QUEENS WEST DEVELOPMENT – STAGE 2 SITES
LONG ISLAND CITY, NEW YORK

NYSDEC VCP Site Nos. V00505A and V00505B
NYSDEC BCP Site Nos. C241095 and C241096

ANNUAL PERIODIC REVIEW REPORT AND ENGINEERING CERTIFICATION

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EXECUTIVE SUMMARY

This Periodic Review Report (PRR) documents the activities subject to Site Management Plans (SMPs) for the Queens West Development – Stage 2 (Sites) for the current reporting period (February 18, 2020 through February 18, 2021). The Sites are comprised of Voluntary Cleanup Program (VCP) Sites V00505A and V00505B (formerly known as Operable Units [OU] 1 and 2 of VCP Site V00505) and Brownfield Cleanup Program (BCP) Sites C241095 and C241096 (formerly known as OU4 and OU3 of VCP Site V00505) administered by the New York State Department of Environmental Conservation (NYSDEC). The Engineering and Institutional Controls (EC/IC) were implemented and were maintained in accordance with the NYSDEC-approved SMPs for VCP Site Nos. V00505A (February 2008) and V00505B (March 2007) and BCP Site Nos. C241095 (November 2010) and C241096 (September 2010).

The purpose of this PRR and Annual Certification is to document on-going Site management activities associated with the permanent Engineering Controls and Institutional Controls (ECs/ICs) in place at the Sites, and to certify that these controls are being maintained in accordance with the Voluntary and Brownfield Cleanup Agreements.

The Site management activities conducted during the reporting period includes the following:

- Implementation of annual groundwater monitoring as described in the Groundwater Monitoring Report dated April 29, 2020.
- Operation of recovery system for light non-aqueous phase liquid (LNAPL) at Parcel 2 recovery wells.
- Routine system checks of the sub-slab depressurization systems (SSDSs), a component of the vapor mitigation system implemented at the Sites;
- Visual inspection of the concrete slabs to determine the absence of cracks and fissures.
- Visual inspection of the composite cover throughout the exterior of the Site including the park and walkways.

The implementation of Site management activities and continuous media monitoring were performed by Fleming-Lee Shue, Inc. (FLS) during the reporting period under the direct supervision of Arnold F. Fleming P.E. During the reporting period, it was determined that ECs/ICs remain effective and continue to be protective of public health and the environment. The annual certifications and photographs documenting the inspections for the Sites are provided as Appendix A and Appendix B, respectively. The data collected during groundwater monitoring demonstrated an overall decrease in dissolved phase volatile organic compound (VOC) concentrations in groundwater, particularly petroleum hydrocarbons. A copy of the Annual Groundwater Monitoring Report is provided as Appendix C. The compliance to the EC/IC Plan is further discussed in Section 2.0. The compliance with the media monitoring plan is discussed in Section 3.0 and compliance with the Operation and Maintenance of the ECs is discussed in Section 4.0. A brief summary and conclusions with recommendations is provided in Section 5.0.

On November 26, 2013, FLS proposed revisions to the scope of the EC inspections and media monitoring portion of the SMP. The revisions include the following:

- Change in the frequency of groundwater monitoring from quarterly to semi-annually,
- Exclusion of select groundwater wells from the monitoring program and subsequent well abandonment,
- Elimination of methane monitoring at buildings with an active SSDS.

All modifications were approved by NYSDEC on December 10, 2013. Aside from the elimination of methane monitoring, which was implemented during the December 2013 SSDS inspections, all other modifications to the SMP were implemented in 2014.

On September 15, 2016, FLS proposed revisions to the scope of the media monitoring portion of the SMP. The revisions include the following:

- Change in the frequency of groundwater monitoring from semi-annually to annually,
- Exclusion of select groundwater wells from the monitoring program and subsequent well abandonment.

All modifications were approved by NYSDEC on October 18, 2016. Revisions were implemented in the media monitoring event undertaken in March 2017.

1.0 BACKGROUND

1.1 Site Description

The Sites encompass approximately 21 acres and consist of contiguous parcels corresponding to Tax Block 21 in Long Island City, NY. The Sites are bordered by Anable Basin to the north, 5th Street to the east, 47th Road to the south and Voluntary Cleanup Program Site No. V00505C - Lands Under Water to the west, followed by the East River. A Site Plan is provided as Figure 1.

The Site was originally developed as a petroleum processing facility by the Devoe Manufacturing Company (circa 1860) and the Standard Oil Company of New York (circa 1873). The Site was later sold to Pepsi Co. (circa 1936) and was used by the company as a bottling and distribution facility. Pepsi Co. ceased operation in 2002. The Site remained vacant from 2002 until its redevelopment in 2006.

1.2 Site Development Status

The entire Queens West Stage 2 redevelopment transformed the contaminated waterfront property into a community that includes mixed-use residential and commercial buildings, public park lands, recreation areas, and a public school. A Site Plan depicting the development parcels is provided as Figure 1.

VCP Site - V00505A

The developments on the VCP Site V00505A include the 31-story residential building on Parcel 6 (47-20 Center Boulevard), and a portion of the 19-story building on Parcel 5 (46-30 Center Blvd.), the building courtyard; parks, including a play area and a community garden, roads (Center Blvd. and 47th Avenue) and utilities.

The Parcel 6 building is currently occupied and the construction of the roads, utilities, and parks, including the play area and the community garden, has been completed.

VCP Site - V00505B

The developments on the VCP Site V00505B include a portion of the 19-story residential building on Parcel 5 (46-30 Center Blvd.), the 30-story residential building on Parcel 7 (47-05 Center Blvd.), building courtyards, parks, including a sports field and a community garden, roads (Center Boulevard and 47th Avenue) and utilities.

Both the Parcel 5 and Parcel 7 residential buildings are currently occupied and the construction of the roads, utilities, and the parks; including the sports field (Tax Block 21, Lot 40), the adjacent facilities and the community garden, has been completed.

BCP Site - C241095

The developments on the BCP Site C241095 include the 32-story residential building on Parcel 1 (45-60 Center Blvd.), the 40-story residential building on Parcel 2 (45-45 Center Blvd.), parks, roads (Center Boulevard and Anable Basin Road) and utilities.

Both the Parcel 1 and Parcel 2 buildings are currently occupied and the construction of the roads, utilities and the parks has been completed.

BCP Site - C241096

The developments on the BCP Site C241096 include the 25-story residential building on Parcel 3 (46-10 Center Blvd.), the 41-story residential building on Parcel 4 (46-15 Center Blvd.), the P.S.312Q school building, parks, roads (Center Boulevard, 46th Avenue), utilities, and the Pepsi Sign parcel.

The Parcel 4 and the P.S. 312 Q buildings are currently occupied and the construction of parks, roads and utilities has been completed. The residential building on Parcel 3 (46-10 Center Blvd.) was completed and occupied in 2014.

The Pepsi Sign parcel, located on block 21 lot 120, has been moved from its original location at VCP Site V00505A to its permanent location at BCP Site C241096 in 2013. Landscaping has been placed around the base of the sign and the permanent cover was put in place.

1.3 Nature and Extent of Contamination

Remedial investigations done at the Site between 2004 and 2006 indicated the presence of several underground storage tanks and buried piping; elevated levels of Volatile Organic Compounds (VOCs) (particularly petroleum hydrocarbons) in the subsurface soils, soil vapor and groundwater; elevated levels of metals (particularly lead and arsenic) and Semi-Volatile Organic Compounds (SVOCs) in subsurface soils and groundwater; the presence of Non-Aqueous Phase Liquid (NAPL) and grossly contaminated soils.

1.4 Site Remediation

The Sites were remediated in accordance with the Voluntary Cleanup Agreement (VCA) Index # A2-0494-0903 for VCP Site V00505A, VCA Index # A2-0495-0903for VCP Site V00505B, Brownfield Cleanup Agreement (BCA) Index #D2-0001-1108 for BCP Site C241095, and BCA Index# D2-0002-1108 for BCP Site C241096, which were executed from 2006 through 2010.

The Remedial Action Reports provided by TRC Engineers dated February 2008 for Site V00505A, dated March 2007 for Site V00505B, and the Final Engineering Reports dated November 2010 for Sites C241095 and C241096, documented the remedial action undertaken between 2006 and 2010, which encompassed the following completed remedial activities:

1. Implementation of a Site-Specific Health and Safety Plan.
2. Excavation and disposal of soils not meeting the Site-Specific Soil Cleanup Objectives.
3. Installation of negative-pressure enclosures (tents) with air handling treatment equipment to control odors and vapors during excavation

4. Excavation and disposal of grossly contaminated soils
5. Installation of dewatering and water-treatment equipment for deep excavations.
6. Removal of subsurface structures including piping and underground storage tanks.
7. High vacuum extraction and removal of NAPL
8. Installation of sheeting along 5th street and Anable Basin Road to prevent recontamination from offsite sources.
9. Collection of post-excavation soil, soil gas and groundwater samples to evaluate the performance of the remedy.
10. Backfilling and restoration with reusable material, clean fill or recycled concrete aggregate from the Queens West Development Stage 3 Site.
11. Installation of the demarcation layer between clean fill and residual soil
12. Installation and compaction of Barrier Layer consisting of a minimum 2-foot-thick layer of imported clean fill.
13. The installation of composite cover systems, consisting of vapor barriers and concrete caps, underneath the buildings.
14. Surveying and mapping of vertical extent of excavation, location of the Demarcation Layer, and the final grade of the Site.
15. Site Management

1.5 Remedy Performance, Effectiveness and Protectiveness

The information and data collected during the comprehensive groundwater monitoring and the annual engineering controls inspection are evaluated against the remedial action objectives set forth for the VCP and BCP Sites.

The results of the comprehensive groundwater monitoring demonstrated an overall decrease in volatile organic compounds, specifically petroleum related compounds (benzene, toluene, ethylbenzene and xylene), and semi-volatile organic compounds. The groundwater monitoring results are discussed in Section 3.

The annual inspection of the Sites' engineering controls which include the SSDSs for all of the buildings, the composite cover system, and clean cover for the park areas, demonstrated that the ECs continue to perform as designed and continue to be protective of human health and the environment. The Engineering Control details and inspection results are discussed in Section 4.

2.0 ENGINEERING AND INSTITUTIONAL CONTROLS PLAN COMPLIANCE

2.1 Institutional Controls

The ICs are non-physical controls, such as Site use restrictions, implemented in order to protect human health and the environment. The SMPs require annual certification of the ICs for the Sites to ensure that they continue to be implemented in order to prevent exposure to residual contamination. The ICs for the Sites include the SMPs, Soil Management Plans, groundwater use, farming, and gardening restrictions (Sites), provisions for deed restrictions and environmental easements, EC/IC plans (BCP Sites), and the Operation, Maintenance and Monitoring plans (BCP Sites). The annual certifications for the Sites are provided as Appendix A.

2.2 Engineering Controls

The ECs are physical controls employed to contain, stabilize and monitor residual contamination. Since residual contaminated soil, groundwater, and soil vapor exist beneath the Sites, a Residual Soil Management Zone was set forth in the SMP to protect human health and the environment. A Demarcation Layer, consisting of a long-lasting, open, orange plastic netting was placed to indicate that all soils above consist of imported clean fill and soils below are considered Residual Soils, defined as potentially contaminated soil remaining after completion of the remedial action. Any future works within the Residual Soil Management Zone are done in accordance with SMP requirements.

The ECs required by the SMPs consist of vapor barriers, SSDSs beneath the buildings, and composite cover systems consisting of clean fill barrier layers and final Site development covers. The barrier layers consist of a minimum of 2 feet of clean fill in landscaped areas, and a sub-base layer and final pavement in the roadways. The final Site development covers are the buildings, landscaped areas, paved roads and walkways.

The SMPs require annual inspection and certification of the ECs to ensure that they continue to perform as designed and continue to be protective of human health and the environment. The annual certifications and photographs documenting the inspections for the Sites are provided as Appendix A and Appendix B, respectively.

The VCP Site V00505A has an additional EC consisting of an approximately 300-foot-long subsurface barrier wall installed along 47th Road at the southwestern boundary (Figure 1). The barrier wall consists of 17.5-foot-long steel sheets with a water-tight seal at the interlocks.

The BCP Sites C241095 and C241096 have an additional EC via permanent vertical sheeting installed along 5th Street (Figure 1). The sheeting was designed as part of the excavation for development and is supported solely by soil. Because the sheeting is not independently stable, any future excavation in the area will require that the sheeting be supported.

2.3 Certification of Engineering and Institutional Controls

The owner and the developer parties are responsible for overseeing, documenting and certifying that the work at the Sites was performed by or on behalf of each, and was done in accordance with the applicable SMP. The responsible parties for each of the development work at the Sites are provided in Table 1.

VCP Site - V00505A

The annual certifications for VCP Site V00505A, consisting of a completed NYSDEC Engineering and Institutional Controls Certification Forms are provided as Appendix A. The annual certifications were prepared in accordance with the SMP and have been certified by Arnold F. Fleming, P.E. on behalf of TF Cornerstone Sitework LLC (TFC).

VCP Site - V00505B

The annual certifications for VCP Site V00505B, consisting of a completed EC/IC Forms are provided as Appendix A. The annual certifications have been certified by Arnold F.

Fleming, P.E. on behalf of TFC. An engineering certification dated February 5, 2021 and signed by Dale Konas, P.E. is included in Appendix D. This certification was provided by EnviroTrac Environmental Services (EnviroTrac), on behalf of Rockrose Development Corporation (Rockrose) for Parcel 7.

BCP Site - C241095

The annual certifications for BCP Site C241095, consisting of a completed EC/IC Forms are provided as Appendix A. The annual certifications were performed by Arnold F. Fleming, P.E. on behalf of TFC.

BCP Site - C241096

The annual certifications for BCP Site C241096, consisting of a completed EC/IC Forms are provided as Appendix A. The annual certifications were performed by Arnold F. Fleming, P.E. on behalf of TFC. The annual certification for C241096 includes an inspection of the composite cover system surrounding the Pepsi sign parcel. The annual certification has been certified by Arnold F. Fleming, P.E. on behalf of PepsiCo. An engineer's certification dated March 2, 2021, included in Appendix D, was provided by Gilbert Gedeon, P.E. of ATC Group Services LLC (ATC Group) on behalf of the NYCSCA for Public School 312Q located on Parcel 4.

2.4 Other Documentation and Certifications by Owners and Developers

VCP Sites - V00505A and V00505B

The owner and the developer parties were responsible for overseeing, documenting and certifying that work performed by or on behalf of each, and was done in accordance with the applicable SMP. The responsible parties, TFC, Rockrose, and QWDC, confirmed that there were alterations to the Dog Run park that required excavation into residual soils in the VCP Site V00505B within the Residual Soil Management Zone. AKRF Inc.'s (AKRF) summary report of the excavation is provided in Appendix E.

On May 2, 2019, AKRF notified NYSDEC of the proposed soil disturbance and construction of shade structure at the Site in the area of the Dog Run on VCP Site V00505B. NYSDEC approved the proposed scope of work on May 14, 2019.

Intrusive activities began on November 15, 2019 with the excavation of a 5' x 5' x 5' trench in the northwest corner of the Dog Run. Approximately 2-yd^3 of composite cover sand, 2-yd^3 clean backfill, and 0.5-yd^3 residual soil/fill from beneath the demarcation layer (total 4.5-yd^3) were removed from the trench. The residual soil/fill materials removed from the trench were separated and temporarily stockpiled on plastic sheeting in accordance with NYSDEC approved SMP.

Post-excavation, the concrete foundation for the shade structure was set into the trench and the demarcation layer reinstalled around the foundation. Existing composite cover material was used to backfill the trench back to grade. Residual soil/fill material removed from the trench was temporarily stored in double-bagged, contractor bags in a locked storage room on-Site. Prior to removal from the Site, the residual soil was sampled for five-point composite waste characteristics, and submitted to Phoenix Laboratories of Manchester, CT, a New York State Dept. of Health (NYSDOH)-certified laboratory.

During excavation activities, AKRF did not observe any staining or odors, and work zone air monitoring was conducted, as required under the Construction Health and Safety Plan. On February 5 and 6, 2020, the contractor returned to the Site to install the shade structure. On February 27, 2020, all residual soil/fill material was transported to and disposed of at the Rodota Fill Site, in Belvidere, NJ.

BCP Sites - C241095 and C241096

The owner and the developer parties were responsible for overseeing, documenting and certifying that work performed by or on behalf of each, and was done in accordance with the applicable SMP. The responsible parties, TFC and QWDC, confirmed that there was a telecommunications fiber optic cable installation within the Residual Soil Management Zone in BCP Site C241095 in February 2020. FLS was on-Site to ensure that the

excavation did not penetrate the Demarcation Layer, thereby exposing residually contaminated soils. FLS's Memorandum detailing Site activities, dated February 25, 2020, is provided in Appendix E.

On January 22, 2020, the New York City Department of Transportation (NYCDOT) issued a notice to Westmoreland Construction (the contractor) of an environmental hold on five street opening permit applications (Nos. 202001200459380 – 0001, 0002, 0003, 0004, and 0005) for the installation of fiber optic conduit along 5th Street, 46th Avenue and Center Boulevard within BCP Sites C241095 and C241096.

On January 23, 2020 the contractor provided FLS with a scope of work and excavation plan diagrams. After a short review, FLS recommended a release of the environmental hold. This recommendation was approved by NYSDEC.

On February 21 – 22, 2020, FLS was on-Site to observe the excavation of a rectangular trench at the southwest corner of 5th Street and 46th Avenue. The trench (2' x 3' x 2.5') was advanced to connect the fiber optic cable to an existing telecommunications manhole nearby. From this trench, the fiber optic conduit extended in a micro-trench (2" x 10") to the intersection at 5th Street and 46th Avenue, west down 46th Avenue, and then north on Center Boulevard to the sidewalk just in front of 4540 Center Boulevard. At this endpoint, another trench (4' x 3' x 3') was excavated in the sidewalk at 4540 Center Boulevard. This trench would be the housing location for the telecommunications junction box.

While on-Site, FLS did no observe any stained soils or noxious odors. FLS did not observe any indications of the demarcation layer or penetration into residually contaminated soil. All materials removed from the trench were clean aggregate fill and no imported materials were brought on-Site. Any remaining excavated materials were transported to Edison Ave Recycle and Materials in Mt. Vernon, NY. On February 24, 2020, FLS confirmed that the restoration of the Site cover was adequate. All pavers in the

sidewalk trenches were replaced, the junction box cover secured, and the micro-trench sealed with concrete and pitch.

3.0 MONITORING PLAN COMPLIANCE

3.1 Groundwater Monitoring

On November 26, 2013, FLS proposed revisions to the scope and frequency of the groundwater monitoring portion of the SMP. The revisions included the reduction of the number of groundwater wells to be sampled or gauged, reduction of the frequency from quarterly to semi-annual, and elimination of Target Analyte Metals from analysis in the SMP. All modifications were approved by NYSDEC on December 10, 2013 and were first implemented in 2014.

On September 15, 2016, FLS proposed additional revisions to the scope of the media monitoring portion of the SMP. The revisions included the reduction of groundwater wells to be sampled or gauged and the reduction of the frequency from semi-annual to annual. All modifications were approved by NYSDEC on October 18, 2016 and were implemented in 2017.

The objectives of the groundwater monitoring activities are to (1) evaluate the overall groundwater conditions in the BCP and VCP Sites and (2) gauge for the presence of NAPL. The monitoring well locations are depicted on Figure 2. The 2020 Annual Groundwater Monitoring Report is provided as Appendix C.

3.2 Groundwater Performance Monitoring

The groundwater monitoring event was performed on March 20, 2020 and was completed in accordance with the SMP. The groundwater samples were analyzed for Target Compound List (TCL) VOCs by EPA Method 8260B and TCL SVOCs by EPA Method 8270C. All investigation derived wastes (IDW) were stored in a 55-gallon stainless steel drum on Parcel 2 in the secure area of the light non-aqueous phase liquid (LNAPL) recovery wells.

Groundwater performance monitoring was performed at the VCP Site V00505A. Tasks included measuring groundwater elevation and collecting samples from TRC-MW17 and TRC-MW18.

Groundwater performance monitoring was performed at VCP Site V00505B. Tasks included measuring groundwater elevation of TRC-MW10B and TRC-MW20 and collecting samples from TRC-MW15B.

Groundwater performance monitoring was performed at the BCP Site C241096. Tasks included measuring groundwater elevation of TRC-MW21R and TRC-41R2.

Groundwater performance monitoring was performed at the BCP Site C241095. Tasks included measuring groundwater elevation of TRC-MW26R and TRC-MW22, and collecting samples from TRC-MW25R.

A summary of the groundwater monitoring requirements is provided in Table 2.

3.3 Groundwater Monitoring Results

The groundwater monitoring analytical results were compared to the NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values (Class GA Standards).

Based on the results of the groundwater monitoring at the VCP Sites V00505A and V00505B, and BCP Sites C241095 and C241096, FLS offered the following conclusions:

- No LNAPL was observed in TRC-MW22 with an oil-water interface probe. TRC-MW22 has historically exhibited LNAPL, and has not been sampled for several events because of the presence of LNAPL. Due to well TRC-MW22's location up-gradient of the Sites and outside the perimeter sheeting installed after the Sites were remediated, residual groundwater impacts in TRC-MW22 are potentially from an off-site source. Monitoring well socks were replaced in wells

TRC-MW22 and TRC-MW15B. LNAPL was not observed in any of the other monitoring wells.

- VOCs and SVOCs were detected at concentrations exceeding the Class GA Standards in select wells.
- The BTEX concentration-over-time charts demonstrate an overall decrease over time, despite slight increases in TRC-MW18 over the last two events. Naphthalene plot logs also demonstrate a decrease over time in well TRC-MW17 and TRC-MW18 since December 2013.

The graphs of the historic BTEX and naphthalene concentrations plotted against time for wells with exceedances of the Class GA Standards over the past years (from 2004 to the present) are included as Charts 1 through 3 attached to the groundwater monitoring report (Appendix C).

3.4 Light Non-Aqueous Phase Liquid Recovery Wells

Two LNAPL recovery wells, MW-L56-PN and MW-L56-PE, were installed beneath Parcel 2 on November 17, 2011. Passive skimmer pumps were installed to gauge the wells and recover accumulating LNAPL. The LNAPL recovery wells were installed in response to a NYSDEC requirement that specified additional mitigation of LNAPL at BCP Site C241095. The recovery well locations are depicted on Figure 2. A trace amount of LNAPL was observed in the drum associated with the recovery wells and stored onsite.

4.0 OPERATION AND MAINTENANCE PLAN COMPLIANCE

4.1 Site Inspections

The annual inspections of the ECs as required by the SMP were coordinated by various parties. On February 16, 2021 FLS inspected the park (including the area around the Pepsi sign), sports field and community garden along with the buildings on Parcels 1, 2, 3, 4, 5 and 6; EnviroTrac, on behalf of Rockrose, conducted the annual inspection of the building on Parcel 7 on January 8, 2021; ATC Group, on behalf of NYSCA, conducted the annual inspection of PS312Q on January 26, 2021. Photos of inspections conducted by FLS are included in Appendix B. The inspection reports are provided in Appendix D.

The inspections of the VCP Sites (V00505A and V00505B) and the BCP Sites (C241095 and C241096) consisted of the following elements:

- Inspections of the SSDS for the buildings on Parcels 1, 2, 3, 4, 5, 6 and 7. The SSDS blower fans were not inspected due to icy conditions and, with exception of Parcel 5 and Parcel 7, as they are currently active systems and the others are passive. Vacuum readings were taken from all accessible monitoring points at all Parcels.
- Inspections of the final composite cover systems, including the condition of the buildings' first floors, roadway, sidewalks, courtyards, ball fields and park areas. Visual inspections were made of the covers to determine if they were intact and free from damage that might render them unsuitable for their intended purpose.
- Inspection of the final development cover on the Pepsi Sign parcel.

On November 26, 2013, FLS proposed a revision to the scope of the EC inspection portion of the SMP. The revision included the elimination of methane monitoring at buildings with an active SSDS. The modification was approved on December 10, 2013 and was implemented by FLS during subsequent inspections.

On March 30, 2017, FLS proposed a Soil Vapor Intrusion Evaluation Work Plan to evaluate the requirement for an active SSDS on select parcels. A total of five SSD systems installed and operating across the Sites were evaluated in this investigation. In V00505A (formerly OU-1), a system is installed in parcel six. Two systems are installed and operating in C241096 (formerly OU-3) in parcel three and parcel four. Two systems are installed and operating in C241095 (formerly OU-4) in parcel one and parcel two. Each system is equipped with one blower. For the duration of the evaluation, the blowers were switched off and pressure monitoring points were measured for sustained negative pressure. The investigation found that negative pressure was sustained throughout each of the sites for the duration of the investigation. As such, the blowers remained off for the EC/IC inspections with the exception of Parcel 5 in V00505A and V00505B, Parcel 7 V00505B and the SSDS associated with PS312Q which were not included in this investigation and remained active.

In its letter dated March 8, 2019, NYSDEC approved the operation of passive SSD systems for the five parcels included in the soil vapor intrusion evaluation (parcels 1, 2, 3, 4 & 6). The SSDSs remain active on Parcel 5 in V00505A and V00505B, Parcel 7 V00505B and the SSDS associated with PS312Q.

4.2 Inspection Results

VCP Sites - V00505A and V00505B

The Engineering Controls for VCP Sites V00505A and V00505B were inspected and continue to perform as designed. There were no areas where the final development covers appeared impaired, compromised or otherwise damaged. The active SSDS has been continuously monitored by the building's management system (BMS) for Parcel 5. There were no triggered alarms or faults recorded by the BMS during the reporting period. As per the collection of pressure readings, the SSD systems in the Parcel 5, 6, and 7 buildings were functioning normally. There were no breakdowns or repairs recorded by building staff in during the reporting period. There were no modifications made to the heating, ventilation, air conditioning (HVAC) system that would have impacted the SSDS. The inspection reports are included in Appendix D.

BCP Sites- C241095 and C241096

The Engineering Controls for BCP Sites C241095 and C241096 were inspected and continue to perform as designed. There were no areas where the final development covers appeared impaired, compromised or otherwise damaged. The SSDSs in the Parcel 1, 2, 3 and 4 buildings were operating in passive mode for the reporting period and as per the collection of pressure readings from sub slab monitoring points, are functioning normally. There were no modifications made to the HVAC system that would have impacted the SSDS. The inspection reports are included in Appendix D.

The final Site cover beneath the Pepsi Sign parcel was inspected and there were no areas where the cover appeared damaged.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the evaluation of the inspection and monitoring data, FLS concludes the following:

- The EC/ICs are in place and remained effective at the VCP Sites during the reporting period.
- The EC/ICs are in place and remained effective at the BCP Sites during the reporting period.
- The operation and maintenance activities were conducted properly.
- The groundwater monitoring plan was properly implemented, TRC-MW22 will be sampled in 2021, provided there is no LNAPL detected during gauging.
- While dissolved VOCs and SVOCs in groundwater continue to exceed the Class GA Standards on Sites V00505A and C241095, the trend lines of the data graphs also indicate that the concentrations of BTEX are decreasing over time.

FIGURES

PENINSULA PARK

47TH ROAD INLET

C O V E

V00505C

E A S T R I V E R

N

PLAY AREA

PEPSI CO.
BLOCK 21, LOT 120

PEPSI SIGN

V00505A

C241096

COMMUNITY GARDEN

TFCORNERSTONE
RESIDENTIAL/COMMERCIAL BLDG.
47–20 CENTER BLVD.
BLOCK 21, LOT 70

TFCORNERSTONE
RESIDENTIAL/COMMERCIAL BLDG.
46–30 CENTER BLVD.
BLOCK 21, LOT 100

TFCORNERSTONE
RESIDENTIAL/COMMERCIAL BLDG.
46–10 CENTER BLVD.
BLOCK 21, LOT 110

TFCORNERSTONE
RESIDENTIAL/COMMERCIAL BLDG.
45–60 CENTER BLVD.
BLOCK 21, LOT 10

CAZING POOL

CENTER BOULEVARD

CENTER BOULEVARD

ANABLE BASIN

NORTH BASIN ROAD

TFCORNERSTONE
RESIDENTIAL/COMMERCIAL BLDG.
46–15 CENTER BLVD.
BLOCK 21, LOT 35

C241095

V00505B

SPORTS FIELD

P.S.
312Q

NYSCA P.S. 312 Q
46–08 5TH STREET.
BLOCK 21, LOT 30

TFCORNERSTONE
RESIDENTIAL/COMMERCIAL BLDG.
45–45 CENTER BLVD.
BLOCK 21, LOT 20

ROCKROSE
RESIDENTIAL/COMMERCIAL BLDG.
47–05 CENTER BLVD.
BLOCK 21, LOT 60

47th ROAD

47th AVENUE

46th AVENUE

46th RD.

5th STREET

0 100 200

SCALE IN FEET

Fleming Lee Shue

Environmental Management & Consulting

158 West 28th Street, 9th Fl.
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QUEENS WEST DEVELOPMENT
STAGE 2
LONG ISLAND CITY, NY

FIGURE 1

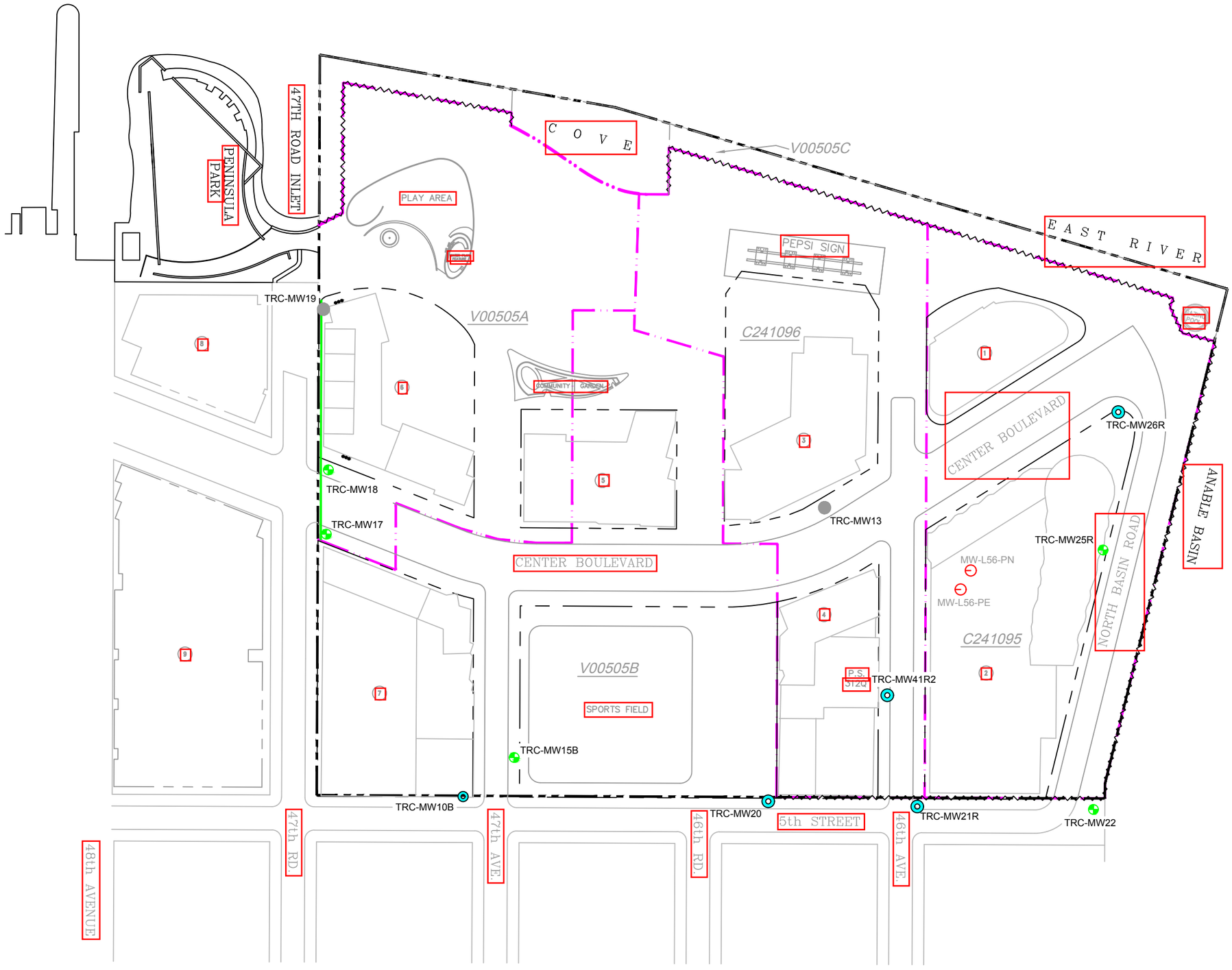
SITE PLAN

Date
March 2015

Project Number
10165-001-3

LEGEND

- BARRIER WALL
- SITE BOUNDARY
- BCP / VCP BOUNDARY
- BUILDING FOOTPRINT
- (7) BUILDING PARCEL NUMBER
- PARCEL BOUNDARY
- V00505A VCP SITE NUMBER
- C241098 BCP SITE NUMBER



Fleming Lee Shue

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QUEENS WEST DEVELOPMENT
STAGE 2
LONG ISLAND CITY, NY

FIGURE 2

MONITORING WELL LOCATIONS

Date
March 2017

Project Number
10165

LEGEND

- BARRIER WALL
- SHEETING
- SITE BOUNDARY
- BCP / VCP BOUNDARY
- BUILDING FOOTPRINT
- 7 — BUILDING PARCEL NUMBER
- PARCEL BOUNDARY
- V00505A — VCP SITE NUMBER
- C241098 — BCP SITE NUMBER
- MONITORING WELLS SAMPLED FOR TCL VOCs AND TCL SVOCs
- MONITORING WELLS GAUGED AND MONITORED ONLY
- MONITORING WELLS TO BE ABANDONED
- LNAPL RECOVERY WELL

TABLES

Table 1

Site Management Plan Implementation
Responsible Parties

Periodic Review Report for 2021
Queens West Development – Stage 2 Sites
FLS Project No: 10165-001-6

NYSDEC SITE #	DEVELOPMENT WORK	RESPONSIBLE PARTY
VCP Site V00505A		
	Parcel 6 building and courtyards	TFCornerstone
	Parks; including the play area and the community garden	QWDC
	Roads (Center Blvd. and 47th Avenue)	QWDC
	Utilities	QWDC
VCP Site V00505B		
	Parcel 5 building and courtyard	TFCornerstone
	Parcel 7 building	Rockrose
	Parks; including the sports field and the community garden	QWDC
	Roads	QWDC
	Utilities	QWDC
BCP Site C241095		
	Parcel 1 building and courtyard	TFCornerstone
	Parcel 2 building and courtyard	TFCornerstone
	Parks	QWDC
	Roads (Center Blvd. and Anable Basin Road)	QWDC
	Utilities	QWDC
BCP Site C241096		
	Parcel 3 building and courtyard	TFCornerstone
	Parcel 4 (Lot 35) building	TFCornerstone
	Parcel 4 (Lot 30) public school building and courtyard	NYCSCA
	Parks	QWDC
	Roads (Center Blvd. and 46th Avenue)	QWDC
	Utilities	QWDC

Table 2

Groundwater Monitoring and Sampling Summary

Annual Groundwater Monitoring Report, March 2020
Queens West Development - Stage 2 Site
BCP Sites: C241096 and C241095
VCP Site: V00505A & V00505B

Well-ID	Date Gauged/Sampled	TCL VOCs	TCL SVOCs	Gauged Only
VCP SiteV00505A				
TRC-MW17	3/20/2020	x	x	
TRC-MW18	3/20/2020	x	x	
VCP SiteV00505B				
TRC-MW10B	3/20/2020			x
TRC-MW15B	3/20/2020	x	x	
TRC-MW20	3/20/2020			x
BCP SiteC241096				
TRC-MW21R	3/20/2020			x
TRC-MW41R2	3/20/2020			x
BCP SiteC241095				
TRC-MW22	3/20/2020			x
TRC-MW25R	3/20/2020	x	x	
TRC-MW26R	3/20/2020			x

Notes:
BCP - Brownfield Cleanup Program
VCP - Voluntary Cleanup Program
TCL VOCs - Target Compound List Volatile Organic Compound
TCL SVOCs - Target Compound List Semivolatile Organic Compounds

APPENDIX A

Engineering Controls / Institutional Controls Certifications

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. C241095

Site Name Queens West Waterfront Development - 00505D

Site Address: ~~46-00 Fifth Street~~ Zip Code: 11101
City/Town: Long Island City
County: Queens
Site Acreage: 4.745

4545 Center Blvd. and 4560 Center Blvd.

Reporting Period: February 18, 2020 to February 18, 2021

	YES	NO
1. Is the information above correct?	☐	☒
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	☒	☐
7. Are all ICs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

	Box 2A	
	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☒
If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.		
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☒	☐
If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.		

SITE NO. C241095 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
4-00021-0001	Queens West Development Corp	Ground Water Use Restriction Soil Management Plan Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

A Site Management Plan ("SMP") will describe the engineering controls to be implemented following the completion of the Remedial Action; The Site will be covered with buildings, pavement, and landscaping ("Final Site Development Cover") in accordance with the SMP, thereby preventing contact with residual soil; All routinely occupied buildings will be constructed with sub-slab vapor barriers and active sub-slab depressurization systems preventing intrusion of soil vapor; and The Site will be subject to an Environmental Easement which will restrict use of the Site, and which will enforce the implementation of the SMP.

4-00021-0010	Queens West Development Corporation	Ground Water Use Restriction Soil Management Plan Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

A Site Management Plan ("SMP") will describe the engineering controls to be implemented following the completion of the Remedial Action; The Site will be covered with buildings, pavement, and landscaping ("Final Site Development Cover") in accordance with the SMP, thereby preventing contact with residual soil; All routinely occupied buildings will be constructed with sub-slab vapor barriers and active sub-slab depressurization systems preventing intrusion of soil vapor; and The Site will be subject to an Environmental Easement which will restrict use of the Site, and which will enforce the implementation of the SMP.

4-00021-0020	Queens West Development Corporation	Ground Water Use Restriction Soil Management Plan Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

A Site Management Plan ("SMP") will describe the engineering controls to be implemented following the completion of the Remedial Action; The Site will be covered with buildings, pavement, and landscaping ("Final Site Development Cover") in accordance with the SMP, thereby preventing contact with residual soil; All routinely occupied buildings will be constructed with sub-slab vapor barriers and active sub-slab depressurization systems preventing intrusion of soil vapor; and The Site will be subject to an Environmental Easement which will restrict use of the Site, and which will enforce the implementation of the SMP.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
4-00021-0001	Cover System
4-00021-0010	Vapor Mitigation Cover System
4-00021-0020	Vapor Mitigation

Parcel	Engineering Control Cover System

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative — Date

IC CERTIFICATIONS
SITE NO. C241095

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I ARNOLD F FLEMING (print name) at 158 W 29th St. NY NY 10001 (print business address),

am certifying as OWNERS REP (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Arnold F. Fleming
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

3/8/21
Date

EC CERTIFICATIONS

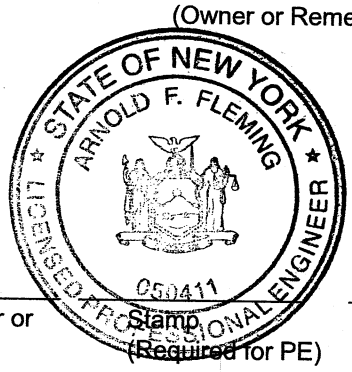
Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I ARNOLD F FLEMING (print name) at 158 W 24th STREET (print business address),

am certifying as a Professional Engineer for the OWNER (Owner or Remedial Party)



Arnold F. Fleming
Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

3/8/21
Date

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. C241096

Site Name Queens West Waterfront Development - 00505C

Site Address: ~~40-00 Fifth Street~~ Zip Code: 11101
City/Town: Long Island City
County: Queens 4610 Center Blvd., 4615 Center Blvd. and 4608 5th St.
Site Acreage: 4.649

Reporting Period: February 18, 2020 to February 18, 2021

	YES	NO
1. Is the information above correct?	☐	☒
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	☒	☐
7. Are all ICs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

	Box 2A	
	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☒
If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.		
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☒	☐
If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.		

SITE NO. C241096 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
21-1	Queens West Development Corp	Ground Water Use Restriction Soil Management Plan Monitoring Plan Site Management Plan IC/EC Plan

A Site Management Plan ("SMP") will describe the engineering controls to be implemented following the completion of the Remedial Action; The Site will be covered with buildings, pavement, and landscaping ("Final Site Development Cover") in accordance with the SMP, thereby preventing contact with residual soil; All routinely occupied buildings will be constructed with sub-slab vapor barriers and active sub-slab depressurization systems preventing intrusion of soil vapor; and The Site will be subject to an Environmental Easement which will restrict use of the Site, and which will enforce the implementation of the SMP.

21-110	Queens West Development Corporation	Ground Water Use Restriction Soil Management Plan Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

A Site Management Plan ("SMP") will describe the engineering controls to be implemented following the completion of the Remedial Action; The Site will be covered with buildings, pavement, and landscaping ("Final Site Development Cover") in accordance with the SMP, thereby preventing contact with residual soil; All routinely occupied buildings will be constructed with sub-slab vapor barriers and active sub-slab depressurization systems preventing intrusion of soil vapor; and The Site will be subject to an Environmental Easement which will restrict use of the Site, and which will enforce the implementation of the SMP.

