (revised 2/12/18)

<http://www.sgs.com/en/terms-and-conditions>.

JC66554: Chain of Custody

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JC66554

SGS Sample Receipt Summary

Job Number: JC66554

Client: _____

Project: _____

Date / Time Received: 5/22/2018 10:35:00 AM

Delivery Method: _____

Airbill #s: _____

Cooler Temps (Raw Measured) °C: Cooler 1: (3.9);

Cooler Temps (Corrected) °C: Cooler 1: (3.9);

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | ☒ | ☐ | 3. COC Present: | ☒ | ☐ |
| 2. Custody Seals Intact: | ☒ | ☐ | 4. Smpl Dates/Time OK | ☒ | ☐ |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | ☒ | ☐ |
| 2. Cooler temp verification: | IR Gun | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | ☐ | ☒ | ☐ |
| 2. Trip Blank listed on COC: | ☐ | ☒ | ☐ |
| 3. Samples preserved properly: | ☒ | ☐ | |
| 4. VOCs headspace free: | ☐ | ☐ | ☒ |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | ☒ | ☐ |
| 2. Container labeling complete: | ☒ | ☐ |
| 3. Sample container label / COC agree: | ☒ | ☐ |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | ☒ | ☐ |
| 2. All containers accounted for: | ☒ | ☐ |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N

N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | ☒ | ☐ | |
| 2. Bottles received for unspecified tests | ☐ | ☒ | |
| 3. Sufficient volume recvd for analysis: | ☒ | ☐ | |
| 4. Compositing instructions clear: | ☐ | ☐ | ☒ |
| 5. Filtering instructions clear: | ☐ | ☐ | ☒ |

Test Strip Lot #s: pH 1-12: 216017

pH 12+: 208717

Other: (Specify) _____

Comments

SM089-03
Rev. Date 12/7/17

JC66554: Chain of Custody

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Internal Sample Tracking Chronicle

Arcadis

Job No: JC66554

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.0000

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC66554-1 Collected: 17-MAY-18 09:30 By: RDC Received: 22-MAY-18 By: RL SB-110(7-9)						
JC66554-1	SM2540 G-97	23-MAY-18 14:20	LV			SOL104
JC66554-1	SW846 8270D	29-MAY-18 14:16	AR	24-MAY-18 MA		B8270PAH
JC66554-1	SW846 8270D	30-MAY-18 14:31	AR	24-MAY-18 MA		B8270PAH
JC66554-2 Collected: 21-MAY-18 10:00 By: RDC Received: 22-MAY-18 By: RL SB-119(4-6)						
JC66554-2	SM2540 G-97	23-MAY-18 14:20	LV			SOL104
JC66554-2	SW846 8270D	26-MAY-18 07:26	SA	24-MAY-18 MA		B8270PAH
JC66554-2	SW846 8270D	29-MAY-18 14:43	AR	24-MAY-18 MA		B8270PAH

SGS Internal Chain of Custody

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/22/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66554-1.1	Secured Storage	Dwayne Johnson	05/23/18 12:18	Retrieve from Storage
JC66554-1.1	Dwayne Johnson	Secured Staging Area	05/23/18 12:18	Return to Storage
JC66554-1.1	Secured Staging Area	Luis Villanueva	05/23/18 13:03	Retrieve from Storage
JC66554-1.1	Luis Villanueva	Secured Storage	05/23/18 14:11	Return to Storage
JC66554-1.1	Secured Storage	Sahara Feliciano	05/23/18 19:09	Retrieve from Storage
JC66554-1.1	Sahara Feliciano	Secured Staging Area	05/23/18 19:09	Return to Storage
JC66554-1.1	Secured Staging Area	Sora Lynn Mathurin	05/24/18 04:34	Retrieve from Storage
JC66554-1.1	Sora Lynn Mathurin	Meilly Arbelo	05/24/18 12:05	Custody Transfer
JC66554-1.1	Meilly Arbelo	Chatiyah Canaday	05/24/18 13:32	Custody Transfer
JC66554-1.1	Chatiyah Canaday	Secured Storage	05/24/18 19:10	Return to Storage
JC66554-1.1.1	Sora Lynn Mathurin	Organics Prep	05/24/18 04:49	Extract from JC66554-1.1
JC66554-1.1.1	Organics Prep	Meilly Arbelo	05/24/18 15:04	Extract from JC66554-1.1
JC66554-1.1.1	Meilly Arbelo	Extract Storage	05/24/18 15:04	Return to Storage
JC66554-1.1.1	Extract Storage	Sufiyanu Ahmed	05/25/18 23:23	Retrieve from Storage
JC66554-1.1.1	Sufiyanu Ahmed	GCMSP	05/25/18 23:23	Load on Instrument
JC66554-1.1.1	GCMSP	Angela Rastelli	05/30/18 16:17	Unload from Instrument
JC66554-1.1.1	Angela Rastelli	Extract Freezer	05/30/18 16:17	Return to Storage
JC66554-2.1	Secured Storage	Dwayne Johnson	05/23/18 12:18	Retrieve from Storage
JC66554-2.1	Dwayne Johnson	Secured Staging Area	05/23/18 12:18	Return to Storage
JC66554-2.1	Secured Staging Area	Luis Villanueva	05/23/18 13:03	Retrieve from Storage
JC66554-2.1	Luis Villanueva	Secured Storage	05/23/18 14:11	Return to Storage
JC66554-2.1	Secured Storage	Sahara Feliciano	05/23/18 19:09	Retrieve from Storage
JC66554-2.1	Sahara Feliciano	Secured Staging Area	05/23/18 19:09	Return to Storage
JC66554-2.1	Secured Staging Area	Sora Lynn Mathurin	05/24/18 04:34	Retrieve from Storage
JC66554-2.1	Sora Lynn Mathurin	Meilly Arbelo	05/24/18 12:05	Custody Transfer
JC66554-2.1	Meilly Arbelo	Chatiyah Canaday	05/24/18 13:32	Custody Transfer
JC66554-2.1	Chatiyah Canaday	Secured Storage	05/24/18 19:10	Return to Storage
JC66554-2.1.1	Sora Lynn Mathurin	Organics Prep	05/24/18 04:49	Extract from JC66554-2.1
JC66554-2.1.1	Organics Prep	Meilly Arbelo	05/24/18 15:04	Extract from JC66554-2.1
JC66554-2.1.1	Meilly Arbelo	Extract Storage	05/24/18 15:04	Return to Storage
JC66554-2.1.1	Extract Storage	Sufiyanu Ahmed	05/25/18 23:23	Retrieve from Storage
JC66554-2.1.1	Sufiyanu Ahmed	GCMSP	05/25/18 23:23	Load on Instrument
JC66554-2.1.1	GCMSP	Angela Rastelli	05/30/18 16:17	Unload from Instrument
JC66554-2.1.1	Angela Rastelli	Extract Freezer	05/30/18 16:17	Return to Storage

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12229-MB1	P123075.D	1	05/25/18	SA	05/24/18	OP12229	EP5523

The QC reported here applies to the following samples: Method: SW846 8270D

JC66554-1, JC66554-2

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	82% 23-115%
4165-62-2	Phenol-d5	87% 27-114%
118-79-6	2,4,6-Tribromophenol	74% 19-152%
4165-60-0	Nitrobenzene-d5	70% 26-134%
321-60-8	2-Fluorobiphenyl	81% 39-124%
1718-51-0	Terphenyl-d14	85% 36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact/aldol-condensation	3.07	310	ug/kg	J
	Total TIC, Semi-Volatile		0	ug/kg	

Blank Spike Summary

Page 1 of 1

Job Number: JC66554

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12229-BS1	P123076.D	1	05/25/18	SA	05/24/18	OP12229	EP5523

The QC reported here applies to the following samples:

Method: SW846 8270D

JC66554-1, JC66554-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	1670	1510	91	53-119
208-96-8	Acenaphthylene	1670	1350	81	41-125
120-12-7	Anthracene	1670	1490	89	51-120
56-55-3	Benzo(a)anthracene	1670	1550	93	54-118
50-32-8	Benzo(a)pyrene	1670	1600	96	55-121
205-99-2	Benzo(b)fluoranthene	1670	1500	90	57-116
191-24-2	Benzo(g,h,i)perylene	1670	1620	97	40-124
207-08-9	Benzo(k)fluoranthene	1670	1470	88	59-116
218-01-9	Chrysene	1670	1580	95	51-115
53-70-3	Dibenzo(a,h)anthracene	1670	1520	91	48-121
206-44-0	Fluoranthene	1670	1430	86	58-117
86-73-7	Fluorene	1670	1460	88	56-114
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1590	95	49-124
91-20-3	Naphthalene	1670	1320	79	44-116
85-01-8	Phenanthrene	1670	1490	89	53-119
129-00-0	Pyrene	1670	1350	81	54-124

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	88%	23-115%
4165-62-2	Phenol-d5	87%	27-114%
118-79-6	2,4,6-Tribromophenol	85%	19-152%
4165-60-0	Nitrobenzene-d5	72%	26-134%
321-60-8	2-Fluorobiphenyl	80%	39-124%
1718-51-0	Terphenyl-d14	87%	36-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: JC66554

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12229-MS	P123079.D	1	05/26/18	SA	05/24/18	OP12229	EP5523
OP12229-MSD	P123080.D	1	05/26/18	SA	05/24/18	OP12229	EP5523
JC66583-1	P123081.D	1	05/26/18	SA	05/24/18	OP12229	EP5523

The QC reported here applies to the following samples:

Method: SW846 8270D

JC66554-1, JC66554-2

CAS No.	Compound	JC66583-1 ug/kg	Spike Q	ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		1870	1510	81	1910	1650	86	9	21-136/34
208-96-8	Acenaphthylene	ND		1870	1370	73	1910	1480	77	8	10-143/36
120-12-7	Anthracene	ND		1870	1520	81	1910	1680	88	10	10-147/39
56-55-3	Benzo(a)anthracene	19.7	J	1870	1590	84	1910	1750	90	10	10-151/41
50-32-8	Benzo(a)pyrene	18.3	J	1870	1600	85	1910	1800	93	12	10-149/40
205-99-2	Benzo(b)fluoranthene	23.2	J	1870	1480	78	1910	1630	84	10	10-147/42
191-24-2	Benzo(g,h,i)perylene	ND		1870	1600	86	1910	1790	93	11	10-150/41
207-08-9	Benzo(k)fluoranthene	ND		1870	1450	78	1910	1640	86	12	12-142/41
218-01-9	Chrysene	17.7	J	1870	1580	84	1910	1780	92	12	10-151/41
53-70-3	Dibenzo(a,h)anthracene	ND		1870	1450	78	1910	1710	89	16	10-152/38
206-44-0	Fluoranthene	ND		1870	1410	76	1910	1530	80	8	10-151/44
86-73-7	Fluorene	ND		1870	1470	79	1910	1600	84	8	19-133/36
193-39-5	Indeno(1,2,3-cd)pyrene	ND		1870	1590	85	1910	1820	95	13	10-148/41
91-20-3	Naphthalene	ND		1870	1270	68	1910	1430	75	12	10-136/36
85-01-8	Phenanthrene	14.8	J	1870	1550	82	1910	1690	87	9	11-145/45
129-00-0	Pyrene	19.2	J	1870	1390	73	1910	1550	80	11	11-155/44

CAS No.	Surrogate Recoveries	MS	MSD	JC66583-1	Limits
367-12-4	2-Fluorophenol	76%	84%		23-115%
4165-62-2	Phenol-d5	80%	86%		27-114%
118-79-6	2,4,6-Tribromophenol	77%	83%		19-152%
4165-60-0	Nitrobenzene-d5	64%	70%	68%	26-134%
321-60-8	2-Fluorobiphenyl	72%	76%	77%	39-124%
1718-51-0	Terphenyl-d14	77%	82%	77%	36-134%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-DFTPP
Lab File ID: P122194.D
Instrument ID: GCMSP
Injection Date: 04/26/18
Injection Time: 23:09

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	44469	33.0	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	69224	51.4	Pass
70	Less than 2.0% of mass 69	499	0.37 (0.72) ^a	Pass
127	40.0 - 60.0% of mass 198	66909	49.7	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	134581	100.0	Pass
199	5.0 - 9.0% of mass 198	10122	7.52	Pass
275	10.0 - 30.0% of mass 198	38768	28.8	Pass
365	1.0 - 100.0% of mass 198	5381	4.00	Pass
441	Present, but less than mass 443	16597	12.3 (86.0) ^b	Pass
442	40.0 - 100.0% of mass 198	98117	72.9	Pass
443	17.0 - 23.0% of mass 442	19289	14.3 (19.7) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5484-IC5484	P122195.D	04/26/18	23:32	00:23	Initial cal 100
EP5484-IC5484	P122196.D	04/27/18	00:00	00:51	Initial cal 80
EP5484-ICC5484	P122197.D	04/27/18	00:28	01:19	Initial cal 50
EP5484-IC5484	P122198.D	04/27/18	00:56	01:47	Initial cal 25
EP5484-IC5484	P122199.D	04/27/18	01:24	02:15	Initial cal 10
EP5484-IC5484	P122200.D	04/27/18	01:52	02:43	Initial cal 5
EP5484-IC5484	P122201.D	04/27/18	02:20	03:11	Initial cal 2
EP5484-IC5484	P122202.D	04/27/18	02:48	03:39	Initial cal 1
EP5484-ICV5484	P122203.D	04/27/18	03:16	04:07	Initial cal verification 50
EP5484-ICV5484	P122204.D	04/27/18	03:44	04:35	Initial cal verification 50
EP5484-ICV5484	P122205.D	04/27/18	04:12	05:03	Initial cal verification 50
EP5484-ICV5484	P122206.D	04/27/18	04:40	05:31	Initial cal verification 50
EP5484-ICV5484	P122207.D	04/27/18	05:08	05:59	Initial cal verification 50
EP5484-ICV5484	P122208.D	04/27/18	05:36	06:27	Initial cal verification 50

Instrument Performance Check (DFTPP)

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5486-DFTPP
Lab File ID: P122229.D
Instrument ID: GCMSP
Injection Date: 04/27/18
Injection Time: 21:39

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	35659	31.3	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	56605	49.7	Pass
70	Less than 2.0% of mass 69	251	0.22 (0.44) ^a	Pass
127	40.0 - 60.0% of mass 198	56746	49.8	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	113976	100.0	Pass
199	5.0 - 9.0% of mass 198	8050	7.06	Pass
275	10.0 - 30.0% of mass 198	32565	28.6	Pass
365	1.0 - 100.0% of mass 198	4584	4.02	Pass
441	Present, but less than mass 443	12600	11.1 (78.4) ^b	Pass
442	40.0 - 100.0% of mass 198	78794	69.1	Pass
443	17.0 - 23.0% of mass 442	16080	14.1 (20.4) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5486-IC5486	P122230.D	04/27/18	22:05	00:26	Initial cal 100
EP5486-IC5486	P122231.D	04/27/18	22:33	00:54	Initial cal 80
EP5486-ICC5486	P122232.D	04/27/18	23:01	01:22	Initial cal 50
EP5486-IC5486	P122233.D	04/27/18	23:29	01:50	Initial cal 25
EP5486-IC5486	P122234.D	04/27/18	23:57	02:18	Initial cal 10
EP5486-IC5486	P122235.D	04/28/18	00:25	02:46	Initial cal 5
EP5486-IC5486	P122236.D	04/28/18	00:53	03:14	Initial cal 2
EP5486-IC5486	P122237.D	04/28/18	01:21	03:42	Initial cal 1
EP5486-ICV5486	P122238.D	04/28/18	01:49	04:10	Initial cal verification 50

Instrument Performance Check (DFTPP)

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5487-DFTPP	Injection Date: 04/30/18
Lab File ID: P122240.D	Injection Time: 12:46
Instrument ID: GCMSP	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	46512	31.4	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	77818	52.5	Pass
70	Less than 2.0% of mass 69	466	0.31 (0.60) ^a	Pass
127	40.0 - 60.0% of mass 198	74173	50.0	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	148218	100.0	Pass
199	5.0 - 9.0% of mass 198	10072	6.80	Pass
275	10.0 - 30.0% of mass 198	41682	28.1	Pass
365	1.0 - 100.0% of mass 198	5742	3.87	Pass
441	Present, but less than mass 443	15392	10.4 (78.5) ^b	Pass
442	40.0 - 100.0% of mass 198	94853	64.0	Pass
443	17.0 - 23.0% of mass 442	19603	13.2 (20.7) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5487-ICV5484	P122241.D	04/30/18	12:57	00:11	Initial cal verification 50
EP5487-ICV5486	P122242.D	04/30/18	13:25	00:39	Initial cal verification 50
EP5487-ICV5486	P122243.D	04/30/18	13:53	01:07	Initial cal verification 50
EP5487-ICV5486	P122244.D	04/30/18	14:20	01:34	Initial cal verification 50

Instrument Performance Check (DFTPP)

Page 1 of 2

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5523-DFTPP
Lab File ID: P123071.D
Instrument ID: GCMSP
Injection Date: 05/25/18
Injection Time: 20:39

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	53849	33.5	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	91165	56.8	Pass
70	Less than 2.0% of mass 69	362	0.23 (0.40) ^a	Pass
127	40.0 - 60.0% of mass 198	91675	57.1	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	160611	100.0	Pass
199	5.0 - 9.0% of mass 198	11948	7.44	Pass
275	10.0 - 30.0% of mass 198	46755	29.1	Pass
365	1.0 - 100.0% of mass 198	5267	3.28	Pass
441	Present, but less than mass 443	13747	8.56 (80.3) ^b	Pass
442	40.0 - 100.0% of mass 198	83077	51.7	Pass
443	17.0 - 23.0% of mass 442	17121	10.7 (20.6) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5523-CC5484	P123072.D	05/25/18	20:57	00:18	Continuing cal 50
EP5523-CC5486	P123073.D	05/25/18	21:24	00:45	Continuing cal 50
OP12229-MB1	P123075.D	05/25/18	22:19	01:40	Method Blank
OP12229-BS1	P123076.D	05/25/18	22:46	02:07	Blank Spike
ZZZZZZ	P123077.D	05/25/18	23:14	02:35	(unrelated sample)
ZZZZZZ	P123078.D	05/25/18	23:41	03:02	(unrelated sample)
OP12229-MS	P123079.D	05/26/18	00:08	03:29	Matrix Spike
OP12229-MSD	P123080.D	05/26/18	00:36	03:57	Matrix Spike Duplicate
JC66583-1	P123081.D	05/26/18	01:03	04:24	(used for QC only; not part of job JC66554)
ZZZZZZ	P123082.D	05/26/18	01:30	04:51	(unrelated sample)
ZZZZZZ	P123083.D	05/26/18	01:58	05:19	(unrelated sample)
ZZZZZZ	P123084.D	05/26/18	02:26	05:47	(unrelated sample)
ZZZZZZ	P123085.D	05/26/18	02:53	06:14	(unrelated sample)
ZZZZZZ	P123086.D	05/26/18	03:21	06:42	(unrelated sample)
ZZZZZZ	P123087.D	05/26/18	03:48	07:09	(unrelated sample)
ZZZZZZ	P123088.D	05/26/18	04:15	07:36	(unrelated sample)
ZZZZZZ	P123090.D	05/26/18	05:10	08:31	(unrelated sample)
ZZZZZZ	P123091.D	05/26/18	05:37	08:58	(unrelated sample)
ZZZZZZ	P123092.D	05/26/18	06:04	09:25	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	EP5523-DFTPP	Injection Date:	05/25/18
Lab File ID:	P123071.D	Injection Time:	20:39
Instrument ID:	GCMSP		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	P123093.D	05/26/18	06:31	09:52	(unrelated sample)
JC66554-2	P123095.D	05/26/18	07:26	10:47	SB-119(4-6)

Instrument Performance Check (DFTPP)

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5524-DFTPP **Injection Date:** 05/29/18
Lab File ID: P123097.D **Injection Time:** 09:50
Instrument ID: GCMSP

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	68401	32.5	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	113210	53.7	Pass
70	Less than 2.0% of mass 69	338	0.16 (0.30) ^a	Pass
127	40.0 - 60.0% of mass 198	112557	53.4	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	210709	100.0	Pass
199	5.0 - 9.0% of mass 198	14907	7.07	Pass
275	10.0 - 30.0% of mass 198	62715	29.8	Pass
365	1.0 - 100.0% of mass 198	6786	3.22	Pass
441	Present, but less than mass 443	14262	6.77 (79.7) ^b	Pass
442	40.0 - 100.0% of mass 198	88083	41.8	Pass
443	17.0 - 23.0% of mass 442	17892	8.49 (20.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5524-CC5484	P123098.D	05/29/18	10:04	00:14	Continuing cal 25
EP5524-CC5486	P123099.D	05/29/18	10:36	00:46	Continuing cal 25
OP12282-MB1	P123102.D	05/29/18	11:58	02:08	Method Blank
OP12282-BS1	P123103.D	05/29/18	12:26	02:36	Blank Spike
OP12282-BSD	P123104.D	05/29/18	12:54	03:04	Blank Spike Duplicate
ZZZZZZ	P123105.D	05/29/18	13:21	03:31	(unrelated sample)
ZZZZZZ	P123106.D	05/29/18	13:49	03:59	(unrelated sample)
JC66554-1	P123107.D	05/29/18	14:16	04:26	SB-110(7-9)
JC66554-2	P123108.D	05/29/18	14:43	04:53	SB-119(4-6)
ZZZZZZ	P123111.D	05/29/18	16:07	06:17	(unrelated sample)
ZZZZZZ	P123112.D	05/29/18	16:34	06:44	(unrelated sample)
ZZZZZZ	P123113.D	05/29/18	17:02	07:12	(unrelated sample)
ZZZZZZ	P123114.D	05/29/18	17:30	07:40	(unrelated sample)
ZZZZZZ	P123115.D	05/29/18	17:57	08:07	(unrelated sample)
ZZZZZZ	P123116.D	05/29/18	18:25	08:35	(unrelated sample)
ZZZZZZ	P123117.D	05/29/18	18:53	09:03	(unrelated sample)
ZZZZZZ	P123118.D	05/29/18	19:20	09:30	(unrelated sample)

Instrument Performance Check (DFTPP)

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5525-DFTPP	Injection Date: 05/30/18
Lab File ID: P123121.D	Injection Time: 09:31
Instrument ID: GCMSP	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	64371	36.1	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	102498	57.5	Pass
70	Less than 2.0% of mass 69	236	0.13 (0.23) ^a	Pass
127	40.0 - 60.0% of mass 198	100770	56.5	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	178224	100.0	Pass
199	5.0 - 9.0% of mass 198	13697	7.69	Pass
275	10.0 - 30.0% of mass 198	50610	28.4	Pass
365	1.0 - 100.0% of mass 198	5547	3.11	Pass
441	Present, but less than mass 443	12742	7.15 (77.6) ^b	Pass
442	40.0 - 100.0% of mass 198	79976	44.9	Pass
443	17.0 - 23.0% of mass 442	16424	9.22 (20.5) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5525-CC5484	P123122.D	05/30/18	09:51	00:20	Continuing cal 50
JC66554-1	P123150.D	05/30/18	14:31	05:00	SB-110(7-9)

Internal Standard Area Summary

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Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: EP5523-CC5484	Injection Date: 05/25/18
Lab File ID: P123072.D	Injection Time: 20:57
Instrument ID: GCMSP	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	189151	4.32	630081	5.23	413953	6.54	721613	8.20	742270	13.21	721249	16.19
Upper Limit ^a	378302	4.82	1260162	5.73	827906	7.04	1443226	8.70	1484540	13.71	1442498	16.69
Lower Limit ^b	94576	3.82	315041	4.73	206977	6.04	360807	7.70	371135	12.71	360625	15.69

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP12229-MB1	155724	4.32	576151	5.23	306996	6.53	566744	8.20	529752	13.19	507578	16.18
OP12229-BS1	135123	4.32	468008	5.23	260984	6.53	485016	8.20	486054	13.20	473631	16.18
ZZZZZZ	151850	4.32	520031	5.23	308024	6.53	570748	8.20	575351	13.19	553780	16.18
ZZZZZZ	152192	4.32	545106	5.23	289161	6.53	508741	8.20	508291	13.19	501992	16.18
OP12229-MS	141891	4.32	494235	5.23	275152	6.53	501674	8.20	510242	13.20	510501	16.18
OP12229-MSD	138208	4.32	481387	5.23	272258	6.53	495539	8.20	500171	13.20	501219	16.19
JC66583-1	159273	4.32	567410	5.23	305648	6.53	538888	8.20	532185	13.19	518426	16.18
ZZZZZZ	140343	4.32	512576	5.23	272320	6.53	484444	8.20	475642	13.19	466217	16.18
ZZZZZZ	140253	4.32	507524	5.23	261781	6.53	464906	8.20	458208	13.19	458657	16.18
ZZZZZZ	142987	4.32	521163	5.23	276493	6.53	491911	8.20	470512	13.19	454421	16.18
ZZZZZZ	131784	4.32	478027	5.23	262115	6.53	471631	8.20	473211	13.20	485640	16.18
ZZZZZZ	148327	4.32	535804	5.23	288852	6.53	506115	8.20	496393	13.19	482239	16.18
ZZZZZZ	150049	4.32	535034	5.23	289194	6.53	518690	8.20	499231	13.19	494569	16.18
ZZZZZZ	145415	4.32	531618	5.23	275310	6.53	487128	8.20	470915	13.20	475420	16.19
ZZZZZZ	148458	4.32	531640	5.23	280137	6.53	497757	8.20	492453	13.21	498837	16.19
ZZZZZZ	145341	4.32	521089	5.23	275996	6.53	486783	8.20	492075	13.21	493564	16.20
ZZZZZZ	138910	4.32	482833	5.24	257122	6.54	461882	8.21	474338	13.23	487921	16.23
ZZZZZZ	157848	4.33	544964	5.24	290554	6.54	529672	8.22	534325	13.23	528329	16.22
JC66554-2	143154	4.33	498477	5.24	259639	6.54	498926	8.23	601071	13.34	571587	16.39

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: EP5524-CC5484	Injection Date: 05/29/18
Lab File ID: P123098.D	Injection Time: 10:04
Instrument ID: GCMSP	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	221392	4.32	734763	5.24	434056	6.54	850475	8.22	815201	13.23	720728	16.22
Upper Limit ^a	442784	4.82	1469526	5.74	868112	7.04	1700950	8.72	1630402	13.73	1441456	16.72
Lower Limit ^b	110696	3.82	367382	4.74	217028	6.04	425238	7.72	407601	12.73	360364	15.72

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP12282-MB1 ^c	190007	4.32	693654	5.23	392443	6.54	785458	8.20	777905	13.22	695640	16.21
OP12282-BS1	168905	4.32	578750	5.24	332490	6.54	651749	8.21	663959	13.22	612033	16.21
OP12282-BSD	173979	4.32	616650	5.24	369913	6.54	726596	8.21	728070	13.22	637007	16.21
ZZZZZZ	146430	4.32	528320	5.24	309296	6.54	600403	8.20	625483	13.21	602779	16.20
ZZZZZZ	157876	4.32	553630	5.24	330880	6.54	637473	8.20	670813	13.21	599626	16.21
JC66554-1	154737	4.32	571467	5.23	303697	6.54	602551	8.20	579486	13.22	557208	16.21
JC66554-2	182140	4.32	640242	5.23	340345	6.54	646184	8.20	621456	13.23	619376	16.23
ZZZZZZ	174846	4.32	627808	5.23	340107	6.54	664792	8.21	636907	13.22	580266	16.21
ZZZZZZ	164907	4.32	597397	5.23	324779	6.54	626514	8.20	618248	13.22	566897	16.21
ZZZZZZ	156210	4.32	580181	5.23	325322	6.54	637405	8.20	626896	13.21	564144	16.21
ZZZZZZ	172439	4.32	634858	5.23	352398	6.54	682279	8.20	684922	13.21	621137	16.21
ZZZZZZ	169888	4.32	608384	5.23	340673	6.54	646082	8.20	622180	13.21	557746	16.21
ZZZZZZ	147183	4.32	535487	5.23	300771	6.54	568422	8.20	559748	13.22	532088	16.22
ZZZZZZ	156070	4.32	547649	5.23	316468	6.54	614924	8.21	639266	13.23	624647	16.24
ZZZZZZ	149816	4.32	543793	5.23	319349	6.54	627421	8.21	591843	13.22	552600	16.21

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

(c) hit: bis(2-ethylhexyl)phthalate

Internal Standard Area Summary

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: EP5525-CC5484	Injection Date: 05/30/18
Lab File ID: P123122.D	Injection Time: 09:51
Instrument ID: GCMSP	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	180265	4.32	629429	5.23	373959	6.53	742444	8.20	725896	13.21	661662	16.20
Upper Limit ^a	360530	4.82	1258858	5.73	747918	7.03	1484888	8.70	1451792	13.71	1323324	16.70
Lower Limit ^b	90133	3.82	314715	4.73	186980	6.03	371222	7.70	362948	12.71	330831	15.70

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
JC66554-1 ^c	143785	4.32	533610	5.23	265792	6.53	519828	8.20	556211	13.25	514784	16.24

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

- (a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Dilution required due to matrix interference.

Surrogate Recovery Summary

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8270D	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
JC66554-1	P123107.D	92	111	86
JC66554-1	P123150.D	67	75	60
JC66554-2	P123108.D	58	68	62
JC66554-2	P123095.D	49	55	46
OP12229-BS1	P123076.D	72	80	87
OP12229-MB1	P123075.D	70	81	85
OP12229-MS	P123079.D	64	72	77
OP12229-MSD	P123080.D	70	76	82

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-134%
S2 = 2-Fluorobiphenyl	39-124%
S3 = Terphenyl-d14	36-134%

6.6.1
6

Initial Calibration Summary

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Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICC5484
Lab FileID: P122197.D

Response Factor Report MSVOAMSP

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Apr 30 16:08:49 2018
Response via : Initial Calibration

Calibration Files

2 =p122201.D 5 =p122200.D 25 =p122198.D 80 =p122196.D
100 =p122195.D 50 =p122197.D 10 =p122199.D 1 =p122202.D

Compound	2	5	25	80	100	50	10	1	Avg %RSD
1) I 1,4-Dichlorobenzene-d	-----ISTD-----								
2) 1,4-Dioxane	1.300	1.159	1.127	1.080	1.084	1.106	1.187	1.200	1.155 6.37
3) Pyridine	2.600	2.774	2.489	2.188	2.140	2.320	2.362	2.445	2.415 8.69
4) N-Nitrosodim	1.283	1.478	1.291	1.160	1.138	1.222	1.332	1.275	1.272 8.37
5) 2-Fluorophen	1.364	1.574	1.697	1.556	1.523	1.647	1.567	1.284	1.527 9.05
6) Indene	2.939	2.776	2.378	1.979	1.881	2.152	2.504	2.758	2.421 16.19
7) Cumene	5.397	5.173	4.142	3.282		3.604	4.661	5.440	4.529 19.29
8) Phenol-d5	2.188	2.188	1.978	1.753	1.662	1.850	2.040	2.041	1.962 9.84
9) Phenol	2.490	2.538	2.207	1.892	1.793	1.992	2.292	2.275	2.185 12.40
10) Aniline	2.853	2.936	2.473	2.067	1.973	2.168	2.583	2.655	2.463 14.65
11) bis(2-Chloro	2.193	1.995	1.530	1.282		1.369	1.700	2.172	1.749 21.52
---- Quadratic regression ---- Coefficient = 0.9996									
Response Ratio = 0.04168 + 1.51659 *A + -0.12947 *A^2									
12) 2-Chlorophen	1.613	1.599	1.379	1.168	1.125	1.244	1.479	1.563	1.396 14.10
13) Decane	2.088	1.801	1.373	1.105		1.198	1.517	1.901	1.569 23.67
---- Quadratic regression ---- Coefficient = 0.9994									
Response Ratio = 0.03932 + 1.36419 *A + -0.14156 *A^2									
14) 1,3-Dichloro	2.005	1.881	1.562	1.338	1.271	1.431	1.681	2.057	1.653 18.33
15) 1,4-Dichloro	1.750	1.574	1.440	1.261	1.208	1.323	1.480	1.640	1.459 13.01
16) Benzyl alcoh	0.814	0.995	0.974	0.870	0.846	0.896	0.957	0.848	0.900 7.46
17) 1,2-Dichloro	1.788	1.692	1.410	1.167	1.142	1.251	1.544	1.804	1.475 18.46
18) Acetophenone	2.776	2.635	2.341	2.002	1.933	2.104	2.374	2.452	2.327 12.85
19) 2-Methylphen	1.535	1.507	1.396	1.261	1.248	1.299	1.408	1.427	1.385 7.79
20) 2,2'-oxybis(	0.448	0.491	0.465	0.413	0.429	0.420	0.462	0.430	0.445 5.99
21) 3&4-Methylph	1.521	1.649	1.557	1.353	1.343	1.480	1.530	1.229	1.458 9.43
22) n-Nitroso-di	1.745	1.845	1.568	1.299	1.251	1.377	1.593	1.809	1.561 14.84
23) Hexachloroet	0.737	0.623	0.586	0.548	0.539	0.554	0.604	0.712	0.613 12.23
24) I Naphthalene-d8	-----ISTD-----								
25) Nitrobenzene	0.835	0.846	0.732	0.598	0.587	0.656	0.743	0.814	0.726 14.24
26) Nitrobenzene	0.843	0.795	0.662	0.525		0.581	0.721		0.688 17.83
27) Quinoline	0.941	0.956	0.860	0.730	0.741	0.789	0.863	0.866	0.843 9.99
28) Isophorone	1.316	1.222	1.118	0.871	0.842	0.949	1.153	1.149	1.077 15.87
29) 2-Nitropheno	0.247	0.240	0.233	0.202	0.199	0.212	0.226	0.197	0.219 8.93
30) 2,4-Dimethyl	0.466	0.516	0.489	0.432	0.423	0.463	0.491	0.400	0.460 8.52
31) Benzoic acid			0.373	0.398	0.409	0.411	0.274		0.373 15.38
32) bis(2-Chloro	0.600	0.605	0.523	0.430	0.422	0.471	0.541	0.591	0.523 14.27
33) 2,4-Dichloro	0.356	0.363	0.342	0.307	0.305	0.318	0.343	0.300	0.329 7.54
34) 2,6-Dichloro	0.336	0.349	0.333	0.297	0.296	0.304	0.337	0.330	0.323 6.38
35) 1,3,5-Trichl	0.522	0.480	0.413	0.353	0.351	0.368	0.422	0.521	0.429 16.64
36) 1,2,4-Trichl	0.473	0.459	0.392	0.324	0.318	0.352	0.407	0.491	0.402 16.81
37) 1,2,3-Trichl	0.458	0.425	0.351	0.296	0.291	0.323	0.379	0.450	0.372 18.08
38) Naphthalene	1.316	1.234	1.050	0.800		0.891	1.129	1.291	1.101 18.08
39) 4-Chloroanil	0.510	0.545	0.516	0.431	0.418	0.464	0.528	0.484	0.487 9.45

Initial Calibration Summary

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Job Number: JC66554
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICC5484
 Lab FileID: P122197.D

40)	2,3-Dichloro	0.507	0.477	0.433	0.368	0.366	0.391	0.435	0.471	0.431	12.17
41)	Caprolactam	0.182	0.240	0.241	0.206	0.213	0.221	0.222	0.141	0.208	15.99
42)	Hexachlorobu	0.291	0.273	0.247	0.225	0.225	0.237	0.255	0.266	0.252	9.31
43)	4-Chloro-3-m	0.484	0.507	0.499	0.420	0.417	0.457	0.470	0.372	0.453	10.32
44)	2-Methylnaph	0.895	0.847	0.686	0.537		0.587	0.750	0.852	0.736	18.86
45)	1-Methylnaph	1.016	0.967	0.816	0.639		0.700	0.869	1.065	0.867	18.47
46)	Dimethylnaph	0.869	0.839	0.732	0.593	0.590	0.641	0.754	0.925	0.743	17.24
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.289	0.347	0.377	0.356	0.345	0.368	0.351	0.227	0.333	15.04
49)	2,4,6-Trichl	0.446	0.442	0.421	0.372	0.374	0.395	0.412	0.376	0.405	7.44
50)	2,4,5-Trichl	0.455	0.474	0.451	0.451	0.455	0.453	0.443	0.441	0.453	2.24
51)	2-Fluorobiph	1.931	1.804	1.409	1.191		1.291	1.593		1.537	18.99
52)	2-Chloronaph	1.571	1.430	1.139	0.965		1.035	1.284		1.237	18.97
53)	Biphenyl	1.979	1.856	1.521	1.223		1.329	1.686	2.105	1.671	19.81
54)	2-Nitroanili	0.741	0.730	0.682	0.589	0.552	0.636	0.694	0.601	0.653	10.57
55)	Dimethylphth	1.913	1.715	1.494	1.257	1.184	1.356	1.591	1.852	1.545	17.50
56)	Acenaphthyle	2.267	2.246	1.879	1.498		1.629	2.078	2.431	2.004	17.38
57)	2,6-Dinitrot	0.341	0.345	0.349	0.326	0.325	0.340	0.354	0.281	0.332	7.02
58)	3-Nitroanili	0.377	0.399	0.418	0.367	0.367	0.384	0.402	0.308	0.378	8.90
59)	Acenaphthene	1.396	1.388	1.182	1.009	0.947	1.084	1.261	1.463	1.216	15.83
60)	2,4-Dinitrop	0.036	0.077	0.172	0.203	0.205	0.199	0.116		0.144	47.42
---- Quadratic regression ---- Coefficient = 0.9994											
Response Ratio = -0.03162 + 0.20384 *A + 0.00165 *A^2											
61)	4-Nitropheno	0.253	0.350	0.361	0.367	0.368	0.321		0.337		13.18
62)	Dibenzofuran	2.117	2.128	1.739	1.427	1.351	1.536	1.924	2.182	1.801	18.57
63)	2,4-Dinitrot	0.460	0.509	0.485	0.439	0.432	0.466	0.488	0.342	0.453	11.37
64)	2,3,4,6-Tetr	0.366	0.405	0.409	0.396	0.397	0.409	0.391	0.292	0.383	10.22
65)	Diethylphtha	1.837	1.827	1.576	1.305	1.214	1.412	1.677	1.705	1.569	15.03
66)	Fluorene	1.814	1.682	1.426	1.227	1.174	1.306	1.595	1.691	1.489	16.07
67)	4-Chlorophen	0.891	0.857	0.754	0.716	0.719	0.746	0.777	0.833	0.787	8.36
68)	4-Nitroanili	0.363	0.354	0.388	0.362	0.372	0.380	0.369	0.234	0.353	13.90
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.075	0.104	0.143	0.147	0.153	0.152	0.132		0.129	22.63
---- Quadratic regression ---- Coefficient = 0.9994											
Response Ratio = -0.00422 + 0.14907 *A + 0.00174 *A^2											
71)	n-Nitrosodip	0.683	0.638	0.549	0.460	0.441	0.497	0.562	0.627	0.557	15.78
72)	1,2-Diphenyl	1.606	1.492	1.202	0.920		1.017	1.334	1.423	1.285	19.56
73)	2,4,6-Tribo	0.119	0.130	0.135	0.128	0.128	0.130	0.130	0.101	0.125	8.58
74)	4-Bromopheny	0.318	0.290	0.266	0.232	0.227	0.245	0.262	0.299	0.267	12.26
75)	Hexachlorobe	0.328	0.300	0.265	0.238	0.232	0.253	0.275	0.346	0.280	14.85
76)	Pentachlorop	0.080	0.124	0.158	0.158	0.159	0.160	0.129		0.138	21.58
---- Linear regression ---- Coefficient = 0.9998											
Response Ratio = -0.00847 + 0.16079 *A											
77)	Phenanthrene	1.279	1.236	1.051	0.877	0.813	0.941	1.127	1.318	1.080	17.67
78)	Anthracene	1.321	1.304	1.121	0.919	0.855	1.001	1.200	1.214	1.117	15.65
79)	Carbazole	1.296	1.309	1.110	0.924	0.864	0.996	1.165	1.088	1.094	14.81
80)	Di-n-butylph	1.385	1.577	1.472	1.165	1.085	1.305	1.506	1.137	1.329	13.95
81)	Fluoranthene	1.523	1.580	1.379	1.139	1.068	1.241	1.477	1.402	1.351	13.66
82)	Octadecane	0.719	0.728	0.625	0.516	0.472	0.552	0.659	0.583	0.607	15.29
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.627	1.633	1.402	1.178	1.143	1.228	1.444	1.604	1.407	14.57
85)	Terphenyl-d1	1.165	1.140	1.049	0.920	0.895	0.944	1.053	1.107	1.034	10.00
86)	Butylbenzylp	0.499	0.604	0.667	0.613	0.596	0.626	0.608	0.392	0.575	15.27
87)	Benzo[a]anth	1.334	1.315	1.248	1.130	1.102	1.169	1.257	1.349	1.238	7.65

Initial Calibration Summary

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Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICC5484
Lab FileID: P122197.D

88)	3,3'-Dichlor	0.313	0.384	0.420	0.435	0.439	0.444	0.393	0.233	0.383	19.36
89)	Chrysene	1.361	1.323	1.129	1.031	1.011	1.057	1.168	1.335	1.177	12.26
90)	bis(2-Ethylh	0.552	0.703	0.858	0.791	0.778	0.816	0.764		0.752	13.31
91)	I Perylene-d12	-----ISTD-----									
92)	Di-n-octylph	0.763	1.210	1.431	1.231	1.185	1.320	1.176		1.188	17.51
93)	Benzo[b]fluo	1.308	1.361	1.274	1.129	1.168	1.183	1.279	1.158	1.232	6.79
94)	Benzo[k]fluo	1.408	1.389	1.141	0.966	0.892	1.017	1.169	1.305	1.161	16.78
95)	Benzo[a]pyre	1.001	1.166	1.122	0.983	0.961	1.029	1.092	0.778	1.016	11.80
96)	Indeno[1,2,3	0.876	1.034	0.994	0.929	0.938	0.955	0.951	0.683	0.920	11.56
97)	Dibenz(a,h)a	0.801	0.974	0.972	0.915	0.891	0.945	0.898	0.660	0.882	11.96
98)	Dibenz[a,h]a	1.006	1.140	1.054	0.984	0.973	0.993	1.084	0.843	1.010	8.76
99)	7,12-Dimethy	0.411	0.503	0.525	0.520	0.520	0.514	0.500	0.319	0.476	15.45
100)	Benzo[g,h,i]	1.020	1.106	1.018	0.949	0.941	0.958	1.026	0.852	0.984	7.71

(#) = Out of Range ### Number of calibration levels exceeded format ###

MP5484.M

Tue May 01 12:25:48 2018

ACLIMS

Initial Calibration Verification

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICV5484
Lab FileID: P122203.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5484\p122203.D Vial: 10
Acq On : 27 Apr 2018 3:16 am Operator: chriss2
Sample : icv5484-50 Inst : MSVOAMSP
Misc : op9039,ep5484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Apr 27 17:04:41 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.00	4.32
5 S	2-Fluorophenol	1.527	1.500	1.8	86	0.00	3.38
8 S	Phenol-d5	1.962	1.843	6.1	94	0.00	4.11
24 I	Naphthalene-d8	1.000	1.000	0.0	95	0.00	5.23
25 S	Nitrobenzene-d5	0.726	0.619	14.7	90	0.00	4.72
47 I	Acenaphthene-d10	1.000	1.000	0.0	94	0.00	6.53
51 S	2-Fluorobiphenyl	1.537	1.221	20.6	88	0.00	5.99
69 I	Phenanthrene-d10	1.000	1.000	0.0	81	0.00	8.19
73 S	2,4,6-Tribromophenol	0.125	0.112	10.4	69	0.00	7.32
83 I	Chrysene-d12	1.000	1.000	0.0	74	-0.01	13.18
85 S	Terphenyl-d14	1.034	0.939	9.2	73	0.00	11.06

(#) = Out of Range
p122197.D MP5484.M

SPCC's out = 0 CCC's out = 0
Fri Apr 27 18:13:24 2018 ACLIMS

Initial Calibration Verification

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICV5484
Lab FileID: P122204.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5484\p122204.D Vial: 11
Acq On : 27 Apr 2018 3:44 am Operator: chriss2
Sample : icv5484-50 Inst : MSVOAMSP
Misc : op9039,ep5484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Apr 30 13:32:34 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	83	-0.18	4.32
9 t	Phenol	2.185	2.142	2.0	89	-0.17	4.12
12 t	2-Chlorophenol	1.396	1.324	5.2	88	-0.18	4.18
19 t	2-Methylphenol	1.385	1.328	4.1	85	-0.20	4.54
21 t	3&4-Methylphenol	1.458	1.408	3.4	79	-0.21	4.65
24 I	Naphthalene-d8	1.000	1.000	0.0	77	-0.19	5.23
29 t	2-Nitrophenol	0.219	0.237	-8.2	86	-0.17	4.97
30 t	2,4-Dimethylphenol	0.460	0.483	-5.0	81	-0.18	5.02
31 t	Benzoic acid	0.373	0.284	23.9	54	-0.19	5.14
33 t	2,4-Dichlorophenol	0.329	0.317	3.6	77	-0.18	5.15
34	2,6-Dichlorophenol	0.323	0.325	-0.6	83	-0.19	5.30
43 t	4-Chloro-3-methylphenol	0.453	0.462	-2.0	78	-0.21	5.66
47 I	Acenaphthene-d10	1.000	1.000	0.0	85	-0.23	6.53
49 t	2,4,6-Trichlorophenol	0.405	0.377	6.9	81	-0.21	5.94
50 t	2,4,5-Trichlorophenol	0.453	0.375	17.2	70	-0.22	5.99
61 t	4-Nitrophenol	0.337	0.295	12.5	68	-0.25	6.73
64	2,3,4,6-Tetrachlorophenol	0.383	0.325	15.1	67	-0.24	6.85
69 I	Phenanthrene-d10	1.000	1.000	0.0	73	-0.32	8.19
	----- True Calc. % Drift -----						
70 t	4,6-Dinitro-2-methylpheno	50.000	49.528	0.9	70	-0.28	7.12
	----- True Calc. % Drift -----						
76 t	Pentachlorophenol	50.000	50.931	-1.9	70	-0.31	7.97

(#) = Out of Range
p122197.D MP5484.M

SPCC's out = 0 CCC's out = 0
Mon Apr 30 13:38:32 2018 ACLIMS

Initial Calibration Verification

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICV5484
Lab FileID: P122205.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5484\p122205.D Vial: 12
Acq On : 27 Apr 2018 4:12 am Operator: chriss2
Sample : icv5484-50 Inst : MSVOAMSP
Misc : op9039,ep5484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Apr 27 17:04:41 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	85	0.00	4.32
3 t	Pyridine	2.415	2.455	-1.7	90	0.12	2.24
10 t	Aniline	2.463	2.715	-10.2	106	0.00	4.09
16 t	Benzyl alcohol	0.900	1.057	-17.4	100	0.00	4.44
24 I	Naphthalene-d8	1.000	1.000	0.0	100	0.00	5.23
39 t	4-Chloroaniline	0.487	0.449	7.8	97	0.00	5.30
44 t	2-Methylnaphthalene	0.736	0.574	22.0	98	0.00	5.74
47 I	Acenaphthene-d10	1.000	1.000	0.0	96	0.00	6.53
54 t	2-Nitroaniline	0.653	0.627	4.0	94	0.00	6.17
58 t	3-Nitroaniline	0.378	0.370	2.1	92	0.00	6.52
62 t	Dibenzofuran	1.801	1.559	13.4	97	0.00	6.71
68 t	4-Nitroaniline	0.353	0.338	4.2	85	-0.02	7.10
69 I	Phenanthrene-d10	1.000	1.000	0.0	95	0.00	8.19
79 t	Carbazole	1.094	0.993	9.2	95	0.00	8.58

(#) = Out of Range
p122197.D MP5484.M

SPCC's out = 0 CCC's out = 0
Fri Apr 27 18:13:26 2018 ACLIMS

Initial Calibration Verification

Page 1 of 2

Job Number: JC66554
 Account: AGMNYF Arcadis
 Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICV5484
 Lab FileID: P122206.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5484\p122206.D Vial: 13
 Acq On : 27 Apr 2018 4:40 am Operator: chriss2
 Sample : icv5484-50 Inst : MSVOAMSP
 Misc : op9039,ep5484,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Apr 27 17:04:41 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	87	0.00	4.32
4 t	N-Nitrosodimethylamine	1.272	1.146	9.9	81	0.02	2.11
	----- True Calc. % Drift -----						
11 t	bis(2-Chloroethyl)ether	50.000	60.451	-20.9	104	0.00	4.13
	----- AvgRF CCRF % Dev -----						
14 t	1,3-Dichlorobenzene	1.653	1.467	11.3	89	0.00	4.27
15 t	1,4-Dichlorobenzene	1.459	1.289	11.7	85	0.00	4.33
17 t	1,2-Dichlorobenzene	1.475	1.343	8.9	93	0.00	4.44
20 t	2,2'-oxybis(1-Chloropropa	0.445	0.462	-3.8	96	0.00	4.52
22	n-Nitroso-di-n-propylamin	1.561	1.421	9.0	90	-0.01	4.61
23 t	Hexachloroethane	0.613	0.550	10.3	86	0.00	4.68
24 I	Naphthalene-d8	1.000	1.000	0.0	84	0.00	5.23
26 t	Nitrobenzene	0.688	0.595	13.5	86	0.00	4.74
28 t	Isophorone	1.077	0.906	15.9	80	0.00	4.90
32 t	bis(2-Chloroethoxy)methan	0.523	0.512	2.1	91	0.00	5.07
36 t	1,2,4-Trichlorobenzene	0.402	0.374	7.0	89	0.00	5.19
38 t	Naphthalene	1.101	0.907	17.6	85	0.00	5.24
42 t	Hexachlorobutadiene	0.252	0.248	1.6	87	0.00	5.34
47 I	Acenaphthene-d10	1.000	1.000	0.0	83	0.00	6.53
48 t	Hexachlorocyclopentadiene	0.333	0.373	-12.0	78	0.00	5.85
52 t	2-Chloronaphthalene	1.237	1.089	12.0	87	0.00	6.08
55 t	Dimethylphthalate	1.545	1.274	17.5	78	0.00	6.31
56 t	Acenaphthylene	2.004	1.537	23.3	78	0.00	6.41
57 t	2,6-Dinitrotoluene	0.332	0.274	17.5	67	0.00	6.36
59 t	Acenaphthene	1.216	1.022	16.0	78	0.00	6.56
63 t	2,4-Dinitrotoluene	0.453	0.382	15.7	68	0.00	6.71
65 t	Diethylphthalate	1.569	1.329	15.3	78	0.00	6.95
66 t	Fluorene	1.489	1.201	19.3	76	0.00	7.05
67 t	4-Chlorophenyl-phenylethe	0.787	0.658	16.4	73	0.00	7.06
69 I	Phenanthrene-d10	1.000	1.000	0.0	79	0.00	8.19
71 t	n-Nitrosodiphenylamine	0.557	0.476	14.5	76	0.00	7.19
72 t	1,2-Diphenylhydrazine	1.285	1.004	21.9	78	0.00	7.23
74 t	4-Bromophenyl-phenylether	0.267	0.224	16.1	72	0.00	7.61
75 t	Hexachlorobenzene	0.280	0.223	20.4	70	0.00	7.69
77 t	Phenanthrene	1.080	0.928	14.1	78	0.00	8.23
78 t	Anthracene	1.117	0.934	16.4	74	0.00	8.30
80 t	Di-n-butylphthalate	1.329	1.190	10.5	72	0.00	9.22
81 t	Fluoranthene	1.351	1.126	16.7	72	0.00	10.21

Initial Calibration Verification

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Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICV5484
Lab FileID: P122206.D

83	I	Chrysene-d12	1.000	1.000	0.0	69	0.00	13.19
84	t	Pyrene	1.407	1.234	12.3	70	0.00	10.64
86	t	Butylbenzylphthalate	0.575	0.610	-6.1	67	0.00	12.21
87	t	Benzo[a]anthracene	1.238	1.138	8.1	67	0.00	13.17
89	t	Chrysene	1.177	1.048	11.0	69	0.00	13.25
90	t	bis(2-Ethylhexyl)phthalat	0.752	0.785	-4.4	67	0.00	13.59
91	I	Perylene-d12	1.000	1.000	0.0	65	0.00	16.18
92	t	Di-n-octylphthalate	1.188	1.319	-11.0	65	0.00	15.01
93	t	Benzo[b]fluoranthene	1.232	1.094	11.2	60	-0.01	15.44
94	t	Benzo[k]fluoranthene	1.161	1.081	6.9	69	-0.02	15.50
95	t	Benzo[a]pyrene	1.016	1.024	-0.8	65	0.00	16.06
96	t	Indeno[1,2,3-cd]pyrene	0.920	0.900	2.2	61	-0.01	18.09
98	t	Dibenz[a,h]anthracene	1.010	0.946	6.3	62	0.00	18.16
100	t	Benzo[g,h,i]perylene	0.984	1.003	-1.9	68	0.00	18.52

(#) = Out of Range
p122197.D MP5484.M

SPCC's out = 0 CCC's out = 0
Fri Apr 27 18:17:22 2018 ACLIMS

Initial Calibration Verification

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICV5484
Lab FileID: P122207.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5484\p122207.D Vial: 14
Acq On : 27 Apr 2018 5:08 am Operator: chriss2
Sample : icv5484-50 Inst : MSVOAMSP
Misc : op9039,ep5484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Apr 27 17:04:41 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	105	0.00	4.32
2 t	1,4-Dioxane	1.155	0.930	19.5	88	0.02	1.80
6 t	Indene	2.421	2.329	3.8	114	0.00	4.50
7 t	Cumene	4.529	3.434	24.2	100	0.00	3.72
----- True Calc. % Drift -----							
13 t	Decane	50.000	51.253	-2.5	109	0.00	4.20
18 t	Acetophenone	2.327	2.070	11.0	104	0.00	4.61
24 I	Naphthalene-d8	1.000	1.000	0.0	104	0.00	5.23
27 t	Quinoline	0.843	0.703	16.6	93	0.00	5.49
40 t	2,3-Dichloroaniline	0.431	0.342	20.6	91	0.00	5.94
41 t	Caprolactam	0.208	0.178	14.4	84	-0.03	5.54
45 t	1-Methylnaphthalene	0.867	0.632	27.1	94	0.00	5.81
46 t	Dimethylnaphthalene	0.743	0.629	15.3	102	0.00	6.19
47 I	Acenaphthene-d10	1.000	1.000	0.0	105	0.00	6.53
53 t	Biphenyl	1.671	1.270	24.0	100	0.00	6.07
69 I	Phenanthrene-d10	1.000	1.000	0.0	87	0.00	8.19
82 t	Octadecane	0.607	0.612	-0.8	97	0.00	8.11

(#) = Out of Range
p122197.D MP5484.M

SPCC's out = 0 CCC's out = 0
Fri Apr 27 18:13:30 2018 ACLIMS

Initial Calibration Verification

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5484-ICV5484
Lab FileID: P122208.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5484\p122208.D Vial: 15
Acq On : 27 Apr 2018 5:36 am Operator: chriss2
Sample : icv5484-50 Inst : MSVOAMSP
Misc : op9039,ep5484,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Apr 27 17:04:41 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	84	-0.01	13.18
88 t	3,3'-Dichlorobenzidine	0.383	0.370	3.4	70	0.00	13.24

(#) = Out of Range SPCC's out = 0 CCC's out = 0
p122197.D MP5484.M Fri Apr 27 18:13:32 2018 ACLIMS

Initial Calibration Summary

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5486-ICC5486
Lab FileID: P122232.D

Response Factor Report MSVOAMSP

Method : C:\msdchem\1\METHODS\MP5486.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Apr 30 16:14:45 2018
Response via : Initial Calibration

Calibration Files

2 =p122236.D 5 =p122235.D 25 =p122233.D 80 =p122231.D
100 =p122230.D 50 =p122232.D 10 =p122234.D 1 =p122237.D

Compound	2	5	25	80	100	50	10	1	Avg %RSD
101) I 1,4-Dichlorobenzene-d									
102) Benzaldehyde	1.485	1.521	1.363	1.159	1.024	1.144	1.448	1.471	1.327 14.34
103) I Phenanthrene-d10b									
104) Atrazine	0.249	0.286	0.286	0.244	0.236	0.256	0.287	0.226	0.259 9.44
105) I Chrysene-d12b									
106) Benzidine	0.690	0.724	0.475		0.553	0.736		0.635	18.21
107) I Naphthalene-d8b									
108) Hydroquinone	0.275	0.400	0.381	0.374	0.388	0.304		0.354	14.42
109) I Acenaphthene-d10b									
110) 1,2,4,5-Tetr	0.812	0.802	0.633	0.541	0.515	0.564	0.668	0.795	0.666 18.50

(#) = Out of Range ### Number of calibration levels exceeded format ###

MP5484.M

Mon Apr 30 16:20:09 2018

ACLIMS

Initial Calibration Verification

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5486-ICV5486
Lab FileID: P122238.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5486\p122238.D Vial: 10
Acq On : 28 Apr 2018 1:49 am Operator: chriss2
Sample : icv5486-50 Inst : MSVOAMSP
Misc : op9039,ep5486,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Apr 30 16:08:49 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
107 I	Naphthalene-d8b	1.000	1.000	0.0	96	0.00	5.42
108	Hydroquinone	0.354	0.387	-9.3	96	0.00	5.75

(#) = Out of Range SPCC's out = 0 CCC's out = 0
p122232a.D MP5484.M Mon Apr 30 16:12:39 2018 ACLIMS

Initial Calibration Verification

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5487-ICV5484
Lab FileID: P122241.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5487\p122241.D Vial: 2
Acq On : 30 Apr 2018 12:57 pm Operator: seanb1
Sample : icv5484-50 Inst : MSVOAMSP
Misc : op9039,ep5487,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Apr 30 13:32:34 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
47 I Acenaphthene-d10	1.000	1.000	0.0	80	0.00	6.76
----- True Calc. % Drift -----						
60 t 2,4-Dinitrophenol	50.000	36.388	27.2	58	0.00	6.83

(#) = Out of Range SPCC's out = 0 CCC's out = 0
p122198.D MP5484.M Mon Apr 30 13:36:18 2018 ACLIMS

6.7.10

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5487-ICV5486
Lab FileID: P122242.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5487\p122242.D Vial: 3
Acq On : 30 Apr 2018 1:25 pm Operator: seanb1
Sample : icv5486-50 Inst : MSVOAMSP
Misc : op9039,ep5487,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Apr 30 16:08:49 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
109 I	Acenaphthene-d10b	1.000	1.000	0.0	83	0.00	6.76
110	1,2,4,5-Tetrachlorobenzen	0.666	0.626	6.0	92	0.00	6.04

(#) = Out of Range
p122232a.D MP5484.M

SPCC's out = 0 CCC's out = 0
Tue May 01 12:25:36 2018 ACLIMS

6.7.11

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5487-ICV5486
Lab FileID: P122243.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5487\p122243.D Vial: 4
Acq On : 30 Apr 2018 1:53 pm Operator: seanb1
Sample : icv5486-50 Inst : MSVOAMSP
Misc : op9039,ep5487,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Apr 30 16:08:49 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	89	0.00	4.50
102	Benzaldehyde	1.327	1.124	15.3	88	0.00	4.18
103 I	Phenanthrene-d10b	1.000	1.000	0.0	93	0.00	8.51
104	Atrazine	0.259	0.270	-4.2	98	0.00	8.15

(#) = Out of Range
p122232a.D MP5484.M

SPCC's out = 0 CCC's out = 0
Tue May 01 12:25:38 2018 ACLIMS

6.7.12

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5487-ICV5486
Lab FileID: P122244.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5487\p122244.D Vial: 5
Acq On : 30 Apr 2018 2:20 pm Operator: seanb1
Sample : icv5486-50 Inst : MSVOAMSP
Misc : op9039,ep5487,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue May 01 14:55:29 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105 I	Chrysene-d12b	1.000	1.000	0.0	95	0.00	13.62
106	Benzidine	0.635	0.754	-18.7	129	0.00	10.96

(#) = Out of Range
p122232a.D MP5484.M

SPCC's out = 0 CCC's out = 0
Tue May 01 14:58:29 2018 ACLIMS

6.7.13

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5523-CC5484
Lab FileID: P123072.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ep5523\p123072.d Vial: 2
 Acq On : 25 May 2018 8:57 pm Operator: sufiyana
 Sample : cc5484-50 Inst : MSVOAMSP
 Misc : op9039,ep5523,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu May 24 05:47:22 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	88	-0.02	4.32
2 t	1,4-Dioxane	1.155	1.134	1.8	90	-0.01	1.80
3 t	Pyridine	2.415	1.968	18.5	75	-0.02	2.15
4 t	N-Nitrosodimethylamine	1.272	0.930	26.9#	67	-0.02	2.13
5 S	2-Fluorophenol	1.527	1.488	2.6	79	-0.02	3.39
6 t	Indene	2.421	2.202	9.0	90	-0.02	4.51
7 t	Cumene	4.529	3.823	15.6	93	-0.02	3.72
8 S	Phenol-d5	1.962	1.861	5.1	88	-0.02	4.13
9 t	Phenol	2.185	1.951	10.7	86	-0.02	4.14
10 t	Aniline	2.463	1.663	32.5#	67	-0.03	4.10
----- True Calc. % Drift -----							
11 t	bis(2-Chloroethyl)ether	50.000	51.423	-2.8	91	-0.02	4.14
----- AvgRF CCRF % Dev -----							
12 t	2-Chlorophenol	1.396	1.352	3.2	95	-0.02	4.19
----- True Calc. % Drift -----							
13 t	Decane	50.000	30.245	39.5#	58	-0.03	4.20
----- AvgRF CCRF % Dev -----							
14 t	1,3-Dichlorobenzene	1.653	1.446	12.5	89	-0.02	4.28
15 t	1,4-Dichlorobenzene	1.459	1.409	3.4	94	-0.03	4.33
16 t	Benzyl alcohol	0.900	0.885	1.7	87	-0.02	4.45
17 t	1,2-Dichlorobenzene	1.475	1.485	-0.7	104	-0.03	4.44
18 t	Acetophenone	2.327	2.133	8.3	89	-0.02	4.63
19 t	2-Methylphenol	1.385	1.261	9.0	85	-0.02	4.56
20 t	2,2'-oxybis(1-Chloropropa	0.445	0.430	3.4	90	-0.02	4.53
21 t	3&4-Methylphenol	1.458	1.378	5.5	82	-0.02	4.67
22	n-Nitroso-di-n-propylamin	1.561	1.368	12.4	87	-0.03	4.63
23 t	Hexachloroethane	0.613	0.552	10.0	88	-0.03	4.68
24 I	Naphthalene-d8	1.000	1.000	0.0	86	-0.07	5.23
25 S	Nitrobenzene-d5	0.726	0.620	14.6	81	-0.06	4.73
26 t	Nitrobenzene	0.688	0.581	15.6	86	-0.06	4.75
27 t	Quinoline	0.843	0.818	3.0	89	-0.08	5.51
28 t	Isophorone	1.077	0.925	14.1	84	-0.07	4.91
29 t	2-Nitrophenol	0.219	0.233	-6.4	94	-0.07	4.97
30 t	2,4-Dimethylphenol	0.460	0.483	-5.0	90	-0.07	5.03
31 t	Benzoic acid	0.373	0.406	-8.8	85	-0.07	5.17
32 t	bis(2-Chloroethoxy)methan	0.523	0.452	13.6	82	-0.07	5.07
33 t	2,4-Dichlorophenol	0.329	0.348	-5.8	94	-0.07	5.16

Continuing Calibration Summary

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5523-CC5484
Lab FileID: P123072.D

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34	2,6-Dichlorophenol	0.323	0.340	-5.3	96	-0.07	5.31
35	1,3,5-Trichlorobenzene	0.429	0.404	5.8	94	-0.07	4.97
36 t	1,2,4-Trichlorobenzene	0.402	0.357	11.2	87	-0.07	5.20
37	1,2,3-Trichlorobenzene	0.372	0.348	6.5	92	-0.07	5.36
38 t	Naphthalene	1.101	0.969	12.0	93	-0.08	5.25
39 t	4-Chloroaniline	0.487	0.449	7.8	83	-0.08	5.31
40 t	2,3-Dichloroaniline	0.431	0.429	0.5	94	-0.08	5.95
41 t	Caprolactam	0.208	0.151	27.4#	59	-0.08	5.58
42 t	Hexachlorobutadiene	0.252	0.252	0.0	91	-0.07	5.34
43 t	4-Chloro-3-methylphenol	0.453	0.478	-5.5	90	-0.07	5.68
44 t	2-Methylnaphthalene	0.736	0.633	14.0	92	-0.08	5.74
45 t	1-Methylnaphthalene	0.867	0.765	11.8	94	-0.08	5.81
46 t	Dimethylnaphthalene	0.743	0.745	-0.3	100	-0.08	6.19
47 I	Acenaphthene-d10	1.000	1.000	0.0	90	-0.04	6.54
48 t	Hexachlorocyclopentadiene	0.333	0.362	-8.7	88	-0.04	5.85
49 t	2,4,6-Trichlorophenol	0.405	0.401	1.0	91	-0.04	5.96
50 t	2,4,5-Trichlorophenol	0.453	0.455	-0.4	90	-0.04	6.00
51 S	2-Fluorobiphenyl	1.537	1.281	16.7	89	-0.04	6.00
52 t	2-Chloronaphthalene	1.237	1.042	15.8	91	-0.04	6.09
53 t	Biphenyl	1.671	1.405	15.9	95	-0.04	6.07
54 t	2-Nitroaniline	0.653	0.568	13.0	80	-0.04	6.19
55 t	Dimethylphthalate	1.545	1.309	15.3	87	-0.04	6.32
56 t	Acenaphthylene	2.004	1.616	19.4	89	-0.04	6.42
57 t	2,6-Dinitrotoluene	0.332	0.333	-0.3	88	-0.04	6.37
58 t	3-Nitroaniline	0.378	0.344	9.0	81	-0.04	6.53
59 t	Acenaphthene	1.216	1.113	8.5	92	-0.04	6.56
		----- True	Calc.	% Drift	-----		
60 t	2,4-Dinitrophenol	100.000	96.634	3.4	85	-0.04	6.62
		----- AvgRF	CCRF	% Dev	-----		
61 t	4-Nitrophenol	0.337	0.367	-8.9	90	-0.04	6.75
62 t	Dibenzofuran	1.801	1.593	11.5	93	-0.04	6.72
63 t	2,4-Dinitrotoluene	0.453	0.457	-0.9	88	-0.04	6.73
64	2,3,4,6-Tetrachlorophenol	0.383	0.388	-1.3	85	-0.04	6.86
65 t	Diethylphthalate	1.569	1.400	10.8	89	-0.04	6.95
66 t	Fluorene	1.489	1.358	8.8	94	-0.04	7.06
67 t	4-Chlorophenyl-phenylethe	0.787	0.746	5.2	90	-0.04	7.06
68 t	4-Nitroaniline	0.353	0.319	9.6	76	-0.04	7.14
69 I	Phenanthrene-d10	1.000	1.000	0.0	83	-0.03	8.20
		----- True	Calc.	% Drift	-----		
70 t	4,6-Dinitro-2-methylpheno	50.000	53.660	-7.3	88	-0.03	7.15
		----- AvgRF	CCRF	% Dev	-----		
71 t	n-Nitrosodiphenylamine	0.557	0.576	-3.4	97	-0.03	7.20
72 t	1,2-Diphenylhydrazine	1.285	1.029	19.9	84	-0.03	7.23
73 S	2,4,6-Tribromophenol	0.125	0.117	6.4	75	-0.04	7.33
74 t	4-Bromophenyl-phenylether	0.267	0.256	4.1	87	-0.03	7.62
75 t	Hexachlorobenzene	0.280	0.246	12.1	81	-0.03	7.70
		----- True	Calc.	% Drift	-----		
76 t	Pentachlorophenol	100.000	102.377	-2.4	84	-0.03	7.99
		----- AvgRF	CCRF	% Dev	-----		
77 t	Phenanthrene	1.080	1.047	3.1	93	-0.03	8.24
78 t	Anthracene	1.117	1.082	3.1	90	-0.04	8.31
79 t	Carbazole	1.094	1.009	7.8	85	-0.04	8.59

Continuing Calibration Summary

Page 3 of 3

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5523-CC5484
Lab FileID: P123072.D

80	t	Di-n-butylphthalate	1.329	1.382	-4.0	88	-0.04	9.23
81	t	Fluoranthene	1.351	1.294	4.2	87	-0.05	10.22
82	t	Octadecane	0.607	0.457	24.7#	69	-0.04	8.11
83	I	Chrysene-d12	1.000	1.000	0.0	85	-0.03	13.21
84	t	Pyrene	1.407	1.281	9.0	89	-0.04	10.65
85	S	Terphenyl-d14	1.034	0.938	9.3	85	-0.04	11.06
86	t	Butylbenzylphthalate	0.575	0.645	-12.2	88	-0.04	12.21
87	t	Benzo[a]anthracene	1.238	1.272	-2.7	93	-0.04	13.18
88	t	3,3'-Dichlorobenzidine	0.383	0.435	-13.6	84	-0.04	13.26
89	t	Chrysene	1.177	1.223	-3.9	99	-0.04	13.27
90	t	bis(2-Ethylhexyl)phthalat	0.752	0.849	-12.9	89	-0.05	13.58
91	I	Perylene-d12	1.000	1.000	0.0	80	-0.04	16.19
92	t	Di-n-octylphthalate	1.188	1.457	-22.6#	89	-0.05	14.99
93	t	Benzo[b]fluoranthene	1.232	1.283	-4.1	87	-0.05	15.46
94	t	Benzo[k]fluoranthene	1.161	1.152	0.8	91	-0.05	15.52
95	t	Benzo[a]pyrene	1.016	1.104	-8.7	86	-0.05	16.08
96	t	Indeno[1,2,3-cd]pyrene	0.920	1.074	-16.7	90	-0.05	18.12
97	t	Dibenz(a,h)acridine	0.882	1.034	-17.2	88	-0.05	17.76
98	t	Dibenz[a,h]anthracene	1.010	1.151	-14.0	93	-0.05	18.17
99	t	7,12-Dimethylbenz(a)anthr	0.476	0.597	-25.4#	93	-0.05	15.48
100	t	Benzo[g,h,i]perylene	0.984	1.064	-8.1	89	-0.05	18.54

(#) = Out of Range
 p122968.d MP5484.M

SPCC's out = 0 CCC's out = 0
 Sun May 27 22:26:13 2018

6.7.14
 6

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5523-CC5486
Lab FileID: P123073.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ep5523\p123073.d Vial: 3
Acq On : 25 May 2018 9:24 pm Operator: sufiyana
Sample : cc5486-50 Inst : MSVOAMSP
Misc : op9039,ep5523,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sun May 27 22:46:05 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	96	0.00	4.32
102	Benzaldehyde	1.327	1.075	19.0	90	0.00	4.00
103 I	Phenanthrene-d10b	1.000	1.000	0.0	92	0.00	8.20
104	Atrazine	0.259	0.270	-4.2	97	0.00	7.87
105 I	Chrysene-d12b	1.000	1.000	0.0	97	0.00	13.19
106	Benzidine	0.635	0.412	35.1#	73	0.02	10.59
107 I	Naphthalene-d8b	1.000	1.000	0.0	91	0.00	5.23
108	Hydroquinone	0.354	0.380	-7.3	90	0.00	5.59
109 I	Acenaphthene-d10b	1.000	1.000	0.0	99	0.00	6.53
110	1,2,4,5-Tetrachlorobenzen	0.666	0.619	7.1	109	0.00	5.85

(#) = Out of Range
p123072.d MP5484.M

SPCC's out = 0 CCC's out = 0
Mon May 28 03:41:45 2018

6.7.15

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5524-CC5484
Lab FileID: P123098.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ep5524\p123098.d Vial: 2
Acq On : 29 May 2018 10:04 am Operator: angelar
Sample : cc5484-25 Inst : MSVOAMSP
Misc : op9039,ep5524,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sun May 27 22:46:05 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	100	0.00	4.32
2 t	1,4-Dioxane	1.155	1.078	6.7	96	0.00	1.80
3 t	Pyridine	2.415	2.244	7.1	90	0.00	2.15
4 t	N-Nitrosodimethylamine	1.272	0.933	26.7#	72	0.00	2.13
5 S	2-Fluorophenol	1.527	1.631	-6.8	96	0.00	3.39
6 t	Indene	2.421	2.536	-4.8	107	0.00	4.51
7 t	Cumene	4.529	4.402	2.8	106	0.00	3.72
8 S	Phenol-d5	1.962	2.066	-5.3	105	0.00	4.13
9 t	Phenol	2.185	2.108	3.5	96	0.00	4.14
10 t	Aniline	2.463	2.681	-8.9	109	0.00	4.10
----- True Calc. % Drift -----							
11 t	bis(2-Chloroethyl)ether	25.000	25.775	-3.1	101	0.00	4.14
----- AvgRF CCRF % Dev -----							
12 t	2-Chlorophenol	1.396	1.521	-9.0	110	0.00	4.19
----- True Calc. % Drift -----							
13 t	Decane	25.000	15.139	39.4#	62	0.00	4.20
----- AvgRF CCRF % Dev -----							
14 t	1,3-Dichlorobenzene	1.653	1.687	-2.1	108	0.00	4.28
15 t	1,4-Dichlorobenzene	1.459	1.594	-9.3	111	0.00	4.34
16 t	Benzyl alcohol	0.900	0.953	-5.9	98	0.00	4.45
17 t	1,2-Dichlorobenzene	1.475	1.652	-12.0	117	0.00	4.45
18 t	Acetophenone	2.327	2.458	-5.6	105	0.00	4.63
19 t	2-Methylphenol	1.385	1.432	-3.4	103	0.00	4.56
20 t	2,2'-oxybis(1-Chloropropa	0.445	0.471	-5.8	101	0.00	4.53
21 t	3&4-Methylphenol	1.458	1.514	-3.8	97	0.00	4.67
22	n-Nitroso-di-n-propylamin	1.561	1.501	3.8	96	0.00	4.63
23 t	Hexachloroethane	0.613	0.664	-8.3	113	0.00	4.68
24 I	Naphthalene-d8	1.000	1.000	0.0	98	0.00	5.24
25 S	Nitrobenzene-d5	0.726	0.705	2.9	94	0.00	4.73
26 t	Nitrobenzene	0.688	0.671	2.5	99	0.00	4.75
27 t	Quinoline	0.843	0.893	-5.9	101	-0.02	5.50
28 t	Isophorone	1.077	1.082	-0.5	94	0.00	4.91
29 t	2-Nitrophenol	0.219	0.250	-14.2	105	0.00	4.98
30 t	2,4-Dimethylphenol	0.460	0.561	-22.0#	112	0.00	5.03
31 t	Benzoic acid	0.373	0.440	-18.0	115	-0.02	5.15
32 t	bis(2-Chloroethoxy)methan	0.523	0.505	3.4	94	0.00	5.07
33 t	2,4-Dichlorophenol	0.329	0.381	-15.8	109	0.00	5.17

Continuing Calibration Summary

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5524-CC5484
Lab FileID: P123098.D

Page 2 of 3

34	2,6-Dichlorophenol	0.323	0.365	-13.0	107	0.00	5.31
35	1,3,5-Trichlorobenzene	0.429	0.457	-6.5	108	0.00	4.97
36 t	1,2,4-Trichlorobenzene	0.402	0.413	-2.7	103	0.00	5.20
37	1,2,3-Trichlorobenzene	0.372	0.395	-6.2	110	0.00	5.36
38 t	Naphthalene	1.101	1.096	0.5	102	0.00	5.26
39 t	4-Chloroaniline	0.487	0.531	-9.0	101	0.00	5.31
40 t	2,3-Dichloroaniline	0.431	0.471	-9.3	106	0.00	5.95
41 t	Caprolactam	0.208	0.165	20.7#	67	-0.01	5.57
42 t	Hexachlorobutadiene	0.252	0.294	-16.7	116	0.00	5.34
43 t	4-Chloro-3-methylphenol	0.453	0.532	-17.4	104	0.00	5.68
44 t	2-Methylnaphthalene	0.736	0.707	3.9	101	0.00	5.74
45 t	1-Methylnaphthalene	0.867	0.854	1.5	102	0.00	5.81
46 t	Dimethylnaphthalene	0.743	0.831	-11.8	111	0.00	6.20
47 I	Acenaphthene-d10	1.000	1.000	0.0	89	0.00	6.54
48 t	Hexachlorocyclopentadiene	0.333	0.375	-12.6	89	0.01	5.85
49 t	2,4,6-Trichlorophenol	0.405	0.514	-26.9#	109	0.00	5.96
50 t	2,4,5-Trichlorophenol	0.453	0.581	-28.3#	115	0.00	6.00
51 S	2-Fluorobiphenyl	1.537	1.674	-8.9	106	0.00	6.00
52 t	2-Chloronaphthalene	1.237	1.314	-6.2	103	0.00	6.09
53 t	Biphenyl	1.671	1.759	-5.3	103	0.00	6.07
54 t	2-Nitroaniline	0.653	0.698	-6.9	91	0.00	6.19
55 t	Dimethylphthalate	1.545	1.669	-8.0	100	0.00	6.32
56 t	Acenaphthylene	2.004	2.058	-2.7	98	0.01	6.42
57 t	2,6-Dinitrotoluene	0.332	0.413	-24.4#	106	0.00	6.37
58 t	3-Nitroaniline	0.378	0.440	-16.4	94	0.00	6.53
59 t	Acenaphthene	1.216	1.352	-11.2	102	0.01	6.57
		True	Calc.	% Drift			
60 t	2,4-Dinitrophenol	50.000	59.690	-19.4	115	0.01	6.62
		AvgRF	CCRF	% Dev			
61 t	4-Nitrophenol	0.337	0.403	-19.6	103	0.01	6.75
62 t	Dibenzofuran	1.801	1.936	-7.5	99	0.00	6.72
63 t	2,4-Dinitrotoluene	0.453	0.536	-18.3	99	0.02	6.74
64	2,3,4,6-Tetrachlorophenol	0.383	0.472	-23.2#	103	0.00	6.86
65 t	Diethylphthalate	1.569	1.766	-12.6	100	0.00	6.95
66 t	Fluorene	1.489	1.622	-8.9	102	0.01	7.06
67 t	4-Chlorophenyl-phenylethe	0.787	0.928	-17.9	110	0.00	7.06
68 t	4-Nitroaniline	0.353	0.397	-12.5	91	0.00	7.13
69 I	Phenanthrene-d10	1.000	1.000	0.0	95	0.02	8.22
		True	Calc.	% Drift			
70 t	4,6-Dinitro-2-methylpheno	25.000	30.056	-20.2#	115	0.01	7.15
		AvgRF	CCRF	% Dev			
71 t	n-Nitrosodiphenylamine	0.557	0.649	-16.5	112	0.00	7.20
72 t	1,2-Diphenylhydrazine	1.285	1.122	12.7	88	0.00	7.23
73 S	2,4,6-Tribromophenol	0.125	0.114	8.8	80	0.01	7.33
74 t	4-Bromophenyl-phenylether	0.267	0.272	-1.9	97	0.01	7.62
75 t	Hexachlorobenzene	0.280	0.264	5.7	94	0.01	7.70
		True	Calc.	% Drift			
76 t	Pentachlorophenol	50.000	48.978	2.0	90	0.01	7.99
		AvgRF	CCRF	% Dev			
77 t	Phenanthrene	1.080	1.121	-3.8	101	0.01	8.25
78 t	Anthracene	1.117	1.171	-4.8	99	0.01	8.32
79 t	Carbazole	1.094	1.101	-0.6	94	0.01	8.60

Continuing Calibration Summary

Page 3 of 3

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5524-CC5484
Lab FileID: P123098.D

80	t	Di-n-butylphthalate	1.329	1.499	-12.8	96	0.00	9.23
81	t	Fluoranthene	1.351	1.403	-3.8	96	0.02	10.23
82	t	Octadecane	0.607	0.484	20.3#	73	0.00	8.11
83	I	Chrysene-d12	1.000	1.000	0.0	92	0.04	13.23
84	t	Pyrene	1.407	1.449	-3.0	95	0.03	10.66
85	S	Terphenyl-d14	1.034	1.022	1.2	89	0.03	11.07
86	t	Butylbenzylphthalate	0.575	0.714	-24.2#	98	0.03	12.21
87	t	Benzo[a]anthracene	1.238	1.339	-8.2	98	0.04	13.21
88	t	3,3'-Dichlorobenzidine	0.383	0.440	-14.9	96	0.03	13.27
89	t	Chrysene	1.177	1.228	-4.3	100	0.03	13.28
90	t	bis(2-Ethylhexyl)phthalat	0.752	0.895	-19.0	95	0.03	13.59
91	I	Perylene-d12	1.000	1.000	0.0	83	0.04	16.22
92	t	Di-n-octylphthalate	1.188	1.662	-39.9#	96	0.03	15.01
93	t	Benzo[b]fluoranthene	1.232	1.346	-9.3	88	0.03	15.48
94	t	Benzo[k]fluoranthene	1.161	1.205	-3.8	88	0.03	15.53
95	t	Benzo[a]pyrene	1.016	1.166	-14.8	86	0.04	16.10
96	t	Indeno[1,2,3-cd]pyrene	0.920	0.993	-7.9	83	0.04	18.14
97	t	Dibenz(a,h)acridine	0.882	0.982	-11.3	84	0.04	17.78
98	t	Dibenz[a,h]anthracene	1.010	1.079	-6.8	85	0.04	18.19
99	t	7,12-Dimethylbenz(a)anthr	0.476	0.664	-39.5#	105	0.03	15.49
100	t	Benzo[g,h,i]perylene	0.984	1.015	-3.2	83	0.04	18.56

(#) = Out of Range
 p122837.d MP5484.M

SPCC's out = 0 CCC's out = 0
 Tue May 29 23:54:20 2018

6.7.16
 6

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5524-CC5486
Lab FileID: P123099.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ep5524\p123099.d Vial: 3
Acq On : 29 May 2018 10:36 am Operator: angelar
Sample : cc5486-25 Inst : MSVOAMSP
Misc : op9039,ep5524,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Sun May 27 22:46:05 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	105	0.00	4.32
102	Benzaldehyde	1.327	1.012	23.7#	78	0.00	4.01
103 I	Phenanthrene-d10b	1.000	1.000	0.0	99	0.01	8.21
104	Atrazine	0.259	0.269	-3.9	93	0.00	7.87
105 I	Chrysene-d12b	1.000	1.000	0.0	101	0.03	13.22
106	Benzidine	0.635	0.408	35.7#	57	0.02	10.59
107 I	Naphthalene-d8b	1.000	1.000	0.0	94	0.00	5.24
108	Hydroquinone	0.354	0.430	-21.5#	101	0.00	5.59
109 I	Acenaphthene-d10b	1.000	1.000	0.0	98	0.00	6.54
110	1,2,4,5-Tetrachlorobenzen	0.666	0.666	0.0	103	0.00	5.86

(#) = Out of Range
p122837.d MP5484.M

SPCC's out = 0 CCC's out = 0
Wed May 30 00:11:52 2018

6.7.17

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5525-CC5484
Lab FileID: P123122.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5525\p123122.D Vial: 2
Acq On : 30 May 2018 9:51 am Operator: angelar
Sample : cc5484-50 Inst : MSVOAMSP
Misc : op9039,ep5525,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed May 30 16:35:11 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	84	0.00	4.32
2 t	1,4-Dioxane	1.155	1.174	-1.6	89	-0.03	1.79
3 t	Pyridine	2.415	2.232	7.6	81	-0.04	2.14
4 t	N-Nitrosodimethylamine	1.272	0.965	24.1#	66	-0.04	2.11
5 S	2-Fluorophenol	1.527	1.566	-2.6	80	-0.01	3.39
6 t	Indene	2.421	2.352	2.9	91	0.00	4.50
7 t	Cumene	4.529	3.941	13.0	91	0.00	3.71
8 S	Phenol-d5	1.962	2.000	-1.9	90	0.00	4.12
9 t	Phenol	2.185	2.054	6.0	86	0.00	4.13
10 t	Aniline	2.463	2.432	1.3	94	0.00	4.09
----- True Calc. % Drift -----							
11 t	bis(2-Chloroethyl)ether	50.000	52.423	-4.8	88	0.00	4.13
----- AvgRF CCRF % Dev -----							
12 t	2-Chlorophenol	1.396	1.443	-3.4	97	0.00	4.19
----- True Calc. % Drift -----							
13 t	Decane	50.000	32.132	35.7#	58	0.00	4.20
----- AvgRF CCRF % Dev -----							
14 t	1,3-Dichlorobenzene	1.653	1.550	6.2	91	0.00	4.27
15 t	1,4-Dichlorobenzene	1.459	1.495	-2.5	95	0.00	4.33
16 t	Benzyl alcohol	0.900	0.976	-8.4	91	0.00	4.45
17 t	1,2-Dichlorobenzene	1.475	1.572	-6.6	105	0.00	4.44
18 t	Acetophenone	2.327	2.307	0.9	92	0.00	4.62
19 t	2-Methylphenol	1.385	1.409	-1.7	91	0.00	4.56
20 t	2,2'-oxybis(1-Chloropropa	0.445	0.460	-3.4	92	0.00	4.52
21 t	3&4-Methylphenol	1.458	1.498	-2.7	85	0.00	4.67
22	n-Nitroso-di-n-propylamin	1.561	1.451	7.0	88	0.00	4.63
23 t	Hexachloroethane	0.613	0.603	1.6	91	0.00	4.68
24 I	Naphthalene-d8	1.000	1.000	0.0	86	0.00	5.23
25 S	Nitrobenzene-d5	0.726	0.654	9.9	85	0.00	4.73
26 t	Nitrobenzene	0.688	0.600	12.8	88	0.00	4.74
27 t	Quinoline	0.843	0.828	1.8	90	0.00	5.50
28 t	Isophorone	1.077	0.985	8.5	89	0.00	4.91
29 t	2-Nitrophenol	0.219	0.236	-7.8	95	0.00	4.97
30 t	2,4-Dimethylphenol	0.460	0.514	-11.7	95	0.00	5.03
31 t	Benzoic acid	0.373	0.434	-16.4	91	0.00	5.17
32 t	bis(2-Chloroethoxy)methan	0.523	0.456	12.8	83	0.00	5.07
33 t	2,4-Dichlorophenol	0.329	0.359	-9.1	97	0.00	5.16