21-120	Queens West Development Corporation	Ground Water Use Restriction Soil Management Plan Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

A Site Management Plan ("SMP") will describe the engineering controls to be implemented following the completion of the Remedial Action; The Site will be covered with buildings, pavement, and landscaping ("Final Site Development Cover") in accordance with the SMP, thereby preventing contact with residual soil; All routinely occupied buildings will be constructed with sub-slab vapor barriers and active sub-slab depressurization systems preventing intrusion of soil vapor; and The Site will be subject to an Environmental Easement which will restrict use of the Site, and which will enforce the implementation of the SMP.

21-30	Queens West Development Corporation	Ground Water Use Restriction Soil Management Plan Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

A Site Management Plan ("SMP") will describe the engineering controls to be implemented following the completion of the Remedial Action; The Site will be covered with buildings, pavement, and landscaping ("Final Site Development Cover") in accordance with the SMP, thereby preventing contact with residual soil; All routinely occupied buildings will be constructed with sub-slab vapor barriers and active sub-slab depressurization systems preventing intrusion of soil vapor; and The Site will be subject to an Environmental Easement which will restrict use of the Site, and which will enforce the implementation of the

SMP.

21-35 Queens West Development Corporation

Ground Water Use Restriction
Soil Management Plan
Monitoring Plan
Site Management Plan
O&M Plan
IC/EC Plan

A Site Management Plan ("SMP") will describe the engineering controls to be implemented following the completion of the Remedial Action; The Site will be covered with buildings, pavement, and landscaping ("Final Site Development Cover") in accordance with the SMP, thereby preventing contact with residual soil; All routinely occupied buildings will be constructed with sub-slab vapor barriers and active sub-slab depressurization systems preventing intrusion of soil vapor; and The Site will be subject to an Environmental Easement which will restrict use of the Site, and which will enforce the implementation of the SMP.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
21-1	Cover System
21-110	Vapor Mitigation Cover System
21-120	Vapor Mitigation Cover System
21-30	Vapor Mitigation Cover System
21-35	Vapor Mitigation Cover System

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C241096

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I ARNOLD F. FLEMING at 158 W 29th STREET NY NY 10001
print name print business address

am certifying as OWNERS REP. (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Arnold F. Fleming 3/8/23
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification — Date

EC CERTIFICATIONS

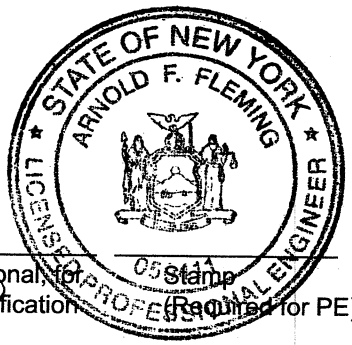
Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I ARNOLD F FLEMING at 158 W 29th St NY NY 10001,
print name print business address

am certifying as a Qualified Environmental Professional for the REMEDIAL PARTY
(Owner or Remedial Party)



Arnold F. Fleming
Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

3/8/21
Date

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. V00505A

Site Name Stage II Queens West Waterfront Development - Site

Site Address: 47-20 Center Boulevard Zip Code: 11101
City/Town: Long Island City
County: Queens
Site Acreage: 5.000

Reporting Period: February 18, 2020 to February 18, 2021

	YES	NO
1. Is the information above correct?	☒	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	☒	☐
7. Are all ICs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. V00505A **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
21-1	Queens West Development Corporation	Soil Management Plan

1. The Controlled Property is hereby made subject to this Declaration of Covenants and Restrictions.
2. Unless the prior written approval of the Department is first obtained or, if the Department shall no longer exist or no longer have jurisdiction with respect to the enforcement of this Declaration of Covenants and Restrictions, the prior written approval of any New York
State (the "State") agency or agencies whose purpose shall be to protect the environment of the State and the health of the State's citizens (the Relevant Agency") is first obtained:
a. The Controlled Property may be used for restricted-residential use (as defined in 6 Codes Rules and Regulations of the State of New York ("NYCRR") Section 375-
1.8(g)(2)(ii)), provided the long-term engineering and institutional controls in the Site Management Plan are employed.
b. The Controlled Property may not be used for a less restrictive use than restricted residential,
i.e., residential or unrestricted (as such terms are defined in 6 NYCRR Section 375-1.8fg)(l) and (2)), without an amendment or termination of this Declaration of Covenants and Restrictions.
c. Vegetable gardens are prohibited on the Controlled Property, with the exception of those located entirely above the Clean Fill Barrier Layer and separated from
the Residual Soil by a high density polyethylene (HDPE) liner or equivalent approved by the Relevant Agency.
d. Farming is prohibited on the Controlled Property.
e. Engineering controls must operate as specified in the Site Management Plan and may not be discontinued or modified without an amendment of the Site Management Plan (approved by the NYSDEC or its successor agency) or the
NYSDEC-approved termination of this Declaration of Covenants and Restrictions.
f. A composite cover system consisting of the asphalt covered roads, the concrete covered sidewalks, clean fill cover in landscaped areas and concrete building
slabs must be maintained, inspected and certified at a frequency and in a manner specified in the Site Management Plan.
g. A soil vapor mitigation system, consisting of a vapor barrier and sub-slab depressurization systems must be constructed under all building structures and must be operated, maintained, inspected and certified at a frequency and in a manner specified in the Site Management Plan.
h. All data and information pertinent to site management for the Controlled Property must be reported to the NYSDEC at the frequency and in a manner specified in the Site Management Plan.
i. All groundwater, soil vapor, and other environmental or public health monitoring requirements related to the Controlled Property must be performed as required in
the Site Management Plan.
j. Environmental monitoring devices, including but not limited to, groundwater monitoring wells and soil vapor probes, must be protected and replaced as necessary to ensure continued functioning as specified in the Site Management Plan.
k. All future activities on the Controlled Property that will disturb the demarcation barrier and/or residual soil or groundwater are prohibited unless such activities
are conducted in accordance with the soil management provisions, and, if applicable, the groundwater management provisions in the Site Management Plan,
1. The use of the groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for the intended purpose.
3. This Declaration of Covenants and Restrictions is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Controlled
Property. The Corporation, its successors and assigns consent to the enforcement by the Relevant Agency of the restrictive covenants set forth herein and hereby covenant not to contest the authority of the Relevant Agency to seek such enforcement.
4. Any deed conveying all or a portion of the Site shall recite that the said conveyance is subject to this Declaration of Covenants and Restrictions.
5. Pursuant to Section X of the Voluntary Cleanup Agreement, any owner of the Site or Volunteer may, upon not less than thirty (30) days written notice to each of the owners of record of the Site and each of the Volunteers, petition the Relevant Agency to modify or terminate this Declaration of Covenants and Restrictions provided that such party certifies that written notice was provided to each owner of record and

Volunteer and that human health and
the environment will continue to be protected notwithstanding such modification or termination.
If all or any portion of the Site, any improvement thereon or any interest in the Site or any improvement thereon is subjected to a condominium regime, no condominium owner may
separately exercise any rights hereunder and no condominium owner shall be entitled to receive notices pursuant hereto, it being the intent of the Corporation that only the board of managers of the condominium shall be deemed an owner pursuant to the terms hereof and be entitled to notices hereunder.
6. Enforcement.
a,. This Declaration of Covenants and Restrictions is enforceable in law or equity in perpetuity by the Relevant Agency against any owner of the Controlled Property and any ground lessee, by the Corporation or any subsequent owner against any ground lessee or other owner, and by any ground lessee against any owner or other ground lessee. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Declaration of Covenants and Restrictions that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property;
the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.
b. In the event that the Relevant Agency, any owner or any ground lessee becomes aware of a breach or suspected breach of the terms of this Declaration of Covenants (hereinafter the "Notifying Party"), it shall notify the parties in breach or suspected breach (collectively hereinafter, the "Breaching Parties") of the nature of the breach or suspected breach. Such notice shall be in writing and
except in the case of notice by the Relevant Agency shall set forth how the Breaching Parties can cure such breach or suspected breach and give the Breaching Parties a reasonable amount of time fiom the date of receipt of notice
in which to cure. At the expiration of such period of time to cure, or any extensions granted by the Notifying Party, the Notifying Party shall notify the Breaching Parties of any failure to adequately cure the breach or suspected
breach. The Breaching Parties shall then have a reasonable amount of time from receipt of such notice to cure. At the expiration of said second period, the Notifying Party may commence any proceedings and take any other appropriate
action reasonably necessary to remedy any breach of this Declaration of Covenants and Restrictions in accordance with applicable law to require compliance with the terms of this Declaration of Covenants and Restrictions.
With respect to any enforcement action brought by the Relevant Agency, the cure provisions set forth herein shall not apply, and nothing contained herein shall limit or otherwise restrict enforcement of this Declaration of Covenants and Restrictions by the Relevant Agency under applicable law.
c. The failure of the Relevant Agency, the Corporation, any subsequent owner or any ground lessee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar its enforcement rights in the event of a
subsequent breach of or noncompliance with any of the terms of this Declaration of Covenants and Restrictions.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
21-1	Vapor Mitigation Cover System

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. V00505A

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I ARNOLD F. FLEMING at 158 WEST 29th St NY NY 10001,
print name print business address

am certifying as OWNERS REP. (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Arnold F. Fleming
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

3/8/21
Date

VCP 305A

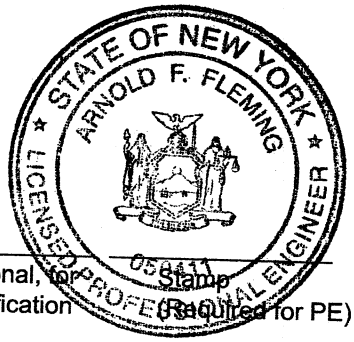
EC CERTIFICATIONS

Qualified Environmental Professional Signature **Box 7**

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I ARNOLD F. FLEMING at 158 W 29th STREET, NY NY 10001,
print name print business address

am certifying as a Qualified Environmental Professional for the REMEDIAL PARTY
(Owner or Remedial Party)



Arnold F. Fleming
Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

3/8/21
Date

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. V00505B

Site Name Stage II Queens West Waterfront Development - Site

Site Address: 47-05 Center Boulevard and 46-30 Center Boulevard Zip Code: 11101
City/Town: Long Island City
County: Queens
Site Acreage: 6.000

Reporting Period: February 18, 2020 to February 18, 2021

	YES	NO
1. Is the information above correct?	☒	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	☒	☐
7. Are all ICs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. V00505B **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
Block 20	Queens West Development Corp.	Ground Water Use Restriction Landuse Restriction Building Use Restriction Soil Management Plan

a. The Controlled Property may be used for restricted-residential use (as defined in 6 Codes Rules and Regulations of the State of New York ("NYCRR") Section 375-1.8(9)(2)(ii)), provided the long-term engineering and institutional controls in the Site Management Plan are employed.

b. The Controlled Property may not be used for a less restrictive use than restricted-residential, i.e., residential or unrestricted (as such terms are defined in 6 NYCRR Section 375-1.8(g)(1) and (2)), without an amendment or termination of this Declaration of Covenants and Restrictions.

c. Vegetable gardens are prohibited on the Controlled Property, with the exception of those located entirely above the Barrier Layer and separated from the Residual Soil by a high density polyethylene (HDPE) liner or equivalent approved by the Relevant Agency.

d. Farming is prohibited on the Controlled Property.

e. Engineering controls must operate as specified in the Site Management Plan and may not be discontinued or modified without an amendment of the Site Management Plan (approved by the Relevant Agency) or the termination of this Declaration of Covenants and Restrictions.

f. A composite cover system consisting of the asphalt covered roads, the concrete covered sidewalks, clean fill cover in landscaped areas and concrete building slabs must be maintained, inspected and certified at a frequency and in a manner specified in the Site Management Plan.

g. The soil vapor mitigation system on the Controlled Property consisting of the sub-slab depressurization systems under all building structures must be operated, maintained, inspected and certified at a frequency and in a manner specified in the Site Management Plan

h. A11 data and information pertinent to site management for the Controlled Property must be reported at the frequency and in a manner specified in the Site Management Plan.

i. All groundwater, soil vapor, and other environmental or prtblic health monitoring requirements related to the Controlled Property must be performed as required in the Site Management Plan.

j. Environmental monitoring devices, including but not limited to, groundwater monitoring wells and soil vapor probes, must be protected and replaced as necessary to ensure continued functioning as specified in the Site Management Plan.

k. All future activities on the Controlled Property that will disturb residual contaminated material are prohibited unless such activities are conducted in accordance with the soil management provisions in the Site Management Plan.

1. The use of the groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for the intended purpose.

3. This Declaration of Covenants and Restrictions is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Controlled Property. The Corporation, its successors and assigns consent to the enforcement by the Relevant Agency of the restrictive covenants set forth herein and hereby covenant not to contest the authority of the Relevant Agency to seek such enforcement.

4. Any deed conveying all or a portion of the Site shall recite that the said conveyance is subject to this Declaration of Covenants and Restrictions.

5. Pursuant to Section X of the Voluntary Cleanup Agreement, any owner of the Site or Volunteer may, upon not less than thirty (30) days written notice to each of tlie owners of record of the Site and each of the Volu~nteers, petition the Relevant Agency to modify or terminate this Declaration of Covenants and Restrictions provided that such party certifies that written notice was provided to each owner of record and volunteer and that human health and the environment will colltinue to be protected notwithstanding such modification or termination. If all or any portion of the Site, any improvenient tllereon or any interest in the Site or any improvement thereon is subjected to a condonminium regime, no condominium owner may separately exercise any rights hereunder and no condominiuzm owner shall be entitled to receive notices pursuant hereto, it being the intent of the Corporation that on1y the board of managers of the condonminium shall be deemed a11 owner pursuant to tile terms hereof and be entitled to notices hereunder.

6. Enforcement.

a. This Declaration of Covenants and Restrictions is enforceable in law or equity in perpetuity by the

Relevant Agency against any owner of the Controlled Property and any ground lessee, by the Corporation or any subsequent owner against any ground lessee or other owner, and by any ground lessee against any owner or other ground lessee. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Declaration of Covenants and Restrictions that: it is not appurtenant to an interest in real property; it is not of a cliaracter that has been recognized traditiorlally at commo11 law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

b. In the event that the Relevant Agency, any owner or any ground Lessee becomes aware of a breach or suspected breach of the terms of this Declaration of Covenants (hereinafter the "Notifying Party"), it shall notify the parties in breach or suspected breach (collectively hereinafter, the "Breaching Parties") of the nature of the breach or suspected breach. Such notice shall be in writing and except in the case of notice by the Relevant Agency shall set forth how the Breaching Parties can cure such breach or suspected breach and give the Breaching Parties a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by the Notifying Party, the Notifying Party shall notify the Breaching Parties of any failure to adequately cure the breach or suspected breach. The Breaching Parties shall then have a reasonable amount of time from receipt of such notice to cure. At the expiration of said second period, the Notifying Party may commence any proceedings and take any other appropriate action reasonably necessary to remedy any breach of this Declaration of Covenants and Restrictions in accordance with applicable law to require compliance with the terms of this Declaration of Covenants and Restrictions. With respect to any enforcement action brought by the Relevant Agency, the cure provisions set forth herein shall not apply, and nothing contained herein shall limit or otherwise restrict enforcemelzt of this Declaratioiz of Covenants and Restrictions by the Relevant Agency under applicable law.

c. The failure of the Relevant Agency, the Corporation, ally subsequent owner or any ground lessee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar its enforcement rights in the event of a subsequent breach of or noncompliance with any of the terms of this Declaration of Covenants and Restrictions.

Block 21 Queens West Development Corp.

Soil Management Plan

a. The Controlled Property may be used for restricted-residential use (as defined in 6 Codes Rules and Regulations of the State of New York ("NYCRR") Section 375-1.8(9)(2)(ii)), provided the long-term engineering and institutional controls in the Site Management Plan are employed.

b. The Controlled Property may not be used for a less restrictive use than restricted-residential, i.e., residential or unrestricted (as such terms are defined in 6 NYCRR Section 375-1.8(g)(1) and (2)), without an amendment or termination of this Declaration of Covenants and Restrictions.

c. Vegetable gardens are prohibited on the Controlled Property, with the exception of those located entirely above the Barrier Layer and separated from the Residual Soil by a high density polyethylene (HDPE) liner or equivalent approved by the Relevant Agency.

d. Farming is prohibited on the Controlled Property.

e. Engineering controls must operate as specified in the Site Management Plan and may not be discontinued or modified without an amendment of the Site Management Plan (approved by the Relevant Agency) or the termination of this Declaration of Covenants and Restrictions.

f. A composite cover system consisting of the asphalt covered roads, the concrete covered sidewalks, clean fill cover in landscaped areas and concrete building slabs must be maintained, inspected and certified at a frequency and in a manner specified in the Site Management Plan.

g. The soil vapor mitigation system on the Controlled Property consisting of the sub-slab depressurization systems under all building structures must be operated, maintained, inspected and certified at a frequency and in a manner specified in the Site Management Plan

h. A11 data and information pertinent to site management for the Controlled Property must be reported at the frequency and in a manner specified in the Site Management Plan.

i. All groundwater, soil vapor, and other environmental or prtblic health monitoring requirements related to the Controlled Property must be performed as required in the Site Management Plan.

j. Environmental monitoring devices, including but not limited to, groundwater monitoring wells and soil vapor probes, must be protected and replaced as necessary to ensure continued functioning as specified in the Site Management Plan.

k. All future activities on the Controlled Property that will disturb residual contaminated material are prohibited unless such activities are conducted in accordance with the soil management provisions in the Site Management Plan.

1. The use of the groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for the intended purpose.

3. This Declaration of Covenants and Restrictions is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Controlled Property. The Corporation, its successors and assigns consent to the enforcement by the Relevant Agency of the restrictive covenants set forth herein and hereby covenant not to contest the authority of the Relevant Agency to seek such enforcement.

4. Any deed conveying all or a portion of the Site shall recite that the said conveyance is subject to this Declaration of Covenants and Restrictions.

5. Pursuant to Section X of the Voluntary Cleanup Agreement, any owner of the Site or Volunteer may, upon not less than thirty (30) days written notice to each of tlie owners of record of the Site and each of the Volu~nteers, petition the Relevant Agency to modify or terminate this Declaration of Covenants and Restrictions provided that such party certifies that written notice was provided to each owner of record and volunteer and that human health and the environment will colltinue to be protected notwithstanding such modification or termination. If all or any portion of the Site, any improvenient tllereon or any interest in the Site or any improvement thereon is subjected to a condonminium regime, no condominium owner may separately exercise any rights hereunder and no condominiuzm owner shall be entitled to receive notices pursuant hereto, it being the intent of the Corporation that on1y the board of managers of the condonminium shall be deemed a11 owner pursuant to tile terms hereof and be entitled to notices hereunder.

6. Enforcement.

a. This Declaration of Covenants and Restrictions is enforceable in law or equity in perpetuity by the Relevant Agency against any owner of the Controlled Property and any ground lessee, by the Corporation or any subsequent owner against any ground lessee or other owner, and by any ground lessee against any owner or other ground lessee. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Declaration of Covenants and Restrictions that: it is not appurtenant to an interest in real property; it is not of a cliaracter that has been recognized traditiorlally at commo11 law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

b. In the event that the Relevant Agency, any owner or any ground Lessee becomes aware of a breach or suspected breach of the terms of this Declaration of Covenants (hereinafter the "Notifying Party"), it shall notify the parties in breach or suspected breach (collectively hereinafter, the "Breaching Parties") of the nature of the breach or suspected breach. Such notice shall be in writing and except in the case of notice by the Relevant Agency shall set forth how the Breaching Parties can cure such breach or suspected breach and give the Breaching Parties a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by the Notifying Party, the Notifying Party shall notify the Breaching Parties of any failure to adequately cure the breach or suspected breach. The Breaching Parties shall then have a reasonable amount of time from receipt of such notice to cure. At the expiration of said second period, the Notifying Party may commence any proceedings and take any other appropriate action reasonably necessary to remedy any breach of this Declaration of Covenants and Restrictions in accordance with applicable law to require compliance with the terms of this Declaration of Covenants and Restrictions. With respect to any enforcement action brought by the Relevant Agency, the cure provisions set forth herein shall not apply, and nothing contained herein shall limit or otherwise restrict enforcemelzt of this Declaratioiz of Covenants and Restrictions by the Relevant Agency under applicable law.

c. The failure of the Relevant Agency, the Corporation, ally subsequent owner or any ground lessee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar its enforcement rights in the event of a subsequent breach of or noncompliance with any of the terms of this Declaration of Covenants and Restrictions.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
Block 20	Vapor Mitigation Cover System

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative — Date

IC CERTIFICATIONS
SITE NO. V00505B

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I ARNOLD F FLEMING at 158 W 29th ST NY NY 10001,
print name print business address

am certifying as OWNERS REP (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Arnold F. Fleming 3/8/21
Signature of Owner, Remedial Party, or Designated Representative Date
Rendering Certification

VCP 30513

EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I ARNOLD F FLEMING at 158 W 29th St NY NY 10001,
print name print business address

am certifying as a Professional Engineer for the REMEDIAL PARTY
(Owner or Remedial Party)

STATE OF NEW YORK ★ ARNOLD F. FLEMING ★ LICENSED PROFESSIONAL ENGINEER 050411

Arnold F. Fleming
Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

3/8/21
Date

APPENDIX B

Site Photographs

Site Photographs

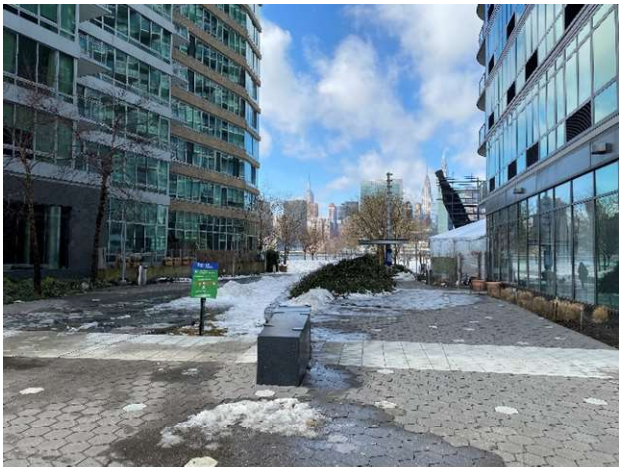


Photo 1: View of the landscaping and park facing west in between 46-30 Center Blvd. and 46-10 Center Blvd. (C241096 an V00505B)

Photo 2: View of the park inland from the cove (V00505A and C241096)

Photo 3: View facing west on 46th Road with 45-45 Center Blvd building to the right. (C241096)

Photo 4: View of dog park at 46-15 Center Blvd. (V00505B)

Photo 5: View facing north on Center Boulevard with with 46-15 Center Boulevard on the right. (V00505B)

Photo 6: View facing north on 5th Street with the Sports Field on the left. (V00505B)

Photo 7: View facing south on Center Boulevard. with 4510 Center Blvd to the right and 4515 Center Blvd to the left. (C241095)

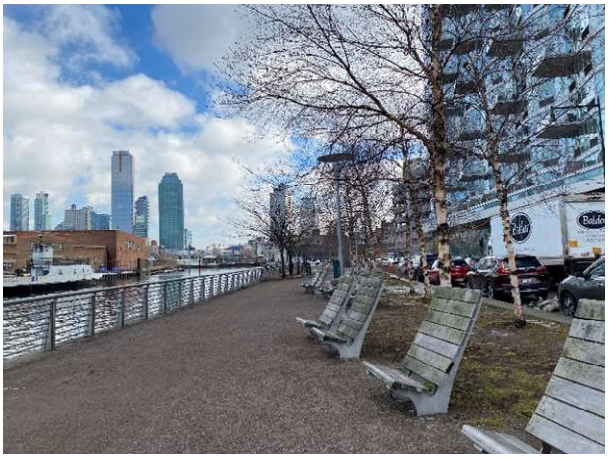


Photo 8: View of landscaping facing east on North Basin Road. (C241096)

Photo 9: View of the park facing south from behind 47-20 Center Blvd. and 47th Rd. (V00505A)

Photo 10: View facing east along North Basin Blvd. with 45-45 Center Blvd. to the right (C241096)

Photo 11: View of Center Blvd from 5th Street, with sports field on the left (V00505B) and 46-15 Center Blvd on the right. (C241096)

Photo 12: View from waterfront park facing east with 46-30 Center Blvd to the left and 47-20 Center Blvd to the right. (C241095)

Photo 13: View of the park facing south from the intersection of Center Blvd. and North Basin Rd. along the waterfront (C241095)

Photo 14: View of the Pepsi Cola sign

Photo 15: View of the park from west of the Pepsi Cola sign facing south.

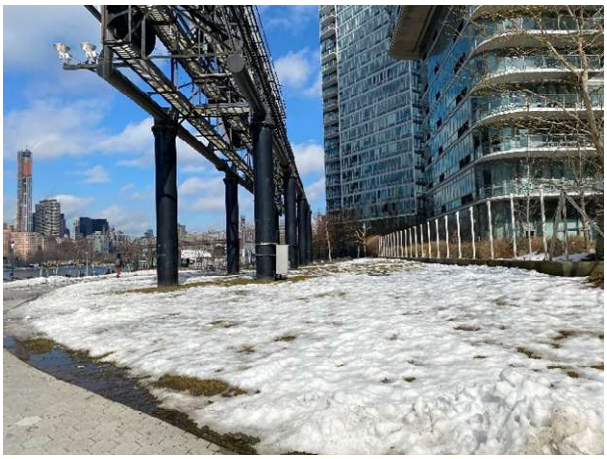


Photo 16: View of the park from west of the Pepsi Cola sign facing north.

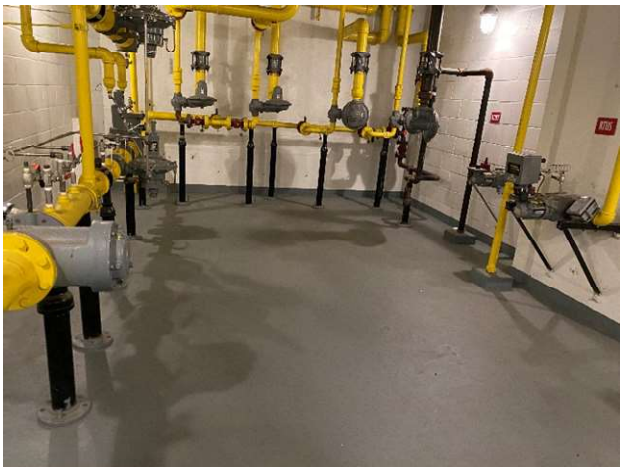


Photo 17: View slab in gas meter room of 45-40 Center Blvd. (C241095)

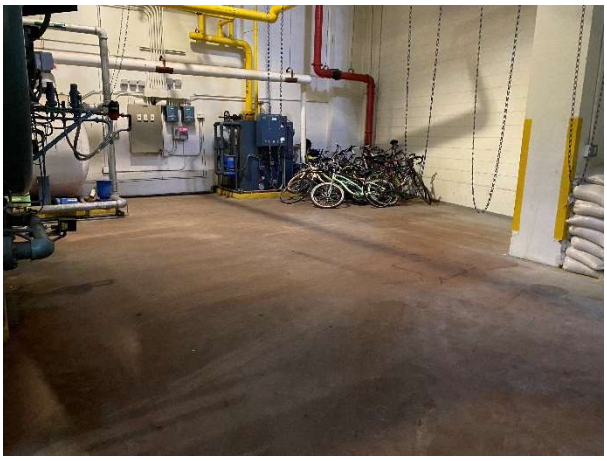


Photo 18: View slab in boiler room of 45-45 Center Blvd. (C241095)

Photo 19: View of slab in water pump room of 46-10 Center Blvd. (C241096)

Photo 20: View slab in fire pump room of 46-15 Center Blvd. (C241096)

Photo 21: View of SSDS blower fan and on the roof of 46-30 Center Blvd. (V00505B)

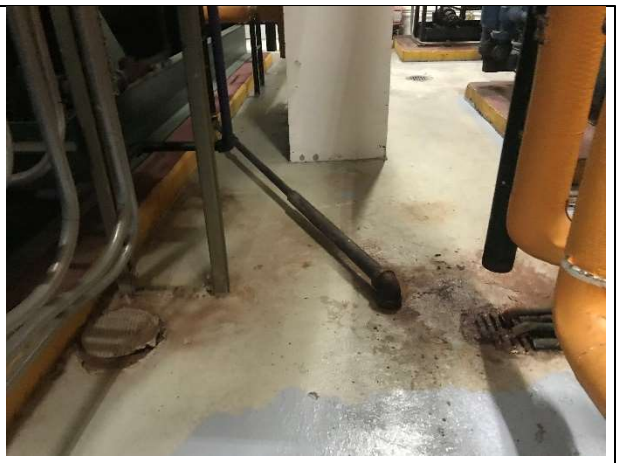


Photo 22: View of slab in boiler room of 47-20 Center Blvd. (V00505A)

Photo 23: Control panel for LNAPL recovery well L56PE inside of 45-45 Center Blvd. (C241095)

Photo 24: Control panel for LNAPL recovery well L56PN inside of 45-45 Center Blvd. (C241095)

Photo 25: Typical SSDS monitoring point cover

Photo 26: Typical SSDS monitoring point measurement tap

Photo 27: Typical SSDS pressure gauge confirming operation of SSDS blower at 46-30 Center Blvd. (V00505B

Photo 28: Cover for upgradient ORC injection points at 47-20 Center Blvd. (V00505A)

APPENDIX C

Annual Groundwater Monitoring Reports

Arnold F. Fleming

&

Fleming Lee Shue

Environmental Management & Consulting

April 29, 2020

Ms. Sondra Martinkat
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 2
47-40 21st Street,
Long Island City, New York 11101

Re: **Queens West Development - Stage 2 Site**
Annual Groundwater Monitoring Report – April 2020 Results
VCP Site Number V00505A (former Queens West OU1)
VCP Site Number V00505B (former Queens West OU2)
BCP Site Number C241096 (former Queens West OU3)
BCP Site Number C241095 (former Queens West OU4)

Dear Ms. Martinkat:

This 2020 Annual Groundwater Monitoring Report presents the results of the groundwater monitoring event conducted at Queens West Development – Stage 2 (Sites) on March 20, 2020. The Sites encompass approximately 21 acres of contiguous parcels corresponding to Tax Block 21 in Long Island City, New York. The Sites are comprised of Voluntary Cleanup Program (VCP) Sites V00505A and V00505B and Brownfield Cleanup Program (BCP) Sites C241095 and C241096. The Sites are bordered by Anable Basin to the north, 5th Street to the east, 47th Road to the south and Voluntary Cleanup Program Site No V00505C - Lands Under Water to the west, followed by the East River. A Site Plan is provided as Figure 1.

This groundwater monitoring event was completed in accordance with the New York State Department of Environmental Conservation (NYSDEC) - approved Site Management Plans (SMPs) for VCP Site Nos. V00505A and V00505B and BCP Site Nos. C241095 and C241096.

In a letter dated December 10, 2013, the NYSDEC approved to have the SMP amended to include revisions to the groundwater monitoring program. The revisions included the reduction of sampling frequency from quarterly to semi-annually, the reduction of monitoring wells to be

sampled and gauged, and the elimination of metals analysis. This report presents the results of the revised groundwater monitoring program.

Additional reductions to the groundwater monitoring program scope were approved by the NYSDEC on October 18, 2016. NYSDEC approved the reduction in the frequency of groundwater monitoring from semi-annually to annually as well as the exclusion of select groundwater wells from the monitoring program and subsequent well abandonment. FLS revised the SMPs accordingly and submitted to NYSDEC in December 2016. These revisions were implemented in the monitoring event conducted in March 2017.

The objectives of the groundwater monitoring program are to (1) evaluate the groundwater conditions in the BCP and VCP Sites and (2) gauge for the presence of light non-aqueous phase liquid (LNAPL).

I. ACTIVITIES COMPLETED THIS PERIOD

On March 20, 2020, Fleming Lee-Shue Inc. (FLS) gauged a total of ten monitoring wells for groundwater elevation and the presence of LNAPL and collected groundwater samples from four monitoring wells.

A summary of the NYSDEC approved sampling plan including the wells that were monitored and sampled, and the analyses performed, is provided in Table 1. A Site Plan showing the locations of the monitoring wells is included as Figure 1.

A. Monitoring Well Gauging

The objectives of the well gauging are to monitor groundwater elevation, establish the localized groundwater flow direction and check for the presence of LNAPL at each well. Regionally, shallow groundwater has a higher elevation near the east side of Long Island City and Astoria, Queens and groundwater elevations decrease towards the East River and Newtown Creek shorelines (Buxton et al. 1999). Therefore, regional groundwater flow in this area is generally to the west towards the East River.

Local groundwater flow direction onsite is variable due to tidal influence and the remedial sheeting installed around the majority of the site perimeter. Groundwater measurements were recorded prior to sampling and were used to prepare a groundwater contour map for the Sites (Figure 2). During this groundwater monitoring event, local groundwater flow direction is to the south.

Prior to gauging, a photoionization detector (PID) was inserted into each well to screen for the presence of volatile organic compounds (VOCs) in the headspace. The PID readings, depth to water, LNAPL thickness (if present), and total well depth measurements were recorded and are presented in Table 2.

B. Groundwater Sampling and Analysis

Well purging and groundwater sampling were conducted in accordance with the approved Quality Assurance Project Plans (QAPP) and the low-flow groundwater sampling procedures outlined in the SMPs. Each well was purged prior to sampling using a peristaltic pump, ensuring minimum turbulence and preventing an increase in suspended solids. Each well was purged until groundwater parameters (temperature, pH, dissolved oxygen [DO], conductivity, oxidation-reduction potential [ORP] and turbidity) stabilized, or until three well volumes were purged. Monitoring well purge logs are included as Appendix A.

After stabilization of groundwater parameters, samples were collected with the use of dedicated pump tubing directly into laboratory-prepared pre-labeled containers, and placed on ice in an insulated cooler.

The groundwater samples were managed in accordance with the NYSDEC Analytical Services Protocol (ASP) and analyzed for:

- Target Compounds List (TCL) VOCs by EPA Method 8260C.
- TCL Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270D.

Quality assurance/quality control (QA/QC) samples were collected in accordance with the Quality Assurance Project Plan. QA/QC samples consisted of a duplicate sample collected and analyzed for VOCs and SVOCs, and a field blank sample and trip blank sample, which were analyzed for VOCs to check for contamination during field sampling and transportation.

The samples were sent to SGS/Accutest Laboratories of Dayton, New Jersey, a New York State Environmental Laboratory Approval Program certified laboratory. An electronic copy of the laboratory data report is included as Appendix B.

The analytical results were compared to the NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS) Ambient Water Quality Standards and Guidance Values (Class GA Standards). All data presented herein will be submitted to NYSDEC as an Electronic Data Deliverable (EDD) in accordance with Section 1.15 of NYSDEC's May 2010 *DER-10 Technical Guidance for Site Investigation and Remediation*.

The data usability review and validation of the groundwater analytical results was performed in house by Fleming-Lee Shue, Inc., and found that the Sites' groundwater data met the project specific criteria for quality and data use as defined by the 2005 NYSDEC ASP. The Data Usability Summary Report (DUSR) is provided as Appendix C.

II. RESULTS

A. Monitoring Well Gauging

Groundwater elevations ranged from -4.87 feet (TRC-MW10B) to 3.26 feet (TRC-MW25R) relative to Queens Borough Datum, which is 2.725 feet above mean sea level at Sandy Hook, New Jersey. According to groundwater gauging during this event, local groundwater flow direction is to the south. A groundwater elevation contour map is provided as Figure 2.

LNAPL, historically, has been found in some wells at the Site; however, LNAPL was not observed in any of the monitoring wells during this event. TRC-MW22 has historically exhibited LNAPL and has not been sampled when LNAPL is detected. During this sampling event, no LNAPL was detected in the well, however the well was not sampled due to assumptions based on historic presence of LNAPL. This well will be sampled during the next event in 2021, provided LNAPL is not detected. Additionally, monitoring well socks were replaced in TRC-MW22 and TRC-MW15B. The results of the monitoring well gauging are included in Table 2.

TRC-MW15B also historically exhibited LNAPL and was sampled during the past three annual groundwater monitoring events after not being sampled since December 2013 due to the presence of LNAPL. No LNAPL was detected during this event and TRC-MW15B was sampled for VOCs and SVOCs.

B. Summary of Analytical Results

The analytical results for groundwater were compared to the Class GA Standards and summarized in Tables 3 and 4. The analytical results showed that the following compounds were present at concentrations that exceed Class GA Standards:

- **VOCs** – benzene, ethylbenzene, isopropyl benzene, toluene, and xylene
- **SVOCs** – 2,4-Dimethylphenol, acenaphthene, phenol, benzo(a)anthracene, benzo(b)fluoranthene, 1,1'-biphenyl, chrysene and naphthalene

The complete laboratory data report is provided in Appendix B.

VOCs

The VOC analytical results are summarized in Table 3. The total VOC concentrations for the ranged from 2.3 µg/L in TRC-MW15B to 1,103 µg/L in well TRC-MW17. VOC concentrations were generally low, however some compounds exceeded the Class GA Standards at locations TRC-MW17, TRC-MW18 and TRC-MW25R. Concentrations of petroleum compounds benzene, toluene, ethylbenzene, and xylene (collectively BTEX) ranged from non-detect in TRC-MW15B to 1,061.8 µg/L in well TRC-MW17.

Concentrations of VOCs within individual wells was variable from past events. This sampling event yielded the highest recorded total VOCs concentration for TRC-MW17 (1,103 µg/L) and included regulatory exceedances for benzene (739 µg/L), ethylbenzene (99.4 µg/L), isopropyl benzene (19.3 µg/L), toluene (36.4 µg/L), and total xylene (187 µg/L). Total VOCs concentrations in TRC-MW18 have exponentially increased the past two sampling events from its lowest recorded concentration in April 2018 (3 µg/L) to 515.4 µg/L during this event. TRC-MW25R had one regulatory exceedance for benzene at a concentration of 2.3 µg/L. Concentrations of VOCs at TRC-MW15B were non-detect for all compounds with the exception of isopropyl benzene (2.3 µg/L), which was below the regulatory guidance value. VOC exceedances for all wells are shown on Figure 3.

SVOCs

The SVOC analytical results are summarized in Table 4. SVOC concentrations were generally low and ranged from non-detect in TRC-MW25R to 381.5 µg/L in well TRC-MW18.

The analytical results indicate that several SVOCs were present at concentrations that exceeded the Class GA Standards. SVOC concentrations within TRC-MW15B were largely non-detect with the exception of some low-level concentrations of polyaromatic hydrocarbons (PAHs), and one regulatory exceedance for benzo(a)anthracene (0.21 µg/L). Location TRC-MW17 had three compounds exceed the Class GA Standards criteria, phenol (3.9 µg/L), acenaphthene (196 µg/L), and naphthalene (72.5 µg/L). Analytical results from TRC-MW18 contained five (5) compounds that exceeded Class GA Standards criteria including phenol (3.8 µg/L), acenaphthene (101 µg/L), benzo(a)anthracene (0.41 µg/L), benzo(b)fluoranthene (0.25 µg/L), and 1,1'-biphenyl (7 µg/L). SVOC exceedances for all wells are shown on Figure 4.

III. DATA TREND EVALUATION

Petroleum Constituent Concentrations

Graphs of BTEX and naphthalene concentrations detected above Class GA Standards over past sampling events plotted against time (from 2004 to March 2020) are included as Charts 1 through 3.

Generally, Total VOC and Total BTEX concentrations in all monitoring wells have decreased since its initial sampling event in November 2005 (See Chart 1 for VCA Site V00505A, former OU1 and 2 for BCP Site C241095, former OU4). Total BTEX concentrations within TRC-MW25R continued to decrease and have now reached a historic low concentration (2.3 µg/L). However, BTEX concentrations in TRC-MW18 and TRC-MW17 appear to have rebounded in last two sampling events. Total BTEX concentrations in TRC-MW18 have risen from a historic low concentration of 3 µg/L in April 2018 to 515.4 µg/L, representing a 17,180% increase. Concentrations of Total BTEX in TRC-MW17 have risen from historically low concentrations in the April 2018 event to a new historic high for the location (1061.8 µg/L). This rebound is due in large part to a significant increase of benzene from 53.6 µg/L in April 2019 to 739 µg/L in March

2020. Similarly, to TRC-MW25R, analytical results for TRC-MW15B did not identify any BTEX compounds above the Class GA Standards. Additionally, TRC-MW15B had a single SVOC exceedance for benzo(a)anthracene at 0.21 µg/L.

Chart 3 displays Naphthalene concentrations at TRC-MW-17 and TRC-MW18 plotted against time (from September 2010 to April 2019). This Chart show that although variable, naphthalene concentrations in well TRC-MW18 have generally decreased since September 2010. Naphthalene concentrations in well TRC-MW17 have historically decreased since September 2010, however similar to VOCs, appear to have increased during the past two events, with the most recent event recording the third highest concentration (72.5 µg/L) since September 2010.