Continuing Calibration Summary

Page 2 of 3

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5525-CC5484
Lab FileID: P123122.D

34	2,6-Dichlorophenol	0.323	0.352	-9.0	99	0.00	5.31
35	1,3,5-Trichlorobenzene	0.429	0.416	3.0	97	0.00	4.97
36 t	1,2,4-Trichlorobenzene	0.402	0.374	7.0	91	0.00	5.20
37	1,2,3-Trichlorobenzene	0.372	0.365	1.9	97	0.00	5.35
38 t	Naphthalene	1.101	0.977	11.3	94	0.00	5.25
39 t	4-Chloroaniline	0.487	0.471	3.3	87	0.00	5.30
40 t	2,3-Dichloroaniline	0.431	0.435	-0.9	95	0.00	5.95
41 t	Caprolactam	0.208	0.161	22.6#	62	0.00	5.58
42 t	Hexachlorobutadiene	0.252	0.264	-4.8	95	0.00	5.34
43 t	4-Chloro-3-methylphenol	0.453	0.504	-11.3	94	0.00	5.68
44 t	2-Methylnaphthalene	0.736	0.642	12.8	94	0.00	5.74
45 t	1-Methylnaphthalene	0.867	0.775	10.6	95	0.00	5.81
46 t	Dimethylnaphthalene	0.743	0.782	-5.2	105	0.01	6.19
47 I	Acenaphthene-d10	1.000	1.000	0.0	81	0.00	6.53
48 t	Hexachlorocyclopentadiene	0.333	0.388	-16.5	86	0.00	5.85
49 t	2,4,6-Trichlorophenol	0.405	0.490	-21.0#	101	0.00	5.96
50 t	2,4,5-Trichlorophenol	0.453	0.558	-23.2#	100	0.00	6.00
51 S	2-Fluorobiphenyl	1.537	1.512	1.6	95	0.00	6.00
52 t	2-Chloronaphthalene	1.237	1.183	4.4	93	0.00	6.09
53 t	Biphenyl	1.671	1.582	5.3	97	0.00	6.07
54 t	2-Nitroaniline	0.653	0.655	-0.3	84	0.00	6.19
55 t	Dimethylphthalate	1.545	1.498	3.0	90	0.00	6.31
56 t	Acenaphthylene	2.004	1.840	8.2	92	0.00	6.41
57 t	2,6-Dinitrotoluene	0.332	0.385	-16.0	92	0.00	6.37
58 t	3-Nitroaniline	0.378	0.394	-4.2	83	0.00	6.53
59 t	Acenaphthene	1.216	1.248	-2.6	94	0.00	6.56
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	100.000	120.388	-20.4#	97	0.01	6.62
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.337	0.409	-21.4#	90	0.00	6.74
62 t	Dibenzofuran	1.801	1.781	1.1	94	0.00	6.72
63 t	2,4-Dinitrotoluene	0.453	0.519	-14.6	90	0.01	6.73
64	2,3,4,6-Tetrachlorophenol	0.383	0.455	-18.8	91	0.00	6.86
65 t	Diethylphthalate	1.569	1.605	-2.3	92	0.00	6.95
66 t	Fluorene	1.489	1.501	-0.8	93	0.00	7.06
67 t	4-Chlorophenyl-phenylethe	0.787	0.887	-12.7	97	0.00	7.06
68 t	4-Nitroaniline	0.353	0.373	-5.7	80	0.00	7.13
69 I	Phenanthrene-d10	1.000	1.000	0.0	86	0.00	8.20
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	50.000	60.631	-21.3#	102	0.01	7.15
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.557	0.601	-7.9	104	0.00	7.19
72 t	1,2-Diphenylhydrazine	1.285	1.032	19.7	87	0.00	7.23
73 S	2,4,6-Tribromophenol	0.125	0.112	10.4	74	0.01	7.33
74 t	4-Bromophenyl-phenylether	0.267	0.247	7.5	87	0.00	7.61
75 t	Hexachlorobenzene	0.280	0.238	15.0	81	0.00	7.69
----- True Calc. % Drift -----							
76 t	Pentachlorophenol	100.000	98.435	1.6	83	0.00	7.99
----- AvgRF CCRF % Dev -----							
77 t	Phenanthrene	1.080	1.027	4.9	94	0.00	8.24
78 t	Anthracene	1.117	1.057	5.4	91	0.00	8.31
79 t	Carbazole	1.094	1.017	7.0	88	0.00	8.59

Continuing Calibration Summary

Page 3 of 3

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EP5525-CC5484
Lab FileID: P123122.D

80	t	Di-n-butylphthalate	1.329	1.380	-3.8	91	0.00	9.21
81	t	Fluoranthene	1.351	1.304	3.5	90	0.01	10.22
82	t	Octadecane	0.607	0.462	23.9#	72	0.00	8.10
83	I	Chrysene-d12	1.000	1.000	0.0	83	0.02	13.21
84	t	Pyrene	1.407	1.328	5.6	90	0.01	10.65
85	S	Terphenyl-d14	1.034	0.952	7.9	84	0.00	11.06
86	t	Butylbenzylphthalate	0.575	0.695	-20.9#	93	0.02	12.20
87	t	Benzo[a]anthracene	1.238	1.277	-3.2	91	0.03	13.19
88	t	3,3'-Dichlorobenzidine	0.383	0.449	-17.2	84	0.03	13.26
89	t	Chrysene	1.177	1.183	-0.5	93	0.02	13.26
90	t	bis(2-Ethylhexyl)phthalat	0.752	0.886	-17.8	91	0.02	13.57
91	I	Perylene-d12	1.000	1.000	0.0	74	0.03	16.20
92	t	Di-n-octylphthalate	1.188	1.607	-35.3#	90	0.01	14.99
93	t	Benzo[b]fluoranthene	1.232	1.339	-8.7	83	0.02	15.47
94	t	Benzo[k]fluoranthene	1.161	1.124	3.2	81	0.02	15.53
95	t	Benzo[a]pyrene	1.016	1.145	-12.7	82	0.02	16.08
96	t	Indeno[1,2,3-cd]pyrene	0.920	1.010	-9.8	78	0.04	18.14
97	t	Dibenz(a,h)acridine	0.882	0.976	-10.7	76	0.03	17.77
98	t	Dibenz[a,h]anthracene	1.010	1.084	-7.3	80	0.03	18.19
99	t	7,12-Dimethylbenz(a)anthr	0.476	0.647	-35.9#	93	0.03	15.48
100	t	Benzo[g,h,i]perylene	0.984	0.993	-0.9	76	0.04	18.56

(#) = Out of Range
p122912.D MP5484.M

SPCC's out = 0 CCC's out = 0
Wed May 30 16:37:06 2018 ACLIMS



MS Semi-volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\ep5524\
 Data File : p123107.d
 Acq On : 29 May 2018 2:16 pm
 Operator : angelar
 Sample : jc66554-1 Inst : MSVOAMSP
 Misc : op12229,ep5524,31.4,,,1,50
 ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M
 Quant Results File: MP5484.RES
 Quant Time: May 30 01:38:54 2018
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Sun May 27 22:46:05 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.321	152	154737	40.00	ppm	0.00
24) Naphthalene-d8	5.234	136	571467	40.00	ppm	0.00
47) Acenaphthene-d10	6.538	164	303697	40.00	ppm	0.00
69) Phenanthrene-d10	8.204	188	602551	40.00	ppm	0.00
83) Chrysene-d12	13.216	240	579486	40.00	ppm	0.03
91) Perylene-d12	16.213	264	557208	40.00	ppm	0.04
101) 1,4-Dichlorobenzene-d4b	4.321	152	154737	40.00	ppm	0.00
103) Phenanthrene-d10b	8.204	188	602551	40.00	ppm	0.00
105) Chrysene-d12b	13.216	240	579486	40.00	ppm	0.03
107) Naphthalene-d8b	5.234	136	571467	40.00	ppm	0.00
109) Acenaphthene-d10b	6.538	164	303697	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.407	112	5279m	0.89	ppm	0.02
Spiked Amount 50.000			Recovery	=	1.78%	
8) Phenol-d5	4.139	99	5512	0.73	ppm	0.01
Spiked Amount 50.000			Recovery	=	1.46%	
25) Nitrobenzene-d5	4.737	82	9515	0.92	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.84%	
51) 2-Fluorobiphenyl	5.998	172	12965	1.11	ppm	0.00
Spiked Amount 50.000			Recovery	=	2.22%	
73) 2,4,6-Tribromophenol	7.334	330	1281	0.68	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.36%	
85) Terphenyl-d14	11.063	244	12885	0.86	ppm	0.02
Spiked Amount 50.000			Recovery	=	1.72%	
Target Compounds						
						Qvalue
38) Naphthalene	5.250	128	455488	28.95	ppm	96
44) 2-Methylnaphthalene	5.736	141	84488	8.03	ppm	95
56) Acenaphthylene	6.415	152	128845	8.47	ppm	93
59) Acenaphthene	6.564	153	13147	1.42	ppm	85
66) Fluorene	7.056	166	80144	7.09	ppm	95
77) Phenanthrene	8.242	178	628831	38.64	ppm	97
78) Anthracene	8.311	178	213207	12.67	ppm	93
81) Fluoranthene	10.240	202	1290248	63.40	ppm	94
84) Pyrene	10.651	202	1053776	51.68	ppm	97
87) Benzo[a]anthracene	13.199	228	628767	35.06	ppm	98
89) Chrysene	13.269	228	459515	26.95	ppm	99
93) Benzo[b]fluoranthene	15.470	252	624624	36.39	ppm	97
94) Benzo[k]fluoranthene	15.518	252	218893	13.54	ppm	94
95) Benzo[a]pyrene	16.090	252	483483	34.14	ppm	98
96) Indeno[1,2,3-cd]pyrene	18.125	276	244836m	19.10	ppm	
98) Dibenz[a,h]anthracene	18.173	278	58281m	4.14	ppm	
100) Benzo[g,h,i]perylene	18.547	276	215157	15.70	ppm	94

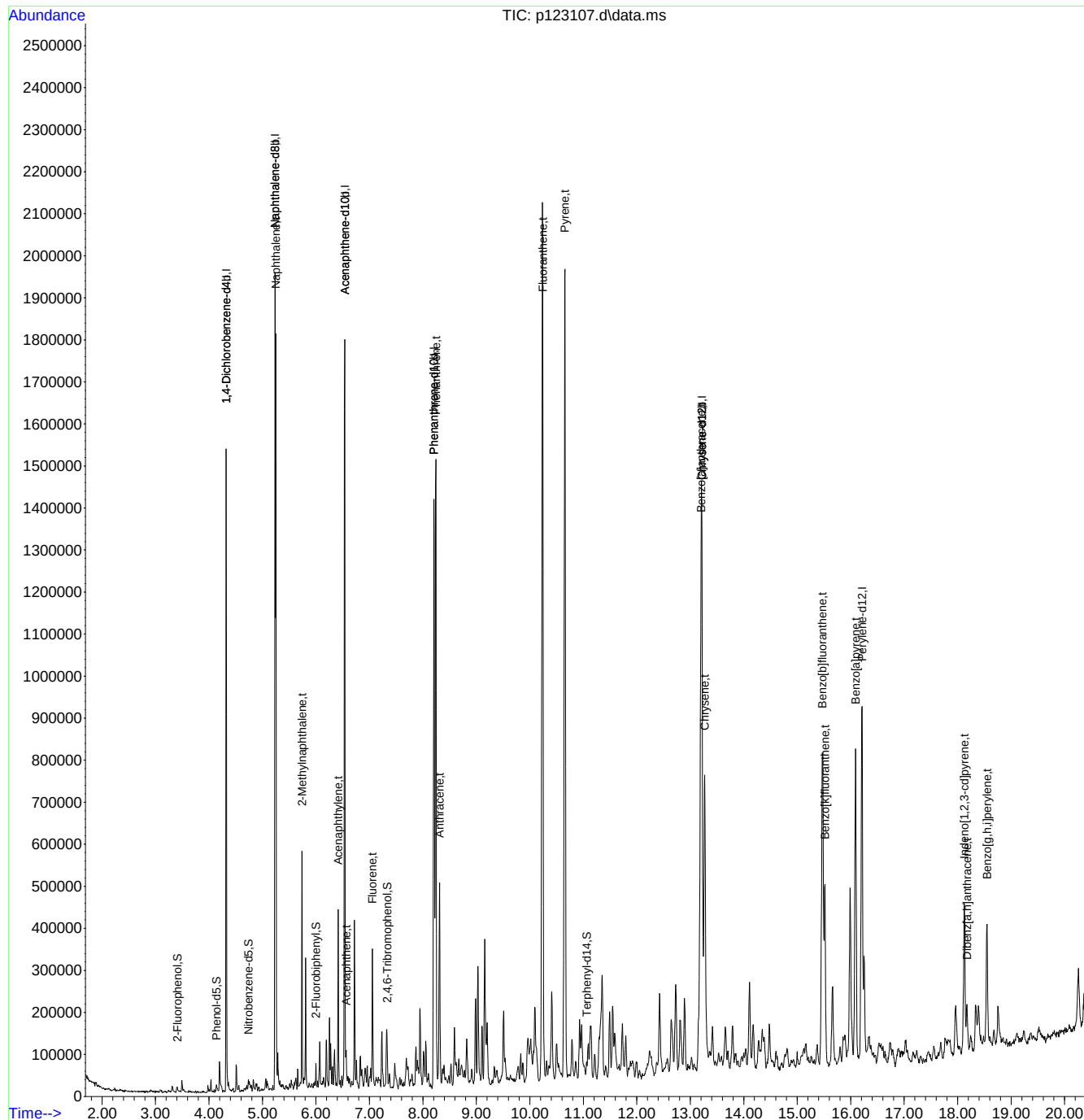
(#) = qualifier out of range (m) = manual integration (+) = signals summed

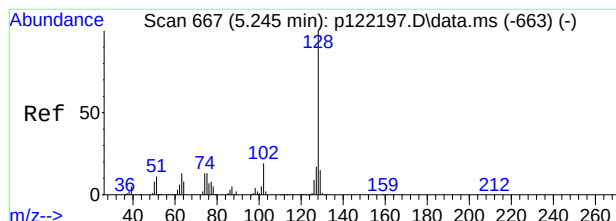
Quantitation Report (QT Reviewed)

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Data File : p123107.d
Acq On : 29 May 2018 2:16 pm
Operator : angular
Sample : jc66554-1
Misc : op12229,ep5524,31.4,,,1,50
ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOAMSP

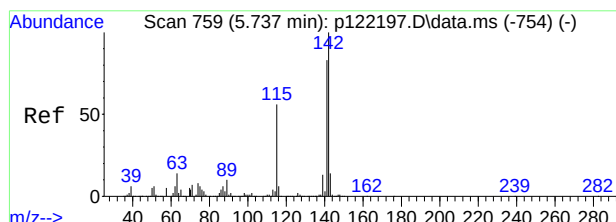
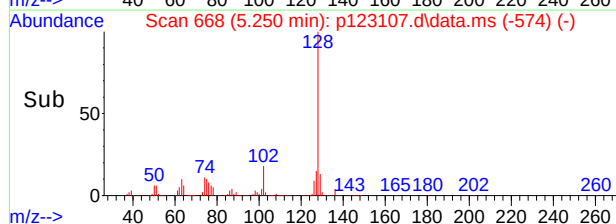
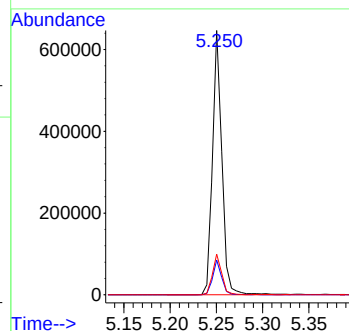
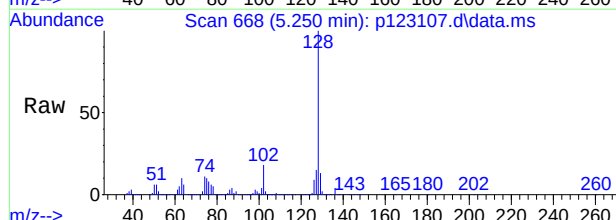
Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M
Quant Results File: MP5484.RES
Quant Time: May 30 01:38:54 2018
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun May 27 22:46:05 2018
Response via : Initial Calibration





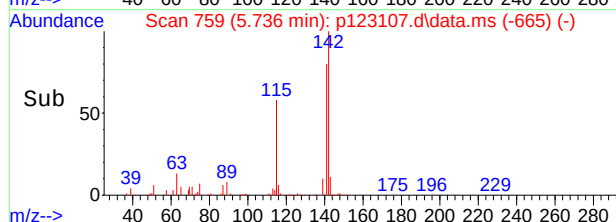
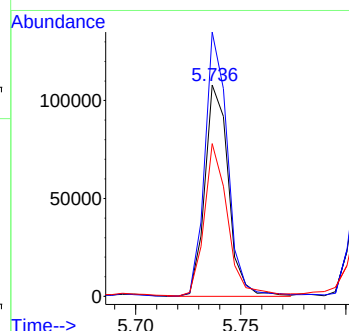
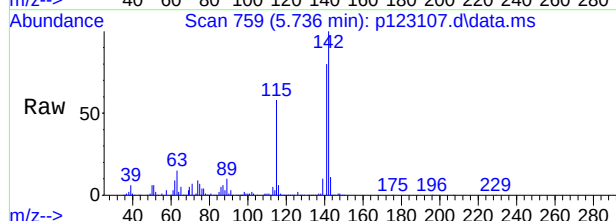
#38
Naphthalene
Concen: 28.95 ppm
RT: 5.250 min Scan# 668
Delta R.T. -0.000 min
Lab File: p123107.d
Acq: 29 May 2018 2:16 pm

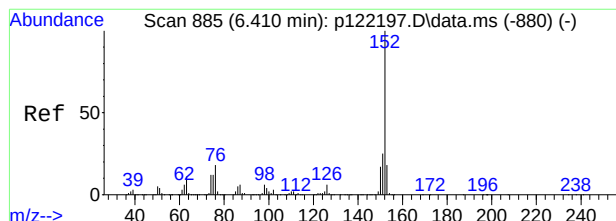
Tgt	Ion	Ratio	Resp	Lower	Upper
128	100		455488		
129	13.1	0.0	45.0		
127	15.4	0.0	46.9		



#44
2-Methylnaphthalene
Concen: 8.03 ppm
RT: 5.736 min Scan# 759
Delta R.T. -0.000 min
Lab File: p123107.d
Acq: 29 May 2018 2:16 pm

Tgt	Ion	Ratio	Resp	Lower	Upper
141	100		84488		
142	124.9	90.4	150.4		
115	71.6	37.0	97.0		





#56

Acenaphthylene

Concen: 8.47 ppm

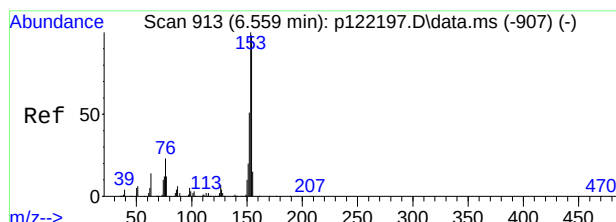
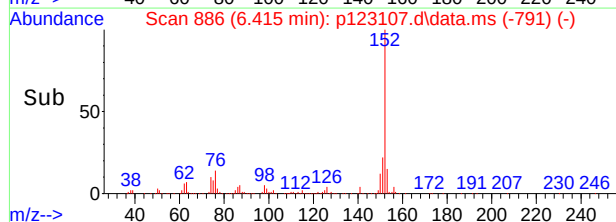
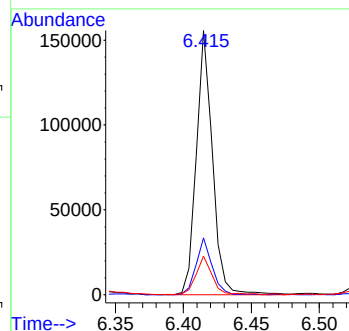
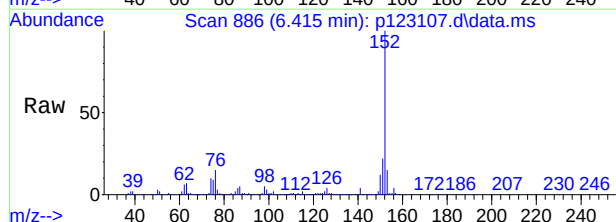
RT: 6.415 min Scan# 886

Delta R.T. 0.005 min

Lab File: p123107.d

Acq: 29 May 2018 2:16 pm

Tgt	Ion:152	Resp:	128845
Ion	Ratio	Lower	Upper
152	100		
151	21.4	0.0	54.7
153	14.5	0.0	48.2



#59

Acenaphthene

Concen: 1.42 ppm

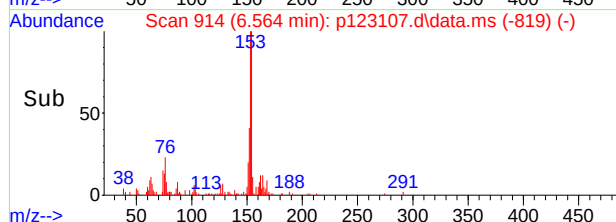
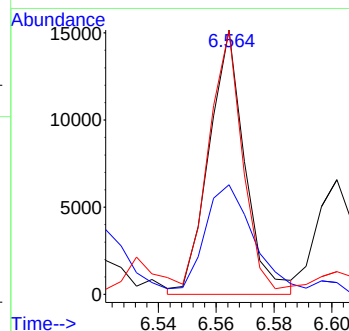
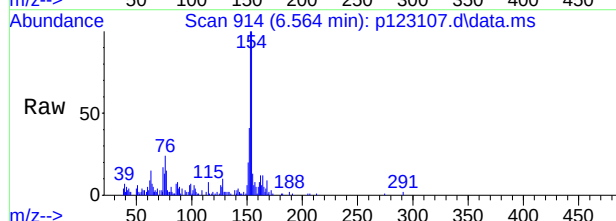
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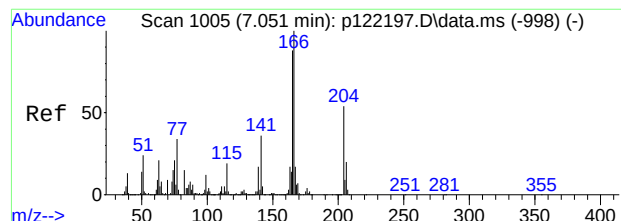
Delta R.T. 0.005 min

Lab File: p123107.d

Acq: 29 May 2018 2:16 pm

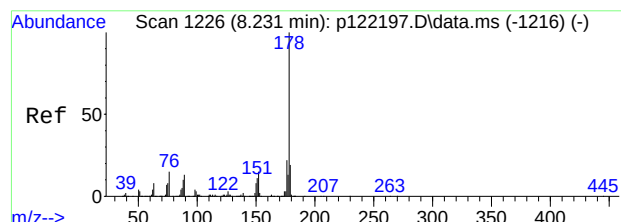
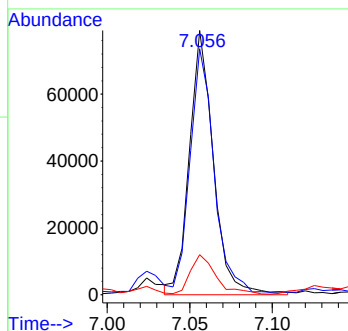
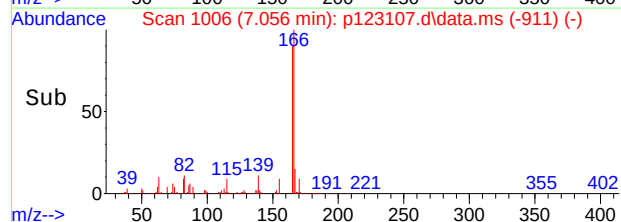
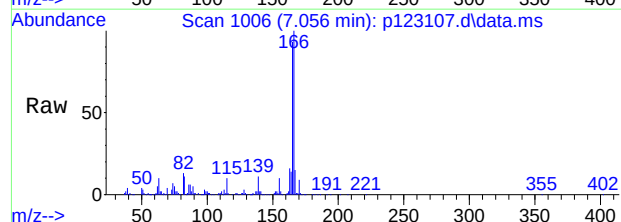
Tgt	Ion:153	Resp:	13147
Ion	Ratio	Lower	Upper
153	100		
152	39.9	20.7	80.7
154	98.7	55.9	115.9





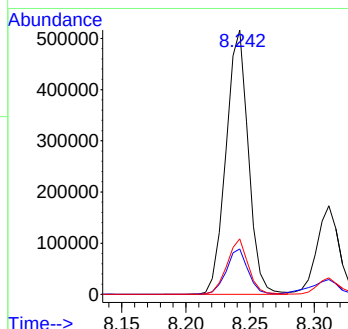
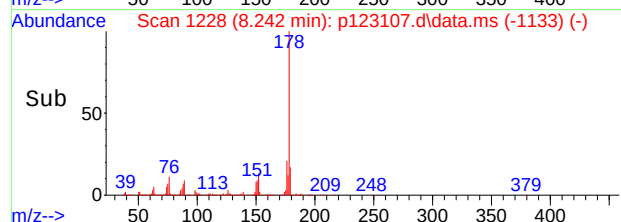
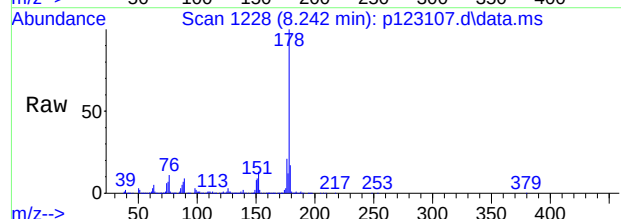
#66
Fluorene
Concen: 7.09 ppm
RT: 7.056 min Scan# 1006
Delta R.T. 0.006 min
Lab File: p123107.d
Acq: 29 May 2018 2:16 pm

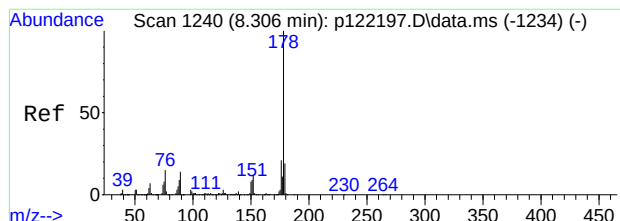
Tgt Ion:166 Resp: 80144
Ion Ratio Lower Upper
166 100
165 93.0 57.9 117.9
167 14.5 0.0 46.7



#77
Phenanthrene
Concen: 38.64 ppm
RT: 8.242 min Scan# 1228
Delta R.T. 0.005 min
Lab File: p123107.d
Acq: 29 May 2018 2:16 pm

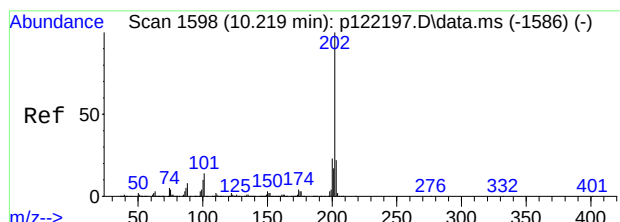
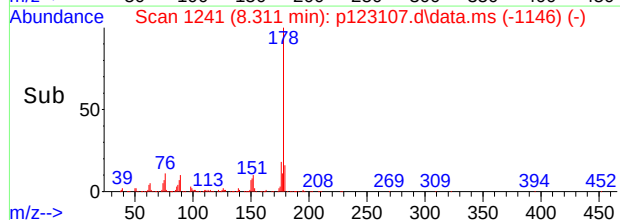
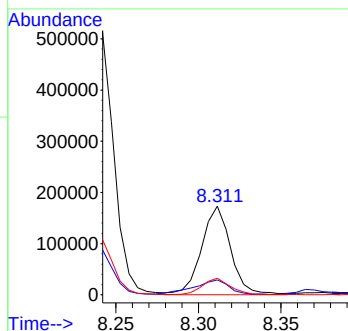
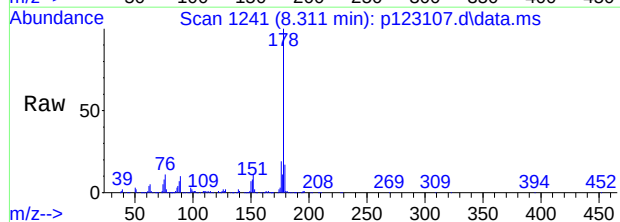
Tgt Ion:178 Resp: 628831
Ion Ratio Lower Upper
178 100
179 16.8 0.0 49.4
176 21.1 0.0 51.7





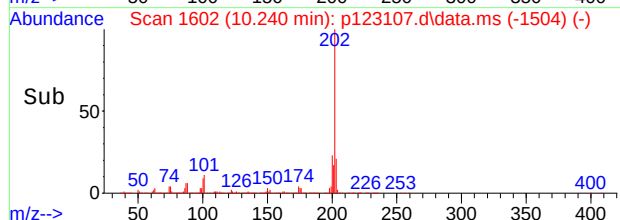
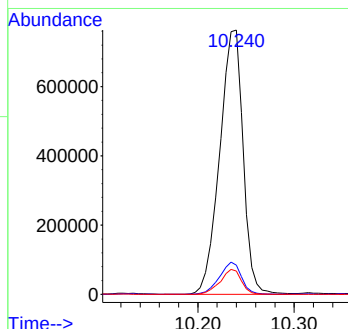
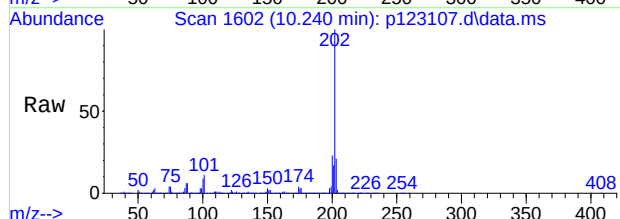
#78
 Anthracene
 Concen: 12.67 ppm
 RT: 8.311 min Scan# 1241
 Delta R.T. 0.005 min
 Lab File: p123107.d
 Acq: 29 May 2018 2:16 pm

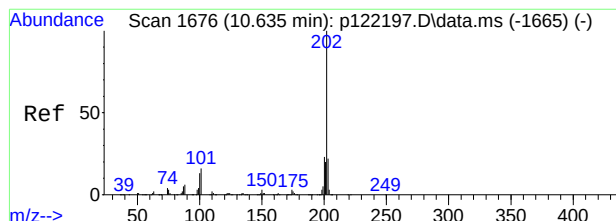
Tgt Ion	Ratio	Lower	Upper
178	100		
179	15.3	0.0	49.2
176	18.7	0.0	51.3



#81
 Fluoranthene
 Concen: 63.40 ppm
 RT: 10.240 min Scan# 1602
 Delta R.T. 0.023 min
 Lab File: p123107.d
 Acq: 29 May 2018 2:16 pm

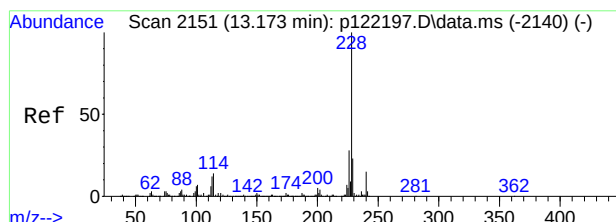
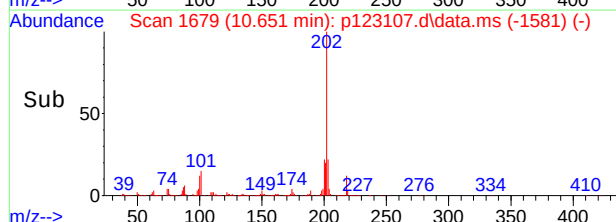
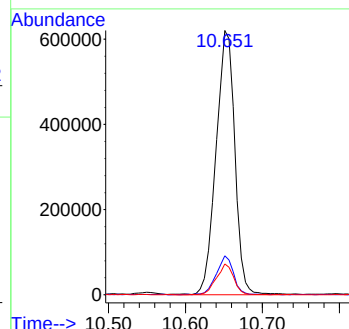
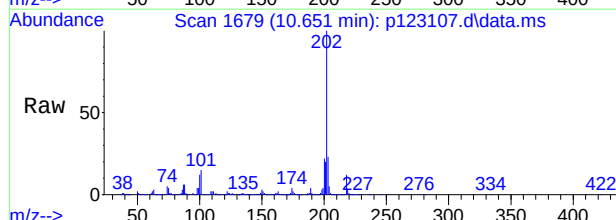
Tgt Ion	Ratio	Lower	Upper
202	100		
101	11.0	0.0	43.9
100	8.9	0.0	40.4





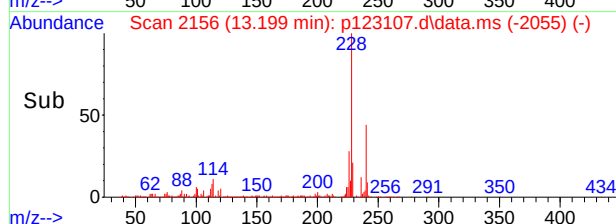
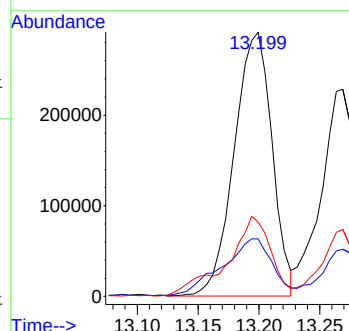
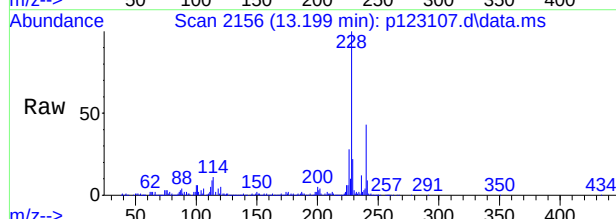
#84
Pyrene
Concen: 51.68 ppm
RT: 10.651 min Scan# 1679
Delta R.T. 0.022 min
Lab File: p123107.d
Acq: 29 May 2018 2:16 pm

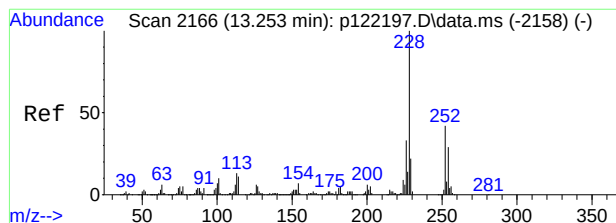
Tgt Ion: 202 Resp: 1053776
Ion Ratio Lower Upper
202 100
101 14.7 0.0 46.1
100 11.6 0.0 43.1



#87
Benzo[a]anthracene
Concen: 35.06 ppm
RT: 13.199 min Scan# 2156
Delta R.T. 0.037 min
Lab File: p123107.d
Acq: 29 May 2018 2:16 pm

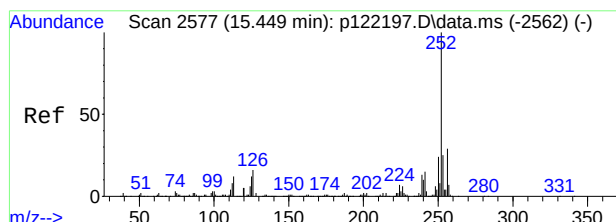
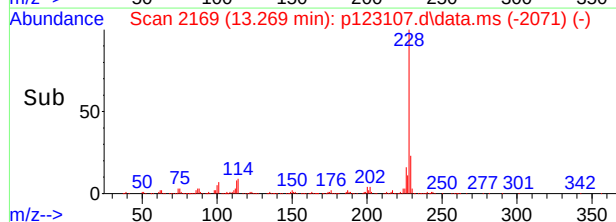
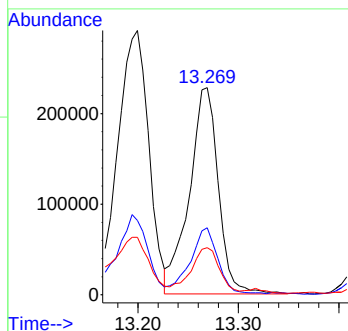
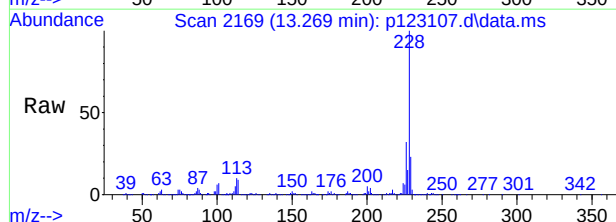
Tgt Ion: 228 Resp: 628767
Ion Ratio Lower Upper
228 100
229 20.9 0.0 53.1
226 27.8 0.0 58.1





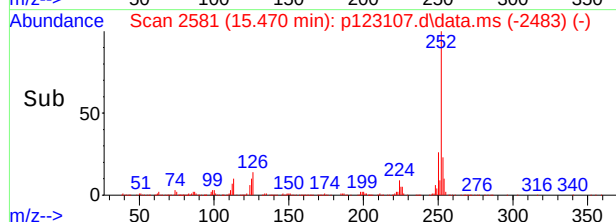
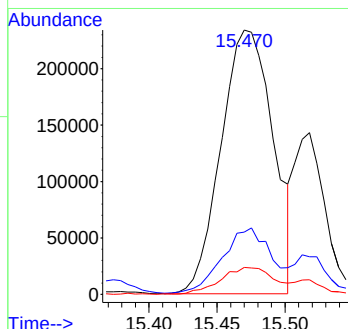
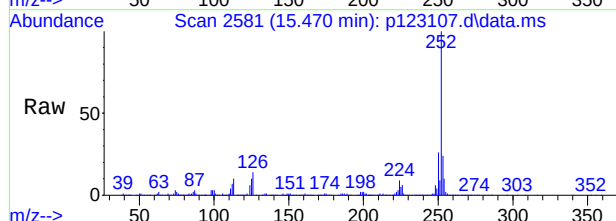
#89
Chrysene
Concen: 26.95 ppm
RT: 13.269 min Scan# 2169
Delta R.T. 0.021 min
Lab File: p123107.d
Acq: 29 May 2018 2:16 pm

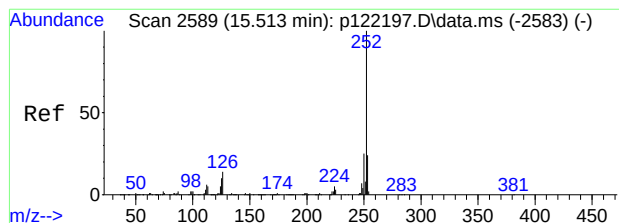
Tgt	Ion	Ratio	Resp	Lower	Upper
228	100		459515		
226	32.2		2.7	62.7	
229	21.7		0.0	52.1	



#93
Benzo[b]fluoranthene
Concen: 36.39 ppm
RT: 15.470 min Scan# 2581
Delta R.T. 0.026 min
Lab File: p123107.d
Acq: 29 May 2018 2:16 pm

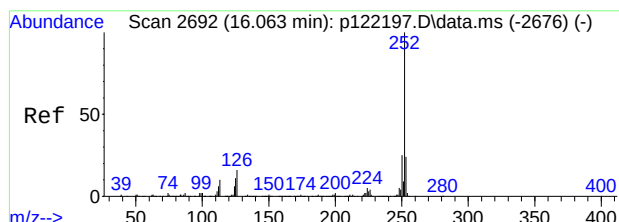
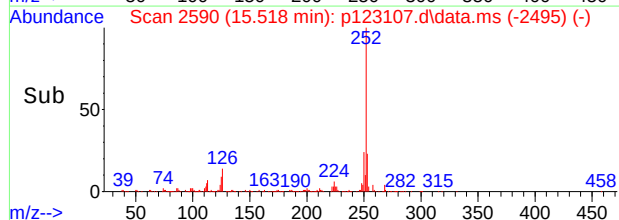
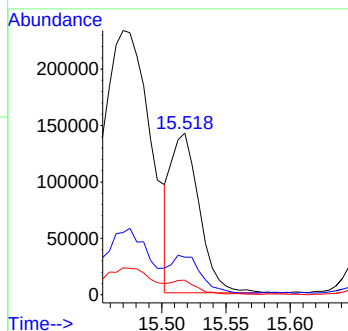
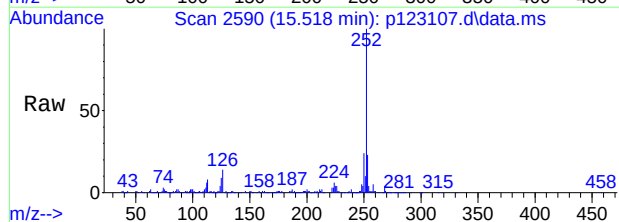
Tgt	Ion	Ratio	Resp	Lower	Upper
252	100		624624		
253	23.1		0.0	54.7	
125	10.1		0.0	41.4	





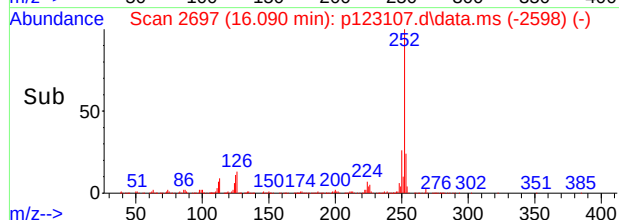
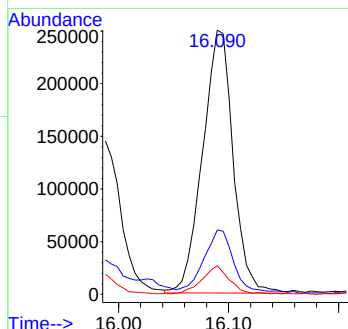
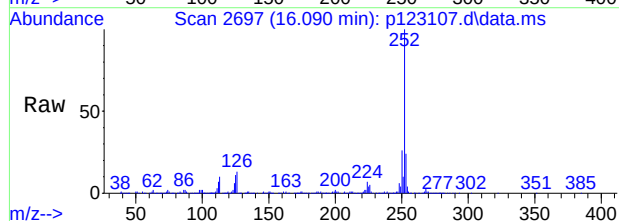
#94
Benzo[k]fluoranthene
Concen: 13.54 ppm
RT: 15.518 min Scan# 2590
Delta R.T. 0.010 min
Lab File: p123107.d
Acq: 29 May 2018 2:16 pm

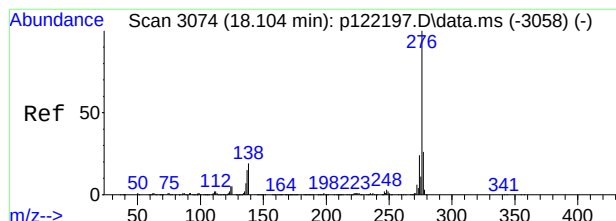
Tgt Ion: 252 Resp: 218893
Ion Ratio Lower Upper
252 100
253 21.7 0.0 54.5
125 8.1 0.0 40.1



#95
Benzo[a]pyrene
Concen: 34.14 ppm
RT: 16.090 min Scan# 2697
Delta R.T. 0.026 min
Lab File: p123107.d
Acq: 29 May 2018 2:16 pm

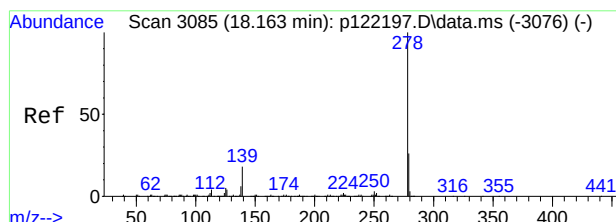
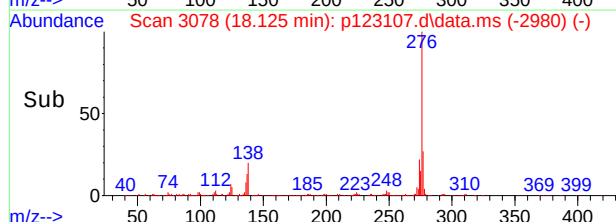
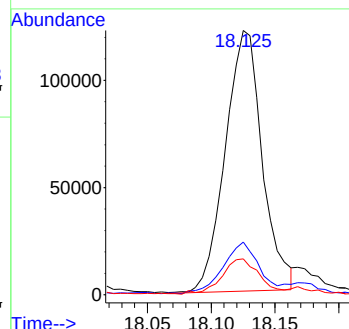
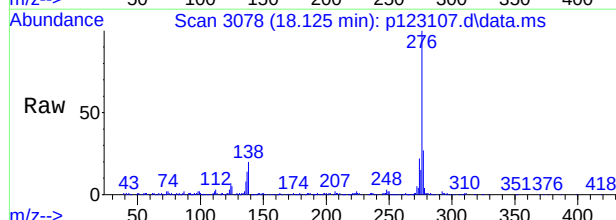
Tgt Ion: 252 Resp: 483483
Ion Ratio Lower Upper
252 100
253 22.8 0.0 53.8
125 10.7 0.0 41.3





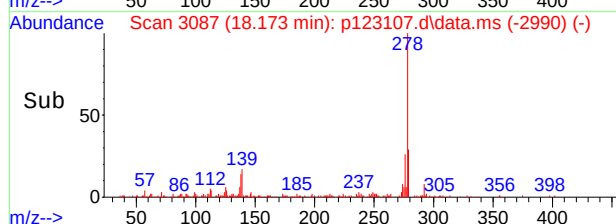
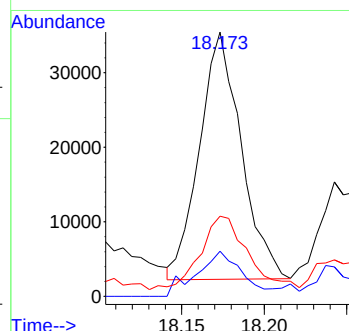
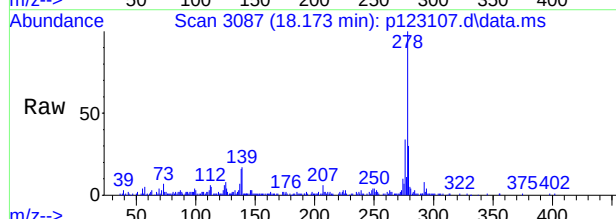
#96
Indeno[1,2,3-cd]pyrene
Concen: 19.10 ppm m
RT: 18.125 min Scan# 3078
Delta R.T. 0.023 min
Lab File: p123107.d
Acq: 29 May 2018 2:16 pm

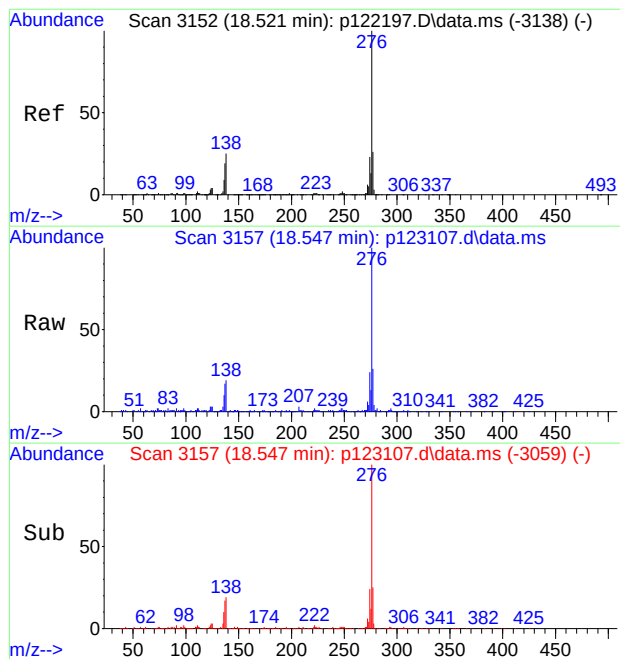
Tgt	Ion	Ratio	Resp	Lower	Upper
276	276	100	244836		
138	138	19.9	0.0	48.8	
137	137	13.6	0.0	44.7	



#98
Dibenz[a,h]anthracene
Concen: 4.14 ppm m
RT: 18.173 min Scan# 3087
Delta R.T. 0.018 min
Lab File: p123107.d
Acq: 29 May 2018 2:16 pm

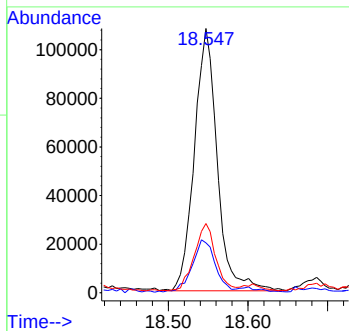
Tgt	Ion	Ratio	Resp	Lower	Upper
278	278	100	58281		
139	139	17.0	0.0	47.9	
279	279	30.3	0.0	56.4	





#100
 Benzo[g,h,i]perylene
 Concen: 15.70 ppm
 RT: 18.547 min Scan# 3157
 Delta R.T. 0.024 min
 Lab File: p123107.d
 Acq: 29 May 2018 2:16 pm

Tgt Ion:	276	Resp:	215157
Ion	Ratio	Lower	Upper
276	100		
138	18.8	0.0	54.5
277	25.5	0.0	55.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5525\
 Data File : p123150.D
 Acq On : 30 May 2018 2:31 pm
 Operator : angelar
 Sample : jc66554-1
 Misc : op12347,ep5525,31.4,,,1,5
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: May 30 16:53:42 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed May 30 16:35:11 2018
 Response via : Initial Calibration

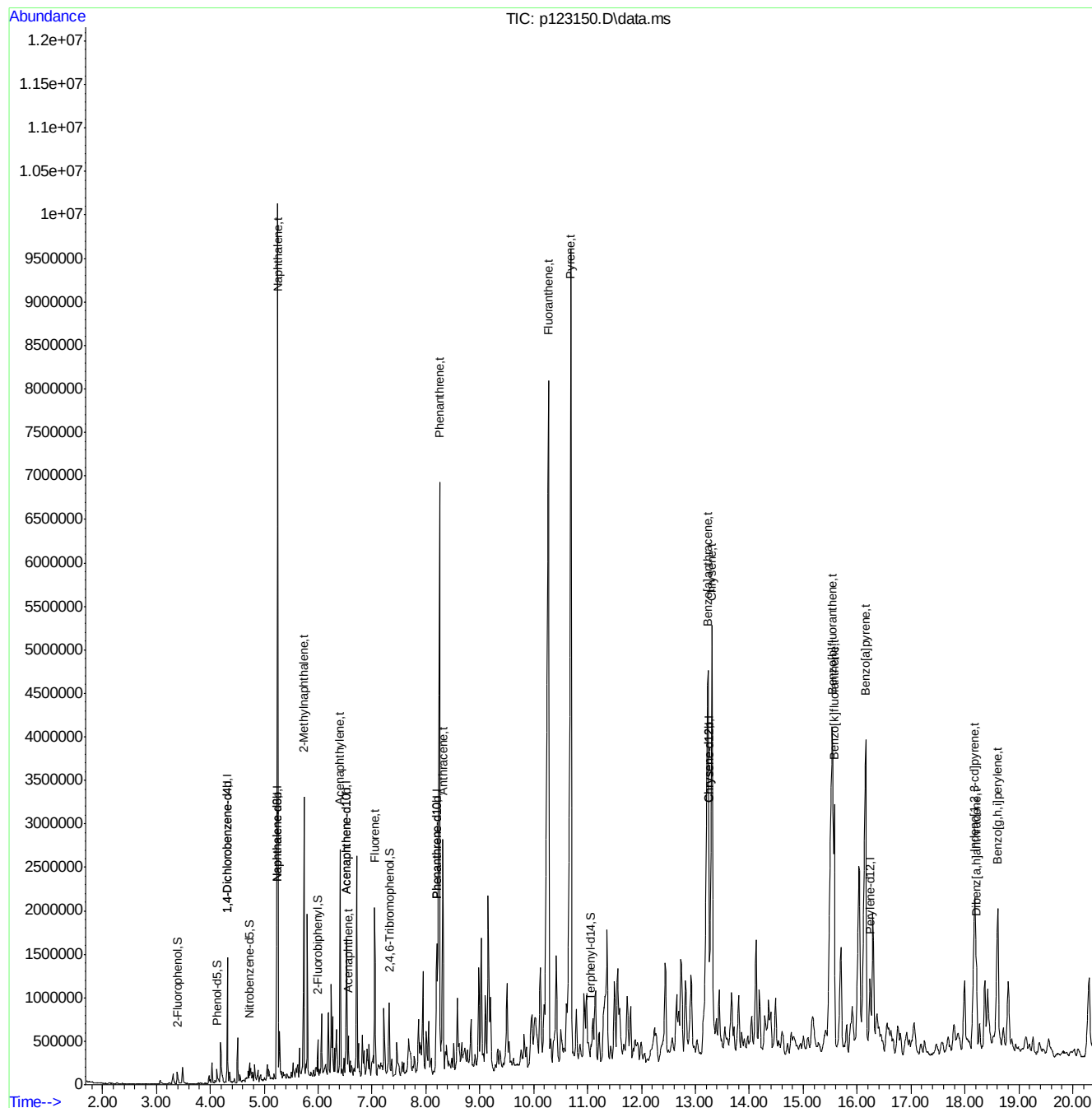
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.315	152	143785	40.00	ppm	0.00
24) Naphthalene-d8	5.234	136	533610	40.00	ppm	0.00
47) Acenaphthene-d10	6.527	164	265792	40.00	ppm	0.00
69) Phenanthrene-d10	8.199	188	519828	40.00	ppm	0.00
83) Chrysene-d12	13.248	240	556211	40.00	ppm	0.06
91) Perylene-d12	16.239	264	514784	40.00	ppm	0.06
101) 1,4-Dichlorobenzene-d4b	4.315	152	143785	40.00	ppm	0.00
103) Phenanthrene-d10b	8.199	188	519828	40.00	ppm	0.00
105) Chrysene-d12b	13.248	240	556211	40.00	ppm	0.06
107) Naphthalene-d8b	5.234	136	533610	40.00	ppm	0.00
109) Acenaphthene-d10b	6.527	164	265792	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.386	112	38873	7.08	ppm	-0.01
Spiked Amount	50.000		Recovery	=	14.16%	
8) Phenol-d5	4.128	99	53443	7.58	ppm	0.00
Spiked Amount	50.000		Recovery	=	15.16%	
25) Nitrobenzene-d5	4.727	82	64448	6.65	ppm	0.00
Spiked Amount	50.000		Recovery	=	13.30%	
51) 2-Fluorobiphenyl	5.993	172	76936	7.54	ppm	0.00
Spiked Amount	50.000		Recovery	=	15.08%	
73) 2,4,6-Tribromophenol	7.323	330	8630	5.31	ppm	0.00
Spiked Amount	50.000		Recovery	=	10.62%	
85) Terphenyl-d14	11.063	244	86327	6.00	ppm	0.01
Spiked Amount	50.000		Recovery	=	12.00%	
Target Compounds						
						Qvalue
38) Naphthalene	5.250	128	2228820	151.69	ppm	67
44) 2-Methylnaphthalene	5.736	141	531146	54.07	ppm	98
56) Acenaphthylene	6.410	152	764848	57.44	ppm	97
59) Acenaphthene	6.554	153	88732	10.98	ppm	94
66) Fluorene	7.051	166	463137	46.79	ppm	96
77) Phenanthrene	8.253	178	3163396m	225.34	ppm	
78) Anthracene	8.311	178	1237581	85.26	ppm	99
81) Fluoranthene	10.277	202	6310205m	359.38	ppm	
84) Pyrene	10.689	202	5395618	275.69	ppm	85
87) Benzo[a]anthracene	13.232	228	3903716	226.76	ppm	93
89) Chrysene	13.306	228	2809977	171.69	ppm	90
93) Benzo[b]fluoranthene	15.534	252	4314756	272.06	ppm	89
94) Benzo[k]fluoranthene	15.577	252	1332204	89.18	ppm	88
95) Benzo[a]pyrene	16.159	252	3285528	251.15	ppm	92
96) Indeno[1,2,3-cd]pyrene	18.184	276	1810210	152.89	ppm	90
98) Dibenz[a,h]anthracene	18.211	278	472121	36.33	ppm	84
100) Benzo[g,h,i]perylene	18.611	276	1479863	116.90	ppm	95

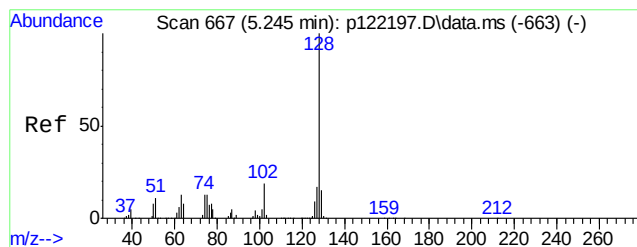
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path   : C:\msdchem\1\DATA\EP5525\  
Data File  : p123150.D  
Acq On     : 30 May 2018      2:31 pm  
Operator   : angelar  
Sample     : jc66554-1  
Misc       : op12347,ep5525,31.4,,,1,5  
ALS Vial   : 30      Sample Multiplier: 1
```

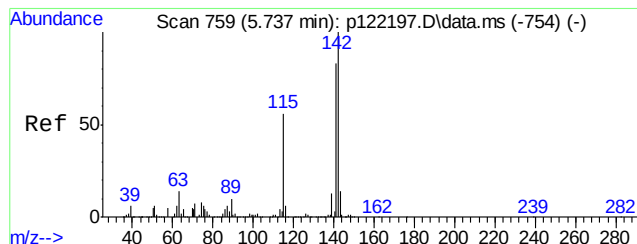
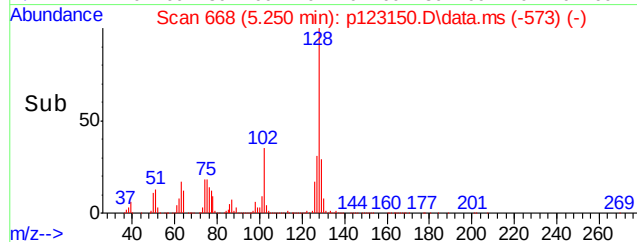
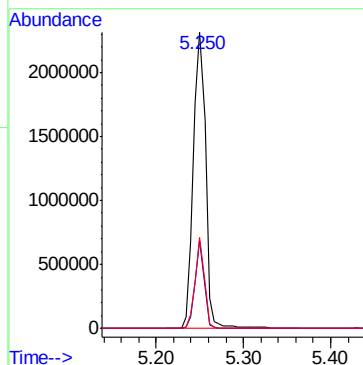
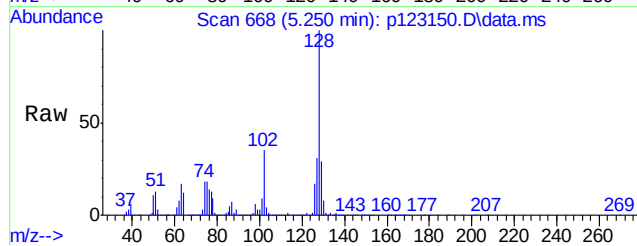
Quant Time: May 30 16:53:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 30 16:35:11 2018
Response via : Initial Calibration





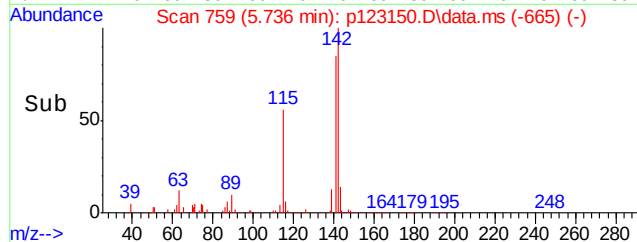
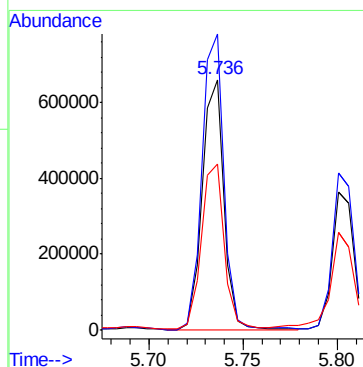
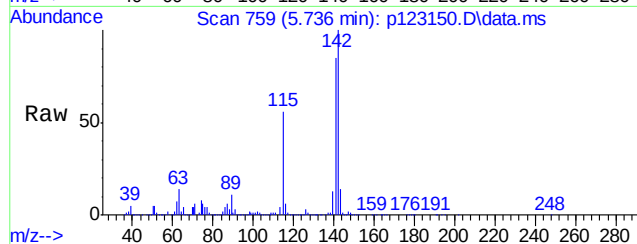
#38
Naphthalene
Concen: 151.69 ppm
RT: 5.250 min Scan# 668
Delta R.T. 0.005 min
Lab File: p123150.D
Acq: 30 May 2018 2:31 pm

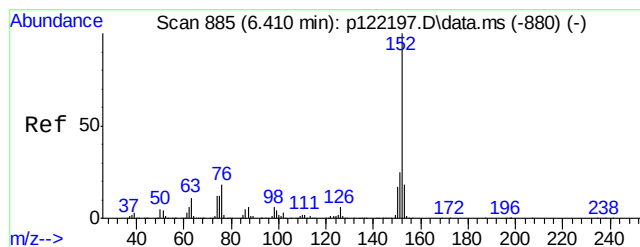
Tgt Ion	Ratio	Lower	Upper
128	100		
129	29.4	0.0	45.0
127	30.7	0.0	46.9



#44
2-Methylnaphthalene
Concen: 54.07 ppm
RT: 5.736 min Scan# 759
Delta R.T. 0.003 min
Lab File: p123150.D
Acq: 30 May 2018 2:31 pm

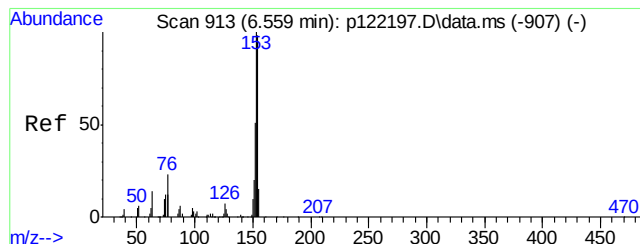
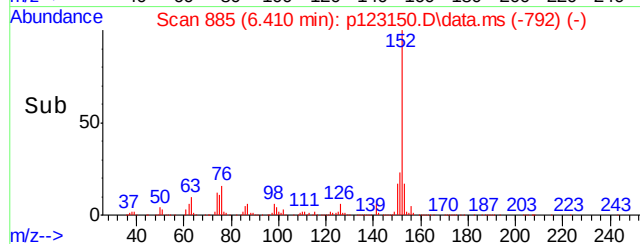
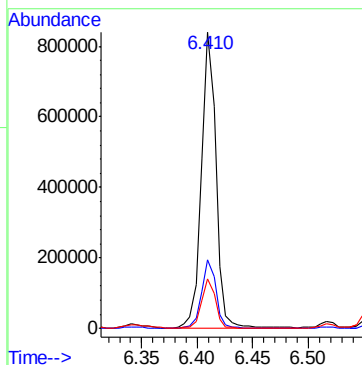
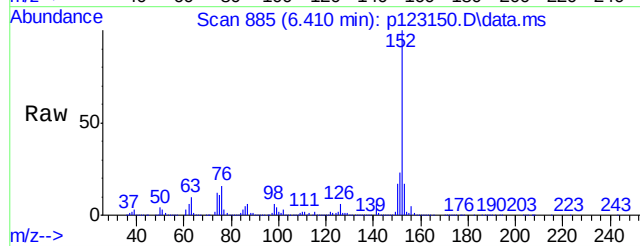
Tgt Ion	Ratio	Lower	Upper
141	100		
142	118.2	90.4	150.4
115	65.6	37.0	97.0





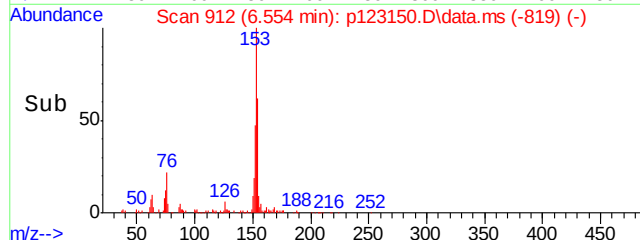
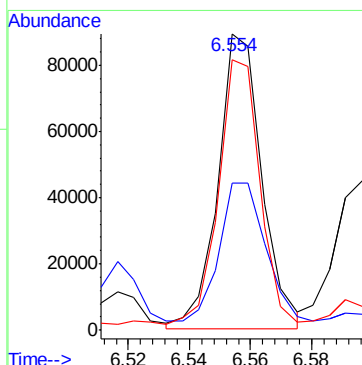
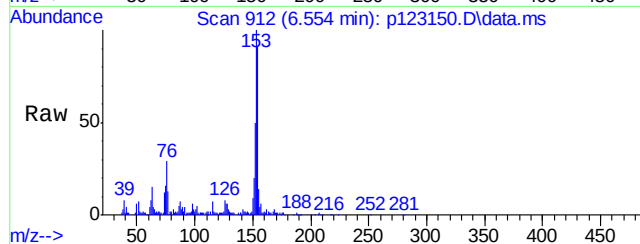
#56
Acenaphthylene
Concen: 57.44 ppm
RT: 6.410 min Scan# 885
Delta R.T. -0.001 min
Lab File: p123150.D
Acq: 30 May 2018 2:31 pm

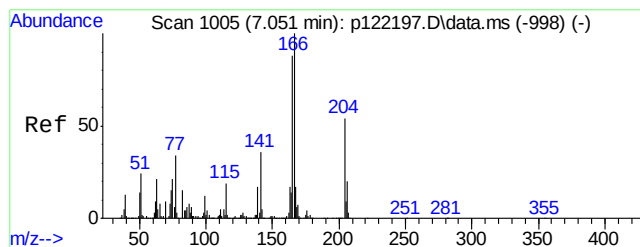
Tgt Ion:	152	Resp:	764848
Ion Ratio	Lower	Upper	
152	100		
151	23.2	0.0	54.7
153	16.7	0.0	48.2



#59
Acenaphthene
Concen: 10.98 ppm
RT: 6.554 min Scan# 912
Delta R.T. -0.005 min
Lab File: p123150.D
Acq: 30 May 2018 2:31 pm

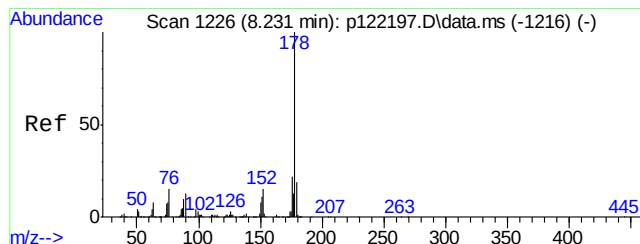
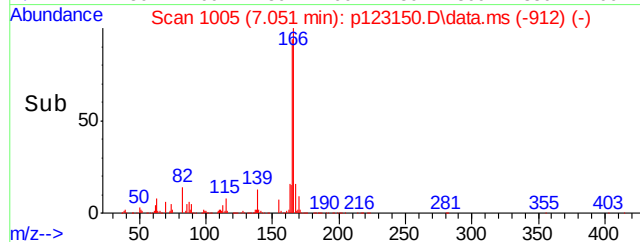
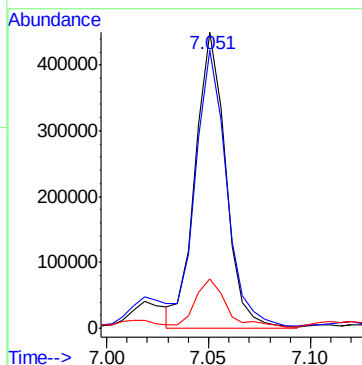
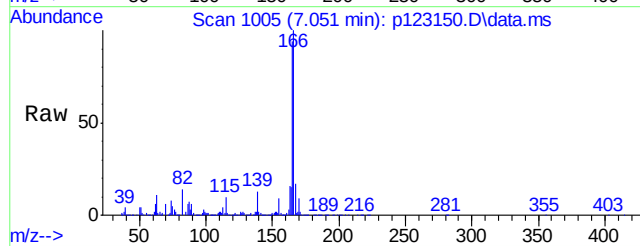
Tgt Ion:	153	Resp:	88732
Ion Ratio	Lower	Upper	
153	100		
152	47.8	20.7	80.7
154	93.1	55.9	115.9





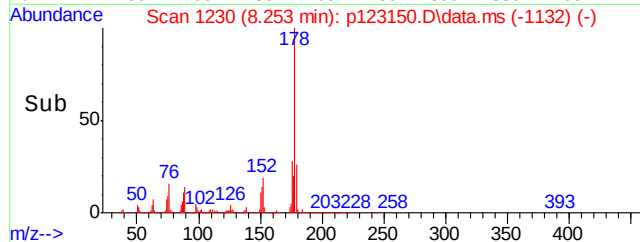
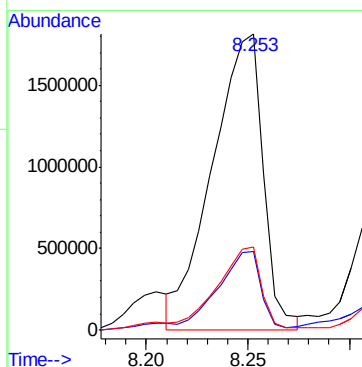
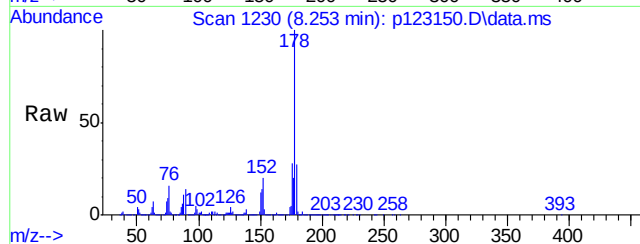
#66
Fluorene
Concen: 46.79 ppm
RT: 7.051 min Scan# 1005
Delta R.T. -0.002 min
Lab File: p123150.D
Acq: 30 May 2018 2:31 pm

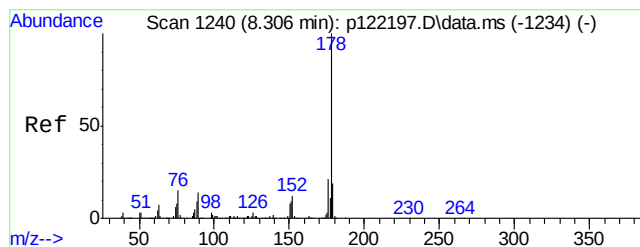
Tgt Ion	Ratio	Lower	Upper
166	100		
165	92.8	57.9	117.9
167	16.6	0.0	46.7



#77
Phenanthrene
Concen: 225.34 ppm m
RT: 8.253 min Scan# 1230
Delta R.T. 0.022 min
Lab File: p123150.D
Acq: 30 May 2018 2:31 pm

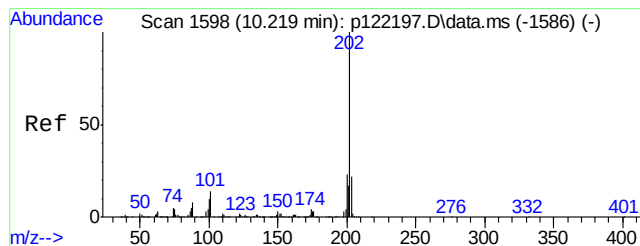
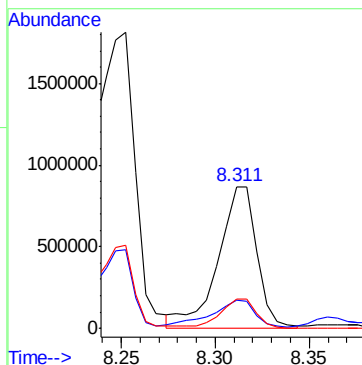
Tgt Ion	Ratio	Lower	Upper
178	100		
179	26.6	0.0	49.4
176	27.9	0.0	51.7





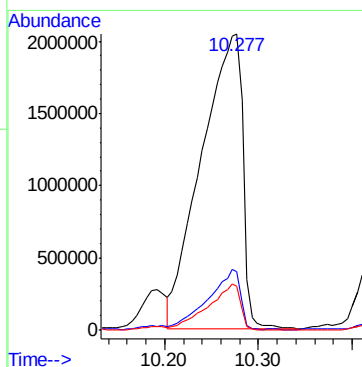
#78
 Anthracene
 Concen: 85.26 ppm
 RT: 8.311 min Scan# 1241
 Delta R.T. 0.006 min
 Lab File: p123150.D
 Acq: 30 May 2018 2:31 pm

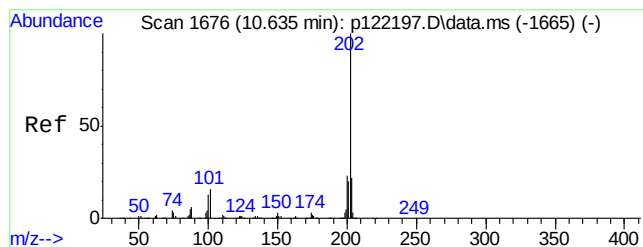
Tgt Ion	Ratio	Lower	Upper
178	100		
179	18.9	0.0	49.2
176	21.1	0.0	51.3



#81
 Fluoranthene
 Concen: 359.38 ppm m
 RT: 10.277 min Scan# 1609
 Delta R.T. 0.066 min
 Lab File: p123150.D
 Acq: 30 May 2018 2:31 pm

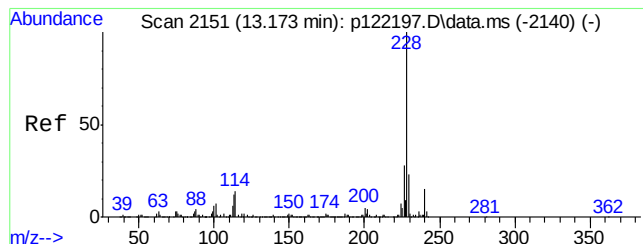
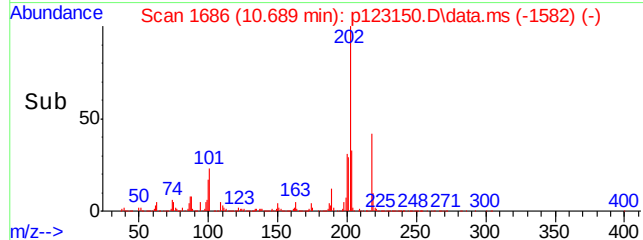
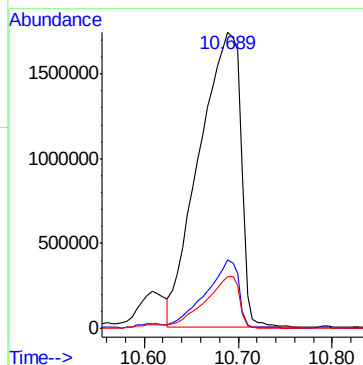
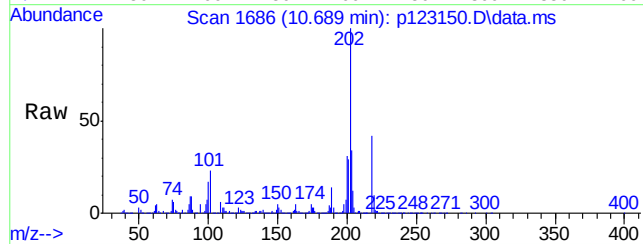
Tgt Ion	Ratio	Lower	Upper
202	100		
101	19.6	0.0	43.9
100	14.7	0.0	40.4





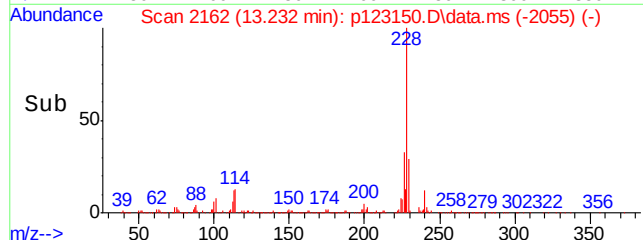
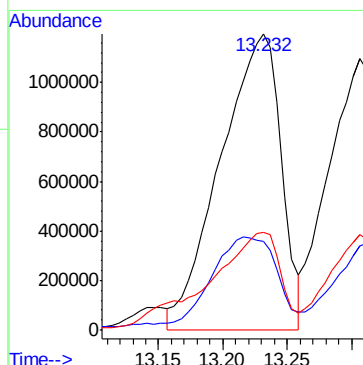
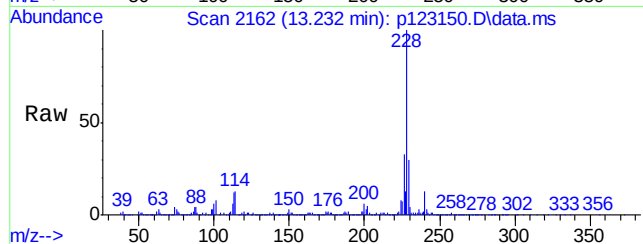
#84
Pyrene
Concen: 275.69 ppm
RT: 10.689 min Scan# 1686
Delta R.T. 0.054 min
Lab File: p123150.D
Acq: 30 May 2018 2:31 pm

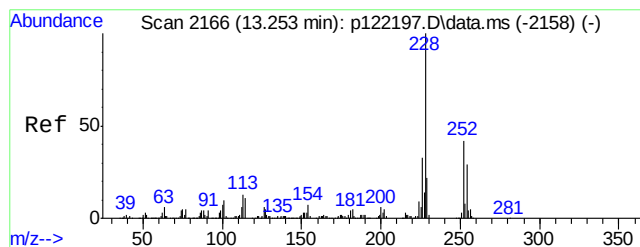
Tgt Ion	Ratio	Lower	Upper
202	100		
101	23.9	0.0	46.3
100	17.8	0.0	43.2



#87
Benzo[a]anthracene
Concen: 226.76 ppm
RT: 13.232 min Scan# 2162
Delta R.T. 0.069 min
Lab File: p123150.D
Acq: 30 May 2018 2:31 pm

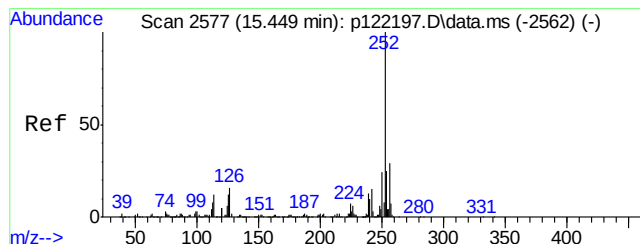
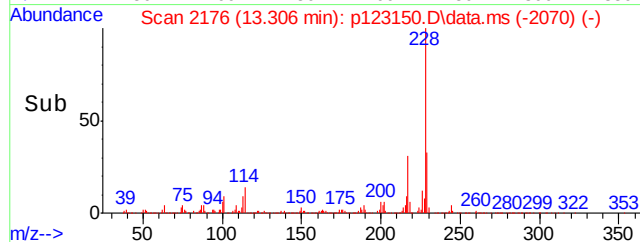
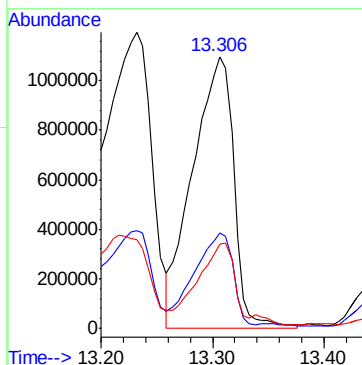
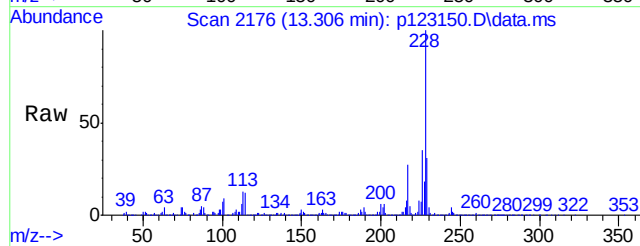
Tgt Ion	Ratio	Lower	Upper
228	100		
229	29.5	0.0	53.1
226	29.3	0.0	58.1





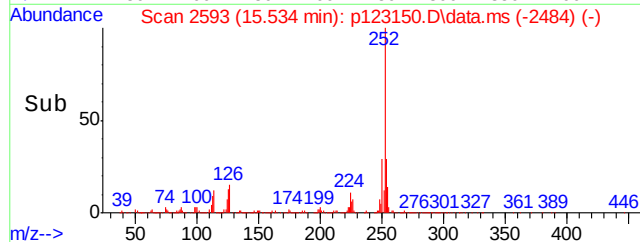
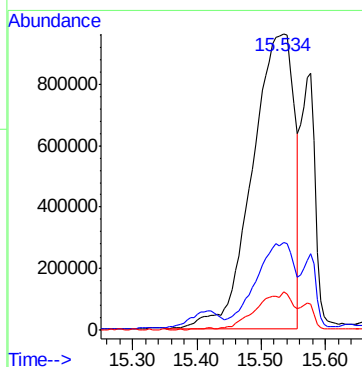
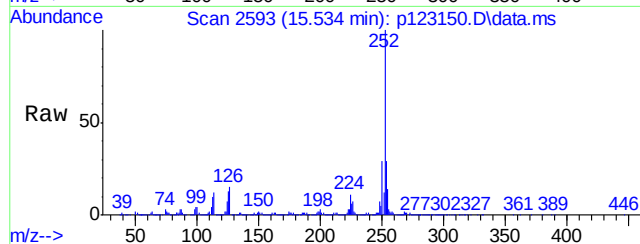
#89
 Chrysene
 Concen: 171.69 ppm
 RT: 13.306 min Scan# 2176
 Delta R.T. 0.064 min
 Lab File: p123150.D
 Acq: 30 May 2018 2:31 pm

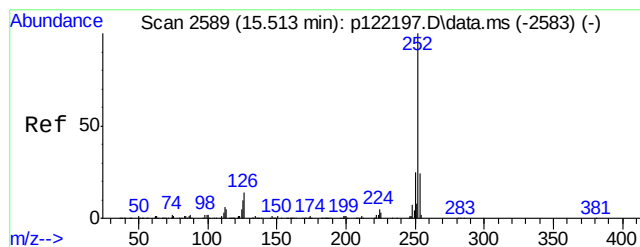
Tgt Ion:	228	Resp:	2809977
Ion Ratio	Lower	Upper	
228	100		
226	35.1	2.7	62.7
229	30.4	0.0	52.1



#93
 Benzo[b]fluoranthene
 Concen: 272.06 ppm
 RT: 15.534 min Scan# 2593
 Delta R.T. 0.084 min
 Lab File: p123150.D
 Acq: 30 May 2018 2:31 pm

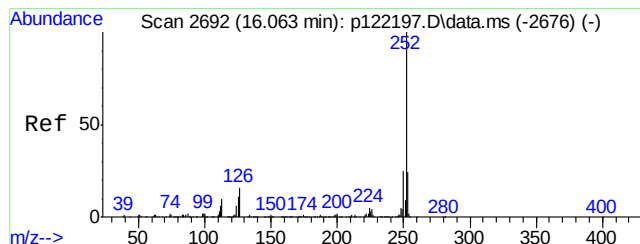
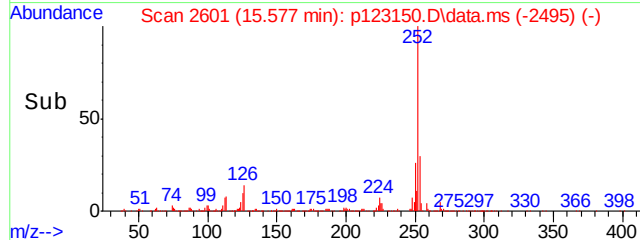
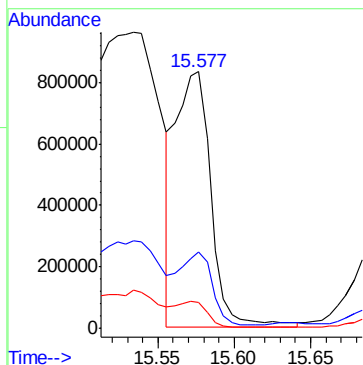
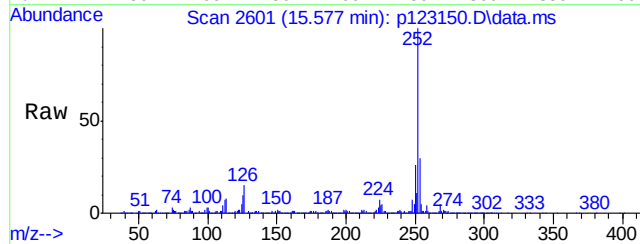
Tgt Ion:	252	Resp:	4314756
Ion Ratio	Lower	Upper	
252	100		
253	30.1	0.0	54.9
125	13.5	0.0	38.3





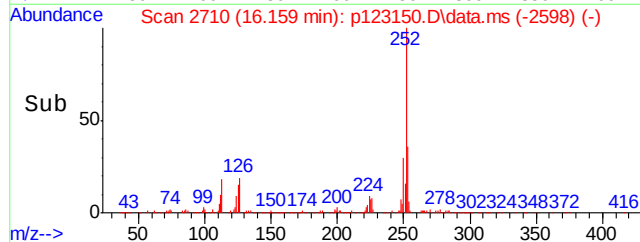
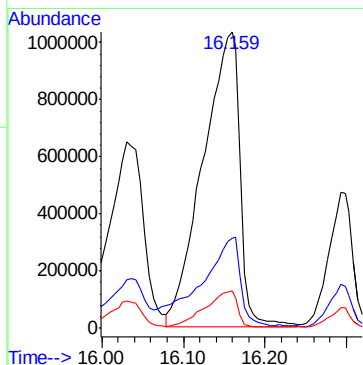
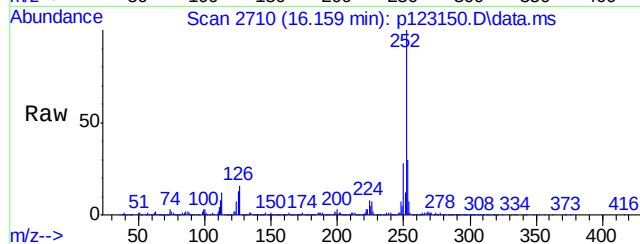
#94
Benzo[k]fluoranthene
Concen: 89.18 ppm
RT: 15.577 min Scan# 2601
Delta R.T. 0.068 min
Lab File: p123150.D
Acq: 30 May 2018 2:31 pm

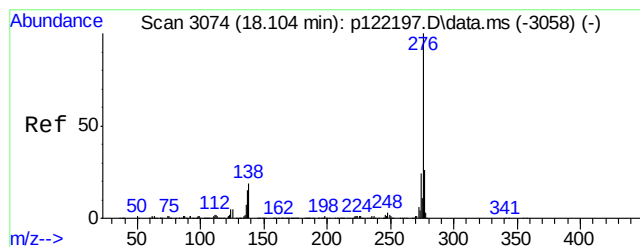
Tgt Ion:	252	Resp:	1332204
Ion Ratio	Lower	Upper	
252	100		
253	30.6	0.0	53.9
125	9.8	0.0	37.0



#95
Benzo[a]pyrene
Concen: 251.15 ppm
RT: 16.159 min Scan# 2710
Delta R.T. 0.096 min
Lab File: p123150.D
Acq: 30 May 2018 2:31 pm

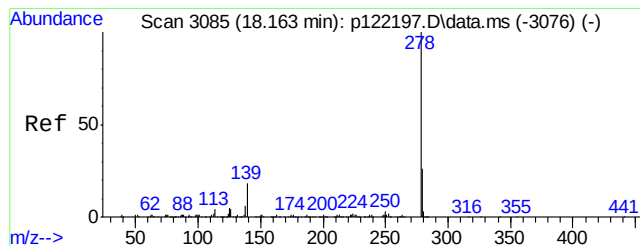
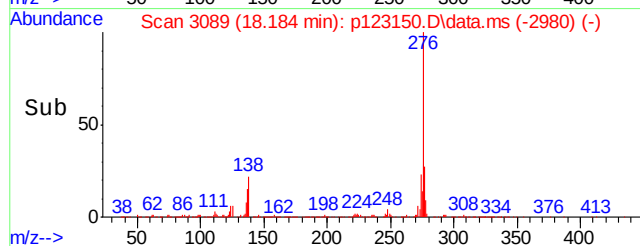
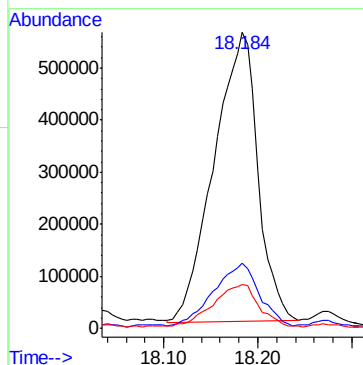
Tgt Ion:	252	Resp:	3285528
Ion Ratio	Lower	Upper	
252	100		
253	27.1	0.0	53.4
125	12.4	0.0	38.8





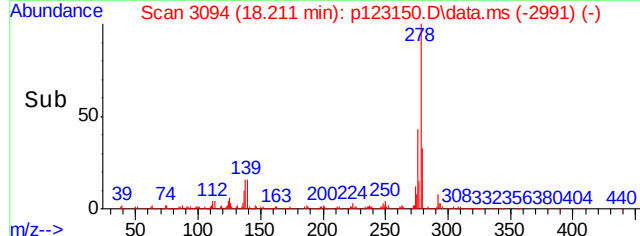
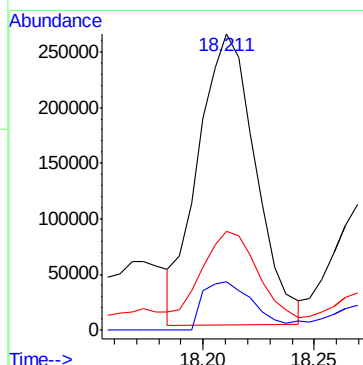
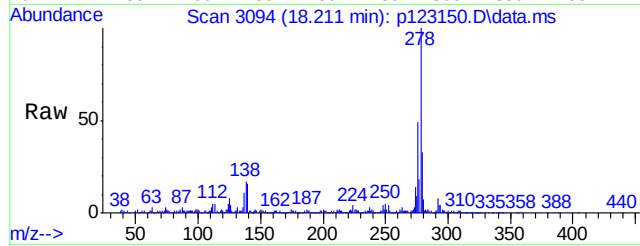
#96
Indeno[1,2,3-cd]pyrene
Concen: 152.89 ppm
RT: 18.184 min Scan# 3089
Delta R.T. 0.083 min
Lab File: p123150.D
Acq: 30 May 2018 2:31 pm

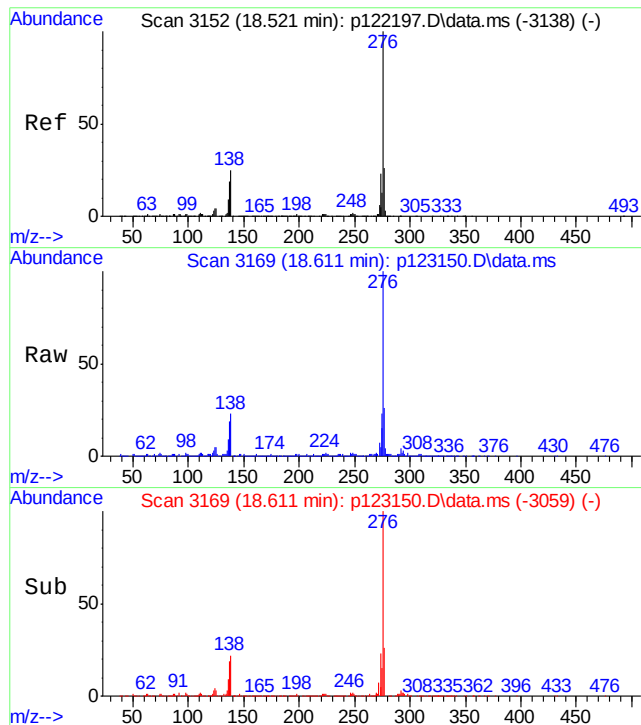
Tgt Ion	Ratio	Lower	Upper
276	100		
138	21.4	0.0	45.8
137	14.4	0.0	42.1



#98
Dibenz[a,h]anthracene
Concen: 36.33 ppm
RT: 18.211 min Scan# 3094
Delta R.T. 0.051 min
Lab File: p123150.D
Acq: 30 May 2018 2:31 pm

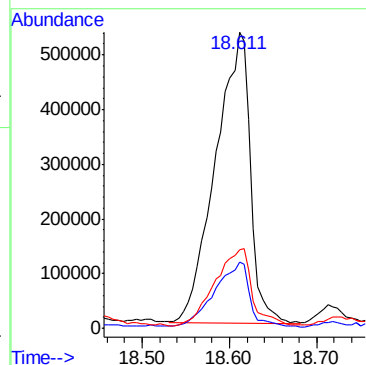
Tgt Ion	Ratio	Lower	Upper
278	100		
139	17.6	0.0	41.8
279	33.3	0.0	55.0





#100
Benzo[g,h,i]perylene
Concen: 116.90 ppm
RT: 18.611 min Scan# 3169
Delta R.T. 0.089 min
Lab File: p123150.D
Acq: 30 May 2018 2:31 pm

Tgt Ion: 276 Resp: 1479863
Ion Ratio Lower Upper
276 100
138 22.3 0.0 47.6
277 26.0 0.0 56.3



Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-28-18\jeryllr\ep5523\
 Data File : p123095.d
 Acq On : 26 May 2018 7:26 am
 Operator : sufiyana
 Sample : jc66554-2
 Misc : op12229,ep5523,31.4,,,1,1
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: May 30 12:48:31 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon May 28 02:32:50 2018
 Response via : Initial Calibration

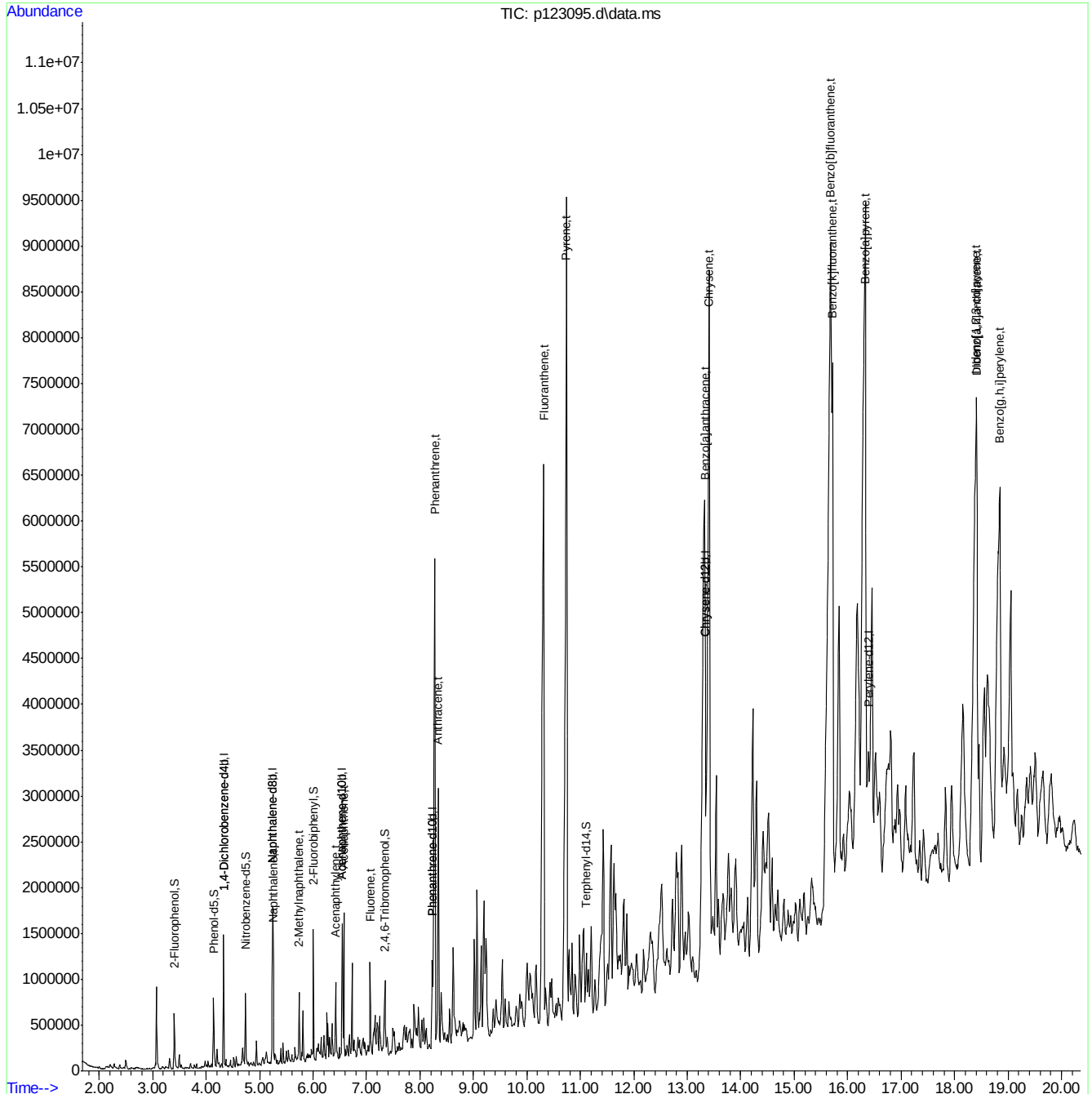
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.326	152	143154	40.00	ppm	0.00
24) Naphthalene-d8	5.240	136	498477	40.00	ppm	0.00
47) Acenaphthene-d10	6.543	164	259639	40.00	ppm	0.00
69) Phenanthrene-d10	8.231	188	498926	40.00	ppm	0.00
83) Chrysene-d12	13.339	240	601071	40.00	ppm	0.00
91) Perylene-d12	16.389	264	571587	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.326	152	143154	40.00	ppm	0.00
103) Phenanthrene-d10b	8.231	188	498926	40.00	ppm	0.00
105) Chrysene-d12b	13.339	240	601071	40.00	ppm	0.00
107) Naphthalene-d8b	5.240	136	498477	40.00	ppm	0.00
109) Acenaphthene-d10b	6.543	164	259639	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.402	112	143069	26.19	ppm	0.00
Spiked Amount	50.000		Recovery	=	52.38%	
8) Phenol-d5	4.139	99	198363	28.24	ppm	0.00
Spiked Amount	50.000		Recovery	=	56.48%	
25) Nitrobenzene-d5	4.738	82	220158	24.32	ppm	0.00
Spiked Amount	50.000		Recovery	=	48.64%	
51) 2-Fluorobiphenyl	6.004	172	276622	27.74	ppm	0.00
Spiked Amount	50.000		Recovery	=	55.48%	
73) 2,4,6-Tribromophenol	7.350	330	40591	26.01	ppm	0.00
Spiked Amount	50.000		Recovery	=	52.02%	
85) Terphenyl-d14	11.116	244	360841	23.22	ppm	-0.05
Spiked Amount	50.000		Recovery	=	46.44%	
Target Compounds						
						Qvalue
38) Naphthalene	5.256	128	268304	19.55	ppm	94
44) 2-Methylnaphthalene	5.742	141	105356	11.48	ppm	97
56) Acenaphthylene	6.426	152	281296	21.63	ppm	95
59) Acenaphthene	6.575	153	318788	40.39	ppm	94
66) Fluorene	7.072	166	229718	23.76	ppm	96
77) Phenanthrene	8.280	178	2448857	181.75	ppm	92
78) Anthracene	8.344	178	1195277	85.80	ppm	99
81) Fluoranthene	10.315	202	4786556	284.03	ppm	90
84) Pyrene	10.737	202	4721632m	223.25	ppm	
87) Benzo[a]anthracene	13.328	228	5620652	302.13	ppm	81
89) Chrysene	13.403	228	4541829	256.80	ppm	84
93) Benzo[b]fluoranthene	15.684	252	9339031	530.35	ppm	76
94) Benzo[k]fluoranthene	15.716	252	1559222	94.00	ppm	87
95) Benzo[a]pyrene	16.325	252	7225914	497.47	ppm	76
96) Indeno[1,2,3-cd]pyrene	18.403	276	5473301	416.32	ppm	84
98) Dibenz[a,h]anthracene	18.419	278	2296322m	159.16	ppm	
100) Benzo[g,h,i]perylene	18.846	276	4451051	316.67	ppm	94

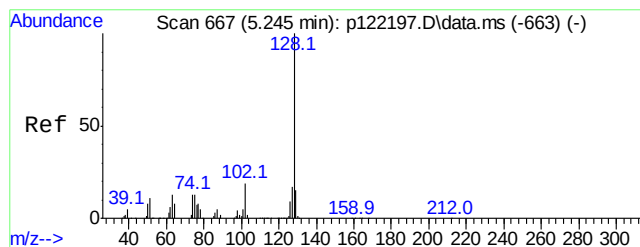
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path : Z:\svoa\completed\05-28-18\jeryllr\ep5523\  
Data File : p123095.d  
Acq On    : 26 May 2018    7:26 am  
Operator  : sufiyana  
Sample    : jc66554-2  
Misc      : op12229,ep5523,31.4,,,1,1  
ALS Vial  : 25    Sample Multiplier: 1
```

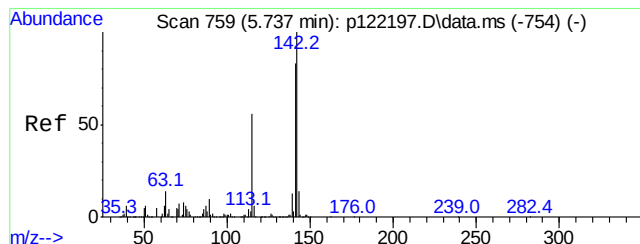
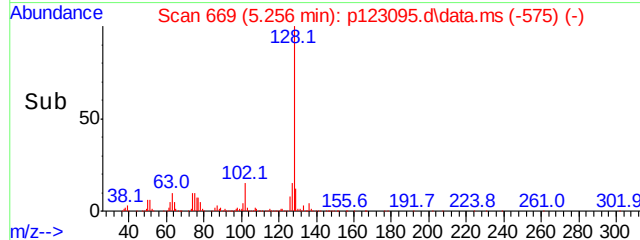
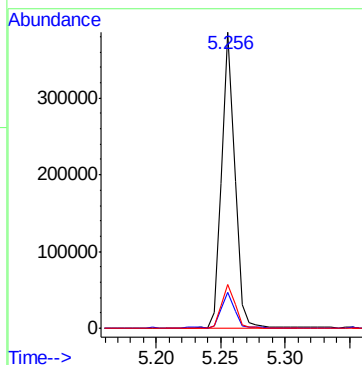
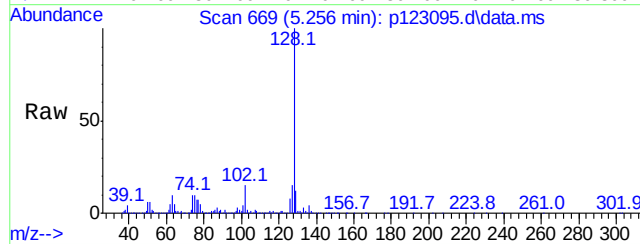
Quant Time: May 30 12:48:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon May 28 02:32:50 2018
Response via : Initial Calibration





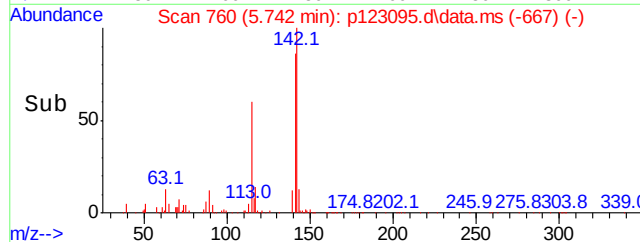
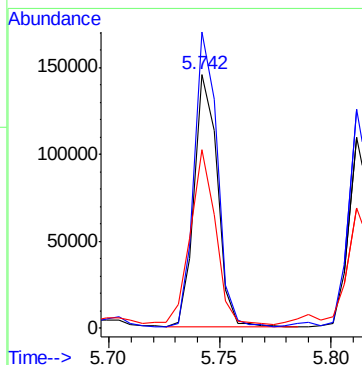
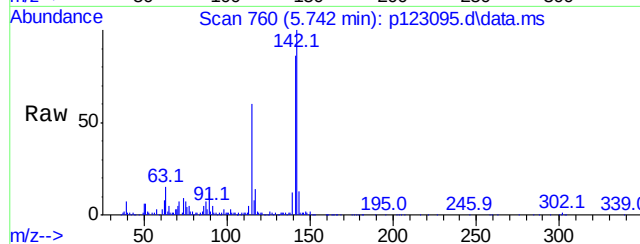
#38
Naphthalene
Concen: 19.55 ppm
RT: 5.256 min Scan# 669
Delta R.T. -0.000 min
Lab File: p123095.d
Acq: 26 May 2018 7:26 am

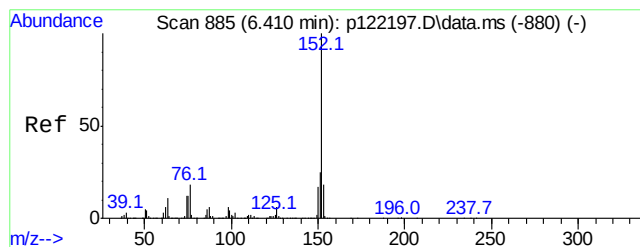
Tgt Ion	Ratio	Lower	Upper
128	100		
129	12.1	0.0	45.0
127	14.7	0.0	46.9



#44
2-Methylnaphthalene
Concen: 11.48 ppm
RT: 5.742 min Scan# 760
Delta R.T. -0.001 min
Lab File: p123095.d
Acq: 26 May 2018 7:26 am

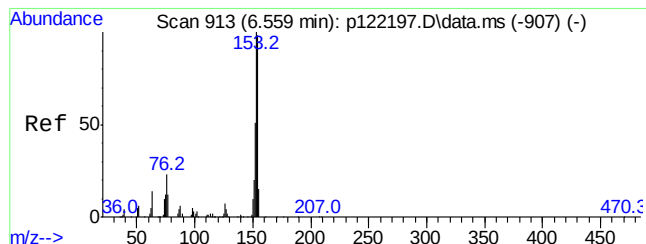
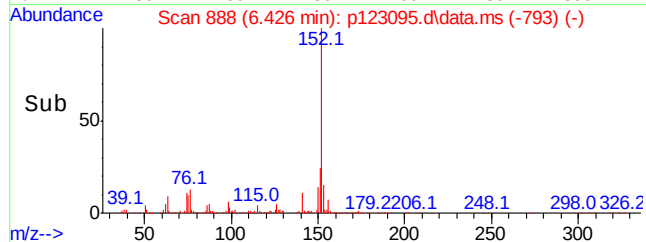
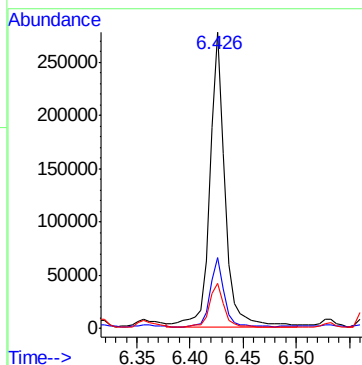
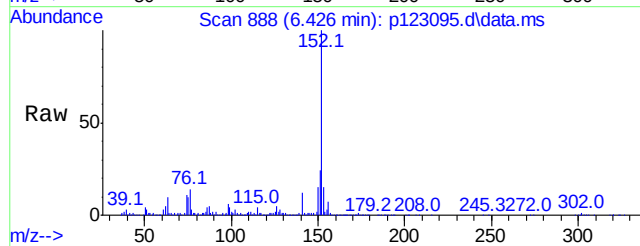
Tgt Ion	Ratio	Lower	Upper
141	100		
142	116.0	90.4	150.4
115	67.7	37.0	97.0





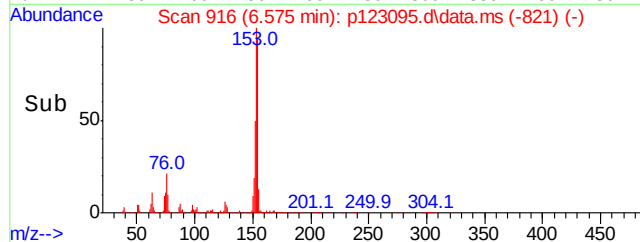
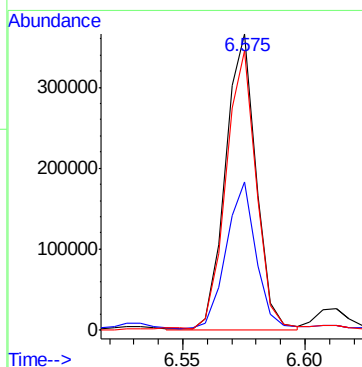
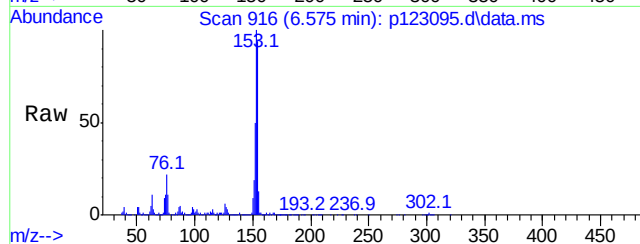
#56
Acenaphthylene
Concen: 21.63 ppm
RT: 6.426 min Scan# 888
Delta R.T. 0.005 min
Lab File: p123095.d
Acq: 26 May 2018 7:26 am

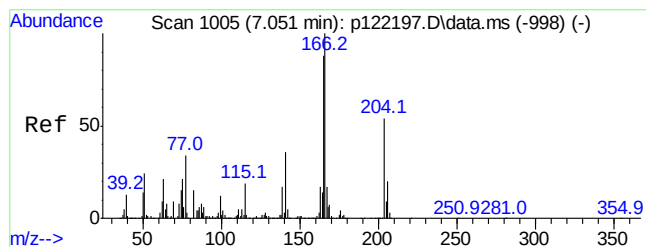
Tgt Ion	Ratio	Lower	Upper
152	100		
151	23.5	0.0	54.7
153	14.8	0.0	48.2



#59
Acenaphthene
Concen: 40.39 ppm
RT: 6.575 min Scan# 916
Delta R.T. 0.005 min
Lab File: p123095.d
Acq: 26 May 2018 7:26 am

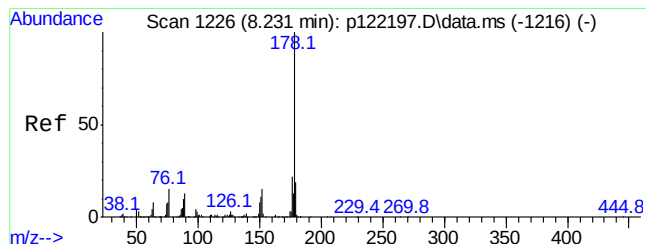
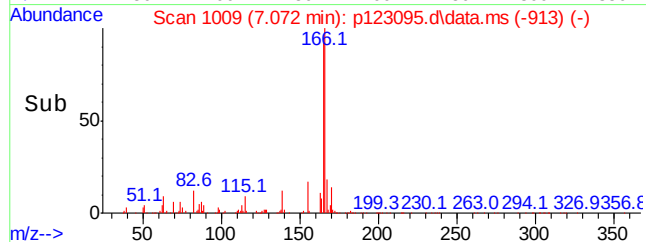
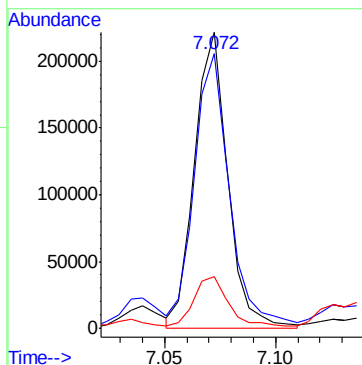
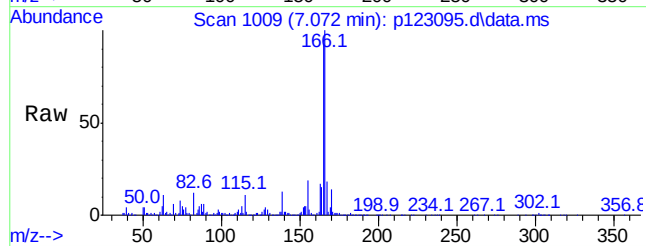
Tgt Ion	Ratio	Lower	Upper
153	100		
152	49.4	20.7	80.7
154	94.3	55.9	115.9





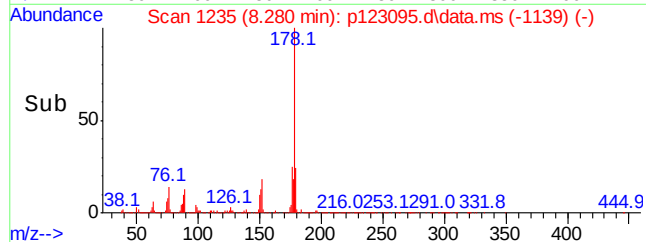
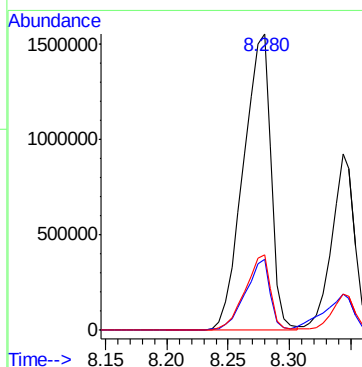
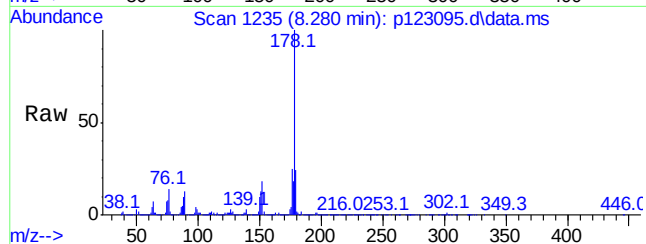
#66
 Fluorene
 Concen: 23.76 ppm
 RT: 7.072 min Scan# 1009
 Delta R.T. 0.010 min
 Lab File: p123095.d
 Acq: 26 May 2018 7:26 am

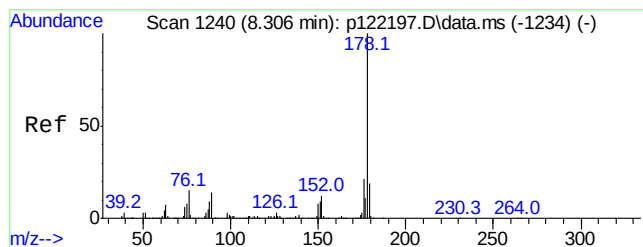
Tgt	Ion:166	Resp:	229718
Ion	Ratio	Lower	Upper
166	100		
165	91.9	57.9	117.9
167	17.2	0.0	46.7



#77
 Phenanthrene
 Concen: 181.75 ppm
 RT: 8.280 min Scan# 1235
 Delta R.T. 0.011 min
 Lab File: p123095.d
 Acq: 26 May 2018 7:26 am

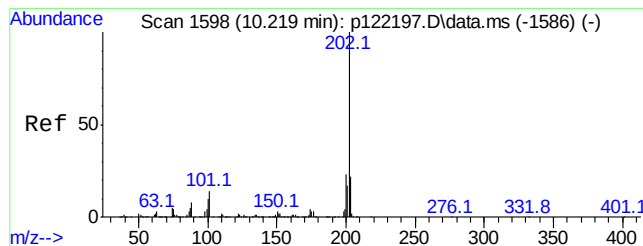
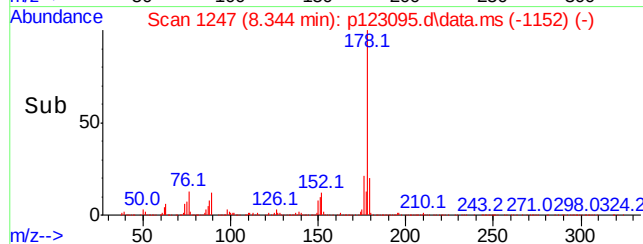
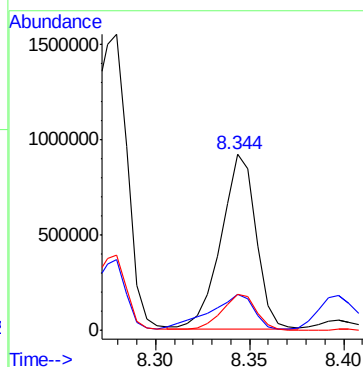
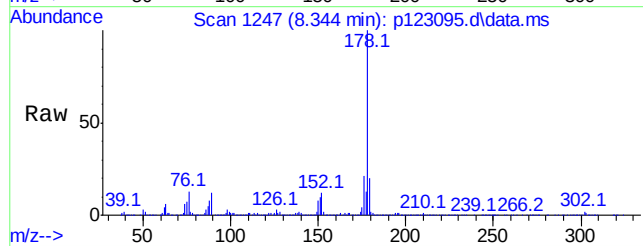
Tgt	Ion:178	Resp:	2448857
Ion	Ratio	Lower	Upper
178	100		
179	23.6	0.0	49.4
176	25.4	0.0	51.7





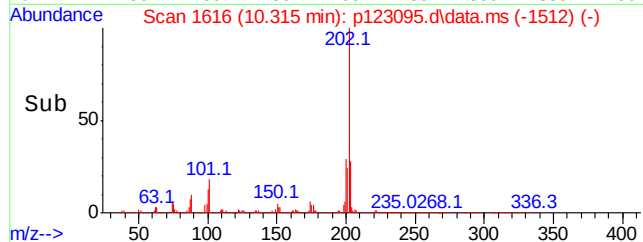
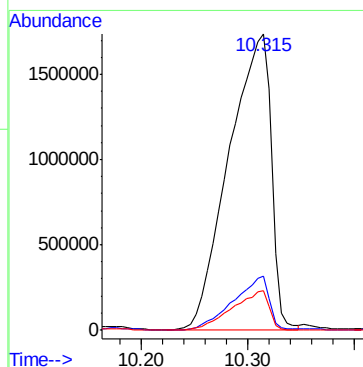
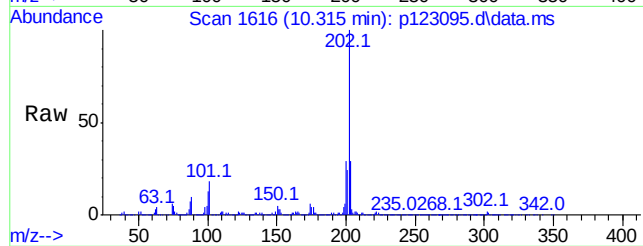
#78
 Anthracene
 Concen: 85.80 ppm
 RT: 8.344 min Scan# 1247
 Delta R.T. 0.005 min
 Lab File: p123095.d
 Acq: 26 May 2018 7:26 am

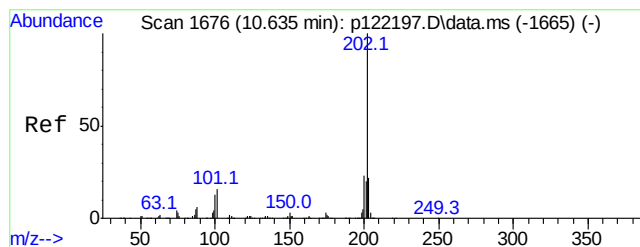
Tgt Ion:178 Resp: 1195277
 Ion Ratio Lower Upper
 178 100
 179 19.0 0.0 49.2
 176 20.7 0.0 51.3



#81
 Fluoranthene
 Concen: 284.03 ppm
 RT: 10.315 min Scan# 1616
 Delta R.T. 0.058 min
 Lab File: p123095.d
 Acq: 26 May 2018 7:26 am

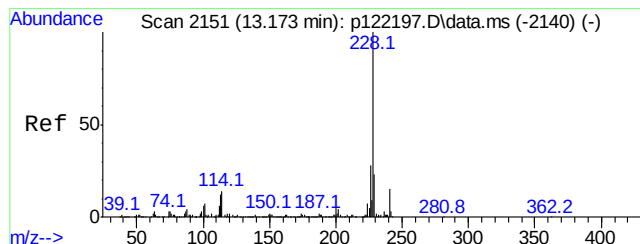
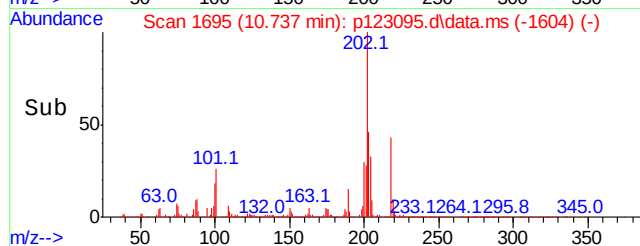
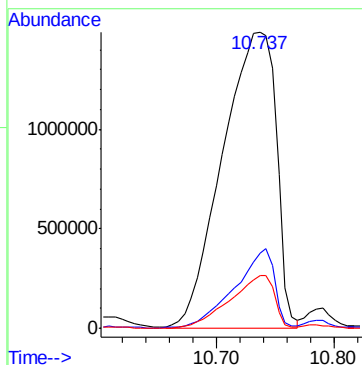
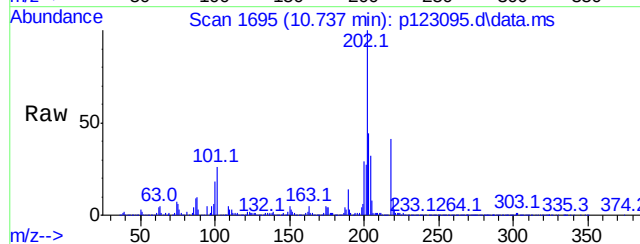
Tgt Ion:202 Resp: 4786556
 Ion Ratio Lower Upper
 202 100
 101 18.3 0.0 43.9
 100 13.4 0.0 40.4





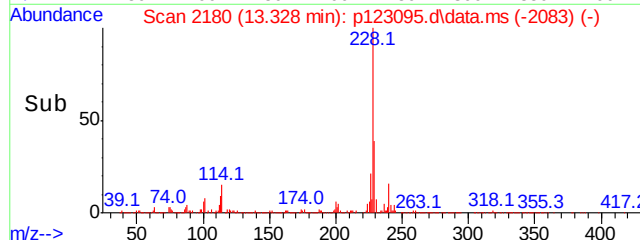
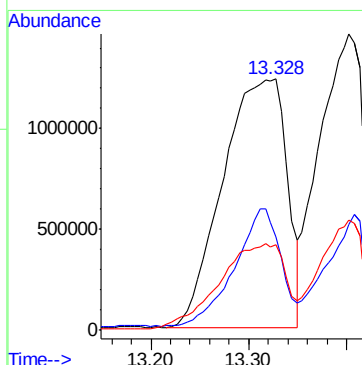
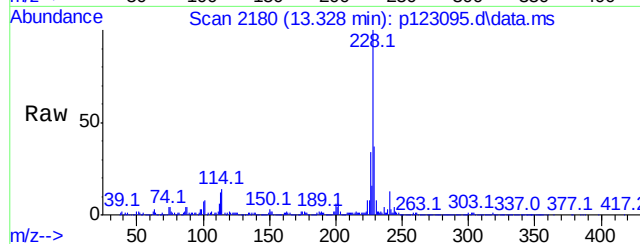
#84
Pyrene
Concen: 223.25 ppm m
RT: 10.737 min Scan# 1695
Delta R.T. -0.012 min
Lab File: p123095.d
Acq: 26 May 2018 7:26 am

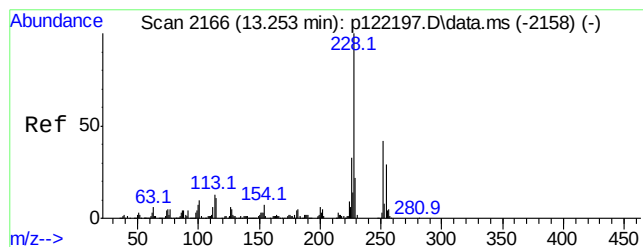
Tgt Ion	Ratio	Lower	Upper
202	100		
101	25.5	0.0	46.1
100	18.0	0.0	43.1



#87
Benzo[a]anthracene
Concen: 302.13 ppm
RT: 13.328 min Scan# 2180
Delta R.T. 0.016 min
Lab File: p123095.d
Acq: 26 May 2018 7:26 am

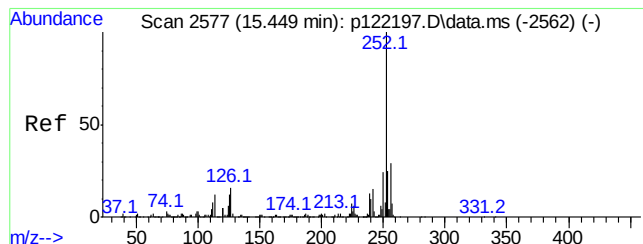
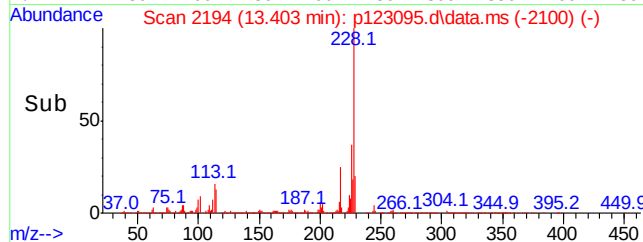
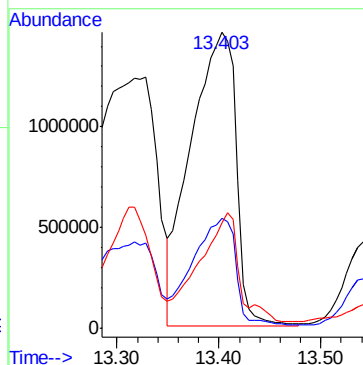
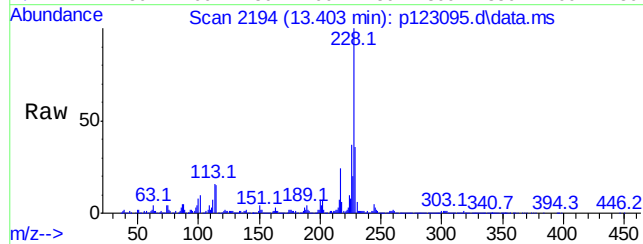
Tgt Ion	Ratio	Lower	Upper
228	100		
229	37.5	0.0	53.1
226	33.2	0.0	58.1





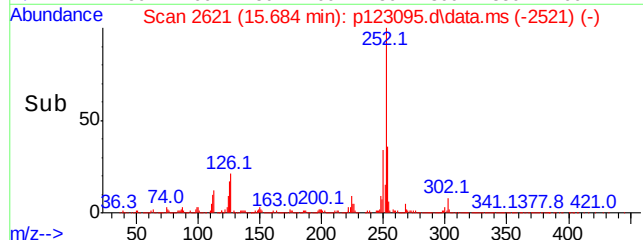
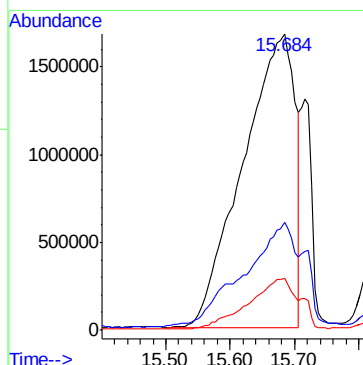
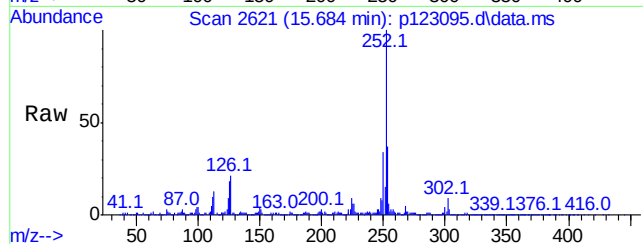
#89
Chrysene
Concen: 256.80 ppm
RT: 13.403 min Scan# 2194
Delta R.T. 0.005 min
Lab File: p123095.d
Acq: 26 May 2018 7:26 am

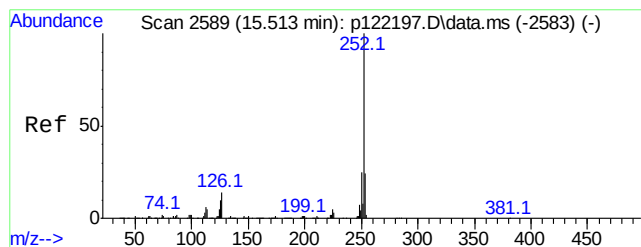
Tgt Ion:	228	Resp:	4541829
Ion Ratio	Lower	Upper	
228	100		
226	37.6	2.7	62.7
229	35.4	0.0	52.1



#93
Benzo[b]fluoranthene
Concen: 530.35 ppm
RT: 15.684 min Scan# 2621
Delta R.T. 0.036 min
Lab File: p123095.d
Acq: 26 May 2018 7:26 am

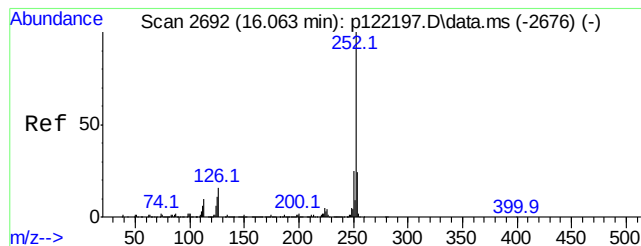
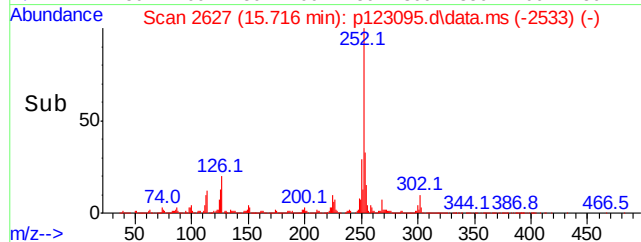
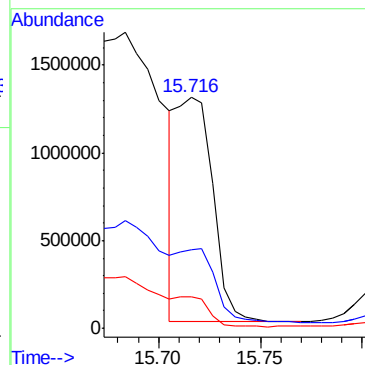
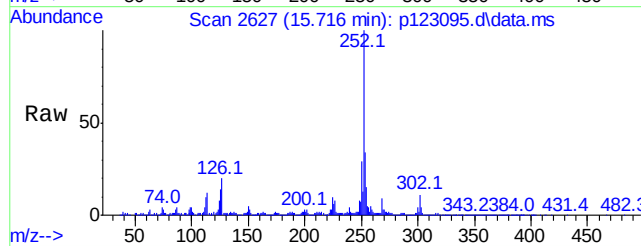
Tgt Ion:	252	Resp:	9339031
Ion Ratio	Lower	Upper	
252	100		
253	37.2	0.0	54.7
125	19.7	0.0	41.4





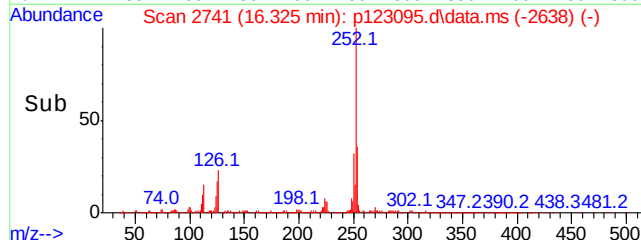
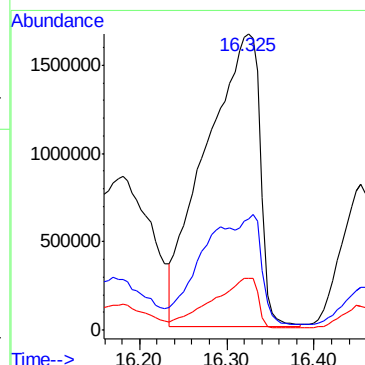
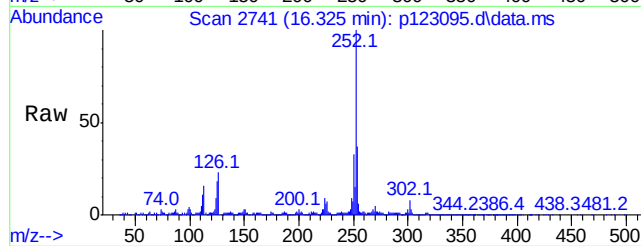
#94
Benzo[k]fluoranthene
Concen: 94.00 ppm
RT: 15.716 min Scan# 2627
Delta R.T. 0.003 min
Lab File: p123095.d
Acq: 26 May 2018 7:26 am

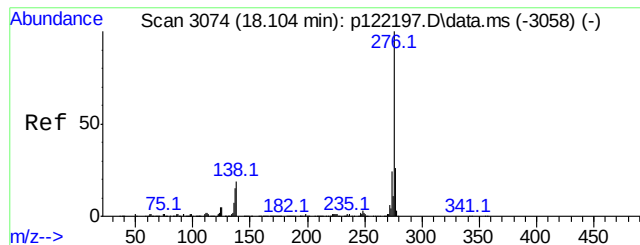
Tgt Ion:	252	Resp:	1559222
Ion Ratio	Lower	Upper	
252	100		
253	32.2	0.0	54.5
125	13.1	0.0	40.1



#95
Benzo[a]pyrene
Concen: 497.47 ppm
RT: 16.325 min Scan# 2741
Delta R.T. 0.049 min
Lab File: p123095.d
Acq: 26 May 2018 7:26 am

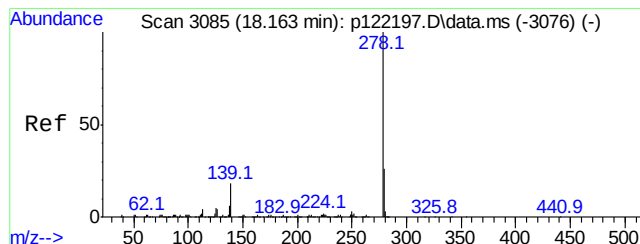
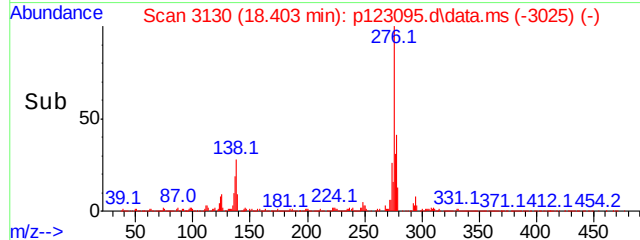
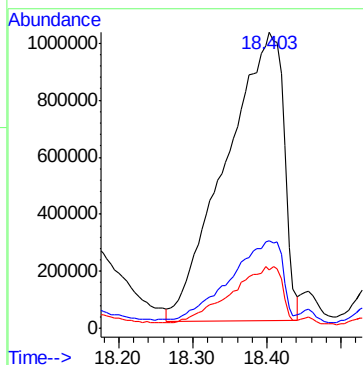
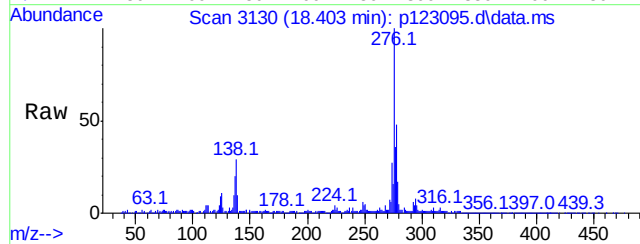
Tgt Ion:	252	Resp:	7225914
Ion Ratio	Lower	Upper	
252	100		
253	37.1	0.0	53.8
125	17.8	0.0	41.3





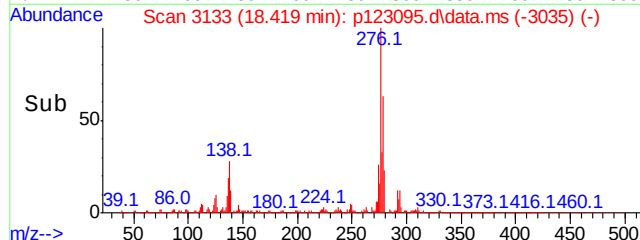
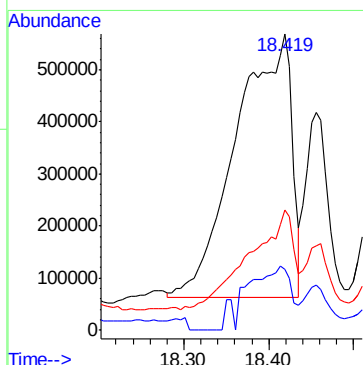
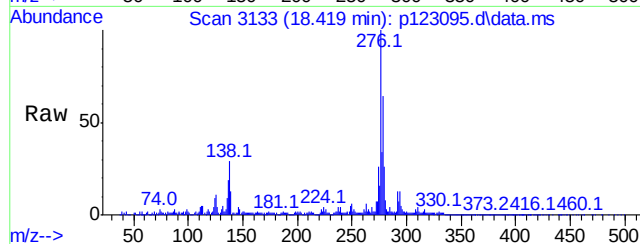
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 416.32 ppm
 RT: 18.403 min Scan# 3130
 Delta R.T. 0.062 min
 Lab File: p123095.d
 Acq: 26 May 2018 7:26 am

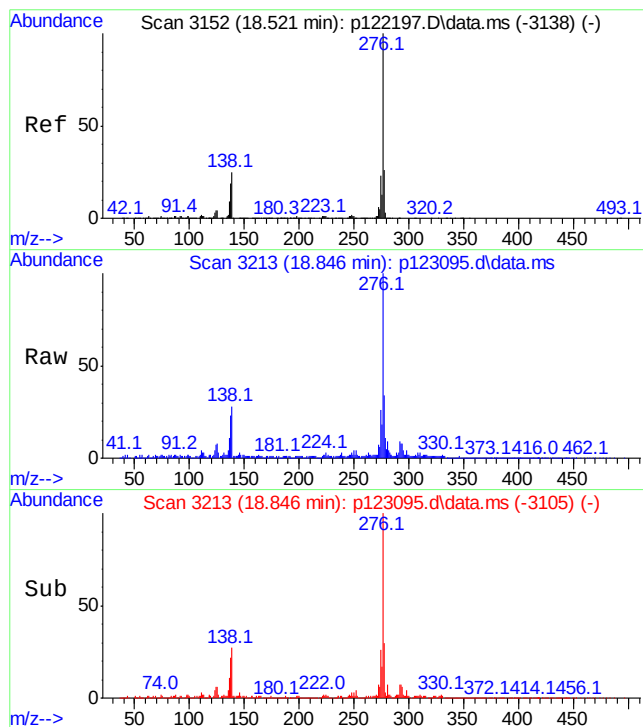
Tgt Ion	Ratio	Lower	Upper
276	100		
138	28.1	0.0	48.8
137	19.0	0.0	44.7



#98
 Dibenzo[a,h]anthracene
 Concen: 159.16 ppm m
 RT: 18.419 min Scan# 3133
 Delta R.T. 0.024 min
 Lab File: p123095.d
 Acq: 26 May 2018 7:26 am

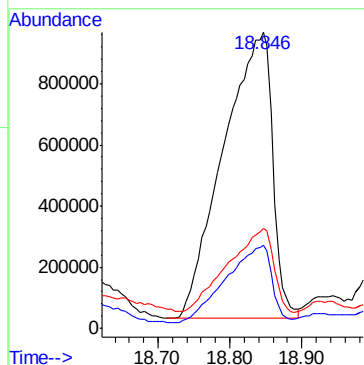
Tgt Ion	Ratio	Lower	Upper
278	100		
139	20.6	0.0	47.9
279	40.5	0.0	56.4





#100
Benzo[g,h,i]perylene
Concen: 316.67 ppm
RT: 18.846 min Scan# 3213
Delta R.T. 0.078 min
Lab File: p123095.d
Acq: 26 May 2018 7:26 am

Tgt Ion: 276 Resp: 4451051
Ion Ratio Lower Upper
276 100
138 26.6 0.0 54.5
277 29.0 0.0 55.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\ep5524\
 Data File : p123108.d
 Acq On : 29 May 2018 2:43 pm
 Operator : angelar
 Sample : jc66554-2
 Misc : op12229,ep5524,31.4,,,1,10
 ALS Vial : 12 Sample Multiplier: 1

Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M
 Quant Results File: MP5484.RES
 Quant Time: May 30 01:46:56 2018
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Sun May 27 22:46:05 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.321	152	182140	40.00	ppm	0.00
24) Naphthalene-d8	5.234	136	640242	40.00	ppm	0.00
47) Acenaphthene-d10	6.538	164	340345	40.00	ppm	0.00
69) Phenanthrene-d10	8.204	188	646184	40.00	ppm	0.00
83) Chrysene-d12	13.226	240	621456	40.00	ppm	0.04
91) Perylene-d12	16.228	264	619376	40.00	ppm	0.05
101) 1,4-Dichlorobenzene-d4b	4.321	152	182140	40.00	ppm	0.00
103) Phenanthrene-d10b	8.204	188	646184	40.00	ppm	0.00
105) Chrysene-d12b	13.226	240	621456	40.00	ppm	0.04
107) Naphthalene-d8b	5.234	136	640242	40.00	ppm	0.00
109) Acenaphthene-d10b	6.538	164	340345	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.396	112	20820	2.99	ppm	0.00
Spiked Amount 50.000			Recovery	=	5.98%	
8) Phenol-d5	4.134	99	28008	3.13	ppm	0.00
Spiked Amount 50.000			Recovery	=	6.26%	
25) Nitrobenzene-d5	4.732	82	33592	2.89	ppm	0.00
Spiked Amount 50.000			Recovery	=	5.78%	
51) 2-Fluorobiphenyl	5.998	172	44658	3.42	ppm	0.00
Spiked Amount 50.000			Recovery	=	6.84%	
73) 2,4,6-Tribromophenol	7.328	330	5703	2.82	ppm	0.00
Spiked Amount 50.000			Recovery	=	5.64%	
85) Terphenyl-d14	11.063	244	49491	3.08	ppm	0.02
Spiked Amount 50.000			Recovery	=	6.16%	
Target Compounds						
						Qvalue
38) Naphthalene	5.250	128	42297	2.40	ppm	95
44) 2-Methylnaphthalene	5.736	141	16540	1.40	ppm	81
56) Acenaphthylene	6.415	152	28565	1.68	ppm	90
59) Acenaphthene	6.564	153	47762	4.62	ppm	99
66) Fluorene	7.056	166	33803	2.67	ppm	91
77) Phenanthrene	8.236	178	397643	22.79	ppm	94
78) Anthracene	8.311	178	175033	9.70	ppm	95
81) Fluoranthene	10.234	202	815444	37.36	ppm	91
84) Pyrene	10.651	202	773069	35.35	ppm	97
87) Benzo[a]anthracene	13.205	228	782999	40.71	ppm	98
89) Chrysene	13.274	228	636469	34.81	ppm	95
93) Benzo[b]fluoranthene	15.491	252	1121250	58.76	ppm	99
94) Benzo[k]fluoranthene	15.534	252	410396	22.83	ppm	96
95) Benzo[a]pyrene	16.116	252	974055	61.89	ppm	98
96) Indeno[1,2,3-cd]pyrene	18.157	276	610788m	42.87	ppm	
98) Dibenz[a,h]anthracene	18.194	278	181030	11.58	ppm	96
100) Benzo[g,h,i]perylene	18.584	276	550176	36.12	ppm	94

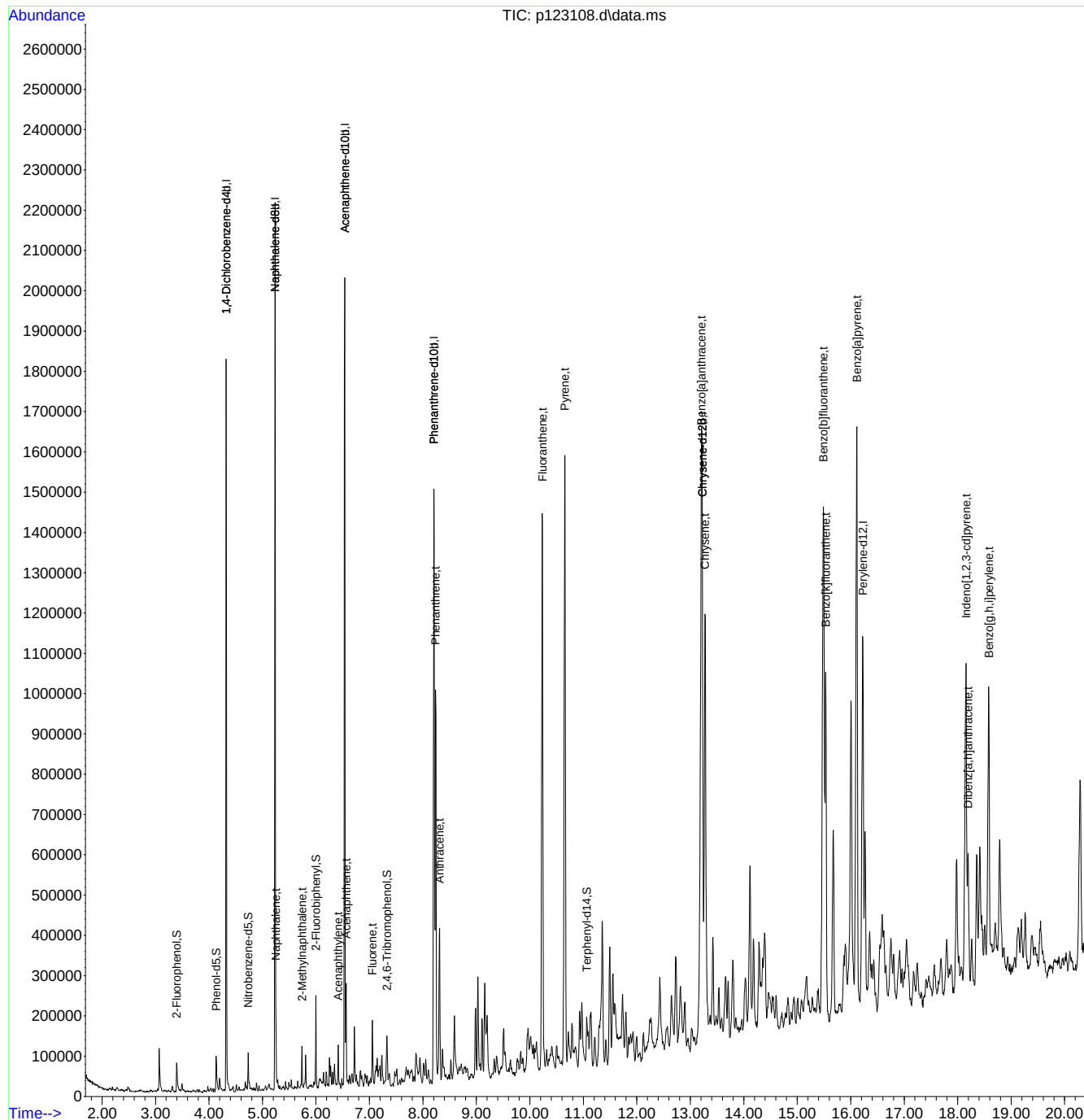
(#) = qualifier out of range (m) = manual integration (+) = signals summed

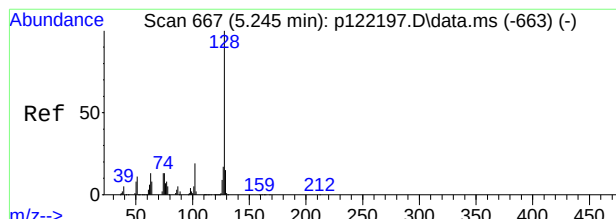
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\ep5524\
Data File : p123108.d
Acq On : 29 May 2018 2:43 pm
Operator : angelar
Sample : jc66554-2
Misc : op12229,ep5524,31.4,,,1,10
ALS Vial : 12 Sample Multiplier: 1

Inst : MSVOAMSP

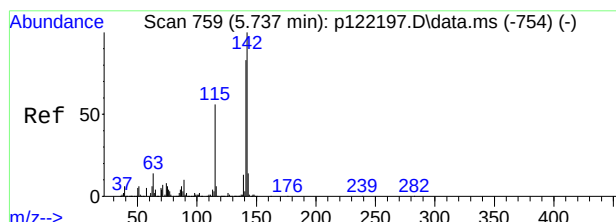
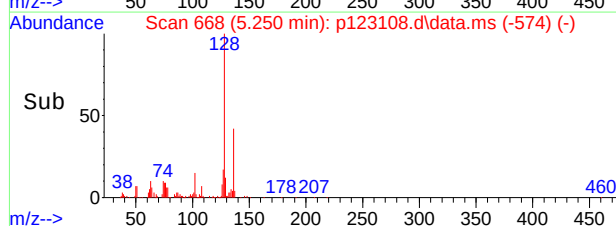
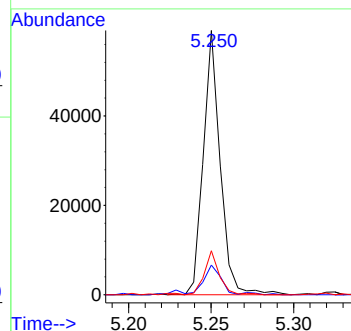
Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M
Quant Results File: MP5484.RES
Quant Time: May 30 01:46:56 2018
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun May 27 22:46:05 2018
Response via : Initial Calibration





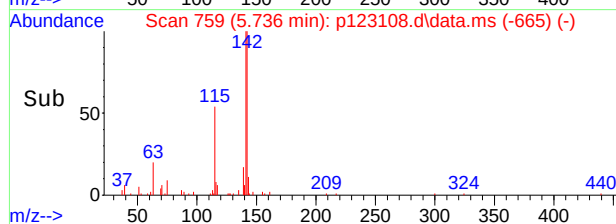
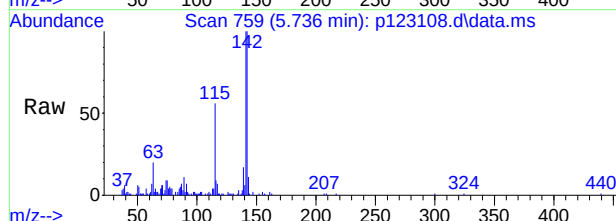
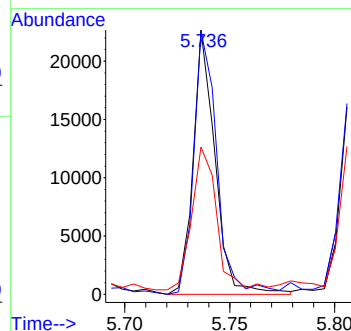
#38
Naphthalene
Concen: 2.40 ppm
RT: 5.250 min Scan# 668
Delta R.T. -0.000 min
Lab File: p123108.d
Acq: 29 May 2018 2:43 pm

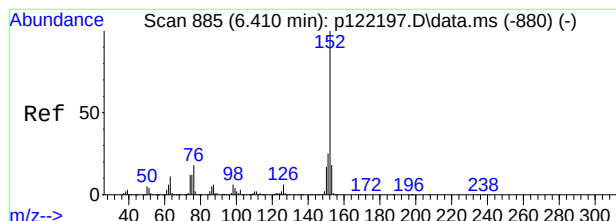
Tgt Ion:	128	Resp:	42297
Ion Ratio	Lower	Upper	
128	100		
129	11.0	0.0	45.0
127	16.4	0.0	46.9



#44
2-Methylnaphthalene
Concen: 1.40 ppm
RT: 5.736 min Scan# 759
Delta R.T. -0.000 min
Lab File: p123108.d
Acq: 29 May 2018 2:43 pm

Tgt Ion:	141	Resp:	16540
Ion Ratio	Lower	Upper	
141	100		
142	98.1	90.4	150.4
115	52.7	37.0	97.0





#56

Acenaphthylene

Concen: 1.68 ppm

RT: 6.415 min Scan# 886

Delta R.T. 0.005 min

Lab File: p123108.d

Acq: 29 May 2018 2:43 pm

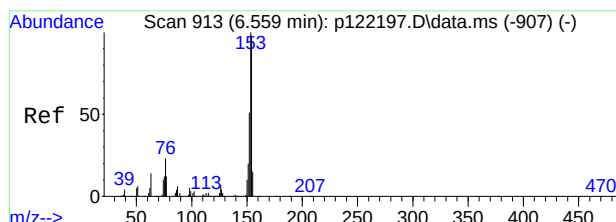
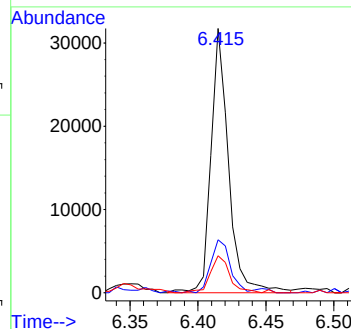
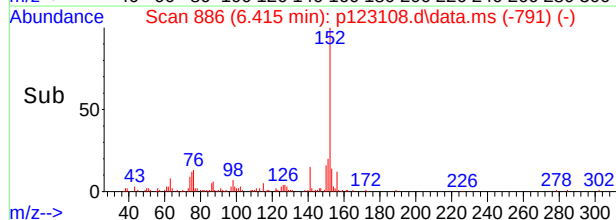
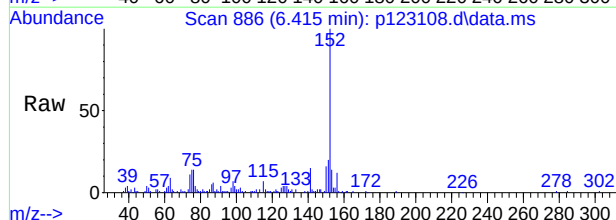
Tgt Ion: 152 Resp: 28565

Ion Ratio Lower Upper

152 100

151 19.8 0.0 54.7

153 13.8 0.0 48.2



#59

Acenaphthene

Concen: 4.62 ppm

RT: 6.564 min Scan# 914

Delta R.T. 0.005 min

Lab File: p123108.d

Acq: 29 May 2018 2:43 pm

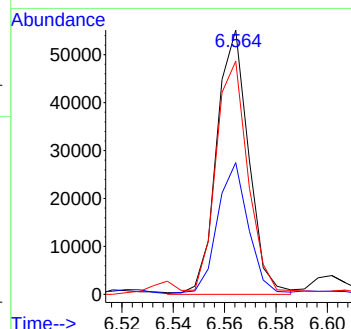
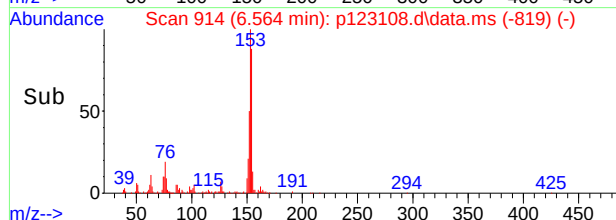
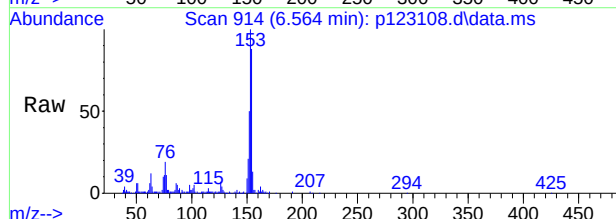
Tgt Ion: 153 Resp: 47762

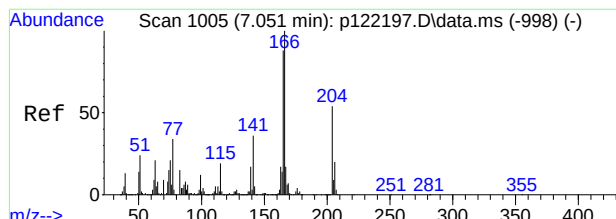
Ion Ratio Lower Upper

153 100

152 49.8 20.7 80.7

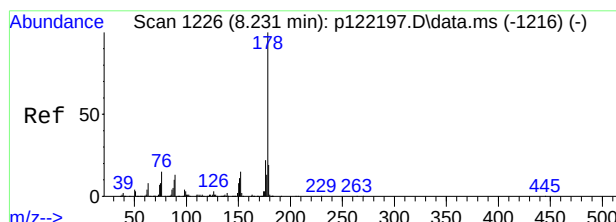
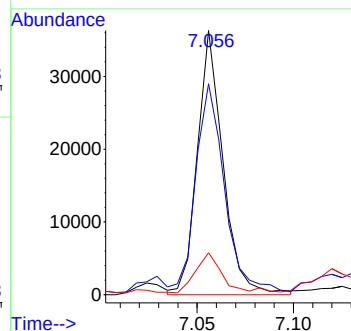
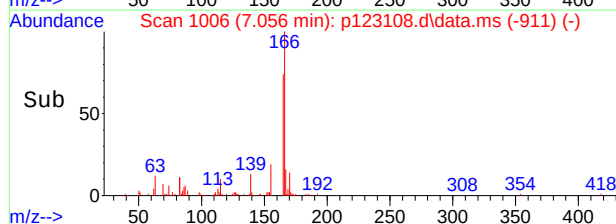
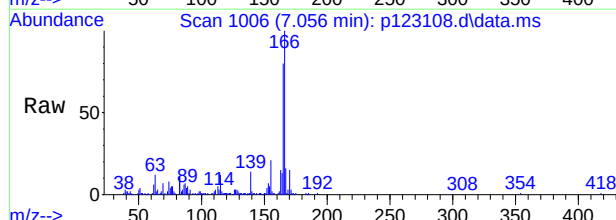
154 86.0 55.9 115.9





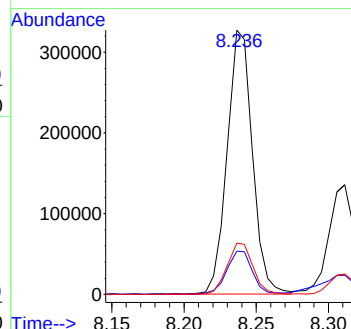
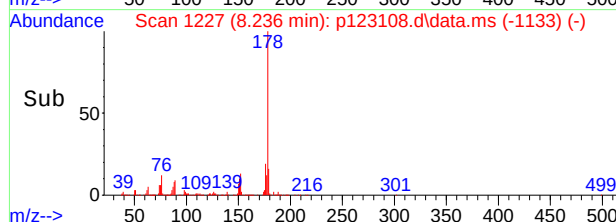
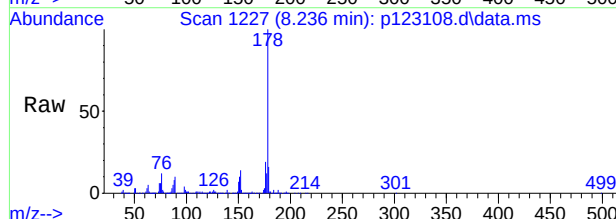
#66
Fluorene
Concen: 2.67 ppm
RT: 7.056 min Scan# 1006
Delta R.T. 0.006 min
Lab File: p123108.d
Acq: 29 May 2018 2:43 pm

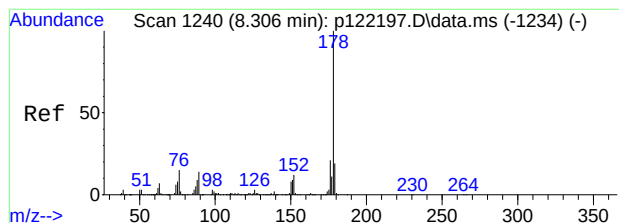
Tgt Ion:166 Resp: 33803
Ion Ratio Lower Upper
166 100
165 78.9 57.9 117.9
167 14.9 0.0 46.7



#77
Phenanthrene
Concen: 22.79 ppm
RT: 8.236 min Scan# 1227
Delta R.T. -0.000 min
Lab File: p123108.d
Acq: 29 May 2018 2:43 pm

Tgt Ion:178 Resp: 397643
Ion Ratio Lower Upper
178 100
179 16.1 0.0 49.4
176 19.4 0.0 51.7





#78

Anthracene

Concen: 9.70 ppm

RT: 8.311 min Scan# 1241

Delta R.T. 0.005 min

Lab File: p123108.d

Acq: 29 May 2018 2:43 pm

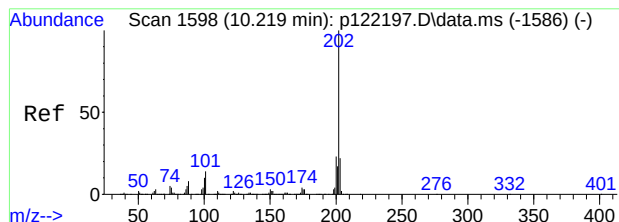
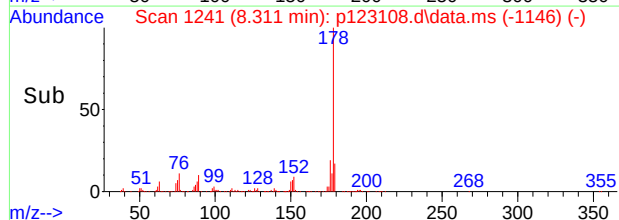
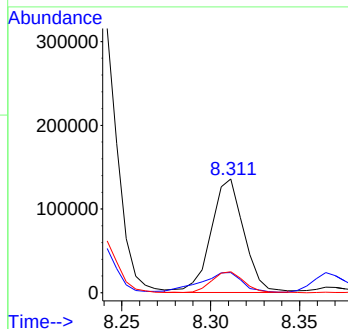
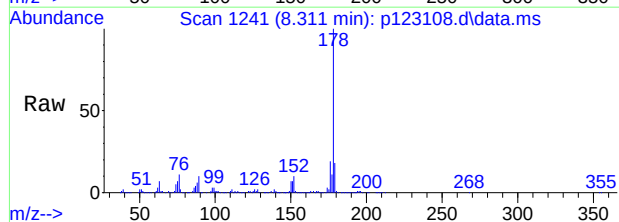
Tgt Ion:178 Resp: 175033

Ion Ratio Lower Upper

178 100

179 17.0 0.0 49.2

176 18.5 0.0 51.3



#81

Fluoranthene

Concen: 37.36 ppm

RT: 10.234 min Scan# 1601

Delta R.T. 0.017 min

Lab File: p123108.d

Acq: 29 May 2018 2:43 pm

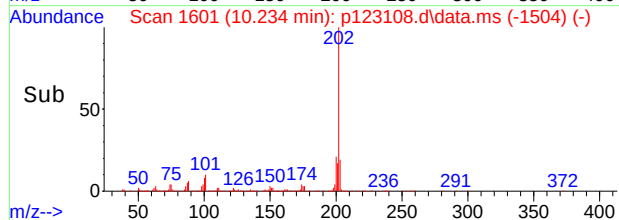
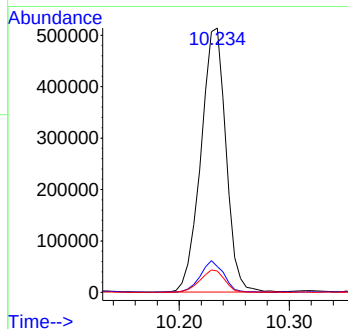
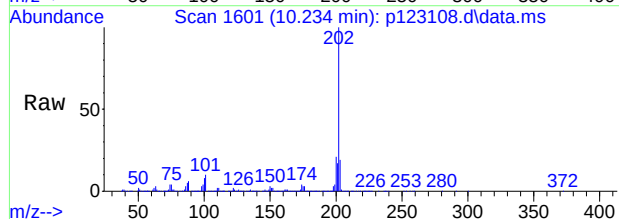
Tgt Ion:202 Resp: 815444

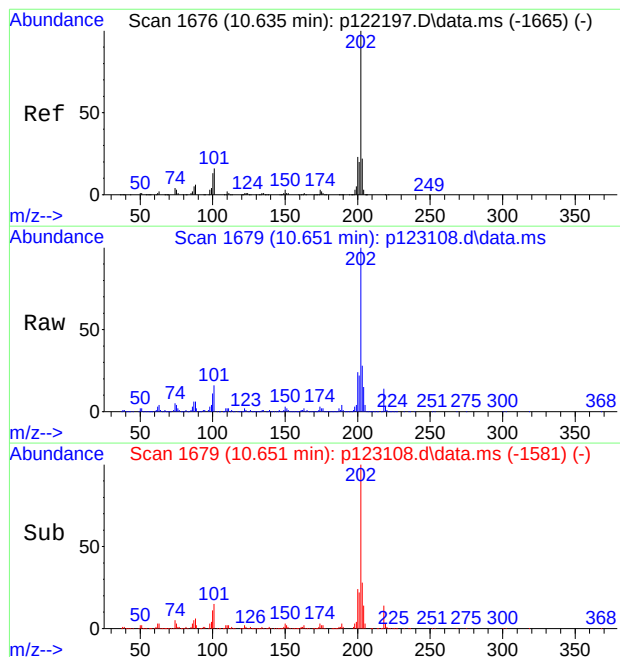
Ion Ratio Lower Upper

202 100

101 9.7 0.0 43.9

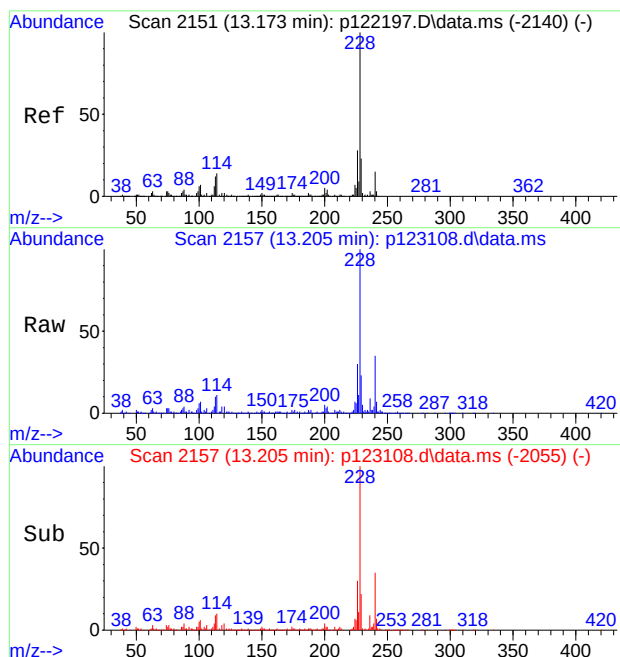
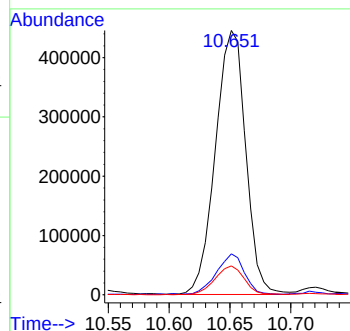
100 8.0 0.0 40.4





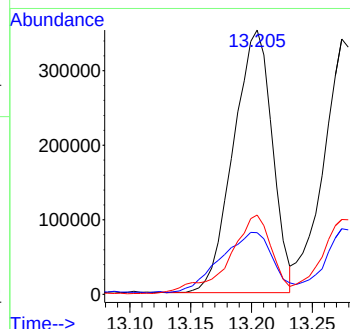
#84
Pyrene
Concen: 35.35 ppm
RT: 10.651 min Scan# 1679
Delta R.T. 0.022 min
Lab File: p123108.d
Acq: 29 May 2018 2:43 pm

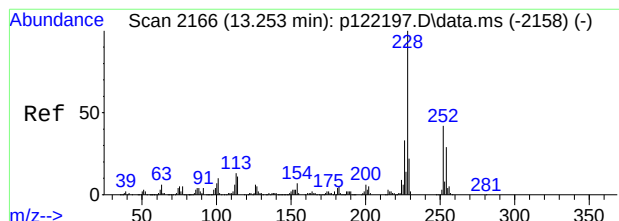
Tgt	Ion:202	Resp:	773069
Ion	Ratio	Lower	Upper
202	100		
101	15.4	0.0	46.1
100	10.8	0.0	43.1



#87
Benzo[a]anthracene
Concen: 40.71 ppm
RT: 13.205 min Scan# 2157
Delta R.T. 0.043 min
Lab File: p123108.d
Acq: 29 May 2018 2:43 pm

Tgt	Ion:228	Resp:	782999
Ion	Ratio	Lower	Upper
228	100		
229	22.1	0.0	53.1
226	29.6	0.0	58.1





#89

Chrysene

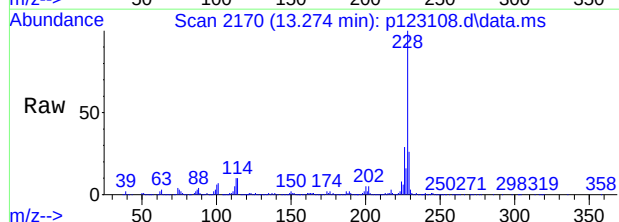
Concen: 34.81 ppm

RT: 13.274 min Scan# 2170

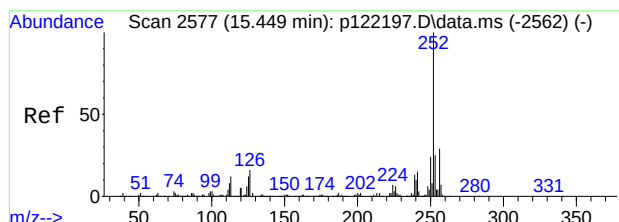
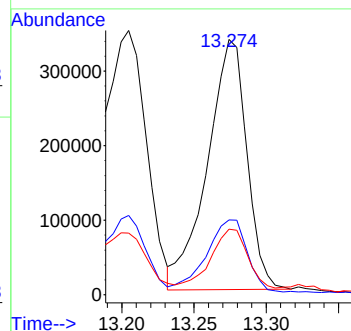
Delta R.T. 0.027 min

Lab File: p123108.d

Acq: 29 May 2018 2:43 pm



Tgt Ion:	228	Resp:	636469
Ion Ratio	100	Lower	Upper
226	28.9	2.7	62.7
229	23.5	0.0	52.1



#93

Benzo[b]fluoranthene

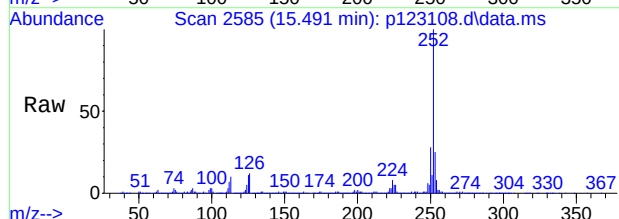
Concen: 58.76 ppm

RT: 15.491 min Scan# 2585

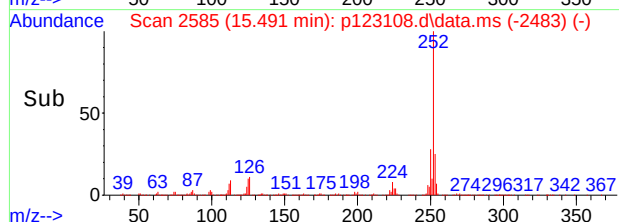
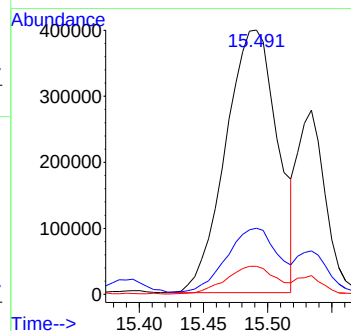
Delta R.T. 0.047 min