IV. CONCLUSIONS

Based on the results of the groundwater monitoring, FLS offers the following conclusions:

- Several VOCs were detected at concentrations exceeding the Class GA Standards in, TRC-MW17, TRC-MW18 and TRC-MW25R.

- Several SVOCs were detected at concentrations exceeding the Class GA Standards in TRC-MW15B, TRC-MW17, TRC-MW18 and TRC-MW25R.

- Concentrations of VOCs and BTEX compounds within TRC-MW15B continue to be largely non-detect. Similarly, SVOC concentrations were largely non-detect with a single regulatory exceedance of benzo(a)anthracene.

- The BTEX concentrations over time indicate an overall decrease for TRC-MW18 and TRC-MW25R (See Charts 1 & 2). However, TRC-MW18 has experienced increased BTEX concentrations the last two sampling events.

- Similarly, Total BTEX concentrations over time at TRC-MW17 have largely indicated an overall decrease. However, BTEX concentrations have increased in recent events and reached a new historic high (1,061.8 µg/L). This is in large part due to a significant increase in benzene (739 µg/L) within this well.

- Naphthalene concentrations over time have demonstrated an overall decrease at TRC-MW17 and TRC-MW18. While variable, concentrations of naphthalene in TRC-MW18 (2.8 µg/L) are below the Class GA Standard (10 µg/L), and significantly below the historical maximum concentration of 394 µg/L from December 2013. While still exhibiting a net decrease over time, TRC-MW17 has seen an increase in naphthalene concentrations the last two sampling events and currently are the third highest historical concentration (72.5 µg/L).

V. RECOMMENDATIONS

FLS recommends continuing annual sampling of the existing groundwater monitoring network according to the SMP. However, FLS recommends the following reduction in the scope for the continued groundwater monitoring:

- Discontinue gauging of TRC-MW10B, TRC-MW20, TRC-MW21R, TRC-MW26R and TRC-MW41R2 due to lack of LNAPL presence. The purpose of gauging these monitoring wells was to confirm the presence of LNAPL, which has not been observed in TRC-MW20 or TRC-MW41R2 since 2012 and has never been observed in TRC-MW10B, TRC-MW20 or TRC-MW26R. If approved these wells will be abandoned in accordance with NYSDEC CP-43: Groundwater Monitoring Well Decommissioning Policy.

If these revisions to the groundwater monitoring program are approved, the next round of groundwater monitoring will be conducted in second quarter of 2021. The results will be presented in an Annual Groundwater Monitoring Report.

Please contact us with any comments or questions.

Sincerely,

FLEMING-LEE SHUE, INC.

Arnold F. Fleming, P.E.
President

Mark Hutson, P.G.
Associate

cc: Jane O'Connell, *NYSDEC*
Dawn Hettrick, *NYSDOH*
Jon Sanneman, *TF Cornerstone*
Simon Wynn, *QWDC*

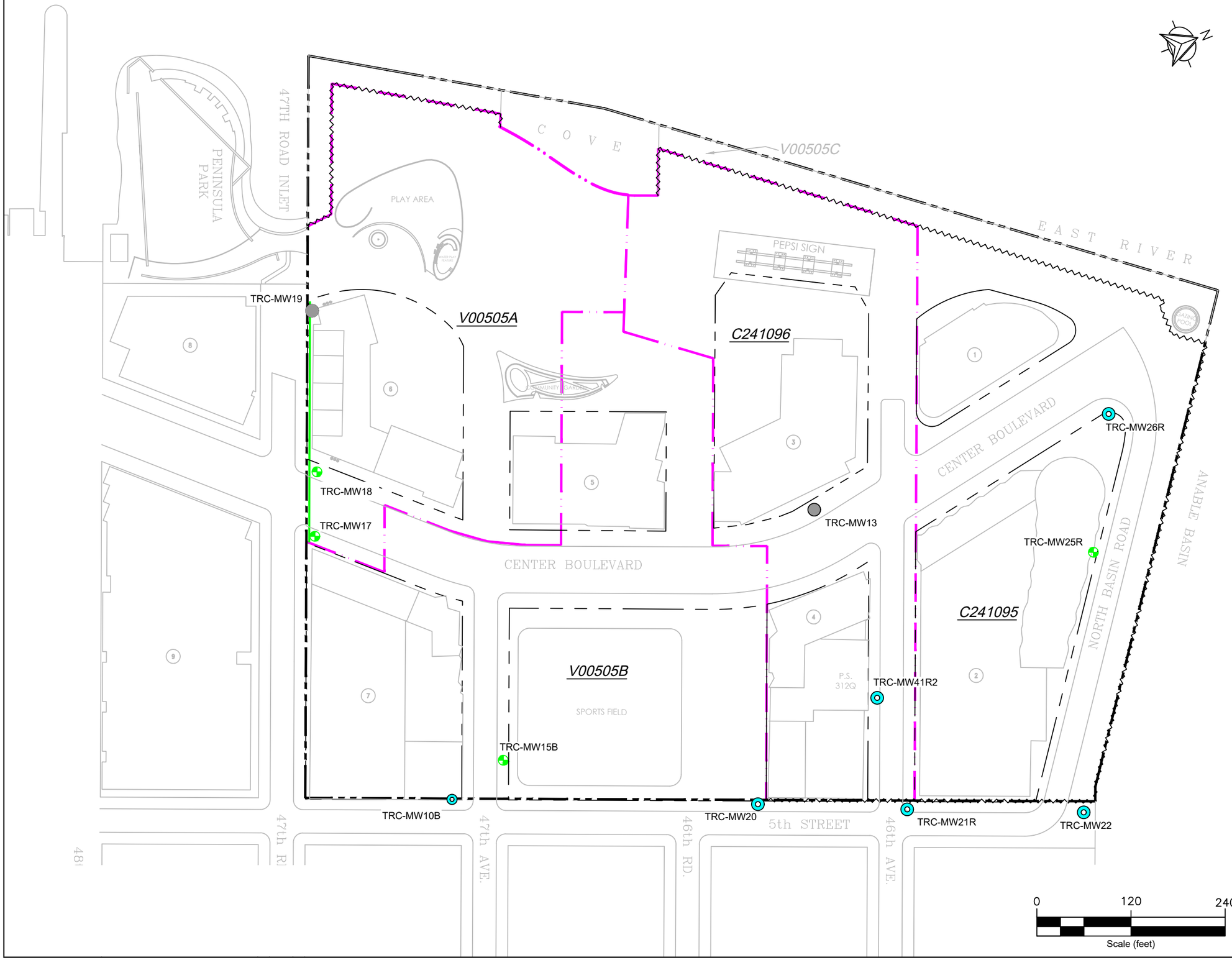
ENCLOSURES:

Figure 1 Site Plan and Monitoring Well Locations
Figure 2 Groundwater Elevation Contour Map

References:

Buxton, H. T., and Shernoff, P. K., 1999. *Ground-Water Resources of Kings and Queens Counties, Long Island, New York.* United States Geological Survey Water Supply Paper 2498.

FIGURES



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Stage 2
Long Island City, NY

Figure 1

Site Plan and Monitoring Well Locations

April 2020

Project Number
10165

LEGEND

- Barrier wall
- Sheeting
- Site boundary
- BCP / VCP boundary
- Building footprint
- (7) Building parcel number
- Parcel boundary
- V00505A — BCP or VCP site number
- TRC-MW22 — Monitoring wells sampled for TCL VOCs and TCL SVOCs
- TRC-MW21R — Monitoring wells gauged only
- TRC-MW13 — Monitoring wells to be abandoned

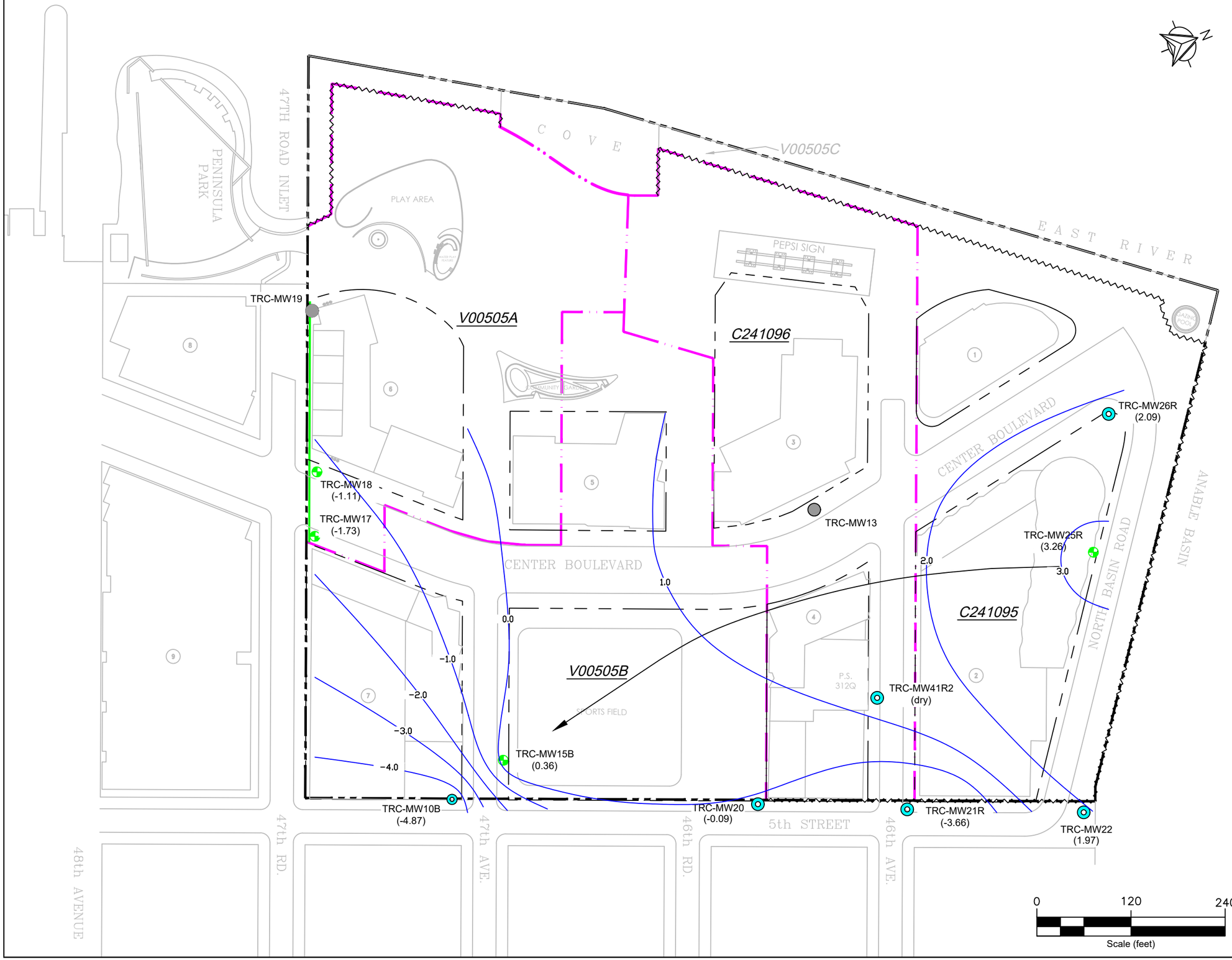

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Figure 2

Groundwater Elevation Contour Map

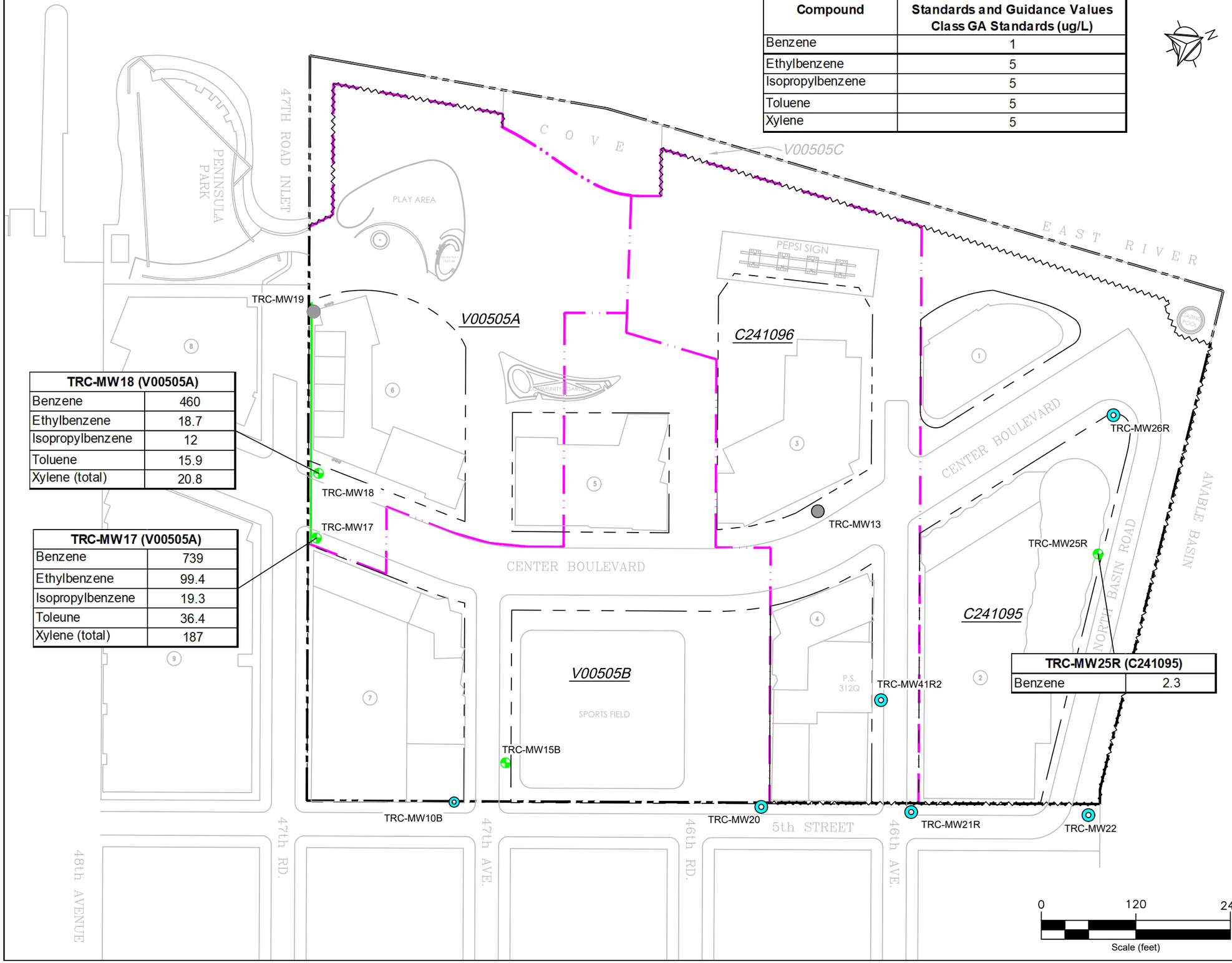
April 2020

Project Number
10165

LEGEND

- Barrier wall
- Sheeting
- Site boundary
- BCP / VCP boundary
- Building footprint
- Groundwater Elevation Contour Line
- (7) Building parcel number
- Parcel boundary
- V00505A — BCP or VCP site number
- TRC-MW22 — Monitoring wells sampled for TCL VOCs and TCL SVOCs
- TRC-MW21R — Monitoring wells gauged only
- TRC-MW13 — Monitoring wells to be abandoned

Compound	TOGS) Ambient Water Quality Standards and Guidance Values Class GA Standards (ug/L)
Benzene	1
Ethylbenzene	5
Isopropylbenzene	5
Toluene	5
Xylene	5



TRC-MW18 (V00505A)	
Benzene	460
Ethylbenzene	18.7
Isopropylbenzene	12
Toluene	15.9
Xylene (total)	20.8

TRC-MW17 (V00505A)	
Benzene	739
Ethylbenzene	99.4
Isopropylbenzene	19.3
Toluene	36.4
Xylene (total)	187

TRC-MW25R (C241095)	
Benzene	2.3

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Long Island City, NY

Figure 3

VOCs Exceeding the TOGS Class GA Standards

April 2020

Project Number
10165

LEGEND

- Barrier wall
- Sheeting
- Site boundary
- BCP / VCP boundary
- Building footprint
- (7) Building parcel number
- Parcel boundary
- V00505A BCP or VCP site number
- TRC-MW22 Monitoring wells sampled for TCL VOCs and TCL SVOCs
- TRC-MW21R Monitoring wells gauged only
- TRC-MW13 Monitoring wells to be abandoned

Compound	TOGS) Ambient Water Quality Standards and Guidance Values Class GA Standards (ug/L)
Phenol	1
Acenaphthene	20
Benzo(a)anthracene	0.002
Benzo(b)fluoranthene	0.002
1,1'-Biphenyl	5
Chrysene	0.002
Naphthalene	10

TRC-MW18 (V00505A)	
Phenol	3.8
Acenaphthene	101
Benzo(a)anthracene	0.41
Benzo(b)fluoranthene	0.25
1,1'-Biphenyl	7
Chrysene	0.3 J

TRC-MW17 (V00505A)	
Phenol	**3.9**
Acenaphthene	**196**
Naphthalene	**72.5**

TRC-MW15B (V00505B)	
Benzo(a)anthracene	0.21 J

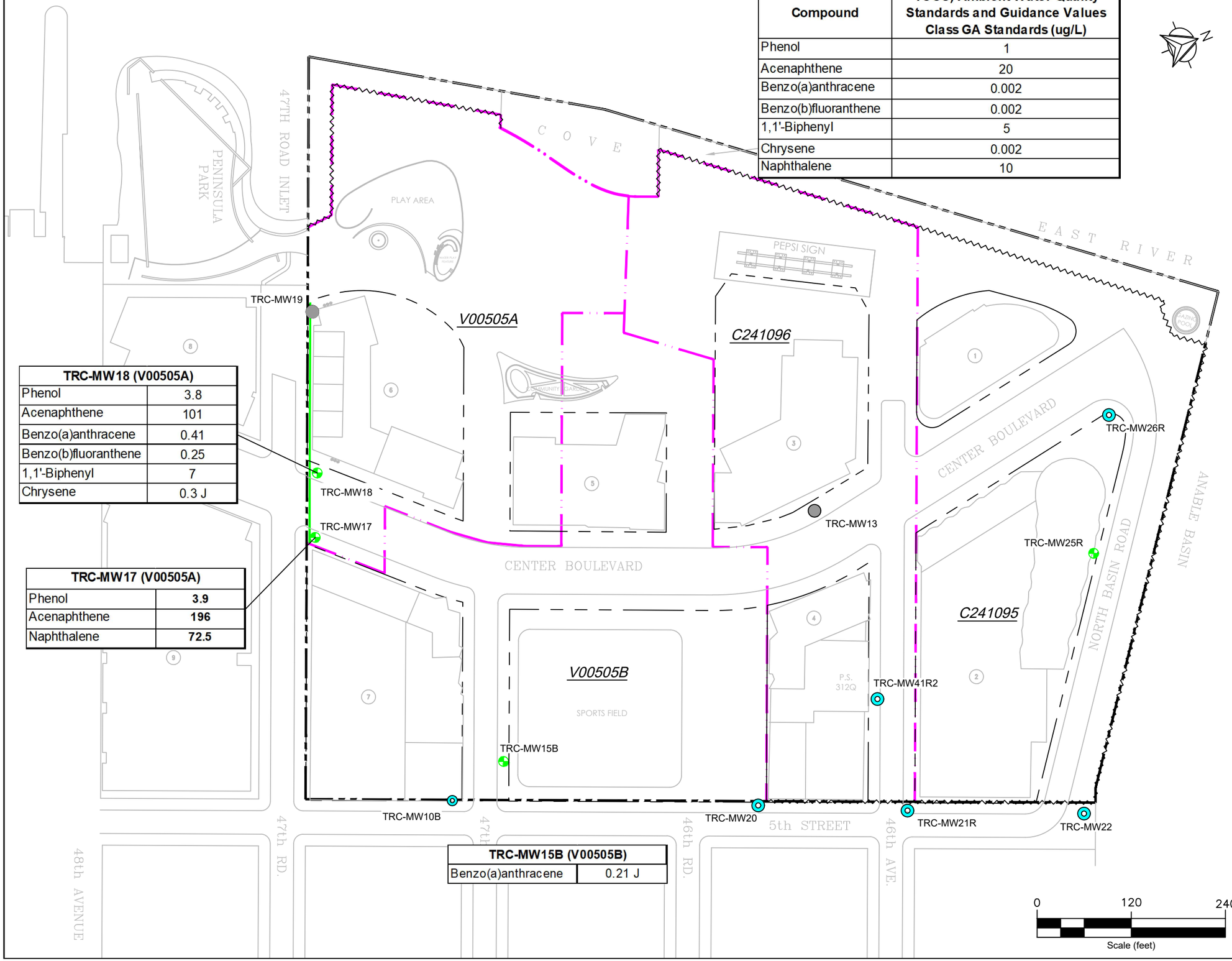

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Figure 4

SVOCs Exceeding the TOGS Class GA Standards

April 2020

Project Number
10165

LEGEND

- Barrier wall
- Sheeting
- Site boundary
- BCP / VCP boundary
- Building footprint
- (7) Building parcel number
- Parcel boundary
- V00505A BCP or VCP site number
- TRC-MW22 Monitoring wells sampled for TCL VOCs and TCL SVOCs
- TRC-MW21R Monitoring wells gauged only
- TRC-MW13 Monitoring wells to be abandoned

TABLES

Table 1

Groundwater Monitoring and Sampling Summary

Annual Groundwater Monitoring Report, March 2020
Queens West Development - Stage 2 Site
BCP Sites: C241096 and C241095
VCP Site: V00505A & V00505B

Well-ID	Date Gauged/Sampled	TCL VOCs	TCL SVOCs	Gauged Only
VCP SiteV00505A				
TRC-MW17	3/20/2020	x	x	
TRC-MW18	3/20/2020	x	x	
VCP SiteV00505B				
TRC-MW10B	3/20/2020			x
TRC-MW15B	3/20/2020	x	x	
TRC-MW20	3/20/2020			x
BCP SiteC241096				
TRC-MW21R	3/20/2020			x
TRC-MW41R2	3/20/2020			x
BCP SiteC241095				
TRC-MW22	3/20/2020			x
TRC-MW25R	3/20/2020	x	x	
TRC-MW26R	3/20/2020			x

Notes:
BCP - Brownfield Cleanup Program
VCP - Voluntary Cleanup Program
TCL VOCs - Target Compound List Volatile Organic Compound
TCL SVOCs - Target Compound List Semivolatile Organic Compounds

Table 2
Monitoring Well Gauging Results
Annual Groundwater Monitoring Report, March 2020
Queens West Development - Stage 2 Site
BCP Sites: C241095 and C241096
VCP Site: V00505A and V00505B

Well No.	Operablue Unit	Date	TOCE ft-QBD	PID Reading (ppm)	Depth to Product (ft.)	Depth to Water (ft.)	Product Thickness (ft.)	GWE ft-QBD	Comments
TRC-MW10B	OU2	3/20/2020	7.63	0.0	-	12.50	-	-4.87	
TRC-MW15B	OU2	3/20/2020	9.04	8.7	-	8.68	-	0.36	
TRC-MW17	OU1	3/20/2020	10.95	0.0	-	12.68	-	-1.73	
TRC-MW18	OU1	3/20/2020	11.03	0.0	-	12.14	-	-1.11	
TRC-MW20	OU3	3/20/2020	6.71	0.0	-	6.80	-	-0.09	
TRC-MW21R	OU3	3/20/2020	5.52	0.1	-	9.18	-	-3.66	
TRC-MW22	OU4	3/20/2020	5.82	111.9	-	3.55	-	2.27	
TRC-MW25R	OU4	3/20/2020	8.92	0.3	-	5.66	-	3.26	
TRC-MW26R	OU4	3/20/2020	9.63	0.2	-	7.54	-	2.09	
TRC-MW41R2	OU3	3/20/2020	7.24	0.0	-	-	-	-	Well was dry

Notes:

TOCE - Top of casing elevation

GWE - Groundwater elevation

ft-QBD - feet relative to Queens Borough Datum

ppm - parts per million

- = Not Applicable

Table 3
Volatile Organic Compounds in Groundwater
Annual Groundwater Monitoring Report, March 2020
Queens West Development - Stage 2 Site
BCP Sites: C241095 and C241096
VCP Site: V00505A and V00505B

SAMPLE NAME		TRC-MW15B		TRC-MW17		TRC-MW18		TRC-MW18DUP		TRC-MW25R		FIELD BLANK		TRIP BLANK	
OPERATING UNIT		OU2		OU1		OU1		OU1		OU4		FB-1		TB-1	
LAB SAMPLE ID		JD5004-4		JD5004-3		JD5004-1		JD5004-2		JD5004-6		JD5004-5		JD5004-7	
DATE SAMPLE COLLECTED		3/20/2020		3/20/2020		3/20/2020		3/20/2020		3/20/2020		3/20/2020		3/20/2020	
VOLATILE ORGANIC COMPOUNDS (VOCs)	CLASS GA STANDARD	Results reported in micrograms per liter (ug/L)													
		Results	Q	Results	Q	Results	Q			Results	Q	Results	Q	Results	Q
Acetone	50	ND (6.0)		ND (12)		ND (6.0)		ND (6.0)		7.4 J		ND (6.0)		ND (6.0)	
Benzene	1	ND (0.43)		**739**		**396**		**460**		**2.3**		ND (0.43)		ND (0.43)	
Bromodichloromethane	50	ND (0.58)		ND (1.2)		ND (0.58)		ND (0.58)		ND (0.58)		ND (0.58)		ND (0.58)	
Bromoform	50	ND (0.63)		ND (1.3)	a	ND (0.63)	a	ND (0.63)	a	ND (0.63)		ND (0.63)		ND (0.63)	
Bromomethane	5	ND (1.6)		ND (3.3)	a	ND (1.6)	a	ND (1.6)	a	ND (1.6)		ND (1.6)		ND (1.6)	
2-Butanone (MEK)	50	ND (6.9)		ND (14)		ND (6.9)		ND (6.9)		ND (6.9)		ND (6.9)		ND (6.9)	
Carbon disulfide	60	ND (0.95)		ND (1.9)		ND (0.95)		ND (0.95)		ND (0.95)		ND (0.95)		ND (0.95)	
Carbon tetrachloride	5	ND (0.55)		ND (1.1)		ND (0.55)		ND (0.55)		ND (0.55)		ND (0.55)		ND (0.55)	
Chlorobenzene	5	ND (0.56)		ND (1.1)		ND (0.56)		ND (0.56)		ND (0.56)		ND (0.56)		ND (0.56)	
Chloroethane	5	ND (0.73)		ND (1.5)	a	ND (0.73) a	a	ND (0.73)	a	ND (0.73)		ND (0.73)		ND (0.73)	
Chloroform	7	ND (0.50)		ND (1.0)		ND (0.50)		ND (0.50)		ND (0.50)		ND (0.50)		ND (0.50)	
Chloromethane	5	ND (0.76)		ND (1.5)		ND (0.76)		ND (0.76)		ND (0.76)		ND (0.76)		ND (0.76)	
Cyclohexane	NC	ND (0.78)		13.4		6.2		5.9		1.0	J	ND (0.78)		ND (0.78)	
1,2-Dibromo-3-chloropropane	0.04	ND (1.2)		ND (2.4)		ND (1.2)		ND (1.2)		ND (1.2)		ND (1.2)		ND (1.2)	
Dibromochloromethane	50	ND (0.56)		ND (1.1)		ND (0.56)		ND (0.56)		ND (0.56)		ND (0.56)		ND (0.56)	
1,2-Dibromoethane	0.0006	ND (0.48)		ND (0.95)		ND (0.48)		ND (0.48)		ND (0.48)		ND (0.48)		ND (0.48)	
1,2-Dichlorobenzene	3	ND (0.53)		ND (1.1)		ND (0.53)		ND (0.53)		ND (0.53)		ND (0.53)		ND (0.53)	
1,3-Dichlorobenzene	3	ND (0.54)		ND (1.1)		ND (0.54)		ND (0.54)		ND (0.54)		ND (0.54)		ND (0.54)	
1,4-Dichlorobenzene	3	ND (0.51)		ND (1.0)		ND (0.51)		ND (0.51)		ND (0.51)		ND (0.51)		ND (0.51)	
Dichlorodifluoromethane	5	ND (1.4)		ND (2.7)		ND (1.4)		ND (1.4)		ND (1.4)		ND (1.4)		ND (1.4)	
1,1-Dichloroethane	5	ND (0.57)		ND (1.1)		ND (0.57)		ND (0.57)		ND (0.57)		ND (0.57)		ND (0.57)	
1,2-Dichloroethane	0.6	ND (0.60)		ND (1.2)		ND (0.60)		ND (0.60)		ND (0.60)		ND (0.60)		ND (0.60)	
1,1-Dichloroethene	5	ND (0.59)		ND (1.2)		ND (0.59)		ND (0.59)		ND (0.59)		ND (0.59)		ND (0.59)	
cis-1,2-Dichloroethene	5	ND (0.51)		1.5	J	ND (0.51)		ND (0.51)		ND (0.51)		ND (0.51)		ND (0.51)	
trans-1,2-Dichloroethene	5	ND (0.54)		ND (1.1)		ND (0.54)		ND (0.54)		ND (0.54)		ND (0.54)		ND (0.54)	
1,2-Dichloropropane	1	ND (0.51)		ND (1.0)		ND (0.51)		ND (0.51)		ND (0.51)		ND (0.51)		ND (0.51)	
cis-1,3-Dichloropropene	0.4	ND (0.47)		ND (0.94)		ND (0.47)		ND (0.47)		ND (0.47)		ND (0.47)		ND (0.47)	
trans-1,3-Dichloropropene	0.4	ND (0.43)		ND (0.86)		ND (0.43)		ND (0.43)		ND (0.43)		ND (0.43)		ND (0.43)	
Ethylbenzene	5	ND (0.60)		**99.4**		**13.9**		**18.7**		ND (0.60)		ND (0.60)		ND (0.60)	
Freon 113	5	ND (1.9)		ND (3.9)		ND (1.9)		ND (1.9)		ND (1.9)		ND (1.9)		ND (1.9)	
2-Hexanone	50	ND (2.0)		ND (4.1)		ND (2.0)		ND (2.0)		ND (2.0)		ND (2.0)		ND (2.0)	
Isopropylbenzene	5	2.3		**19.3**		**13.1**		**12**		ND (0.65)		ND (0.65)		ND (0.65)	
Methyl Acetate	NC	ND (0.80)		ND (1.6)		ND (0.80)		ND (0.80)		ND (0.80)		ND (0.80)		ND (0.80)	
Methylcyclohexane	NC	ND (0.60)		7	J	4.3 J	J	4	J	ND (0.60)	J	ND (0.60)		ND (0.60)	
Methyl Tert Butyl Ether	10	ND (0.51)		ND (1.0)		ND (0.51)		ND (0.51)		ND (0.51)		ND (0.51)		ND (0.51)	
4-Methyl-2-pentanone(MIBK)	NC	ND (1.9)		ND (3.7)		ND (1.9)		ND (1.9)		ND (1.9)		ND (1.9)		ND (1.9)	
Methylene chloride	5	ND (1.0)		ND (2.0)		ND (1.0)		ND (1.0)		ND (1.0)		ND (1.0)		ND (1.0)	
Styrene	5	ND (0.70)		ND (1.4)		ND (0.70)		ND (0.70)		ND (0.70)		ND (0.70)		ND (0.70)	
1,1,2,2-Tetrachloroethane	5	ND (0.65)		ND (1.3)		ND (0.65)		ND (0.65)		ND (0.65)		ND (0.65)		ND (0.65)	
Tetrachloroethene	5	ND (0.90)		ND (1.8)		ND (0.90)		ND (0.90)		ND (0.90)		ND (0.90)		ND (0.90)	
Toluene	5	ND (0.53)		**36.4**		**13.6**		**15.9**		ND (0.53)		ND (0.53)		ND (0.53)	
1,2,4-Trichlorobenzene	5	ND (0.50)		ND (1.0)		ND (0.50)		ND (0.50)		ND (0.50)		ND (0.50)		ND (0.50)	
1,1,1-Trichloroethane	5	ND (0.54)		ND (1.1)		ND (0.54)		ND (0.54)		ND (0.54)		ND (0.54)		ND (0.54)	
1,1,2-Trichloroethane	1	ND (0.53)		ND (1.1)		ND (0.53)		ND (0.53)		ND (0.53)		ND (0.53)		ND (0.53)	
Trichloroethene	5	ND (0.53)		ND (1.1)		ND (0.53)		ND (0.53)		ND (0.53)		ND (0.53)		ND (0.53)	
Trichlorofluoromethane	5	ND (0.84)		ND (1.7)		ND (0.84)		ND (0.84)		ND (0.84)		ND (0.84)		ND (0.84)	
Vinyl chloride	2	ND (0.79)		ND (1.6)		ND (0.79)		ND (0.79)		ND (0.79)		ND (0.79)		ND (0.79)	
Xylene (total)	5	ND (0.59)		**187**		**19.5**		**20.8**		ND (0.59)		ND (0.59)		ND (0.59)	
Total VOCs		2.3		1103		462.3				3.3		0		0	
Total BTEX		0		1061.8		443				2.3		0		0	

Notes:

Class GA Value = Class GA Standards and Guidance Values (NYSDEC's June 1998 *Division of Water Technical and Operational Guidance Series*)

ND= Not detected above laboratory reporting limit

NC = No Criterion

J = Estimated Value

a = Associated CCV outside of control limits high, sample was ND

Table 4
Semi-Volatile Organic Compounds in Groundwater
Annual Groundwater Monitoring Report, March 2020
Queens West Development - Stage 2 Site
BCP Sites: C241095 and C241096
VCP Site: V00505A and V00505B

SAMPLE NAME		TRC-MW15B		TRC-MW17		TRC-MW18		TRC-MW18 DUP		TRC-MW25R		FIELD BLANK	
OPERATING UNIT		OU2		OU1		OU1		OU1		OU4		FB-1	
LAB SAMPLE ID		JD5004-4		JD5004-3		JD5004-1		JD5004-2		JD5004-6		JC87057-5	
DATE SAMPLE COLLECTED		3/20/2020		3/20/2020		3/20/2020		3/20/2020		3/20/2020		4/25/2019	
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)	CLASS GA STANDARD	Results reported in micrograms per liter (ug/L)											
		Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
2-Chlorophenol	NC	ND (0.79)		ND (3.9)		ND (0.79)		ND (0.79)		ND (0.82)		ND (0.79)	
4-Chloro-3-methyl phenol	NC	ND (0.86)		ND (4.3)		ND (0.86)		ND (0.86)		ND (0.89)		ND (0.86)	
2,4-Dichlorophenol	1	ND (1.2)		ND (6.1)		ND (1.2)		ND (1.2)		ND (1.3)		ND (1.2)	
2,4-Dimethylphenol	1	ND (2.3)		ND (12)		ND (2.3)		**5.8**		ND (2.4)		ND (2.3)	
2,4-Dinitrophenol	1	ND (1.5)	a	ND (7.5)	a	ND (1.5)	a	ND (1.5)	a	ND (1.6)	a	ND (1.5)	a
4,6-Dinitro-o-cresol	NC	ND (1.2)	a	ND (6.2)	a	ND (1.2)	a	ND (1.2)		ND (1.3)		ND (1.2)	
2-Methylphenol	NC	ND (0.85)		ND (4.3)		ND (0.85)		1.7	J	ND (0.89)		ND (0.85)	
3&4-Methylphenol	NC	ND (0.85)		ND (4.2)		ND (0.85)		ND (0.85)		ND (0.88)		ND (0.85)	
2-Nitrophenol	NC	ND (0.92)	a	ND (4.6)		ND (0.92)	a	ND (0.92)	a	ND (0.96)		ND (0.92)	
4-Nitrophenol	NC	ND (1.1)		ND (5.5)		ND (1.1)		ND (1.1)		ND (1.2)		ND (1.1)	
Pentachlorophenol	1	ND (1.3)		ND (6.6)		ND (1.3)		ND (1.3)		ND (1.4)		ND (1.3)	
Phenol	1	ND (0.38)		**3.9**	**J**	**3.8**		**3.2**		ND (0.39)		ND (0.38)	
2,4,5-Trichlorophenol	NC	ND (1.3)		ND (6.4)		ND (1.3)		ND (1.3)		ND (1.3)		ND (1.3)	
2,4,6-Trichlorophenol	NC	ND (0.89)		ND (4.4)		ND (0.89)		ND (0.89)		ND (0.92)		ND (0.89)	
Acenaphthene	20	1.1		**196**		**101**		**80.8**		ND (0.19)		ND (0.18)	
Acenaphthylene	NC	ND (0.13)		1.8	J	1.6		1.3		ND (0.14)		ND (0.13)	
Acetophenone	NC	ND (0.20)		ND (1.0)		ND (0.20)		ND (0.20)		ND (0.21)		ND (0.20)	
Anthracene	NC	0.28	J	2.7	J	10.5		8.6		ND (0.21)		ND (0.20)	
Atrazine	7.5	ND (0.43)	a	ND (2.1)		ND (0.43)	a	ND (0.43)	a	ND (0.45)		ND (0.43)	
Benzaldehyde	NC	ND (0.28)		ND (1.4)		ND (0.28)		ND (0.28)		ND (0.29)		ND (0.28)	
Benzo(a)anthracene	0.002	**0.21**	**J**	ND (0.98)		**0.41**	**J**	**0.40 J**		ND (0.20)		ND (0.20)	
Benzo(a)pyrene	ND	ND (0.20)		ND (1.0)		ND (0.20)		ND (0.20)		ND (0.21)		ND (0.20)	
Benzo(b)fluoranthene	0.002	ND (0.20)		ND (0.99)		**0.25**	**J**	ND (0.20)	**a**	ND (0.21)		ND (0.20)	
Benzo(g,h,i)perylene	NC	ND (0.33)		ND (1.6)		ND (0.33)		ND (0.33)		ND (0.34)		ND (0.33)	
Benzo(k)fluoranthene	0.002	ND (0.20)		ND (0.99)		ND (0.20)		ND (0.20)		ND (0.21)		ND (0.20)	
4-Bromophenyl phenyl ether	NC	ND (0.39)		ND (1.9)	a	ND (0.39)		ND (0.39)		ND (0.40)		ND (0.39)	
Butyl benzyl phthalate	50	ND (0.44)		ND (2.2)		ND (0.44)		ND (0.44)	a	ND (0.46)		ND (0.44)	
1,1'-Biphenyl	5	ND (0.20)		ND (1.0)		**7**		**6.1**		ND (0.21)		ND (0.20)	
2-Chloronaphthalene	10	ND (0.23)		ND (1.1)		ND (0.23)		ND (0.23)		ND (0.24)		ND (0.23)	
4-Chloroaniline	5	ND (0.33)		ND (1.6)		ND (0.33)		ND (0.33)	b	ND (0.34)		ND (0.33)	
Carbazole	NC	ND (0.22)		15.3		26.3		20.3		ND (0.23)		ND (0.22)	
Caprolactam	NC	ND (0.62)		ND (3.1)		ND (0.62)		ND (0.62)	a	ND (0.65)		ND (0.62)	
Chrysene	0.002	ND (0.17)		ND (0.85)		**0.3**	**J**	**0.26**	**J**	ND (0.18)		ND (0.17)	
bis(2-Chloroethoxy)methane	5	ND (0.27)		ND (1.3)		ND (0.27)		ND (0.27)		ND (0.28)		ND (0.27)	
bis(2-Chloroethyl)ether	1	ND (0.24)		ND (1.2)		ND (0.24)		ND (0.24)		ND (0.25)		ND (0.24)	
bis(2-Chloroisopropyl)ether	5	ND (0.39)		ND (1.9)		ND (0.39)		ND (0.39)		ND (0.40)		ND (0.39)	
4-Chlorophenyl phenyl ether	NC	ND (0.35)		ND (1.8)		ND (0.35)		ND (0.35)		ND (0.37)		ND (0.35)	
2,4-Dinitrotoluene	5	ND (0.53)		ND (2.7)		ND (0.53)		ND (0.53)	a	ND (0.55)		ND (0.53)	
2,6-Dinitrotoluene	5	ND (0.46)		ND (2.3)		ND (0.46)		ND (0.46)	a	ND (0.48)		ND (0.46)	
3,3'-Dichlorobenzidine	5	ND (0.49)		ND (2.4)		ND (0.49)		ND (0.49)		ND (0.51)		ND (0.49)	
Dibenzo(a,h)anthracene	NC	ND (0.32)		ND (1.6)		ND (0.32)		ND (0.32)	a	ND (0.33)		ND (0.32)	
Dibenzofuran	NC	0.59	J	82.4		103		81		ND (0.22)		ND (0.21)	
Di-n-butyl phthalate	50	ND (0.48)		ND (2.4)		ND (0.48)		ND (0.48)		ND (0.50)		ND (0.48)	
Di-n-octyl phthalate	50	ND (0.22)		ND (1.1)		ND (0.22)		ND (0.22)	a	ND (0.23)		ND (0.22)	
Diethyl phthalate	50	ND (0.25)		ND (1.3)		ND (0.25)		ND (0.25)		ND (0.26)		ND (0.25)	
Dimethyl phthalate	50	ND (0.21)		ND (1.0)		ND (0.21)		ND (0.21)		ND (0.22)		ND (0.21)	
bis(2-Ethylhexyl)phthalate	5	ND (1.6)		ND (7.9)		ND (1.6)		ND (1.6)	a	ND (1.7)		ND (1.6)	
Fluoranthene	50	0.4	J	2.7	J	5.7		5.7		ND (0.17)		0.19	J
Fluorene	50	0.6	J	ND (0.82)		40		33.7		ND (0.17)		ND (0.16)	
Hexachlorobenzene	0.04	ND (0.31)		ND (1.6)		ND (0.31)		ND (0.31)		ND (0.33)		ND (0.31)	
Hexachlorobutadiene	0.5	ND (0.47)		ND (2.4)		ND (0.47)		ND (0.47)		ND (0.49)		ND (0.47)	
Hexachlorocyclopentadiene	5	ND (2.7)		ND (13)		ND (2.7)		ND (2.7)		ND (2.8)		ND (2.7)	
Hexachloroethane	5	ND (0.37)		ND (1.9)		ND (0.37)		ND (0.37)		ND (0.39)		ND (0.37)	
Indeno(1,2,3-cd)pyrene	0.002	ND (0.32)		ND (1.6)	a	ND (0.32)		ND (0.32)		ND (0.33)		ND (0.32)	
Isophorone	50	ND (0.27)		ND (1.3)		ND (0.27)		ND (0.27)		ND (0.28)		ND (0.27)	
2-Methylnaphthalene	NC	ND (0.20)		1.2	J	ND (0.20)		ND (0.20)		ND (0.21)		ND (0.20)	
2-Nitroaniline	5	ND (0.27)	a	ND (1.3)		ND (0.27)	a	ND (0.27)	a	ND (0.28)		ND (0.27)	
3-Nitroaniline	5	ND (0.37)		ND (1.9)		ND (0.37)		ND (0.37)		ND (0.39)		ND (0.37)	
4-Nitroaniline	5	ND (0.42)		ND (2.1)		ND (0.42)		ND (0.42)		ND (0.44)		ND (0.42)	
Naphthalene	10	0.38	J	**72.5**		2.8		4.1		ND (0.23)		0.47	J
Nitrobenzene	0.4	ND (0.62)		ND (3.1)		ND (0.62)		ND (0.62)		ND (0.64)		ND (0.62)	
N-Nitroso-di-n-propylamine	NC	ND (0.46)		ND (2.3)		ND (0.46)		ND (0.46)	a	ND (0.48)		ND (0.46)	
N-Nitrosodiphenylamine	50	ND (0.21)		ND (1.1)		ND (0.21)		ND (0.21)		ND (0.22)		ND (0.21)	
Phenanthrene	50	ND (0.17)		1.4	J	15.3		10.2		ND (0.18)		0.43	J
Pyrene	50	0.42	J	1.6	J	3.4		3.4		ND (0.22)		0.22	J
Total SVOCs		3.98		381.5		321.36				0		1.31	