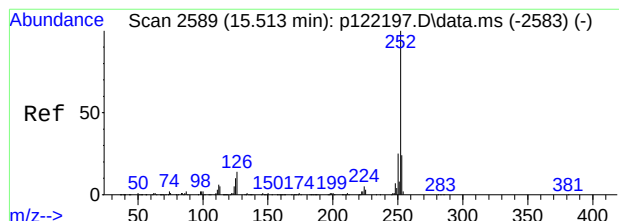
Lab File: p123108.d

Acq: 29 May 2018 2:43 pm



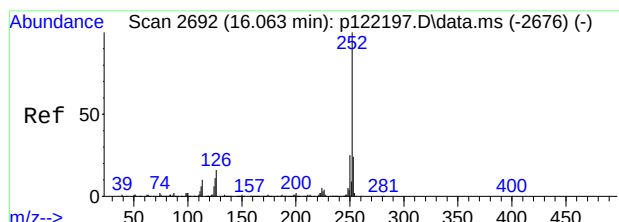
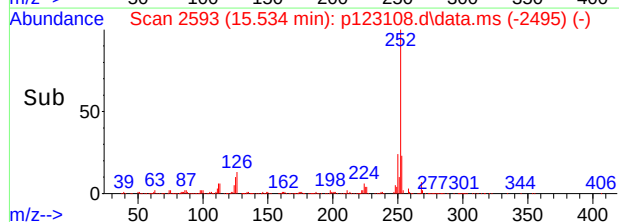
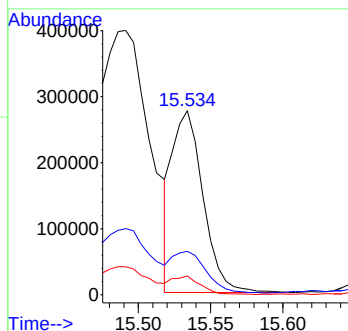
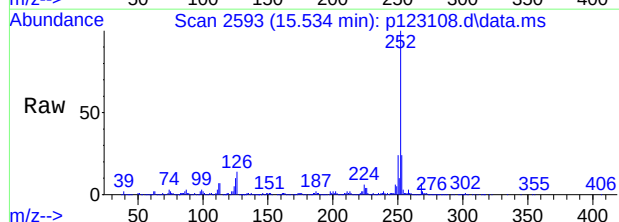
Tgt Ion:	252	Resp:	1121250
Ion Ratio	100	Lower	Upper
253	24.4	0.0	54.7
125	10.7	0.0	41.4





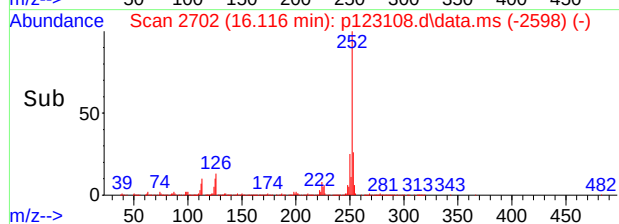
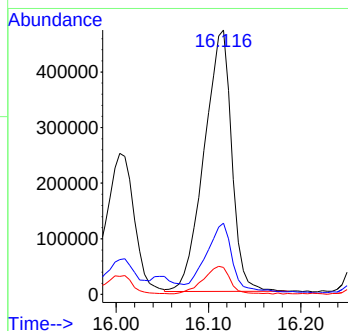
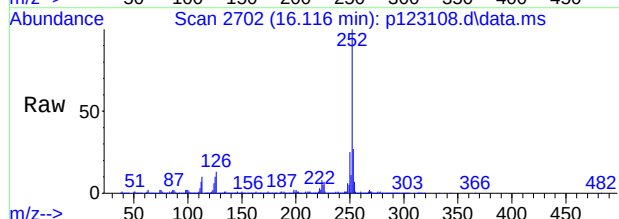
#94
Benzo[k]fluoranthene
Concen: 22.83 ppm
RT: 15.534 min Scan# 2593
Delta R.T. 0.026 min
Lab File: p123108.d
Acq: 29 May 2018 2:43 pm

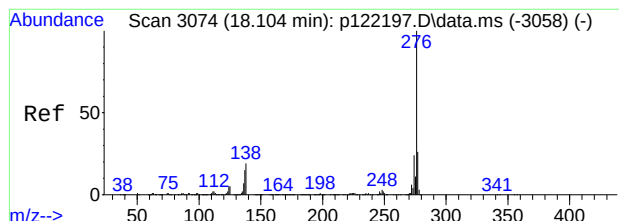
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	21.7	0.0	54.5	
125	10.0	0.0	40.1	



#95
Benzo[a]pyrene
Concen: 61.89 ppm
RT: 16.116 min Scan# 2702
Delta R.T. 0.053 min
Lab File: p123108.d
Acq: 29 May 2018 2:43 pm

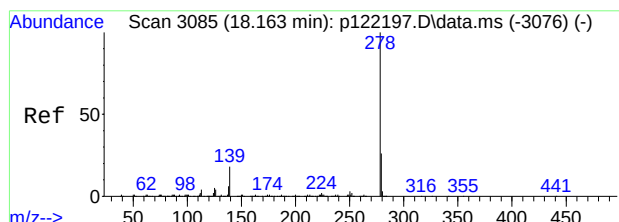
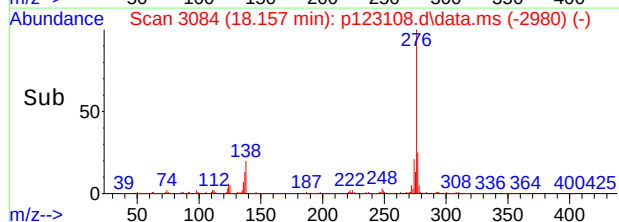
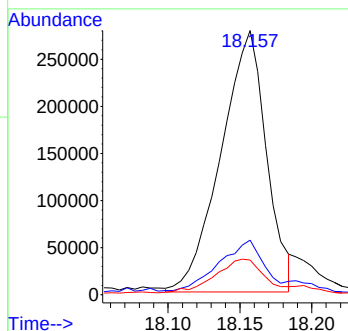
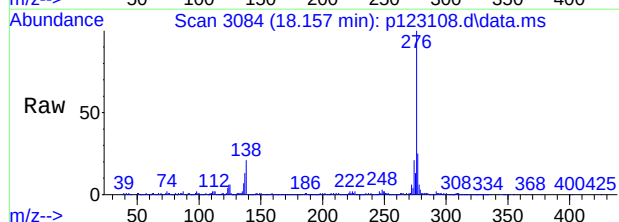
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	23.3	0.0	53.8	
125	10.1	0.0	41.3	





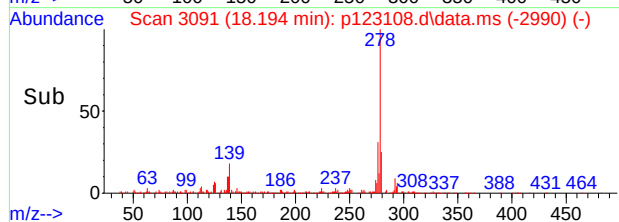
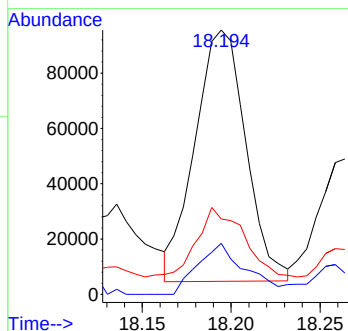
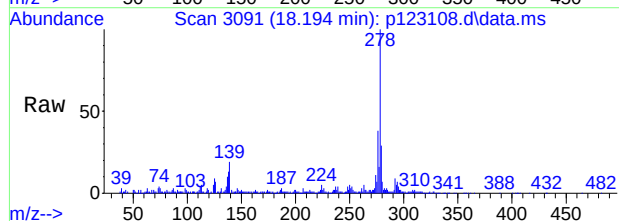
#96
Indeno[1,2,3-cd]pyrene
Concen: 42.87 ppm m
RT: 18.157 min Scan# 3084
Delta R.T. 0.055 min
Lab File: p123108.d
Acq: 29 May 2018 2:43 pm

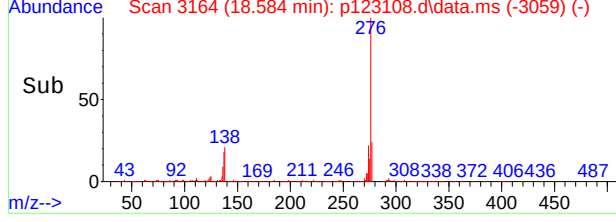
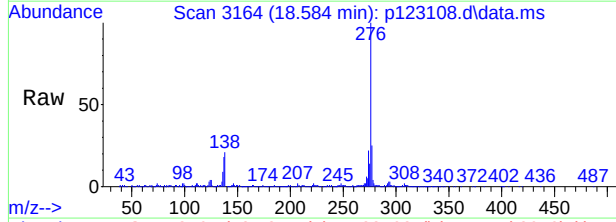
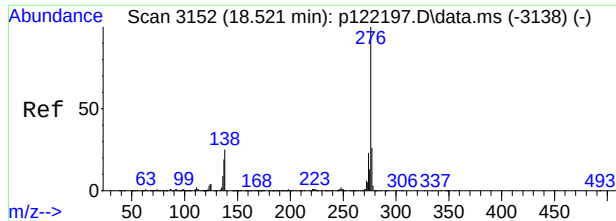
Tgt Ion	Ratio	Lower	Upper
276	100		
138	20.7	0.0	48.8
137	13.2	0.0	44.7



#98
Dibenz[a,h]anthracene
Concen: 11.58 ppm
RT: 18.194 min Scan# 3091
Delta R.T. 0.039 min
Lab File: p123108.d
Acq: 29 May 2018 2:43 pm

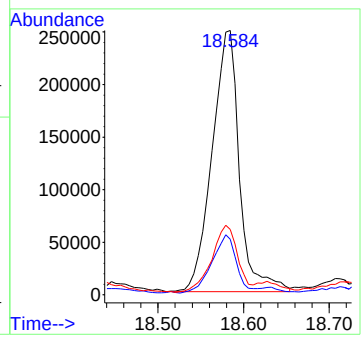
Tgt Ion	Ratio	Lower	Upper
278	100		
139	20.0	0.0	47.9
279	24.3	0.0	56.4





#100
Benzo[g,h,i]perylene
Concen: 36.12 ppm
RT: 18.584 min Scan# 3164
Delta R.T. 0.061 min
Lab File: p123108.d
Acq: 29 May 2018 2:43 pm

Tgt	Ion	276	Resp:	550176
	Ratio	100	Lower	Upper
	276	100		
	138	20.3	0.0	54.5
	277	23.4	0.0	55.5



7.1.4
7

Quantitation Report (QT/LSC Reviewed)

Data Path : Z:\svoa\completed\05-28-18\jeryllr\ep5523\
 Data File : p123075.d
 Acq On : 25 May 2018 10:19 pm
 Operator : sufiyana
 Sample : op12229-mb1
 Misc : op12229,ep5523,30.0,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 28 12:21:48 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Sun May 27 22:46:05 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.321	152	155724	40.00	ppm	0.00
24) Naphthalene-d8	5.234	136	576151	40.00	ppm	0.00
47) Acenaphthene-d10	6.532	164	306996	40.00	ppm	0.00
69) Phenanthrene-d10	8.199	188	566744	40.00	ppm	0.00
83) Chrysene-d12	13.189	240	529752	40.00	ppm	0.00
91) Perylene-d12	16.175	264	507578	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.321	152	155724	40.00	ppm	0.00
103) Phenanthrene-d10b	8.199	188	566744	40.00	ppm	0.00
105) Chrysene-d12b	13.189	240	529752	40.00	ppm	0.00
107) Naphthalene-d8b	5.234	136	576151	40.00	ppm	0.00
109) Acenaphthene-d10b	6.532	164	306996	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.391	112	244256	41.10	ppm	0.00
Spiked Amount 50.000			Recovery	=	82.20%	
8) Phenol-d5	4.128	99	331788	43.43	ppm	0.00
Spiked Amount 50.000			Recovery	=	86.86%	
25) Nitrobenzene-d5	4.727	82	367452	35.12	ppm	0.00
Spiked Amount 50.000			Recovery	=	70.24%	
51) 2-Fluorobiphenyl	5.998	172	478265	40.56	ppm	0.00
Spiked Amount 50.000			Recovery	=	81.12%	
73) 2,4,6-Tribromophenol	7.323	330	65372	36.88	ppm	0.00
Spiked Amount 50.000			Recovery	=	73.76%	
85) Terphenyl-d14	11.057	244	579180	42.29	ppm	0.01
Spiked Amount 50.000			Recovery	=	84.58%	

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

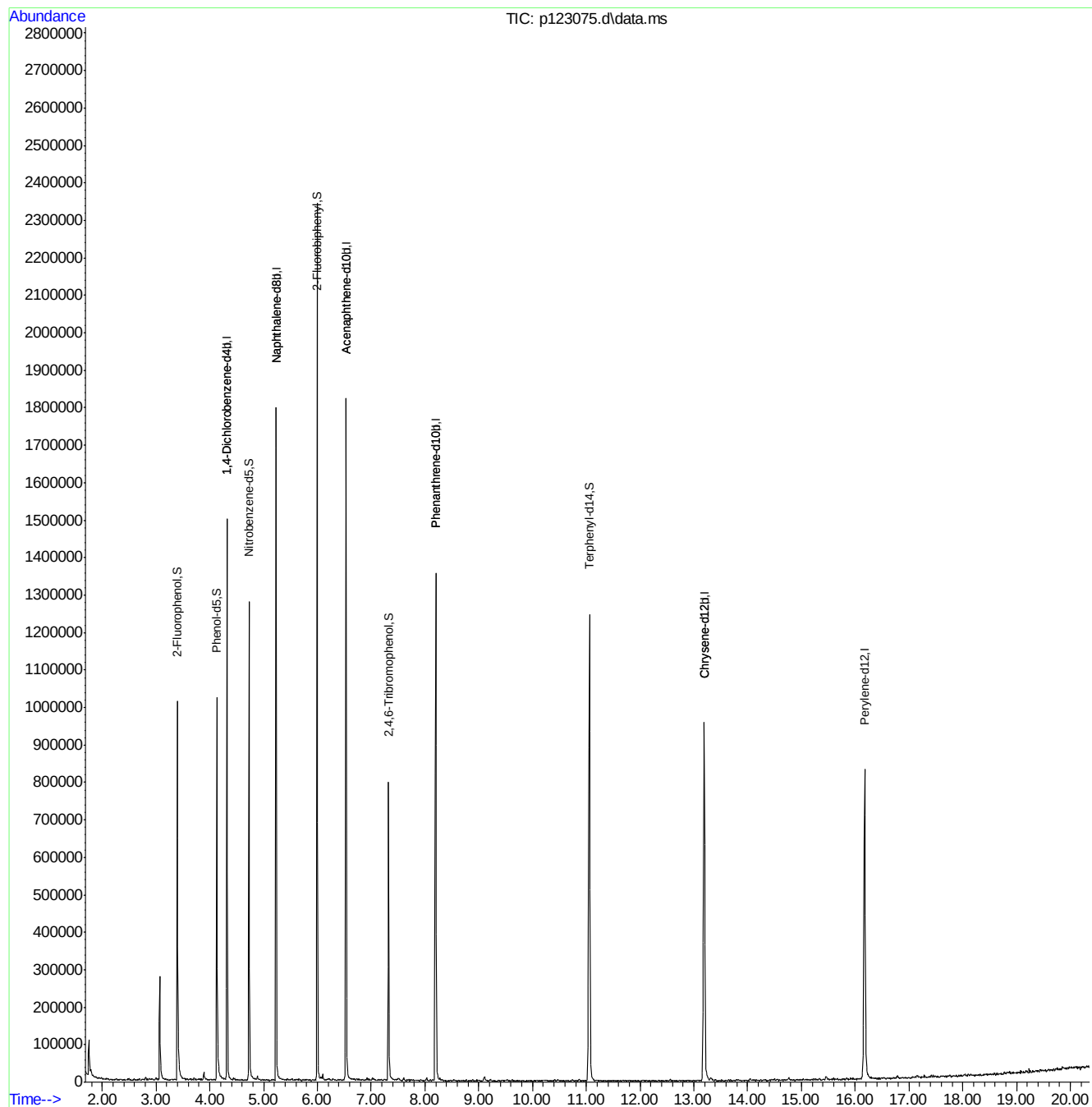
7.2.1

7

Quantitation Report (QT/LSC Reviewed)

Data Path : Z:\svoa\completed\05-28-18\jeryllr\ep5523\
Data File : p123075.d
Acq On : 25 May 2018 10:19 pm
Operator : sufiyana
Sample : op12229-mb1
Misc : op12229,ep5523,30.0,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 28 12:21:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun May 27 22:46:05 2018
Response via : Initial Calibration



General Chemistry

QC Data Summaries



Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Job Number: JC66554
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: JC66554-1		Analyzed: 23-MAY-18 by LV		Method: SM2540 G-97	
ClientID: SB-110(7-9)					
Wet Weight (Total)	33.18	g			
Tare Weight	24.48	g			
Dry Weight (Total)	31.68	g			
Solids, Percent	82.8	%			
Sample: JC66554-2		Analyzed: 23-MAY-18 by LV		Method: SM2540 G-97	
ClientID: SB-119(4-6)					
Wet Weight (Total)	35.04	g			
Tare Weight	29.08	g			
Dry Weight (Total)	33.91	g			
Solids, Percent	81	%			

8.1
8

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Arcadis

NYSEG - Lyons MGP Site, Lyons NY

B0013143.0000.00031

SGS Job Number: JC66619

Sampling Date: 05/22/18

Report to:

Arcadis
295 Woodcliff Drive Suite 301
Fairport, NY 14450
matt.hysell@arcadis.com; Nicholas.Beyrle@arcadis.com

ATTN: Matthew Hysell

Total number of pages in report: **89**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy F. Cole

Nancy Cole
Laboratory Director

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Test results relate only to samples analyzed.

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Sample Summary

Arcadis

Job No: JC66619

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.0000.00031

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
JC66619-1	05/22/18	09:00 MH	05/23/18	SO	Soil	SB-120(13-15)

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Arcadis

Job No JC66619

Site: NYSEG - Lyons MGP Site, Lyons NY

Report Date 6/4/2018 11:55:41 AM

On 05/23/2018, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 4.8 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC66619 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Semi-volatiles By Method SW846 8270D

Matrix: SO

Batch ID: OP12421

- All samples were extracted within the recommended method holding time.
- Sample(s) JC66790-8MS, JC66790-8MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC66619-1: Dilution required due to matrix interference.
- JC66619-1 for 2-Fluorobiphenyl: Outside control limits due to dilution.
- JC66619-1 for Nitrobenzene-d5: Outside control limits due to dilution.
- JC66619-1 for Terphenyl-d14: Outside control limits due to dilution.

General Chemistry By Method SM2540 G-97

Matrix: SO

Batch ID: GN80475

- The data for SM2540 G-97 meets quality control requirements.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Page 1 of 1

Job Number: JC66619
Account: Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Collected: 05/22/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC66619-1	SB-120(13-15)					
Acenaphthene		17900	1900	660	ug/kg	SW846 8270D
Acenaphthylene		101000	1900	980	ug/kg	SW846 8270D
Anthracene		78700	1900	1200	ug/kg	SW846 8270D
Benzo(a)anthracene		45800	1900	540	ug/kg	SW846 8270D
Benzo(a)pyrene		31500	1900	870	ug/kg	SW846 8270D
Benzo(b)fluoranthene		28500	1900	850	ug/kg	SW846 8270D
Benzo(g,h,i)perylene ^a		13700	190	96	ug/kg	SW846 8270D
Benzo(k)fluoranthene		13300	1900	900	ug/kg	SW846 8270D
Chrysene		37600	1900	610	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene ^a		6740	190	85	ug/kg	SW846 8270D
Fluoranthene		74800	1900	860	ug/kg	SW846 8270D
Fluorene		98700	1900	880	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene ^a		14900	190	90	ug/kg	SW846 8270D
Naphthalene		421000	19000	5400	ug/kg	SW846 8270D
Phenanthrene		190000	1900	650	ug/kg	SW846 8270D
Pyrene		71900	1900	610	ug/kg	SW846 8270D

(a) Dilution required due to matrix interference.



Dayton, NJ

Section 4

4

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SB-120(13-15)	Date Sampled:	05/22/18
Lab Sample ID:	JC66619-1	Date Received:	05/23/18
Matrix:	SO - Soil	Percent Solids:	85.3
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	Z131123.D	5	06/01/18 07:35	SA	05/31/18 15:15	OP12421	EZ6466
Run #2	Z131167.D	50	06/04/18 00:35	SB	05/31/18 15:15	OP12421	EZ6468
Run #3	Z131161.D	500	06/03/18 21:56	SB	05/31/18 15:15	OP12421	EZ6468

	Initial Weight	Final Volume
Run #1	30.5 g	1.0 ml
Run #2	30.5 g	1.0 ml
Run #3	30.5 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	17900 ^b	1900	660	ug/kg	
208-96-8	Acenaphthylene	101000 ^b	1900	980	ug/kg	
120-12-7	Anthracene	78700 ^b	1900	1200	ug/kg	
56-55-3	Benzo(a)anthracene	45800 ^b	1900	540	ug/kg	
50-32-8	Benzo(a)pyrene	31500 ^b	1900	870	ug/kg	
205-99-2	Benzo(b)fluoranthene	28500 ^b	1900	850	ug/kg	
191-24-2	Benzo(g,h,i)perylene	13700	190	96	ug/kg	
207-08-9	Benzo(k)fluoranthene	13300 ^b	1900	900	ug/kg	
218-01-9	Chrysene	37600 ^b	1900	610	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	6740	190	85	ug/kg	
206-44-0	Fluoranthene	74800 ^b	1900	860	ug/kg	
86-73-7	Fluorene	98700 ^b	1900	880	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	14900	190	90	ug/kg	
91-20-3	Naphthalene	421000 ^c	19000	5400	ug/kg	
85-01-8	Phenanthrene	190000 ^b	1900	650	ug/kg	
129-00-0	Pyrene	71900 ^b	1900	610	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
4165-60-0	Nitrobenzene-d5	71%	48%	0% ^d	26-134%
321-60-8	2-Fluorobiphenyl	85%	64%	0% ^d	39-124%
1718-51-0	Terphenyl-d14	52%	41%	0% ^d	36-134%

(a) Dilution required due to matrix interference.

(b) Result is from Run# 2

(c) Result is from Run# 3

(d) Outside control limits due to dilution.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

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Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

[illegible]

JC66619: Chain of Custody

Page 1 of 2

SGS Sample Receipt Summary

Job Number: JC66619

Client: _____

Project: _____

Date / Time Received: 5/23/2018 9:20:00 AM

Delivery Method: _____

Airbill #s: _____

Cooler Temps (Raw Measured) °C: Cooler 1: (4.8);

Cooler Temps (Corrected) °C: Cooler 1: (4.8);

Cooler Security

Y or N

Y or N

- | | |
|--|---|
| 1. Custody Seals Present: ☒ ☐ | 3. COC Present: ☒ ☐ |
| 2. Custody Seals Intact: ☒ ☐ | 4. Smpl Dates/Time OK: ☒ ☐ |

Cooler Temperature

Y or N

- | | |
|---|-----------|
| 1. Temp criteria achieved: ☒ ☐ | |
| 2. Cooler temp verification: _____ | |
| 3. Cooler media: _____ | Ice (Bag) |
| 4. No. Coolers: _____ | 1 |

Quality Control Preservation

Y or N

N/A

- | | |
|---|--|
| 1. Trip Blank present / cooler: ☐ ☒ ☐ | |
| 2. Trip Blank listed on COC: ☐ ☒ ☐ | |
| 3. Samples preserved properly: ☒ ☐ | |
| 4. VOCs headspace free: ☐ ☐ ☒ | |

Sample Integrity - Documentation

Y or N

- | | |
|---|--|
| 1. Sample labels present on bottles: ☒ ☐ | |
| 2. Container labeling complete: ☒ ☐ | |
| 3. Sample container label / COC agree: ☒ ☐ | |

Sample Integrity - Condition

Y or N

- | | |
|---|--------|
| 1. Sample recvd within HT: ☒ ☐ | |
| 2. All containers accounted for: ☒ ☐ | |
| 3. Condition of sample: _____ | Intact |

Sample Integrity - Instructions

Y or N

N/A

- | | |
|--|--|
| 1. Analysis requested is clear: ☒ ☐ | |
| 2. Bottles received for unspecified tests: ☐ ☒ | |
| 3. Sufficient volume recvd for analysis: ☒ ☐ | |
| 4. Compositing instructions clear: ☐ ☐ ☒ | |
| 5. Filtering instructions clear: ☐ ☐ ☒ | |

Test Strip Lot #s: pH 1-12: 216017 pH 12+: 208717 Other: (Specify) _____

Comments

SM089-03
Rev. Date 12/7/17

JC66619: Chain of Custody

Page 2 of 2

Internal Sample Tracking Chronicle

Arcadis

Job No: JC66619

NYSEG - Lyons MGP Site, Lyons NY
Project No: B0013143.0000.00031

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC66619-1	Collected: 22-MAY-18 09:00	By: MH	Received: 23-MAY-18	By: RL		
SB-120(13-15)						
JC66619-1	SM2540 G-97	24-MAY-18 15:30	LV			SOL104
JC66619-1	SW846 8270D	01-JUN-18 07:35	SA	31-MAY-18 LL		B8270PAH
JC66619-1	SW846 8270D	03-JUN-18 21:56	SB	31-MAY-18 LL		B8270PAH
JC66619-1	SW846 8270D	04-JUN-18 00:35	SB	31-MAY-18 LL		B8270PAH

SGS Internal Chain of Custody

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY
Received: 05/23/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66619-1.1	Secured Storage	Todd Shoemaker	05/24/18 12:01	Retrieve from Storage
JC66619-1.1	Todd Shoemaker	Secured Staging Area	05/24/18 12:02	Return to Storage
JC66619-1.1	Secured Staging Area	Luis Villanueva	05/24/18 13:05	Retrieve from Storage
JC66619-1.1	Luis Villanueva	Secured Storage	05/24/18 15:46	Return to Storage
JC66619-1.1	Secured Storage	Matthew Robbins	05/29/18 19:46	Retrieve from Storage
JC66619-1.1	Matthew Robbins	Secured Staging Area	05/29/18 19:46	Return to Storage
JC66619-1.1	Secured Staging Area	Sora Lynn Mathurin	05/30/18 06:32	Retrieve from Storage
JC66619-1.1	Sora Lynn Mathurin	Secured Storage	05/30/18 15:02	Return to Storage
JC66619-1.1	Secured Storage	Benjamin Gaines	05/31/18 12:14	Retrieve from Storage
JC66619-1.1	Benjamin Gaines	Secured Staging Area	05/31/18 12:14	Return to Storage
JC66619-1.1	Secured Staging Area	Chadiyah Canaday	05/31/18 12:27	Retrieve from Storage
JC66619-1.1	Chadiyah Canaday	Secured Storage	05/31/18 19:50	Return to Storage
JC66619-1.1.1	Sora Lynn Mathurin	Organics Prep	05/30/18 06:37	Extract from JC66619-1.1
JC66619-1.1.1	Organics Prep	Sora Lynn Mathurin	05/30/18 13:44	Extract from JC66619-1.1
JC66619-1.1.1	Sora Lynn Mathurin	Extract Storage	05/30/18 13:44	Return to Storage
JC66619-1.1.1	Extract Storage	Christine Change	05/30/18 17:18	Retrieve from Storage
JC66619-1.1.1	Christine Change	GCMSF	05/30/18 17:18	Load on Instrument
JC66619-1.1.1	GCMSF	Angela Rastelli	05/31/18 12:25	Unload from Instrument
JC66619-1.1.1	Angela Rastelli	Extract Freezer	05/31/18 12:25	Return to Storage
JC66619-1.1.2	Chadiyah Canaday	Organics Prep	05/31/18 12:36	Extract from JC66619-1.1
JC66619-1.1.2	Organics Prep	Lindsey Lee	05/31/18 20:18	Extract from JC66619-1.1
JC66619-1.1.2	Lindsey Lee	Extract Storage	05/31/18 20:18	Return to Storage
JC66619-1.1.2	Extract Storage	Sufiyanu Ahmed	06/01/18 02:41	Retrieve from Storage
JC66619-1.1.2	Sufiyanu Ahmed	GCMSZ	06/01/18 02:41	Load on Instrument

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: JC66619

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12421-MB1	Z131106.D	1	05/31/18	SA	05/31/18	OP12421	EZ6466

The QC reported here applies to the following samples:

Method: SW846 8270D

JC66619-1

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	55% 23-115%
4165-62-2	Phenol-d5	58% 27-114%
118-79-6	2,4,6-Tribromophenol	53% 19-152%
4165-60-0	Nitrobenzene-d5	56% 26-134%
321-60-8	2-Fluorobiphenyl	56% 39-124%
1718-51-0	Terphenyl-d14	48% 36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ug/kg	

Blank Spike/Blank Spike Duplicate Summary

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Job Number: JC66619

Account: AGMNYF Arcadis

Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12421-BS1	Z131107.D	1	06/01/18	SA	05/31/18	OP12421	EZ6466
OP12421-BSD	Z131108.D	1	06/01/18	SA	05/31/18	OP12421	EZ6466

The QC reported here applies to the following samples:

Method: SW846 8270D

JC66619-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	1670	1250	75	1270	76	2	53-119/30
208-96-8	Acenaphthylene	1670	1260	76	1260	76	0	41-125/30
120-12-7	Anthracene	1670	1150	69	1170	70	2	51-120/30
56-55-3	Benzo(a)anthracene	1670	1180	71	1160	70	2	54-118/30
50-32-8	Benzo(a)pyrene	1670	1200	72	1190	71	1	55-121/30
205-99-2	Benzo(b)fluoranthene	1670	1100	66	1080	65	2	57-116/30
191-24-2	Benzo(g,h,i)perylene	1670	1110	67	1080	65	3	40-124/30
207-08-9	Benzo(k)fluoranthene	1670	1110	67	1090	65	2	59-116/30
218-01-9	Chrysene	1670	1160	70	1160	70	0	51-115/30
53-70-3	Dibenzo(a,h)anthracene	1670	1050	63	1030	62	2	48-121/30
206-44-0	Fluoranthene	1670	1290	77	1290	77	0	58-117/30
86-73-7	Fluorene	1670	1280	77	1290	77	1	56-114/30
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1110	67	1100	66	1	49-124/30
91-20-3	Naphthalene	1670	1050	63	1040	62	1	44-116/30
85-01-8	Phenanthrene	1670	1210	73	1200	72	1	53-119/30
129-00-0	Pyrene	1670	1060	64	1050	63	1	54-124/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	80%	77%	23-115%
4165-62-2	Phenol-d5	77%	75%	27-114%
118-79-6	2,4,6-Tribromophenol	66%	71%	19-152%
4165-60-0	Nitrobenzene-d5	67%	65%	26-134%
321-60-8	2-Fluorobiphenyl	67%	69%	39-124%
1718-51-0	Terphenyl-d14	68%	67%	36-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12421-MS	Z131124.D	1	06/01/18	SA	05/31/18	OP12421	EZ6466
OP12421-MSD	Z131125.D	1	06/01/18	SA	05/31/18	OP12421	EZ6466
JC66790-8	Z131162.D	1	06/03/18	SB	05/31/18	OP12421	EZ6468

The QC reported here applies to the following samples:

Method: SW846 8270D

JC66619-1

CAS No.	Compound	JC66790-8 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	140	1750	1330	68	1730	1260	65	5	21-136/34
208-96-8	Acenaphthylene	ND	1750	1190	68	1730	1200	69	1	10-143/36
120-12-7	Anthracene	169	1750	1280	64	1730	1210	61	6	10-147/39
56-55-3	Benzo(a)anthracene	383	1750	1550	68	1730	1330	56	15	10-151/41
50-32-8	Benzo(a)pyrene	366	1750	1520	68	1730	1290	55	16	10-149/40
205-99-2	Benzo(b)fluoranthene	454	1750	1460	60	1730	1270	50	14	10-147/42
191-24-2	Benzo(g,h,i)perylene	246	1750	1720	83	1730	1570	76	9	10-150/41
207-08-9	Benzo(k)fluoranthene	161	1750	1300	66	1730	1120	57	15	12-142/41
218-01-9	Chrysene	362	1750	1590	70	1730	1370	58	15	10-151/41
53-70-3	Dibenzo(a,h)anthracene	60.3	1750	1410	77	1730	1340	74	5	10-152/38
206-44-0	Fluoranthene	891	1750	1630	48	1730	1440	38	12	10-151/44
86-73-7	Fluorene	90.3	1750	1260	67	1730	1250	67	1	19-133/36
193-39-5	Indeno(1,2,3-cd)pyrene	212	1750	1620	80	1730	1470	73	10	10-148/41
91-20-3	Naphthalene	30.7	1750	1040	58	1730	1030	58	1	10-136/36
85-01-8	Phenanthrene	737	1750	1900	70	1730	1470	46	26	11-145/45
129-00-0	Pyrene	731	1750	1800	57	1730	1760	55	2	11-155/44

CAS No.	Surrogate Recoveries	MS	MSD	JC66790-8	Limits
367-12-4	2-Fluorophenol	65%	70%	50%	23-115%
4165-62-2	Phenol-d5	66%	69%	51%	27-114%
118-79-6	2,4,6-Tribromophenol	76%	78%	49%	19-152%
4165-60-0	Nitrobenzene-d5	60%	61%	57%	26-134%
321-60-8	2-Fluorobiphenyl	65%	69%	57%	39-124%
1718-51-0	Terphenyl-d14	62%	85%	55%	36-134%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-DFTPP
Lab File ID: Z130457.D
Instrument ID: GCMSZ
Injection Date: 05/09/18
Injection Time: 13:19

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	56786	31.7	Pass
68	Less than 2.0% of mass 69	1148	0.64 (1.78) ^a	Pass
69	Mass 69 relative abundance	64605	36.1	Pass
70	Less than 2.0% of mass 69	293	0.16 (0.45) ^a	Pass
127	40.0 - 60.0% of mass 198	90496	50.6	Pass
197	Less than 1.0% of mass 198	511	0.29	Pass
198	Base peak, 100% relative abundance	178973	100.0	Pass
199	5.0 - 9.0% of mass 198	11982	6.69	Pass
275	10.0 - 30.0% of mass 198	51293	28.7	Pass
365	1.0 - 100.0% of mass 198	7589	4.24	Pass
441	Present, but less than mass 443	25773	14.4 (79.7) ^b	Pass
442	40.0 - 100.0% of mass 198	175018	97.8	Pass
443	17.0 - 23.0% of mass 442	32322	18.1 (18.5) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EZ6437-IC6437	Z130458.D	05/09/18	13:34	00:15	Initial cal 100
EZ6437-IC6437	Z130459.D	05/09/18	14:01	00:42	Initial cal 80
EZ6437-ICC6437	Z130460.D	05/09/18	14:28	01:09	Initial cal 50
EZ6437-IC6437	Z130461.D	05/09/18	14:56	01:37	Initial cal 25
EZ6437-IC6437	Z130462.D	05/09/18	15:23	02:04	Initial cal 10
EZ6437-IC6437	Z130463.D	05/09/18	15:50	02:31	Initial cal 5
EZ6437-IC6437	Z130464.D	05/09/18	16:17	02:58	Initial cal 2
EZ6437-IC6437	Z130465.D	05/09/18	16:44	03:25	Initial cal 1
EZ6437-ICV6437	Z130466.D	05/09/18	17:11	03:52	Initial cal verification 50
EZ6437-ICV6437	Z130467.D	05/09/18	17:39	04:20	Initial cal verification 50
EZ6437-ICV6436	Z130468A.D	05/09/18	18:05	04:46	Initial cal verification 50
EZ6437-ICV6437	Z130468.D	05/09/18	18:05	04:46	Initial cal verification 50
EZ6437-ICV6437	Z130470.D	05/09/18	19:00	05:41	Initial cal verification 50

Instrument Performance Check (DFTPP)

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6462-DFTPP
Lab File ID: Z131038.D
Instrument ID: GCMSZ
Injection Date: 05/29/18
Injection Time: 10:43

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	44791	34.9	Pass
68	Less than 2.0% of mass 69	419	0.33 (0.69) ^a	Pass
69	Mass 69 relative abundance	60376	47.0	Pass
70	Less than 2.0% of mass 69	110	0.09 (0.18) ^a	Pass
127	40.0 - 60.0% of mass 198	53445	41.6	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	128341	100.0	Pass
199	5.0 - 9.0% of mass 198	8868	6.91	Pass
275	10.0 - 30.0% of mass 198	32960	25.7	Pass
365	1.0 - 100.0% of mass 198	2848	2.22	Pass
441	Present, but less than mass 443	7968	6.21 (79.6) ^b	Pass
442	40.0 - 100.0% of mass 198	55216	43.0	Pass
443	17.0 - 23.0% of mass 442	10015	7.80 (18.1) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EZ6462-IC6462	Z131040.D	05/29/18	12:52	02:09	Initial cal 100
EZ6462-IC6462	Z131041.D	05/29/18	13:20	02:37	Initial cal 80
EZ6462-ICC6462	Z131042.D	05/29/18	13:47	03:04	Initial cal 50
EZ6462-IC6462	Z131043.D	05/29/18	14:15	03:32	Initial cal 25
EZ6462-IC6462	Z131044.D	05/29/18	14:42	03:59	Initial cal 10
EZ6462-IC6462	Z131045.D	05/29/18	15:10	04:27	Initial cal 5
EZ6462-IC6462	Z131046.D	05/29/18	15:37	04:54	Initial cal 2
EZ6462-IC6462	Z131047.D	05/29/18	16:05	05:22	Initial cal 1
EZ6462-ICV6462	Z131048.D	05/29/18	16:33	05:50	Initial cal verification 50
EZ6462-ICV6462	Z131049.D	05/29/18	17:01	06:18	Initial cal verification 50
EZ6462-ICV6462	Z131050.D	05/29/18	17:29	06:46	Initial cal verification 50
EZ6462-ICV6462	Z131051.D	05/29/18	17:56	07:13	Initial cal verification 50
EZ6462-ICV6462	Z131053.D	05/29/18	18:51	08:08	Initial cal verification 50

Instrument Performance Check (DFTPP)

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6463-DFTPP	Injection Date: 05/30/18
Lab File ID: Z131054.D	Injection Time: 10:57
Instrument ID: GCMSZ	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	40880	35.2	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	53317	45.9	Pass
70	Less than 2.0% of mass 69	140	0.12 (0.26) ^a	Pass
127	40.0 - 60.0% of mass 198	48992	42.2	Pass
197	Less than 1.0% of mass 198	520	0.45	Pass
198	Base peak, 100% relative abundance	116181	100.0	Pass
199	5.0 - 9.0% of mass 198	7230	6.22	Pass
275	10.0 - 30.0% of mass 198	28930	24.9	Pass
365	1.0 - 100.0% of mass 198	2314	1.99	Pass
441	Present, but less than mass 443	7380	6.35 (80.8) ^b	Pass
442	40.0 - 100.0% of mass 198	47925	41.3	Pass
443	17.0 - 23.0% of mass 442	9129	7.86 (19.0) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EZ6463-ICV6462	Z131055.D	05/30/18	11:14	00:17	Initial cal verification 50
EZ6463-ICV6462	Z131057.D	05/30/18	12:21	01:24	Initial cal verification 50

Instrument Performance Check (DFTPP)

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6466-DFTPP
Lab File ID: Z131103.D
Instrument ID: GCMSZ
Injection Date: 05/31/18
Injection Time: 22:30

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	31463	33.2	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	42650	45.0	Pass
70	Less than 2.0% of mass 69	175	0.18 (0.41) ^a	Pass
127	40.0 - 60.0% of mass 198	38623	40.8	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	94736	100.0	Pass
199	5.0 - 9.0% of mass 198	6289	6.64	Pass
275	10.0 - 30.0% of mass 198	23184	24.5	Pass
365	1.0 - 100.0% of mass 198	2219	2.34	Pass
441	Present, but less than mass 443	6299	6.65 (80.9) ^b	Pass
442	40.0 - 100.0% of mass 198	40837	43.1	Pass
443	17.0 - 23.0% of mass 442	7782	8.21 (19.1) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EZ6466-CC6462	Z131104.D	05/31/18	22:53	00:23	Continuing cal 50
EZ6466-CC6437	Z131105.D	05/31/18	23:20	00:50	Continuing cal 50
OP12421-MB1	Z131106.D	05/31/18	23:54	01:24	Method Blank
OP12421-BS1	Z131107.D	06/01/18	00:21	01:51	Blank Spike
OP12421-BSD	Z131108.D	06/01/18	00:49	02:19	Blank Spike Duplicate
ZZZZZZ	Z131109.D	06/01/18	01:16	02:46	(unrelated sample)
ZZZZZZ	Z131110.D	06/01/18	01:43	03:13	(unrelated sample)
ZZZZZZ	Z131111.D	06/01/18	02:10	03:40	(unrelated sample)
ZZZZZZ	Z131112.D	06/01/18	02:38	04:08	(unrelated sample)
ZZZZZZ	Z131113.D	06/01/18	03:04	04:34	(unrelated sample)
ZZZZZZ	Z131114.D	06/01/18	03:32	05:02	(unrelated sample)
ZZZZZZ	Z131115.D	06/01/18	03:59	05:29	(unrelated sample)
ZZZZZZ	Z131120.D	06/01/18	06:14	07:44	(unrelated sample)
ZZZZZZ	Z131121.D	06/01/18	06:41	08:11	(unrelated sample)
ZZZZZZ	Z131122.D	06/01/18	07:08	08:38	(unrelated sample)
JC66619-1	Z131123.D	06/01/18	07:35	09:05	SB-120(13-15)
OP12421-MS	Z131124.D	06/01/18	08:02	09:32	Matrix Spike
OP12421-MSD	Z131125.D	06/01/18	08:29	09:59	Matrix Spike Duplicate

Instrument Performance Check (DFTPP)

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6468-DFTPP
Lab File ID: Z131148.D
Instrument ID: GCMSZ
Injection Date: 06/03/18
Injection Time: 16:19

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	34788	35.6	Pass
68	Less than 2.0% of mass 69	411	0.42 (0.88) ^a	Pass
69	Mass 69 relative abundance	46663	47.7	Pass
70	Less than 2.0% of mass 69	136	0.14 (0.29) ^a	Pass
127	40.0 - 60.0% of mass 198	43588	44.6	Pass
197	Less than 1.0% of mass 198	249	0.25	Pass
198	Base peak, 100% relative abundance	97813	100.0	Pass
199	5.0 - 9.0% of mass 198	6885	7.04	Pass
275	10.0 - 30.0% of mass 198	24285	24.8	Pass
365	1.0 - 100.0% of mass 198	2093	2.14	Pass
441	Present, but less than mass 443	6260	6.40 (72.7) ^b	Pass
442	40.0 - 100.0% of mass 198	47461	48.5	Pass
443	17.0 - 23.0% of mass 442	8610	8.80 (18.1) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EZ6468-CC6462	Z131149.D	06/03/18	16:34	00:15	Continuing cal 50
EZ6468-CC6437	Z131150.D	06/03/18	17:01	00:42	Continuing cal 50
OP12494-MB1	Z131151.D	06/03/18	17:28	01:09	Method Blank
JC66476-4	Z131152.D	06/03/18	17:55	01:36	(used for QC only; not part of job JC66619)
ZZZZZZ	Z131153.D	06/03/18	18:22	02:03	(unrelated sample)
ZZZZZZ	Z131154.D	06/03/18	18:49	02:30	(unrelated sample)
OP12421-MS2	Z131156.D	06/03/18	19:42	03:23	Matrix Spike
OP12421-MSD2	Z131157.D	06/03/18	20:09	03:50	Matrix Spike Duplicate
JC66529-1	Z131158.D	06/03/18	20:36	04:17	(used for QC only; not part of job JC66619)
JC66619-1	Z131161.D	06/03/18	21:56	05:37	SB-120(13-15)
JC66790-8	Z131162.D	06/03/18	22:22	06:03	(used for QC only; not part of job JC66619)
ZZZZZZ	Z131163.D	06/03/18	22:49	06:30	(unrelated sample)
JC66619-1	Z131167.D	06/04/18	00:35	08:16	SB-120(13-15)

Internal Standard Area Summary

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Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: EZ6466-CC6462	Injection Date: 05/31/18
Lab File ID: Z131104.D	Injection Time: 22:53
Instrument ID: GCMSZ	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	139035	4.77	529112	5.69	382232	7.08	858262	8.68	816309	12.50	568073	14.59
Upper Limit ^a	278070	5.27	1058224	6.19	764464	7.58	1716524	9.18	1632618	13.00	1136146	15.09
Lower Limit ^b	69518	4.27	264556	5.19	191116	6.58	429131	8.18	408155	12.00	284037	14.09

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP12421-MB1	189574	4.77	738109	5.69	456268	7.07	974389	8.67	952425	12.49	772666	14.59
OP12421-BS1	121118	4.77	515600	5.69	301283	7.07	652995	8.67	585984	12.49	491111	14.58
OP12421-BSD	142623	4.77	585061	5.69	341594	7.07	751128	8.68	679869	12.49	570347	14.58
ZZZZZZ	147439	4.77	565952	5.69	357642	7.07	703606	8.67	440146	12.49	378172	14.59
ZZZZZZ	162085	4.77	632122	5.69	394290	7.07	790811	8.67	660609	12.49	423964	14.58
ZZZZZZ	149145	4.77	566640	5.69	342481	7.07	711337	8.67	589350	12.49	414407	14.58
ZZZZZZ	147774	4.77	566863	5.69	335482	7.07	675503	8.67	510603	12.49	346050	14.58
ZZZZZZ	136278	4.77	539644	5.69	326267	7.07	684571	8.67	588536	12.49	393342	14.58
ZZZZZZ	135336	4.77	494726	5.70	153163*	6.98	892278	8.74	845142	12.53	677901	14.61
ZZZZZZ	133479	4.77	426813	5.69	244442	7.07	413503*	8.68	627361	12.53	711740	14.64
ZZZZZZ	164456	4.77	586774	5.69	317817	7.07	552877	8.69	406015*	12.52	356630	14.61
ZZZZZZ	156429	4.77	592256	5.69	312561	7.08	548653	8.69	483189	12.54	372922	14.64
ZZZZZZ	149364	4.77	558899	5.69	318241	7.08	491236	8.68	364195*	12.52	356726	14.62
JC66619-1 ^c	149408	4.78	551580	5.72	249849	7.09	575242	8.71	574586	12.56	446531	14.65
OP12421-MS	133214	4.78	524400	5.70	284713	7.08	528458	8.69	319447*	12.52	279942*	14.61
OP12421-MSD	134289	4.77	538269	5.70	294787	7.08	572570	8.69	331297*	12.52	288077	14.61

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Dilution required due to matrix interference.

Internal Standard Area Summary

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Check Std: EZ6468-CC6462	Injection Date: 06/03/18
Lab File ID: Z131149.D	Injection Time: 16:34
Instrument ID: GCMSZ	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	127810	4.76	489611	5.68	298054	7.06	671033	8.66	591708	12.48	363507	14.57
Upper Limit ^a	255620	5.26	979222	6.18	596108	7.56	1342066	9.16	1183416	12.98	727014	15.07
Lower Limit ^b	63905	4.26	244806	5.18	149027	6.56	335517	8.16	295854	11.98	181754	14.07

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP12494-MB1	142222	4.76	530902	5.68	298888	7.06	610561	8.66	549541	12.47	342687	14.57
JC66476-4	144412	4.76	559294	5.68	307023	7.06	619533	8.66	440054	12.48	340375	14.57
ZZZZZZ	147216	4.76	561205	5.68	307890	7.06	619416	8.66	437826	12.48	346905	14.57
ZZZZZZ	143034	4.76	549888	5.68	310814	7.06	634647	8.66	416754	12.48	311861	14.57
OP12421-MS2	126918	4.76	519568	5.68	277159	7.06	574084	8.66	335393	12.48	257286	14.57
OP12421-MSD2	128842	4.76	507152	5.68	265603	7.06	540847	8.66	328858	12.48	268283	14.57
JC66529-1	150169	4.76	555745	5.68	299741	7.06	581290	8.66	346416	12.48	276526	14.57
JC66619-1	142441	4.76	538735	5.68	295345	7.06	613360	8.66	486961	12.47	309150	14.57
JC66790-8	145962	4.76	543898	5.68	290927	7.06	569979	8.66	415211	12.47	280195	14.57
ZZZZZZ	147183	4.76	560979	5.68	301943	7.06	595225	8.66	345544	12.48	282226	14.57
JC66619-1	145947	4.76	542678	5.68	282699	7.06	537744	8.66	347667	12.49	298906	14.58

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Method: SW846 8270D	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
JC66619-1	Z131123.D	71	85	52
JC66619-1	Z131167.D	48	64	41
JC66619-1	Z131161.D	0* a	0* a	0* a
OP12421-BS1	Z131107.D	67	67	68
OP12421-BSD	Z131108.D	65	69	67
OP12421-MB1	Z131106.D	56	56	48
OP12421-MS	Z131124.D	60	65	62
OP12421-MSD	Z131125.D	61	69	85

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-134%
S2 = 2-Fluorobiphenyl	39-124%
S3 = Terphenyl-d14	36-134%

(a) Outside control limits due to dilution.

Initial Calibration Summary

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-ICC6437
Lab FileID: Z130460.D

Response Factor Report SVOAMSZ

Method : C:\MSDCHEM\1\METHODS\MZ6437.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Initial Calibration

Calibration Files

100 =z130458.D 80 =z130459.D 50 =z130460.D 25 =z130461.D
10 =z130462.D 5 =z130463.D 2 =z130464.D 1 =z130465.D

Compound	100	80	50	25	10	5	2	1	Avg	%RSD
101) 1,4-Dichlorobenzene-d	-----ISTD-----									
102) Benzaldehyde	0.847	0.880	0.931	1.009	1.124	1.122	1.156	1.061	1.016	11.67
103) Phenanthrene-d10a	-----ISTD-----									
104) 1-chloroocta	0.246	0.262	0.281	0.295	0.290	0.267	0.225	0.174	0.255	15.68
105) o-terphenyl	0.507	0.517	0.551	0.579	0.591	0.590	0.576	0.567	0.560	5.74
106) Atrazine	0.101	0.103	0.107	0.106	0.103	0.096	0.089	0.070	0.097	12.67
107) Chrysene-d12a	-----ISTD-----									
108) Benzidine	0.452	0.419	0.425	0.414	0.517	0.467	0.295	0.160	0.394	28.80
---- Quadratic regression ---- Coefficient = 0.9982										
Response Ratio = 0.00796 + 0.38082 *A + 0.02448 *A^2										
109) Acenaphthene-d10a	-----ISTD-----									
110) 1,2,4,5-Tetr	0.451	0.463	0.506	0.534	0.567	0.572	0.604	0.565	0.533	10.30
111) I Naphthalene-d8a	-----ISTD-----									
112) Hydroquinone	0.343	0.343	0.344	0.322	0.275	0.224		0.308		15.96
113) Chrysene-d12b	-----ISTD-----									
114) 2,3,7,8-TCDD								0.000#		-1.00
115) Phenanthrene-d10b	-----ISTD-----									
116) Pentachloron	0.044	0.044	0.044	0.043	0.038	0.033		0.041#		11.05

(#) = Out of Range ### Number of calibration levels exceeded format ###

MZ6436.M

Wed May 09 19:39:49 2018

6.7.1

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-ICV6437
Lab FileID: Z130466.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130466.D Vial: 10
Acq On : 9 May 2018 5:11 pm Operator: johnb1
Sample : icv6437-50 Inst : SVOAMSZ
Misc : op8501,eZ6437,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
115	Phenanthrene-d10b	1.000	1.000	0.0	103	0.00	8.84
116	Pentachloronitrobenzene	0.041	0.043#	-4.9	100	0.00	8.63

(#) = Out of Range
z130460a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 19:35:28 2018

6.7.2
6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-ICV6437
Lab FileID: Z130467.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130467.D Vial: 11
Acq On : 9 May 2018 5:39 pm Operator: johnb1
Sample : icv6437-50 Inst : SVOAMSZ
Misc : op8501,eZ6437,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
107	Chrysene-d12a	1.000	1.000	0.0	81	0.00	12.68
	----- True	Calc.	% Drift	-----			
108	Benzidine	100.000	98.296	1.7	84	0.00	10.71
	----- AvgRF	CCRF	% Dev	-----			
109	Acenaphthene-d10a	1.000	1.000	0.0	91	0.00	7.22
110	1,2,4,5-Tetrachlorobenzen	0.533	0.470	11.8	85	0.00	6.47

(#) = Out of Range
z130460a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 19:35:30 2018

6.7.3

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-ICV6437
Lab FileID: Z130468.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130468.D Vial: 12
Acq On : 9 May 2018 6:05 pm Operator: johnb1
Sample : icv6437-50 Inst : SVOAMSZ
Misc : op8501,eZ6437,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	99	0.00	4.89
102	Benzaldehyde	1.016	1.025	-0.9	109	0.00	4.57
103	Phenanthrene-d10a	1.000	1.000	0.0	102	0.00	8.84
106	Atrazine	0.097	0.116	-19.6	111	0.00	8.49

(#) = Out of Range
z130460a.D MZ6436.M

SPCC's out = 0 CCC's out = 0
Wed May 09 19:35:32 2018

6.7.4
6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6437-ICV6437
Lab FileID: Z130470.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130470.D Vial: 14
Acq On : 9 May 2018 7:00 pm Operator: johnb1
Sample : icv6437-50 Inst : SVOAMSZ
Misc : op8501,eZ6437,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 09 17:38:39 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
111 I	Naphthalene-d8a	1.000	1.000	0.0	137	0.00	5.81
112	Hydroquinone	0.308	0.351	-14.0	140	0.00	6.09

(#) = Out of Range SPCC's out = 0 CCC's out = 0
z130460a.D MZ6436.M Wed May 09 19:35:34 2018

Initial Calibration Summary

Page 1 of 3

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6462-ICC6462
Lab FileID: Z131042.D

Response Factor Report SVOAMSZ

Method : C:\MSDCHEM\1\METHODS\MZ6462.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 30 09:41:31 2018
Response via : Initial Calibration

Calibration Files

100 =z131040.D 80 =z131041.D 50 =z131042.D 25 =z131043.D
10 =z131044.D 5 =z131045.D 2 =z131046.D 1 =z131047.D

Compound	100	80	50	25	10	5	2	1	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	-----ISTD-----									
2) 1,4-Dioxane	0.892	0.885	0.899	0.899	0.893	0.861	0.793	0.717	0.855	7.72
3) Pyridine	2.363	2.386	2.504	2.544	2.311	2.341	2.492	2.507	2.431	3.70
4) N-Nitrosodim	1.511	1.500	1.496	1.505	1.499	1.375	1.277	1.257	1.428	7.61
5) 2-Fluorophen	1.829	1.814	1.819	1.801	1.823	1.706	1.590	1.315	1.712	10.53
6) Indene	2.455	2.482	2.582	2.687	2.890	2.796	2.914	3.009	2.727	7.62
7) Cumene	4.623	4.604	4.871	5.226	5.334	5.223	5.309	5.364	5.069	6.32
8) Phenol-d5	2.393	2.434	2.609	2.560	2.677	2.480	2.297	2.364	2.477	5.25
9) Phenol	2.368	2.420	2.709	2.835	3.059	2.930	2.913	3.055	2.786	9.60
10) Aniline	2.343	2.388	2.650	2.950	3.332	3.402	3.458	3.635	3.020	16.85
11) bis(2-Chloro	1.726	1.763	1.900	1.952	2.136	2.026	2.215	2.150	1.983	9.13
12) 2-Chlorophen	1.320	1.339	1.390	1.393	1.453	1.376	1.386	1.326	1.373	3.20
13) Decane	1.187	1.194	1.351	1.517	1.589	1.734	1.864	1.914	1.544	18.41
14) 1,3-Dichloro	1.413	1.420	1.471	1.522	1.592	1.636	1.558	1.598	1.526	5.51
15) 1,4-Dichloro	1.325	1.342	1.378	1.402	1.441	1.414	1.469	1.504	1.409	4.35
16) Benzyl alcoh	1.123	1.185	1.241	1.209	1.198	1.032	0.966		1.136	8.98
17) 1,2-Dichloro	1.237	1.254	1.348	1.419	1.549	1.495	1.466	1.437	1.400	8.00
18) Acetophenone	2.538	2.627	2.792	2.834	3.023	3.079	3.120	2.994	2.876	7.45
19) 2-Methylphen	1.386	1.405	1.507	1.597	1.751	1.812	1.836	1.933	1.653	12.60
20) 2,2'-oxybis(	0.412	0.418	0.429	0.442	0.497	0.462	0.464	0.524	0.456	8.60
21) 3&4-Methylph	1.465	1.514	1.602	1.657	1.774	1.709	1.771	1.745	1.655	7.13
22) n-Nitroso-di	1.212	1.270	1.467	1.574	1.765	1.825	1.904	1.856	1.609	16.81
23) Hexachloroet	0.609	0.634	0.639	0.645	0.673	0.644	0.715	0.643	0.651	4.84
24) I Naphthalene-d8	-----ISTD-----									
25) Nitrobenzene	0.587	0.582	0.640	0.665	0.719	0.712	0.701	0.715	0.665	8.53
26) Nitrobenzene	0.528	0.534	0.603	0.635	0.699	0.715	0.777	0.764	0.657	14.81
27) Quinoline	0.740	0.761	0.808	0.783	0.853	0.792	0.818	0.737	0.786	5.07
28) Isophorone	1.042	1.089	1.196	1.234	1.316	1.305	1.263	1.311	1.219	8.57
29) 2-Nitropheno	0.203	0.208	0.223	0.219	0.241	0.223	0.201	0.214	0.216	5.99
30) 2,4-Dimethyl	0.466	0.467	0.487	0.493	0.513	0.431	0.470	0.450	0.472	5.45
31) Benzoic Acid	0.429	0.428	0.417	0.381	0.350	0.278			0.381	15.46
32) bis(2-Chloro	0.533	0.549	0.595	0.606	0.671	0.631	0.703	0.676	0.620	9.84
33) 2,4-Dichloro	0.306	0.316	0.335	0.332	0.372	0.346	0.336	0.332	0.334	5.87
34) 2,6-Dichloro	0.273	0.280	0.291	0.298	0.324	0.319	0.300	0.306	0.299	5.92
35) 1,3,5-Trichl	0.373	0.376	0.392	0.414	0.468	0.455	0.464	0.466	0.426	9.84
36) 1,2,4-Trichl	0.368	0.381	0.401	0.406	0.445	0.434	0.429	0.426	0.411	6.58
37) 1,2,3-Trichl	0.341	0.352	0.373	0.377	0.419	0.413	0.419	0.433	0.391	8.85
38) Naphthalene	0.909	0.920	0.964	0.976	1.063	1.026	1.031	1.058	0.993	6.04
39) 4-Chloroanil	0.407	0.409	0.444	0.450	0.490	0.474	0.476	0.425	0.447	7.08
40) 2,3-Dichloro	0.406	0.413	0.427	0.428	0.471	0.444	0.427	0.444	0.433	4.73
41) Caprolactam	0.224	0.226	0.241	0.239	0.254	0.239	0.272	0.265	0.245	7.12
42) Hexachlorobu	0.230	0.241	0.244	0.245	0.285	0.256	0.258	0.266	0.253	6.79
43) 4-Chloro-3-m	0.476	0.490	0.523	0.525	0.554	0.537	0.524	0.501	0.516	4.97
44) 2-Methylnaph	0.596	0.623	0.649	0.660	0.739	0.687	0.694	0.719	0.671	7.20
45) 1-Methylnaph	0.612	0.624	0.671	0.687	0.757	0.746	0.740	0.747	0.698	8.33

Initial Calibration Summary

Page 2 of 3

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6462-ICC6462
Lab FileID: Z131042.D

46)	Dimethylnaph	0.697	0.704	0.747	0.738	0.852	0.798	0.802	0.833	0.771	7.55
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.318	0.307	0.298	0.281	0.242	0.176	0.131	0.096	0.231	37.21
	---- Quadratic regression ----	Coefficient = 0.9999									
	Response Ratio =	-0.01772 + 0.28431 *A + 0.00730 *A^2									
49)	2,4,6-Trichl	0.385	0.398	0.411	0.423	0.475	0.455	0.431	0.406	0.423	7.10
50)	2,4,5-Trichl	0.437	0.451	0.452	0.440	0.499	0.466	0.472	0.449	0.458	4.41
51)	2-Fluorobiph	1.222	1.268	1.325	1.382	1.541	1.557	1.617	1.575	1.436	10.75
52)	2-Chloronaph	0.971	0.996	1.050	1.099	1.213	1.176	1.256	1.156	1.115	9.23
53)	Biphenyl	1.381	1.417	1.417	1.516	1.609	1.558	1.584	1.655	1.517	6.69
54)	2-Nitroanili	0.508	0.508	0.552	0.571	0.595	0.586	0.586	0.578	0.560	6.22
55)	Dimethylphth	1.311	1.389	1.445	1.471	1.584	1.519	1.519	1.600	1.480	6.58
56)	Acenaphthyle	1.640	1.681	1.741	1.807	1.948	1.922	1.876	1.848	1.808	6.18
57)	2,6-Dinitrot	0.311	0.326	0.331	0.344	0.353	0.349	0.300	0.306	0.327	6.21
58)	3-Nitroanili	0.303	0.313	0.320	0.319	0.332	0.315	0.263	0.245	0.301	10.16
59)	Acenaphthene	1.008	1.016	1.057	1.089	1.133	1.112	1.121	1.195	1.091	5.75
60)	2,4-Dinitrop	0.181	0.180	0.169	0.149	0.120	0.084	0.039		0.132	40.96
	---- Quadratic regression ----	Coefficient = 0.9997									
	Response Ratio =	-0.02067 + 0.16729 *A + 0.00382 *A^2									
61)	4-Nitropheno	0.264	0.254	0.265	0.251	0.243	0.223	0.197		0.242	10.12
62)	Dibenzofuran	1.435	1.475	1.532	1.644	1.767	1.722	1.748	1.812	1.642	8.76
63)	2,4-Dinitrot	0.424	0.436	0.452	0.478	0.478	0.436	0.420	0.361	0.436	8.57
64)	2,3,4,6-Tetr	0.393	0.400	0.406	0.384	0.379	0.343	0.307	0.315	0.366	10.62
65)	Diethylphtha	1.297	1.371	1.429	1.476	1.594	1.555	1.545	1.543	1.476	7.01
66)	Fluorene	1.187	1.211	1.288	1.347	1.460	1.429	1.359	1.500	1.348	8.43
67)	4-Chlorophen	0.744	0.767	0.786	0.799	0.848	0.801	0.789	0.804	0.792	3.84
68)	4-Nitroanili	0.275	0.269	0.280	0.295	0.300	0.272	0.269	0.195	0.269	11.99
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.141	0.140	0.138	0.136	0.135	0.099	0.060	0.049	0.112	33.88
	---- Quadratic regression ----	Coefficient = 0.9999									
	Response Ratio =	-0.00313 + 0.13944 *A + 0.00111 *A^2									
71)	n-Nitrosodip	0.477	0.492	0.515	0.536	0.593	0.580	0.602	0.555	0.544	8.58
72)	1,2-Diphenyl	0.833	0.853	0.943	1.061	1.147	1.185	1.176	1.295	1.062	15.91
73)	2,4,6-Tribo	0.082	0.083	0.083	0.081	0.082	0.077	0.065	0.067	0.077	9.33
74)	4-Bromopheny	0.228	0.239	0.244	0.258	0.269	0.252	0.236	0.264	0.249	5.79
75)	Hexachlorobe	0.201	0.208	0.211	0.223	0.225	0.229	0.214	0.225	0.217	4.62
76)	Pentachlorop	0.122	0.120	0.121	0.114	0.103	0.085	0.065		0.104	20.68
	---- Quadratic regression ----	Coefficient = 0.9999									
	Response Ratio =	-0.00836 + 0.12229 *A + 0.00017 *A^2									
77)	Phenanthrene	0.871	0.879	0.917	0.967	1.005	0.974	1.000	1.047	0.958	6.56
78)	Anthracene	0.893	0.918	0.963	1.023	1.095	1.067	1.085	1.124	1.021	8.49
79)	Carbazole	0.864	0.873	0.929	0.997	1.027	0.996	0.980	1.004	0.959	6.50
80)	Di-n-butylph	1.168	1.212	1.309	1.384	1.466	1.418	1.343	1.300	1.325	7.59
81)	Fluoranthene	1.108	1.114	1.197	1.265	1.363	1.270	1.238	1.193	1.218	6.97
82)	Octadecane	0.464	0.478	0.544	0.635	0.683	0.712	0.730	0.740	0.623	18.09
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.382	1.552	1.656	1.615	1.719	1.677	1.654	1.619	1.609	6.47
85)	Terphenyl-d1	1.029	1.152	1.209	1.139	1.240	1.115	1.131	1.133	1.144	5.51
86)	Butylbenzylp	0.641	0.700	0.765	0.725	0.788	0.751	0.706	0.693	0.721	6.46
87)	Benzo[a]anth	1.221	1.259	1.282	1.304	1.382	1.335	1.438	1.466	1.336	6.48
88)	3,3'-Dichlor	0.466	0.474	0.463	0.458	0.447	0.443	0.448	0.426	0.453	3.36
89)	Chrysene	1.162	1.198	1.204	1.177	1.234	1.195	1.267	1.295	1.216	3.74
90)	bis(2-Ethylh	0.783	0.853	0.922	0.904	1.022	0.984	0.947	0.938	0.919	8.13

Initial Calibration Summary

Page 3 of 3

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6462-ICC6462
Lab FileID: Z131042.D

91)	I	Perylene-d12	-----ISTD-----									
92)	Di-n-octylph	1.736	1.864	1.955	1.861	2.064	1.892	1.759	1.774	1.863	5.90	
93)	Benzo[b]fluo	1.391	1.532	1.416	1.380	1.463	1.401	1.456	1.363	1.425	3.89	
94)	Benzo[k]fluo	1.168	1.271	1.307	1.257	1.345	1.213	1.295	1.451	1.288	6.64	
95)	Benzo[a]pyre	1.118	1.111	1.064	1.123	1.228	1.180	1.190	1.208	1.153	4.91	
96)	Indeno[1,2,3	1.219	1.224	1.131	1.040	1.082	1.016	1.013	1.098	1.103	7.60	
97)	Dibenz(a,h)a	0.903	0.919	0.862	0.798	0.829	0.819	0.769	0.818	0.840	6.15	
98)	Dibenz[a,h]a	1.058	1.049	0.964	0.895	0.898	0.905	0.900	0.920	0.949	7.22	
99)	7,12-Dimethy	0.656	0.694	0.652	0.602	0.626	0.454	0.498	0.429	0.576	17.58	
100)	Benzo[g,h,i]	0.932	0.942	0.882	0.813	0.832	0.791	0.778	0.863	0.854	7.22	

(#) = Out of Range ### Number of calibration levels exceeded format ###

MZ6462.M

Wed May 30 10:02:04 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6462-ICV6462
Lab FileID: Z131048.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6462\z131048.D Vial: 11
Acq On : 29 May 2018 4:33 pm Operator: seanb1
Sample : icv6462-50 Inst : SVOAMSZ
Misc : op8501,eZ6462,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6462.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 30 09:41:31 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	127	0.00	4.78
5 S	2-Fluorophenol	1.712	1.625	5.1	114	0.00	3.82
8 S	Phenol-d5	2.477	2.254	9.0	110	0.00	4.53
24 I	Naphthalene-d8	1.000	1.000	0.0	122	0.00	5.70
25 S	Nitrobenzene-d5	0.665	0.655	1.5	125	0.00	5.18
47 I	Acenaphthene-d10	1.000	1.000	0.0	115	0.00	7.08
51 S	2-Fluorobiphenyl	1.436	1.341	6.6	116	0.00	6.49
69 I	Phenanthrene-d10	1.000	1.000	0.0	100	0.00	8.68
73 S	2,4,6-Tribromophenol	0.077	0.077	0.0	93	0.00	7.87
83 I	Chrysene-d12	1.000	1.000	0.0	110	-0.01	12.50
85 S	Terphenyl-d14	1.144	1.034	9.6	94	0.00	10.92

(#) = Out of Range
z131042a.D MZ6462.M

SPCC's out = 0 CCC's out = 0
Wed May 30 09:56:03 2018

6.7.7
6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6462-ICV6462
Lab FileID: Z131049.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6462\z131049.D Vial: 12
Acq On : 29 May 2018 5:01 pm Operator: seanb1
Sample : icv6462-50 Inst : SVOAMSZ
Misc : op8501,eZ6462,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6462.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 30 09:41:31 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	113	0.00	4.78
9 t	Phenol	2.786	2.666	4.3	112	0.00	4.54
12 t	2-Chlorophenol	1.373	1.347	1.9	110	0.00	4.63
19 t	2-Methylphenol	1.653	1.617	2.2	122	0.00	4.97
21 t	3&4-Methylphenol	1.655	1.697	-2.5	120	0.00	5.08
24 I	Naphthalene-d8	1.000	1.000	0.0	101	0.00	5.70
29 t	2-Nitrophenol	0.216	0.232	-7.4	105	0.00	5.43
30 t	2,4-Dimethylphenol	0.472	0.508	-7.6	106	0.00	5.46
31	Benzoic Acid	0.381	0.338	11.3	82	0.00	5.55
33 t	2,4-Dichlorophenol	0.334	0.317	5.1	96	0.00	5.60
34	2,6-Dichlorophenol	0.299	0.314	-5.0	109	0.00	5.76
43 t	4-Chloro-3-methylphenol	0.516	0.474	8.1	92	-0.01	6.10
47 I	Acenaphthene-d10	1.000	1.000	0.0	90	0.00	7.08
49 t	2,4,6-Trichlorophenol	0.423	0.458	-8.3	101	0.00	6.44
50 t	2,4,5-Trichlorophenol	0.458	0.452	1.3	90	-0.01	6.47
60 t	2,4-Dinitrophenol	50.000	45.792	8.4	88	0.00	7.14
61 t	4-Nitrophenol	0.242	0.257	-6.2	88	-0.01	7.20
64	2,3,4,6-Tetrachlorophenol	0.366	0.377	-3.0	84	0.00	7.40
69 I	Phenanthrene-d10	1.000	1.000	0.0	85	0.00	8.68
70 t	4,6-Dinitro-2-methylpheno	50.000	51.999	-4.0	89	-0.01	7.67
76 t	Pentachlorophenol	50.000	51.635	-3.3	97	0.00	8.47

(#) = Out of Range
z131042a.D MZ6462.M

SPCC's out = 0 CCC's out = 0
Wed May 30 09:56:05 2018

Initial Calibration Verification

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6462-ICV6462
Lab FileID: Z131050.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6462\z131050.D Vial: 13
Acq On : 29 May 2018 5:29 pm Operator: seanb1
Sample : icv6462-50 Inst : SVOAMSZ
Misc : op8501,eZ6462,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6462.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 30 09:41:31 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00	4.78
3 t	Pyridine	2.431	2.397	1.4	93	0.08	2.75
10 t	Aniline	3.020	3.530	-16.9	129	0.00	4.54
16 t	Benzyl alcohol	1.136	1.103	2.9	86	0.00	4.89
24 I	Naphthalene-d8	1.000	1.000	0.0	103	0.00	5.70
39 t	4-Chloroaniline	0.447	0.399	10.7	93	0.00	5.75
44 t	2-Methylnaphthalene	0.671	0.575	14.3	91	0.00	6.21
47 I	Acenaphthene-d10	1.000	1.000	0.0	90	0.00	7.08
54 t	2-Nitroaniline	0.560	0.575	-2.7	94	0.00	6.68
58 t	3-Nitroaniline	0.301	0.317	-5.3	89	0.00	7.03
62 t	Dibenzofuran	1.642	1.647	-0.3	97	0.00	7.27
68 t	4-Nitroaniline	0.269	0.269	0.0	87	-0.01	7.63
69 I	Phenanthrene-d10	1.000	1.000	0.0	89	0.00	8.69
79 t	Carbazole	0.959	0.882	8.0	85	0.00	8.99

(#) = Out of Range
z131042a.D MZ6462.M

SPCC's out = 0 CCC's out = 0
Wed May 30 09:56:07 2018

Initial Calibration Verification

Page 1 of 2

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6462-ICV6462
Lab FileID: Z131051.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6462\z131051.D Vial: 14
Acq On : 29 May 2018 5:56 pm Operator: seanb1
Sample : icv6462-50 Inst : SVOAMSZ
Misc : op8501,eZ6462,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6462.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 30 09:41:31 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	4.78
4 t	N-Nitrosodimethylamine	1.428	1.319	7.6	90	0.00	2.64
11 t	bis(2-Chloroethyl)ether	1.983	2.265	-14.2	122	0.00	4.58
14 t	1,3-Dichlorobenzene	1.526	1.572	-3.0	110	0.00	4.74
15 t	1,4-Dichlorobenzene	1.409	1.416	-0.5	106	0.00	4.79
17 t	1,2-Dichlorobenzene	1.400	1.464	-4.6	112	0.00	4.90
20 t	2,2'-oxybis(1-Chloropropa	0.456	0.500	-9.6	120	0.00	4.97
22 t	n-Nitroso-di-n-propylamin	1.609	1.613	-0.2	113	-0.01	5.06
23 t	Hexachloroethane	0.651	0.666	-2.3	107	0.00	5.15
24 I	Naphthalene-d8	1.000	1.000	0.0	96	0.00	5.70
26 t	Nitrobenzene	0.657	0.660	-0.5	105	0.00	5.19
28 t	Isophorone	1.219	1.158	5.0	93	0.00	5.36
32 t	bis(2-Chloroethoxy)methan	0.620	0.676	-9.0	109	0.00	5.51
36 t	1,2,4-Trichlorobenzene	0.411	0.432	-5.1	103	0.00	5.66
38 t	Naphthalene	0.993	0.975	1.8	97	0.00	5.71
42 t	Hexachlorobutadiene	0.253	0.269	-6.3	106	0.00	5.80
47 I	Acenaphthene-d10	1.000	1.000	0.0	83	0.00	7.08
48 t	Hexachlorocyclopentadiene	50.000	56.529	-13.1	97	0.00	6.33
	----- True	Calc.	% Drift	-----			
	----- AvgRF	CCRF	% Dev	-----			
52 t	2-Chloronaphthalene	1.115	1.303	-16.9	103	0.00	6.60
55 t	Dimethylphthalate	1.480	1.580	-6.8	91	0.00	6.82
56 t	Acenaphthylene	1.808	1.830	-1.2	88	0.00	6.95
57 t	2,6-Dinitrotoluene	0.327	0.332	-1.5	83	0.00	6.88
59 t	Acenaphthene	1.091	1.135	-4.0	90	0.00	7.11
63 t	2,4-Dinitrotoluene	0.436	0.432	0.9	80	0.00	7.25
65 t	Diethylphthalate	1.476	1.503	-1.8	88	0.00	7.48
66 t	Fluorene	1.348	1.296	3.9	84	0.00	7.61
67 t	4-Chlorophenyl-phenylethe	0.792	0.795	-0.4	84	0.00	7.60
69 I	Phenanthrene-d10	1.000	1.000	0.0	82	0.00	8.68
71 t	n-Nitrosodiphenylamine	0.544	0.485	10.8	78	0.00	7.73
72 t	1,2-Diphenylhydrazine	1.062	1.018	4.1	89	0.00	7.77
74 t	4-Bromophenyl-phenylether	0.249	0.233	6.4	79	0.00	8.14
75 t	Hexachlorobenzene	0.217	0.205	5.5	80	0.00	8.23
77 t	Phenanthrene	0.958	0.937	2.2	84	0.00	8.71
78 t	Anthracene	1.021	0.942	7.7	81	0.00	8.78
80 t	Di-n-butylphthalate	1.325	1.259	5.0	79	0.00	9.47

Initial Calibration Verification

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Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6462-ICV6462
Lab FileID: Z131051.D

81 t	Fluoranthene	1.218	1.135	6.8	78	0.00	10.33
83 I	Chrysene-d12	1.000	1.000	0.0	79	0.00	12.50
84 t	Pyrene	1.609	1.559	3.1	74	0.00	10.66
86 t	Butylbenzylphthalate	0.721	0.748	-3.7	77	0.00	11.70
87 t	Benzo[a]anthracene	1.336	1.330	0.4	82	0.00	12.49
89 t	Chrysene	1.216	1.207	0.7	79	0.00	12.55
90 t	bis(2-Ethylhexyl)phthalat	0.919	0.915	0.4	78	0.00	12.63
91 I	Perylene-d12	1.000	1.000	0.0	99	0.00	14.59
92 t	Di-n-octylphthalate	1.863	1.666	10.6	85	0.00	13.60
93 t	Benzo[b]fluoranthene	1.425	1.303	8.6	92	-0.01	14.07
94 t	Benzo[k]fluoranthene	1.288	1.222	5.1	93	0.00	14.12
95 t	Benzo[a]pyrene	1.153	1.218	-5.6	114	0.00	14.52
96 t	Indeno[1,2,3-cd]pyrene	1.103	1.104	-0.1	97	0.00	15.98
98 t	Dibenz[a,h]anthracene	0.949	0.898	5.4	93	0.00	16.01
100 t	Benzo[g,h,i]perylene	0.854	0.884	-3.5	100	0.00	16.36

(#) = Out of Range
z131042a.D MZ6462.M

SPCC's out = 0 CCC's out = 0
Wed May 30 09:56:09 2018

6.7.10
6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6462-ICV6462
Lab FileID: Z131053.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6462\z131053.D Vial: 16
Acq On : 29 May 2018 6:51 pm Operator: seanb1
Sample : icv6462-50 Inst : SVOAMSZ
Misc : op8501,eZ6462,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6462.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 30 09:41:31 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	115	-0.01	12.50
88 t	3,3'-Dichlorobenzidine	0.453	0.455	-0.4	113	0.00	12.48

(#) = Out of Range
z131042a.D MZ6462.M

SPCC's out = 0 CCC's out = 0
Wed May 30 09:56:11 2018

6.7.11

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6463-ICV6462
Lab FileID: Z131055.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6463\z131055.D Vial: 2
Acq On : 30 May 2018 11:14 am Operator: seanb1
Sample : icv6462-50 Inst : SVOAMSZ
Misc : op8501,eZ6463,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6462.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 30 09:41:31 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.00	4.77
2	1,4-Dioxane	0.855	0.941	-10.1	98	0.01	2.35
6 t	Indene	2.727	2.737	-0.4	100	0.00	4.97
7 t	Cumene	5.069	4.769	5.9	92	0.00	4.19
13 t	Decane	1.544	1.504	2.6	105	0.00	4.66
18 t	Acetophenone	2.876	2.596	9.7	87	0.00	5.07
24 I	Naphthalene-d8	1.000	1.000	0.0	106	0.00	5.69
27 t	Quinoline	0.786	0.579	26.3	76	-0.01	5.95
40 t	2,3-Dichloroaniline	0.433	0.273	37.0#	68	0.00	6.43
45 t	1-Methylnaphthalene	0.698	0.460	34.1#	73	0.00	6.29
46 t	Dimethylnaphthalene	0.771	0.542	29.7	77	0.00	6.70
47 I	Acenaphthene-d10	1.000	1.000	0.0	76	0.00	7.08
53 t	Biphenyl	1.517	1.432	5.6	76	0.00	6.57
69 I	Phenanthrene-d10	1.000	1.000	0.0	69	-0.01	8.68
82 t	Octadecane	0.623	0.641	-2.9	81	0.00	8.56
91 I	Perylene-d12	1.000	1.000	0.0	83	-0.01	14.59
99 t	7,12-Dimethylbenz(a)anthr	0.576	0.558	3.1	71	-0.02	14.06

(#) = Out of Range
z131042a.D MZ6462.M

SPCC's out = 0 CCC's out = 0
Wed May 30 16:28:44 2018

6.7.12

6

Initial Calibration Verification

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6463-ICV6462
Lab FileID: Z131057.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6463\z131057.D Vial: 4
Acq On : 30 May 2018 12:21 pm Operator: seanb1
Sample : icv6462-50 Inst : SVOAMSZ
Misc : op8501,eZ6463,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6462.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 30 09:41:31 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
24 I	Naphthalene-d8	1.000	1.000	0.0	97	0.00	5.69
41 t	Caprolactam	0.245	0.209	14.7	84	-0.03	5.99

(#) = Out of Range
z131042a.D MZ6462.M

SPCC's out = 0 CCC's out = 0
Wed May 30 16:28:46 2018

6.7.13

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6466-CC6462
Lab FileID: Z131104.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6466\z131104.D Vial: 2
 Acq On : 31 May 2018 10:53 pm Operator: sufiyana
 Sample : cc6462-50 Inst : SVOAMSZ
 Misc : op8501,eZ6466,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6462.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 Last Update : Wed May 30 09:41:31 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	73	0.00	4.77
2	1,4-Dioxane	0.855	0.904	-5.7	74	-0.01	2.33
3 t	Pyridine	2.431	2.603	-7.1	76	-0.01	2.66
4 t	N-Nitrosodimethylamine	1.428	1.586	-11.1	78	-0.01	2.63
5 S	2-Fluorophenol	1.712	1.868	-9.1	75	0.00	3.81
6 t	Indene	2.727	2.619	4.0	74	0.00	4.96
7 t	Cumene	5.069	5.060	0.2	76	0.00	4.18
8 S	Phenol-d5	2.477	2.692	-8.7	76	0.00	4.52
9 t	Phenol	2.786	2.858	-2.6	77	0.00	4.53
10 t	Aniline	3.020	2.575	14.7	71	0.00	4.53
11 t	bis(2-Chloroethyl)ether	1.983	1.959	1.2	76	0.00	4.58
12 t	2-Chlorophenol	1.373	1.389	-1.2	73	0.00	4.63
13 t	Decane	1.544	1.465	5.1	79	0.00	4.65
14 t	1,3-Dichlorobenzene	1.526	1.465	4.0	73	0.00	4.73
15 t	1,4-Dichlorobenzene	1.409	1.397	0.9	74	0.00	4.78
16 t	Benzyl alcohol	1.136	1.279	-12.6	76	-0.01	4.88
17 t	1,2-Dichlorobenzene	1.400	1.309	6.5	71	0.00	4.90
18 t	Acetophenone	2.876	2.926	-1.7	77	0.00	5.07
19 t	2-Methylphenol	1.653	1.575	4.7	77	-0.01	4.97
20 t	2,2'-oxybis(1-Chloropropa	0.456	0.436	4.4	74	0.00	4.97
21 t	3&4-Methylphenol	1.655	1.645	0.6	75	0.00	5.08
22 t	n-Nitroso-di-n-propylamin	1.609	1.628	-1.2	81	0.00	5.07
23 t	Hexachloroethane	0.651	0.620	4.8	71	0.00	5.14
24 I	Naphthalene-d8	1.000	1.000	0.0	75	0.00	5.69
25 S	Nitrobenzene-d5	0.665	0.677	-1.8	79	0.00	5.17
26 t	Nitrobenzene	0.657	0.644	2.0	80	0.00	5.19
27 t	Quinoline	0.786	0.836	-6.4	77	0.00	5.96
28 t	Isophorone	1.219	1.240	-1.7	77	0.00	5.36
29 t	2-Nitrophenol	0.216	0.222	-2.8	74	0.00	5.42
30 t	2,4-Dimethylphenol	0.472	0.513	-8.7	79	0.00	5.45
31	Benzoic Acid	0.381	0.489	-28.3#	87	0.00	5.55
32 t	bis(2-Chloroethoxy)methan	0.620	0.619	0.2	78	0.00	5.51
33 t	2,4-Dichlorophenol	0.334	0.335	-0.3	74	0.00	5.60
34	2,6-Dichlorophenol	0.299	0.297	0.7	76	0.00	5.76
35 t	1,3,5-Trichlorobenzene	0.426	0.391	8.2	74	0.00	5.43
36 t	1,2,4-Trichlorobenzene	0.411	0.384	6.6	72	0.00	5.65
37 t	1,2,3-Trichlorobenzene	0.391	0.371	5.1	74	0.00	5.82
38 t	Naphthalene	0.993	0.966	2.7	75	0.00	5.71
39 t	4-Chloroaniline	0.447	0.437	2.2	74	0.00	5.75
40 t	2,3-Dichloroaniline	0.433	0.447	-3.2	78	-0.01	6.42
41 t	Caprolactam	0.245	0.287	-17.1	89	-0.01	6.01

Continuing Calibration Summary

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6466-CC6462
Lab FileID: Z131104.D

Page 2 of 3

42 t	Hexachlorobutadiene	0.253	0.240	5.1	73	0.00	5.79
43 t	4-Chloro-3-methylphenol	0.516	0.558	-8.1	80	0.00	6.10
44 t	2-Methylnaphthalene	0.671	0.664	1.0	76	0.00	6.21
45 t	1-Methylnaphthalene	0.698	0.688	1.4	76	0.00	6.29
46 t	Dimethylnaphthalene	0.771	0.784	-1.7	78	0.00	6.70
47 I	Acenaphthene-d10	1.000	1.000	0.0	78	0.00	7.08
----- True Calc. % Drift -----							
48 t	Hexachlorocyclopentadiene	100.000	91.043	9.0	70	0.00	6.33
----- AvgRF CCRF % Dev -----							
49 t	2,4,6-Trichlorophenol	0.423	0.422	0.2	80	-0.01	6.43
50 t	2,4,5-Trichlorophenol	0.458	0.462	-0.9	80	0.00	6.47
51 S	2-Fluorobiphenyl	1.436	1.306	9.1	77	0.00	6.49
52 t	2-Chloronaphthalene	1.115	1.030	7.6	76	0.00	6.60
53 t	Biphenyl	1.517	1.426	6.0	78	0.00	6.57
54 t	2-Nitroaniline	0.560	0.619	-10.5	87	0.00	6.68
55 t	Dimethylphthalate	1.480	1.440	2.7	78	0.00	6.81
56 t	Acenaphthylene	1.808	1.770	2.1	79	0.00	6.95
57 t	2,6-Dinitrotoluene	0.327	0.335	-2.4	79	0.00	6.88
58 t	3-Nitroaniline	0.301	0.341	-13.3	83	0.00	7.03
59 t	Acenaphthene	1.091	1.108	-1.6	82	-0.01	7.10
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	100.000	103.046	-3.0	80	0.00	7.14
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.242	0.342	-41.3#	101	-0.01	7.20
62 t	Dibenzofuran	1.642	1.603	2.4	81	0.00	7.27
63 t	2,4-Dinitrotoluene	0.436	0.511	-17.2	88	0.00	7.25
64	2,3,4,6-Tetrachlorophenol	0.366	0.438	-19.7	84	-0.01	7.39
65 t	Diethylphthalate	1.476	1.595	-8.1	87	0.00	7.48
66 t	Fluorene	1.348	1.378	-2.2	83	0.00	7.61
67 t	4-Chlorophenyl-phenylether	0.792	0.813	-2.7	80	0.00	7.60
68 t	4-Nitroaniline	0.269	0.312	-16.0	87	0.00	7.64
69 I	Phenanthrene-d10	1.000	1.000	0.0	88	-0.01	8.68
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	50.000	47.885	4.2	85	0.00	7.67
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.544	0.483	11.2	83	0.00	7.73
72 t	1,2-Diphenylhydrazine	1.062	0.947	10.8	89	-0.01	7.77
73 S	2,4,6-Tribromophenol	0.077	0.073	5.2	78	-0.01	7.87
74 t	4-Bromophenyl-phenylether	0.249	0.225	9.6	81	-0.01	8.13
75 t	Hexachlorobenzene	0.217	0.203	6.5	85	-0.01	8.23
----- True Calc. % Drift -----							
76 t	Pentachlorophenol	100.000	106.513	-6.5	93	0.00	8.47
----- AvgRF CCRF % Dev -----							
77 t	Phenanthrene	0.958	0.924	3.5	89	0.00	8.71
78 t	Anthracene	1.021	0.969	5.1	89	0.00	8.78
79 t	Carbazole	0.959	0.979	-2.1	93	-0.01	8.98
80 t	Di-n-butylphthalate	1.325	1.364	-2.9	92	-0.01	9.46
81 t	Fluoranthene	1.218	1.339	-9.9	99	0.00	10.33
82 t	Octadecane	0.623	0.535	14.1	87	-0.01	8.55

6.7.14
6

Continuing Calibration Summary

Page 3 of 3

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6466-CC6462
Lab FileID: Z131104.D

83	I	Chrysene-d12	1.000	1.000	0.0	118	0.00	12.50
84	t	Pyrene	1.609	1.404	12.7	100	0.00	10.66
85	S	Terphenyl-d14	1.144	0.998	12.8	97	-0.01	10.91
86	t	Butylbenzylphthalate	0.721	0.688	4.6	106	0.00	11.69
87	t	Benzo[a]anthracene	1.336	1.312	1.8	121	-0.01	12.48
88	t	3,3'-Dichlorobenzidine	0.453	0.485	-7.1	123	0.00	12.48
89	t	Chrysene	1.216	1.212	0.3	119	0.00	12.55
90	t	bis(2-Ethylhexyl)phthalat	0.919	0.822	10.6	105	-0.01	12.62
91	I	Perylene-d12	1.000	1.000	0.0	109	0.00	14.59
92	t	Di-n-octylphthalate	1.863	2.031	-9.0	113	0.00	13.60
93	t	Benzo[b]fluoranthene	1.425	1.449	-1.7	111	0.00	14.08
94	t	Benzo[k]fluoranthene	1.288	1.243	3.5	103	0.00	14.12
95	t	Benzo[a]pyrene	1.153	1.208	-4.8	123	0.00	14.51
96	t	Indeno[1,2,3-cd]pyrene	1.103	1.121	-1.6	108	0.00	15.98
97	t	Dibenz(a,h)acridine	0.840	0.877	-4.4	110	-0.01	15.67
98	t	Dibenz[a,h]anthracene	0.949	0.945	0.4	106	-0.01	16.00
99	t	7,12-Dimethylbenz(a)anthr	0.576	0.693	-20.3#	115	0.00	14.07
100	t	Benzo[g,h,i]perylene	0.854	0.851	0.4	105	-0.01	16.35

(#) = Out of Range
z131042a.D MZ6462.M

SPCC's out = 0 CCC's out = 0
Fri Jun 01 11:38:23 2018

6.7.14
6

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6466-CC6437
Lab FileID: Z131105.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6466\z131105.D Vial: 3
Acq On : 31 May 2018 11:20 pm Operator: sufiyana
Sample : cc6437-50 Inst : SVOAMSZ
Misc : op8501,eZ6466,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6462.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 30 09:41:31 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	63	0.00	4.77
102	Benzaldehyde	1.016	1.210	-19.1	82	-0.04	4.45
103	Phenanthrene-d10a	1.000	1.000	0.0	99	0.00	8.68
104 s	1-chlorooctadecane	0.255	0.401	-57.3#	142	-0.05	10.21
105 s	o-terphenyl	0.560	0.598	-6.8	108	-0.06	9.18
106	Atrazine	0.097	0.129	-33.0#	119	-0.05	8.33
107	Chrysene-d12a	1.000	1.000	0.0	111	0.00	12.49
108	Benizidine	50.000	49.530	0.9	108	-0.06	10.54
109	Acenaphthene-d10a	1.000	1.000	0.0	84	0.00	7.07
110	1,2,4,5-Tetrachlorobenzen	0.533	0.600	-12.6	99	-0.04	6.34
111 I	Naphthalene-d8a	1.000	1.000	0.0	64	0.00	5.69
112	Hydroquinone	0.308	0.593	-92.5#	111	-0.01	5.99
113	Phenanthrene-d10b	1.000	1.000	0.0	99	0.00	8.68
114	Pentachloronitrobenzene	0.041	0.034#	17.1	75	-0.06	8.47

(#) = Out of Range
z131042a.D MZ6462.M

SPCC's out = 0 CCC's out = 0
Fri Jun 01 11:38:25 2018

6.7.15

6

Continuing Calibration Summary

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6468-CC6462
Lab FileID: Z131149.D

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Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6468\z131149.D Vial: 2
Acq On : 3 Jun 2018 4:34 pm Operator: seanb1
Sample : cc6462-50 Inst : SVOAMSZ
Misc : op8501,eZ6468,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6462.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Wed May 30 09:41:31 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	67	-0.02	4.76
2	1,4-Dioxane	0.855	0.945	-10.5	71	-0.01	2.33
3 t	Pyridine	2.431	2.670	-9.8	72	-0.01	2.66
4 t	N-Nitrosodimethylamine	1.428	1.684	-17.9	76	-0.01	2.63
5 S	2-Fluorophenol	1.712	1.931	-12.8	72	-0.01	3.80
6 t	Indene	2.727	2.842	-4.2	74	-0.02	4.95
7 t	Cumene	5.069	5.476	-8.0	76	-0.02	4.17
8 S	Phenol-d5	2.477	2.782	-12.3	72	-0.01	4.52
9 t	Phenol	2.786	2.975	-6.8	74	-0.02	4.52
10 t	Aniline	3.020	3.177	-5.2	81	-0.02	4.52
11 t	bis(2-Chloroethyl)ether	1.983	2.028	-2.3	72	-0.02	4.57
12 t	2-Chlorophenol	1.373	1.452	-5.8	70	-0.02	4.62
13 t	Decane	1.544	1.516	1.8	76	-0.02	4.64
14 t	1,3-Dichlorobenzene	1.526	1.591	-4.3	73	-0.01	4.73
15 t	1,4-Dichlorobenzene	1.409	1.538	-9.2	75	-0.02	4.77
16 t	Benzyl alcohol	1.136	1.310	-15.3	71	-0.02	4.87
17 t	1,2-Dichlorobenzene	1.400	1.464	-4.6	73	-0.02	4.89
18 t	Acetophenone	2.876	3.081	-7.1	74	-0.02	5.06
19 t	2-Methylphenol	1.653	1.660	-0.4	74	-0.02	4.96
20 t	2,2'-oxybis(1-Chloropropa	0.456	0.458	-0.4	72	-0.02	4.96
21 t	3&4-Methylphenol	1.655	1.737	-5.0	73	-0.02	5.07
22 t	n-Nitroso-di-n-propylamin	1.609	1.678	-4.3	77	-0.02	5.06
23 t	Hexachloroethane	0.651	0.647	0.6	68	-0.02	5.13
24 I	Naphthalene-d8	1.000	1.000	0.0	69	-0.02	5.68
25 S	Nitrobenzene-d5	0.665	0.690	-3.8	74	-0.01	5.17
26 t	Nitrobenzene	0.657	0.659	-0.3	75	-0.02	5.18
27 t	Quinoline	0.786	0.828	-5.3	71	-0.02	5.94
28 t	Isophorone	1.219	1.289	-5.7	74	-0.02	5.35
29 t	2-Nitrophenol	0.216	0.215	0.5	67	-0.02	5.41
30 t	2,4-Dimethylphenol	0.472	0.540	-14.4	77	-0.02	5.44
31	Benzoic Acid	0.381	0.500	-31.2#	83	-0.02	5.54
32 t	bis(2-Chloroethoxy)methan	0.620	0.619	0.2	72	-0.02	5.50
33 t	2,4-Dichlorophenol	0.334	0.346	-3.6	71	-0.02	5.59
34	2,6-Dichlorophenol	0.299	0.309	-3.3	73	-0.02	5.75
35 t	1,3,5-Trichlorobenzene	0.426	0.399	6.3	70	-0.02	5.42
36 t	1,2,4-Trichlorobenzene	0.411	0.393	4.4	68	-0.02	5.64
37 t	1,2,3-Trichlorobenzene	0.391	0.366	6.4	68	-0.02	5.80
38 t	Naphthalene	0.993	1.025	-3.2	73	-0.02	5.70
39 t	4-Chloroaniline	0.447	0.461	-3.1	72	-0.02	5.74
40 t	2,3-Dichloroaniline	0.433	0.453	-4.6	73	-0.02	6.41
41 t	Caprolactam	0.245	0.264	-7.8	76	-0.02	6.00

Continuing Calibration Summary

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6468-CC6462
Lab FileID: Z131149.D

Page 2 of 3

42 t	Hexachlorobutadiene	0.253	0.239	5.5	68	-0.02	5.78
43 t	4-Chloro-3-methylphenol	0.516	0.572	-10.9	75	-0.02	6.09
44 t	2-Methylnaphthalene	0.671	0.690	-2.8	73	-0.02	6.20
45 t	1-Methylnaphthalene	0.698	0.699	-0.1	72	-0.02	6.27
46 t	Dimethylnaphthalene	0.771	0.742	3.8	69	-0.02	6.69
47 I	Acenaphthene-d10	1.000	1.000	0.0	61	-0.02	7.06
----- True Calc. % Drift -----							
48 t	Hexachlorocyclopentadiene	100.000	114.229	-14.2	69	-0.02	6.32
----- AvgRF CCRF % Dev -----							
49 t	2,4,6-Trichlorophenol	0.423	0.475	-12.3	70	-0.02	6.42
50 t	2,4,5-Trichlorophenol	0.458	0.521	-13.8	70	-0.02	6.46
51 S	2-Fluorobiphenyl	1.436	1.482	-3.2	68	-0.02	6.47
52 t	2-Chloronaphthalene	1.115	1.266	-13.5	73	-0.02	6.58
53 t	Biphenyl	1.517	1.718	-13.2	74	-0.02	6.56
54 t	2-Nitroaniline	0.560	0.708	-26.4#	78	-0.02	6.67
55 t	Dimethylphthalate	1.480	1.657	-12.0	70	-0.02	6.80
56 t	Acenaphthylene	1.808	2.113	-16.9	74	-0.02	6.93
57 t	2,6-Dinitrotoluene	0.327	0.376	-15.0	69	-0.02	6.86
58 t	3-Nitroaniline	0.301	0.389	-29.2#	74	-0.02	7.02
59 t	Acenaphthene	1.091	1.288	-18.1	74	-0.02	7.09
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	100.000	130.176	-30.2#	81	-0.02	7.12
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.242	0.388	-60.3#	89	-0.02	7.19
62 t	Dibenzofuran	1.642	1.886	-14.9	75	-0.02	7.25
63 t	2,4-Dinitrotoluene	0.436	0.523	-20.0	70	-0.02	7.24
64	2,3,4,6-Tetrachlorophenol	0.366	0.482	-31.7#	72	-0.03	7.38
65 t	Diethylphthalate	1.476	1.793	-21.5#	76	-0.02	7.46
66 t	Fluorene	1.348	1.596	-18.4	75	-0.02	7.60
67 t	4-Chlorophenyl-phenylethe	0.792	0.894	-12.9	69	-0.03	7.58
68 t	4-Nitroaniline	0.269	0.355	-32.0#	77	-0.02	7.62
69 I	Phenanthrene-d10	1.000	1.000	0.0	69	-0.03	8.66
----- True Calc. % Drift -----							
70 t	4,6-Dinitro-2-methylpheno	50.000	54.510	-9.0	76	-0.02	7.66
----- AvgRF CCRF % Dev -----							
71 t	n-Nitrosodiphenylamine	0.544	0.546	-0.4	73	-0.03	7.71
72 t	1,2-Diphenylhydrazine	1.062	1.077	-1.4	79	-0.03	7.75
73 S	2,4,6-Tribromophenol	0.077	0.087	-13.0	73	-0.03	7.85
74 t	4-Bromophenyl-phenylether	0.249	0.242	2.8	69	-0.03	8.12
75 t	Hexachlorobenzene	0.217	0.221	-1.8	72	-0.02	8.21
----- True Calc. % Drift -----							
76 t	Pentachlorophenol	100.000	117.513	-17.5	81	-0.02	8.45
----- AvgRF CCRF % Dev -----							
77 t	Phenanthrene	0.958	1.037	-8.2	78	-0.02	8.70
78 t	Anthracene	1.021	1.078	-5.6	77	-0.02	8.76
79 t	Carbazole	0.959	1.071	-11.7	80	-0.03	8.97
80 t	Di-n-butylphthalate	1.325	1.458	-10.0	77	-0.03	9.45
81 t	Fluoranthene	1.218	1.409	-15.7	81	-0.03	10.31
82 t	Octadecane	0.623	0.604	3.0	77	-0.03	8.53

6.7.16
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Continuing Calibration Summary

Page 3 of 3

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6468-CC6462
Lab FileID: Z131149.D

83	I	Chrysene-d12	1.000	1.000	0.0	85	-0.03	12.48
84	t	Pyrene	1.609	1.565	2.7	81	-0.03	10.63
85	S	Terphenyl-d14	1.144	1.086	5.1	77	-0.03	10.90
86	t	Butylbenzylphthalate	0.721	0.722	-0.1	81	-0.03	11.67
87	t	Benzo[a]anthracene	1.336	1.314	1.6	87	-0.03	12.47
88	t	3,3'-Dichlorobenzidine	0.453	0.515	-13.7	95	-0.03	12.46
89	t	Chrysene	1.216	1.241	-2.1	88	-0.02	12.53
90	t	bis(2-Ethylhexyl)phthalat	0.919	0.891	3.0	83	-0.03	12.60
91	I	Perylene-d12	1.000	1.000	0.0	69	-0.03	14.57
92	t	Di-n-octylphthalate	1.863	2.222	-19.3	79	-0.03	13.58
93	t	Benzo[b]fluoranthene	1.425	1.583	-11.1	78	-0.03	14.06
94	t	Benzo[k]fluoranthene	1.288	1.395	-8.3	74	-0.02	14.10
95	t	Benzo[a]pyrene	1.153	1.296	-12.4	85	-0.02	14.50
96	t	Indeno[1,2,3-cd]pyrene	1.103	1.184	-7.3	73	-0.03	15.96
97	t	Dibenz(a,h)acridine	0.840	0.883	-5.1	71	-0.03	15.65
98	t	Dibenz[a,h]anthracene	0.949	1.012	-6.6	73	-0.03	15.98
99	t	7,12-Dimethylbenz(a)anthr	0.576	0.748	-29.9#	80	-0.03	14.05
100	t	Benzo[g,h,i]perylene	0.854	0.899	-5.3	71	-0.03	16.33

(#) = Out of Range
 z131042a.D MZ6462.M

SPCC's out = 0 CCC's out = 0
 Mon Jun 04 09:04:08 2018

6.7.16
 6

Continuing Calibration Summary

Page 1 of 1

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample: EZ6468-CC6437
Lab FileID: Z131150.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6468\z131150.D Vial: 3
 Acq On : 3 Jun 2018 5:01 pm Operator: seanb1
 Sample : cc6437-50 Inst : SVOAMSZ
 Misc : op8501,eZ6468,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6462.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 Last Update : Wed May 30 09:41:31 2018
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	68	-0.02	4.76
102	Benzaldehyde	1.016	1.168	-15.0	85	-0.05	4.44
103	Phenanthrene-d10a	1.000	1.000	0.0	87	-0.02	8.66
104 s	1-chlorooctadecane	0.255	0.410	-60.8#	127	-0.07	10.19
105 s	o-terphenyl	0.560	0.600	-7.1	94	-0.08	9.15
106	Atrazine	0.097	0.129	-33.0#	105	-0.06	8.32
107	Chrysene-d12a	1.000	1.000	0.0	87	-0.02	12.48
108	Benzidine	50.000	56.974	-13.9	98	-0.08	10.52
109	Acenaphthene-d10a	1.000	1.000	0.0	75	-0.02	7.06
110	1,2,4,5-Tetrachlorobenzen	0.533	0.644	-20.8#	96	-0.05	6.33
111 I	Naphthalene-d8a	1.000	1.000	0.0	66	-0.02	5.68
112	Hydroquinone	0.308	0.537	-74.4#	104	-0.02	5.98
113	Phenanthrene-d10b	1.000	1.000	0.0	87	-0.02	8.66
114	Pentachloronitrobenzene	0.041	0.038#	7.3	74	-0.07	8.46

(#) = Out of Range
 z131042a.D MZ6462.M

SPCC's out = 0 CCC's out = 0
 Mon Jun 04 09:41:38 2018



MS Semi-volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6466\
 Data File : z131123.D
 Acq On : 1 Jun 2018 7:35 am
 Operator : sufiyana
 Sample : jc66619-1
 Misc : op12421,eZ6466,30.5,,,1,5
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 01 13:59:54 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6462.M
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 QLast Update : Wed May 30 09:41:31 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.780	152	149408	40.00	ppm	0.00
24) Naphthalene-d8	5.720	136	551580	40.00	ppm	0.02
47) Acenaphthene-d10	7.088	164	249849	40.00	ppm	0.00
69) Phenanthrene-d10	8.706	188	575242	40.00	ppm	0.02
83) Chrysene-d12	12.558	240	574586	40.00	ppm	0.05
91) Perylene-d12	14.652	264	446531	40.00	ppm	0.05
101) 1,4-Dichlorobenzene-d4a	4.780	152	149408	40.00	ppm	0.00
103) Phenanthrene-d10a	8.706	188	575242	40.00	ppm	0.02
107) Chrysene-d12a	12.558	240	574586	40.00	ppm	0.06
109) Acenaphthene-d10a	7.088	164	249849	40.00	ppm	0.01
111) Naphthalene-d8a	5.720	136	551580	40.00	ppm	0.02
113) Phenanthrene-d10b	8.706	188	575242	40.00	ppm	0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.818	112	35187	5.50	ppm	0.00
Spiked Amount 50.000			Recovery	=	11.00%	
8) Phenol-d5	4.534	99	62381	6.74	ppm	0.00
Spiked Amount 50.000			Recovery	=	13.48%	
25) Nitrobenzene-d5	5.180	82	64828	7.07	ppm	0.00
Spiked Amount 50.000			Recovery	=	14.14%	
51) 2-Fluorobiphenyl	6.495	172	76381	8.52	ppm	0.00
Spiked Amount 50.000			Recovery	=	17.04%	
73) 2,4,6-Tribromophenol	7.900	330	9614	8.63	ppm	0.02
Spiked Amount 50.000			Recovery	=	17.26%	
85) Terphenyl-d14	10.945	244	85673	5.22	ppm	0.02
Spiked Amount 50.000			Recovery	=	10.44%	
104) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
105) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						
						Qvalue
38) Naphthalene	5.731	128	21091404m	1539.70	ppm	
44) 2-Methylnaphthalene	6.238	141	8160891	882.21	ppm	91
56) Acenaphthylene	6.981	152	8241612	729.79	ppm	95
59) Acenaphthene	7.120	153	886403	130.03	ppm	94
66) Fluorene	7.649	166	6600357	784.12	ppm	99
77) Phenanthrene	8.770	178	16833155	1222.40	ppm	96
78) Anthracene	8.834	178	8288384m	564.46	ppm	
81) Fluoranthene	10.394	202	10233627	584.07	ppm	94
84) Pyrene	10.726	202	8857391	383.18	ppm	89
87) Benzo[a]anthracene	12.547	228	5489843	286.08	ppm	94
89) Chrysene	12.611	228	4201939	240.47	ppm	88
93) Benzo[b]fluoranthene	14.150	252	3328393	209.17	ppm	97
94) Benzo[k]fluoranthene	14.177	252	1044711	72.64	ppm	93
95) Benzo[a]pyrene	14.593	252	2893819	224.83	ppm	95
96) Indeno[1,2,3-cd]pyrene	16.063	276	954758	77.55	ppm	95
98) Dibenz[a,h]anthracene	16.063	278	371610	35.09	ppm	90
100) Benzo[g,h,i]perylene	16.436	276	677316	71.05	ppm	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6466\
Data File : z131123.D
Acq On : 1 Jun 2018 7:35 am
Operator : sufiyana
Sample : jc66619-1
Misc : op12421,ez6466,30.5,,,1,5
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 01 13:59:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6462.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Wed May 30 09:41:31 2018
Response via : Initial Calibration

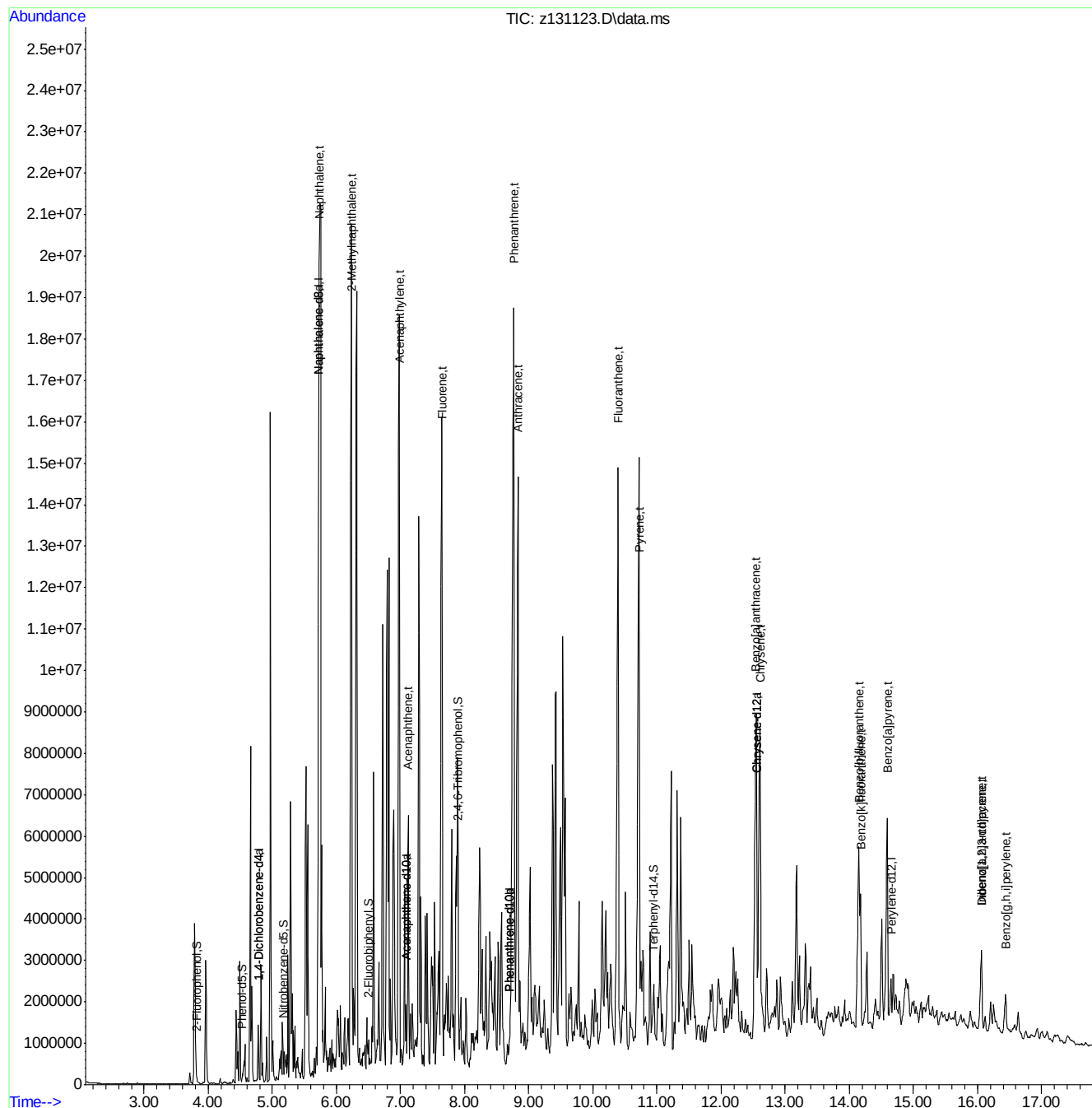
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

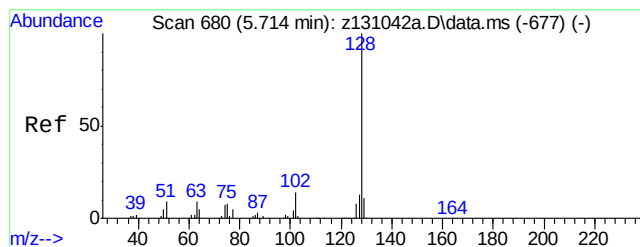
(#)=qualifier out of range (m)=manual integration (+)=signals summed						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6466\
Data File : z131123.D
Acq On : 1 Jun 2018 7:35 am
Operator : sufiyana
Sample : jc66619-1
Misc : op12421,eZ6466,30.5,,,1,5
ALS Vial : 21 Sample Multiplier: 1

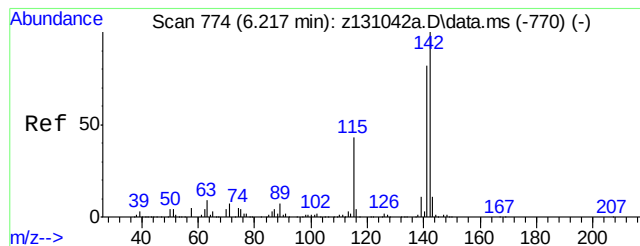
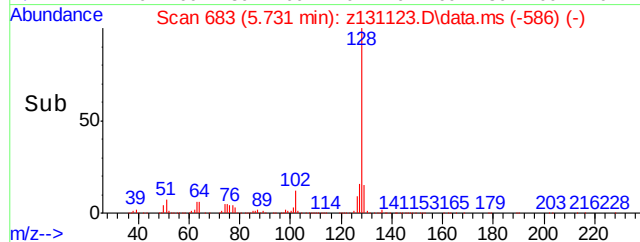
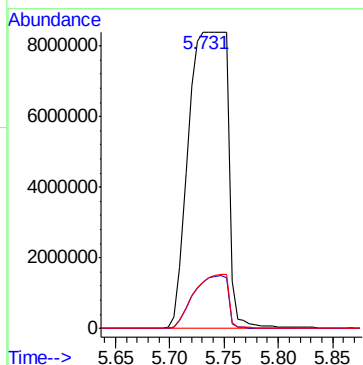
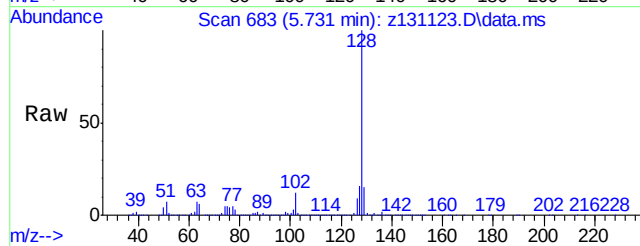
Quant Time: Jun 01 13:59:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6462.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Wed May 30 09:41:31 2018
Response via : Initial Calibration





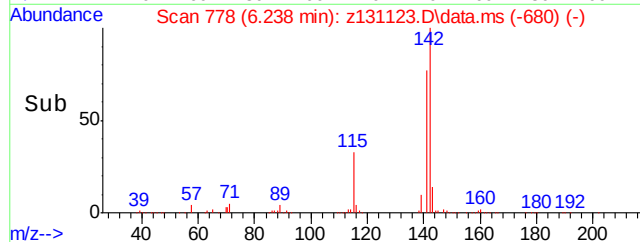
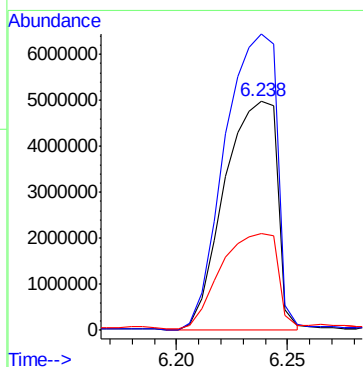
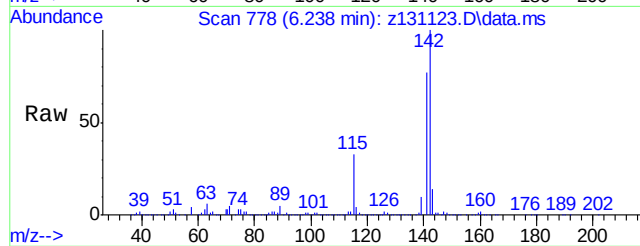
#38
Naphthalene
Concen: 1539.70 ppm m
RT: 5.731 min Scan# 683
Delta R.T. 0.016 min
Lab File: z131123.D
Acq: 1 Jun 2018 7:35 am

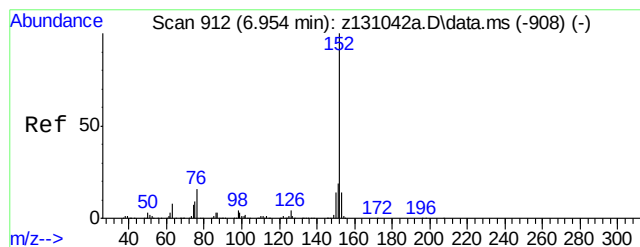
Tgt Ion:128 Resp:21091404
Ion Ratio Lower Upper
128 100
129 15.5 0.0 41.1
127 15.7 0.0 41.6



#44
2-Methylnaphthalene
Concen: 882.21 ppm
RT: 6.238 min Scan# 778
Delta R.T. 0.022 min
Lab File: z131123.D
Acq: 1 Jun 2018 7:35 am

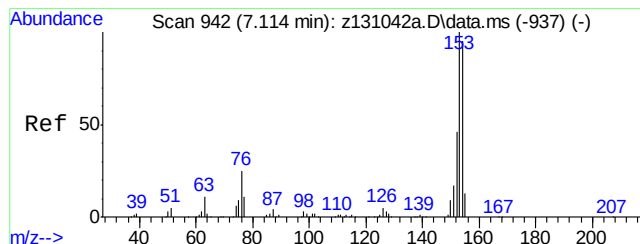
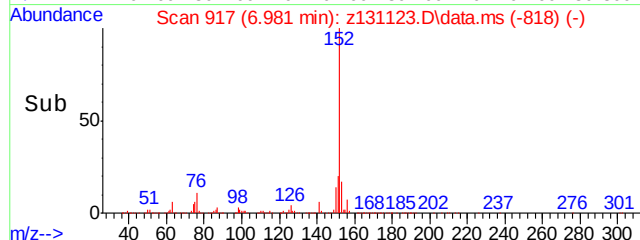
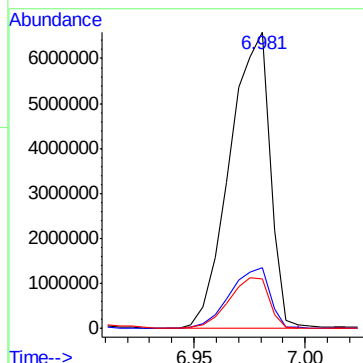
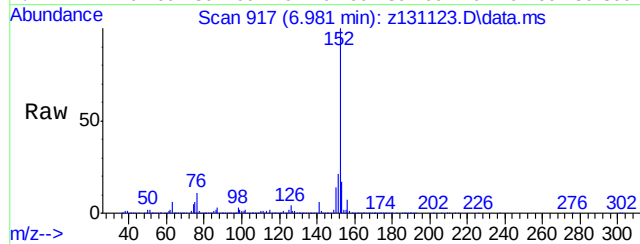
Tgt Ion:141 Resp: 8160891
Ion Ratio Lower Upper
141 100
142 129.5 92.0 152.0
115 41.6 22.5 82.5





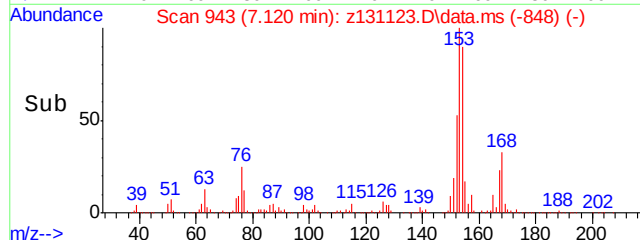
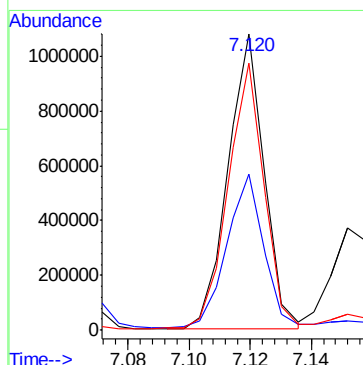
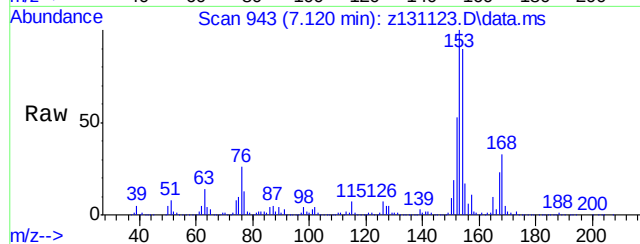
#56
Acenaphthylene
Concen: 729.79 ppm
RT: 6.981 min Scan# 917
Delta R.T. 0.027 min
Lab File: z131123.D
Acq: 1 Jun 2018 7:35 am

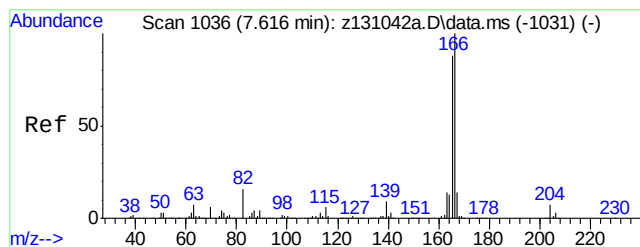
Tgt Ion	Ratio	Lower	Upper
152	100		
151	20.5	0.0	49.1
153	16.8	0.0	44.0



#59
Acenaphthene
Concen: 130.03 ppm
RT: 7.120 min Scan# 943
Delta R.T. 0.006 min
Lab File: z131123.D
Acq: 1 Jun 2018 7:35 am

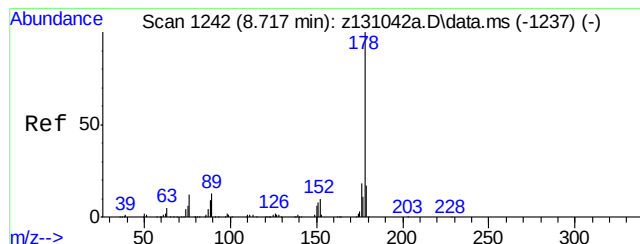
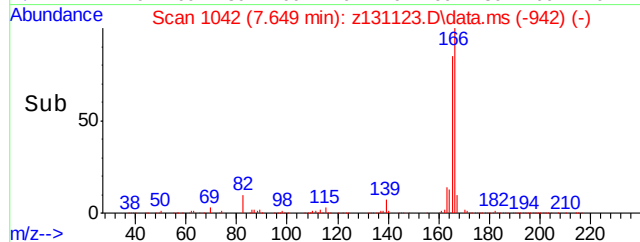
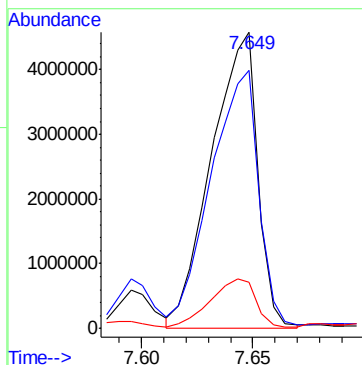
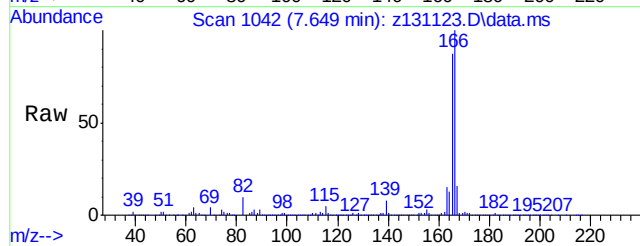
Tgt Ion	Ratio	Lower	Upper
153	100		
152	52.0	15.9	75.9
154	90.2	64.9	124.9





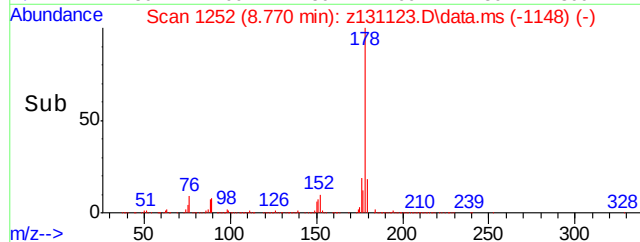
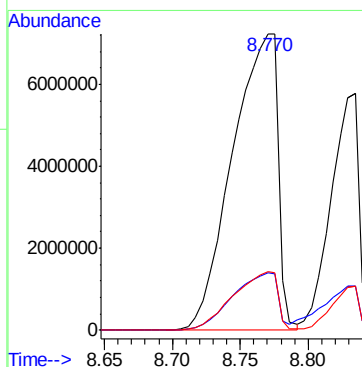
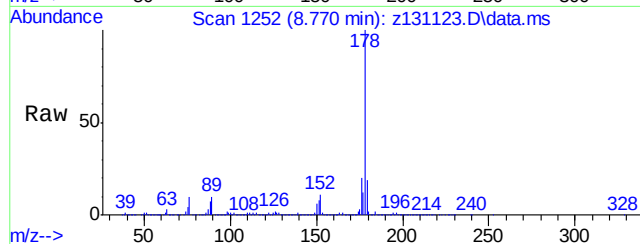
#66
Fluorene
Concen: 784.12 ppm
RT: 7.649 min Scan# 1042
Delta R.T. 0.032 min
Lab File: z131123.D
Acq: 1 Jun 2018 7:35 am

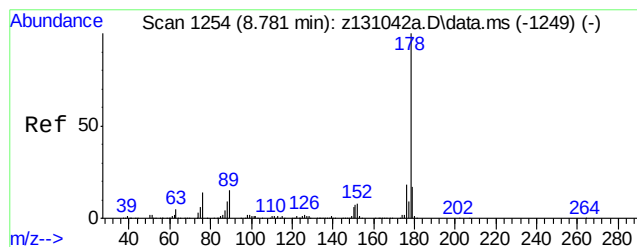
Tgt Ion:166 Resp: 6600357
Ion Ratio Lower Upper
166 100
165 86.6 57.4 117.4
167 15.3 0.0 43.8



#77
Phenanthrene
Concen: 1222.40 ppm
RT: 8.770 min Scan# 1252
Delta R.T. 0.054 min
Lab File: z131123.D
Acq: 1 Jun 2018 7:35 am

Tgt Ion:178 Resp:16833155
Ion Ratio Lower Upper
178 100
179 17.8 0.0 46.5
176 19.7 0.0 47.7

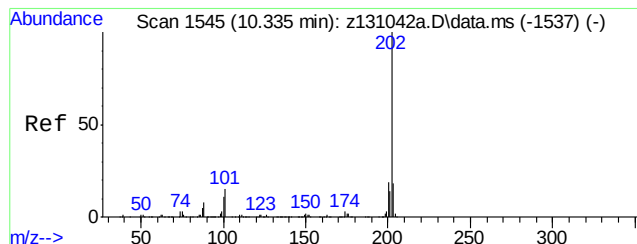
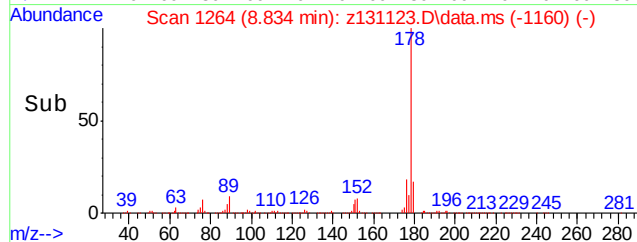
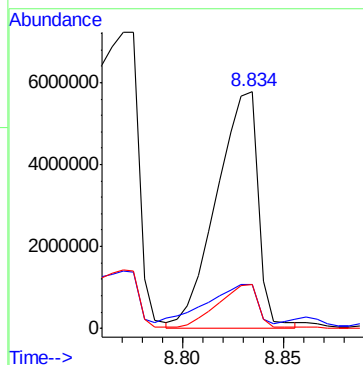
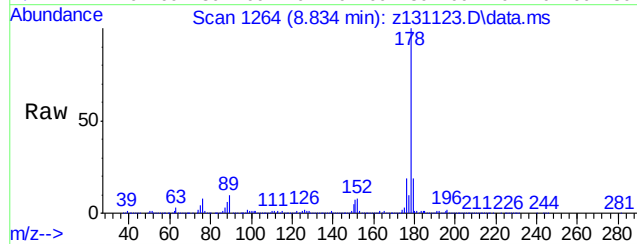




#78
 Anthracene
 Concen: 564.46 ppm m
 RT: 8.834 min Scan# 1264
 Delta R.T. 0.054 min
 Lab File: z131123.D
 Acq: 1 Jun 2018 7:35 am

Tgt Ion: 178 Resp: 8288384

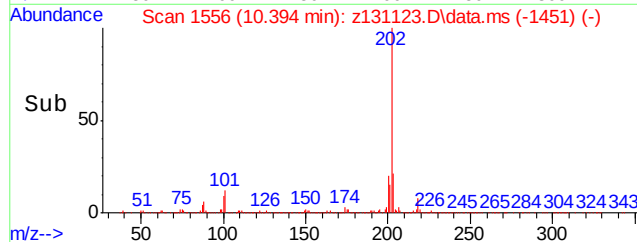
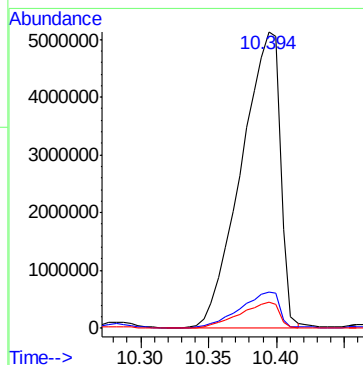
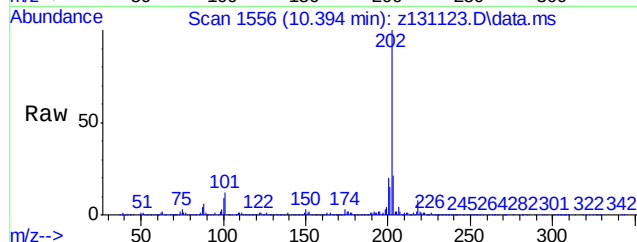
Ion	Ratio	Lower	Upper
178	100		
179	18.6	0.0	46.9
176	18.5	0.0	48.1

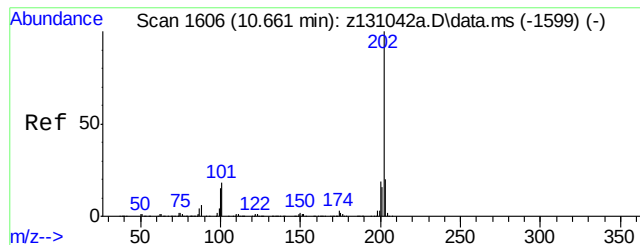


#81
 Fluoranthene
 Concen: 584.07 ppm
 RT: 10.394 min Scan# 1556
 Delta R.T. 0.059 min
 Lab File: z131123.D
 Acq: 1 Jun 2018 7:35 am

Tgt Ion: 202 Resp: 10233627

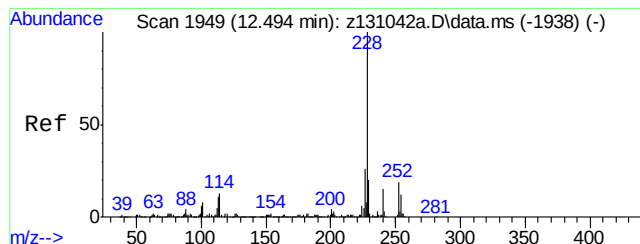
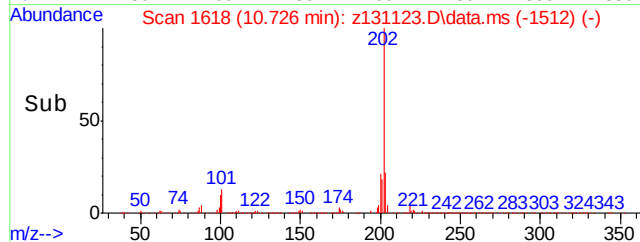
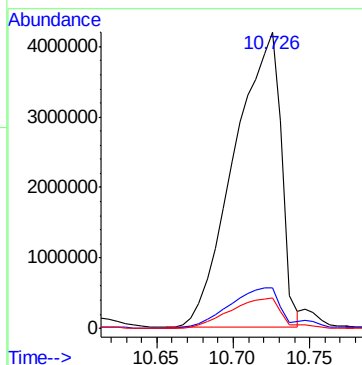
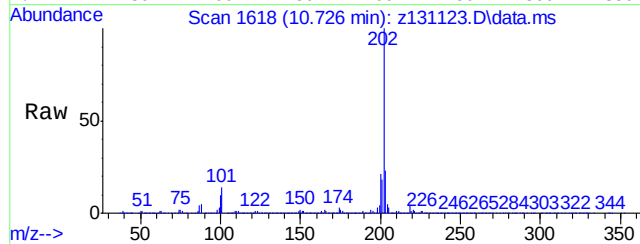
Ion	Ratio	Lower	Upper
202	100		
101	12.2	0.0	44.7
100	8.6	0.0	41.1





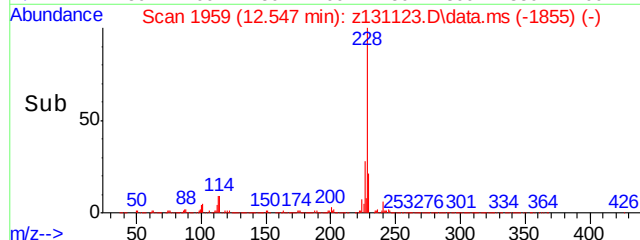
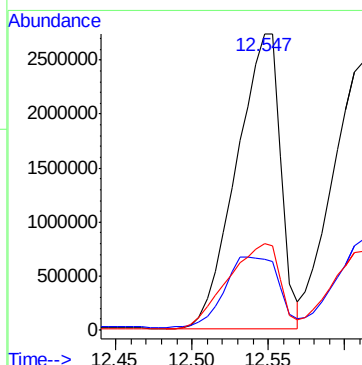
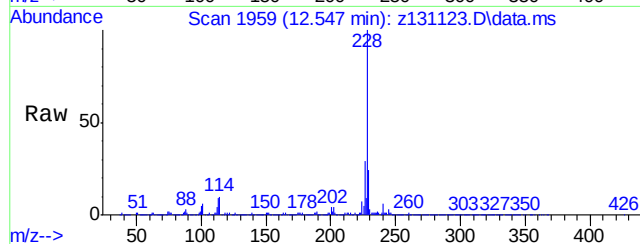
#84
Pyrene
Concen: 383.18 ppm
RT: 10.726 min Scan# 1618
Delta R.T. 0.064 min
Lab File: z131123.D
Acq: 1 Jun 2018 7:35 am

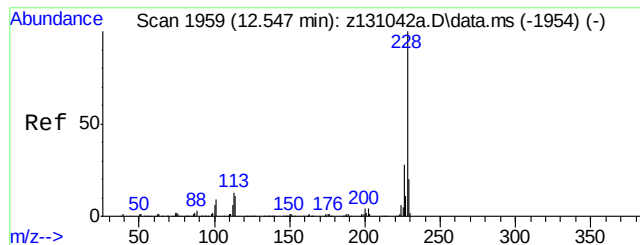
Tgt Ion:	202	Resp:	8857391
Ion Ratio	Lower	Upper	
202	100		
101	12.9	0.0	48.0
100	10.2	0.0	44.5



#87
Benzo[a]anthracene
Concen: 286.08 ppm
RT: 12.547 min Scan# 1959
Delta R.T. 0.054 min
Lab File: z131123.D
Acq: 1 Jun 2018 7:35 am

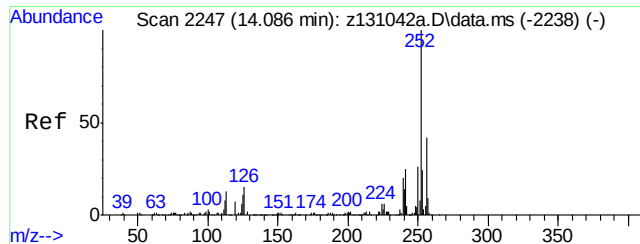
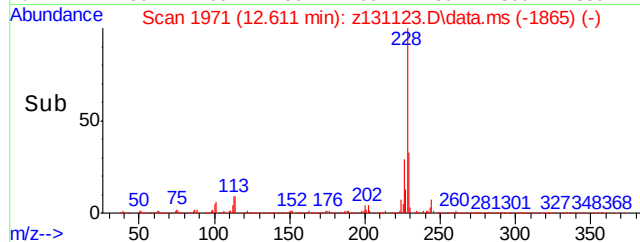
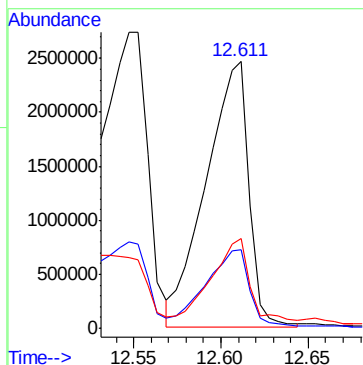
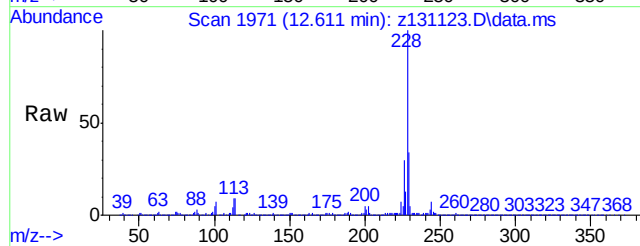
Tgt Ion:	228	Resp:	5489843
Ion Ratio	Lower	Upper	
228	100		
229	22.6	0.0	49.8
226	28.9	0.0	55.7





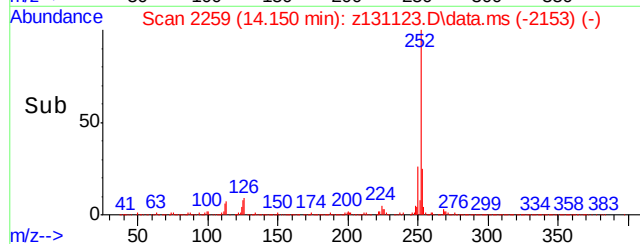
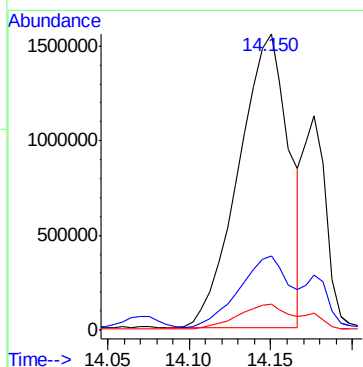
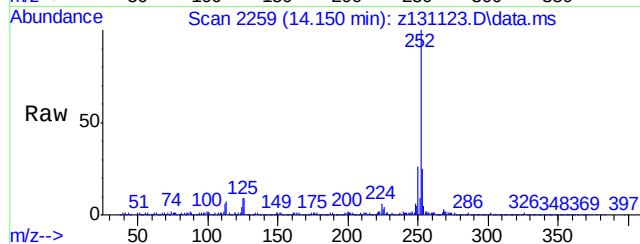
#89
Chrysene
Concen: 240.47 ppm
RT: 12.611 min Scan# 1971
Delta R.T. 0.064 min
Lab File: z131123.D
Acq: 1 Jun 2018 7:35 am

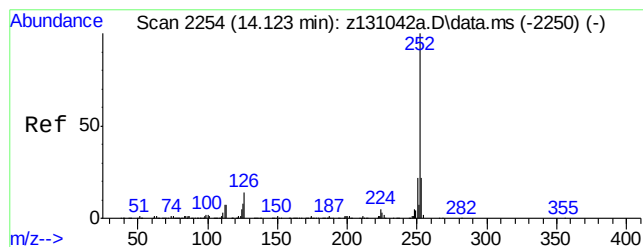
Tgt Ion: 228 Resp: 4201939
Ion Ratio Lower Upper
228 100
226 28.9 0.0 57.5
229 31.7 0.0 50.1



#93
Benzo[b]fluoranthene
Concen: 209.17 ppm
RT: 14.150 min Scan# 2259
Delta R.T. 0.064 min
Lab File: z131123.D
Acq: 1 Jun 2018 7:35 am

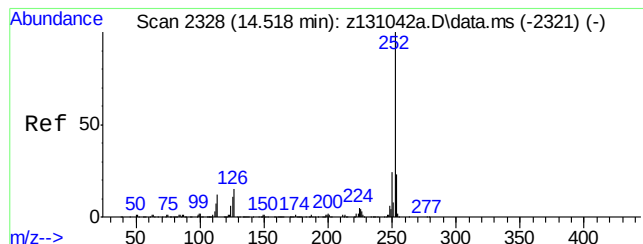
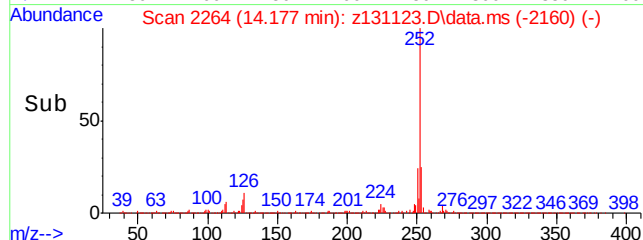
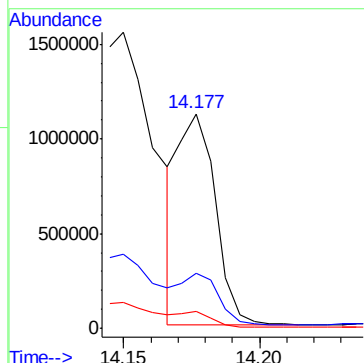
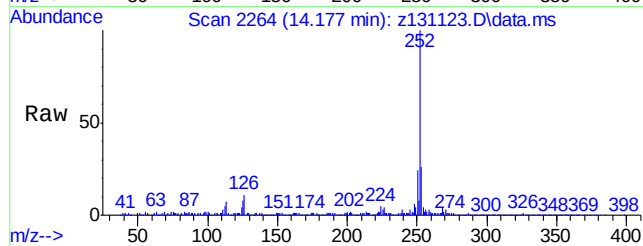
Tgt Ion: 252 Resp: 3328393
Ion Ratio Lower Upper
252 100
253 24.0 0.0 54.6
125 8.4 0.0 41.1





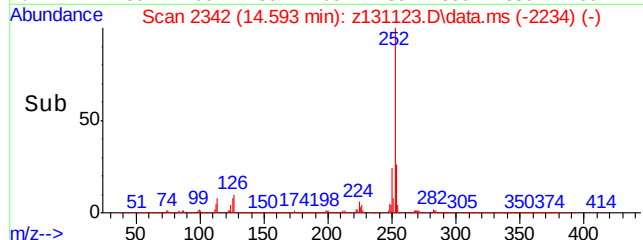
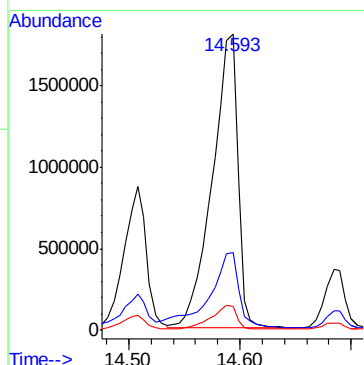
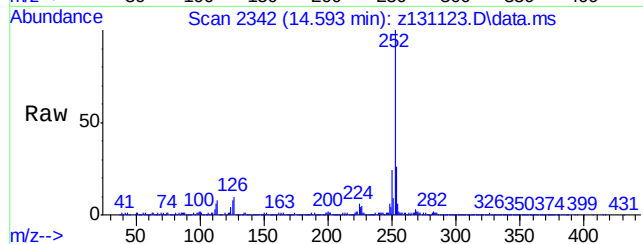
#94
Benzo[k]fluoranthene
Concen: 72.64 ppm
RT: 14.177 min Scan# 2264
Delta R.T. 0.054 min
Lab File: z131123.D
Acq: 1 Jun 2018 7:35 am

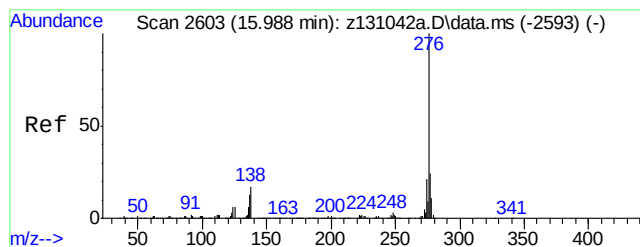
Tgt Ion:	252	Resp:	1044711
Ion	Ratio	Lower	Upper
252	100		
253	25.0	0.0	51.6
125	6.8	0.0	38.5



#95
Benzo[a]pyrene
Concen: 224.83 ppm
RT: 14.593 min Scan# 2342
Delta R.T. 0.075 min
Lab File: z131123.D
Acq: 1 Jun 2018 7:35 am

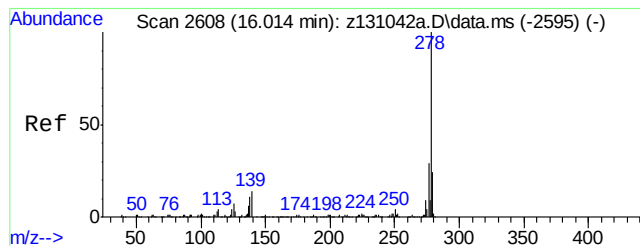
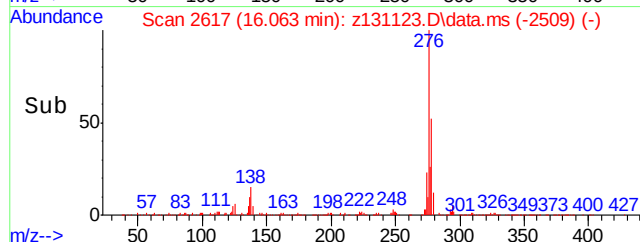
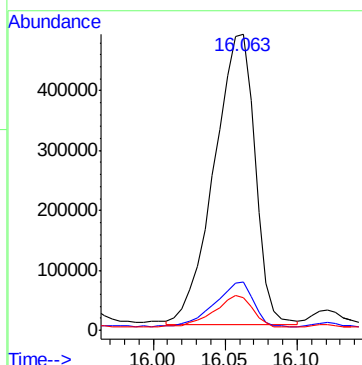
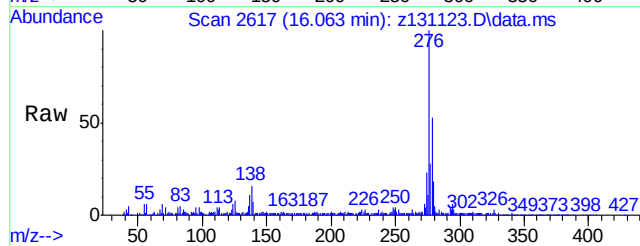
Tgt Ion:	252	Resp:	2893819
Ion	Ratio	Lower	Upper
252	100		
253	24.1	0.0	52.5
125	7.6	0.0	40.6





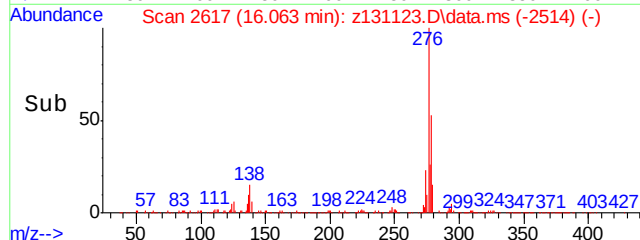
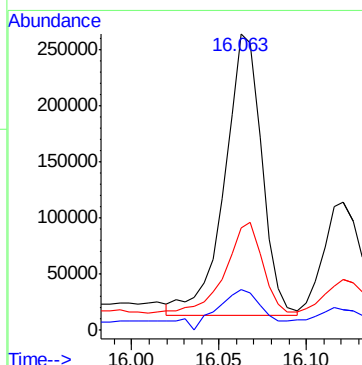
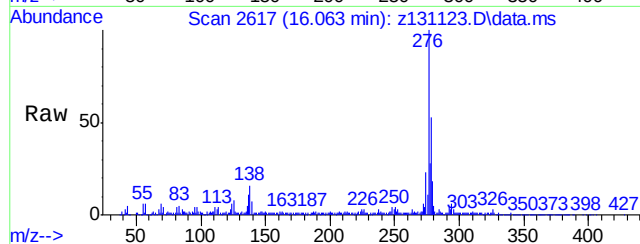
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 77.55 ppm
 RT: 16.063 min Scan# 2617
 Delta R.T. 0.075 min
 Lab File: z131123.D
 Acq: 1 Jun 2018 7:35 am

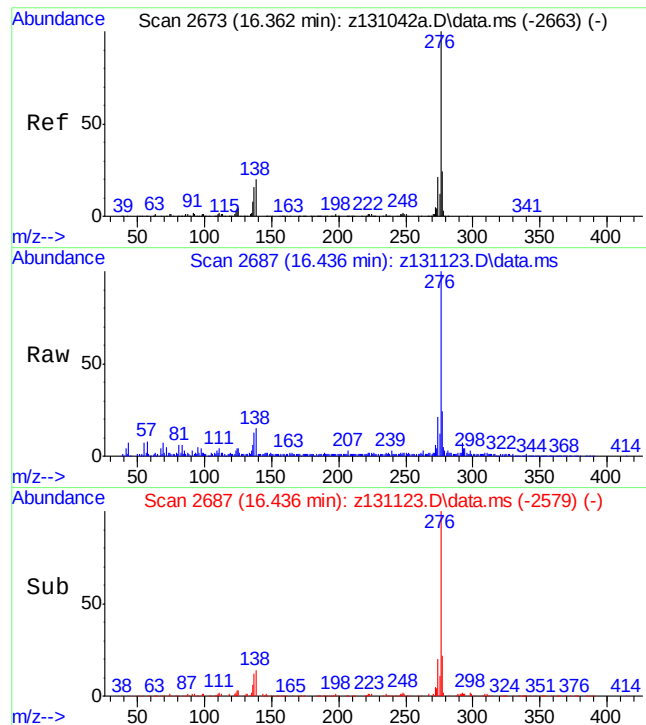
Tgt Ion	Ratio	Lower	Upper
276	100		
138	15.3	0.0	46.9
137	9.9	0.0	43.0



#98
 Dibenzo[a,h]anthracene
 Concen: 35.09 ppm
 RT: 16.063 min Scan# 2617
 Delta R.T. 0.048 min
 Lab File: z131123.D
 Acq: 1 Jun 2018 7:35 am

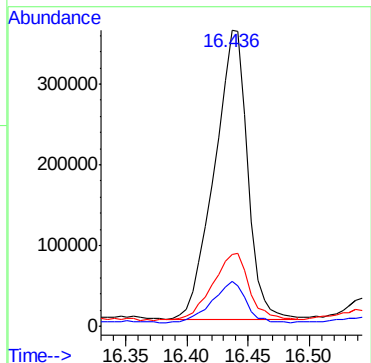
Tgt Ion	Ratio	Lower	Upper
278	100		
139	11.3	0.0	43.8
279	30.4	0.0	54.4





#100
Benzo[g,h,i]perylene
Concen: 71.05 ppm
RT: 16.436 min Scan# 2687
Delta R.T. 0.075 min
Lab File: z131123.D
Acq: 1 Jun 2018 7:35 am

Tgt	Ion:276	Resp:	677316
Ion	Ratio	Lower	Upper
276	100		
138	14.3	0.0	50.0
277	22.7	0.0	53.6



7.1.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6468\
 Data File : z131161.D
 Acq On : 3 Jun 2018 9:56 pm
 Operator : seanb1
 Sample : jc66619-1
 Misc : op12421,eZ6468,30.5,,,1,500
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 04 09:59:59 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6462.M
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 QLast Update : Wed May 30 09:41:31 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.763	152	142441	40.00	ppm	-0.02
24) Naphthalene-d8	5.677	136	538735	40.00	ppm	-0.02
47) Acenaphthene-d10	7.055	164	295345	40.00	ppm	-0.03
69) Phenanthrene-d10	8.658	188	613360	40.00	ppm	-0.03
83) Chrysene-d12	12.472	240	486961	40.00	ppm	-0.04
91) Perylene-d12	14.566	264	309150	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.763	152	142441	40.00	ppm	-0.02
103) Phenanthrene-d10a	8.658	188	613360	40.00	ppm	-0.03
107) Chrysene-d12a	12.472	240	486961	40.00	ppm	-0.03
109) Acenaphthene-d10a	7.055	164	295345	40.00	ppm	-0.02
111) Naphthalene-d8a	5.677	136	538735	40.00	ppm	-0.02
113) Phenanthrene-d10b	8.658	188	613360	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
104) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
105) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
38) Naphthalene	5.693	128	293133	21.91	ppm	97
44) 2-Methylnaphthalene	6.195	141	86145	9.53	ppm	91
56) Acenaphthylene	6.927	152	67913	5.09	ppm	98
59) Acenaphthene	7.087	153	7704	0.96	ppm	89
66) Fluorene	7.584	166	50454	5.07	ppm	95
77) Phenanthrene	8.685	178	135753	9.25	ppm	95
78) Anthracene	8.749	178	61599	3.93	ppm	94
81) Fluoranthene	10.303	202	86242	4.62	ppm	97
84) Pyrene	10.629	202	71820	3.67	ppm	95
87) Benzo[a]anthracene	12.456	228	40029	2.46	ppm	85
89) Chrysene	12.510	228	25735	1.74	ppm	89
93) Benzo[b]fluoranthene	14.054	252	19161	1.74	ppm	72
94) Benzo[k]fluoranthene	14.080	252	4577	0.46	ppm	69
95) Benzo[a]pyrene	14.481	252	14147	1.59	ppm	97
96) Indeno[1,2,3-cd]pyrene	15.939	276	4669	0.55	ppm	90
100) Benzo[g,h,i]perylene	16.303	276	3335	0.51	ppm	84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6468\
Data File : z131161.D
Acq On : 3 Jun 2018 9:56 pm
Operator : seanb1
Sample : jc66619-1
Misc : op12421,ez6468,30.5,,,1,500
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 04 09:59:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6462.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Wed May 30 09:41:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

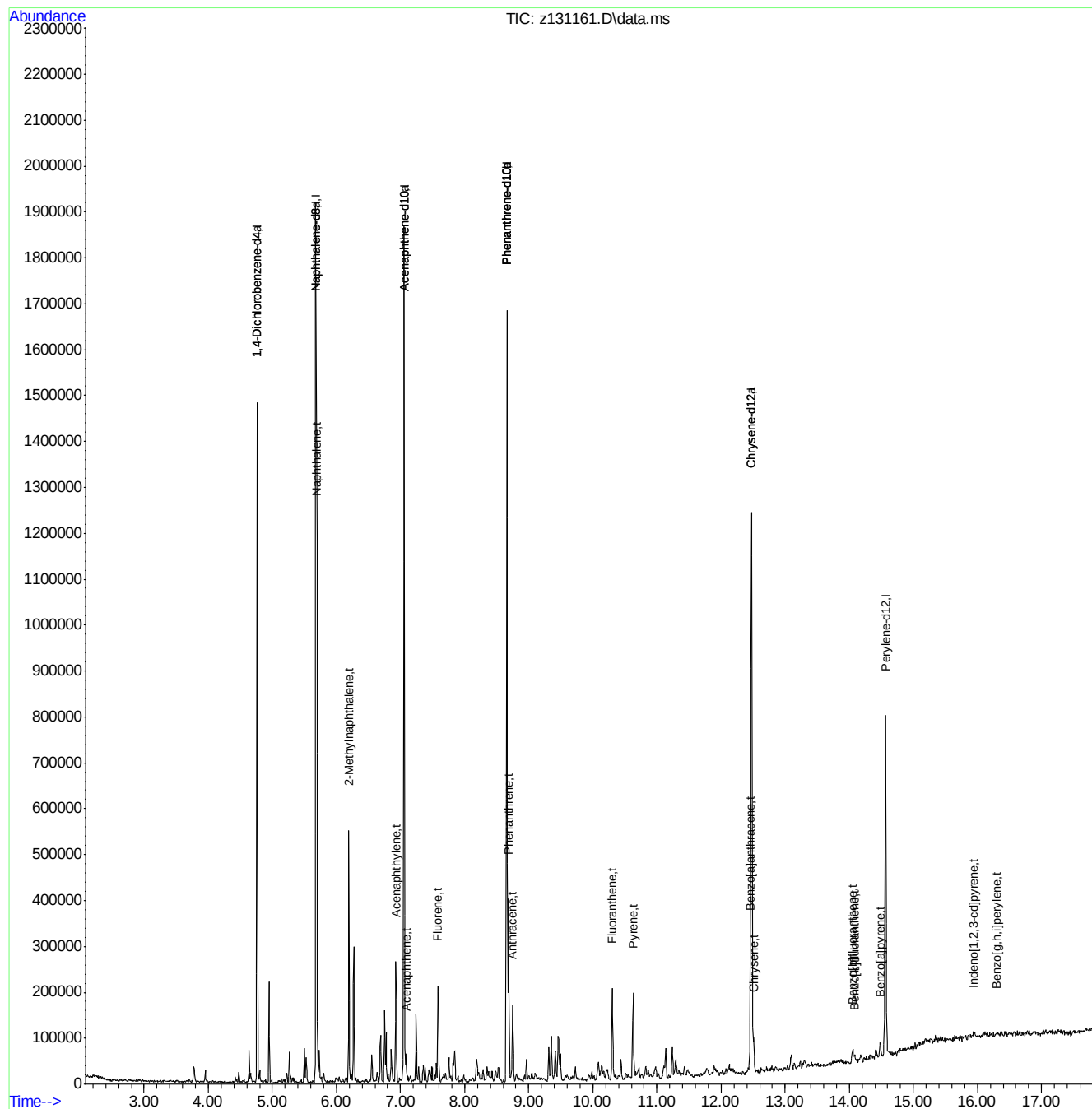
(#) = qualifier out of range (m) = manual integration (+) = signals summed						

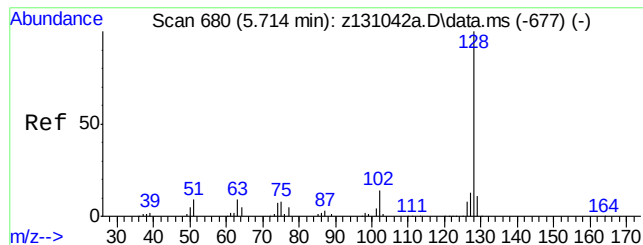
7.1.2
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6468\
Data File : z131161.D
Acq On : 3 Jun 2018 9:56 pm
Operator : seanb1
Sample : jc66619-1
Misc : op12421,eZ6468,30.5,,,1,500
ALS Vial : 14 Sample Multiplier: 1

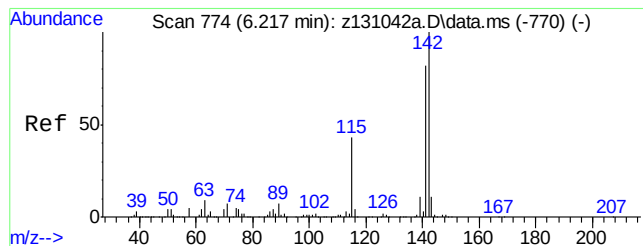
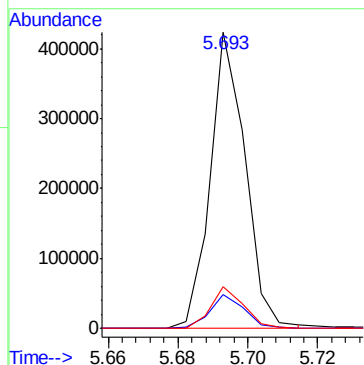
Quant Time: Jun 04 09:59:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6462.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Wed May 30 09:41:31 2018
Response via : Initial Calibration





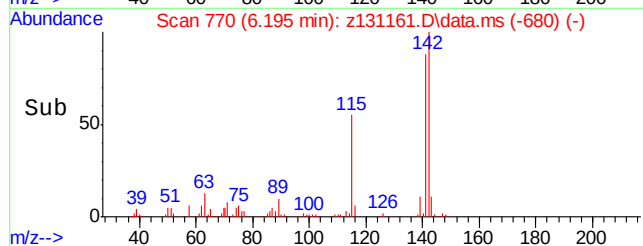
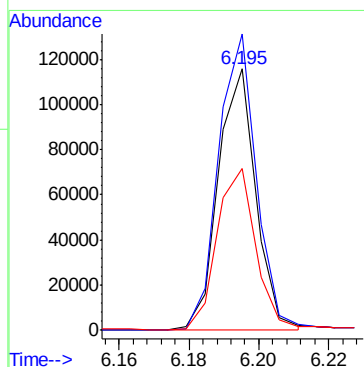
#38
Naphthalene
Concen: 21.91 ppm
RT: 5.693 min Scan# 676
Delta R.T. -0.021 min
Lab File: z131161.D
Acq: 3 Jun 2018 9:56 pm

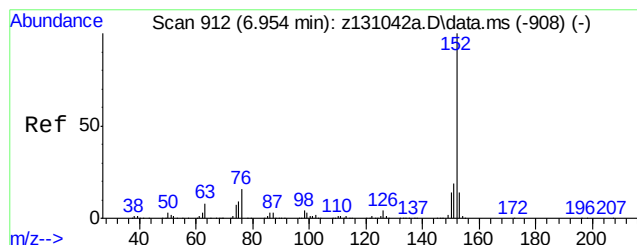
Tgt Ion:	128	Resp:	293133
Ion Ratio	Lower	Upper	
128	100		
129	11.3	0.0	41.1
127	14.0	0.0	41.6



#44
2-Methylnaphthalene
Concen: 9.53 ppm
RT: 6.195 min Scan# 770
Delta R.T. -0.021 min
Lab File: z131161.D
Acq: 3 Jun 2018 9:56 pm

Tgt Ion:	141	Resp:	86145
Ion Ratio	Lower	Upper	
141	100		
142	113.2	92.0	152.0
115	61.9	22.5	82.5





#56

Acenaphthylene

Concen: 5.09 ppm

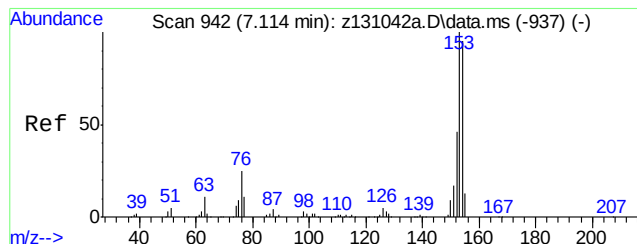
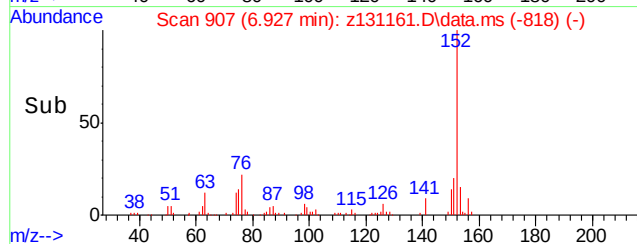
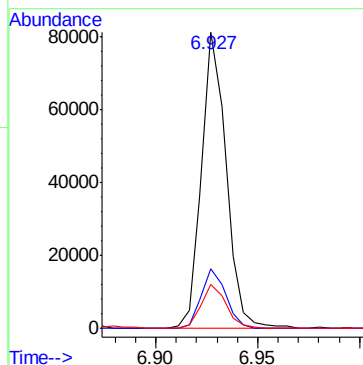
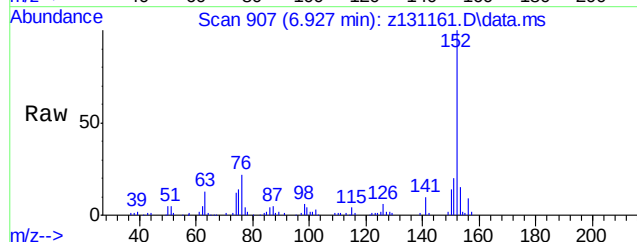
RT: 6.927 min Scan# 907

Delta R.T. -0.027 min

Lab File: z131161.D

Acq: 3 Jun 2018 9:56 pm

Tgt Ion:	152	Resp:	67913
Ion Ratio	Lower	Upper	
152	100		
151	20.0	0.0	49.1
153	14.7	0.0	44.0



#59

Acenaphthene

Concen: 0.96 ppm

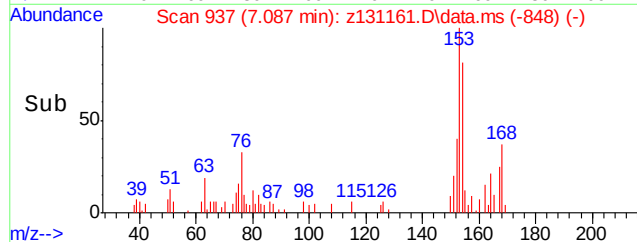
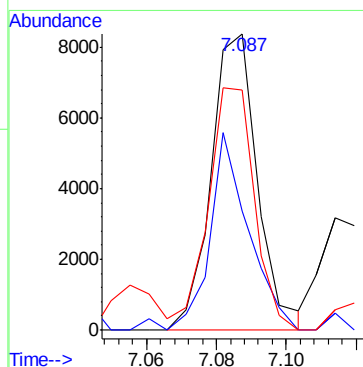
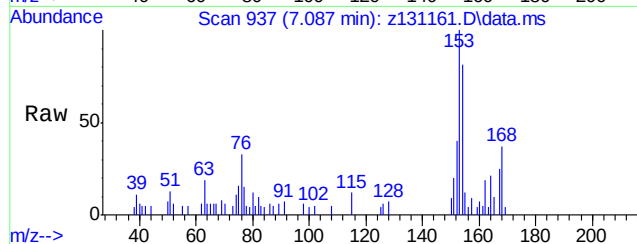
RT: 7.087 min Scan# 937

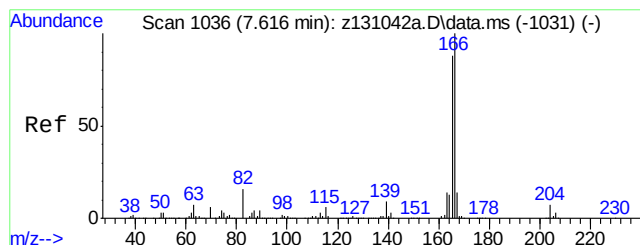
Delta R.T. -0.027 min

Lab File: z131161.D

Acq: 3 Jun 2018 9:56 pm

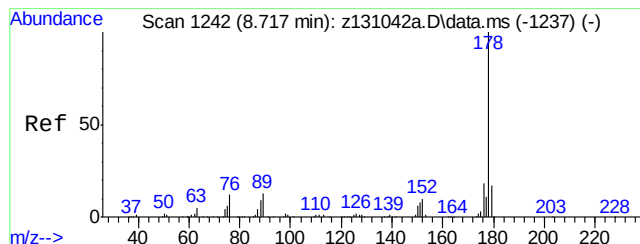
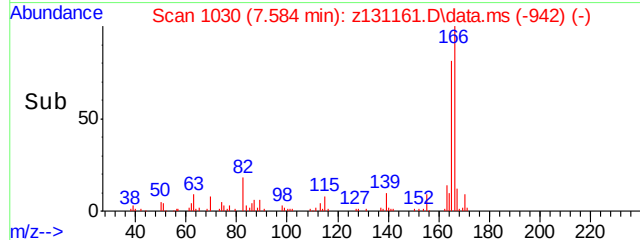
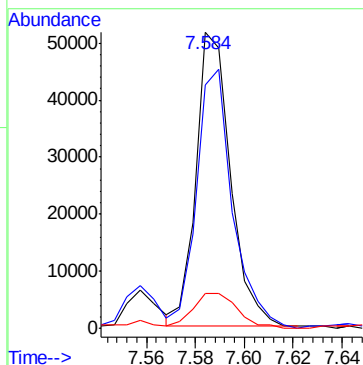
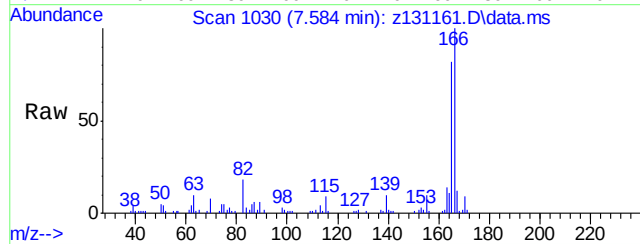
Tgt Ion:	153	Resp:	7704
Ion Ratio	Lower	Upper	
153	100		
152	41.6	15.9	75.9
154	81.8	64.9	124.9





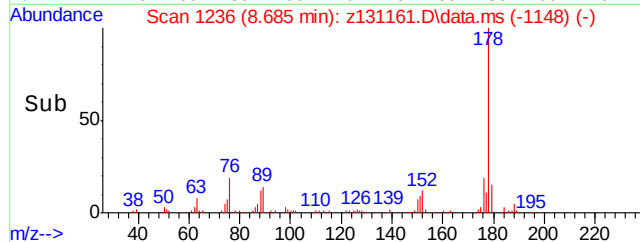
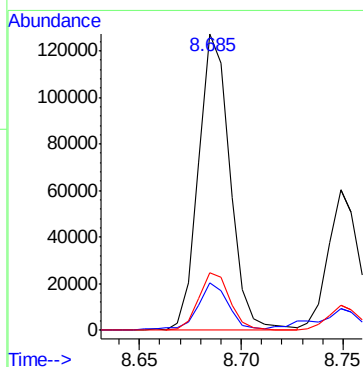
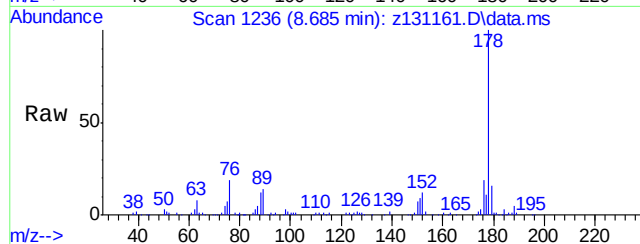
#66
Fluorene
Concen: 5.07 ppm
RT: 7.584 min Scan# 1030
Delta R.T. -0.032 min
Lab File: z131161.D
Acq: 3 Jun 2018 9:56 pm

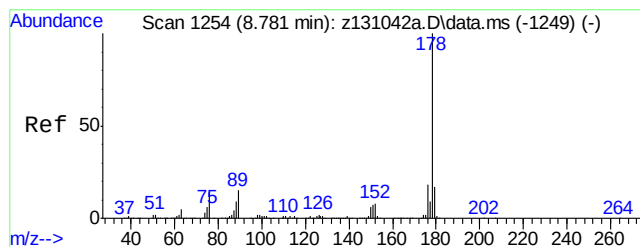
Tgt Ion	Ratio	Lower	Upper
166	100		
165	82.6	57.4	117.4
167	11.9	0.0	43.8



#77
Phenanthrene
Concen: 9.25 ppm
RT: 8.685 min Scan# 1236
Delta R.T. -0.032 min
Lab File: z131161.D
Acq: 3 Jun 2018 9:56 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	14.0	0.0	46.5
176	19.6	0.0	47.7





#78

Anthracene

Concen: 3.93 ppm

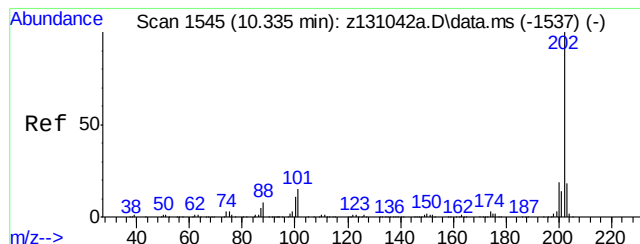
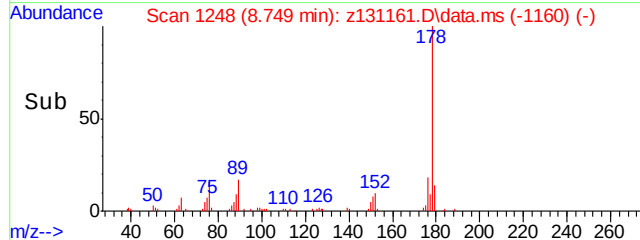
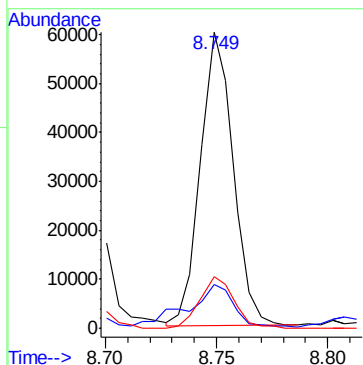
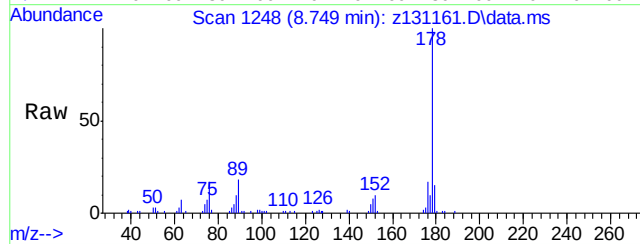
RT: 8.749 min Scan# 1248