Notes:

Class GA Value = Class GA Standards and Guidance Values (NYSDEC's June 1998 *Division of Water Technical and Operational Guidance Series*)

ND= Not detected above laboratory reporting limit

NC = No Criterion

J = Estimated Value

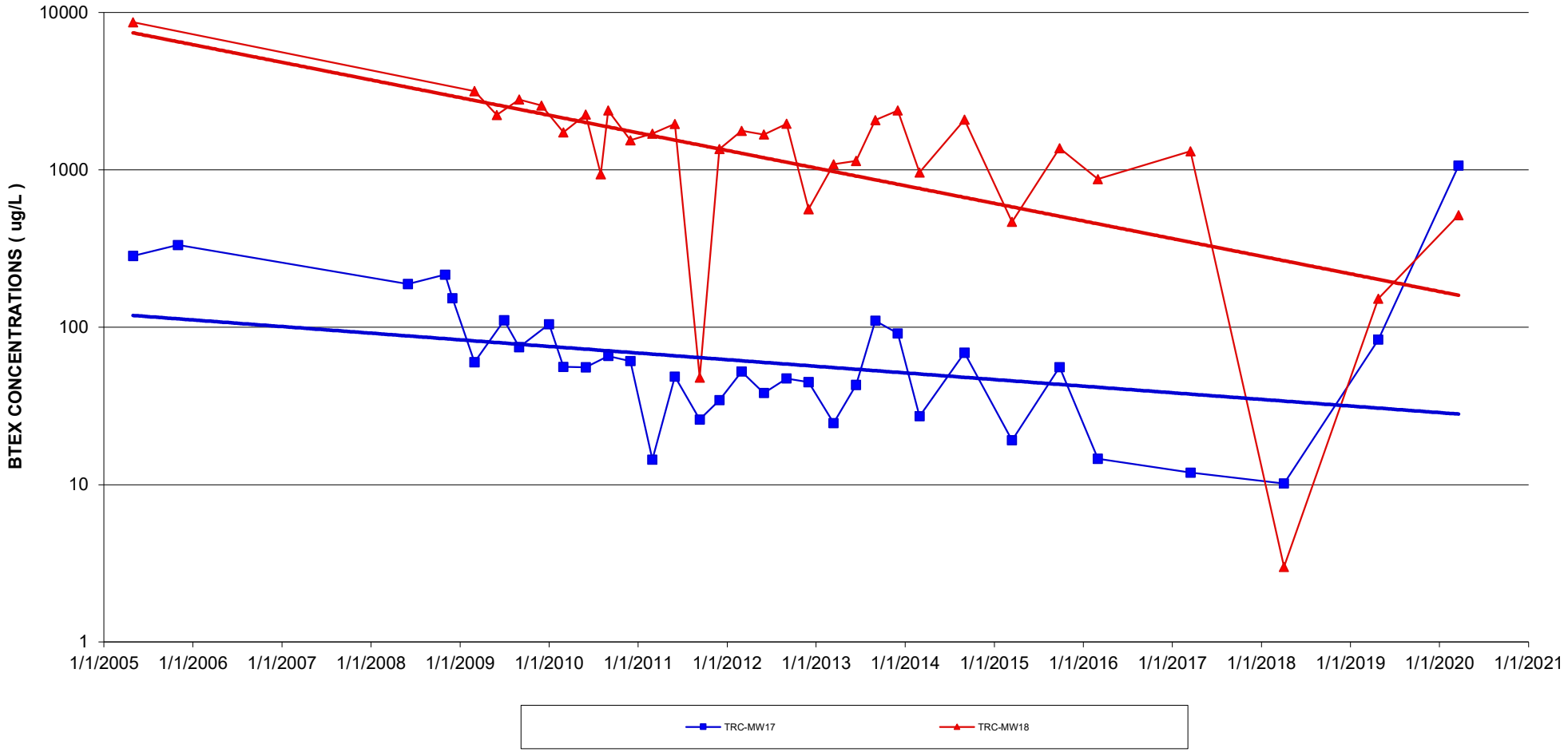
a = Associated CCV outside of control limits high, sample was ND

CHARTS

VCP Site V00505A (OU1)
Annual Groundwater Monitoring Report
March 2020
Queens West Development - Stage 2 Site

Fleming Lee Shue

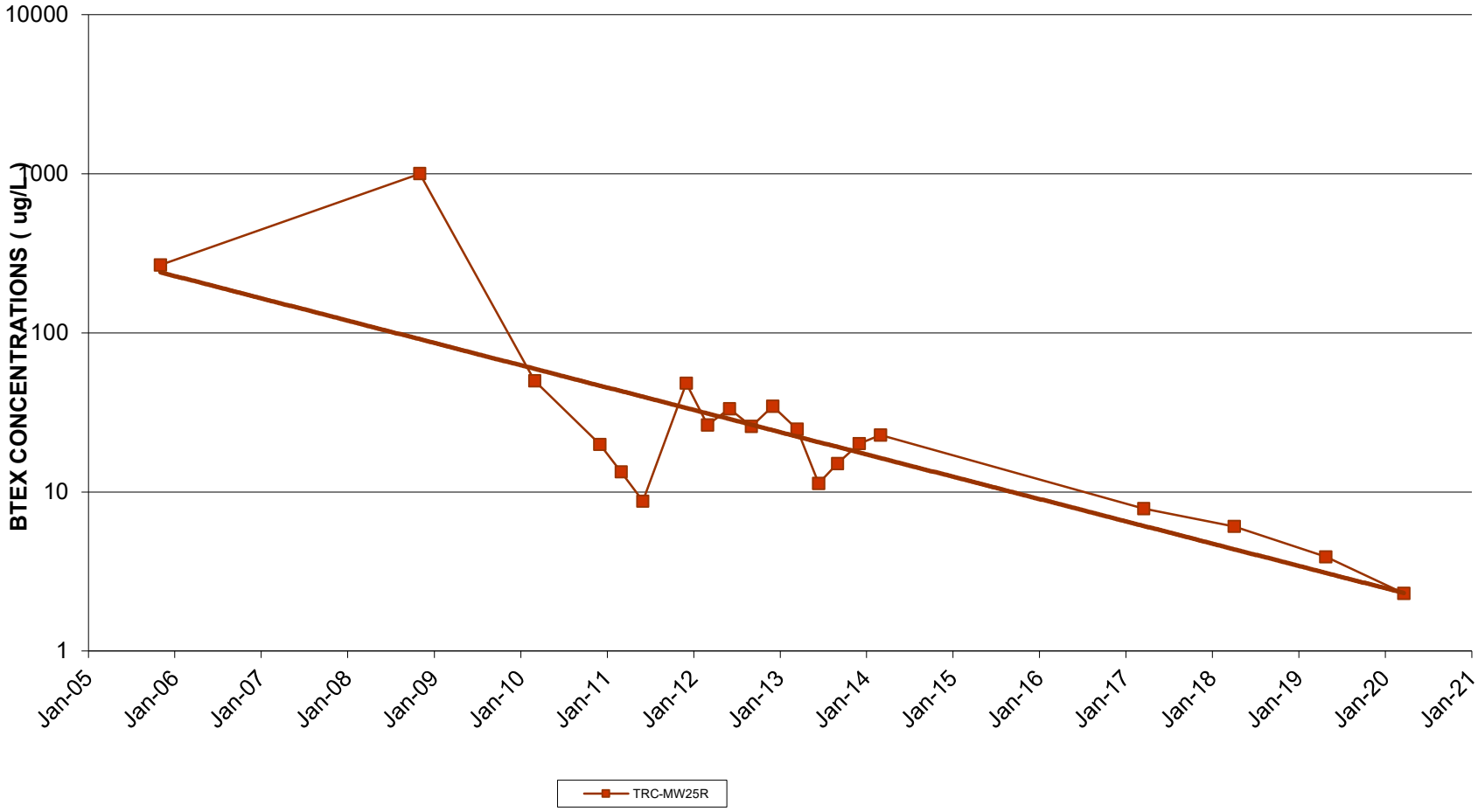
Chart 1
Concentrations of Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) in Groundwater



BCP Site C241095 (OU4)
Annual Groundwater Monitoring Report
March 2020
Queens West Development - Stage 2 Site

Fleming Lee Shue

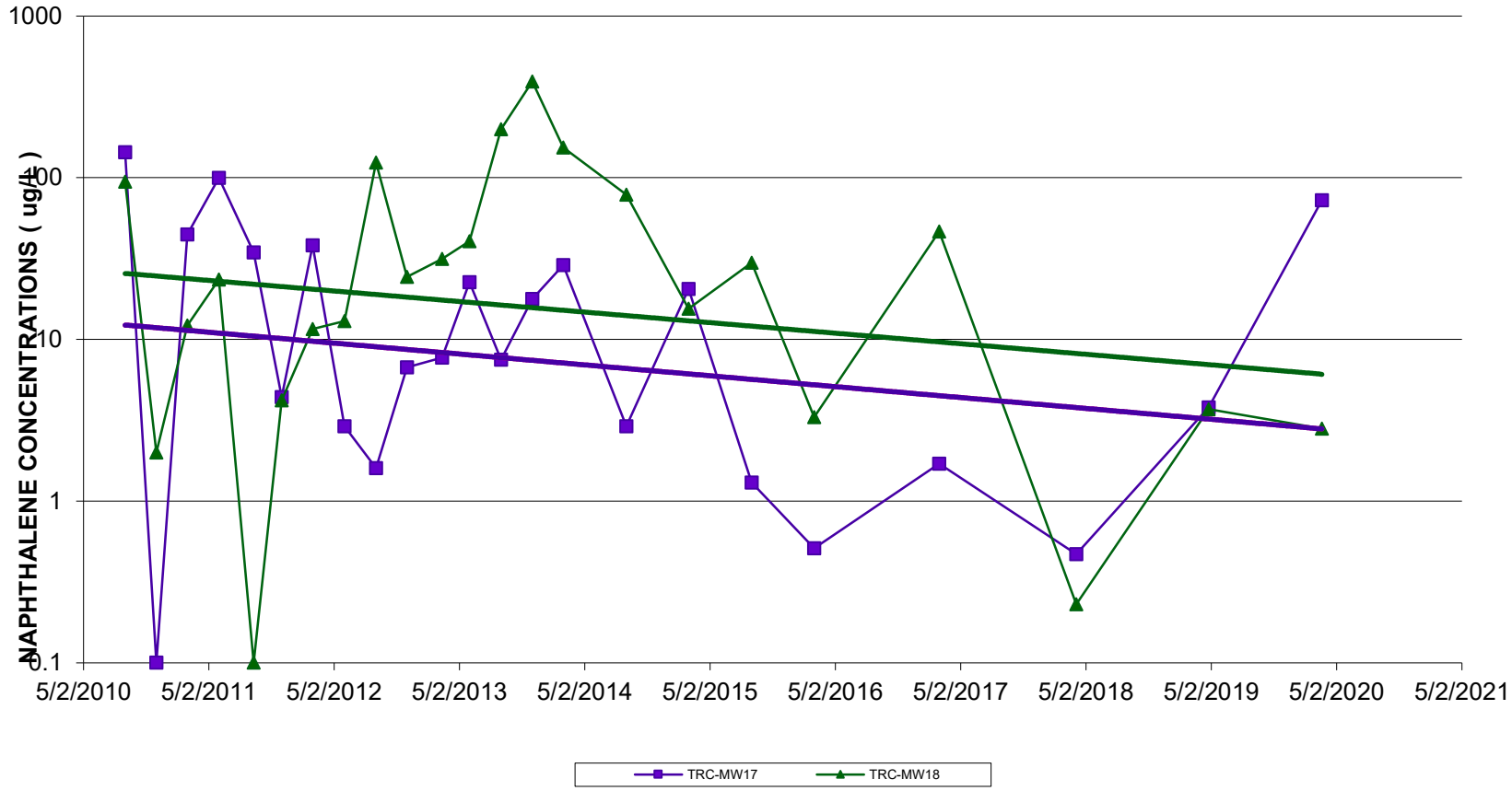
Chart 2
Concentrations of Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) in Groundwater



VCP Site V00505A (OU1)
Annual Groundwater Monitoring Report
March 2020
Queens West Development - Stage 2 Site

Fleming Lee Shue

Chart 3
Concentrations of Naphthalene in Groundwater



APPENDIX A

Monitoring Well Purge Logs

Fleming Lee Shue

Environmental Management & Consulting
158 West 29th Street, 9Fl. , New York, New York 10001
http://www.flemingleeshue.com

WELL PURGE LOG

Project: TF Cornerstone, Inc

Monitoring Well: TRC-MW15B
Date: 3/20/2020
Time Pump On: 12:25
Time of Sample Collection: 13:00
Time Pump Off: 13:03

Well Volume: 1.21 gal
Total Gallons Purged: 2.56 gal
Average Purge Rate: 255.02 mL/min
Purge Method: Peristaltic
PID Reading : 8.7 ppm

Initial Depth To Water 8.68 ft-btc
Depth to Product: - ft-btc
Total Depth: 16.13 ft-btc
Water Column: 7.45 ft

TIME	ELAPSED TIME (min.)	DTW (ft-btc)	Well Volume Purged (gal)	Total Volume Purged (gal)	T (°C)	pH (s.u.)	ORP (mV)	Cond (mS/cm)	Turbidity (NTUs)	D.O. (mg/L)	TDS (g/L)	Sal (ppt)	Odor/Color
12:25	0				14.88	7.73	-33	0.005	227	11.64	0.003	0.00	-
12:30	5				11.90	7.30	-138	0.955	16.6	1.30	0.610	0.05	Product Odor / Slightly Gray Tinge
12:35	10				11.64	7.02	-141	0.950	14.9	0.56	0.609	0.05	Product Odor / Slightly Gray Tinge
12:40	15				11.59	6,92	-144	0.977	14.0	0.18	0.625	0.05	Product Odor / Slightly Gray Tinge
12:45	20				11.56	6.88	-156	0.977	13.2	0.00	0.626	0.05	Product Odor / Slightly Gray Tinge
12:50	25				11.57	6.85	-160	0.993	12.8	0.00	0.636	0.05	Product Odor / Slightly Gray Tinge
12:55	30				11.60	6.86	-166	0.987	12.2	0.00	0.632	0.05	Product Odor / Slightly Gray Tinge

Notes:
ppm = parts per million
min = minutes
DTW = depth to water
ft-btc = feet below top of casing
gal = gallons
T = temperature
°C = degrees Celcius
s.u. = standard units
ORP = oxidation reduction potential
mV = millivolts
Cond = conductivity
mS/cm = milliSiemens per centimeter
NTUs = Nephelemetric Turbidity Units
mg/L = milligrams per liter
mL/min = milliliters per minute
TDS = total dissolved solids
g/L = grams per Liter
Sal = salinity
wc = water column

Allowable Fluctuations:	3%	±0.1	±10 mV	3%	10% if >5 NTU 3 rounds if <5	10% if >0.5 mg/L 3 rounds if <0.5

Well Volume (gal) = $5.8752 * D^2 * wc$, where D = well diameter (feet)

Well Dia	1"	2"	4"
Multiply wc by	0.041	0.163	0.653

Well Volume Purged (gal) = Average Purge Rate (mL/min) * Time Elapsed * .000264

Fleming Lee Shue

Environmental Management & Consulting
158 West 29th Street, 9Fl. , New York, New York 10001
http://www.flemingleeshue.com

WELL PURGE LOG

Project: TF Cornerstone, Inc

Monitoring Well: TRC-MW17 | Well Volume: 0.79 gal | Initial Depth To Water 12.68 ft-btc

Date: 3/20/2020 | Total Gallons Purged: 2.36 gal | Depth to Product: - ft-btc

Time Pump On: 11:28 | Average Purge Rate: 288.18 mL/min | Total Depth: 17.51 ft-btc

Time of Sample Collection: 11:58 | Purge Method: Peristaltic | Water Column: 4.83 ft

Time Pump Off: 12:04 | PID Reading : 0.0 ppm

TIME	ELAPSED TIME (min.)	DTW (ft-btc)	Well Volume Purged (gal)	Total Volume Purged (gal)	T (°C)	pH (s.u.)	ORP (mV)	Cond (mS/cm)	Turbidity (NTUs)	D.O. (mg/L)	TDS (g/L)	Sal (ppt)	Odor/Color
11:28	0				13.80	7.57	-72	0.003	221	10.27	0.002	0.000	-
11:33	5				15.18	7.55	-116	8.40	9.0	0.46	5.29	0.46	Slight Product / No Color
11:38	10				15.21	7.53	-126	8.43	8.5	0.21	5.31	0.47	Slight Product / No Color
11:43	15				15.56	7.32	-184	8.67	5.2	0.07	5.46	0.48	Slight Product / No Color
11:48	20				15.59	7.31	-188	8.47	5.3	0.18	5.33	0.47	Slight Product / No Color
11:53	25				15.64	7.31	-191	8.33	5.4	0.17	5.24	0.46	Slight Product / No Color

Allowable Fluctuations: 3% | ±0.1 | ±10 mV | 3% | 10% if >5 NTU, 3 rounds if <5 | 10% if >0.5 mg/L, 3 rounds if <0.5

Notes:

ppm = parts per million
min = minutes
DTW = depth to water
ft-btc = feet below top of casing
gal = gallons
T = temperature
°C = degrees Celcius
s.u. = standard units
ORP = oxidation reduction potential
mV = millivolts
Cond = conductivity
mS/cm = milliSiemens per centimeter
NTUs = Nephelemetric Turbidity Units
mg/L = milligrams per liter
mL/min = milliliters per minute
TDS = total dissolved solids
g/L = grams per Liter
Sal = salinity
wc = water column

Well Volume (gal) = $5.8752 * D^2 * wc$, where D = well diameter (feet)

Well Dia	1"	2"	4"
Multiply wc by	0.041	0.163	0.653

Well Volume Purged (gal) = Average Purge Rate (mL/min) * Time Elapsed * .000264

Fleming Lee Shue

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158 West 29th Street, 9Fl. , New York, New York 10001
http://www.flemingleeshue.com

WELL PURGE LOG

Project: TF Cornerstone, Inc

Monitoring Well: TRC-MW18
Date: 3/20/2020
Time Pump On: 10:20
Time of Sample Collection: 11:00 (Dup 11:05)
Time Pump Off: 11:12

Well Volume: 0.92 gal
Total Gallons Purged: 3.06 gal
Average Purge Rate: 222.76 mL/min
Purge Method: Peristaltic
PID Reading : 0.0 ppm

Initial Depth To Water 12.14 ft-btc
Depth to Product: - ft-btc
Total Depth: 17.8 ft-btc
Water Column: 5.66 ft

TIME	ELAPSED TIME (min.)	DTW (ft-btc)	Well Volume Purged (gal)	Total Volume Purged (gal)	T (°C)	pH (s.u.)	ORP (mV)	Cond (mS/cm)	Turbidity (NTUs)	D.O. (mg/L)	TDS (g/L)	Sal (ppt)	Odor/Color
10:20	0				13.24	4.63	343	0.00	213	24.85	0.00	0.00	-
10:25	5				14.69	7.02	-189	7.50	22.1	1.89	4.73	0.41	Product Odor / Slightly Yellow
10:30	10				14.76	7.08	-223	7.35	15.1	1.26	4.62	0.40	Product Odor / Slightly Yellow
10:35	15				14.82	7.09	-253	7.01	12.0	0.94	4.41	0.38	Product Odor / Slightly Yellow
10:40	20				14.92	7.08	-267	6.90	11.0	0.91	4.34	0.38	Product Odor / Slightly Yellow
10:45	25				14.93	7.04	-278	6.66	10.6	0.82	4.20	0.36	Product Odor / Slightly Yellow
10:50	30				14.98	7.07	-281	6.55	10.2	0.84	4.12	0.36	Product Odor / Slightly Yellow
10:55	35				15.00	7.02	-284	6.51	9.7	0.76	4.10	0.35	Product Odor / Slightly Yellow

Allowable Fluctuations: 3% | ±0.1 | ±10 mV | 3% | 10% if >5 NTU, 3 rounds if <5 | 10% if >0.5 mg/L, 3 rounds if <0.5

Notes:
ppm = parts per million
min = minutes
DTW = depth to water
ft-btc = feet below top of casing
gal = gallons
T = temperature
°C = degrees Celcius
s.u. = standard units
ORP = oxidation reduction potential
mV = millivolts
Cond = conductivity
mS/cm = milliSiemens per centimeter
NTUs = Nephelemetric Turbidity Units
mg/L = milligrams per liter
mL/min = milliliters per minute
TDS = total dissolved solids
g/L = grams per Liter
Sal = salinity
wc = water column

Well Volume (gal) = $5.8752 * D^2 * wc$, where D = well diameter (feet)

Well Dia	1"	2"	4"
Multiply wc by	0.041	0.163	0.653

Well Volume Purged (gal) = Average Purge Rate (mL/min) * Time Elapsed * .000264

Fleming Lee Shue

Environmental Management & Consulting
158 West 29th Street, 9Fl. , New York, New York 10001
http://www.flemingleeshue.com

WELL PURGE LOG

Project: TF Cornerstone, Inc

Monitoring Well: TRC-MW25R
Date: 3/20/2020
Time Pump On: 13:30
Time of Sample Collection: 14:05
Time Pump Off: 14:11

Well Volume: 1.06 gal
Total Gallons Purged: 3.56 gal
Average Purge Rate: 328.68 mL/min
Purge Method: Peristaltic
PID Reading : 0.3 ppm

Initial Depth To Water 5.66 ft-btc
Depth to Product: - ft-btc
Total Depth: 12.18 ft-btc
Water Column: 6.52 ft

TIME	ELAPSED TIME (min.)	DTW (ft-btc)	Well Volume Purged (gal)	Total Volume Purged (gal)	T (°C)	pH (s.u.)	ORP (mV)	Cond (mS/cm)	Turbidity (NTUs)	D.O. (mg/L)	TDS (g/L)	Sal (ppt)	Odor/Color
13:30	0				13.82	6.74	-109	0.00	222	9.41	0.000	0.00	-
13:35	5				13.31	7.34	-115	1.44	54.5	0.00	0.911	0.07	Slight Product / No Color
13:40	10				13.07	7.38	-103	1.36	46.3	0.00	0.873	0.07	Slight Product / No Color
13:45	15				13.22	7.37	-114	1.47	42.8	0.00	0.941	0.07	Product Odor / Slight Yellow
13:50	20				13.42	7.42	-140	1.46	38.6	0.00	0.935	0.07	Product Odor / Slight Yellow
13:55	25				13.55	7.46	-146	1.46	35.4	0.00	0.935	0.07	Product Odor / Slight Yellow
14:00	30				13.64	7.49	-149	1.43	36.2	0.35	0.914	0.07	Product Odor / Slight Yellow

Allowable Fluctuations: 3% ±0.1 ±10 mV 3% 10% if >5 NTU, 3 rounds if <5; 10% if >0.5 mg/L, 3 rounds if <0.5

Notes:
ppm = parts per million
min = minutes
DTW = depth to water
ft-btc = feet below top of casing
gal = gallons
T = temperature
°C = degrees Celcius
s.u. = standard units
ORP = oxidation reduction potential
mV = millivolts
Cond = conductivity
mS/cm = milliSiemens per centimeter
NTUs = Nephelemetric Turbidity Units
mg/L = milligrams per liter
mL/min = milliliters per minute
TDS = total dissolved solids
g/L = grams per Liter
Sal = salinity
wc = water column

Well Volume (gal) = 5.8752*D^2*wc, where D = well diameter (feet)

Well Dia	1"	2"	4"
Multiply wc by	0.041	0.163	0.653

Well Volume Purged (gal) = Average Purge Rate (mL/min) * Time Elapsed * .000264

APPENDIX B

Laboratory Reports

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

e-Hardcopy 2.0
Automated Report

Technical Report for

Fleming-Lee Shue, Inc.

TFC Stage 2, QWD, Long Island City, NY

10165-001-3

SGS Job Number: JD5004

Sampling Date: 03/20/20

Report to:

Fleming-Lee Shue, Inc.

jordan@flemingleeshue.com

ATTN: Jordan Arey

Total number of pages in report: 44

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

Laura Degenhardt
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

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

Sections: 1 2 3 4 5

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Sample Summary

Fleming-Lee Shue, Inc.

Job No: JD5004

TFC Stage 2, QWD, Long Island City, NY
Project No: 10165-001-3

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
JD5004-1	03/20/20	11:00	JA	03/20/20	AQ	Ground Water	TRC-MW18
JD5004-2	03/20/20	11:05	JA	03/20/20	AQ	Ground Water	TRC-MW18DUP
JD5004-3	03/20/20	11:58	JA	03/20/20	AQ	Ground Water	TRC-MW17
JD5004-4	03/20/20	13:00	JA	03/20/20	AQ	Ground Water	TRC-MW15B
JD5004-5	03/20/20	13:35	JA	03/20/20	AQ	Field Blank Water	FIELD BLANK
JD5004-6	03/20/20	14:05	JA	03/20/20	AQ	Ground Water	TRC-MW25R
JD5004-7	03/20/20	14:05	JA	03/20/20	AQ	Trip Blank Water	TRIP BLANK

This report contains results reported as ND = Not detected. The following applies:
Organics ND = Not detected above the MDL

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Fleming-Lee Shue, Inc.	**Job No**	JD5004
Site:	TFC Stage 2, QWD, Long Island City, NY	**Report Date**	4/6/2020 6:24:31 PM

On 03/20/2020, 5 Sample(s), 1 Trip Blank(s) and 1 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD5004 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

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

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

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V1A8612

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD5010-3MS, JD5010-4DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: AQ **Batch ID:** V1A8614

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD4900-2MS, JD4900-2MSD were used as the QC samples indicated.
- Matrix Spike / Matrix Spike Duplicate Recovery(s) for Toluene, Xylene (total) are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- JD5004-3: Dilution required due to high concentration of target compound.
- JD5004-3 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JD5004-1 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JD5004-2 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JD5004-1 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JD5004-2 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JD5004-2 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JD5004-1 for Bromoform: Associated CCV outside of control limits high, sample was ND.

Matrix: AQ **Batch ID:** V3B7168

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD4932-1MS, JD4932-2DUP were used as the QC samples indicated.

MS Semi-volatiles By Method SW846 8270D

Matrix: AQ **Batch ID:** OP26675

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- JD5004-3: Dilution required due to matrix interference.
- JD5004-3 for 2,4-Dinitrophenol: Associated CCV outside of control limits high, sample was ND.
- JD5004-2 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.
- JD5004-2 for 2,4-Dinitrophenol: Associated CCV outside of control limits high, sample was ND.
- JD5004-2 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JD5004-2 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- JD5004-2 for 2-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JD5004-2 for 4-Chloroaniline: Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes. Sample was ND.
- JD5004-4 for 2,4-Dinitrophenol: Associated CCV outside of control limits high, sample was ND.
- JD5004-4 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.
- JD5004-4 for 2-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JD5004-4 for 4,6-Dinitro-o-cresol: Associated CCV outside of control limits high, sample was ND.
- JD5004-4 for Atrazine: Associated CCV outside of control limits high, sample was ND.
- JD5004-1 for 2,4-Dinitrophenol: Associated CCV outside of control limits high, sample was ND.
- JD5004-1 for 2-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JD5004-2 for bis(2-Ethylhexyl)phthalate: Associated CCV outside of control limits high, sample was ND.
- JD5004-2 for N-Nitroso-di-n-propylamine: Associated CCV outside of control limits high, sample was ND.
- JD5004-2 for Butyl benzyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JD5004-1 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.
- JD5004-2 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JD5004-5 for 2,4-Dinitrophenol: Associated CCV outside of control limits high, sample was ND.
- JD5004-6 for 2,4-Dinitrophenol: Associated CCV outside of control limits high, sample was ND.
- JD5004-2 for Benzo(b)fluoranthene: Associated CCV outside of control limits high, sample was ND.
- JD5004-2 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JD5004-2 for Dibenzo(a,h)anthracene: Associated CCV outside of control limits high, sample was ND.
- JD5004-1 for 4,6-Dinitro-o-cresol: Associated CCV outside of control limits high, sample was ND.
- JD5004-2 for Atrazine: Associated CCV outside of control limits high, sample was ND.
- JD5004-1 for Atrazine: Associated CCV outside of control limits high, sample was ND.

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

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

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

Summary of Hits

Job Number: JD5004
Account: Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY
Collected: 03/20/20

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD5004-1	**TRC-MW18**					
Benzene		396	2.5	2.1	ug/l	SW846 8260C
Cyclohexane		6.2	5.0	0.78	ug/l	SW846 8260C
Ethylbenzene		13.9	1.0	0.60	ug/l	SW846 8260C
Isopropylbenzene		13.1	1.0	0.65	ug/l	SW846 8260C
Methylcyclohexane		4.3 J	5.0	0.60	ug/l	SW846 8260C
Toluene		13.6	1.0	0.53	ug/l	SW846 8260C
Xylene (total)		19.5	1.0	0.59	ug/l	SW846 8260C
Phenol		3.8	1.9	0.38	ug/l	SW846 8270D
Acenaphthene		101	1.9	0.37	ug/l	SW846 8270D
Acenaphthylene		1.6	0.96	0.13	ug/l	SW846 8270D
Anthracene		10.5	0.96	0.20	ug/l	SW846 8270D
Benzo(a)anthracene		0.41 J	0.96	0.20	ug/l	SW846 8270D
Benzo(b)fluoranthene		0.25 J	0.96	0.20	ug/l	SW846 8270D
1,1'-Biphenyl		7.0	0.96	0.20	ug/l	SW846 8270D
Carbazole		26.3	0.96	0.22	ug/l	SW846 8270D
Chrysene		0.30 J	0.96	0.17	ug/l	SW846 8270D
Dibenzofuran		103	9.6	0.42	ug/l	SW846 8270D
Fluoranthene		5.7	0.96	0.16	ug/l	SW846 8270D
Fluorene		40.0	0.96	0.16	ug/l	SW846 8270D
Naphthalene		2.8	0.96	0.22	ug/l	SW846 8270D
Phenanthrene		15.3	0.96	0.17	ug/l	SW846 8270D
Pyrene		3.4	0.96	0.21	ug/l	SW846 8270D
JD5004-2	**TRC-MW18DUP**					
Benzene		460	2.5	2.1	ug/l	SW846 8260C
Cyclohexane		5.9	5.0	0.78	ug/l	SW846 8260C
Ethylbenzene		18.7	1.0	0.60	ug/l	SW846 8260C
Isopropylbenzene		12.0	1.0	0.65	ug/l	SW846 8260C
Methylcyclohexane		4.0 J	5.0	0.60	ug/l	SW846 8260C
Toluene		15.9	1.0	0.53	ug/l	SW846 8260C
Xylene (total)		20.8	1.0	0.59	ug/l	SW846 8260C
2,4-Dimethylphenol		5.8	4.8	2.3	ug/l	SW846 8270D
2-Methylphenol		1.7 J	1.9	0.85	ug/l	SW846 8270D
Phenol		3.2	1.9	0.38	ug/l	SW846 8270D
Acenaphthene		80.8	0.96	0.18	ug/l	SW846 8270D
Acenaphthylene		1.3	0.96	0.13	ug/l	SW846 8270D
Anthracene		8.6	0.96	0.20	ug/l	SW846 8270D
Benzo(a)anthracene		0.40 J	0.96	0.20	ug/l	SW846 8270D
1,1'-Biphenyl		6.1	0.96	0.20	ug/l	SW846 8270D
Carbazole		20.3	0.96	0.22	ug/l	SW846 8270D
Chrysene		0.26 J	0.96	0.17	ug/l	SW846 8270D
Dibenzofuran		81.0	4.8	0.21	ug/l	SW846 8270D

Summary of Hits

Job Number: JD5004
Account: Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY
Collected: 03/20/20

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Fluoranthene		5.7	0.96	0.16	ug/l	SW846 8270D
Fluorene		33.7	0.96	0.16	ug/l	SW846 8270D
Naphthalene		4.1	0.96	0.22	ug/l	SW846 8270D
Phenanthrene		10.2	0.96	0.17	ug/l	SW846 8270D
Pyrene		3.4	0.96	0.21	ug/l	SW846 8270D
JD5004-3	**TRC-MW17**					
Benzene		739	5.0	4.3	ug/l	SW846 8260C
Cyclohexane [a]		13.4	10	1.6	ug/l	SW846 8260C
cis-1,2-Dichloroethene [a]		1.5 J	2.0	1.0	ug/l	SW846 8260C
Ethylbenzene [a]		99.4	2.0	1.2	ug/l	SW846 8260C
Isopropylbenzene [a]		19.3	2.0	1.3	ug/l	SW846 8260C
Methylcyclohexane [a]		7.0 J	10	1.2	ug/l	SW846 8260C
Toluene [a]		36.4	2.0	1.1	ug/l	SW846 8260C
Xylene (total) [a]		187	2.0	1.2	ug/l	SW846 8260C
Phenol [b]		3.9 J	9.6	1.9	ug/l	SW846 8270D
Acenaphthene [b]		196	4.8	0.92	ug/l	SW846 8270D
Acenaphthylene [b]		1.8 J	4.8	0.65	ug/l	SW846 8270D
Anthracene [b]		2.7 J	4.8	1.0	ug/l	SW846 8270D
Carbazole [b]		15.3	4.8	1.1	ug/l	SW846 8270D
Dibenzofuran [b]		82.4	24	1.1	ug/l	SW846 8270D
Fluoranthene [b]		2.7 J	4.8	0.82	ug/l	SW846 8270D
2-Methylnaphthalene [b]		1.2 J	4.8	1.0	ug/l	SW846 8270D
Naphthalene [b]		72.5	4.8	1.1	ug/l	SW846 8270D
Phenanthrene [b]		1.4 J	4.8	0.84	ug/l	SW846 8270D
Pyrene [b]		1.6 J	4.8	1.1	ug/l	SW846 8270D
JD5004-4	**TRC-MW15B**					
Isopropylbenzene		2.3	1.0	0.65	ug/l	SW846 8260C
Acenaphthene		1.1	0.96	0.18	ug/l	SW846 8270D
Anthracene		0.28 J	0.96	0.20	ug/l	SW846 8270D
Benzo(a)anthracene		0.21 J	0.96	0.20	ug/l	SW846 8270D
Dibenzofuran		0.59 J	4.8	0.21	ug/l	SW846 8270D
Fluoranthene		0.40 J	0.96	0.16	ug/l	SW846 8270D
Fluorene		0.60 J	0.96	0.16	ug/l	SW846 8270D
Naphthalene		0.38 J	0.96	0.22	ug/l	SW846 8270D
Pyrene		0.42 J	0.96	0.21	ug/l	SW846 8270D
JD5004-5	**FIELD BLANK**					
Fluoranthene		0.19 J	0.96	0.16	ug/l	SW846 8270D
Naphthalene		0.47 J	0.96	0.22	ug/l	SW846 8270D
Phenanthrene		0.43 J	0.96	0.17	ug/l	SW846 8270D

Summary of Hits

Job Number: JD5004
Account: Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY
Collected: 03/20/20

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Pyrene		0.22 J	0.96	0.21	ug/l	SW846 8270D
JD5004-6	**TRC-MW25R**					
Acetone		7.4 J	10	6.0	ug/l	SW846 8260C
Benzene		2.3	0.50	0.43	ug/l	SW846 8260C
Cyclohexane		1.0 J	5.0	0.78	ug/l	SW846 8260C
JD5004-7	**TRIP BLANK**					

No hits reported in this sample.