Delta R.T. -0.032 min

Lab File: z131161.D

Acq: 3 Jun 2018 9:56 pm

Tgt Ion:	178	Resp:	61599
Ion Ratio	Lower	Upper	
178	100		
179	11.7	0.0	46.9
176	17.8	0.0	48.1



#81

Fluoranthene

Concen: 4.62 ppm

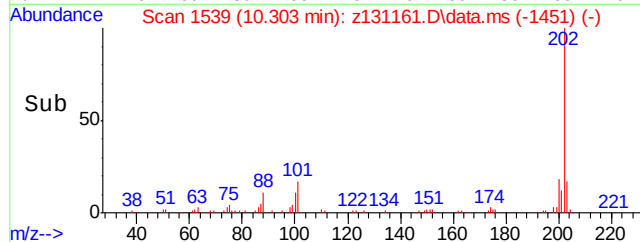
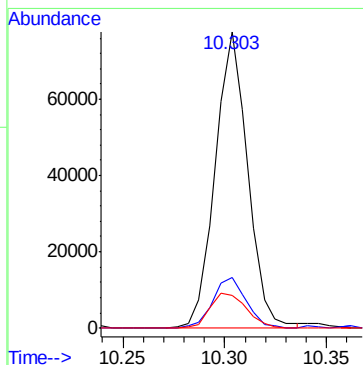
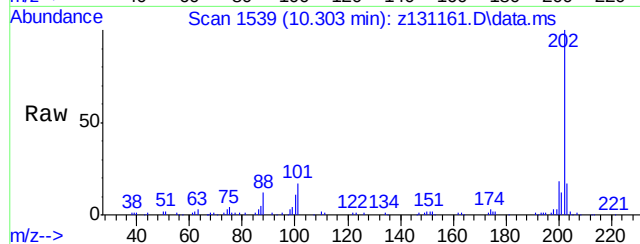
RT: 10.303 min Scan# 1539

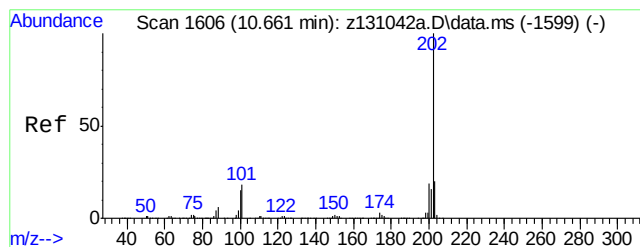
Delta R.T. -0.032 min

Lab File: z131161.D

Acq: 3 Jun 2018 9:56 pm

Tgt Ion:	202	Resp:	86242
Ion Ratio	Lower	Upper	
202	100		
101	17.1	0.0	44.7
100	11.3	0.0	41.1





#84

Pyrene

Concen: 3.67 ppm

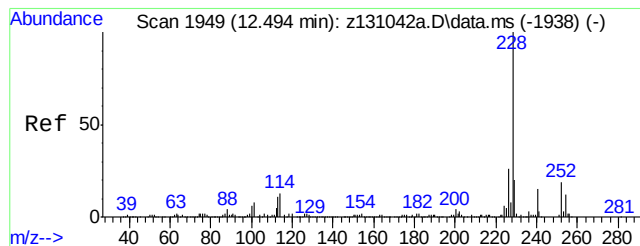
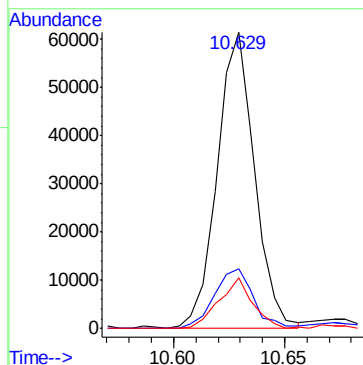
RT: 10.629 min Scan# 1600

Delta R.T. -0.032 min

Lab File: z131161.D

Acq: 3 Jun 2018 9:56 pm

Tgt Ion:	202	Resp:	71820
Ion Ratio	Lower	Upper	
202	100		
101	19.9	0.0	48.0
100	17.1	0.0	44.5



#87

Benzo[a]anthracene

Concen: 2.46 ppm

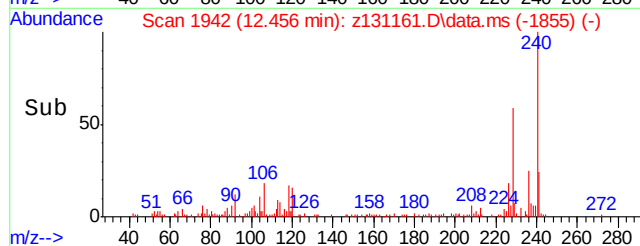
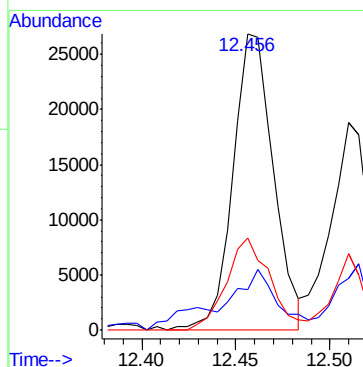
RT: 12.456 min Scan# 1942

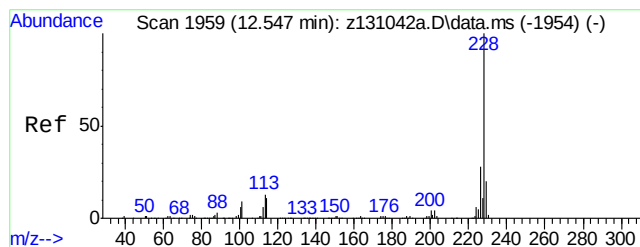
Delta R.T. -0.037 min

Lab File: z131161.D

Acq: 3 Jun 2018 9:56 pm

Tgt Ion:	228	Resp:	40029
Ion Ratio	Lower	Upper	
228	100		
229	10.1	0.0	49.8
226	31.1	0.0	55.7





#89

Chrysene

Concen: 1.74 ppm

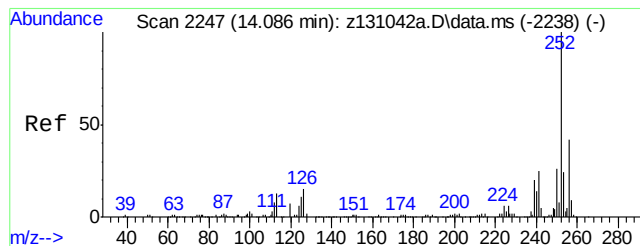
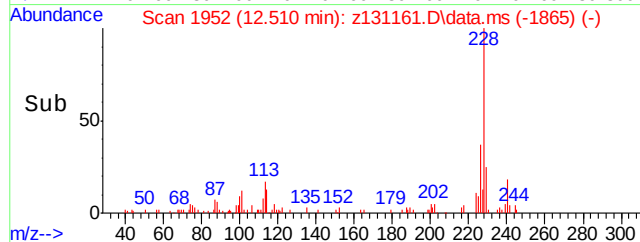
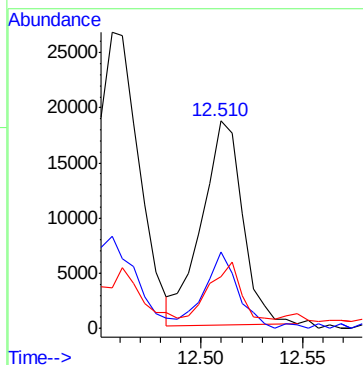
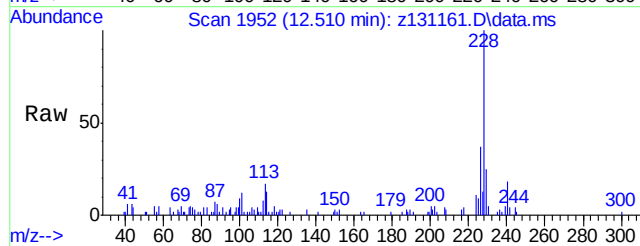
RT: 12.510 min Scan# 1952

Delta R.T. -0.037 min

Lab File: z131161.D

Acq: 3 Jun 2018 9:56 pm

Tgt Ion:	228	Resp:	25735
Ion Ratio	Lower	Upper	
228	100		
226	37.1	0.0	57.5
229	19.2	0.0	50.1



#93

Benzo[b]fluoranthene

Concen: 1.74 ppm

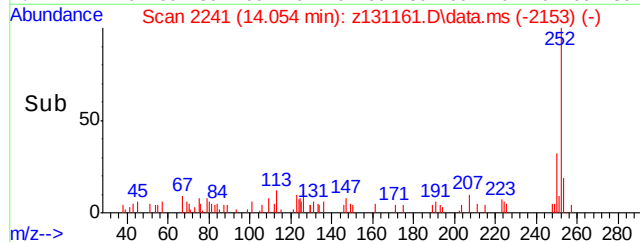
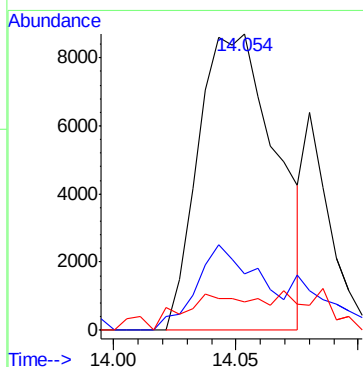
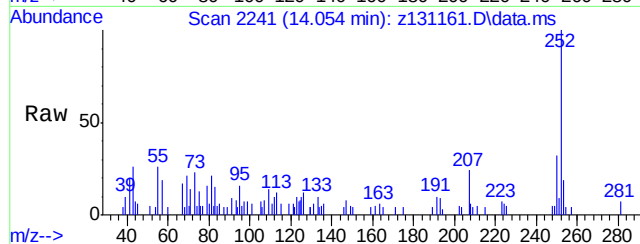
RT: 14.054 min Scan# 2241

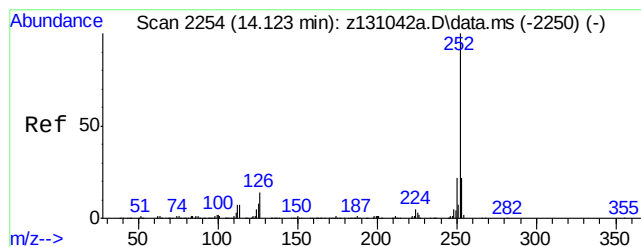
Delta R.T. -0.032 min

Lab File: z131161.D

Acq: 3 Jun 2018 9:56 pm

Tgt Ion:	252	Resp:	19161
Ion Ratio	Lower	Upper	
252	100		
253	9.7	0.0	54.6
125	2.1	0.0	41.1





#94

Benzo[k]fluoranthene

Concen: 0.46 ppm

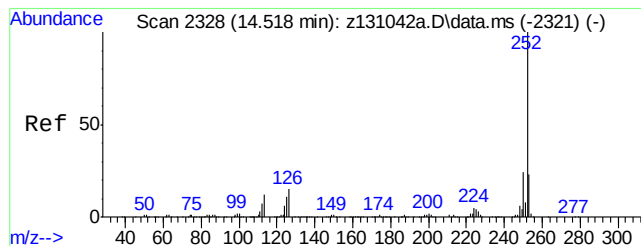
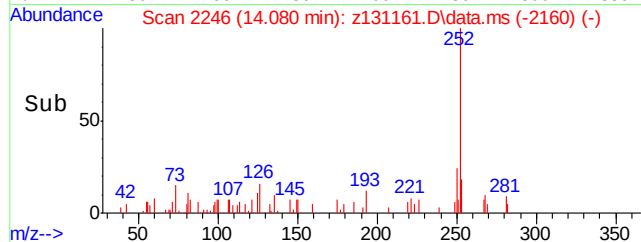
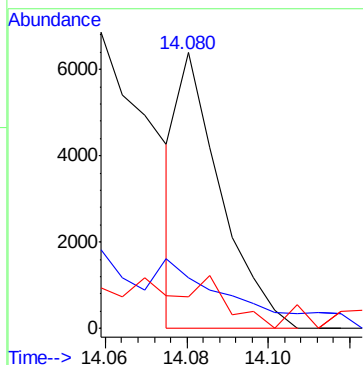
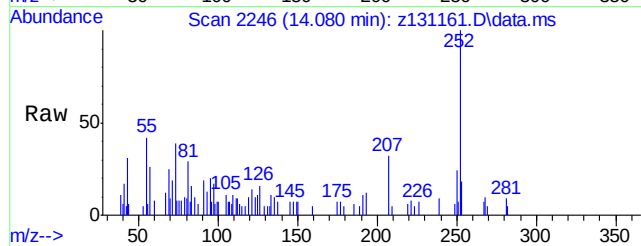
RT: 14.080 min Scan# 2246

Delta R.T. -0.043 min

Lab File: z131161.D

Acq: 3 Jun 2018 9:56 pm

Tgt	Ion:252	Resp:	4577
Ion	Ratio	Lower	Upper
252	100		
253	4.6	0.0	51.6
125	1.6	0.0	38.5



#95

Benzo[a]pyrene

Concen: 1.59 ppm

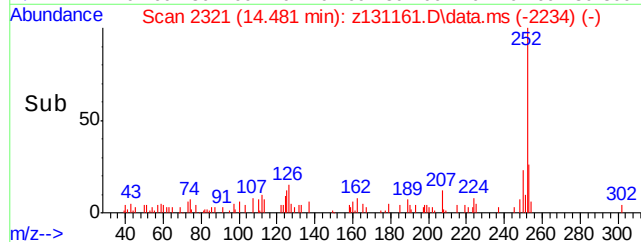
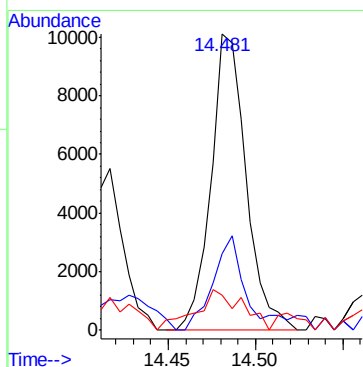
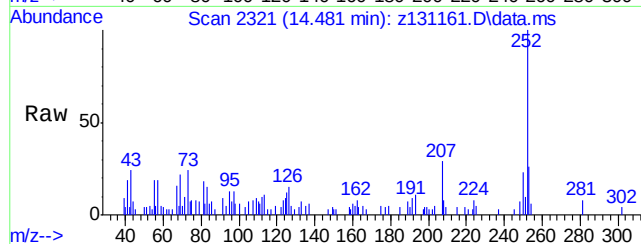
RT: 14.481 min Scan# 2321

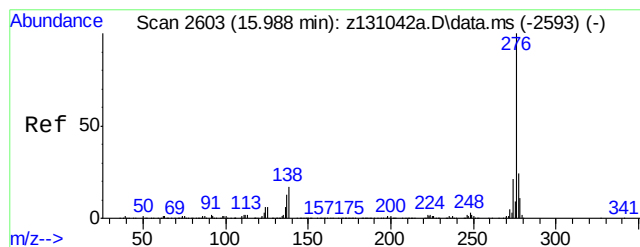
Delta R.T. -0.037 min

Lab File: z131161.D

Acq: 3 Jun 2018 9:56 pm

Tgt	Ion:252	Resp:	14147
Ion	Ratio	Lower	Upper
252	100		
253	21.6	0.0	52.5
125	8.3	0.0	40.6





#96

Indeno[1,2,3-cd]pyrene

Concen: 0.55 ppm

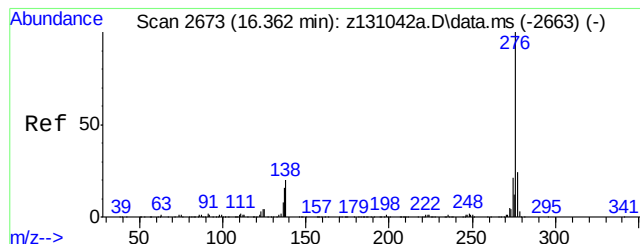
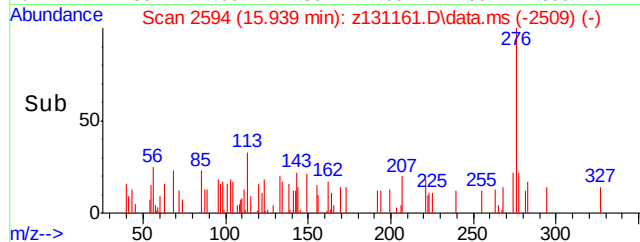
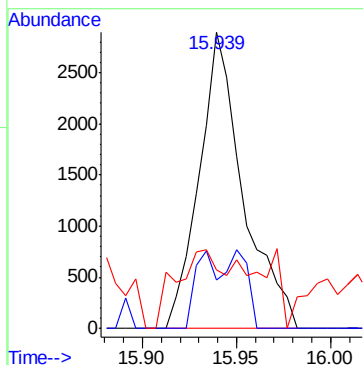
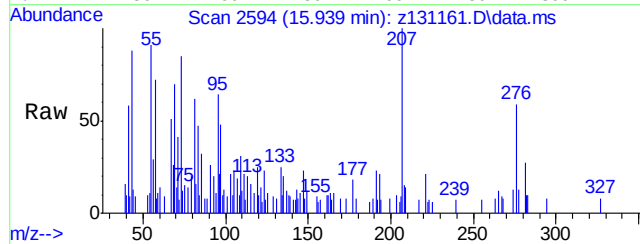
RT: 15.939 min Scan# 2594

Delta R.T. -0.048 min

Lab File: z131161.D

Acq: 3 Jun 2018 9:56 pm

Tgt Ion:	276	Resp:	4669
Ion Ratio	Lower	Upper	
276	100		
138	16.4	0.0	46.9
137	4.9	0.0	43.0



#100

Benzo[g,h,i]perylene

Concen: 0.51 ppm

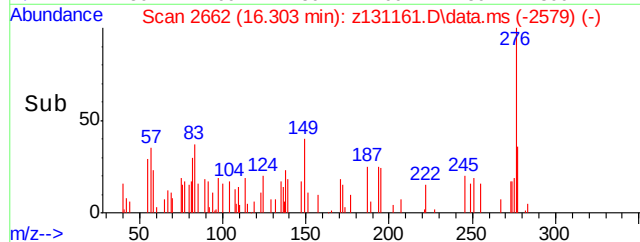
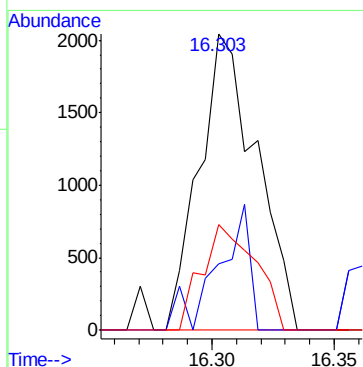
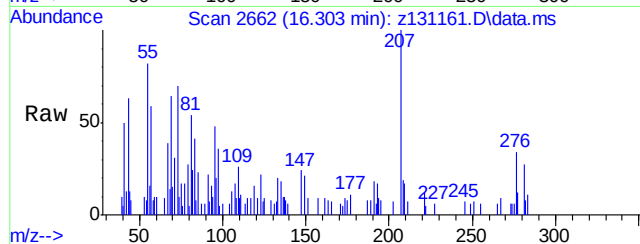
RT: 16.303 min Scan# 2662

Delta R.T. -0.059 min

Lab File: z131161.D

Acq: 3 Jun 2018 9:56 pm

Tgt Ion:	276	Resp:	3335
Ion Ratio	Lower	Upper	
276	100		
138	22.6	0.0	50.0
277	35.6	0.0	53.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6468\
 Data File : z131167.D
 Acq On : 4 Jun 2018 12:35 am
 Operator : seanb1
 Sample : jc66619-1
 Misc : op12421,eZ6468,30.5,,,1,50
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 04 09:24:57 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6462.M
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 QLast Update : Wed May 30 09:41:31 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.764	152	145947	40.00	ppm	-0.02
24) Naphthalene-d8	5.682	136	542678	40.00	ppm	-0.02
47) Acenaphthene-d10	7.061	164	282699	40.00	ppm	-0.02
69) Phenanthrene-d10	8.663	188	537744	40.00	ppm	-0.03
83) Chrysene-d12	12.488	240	347667	40.00	ppm	-0.02
91) Perylene-d12	14.577	264	298906	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.764	152	145947	40.00	ppm	-0.02
103) Phenanthrene-d10a	8.663	188	537744	40.00	ppm	-0.02
107) Chrysene-d12a	12.488	240	347667	40.00	ppm	-0.01
109) Acenaphthene-d10a	7.061	164	282699	40.00	ppm	-0.02
111) Naphthalene-d8a	5.682	136	542678	40.00	ppm	-0.02
113) Phenanthrene-d10b	8.663	188	537744	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.807	112	3197	0.51	ppm	0.00
Spiked Amount 50.000			Recovery	=	1.02%	
8) Phenol-d5	4.518	99	4879	0.54	ppm	-0.01
Spiked Amount 50.000			Recovery	=	1.08%	
25) Nitrobenzene-d5	5.164	82	4372	0.48	ppm	-0.02
Spiked Amount 50.000			Recovery	=	0.96%	
51) 2-Fluorobiphenyl	6.473	172	6515	0.64	ppm	-0.02
Spiked Amount 50.000			Recovery	=	1.28%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	10.897	244	4113	0.41	ppm	-0.03
Spiked Amount 50.000			Recovery	=	0.82%	
104) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
105) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						Qvalue
38) Naphthalene	5.704	128	3036818	225.33	ppm	97
44) 2-Methylnaphthalene	6.201	141	834058	91.64	ppm	98
56) Acenaphthylene	6.933	152	670424	52.47	ppm	99
59) Acenaphthene	7.087	153	71953	9.33	ppm	91
66) Fluorene	7.595	166	489193	51.36	ppm	97
77) Phenanthrene	8.701	178	1275945	99.12	ppm	97
78) Anthracene	8.760	178	561931	40.94	ppm	98
81) Fluoranthene	10.314	202	637847	38.94	ppm	98
84) Pyrene	10.640	202	523388	37.42	ppm	97
87) Benzo[a]anthracene	12.472	228	276975	23.85	ppm	95
89) Chrysene	12.526	228	206735	19.55	ppm	93
93) Benzo[b]fluoranthene	14.064	252	157857	14.82	ppm	97
94) Benzo[k]fluoranthene	14.091	252	66618	6.92	ppm	91
95) Benzo[a]pyrene	14.497	252	141202	16.39	ppm	100
96) Indeno[1,2,3-cd]pyrene	15.961	276	43132	5.23	ppm	97
98) Dibenz[a,h]anthracene	15.972	278	14451	2.04	ppm	84
100) Benzo[g,h,i]perylene	16.324	276	34646	5.43	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6468\
Data File : z131167.D
Acq On : 4 Jun 2018 12:35 am
Operator : seanb1
Sample : jc66619-1
Misc : op12421,ez6468,30.5,,,1,50
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 04 09:24:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6462.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Wed May 30 09:41:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

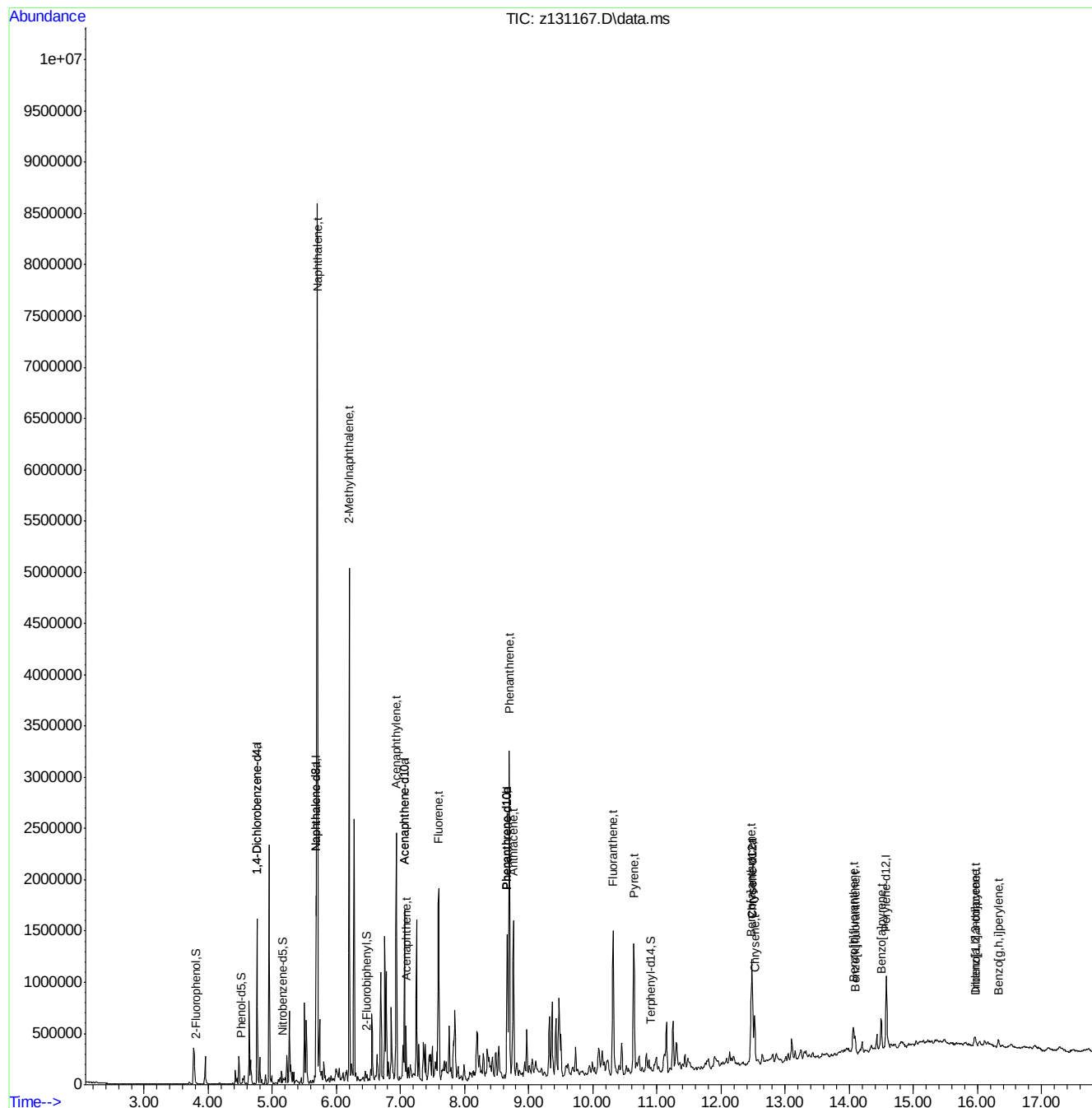
(#) = qualifier out of range (m) = manual integration (+) = signals summed

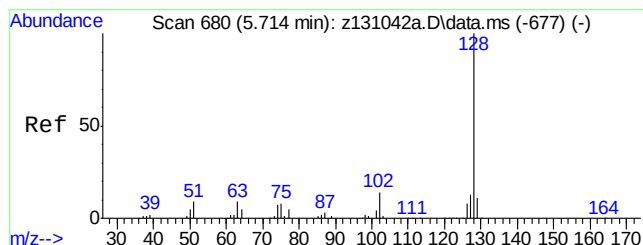
7.1.3
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6468\
Data File : z131167.D
Acq On : 4 Jun 2018 12:35 am
Operator : seanb1
Sample : jc66619-1
Misc : op12421,eZ6468,30.5,,,1,50
ALS Vial : 20 Sample Multiplier: 1

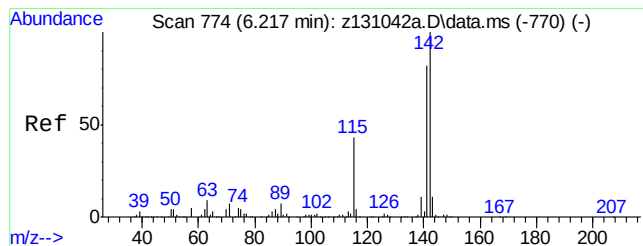
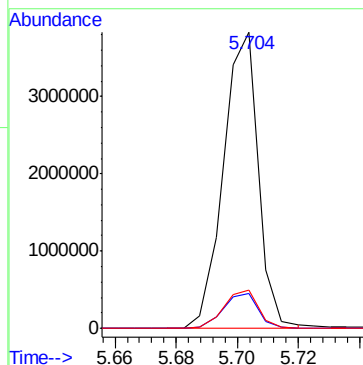
Quant Time: Jun 04 09:24:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6462.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Wed May 30 09:41:31 2018
Response via : Initial Calibration





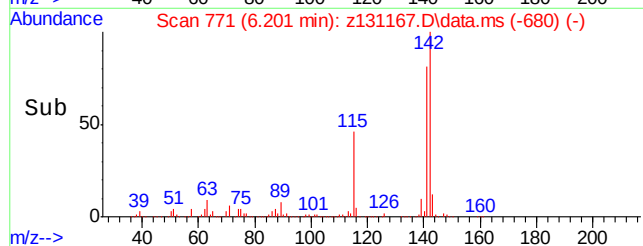
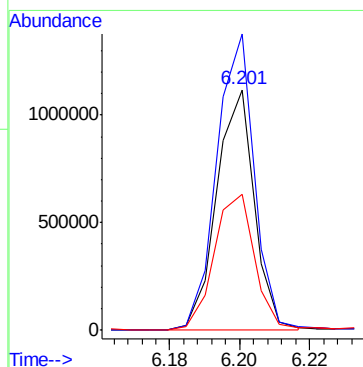
#38
Naphthalene
Concen: 225.33 ppm
RT: 5.704 min Scan# 678
Delta R.T. -0.011 min
Lab File: z131167.D
Acq: 4 Jun 2018 12:35 am

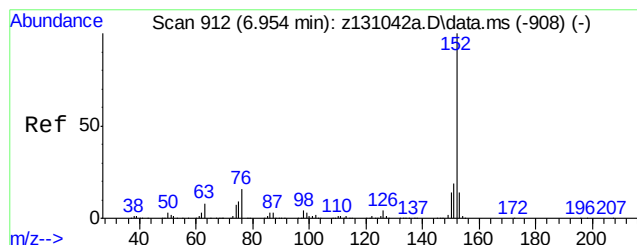
Tgt Ion	Ratio	Lower	Upper
128	100		
129	11.8	0.0	41.1
127	12.9	0.0	41.6



#44
2-Methylnaphthalene
Concen: 91.64 ppm
RT: 6.201 min Scan# 771
Delta R.T. -0.016 min
Lab File: z131167.D
Acq: 4 Jun 2018 12:35 am

Tgt Ion	Ratio	Lower	Upper
141	100		
142	123.2	92.0	152.0
115	56.0	22.5	82.5





#56

Acenaphthylene

Concen: 52.47 ppm

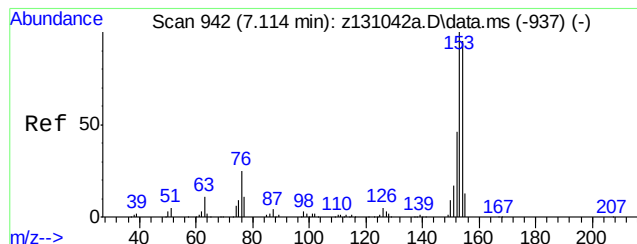
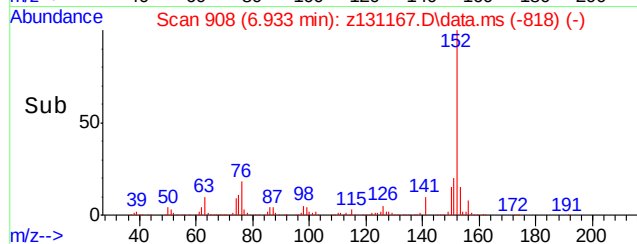
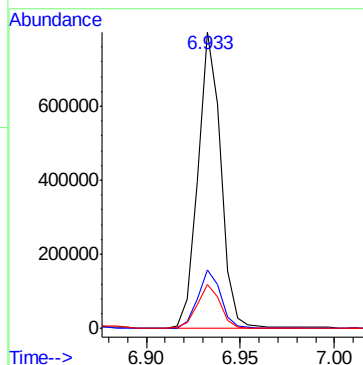
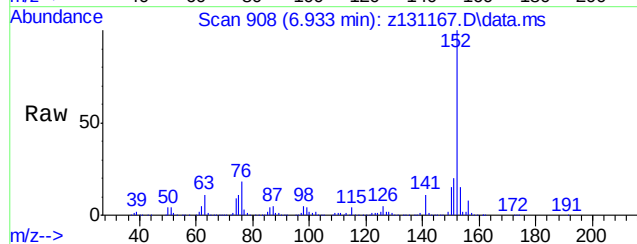
RT: 6.933 min Scan# 908

Delta R.T. -0.021 min

Lab File: z131167.D

Acq: 4 Jun 2018 12:35 am

Tgt Ion:	152	Resp:	670424
Ion Ratio	Lower	Upper	
152	100		
151	19.7	0.0	49.1
153	14.7	0.0	44.0



#59

Acenaphthene

Concen: 9.33 ppm

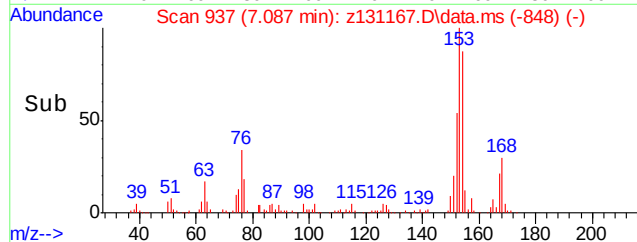
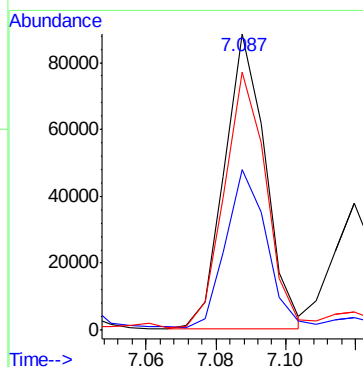
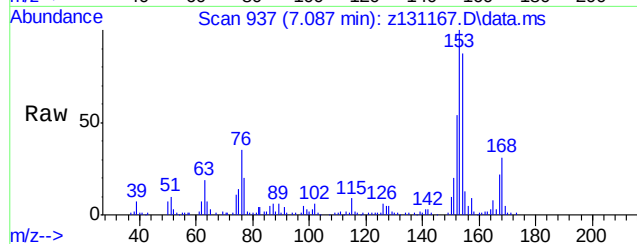
RT: 7.087 min Scan# 937

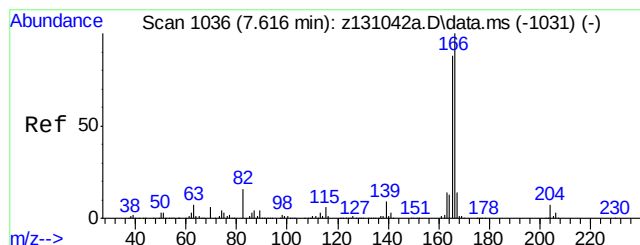
Delta R.T. -0.027 min

Lab File: z131167.D

Acq: 4 Jun 2018 12:35 am

Tgt Ion:	153	Resp:	71953
Ion Ratio	Lower	Upper	
153	100		
152	53.2	15.9	75.9
154	87.0	64.9	124.9





#66

Fluorene

Concen: 51.36 ppm

RT: 7.595 min Scan# 1032

Delta R.T. -0.021 min

Lab File: z131167.D

Acq: 4 Jun 2018 12:35 am

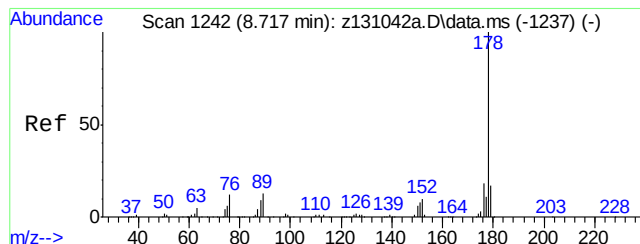
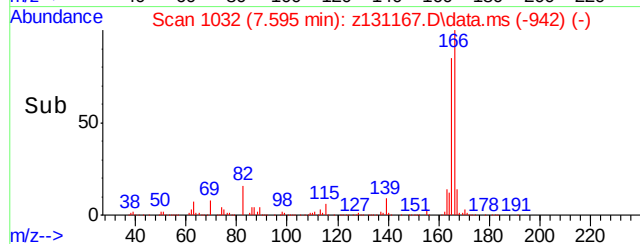
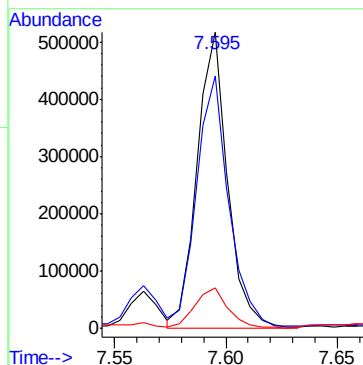
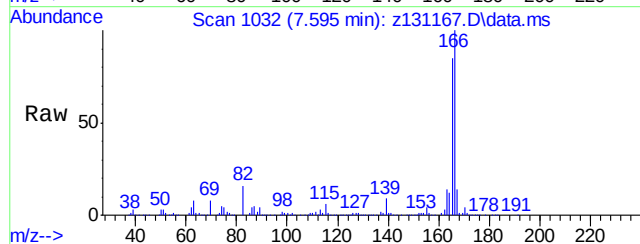
Tgt Ion:166 Resp: 489193

Ion Ratio Lower Upper

166 100

165 84.6 57.4 117.4

167 13.6 0.0 43.8



#77

Phenanthrene

Concen: 99.12 ppm

RT: 8.701 min Scan# 1239

Delta R.T. -0.016 min

Lab File: z131167.D

Acq: 4 Jun 2018 12:35 am

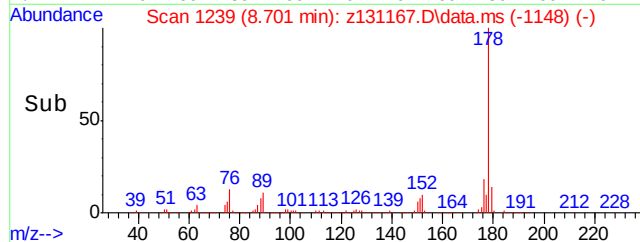
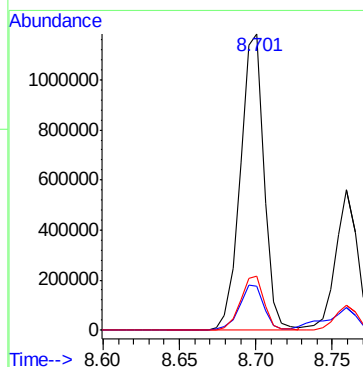
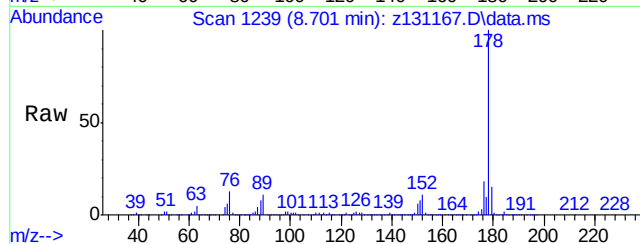
Tgt Ion:178 Resp: 1275945

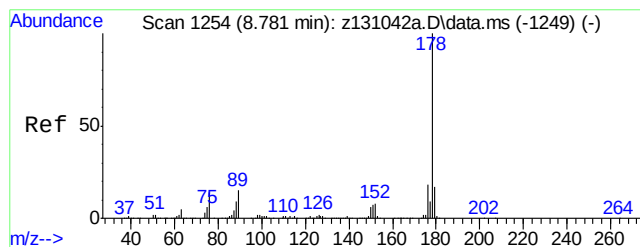
Ion Ratio Lower Upper

178 100

179 14.3 0.0 46.5

176 18.3 0.0 47.7





#78

Anthracene

Concen: 40.94 ppm

RT: 8.760 min Scan# 1250

Delta R.T. -0.021 min

Lab File: z131167.D

Acq: 4 Jun 2018 12:35 am

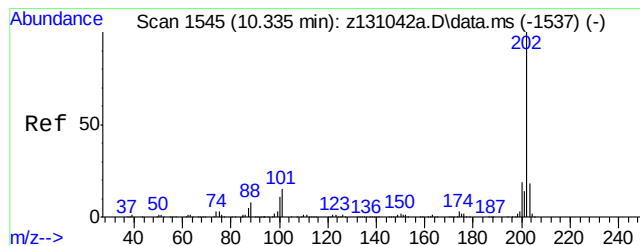
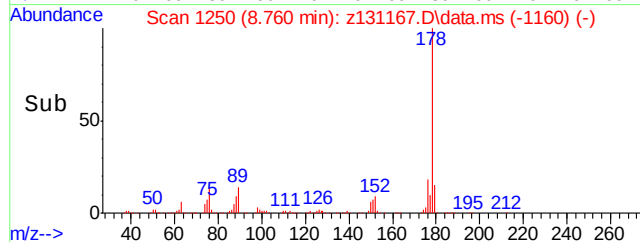
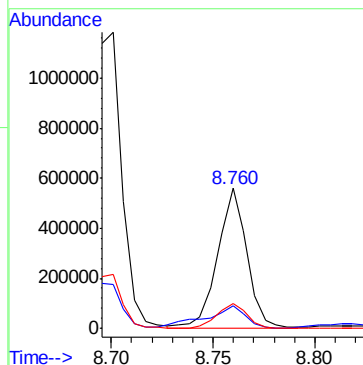
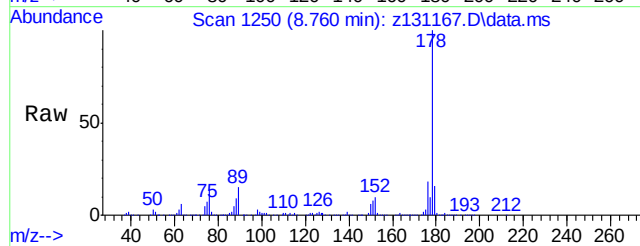
Tgt Ion:178 Resp: 561931

Ion Ratio Lower Upper

178 100

179 14.8 0.0 46.9

176 18.0 0.0 48.1



#81

Fluoranthene

Concen: 38.94 ppm

RT: 10.314 min Scan# 1541

Delta R.T. -0.021 min

Lab File: z131167.D

Acq: 4 Jun 2018 12:35 am

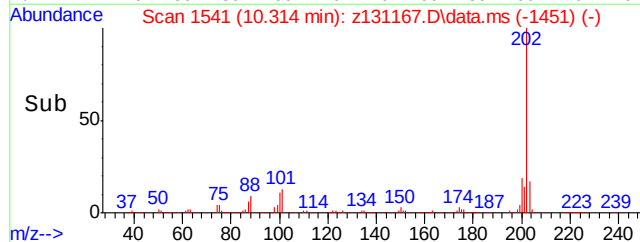
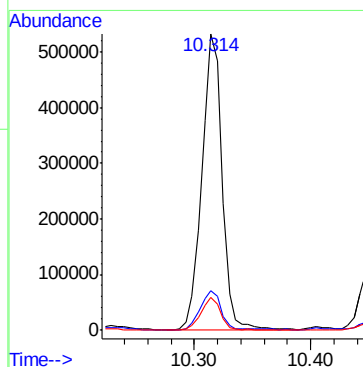
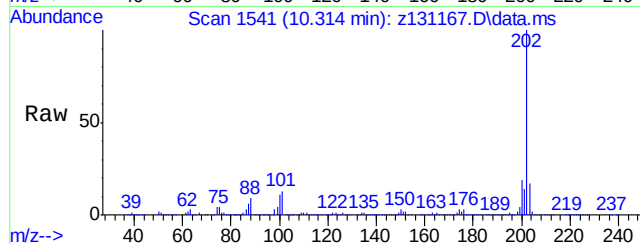
Tgt Ion:202 Resp: 637847

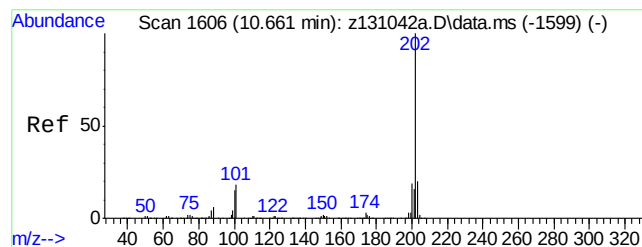
Ion Ratio Lower Upper

202 100

101 13.2 0.0 44.7

100 11.1 0.0 41.1





#84

Pyrene

Concen: 37.42 ppm

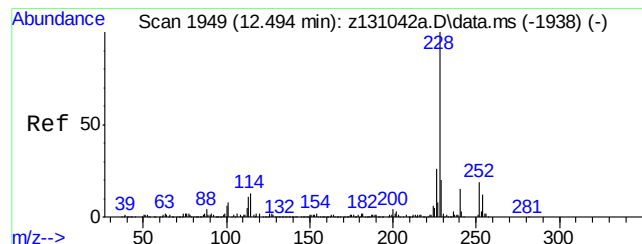
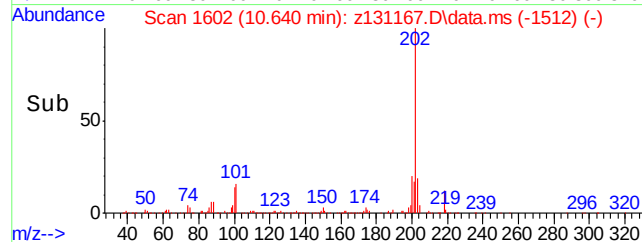
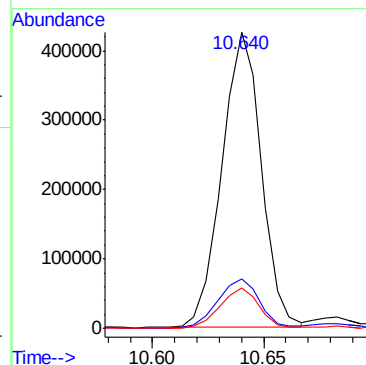
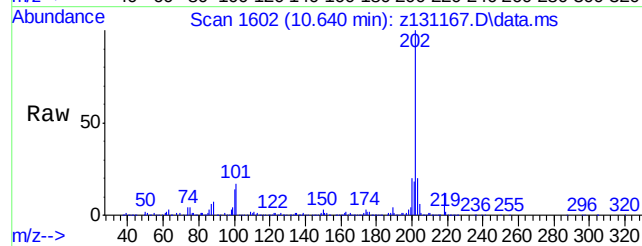
RT: 10.640 min Scan# 1602

Delta R.T. -0.021 min

Lab File: z131167.D

Acq: 4 Jun 2018 12:35 am

Tgt	Ion:202	Resp:	523388
Ion	Ratio	Lower	Upper
202	100		
101	16.5	0.0	48.0
100	13.5	0.0	44.5



#87

Benzo[a]anthracene

Concen: 23.85 ppm

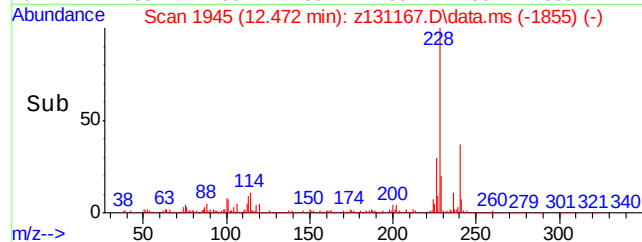
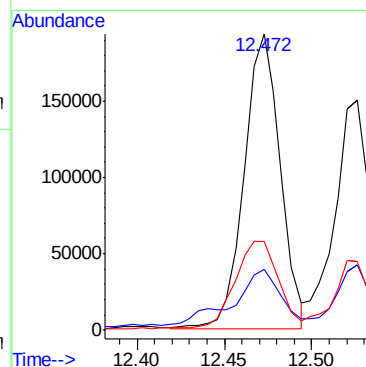
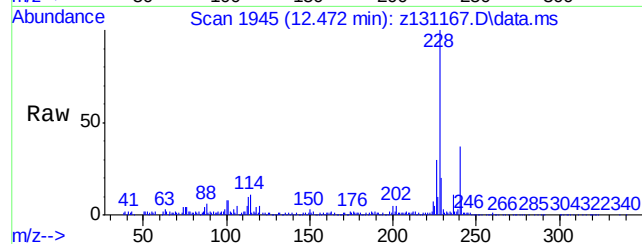
RT: 12.472 min Scan# 1945

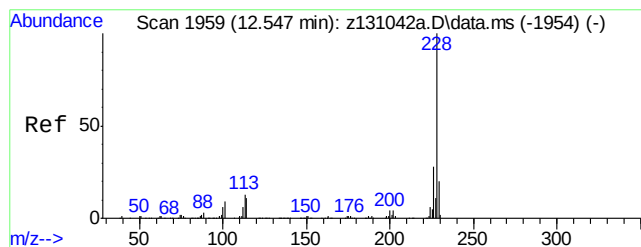
Delta R.T. -0.021 min

Lab File: z131167.D

Acq: 4 Jun 2018 12:35 am

Tgt	Ion:228	Resp:	276975
Ion	Ratio	Lower	Upper
228	100		
229	18.6	0.0	49.8
226	29.6	0.0	55.7





#89

Chrysene

Concen: 19.55 ppm

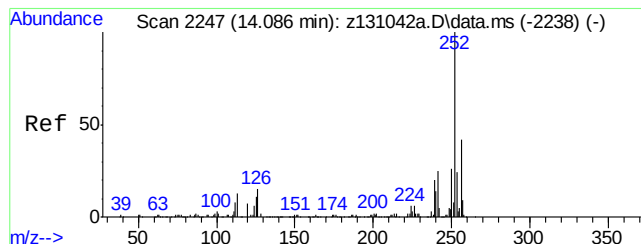
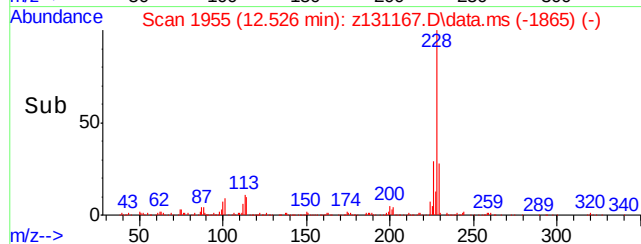
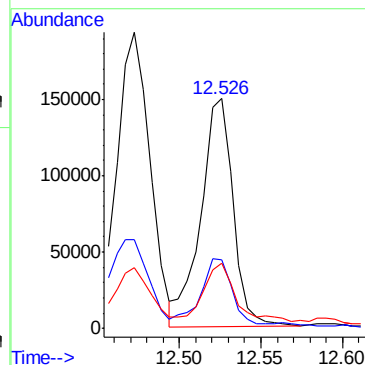
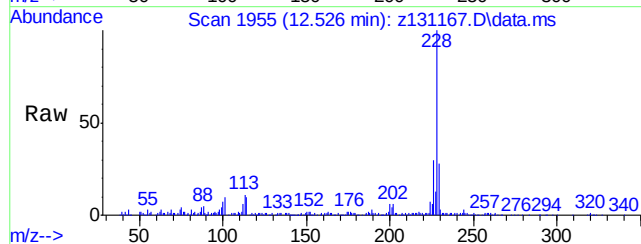
RT: 12.526 min Scan# 1955

Delta R.T. -0.021 min

Lab File: z131167.D

Acq: 4 Jun 2018 12:35 am

Tgt Ion	Ratio	Lower	Upper
228	100		
226	28.8	0.0	57.5
229	25.7	0.0	50.1



#93

Benzo[b]fluoranthene

Concen: 14.82 ppm

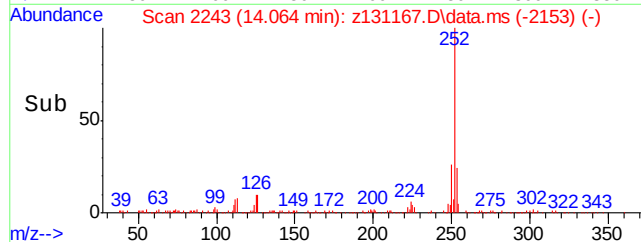
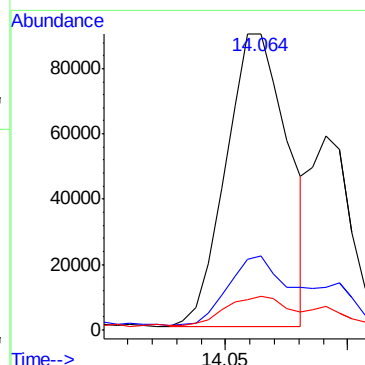
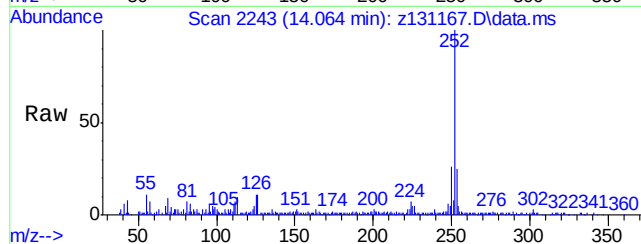
RT: 14.064 min Scan# 2243

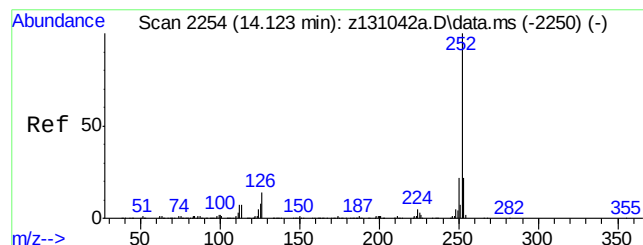
Delta R.T. -0.021 min

Lab File: z131167.D

Acq: 4 Jun 2018 12:35 am

Tgt Ion	Ratio	Lower	Upper
252	100		
253	23.0	0.0	54.6
125	10.2	0.0	41.1





#94

Benzo[k]fluoranthene

Concen: 6.92 ppm

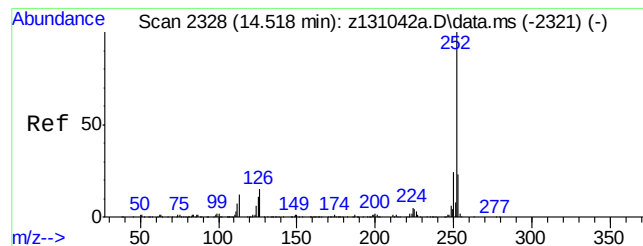
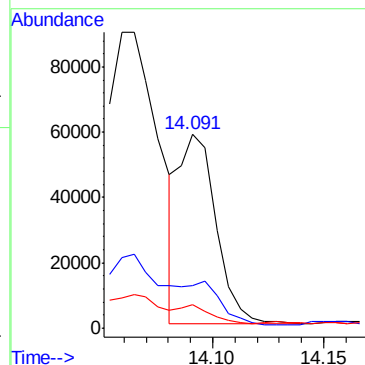
RT: 14.091 min Scan# 2248

Delta R.T. -0.032 min

Lab File: z131167.D

Acq: 4 Jun 2018 12:35 am

Tgt	Ion:252	Resp:	66618
Ion	Ratio	Lower	Upper
252	100		
253	16.6	0.0	51.6
125	10.3	0.0	38.5



#95

Benzo[a]pyrene

Concen: 16.39 ppm

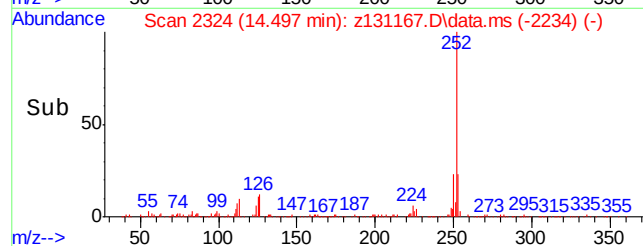
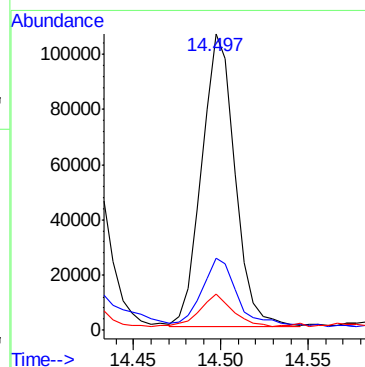
RT: 14.497 min Scan# 2324

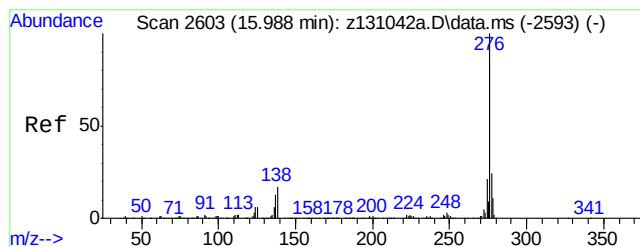
Delta R.T. -0.021 min

Lab File: z131167.D

Acq: 4 Jun 2018 12:35 am

Tgt	Ion:252	Resp:	141202
Ion	Ratio	Lower	Upper
252	100		
253	22.6	0.0	52.5
125	10.3	0.0	40.6





#96

Indeno[1,2,3-cd]pyrene

Concen: 5.23 ppm

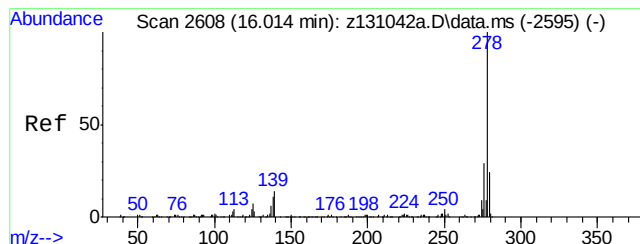
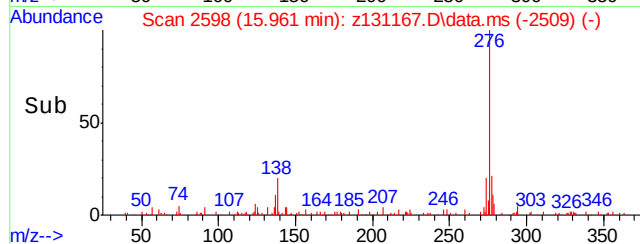
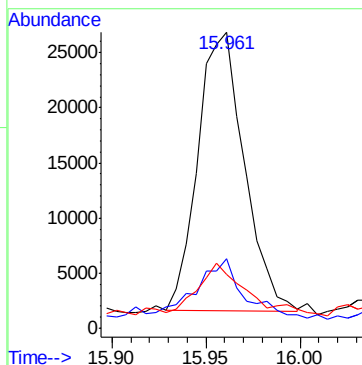
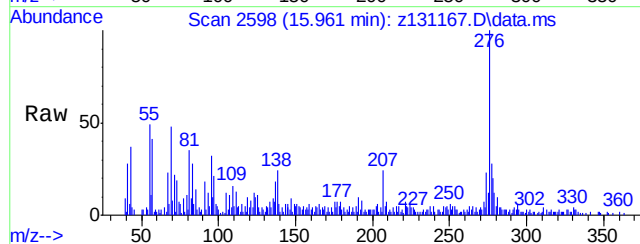
RT: 15.961 min Scan# 2598

Delta R.T. -0.027 min

Lab File: z131167.D

Acq: 4 Jun 2018 12:35 am

Tgt Ion:	276	Resp:	43132
Ion Ratio	Lower	Upper	
276	100		
138	18.9	0.0	46.9
137	13.0	0.0	43.0



#98

Dibenz[a,h]anthracene

Concen: 2.04 ppm

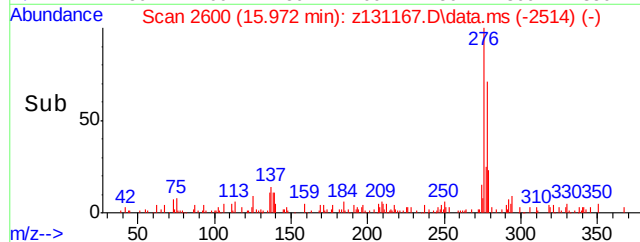
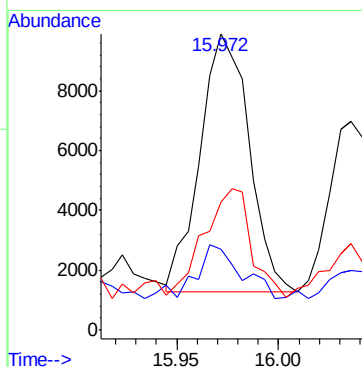
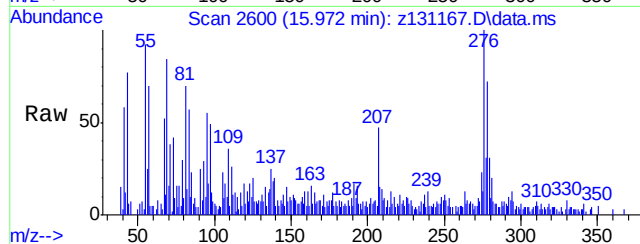
RT: 15.972 min Scan# 2600

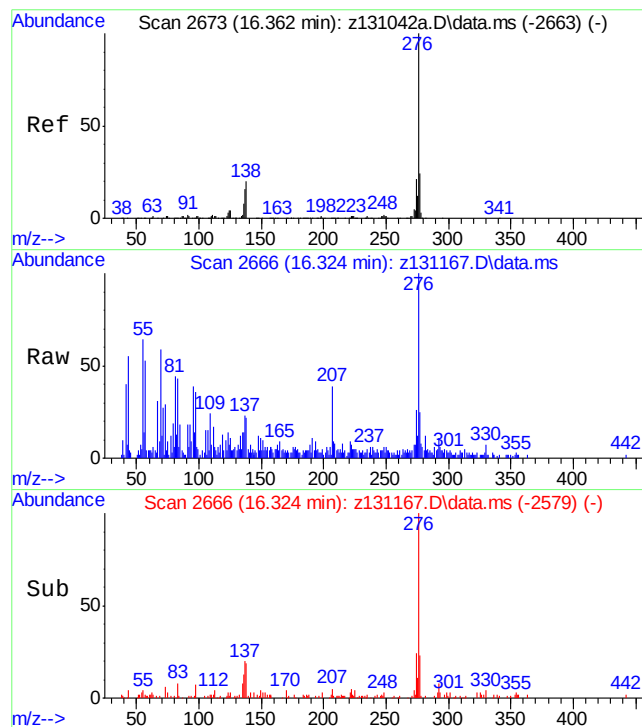
Delta R.T. -0.043 min

Lab File: z131167.D

Acq: 4 Jun 2018 12:35 am

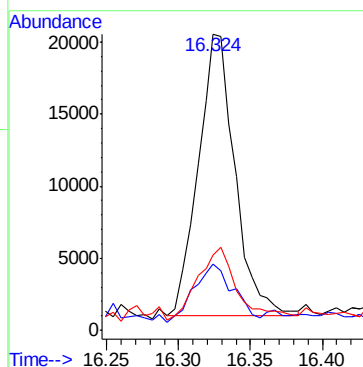
Tgt Ion:	278	Resp:	14451
Ion Ratio	Lower	Upper	
278	100		
139	15.4	0.0	43.8
279	35.5	0.0	54.4





#100
 Benzo[g,h,i]perylene
 Concen: 5.43 ppm
 RT: 16.324 min Scan# 2666
 Delta R.T. -0.037 min
 Lab File: z131167.D
 Acq: 4 Jun 2018 12:35 am

Tgt Ion:	276	Resp:	34646
Ion Ratio	Lower	Upper	
276	100		
138	19.2	0.0	50.0
277	22.5	0.0	53.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6466\
 Data File : z131106.D
 Acq On : 31 May 2018 11:54 pm
 Operator : sufiyana
 Sample : op12421-mb1
 Misc : op12421,eZ6466,30.0,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 01 11:55:30 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6462.M
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
 QLast Update : Wed May 30 09:41:31 2018
 Response via : Initial Calibration

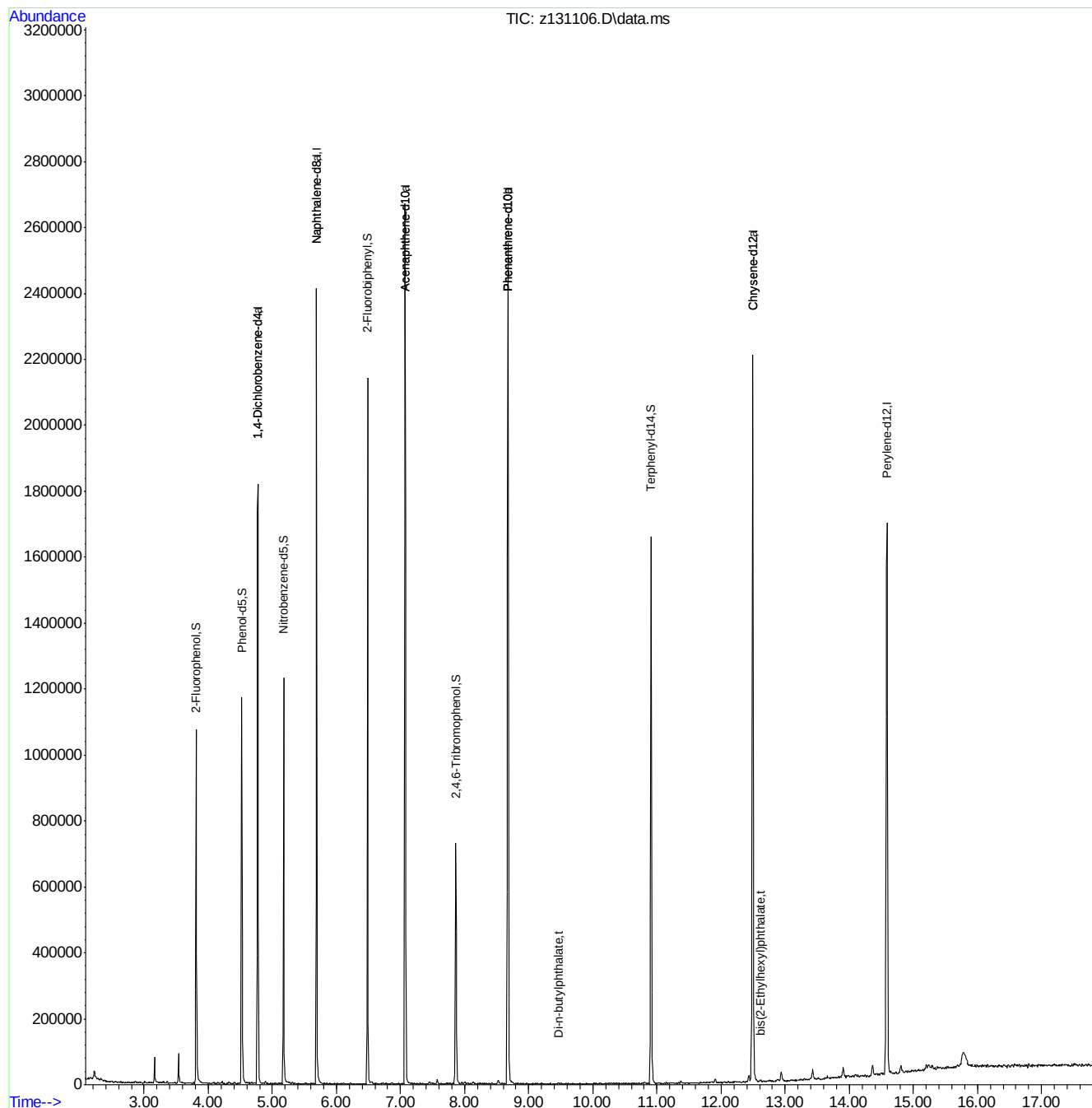
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.774	152	189574	40.00	ppm	0.00
24) Naphthalene-d8	5.688	136	738109	40.00	ppm	-0.01
47) Acenaphthene-d10	7.072	164	456268	40.00	ppm	-0.01
69) Phenanthrene-d10	8.674	188	974389	40.00	ppm	-0.02
83) Chrysene-d12	12.494	240	952425	40.00	ppm	-0.02
91) Perylene-d12	14.588	264	772666	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.774	152	189574	40.00	ppm	0.00
103) Phenanthrene-d10a	8.674	188	974389	40.00	ppm	-0.01
107) Chrysene-d12a	12.494	240	952425	40.00	ppm	0.00
109) Acenaphthene-d10a	7.072	164	456268	40.00	ppm	0.00
111) Naphthalene-d8a	5.688	136	738109	40.00	ppm	-0.01
113) Phenanthrene-d10b	8.674	188	974389	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.813	112	224656	27.69	ppm	0.00
Spiked Amount 50.000			Recovery	=	55.38%	
8) Phenol-d5	4.523	99	341173	29.06	ppm	0.00
Spiked Amount 50.000			Recovery	=	58.12%	
25) Nitrobenzene-d5	5.175	82	343765	28.01	ppm	0.00
Spiked Amount 50.000			Recovery	=	56.02%	
51) 2-Fluorobiphenyl	6.484	172	459970	28.08	ppm	-0.01
Spiked Amount 50.000			Recovery	=	56.16%	
73) 2,4,6-Tribromophenol	7.862	330	49926	26.45	ppm	-0.02
Spiked Amount 50.000			Recovery	=	52.90%	
85) Terphenyl-d14	10.907	244	654502	24.04	ppm	-0.02
Spiked Amount 50.000			Recovery	=	48.08%	
104) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
105) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
Target Compounds						
80) Di-n-butylphthalate	9.465	149	2177	0.07	ppm	76
90) bis(2-Ethylhexyl)phtha...	12.611	149	1056	0.05	ppm	91

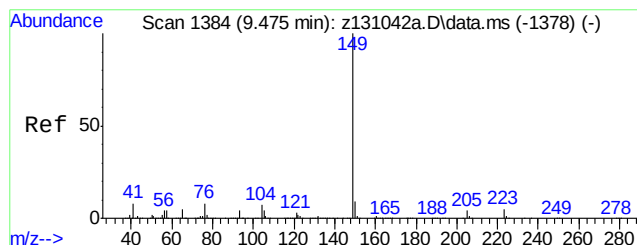
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EZ6466\
Data File : z131106.D
Acq On : 31 May 2018 11:54 pm
Operator : sufiyana
Sample : op12421-mb1
Misc : op12421,eZ6466,30.0,,,1,1
ALS Vial : 4 Sample Multiplier: 1

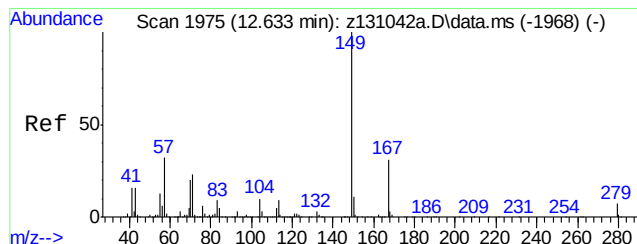
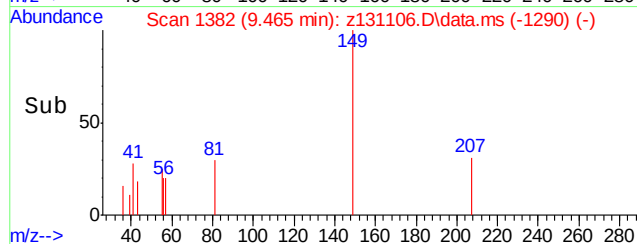
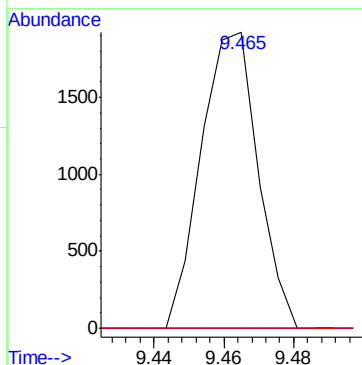
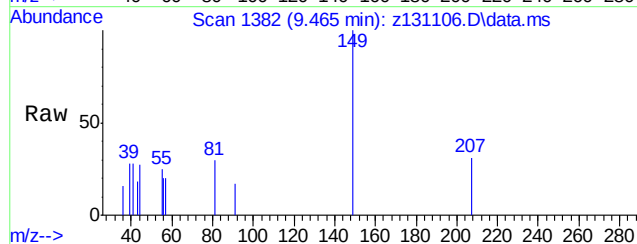
Quant Time: Jun 01 11:55:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\MZ6462.M
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
QLast Update : Wed May 30 09:41:31 2018
Response via : Initial Calibration





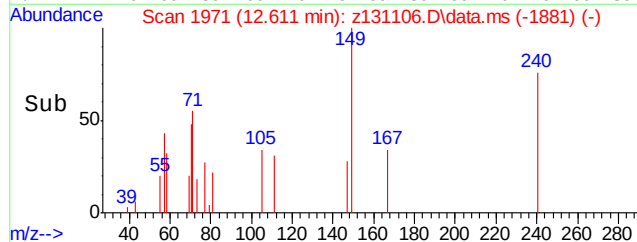
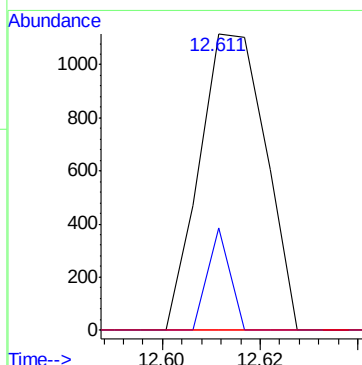
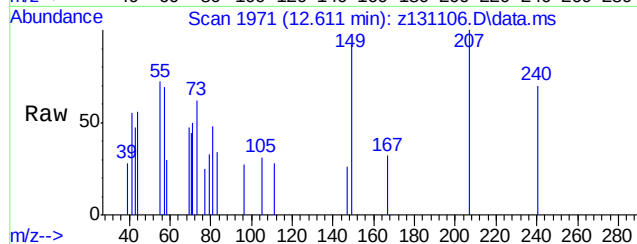
#80
Di-n-butylphthalate
Concen: 0.07 ppm
RT: 9.465 min Scan# 1382
Delta R.T. -0.010 min
Lab File: z131106.D
Acq: 31 May 2018 11:54 pm

Tgt Ion:	149	Resp:	2177
Ion Ratio	Lower	Upper	
149	100		
150	0.0	0.0	39.4
104	0.0	0.0	37.2



#90
bis(2-Ethylhexyl)phthalate
Concen: 0.05 ppm
RT: 12.611 min Scan# 1971
Delta R.T. -0.021 min
Lab File: z131106.D
Acq: 31 May 2018 11:54 pm

Tgt Ion:	149	Resp:	1056
Ion Ratio	Lower	Upper	
149	100		
167	34.5	1.1	61.1
279	0.0	0.0	36.9



General Chemistry

QC Data Summaries



Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Job Number: JC66619
Account: AGMNYF Arcadis
Project: NYSEG - Lyons MGP Site, Lyons NY

Sample:	JC66619-1	Analyzed:	24-MAY-18 by LV	Method:	SM2540 G-97
ClientID:	SB-120(13-15)				
Wet Weight (Total)	28.68		g		
Tare Weight	21.01		g		
Dry Weight (Total)	27.55		g		
Solids, Percent	85.3		%		

ATTACHMENT 2

Data Validation Reports



NYSEG Lyons Site

DATA USABILITY SUMMARY REPORT

Lyons, New York

Semivolatile and Metals Analysis

SDG # JC665662, JC66181, JC66322, JC66554 and JC66619

Analyses Performed By:
SGS Laboratories
Dayton, Ohio

Report #30069R
Review Level: Tier III
Project: B0013118.0008.00002



DATA REVIEW REPORT

SUMMARY

This data usability summary report (DUSR) summarizes the review of Sample Delivery Group (SDG) # JC665662, JC66181, JC66322, JC66554 and JC66619 for samples collected in association with the NYSEG Lyons Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

SDG Number	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
						VOC	SVOC	PCB	ME T	MISC
JC65662	SB-108(0-3)	JC65662-1	Soil	05/07/2018			X			
	SB-117(3-4)	JC65662-2	Soil	05/07/2018			X			
JC66181	SB-103(7-9)	JC66181-1	Soil	05/11/2018			X			
	SB-106(5-7)	JC66181-2	Soil	05/11/2018			X			
	SB-107(5-7)	JC66181-3	Soil	05/14/2018			X			
JC66322	SB-118(7-9)	JC66322-1	Soil	05/15/2018			X			
	SB-113(11-13)	JC66322-2	Soil	05/16/2018			X			
	SB-116(3-5)	JC66322-3	Soil	05/16/2018					X	
	SB-114(3-5)	JC66322-4	Soil	05/16/2018					X	
	SB-114(3-5)	JC66322-5	Soil	05/16/2018			X			
	SB-115(2-4)	JC66322-6	Soil	05/16/2018					X	
	SB-102(12-14)	JC66322-7	Soil	05/16/2018			X			
	DUP-051618 (PAHs)	JC66322-8	Soil	05/16/2018	SB-113(11-13)		X			
	DUP-051618 (Hg)	JC66322-9	Soil	05/16/2018	SB-116(3-5)				X	
JC66554	SB-110(7-9)	JC66554-1	Soil	05/17/2018			X			
	SB-119(4-6)	JC66554-2	Soil	05/21/2018			X			
JC66619	SB-120(13-15)	JC66619-1	Soil	05/22/2018			X			

Note:

1. Matrix spike/matrix spike duplicate was performed on sample location SB-108(0-3) and SB-114(3-5) for SVOCs.

DATA REVIEW REPORT

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

Note:

QA - Quality Assurance

DATA REVIEW REPORT

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8270D. Data were reviewed in accordance with USEPA National Functional Guidelines (October 1999) and applicable Region II SOPs. USEPA NFGs and Region II SOPs were followed for qualification purposes.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
 - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
 - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
 - E The compound was quantitated above the calibration range.
 - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
 - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
 - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
 - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
 - UB Compound considered non-detect at the listed value due to associated blank contamination.
 - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
 - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

DATA REVIEW REPORT

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

DATA REVIEW REPORT

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the SVOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD analyses run on sample SB-108(0-3) was performed at a dilution; therefore, the percent recoveries were not evaluated.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
SB-114(3-5)	Benzo(a)pyrene	<10%	AC
	Benzo(b)fluoranthene	<10%	AC
	Fluoranthene	<10%	<10%
	Pyrene	<10%	<10%

Note:

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

DATA REVIEW REPORT

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
SB-113(11-13)/DUP-051618 (PAHs)	Acenaphthene	833	869	4.2%
	Acenaphthylene	4730	4710	0.4%
	Anthracene	7630	7600	0.4%
	Benzo(a)anthracene	34500	34900	1.2%
	Benzo(a)pyrene	26400	26200	0.8%
	Benzo(b)fluoranthene	28000	29300	4.5%
	Benzo(g,h,i)perylene	10700	10700	0%
	Benzo(k)fluoranthene	12400	10400	17.5%
	Chrysene	27200	26800	1.5%

DATA REVIEW REPORT

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
	Dibenzo(a,h)anthracene	3580	3580	0%
	Fluoranthene	68600	70500	2.7%
	Fluorene	1690	1730	2.3%
	Indeno(1,2,3-cd)pyrene	13500	13200	2.2%
	Naphthalene	756	721	4.7%
	Phenanthrene	8020	8210	2.3%
	Pyrene	54800	54900	0.2%

Notes:

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
SB-108(0-3)	Benzo(a)anthracene	--	57300	57300 D
	Benzo(a)pyrene	--	57600	57600 D
	Benzo(b)fluoranthene	--	62400	62400 D
	Benzo(g,h,i)perylene	--	26200	26200 D
	Chrysene	--	50100	50100 D
	Fluoranthene	--	62100	62100 D
	Indeno(1,2,3-cd)pyrene	--	27800	27800 D
	Phenanthrene	--	36100	36100 D
	Pyrene	--	73700	73700 D
SB-117(3-4)	Naphthalene	--	1280000	1280000 D
	Phenanthrene	--	1750000	1750000 D
SB-103(7-9)	Benzo(a)anthracene	--	69800	69800 D
	Benzo(a)pyrene	--	64200	64200 D
	Benzo(b)fluoranthene	--	72300	72300 D
	Benzo(g,h,i)perylene	--	26800	26800 D

DATA REVIEW REPORT

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
	Chrysene	--	54500	54500 D
	Fluoranthene	--	81100	81100 D
	Indeno(1,2,3-cd)pyrene	--	28100	28100 D
	Pyrene	--	80000	80000 D
SB-106(5-7)	Acenaphthylene	--	231000	231000 D
	Anthracene	--	284000	284000 D
	Benzo(a)anthracene	--	315000	315000 D
	Benzo(b)fluoranthene	--	264000	264000 D
	Chrysene	--	262000	262000 D
	Fluoranthene	--	692000	692000 D
	Naphthalene	--	995000	995000 D
	Phenanthrene	--	1240000	1240000 D
	Pyrene	--	561000	561000 D
SB-107(5-7)	Benzo(a)anthracene	--	25300	25300 D
	Benzo(a)pyrene	--	29200	29200 D
	Benzo(b)fluoranthene	--	28600	28600 D
	Benzo(g,h,i)perylene	--	15300	15300 D
	Benzo(k)fluoranthene	--	11900	11900 D
	Chrysene	--	20200	20200 D
	Fluoranthene	--	26900	26900 D
	Indeno(1,2,3-cd)pyrene	--	14600	14600 D
	Phenanthrene	--	13100	13100 D
	Pyrene	--	24800	24800 D
SB-118(7-9)	Acenaphthylene	--	5880	5880 D
	Anthracene	--	8310	8310 D
	Benzo(a)anthracene	--	11100	11100 D
	Benzo(a)pyrene	--	8310	8310 D
	Benzo(b)fluoranthene	--	9280	9280 D
	Chrysene	--	9300	9300 D
	Fluoranthene	--	24000	24000 D

DATA REVIEW REPORT

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
	Fluorene	--	5820	5820 D
	Indeno(1,2,3-cd)pyrene	--	4280	4280 D
	Naphthalene	--	9050	9050 D
	Phenanthrene	--	29900	29900 D
	Pyrene	--	18600	18600 D
SB-113(11-13)	Acenaphthylene	--	4730	4730 D
	Anthracene	--	7630	7630 D
	Benzo(a)anthracene	--	34500	34500 D
	Benzo(a)pyrene	--	26400	26400 D
	Benzo(b)fluoranthene	--	28000	28000 D
	Benzo(g,h,i)perylene	--	10700	10700 D
	Benzo(k)fluoranthene	--	12400	12400 D
	Chrysene	--	27200	27200 D
	Dibenzo(a,h)anthracene	--	3580	3580 D
	Fluoranthene	--	68600	68600 D
	Indeno(1,2,3-cd)pyrene	--	13500	13500 D
	Phenanthrene	--	8020	8020 D
	Pyrene	--	54800	54800 D
SB-102(12-14)	Acenaphthylene	--	11300	11300 D
	Anthracene	--	66400	66400 D
	Benzo(a)anthracene	--	55800	55800 D
	Benzo(a)pyrene	--	37300	37300 D
	Benzo(b)fluoranthene	--	38200	38200 D
	Benzo(g,h,i)perylene	--	12200	12200 D
	Benzo(k)fluoranthene	--	15700	15700 D
	Chrysene	--	43100	43100 D
	Fluoranthene	--	111000	111000 D
	Fluorene	--	45000	45000 D
	Indeno(1,2,3-cd)pyrene	--	15200	15200 D
	Naphthalene	--	13200	13200 D

DATA REVIEW REPORT

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
	Phenanthrene	--	145000	145000 D
	Pyrene	--	85500	85500 D
DUP-051618 (PAHs)	Acenaphthylene	--	4710	4710 D
	Anthracene	--	7600	7600 D
	Benzo(a)anthracene	--	34900	34900 D
	Benzo(a)pyrene	--	26200	26200 D
	Benzo(b)fluoranthene	--	29300	29300 D
	Benzo(g,h,i)perylene	--	10700	10700 D
	Benzo(k)fluoranthene	--	10400	10400 D
	Chrysene	--	26800	26800 D
	Dibenzo(a,h)anthracene	--	3580	3580 D
	Fluoranthene	--	70500	70500 D
	Indeno(1,2,3-cd)pyrene	--	13200	13200 D
	Phenanthrene	--	8210	8210 D
	Pyrene	--	54900	54900 D
SB-110(7-9)	Benzo(a)anthracene	--	67400	67400 D
	Benzo(a)pyrene	--	65700	65700 D
	Benzo(b)fluoranthene	--	70000	70000 D
	Benzo(g,h,i)perylene	--	30200	30200 D
	Benzo(k)fluoranthene	--	26000	26000 D
	Chrysene	--	51800	51800 D
	Fluoranthene	--	122000	122000 D
	Indeno(1,2,3-cd)pyrene	--	36700	36700 D
	Naphthalene	--	55700	55700 D
	Phenanthrene	--	74300	74300 D
	Pyrene	--	99400	99400 D
SB-119(4-6)	Benzo(a)anthracene	--	16000	16000 D
	Benzo(a)pyrene	--	24300	24300 D
	Benzo(b)fluoranthene	--	23100	23100 D
	Benzo(g,h,i)perylene	--	14200	14200 D

DATA REVIEW REPORT

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
	Chrysene	--	13700	13700 D
	Dibenzo(a,h)anthracene	--	4550	4550 D
	Fluoranthene	--	14700	14700 D
	Indeno(1,2,3-cd)pyrene	--	16900	16900 D
	Phenanthrene	--	8960	8960 D
	Pyrene	--	13900	13900 D
SB-120(13-15)	Acenaphthene	--	17900	17900 D
	Acenaphthylene	--	101000	101000 D
	Anthracene	--	78700	78700 D
	Benzo(a)anthracene	--	45800	45800 D
	Benzo(a)pyrene	--	31500	31500 D
	Benzo(b)fluoranthene	--	28500	28500 D
	Benzo(k)fluoranthene	--	13300	13300 D
	Chrysene	--	37600	37600 D
	Fluoranthene	--	74800	74800 D
	Fluorene	--	98700	98700 D
	Naphthalene	--	421000	421000 D
	Phenanthrene	--	190000	190000 D
	Pyrene	--	71900	71900 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

DATA REVIEW REPORT

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA REVIEW REPORT

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270	Reported		Performance Acceptable		Not Required	
	No	Yes	No	Yes		
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)						
Tier II Validation						
Holding times		X		X		
Reporting limits (units)		X		X		
Blanks						
A. Method blanks		X		X		
B. Equipment blanks					X	
Laboratory Control Sample (LCS) %R		X		X		
Laboratory Control Sample Duplicate(LCSD) %R					X	
LCS/LCSD Precision (RPD)					X	
Matrix Spike (MS) %R		X	X			
Matrix Spike Duplicate(MSD) %R		X	X			
MS/MSD Precision (RPD)		X		X		
Field/Lab Duplicate (RPD)		X		X		
Surrogate Spike Recoveries		X		X		
Dilution Factor		X		X		
Moisture Content		X		X		
Tier III Validation						
System performance and column resolution		X		X		
Initial calibration %RSDs		X		X		
Continuing calibration RRFs		X		X		
Continuing calibration %Ds		X		X		
Instrument tune and performance check		X		X		
Ion abundance criteria for each instrument used		X		X		
Internal standard		X		X		
Compound identification and quantitation						
A. Reconstructed ion chromatograms		X		X		
B. Quantitation Reports		X		X		
C. RT of sample compounds within the established RT windows		X		X		

DATA REVIEW REPORT

SVOCs: SW-846 8270		Reported		Performance Acceptable		Not Required
		No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)						
D.	Quantitation transcriptions/calculations		X		X	
E.	Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%RSD Relative standard deviation

%R Percent recovery

RPD Relative percent difference

%D Percent difference

DATA REVIEW REPORT

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 7470/7471. Data were reviewed in accordance with USEPA National Functional Guidelines of July 2002.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
 - U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.
 - J The reported value was obtained from a reading less than the reporting limit (RL), but greater than or equal to the method detection limit (MDL).
- Quantitation (Q) Qualifiers
 - E The reported value is estimated due to the presence of interference.
 - N Spiked sample recovery is not within control limits.
 - * Duplicate analysis is not within control limits.
- Validation Qualifiers
 - J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
 - UJ The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
 - UB Analyte considered non-detect at the listed value due to associated blank contamination.
 - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

DATA REVIEW REPORT

METALS ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 7470	Water	28 days from collection to analysis	Cool to <6 °C; preserved to a pH of less than 2.
SW-846 7471	Soil	28 days from collection to analysis	Cool to <6 °C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the reporting limit (RL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Calibration

Satisfactory instrument calibration is established to provide that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument's continuing performance is satisfactory.

3.1 Initial Calibration and Continuing Calibration

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 for all non-ICP analytes and all initial calibration verification standard recoveries were within control limits.

All initial and continuing calibration verification standard recoveries were within the control limit.

3.2 RL Check Standard

The RL check standard serves to verify the linearity of calibration of the analysis at the reporting limit. The RL standard is not required for the analysis of aluminum (Al), barium (Ba), calcium (Ca), iron (Fe), magnesium (Mg), sodium (Na), and potassium (K). The criteria used to evaluate the RL standard analysis are presented below in the RL standards evaluation table (if applicable).

All RL standard recoveries were within control limits.

DATA REVIEW REPORT

3.3 ICP Interference Control Sample (ICS)

The ICS verifies the laboratories interelement and background correction factors.

All ICS exhibited recoveries within the control limits.

4. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices and two times the RL for soil matrices.

The laboratory duplicate sample results exhibited RPD within the control limit.

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
SB-116(3-5)/ DUP-051618 (Hg)	Mercury	0.21	0.16	AC

Notes:

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

6. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

DATA REVIEW REPORT

The LCS analysis exhibited recoveries within the control limits.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA REVIEW REPORT

DATA VALIDATION CHECKLIST FOR METALS

METALS; SW-846 7470/7471	Reported		Performance Acceptable		Not Required	
	No	Yes	No	Yes		
Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)						
Tier II Validation						
Holding Times		X		X		
Reporting limits (units)		X		X		
Blanks						
A. Instrument Blanks		X		X		
B. Method Blanks		X		X		
C. Equipment/Field Blanks					X	
Laboratory Control Sample (LCS)		X		X		
Matrix Spike (MS) %R		X		X		
Matrix Spike Duplicate (MSD) %R		X		X		
MS/MSD Precision (RPD)		X		X		
Field/Lab Duplicate (RPD)		X		X		
ICP Serial Dilution %D					X	
Total vs. Dissolved					X	
Reporting Limit Verification		X		X		
Tier III Validation						
Initial Calibration Verification		X		X		
Continuing Calibration Verification		X		X		
CRDL Standard Recovery		X		X		
ICP Interference Check		X		X		
Transcription/calculations acceptable		X		X		
Raw Data		X		X		
Reporting limits adjusted to reflect sample dilutions		X		X		

Notes:

%R Percent recovery

RPD Relative percent difference

DATA USABILITY SUMMARY REPORT

SAMPLE COMPLIANCE REPORT

Sampling Date	Protocol	Sample ID	Matrix	Compliance ¹					Noncompliance
				VOC	SVOC	PCB	MET	MISC	
05/07/2018	SW846	SB-108(0-3)	Soil	--	Yes	--		--	
05/07/2018	SW846	SB-117(3-4)	Soil	--	Yes	--		--	
05/11/2018	SW846	SB-103(7-9)	Soil	--	Yes	--		--	
05/11/2018	SW846	SB-106(5-7)	Soil	--	Yes	--		--	
05/14/2018	SW846	SB-107(5-7)	Soil	--	Yes	--		--	
05/15/2018	SW846	SB-118(7-9)	Soil	--	Yes	--		--	
05/16/2018	SW846	SB-113(11-13)	Soil	--	Yes	--		--	
05/16/2018	SW846	SB-116(3-5)	Soil	--	--	--	Yes	--	
05/16/2018	SW846	SB-114(3-5)	Soil	--	--	--	Yes	--	
05/16/2018	SW846	SB-114(3-5)	Soil	--	No	--	--	--	SVOC: MS/MSD %R
05/16/2018	SW846	SB-115(2-4)	Soil	--	--	--	Yes	--	
05/16/2018	SW846	SB-102(12-14)	Soil	--	Yes	--	--	--	
05/16/2018	SW846	DUP-051618 (PAHs)	Soil	--	Yes	--	--	--	
05/16/2018	SW846	DUP-051618 (Hg)	Soil	--	--	--	Yes	--	
05/17/2018	SW846	SB-110(7-9)	Soil	--	Yes	--	--	--	
05/21/2018	SW846	SB-119(4-6)	Soil	--	Yes	--	--	--	
05/22/2018	SW846	SB-120(13-15)	Soil	--	Yes	--	--	--	

Note:

- 1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

DATA USABILITY SUMMARY REPORT

VALIDATION PERFORMED BY: Jeffrey L. Davin

SIGNATURE:



DATE: June 30, 2018

PEER REVIEW: Joseph C. Houser

DATE: July 2, 2018

CHAIN OF CUSTODY

**CORRECTED SAMPLE ANALYSIS DATA
SHEETS**



SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SB-108(0-3)	Date Sampled:	05/07/18
Lab Sample ID:	JC65662-1	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	82.9
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	2P79417.D	5	05/10/18 16:18	SB	05/09/18 16:30	OP11893	E2P3498
Run #2	2P79418.D	20	05/10/18 15:13	SB	05/09/18 16:30	OP11893	E2P3498

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2	30.0 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1370	200	69	ug/kg	
208-96-8	Acenaphthylene	5280	200	100	ug/kg	
120-12-7	Anthracene	11900	200	120	ug/kg	
56-55-3	Benzo(a)anthracene	57300 ^b	800	230	ug/kg	
50-32-8	Benzo(a)pyrene	57600 ^b	800	370	ug/kg	
205-99-2	Benzo(b)fluoranthene	62400 ^b	800	360	ug/kg	
191-24-2	Benzo(g,h,i)perylene	26200 ^b	800	400	ug/kg	
207-08-9	Benzo(k)fluoranthene	15700	200	94	ug/kg	
218-01-9	Chrysene	50100 ^b	800	250	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	12500	200	89	ug/kg	
206-44-0	Fluoranthene	62100 ^b	800	360	ug/kg	
86-73-7	Fluorene	2990	200	92	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	27800 ^b	800	380	ug/kg	
91-20-3	Naphthalene	4970	200	57	ug/kg	
85-01-8	Phenanthrene	36100 ^b	800	270	ug/kg	
129-00-0	Pyrene	73700 ^b	800	260	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	43%	54%	26-134%
321-60-8	2-Fluorobiphenyl	53%	65%	39-124%
1718-51-0	Terphenyl-d14	45%	66%	36-134%

(a) Dilution required due to matrix interference.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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Report of Analysis

Page 1 of 1

Client Sample ID:	SB-117(3-4)	Date Sampled:	05/07/18
Lab Sample ID:	JC65662-2	Date Received:	05/08/18
Matrix:	SO - Soil	Percent Solids:	72.4
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2P79622.D	5	05/15/18 16:16	CC	05/09/18 16:30	OP11893	E2P3505
Run #2	2P79620.D	50	05/15/18 15:32	CC	05/09/18 16:30	OP11893	E2P3505
Run #3	2P79618.D	500	05/15/18 14:48	CC	05/09/18 16:30	OP11893	E2P3505

	Initial Weight	Final Volume
Run #1	30.2 g	5.0 ml
Run #2	30.2 g	5.0 ml
Run #3	30.2 g	5.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	121000 ^a	11000	3900	ug/kg	
208-96-8	Acenaphthylene	670000 ^a	11000	5800	ug/kg	
120-12-7	Anthracene	717000 ^a	11000	7000	ug/kg	
56-55-3	Benzo(a)anthracene	667000 ^a	11000	3200	ug/kg	
50-32-8	Benzo(a)pyrene	411000 ^a	11000	5200	ug/kg	
205-99-2	Benzo(b)fluoranthene	445000 ^a	11000	5100	ug/kg	
191-24-2	Benzo(g,h,i)perylene	157000 ^a	11000	5700	ug/kg	
207-08-9	Benzo(k)fluoranthene	187000 ^a	11000	5300	ug/kg	
218-01-9	Chrysene	552000 ^a	11000	3600	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	89100 ^a	11000	5100	ug/kg	
206-44-0	Fluoranthene	1100000 ^a	11000	5100	ug/kg	
86-73-7	Fluorene	715000 ^a	11000	5200	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	166000 ^a	11000	5400	ug/kg	
91-20-3	Naphthalene	1280000 ^b ^D	110000	32000	ug/kg	
85-01-8	Phenanthrene	1750000 ^b ^D	110000	38000	ug/kg	
129-00-0	Pyrene	993000 ^a	11000	3700	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
4165-60-0	Nitrobenzene-d5	82%	105%	0% ^c	26-134%
321-60-8	2-Fluorobiphenyl	102%	111%	0% ^c	39-124%
1718-51-0	Terphenyl-d14	117%	157% ^c	0% ^c	36-134%

(a) Result is from Run# 2

(b) Result is from Run# 3

(c) Outside control limits due to dilution.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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FED-EX Tracking # 4077 3094 3293	Bottle Order Control # DK-05118-26
SGS Accutest Quote #	SGS Accutest Job # TC66181

[illegible]

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SB-103(7-9)	Date Sampled:	05/11/18
Lab Sample ID:	JC66181-1	Date Received:	05/15/18
Matrix:	SO - Soil	Percent Solids:	73.8
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	6P473023.D	5	05/16/18 22:49	CC	05/16/18 07:45	OP12038	E6P2211
Run #2	6P473037.D	25	05/17/18 14:18	CC	05/16/18 07:45	OP12038	E6P2212

	Initial Weight	Final Volume
Run #1	30.3 g	1.0 ml
Run #2	30.3 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1220	220	77	ug/kg	
208-96-8	Acenaphthylene	6380	220	110	ug/kg	
120-12-7	Anthracene	8210	220	140	ug/kg	
56-55-3	Benzo(a)anthracene	69800 ^b	1100	320	ug/kg	
50-32-8	Benzo(a)pyrene	64200 ^b	1100	510	ug/kg	
205-99-2	Benzo(b)fluoranthene	72300 ^b	1100	490	ug/kg	
191-24-2	Benzo(g,h,i)perylene	26800 ^b	1100	560	ug/kg	
207-08-9	Benzo(k)fluoranthene	19900	220	100	ug/kg	
218-01-9	Chrysene	54500 ^b	1100	350	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	10600	220	99	ug/kg	
206-44-0	Fluoranthene	81100 ^b	1100	500	ug/kg	
86-73-7	Fluorene	1210	220	100	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	28100 ^b	1100	520	ug/kg	
91-20-3	Naphthalene	1910	220	63	ug/kg	
85-01-8	Phenanthrene	8100	220	75	ug/kg	
129-00-0	Pyrene	80000 ^b	1100	360	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	58%	56%	26-134%
321-60-8	2-Fluorobiphenyl	65%	68%	39-124%
1718-51-0	Terphenyl-d14	67%	78%	36-134%

(a) Dilution required due to matrix interference.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	SB-106(5-7)	Date Sampled:	05/11/18
Lab Sample ID:	JC66181-2	Date Received:	05/15/18
Matrix:	SO - Soil	Percent Solids:	82.1
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	6P473038.D	50	05/17/18 14:43	CC	05/16/18 07:45	OP12038	E6P2212
Run #2	6P473084.D	500	05/18/18 17:33	CC	05/16/18 07:45	OP12038	E6P2214

	Initial Weight	Final Volume
Run #1	31.9 g	1.0 ml
Run #2	31.9 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	16900	1900	660	ug/kg	
208-96-8	Acenaphthylene	231000 ^b	19000	9700	ug/kg	
120-12-7	Anthracene	284000 ^b	19000	12000	ug/kg	
56-55-3	Benzo(a)anthracene	315000 ^b	19000	5400	ug/kg	
50-32-8	Benzo(a)pyrene	178000	1900	870	ug/kg	
205-99-2	Benzo(b)fluoranthene	264000 ^b	19000	8400	ug/kg	
191-24-2	Benzo(g,h,i)perylene	81600	1900	950	ug/kg	
207-08-9	Benzo(k)fluoranthene	108000	1900	890	ug/kg	
218-01-9	Chrysene	262000 ^b	19000	6000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	39900	1900	840	ug/kg	
206-44-0	Fluoranthene	692000 ^b	19000	8500	ug/kg	
86-73-7	Fluorene	27300	1900	880	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	86600	1900	900	ug/kg	
91-20-3	Naphthalene	995000 ^b	19000	5400	ug/kg	
85-01-8	Phenanthrene	1240000 ^b	19000	6400	ug/kg	
129-00-0	Pyrene	561000 ^b	19000	6100	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%	0% ^c	26-134%
321-60-8	2-Fluorobiphenyl	76%	87%	39-124%
1718-51-0	Terphenyl-d14	106%	89%	36-134%

(a) Dilution required due to matrix interference.

(b) Result is from Run# 2

(c) Outside control limits due to dilution.

ND = Not detected MDL = Method Detection Limit

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SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SB-107(5-7)	Date Sampled:	05/14/18
Lab Sample ID:	JC66181-3	Date Received:	05/15/18
Matrix:	SO - Soil	Percent Solids:	85.4
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	6P473025.D	2	05/16/18 23:39	CC	05/16/18 07:45	OP12038	E6P2211
Run #2	6P473039.D	10	05/17/18 15:07	CC	05/16/18 07:45	OP12038	E6P2212

	Initial Weight	Final Volume
Run #1	30.3 g	1.0 ml
Run #2	30.3 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1080	77	27	ug/kg	
208-96-8	Acenaphthylene	2410	77	39	ug/kg	
120-12-7	Anthracene	6180	77	47	ug/kg	
56-55-3	Benzo(a)anthracene	25300 ^b	^D 390	110	ug/kg	
50-32-8	Benzo(a)pyrene	29200 ^b	390	180	ug/kg	
205-99-2	Benzo(b)fluoranthene	28600 ^b	390	170	ug/kg	
191-24-2	Benzo(g,h,i)perylene	15300 ^b	390	190	ug/kg	
207-08-9	Benzo(k)fluoranthene	11900 ^b	390	180	ug/kg	
218-01-9	Chrysene	20200 ^b	390	120	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	6830	77	34	ug/kg	
206-44-0	Fluoranthene	26900 ^b	^D 390	170	ug/kg	
86-73-7	Fluorene	1740	77	35	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	14600 ^b	^D 390	180	ug/kg	
91-20-3	Naphthalene	1630	77	22	ug/kg	
85-01-8	Phenanthrene	13100 ^b	^D 390	130	ug/kg	
129-00-0	Pyrene	24800 ^b	^D 390	120	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	59%	52%	26-134%
321-60-8	2-Fluorobiphenyl	66%	69%	39-124%
1718-51-0	Terphenyl-d14	58%	72%	36-134%

(a) Dilution required due to matrix interference.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

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N = Indicates presumptive evidence of a compound



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PAGE 1 OF 1

FED-EX Tracking #	Bottle Order Control #
SGS Accutest Quote #	SGS Accutest Job #

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)												Matrix Codes	
Company Name Arcadis		Project Name: NYSE G - Lyons MUP site															
Street Address 295 Woodcliff Dr. Suite 301		Street 2 Water St.															
City Fairport NY		City Lyons NY															
State NY		State NY															
Zip 14150		Zip 14150															
Project Contact Matt.Hysell@arcadis.com		Project # B0013143.0050															
Phone # 315-671-9189		Client Purchase Order #															
Fax #		City															
Sampler(s) Name(s) Ryan Clair		Project Manager Jason Birn															
Phone # 585-820-7747		Attention:															
SGS Accutest Sample #		Collection															
Field ID / Point of Collection		MEOH/DI Val #															
Date		Time															
Sampled by		Matrix															
# of bottles																	
HCl																	
NaOH																	
HNO3																	
H2SO4																	
HNO2																	
DI Water																	
MEOH																	
ENCORE																	
LAB USE ONLY																	
1 SB-118(7-9)		5-15-18 1345															
2 SB-113(11-13)		5-16-18 0930															
3 SB-116(3-5)		5-16-18 1100															
SB-114(3-5)		5-16-18 1150															
4 SB-114(3-5) MS/MSD		5-16-18 1150															
SB-114(3-5)		5-16-18 1155															
5 SB-114(3-5) MS/MSD		5-16-18 1155															
6 SB-115(2-4)		5-16-18 1240															
7 SB-102(12-14)		5-16-18 1500															
8 DUP-051618		5-16-18 -															
9 DUP-051618		5-16-18 -															
Turnaround Time (Business days)		Data Deliverable Information															
Approved By (SGS Accutest PM): / Date:		Commercial "A" (Level 1)															
Commercial "B" (Level 2)																	
FULLT1 (Level 3+4)																	
NJ Reduced																	
Commercial "C"																	
NJ Data of Known Quality Protocol Reporting																	
Commercial "A" = Results Only, Commercial "B" = Results + QC Summary																	
NJ Reduced = Results + QC Summary + Partial Raw data																	
Emergency & Rush T/A data available VIA Linklab																	
Sample Custody must be documented below each time samples change possession, including courier delivery.																	
Relinquished By: / Date Time:		Received By: / Date Time:															
Relinquished By: / Date Time:		Received By: / Date Time:															
Relinquished By: / Date Time:		Received By: / Date Time:															
Relinquished By: / Date Time:		Received By: / Date Time:															
Relinquished By: / Date Time:		Received By: / Date Time:															
Custody Seal #		Intact															
Not Intact																	
Preserved where applicable																	
On Ice																	
Cooler Temp.																	

Form:SM068-01CRev.Date:9/13/16

JC66322: Chain of Custody

Page 1 of 2



SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SB-118(7-9)	Date Sampled:	05/15/18
Lab Sample ID:	JC66322-1	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	92.9
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M104247.D	1	05/21/18 23:31	JB	05/21/18 08:45	OP12121	E2M4633
Run #2	2M104268.D	20	05/22/18 12:34	CC	05/21/18 08:45	OP12121	E2M4634

	Initial Weight	Final Volume
Run #1	30.4 g	1.0 ml
Run #2	30.4 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	747	35	12	ug/kg	
208-96-8	Acenaphthylene	5880 ^a	D 710	360	ug/kg	
120-12-7	Anthracene	8310 ^a	710	430	ug/kg	
56-55-3	Benzo(a)anthracene	11100 ^a	710	200	ug/kg	
50-32-8	Benzo(a)pyrene	8310 ^a	710	320	ug/kg	
205-99-2	Benzo(b)fluoranthene	9280 ^a	710	310	ug/kg	
191-24-2	Benzo(g,h,i)perylene	3120	35	18	ug/kg	
207-08-9	Benzo(k)fluoranthene	3090	35	17	ug/kg	
218-01-9	Chrysene	9300 ^a	D 710	220	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1080	35	16	ug/kg	
206-44-0	Fluoranthene	24000 ^a	D 710	320	ug/kg	
86-73-7	Fluorene	5820 ^a	710	330	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	4280 ^a	710	330	ug/kg	
91-20-3	Naphthalene	9050 ^a	710	200	ug/kg	
85-01-8	Phenanthrene	29900 ^a	710	240	ug/kg	
129-00-0	Pyrene	18600 ^a	710	230	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%	78%	26-134%
321-60-8	2-Fluorobiphenyl	81%	90%	39-124%
1718-51-0	Terphenyl-d14	88%	103%	36-134%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	SB-113(11-13)	Date Sampled:	05/16/18
Lab Sample ID:	JC66322-2	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	91.7
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M104255.D	1	05/22/18 02:55	JB	05/21/18 08:45	OP12121	E2M4633
Run #2	2M104312.D	20	05/23/18 09:08	GS	05/21/18 08:45	OP12121	E2M4635

	Initial Weight	Final Volume
Run #1	30.8 g	1.0 ml
Run #2	30.8 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	833	35	12	ug/kg	
208-96-8	Acenaphthylene	4730 ^a -	D 710	360	ug/kg	
120-12-7	Anthracene	7630 ^a -	710	430	ug/kg	
56-55-3	Benzo(a)anthracene	34500 ^a -	710	200	ug/kg	
50-32-8	Benzo(a)pyrene	26400 ^a -	710	320	ug/kg	
205-99-2	Benzo(b)fluoranthene	28000 ^a -	710	310	ug/kg	
191-24-2	Benzo(g,h,i)perylene	10700 ^a -	710	350	ug/kg	
207-08-9	Benzo(k)fluoranthene	12400 ^a -	710	330	ug/kg	
218-01-9	Chrysene	27200 ^a -	710	220	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	3580 ^a -	710	310	ug/kg	
206-44-0	Fluoranthene	68600 ^a -	710	320	ug/kg	
86-73-7	Fluorene	1690	35	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	13500 ^a -	D 710	330	ug/kg	
91-20-3	Naphthalene	756	35	10	ug/kg	
85-01-8	Phenanthrene	8020 ^a -	D 710	240	ug/kg	
129-00-0	Pyrene	54800 ^a -	D 710	230	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	64%	69%	26-134%
321-60-8	2-Fluorobiphenyl	68%	74%	39-124%
1718-51-0	Terphenyl-d14	67%	81%	36-134%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

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B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-116(3-5)	Date Sampled:	05/16/18
Lab Sample ID:	JC66322-3	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	86.2
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	0.21	0.035	mg/kg	1	05/18/18	05/18/18 JA	SW846 7471B ¹	SW846 7471B ²

(1) Instrument QC Batch: MA44439
(2) Prep QC Batch: MP7226

RL = Reporting Limit

4.3
4

Report of Analysis

Client Sample ID:	SB-114(3-5)	Date Sampled:	05/16/18
Lab Sample ID:	JC66322-4	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	90.4
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	0.43	0.035	mg/kg	1	05/18/18	05/18/18 JA	SW846 7471B ¹	SW846 7471B ²

(1) Instrument QC Batch: MA44439
(2) Prep QC Batch: MP7226

RL = Reporting Limit

4.4
4

SGS North America Inc.

Report of Analysis

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Client Sample ID:	SB-114(3-5)	Date Sampled:	05/16/18
Lab Sample ID:	JC66322-5	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	88.1
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	2M104271.D	2	05/22/18 13:51	CC	05/21/18 08:45	OP12121	E2M4634
Run #2							

	Initial Weight	Final Volume
Run #1	30.9 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	235	73	25	ug/kg	
208-96-8	Acenaphthylene	384	73	37	ug/kg	
120-12-7	Anthracene	788	73	45	ug/kg	
56-55-3	Benzo(a)anthracene	3280	73	21	ug/kg	
50-32-8	Benzo(a)pyrene	4330 J	73	33	ug/kg	
205-99-2	Benzo(b)fluoranthene	4530 J	73	32	ug/kg	
191-24-2	Benzo(g,h,i)perylene	2890	73	37	ug/kg	
207-08-9	Benzo(k)fluoranthene	1660	73	34	ug/kg	
218-01-9	Chrysene	2890	73	23	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	810	73	32	ug/kg	
206-44-0	Fluoranthene	4320 J	73	33	ug/kg	
86-73-7	Fluorene	203	73	34	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	3350	73	34	ug/kg	
91-20-3	Naphthalene	233	73	21	ug/kg	
85-01-8	Phenanthrene	1890	73	25	ug/kg	
129-00-0	Pyrene	4030 J	73	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	88%		26-134%
321-60-8	2-Fluorobiphenyl	95%		39-124%
1718-51-0	Terphenyl-d14	105%		36-134%

(a) Dilution required due to matrix interference.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-115(2-4)	Date Sampled:	05/16/18
Lab Sample ID:	JC66322-6	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	90.6
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	1.6	0.17	mg/kg	5	05/18/18	05/18/18 JA	SW846 7471B ¹	SW846 7471B ²

(1) Instrument QC Batch: MA44439
(2) Prep QC Batch: MP7226

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

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Client Sample ID:	SB-102(12-14)	Date Sampled:	05/16/18
Lab Sample ID:	JC66322-7	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	76.4
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	2M104313.D	2	05/23/18 09:33	GS	05/21/18 08:45	OP12121	E2M4635
Run #2	2M104309.D	100	05/23/18 07:47	GS	05/21/18 08:45	OP12121	E2M4635

	Initial Weight	Final Volume
Run #1	31.2 g	1.0 ml
Run #2	31.2 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	5970	84	29	ug/kg	
208-96-8	Acenaphthylene	11300 ^b	4200	2100	ug/kg	
120-12-7	Anthracene	66400 ^b	4200	2600	ug/kg	
56-55-3	Benzo(a)anthracene	55800 ^b	4200	1200	ug/kg	
50-32-8	Benzo(a)pyrene	37300 ^b	4200	1900	ug/kg	
205-99-2	Benzo(b)fluoranthene	38200 ^b	4200	1900	ug/kg	
191-24-2	Benzo(g,h,i)perylene	12200 ^b	4200	2100	ug/kg	
207-08-9	Benzo(k)fluoranthene	15700 ^b	4200	2000	ug/kg	
218-01-9	Chrysene	43100 ^b	4200	1300	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	4210	84	37	ug/kg	
206-44-0	Fluoranthene	111000 ^b	4200	1900	ug/kg	
86-73-7	Fluorene	45000 ^b	4200	1900	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	15200 ^b	4200	2000	ug/kg	
91-20-3	Naphthalene	13200 ^b	4200	1200	ug/kg	
85-01-8	Phenanthrene	145000 ^b	4200	1400	ug/kg	
129-00-0	Pyrene	85500 ^b	4200	1300	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%	80%	26-134%
321-60-8	2-Fluorobiphenyl	70%	81%	39-124%
1718-51-0	Terphenyl-d14	78%	102%	36-134%

(a) Dilution required due to matrix interference.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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Report of Analysis

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Client Sample ID:	DUP-051618	Date Sampled:	05/16/18
Lab Sample ID:	JC66322-8	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	91.1
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M104253.D	1	05/22/18 02:04	JB	05/21/18 08:45	OP12121	E2M4633
Run #2	2M104311.D	40	05/23/18 08:42	GS	05/21/18 08:45	OP12121	E2M4635

	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2	30.6 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	869	36	12	ug/kg	
208-96-8	Acenaphthylene	4710 ^a	D 1400	730	ug/kg	
120-12-7	Anthracene	7600 ^a	1400	880	ug/kg	
56-55-3	Benzo(a)anthracene	34900 ^a	1400	410	ug/kg	
50-32-8	Benzo(a)pyrene	26200 ^a	1400	650	ug/kg	
205-99-2	Benzo(b)fluoranthene	29300 ^a	1400	630	ug/kg	
191-24-2	Benzo(g,h,i)perylene	10700 ^a	1400	720	ug/kg	
207-08-9	Benzo(k)fluoranthene	10400 ^a	1400	670	ug/kg	
218-01-9	Chrysene	26800 ^a	1400	450	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	3580 ^a	1400	630	ug/kg	
206-44-0	Fluoranthene	70500 ^a	1400	640	ug/kg	
86-73-7	Fluorene	1730	36	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	13200 ^a	D 1400	670	ug/kg	
91-20-3	Naphthalene	721	36	10	ug/kg	
85-01-8	Phenanthrene	8210 ^a	D 1400	480	ug/kg	
129-00-0	Pyrene	54900 ^a	D 1400	460	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	65%	75%	26-134%
321-60-8	2-Fluorobiphenyl	70%	78%	39-124%
1718-51-0	Terphenyl-d14	71%	87%	36-134%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-051618	Date Sampled:	05/16/18
Lab Sample ID:	JC66322-9	Date Received:	05/17/18
Matrix:	SO - Soil	Percent Solids:	86.3
Project:	NYSEG - Lyons MGP Site, Lyons NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Mercury	0.16	0.036	mg/kg	1	05/18/18	05/18/18 JA	SW846 7471B ¹	SW846 7471B ²

(1) Instrument QC Batch: MA44439
(2) Prep QC Batch: MP7226

RL = Reporting Limit

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CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

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Form:SM088-03C (revised 2/12/18)

<http://www.sgs.com/en/terms-and-conditions>.

JC66554: Chain of Custody

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JC66554

SGS North America Inc.

Report of Analysis

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Client Sample ID:	SB-110(7-9)	Date Sampled:	05/17/18
Lab Sample ID:	JC66554-1	Date Received:	05/22/18
Matrix:	SO - Soil	Percent Solids:	82.8
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P123150.D	5	05/30/18 14:31	AR	05/24/18 06:45	OP12229	EP5525
Run #2	P123107.D	50	05/29/18 14:16	AR	05/24/18 06:45	OP12229	EP5524

	Initial Weight	Final Volume
Run #1	31.4 g	1.0 ml
Run #2	31.4 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	2110	190	66	ug/kg	
208-96-8	Acenaphthylene	11000	190	98	ug/kg	
120-12-7	Anthracene	16400	190	120	ug/kg	
56-55-3	Benzo(a)anthracene	67400 ^b	1900	540	ug/kg	
50-32-8	Benzo(a)pyrene	65700 ^b	1900	880	ug/kg	
205-99-2	Benzo(b)fluoranthene	70000 ^b	1900	850	ug/kg	
191-24-2	Benzo(g,h,i)perylene	30200 ^b	1900	960	ug/kg	
207-08-9	Benzo(k)fluoranthene	26000 ^b	1900	900	ug/kg	
218-01-9	Chrysene	51800 ^b	1900	610	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	6990	190	85	ug/kg	
206-44-0	Fluoranthene	122000 ^b	1900	860	ug/kg	
86-73-7	Fluorene	9000	190	88	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	36700 ^b	1900	900	ug/kg	
91-20-3	Naphthalene	55700 ^b	1900	540	ug/kg	
85-01-8	Phenanthrene	74300 ^b	1900	650	ug/kg	
129-00-0	Pyrene	99400 ^b	1900	620	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	67%	92%	26-134%
321-60-8	2-Fluorobiphenyl	75%	111%	39-124%
1718-51-0	Terphenyl-d14	60%	86%	36-134%

(a) Dilution required due to matrix interference.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	SB-119(4-6)	Date Sampled:	05/21/18
Lab Sample ID:	JC66554-2	Date Received:	05/22/18
Matrix:	SO - Soil	Percent Solids:	81.0
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P123095.D	1	05/26/18 07:26	SA	05/24/18 06:45	OP12229	EP5523
Run #2	P123108.D	10	05/29/18 14:43	AR	05/24/18 06:45	OP12229	EP5524

	Initial Weight	Final Volume
Run #1	31.4 g	1.0 ml
Run #2	31.4 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1590	39	14	ug/kg	
208-96-8	Acenaphthylene	850	39	20	ug/kg	
120-12-7	Anthracene	3370	39	24	ug/kg	
56-55-3	Benzo(a)anthracene	16000 a	D 390	110	ug/kg	
50-32-8	Benzo(a)pyrene	24300 a	390	180	ug/kg	
205-99-2	Benzo(b)fluoranthene	23100 a	390	170	ug/kg	
191-24-2	Benzo(g,h,i)perylene	14200 a	390	200	ug/kg	
207-08-9	Benzo(k)fluoranthene	3700	39	18	ug/kg	
218-01-9	Chrysene	13700 a	D 390	120	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	4550 a	390	170	ug/kg	
206-44-0	Fluoranthene	14700 a	390	180	ug/kg	
86-73-7	Fluorene	934	39	18	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	16900 a	D 390	180	ug/kg	
91-20-3	Naphthalene	769	39	11	ug/kg	
85-01-8	Phenanthrene	8960 a	D 390	130	ug/kg	
129-00-0	Pyrene	13900 a	D 390	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	49%	58%	26-134%
321-60-8	2-Fluorobiphenyl	55%	68%	39-124%
1718-51-0	Terphenyl-d14	46%	62%	36-134%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Lab Work Order #
JC 66619

[illegible]

JC66619: Chain of Custody

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SGS North America Inc.

Report of Analysis

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Client Sample ID:	SB-120(13-15)	Date Sampled:	05/22/18
Lab Sample ID:	JC66619-1	Date Received:	05/23/18
Matrix:	SO - Soil	Percent Solids:	85.3
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	Z131123.D	5	06/01/18 07:35	SA	05/31/18 15:15	OP12421	EZ6466
Run #2	Z131167.D	50	06/04/18 00:35	SB	05/31/18 15:15	OP12421	EZ6468
Run #3	Z131161.D	500	06/03/18 21:56	SB	05/31/18 15:15	OP12421	EZ6468

	Initial Weight	Final Volume
Run #1	30.5 g	1.0 ml
Run #2	30.5 g	1.0 ml
Run #3	30.5 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	17900 ^b	D 1900	660	ug/kg	
208-96-8	Acenaphthylene	101000 ^b	D 1900	980	ug/kg	
120-12-7	Anthracene	78700 ^b	D 1900	1200	ug/kg	
56-55-3	Benzo(a)anthracene	45800 ^b	D 1900	540	ug/kg	
50-32-8	Benzo(a)pyrene	31500 ^b	D 1900	870	ug/kg	
205-99-2	Benzo(b)fluoranthene	28500 ^b	D 1900	850	ug/kg	
191-24-2	Benzo(g,h,i)perylene	13700 ^b	D 190	96	ug/kg	
207-08-9	Benzo(k)fluoranthene	13300 ^b	D 1900	900	ug/kg	
218-01-9	Chrysene	37600 ^b	D 1900	610	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	6740 ^b	D 190	85	ug/kg	
206-44-0	Fluoranthene	74800 ^b	D 1900	860	ug/kg	
86-73-7	Fluorene	98700 ^b	D 1900	880	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	14900 ^b	D 190	90	ug/kg	
91-20-3	Naphthalene	421000 ^c	D 19000	5400	ug/kg	
85-01-8	Phenanthrene	190000 ^b	D 1900	650	ug/kg	
129-00-0	Pyrene	71900 ^b	D 1900	610	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
4165-60-0	Nitrobenzene-d5	71%	48%	0% ^d	26-134%
321-60-8	2-Fluorobiphenyl	85%	64%	0% ^d	39-124%
1718-51-0	Terphenyl-d14	52%	41%	0% ^d	36-134%

(a) Dilution required due to matrix interference.

(b) Result is from Run# 2

(c) Result is from Run# 3

(d) Outside control limits due to dilution.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

NYSEG Lyons Site

DATA USABILITY SUMMARY REPORT

Lyons, New York

Semivolatile Analysis

SDG # JC65799

Analyses Performed By:
SGS Laboratories
Dayton, Ohio

Report #30070R

Review Level: Tier III

Project: B0013118.0008.00002



DATA REVIEW REPORT

SUMMARY

This data usability summary report (DUSR) summarizes the review of Sample Delivery Group (SDG) # JC65799 for samples collected in association with the NYSEG Lyons Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

SDG Number	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
						VOC	SVOC	PCB	ME T	MISC
JC65799	SS-100	JC65799-1	Soil	05/08/2018			X			
	DUP-050818	JC65799-10	Soil	05/08/2018	SS-102		X			
	SS-101	JC65799-2	Soil	05/08/2018			X			
	SS-102	JC65799-3	Soil	05/08/2018			X			
	SS-103	JC65799-4	Soil	05/08/2018			X			
	SS-104	JC65799-5R	Soil	05/08/2018			X			
	SS-106	JC65799-7	Soil	05/08/2018			X			
	SS-107	JC65799-8	Soil	05/08/2018			X			

Note:

1. Matrix spike/matrix spike duplicate was performed on sample location SB-108(0-3) and SB-114(3-5) for SVOCs.

DATA REVIEW REPORT

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

Note:

QA - Quality Assurance

DATA REVIEW REPORT

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8270D. Data were reviewed in accordance with USEPA National Functional Guidelines (October 1999) and applicable Region II SOPs. USEPA NFGs and Region II SOPs were followed for qualification purposes.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
 - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
 - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
 - E The compound was quantitated above the calibration range.
 - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
 - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
 - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
 - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
 - UB Compound considered non-detect at the listed value due to associated blank contamination.
 - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
 - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

DATA REVIEW REPORT

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

DATA REVIEW REPORT

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the SVOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

DATA REVIEW REPORT

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
SS-102/ DUP-050818	Acenaphthene	36 U	14.1 J	AC
	Benzo(a)anthracene	76.6	59.7	AC
	Benzo(a)pyrene	81.5	60.7	AC
	Benzo(b)fluoranthene	103	82.2	AC
	Benzo(g,h,i)perylene	62.2	44.7	AC
	Benzo(k)fluoranthene	37.5	27.1 J	AC
	Chrysene	75.6	57.8	AC
	Fluoranthene	99.9	79.1	AC
	Fluorene	36 U	19.5 J	AC
	Indeno(1,2,3-cd)pyrene	68.5	52.0	AC
	Naphthalene	36 U	216	NC
	Phenanthrene	38.7	61.2	AC
	Pyrene	107	85.2	AC

Notes:

AC Acceptable

The compound Naphthalene associated with sample locations SS-102 and DUP-050818 exhibited a field duplicate RPD greater than the control limit. The associated sample results for the listed analyte were qualified as estimated.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
SS-104	Benzo(a)anthracene	--	9950	9950 D
	Benzo(a)pyrene	--	12800	12800 D
	Benzo(b)fluoranthene	--	12700	12700 D
	Benzo(g,h,i)perylene	--	6890	6890 D
	Benzo(k)fluoranthene	--	5480	5480 D
	Chrysene	--	8960	8960 D
	Fluoranthene	--	12700	12700 D
	Indeno(1,2,3-cd)pyrene	--	8380	8380 D

DATA REVIEW REPORT

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
	Pyrene	--	12600	12600 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA REVIEW REPORT

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270	Reported		Performance Acceptable		Not Required	
	No	Yes	No	Yes		
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)						
Tier II Validation						
Holding times		X		X		
Reporting limits (units)		X		X		
Blanks						
A. Method blanks		X		X		
B. Equipment blanks					X	
Laboratory Control Sample (LCS) %R		X		X		
Laboratory Control Sample Duplicate(LCSD) %R					X	
LCS/LCSD Precision (RPD)					X	
Matrix Spike (MS) %R		X		X		
Matrix Spike Duplicate(MSD) %R		X		X		
MS/MSD Precision (RPD)		X		X		
Field/Lab Duplicate (RPD)		X	X			
Surrogate Spike Recoveries		X		X		
Dilution Factor		X		X		
Moisture Content		X		X		
Tier III Validation						
System performance and column resolution		X		X		
Initial calibration %RSDs		X		X		
Continuing calibration RRFs		X		X		
Continuing calibration %Ds		X		X		
Instrument tune and performance check		X		X		
Ion abundance criteria for each instrument used		X		X		
Internal standard		X		X		
Compound identification and quantitation						
A. Reconstructed ion chromatograms		X		X		
B. Quantitation Reports		X		X		
C. RT of sample compounds within the established RT windows		X		X		

DATA REVIEW REPORT

SVOCs: SW-846 8270		Reported		Performance Acceptable		Not Required
		No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)						
D.	Quantitation transcriptions/calculations		X		X	
E.	Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%RSD Relative standard deviation

%R Percent recovery

RPD Relative percent difference

%D Percent difference

DATA USABILITY SUMMARY REPORT

SAMPLE COMPLIANCE REPORT

Sampling Date	Protocol	Sample ID	Matrix	Compliance ¹					Noncompliance
				VOC	SVOC	PCB	MET	MISC	
05/08/2018	SW846	SS-100	Soil	--	Yes	--	--	--	
05/08/2018	SW846	DUP-050818	Soil	--	No	--	--	--	SVOC: Field dup RPD
05/08/2018	SW846	SS-101	Soil	--	Yes	--	--	--	
05/08/2018	SW846	SS-102	Soil	--	No	--	--	--	SVOC: Field dup RPD
05/08/2018	SW846	SS-103	Soil	--	Yes	--	--	--	
05/08/2018	SW846	SS-104	Soil	--	Yes	--	--	--	
05/08/2018	SW846	SS-106	Soil	--	Yes	--	--	--	
05/08/2018	SW846	SS-107	Soil	--	Yes	--	--	--	

Note:

- 1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

DATA USABILITY SUMMARY REPORT

VALIDATION PERFORMED BY: Jeffrey L. Davin

SIGNATURE:



DATE: June 30, 2018

PEER REVIEW: Joseph C. Houser

DATE: July 2, 2018

CHAIN OF CUSTODY

**CORRECTED SAMPLE ANALYSIS DATA
SHEETS**



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CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
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Client / Reporting Information		Project Information				Requested Analysis (see TEST CODE sheet)												Matrix Codes									
Company Name Arcadis		Project Name: NYSEG - Lyons MLP Site																	DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge SED-Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB-Equipment Blank RB-Rinse Blank TB-Trip Blank								
Street Address 295 Woodcliff Dr. Suite 301		Street 2 Water St.		Billing Information (if different from Report to)																							
City State Zip Fairport NY 14450		City State Lyons NY		Company Name																							
Project Contact E-mail Matt.Hysell@arcadis.com		Project # 80613143.0000		Street Address																							
Phone # Fax # 315-671-9189		Client Purchase Order #		City State Zip																							
Sampler(s) Name(s) Phone # Ryan Clare 585-880-7747		Project Manager Jason Brien		Attention:																							
		Collection				Number of preserved bottles												LAB USE ONLY									
Lab Sample # Field ID / Point of Collection		MEOH/DI Vial #		Date Time		Sampled by Matrix		# of bottles		HCl		NaOH		HNO3		H2SO4			NONE		DI Water		MEOH		ENCORE		
1 SS-100				5-8-18 1100 RDC SO 1																							
2 SS-101				5-8-18 1110 RDC SO 1																							
3 SS-102				5-8-18 1120 RDC SO 1																							
4 SS-103				5-8-18 1130 RDC SO 1																							
5 SS-104				5-8-18 1140 RDC SO 1																							
6 SS-105				5-8-18 1400 RDC SG 1																							
7 SS-106				5-8-18 1410 RDC SO 1																							
8 SS-107				5-8-18 1420 RDC SG 1																							
9 SS-108				5-8-18 1430 RDC SO 1																							
10 DUP-050818				5-8-18 — RDC SO 1																							
Turnaround Time (Business days)		Data Deliverable Information																								Comments / Special Instructions	
☒ Std. 10 Business Days ☐ 5 Day RUSH ☐ 3 Day RUSH ☐ 2 Day RUSH ☐ 1 Day RUSH ☐ other _____		Approved by (SGS Project Manager)/Date: _____ _____		☐ Commercial "A" (Level 1) ☐ Commercial "B" (Level 2) ☐ FULLT1 (Level 3+4) ☐ NJ Reduced ☐ Commercial "C" ☐ NJ Data of Known Quality Protocol Reporting Commercial "A" = Results Only; Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data												☐ NYASP Category A ☐ NYASP Category B ☐ State Forms ☐ EDD Format ☐ Other _____		HOLD SS-104, 105, and 108. Sample inventory is verified upon receipt in the Laboratory									
Emergency & Rush TIA data available via LabLink		Sample Custody must be documented below each time samples change possession, including courier delivery.																									

5.1

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Report of Analysis

Page 1 of 1

Client Sample ID:	SS-100						
Lab Sample ID:	JC65799-1					Date Sampled:	05/08/18
Matrix:	SO - Soil					Date Received:	05/09/18
Method:	SW846 8270D SW846 3546					Percent Solids:	83.1
Project:	NYSEG - Lyons MGP Site, Lyons NY						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z130937.D	1	05/23/18 15:49	JB	05/11/18 06:15	OP11924	EZ6455
Run #2							

	Initial Weight	Final Volume
Run #1	31.0 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	39	13	ug/kg	
208-96-8	Acenaphthylene	ND	39	20	ug/kg	
120-12-7	Anthracene	ND	39	24	ug/kg	
56-55-3	Benzo(a)anthracene	59.8	39	11	ug/kg	
50-32-8	Benzo(a)pyrene	63.7	39	18	ug/kg	
205-99-2	Benzo(b)fluoranthene	79.6	39	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	49.1	39	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	31.8	39	18	ug/kg	J
218-01-9	Chrysene	66.7	39	12	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	39	17	ug/kg	
206-44-0	Fluoranthene	101	39	17	ug/kg	
86-73-7	Fluorene	ND	39	18	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	52.1	39	18	ug/kg	
91-20-3	Naphthalene	ND	39	11	ug/kg	
85-01-8	Phenanthrene	48.0	39	13	ug/kg	
129-00-0	Pyrene	101	39	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	72%		26-134%
321-60-8	2-Fluorobiphenyl	69%		39-124%
1718-51-0	Terphenyl-d14	68%		36-134%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	SS-101		
Lab Sample ID:	JC65799-2	Date Sampled:	05/08/18
Matrix:	SO - Soil	Date Received:	05/09/18
Method:	SW846 8270D SW846 3546	Percent Solids:	85.0
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z130936.D	1	05/23/18 15:21	JB	05/11/18 06:15	OP11924	EZ6455
Run #2							

	Initial Weight	Final Volume
Run #1	30.4 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	39	13	ug/kg	
208-96-8	Acenaphthylene	ND	39	20	ug/kg	
120-12-7	Anthracene	ND	39	24	ug/kg	
56-55-3	Benzo(a)anthracene	55.9	39	11	ug/kg	
50-32-8	Benzo(a)pyrene	60.8	39	18	ug/kg	
205-99-2	Benzo(b)fluoranthene	87.3	39	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	53.6	39	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	31.8	39	18	ug/kg	J
218-01-9	Chrysene	62.3	39	12	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	39	17	ug/kg	
206-44-0	Fluoranthene	111	39	17	ug/kg	
86-73-7	Fluorene	ND	39	18	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	58.5	39	18	ug/kg	
91-20-3	Naphthalene	ND	39	11	ug/kg	
85-01-8	Phenanthrene	34.9	39	13	ug/kg	J
129-00-0	Pyrene	99.6	39	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	67%		26-134%
321-60-8	2-Fluorobiphenyl	62%		39-124%
1718-51-0	Terphenyl-d14	64%		36-134%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	SS-102	Date Sampled:	05/08/18
Lab Sample ID:	JC65799-3	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	88.2
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z130935.D	1	05/23/18 14:54	JB	05/11/18 06:15	OP11924	EZ6455
Run #2							

	Initial Weight	Final Volume
Run #1	31.6 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	36	12	ug/kg	
208-96-8	Acenaphthylene	ND	36	18	ug/kg	
120-12-7	Anthracene	ND	36	22	ug/kg	
56-55-3	Benzo(a)anthracene	76.6	36	10	ug/kg	
50-32-8	Benzo(a)pyrene	81.5	36	16	ug/kg	
205-99-2	Benzo(b)fluoranthene	103	36	16	ug/kg	
191-24-2	Benzo(g,h,i)perylene	62.2	36	18	ug/kg	
207-08-9	Benzo(k)fluoranthene	37.5	36	17	ug/kg	
218-01-9	Chrysene	75.6	36	11	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	36	16	ug/kg	
206-44-0	Fluoranthene	99.9	36	16	ug/kg	
86-73-7	Fluorene	ND	36	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	68.5	36	17	ug/kg	
91-20-3	Naphthalene	ND J	36	10	ug/kg	
85-01-8	Phenanthrene	38.7	36	12	ug/kg	
129-00-0	Pyrene	107	36	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	72%		26-134%
321-60-8	2-Fluorobiphenyl	69%		39-124%
1718-51-0	Terphenyl-d14	78%		36-134%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	SS-103		
Lab Sample ID:	JC65799-4	Date Sampled:	05/08/18
Matrix:	SO - Soil	Date Received:	05/09/18
Method:	SW846 8270D SW846 3546	Percent Solids:	77.9
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z130938.D	1	05/23/18 16:16	JB	05/11/18 06:15	OP11924	EZ6455
Run #2							

	Initial Weight	Final Volume
Run #1	31.2 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	53.8	41	14	ug/kg	
208-96-8	Acenaphthylene	189	41	21	ug/kg	
120-12-7	Anthracene	336	41	25	ug/kg	
56-55-3	Benzo(a)anthracene	1890	41	12	ug/kg	
50-32-8	Benzo(a)pyrene	2060	41	19	ug/kg	
205-99-2	Benzo(b)fluoranthene	2520	41	18	ug/kg	
191-24-2	Benzo(g,h,i)perylene	1430	41	21	ug/kg	
207-08-9	Benzo(k)fluoranthene	820	41	19	ug/kg	
218-01-9	Chrysene	1740	41	13	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	445	41	18	ug/kg	
206-44-0	Fluoranthene	2030	41	18	ug/kg	
86-73-7	Fluorene	79.3	41	19	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	1620	41	19	ug/kg	
91-20-3	Naphthalene	200	41	12	ug/kg	
85-01-8	Phenanthrene	799	41	14	ug/kg	
129-00-0	Pyrene	2270	41	13	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	64%		26-134%
321-60-8	2-Fluorobiphenyl	61%		39-124%
1718-51-0	Terphenyl-d14	63%		36-134%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	SS-104	Date Sampled:	05/08/18
Lab Sample ID:	JC65799-5R	Date Received:	05/09/18
Matrix:	SO - Soil	Percent Solids:	87.9
Method:	SW846 8270D SW846 3546		
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P123379.D	1	06/07/18 14:58	AR	05/14/18 07:15	OP11971	EP5535
Run #2	P123452.D	10	06/11/18 12:35	AR	05/14/18 07:15	OP11971	EP5540

	Initial Weight	Final Volume
Run #1	31.4 g	1.0 ml
Run #2	31.4 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	277	36	12	ug/kg	
208-96-8	Acenaphthylene	789	36	18	ug/kg	
120-12-7	Anthracene	1990	36	22	ug/kg	
56-55-3	Benzo(a)anthracene	9950 ^a	D 360	100	ug/kg	
50-32-8	Benzo(a)pyrene	12800 ^a	360	160	ug/kg	
205-99-2	Benzo(b)fluoranthene	12700 ^a	360	160	ug/kg	
191-24-2	Benzo(g,h,i)perylene	6890 ^a	360	180	ug/kg	
207-08-9	Benzo(k)fluoranthene	5480 ^a	360	170	ug/kg	
218-01-9	Chrysene	8960 ^a	360	110	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	2450	36	16	ug/kg	
206-44-0	Fluoranthene	12700 ^a	D 360	160	ug/kg	
86-73-7	Fluorene	340	36	17	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	8380 ^a	D 360	170	ug/kg	
91-20-3	Naphthalene	535	36	10	ug/kg	
85-01-8	Phenanthrene	2920	36	12	ug/kg	
129-00-0	Pyrene	12600 ^a	D 360	120	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%	68%	26-134%
321-60-8	2-Fluorobiphenyl	74%	73%	39-124%
1718-51-0	Terphenyl-d14	59%	75%	36-134%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	SS-106	
Lab Sample ID:	JC65799-7	Date Sampled: 05/08/18
Matrix:	SO - Soil	Date Received: 05/09/18
Method:	SW846 8270D SW846 3546	Percent Solids: 86.6
Project:	NYSEG - Lyons MGP Site, Lyons NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z130878.D	1	05/22/18 05:17	CS	05/21/18 14:45	OP12146	EZ6453
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	50.8	38	13	ug/kg	
208-96-8	Acenaphthylene	46.8	38	19	ug/kg	
120-12-7	Anthracene	124	38	23	ug/kg	
56-55-3	Benzo(a)anthracene	653	38	11	ug/kg	
50-32-8	Benzo(a)pyrene	786	38	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	873	38	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	572	38	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	319	38	18	ug/kg	
218-01-9	Chrysene	599	38	12	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	156	38	17	ug/kg	
206-44-0	Fluoranthene	766	38	17	ug/kg	
86-73-7	Fluorene	44.2	38	18	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	627	38	18	ug/kg	
91-20-3	Naphthalene	65.1	38	11	ug/kg	
85-01-8	Phenanthrene	367	38	13	ug/kg	
129-00-0	Pyrene	827	38	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%		26-134%
321-60-8	2-Fluorobiphenyl	63%		39-124%
1718-51-0	Terphenyl-d14	77%		36-134%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	SS-107		
Lab Sample ID:	JC65799-8	Date Sampled:	05/08/18
Matrix:	SO - Soil	Date Received:	05/09/18
Method:	SW846 8270D SW846 3546	Percent Solids:	85.3
Project:	NYSEG - Lyons MGP Site, Lyons NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z130940.D	1	05/23/18 17:14	JB	05/11/18 06:15	OP11924	EZ6455
Run #2							

	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	38	13	ug/kg	
208-96-8	Acenaphthylene	22.2	38	19	ug/kg	J
120-12-7	Anthracene	39.8	38	23	ug/kg	
56-55-3	Benzo(a)anthracene	202	38	11	ug/kg	
50-32-8	Benzo(a)pyrene	247	38	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	298	38	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	197	38	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	101	38	18	ug/kg	
218-01-9	Chrysene	210	38	12	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	56.9	38	17	ug/kg	
206-44-0	Fluoranthene	273	38	17	ug/kg	
86-73-7	Fluorene	ND	38	18	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	207	38	18	ug/kg	
91-20-3	Naphthalene	16.0	38	11	ug/kg	J
85-01-8	Phenanthrene	115	38	13	ug/kg	
129-00-0	Pyrene	267	38	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	64%		26-134%
321-60-8	2-Fluorobiphenyl	61%		39-124%
1718-51-0	Terphenyl-d14	56%		36-134%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	DUP-050818	
Lab Sample ID:	JC65799-10	Date Sampled: 05/08/18
Matrix:	SO - Soil	Date Received: 05/09/18
Method:	SW846 8270D SW846 3546	Percent Solids: 89.5
Project:	NYSEG - Lyons MGP Site, Lyons NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z130934.D	1	05/23/18 14:27	JB	05/11/18 06:15	OP11924	EZ6455
Run #2							

	Initial Weight	Final Volume
Run #1	32.6 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	14.1	34	12	ug/kg	J
208-96-8	Acenaphthylene	ND	34	17	ug/kg	
120-12-7	Anthracene	ND	34	21	ug/kg	
56-55-3	Benzo(a)anthracene	59.7	34	9.7	ug/kg	
50-32-8	Benzo(a)pyrene	60.7	34	16	ug/kg	
205-99-2	Benzo(b)fluoranthene	82.2	34	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	44.7	34	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	27.1	34	16	ug/kg	J
218-01-9	Chrysene	57.8	34	11	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	34	15	ug/kg	
206-44-0	Fluoranthene	79.1	34	15	ug/kg	
86-73-7	Fluorene	19.5	34	16	ug/kg	J
193-39-5	Indeno(1,2,3-cd)pyrene	52.0	34	16	ug/kg	
91-20-3	Naphthalene	216 J	34	9.7	ug/kg	
85-01-8	Phenanthrene	61.2	34	12	ug/kg	
129-00-0	Pyrene	85.2	34	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%		26-134%
321-60-8	2-Fluorobiphenyl	65%		39-124%
1718-51-0	Terphenyl-d14	69%		36-134%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

ATTACHMENT 3

Soil Boring Logs



Date Start/Finish: 5/10/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1116012.70 Easting: 710938.05 Casing Elevation: NA Borehole Depth: 31' bgs Surface Elevation: 406.06' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-100 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0											
405		1	0-5	5	NA	NA	1.4			Brown very fine to medium SAND; little to trace fine to coarse Gravel, angular to sub angular; trace Silt; trace Brick/Slag debris; moist, loose.	Top Soil (0-0.5' bgs)
5											
400		2	5-7	1.6	4 9 6 5	NA	0.0 0.0 0.0			Dark brown SILT and very fine SAND; little fine to coarse Gravel, sub angular; trace Slag/Coal; moist, stiff.	
										Brown very fine SAND; little Silt; little Coal/Slag/Brick debris; moist, stiff.	
		3	7-9	0.4	3 3 4 4	NA	0.0			Brown very fine SAND; little Silt; little Coal/Slag/Brick debris; moist, stiff. Light red and pink Brick in sample shoe.	
10		4	9-11	1.3	1 1 3 4	NA	0.0 0.0 0.0			Dark brown SILT; little very fine Sand; trace Clay; trace coal fragments; moist, stiff, low plasticity.	
										Brown SILT; little very fine Sand; trace Clay; trace coal fragments; moist, stiff, low plasticity.	
395											
		5	11-13	1.8	4 5 5 4	NA	0.0 0.0 0.0			Brown to reddish brown SILT; little very fine Sand; trace Clay; moist, medium stiff to soft, low to medium plasticity, little rust and dark brown discoloration.	
										Dark brown SILT and very fine SAND; moist, soft, strong MGP-like odor and heavy black discoloration.	
		6	13-15	1.9	1 1 1 1	NA	48.2 399 698 391			Olive brown SILT and very fine SAND; trace Clay; moist, soft, medium plasticity, trace tar-like stringers and sheen on moisture in pore space, strong MGP-like odor.	
15											
					WOH WOH		332			Olive brown to yellowish olive brown very fine SAND and SILT; moist, soft, trace tar-like stringers, strong MGP-like odor.	Cement Grout (0.5'-31' bgs)

 ARCADIS Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level; WOH = Weight of Hammer. Location Hand cleared with air knife to 5' bgs. Soil samples collected for ISS at 4 - 13 ft bgs and 13 - 21 ft bgs.
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Date Start/Finish: 5/15/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1116012.70 Easting: 710966.71 Casing Elevation: NA Borehole Depth: 31' bgs Surface Elevation: 405.41' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-101 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	405	1	0-5	5	NA	NA	1.2			Brown very fine to medium SAND, little fine to coarse Gravel, angular to sub rounded; trace Silt; trace brick and slag fragments; moist, loose.	Top Soil (0-0.5' bgs)
5	400	2	5-7	1.4	4 9 12 6	NA	0.9 0.8			Brown SILT; some very fine Sand; trace fine Gravel; moist, loose.	
										Black Slag, Ash, and Coal pieces; moist, loose.	
		3	7-9	1.5	6 9 9 7	NA	13.7 125 145			Black Slag, Ash, Coal, and Wood fragments; moist, loose, strong MGP-like odor. Stiff, tar-like material at 7.6' to 7.9' bgs.	
										Dark olive brown SILT, medium plasticity; trace very fine Sand; trace Clay; trace ash, coal, and slag fragments; moist, medium stiff, strong MGP-like odor.	
-10	395	4	9-11	1.4	5 4 4 4	NA	62.7 82.1 106.6			Dark olive brown SILT, medium plasticity; trace very fine Sand; trace Clay; trace tar stringers; moist, medium stiff, strong MGP-like odor. 1-inch diameter tar pocket at 11.7' bgs.	Cement Grout (0.5'-31' bgs)
		5	11-13	1.9	4 7 7 7	NA	112 94.2 74.1 90.8				
		6	13-15	1.9	3 2 3 2	NA	78.1 61.5 50.1 39.5			Reddish brown SILT; some very fine Sand; trace Clay; trace white shell fragments; moist, medium stiff, slight to moderate MGP-like odor, trace black discoloration.	
-15	390				2 2		37.1				

 ARCADIS Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level. Location Hand cleared with air knife to 5' bgs. Soil samples collected for ISS at 4 - 7 ft bgs and 7 - 17 ft bgs.
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Client: NYSEG

Well/Boring ID: SB-101

Site Location:

2 Water Street
Lyons, NY 14489

Borehole Depth: 31' bgs

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
20 385		7	15-17	1.3	2	NA	37.0			Greyish brown, mottled orange/red SILT; little Clay; trace fine Gravel; trace very fine Sand; trace tar stringers; moist, soft grading to stiff.	Cement Grout (0.5'-31' bgs)
					2		42.1				
		8	17-19	1.2	3	NA	29.5			Grey SILT; little Clay grading to very fine Sand and Silt; trace white shell fragments; moist, soft.	
					5		9.4				
					13					Brown fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; trace Silt; moist, loose.	
					12						
		9	19-21	0.8	2	NA	4.2			Brown fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; trace Silt; wet, loose.	
					2		3.2				
					3						
					3						
		10	21-23	1.7	3	NA	2.1			Brown very fine to fine SAND; trace Silt; wet, loose.	
					2		2.1				
25 380					5	NA	1.7			Brown fine to medium SAND; trace fine to coarse Gravel, sub angular to sub rounded; trace Silt; wet, loose.	Cement Grout (0.5'-31' bgs)
					6		0.5				
		11	23-25	0.7	5						
					7						
					4	NA	0.3			Brown fine to medium SAND; little grading to some fine to coarse Gravel, sub angular to sub rounded; trace fractured cobbles; trace Silt; wet, loose.	
					11		0.9				
		12	25-27	1.0	14						
					12						
					12	NA	0.3				
					9						
		13	27-29	0.5	9						
					9						
30 375					16	NA	0.1				Cement Grout (0.5'-31' bgs)
					19						
		14	29-31	0.6	20						
					21						
35 370										Boring terminated at 31' bgs.	Cement Grout (0.5'-31' bgs)

Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level.

Location Hand cleared with air knife to 5' bgs.

Soil samples collected for ISS at 4 - 7 ft bgs and 7 - 17 ft bgs.



Date Start/Finish: 5/16/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1116007.39 Easting: 710981.76 Casing Elevation: NA Borehole Depth: 30' bgs Surface Elevation: 405.24' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-102 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	405	1	0-4	4	NA	NA	0.8			Brown very fine to medium SAND, trace fine to coarse Gravel, angular to sub rounded; trace Silt; trace brick and slag fragments; moist, loose.	Top Soil (0-0.5' bgs)
5	400	2	4-6	0.3	7 7 5 4	NA	0.0			Brown very fine SAND; little Silt; moist, soft.	
		3	6-8	0.3	4 4 2 2	NA	0.0			Brown very fine SAND; little Silt; little Slag and Coal fragments; wet, loose.	
		4	8-10	1.2	2 2 4 5	NA	0.0 0.0 0.0			Reddish brown SILT and very fine SAND; trace coarse Gravel, sub rounded; moist, medium stiff.	
10	395	5	10-12	1.6	2 3 4 5	NA	0.0 0.0 0.0			Dark brown SILT; little very fine Sand; moist, medium stiff.	
		6	12-14	1.8	4 4 4 4	NA	0.0 0.0 0.0 0.0			Dark brown SILT; little very fine Sand; trace Clay; moist, medium stiff, trace black discoloration. Grades to soft at 12' bgs.	
		7	14-16	1.8	1 2 2 4	NA	0.0 0.0 0.0 0.0			Olive SILT; little very fine Sand; trace Clay; moist, soft, no odor, little black discoloration.	
15	390									Black discolored olive SILT; little very fine Sand; trace Clay; moist, soft, no odor.	
										Olive grey SILT; trace grading to little very fine Sand; little grading to trace Clay; moist, soft, trace white shell fragments.	Cement Grout (0.5'-30' bgs)

 ARCADIS Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level. Location hand cleared with air knife to 5' bgs. Soil samples collected for: ISS at 4 - 19 ft bgs. PAH Delineation at 12 - 14 ft bgs.
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Client: NYSEG

Well/Boring ID: SB-102

Site Location:

Borehole Depth: 30' bgs

2 Water Street
Lyons, NY 14489

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
20 385	8	16-18	1.4	NA	4	0.0					Cement Grout (0.5'-30' bgs)
					4	0.0				Grey and brown very fine to fine SAND; trace Silt; moist, medium dense.	
					7	0.0				Reddish and yellowish brown very fine to medium SAND; little fine to coarse Gravel, angular to sub rounded; moist, medium dense.	
					5	0.0					
	9	18-20	0.4	NA	2	0.0					
					3	0.0					
					3	0.0					
	10	20-22	0.8	NA	3	0.0					
					3	0.0					
					2	0.0					
	11	22-24	0.5	NA	3	0.0					
					4	0.0					
					5	0.0					
25 380	12	24-26	0.5	NA	5	0.0					
					7	0.0					
					22	0.0					
					45	0.0					
	13	26-28	1.1	NA	15	0.0					
					22	0.0					
					15	0.0					
					16	0.0					
14	28-30	0.7	NA	5	0.0						
				6	0.0						
				10	0.0						
				16	0.0						
30 375										Boring terminated at 30' bgs.	
35 370											

Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level.

Location hand cleared with air knife to 5' bgs.

Soil samples collected for:

ISS at 4 - 19 ft bgs.

PAH Delineation at 12 - 14 ft bgs.



Date Start/Finish: 5/11/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1116000.09 Easting: 710903.56 Casing Elevation: NA Borehole Depth: 31' bgs Surface Elevation: 405.88' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-103 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	405	1	0-5	5	NA	NA	0.7			Brown fine to coarse SAND, little to some fine to coarse Gravel, angular to sub rounded; trace Silt; moist, loose.	Asphalt (0-0.5' bgs)
5	400	2	5-7	0.6	4 4 3 4	NA	0.0			Black and white Slag and Ash fragments; moist, loose.	
		3	7-9	0.7	2 1 2 1	NA	0.0 0.0			White and black Slag and Ash fragments; little red Brick debris; moist, loose.	Cement Grout (0.5'-31' bgs)
10	395	4	9-11	0.7	2 3 3 4	NA	0.0 0.0			Reddish brown SILT; trace very fine Sand; trace Clay; moist, soft, medium plasticity.	
		5	11-13	1.8	3 4 4 3	NA	0.0 0.0 0.0			Reddish brown SILT; trace very fine Sand; trace Clay; moist, soft, medium plasticity, trace black mottling.	
		6	13-15	1.9	2 2 2 2	NA	0.0 0.0 0.0			Reddish brown grading to olive brown SILT; little very fine Sand; trace Clay; moist, very soft, medium to low plasticity.	
15	390				1 1		0.0			Light olive brown SILT; little very fine Sand; trace Clay; moist, very soft, non plastic, trace white shell fragments, some orange/red colored mottling.	

 ARCADIS Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level. Location hand cleared with air knife to 5' bgs. Soil samples collected for: ISS at 4 - 19 ft bgs. PAH Delineation at 7 - 9 ft bgs.
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Client: NYSEG

Well/Boring ID: SB-103

Site Location:

Borehole Depth: 31' bgs

2 Water Street
Lyons, NY 14489

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
		7	15-17	0.9	1	NA	0.0				
					1						
					2		0.0			Light olive brown SILT; little very fine Sand; trace Clay; moist, very soft, non plastic, some orange/red colored mottling.	
		8	17-19	1.2	2	NA	0.0				
					2		0.0				
					4		0.0			Grey very fine to medium SAND; trace fine to coarse Gravel, sub rounded; wet, loose.	
					4		0.0				
					3		0.0			Grey grading to brown very fine to coarse SAND; trace fine to coarse Gravel, sub rounded; trace Silt; wet, loose.	
20		9	19-21	0.8	3	NA	0.0				
					3		0.0				
					6		0.0				
385											
					7		0.0			Reddish brown and brown fine to coarse SAND; little fine to coarse Gravel, sub angular to sub rounded; trace Silt; wet, loose.	
		10	21-23	0.9	8	NA	0.0			Trace fractured cobbles at 27 - 29 ft bgs.	
					7		0.0				
					7		0.0				
					4		0.0				
		11	23-25	0.9	7	NA	0.0				
					8		0.0				
25					9		0.0				
					3		0.0				
380		12	25-27	0.4	7	NA	0.0				
					8		0.0				
					7		0.0				
					25		0.0				
		13	27-29	1.5	20	NA	0.0				
					18		0.0				
					18		0.0				
					8		0.0				
30		14	29-31	1.0	9	NA	0.0				
					11		0.0				
					16		0.0				
375											
										Boring terminated at 31' bgs.	
35											
370											

Cement Grout
(0.5'-31' bgs)**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level.

Location hand cleared with air knife to 5' bgs.

Soil samples collected for:

ISS at 4 - 19 ft bgs.

PAH Delineation at 7 - 9 ft bgs.



Date Start/Finish: 5/10/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1115993.80 Easting: 710936.82 Casing Elevation: NA Borehole Depth: 31' bgs Surface Elevation: 405.89' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-104 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	405	1	0-4	4	NA	NA	0.9			Brown fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; trace 3" to 8" Cobbles, sub rounded; moist, loose.	Asphalt (0-0.5' bgs)
5	400	NA	4-5	NR	NA	NA	NA			Auger through large rock at 4' bgs.	
		2	5-7	NR	3 1 1 1	NA	NA			No Recovery.	
		3	7-9	0.9	3 3 6 9	NA	0.4 0.4		  	Black Slag and very fine to fine SAND; trace Silt; moist, loose. Tan fine to medium SAND; moist, loose, 1" dia. green Rock at 7.6' to 7.7' bgs. Reddish brown very fine SAND.	
10	395	4	9-11	2.0	2 4 5 5	NA	13.2 42.9 37.1 47.6		   	Dark brown SILT; little very fine Sand; trace Clay; moist, stiff, medium plasticity. Olive brown discolored black SILT; little very fine Sand; trace Clay; moist, stiff, medium plasticity, moderate MGP-like odor. Black SILT; little Clay; little Soot-like material; moist, soft, moderate MGP-like odor. Black SILT; little Clay; little Soot-like material; trace tar-like stringers; moist, soft, strong MGP-like odor.	
		5	11-13	1.7	5 6 6 5	NA	98.5 296 125 347		   	Brown and olive brown very fine SNAD; some Silt; trace tar-like stringers; moist, soft, strong MGP-like odor, small tar pockets at 12' to 12.1' bgs and in the sample shoe. Black SILT; trace Clay; trace Soot-like material; trace tar-like stringers; moist, soft, moderate MGP-like odor.	
15		6	13-15	2.0	2 2 3 3	NA	83.0 371 200 283		  	Olive and reddish brown very fine SAND; little Silt; trace Clay; trace tar-like stringers; moist, soft, strong MGP-like odor, tar pocket at 13.9' to 14' bgs.	
390					2 2		209		 	Olive brown very fine SAND; some Silt; trace Clay; trace tar-like stringers; trace white shell fragments; moist, soft, medium plasticity, moderate MGP-like odor, tar pocket at 16.9' to 17' bgs, trace rust discoloration.	Cement Grout (0.5'-31' bgs)

 Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level; NR = No Recovery. Location hand cleared with air knife to 5' bgs. Soil samples collected for: ISS at 4 - 12 ft bgs and 12 - 19 ft bgs.
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Client: NYSEG

Well/Boring ID: SB-104

Site Location:

Borehole Depth: 31' bgs

2 Water Street
Lyons, NY 14489

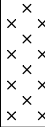
DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
		7	15-17	2.0	3	NA	99.2				
					3		197				
		8	17-19	2.0	4	NA	178				
					7		70.8			Olive grey very fine SAND; trace fine to medium Sand; trace Silt; trace Clay; trace thin laminations of black MGP-like material; moist, soft, moderate MGP-like odor.	
					8		45.9				
					8		33.7				
					6		9.8			Dark grey fine to coarse SAND and fine to coarse GRAVEL, angular to sub rounded; wet, loose, moderate MGP-like odor.	
20		9	19-21	1.5	5	NA	3.6			Black discolored fine to medium SAND; little fine to medium Gravel, angular to sub rounded; moist, loose, slight MGP-like odor.	
					3		2.0				
385					3					Olive brown to brown fine to coarse SAND; little fine to medium Gravel; trace Silt; moist to wet, loose. (wet at 20.8' bgs)	
		10	21-23	0.8	3	NA	1.9			Reddish brown fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; trace Silt; wet, loose.	
					8						
					9						
					9						
		11	23-25	1.3	3	NA	1.2				
					7						
25					8						
					8						
		12	25-27	0.6	4	NA	1.8				
380					4						
					7						
					10						
		13	27-29	0.7	7	NA	2.5				
					10						
					15						
					20						
		14	29-31	1.0	12	NA	3.1			Reddish brown fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; trace Silt; moist to wet, dense.	
30					18						
					27						
375					32						
										Boring terminated at 31' bgs.	
35											
370											

Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level; NR = No Recovery.

Location hand cleared with air knife to 5' bgs.

Soil samples collected for:
ISS at 4 - 12 ft bgs and 12 - 19 ft bgs.

Date Start/Finish: 5/14/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1115980.41 Easting: 710955.64 Casing Elevation: NA Borehole Depth: 31' bgs Surface Elevation: 405.54' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-105 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	405	1	0-3	3	NA	NA	0.7			Brown fine to coarse SAND and fine to coarse GRAVEL, sub angular to sub rounded; trace 3" to 10" dia. Cobbles, sub rounded; trace Silt; moist, loose.	 Asphalt (0-0.5' bgs)
			NA	NA	NA	NA	NA			No Recovery. Auger 3' to 5' bgs through concrete slab.	
5	400	2	5-7	0.6	4 4 2 3	NA	0.0 0.0			Black Soot, Coal, and Slag fragments grading to dark brown fine to medium SAND; trace to little Silt; moist, loose. Black and dark brown Slag, Coal, and Ash; moist to wet, loose.	
		3	7-9	0.7	2 2 3 2	NA	0.0 0.0			Brown and dark brown SILT; little very fine Sand; trace Coal, brick, and Slag fragments; moist, stiff.	 Cement Grout (0.5'-31' bgs)
10	395	4	9-11	0.7	2 3 3 4	NA	0.8 1.2 1.5			Olive SILT; little very fine Sand; trace Clay; moist, soft, medium plasticity.	
		5	11-13	1.8	4 4 4 6	NA	19.9 31.1 47.5 56.9			Black soot-like SILT; trace very fine Sand; trace Clay; moist, soft, medium plasticity, slight to moderate MGP-like odor.	
		6	13-15	1.9	1 2 2 2	NA	58.5 220 254 146			Olive brown SILT; trace very fine Sand; trace Clay; trace tar-like stringers; moist, soft, medium plasticity, moderate MGP-like odor, some black discoloration. Olive brown SILT; trace very fine Sand; trace Clay; trace tar-like stringers; moist, soft grading to stiff, slight MGP-like odor.	
15	390				2 3		51.8			Olive brown SILT and very fine SAND; trace Clay; moist, stiff, slight MGP-like odor. Olive brown very fine SAND; moist, medium dense, slight MGP-like odor.	

 ARCADIS Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level. Location hand cleared with air knife to 3' bgs. Soil samples collected for: ISS at 5 - 11 ft bgs and 11 - 19 ft bgs.
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Client: NYSEG

Well/Boring ID: SB-105

Site Location:

Borehole Depth: 31' bgs

2 Water Street
Lyons, NY 14489

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
20 385		7	15-17	0.9	5	NA	19.2 9.2			Reddish brown fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; moist, loose, very slight odor.	
		8	17-19	1.2	8 9 7 10	NA	4.4 2.8			Reddish brown fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; trace Silt; moist, loose, very slight odor.	
		9	19-21	0.8	4 3 3 4	NA	1.4 0.8			Reddish brown fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; trace Silt; moist to wet, loose.	
		10	21-23	0.9	4 5 5 9	NA	0.7 1.7			Brown fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; trace Silt; wet, loose.	
		11	23-25	0.9	8 7 5 5	NA	0.5 0.4			Greyish brown fine to coarse SAND; little fine to coarse Gravel, sub angular to sub rounded; wet, loose.	
		12	25-27	0.4	3 5 9 15	NA	0.6			Brown fine to coarse SAND; little fine to coarse Gravel, sub angular to sub rounded; wet, loose.	
		13	27-29	1.5	13 13 9 13	NA	0.7 0.4			Brown fine to coarse SAND; little fine to coarse Gravel, sub angular to sub rounded; trace small to medium cobbles and fractured cobbles, sub rounded; wet, loose.	
		14	29-31	1.0	5 6 12 12	NA	0.6 0.4			Boring terminated at 31' bgs.	
30 375											
35 370											

Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level.

Location hand cleared with air knife to 3' bgs.

Soil samples collected for:
ISS at 5 - 11 ft bgs and 11 - 19 ft bgs.

Date Start/Finish: 5/11/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1115982.76 Easting: 710906.66 Casing Elevation: NA Borehole Depth: 31' bgs Surface Elevation: 405.69' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-106 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0											
405										Parking Lot Asphalt.	Asphalt (0-0.5' bgs)
		1	0-5	5	NA	NA	1.2			Brown fine to coarse SAND, little fine to coarse Gravel, angular to sub angular; trace to little Silt; trace 2" to 8" Cobbles, sub rounded to sub angular; moist, loose to dense.	
5											
400		2	5-7	0.9	2 10 7 3	NA	33.3 34.5			Grey very fine to fine SAND and SILT; trace Ash, moist, soft.	
										Black Coal, Slag, Ash; little red and pink Brick-like material; dry, loose, slight MGP-like odor.	
		3	7-9	0.7	2 2 1 1	NA	1.4 1.2			Black Slag, Coal, and Ash; moist and wet, loose, very slight MGP-like odor.	
10		4	9-11	1.4	2 2 3 4	NA	6.1 3.5 3.1			Dark brown grading to brown SILT and very fine SAND; moist, soft, trace black discoloration.	
395											
		5	11-13	1.6	2 3 4 5	NA	4.0 3.3 2.0			Reddish brown SILT; little very fine Sand; trace Clay; moist, medium stiff, medium plasticity, trace black discoloration.	
		6	13-15	NR	NA	NA	NA			No Recovery.	
15											
					1 1		1.6			Olive brown SILT; little very fine Sand; trace Clay; trace white shell fragments; moist, soft, some orange/red colored mottling.	
390											

 ARCADIS Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level; NR = No Recovery. Location hand cleared with air knife to 5' bgs. Soil samples collected for: ISS at 4 - 19 ft bgs. PAH Delineation at 5 - 7 ft bgs.
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Client: NYSEG

Well/Boring ID: SB-106

Site Location:

Borehole Depth: 31' bgs

2 Water Street
Lyons, NY 14489

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
		7	15-17	1.7	2	NA	1.7				
					2		1.5				
		8	17-19	1.6	3	NA	1.7			Light grey and grey fine SAND; trace white Shell fragments; wet, medium dense, slow dilatancy, trace orange/red discoloration.	
					3		0.9			Grey fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; wet, loose.	
					7		0.8				
					9		0.1			Brown and greyish brown fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; moist, medium dense.	
20		9	19-21	0.9	9	NA	0.1				
	385				5		0.1				
					6		0.0			Brown fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; wet, medium dense.	
		10	21-23	1.2	10	NA	0.0				
					11		0.0				
					7					No Recovery.	
		11	23-25	NR	7	NA	NA				
					11						
25					12						
	380				4					Fractured Rock in sample shoe; wet, loose.	
		12	25-27	0.2	10	NA	0.0				
					14						
					18						
					23						
		13	27-29	0.3	50/5"	NA	0.0				
					12		0.0			Brown fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; little Silt; wet, dense.	
30		14	29-31	1.2	17	NA	0.0				
	375				20		0.0				
					22		0.0				
										Boring terminated at 31' bgs.	
35											
	370										

Cement Grout
(0.5'-31' bgs)**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level; NR = No Recovery.

Location hand cleared with air knife to 5' bgs.

Soil samples collected for:
ISS at 4 - 19 ft bgs.
PAH Delineation at 5 - 7 ft bgs.

Date Start/Finish: 5/14/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1115961.54 Easting: 710928.95 Casing Elevation: NA Borehole Depth: 31' bgs Surface Elevation: 405.57' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-107 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	405	1	0-5	5	NA	NA	0.4			Parking Lot Asphalt. Brown fine to coarse SAND, little Silt; trace fine to coarse Gravel, sub angular to sub rounded; trace 2" to 8" Cobbles, sub angular to sub rounded; trace Slag, Coal, and Ash; moist, loose.	Asphalt (0-0.5' bgs)
5	400	2	5-7	0.6	2 3 6 6	NA	0.0 0.0			Dark brown fine to medium SAND and black Slag, Coal, and Ash; moist, loose.	
		3	7-9	1.3	7 7 6 6	NA	0.0 0.0 0.0			Dark brown fine SAND; moist, loose.	
										Dark brown SILT; trace very fine Sand; trace Coal fragments; moist, medium stiff.	Cement Grout (0.5'-31' bgs)
-10	395	4	9-11	NR	4 4 5 4	NA	NA			No Recovery.	
		5	11-13	NR	7 6 6 5	NA	NA				
		6	13-15	1.6	3 4 4 3	NA	0.3 0.3			Reddish brown SILT and very fine SAND; moist, soft. Olive brown fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; moist to wet, loose.	
-15	390				3 4		0.4			Reddish brown fine to medium SAND; moist, loose. Dark brown at 14' to 14.2' bgs.	

 ARCADIS Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level; NR = No Recovery. Location hand cleared with air knife to 5' bgs. Soil samples collected for: ISS at 4 - 19 ft bgs. PAH Delineation at 5 - 7 ft bgs.
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Client: NYSEG

Well/Boring ID: SB-107

Site Location:

2 Water Street
Lyons, NY 14489

Borehole Depth: 31' bgs

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
20 <											



Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level; NR = No Recovery.

Location hand cleared with air knife to 5' bgs.

Soil samples collected for:
ISS at 4 - 19 ft bgs.
PAH Delineation at 5 - 7 ft bgs.

Date Start/Finish: 5/7/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Brian Walker Drilling Method: Hand Auger Auger Size: 3.25" ID Rig Type: NA Sampling Method: Hand Auger	Northing: 1115957.85 Easting: 711072.92 Casing Elevation: NA Borehole Depth: 3' bgs Surface Elevation: 403.14' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-108 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
405											
0		1	NA	3	NA	NA	0.0			Brown very fine to medium SAND; little fine Gravel, sub angular to sub rounded; trace Silt; trace Ash; dry loose.	 On Site Soil (0-3' bgs)
							1.0			Brown very fine to medium SAND and dark grey/white Ash and Slag; dry loose.	
							1.3			Black and white Slag and Ash; trace wood fragments; moist, loose.	
							2.1			Dark reddish brown very fine to fine SAND; little black Coal and Slag; trace Silt; moist, loose.	
400										Boring terminated at 3' bgs.	
5											
395											
10											
390											
15											

 ARCADIS Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level Location hand cleared with Hand Auger to 3' bgs. Soil sample collected for: PAH Delineation at 0 - 3 ft bgs.
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Date Start/Finish: 5/7/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Brian Walker Drilling Method: Hand Auger Auger Size: 3.25" ID Rig Type: NA Sampling Method: Hand Auger	Northing: 1115953.85 Easting: 711092.72 Casing Elevation: NA Borehole Depth: 3' bgs Surface Elevation: 403.36' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-109 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
405											
0		1	NA	3	NA	NA	0.0 0.4 63.9 185.7			Brown very fine to fine SAND; little fine Gravel, angular to sub rounded; trace Silt; dry loose. Brown very fine to medium SAND; little fine to medium Gravel, sub angular to sub rounded; trace Silt; dry, loose. Black fine to medium GRAVEL; some very fine to medium Sand; dry, loose. Black and white Coal, Slag, Ash; little brown very fine to medium Sand; trace fine to medium Gravel, angular; trace Silt; loose, moist, slight to moderate	 On Site Soil (0-3' bgs)
400										MGP-like odor. Tacky and stiff Tar-like substance at 2.5' to 3' bgs, strong MGP-like odor. Boring terminated at 3' bgs.	
5											
395											
10											
390											
15											

 ARCADIS Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level Location hand cleared with Hand Auger to 3' bgs.
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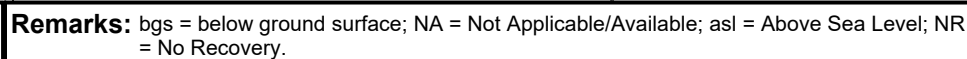
Date Start/Finish: 5/17/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1115940.32 Easting: 711041.43 Casing Elevation: NA Borehole Depth: 31' bgs Surface Elevation: 404.18' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-110 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
405											
0											
		1	0-4	4	NA	NA	1.9			Parking Lot Asphalt.	Asphalt (0-0.5' bgs)
400		NA	4-5	NR	NA	NA	NA			Dark brown and black discolored fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; trace Silt; trace Brick and Slag fragments. Steel debris at 3.5' bgs.	
5		2	5-7	1.1	3 2 3 3	NA	0.0 69.8			Dark reddish brown very fine SAND and SILT; moist, loose, trace black discoloration, slight fuel-like odor. Trace sheen on water in pore space 7" to 8' bgs.	
		3	7-9	0.9	2 9 5 5	NA	46.8 51.9			Olive brown SAND and fractured COBBLES; dry, loose, slight fuel-like odor.	
395										Dark brown SILT; trace very fine Sand; moist, stiff, no odor.	
		4	9-11	1.7	1 3 4 6	NA	5.8 8.8			Dark brown grading to reddish brown SILT; little very fine Sand; moist, medium stiff.	
10		5	11-13	1.5	6 7 7 11	NA	0.0 0.0 0.0			Reddish brown SILT and very fine SAND; moist, medium dense, trace black discoloration. Trace fine to medium Gravel at 12.5' to 13' bgs.	
		6	13-15	1.3	4 3 3 3	NA	6.0 0.0			Brown with black discoloration very fine to fine SAND; little to trace Silt; moist, loose, very slight petroleum-like odor.	
390										Brown very fine to medium SAND; trace fine Gravel, sub angular to sub rounded; moist, loose.	
15					4 3		0.0			Brown fine to medium SAND; trace fine to medium Gravel, sub angular to sub rounded; moist, loose.	