(a) Dilution required due to high concentration of target compound.
(b) Dilution required due to matrix interference.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TRC-MW18		
Lab Sample ID:	JD5004-1	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A199838.D	1	03/31/20 14:42	BK	n/a	n/a	V1A8614
Run #2	1A199792.D	5	03/29/20 21:16	MD	n/a	n/a	V1A8612

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

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	396 [a]	2.5	2.1	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [b]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [b]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	6.2	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	13.9	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	13.1	1.0	0.65	ug/l	

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

Report of Analysis

Client Sample ID:	TRC-MW18		
Lab Sample ID:	JD5004-1	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	4.3	5.0	0.60	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	13.6	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	19.5	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	90%	91%	81-124%
2037-26-5	Toluene-D8	90%	94%	80-120%
460-00-4	4-Bromofluorobenzene	92%	93%	80-120%

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

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

Report of Analysis

Client Sample ID:	TRC-MW18		
Lab Sample ID:	JD5004-1	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6P489801.D	1	04/03/20 17:53	AR	03/25/20 12:30	OP26675	E6P2935
Run #2	3E111062.D	2	03/27/20 15:12	CS	03/25/20 12:30	OP26675	E3E5004

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2	1040 ml	1.0 ml

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	4.8	0.79	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.8	0.86	ug/l	
120-83-2	2,4-Dichlorophenol	ND	1.9	1.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	2.3	ug/l	
51-28-5	2,4-Dinitrophenol [a]	ND	4.8	1.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol [a]	ND	4.8	1.2	ug/l	
95-48-7	2-Methylphenol	ND	1.9	0.85	ug/l	
	3&4-Methylphenol	ND	1.9	0.85	ug/l	
88-75-5	2-Nitrophenol [a]	ND	4.8	0.92	ug/l	
100-02-7	4-Nitrophenol	ND	9.6	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	3.8	1.3	ug/l	
108-95-2	Phenol	3.8	1.9	0.38	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.89	ug/l	
83-32-9	Acenaphthene	101 [b]	1.9	0.37	ug/l	
208-96-8	Acenaphthylene	1.6	0.96	0.13	ug/l	
98-86-2	Acetophenone	ND	1.9	0.20	ug/l	
120-12-7	Anthracene	10.5	0.96	0.20	ug/l	
1912-24-9	Atrazine [a]	ND	1.9	0.43	ug/l	
100-52-7	Benzaldehyde	ND	4.8	0.28	ug/l	
56-55-3	Benzo(a)anthracene	0.41	0.96	0.20	ug/l	J
50-32-8	Benzo(a)pyrene	ND	0.96	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	0.25	0.96	0.20	ug/l	J
191-24-2	Benzo(g,h,i)perylene	ND	0.96	0.33	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.96	0.20	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	1.9	0.39	ug/l	
85-68-7	Butyl benzyl phthalate	ND	1.9	0.44	ug/l	
92-52-4	1,1'-Biphenyl	7.0	0.96	0.20	ug/l	
91-58-7	2-Chloronaphthalene	ND	1.9	0.23	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.33	ug/l	
86-74-8	Carbazole	26.3	0.96	0.22	ug/l	
105-60-2	Caprolactam	ND	1.9	0.62	ug/l	

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

Report of Analysis

Client Sample ID:	TRC-MW18		
Lab Sample ID:	JD5004-1	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	0.30	0.96	0.17	ug/l	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1.9	0.27	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	1.9	0.24	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	1.9	0.39	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1.9	0.35	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	0.96	0.53	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	0.96	0.46	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	1.9	0.49	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.96	0.32	ug/l	
132-64-9	Dibenzofuran	103 [b]	9.6	0.42	ug/l	
84-74-2	Di-n-butyl phthalate	ND	1.9	0.48	ug/l	
117-84-0	Di-n-octyl phthalate	ND	1.9	0.22	ug/l	
84-66-2	Diethyl phthalate	ND	1.9	0.25	ug/l	
131-11-3	Dimethyl phthalate	ND	1.9	0.21	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1.9	1.6	ug/l	
206-44-0	Fluoranthene	5.7	0.96	0.16	ug/l	
86-73-7	Fluorene	40.0	0.96	0.16	ug/l	
118-74-1	Hexachlorobenzene	ND	0.96	0.31	ug/l	
87-68-3	Hexachlorobutadiene	ND	0.96	0.47	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.6	2.7	ug/l	
67-72-1	Hexachloroethane	ND	1.9	0.37	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.96	0.32	ug/l	
78-59-1	Isophorone	ND	1.9	0.27	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.96	0.20	ug/l	
88-74-4	2-Nitroaniline [a]	ND	4.8	0.27	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.37	ug/l	
100-01-6	4-Nitroaniline	ND	4.8	0.42	ug/l	
91-20-3	Naphthalene	2.8	0.96	0.22	ug/l	
98-95-3	Nitrobenzene	ND	1.9	0.62	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	1.9	0.46	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.21	ug/l	
85-01-8	Phenanthrene	15.3	0.96	0.17	ug/l	
129-00-0	Pyrene	3.4	0.96	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	49%	44%	10-73%
4165-62-2	Phenol-d5	35%	32%	10-64%
118-79-6	2,4,6-Tribromophenol	108%	103%	31-130%
4165-60-0	Nitrobenzene-d5	98%	81%	28-126%

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

Report of Analysis

Client Sample ID:	TRC-MW18		
Lab Sample ID:	JD5004-1	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	91%	93%	26-114%
1718-51-0	Terphenyl-d14	83%	83%	16-122%

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

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

Report of Analysis

Client Sample ID:	TRC-MW18DUP		
Lab Sample ID:	JD5004-2	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A199840.D	1	03/31/20 15:31	BK	n/a	n/a	V1A8614
Run #2	1A199793.D	5	03/29/20 21:40	MD	n/a	n/a	V1A8612

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

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	460 [a]	2.5	2.1	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform [b]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [b]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	5.9	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	18.7	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	12.0	1.0	0.65	ug/l	

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

Report of Analysis

Client Sample ID:	TRC-MW18DUP		
Lab Sample ID:	JD5004-2	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	4.0	5.0	0.60	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	15.9	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	20.8	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	89%	94%	81-124%
2037-26-5	Toluene-D8	91%	93%	80-120%
460-00-4	4-Bromofluorobenzene	92%	93%	80-120%

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

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

Report of Analysis

Client Sample ID:	TRC-MW18DUP		
Lab Sample ID:	JD5004-2	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6P489764.D	1	04/02/20 17:43	AR	03/25/20 12:30	OP26675	E6P2934
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	4.8	0.79	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.8	0.86	ug/l	
120-83-2	2,4-Dichlorophenol	ND	1.9	1.2	ug/l	
105-67-9	2,4-Dimethylphenol	5.8	4.8	2.3	ug/l	
51-28-5	2,4-Dinitrophenol [a]	ND	4.8	1.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	4.8	1.2	ug/l	
95-48-7	2-Methylphenol	1.7	1.9	0.85	ug/l	J
	3&4-Methylphenol	ND	1.9	0.85	ug/l	
88-75-5	2-Nitrophenol [a]	ND	4.8	0.92	ug/l	
100-02-7	4-Nitrophenol	ND	9.6	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	3.8	1.3	ug/l	
108-95-2	Phenol	3.2	1.9	0.38	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.89	ug/l	
83-32-9	Acenaphthene	80.8	0.96	0.18	ug/l	
208-96-8	Acenaphthylene	1.3	0.96	0.13	ug/l	
98-86-2	Acetophenone	ND	1.9	0.20	ug/l	
120-12-7	Anthracene	8.6	0.96	0.20	ug/l	
1912-24-9	Atrazine [a]	ND	1.9	0.43	ug/l	
100-52-7	Benzaldehyde	ND	4.8	0.28	ug/l	
56-55-3	Benzo(a)anthracene	0.40	0.96	0.20	ug/l	J
50-32-8	Benzo(a)pyrene	ND	0.96	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene [a]	ND	0.96	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.96	0.33	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.96	0.20	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	1.9	0.39	ug/l	
85-68-7	Butyl benzyl phthalate [a]	ND	1.9	0.44	ug/l	
92-52-4	1,1'-Biphenyl	6.1	0.96	0.20	ug/l	
91-58-7	2-Chloronaphthalene	ND	1.9	0.23	ug/l	
106-47-8	4-Chloroaniline [b]	ND	4.8	0.33	ug/l	
86-74-8	Carbazole	20.3	0.96	0.22	ug/l	
105-60-2	Caprolactam [a]	ND	1.9	0.62	ug/l	

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

Report of Analysis

Client Sample ID:	TRC-MW18DUP		
Lab Sample ID:	JD5004-2	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	0.26	0.96	0.17	ug/l	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1.9	0.27	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	1.9	0.24	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	1.9	0.39	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1.9	0.35	ug/l	
121-14-2	2,4-Dinitrotoluene [a]	ND	0.96	0.53	ug/l	
606-20-2	2,6-Dinitrotoluene [a]	ND	0.96	0.46	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	1.9	0.49	ug/l	
53-70-3	Dibenzo(a,h)anthracene [a]	ND	0.96	0.32	ug/l	
132-64-9	Dibenzofuran	81.0	4.8	0.21	ug/l	
84-74-2	Di-n-butyl phthalate	ND	1.9	0.48	ug/l	
117-84-0	Di-n-octyl phthalate [a]	ND	1.9	0.22	ug/l	
84-66-2	Diethyl phthalate	ND	1.9	0.25	ug/l	
131-11-3	Dimethyl phthalate	ND	1.9	0.21	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate [a]	ND	1.9	1.6	ug/l	
206-44-0	Fluoranthene	5.7	0.96	0.16	ug/l	
86-73-7	Fluorene	33.7	0.96	0.16	ug/l	
118-74-1	Hexachlorobenzene	ND	0.96	0.31	ug/l	
87-68-3	Hexachlorobutadiene	ND	0.96	0.47	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.6	2.7	ug/l	
67-72-1	Hexachloroethane	ND	1.9	0.37	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.96	0.32	ug/l	
78-59-1	Isophorone	ND	1.9	0.27	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.96	0.20	ug/l	
88-74-4	2-Nitroaniline [a]	ND	4.8	0.27	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.37	ug/l	
100-01-6	4-Nitroaniline	ND	4.8	0.42	ug/l	
91-20-3	Naphthalene	4.1	0.96	0.22	ug/l	
98-95-3	Nitrobenzene	ND	1.9	0.62	ug/l	
621-64-7	N-Nitroso-di-n-propylamine [a]	ND	1.9	0.46	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.21	ug/l	
85-01-8	Phenanthrene	10.2	0.96	0.17	ug/l	
129-00-0	Pyrene	3.4	0.96	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	46%		10-73%
4165-62-2	Phenol-d5	32%		10-64%
118-79-6	2,4,6-Tribromophenol	102%		31-130%
4165-60-0	Nitrobenzene-d5	95%		28-126%

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

Report of Analysis

Client Sample ID:	TRC-MW18DUP		
Lab Sample ID:	JD5004-2	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	87%		26-114%
1718-51-0	Terphenyl-d14	72%		16-122%

(a) Associated CCV outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes. Sample was ND.

Report of Analysis

Client Sample ID:	TRC-MW17		
Lab Sample ID:	JD5004-3	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	1A199839.D	2	03/31/20 15:06	BK	n/a	n/a	V1A8614
Run #2	1A199794.D	10	03/29/20 22:05	MD	n/a	n/a	V1A8612

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

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	20	12	ug/l	
71-43-2	Benzene	739 [b]	5.0	4.3	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	1.2	ug/l	
75-25-2	Bromoform [c]	ND	2.0	1.3	ug/l	
74-83-9	Bromomethane [c]	ND	4.0	3.3	ug/l	
78-93-3	2-Butanone (MEK)	ND	20	14	ug/l	
75-15-0	Carbon disulfide	ND	4.0	1.9	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	1.1	ug/l	
108-90-7	Chlorobenzene	ND	2.0	1.1	ug/l	
75-00-3	Chloroethane [c]	ND	2.0	1.5	ug/l	
67-66-3	Chloroform	ND	2.0	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	1.5	ug/l	
110-82-7	Cyclohexane	13.4	10	1.6	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.0	2.4	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	1.1	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.95	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	2.0	1.1	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	2.0	1.1	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	2.0	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	4.0	2.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	1.1	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	1.2	ug/l	
75-35-4	1,1-Dichloroethene	ND	2.0	1.2	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.5	2.0	1.0	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	2.0	1.1	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.94	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.86	ug/l	
100-41-4	Ethylbenzene	99.4	2.0	1.2	ug/l	
76-13-1	Freon 113	ND	10	3.9	ug/l	
591-78-6	2-Hexanone	ND	10	4.1	ug/l	
98-82-8	Isopropylbenzene	19.3	2.0	1.3	ug/l	

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

Report of Analysis

Client Sample ID:	TRC-MW17		
Lab Sample ID:	JD5004-3	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	10	1.6	ug/l	
108-87-2	Methylcyclohexane	7.0	10	1.2	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	10	3.7	ug/l	
75-09-2	Methylene chloride	ND	4.0	2.0	ug/l	
100-42-5	Styrene	ND	2.0	1.4	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	1.3	ug/l	
127-18-4	Tetrachloroethene	ND	2.0	1.8	ug/l	
108-88-3	Toluene	36.4	2.0	1.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	1.1	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	1.1	ug/l	
79-01-6	Trichloroethene	ND	2.0	1.1	ug/l	
75-69-4	Trichlorofluoromethane	ND	4.0	1.7	ug/l	
75-01-4	Vinyl chloride	ND	2.0	1.6	ug/l	
1330-20-7	Xylene (total)	187	2.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	91%	90%	81-124%
2037-26-5	Toluene-D8	92%	93%	80-120%
460-00-4	4-Bromofluorobenzene	93%	96%	80-120%

(a) Dilution required due to high concentration of target compound.
(b) Result is from Run# 2
(c) Associated CCV outside of control limits high, sample was ND.

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

Report of Analysis

Client Sample ID:	TRC-MW17		
Lab Sample ID:	JD5004-3	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	3E111063.D	5	03/27/20 15:37	CS	03/25/20 12:30	OP26675	E3E5004
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	24	3.9	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	24	4.3	ug/l	
120-83-2	2,4-Dichlorophenol	ND	9.6	6.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	24	12	ug/l	
51-28-5	2,4-Dinitrophenol [b]	ND	24	7.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol [b]	ND	24	6.2	ug/l	
95-48-7	2-Methylphenol	ND	9.6	4.3	ug/l	
	3&4-Methylphenol	ND	9.6	4.2	ug/l	
88-75-5	2-Nitrophenol	ND	24	4.6	ug/l	
100-02-7	4-Nitrophenol	ND	48	5.5	ug/l	
87-86-5	Pentachlorophenol	ND	19	6.6	ug/l	
108-95-2	Phenol	3.9	9.6	1.9	ug/l	J
95-95-4	2,4,5-Trichlorophenol	ND	24	6.4	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	24	4.4	ug/l	
83-32-9	Acenaphthene	196	4.8	0.92	ug/l	
208-96-8	Acenaphthylene	1.8	4.8	0.65	ug/l	J
98-86-2	Acetophenone	ND	9.6	1.0	ug/l	
120-12-7	Anthracene	2.7	4.8	1.0	ug/l	J
1912-24-9	Atrazine	ND	9.6	2.1	ug/l	
100-52-7	Benzaldehyde	ND	24	1.4	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.98	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.99	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.6	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.99	ug/l	
101-55-3	4-Bromophenyl phenyl ether [b]	ND	9.6	1.9	ug/l	
85-68-7	Butyl benzyl phthalate	ND	9.6	2.2	ug/l	
92-52-4	1,1'-Biphenyl	ND	4.8	1.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	9.6	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	24	1.6	ug/l	
86-74-8	Carbazole	15.3	4.8	1.1	ug/l	
105-60-2	Caprolactam	ND	9.6	3.1	ug/l	

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

Report of Analysis

Client Sample ID:	TRC-MW17		
Lab Sample ID:	JD5004-3	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	4.8	0.85	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	9.6	1.3	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	9.6	1.2	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	9.6	1.9	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	9.6	1.8	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.8	2.7	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.8	2.3	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	9.6	2.4	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.6	ug/l	
132-64-9	Dibenzofuran	82.4	24	1.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	9.6	2.4	ug/l	
117-84-0	Di-n-octyl phthalate	ND	9.6	1.1	ug/l	
84-66-2	Diethyl phthalate	ND	9.6	1.3	ug/l	
131-11-3	Dimethyl phthalate	ND	9.6	1.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	9.6	7.9	ug/l	
206-44-0	Fluoranthene	2.7	4.8	0.82	ug/l	J
86-73-7	Fluorene	ND	4.8	0.82	ug/l	
118-74-1	Hexachlorobenzene	ND	4.8	1.6	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.8	2.4	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	48	13	ug/l	
67-72-1	Hexachloroethane	ND	9.6	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene [b]	ND	4.8	1.6	ug/l	
78-59-1	Isophorone	ND	9.6	1.3	ug/l	
91-57-6	2-Methylnaphthalene	1.2	4.8	1.0	ug/l	J
88-74-4	2-Nitroaniline	ND	24	1.3	ug/l	
99-09-2	3-Nitroaniline	ND	24	1.9	ug/l	
100-01-6	4-Nitroaniline	ND	24	2.1	ug/l	
91-20-3	Naphthalene	72.5	4.8	1.1	ug/l	
98-95-3	Nitrobenzene	ND	9.6	3.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	9.6	2.3	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	24	1.1	ug/l	
85-01-8	Phenanthrene	1.4	4.8	0.84	ug/l	J
129-00-0	Pyrene	1.6	4.8	1.1	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	37%		10-73%
4165-62-2	Phenol-d5	27%		10-64%
118-79-6	2,4,6-Tribromophenol	86%		31-130%
4165-60-0	Nitrobenzene-d5	69%		28-126%

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

Report of Analysis

Client Sample ID:	TRC-MW17		
Lab Sample ID:	JD5004-3	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	81%		26-114%
1718-51-0	Terphenyl-d14	74%		16-122%

(a) Dilution required due to matrix interference.
(b) Associated CCV outside of control limits high, sample was ND.

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

Report of Analysis

Client Sample ID:	TRC-MW15B		
Lab Sample ID:	JD5004-4	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B159122.D	1	03/27/20 18:23	BK	n/a	n/a	V3B7168
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	2.3	1.0	0.65	ug/l	

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

Report of Analysis

Client Sample ID:	TRC-MW15B		
Lab Sample ID:	JD5004-4	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		80-120%
17060-07-0	1,2-Dichloroethane-D4	121%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	100%		80-120%

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

Report of Analysis

Client Sample ID:	TRC-MW15B		
Lab Sample ID:	JD5004-4	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6P489800.D	1	04/03/20 17:29	AR	03/25/20 12:30	OP26675	E6P2935
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	4.8	0.79	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.8	0.86	ug/l	
120-83-2	2,4-Dichlorophenol	ND	1.9	1.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	2.3	ug/l	
51-28-5	2,4-Dinitrophenol [a]	ND	4.8	1.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol [a]	ND	4.8	1.2	ug/l	
95-48-7	2-Methylphenol	ND	1.9	0.85	ug/l	
	3&4-Methylphenol	ND	1.9	0.85	ug/l	
88-75-5	2-Nitrophenol [a]	ND	4.8	0.92	ug/l	
100-02-7	4-Nitrophenol	ND	9.6	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	3.8	1.3	ug/l	
108-95-2	Phenol	ND	1.9	0.38	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.89	ug/l	
83-32-9	Acenaphthene	1.1	0.96	0.18	ug/l	
208-96-8	Acenaphthylene	ND	0.96	0.13	ug/l	
98-86-2	Acetophenone	ND	1.9	0.20	ug/l	
120-12-7	Anthracene	0.28	0.96	0.20	ug/l	J
1912-24-9	Atrazine [a]	ND	1.9	0.43	ug/l	
100-52-7	Benzaldehyde	ND	4.8	0.28	ug/l	
56-55-3	Benzo(a)anthracene	0.21	0.96	0.20	ug/l	J
50-32-8	Benzo(a)pyrene	ND	0.96	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.96	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.96	0.33	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.96	0.20	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	1.9	0.39	ug/l	
85-68-7	Butyl benzyl phthalate	ND	1.9	0.44	ug/l	
92-52-4	1,1'-Biphenyl	ND	0.96	0.20	ug/l	
91-58-7	2-Chloronaphthalene	ND	1.9	0.23	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.33	ug/l	
86-74-8	Carbazole	ND	0.96	0.22	ug/l	
105-60-2	Caprolactam	ND	1.9	0.62	ug/l	

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

Report of Analysis

Client Sample ID:	TRC-MW15B		
Lab Sample ID:	JD5004-4	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	0.96	0.17	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	1.9	0.27	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	1.9	0.24	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	1.9	0.39	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1.9	0.35	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	0.96	0.53	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	0.96	0.46	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	1.9	0.49	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.96	0.32	ug/l	
132-64-9	Dibenzofuran	0.59	4.8	0.21	ug/l	J
84-74-2	Di-n-butyl phthalate	ND	1.9	0.48	ug/l	
117-84-0	Di-n-octyl phthalate	ND	1.9	0.22	ug/l	
84-66-2	Diethyl phthalate	ND	1.9	0.25	ug/l	
131-11-3	Dimethyl phthalate	ND	1.9	0.21	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1.9	1.6	ug/l	
206-44-0	Fluoranthene	0.40	0.96	0.16	ug/l	J
86-73-7	Fluorene	0.60	0.96	0.16	ug/l	J
118-74-1	Hexachlorobenzene	ND	0.96	0.31	ug/l	
87-68-3	Hexachlorobutadiene	ND	0.96	0.47	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.6	2.7	ug/l	
67-72-1	Hexachloroethane	ND	1.9	0.37	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.96	0.32	ug/l	
78-59-1	Isophorone	ND	1.9	0.27	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.96	0.20	ug/l	
88-74-4	2-Nitroaniline [a]	ND	4.8	0.27	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.37	ug/l	
100-01-6	4-Nitroaniline	ND	4.8	0.42	ug/l	
91-20-3	Naphthalene	0.38	0.96	0.22	ug/l	J
98-95-3	Nitrobenzene	ND	1.9	0.62	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	1.9	0.46	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.21	ug/l	
85-01-8	Phenanthrene	ND	0.96	0.17	ug/l	
129-00-0	Pyrene	0.42	0.96	0.21	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		10-73%
4165-62-2	Phenol-d5	30%		10-64%
118-79-6	2,4,6-Tribromophenol	96%		31-130%
4165-60-0	Nitrobenzene-d5	84%		28-126%

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

Report of Analysis

Client Sample ID:	TRC-MW15B		
Lab Sample ID:	JD5004-4	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	82%		26-114%
1718-51-0	Terphenyl-d14	93%		16-122%

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

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

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

Report of Analysis

Client Sample ID:	FIELD BLANK		
Lab Sample ID:	JD5004-5	**Date Sampled:**	03/20/20
Matrix:	AQ - Field Blank Water	**Date Received:**	03/20/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B159120.D	1	03/27/20 17:27	BK	n/a	n/a	V3B7168
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

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

Report of Analysis

Client Sample ID:	FIELD BLANK		
Lab Sample ID:	JD5004-5	**Date Sampled:**	03/20/20
Matrix:	AQ - Field Blank Water	**Date Received:**	03/20/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		80-120%
17060-07-0	1,2-Dichloroethane-D4	121%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	92%		80-120%

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FIELD BLANK		
Lab Sample ID:	JD5004-5	**Date Sampled:**	03/20/20
Matrix:	AQ - Field Blank Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E111039.D	1	03/26/20 17:00	CS	03/25/20 12:30	OP26675	E3E5003
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	4.8	0.79	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.8	0.86	ug/l	
120-83-2	2,4-Dichlorophenol	ND	1.9	1.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	2.3	ug/l	
51-28-5	2,4-Dinitrophenol [a]	ND	4.8	1.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	4.8	1.2	ug/l	
95-48-7	2-Methylphenol	ND	1.9	0.85	ug/l	
	3&4-Methylphenol	ND	1.9	0.85	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	0.92	ug/l	
100-02-7	4-Nitrophenol	ND	9.6	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	3.8	1.3	ug/l	
108-95-2	Phenol	ND	1.9	0.38	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.89	ug/l	
83-32-9	Acenaphthene	ND	0.96	0.18	ug/l	
208-96-8	Acenaphthylene	ND	0.96	0.13	ug/l	
98-86-2	Acetophenone	ND	1.9	0.20	ug/l	
120-12-7	Anthracene	ND	0.96	0.20	ug/l	
1912-24-9	Atrazine	ND	1.9	0.43	ug/l	
100-52-7	Benzaldehyde	ND	4.8	0.28	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.96	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.96	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.96	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.96	0.33	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.96	0.20	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	1.9	0.39	ug/l	
85-68-7	Butyl benzyl phthalate	ND	1.9	0.44	ug/l	
92-52-4	1,1'-Biphenyl	ND	0.96	0.20	ug/l	
91-58-7	2-Chloronaphthalene	ND	1.9	0.23	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.33	ug/l	
86-74-8	Carbazole	ND	0.96	0.22	ug/l	
105-60-2	Caprolactam	ND	1.9	0.62	ug/l	

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

Report of Analysis

Client Sample ID:	FIELD BLANK		
Lab Sample ID:	JD5004-5	**Date Sampled:**	03/20/20
Matrix:	AQ - Field Blank Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	0.96	0.17	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	1.9	0.27	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	1.9	0.24	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	1.9	0.39	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1.9	0.35	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	0.96	0.53	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	0.96	0.46	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	1.9	0.49	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.96	0.32	ug/l	
132-64-9	Dibenzofuran	ND	4.8	0.21	ug/l	
84-74-2	Di-n-butyl phthalate	ND	1.9	0.48	ug/l	
117-84-0	Di-n-octyl phthalate	ND	1.9	0.22	ug/l	
84-66-2	Diethyl phthalate	ND	1.9	0.25	ug/l	
131-11-3	Dimethyl phthalate	ND	1.9	0.21	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1.9	1.6	ug/l	
206-44-0	Fluoranthene	0.19	0.96	0.16	ug/l	J
86-73-7	Fluorene	ND	0.96	0.16	ug/l	
118-74-1	Hexachlorobenzene	ND	0.96	0.31	ug/l	
87-68-3	Hexachlorobutadiene	ND	0.96	0.47	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.6	2.7	ug/l	
67-72-1	Hexachloroethane	ND	1.9	0.37	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.96	0.32	ug/l	
78-59-1	Isophorone	ND	1.9	0.27	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.96	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	4.8	0.27	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.37	ug/l	
100-01-6	4-Nitroaniline	ND	4.8	0.42	ug/l	
91-20-3	Naphthalene	0.47	0.96	0.22	ug/l	J
98-95-3	Nitrobenzene	ND	1.9	0.62	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	1.9	0.46	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.21	ug/l	
85-01-8	Phenanthrene	0.43	0.96	0.17	ug/l	J
129-00-0	Pyrene	0.22	0.96	0.21	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	41%		10-73%
4165-62-2	Phenol-d5	26%		10-64%
118-79-6	2,4,6-Tribromophenol	95%		31-130%
4165-60-0	Nitrobenzene-d5	70%		28-126%

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

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

Report of Analysis

Client Sample ID:	FIELD BLANK		
Lab Sample ID:	JD5004-5	**Date Sampled:**	03/20/20
Matrix:	AQ - Field Blank Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	85%		26-114%
1718-51-0	Terphenyl-d14	117%		16-122%

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

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

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

Report of Analysis

Client Sample ID:	TRC-MW25R		
Lab Sample ID:	JD5004-6	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A199787.D	1	03/29/20 19:11	MD	n/a	n/a	V1A8612
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	7.4	10	6.0	ug/l	J
71-43-2	Benzene	2.3	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	1.0	5.0	0.78	ug/l	J
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

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

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

Report of Analysis

Client Sample ID:	TRC-MW25R		
Lab Sample ID:	JD5004-6	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	89%		81-124%
2037-26-5	Toluene-D8	94%		80-120%
460-00-4	4-Bromofluorobenzene	94%		80-120%

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

Report of Analysis

Client Sample ID:	TRC-MW25R		
Lab Sample ID:	JD5004-6	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E111040.D	1	03/26/20 17:25	CS	03/25/20 12:30	OP26675	E3E5003
Run #2							

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

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol [a]	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	

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

Report of Analysis

Client Sample ID:	TRC-MW25R		
Lab Sample ID:	JD5004-6	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

ABN TCL List (CLP4.2 list)

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		10-73%
4165-62-2	Phenol-d5	29%		10-64%
118-79-6	2,4,6-Tribromophenol	106%		31-130%
4165-60-0	Nitrobenzene-d5	77%		28-126%

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

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

Report of Analysis

Client Sample ID:	TRC-MW25R		
Lab Sample ID:	JD5004-6	**Date Sampled:**	03/20/20
Matrix:	AQ - Ground Water	**Date Received:**	03/20/20
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

ABN TCL List (CLP4.2 list)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	91%		26-114%
1718-51-0	Terphenyl-d14	90%		16-122%

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

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

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

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD5004-7	**Date Sampled:**	03/20/20
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/20/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B159121.D	1	03/27/20 17:55	BK	n/a	n/a	V3B7168
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

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

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD5004-7	**Date Sampled:**	03/20/20
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/20/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	TFC Stage 2, QWD, Long Island City, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		80-120%
17060-07-0	1,2-Dichloroethane-D4	121%		81-124%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	94%		80-120%

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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

GW
FB
WTB

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

Page 1 of 1

FED-EX Tracking #:
Bottle Order Control #:
SGS Quote #:
SGS Job #: JD5004

Client / Reporting Information

Company Name: Fleming Lee Shue, Inc
Street Address: 159 W 29th St.
City: NY State: NY Zip: 10001
Project Contact: J. Kane E-mail: jkane@flemingleeshue.com
Phone #: 212-675-3225
Sampler(s) Name(s): J. Arey Phone #:

Project Information

Project Name: TFC - Stage 2 GW sampling
Street: 4545 Center Blvd
City: LIC State: NY
Project #:
Client Purchase Order #:
Project Manager: J. Kane

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Grab (G) or Comp (C)	Matrix	# of bottles	HCl	MeOH	HNO3	NaOH	H2SO4	DI Water	MEOH	ENCORE	VB200TLL42	AB8270TLL42	Matrix Codes / LAB USE ONLY
1	TRC - MW18		3/20/20	11:00	JA	G	GW	5	3				2				X	X	
2	TRC - MW18 Dup			11:05		G	GW	5	3				2				X	X	E05
3	TRC - MW17			11:38		G	GW	5	3				2				X	X	V09
4	TRC - MW15B			13:00		G	GW	5	3				2				X	X	
5	Field Blank			13:35		G	FB	4	2				2				X	X	
6	TRC - MW25R			14:05		G	GW	5	3				2				X	X	
7	TRIP BLANK	*																	

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED - Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

Turn Around Time (Business Days)

Approved By (SGS PM): / Date:

- [X] 10 Business Days
- [ ] 5 Business Days
- [ ] 3 Business Days*
- [ ] 2 Business Days*
- [ ] 1 Business Day*
- [ ] Other

All data available via Labfax
* Approval needed for 1-3 Business Day TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [X] NYASP Category B
- [ ] MA MCP Criteria
- [ ] CT RCP Criteria
- [ ] State Forms
- [ ] EDD Format
- [ ] DOD-QSM5

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

* TB ADDED TO COC

Initial Assessment 3A-P.P

Label Verification

http://www.sgs.com/en/terms-end-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by:	Date / Time:	Received By:	Relinquished by:	Date / Time:	Received By:
1		03/20/20	1			1
2			2			2
3			3			3
4			4			4
5			5			

Custody Seal #: 3581a 3579 — [ ] Intact [ ] Not Intact — Preserved where applicable: [ ] On Ice [ ] Absent — Cooler Temp. °C: IR4 2.2 2.5-2.0

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

SGS Sample Receipt Summary

Job Number: JD5004 **Client:** FLEMING-LEE SHUE, INC. **Project:** TFC STAGE 2, QWD, LONG ISLAND CITY, NY

Date / Time Received: 3/20/2020 4:15:00 PM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.2); Cooler 2: (2.3);

Cooler Temps (Corrected) °C: Cooler 1: (1.9); Cooler 2: (2.0);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

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

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

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

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

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD5004: Chain of Custody
Page 2 of 2

APPENDIX C

Data Usability Summary Report

Queens West Development-Stage 2 Site
Long Island City, NY

DATA USABILITY SUMMARY REPORT (DUSR)

Prepared for

TF Cornerstone
387 Park Avenue South, 7th Fl.
New York, NY 10016

Submitted to

New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, New York, 12233-7016

by

Environmental Management and Consulting
158 West 29th Street
New York, New York, 10001

April 2020

Table of Contents

ATTACHMENTS

1.0 INTRODUCTION

A Data Usability Summary Report (DUSR) provides a thorough evaluation of analytical data with the primary objective to determine whether or not the data, as presented, meets the site/project specific criteria for data quality and data use.

This DUSR was conducted based on standard practice regulatory guidance documents, including New York State Department of Conservation (NYSDEC), June 1999, for technical review of analytical data in lieu of a full third-party data validation and the Analytical Service Protocol (ASP) for technical review of analytical data.

1.1 Project Information

Project Name	Queens West Development-Stage 2
Laboratory	SGS – Accutest Laboratories, Dayton, NJ
SDGs	JD5004
Sample Summary	Seven (7) total samples. Five (5) field groundwater samples collected. Field duplicate, trip blank and field blank included. Collected in one day 3/20/2020.
Analytical Methods	Target Compound List (TCL) MS Volatiles by SW846 8260C; MS Semi-Volatiles by Method SW846 8270D

2.0 DUSR QUESTIONS

1. *Is the data package complete as defined under the requirements for the most current NYSDEC ASP Category B or USEPA CLP deliverables?*
   Yes.

2. *Have all holding times been met?*
   Yes.

3. *Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications?*
   Yes. Some QC exceptions resulted in qualification of data as noted in Table 2 and Sections 5 and 6. All data are considered usable.

4. *Have all of the data been generated using established and agreed upon analytical protocols?*
   Yes.

5. *Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?*
   Yes. The raw data was reviewed to verify that detected results met retention time and mass spectral criteria.

6. *Have the correct data qualifiers been used and are they consistent with the most current NYSDEC ASP?*

   Yes. The laboratory used the correct data qualifiers in reporting results. Data validation resulted in some updated qualifiers as shown in Table 2 and discussed in Sections 5 and 6.

7. *Have any quality control (QC) exceedances been specifically noted in the DUSR and have the corresponding QC summary sheets from the data package been attached to the DUSR?*

   Yes. QC exceedances are specified in the Method Specific Data Validation sections (Sections 5 & 6). Corresponding samples were qualified and all data are considered usable. QC Summary sheets have been attached.

3.0 SAMPLE & ANALYSES SUMMARY

This section summarizes the Sample Delivery Groups (SDGs), sample descriptions and analytical parameters.

3.1 Sample Delivery Group Information

Table 1. Sample Descriptions and Validated Analyses

Sample ID	Lab ID	Sample Type	Collection Date	Matrix	Analyses
JD5004					
TRC-MW18	JD5004-1	Field	3/20/20	GW	TCL VOCs by Method 8260C SVOCs by Method 8270D
TRC-MW18DUP	JD5004-2	Field Duplicate	3/20/20	GW	TCL VOCs by Method 8260C SVOCs by Method 8270D
TRC-MW17	JD5004-3	Field	3/20/20	GW	TCL VOCs by Method 8260C SVOCs by Method 8270D
TRC-MW15B	JD5004-4	Field	3/20/20	GW	TCL VOCs by Method 8260C SVOCs by Method 8270D
FIELD BLANK	JD5004-5	Field Blank	3/20/20	AQ	TCL VOCs by Method 8260C SVOCs by Method 8270D
TRC-MW25R	JD5004-6	Field	3/20/20	GW	TCL VOCs by Method 8260C SVOCs by Method 8270D
TRIP BLANK	JD5004-7	Trip Blank	3/20/20	AQ	TCL VOCs by Method 8260C

3.2 Analytical Methods

Trace Volatile Organic Compounds by and Analyzed by EPA Method 8260C Gas Chromatography/Mass Spectrometry (GC/MS). Semi-volatile Organic Compounds by EPA Method 8270D GC/MS.

4.0 DATA VALIDATION SUMMARY

The following is a summary of data validation actions for this project. Provided below are the qualifier definitions.

Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.

Table 2 -Summary of Data Validation Actions

Sample ID	Analyte	Qualifier	Notes
TRC-MW18 TRC-MW18DUP TRC-MW17	methylcyclohexane	J	Reported result below the RL.
TRC-MW17	Cis-1,2-dichloroethene	J	Reported result below the RL.

TRC-MW25R	Cyclohexane Acetone	J	Reported result below the RL.
TRC-MW18 TRC-MW18DUP TRC-MW17 TRC-MW15B	Fluoranthene Naphthalene Pyrene	J+	Analytes were detected in Field Blank sample. All detected results potentially biased high.
TRC-MW18 TRC-MW18DUP TRC-MW17	Phenanthrene	J+	Analytes were detected in Field Blank sample. All detected results potentially biased high.
TRC-MW18	Benzo(a)anthracene Benzo(b)fluoranthene Chrysene	J	Reported result below the RL.
TRC-MW18DUP	2-Methyphenol Benzo(a)anthracene Chrysene	J	Reported result below the RL.
TRC-MW17	Phenol Acenaphthylene Anthracene Fluoranthene 2-Methylnaphthalene Phenanthrene Pyrene	J	Reported result below the RL.
TRC-MW15B	Anthracene Benzo(a)anthracene Dibenzofuran Fluoranthene Fluorene Naphthalene Pyrene	J	Reported result below the RL
FIELD BLANK	Fluoranthene Naphthalene Phenanthrene Pyrene	J	Reported result below the RL.

TRC-MW15B	Naphthalene	J	Field duplicate RPDs outside acceptable limits. Sample had detected results.
TRC-MW18 TRC-MW17 TRC-MW15B TRC-MW25R	2,4-dimethylphenol 2-methylphenol	UJ	Field duplicate RPD outside acceptable limits. Sample was non-detect.
TRC-MW18DUP	2,4-dimethylphenol 2-methylphenol	J	Field duplicate RPDs outside acceptable limits. Samples had detected results.
MW-18 TRC-MW18DUP TRC-MW17	Naphthalene Phenanthrene	J	Field duplicate RPDs outside acceptable limits. Samples had detected results.
TRC-MW25R	Naphthalene Phenanthrene	UJ	Field duplicate RPD outside acceptable limits. Sample was non-detect.
TRC-MW15B	Naphthalene	J	Compound detected in Field Blank sample at higher concentration than sample.

Data validation details for each method are provided in the following sections.

5.0 DATA VALIDATION DETAIL – TRACE VOLATILE ORGANIC COMPOUNDS

5.1 Data Package Completeness
Data package is complete for the SDG.

5.2 Preservation
All JD5004 associated samples were properly preserved by acidification to a pH <2 and cooled and held at 4ºC (+/- 2 ºC).

5.3 Hold Times
All samples (preserved) were analyzed within recommended method holding time.

5.4 Instrument Performance Check
Ion abundance criteria met in both instruments according to Table 1 of ASP Exhibit E.

5.5 Initial Calibration (ICALs)
Initial calibration demonstrates that the instrument is capable of acceptable performance in the beginning of the analytical run and of producing linear calibration curve and provides mean Relative Response Factors (RRFs) suitable for quantitation.

Instrument GCMS1A
Initial calibration check (ICC) for this instrument associated with Run ID: V1A8558. RRFs were acceptable for all compounds with the exception of chlorodifluoromethane (0.528). The compound is not a reported analyte and therefore no qualifier is assigned. Relative Standard Deviation (RSD%) were within acceptable bounds for all analytes (i.e. below maximum ASP Exhibit E Table 2 values) with the exception of 2-chloroethyl vinyl ether (54.29%). This compound is not a reported analyte and therefore no qualifier is assigned. Three Initial Calibration Verifications (ICVs) were conducted and Percent Deviation (%D) was found acceptable for all compounds with the exception of 2-chloroethyl vinyl ether (30.4%) and bromomethane (32.8%). Qualification of bromomethane results is contingent upon results of continuing calibration verifications prior to sample run.

Instrument GCMS3B
Note: This instrument run is associated with client samples FIELD BLANK, TRIP BLANK and TRC-MW15B.

RRFs were acceptable for all compounds with the exception of chlorodifluoromethane (1.389). The compound is not a reported analyte and therefore no qualifier is assigned. RSD%s were within acceptable bounds for all analytes (i.e. below maximum ASP Exhibit E Table 2 values) with the exception of methyl acrylate (48.07%). This compound is not a reported analyte and therefore no qualifier is assigned. Three Initial Calibration Verifications (ICVs) were conducted and Percent Deviation was found acceptable for all compounds.

5.6 Continuing Calibration Verification (CCV)

Instrument GCMS1A

Analytical Batch: V1A8612 (TRC-MW25R, TRC-MW18, TRC-MW18DUP, TRC-MW17)
Mean RRF was acceptable for all compounds. %D exceeded acceptable laboratory limits for the following compounds: acrolein (38.8%), 2-chloroethyl vinyl ether (-273.9%) and benzyl chloride (23.5%). None of these compounds are not a reported analyte and therefore no qualifiers are assigned.

Analytical Batch: V1A8614 (TRC-MW-18, TRC-MW-17, TRC-MW18DUP)
Mean RRF was acceptable for all compounds. %D exceeded acceptable laboratory limits for the following compounds: bromomethane (-23.7%), chloroethane (-25.9%), vinyl bromide (-23.5%), 2-chloroethyl vinyl ether (-313%), and bromoform (-24.2%). Only bromoform, bromomethane and chloroethane are reported analytes. No qualifiers are assigned to the non-reported analytes. Although exceeding laboratory limits, the Exhibit E Table 2 maximum allowable %D for bromomethane is listed as 30%, chloroethane as 40%, and bromoform as 30%. Additionally, all associated samples were non-detect for the above analytes, which were biased high. Therefore, no qualifiers are necessary for the above analytes.

Instrument GCMS3B

Analytical Batch: V3B7168 (FIELD BLANK, TRIP BLANK, TRC-MW15B)
Mean RRF was acceptable for all compounds. %D exceeded acceptable laboratory limits for acrolein (26.2%). Acrolein is not a reported analyte and therefore no qualifier is assigned.

5.7 Blanks

Method Blanks
A method blank analysis was performed in each analytical batch.

Analytical Batch: V3B7168
All analytes in method blank were non-detect and below the RL.

Analytical Batch: V1A8612
All analytes in method blank were non-detect and below the RL.

Analytical Batch: V1A8614
All analytes in method blank were non-detect and below the RL.

Field Blank
JD5004-5 Field Blank sample was non-detect for all analytes.

Trip Blank
A trip blank sample was submitted with this SDG. Results for all compounds were non-detect.

5.8 Analysis Sequence
Samples were analyzed according to standard sequence.

5.9 Internal Standards & System Monitoring Compounds (SMCs)
All internal standard area counts are within acceptable limits. All required VOC internal standards used. Includes SMCs tert-butyl alcohol-D9, pentafluorobenzene, 1,4-difluorobenzene, chlorobenzene-D5, 1,4-dichlorobenzene-d4.

5.10 Laboratory Control Sample (LCS)
A LCS sample was analyzed as a part of each analytical batch.

Analytical Batch: V3B7168
All analytes were detected within acceptable ranges within both LCS.

Analytical Batch: V1A8612
All analytes were detected within acceptable ranges within both LCS.

Analytical Batch: V1A8614
All analytes were detected within acceptable ranges within both LCS.

5.11 Duplicates

Field Duplicates
Client sample TRC-MW18DUP served as a field duplicate. All RPD were within acceptable limits (less than 30%). RPDs for detected results are summarized in the table below.

Compound	Units	TRC-MW18	TRC-MW18DUP	Relative Percent Difference
Benzene	ug/l	**396**	**460**	-14.95%
Cyclohexane	ug/l	6.2	5.9	4.96%
Ethylbenzene	ug/l	**13.9**	**18.7**	-29.45%
Isopropylbenzene	ug/l	**13.1**	**12**	8.76%
Methylcyclohexane	ug/l	4.3	4	7.23%
Toluene	ug/l	**13.6**	**15.9**	-15.59%
Xylene (total)	ug/l	**19.5**	**20.8**	-6.45%

Lab Duplicates
Non project samples JD4932-2 and JD5010-4 were used as laboratory duplicates. %RPD was within acceptable limits for all compounds.

5.12 Matrix Spike and Matrix Spike Duplicate

Non-project samples were used as Matrix spike (MS) and matrix spike duplicate (MSD) samples. Therefore, no determination of matrix interference can be made.

5.13 Surrogates

All ASP required surrogate compounds were used including tolunene-d8, 4-bromofluorobenzene, and 1,2-dichloroethane-d4. within acceptable limits. Additionally, dibromofluoromethane was used as a surrogate compound and recovered within acceptable laboratory control limits.

5.14 Project QA/QC (Field Duplicates)

As mentioned, client sample TRC-MW18DUP served as a field duplicate to TRC-MW18. RPD was within acceptable limits for all compounds. No other Project QA/QC was designated. All data are considered usable.

5.15 Method Detection Limits

Results reported above the MDL, but below the Reporting Limit (RL) are qualified J for all samples.

6.0 DATA VALIDATION DETAIL – SEMI-VOLATILE ORGANIC COMPOUNDS

6.1 Data Package Completeness
Data package is complete for the SDG.

6.2 Preservation
All samples were properly cooled and held at 4ºC (+/- 2 ºC).

6.3 Hold Times
All samples were extracted within 5 days of verified time of sample receipt and analyzed within 40 days of extraction.

6.4 Instrument Performance Check (DFTPP)
Ion abundance criteria met according to Table 13 of ASP Exhibit E.

6.5 Initial Calibration (ICALs)
Initial calibration demonstrates that the instrument is capable of acceptable performance in the beginning of the analytical run and of producing linear calibration curve and provides mean Relative Response Factors (RRFs) suitable for quantitation.

Instrument: GCMS3E
RRFs were acceptable for all analytes with the exception of 2,4 dinitrophenol (0.138). RSD% was within acceptable bounds for all analytes with the exception of 2,4-dinitrophenol (36.5%). All affected samples were non-detect and biased low. If CCV confirms analyte presence within bounds no qualifier is necessary.

Instrument: GCMS6P
RRFs were acceptable for all analytes with the exception of pentachloronitrobenzene (0.031). Pentachloronitrobenzene is not a reported analyte and therefore no qualifier is assigned. RSD% was were within acceptable bounds for all analytes with the exception of some unreported analytes (benzidine [31.57%]).

6.6 Continuing Calibration Verification (CCV)

Instrument: GCMS3E

Run ID E3E5003
Mean RRF was acceptable for all analytes. Percent Deviation (%D) exceeded acceptable limits for 1,4-dioxane (27.2%), 2,4 dinitrophenol (-23.7%), and pentachloronitrobenzene (-32.4%). Only 2,4 dinitrophenol is a reported analyte and no qualifiers are necessary for the unreported analytes. All affected samples in this run for 2,4 dinitrophenol were non-detect and biased high. Therefore, no qualifier is necessary.

Run ID E3E5004

Mean RRF was acceptable for all analytes with the exception of 1-chlorooctadecane (0.049). This is not a reported analyte and therefore no qualifier is assigned. Percent Deviation (%D) exceeded acceptable limits for 2,4 dinitrophenol (-23.7%), 4,6-dinitro-2-methylphenol (or creosol) (-23%), 4-bromophenyl-phenylether (-20.1%), indeno (1,2,3-cd)pyrene (-20.7%) and pentachloronitrobenzene (-42.5%). 4-bromophenyl-phenylether and pentachloronitrobenzene are not reported analytes and are therefore not qualified. All affected samples (TRC-MW18 & TRC-MW17) in this run for the remaining compounds were non-detect and biased high. Therefore, no qualifiers are necessary.

Instrument: GCMS6P

Run ID E6P2934
Mean RRF was acceptable for all analytes. Percent Deviation (%D) exceeded acceptable limits for aniline (25.3%), decane (-36.1%), n-Nitroso-di-n-propylamine (-20.9%), Quinoline (41.9%), 2-nitrophenol (-48.0%), benzoic acid (-90.8%), caprolactam (-45.1%), 2-nitroaniline (-50.2%), 2,6-dinitrotoluene (-23.2%), 2,4-dinitrophenol (-62.7%), 2,4-dinitrotoluene (-21.1%), 4,6-Dinitro-2-methylphenol (-68.8%), octadecane (-35.0%), Butylbenzylphthalate (-22.5%), bis(2-Ethylhexyl)phthalate (-23.2%), Di-n-octylphthalate (-24%), Benzo[b]fluoranthene (-21.7%), Dibenz(a,h)acridine (-20.5%), Dibenz[a,h]anthracene (-22.5%), pentachloronitrobenzene (-41.1%), atrazine (-31.2%), benzidine (49.1%), hydroquinone (-25.8%), and 1-chlorooctadecane (-59.6%).

Only 2-nitrophenol, 2,4 dinitrophenol, 2-nitroaniline 2,4-dinitrotoluene, 2,6-dinitrotoluene, 4,6-Dinitro-2-methylphenol [creosol], Benzo[b]fluoranthene, atrazine were reported analytes. No qualifiers are necessary for the unreported analytes. All affected samples in this run were non-detect for the above remaining analytes and biased high. Therefore, no qualifiers are necessary.

Run ID E6P2935
Mean RRF was acceptable for all analytes. Percent Deviation (%D) exceeded acceptable limits for 2-nitrophenol (-42.7%), benzoic acid (-82.1%), 2-nitroaniline (-32.6%), 2,4-dinitrophenol (-61.4%), 4,6-Dinitro-2-methylphenol (-55%), pentachloronitrobenzene (-61.5%), atrazine (-35.5%), and 1-chlorooctadecane (-33.2%). Benzoic acid and pentachloronitrobenzene are not a reported analyte and therefore no qualifier are necessary. The remaining above analytes were all non-detect in affected samples and biased high. Therefore, no qualifiers are necessary.

6.7 Blanks

Method Blanks
A method blank analysis was performed during each analytical batch.

Analytical Batch: E3E5003
All analytes in method blank were non-detect and below the RL.

Analytical Batch: E6P2934
All analytes in method blank were non-detect and below the RL.

Field Blank
The client Field Blank sample analysis had detection of fluoranthene (0.19 ug/L), naphthalene (0.47 ug/L), phenanthrene (0.43 ug/L), and pyrene (0.22 ug/L). Samples TRC-MW25R was non-detect for these analytes and therefore no qualifiers are assigned. The above analytes are qualified J for samples TRC-MW18, TRC-MW18DUP, TRC-MW17, and TRC-MW15B. The exception is naphthalene for TRC-MW25R, which was reported at a concentration less than that found in the field blank. Naphthalene for TRC-MW25 is qualified UJ. All other Field Blank analytes were non-detect.

6.8 Analysis Sequence
Samples were analyzed according to standard sequence from DFTPP Tune to closing CV.

6.9 Internal Standards & System Monitoring Compounds (SMCs)
Internal standard area counts are within acceptable limits. All required SVOC internal standards used.

6.10 Laboratory Control Sample (LCS)
LCS and LCS duplicate (LCSD) sample analytes were all detected within acceptable ranges. RPD between the LCS and LCSD was within acceptable limits.

6.11 Matrix Spike and Matrix Spike Duplicate
According to ASP 2005 Exhibit EMS and MSD are only required for Semi-Volatile analysis if requested. No MS or MSD was requested or required in Project QA/QC documents.

6.12 Surrogates
All ASP required surrogate compounds were used including 2-fluorophenol, phenol-d5, 2,4,6-tribromophenol, nitrobenzene-d5, 2-fluorobiphenyl, terphenyl-d14 within acceptable limits.

6.13 Duplicates

Field Duplicates
Client sample TRC-MW18DUP served as a field duplicate. All RPD were within acceptable limits (less than 30%) with the exception of 2,4-dimethylphenol, 2-methylphenol, naphthalene, and phenanthrene. All detected results for the above analytes are qualified J and non-detect are qualified UJ. RPDs for detected results are summarized in the table below.

Compound	Units	TRC-MW18	TRC-MW18DUP	Relative Percent Difference
2,4-Dimethylphenol	ug/l	ND (2.3)	**5.8**	-86.42%
2-Methylphenol	ug/l	0.85	1.7	-66.67%
Phenol	ug/l	**3.8**	**3.2**	17.14%
Acenaphthene	ug/l	101	80.8	22.22%
Acenaphthylene	ug/l	1.6	1.3	20.69%

Anthracene	ug/l	10.5	8.6	19.90%
1,1'-Biphenyl	ug/l	**7**	**6.1**	13.74%
Carbazole	ug/l	26.3	20.3	25.75%
Chrysene	ug/l	0.3 J	0.26 J	14.29%
Dibenzofuran	ug/l	103	81	23.91%
Fluoranthene	ug/l	5.7	5.7	0.00%
Fluorene	ug/l	40	33.7	17.10%
Naphthalene	ug/l	2.8	4.1	-37.68%
Phenanthrene	ug/l	15.3	10.2	40.00%
Pyrene	ug/l	3.4	3.4	0.00%

6.14 Project QA/QC (Field Duplicates)

Client sample TRC-MW18DUP served as a field duplicate to TRC-MW18. Section 6.13 summarizes results.

6.15 Method Detection Limits

Results reported above the MDL, but below the Reporting Limit (RL) are qualified J for all samples.

Attachment A

Relevant QC Summary Sheets

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

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

GW
FB
WTB

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

Page 1 of 1

FED-EX Tracking #:
Bottle Order Control #:
SGS Quote #:
SGS Job #: JD5004

Client / Reporting Information

Company Name: Fleming Lee Shue, Inc
Street Address: 159 W 29th St.
City: NY State: NY Zip: 10001
Project Contact: J. Kane E-mail: jkane@flemingleeshue.com
Phone #: 212-675-3225
Sampler(s) Name(s): J. Arey Phone #:

Project Information

Project Name: TFC - Stage 2 GW sampling
Street: 4545 Center Blvd
City: LIC State: NY
Project #:
Client Purchase Order #:
Project Manager: J. Kane

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis

V82700LL42	A88270LL42

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED - Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Grab (G) or Comp (C)	Matrix	# of bottles	HCl	NaOH	HNO3	NaHSO4	None	DI Water	MEOH	ENCORE	V82700LL42	A88270LL42	LAB USE ONLY
1	TRC - MW18		3/20/20	11:00	JA	G	GW	5	3				2				X	X	
2	TRC - MW18 Dup			11:05		G	GW	5	3				2				X	X	E05
3	TRC - MW17			11:38		G	GW	5	3				2				X	X	V09
4	TRC - MW15B			13:00		G	GW	5	3				2				X	X	
5	Field Blank			13:35		G	FB	4	2				2				X	X	
6	TRC - MW25R			14:05		G	GW	5	3				2				X	X	
7	TRIP BLANK	*																	

Turn Around Time (Business Days)

Approved By (SGS PM): / Date:

- [X] 10 Business Days
- [ ] 5 Business Days
- [ ] 3 Business Days*
- [ ] 2 Business Days*
- [ ] 1 Business Day*
- [ ] Other

All data available via Lablink
* Approval needed for 1-3 Business Day TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [X] NYASP Category B
- [ ] MA MCP Criteria
- [ ] CT RCP Criteria
- [ ] State Forms
- [ ] EDD Format
- [ ] DOD-QSM5

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

* TB ADDED TO COC

Initial Assessment 3A-P.P

Label Verification

http://www.sgs.com/en/terms-end-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by:	Date / Time:	Received By:	Relinquished by:	Date / Time:	Received By:
1		03/20/20 1445	1			1
2			2		3/20/20 1920	2
3			3			3
4			4			4
5			5			

Custody Seal # 3581a 3579 — Intact / Not Intact — Preserved where applicable: On Ice / Absent — Therm. ID: IR4 — Cooler Temp. °C: 2.2 2.3 2.3 → 2.0

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

SGS Sample Receipt Summary

Job Number: JD5004 **Client:** FLEMING-LEE SHUE, INC. **Project:** TFC STAGE 2, QWD, LONG ISLAND CITY, NY

Date / Time Received: 3/20/2020 4:15:00 PM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.2); Cooler 2: (2.3);

Cooler Temps (Corrected) °C: Cooler 1: (1.9); Cooler 2: (2.0);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

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

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

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

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

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

Internal Sample Tracking Chronicle

Fleming-Lee Shue, Inc.

Job No: JD5004

TFC Stage 2, QWD, Long Island City, NY
Project No: 10165-001-3

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD5004-1	Collected: 20-MAR-20 11:00 By: JA		Received: 20-MAR-20 By: AS			
TRC-MW18						
JD5004-1	SW846 8270D	27-MAR-20 15:12	CS	25-MAR-20	HW	AB8270TCL42
JD5004-1	SW846 8260C	29-MAR-20 21:16	MD			V8260TCL42
JD5004-1	SW846 8260C	31-MAR-20 14:42	BK			V8260TCL42
JD5004-1	SW846 8270D	03-APR-20 17:53	AR	25-MAR-20	HW	AB8270TCL42
JD5004-2	Collected: 20-MAR-20 11:05 By: JA		Received: 20-MAR-20 By: AS			
TRC-MW18DUP						
JD5004-2	SW846 8260C	29-MAR-20 21:40	MD			V8260TCL42
JD5004-2	SW846 8260C	31-MAR-20 15:31	BK			V8260TCL42
JD5004-2	SW846 8270D	02-APR-20 17:43	AR	25-MAR-20	HW	AB8270TCL42
JD5004-3	Collected: 20-MAR-20 11:58 By: JA		Received: 20-MAR-20 By: AS			
TRC-MW17						
JD5004-3	SW846 8270D	27-MAR-20 15:37	CS	25-MAR-20	HW	AB8270TCL42
JD5004-3	SW846 8260C	29-MAR-20 22:05	MD			V8260TCL42
JD5004-3	SW846 8260C	31-MAR-20 15:06	BK			V8260TCL42
JD5004-4	Collected: 20-MAR-20 13:00 By: JA		Received: 20-MAR-20 By: AS			
TRC-MW15B						
JD5004-4	SW846 8260C	27-MAR-20 18:23	BK			V8260TCL42
JD5004-4	SW846 8270D	03-APR-20 17:29	AR	25-MAR-20	HW	AB8270TCL42
JD5004-5	Collected: 20-MAR-20 13:35 By: JA		Received: 20-MAR-20 By: AS			
FIELD BLANK						
JD5004-5	SW846 8270D	26-MAR-20 17:00	CS	25-MAR-20	HW	AB8270TCL42
JD5004-5	SW846 8260C	27-MAR-20 17:27	BK			V8260TCL42
JD5004-6	Collected: 20-MAR-20 14:05 By: JA		Received: 20-MAR-20 By: AS			
TRC-MW25R						
JD5004-6	SW846 8270D	26-MAR-20 17:25	CS	25-MAR-20	HW	AB8270TCL42
JD5004-6	SW846 8260C	29-MAR-20 19:11	MD			V8260TCL42

Internal Sample Tracking Chronicle

Fleming-Lee Shue, Inc.

Job No: JD5004

TFC Stage 2, QWD, Long Island City, NY
Project No: 10165-001-3

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD5004-7	Collected: 20-MAR-20 14:05 By: JA		Received: 20-MAR-20 By: AS			
TRIP BLANK						
JD5004-7	SW846 8260C	27-MAR-20 17:55	BK			V8260TCL42

SGS Internal Chain of Custody

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY
Received: 03/20/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD5004-1.2	Secured Storage	Todd Shoemaker	03/25/20 10:25	Retrieve from Storage
JD5004-1.2	Todd Shoemaker	Secured Staging Area	03/25/20 10:25	Return to Storage
JD5004-1.2	Secured Staging Area	Yoshihiro Hasegawa	03/25/20 13:12	Retrieve from Storage
JD5004-1.2.1	Yoshihiro Hasegawa	Organics Prep	03/25/20 13:12	Extract from JD5004-1.2
JD5004-1.2.1	Organics Prep	Huachi Wu	03/25/20 21:12	Extract from JD5004-1.2
JD5004-1.2.1	Huachi Wu	Extract Storage	03/25/20 21:12	Return to Storage
JD5004-1.3	Secured Storage	Maricela Delgaolillo	03/29/20 19:08	Retrieve from Storage
JD5004-1.3	Maricela Delgaolillo	Secured Storage	03/29/20 19:12	Return to Storage
JD5004-1.4	Secured Storage	Bridget Kelly	03/31/20 14:03	Retrieve from Storage
JD5004-1.4	Bridget Kelly	GCMS1A	03/31/20 14:03	Load on Instrument
JD5004-1.4	GCMS1A	Bridget Kelly	04/01/20 14:42	Unload from Instrument
JD5004-1.4	Bridget Kelly	Secured Storage	04/01/20 14:42	Return to Storage
JD5004-2.1	Secured Storage	Todd Shoemaker	03/25/20 10:25	Retrieve from Storage
JD5004-2.1	Todd Shoemaker	Secured Staging Area	03/25/20 10:25	Return to Storage
JD5004-2.1	Secured Staging Area	Yoshihiro Hasegawa	03/25/20 13:12	Retrieve from Storage
JD5004-2.1.1	Yoshihiro Hasegawa	Organics Prep	03/25/20 13:12	Extract from JD5004-2.1
JD5004-2.1.1	Organics Prep	Huachi Wu	03/25/20 21:12	Extract from JD5004-2.1
JD5004-2.1.1	Huachi Wu	Extract Storage	03/25/20 21:12	Return to Storage
JD5004-2.1.1	Extract Storage	Angela Rastelli	04/01/20 13:55	Retrieve from Storage
JD5004-2.1.1	Angela Rastelli	GCMS3E	04/01/20 13:55	Load on Instrument
JD5004-2.1.1	GCMS3E	Angela Rastelli	04/02/20 16:39	Unload from Instrument
JD5004-2.1.1	Angela Rastelli	GCMS6P	04/02/20 16:39	Load on Instrument
JD5004-2.1.1	GCMS6P	Angela Rastelli	04/03/20 13:18	Unload from Instrument
JD5004-2.1.1	Angela Rastelli	Extract Freezer	04/03/20 13:18	Return to Storage
JD5004-2.3	Secured Storage	Maricela Delgaolillo	03/29/20 19:08	Retrieve from Storage
JD5004-2.3	Maricela Delgaolillo	Secured Storage	03/29/20 19:12	Return to Storage
JD5004-2.4	Secured Storage	Bridget Kelly	03/31/20 14:03	Retrieve from Storage
JD5004-2.4	Bridget Kelly	GCMS1A	03/31/20 14:03	Load on Instrument
JD5004-2.4	GCMS1A	Bridget Kelly	04/01/20 14:42	Unload from Instrument
JD5004-2.4	Bridget Kelly	Secured Storage	04/01/20 14:42	Return to Storage
JD5004-3.1	Secured Storage	Todd Shoemaker	03/25/20 10:25	Retrieve from Storage
JD5004-3.1	Todd Shoemaker	Secured Staging Area	03/25/20 10:25	Return to Storage
JD5004-3.1	Secured Staging Area	Yoshihiro Hasegawa	03/25/20 13:12	Retrieve from Storage
JD5004-3.1.1	Yoshihiro Hasegawa	Organics Prep	03/25/20 13:12	Extract from JD5004-3.1
JD5004-3.1.1	Organics Prep	Huachi Wu	03/25/20 21:12	Extract from JD5004-3.1

SGS Internal Chain of Custody

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY
Received: 03/20/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD5004-3.1.1	Huachi Wu	Extract Storage	03/25/20 21:12	Return to Storage
JD5004-3.3	Secured Storage	Maricela Delgaolillo	03/29/20 19:08	Retrieve from Storage
JD5004-3.3	Maricela Delgaolillo	Secured Storage	03/29/20 19:12	Return to Storage
JD5004-3.4	Secured Storage	Bridget Kelly	03/31/20 14:03	Retrieve from Storage
JD5004-3.4	Bridget Kelly	GCMS1A	03/31/20 14:03	Load on Instrument
JD5004-3.4	GCMS1A	Bridget Kelly	04/01/20 14:42	Unload from Instrument
JD5004-3.4	Bridget Kelly	Secured Storage	04/01/20 14:42	Return to Storage
JD5004-4.1	Secured Storage	Todd Shoemaker	03/25/20 10:25	Retrieve from Storage
JD5004-4.1	Todd Shoemaker	Secured Staging Area	03/25/20 10:25	Return to Storage
JD5004-4.1	Secured Staging Area	Yoshihiro Hasegawa	03/25/20 13:12	Retrieve from Storage
JD5004-4.1.1	Yoshihiro Hasegawa	Organics Prep	03/25/20 13:12	Extract from JD5004-4.1
JD5004-4.1.1	Organics Prep	Huachi Wu	03/25/20 21:12	Extract from JD5004-4.1
JD5004-4.1.1	Huachi Wu	Extract Storage	03/25/20 21:12	Return to Storage
JD5004-4.3	Secured Storage	Devin Gomez	03/27/20 17:15	Retrieve from Storage
JD5004-4.3	Devin Gomez	GCMS3B	03/27/20 17:16	Load on Instrument
JD5004-4.3	GCMS3B	Krizhka Cuenta	03/30/20 09:27	Unload from Instrument
JD5004-4.3	Krizhka Cuenta	Secured Storage	03/30/20 09:27	Return to Storage
JD5004-5.2	Secured Storage	Todd Shoemaker	03/25/20 10:25	Retrieve from Storage
JD5004-5.2	Todd Shoemaker	Secured Staging Area	03/25/20 10:25	Return to Storage
JD5004-5.2	Secured Staging Area	Yoshihiro Hasegawa	03/25/20 13:12	Retrieve from Storage
JD5004-5.2.1	Yoshihiro Hasegawa	Organics Prep	03/25/20 13:12	Extract from JD5004-5.2
JD5004-5.2.1	Organics Prep	Huachi Wu	03/25/20 21:12	Extract from JD5004-5.2
JD5004-5.2.1	Huachi Wu	Extract Storage	03/25/20 21:12	Return to Storage
JD5004-5.3	Secured Storage	Devin Gomez	03/27/20 17:15	Retrieve from Storage
JD5004-5.3	Devin Gomez	GCMS3B	03/27/20 17:16	Load on Instrument
JD5004-5.3	GCMS3B	Krizhka Cuenta	03/30/20 09:27	Unload from Instrument
JD5004-5.3	Krizhka Cuenta	Secured Storage	03/30/20 09:27	Return to Storage
JD5004-6.1	Secured Storage	Todd Shoemaker	03/25/20 10:25	Retrieve from Storage
JD5004-6.1	Todd Shoemaker	Secured Staging Area	03/25/20 10:25	Return to Storage
JD5004-6.1	Secured Staging Area	Yoshihiro Hasegawa	03/25/20 13:12	Retrieve from Storage
JD5004-6.1.1	Yoshihiro Hasegawa	Organics Prep	03/25/20 13:12	Extract from JD5004-6.1
JD5004-6.1.1	Organics Prep	Huachi Wu	03/25/20 21:12	Extract from JD5004-6.1
JD5004-6.1.1	Huachi Wu	Extract Storage	03/25/20 21:12	Return to Storage

SGS Internal Chain of Custody

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY
Received: 03/20/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD5004-6.3	Secured Storage	Maricela Delgaolillo	03/29/20 19:31	Retrieve from Storage
JD5004-6.3	Maricela Delgaolillo	GCMS1A	03/29/20 19:31	Load on Instrument
JD5004-6.3	GCMS1A	Bridget Kelly	03/30/20 12:06	Unload from Instrument
JD5004-6.3	Bridget Kelly	Secured Storage	03/30/20 12:06	Return to Storage
JD5004-7.1	Secured Storage	Devin Gomez	03/27/20 17:15	Retrieve from Storage
JD5004-7.1	Devin Gomez	GCMS3B	03/27/20 17:16	Load on Instrument
JD5004-7.1	GCMS3B	Krizhka Cuenta	03/30/20 09:27	Unload from Instrument
JD5004-7.1	Krizhka Cuenta	Secured Storage	03/30/20 09:27	Return to Storage

MS Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B7168-MB	3B159103.D	1	03/27/20	BK	n/a	n/a	V3B7168

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

JD5004-4, JD5004-5, JD5004-7

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B7168-MB	3B159103.D	1	03/27/20	BK	n/a	n/a	V3B7168

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

JD5004-4, JD5004-5, JD5004-7

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	105%	81-124%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	95%	80-120%

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

Method Blank Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8612-MB	1A199775.D	1	03/29/20	MD	n/a	n/a	V1A8612

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

JD5004-1, JD5004-2, JD5004-3, JD5004-6

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8612-MB	1A199775.D	1	03/29/20	MD	n/a	n/a	V1A8612

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

JD5004-1, JD5004-2, JD5004-3, JD5004-6

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	98%	80-120%
17060-07-0	1,2-Dichloroethane-D4	90%	81-124%
2037-26-5	Toluene-D8	95%	80-120%
460-00-4	4-Bromofluorobenzene	95%	80-120%

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

Method Blank Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8614-MB	1A199827.D	1	03/31/20	BK	n/a	n/a	V1A8614

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

JD5004-1, JD5004-2, JD5004-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	

Method Blank Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8614-MB	1A199827.D	1	03/31/20	BK	n/a	n/a	V1A8614

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

JD5004-1, JD5004-2, JD5004-3

CAS No.	Compound	Result	RL	MDL	Units	Q
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	96%	80-120%
17060-07-0	1,2-Dichloroethane-D4	89%	81-124%
2037-26-5	Toluene-D8	93%	80-120%
460-00-4	4-Bromofluorobenzene	93%	80-120%

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

Blank Spike Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B7168-BS	3B159101.D	1	03/27/20	BK	n/a	n/a	V3B7168

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

JD5004-4, JD5004-5, JD5004-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	218	109	42-150
71-43-2	Benzene	50	48.2	96	80-120
75-27-4	Bromodichloromethane	50	51.5	103	83-120
75-25-2	Bromoform	50	52.3	105	76-129
74-83-9	Bromomethane	50	43.8	88	57-138
78-93-3	2-Butanone (MEK)	200	219	110	64-137
75-15-0	Carbon disulfide	50	45.5	91	64-137
56-23-5	Carbon tetrachloride	50	50.3	101	75-135
108-90-7	Chlorobenzene	50	49.7	99	84-117
75-00-3	Chloroethane	50	44.5	89	63-132
67-66-3	Chloroform	50	48.8	98	80-119
74-87-3	Chloromethane	50	44.6	89	46-136
110-82-7	Cyclohexane	50	50.0	100	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	51.0	102	72-127
124-48-1	Dibromochloromethane	50	49.9	100	80-123
106-93-4	1,2-Dibromoethane	50	53.7	107	84-117
95-50-1	1,2-Dichlorobenzene	50	50.5	101	84-119
541-73-1	1,3-Dichlorobenzene	50	51.2	102	81-117
106-46-7	1,4-Dichlorobenzene	50	49.8	100	82-117
75-71-8	Dichlorodifluoromethane	50	47.4	95	36-149
75-34-3	1,1-Dichloroethane	50	48.0	96	79-120
107-06-2	1,2-Dichloroethane	50	49.4	99	78-126
75-35-4	1,1-Dichloroethene	50	44.9	90	69-126
156-59-2	cis-1,2-Dichloroethene	50	49.9	100	80-120
156-60-5	trans-1,2-Dichloroethene	50	48.2	96	76-120
78-87-5	1,2-Dichloropropane	50	50.3	101	82-121
10061-01-5	cis-1,3-Dichloropropene	50	53.0	106	83-120
10061-02-6	trans-1,3-Dichloropropene	50	53.1	106	82-121
100-41-4	Ethylbenzene	50	48.7	97	80-120
76-13-1	Freon 113	50	49.4	99	62-182
591-78-6	2-Hexanone	200	200	100	65-132
98-82-8	Isopropylbenzene	50	52.4	105	83-120
79-20-9	Methyl Acetate	50	53.6	107	67-129
108-87-2	Methylcyclohexane	50	49.7	99	71-134
1634-04-4	Methyl Tert Butyl Ether	50	50.9	102	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	213	107	71-131

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B7168-BS	3B159101.D	1	03/27/20	BK	n/a	n/a	V3B7168

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

JD5004-4, JD5004-5, JD5004-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-09-2	Methylene chloride	50	49.6	99	77-120
100-42-5	Styrene	50	52.4	105	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	50.1	100	76-119
127-18-4	Tetrachloroethene	50	48.0	96	70-131
108-88-3	Toluene	50	48.4	97	80-120
120-82-1	1,2,4-Trichlorobenzene	50	54.0	108	79-132
71-55-6	1,1,1-Trichloroethane	50	49.6	99	81-128
79-00-5	1,1,2-Trichloroethane	50	50.5	101	83-118
79-01-6	Trichloroethene	50	51.4	103	80-120
75-69-4	Trichlorofluoromethane	50	48.0	96	64-136
75-01-4	Vinyl chloride	50	42.3	85	51-135
1330-20-7	Xylene (total)	150	153	102	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	101%	81-124%
2037-26-5	Toluene-D8	100%	80-120%
460-00-4	4-Bromofluorobenzene	102%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8612-BS	1A199773.D	1	03/29/20	MD	n/a	n/a	V1A8612

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

JD5004-1, JD5004-2, JD5004-3, JD5004-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	195	98	42-150
71-43-2	Benzene	50	50.4	101	80-120
75-27-4	Bromodichloromethane	50	52.5	105	83-120
75-25-2	Bromoform	50	57.8	116	76-129
74-83-9	Bromomethane	50	57.7	115	57-138
78-93-3	2-Butanone (MEK)	200	200	100	64-137
75-15-0	Carbon disulfide	50	47.8	96	64-137
56-23-5	Carbon tetrachloride	50	49.7	99	75-135
108-90-7	Chlorobenzene	50	49.9	100	84-117
75-00-3	Chloroethane	50	49.9	100	63-132
67-66-3	Chloroform	50	50.0	100	80-119
74-87-3	Chloromethane	50	47.7	95	46-136
110-82-7	Cyclohexane	50	46.4	93	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	52.8	106	72-127
124-48-1	Dibromochloromethane	50	53.8	108	80-123
106-93-4	1,2-Dibromoethane	50	53.3	107	84-117
95-50-1	1,2-Dichlorobenzene	50	49.1	98	84-119
541-73-1	1,3-Dichlorobenzene	50	49.2	98	81-117
106-46-7	1,4-Dichlorobenzene	50	48.3	97	82-117
75-71-8	Dichlorodifluoromethane	50	48.9	98	36-149
75-34-3	1,1-Dichloroethane	50	48.7	97	79-120
107-06-2	1,2-Dichloroethane	50	45.5	91	78-126
75-35-4	1,1-Dichloroethene	50	49.6	99	69-126
156-59-2	cis-1,2-Dichloroethene	50	49.1	98	80-120
156-60-5	trans-1,2-Dichloroethene	50	51.6	103	76-120
78-87-5	1,2-Dichloropropane	50	49.8	100	82-121
10061-01-5	cis-1,3-Dichloropropene	50	53.5	107	83-120
10061-02-6	trans-1,3-Dichloropropene	50	50.8	102	82-121
100-41-4	Ethylbenzene	50	48.1	96	80-120
76-13-1	Freon 113	50	49.0	98	62-182
591-78-6	2-Hexanone	200	188	94	65-132
98-82-8	Isopropylbenzene	50	49.2	98	83-120
79-20-9	Methyl Acetate	50	52.2	104	67-129
108-87-2	Methylcyclohexane	50	49.4	99	71-134
1634-04-4	Methyl Tert Butyl Ether	50	50.1	100	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	199	100	71-131

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8612-BS	1A199773.D	1	03/29/20	MD	n/a	n/a	V1A8612

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

JD5004-1, JD5004-2, JD5004-3, JD5004-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-09-2	Methylene chloride	50	49.3	99	77-120
100-42-5	Styrene	50	50.2	100	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	48.7	97	76-119
127-18-4	Tetrachloroethene	50	51.6	103	70-131
108-88-3	Toluene	50	49.6	99	80-120
120-82-1	1,2,4-Trichlorobenzene	50	50.6	101	79-132
71-55-6	1,1,1-Trichloroethane	50	48.3	97	81-128
79-00-5	1,1,2-Trichloroethane	50	49.6	99	83-118
79-01-6	Trichloroethene	50	51.9	104	80-120
75-69-4	Trichlorofluoromethane	50	52.2	104	64-136
75-01-4	Vinyl chloride	50	44.8	90	51-135
1330-20-7	Xylene (total)	150	149	99	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	80-120%
17060-07-0	1,2-Dichloroethane-D4	88%	81-124%
2037-26-5	Toluene-D8	92%	80-120%
460-00-4	4-Bromofluorobenzene	92%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8614-BS	1A199825.D	1	03/31/20	BK	n/a	n/a	V1A8614

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

JD5004-1, JD5004-2, JD5004-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	208	104	42-150
75-27-4	Bromodichloromethane	50	54.9	110	83-120
75-25-2	Bromoform	50	58.9	118	76-129
74-83-9	Bromomethane	50	63.5	127	57-138
78-93-3	2-Butanone (MEK)	200	214	107	64-137
75-15-0	Carbon disulfide	50	47.8	96	64-137
56-23-5	Carbon tetrachloride	50	52.8	106	75-135
108-90-7	Chlorobenzene	50	50.3	101	84-117
75-00-3	Chloroethane	50	62.1	124	63-132
67-66-3	Chloroform	50	52.7	105	80-119
74-87-3	Chloromethane	50	50.5	101	46-136
110-82-7	Cyclohexane	50	43.4	87	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	55.2	110	72-127
124-48-1	Dibromochloromethane	50	56.0	112	80-123
106-93-4	1,2-Dibromoethane	50	54.1	108	84-117
95-50-1	1,2-Dichlorobenzene	50	50.5	101	84-119
541-73-1	1,3-Dichlorobenzene	50	49.6	99	81-117
106-46-7	1,4-Dichlorobenzene	50	49.4	99	82-117
75-71-8	Dichlorodifluoromethane	50	54.0	108	36-149
75-34-3	1,1-Dichloroethane	50	51.6	103	79-120
107-06-2	1,2-Dichloroethane	50	47.9	96	78-126
75-35-4	1,1-Dichloroethene	50	50.8	102	69-126
156-59-2	cis-1,2-Dichloroethene	50	50.9	102	80-120
156-60-5	trans-1,2-Dichloroethene	50	53.5	107	76-120
78-87-5	1,2-Dichloropropane	50	51.9	104	82-121
10061-01-5	cis-1,3-Dichloropropene	50	55.5	111	83-120
10061-02-6	trans-1,3-Dichloropropene	50	51.0	102	82-121
100-41-4	Ethylbenzene	50	49.0	98	80-120
76-13-1	Freon 113	50	48.5	97	62-182
591-78-6	2-Hexanone	200	192	96	65-132
98-82-8	Isopropylbenzene	50	49.7	99	83-120
79-20-9	Methyl Acetate	50	54.7	109	67-129
108-87-2	Methylcyclohexane	50	47.9	96	71-134
1634-04-4	Methyl Tert Butyl Ether	50	52.4	105	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	210	105	71-131
75-09-2	Methylene chloride	50	51.1	102	77-120

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8614-BS	1A199825.D	1	03/31/20	BK	n/a	n/a	V1A8614

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

JD5004-1, JD5004-2, JD5004-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
100-42-5	Styrene	50	50.6	101	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	49.6	99	76-119
127-18-4	Tetrachloroethene	50	53.4	107	70-131
108-88-3	Toluene	50	51.1	102	80-120
120-82-1	1,2,4-Trichlorobenzene	50	52.8	106	79-132
71-55-6	1,1,1-Trichloroethane	50	52.2	104	81-128
79-00-5	1,1,2-Trichloroethane	50	51.2	102	83-118
79-01-6	Trichloroethene	50	54.8	110	80-120
75-69-4	Trichlorofluoromethane	50	58.9	118	64-136
75-01-4	Vinyl chloride	50	49.2	98	51-135
1330-20-7	Xylene (total)	150	152	101	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	80-120%
17060-07-0	1,2-Dichloroethane-D4	87%	81-124%
2037-26-5	Toluene-D8	88%	80-120%
460-00-4	4-Bromofluorobenzene	94%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4932-1MS	3B159109.D	1	03/27/20	BK	n/a	n/a	V3B7168
JD4932-1	3B159104.D	1	03/27/20	BK	n/a	n/a	V3B7168

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

JD5004-4, JD5004-5, JD5004-7

CAS No.	Compound	JD4932-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	ND		200	224	112	34-149
71-43-2	Benzene	1.1		50	50.4	99	54-136
75-27-4	Bromodichloromethane	ND		50	53.1	106	79-124
75-25-2	Bromoform	ND		50	51.8	104	71-130
74-83-9	Bromomethane	ND		50	42.5	85	53-142
78-93-3	2-Butanone (MEK)	ND		200	207	104	54-142
75-15-0	Carbon disulfide	ND		50	54.0	108	59-145
56-23-5	Carbon tetrachloride	ND		50	59.2	118	70-143
108-90-7	Chlorobenzene	ND		50	49.5	99	78-123
75-00-3	Chloroethane	ND		50	44.8	90	57-141
67-66-3	Chloroform	ND		50	53.4	107	76-123
74-87-3	Chloromethane	ND		50	43.3	87	43-141
110-82-7	Cyclohexane	ND		50	57.0	114	51-155
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	52.0	104	66-130
124-48-1	Dibromochloromethane	ND		50	52.3	105	76-125
106-93-4	1,2-Dibromoethane	ND		50	52.5	105	78-119
95-50-1	1,2-Dichlorobenzene	ND		50	53.0	106	77-123
541-73-1	1,3-Dichlorobenzene	ND		50	52.8	106	76-122
106-46-7	1,4-Dichlorobenzene	ND		50	51.6	103	76-122
75-71-8	Dichlorodifluoromethane	ND		50	55.5	111	31-159
75-34-3	1,1-Dichloroethane	ND		50	52.5	105	73-126
107-06-2	1,2-Dichloroethane	ND		50	55.7	111	72-131
75-35-4	1,1-Dichloroethene	ND		50	52.8	106	63-136
156-59-2	cis-1,2-Dichloroethene	ND		50	51.0	102	60-136
156-60-5	trans-1,2-Dichloroethene	ND		50	51.4	103	70-126
78-87-5	1,2-Dichloropropane	ND		50	50.4	101	78-124
10061-01-5	cis-1,3-Dichloropropene	ND		50	54.2	108	79-123
10061-02-6	trans-1,3-Dichloropropene	ND		50	55.1	110	77-123
100-41-4	Ethylbenzene	2.4		50	52.4	100	51-140
76-13-1	Freon 113	ND		50	58.2	116	60-192
591-78-6	2-Hexanone	ND		200	195	98	56-139
98-82-8	Isopropylbenzene	ND		50	55.0	110	75-129
79-20-9	Methyl Acetate	ND		50	48.3	97	55-131
108-87-2	Methylcyclohexane	ND		50	54.3	109	57-155
1634-04-4	Methyl Tert Butyl Ether	17.4		50	66.6	98	72-123
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	200	100	66-136

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4932-1MS	3B159109.D	1	03/27/20	BK	n/a	n/a	V3B7168
JD4932-1	3B159104.D	1	03/27/20	BK	n/a	n/a	V3B7168

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

JD5004-4, JD5004-5, JD5004-7

CAS No.	Compound	JD4932-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
75-09-2	Methylene chloride	ND		50	52.3	105	73-125
100-42-5	Styrene	ND		50	51.7	103	75-129
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	49.9	100	71-122
127-18-4	Tetrachloroethene	ND		50	50.8	102	61-139
108-88-3	Toluene	ND		50	48.7	97	60-135
120-82-1	1,2,4-Trichlorobenzene	ND		50	54.1	108	72-137
71-55-6	1,1,1-Trichloroethane	ND		50	57.2	114	74-138
79-00-5	1,1,2-Trichloroethane	ND		50	49.7	99	78-121
79-01-6	Trichloroethene	ND		50	55.3	111	62-141
75-69-4	Trichlorofluoromethane	ND		50	59.1	118	57-149
75-01-4	Vinyl chloride	ND		50	42.9	86	43-146
1330-20-7	Xylene (total)	3.3		150	159	103	56-139

CAS No.	Surrogate Recoveries	MS	JD4932-1	Limits
1868-53-7	Dibromofluoromethane	104%	108%	80-120%
17060-07-0	1,2-Dichloroethane-D4	112%	112%	81-124%
2037-26-5	Toluene-D8	100%	100%	80-120%
460-00-4	4-Bromofluorobenzene	103%	98%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD5010-3MS	1A199783.D	1	03/29/20	MD	n/a	n/a	V1A8612
JD5010-3	1A199778.D	1	03/29/20	MD	n/a	n/a	V1A8612