 ARCADIS Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level; NR = No Recovery. Location hand cleared with air knife to 4' bgs. Soil samples collected for: ISS at 4 - 26 ft bgs. PAH Delineation at 7 - 9 ft bgs.
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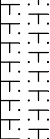
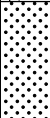
Well/Boring ID: **SB-110**

Borehole Depth: 31' bgs

[illegible]

Soil samples collected for:
ISS at 4 - 26 ft bgs.
PAH Delineation at 7 - 9 ft bgs.

Date Start/Finish: 5/17/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1115927.66 Easting: 711069.39 Casing Elevation: NA Borehole Depth: 31' bgs Surface Elevation: 403.86' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-111 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
405											
0											
		1	0-5	5	NA	NA	4.0			Parking Lot Asphalt.	 Asphalt (0-0.5' bgs)
										Dark brown and black discolored fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; little Brick and Slag fragments; trace Silt; moist, loose. Stacked Brick lined the side walls of the hand cleared interval.	
400											
5		2	5-7	0.9	4 4 3 2	NA	0.0 0.0			Reddish brown very fine SAND; little Silt; trace medium to coarse Gravel, sub angular; moist, medium dense. Black Slag at 5' to 5.1' bgs.	
		3	7-9	1.1	3 3 3 3	NA	0.0 0.0			Dark brown SILT; trace very fine Sand; trace Clay; moist, medium stiff.	
395											
		4	9-11	NR	1 1 2 2	NA	NA			No Recovery.	
10											
		5	11-13	1.1	3 5 5 5	NA	0.0 0.0			Reddish brown SILT and very fine SAND; trace fine Gravel, sub angular moist, stiff. Trace very dark brown discoloration.	
										Reddish brown very fine to fine SAND; little Silt; trace fine to coarse Gravel, sub angular to sub rounded; moist, medium dense.	
390		6	13-15	1.2	2 3 4 5	NA	0.0 0.0 4.3			Brown with black discoloration very fine to fine SAND; trace fine Gravel; moist, loose, slight MGP-like odor; moist, loose, very slight petroleum-like odor. Grades to all black with moderate MGP-like odor at 14' bgs.	
15											
					4 4		89.3			Black very fine to fine Creosote-like material and SAND; trace fine to coarse Gravel, angular to sub angular; moist to wet, medium dense, moderate MGP-like odor. Trace sheen on sand grains at 17' to 19' bgs.	 Cement Grout (0.5'-31' bgs)

 ARCADIS Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level; NR = No Recovery. Location hand cleared with air knife to 5' bgs. Soil samples collected for: ISS at 4 - 15 ft bgs and 15 - 27 ft bgs.
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Client: NYSEG

Well/Boring ID: SB-111

Site Location:

2 Water Street
Lyons, NY 14489

Borehole Depth: 31' bgs

[illegible]

Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level; NR = No Recovery.

Location hand cleared with air knife to 5' bgs.

Soil samples collected for:
ISS at 4 - 15 ft bgs and 15 - 27 ft bgs.

Date Start/Finish: 5/18/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1115909.84 Easting: 711048.81 Casing Elevation: NA Borehole Depth: 30' bgs Surface Elevation: 403.38' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-112 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
405											
0											
400		1	0-4	3.9	NA	NA	2.0			Asphalt.	 Asphalt (0-0.5' bgs)
							2.6		Stacked Brick and large Cobble foundation wall. Dark brown and black fine to coarse SAND and fine Gravel between Cobbles from 2.1' to 3.9' bgs, moist, dense, slight MGP-like odor.		
		2	NA	NA	NA	NA	NA		Augered from 4' to 6' bgs to get past black DNAPL Sludge material.		
		3	6-8	1.4	8 19 7 7	NA	73.1 48.7		Black DNAPL sludge and fine to coarse SAND; moist, loose.		
									Dark brown SILT; trace very fine Sand; trace tar-like stringers; moist, stiff, strong MGP-like odor.		
		4	8-10	2.0	2 3 5 6	NA	29.3 81.1 112		Dark brown SILT; trace very fine Sand; trace tar-like stringers; moist, stiff, moderate MGP-like odor. Trace grading to absense of stringers at 10' to 12' bgs.		
		5	10-12	1.8	2 3 6 9	NA	119 103 70.1				
		6	12-14	0.9	10 10 5 6	NA	23.7 19.1		Dark brown and black discolored very fine to medium SAND; trace to little fine to medium Gravel, angular to sub rounded; dry to moist, loose, slight MGP-like odor.		
		7	14-16	1.1	3 6 6 8	NA	24.2 9.3		Dark brown and black discolored very fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; moist, loose, slight MGP-like odor.		
	15										

 ARCADIS Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level. Location hand cleared with air knife to 3.9' bgs. Soil samples collected for: ISS at 4 - 10 ft bgs.
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Client: NYSEG

Well/Boring ID: SB-112

Site Location:

Borehole Depth: 30' bgs

2 Water Street
Lyons, NY 14489

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction	
20	385	8	16-18	0.9	8	NA	33.5			Black discolored dark brown very fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; moist, loose, moderate MGP-like odor.	 Cement Grout (0.5'-30' bgs)	
					11		42.7					
					11							
					12							
		9	18-20	1.6	7	NA	37.4			Black discolored fine to coarse SAND; some fine to medium Gravel, angular to sub rounded; some stiff tar-like stringers; moist, medium dense, slight MGP-like odor.		
					8		11.1					
					7		8.0					
					9							
		10	20-22	1.4	7	NA	6.3			Black discolored fine to coarse SAND; some fine to medium Gravel, angular to sub rounded; trace to little stiff tar-like stringers; moist, medium dense, slight MGP-like odor.		
					11		20.1					
					16		13.7					
					9							
380	11	22-24	1.1	6	NA	0.0			Olive brown fine to medium SAND; trace Silt; little tar-like stringers; wet, loose, slight MGP-like odor.			
				9		0.0						
				7		0.0						
				11								
25	12	24-26	1.1	6	NA	0.0			Brown fine to coarse SAND; some grading to little fine to coarse Gravel, angular to sub rounded; wet, loose.			
				13		0.0						
				13		0.0						
				16								
375	13	26-28	1.1	18	NA	0.0			Brown fine to coarse SAND; some grading to little fine to coarse Gravel, angular to sub rounded; wet, loose.			
				11		0.0						
				11		0.0						
				7								
30	375	14	28-30	NR	10	NA	NA			No Recovery.		
					5							
					5							
					6							
30	370									Boring terminated at 30' bgs.		
35	370											

Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level.

Location hand cleared with air knife to 3.9' bgs.

Soil samples collected for:
ISS at 4 - 10 ft bgs.

Date Start/Finish: 5/16/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1115897.40 Easting: 711028.63 Casing Elevation: NA Borehole Depth: 31' bgs Surface Elevation: 404.42' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-113 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
405											
0											
		1	0-5	5	NA	NA	4.2			Parking Lot Asphalt.	Asphalt (0-0.5' bgs)
							3.9			Brown fine to coarse SAND and fine to medium GRAVEL, sub angular to sub rounded; trace Silt; moist, loose.	
							0.4			Dark brown SILT; trace fine Gravel, sub angular; trace very fine to fine Sand; moist, loose.	
										Reddish brown SILT; trace fine Gravel, sub angular; trace very fine to fine Sand; moist, loose.	
400										Reddish brown SILT and very fine SAND; little fine to coarse Gravel, angular to sub rounded; moist, stiff.	
5		2	5-7	1.3	2 2 3 2	NA	0.0			Reddish brown SILT and very fine SAND; trace fine Gravel, sub rounded; moist, soft.	
		3	7-9	0.4	3 3 3 3	NA	0.0			Dark brown SILT and very fine SAND; trace fine Gravel, sub rounded; moist, soft.	
395		4	9-11	1.2	2 2 2 5	NA	0.0			Reddish brown SILT; little very fine SAND; moist, medium stiff.	
10		5	11-13	1.0	10 12 15 12	NA	0.0			Brown fine to coarse SAND; trace fine to medium Gravel, angular to sub angular; moist, loose,	
							0.0			Reddish brown discolored black fine to coarse SAND; trace fine to medium Gravel, angular to sub angular; moist, loose,	
390		6	13-15	0.8	4 4 4 5	NA	0.0			Reddish brown to yellowish brown fine to coarse SAND; trace fine to coarse Gravel, angular to sub rounded; moist, loose.	
15					4 4		0.0			Reddish brown fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; moist, loose.	

 ARCADIS Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level; NR = No Recovery. Location hand cleared with air knife to 5' bgs. Soil samples collected for: ISS at 4 - 26 ft bgs. Geotechnical at 13 - 17 ft bgs.
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Well/Boring ID: SB-113

Borehole Depth: 31' bgs

Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level; NR = No Recovery.

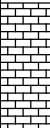
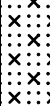
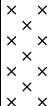
Soil samples collected for:
ISS at 4 - 26 ft bgs.
Geotechnical at 13 - 17 ft bgs.

Date Start/Finish: 5/16/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1115921.18 Easting: 711030.08 Casing Elevation: NA Borehole Depth: 15' bgs Surface Elevation: 403.79' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-114 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
405											
0											
		1	0-5	5	NA	NA	9.8			Parking Lot Asphalt.	
										Dark brown fine to coarse SAND and FILL, Brick, Concrete, and Slag; moist, loose.	
400							8.9			Brown fine to coarse SAND; little fine to coarse Gravel, angular to sub rounded; little Silt; moist, dense.	
5		2	5-7	1.4	2 1 2 3	NA	0.0 0.0			Dark brown and reddish brown SILT; little very fine Sand; trace fine to medium Gravel, sub angular; trace Clay; moist, stiff.	
		3	7-9	1.5	4 5 4 5	NA	0.0 0.0			Reddish brown SILT; some very fine Sand; trace fine Gravel, sub angular; trace Clay; moist, loose.	
395										Reddish brown very fine to medium SAND; little fine to coarse Gravel, sub angular to sub rounded; little Silt; wet, medium dense.	
10		4	9-11	1.6	2 3 3 5	NA	0.0 0.0 0.0			Brown fine to coarse SAND; little fine to coarse Gravel, sub angular to sub rounded; moist, loose.	
		5	11-13	1.5	6 8 8 6	NA	0.0 0.0 0.0				
390		6	13-15	1.0	4 4 6 7	NA	0.0 0.0 0.0				
15										Boring terminated at 15' bgs.	

 ARCADIS Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level. Location hand cleared with air knife to 5' bgs. Soil samples collected for: PAH and Hg Delineation at 3 - 5 ft bgs.
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Date Start/Finish: 5/16/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1115923.42 Easting: 711015.66 Casing Elevation: NA Borehole Depth: 10' bgs Surface Elevation: 404.16' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-115 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
405											
0											
		1	0-4	4	NA	NA	0.8 3.1			Parking Lot Asphalt. Dark brown fine to coarse SAND and fine to coarse GRAVEL, angular to sub rounded; little Slag, Coal, and Brick fragments; little 2" to 6" cobbles, sub angular to sub rounded; moist grading to wet, loose to medium dense.	 Asphalt (0-0.5' bgs)
400											
5		2	4-6	1.0	12 18 7 3	NA	0.0 0.0			Stacked Red Bricks. (Historical MGP Structure)	
		3	6-8	0.7	2 1 2 1	NA	0.0 0.0			Red Brick and black Slag debris; light grey Silt-like material; wet, loose.	
395		4	8-10	1.0	4 2 2 1	NA	0.0 0.0			Red Brick, black Slag, green Glass, walnuts; wet, loose. (potential void space in structure 8' to 10' bgs)	
10										Boring terminated at 10' bgs.	
390											
15											

 ARCADIS Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level. Location hand cleared with air knife to 4' bgs. Soil samples collected for: Hg Delineation at 2 - 4 ft bgs.
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Date Start/Finish: 5/16/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1115911.29 Easting: 711021.37 Casing Elevation: NA Borehole Depth: 11' bgs Surface Elevation: 404.29' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-116 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
405											
0											
		1	0-5	5	NA	NA	1.2			Parking Lot Asphalt. Brown and dark brown very fine to fine SAND; little fine to medium GRAVEL; little Silt; trace 3" to 12" Cobbles, angular to sub rounded; moist, loose.	Asphalt (0-0.5' bgs)
400										Reddish brown very fine to fine SAND; little fine to medium Gravel; little Silt; trace Slag and Brick fragments; trace 3" to 12" Cobbles, angular to sub rounded; moist, loose. Wet at 5' to 5.6' bgs.	
5		2	5-7	1.0	2 2 3 4	NA	0.0 0.0			Reddish brown very fine to fine SAND; little to trace Silt; trace fine to coarse Gravel, angular to sub rounded; wet and moist, medium dense.	
		3	7-9	0.7	5 5 7 8	NA	0.0 0.0 0.0			Dark brown SILT; trace very fine Sand; trace Clay; moist, medium stiff, medium plasticity. Reddish brown SILT; some very fine Sand; trace Clay; moist, medium dense.	
395											
10		4	9-11	1.0	3 4 7 11	NA	0.0 0.0 0.0			Brown fine to coarse SAND; little fine to coarse Gravel and 1" to 2" cobbles, sub angular to sub rounded; moist, loose.	
										Boring terminated at 11' bgs.	
390											
15											

 ARCADIS Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level. Location hand cleared with air knife to 5' bgs. Soil samples collected for: Hg Delineation at 3 - 5 ft bgs.
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Date Start/Finish: 5/7/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Brian Walker Drilling Method: Hand Auger Auger Size: 3.25" ID Rig Type: NA Sampling Method: Hand Auger	Northing: 1115951.52 Easting: 711097.70 Casing Elevation: NA Borehole Depth: 6' bgs Surface Elevation: 403.43' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-117 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
405											
0							0.0			Brown very fine to medium SAND; little fine to medium Gravel, angular to sub rounded; trace to little Silt; moist, loose.	 On Site Soil (0-6' bgs)
							1.7			Brown fine to coarse SAND; little fine to coarse Gravel, sub angular to sub rounded; trace Silt; moist, loose.	
							2.8			Black Slag, Coal, and Ash; moist, loose, slight MGP-like odor.	
400		1	NA	6	NA	NA	192.1			Black Slag, Coal, and Ash; trace tar-like material, brittle; moist, loose, moderate MGP-like odor.	
							40.1			Bluish white Sodium Bicarbonate-like material; moist, loose.	
5							17.9			Dark brown very fine SAND and SILT; moist, stiff, slight MGP-like odor.	
										Boring terminated at 6' bgs.	
395											
10											
390											
15											

	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level Location hand cleared with Hand Auger to 6' bgs. Soils sampled for PAH Delineation at 3 - 5 ft bgs.
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Date Start/Finish: 5/15/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1116039.27 Easting: 710918.11 Casing Elevation: NA Borehole Depth: 31' bgs Surface Elevation: 405.67' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-118 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	405	1	0-5	5	NA	NA	3.8			Brown very fine to fine SAND; trace fine to medium Gravel, angular to sub rounded; trace Silt, trace organics; moist, loose. Dark brown fine to coarse SAND; little fine to coarse Gravel, sub angular to sub rounded; little Silt; little Brick and Slag fragments; trace 2" to 12" Cobbles; moist, loose.	Topsoil (0-0.5' bgs)
5	400	2	5-7	0.7	2 12 15 10	NA	0.0 0.0			Red Brick stacked on top of Slag and Coal fragments; moist, loose.	
		3	7-9	0.7	14 50/6"	NA	0.0 0.0			Black Slag, Ash, and Coal; moist, loose, very slight MGP-like odor.	
										White Sandstone, fractured; dry, very hard. Augered through Sandstone to 9' bgs.	Cement Grout (0.5'-31' bgs)
-10	395	4	9-11	NR	4 4 5 5	NA	NA			No Recovery. Piece of Sandstone stuck in sample shoe.	
		5	11-13	NR	4 5 4 5	NA	NA			No Recovery.	
		6	13-15	1.9	2 2 3 4	NA	0.0 0.0 0.0			Reddish brown SILT; trace very fine Sand; trace Clay; trace organics (roots and twigs); moist, stiff grading to soft, medium plasticity.	
-15	390				2 2		0.0			Reddish brown SILT; trace very fine Sand; trace Clay; trace organics (roots); trace white shell fragments; moist, soft, medium plasticity.	

 ARCADIS Design & Consultancy for natural and built assets	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level; NR = No Recovery. Location hand cleared with air knife to 5' bgs. Soil samples collected for: ISS at 13 - 19 ft bgs. PAH Delineation at 7 - 9 ft bgs.
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Client: NYSEG

Well/Boring ID: **SB-118**

Site Location:

2 Water Street
Lyons, NY 14489

Borehole Depth: 31' bgs

[illegible]

Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level; NR = No Recovery.

Location hand cleared with air knife to 5' bgs.

Soil samples collected for:
ISS at 13 - 19 ft bgs.
PAH Delineation at 7 - 9 ft bgs.

Date Start/Finish: 5/21/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1115972.49 Easting: 710956.36 Casing Elevation: NA Borehole Depth: 31' bgs Surface Elevation: 405.37' AMSL Descriptions By: Ryan Clare	Well/Boring ID: SB-119 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	405	1	0-5	5	NA	NA	0.0			Parking Lot Asphalt.	Asphalt (0-0.5' bgs)
							0.0			Brown very fine to fine SAND; little Silt; little to trace fine to coarse Gravel; trace 2" to 8" Cobbles; dry, loose.	
							0.0			3" thick layer of Asphalt on top of Concrete.	
5	400	2	5-7	0.8	2	NA	0.0			Black Slag, Ash, and Cinders; moist, loose.	
					2		0.0				
					3		0.0			Reddish brown SILT; little to some very fine Sand; trace fine to medium Gravel, sub angular to sub rounded; moist, medium stiff.	
					3						
		3	7-9	0.3	5	NA	0.0				
					4						
					3						
10	395	4	9-11	1.8	2	NA	0.0			Reddish brown SILT; little very fine Sand; trace Clay; moist, soft, medium plasticity.	
					3		0.0				
					5		0.0				
					6		0.0				
		5	11-13	1.8	6	NA	0.0			Reddish brown SILT; little very fine Sand; trace Clay; moist to wet, very soft, medium plasticity, trace black discoloration.	
					7		0.0				
					5						
		6	13-15	1.5	1	NA	0.0			Olive brown and reddish brown SILT; little very fine Sand; trace to little Clay; moist to wet, very soft, medium plasticity, trace black discoloration.	
					1		0.0				
15	390				1		0.0				
					1					Brown fine to coarse SAND; little fine to coarse Gravel, sub angular to sub	
					1						

	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level. Location hand cleared with air knife to 5' bgs. Soil samples collected for: PAH Delineation at 4 - 6 ft bgs. Geotechnical at 13 - 17 ft bgs.
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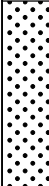
Client: NYSEG

Well/Boring ID: SB-119

Site Location:

Borehole Depth: 31' bgs

2 Water Street
Lyons, NY 14489

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction		
20 385		7	15-17	1.4	3	NA	0.0			rounded; trace Silt; wet, loose, trace black discoloration.			
		8	17-19	0.7	4	NA	0.0			Brown fine to coarse SAND; little fine to coarse Gravel, sub angular to sub rounded; trace Silt; moist, loose.			
					4		0.0						
					7		0.0						
		9	19-21	1.3	5	NA	0.0			Brown very fine to medium SAND; wet, loose.			
					5		0.0						
					6		0.0						
		10	21-23	0.9	5	NA	0.0			Brown fine to coarse SAND; trace fine to coarse Gravel, sub angular to sub rounded; wet, loose.			
					7		0.0						
					7		0.0						
		25 380		11	23-25	0.9	7	NA		0.0			Brown fine to coarse SAND; trace grading to some fine to coarse Gravel, sub angular to sub rounded; wet, loose. Trace fractured Rocks at 27' to 31' bgs.
							6			0.0			
							7			0.0			
12	25-27			0.7	8	NA	0.0		Brown fine to coarse SAND; trace grading to some fine to coarse Gravel, sub angular to sub rounded; wet, loose. Trace fractured Rocks at 27' to 31' bgs.				
					6		0.0						
					9		0.0						
13	27-29			0.9	12	NA	0.0		Brown fine to coarse SAND; trace grading to some fine to coarse Gravel, sub angular to sub rounded; wet, loose. Trace fractured Rocks at 27' to 31' bgs.				
					11		0.0						
					19		0.0						
					16		0.0						
30 375		14	29-31	0.6	20	NA	0.0		Brown fine to coarse SAND; trace grading to some fine to coarse Gravel, sub angular to sub rounded; wet, loose. Trace fractured Rocks at 27' to 31' bgs.				
					4		0.0						
					8								
					9								
35 370									Boring terminated at 31' bgs.				

Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level.

Location hand cleared with air knife to 5' bgs.

Soil samples collected for:
PAH Delineation at 4 - 6 ft bgs.
Geotechnical at 13 - 17 ft bgs.

Date Start/Finish: 5/22/2018 Drilling Company: Nothnagle Drilling Inc. Driller's Name: Neal Short Drilling Method: Hollow Stem Auger Auger Size: 4.25" ID Rig Type: CME-75 Sampling Method: 2" x 2' Split Spoon	Northing: 1115941.92 Easting: 711073.69 Casing Elevation: NA Borehole Depth: 31' bgs Surface Elevation: 404.22' AMSL Descriptions By: Ryan Clare & Chris Kassel	Well/Boring ID: SB-120 Client: NYSEG Location: 2 Water Street Lyons, NY 14489
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
405											
0											
		1	0-5	5	NA	NA	0.0			Brown very fine to fine SAND; little Silt; trace fine to coarse Gravel; trace 2" to 8" Cobbles, sub angular to sub rounded; moist, medium dense.	Topsoil (0-0.5' bgs)
400										Brick, Slag and other Fill material mixed with dark brown very fine to fine SAND; little Silt; trace fine to coarse Gravel; trace 2" to 5" Cobbles; moist, loose. 2" diameter steel pipe section at 5' bgs.	
5		2	5-7	0.2	3 3 2 2	NA	0.0			Brick, Slag and other Fill material mixed with dark brown very fine to fine SAND; little Silt; trace fine to coarse Gravel; moist, loose.	
		3	7-9	1.1	2 4 4	NA	0.0			Slag and other Fill material mixed with dark brown very fine to fine SAND; some white to pinkish white Silt; little Silt; trace fine to coarse Gravel; trace Brick fragments; moist, loose.	
395										No Recovery.	
10		4	9-11	NR	3 3 3	NA	NA				
		5	11-13	2.0	4 4 5	NA	0.0			Reddish brown CLAY; little Silt; trace very fine to medium Sand; wet, medium stiff, low to medium plasticity.	
390		6	13-15	1.4	3 3 4 4	NA	131			Reddish brown very fine to medium Sand; little Silt; moist, stiff, moderate MGP-like odor.	
15					3 5					Reddish brown very fine to medium SAND; trace Silt; wet, loose.	

	Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level. Location hand cleared with air knife to 5' bgs. Soil samples collected for: PAH Delineation at 13 - 15 ft bgs.
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Client: NYSEG

Well/Boring ID: SB-120

Site Location:

2 Water Street
Lyons, NY 14489

Borehole Depth: 31' bgs

[illegible]

Remarks: bgs = below ground surface; NA = Not Applicable/Available; asl = Above Sea Level.

Location hand cleared with air knife to 5' bgs.

Soil samples collected for:
PAH Delineation at 13 - 15 ft bgs.

ATTACHMENT 4

Geotechnical Laboratory Reports





June 4, 2018

Project No. 2018-320-001

Mr. Matt Hysell
ARCADIS
One Lincoln Center
110 W. Fayette Street, Suite 300
Syracuse, NY 13202

Transmittal
Laboratory Test Results
Lyons, NY B0013143

Please find attached the laboratory test results for the above referenced project. The tests were outlined on the Project Verification Form that was transmitted to your firm prior to the testing. The testing was performed in general accordance with the methods listed on the enclosed data sheets. The test results are believed to be representative of the samples that were submitted for testing and are indicative only of the specimens that were evaluated. We have no direct knowledge of the origin of the samples and imply no position with regard to the nature of the test results, i.e. pass/fail and no claims as to the suitability of the material for its intended use.

The test data and all associated project information provided shall be held in strict confidence and disclosed to other parties only with authorization by our Client. The test data submitted herein is considered integral with this report and is not to be reproduced except in whole and only with the authorization of the Client and Geotechnics. The remaining sample materials for this project will be retained for a minimum of 90 days as directed by the Geotechnics' Quality Program.

We are pleased to provide these testing services. Should you have any questions or if we may be of further assistance, please contact our office.

Respectfully submitted,
Geotechnics, Inc.

David R. Backstrom
Laboratory Director

***We understand that you have a choice in your laboratory services
and we thank you for choosing Geotechnics.***

MOISTURE CONTENT

ASTM D 2216-10

Client: ARCADIS
 Client Reference: Lyons, NY B00013143
 Project No.: 2018-320-001

Lab ID:	001	002	003	004
Boring No.:	SB-106	SB-111	SB-113	SB-119
Depth (ft):	9-13	7-13	13-17	13-17
Sample No.:	SB-106 (9-13)	SB-111 (7-13)	SB-113 (13-17)	SB-119 (13-17)
Tare Number	21	35	38	27
Wt. of Tare & Wet Sample (g)	67.49	91.61	90.00	77.42
Wt. of Tare & Dry Sample (g)	54.59	78.60	83.42	62.70
Weight of Tare (g)	7.16	8.32	7.05	7.11
Weight of Water (g)	12.90	13.01	6.58	14.72
Weight of Dry Sample (g)	47.43	70.28	76.37	55.59
Water Content (%)	27.2	18.5	8.6	26.5

Notes :

<i>Tested By</i>	<i>PC</i>	<i>Date</i>	<i>5/30/18</i>	<i>Checked By</i>	<i>TMP</i>	<i>Date</i>	<i>5/31/18</i>
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page 1 of 1

DCN: CT-S1 DATE: 3/18/13 REVISION: 4

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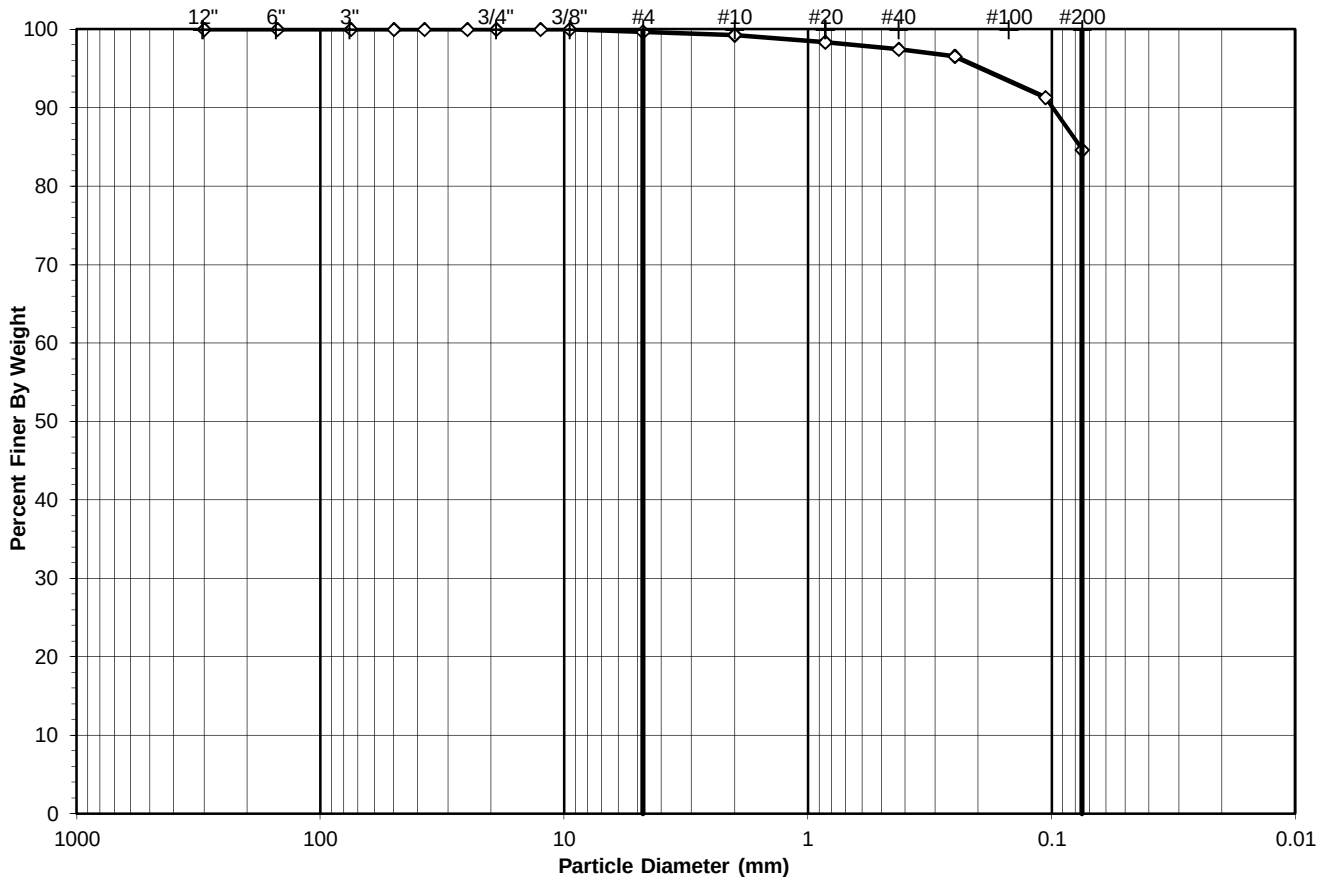
SIEVE ANALYSIS
ASTM D 422-63 (2007)



Client: ARCADIS
Client Reference: Lyons, NY B00013143
Project No.: 2018-320-001
Lab ID: 2018-320-001-001

Boring No.: SB-106
Depth (ft): 9-13
Sample No.: SB-106 (9-13)
Soil Color: Dark Brown

USCS USDA	SIEVE ANALYSIS				HYDROMETER	
	cobbles	gravel	sand		silt and clay fraction	
	cobbles	gravel	sand		silt	clay



USCS Summary		
Sieve Sizes (mm)		Percentage
Greater Than #4	Gravel	0.30
#4 To #200	Sand	15.07
Finer Than #200	Silt & Clay	84.63
USCS Symbol: <i>CL, TESTED</i>		
USCS Classification: <i>LEAN CLAY WITH SAND</i>		

WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)



Client: ARCADIS
 Client Reference: Lyons, NY B00013143
 Project No.: 2018-320-001
 Lab ID: 2018-320-001-001

Boring No.: SB-106
 Depth (ft): 9-13
 Sample No.: SB-106 (9-13)
 Soil Color: Dark Brown

Moisture Content of Passing 3/4" Material		Moisture Content of Retained 3/4" Material	
Tare No.:	1618	Tare No.:	NA
Wt. of Tare & Wet Sample (g):	425.62	Weight of Tare & Wet Sample (g):	NA
Wt. of Tare & Dry Sample (g):	361.74	Weight of Tare & Dry Sample (g):	NA
Weight of Tare (g):	147.93	Weight of Tare (g):	NA
Weight of Water (g):	63.88	Weight of Water (g):	NA
Weight of Dry Soil (g):	213.81	Weight of Dry Soil (g):	NA
Moisture Content (%):	29.9	Moisture Content (%):	0.0

Wet Weight of -3/4" Sample (g):	NA	Weight of the Dry Sample (g):	213.81
Dry Weight of - 3/4" Sample (g):	213.8	Weight of Minus #200 Material (g):	180.94
Wet Weight of +3/4" Sample (g):	0.00	Weight of Plus #200 Material (g):	32.87
Dry Weight of + 3/4" Sample (g):	0.00		
Total Dry Weight of Sample (g):	213.8		

Sieve Size	Sieve Opening (mm)	Weight of Soil Retained (g)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated Percent Finer (%)
12"	300	0.00	0.00	0.00	100.00	100.00
6"	150	0.00	0.00	0.00	100.00	100.00
3"	75	0.00	0.00	0.00	100.00	100.00
2"	50	0.00	(*)	0.00	100.00	100.00
1 1/2"	37.5	0.00		0.00	100.00	100.00
1"	25.0	0.00		0.00	100.00	100.00
3/4"	19.0	0.00		0.00	100.00	100.00
1/2"	12.5	0.00		0.00	100.00	100.00
3/8"	9.50	0.00		0.00	100.00	100.00
#4	4.75	0.64		0.30	99.70	99.70
#10	2.00	0.86		0.70	99.30	99.30
#20	0.85	1.94	(**)	0.91	98.39	98.39
#40	0.425	1.97		2.53	97.47	97.47
#60	0.250	1.90		3.42	96.58	96.58
#140	0.106	11.25		8.68	91.32	91.32
#200	0.075	14.31		15.37	84.63	84.63
Pan	-	180.94		100.00	-	-

Notes : (*) The + 3/4" sieve analysis is based on the Total Dry Weight of the Sample
 (**) The - 3/4" sieve analysis is based on the Weight of the Dry Sample

Tested By HL Date 6/01/18 Checked By KC Date 6/04/18

ATTERBERG LIMITS

ASTM D 4318-17

Client: ARCADIS
 Client Reference: Lyons, NY B0013143
 Project No.: 2018-320-001
 Lab ID: 2018-320-001-001

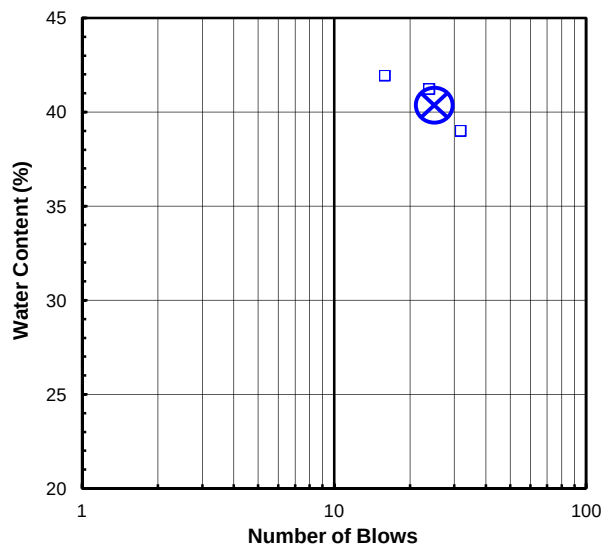
Boring No.: SB-106
 Depth (ft): 9-13
 Sample No.: SB-106 (9-13)
 Soil Description: DARK BROWN LEAN CLAY

Note: The USCS symbol used with this test refers only to the minus No. 40 (Minus No. 40 sieve material, Air dried) sieve material. See the "Sieve and Hydrometer Analysis" graph page for the complete material description.

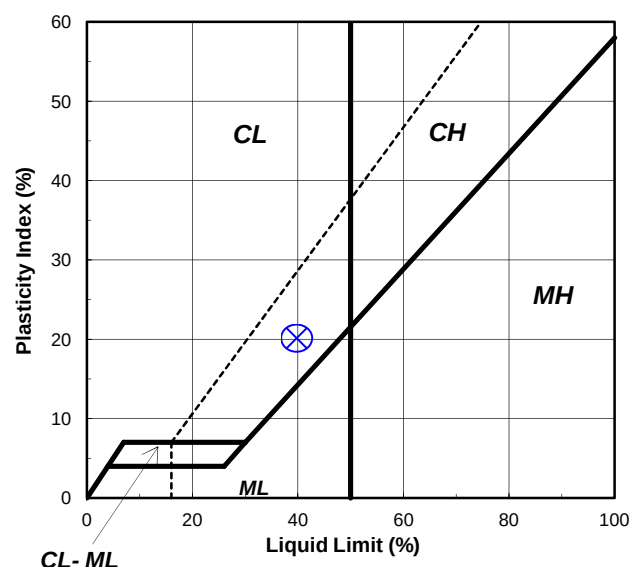
As Received Moisture Content		Liquid Limit Test			
ASTM D2216-10		1	2	3	M
Tare Number:	21	326	329	305	U
Wt. of Tare & Wet Sample (g):	67.49	39.47	38.99	39.44	L
Wt. of Tare & Dry Sample (g):	54.59	33.45	33.15	33.72	T
Weight of Tare (g):	7.16	19.08	18.97	19.04	I
Weight of Water (g):	12.9	6.0	5.8	5.7	P
Weight of Dry Sample (g):	47.4	14.4	14.2	14.7	O
Was As Received MC Preserved:	Yes				I
Moisture Content (%):	27.2	41.9	41.2	39.0	N
Number of Blows:		16	24	32	T

Plastic Limit Test	1	2	Range	Test Results
Tare Number:	343	313		Liquid Limit (%): 40
Wt. of Tare & Wet Sample (g):	26.56	26.49		Plastic Limit (%): 20
Wt. of Tare & Dry Sample (g):	25.55	25.48		Plasticity Index (%): 20
Weight of Tare (g):	20.42	20.40		USCS Symbol: CL
Weight of Water (g):	1.0	1.0		
Weight of Dry Sample (g):	5.1	5.1		
Moisture Content (%):	19.7	19.9	-0.2	
<i>Note: The acceptable range of the two Moisture Contents is $\pm$ 1.12</i>				

Flow Curve



Plasticity Chart



Tested By RAL Date 6/1/18 Checked By KC Date 6/4/18

SPECIFIC GRAVITY

ASTM D 854-14

Client: ARCADIS
 Client Reference: Lyons, NY B0013143
 Project No.: 2018-320-001
 Lab ID: 2018-320-001-001

Boring No.: SB-106
 Depth (ft): 9-13
 Sample No.: SB-106 (9-13)
 Visual Description: Dark Brown Clay

(Minus No.4 sieve material, oven dried)

Replicate Number	1	2
Pycnometer ID:	G 1255	G 1848
Weight of Pycnometer & Soil & Water (g):	746.93	748.97
Temperature (°C):	24.7	24.5
Weight of Pycnometer & Water (g):	684.99	686.50
Tare Number:	2327	2331
Weight of Tare & Dry Soil (g):	197.23	195.43
Weight of Tare (g):	94.16	95.05
Weight of Dry Soil (g):	103.07	100.38
Specific Gravity of Soil @ Measured Temperature:	2.506	2.648
Specific Gravity of Water @ Measured Temperature:	0.99713	0.99718
Conversion Factor for Measured Temperature:	0.99892	0.99897
Specific Gravity @ 20° Celsius:	2.509	2.650

Average Specific Gravity @ 20° Celsius

2.58

Tested By TO Date 5/31/18 Checked By TMP Date 6/1/18

DCN: CT-S5 Date: 3/26/18 Revision: 21

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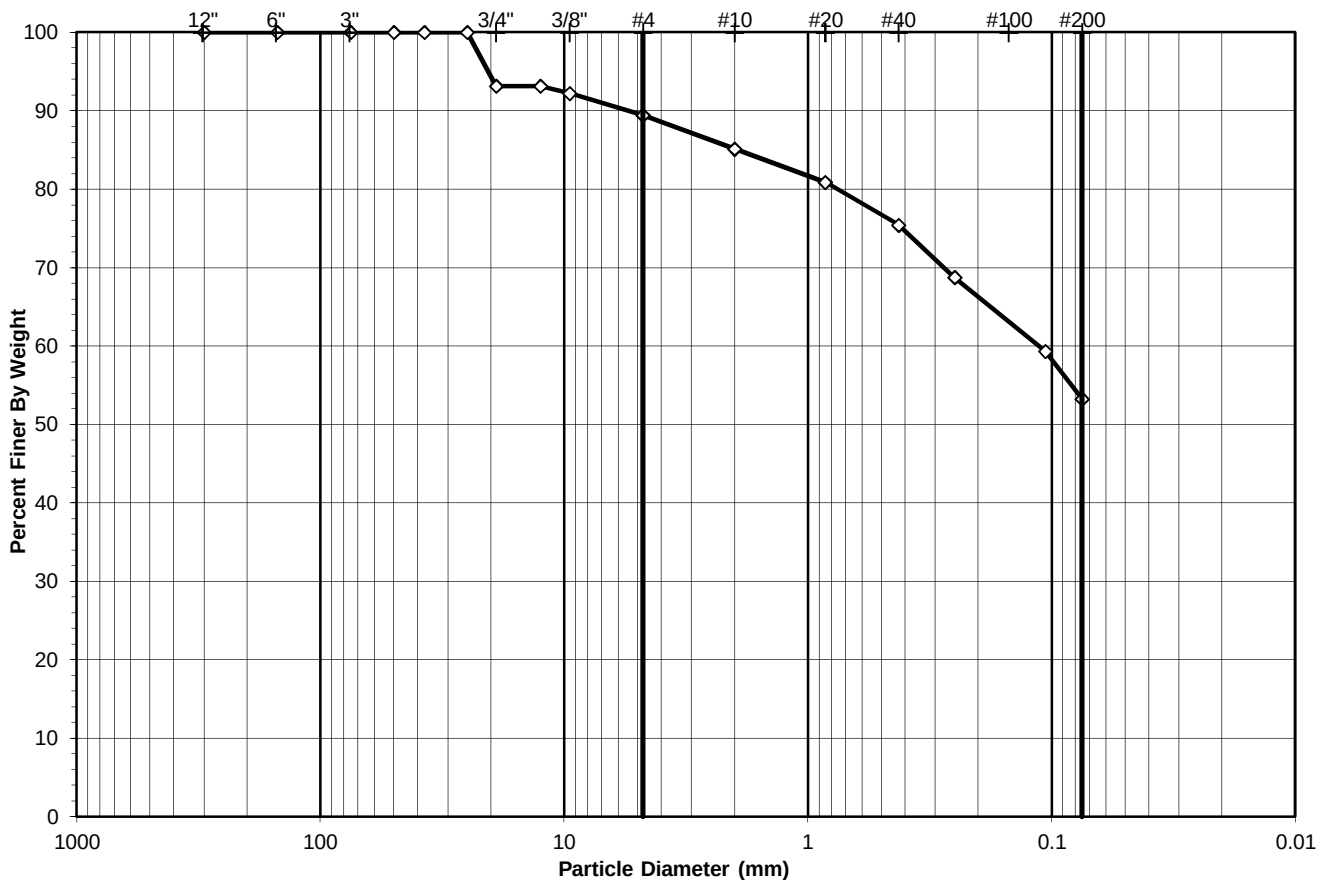
SIEVE ANALYSIS
ASTM D 422-63 (2007)



Client: ARCADIS
Client Reference: Lyons, NY B00013143
Project No.: 2018-320-001
Lab ID: 2018-320-001-002

Boring No.: SB-111
Depth (ft): 7-13
Sample No.: SB-111 (7-13)
Soil Color: Dark Brown

USCS USDA	SIEVE ANALYSIS				HYDROMETER	
	cobbles	gravel	sand		silt and clay fraction	
	cobbles	gravel	sand		silt	clay



USCS Summary		
Sieve Sizes (mm)		Percentage
Greater Than #4	Gravel	10.57
#4 To #200	Sand	36.19
Finer Than #200	Silt & Clay	53.24
USCS Symbol: <i>CL, TESTED</i>		
USCS Classification: <i>SANDY LEAN CLAY</i>		

WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)



Client: ARCADIS
 Client Reference: Lyons, NY B00013143
 Project No.: 2018-320-001
 Lab ID: 2018-320-001-002

Boring No.: SB-111
 Depth (ft): 7-13
 Sample No.: SB-111 (7-13)
 Soil Color: Dark Brown

Moisture Content of Passing 3/4" Material		Moisture Content of Retained 3/4" Material	
Tare No.:	1458	Tare No.:	NA
Wt. of Tare & Wet Sample (g):	588.04	Weight of Tare & Wet Sample (g):	NA
Wt. of Tare & Dry Sample (g):	514.24	Weight of Tare & Dry Sample (g):	NA
Weight of Tare (g):	145.01	Weight of Tare (g):	NA
Weight of Water (g):	73.80	Weight of Water (g):	NA
Weight of Dry Soil (g):	369.23	Weight of Dry Soil (g):	NA
Moisture Content (%):	20.0	Moisture Content (%):	0.0

Wet Weight of -3/4" Sample (g):	NA	Weight of the Dry Sample (g):	369.23
Dry Weight of - 3/4" Sample (g):	369.2	Weight of Minus #200 Material (g):	211.03
Wet Weight of +3/4" Sample (g):	27.13	Weight of Plus #200 Material (g):	158.20
Dry Weight of + 3/4" Sample (g):	27.13		
Total Dry Weight of Sample (g):	396.4		

Sieve Size	Sieve Opening (mm)	Weight of Soil Retained (g)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated Percent Finer (%)
12"	300	0.00	0.00	0.00	100.00	100.00
6"	150	0.00	0.00	0.00	100.00	100.00
3"	75	0.00	0.00	0.00	100.00	100.00
2"	50	0.00	(*)	0.00	100.00	100.00
1 1/2"	37.5	0.00	0.00	0.00	100.00	100.00
1"	25.0	0.00	0.00	0.00	100.00	100.00
3/4"	19.0	27.13	6.84	6.84	93.16	93.16
1/2"	12.5	0.00	0.00	0.00	100.00	93.16
3/8"	9.50	3.72	1.01	1.01	98.99	92.22
#4	4.75	11.04	2.99	4.00	96.00	89.43
#10	2.00	17.03	4.61	8.61	91.39	85.13
#20	0.85	16.89	(**)	13.18	86.82	80.87
#40	0.425	21.64	5.86	19.05	80.95	75.41
#60	0.250	26.40	7.15	26.20	73.80	68.75
#140	0.106	37.39	10.13	36.32	63.68	59.32
#200	0.075	24.09	6.52	42.85	57.15	53.24
Pan	-	211.03	57.15	100.00	-	-

Notes : (*) The + 3/4" sieve analysis is based on the Total Dry Weight of the Sample
 (**) The - 3/4" sieve analysis is based on the Weight of the Dry Sample

Tested By HL Date 6/01/18 Checked By KC Date 6/04/18

ATTERBERG LIMITS

ASTM D 4318-17

Client: ARCADIS
 Client Reference: Lyons, NY B0013143
 Project No.: 2018-320-001
 Lab ID: 2018-320-001-002

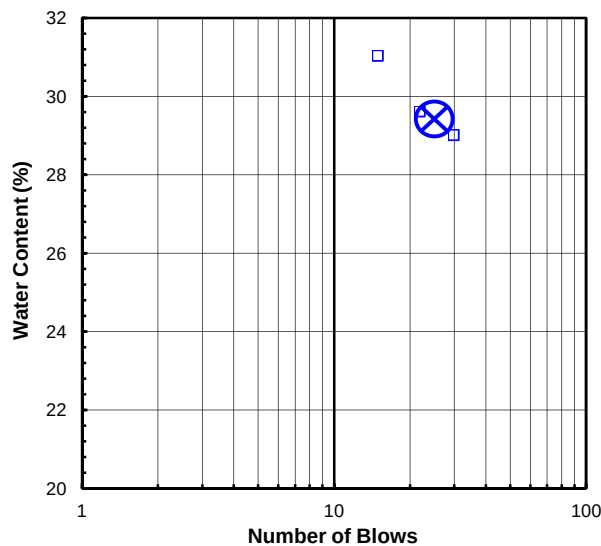
Boring No.: SB-111
 Depth (ft): 7-13
 Sample No.: SB-111 (7-13)
 Soil Description: DARK BROWN LEAN CLAY

Note: The USCS symbol used with this test refers only to the minus No. 40 (Minus No. 40 sieve material, Air dried) sieve material. See the "Sieve and Hydrometer Analysis" graph page for the complete material description.

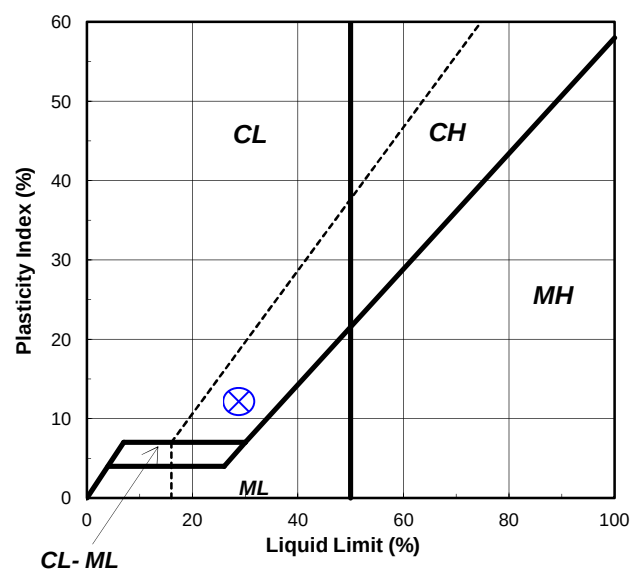
As Received Moisture Content		Liquid Limit Test			
ASTM D2216-10		1	2	3	M
Tare Number:	35	310	300	334	U
Wt. of Tare & Wet Sample (g):	91.61	39.72	39.91	39.56	L
Wt. of Tare & Dry Sample (g):	78.60	34.90	35.21	35.02	T
Weight of Tare (g):	8.32	19.36	19.33	19.36	I
Weight of Water (g):	13.0	4.8	4.7	4.5	P
Weight of Dry Sample (g):	70.3	15.5	15.9	15.7	O
Was As Received MC Preserved:	Yes				I
Moisture Content (%):	18.5	31.0	29.6	29.0	N
Number of Blows:		15	22	30	T

Plastic Limit Test	1	2	Range	Test Results
Tare Number:	322	319		Liquid Limit (%): 29
Wt. of Tare & Wet Sample (g):	27.01	27.00		Plastic Limit (%): 17
Wt. of Tare & Dry Sample (g):	26.09	26.07		Plasticity Index (%): 12
Weight of Tare (g):	20.65	20.66		USCS Symbol: CL
Weight of Water (g):	0.9	0.9		
Weight of Dry Sample (g):	5.4	5.4		
Moisture Content (%):	16.9	17.2	-0.3	
<i>Note: The acceptable range of the two Moisture Contents is $\pm$ 1.12</i>				

Flow Curve



Plasticity Chart



Tested By RAL Date 6/1/18 Checked By KC Date 6/4/18

SPECIFIC GRAVITY

ASTM D 854-14

Client: ARCADIS
 Client Reference: Lyons, NY B0013143
 Project No.: 2018-320-001
 Lab ID: 2018-320-001-002

Boring No.: SB-111
 Depth (ft): 7-13
 Sample No.: SB-111 (7-13)
 Visual Description: Dark Brown Clay

(Minus No.4 sieve material, oven dried)

Replicate Number	1	2
Pycnometer ID:	G 1255	G 1848
Weight of Pycnometer & Soil & Water (g):	731.74	730.97
Temperature (°C):	25.9	25.5
Weight of Pycnometer & Water (g):	684.83	686.37
Tare Number:	929	949
Weight of Tare & Dry Soil (g):	175.66	169.25
Weight of Tare (g):	99.27	96.43
Weight of Dry Soil (g):	76.39	72.82
Specific Gravity of Soil @ Measured Temperature:	2.591	2.580
Specific Gravity of Water @ Measured Temperature:	0.99682	0.99692
Conversion Factor for Measured Temperature:	0.99861	0.99871
Specific Gravity @ 20° Celsius:	2.595	2.583

Average Specific Gravity @ 20° Celsius

2.59

Tested By TO Date 5/30/18 Checked By TMP Date 6/1/18

DCN: CT-S5 Date: 3/26/18 Revision: 21

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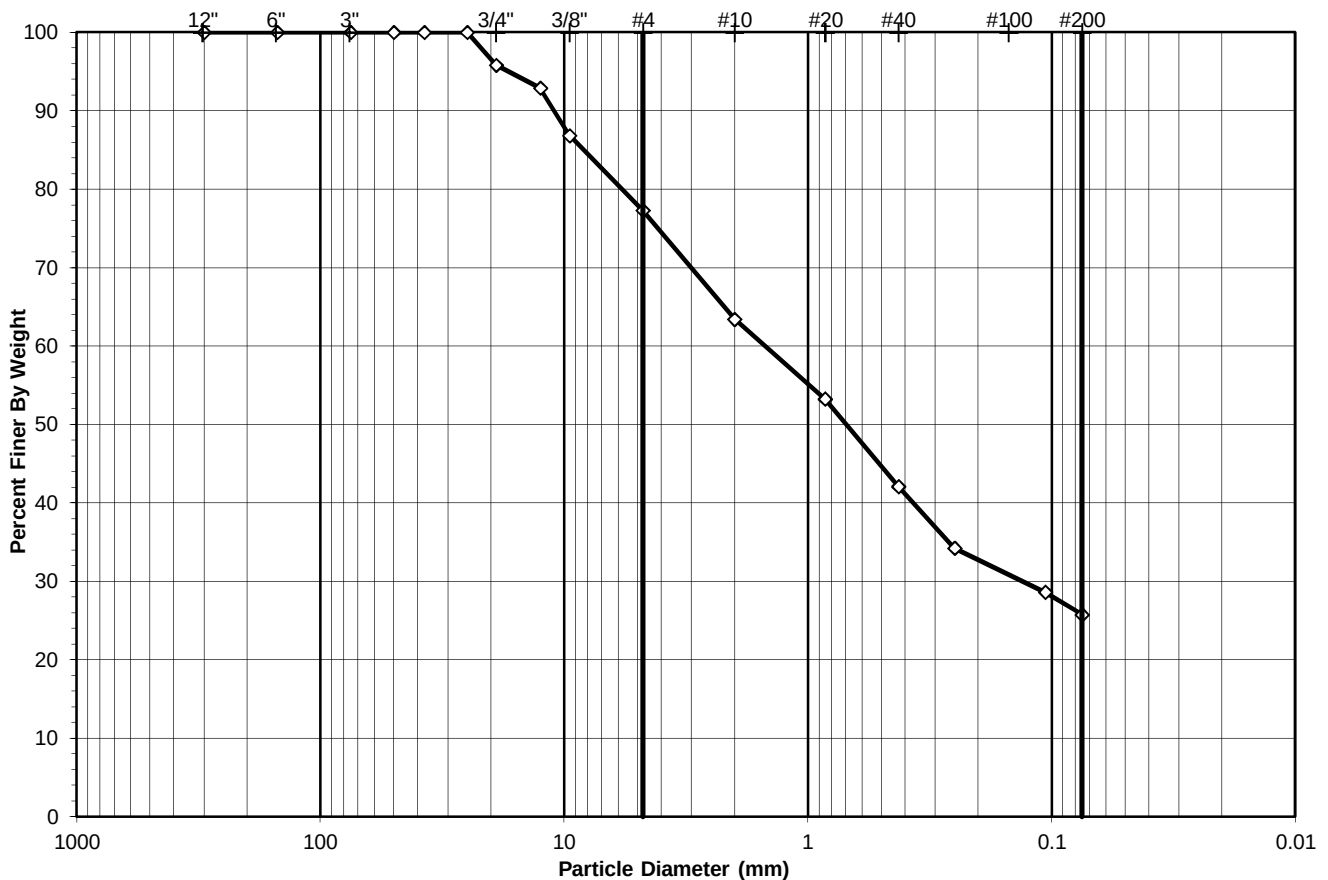
SIEVE ANALYSIS
ASTM D 422-63 (2007)



Client: ARCADIS
Client Reference: Lyons, NY B00013143
Project No.: 2018-320-001
Lab ID: 2018-320-001-003

Boring No.: SB-113
Depth (ft): 13-17
Sample No.: SB-113 (13-17)
Soil Color: Brown

USCS USDA	SIEVE ANALYSIS				HYDROMETER	
	cobbles	gravel	sand		silt and clay fraction	
	cobbles	gravel	sand		silt	clay



USCS Summary		
Sieve Sizes (mm)		Percentage
Greater Than #4	Gravel	22.69
#4 To #200	Sand	51.58
Finer Than #200	Silt & Clay	25.73
USCS Symbol: SM, TESTED		
USCS Classification: SILTY SAND WITH GRAVEL (NON-PLASTIC FINES)		

WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)



Client: ARCADIS
 Client Reference: Lyons, NY B00013143
 Project No.: 2018-320-001
 Lab ID: 2018-320-001-003

Boring No.: SB-113
 Depth (ft): 13-17
 Sample No.: SB-113 (13-17)
 Soil Color: Brown

Moisture Content of Passing 3/4" Material		Moisture Content of Retained 3/4" Material	
Tare No.:	1480	Tare No.:	NA
Wt. of Tare & Wet Sample (g):	578.04	Weight of Tare & Wet Sample (g):	NA
Wt. of Tare & Dry Sample (g):	540.72	Weight of Tare & Dry Sample (g):	NA
Weight of Tare (g):	147.86	Weight of Tare (g):	NA
Weight of Water (g):	37.32	Weight of Water (g):	NA
Weight of Dry Soil (g):	392.86	Weight of Dry Soil (g):	NA
Moisture Content (%):	9.5	Moisture Content (%):	0.0

Wet Weight of -3/4" Sample (g):	NA	Weight of the Dry Sample (g):	392.86
Dry Weight of - 3/4" Sample (g):	392.9	Weight of Minus #200 Material (g):	105.51
Wet Weight of +3/4" Sample (g):	17.13	Weight of Plus #200 Material (g):	287.35
Dry Weight of + 3/4" Sample (g):	17.13		
Total Dry Weight of Sample (g):	410.0		

Sieve Size	Sieve Opening (mm)	Weight of Soil Retained (g)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated Percent Finer (%)
12"	300	0.00	0.00	0.00	100.00	100.00
6"	150	0.00	0.00	0.00	100.00	100.00
3"	75	0.00	0.00	0.00	100.00	100.00
2"	50	0.00	(*)	0.00	100.00	100.00
1 1/2"	37.5	0.00	0.00	0.00	100.00	100.00
1"	25.0	0.00	0.00	0.00	100.00	100.00
3/4"	19.0	17.13	4.18	4.18	95.82	95.82
1/2"	12.5	11.96	3.04	3.04	96.96	92.90
3/8"	9.50	24.90	6.34	9.38	90.62	86.83
#4	4.75	39.02	9.93	19.31	80.69	77.31
#10	2.00	57.00	14.51	33.82	66.18	63.41
#20	0.85	41.63	(**)	44.42	55.58	53.26
#40	0.425	45.82	11.66	56.08	43.92	42.08
#60	0.250	32.17	8.19	64.27	35.73	34.23
#140	0.106	23.04	5.86	70.14	29.86	28.62
#200	0.075	11.81	3.01	73.14	26.86	25.73
Pan	-	105.51	26.86	100.00	-	-

Notes : (*) The + 3/4" sieve analysis is based on the Total Dry Weight of the Sample
 (**) The - 3/4" sieve analysis is based on the Weight of the Dry Sample

Tested By HL Date 6/01/18 Checked By KC Date 6/04/18

ATTERBERG LIMITS

ASTM D 4318-17

Client: ARCADIS
Client Reference: Lyons, NY B0013143
Project No.: 2018-320-001
Lab ID: 2018-320-001-003

Boring No.: SB-113
Depth (ft): 13-17
Sample No.: SB-113 (13-17)
Color: Brown
(Minus No. 40 sieve material)

As Received Water Content

Tare Number	38
Wt. of Tare & Wet Sample (g)	90.00
Wt. of Tare & Dry Sample (g)	83.42
Weight of Tare (g)	7.05
Weight of Water (g)	6.58
Weight of Dry Sample (g)	76.37

Water Content (%) **8.6**

NON - PLASTIC MATERIAL

Tested By *RAL* *Date* *6/1/18* *Checked By* *KC* *Date* *6/4/18*

SPECIFIC GRAVITY

ASTM D 854-14

Client:	ARCADIS	Boring No.:	SB-113
Client Reference:	Lyons, NY B0013143	Depth (ft):	13-17
Project No.:	2018-320-001	Sample No.:	SB-113 (13-17)
Lab ID:	2018-320-001-003	Visual Description:	Brown Sand and Gravel

(Minus No.4 sieve material, oven dried)

Replicate Number	1	2
Pycnometer ID:	G 1255	G 1848
Weight of Pycnometer & Soil & Water (g):	733.81	735.86
Temperature (°C):	25.8	25.5
Weight of Pycnometer & Water (g):	684.84	686.37
Tare Number:	697	649
Weight of Tare & Dry Soil (g):	175.41	174.83
Weight of Tare (g):	96.79	95.73
Weight of Dry Soil (g):	78.62	79.10
Specific Gravity of Soil @ Measured Temperature:	2.651	2.671
Specific Gravity of Water @ Measured Temperature:	0.99684	0.99692
Conversion Factor for Measured Temperature:	0.99864	0.99871
Specific Gravity @ 20° Celsius:	2.655	2.674

Average Specific Gravity @ 20° Celsius	2.66
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Tested By TO Date 5/30/18 Checked By TMP Date 6/1/18

DCN: CT-S5 Date: 3/26/18 Revision: 21

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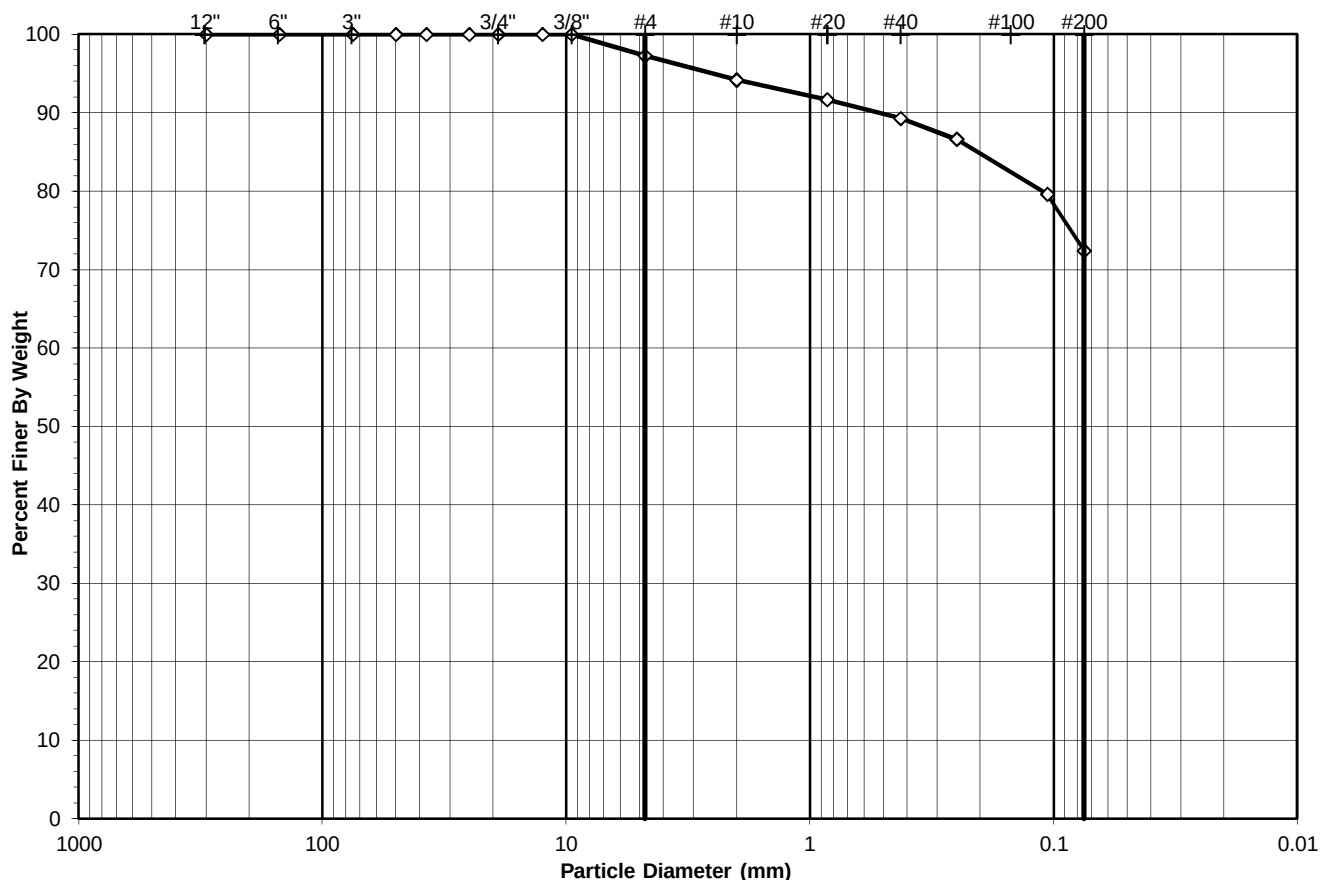
SIEVE ANALYSIS
ASTM D 422-63 (2007)



Client: ARCADIS
Client Reference: Lyons, NY B00013143
Project No.: 2018-320-001
Lab ID: 2018-320-001-004

Boring No.: SB-119
Depth (ft): 13-17
Sample No.: SB-119 (13-17)
Soil Color: Brown

USCS USDA	SIEVE ANALYSIS				HYDROMETER	
	cobbles	gravel	sand		silt and clay fraction	
	cobbles	gravel	sand		silt	clay



USCS Summary		
Sieve Sizes (mm)		Percentage
Greater Than #4	Gravel	2.71
#4 To #200	Sand	24.87
Finer Than #200	Silt & Clay	72.42
USCS Symbol: <i>CL, TESTED</i>		
USCS Classification: <i>LEAN CLAY WITH SAND</i>		

WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)



Client: ARCADIS
 Client Reference: Lyons, NY B00013143
 Project No.: 2018-320-001
 Lab ID: 2018-320-001-004

Boring No.: SB-119
 Depth (ft): 13-17
 Sample No.: SB-119 (13-17)
 Soil Color: Brown

Moisture Content of Passing 3/4" Material		Moisture Content of Retained 3/4" Material	
Tare No.:	1498	Tare No.:	NA
Wt. of Tare & Wet Sample (g):	588.51	Weight of Tare & Wet Sample (g):	NA
Wt. of Tare & Dry Sample (g):	491.15	Weight of Tare & Dry Sample (g):	NA
Weight of Tare (g):	149.11	Weight of Tare (g):	NA
Weight of Water (g):	97.36	Weight of Water (g):	NA
Weight of Dry Soil (g):	342.04	Weight of Dry Soil (g):	NA
Moisture Content (%):	28.5	Moisture Content (%):	0.0

Wet Weight of -3/4" Sample (g):	NA	Weight of the Dry Sample (g):	342.04
Dry Weight of - 3/4" Sample (g):	342.0	Weight of Minus #200 Material (g):	247.69
Wet Weight of +3/4" Sample (g):	0.00	Weight of Plus #200 Material (g):	94.35
Dry Weight of + 3/4" Sample (g):	0.00		
Total Dry Weight of Sample (g):	342.0		

Sieve Size	Sieve Opening (mm)	Weight of Soil Retained (g)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated Percent Finer (%)
12"	300	0.00	0.00	0.00	100.00	100.00
6"	150	0.00	0.00	0.00	100.00	100.00
3"	75	0.00	0.00	0.00	100.00	100.00
2"	50	0.00	(*)	0.00	100.00	100.00
1 1/2"	37.5	0.00	0.00	0.00	100.00	100.00
1"	25.0	0.00	0.00	0.00	100.00	100.00
3/4"	19.0	0.00	0.00	0.00	100.00	100.00
1/2"	12.5	0.00	0.00	0.00	100.00	100.00
3/8"	9.50	0.00	0.00	0.00	100.00	100.00
#4	4.75	9.27	2.71	2.71	97.29	97.29
#10	2.00	10.56	3.09	5.80	94.20	94.20
#20	0.85	8.58	(**)	8.31	91.69	91.69
#40	0.425	8.22	2.40	10.71	89.29	89.29
#60	0.250	9.05	2.65	13.36	86.64	86.64
#140	0.106	23.99	7.01	20.37	79.63	79.63
#200	0.075	24.68	7.22	27.58	72.42	72.42
Pan	-	247.69	72.42	100.00	-	-

Notes : (*) The + 3/4" sieve analysis is based on the Total Dry Weight of the Sample
 (**) The - 3/4" sieve analysis is based on the Weight of the Dry Sample

Tested By HL Date 6/01/18 Checked By KC Date 6/04/18

ATTERBERG LIMITS

ASTM D 4318-17

Client: ARCADIS
 Client Reference: Lyons, NY B0013143
 Project No.: 2018-320-001
 Lab ID: 2018-320-001-004

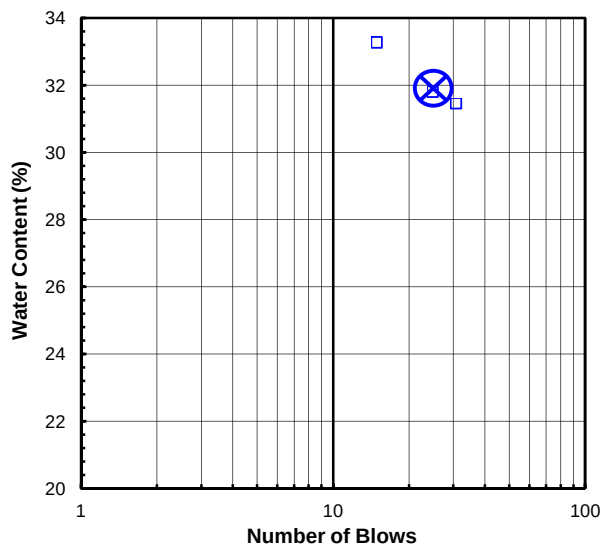
Boring No.: SB-119
 Depth (ft): 13-17
 Sample No.: SB-119 (13-17)
 Soil Description: BROWN LEAN CLAY

Note: The USCS symbol used with this test refers only to the minus No. 40 (Minus No. 40 sieve material, Air dried) sieve material. See the "Sieve and Hydrometer Analysis" graph page for the complete material description.

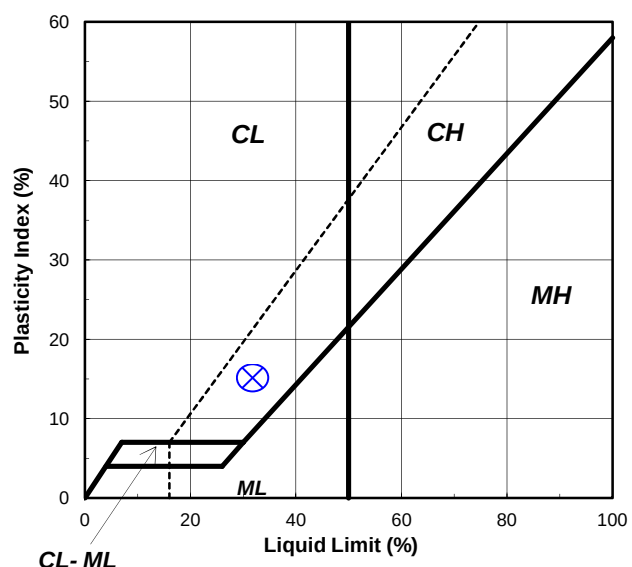
As Received Moisture Content		Liquid Limit Test			
ASTM D2216-10		1	2	3	M
Tare Number:	27	148	150	303	U
Wt. of Tare & Wet Sample (g):	77.42	40.04	40.41	39.94	L
Wt. of Tare & Dry Sample (g):	62.70	34.94	35.43	35.08	T
Weight of Tare (g):	7.11	19.60	19.76	19.62	I
Weight of Water (g):	14.7	5.1	5.0	4.9	P
Weight of Dry Sample (g):	55.6	15.3	15.7	15.5	O
Was As Received MC Preserved:	Yes				I
Moisture Content (%):	26.5	33.2	31.8	31.4	N
Number of Blows:		15	25	31	T

Plastic Limit Test	1	2	Range	Test Results
Tare Number:	314	317		Liquid Limit (%): 32
Wt. of Tare & Wet Sample (g):	26.63	26.91		Plastic Limit (%): 17
Wt. of Tare & Dry Sample (g):	25.70	25.95		Plasticity Index (%): 15
Weight of Tare (g):	20.32	20.32		USCS Symbol: CL
Weight of Water (g):	0.9	1.0		
Weight of Dry Sample (g):	5.4	5.6		
Moisture Content (%):	17.3	17.1	0.2	
<i>Note: The acceptable range of the two Moisture Contents is $\pm$ 1.12</i>				

Flow Curve



Plasticity Chart



Tested By RAL Date 6/1/18 Checked By KC Date 6/4/18

SPECIFIC GRAVITY

ASTM D 854-14

Client: ARCADIS
 Client Reference: Lyons, NY B0013143
 Project No.: 2018-320-001
 Lab ID: 2018-320-001-004

Boring No.: SB-119
 Depth (ft): 13-17
 Sample No.: SB-119 (13-17)
 Visual Description: Brown Clay

(Minus No.4 sieve material, oven dried)

Replicate Number	1	2
Pycnometer ID:	G 1255	G 1848
Weight of Pycnometer & Soil & Water (g):	747.48	748.14
Temperature (°C):	23.6	23.6
Weight of Pycnometer & Water (g):	685.12	686.61
Tare Number:	637	1681
Weight of Tare & Dry Soil (g):	197.04	196.72
Weight of Tare (g):	95.92	97.02
Weight of Dry Soil (g):	101.12	99.70
Specific Gravity of Soil @ Measured Temperature:	2.609	2.612
Specific Gravity of Water @ Measured Temperature:	0.99740	0.99740
Conversion Factor for Measured Temperature:	0.99919	0.99919
Specific Gravity @ 20° Celsius:	2.611	2.614

Average Specific Gravity @ 20° Celsius

2.61

Tested By TO Date 6/1/18 Checked By KC Date 6/4/18

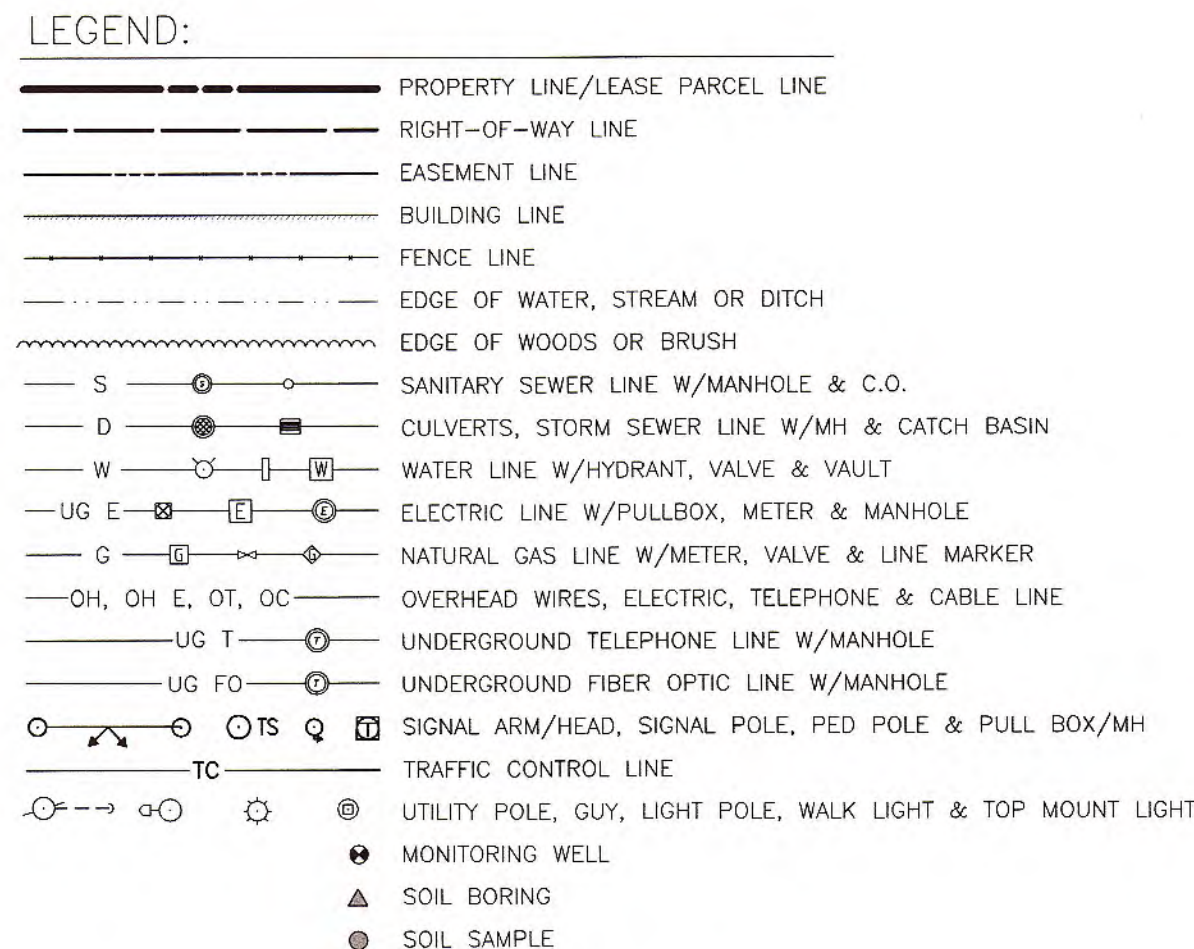
DCN: CT-S5 Date: 3/26/18 Revision: 21

S:\Excel\Excel QA\Spreadsheets\Specific Gravity.xls

ATTACHMENT 5

Fisher Site Survey





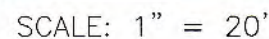
CONC - CONCRETE
WV - WATER VALVE
HYD - HYDRANT
FND - FOUND
RR - RAIL ROAD
WD - WOOD

1. COORDINATES AND NORTH ORIENTATION SHOWN HEREON ARE REFERENCED TO THE NEW YORK STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, TRANSVERSE MERCATOR PROJECTION, NAD 83 (2011) EPOCH 2010.00 USING GPS PROCEDURES AND THE NEW YORK STATE DOT CORS NETWORK.
2. ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (GEOID 12A) USING GPS PROCEDURES.
3. UNDERGROUND UTILITIES SHOWN HEREON WERE PLOTTED FROM VISIBLE EVIDENCE LOCATED AT THE TIME OF THE FIELD SURVEY AND DESIGNATIONS BY A SUBSURFACE UTILITY MARKING COMPANY. THE LOCATIONS OF ALL UTILITIES AND PIPES AND CABLES ARE NOT GUARANTEED BY THE RESPECTIVE UTILITY COMPANY PRIOR TO ANY CONSTRUCTION.

1. DEEDS LISTED HEREON
2. TOWN OF LYONS, TAX MAP NO. 71111-09.
3. MAP ENTITLED "VALLEY NATIONAL BANK" BY JOHN A. GREENE L.S., DATED APRIL 15, 2010 AND FILED IN THE ONTARIO COUNTY CLERK'S OFFICE AS MAP NO. 29290.
4. MAP ENTITLED "1649 MONROE ASSOCIATES, LLC" BY C. NEWTON GOWDY L.S., DATED OCTOBER 23, 2000 AND FILED IN THE ONTARIO COUNTY CLERK'S OFFICE AS MAP NO. 24737.
5. MAP ENTITLED "THE ESTATE OF ARCANGIOLA SALERNO & CLARA M. RODDWELL" BY WOODWARD O. GAY L.S., DATED AUGUST 28, 1984 AND FILED IN THE ONTARIO COUNTY CLERK'S OFFICE AS MAP NO. 13829.
6. MAP ENTITLED "LEON E. LEWIS, GEORGE BRITTEN & C. BURTON NEWMAN" BY JOHN A. GREENE L.S., DATED AUGUST 19, 1974 AND FILED IN THE ONTARIO COUNTY CLERK'S OFFICE AS MAP NO. 10355.
7. MAP OF A PORTION OF ERIE CANAL LANDS, BELONGING TO THE STATE OF NEW YORK, DATED APRIL 11, 1917, BEING MAP NO. 522, PARCEL 379.
8. ACQUISITION MAP BY THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION FOR HIGHWAY PURPOSES DESIGNATED AS MAP NO. 37, PARCEL 60 AND FILED IN THE OFFICE OF THE DEPARTMENT OF TRANSPORTATION, DATED OCTOBER 23, 1989.
9. ACQUISITION MAP BY THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION FOR HIGHWAY PURPOSES DESIGNATED AS MAP NO. 35, PARCEL 58 AND FILED IN THE OFFICE OF THE DEPARTMENT OF TRANSPORTATION, DATED OCTOBER 23, 1989.

WE: FISHER ASSOCIATES, P.E., L.S., L.A., D.P.C., HEREBY CERTIFY THAT THIS MAP WAS PREPARED MAY 08, 2018 FROM THE NOTES OF AN INSTRUMENT SURVEY COMPLETED BY US ON MAY 03, 2018 USING REFERENCES AND EVIDENCE SHOWN HEREON.

BY: CHRIS A. PASCUZZO, N.Y.S.P.L.S. NO. 049868 DATE: 6-7-18



TITLE OF DRAWING
TOPOGRAPHIC AND BOUNDARY SURVEY

FA - 1

SHEET 1 OF 1

FA PROJECT NO.
182009
PROJECT MANAGER
M. ELTZ

DRAWN BY
M. MILLER

ISSUE DATE
5/08/18

SCALE
1"=20'



FISHER
ASSOCIATES

WWW.FISHERASSOC.COM

PROJECT REMEDIATION OF THE FORMER NYSEG MGP SITE SITE NO. 8-59-020 TOWN OF LYONS, COUNTY OF WAYNE STATE OF NEW YORK	TITLE OF DRAWING TOPOGRAPHIC AND BOUNDARY SURVEY
---	---

DRAWING NO.

FA - 1

SHEET 1 OF 1

ATTACHMENT 6

Clean Harbors Waste Disposal Documents



Site Address: Water and Geneva Streets
Lyons, NY 14489

SC PPW 10/10/2017

WORK ORDER NY 1802270162-004

DOCUMENT NO. 1179760

STRAIGHT BILL OF LADING

TRANSPORTER 1 Clean Harbors Environmental Services, Inc. VEHICLE ID # 4353
EPA ID # MAD039322250 TRANS. 1 PHONE (781) 792 5000
TRANSPORTER 2 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY Casella Waste Systems - Ontario County Landfill			SHIPPER New York State Electric & Gas		
FACILITY EPA ID # NYR0000926543			SHIPPER EPA ID # NYD986996775		
ADDRESS 1879 State Routes 5 & 20			ADDRESS 18 Link Drive		
CITY Stanley	STATE NY	ZIP 14561	CITY Binghamton	STATE NY	ZIP 13904
CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS		TOTAL QUANTITY
2-25 yd	CM		A. NON DOT REGULATED MATERIAL, (TPH SOL)		EST. 10
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		
SPECIAL HANDLING INSTRUCTIONS A.2277Q			EMERGENCY PHONE #: (800) 452-6718 CASSELLA PO# W180973345		

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

SHIPPER	PRINT Anthony Napoli agent for NYSEG	SIGN <i>Anthony Napoli</i>	DATE 5/25/18
TRANSPORTER 1	PRINT STEVE BRAMBLE	SIGN <i>Steve Bramble</i>	DATE 5/25/18
TRANSPORTER 2	PRINT	SIGN	DATE
RECEIVED BY	PRINT <i>USELan</i>	SIGN <i>[Signature]</i>	DATE 5/25/18

Site Address: Water and Geneva Streets
Lyons, NY 14489

SC PPW 10/10/2017

WORK ORDER #01802270162-005

DOCUMENT NO. 1179782

STRAIGHT BILL OF LADING

TRANSPORTER 1 Clean Harbors Environmental Services, Inc.

VEHICLE ID # 5290

EPA ID # MAD039322250

TRANS. 1 PHONE (781) 792-5000

TRANSPORTER 2 FRANKS VAC TRUCK SERVICE INC

VEHICLE ID #

EPA ID # 240 982792814

TRANS. 2 PHONE

DESIGNATED FACILITY <u>Clean Harbors Environmental Services, Inc.</u>			SHIPPER <u>New York State Electric & Gas</u>		
FACILITY EPA ID # <u>OH0000724183</u>			SHIPPER EPA ID # <u>NYD986996775</u>		
ADDRESS <u>2500 Rockefeller Avenue</u>			ADDRESS <u>18 Link Drive</u>		
CITY <u>Cleveland</u>		STATE <u>OH</u>	ZIP <u>44115</u>	CITY <u>Binghamton</u>	
		STATE <u>NY</u>	ZIP <u>13904</u>		
CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
<u>10-55gal</u>	<u>DM</u>		<u>A. NON DOT REGULATED MATERIAL, (DECON WATER - SOLIDS BEDIMENT, SALT, SOIL FROM MGP SITES)</u>	<u>EST 525</u>	<u>G</u>
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		
SPECIAL HANDLING INSTRUCTIONS <u>A.CH122205</u>			EMERGENCY PHONE # <u>(800) 485-6718</u> GENERATOR: <u>New York State Electric & Gas</u>		

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

SHIPPER	PRINT <u>Anthony Napoli agent for NYSEG</u>	SIGN <u>Anthony Napoli</u>	DATE <u>6-11-18</u>
TRANSPORTER 1	PRINT <u>GERARD GRAVEN</u>	SIGN <u>Gerard Graven</u>	DATE <u>6-11-18</u>
TRANSPORTER 2	PRINT <u>STANLEY PASON</u>	SIGN <u>Stanley Pason</u>	DATE <u>6-13-18</u>
RECEIVED BY	PRINT <u>JOHN MERTIS</u>	SIGN <u>John Mertis</u>	DATE <u>06-29-18</u>