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

JD5004-1, JD5004-2, JD5004-3, JD5004-6

CAS No.	Compound	JD5010-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	ND		200	186	93	34-149
71-43-2	Benzene	ND		50	44.9	90	54-136
75-27-4	Bromodichloromethane	ND		50	45.4	91	79-124
75-25-2	Bromoform	ND		50	50.3	101	71-130
74-83-9	Bromomethane	ND		50	57.5	115	53-142
78-93-3	2-Butanone (MEK)	ND		200	194	97	54-142
75-15-0	Carbon disulfide	ND		50	43.2	86	59-145
56-23-5	Carbon tetrachloride	ND		50	47.4	95	70-143
108-90-7	Chlorobenzene	ND		50	44.4	89	78-123
75-00-3	Chloroethane	ND		50	52.9	106	57-141
67-66-3	Chloroform	ND		50	44.8	90	76-123
74-87-3	Chloromethane	ND		50	48.4	97	43-141
110-82-7	Cyclohexane	ND		50	53.8	108	51-155
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	47.7	95	66-130
124-48-1	Dibromochloromethane	ND		50	46.9	94	76-125
106-93-4	1,2-Dibromoethane	ND		50	46.6	93	78-119
95-50-1	1,2-Dichlorobenzene	ND		50	43.7	87	77-123
541-73-1	1,3-Dichlorobenzene	ND		50	43.6	87	76-122
106-46-7	1,4-Dichlorobenzene	ND		50	43.0	86	76-122
75-71-8	Dichlorodifluoromethane	ND		50	52.5	105	31-159
75-34-3	1,1-Dichloroethane	ND		50	44.6	89	73-126
107-06-2	1,2-Dichloroethane	ND		50	39.8	80	72-131
75-35-4	1,1-Dichloroethene	ND		50	45.6	91	63-136
156-59-2	cis-1,2-Dichloroethene	ND		50	43.9	88	60-136
156-60-5	trans-1,2-Dichloroethene	ND		50	48.0	96	70-126
78-87-5	1,2-Dichloropropane	ND		50	45.3	91	78-124
10061-01-5	cis-1,3-Dichloropropene	ND		50	48.0	96	79-123
10061-02-6	trans-1,3-Dichloropropene	ND		50	43.3	87	77-123
100-41-4	Ethylbenzene	ND		50	42.9	86	51-140
76-13-1	Freon 113	ND		50	48.1	96	60-192
591-78-6	2-Hexanone	ND		200	172	86	56-139
98-82-8	Isopropylbenzene	ND		50	44.0	88	75-129
79-20-9	Methyl Acetate	ND		50	47.1	94	55-131
108-87-2	Methylcyclohexane	ND		50	48.3	97	57-155
1634-04-4	Methyl Tert Butyl Ether	ND		50	43.5	87	72-123
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	187	94	66-136

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD5010-3MS	1A199783.D	1	03/29/20	MD	n/a	n/a	V1A8612
JD5010-3	1A199778.D	1	03/29/20	MD	n/a	n/a	V1A8612

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

JD5004-1, JD5004-2, JD5004-3, JD5004-6

CAS No.	Compound	JD5010-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
75-09-2	Methylene chloride	ND		50	42.5	85	73-125
100-42-5	Styrene	ND		50	44.1	88	75-129
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	43.3	87	71-122
127-18-4	Tetrachloroethene	ND		50	46.7	93	61-139
108-88-3	Toluene	ND		50	44.6	89	60-135
120-82-1	1,2,4-Trichlorobenzene	ND		50	44.5	89	72-137
71-55-6	1,1,1-Trichloroethane	ND		50	45.2	90	74-138
79-00-5	1,1,2-Trichloroethane	ND		50	43.7	87	78-121
79-01-6	Trichloroethene	ND		50	47.0	94	62-141
75-69-4	Trichlorofluoromethane	ND		50	57.9	116	57-149
75-01-4	Vinyl chloride	ND		50	47.9	96	43-146
1330-20-7	Xylene (total)	ND		150	132	88	56-139

CAS No.	Surrogate Recoveries	MS	JD5010-3	Limits
1868-53-7	Dibromofluoromethane	101%	98%	80-120%
17060-07-0	1,2-Dichloroethane-D4	85%	89%	81-124%
2037-26-5	Toluene-D8	91%	95%	80-120%
460-00-4	4-Bromofluorobenzene	94%	95%	80-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4900-2MS	1A199833.D	25	03/31/20	BK	n/a	n/a	V1A8614
JD4900-2MSD	1A199834.D	25	03/31/20	BK	n/a	n/a	V1A8614
JD4900-2 [a]	1A199832.D	25	03/31/20	BK	n/a	n/a	V1A8614

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

JD5004-1, JD5004-2, JD5004-3

CAS No.	Compound	JD4900-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	272		5000	4970	94	5000	4790	90	4	34-149/17
75-27-4	Bromodichloromethane	ND		1250	1310	105	1250	1340	107	2	79-124/11
75-25-2	Bromoform	ND		1250	1400	112	1250	1440	115	3	71-130/11
74-83-9	Bromomethane	ND		1250	1120	90	1250	1200	96	7	53-142/14
78-93-3	2-Butanone (MEK)	ND		5000	5280	106	5000	5350	107	1	54-142/15
75-15-0	Carbon disulfide	ND		1250	1180	94	1250	1160	93	2	59-145/17
56-23-5	Carbon tetrachloride	ND		1250	1320	106	1250	1290	103	2	70-143/12
108-90-7	Chlorobenzene	ND		1250	1230	98	1250	1240	99	1	78-123/10
75-00-3	Chloroethane	ND		1250	1130	90	1250	1090	87	4	57-141/14
67-66-3	Chloroform	ND		1250	1260	101	1250	1250	100	1	76-123/11
74-87-3	Chloromethane	ND		1250	928	74	1250	938	75	1	43-141/16
110-82-7	Cyclohexane	482		1250	1300	65	1250	1270	63	2	51-155/16
96-12-8	1,2-Dibromo-3-chloropropane	ND		1250	1320	106	1250	1330	106	1	66-130/13
124-48-1	Dibromochloromethane	ND		1250	1310	105	1250	1320	106	1	76-125/11
106-93-4	1,2-Dibromoethane	ND		1250	1270	102	1250	1300	104	2	78-119/11
95-50-1	1,2-Dichlorobenzene	ND		1250	1190	95	1250	1240	99	4	77-123/11
541-73-1	1,3-Dichlorobenzene	ND		1250	1180	94	1250	1220	98	3	76-122/11
106-46-7	1,4-Dichlorobenzene	ND		1250	1160	93	1250	1210	97	4	76-122/11
75-71-8	Dichlorodifluoromethane	ND		1250	1250	100	1250	1220	98	2	31-159/16
75-34-3	1,1-Dichloroethane	ND		1250	1190	95	1250	1230	98	3	73-126/11
107-06-2	1,2-Dichloroethane	ND		1250	1180	94	1250	1190	95	1	72-131/11
75-35-4	1,1-Dichloroethene	ND		1250	1240	99	1250	1150	92	8	63-136/14
156-59-2	cis-1,2-Dichloroethene	ND		1250	1240	99	1250	1220	98	2	60-136/11
156-60-5	trans-1,2-Dichloroethene	ND		1250	1270	102	1250	1310	105	3	70-126/11
78-87-5	1,2-Dichloropropane	ND		1250	1260	101	1250	1280	102	2	78-124/10
10061-01-5	cis-1,3-Dichloropropene	ND		1250	1370	110	1250	1380	110	1	79-123/11
10061-02-6	trans-1,3-Dichloropropene	ND		1250	1180	94	1250	1180	94	0	77-123/11
100-41-4	Ethylbenzene	1070		1250	1930	69	1250	1940	70	1	51-140/20
76-13-1	Freon 113	ND		1250	1340	107	1250	1200	96	11	60-192/14
591-78-6	2-Hexanone	122	J	5000	4710	92	5000	4760	93	1	56-139/14
98-82-8	Isopropylbenzene	66.0		1250	1230	93	1250	1240	94	1	75-129/11
79-20-9	Methyl Acetate	ND		1250	1290	103	1250	1330	106	3	55-131/15
108-87-2	Methylcyclohexane	732		1250	1560	66	1250	1530	64	2	57-155/13
1634-04-4	Methyl Tert Butyl Ether	27.0		1250	1260	99	1250	1270	99	1	72-123/11
108-10-1	4-Methyl-2-pentanone(MIBK)	65.6	J	5000	5230	103	5000	5340	105	2	66-136/13
75-09-2	Methylene chloride	ND		1250	1270	102	1250	1270	102	0	73-125/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4900-2MS	1A199833.D	25	03/31/20	BK	n/a	n/a	V1A8614
JD4900-2MSD	1A199834.D	25	03/31/20	BK	n/a	n/a	V1A8614
JD4900-2 [a]	1A199832.D	25	03/31/20	BK	n/a	n/a	V1A8614

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

JD5004-1, JD5004-2, JD5004-3

CAS No.	Compound	JD4900-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
100-42-5	Styrene	ND		1250	1260	101	1250	1290	103	2	75-129/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		1250	1170	94	1250	1190	95	2	71-122/11
127-18-4	Tetrachloroethene	ND		1250	1250	100	1250	1250	100	0	61-139/11
108-88-3	Toluene	12300	E	1250	11400	-72* [b]	1250	11400	-72* [b]	0	60-135/10
120-82-1	1,2,4-Trichlorobenzene	ND		1250	1290	103	1250	1340	107	4	72-137/13
71-55-6	1,1,1-Trichloroethane	ND		1250	1250	100	1250	1250	100	0	74-138/12
79-00-5	1,1,2-Trichloroethane	ND		1250	1200	96	1250	1200	96	0	78-121/11
79-01-6	Trichloroethene	ND		1250	1330	106	1250	1320	106	1	62-141/10
75-69-4	Trichlorofluoromethane	ND		1250	1350	108	1250	1330	106	1	57-149/14
75-01-4	Vinyl chloride	ND		1250	973	78	1250	936	75	4	43-146/15
1330-20-7	Xylene (total)	8730		3750	9980	33* [b]	3750	10000	34* [b]	0	56-139/20

CAS No.	Surrogate Recoveries	MS	MSD	JD4900-2	Limits
1868-53-7	Dibromofluoromethane	100%	97%	99%	80-120%
17060-07-0	1,2-Dichloroethane-D4	87%	86%	90%	81-124%
2037-26-5	Toluene-D8	89%	88%	91%	80-120%
460-00-4	4-Bromofluorobenzene	93%	93%	92%	80-120%

(a) Dilution required due to high concentration of target compound.
(b) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4932-2DUP	3B159111.D	1	03/27/20	BK	n/a	n/a	V3B7168
JD4932-2	3B159105.D	1	03/27/20	BK	n/a	n/a	V3B7168

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

JD5004-4, JD5004-5, JD5004-7

CAS No.	Compound	JD4932-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	20
71-43-2	Benzene	1.4		1.5		7	20
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
78-93-3	2-Butanone (MEK)	ND		ND		nc	20
75-15-0	Carbon disulfide	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	20
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	20
74-87-3	Chloromethane	ND		ND		nc	20
110-82-7	Cyclohexane	ND		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	20
124-48-1	Dibromochloromethane	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	20
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	20
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	ND		ND		nc	20
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethene	ND		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
76-13-1	Freon 113	ND		ND		nc	20
591-78-6	2-Hexanone	ND		ND		nc	20
98-82-8	Isopropylbenzene	ND		ND		nc	20
79-20-9	Methyl Acetate	ND		ND		nc	20
108-87-2	Methylcyclohexane	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	9.3		9.8		5	20
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4932-2DUP	3B159111.D	1	03/27/20	BK	n/a	n/a	V3B7168
JD4932-2	3B159105.D	1	03/27/20	BK	n/a	n/a	V3B7168

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

JD5004-4, JD5004-5, JD5004-7

CAS No.	Compound	JD4932-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
75-09-2	Methylene chloride	ND		ND		nc	20
100-42-5	Styrene	ND		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
127-18-4	Tetrachloroethene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
79-01-6	Trichloroethene	ND		ND		nc	20
75-69-4	Trichlorofluoromethane	ND		ND		nc	20
75-01-4	Vinyl chloride	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JD4932-2	Limits
1868-53-7	Dibromofluoromethane	106%	104%	80-120%
17060-07-0	1,2-Dichloroethane-D4	112%	112%	81-124%
2037-26-5	Toluene-D8	97%	98%	80-120%
460-00-4	4-Bromofluorobenzene	92%	95%	80-120%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD5010-4DUP	1A199785.D	1	03/29/20	MD	n/a	n/a	V1A8612
JD5010-4	1A199779.D	1	03/29/20	MD	n/a	n/a	V1A8612

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

JD5004-1, JD5004-2, JD5004-3, JD5004-6

CAS No.	Compound	JD5010-4 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	20
71-43-2	Benzene	ND		ND		nc	20
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
78-93-3	2-Butanone (MEK)	ND		ND		nc	20
75-15-0	Carbon disulfide	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	20
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	20
74-87-3	Chloromethane	ND		ND		nc	20
110-82-7	Cyclohexane	ND		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	20
124-48-1	Dibromochloromethane	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	20
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	20
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	ND		ND		nc	20
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethene	ND		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
76-13-1	Freon 113	ND		ND		nc	20
591-78-6	2-Hexanone	ND		ND		nc	20
98-82-8	Isopropylbenzene	ND		ND		nc	20
79-20-9	Methyl Acetate	ND		ND		nc	20
108-87-2	Methylcyclohexane	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD5010-4DUP	1A199785.D	1	03/29/20	MD	n/a	n/a	V1A8612
JD5010-4	1A199779.D	1	03/29/20	MD	n/a	n/a	V1A8612

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

JD5004-1, JD5004-2, JD5004-3, JD5004-6

CAS No.	Compound	JD5010-4 ug/l	Q	DUP ug/l	Q	RPD	Limits
75-09-2	Methylene chloride	ND		ND		nc	20
100-42-5	Styrene	ND		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
127-18-4	Tetrachloroethene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
79-01-6	Trichloroethene	ND		ND		nc	20
75-69-4	Trichlorofluoromethane	ND		ND		nc	20
75-01-4	Vinyl chloride	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JD5010-4	Limits
1868-53-7	Dibromofluoromethane	101%	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	91%	88%	81-124%
2037-26-5	Toluene-D8	93%	94%	80-120%
460-00-4	4-Bromofluorobenzene	94%	95%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8558-BFB
Lab File ID: 1A198433.D
Instrument ID: GCMS1A
Injection Date: 02/11/20
Injection Time: 17:42

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	9376	17.2		Pass
75	30.0 - 60.0% of mass 95	25213	46.3		Pass
95	Base peak, 100% relative abundance	54483	100.0		Pass
96	5.0 - 9.0% of mass 95	3489	6.40		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	51600	94.7		Pass
175	5.0 - 9.0% of mass 174	4020	7.38	(7.79) [a]	Pass
176	95.0 - 101.0% of mass 174	49397	90.7	(95.7) [a]	Pass
177	5.0 - 9.0% of mass 176	3306	6.07	(6.69) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A8558-IC8558	1A198434.D	02/11/20	18:13	00:31	Initial cal 0.2
V1A8558-IC8558	1A198435.D	02/11/20	18:38	00:56	Initial cal 0.5
V1A8558-IC8558	1A198436.D	02/11/20	19:03	01:21	Initial cal 1
V1A8558-IC8558	1A198437.D	02/11/20	19:28	01:46	Initial cal 2
V1A8558-IC8558	1A198438.D	02/11/20	19:53	02:11	Initial cal 4
V1A8558-IC8558	1A198439.D	02/11/20	20:17	02:35	Initial cal 8
V1A8558-IC8558	1A198440.D	02/11/20	20:42	03:00	Initial cal 20
V1A8558-ICC8558	1A198441.D	02/11/20	21:07	03:25	Initial cal 50
V1A8558-IC8558	1A198442.D	02/11/20	21:32	03:50	Initial cal 100
V1A8558-IC8558	1A198443.D	02/11/20	21:57	04:15	Initial cal 200
V1A8558-ICV8558	1A198446.D	02/11/20	23:12	05:30	Initial cal verification 50
V1A8558-ICV8558	1A198447.D	02/11/20	23:37	05:55	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8558-BFB2
Lab File ID: 1A198449.D
Instrument ID: GCMS1A
Injection Date: 02/12/20
Injection Time: 08:24

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	10204	17.1		Pass
75	30.0 - 60.0% of mass 95	27360	45.9		Pass
95	Base peak, 100% relative abundance	59648	100.0		Pass
96	5.0 - 9.0% of mass 95	3985	6.68		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	56557	94.8		Pass
175	5.0 - 9.0% of mass 174	4495	7.54	(7.95) [a]	Pass
176	95.0 - 101.0% of mass 174	55885	93.7	(98.8) [a]	Pass
177	5.0 - 9.0% of mass 176	3594	6.03	(6.43) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A8558-ICV8558	1A198450.D	02/12/20	08:56	00:32	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8612-BFB
Lab File ID: 1A199772.D
Instrument ID: GCMS1A
Injection Date: 03/29/20
Injection Time: 12:23

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	8200	16.1		Pass
75	30.0 - 60.0% of mass 95	22685	44.5		Pass
95	Base peak, 100% relative abundance	51019	100.0		Pass
96	5.0 - 9.0% of mass 95	3362	6.59		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	49264	96.6		Pass
175	5.0 - 9.0% of mass 174	4146	8.13	(8.42) [a]	Pass
176	95.0 - 101.0% of mass 174	48061	94.2	(97.6) [a]	Pass
177	5.0 - 9.0% of mass 176	3523	6.91	(7.33) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A8612-CC8558	1A199772.D	03/29/20	12:23	00:00	Continuing cal 50
V1A8612-BS	1A199773.D	03/29/20	13:08	00:45	Blank Spike
V1A8612-MB	1A199775.D	03/29/20	13:58	01:35	Method Blank
ZZZZZZ	1A199776.D	03/29/20	14:32	02:09	(unrelated sample)
JD5010-3	1A199778.D	03/29/20	15:22	02:59	(used for QC only; not part of job JD5004)
JD5010-4	1A199779.D	03/29/20	15:47	03:24	(used for QC only; not part of job JD5004)
ZZZZZZ	1A199780.D	03/29/20	16:12	03:49	(unrelated sample)
ZZZZZZ	1A199781.D	03/29/20	16:42	04:19	(unrelated sample)
ZZZZZZ	1A199782.D	03/29/20	17:07	04:44	(unrelated sample)
JD5010-3MS	1A199783.D	03/29/20	17:32	05:09	Matrix Spike
JD5010-4DUP	1A199785.D	03/29/20	18:22	05:59	Duplicate
ZZZZZZ	1A199786.D	03/29/20	18:46	06:23	(unrelated sample)
JD5004-6	1A199787.D	03/29/20	19:11	06:48	TRC-MW25R
ZZZZZZ	1A199788.D	03/29/20	19:36	07:13	(unrelated sample)
ZZZZZZ	1A199789.D	03/29/20	20:01	07:38	(unrelated sample)
ZZZZZZ	1A199791.D	03/29/20	20:51	08:28	(unrelated sample)
JD5004-1	1A199792.D	03/29/20	21:16	08:53	TRC-MW18
JD5004-2	1A199793.D	03/29/20	21:40	09:17	TRC-MW18DUP
JD5004-3	1A199794.D	03/29/20	22:05	09:42	TRC-MW17

Instrument Performance Check (BFB)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8614-BFB
Lab File ID: 1A199824.D
Instrument ID: GCMS1A
Injection Date: 03/31/20
Injection Time: 07:48

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	9255	17.1		Pass
75	30.0 - 60.0% of mass 95	23955	44.3		Pass
95	Base peak, 100% relative abundance	54128	100.0		Pass
96	5.0 - 9.0% of mass 95	3534	6.53		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	54064	99.9		Pass
175	5.0 - 9.0% of mass 174	4327	7.99	(8.00) [a]	Pass
176	95.0 - 101.0% of mass 174	53053	98.0	(98.1) [a]	Pass
177	5.0 - 9.0% of mass 176	3296	6.09	(6.21) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A8614-CC8558	1A199824.D	03/31/20	07:48	00:00	Continuing cal 20
V1A8614-BS	1A199825.D	03/31/20	08:37	00:49	Blank Spike
V1A8614-MB	1A199827.D	03/31/20	09:27	01:39	Method Blank
ZZZZZZ	1A199828.D	03/31/20	10:34	02:46	(unrelated sample)
ZZZZZZ	1A199829.D	03/31/20	10:59	03:11	(unrelated sample)
ZZZZZZ	1A199830.D	03/31/20	11:24	03:36	(unrelated sample)
JD4900-2	1A199832.D	03/31/20	12:13	04:25	(used for QC only; not part of job JD5004)
JD4900-2MS	1A199833.D	03/31/20	12:38	04:50	Matrix Spike
JD4900-2MSD	1A199834.D	03/31/20	13:03	05:15	Matrix Spike Duplicate
ZZZZZZ	1A199836.D	03/31/20	13:52	06:04	(unrelated sample)
JD5004-1	1A199838.D	03/31/20	14:42	06:54	TRC-MW18
JD5004-3	1A199839.D	03/31/20	15:06	07:18	TRC-MW17
JD5004-2	1A199840.D	03/31/20	15:31	07:43	TRC-MW18DUP
ZZZZZZ	1A199842.D	03/31/20	16:21	08:33	(unrelated sample)
ZZZZZZ	1A199844.D	03/31/20	17:20	09:32	(unrelated sample)
ZZZZZZ	1A199845.D	03/31/20	17:45	09:57	(unrelated sample)
ZZZZZZ	1A199846.D	03/31/20	18:10	10:22	(unrelated sample)
ZZZZZZ	1A199847.D	03/31/20	18:34	10:46	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V3B7128-BFB
Lab File ID: 3B158335.D
Instrument ID: GCMS3B
Injection Date: 02/16/20
Injection Time: 12:16

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	12747	19.9		Pass
75	30.0 - 60.0% of mass 95	31875	49.7		Pass
95	Base peak, 100% relative abundance	64133	100.0		Pass
96	5.0 - 9.0% of mass 95	3930	6.13		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	62912	98.1		Pass
175	5.0 - 9.0% of mass 174	5094	7.94	(8.10) [a]	Pass
176	95.0 - 101.0% of mass 174	61323	95.6	(97.5) [a]	Pass
177	5.0 - 9.0% of mass 176	3978	6.20	(6.49) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3B7128-IC7128	3B158336.D	02/16/20	12:54	00:38	Initial cal 0.2
V3B7128-IC7128	3B158337.D	02/16/20	13:22	01:06	Initial cal 0.5
V3B7128-IC7128	3B158338.D	02/16/20	13:50	01:34	Initial cal 1
V3B7128-IC7128	3B158339.D	02/16/20	14:19	02:03	Initial cal 2
V3B7128-IC7128	3B158340.D	02/16/20	14:47	02:31	Initial cal 4
V3B7128-IC7128	3B158341.D	02/16/20	15:16	03:00	Initial cal 8
V3B7128-IC7128	3B158342.D	02/16/20	15:44	03:28	Initial cal 20
V3B7128-ICC7128	3B158343.D	02/16/20	16:12	03:56	Initial cal 50
V3B7128-IC7128	3B158344.D	02/16/20	16:41	04:25	Initial cal 100
V3B7128-IC7128	3B158345.D	02/16/20	17:09	04:53	Initial cal 200
V3B7128-ICV7128	3B158348.D	02/16/20	18:35	06:19	Initial cal verification 50
V3B7128-ICV7128	3B158349.D	02/16/20	19:04	06:48	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample:	V3B7168-BFB	**Injection Date:**	03/27/20
Lab File ID:	3B159100.D	**Injection Time:**	07:28
Instrument ID:	GCMS3B		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	14059	19.3		Pass
75	30.0 - 60.0% of mass 95	36885	50.5		Pass
95	Base peak, 100% relative abundance	72971	100.0		Pass
96	5.0 - 9.0% of mass 95	4793	6.57		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	69952	95.9		Pass
175	5.0 - 9.0% of mass 174	5955	8.16	(8.51) [a]	Pass
176	95.0 - 101.0% of mass 174	66667	91.4	(95.3) [a]	Pass
177	5.0 - 9.0% of mass 176	4685	6.42	(7.03) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3B7168-CC7128	3B159100.D	03/27/20	07:28	00:00	Continuing cal 20
V3B7168-BS	3B159101.D	03/27/20	08:11	00:43	Blank Spike
V3B7168-MB	3B159103.D	03/27/20	09:08	01:40	Method Blank
JD4932-1	3B159104.D	03/27/20	09:41	02:13	(used for QC only; not part of job JD5004)
JD4932-2	3B159105.D	03/27/20	10:10	02:42	(used for QC only; not part of job JD5004)
ZZZZZZ	3B159106.D	03/27/20	10:38	03:10	(unrelated sample)
ZZZZZZ	3B159107.D	03/27/20	11:07	03:39	(unrelated sample)
ZZZZZZ	3B159108.D	03/27/20	11:35	04:07	(unrelated sample)
JD4932-1MS	3B159109.D	03/27/20	12:05	04:37	Matrix Spike
JD4932-2DUP	3B159111.D	03/27/20	13:02	05:34	Duplicate
ZZZZZZ	3B159112.D	03/27/20	13:31	06:03	(unrelated sample)
ZZZZZZ	3B159113.D	03/27/20	14:00	06:32	(unrelated sample)
ZZZZZZ	3B159114.D	03/27/20	14:28	07:00	(unrelated sample)
ZZZZZZ	3B159115.D	03/27/20	15:05	07:37	(unrelated sample)
ZZZZZZ	3B159116.D	03/27/20	15:33	08:05	(unrelated sample)
ZZZZZZ	3B159118.D	03/27/20	16:30	09:02	(unrelated sample)
JD5004-5	3B159120.D	03/27/20	17:27	09:59	FIELD BLANK
JD5004-7	3B159121.D	03/27/20	17:55	10:27	TRIP BLANK
JD5004-4	3B159122.D	03/27/20	18:23	10:55	TRC-MW15B

Internal Standard Area Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Check Std:	V1A8612-CC8558	**Injection Date:**	03/29/20
Lab File ID:	1A199772.D	**Injection Time:**	12:23
Instrument ID:	GCMS1A	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	115476	3.29	150853	4.53	229816	5.11	219582	7.54	100469	9.75
Upper Limit [a]	230952	3.79	301706	5.03	459632	5.61	439164	8.04	200938	10.25
Lower Limit [b]	57738	2.79	75427	4.03	114908	4.61	109791	7.04	50235	9.25

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V1A8612-BS	128953	3.29	162630	4.53	247432	5.11	234774	7.54	108994	9.75
V1A8612-MB	123294	3.29	162944	4.53	245317	5.11	229688	7.54	104215	9.75
ZZZZZZ	139987	3.29	166648	4.53	255020	5.11	236747	7.54	107293	9.75
JD5010-3	131008	3.29	159997	4.53	244275	5.11	228673	7.54	104948	9.75
JD5010-4	135939	3.29	157411	4.53	244396	5.11	231226	7.54	106263	9.75
ZZZZZZ	134404	3.29	157763	4.53	244399	5.11	230164	7.54	105412	9.75
ZZZZZZ	134474	3.29	159827	4.53	250131	5.11	236493	7.54	106752	9.75
ZZZZZZ	132559	3.29	153982	4.53	242003	5.11	229951	7.54	104783	9.75
JD5010-3MS	117371	3.29	148495	4.53	230788	5.11	224190	7.54	101134	9.75
JD5010-4DUP	134436	3.29	159839	4.53	244791	5.11	234796	7.54	105444	9.75
ZZZZZZ	131494	3.29	155959	4.53	242672	5.11	231123	7.54	104868	9.75
JD5004-6	133262	3.29	155793	4.53	244637	5.11	230338	7.54	105985	9.75
ZZZZZZ	123787	3.29	157729	4.53	244032	5.11	233043	7.54	107598	9.75
ZZZZZZ	128791	3.29	151864	4.53	230278	5.11	228763	7.54	107263	9.75
ZZZZZZ	133066	3.29	158101	4.53	243367	5.11	233048	7.54	105673	9.75
JD5004-1	136255	3.29	156951	4.53	241701	5.11	232043	7.54	108689	9.75
JD5004-2	133282	3.29	156750	4.53	236284	5.11	232251	7.54	107983	9.75
JD5004-3	137692	3.29	157310	4.53	240196	5.11	234245	7.54	106672	9.75

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

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

Internal Standard Area Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Check Std:	V1A8614-CC8558	**Injection Date:**	03/31/20
Lab File ID:	1A199824.D	**Injection Time:**	07:48
Instrument ID:	GCMS1A	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	125368	3.29	154165	4.53	232506	5.11	223777	7.54	105999	9.75
Upper Limit [a]	250736	3.79	308330	5.03	465012	5.61	447554	8.04	211998	10.25
Lower Limit [b]	62684	2.79	77083	4.03	116253	4.61	111889	7.04	53000	9.25

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V1A8614-BS	126507	3.29	155406	4.53	238307	5.11	232053	7.54	106148	9.75
V1A8614-MB	125576	3.29	154178	4.53	230982	5.11	222902	7.54	103991	9.75
ZZZZZZ	123402	3.29	150409	4.53	231373	5.11	222594	7.54	102045	9.75
ZZZZZZ	123799	3.29	151063	4.53	228752	5.11	221249	7.54	102417	9.75
ZZZZZZ	123191	3.29	145383	4.53	222628	5.11	223045	7.54	105647	9.75
JD4900-2	119024	3.29	147771	4.53	218964	5.11	219393	7.54	102902	9.75
JD4900-2MS	119226	3.29	141814	4.53	217615	5.11	218736	7.54	101384	9.75
JD4900-2MSD	122820	3.29	142250	4.53	216418	5.11	218519	7.54	102230	9.75
ZZZZZZ	121802	3.29	149306	4.53	227328	5.11	221892	7.54	103659	9.75
JD5004-1	128775	3.29	150479	4.53	223172	5.11	225204	7.54	105385	9.75
JD5004-3 [c]	129508	3.29	149844	4.53	220451	5.11	222143	7.54	106803	9.75
JD5004-2	121575	3.29	148656	4.53	223024	5.11	222993	7.54	104114	9.75
ZZZZZZ	123871	3.29	150678	4.53	234561	5.11	230311	7.54	105340	9.75
ZZZZZZ	131398	3.29	153536	4.53	236915	5.11	230785	7.54	107243	9.75
ZZZZZZ	124413	3.29	156698	4.53	234871	5.11	228345	7.54	104924	9.75
ZZZZZZ	132503	3.29	152883	4.53	233793	5.11	230371	7.54	107776	9.75
ZZZZZZ	128686	3.29	152851	4.53	236198	5.11	228731	7.54	105839	9.75

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

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

Internal Standard Area Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Check Std:	V3B7168-CC7128	**Injection Date:**	03/27/20
Lab File ID:	3B159100.D	**Injection Time:**	07:28
Instrument ID:	GCMS3B	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	261839	7.95	210311	10.48	285841	11.47	270658	14.81	189195	17.30
Upper Limit [a]	523678	8.45	420622	10.98	571682	11.97	541316	15.31	378390	17.80
Lower Limit [b]	130920	7.45	105156	9.98	142921	10.97	135329	14.31	94598	16.80

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V3B7168-BS	264453	7.94	209746	10.48	282422	11.47	276009	14.81	188902	17.30
V3B7168-MB	242652	7.95	203449	10.48	278539	11.47	262392	14.81	199211	17.31
JD4932-1	227467	7.93	178160	10.48	242912	11.47	231376	14.81	170233	17.31
JD4932-2	211877	7.93	174235	10.48	235348	11.47	227713	14.81	169850	17.31
ZZZZZZ	204741	7.94	166756	10.48	228446	11.47	213700	14.81	160245	17.31
ZZZZZZ	201188	7.95	161909	10.48	219571	11.47	211227	14.81	157067	17.31
ZZZZZZ	194781	7.93	150632	10.48	206429	11.47	204339	14.81	150959	17.31
JD4932-1MS	181468	7.95	155199	10.48	212800	11.47	210984	14.81	146595	17.30
JD4932-2DUP	188348	7.94	158496	10.48	216937	11.47	205935	14.81	155609	17.31
ZZZZZZ	186154	7.93	153777	10.48	208502	11.47	199799	14.81	149653	17.31
ZZZZZZ	185193	7.93	148651	10.48	201371	11.47	193667	14.81	145476	17.31
ZZZZZZ	186161	7.93	144711	10.48	194279	11.47	188572	14.81	143849	17.31
ZZZZZZ	190830	7.93	140781	10.48	192214	11.47	181577	14.81	130403	17.31
ZZZZZZ	177524	7.93	136746	10.48	189191	11.47	185484	14.81	134897	17.31
ZZZZZZ	172404	7.93	138364	10.48	178982	11.47	173436	14.81	133389	17.31
JD5004-5	168407	7.93	132782	10.48	182762	11.47	177042	14.81	135115	17.31
JD5004-7	163829	7.95	132682	10.48	178152	11.47	172329	14.81	127344	17.31
JD5004-4	167580	7.93	130579	10.48	174215	11.47	170753	14.81	121691	17.31

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

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

Surrogate Recovery Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD5004-1	1A199838.D	98	90	90	92
JD5004-1	1A199792.D	103	91	94	93
JD5004-2	1A199840.D	100	89	91	92
JD5004-2	1A199793.D	100	94	93	93
JD5004-3	1A199839.D	99	91	92	93
JD5004-3	1A199794.D	100	90	93	96
JD5004-4	3B159122.D	105	121	99	100
JD5004-5	3B159120.D	106	121	98	92
JD5004-6	1A199787.D	101	89	94	94
JD5004-7	3B159121.D	106	121	97	94
JD4900-2MS	1A199833.D	100	87	89	93
JD4900-2MSD	1A199834.D	97	86	88	93
JD4932-1MS	3B159109.D	104	112	100	103
JD4932-2DUP	3B159111.D	106	112	97	92
JD5010-3MS	1A199783.D	101	85	91	94
JD5010-4DUP	1A199785.D	101	91	93	94
V1A8612-BS	1A199773.D	97	88	92	92
V1A8612-MB	1A199775.D	98	90	95	95
V1A8614-BS	1A199825.D	99	87	88	94
V1A8614-MB	1A199827.D	96	89	93	93
V3B7168-BS	3B159101.D	101	101	100	102
V3B7168-MB	3B159103.D	103	105	98	95

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

Initial Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8558-ICC8558
Lab FileID: 1A198441.D

Response Factor Report MSDTEST1A

Method : C:\MSDCHEM\1\METHODS\M1A8558.M (RTE Integrator)
Title : SW846 Method V8260C, column Rxi-624 30m x 0.25mm x 1.4 um
Last Update : Fri Feb 14 16:11:39 2020
Response via : Initial Calibration

Calibration Files
8 =1A198439.D 0.5 =1A198435.D 4 =1A198438.D 50 =1A198441.D
100 =1A198442.D 1 =1A198436.D 200 =1A198443.D 20 =1A198440.D
2 =1A198437.D 0.2 =1A198434.D = =

Compound	8	0.5	4	50	100	1	200	20	2	0.2	Avg	%RSD
1) I tert Butyl Alcohol-d9	ISTD											
2) 1,4-dioxane	0.110	0.099	0.115	0.114	0.104	0.115	0.112	0.102			0.109	5.62
3) ethanol	0.120	0.128	0.117	0.115	0.158	0.107	0.121	0.142			0.126	13.09
4) tertiary butyl alcohol	1.181	1.106	1.247	1.221	1.239	1.417	1.196	1.213	1.252		1.230	6.75
5) I pentafluorobenzene	ISTD											
6) chlorodifluoromethane												
This compound does not meet initial calibration criteria												
	0.501	0.606	0.502	0.510	0.539	0.585	0.511	0.498	0.499		0.528	7.70
7) dichlorodifluoromethane	0.445	0.496	0.458	0.504	0.508	0.459	0.489	0.461	0.438		0.473	5.54
8) chloromethane	0.495	0.508	0.511	0.503	0.550	0.492	0.479	0.517			0.507	4.14
9) vinyl chloride	0.493	0.534	0.475	0.568	0.555	0.508	0.539	0.501	0.466	0.559	0.520	6.94
10) bromomethane	0.212	0.217	0.261	0.254	0.185	0.233	0.233	0.261			0.232	11.50
11) chloroethane	0.259	0.237	0.245	0.285	0.271	0.264	0.249	0.256	0.260		0.259	5.46
12) vinyl bromide	0.278	0.306	0.266	0.313	0.306	0.289	0.295	0.286	0.297		0.293	5.06
13) trichlorofluoromethane	0.567	0.599	0.549	0.632	0.629	0.511	0.603	0.575	0.560		0.581	6.73
14) ethyl ether	0.238	0.242	0.234	0.241	0.230	0.233	0.247				0.238	2.36
15) 2-chloropropane	0.715	0.696	0.650	0.663	0.631	0.682	0.726				0.680	5.08
16) acrolein	0.139	0.140	0.130	0.134	0.122	0.137					0.134	5.07
17) freon 113	0.344	0.276	0.329	0.336	0.353	0.354	0.325	0.340	0.319		0.331	7.20
18) 1,1-dichloroethene	0.366	0.350	0.374	0.373	0.390	0.450	0.369	0.376	0.378		0.381	7.36
19) acetone	0.063	0.062	0.062	0.063	0.074	0.059	0.064	0.065			0.064	6.98
20) acetonitrile	0.054	0.054	0.053	0.053	0.048	0.052	0.063				0.054	8.19
21) iodomethane	0.392	0.348	0.444	0.450	0.315	0.426	0.421	0.321			0.390	13.98
22) iso-butyl alcohol	0.044	0.046	0.040	0.042	0.037	0.041					0.042	7.65

Initial Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8558-ICC8558
Lab FileID: 1A198441.D

23) carbon disulfide
0.973 0.963 0.957 0.997 1.151 0.950 0.961 0.957 0.989 6.79
24) methylene chloride
0.417 0.479 0.406 0.404 0.418 0.521 0.396 0.412 0.417 0.430 9.73
25) methyl acetate
0.116 0.107 0.113 0.115 0.111 0.114 0.125 0.114 4.66
26) methyl tert butyl ether
1.287 1.281 1.252 1.272 1.289 1.409 1.230 1.268 1.281 1.285 3.89
27) trans-1,2-dichloroethene
0.395 0.362 0.390 0.389 0.404 0.423 0.381 0.406 0.410 0.395 4.50
28) hexane
0.569 0.584 0.562 0.584 0.690 0.550 0.569 0.598 0.588 7.42
29) di-isopropyl ether
1.459 1.573 1.508 1.459 1.478 1.725 1.387 1.478 1.483 1.506 6.36
30) ethyl tert-butyl ether
1.396 1.334 1.384 1.368 1.402 1.508 1.331 1.394 1.363 1.421 1.390 3.64
31) 2-butanone
0.089 0.065 0.090 0.086 0.089 0.109 0.081 0.087 0.090 0.087 12.79
32) 1,1-dichloroethane
0.736 0.685 0.736 0.730 0.731 0.830 0.699 0.729 0.721 0.754 0.735 5.23
33) chloroprene
0.631 0.651 0.635 0.637 0.643 0.709 0.612 0.637 0.613 0.560 0.633 5.85
34) acrylonitrile
0.243 0.251 0.242 0.244 0.257 0.251 0.239 0.251 0.245 0.247 2.34
35) vinyl acetate
0.121 0.117 0.110 0.115 0.109 0.118 0.124 0.116 4.67
36) ethyl acetate
0.125 0.119 0.106 0.122 0.106 0.126 0.127 0.119 7.66
37) 2,2-dichloropropane
0.593 0.641 0.586 0.580 0.586 0.699 0.552 0.573 0.606 0.564 0.598 7.20
38) cis-1,2-dichloroethene
0.465 0.547 0.457 0.447 0.452 0.573 0.430 0.464 0.473 0.478 10.06
39) propionitrile
0.094 0.098 0.094 0.091 0.093 0.099 0.083 0.094 0.099 0.094 5.25
40) methyl acrylate
0.103 0.095 0.094 0.098 0.091 0.098 0.096 0.096 3.95
41) bromochloromethane
0.224 0.236 0.215 0.223 0.227 0.210 0.221 0.201 0.220 4.91
42) tetrahydrofuran
0.087 0.101 0.098 0.096 0.093 0.102 0.084 0.094 7.28
43) chloroform
0.714 0.723 0.729 0.696 0.707 0.838 0.680 0.718 0.708 0.724 6.25
44) dibromofluoromethane (s)
0.430 0.433 0.422 0.436 0.432 0.431 0.430 0.439 0.432 0.425 0.431 1.10
45) methacrylonitrile
0.260 0.253 0.239 0.251 0.295 0.239 0.249 0.251 0.255 6.89
46) 1,1,1-trichloroethane
0.630 0.617 0.620 0.628 0.649 0.709 0.628 0.644 0.634 0.640 4.33
47) cyclohexane
0.621 0.740 0.603 0.648 0.634 0.612 0.600 0.604 0.622 0.632 6.88
48) 1,1-dichloropropene
0.567 0.596 0.570 0.543 0.560 0.589 0.541 0.565 0.582 0.568 3.35
49) carbon tetrachloride
0.535 0.528 0.533 0.547 0.564 0.609 0.542 0.552 0.544 0.550 4.46
50) isopropyl acetate
0.128 0.125 0.134 0.137 0.148 0.130 0.136 0.137 0.134 5.33
51) tert amyl alcohol
0.039 0.042 0.035 0.036 0.031 0.037 0.042 0.037 10.74

52) I 1,4-difluorobenzene ----------ISTD----------

Initial Calibration Summary

Job Number: JD5004 **Sample:** V1A8558-ICC8558
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 1A198441.D
Project: TFC Stage 2, QWD, Long Island City, NY

53) 1,2-dichloroethane-d4 (s)
0.319 0.312 0.312 0.302 0.304 0.313 0.305 0.326 0.317 0.311 0.312 2.31
54) tert-amyl methyl ether
0.845 0.919 0.878 0.830 0.835 0.972 0.809 0.848 0.871 0.868 5.84
55) 2,2,4-trimethylpentane
0.627 0.642 0.631 0.597 0.614 0.740 0.583 0.632 0.607 0.630 7.16
56) n-butyl alcohol
0.018 0.018 0.018 0.018 0.018 0.019 0.017 0.018 0.018 0.018 3.55
57) benzene
1.055 1.129 1.062 1.034 1.035 1.210 0.993 1.048 1.036 1.075 1.068 5.70
58) heptane
0.162 0.165 0.145 0.149 0.202 0.142 0.156 0.165 0.161 11.69
59) 1,2-dichloroethane
0.368 0.459 0.385 0.347 0.349 0.446 0.340 0.362 0.377 0.381 11.30
60) trichloroethene
0.265 0.266 0.267 0.263 0.270 0.307 0.264 0.266 0.263 0.270 5.12
61) ethyl acrylate
0.527 0.524 0.506 0.514 0.560 0.493 0.520 0.526 0.521 3.75
62) 2-nitropropane
0.102 0.102 0.098 0.107 0.103 0.098 0.102 3.35
63) 2-chloroethyl vinyl ether
This compound does not meet initial calibration
0.013 0.007 0.026 0.034 0.040 0.020 0.023 54.29
64) methyl methacrylate
0.099 0.108 0.101 0.103 0.109 0.099 0.101 0.099 0.102 3.90
65) 1,2-dichloropropane
0.272 0.283 0.267 0.272 0.300 0.270 0.273 0.267 0.276 4.03
66) methylcyclohexane
0.396 0.363 0.400 0.385 0.403 0.448 0.382 0.399 0.387 0.396 5.83
67) dibromomethane
0.164 0.145 0.173 0.166 0.167 0.168 0.162 0.169 0.159 0.164 4.99
68) bromodichloromethane
0.352 0.393 0.360 0.353 0.365 0.389 0.359 0.359 0.354 0.353 0.364 4.11
69) cis-1,3-dichloropropene
0.440 0.425 0.430 0.448 0.460 0.493 0.452 0.444 0.404 0.430 0.443 5.35
70) epichlorohydrin
0.048 0.047 0.046 0.048 0.054 0.045 0.047 0.045 0.047 6.17
71) 4-methyl-2-pentanone
0.167 0.157 0.171 0.165 0.167 0.194 0.156 0.170 0.169 0.175 0.169 6.21
72) 3-methyl-1-butanol
0.017 0.017 0.017 0.017 0.016 0.015 0.017 0.015 0.016 4.87

73) I chlorobenzene-d5 ----------ISTD----------
74) toluene-d8 (s)
1.240 1.236 1.224 1.200 1.157 1.236 1.159 1.232 1.218 1.256 1.216 2.78
75) toluene
0.739 0.687 0.756 0.714 0.701 0.830 0.692 0.736 0.738 0.715 0.731 5.68
76) trans-1,3-dichloropropene
0.442 0.425 0.446 0.456 0.444 0.475 0.444 0.449 0.435 0.482 0.450 3.87
77) ethyl methacrylate
0.490 0.515 0.495 0.456 0.451 0.520 0.439 0.469 0.480 0.480 5.89
78) 1,1,2-trichloroethane
0.236 0.240 0.231 0.225 0.275 0.221 0.234 0.228 0.236 7.05
79) 2-hexanone
0.201 0.201 0.197 0.191 0.184 0.230 0.169 0.195 0.192 0.214 0.197 8.36
80) tetrachloroethene
0.352 0.370 0.350 0.335 0.333 0.398 0.323 0.349 0.318 0.348 7.11
81) 1,3-dichloropropane
0.470 0.476 0.486 0.464 0.450 0.541 0.438 0.473 0.461 0.535 0.479 7.01
82) butyl acetate

```
           0.298       0.308 0.284 0.275       0.262 0.288 0.302        0.288    5.62
 83)  dibromochloromethane
           0.299       0.304 0.307 0.311 0.346 0.306 0.304 0.291        0.309    5.21
 84)  1,2-dibromoethane
           0.345 0.329 0.336 0.337 0.330 0.377 0.325 0.340 0.331        0.339    4.56
 85)  n-butyl ether
           1.313 1.335 1.335 1.287 1.276 1.466 1.223 1.295 1.300        1.314    5.05
 86)  chlorobenzene
           0.820 0.800 0.822 0.811 0.799 0.863 0.791 0.813 0.785 1.033  0.834    8.79
 87)  1,1,1,2-tetrachloroethane
           0.288       0.307 0.288 0.288 0.328 0.280 0.290 0.315        0.298    5.59
 88)  ethylbenzene
           1.372 1.426 1.389 1.340 1.312 1.545 1.268 1.363 1.379 1.535  1.393    6.38
 89)  m,p-xylene
           0.528 0.511 0.538 0.512 0.508 0.602 0.489 0.525 0.522 0.577  0.531    6.42
 90)  o-xylene
           0.515 0.565 0.543 0.507 0.501 0.592 0.483 0.512 0.500 0.587  0.531    7.29
 91)  butyl acrylate
           0.718 0.680 0.712 0.709 0.704 0.783 0.660 0.709 0.692 0.723  0.709    4.55
 92)  n-amyl acetate
           0.270       0.282 0.269 0.262 0.282 0.241 0.264 0.259        0.266    5.02
 93)  styrene
           0.901 0.842 0.911 0.888 0.873 1.028 0.828 0.890 0.861 0.918  0.894    6.19
 94)  bromoform
           0.214 0.223 0.218 0.230 0.232 0.225 0.227 0.219 0.221        0.223    2.72
 95)  isopropylbenzene
           1.272 1.259 1.312 1.262 1.265 1.451 1.219 1.265 1.290 1.536  1.313    7.63
 96)  cis-1,4-dichloro-2-butene
           0.141       0.124 0.159 0.164       0.155 0.148              0.148    9.67

 97) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
 98)  4-bromofluorobenzene (s)
           0.963 0.986 0.982 0.971 0.995 0.986 0.993 0.965 0.963 0.978  0.978    1.23
 99)  bromobenzene
           0.803 0.828 0.823 0.785 0.823 0.852 0.786 0.786 0.825        0.812    2.88
100)  1,1,2,2-tetrachloroethane
           0.933 0.959 0.943 0.935 0.947 1.083 0.892 0.937 0.903        0.948    5.80
101)  trans-1,4-dichloro-2-butene
           0.233       0.241 0.267 0.284       0.268 0.259              0.258    7.23
102)  1,2,3-trichloropropane
           0.303       0.303 0.288 0.296 0.313 0.278 0.288 0.279        0.293    4.27
103)  n-propylbenzene
           3.171 3.009 3.257 3.150 3.248 3.451 3.112 3.175 3.155 3.665  3.239    5.82
104)  2-chlorotoluene
           0.700 0.678 0.755 0.703 0.723 0.779 0.692 0.699 0.680        0.712    4.82
105)  4-chlorotoluene
           0.709 0.653 0.701 0.696 0.712 0.791 0.679 0.696 0.662        0.700    5.66
106)  1,3,5-trimethylbenzene
           2.178 2.226 2.313 2.183 2.257 2.642 2.148 2.201 2.225 2.529  2.290    7.17
107)  tert-butylbenzene
           1.879 2.014 1.962 1.856 1.934 2.089 1.829 1.881 1.925 1.628  1.900    6.47
108)  1,2,4-trimethylbenzene
           2.189 2.251 2.275 2.200 2.240 2.652 2.122 2.222 2.177 2.697  2.302    8.73
109)  sec-butylbenzene
           2.478 2.365 2.600 2.501 2.601 2.848 2.440 2.531 2.377 2.713  2.545    5.92
110)  1,3-dichlorobenzene
           1.327 1.222 1.391 1.331 1.351 1.484 1.296 1.340 1.326 1.551  1.362    6.90
111)  p-isopropyltoluene
           2.125 2.066 2.189 2.136 2.189 2.335 2.053 2.143 2.068 2.366  2.167    4.98
112)  1,4-dichlorobenzene
```

Initial Calibration Summary

Job Number: JD5004 **Sample:** V1A8558-ICC8558
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 1A198441.D
Project: TFC Stage 2, QWD, Long Island City, NY

```
           1.334 1.395 1.370 1.327 1.352 1.512 1.298 1.336 1.333 1.583  1.384    6.61
113)  1,2-dichlorobenzene
           1.237 1.258 1.298 1.266 1.265 1.379 1.235 1.247 1.262 1.294  1.274    3.31
114)  n-butylbenzene
           0.924 0.877 0.974 0.948 0.981 1.027 0.967 0.939 0.860        0.944    5.52
115)  1,2-dibromo-3-chloropropane
           0.253       0.239 0.266 0.284 0.241 0.298 0.258 0.234        0.259    8.74
116)  1,3,5-trichlorobenzene
           0.773 0.664 0.781 0.780 0.798 0.811 0.864 0.771 0.725        0.774    7.17
117)  1,2,4-trichlorobenzene
           0.620       0.631 0.668 0.702 0.672 0.757 0.659 0.603        0.664    7.41
118)  hexachlorobutadiene
           0.255       0.270 0.255 0.270 0.285 0.281 0.265 0.244        0.266    5.20
119)  naphthalene
           2.120       2.152 2.282 2.408 2.136 2.473 2.181 1.997        2.219    7.15
120)  1,2,3-trichlorobenzene
           0.563 0.603 0.584 0.606 0.642 0.675 0.664 0.584 0.513        0.604    8.47
121)  hexachloroethane
           0.332       0.322 0.359 0.377 0.325 0.377 0.331 0.308        0.341    7.70
122)  benzyl chloride
           1.461 1.266 1.409 1.616 1.696 1.544 1.663 1.519 1.343        1.502    9.70
123)  2-ethylhexyl acrylate
           0.270             0.382 0.414       0.444 0.341              0.370   18.28
124)  2-methylnaphthalene
           0.645             0.860 0.997       1.049 0.765              0.863   19.18
125)  bis(chloromethyl)ether
                                                                        0.000   -1.00
126)  ethylenimine
                                                                        0.000   -1.00
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M1A8558.M         Fri Feb 14 16:18:17 2020   1A
```

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8558-ICV8558
Lab FileID: 1A198446.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V1A8558\1A198446.D Vial: 19
Acq On : 11 Feb 2020 11:12 pm Operator: mariceld
Sample : ICV8558-50 Inst : MSDTEST1A
Misc : MS41024,V1A8558,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A8558.M (RTE Integrator)
Title : SW846 Method V8260C, column Rxi-624 30m x 0.25mm x 1.4 um
Last Update : Fri Feb 14 16:11:39 2020
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert Butyl Alcohol-d9	1.000	1.000	0.0	101	0.00	3.29
2		1,4-dioxane	0.109	0.120	-10.1	106	0.00	5.55
3		ethanol	0.126	0.123	2.4	106	0.00	2.70
4	M	tertiary butyl alcohol	1.230	1.244	-1.1	103	0.00	3.35
5	I	pentafluorobenzene	1.000	1.000	0.0	102	0.00	4.53
6		chlorodifluoromethane	----------NA----------					
7		dichlorodifluoromethane	0.473	0.508	-7.4	103	0.00	1.80
8		chloromethane	0.507	0.531	-4.7	107	0.00	1.96
9		vinyl chloride	0.520	0.526	-1.2	95	0.00	2.06
10		bromomethane	0.232	0.308	-32.8#	121	0.00	2.32
11		chloroethane	0.259	0.257	0.8	93	0.00	2.41
12		vinyl bromide	0.293	0.341	-16.4	112	0.00	2.55
13		trichlorofluoromethane	0.581	0.650	-11.9	105	0.00	2.60
14		ethyl ether	0.238	0.236	0.8	103	0.00	2.79
15		2-chloropropane	0.680	0.652	4.1	103	0.00	2.89
16		acrolein	0.134	0.123	8.2	97	0.00	2.90
17		freon 113	0.331	0.333	-0.6	101	0.00	2.97
18		1,1-dichloroethene	0.381	0.357	6.3	98	0.00	2.98
19		acetone	0.064	0.065	-1.6	107	0.00	2.99
20		acetonitrile	----------NA----------					
21		iodomethane	0.390	0.503	-29.0	116	0.00	3.10
22		iso-butyl alcohol	0.042	0.044	-4.8	112	0.00	4.68
23		carbon disulfide	0.989	1.112	-12.4	119	0.00	3.16
24		methylene chloride	0.430	0.410	4.7	104	0.00	3.32
25		methyl acetate	0.114	0.111	2.6	100	0.00	3.21
26		methyl tert butyl ether	1.285	1.241	3.4	100	0.00	3.50
27		trans-1,2-dichloroethene	0.395	0.392	0.8	103	0.00	3.51
28		hexane	0.588	0.643	-9.4	117	0.00	3.69
29		di-isopropyl ether	1.506	1.392	7.6	98	0.00	3.80
30		ethyl tert-butyl ether	1.390	1.307	6.0	98	0.00	4.06
31		2-butanone	0.087	0.089	-2.3	105	0.00	4.18
32	M	1,1-dichloroethane	0.735	0.739	-0.5	104	0.00	3.81
33		chloroprene	0.633	0.639	-0.9	103	0.00	3.87
34		acrylonitrile	----------NA----------					
35		vinyl acetate	0.116	0.107	7.8	100	0.00	3.78
36		ethyl acetate	0.119	0.116	2.5	112	0.00	4.19
37		2,2-dichloropropane	0.598	0.555	7.2	98	0.00	4.22
38		cis-1,2-dichloroethene	0.478	0.442	7.5	101	0.00	4.21
39		propionitrile	0.094	0.108	-14.9	121	0.00	4.23
40		methyl acrylate	0.096	0.099	-3.1	108	0.00	4.23

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8558-ICV8558
Lab FileID: 1A198446.D

41		bromochloromethane	0.220	0.223	-1.4	106	0.00	4.38
42		tetrahydrofuran	0.094	0.102	-8.5	106	0.00	4.39
43		chloroform	0.724	0.709	2.1	104	0.00	4.43
44	S	dibromofluoromethane (s)	0.431	0.432	-0.2	102	0.00	4.54
45		methacrylonitrile	0.255	0.252	1.2	108	0.00	4.34
46		1,1,1-trichloroethane	0.640	0.635	0.8	103	0.00	4.58
47		cyclohexane	0.632	0.602	4.7	95	0.00	4.64
48		1,1-dichloropropene	0.568	0.556	2.1	105	0.00	4.69
49		carbon tetrachloride	0.550	0.556	-1.1	104	0.00	4.70
50		isopropyl acetate	0.134	0.131	2.2	101	0.00	4.80
51		tert amyl alcohol	0.037	0.037	0.0	109	0.00	4.78
52	I	1,4-difluorobenzene	1.000	1.000	0.0	102	0.00	5.11
53	S	1,2-dichloroethane-d4 (s)	0.312	0.302	3.2	102	0.00	4.80
54		tert-amyl methyl ether	0.868	0.770	11.3	95	0.00	4.90
55		2,2,4-trimethylpentane	0.630	0.601	4.6	103	0.00	4.90
56		n-butyl alcohol	0.018	0.018	0.0	104	0.00	5.17
57	M	benzene	1.068	1.045	2.2	103	0.00	4.84
58		heptane	0.161	0.142	11.8	99	0.00	5.01
59		1,2-dichloroethane	0.381	0.347	8.9	102	0.00	4.86
60		trichloroethene	0.270	0.274	-1.5	106	0.00	5.31
61		ethyl acrylate	0.521	0.501	3.8	101	0.00	5.32
62		2-nitropropane	0.102	0.114	-11.8	118	0.00	5.87
63		2-chloroethyl vinyl ether	0.023	0.030	-30.4#	116	0.00	5.90
64		methyl methacrylate	0.102	0.106	-3.9	107	0.00	5.51
65		1,2-dichloropropane	0.276	0.271	1.8	103	0.00	5.51
66		methylcyclohexane	0.396	0.393	0.8	104	0.00	5.50
67		dibromomethane	0.164	0.167	-1.8	102	0.00	5.58
68		bromodichloromethane	0.364	0.358	1.6	104	0.00	5.70
69		cis-1,3-dichloropropene	0.443	0.462	-4.3	105	0.00	6.04
70		epichlorohydrin	0.047	0.048	-2.1	106	0.00	5.95
71		4-methyl-2-pentanone	0.169	0.170	-0.6	105	0.00	6.15
72		3-methyl-1-butanol	0.016	0.017	-6.3	104	0.00	6.16
73	I	chlorobenzene-d5	1.000	1.000	0.0	104	0.00	7.54
74	S	toluene-d8 (s)	1.216	1.185	2.5	103	0.00	6.28
75		toluene	0.731	0.724	1.0	105	0.00	6.34
76		trans-1,3-dichloropropene	0.450	0.467	-3.8	106	0.00	6.50
77		ethyl methacrylate	0.480	0.477	0.6	109	0.00	6.52
78		1,1,2-trichloroethane	0.236	0.233	1.3	105	0.00	6.68
79		2-hexanone	0.197	0.189	4.1	103	0.00	6.84
80		tetrachloroethene		----------NA----------				
81		1,3-dichloropropane	0.479	0.474	1.0	106	0.00	6.82
82		butyl acetate	0.288	0.285	1.0	104	0.00	6.92
83		dibromochloromethane	0.309	0.319	-3.2	108	0.00	7.02
84		1,2-dibromoethane	0.339	0.348	-2.7	107	0.00	7.13
85		n-butyl ether	1.314	1.260	4.1	102	0.00	7.60
86		chlorobenzene	0.834	0.833	0.1	107	0.00	7.57
87		1,1,1,2-tetrachloroethane	0.298	0.295	1.0	106	0.00	7.63
88		ethylbenzene	1.393	1.350	3.1	105	0.00	7.64
89		m,p-xylene	0.531	0.522	1.7	106	0.00	7.76
90		o-xylene	0.531	0.512	3.6	105	0.00	8.12
91		butyl acrylate	0.709	0.699	1.4	102	0.00	8.03
92		n-amyl acetate	0.266	0.256	3.8	99	0.00	8.23
93		styrene	0.894	0.892	0.2	104	0.00	8.13
94		bromoform	0.223	0.251	-12.6	113	0.00	8.31
95		isopropylbenzene	1.313	1.299	1.1	107	0.00	8.45
96		cis-1,4-dichloro-2-butene	0.148	0.166	-12.2	109	0.00	8.50
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	9.75

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8558-ICV8558
Lab FileID: 1A198446.D

98	S	4-bromofluorobenzene (s)	0.978	0.980	-0.2	104	0.00	8.62
99		bromobenzene	0.812	0.815	-0.4	107	0.00	8.77
100		1,1,2,2-tetrachloroethane	0.948	0.952	-0.4	105	0.00	8.74
101		trans-1,4-dichloro-2-bute	0.258	0.265	-2.7	102	0.00	8.77
102		1,2,3-trichloropropane	0.293	0.296	-1.0	106	0.00	8.80
103		n-propylbenzene	3.239	3.301	-1.9	108	0.00	8.85
104		2-chlorotoluene	0.712	0.711	0.1	104	0.00	8.95
105		4-chlorotoluene	0.700	0.729	-4.1	108	0.00	9.07
106		1,3,5-trimethylbenzene	2.290	2.253	1.6	106	0.00	9.02
107		tert-butylbenzene	1.900	1.975	-3.9	109	0.00	9.33
108		1,2,4-trimethylbenzene	2.302	2.310	-0.3	108	0.00	9.39
109		sec-butylbenzene	2.545	2.608	-2.5	107	0.00	9.55
110		1,3-dichlorobenzene	1.362	1.407	-3.3	109	0.00	9.68
111		p-isopropyltoluene	2.167	2.230	-2.9	107	0.00	9.70
112		1,4-dichlorobenzene	1.384	1.372	0.9	106	0.00	9.78
113		1,2-dichlorobenzene	1.274	1.299	-2.0	105	0.00	10.13
114		n-butylbenzene	0.944	0.986	-4.4	107	0.00	10.10
115		1,2-dibromo-3-chloropropa	0.259	0.272	-5.0	105	0.00	10.90
116		1,3,5-trichlorobenzene	0.774	0.820	-5.9	108	0.00	11.10
117		1,2,4-trichlorobenzene	0.664	0.690	-3.9	106	0.00	11.73
118		hexachlorobutadiene	0.266	0.260	2.3	105	0.00	11.87
119		naphthalene	2.219	2.355	-6.1	106	0.00	12.00
120		1,2,3-trichlorobenzene	0.604	0.619	-2.5	105	0.00	12.22
121		hexachloroethane	0.341	0.376	-10.3	108	0.00	10.40
122		benzyl chloride	1.502	1.255	16.4	80	0.00	9.88
123		2-ethylhexyl acrylate	0.370	0.425	-14.9	114	0.00	11.90
124		2-methylnaphthalene	0.863	0.926	-7.3	111	0.00	13.16
125		bis(chloromethyl)ether		----------NA----------				
126		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0

1A198441.D M1A8558.M Fri Feb 14 16:18:29 2020 1A

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8558-ICV8558
Lab FileID: 1A198447.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V1A8558\1A198447.D Vial: 20
Acq On : 11 Feb 2020 11:37 pm Operator: mariceld
Sample : ICV8558-50 Inst : MSDTEST1A
Misc : MS41024,V1A8558,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A8558.M (RTE Integrator)
Title : SW846 Method V8260C, column Rxi-624 30m x 0.25mm x 1.4 um
Last Update : Fri Feb 14 16:11:39 2020
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert Butyl Alcohol-d9	1.000	1.000	0.0	111	0.00	3.29
2		1,4-dioxane		----------NA----------				
3		ethanol		----------NA----------				
4	M	tertiary butyl alcohol		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	109	0.00	4.54
6		chlorodifluoromethane		----------NA----------				
7		dichlorodifluoromethane		----------NA----------				
8		chloromethane		----------NA----------				
9		vinyl chloride		----------NA----------				
10		bromomethane		----------NA----------				
11		chloroethane		----------NA----------				
12		vinyl bromide		----------NA----------				
13		trichlorofluoromethane		----------NA----------				
14		ethyl ether		----------NA----------				
15		2-chloropropane		----------NA----------				
16		acrolein		----------NA----------				
17		freon 113		----------NA----------				
18		1,1-dichloroethene		----------NA----------				
19		acetone		----------NA----------				
20		acetonitrile	0.054	0.053	1.9	111	0.00	3.19
21		iodomethane		----------NA----------				
22		iso-butyl alcohol		----------NA----------				
23		carbon disulfide		----------NA----------				
24		methylene chloride		----------NA----------				
25		methyl acetate		----------NA----------				
26		methyl tert butyl ether		----------NA----------				
27		trans-1,2-dichloroethene		----------NA----------				
28		hexane		----------NA----------				
29		di-isopropyl ether		----------NA----------				
30		ethyl tert-butyl ether		----------NA----------				
31		2-butanone		----------NA----------				
32	M	1,1-dichloroethane		----------NA----------				
33		chloroprene		----------NA----------				
34		acrylonitrile	0.247	0.254	-2.8	114	0.00	3.47
35		vinyl acetate		----------NA----------				
36		ethyl acetate		----------NA----------				
37		2,2-dichloropropane		----------NA----------				
38		cis-1,2-dichloroethene		----------NA----------				
39		propionitrile		----------NA----------				
40		methyl acrylate		----------NA----------				
41		bromochloromethane		----------NA----------				

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8558-ICV8558
Lab FileID: 1A198447.D

42		tetrahydrofuran		----------NA----------					
43		chloroform		----------NA----------					
44	S	dibromofluoromethane (s)	0.431	0.429	0.5	108	0.00	4.54	
45		methacrylonitrile		----------NA----------					
46		1,1,1-trichloroethane		----------NA----------					
47		cyclohexane		----------NA----------					
48		1,1-dichloropropene		----------NA----------					
49		carbon tetrachloride		----------NA----------					
50		isopropyl acetate		----------NA----------					
51		tert amyl alcohol		----------NA----------					
52	I	1,4-difluorobenzene	1.000	1.000	0.0	108	0.00	5.11	
53	S	1,2-dichloroethane-d4 (s)	0.312	0.315	-1.0	112	0.00	4.80	
54		tert-amyl methyl ether		----------NA----------					
55		2,2,4-trimethylpentane		----------NA----------					
56		n-butyl alcohol		----------NA----------					
57	M	benzene		----------NA----------					
58		heptane		----------NA----------					
59		1,2-dichloroethane		----------NA----------					
60		trichloroethene		----------NA----------					
61		ethyl acrylate		----------NA----------					
62		2-nitropropane		----------NA----------					
63		2-chloroethyl vinyl ether		----------NA----------					
64		methyl methacrylate		----------NA----------					
65		1,2-dichloropropane		----------NA----------					
66		methylcyclohexane		----------NA----------					
67		dibromomethane		----------NA----------					
68		bromodichloromethane		----------NA----------					
69		cis-1,3-dichloropropene		----------NA----------					
70		epichlorohydrin		----------NA----------					
71		4-methyl-2-pentanone		----------NA----------					
72		3-methyl-1-butanol		----------NA----------					
73	I	chlorobenzene-d5	1.000	1.000	0.0	107	0.00	7.54	
74	S	toluene-d8 (s)	1.216	1.236	-1.6	110	0.00	6.28	
75		toluene		----------NA----------					
76		trans-1,3-dichloropropene		----------NA----------					
77		ethyl methacrylate		----------NA----------					
78		1,1,2-trichloroethane		----------NA----------					
79		2-hexanone		----------NA----------					
80		tetrachloroethene	0.348	0.341	2.0	108	0.00	6.78	
81		1,3-dichloropropane		----------NA----------					
82		butyl acetate		----------NA----------					
83		dibromochloromethane		----------NA----------					
84		1,2-dibromoethane		----------NA----------					
85		n-butyl ether		----------NA----------					
86		chlorobenzene		----------NA----------					
87		1,1,1,2-tetrachloroethane		----------NA----------					
88		ethylbenzene		----------NA----------					
89		m,p-xylene		----------NA----------					
90		o-xylene		----------NA----------					
91		butyl acrylate		----------NA----------					
92		n-amyl acetate		----------NA----------					
93		styrene		----------NA----------					
94		bromoform		----------NA----------					
95		isopropylbenzene		----------NA----------					
96		cis-1,4-dichloro-2-butene		----------NA----------					
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	107	0.00	9.75	
98	S	4-bromofluorobenzene (s)	0.978	0.980	-0.2	108	0.00	8.62	

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8558-ICV8558
Lab FileID: 1A198447.D

99	bromobenzene	----------NA----------	
100	1,1,2,2-tetrachloroethane	----------NA----------	
101	trans-1,4-dichloro-2-bute	----------NA----------	
102	1,2,3-trichloropropane	----------NA----------	
103	n-propylbenzene	----------NA----------	
104	2-chlorotoluene	----------NA----------	
105	4-chlorotoluene	----------NA----------	
106	1,3,5-trimethylbenzene	----------NA----------	
107	tert-butylbenzene	----------NA----------	
108	1,2,4-trimethylbenzene	----------NA----------	
109	sec-butylbenzene	----------NA----------	
110	1,3-dichlorobenzene	----------NA----------	
111	p-isopropyltoluene	----------NA----------	
112	1,4-dichlorobenzene	----------NA----------	
113	1,2-dichlorobenzene	----------NA----------	
114	n-butylbenzene	----------NA----------	
115	1,2-dibromo-3-chloropropa	----------NA----------	
116	1,3,5-trichlorobenzene	----------NA----------	
117	1,2,4-trichlorobenzene	----------NA----------	
118	hexachlorobutadiene	----------NA----------	
119	naphthalene	----------NA----------	
120	1,2,3-trichlorobenzene	----------NA----------	
121	hexachloroethane	----------NA----------	
122	benzyl chloride	----------NA----------	
123	2-ethylhexyl acrylate	----------NA----------	
124	2-methylnaphthalene	----------NA----------	
125	bis(chloromethyl)ether	----------NA----------	
126	ethylenimine	----------NA----------	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1A198441.D M1A8558.M Fri Feb 14 16:18:32 2020 1A

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8558-ICV8558
Lab FileID: 1A198450.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V1A8558\1A198450.D Vial: 23
Acq On : 12 Feb 2020 8:56 am Operator: mariceld
Sample : icv8558-50 Inst : MSDTEST1A
Misc : MS41024,V1A8558,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A8558.M (RTE Integrator)
Title : SW846 Method V8260C, column Rxi-624 30m x 0.25mm x 1.4 um
Last Update : Fri Feb 14 16:11:39 2020
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert Butyl Alcohol-d9	1.000	1.000	0.0	113	0.00	3.29
2		1,4-dioxane		----------NA----------				
3		ethanol		----------NA----------				
4	M	tertiary butyl alcohol		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	115	0.00	4.53
6		chlorodifluoromethane		----------NA----------				
7		dichlorodifluoromethane	0.473	0.346	26.8	79	0.00	1.80
8		chloromethane	0.507	0.403	20.5	91	0.00	1.96
9		vinyl chloride	0.520	0.422	18.8	85	0.00	2.06
10		bromomethane	0.232	0.255	-9.9	112	0.00	2.33
11		chloroethane	0.259	0.211	18.5	85	0.00	2.41
12		vinyl bromide	0.293	0.286	2.4	105	0.00	2.56
13		trichlorofluoromethane	0.581	0.512	11.9	93	0.00	2.60
14		ethyl ether		----------NA----------				
15		2-chloropropane		----------NA----------				
16		acrolein		----------NA----------				
17		freon 113		----------NA----------				
18		1,1-dichloroethene		----------NA----------				
19		acetone		----------NA----------				
20		acetonitrile		----------NA----------				
21		iodomethane		----------NA----------				
22		iso-butyl alcohol		----------NA----------				
23		carbon disulfide		----------NA----------				
24		methylene chloride		----------NA----------				
25		methyl acetate		----------NA----------				
26		methyl tert butyl ether		----------NA----------				
27		trans-1,2-dichloroethene		----------NA----------				
28		hexane		----------NA----------				
29		di-isopropyl ether		----------NA----------				
30		ethyl tert-butyl ether		----------NA----------				
31		2-butanone		----------NA----------				
32	M	1,1-dichloroethane		----------NA----------				
33		chloroprene		----------NA----------				
34		acrylonitrile		----------NA----------				
35		vinyl acetate		----------NA----------				
36		ethyl acetate		----------NA----------				
37		2,2-dichloropropane		----------NA----------				
38		cis-1,2-dichloroethene		----------NA----------				
39		propionitrile		----------NA----------				
40		methyl acrylate		----------NA----------				
41		bromochloromethane		----------NA----------				

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8558-ICV8558
Lab FileID: 1A198450.D

42		tetrahydrofuran		----------NA----------				
43		chloroform		----------NA----------				
44	S	dibromofluoromethane (s)	0.431	0.433	-0.5	114	0.00	4.54
45		methacrylonitrile		----------NA----------				
46		1,1,1-trichloroethane		----------NA----------				
47		cyclohexane	0.632	0.501	20.7	89	0.00	4.64
48		1,1-dichloropropene		----------NA----------				
49		carbon tetrachloride		----------NA----------				
50		isopropyl acetate		----------NA----------				
51		tert amyl alcohol		----------NA----------				
52	I	1,4-difluorobenzene	1.000	1.000	0.0	113	0.00	5.11
53	S	1,2-dichloroethane-d4 (s)	0.312	0.306	1.9	115	0.00	4.80
54		tert-amyl methyl ether		----------NA----------				
55		2,2,4-trimethylpentane		----------NA----------				
56		n-butyl alcohol		----------NA----------				
57	M	benzene		----------NA----------				
58		heptane		----------NA----------				
59		1,2-dichloroethane		----------NA----------				
60		trichloroethene		----------NA----------				
61		ethyl acrylate		----------NA----------				
62		2-nitropropane		----------NA----------				
63		2-chloroethyl vinyl ether		----------NA----------				
64		methyl methacrylate		----------NA----------				
65		1,2-dichloropropane		----------NA----------				
66		methylcyclohexane		----------NA----------				
67		dibromomethane		----------NA----------				
68		bromodichloromethane		----------NA----------				
69		cis-1,3-dichloropropene		----------NA----------				
70		epichlorohydrin		----------NA----------				
71		4-methyl-2-pentanone		----------NA----------				
72		3-methyl-1-butanol		----------NA----------				
73	I	chlorobenzene-d5	1.000	1.000	0.0	109	0.00	7.54
74	S	toluene-d8 (s)	1.216	1.241	-2.1	113	0.00	6.28
75		toluene		----------NA----------				
76		trans-1,3-dichloropropene		----------NA----------				
77		ethyl methacrylate		----------NA----------				
78		1,1,2-trichloroethane		----------NA----------				
79		2-hexanone		----------NA----------				
80		tetrachloroethene		----------NA----------				
81		1,3-dichloropropane		----------NA----------				
82		butyl acetate		----------NA----------				
83		dibromochloromethane		----------NA----------				
84		1,2-dibromoethane		----------NA----------				
85		n-butyl ether		----------NA----------				
86		chlorobenzene		----------NA----------				
87		1,1,1,2-tetrachloroethane		----------NA----------				
88		ethylbenzene		----------NA----------				
89		m,p-xylene		----------NA----------				
90		o-xylene		----------NA----------				
91		butyl acrylate		----------NA----------				
92		n-amyl acetate		----------NA----------				
93		styrene		----------NA----------				
94		bromoform		----------NA----------				
95		isopropylbenzene		----------NA----------				
96		cis-1,4-dichloro-2-butene		----------NA----------				
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	109	0.00	9.75
98	S	4-bromofluorobenzene (s)	0.978	0.975	0.3	110	0.00	8.63

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8558-ICV8558
Lab FileID: 1A198450.D

99	bromobenzene	----------NA----------	
100	1,1,2,2-tetrachloroethane	----------NA----------	
101	trans-1,4-dichloro-2-bute	----------NA----------	
102	1,2,3-trichloropropane	----------NA----------	
103	n-propylbenzene	----------NA----------	
104	2-chlorotoluene	----------NA----------	
105	4-chlorotoluene	----------NA----------	
106	1,3,5-trimethylbenzene	----------NA----------	
107	tert-butylbenzene	----------NA----------	
108	1,2,4-trimethylbenzene	----------NA----------	
109	sec-butylbenzene	----------NA----------	
110	1,3-dichlorobenzene	----------NA----------	
111	p-isopropyltoluene	----------NA----------	
112	1,4-dichlorobenzene	----------NA----------	
113	1,2-dichlorobenzene	----------NA----------	
114	n-butylbenzene	----------NA----------	
115	1,2-dibromo-3-chloropropa	----------NA----------	
116	1,3,5-trichlorobenzene	----------NA----------	
117	1,2,4-trichlorobenzene	----------NA----------	
118	hexachlorobutadiene	----------NA----------	
119	naphthalene	----------NA----------	
120	1,2,3-trichlorobenzene	----------NA----------	
121	hexachloroethane	----------NA----------	
122	benzyl chloride	----------NA----------	
123	2-ethylhexyl acrylate	----------NA----------	
124	2-methylnaphthalene	----------NA----------	
125	bis(chloromethyl)ether	----------NA----------	
126	ethylenimine	----------NA----------	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1A198441.D M1A8558.M Mon Feb 17 11:51:56 2020 1A

Continuing Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8612-CC8558
Lab FileID: 1A199772.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...a8612 rush\1a199772.d Vial: 2
Acq On : 29 Mar 2020 12:23 pm Operator: mariceld
Sample : cc8558-50 Inst : MSDTEST1A
Misc : MS42037,V1A8612,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\methods\M1A8558.M (RTE Integrator)
Title : SW846 Method V8260C, column Rxi-624 30m x 0.25mm x 1.4 um
Last Update : Fri Feb 14 16:11:39 2020
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert Butyl Alcohol-d9	1.000	1.000	0.0	97	0.00	3.29
2		1,4-dioxane	0.109	0.130	-19.3	110	0.00	5.55
3		ethanol	0.126	0.115	8.7	95	0.00	2.69
4	M	tertiary butyl alcohol	1.230	1.180	4.1	94	0.00	3.34
5	I	pentafluorobenzene	1.000	1.000	0.0	106	0.00	4.53
6		chlorodifluoromethane	0.528	0.492	6.8	103	0.00	1.81
7		dichlorodifluoromethane	0.473	0.433	8.5	92	0.00	1.80
8		chloromethane	0.507	0.459	9.5	96	0.00	1.96
9		vinyl chloride	0.520	0.447	14.0	84	0.00	2.06
10		bromomethane	0.232	0.258	-11.2	105	0.00	2.32
11		chloroethane	0.259	0.259	0.0	97	0.00	2.41
12		vinyl bromide	0.293	0.294	-0.3	100	0.00	2.56
13		trichlorofluoromethane	0.581	0.573	1.4	96	0.00	2.60
14		ethyl ether	0.238	0.226	5.0	103	0.00	2.79
15		2-chloropropane	0.680	0.615	9.6	101	0.00	2.89
16		acrolein	0.134	0.082	38.8#	67	0.00	2.90
17		freon 113	0.331	0.324	2.1	103	0.00	2.97
18		1,1-dichloroethene	0.381	0.367	3.7	105	0.00	2.98
19		acetone	0.064	0.063	1.6	108	0.00	2.99
20		acetonitrile	0.054	0.051	5.6	103	0.00	3.19
21		iodomethane	0.390	0.392	-0.5	94	0.00	3.10
22		iso-butyl alcohol	0.042	0.039	7.1	103	0.00	4.68
23		carbon disulfide	0.989	0.929	6.1	103	0.00	3.16
24		methylene chloride	0.430	0.415	3.5	109	0.00	3.32
25		methyl acetate	0.114	0.119	-4.4	112	0.00	3.20
26		methyl tert butyl ether	1.285	1.246	3.0	104	0.00	3.49
27		trans-1,2-dichloroethene	0.395	0.413	-4.6	113	0.00	3.51
28		hexane	0.588	0.552	6.1	105	0.00	3.69
29		di-isopropyl ether	1.506	1.402	6.9	102	0.00	3.80
30		ethyl tert-butyl ether	1.390	1.316	5.3	102	0.00	4.05
31		2-butanone	0.087	0.087	0.0	107	0.00	4.18
32	M	1,1-dichloroethane	0.735	0.702	4.5	102	0.00	3.81
33		chloroprene	0.633	0.584	7.7	98	0.00	3.86
34		acrylonitrile	0.247	0.249	-0.8	108	0.00	3.47
35		vinyl acetate	0.116	0.116	0.0	112	0.00	3.78
36		ethyl acetate	0.119	0.107	10.1	107	0.00	4.19
37		2,2-dichloropropane	0.598	0.606	-1.3	111	0.00	4.22
38		cis-1,2-dichloroethene	0.478	0.466	2.5	111	0.00	4.20
39		propionitrile	0.094	0.091	3.2	106	0.00	4.23
40		methyl acrylate	0.096	0.099	-3.1	112	0.00	4.23
41		bromochloromethane	0.220	0.238	-8.2	118	0.00	4.37

Continuing Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8612-CC8558
Lab FileID: 1A199772.D

42		tetrahydrofuran	0.094	0.097	-3.2	105	0.00	4.39
43		chloroform	0.724	0.722	0.3	110	0.00	4.43
44	S	dibromofluoromethane (s)	0.431	0.423	1.9	103	0.00	4.54
45		methacrylonitrile	0.255	0.251	1.6	111	0.00	4.34
46		1,1,1-trichloroethane	0.640	0.641	-0.2	109	0.00	4.58
47		cyclohexane	0.632	0.579	8.4	95	0.00	4.64
48		1,1-dichloropropene	0.568	0.552	2.8	108	0.00	4.68
49		carbon tetrachloride	0.550	0.563	-2.4	110	0.00	4.69
50		isopropyl acetate	0.134	0.136	-1.5	108	0.00	4.80
51		tert amyl alcohol	0.037	0.034	8.1	104	0.00	4.77
52	I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00	5.11
53	S	1,2-dichloroethane-d4 (s)	0.312	0.273	12.5	94	0.00	4.80
54		tert-amyl methyl ether	0.868	0.837	3.6	105	0.00	4.89
55		2,2,4-trimethylpentane	0.630	0.600	4.8	104	0.00	4.90
56		n-butyl alcohol	0.018	0.017	5.6	101	0.00	5.16
57	M	benzene	1.068	1.082	-1.3	108	0.00	4.84
58		heptane	0.161	0.151	6.2	108	0.00	5.01
59		1,2-dichloroethane	0.381	0.353	7.3	106	0.00	4.86
60		trichloroethene	0.270	0.283	-4.8	112	0.00	5.31
61		ethyl acrylate	0.521	0.507	2.7	104	0.00	5.32
62		2-nitropropane	0.102	0.111	-8.8	118	0.00	5.87
63		2-chloroethyl vinyl ether	0.023	0.086	-273.9#	342#	0.00	5.89
64		methyl methacrylate	0.102	0.108	-5.9	112	0.00	5.50
65		1,2-dichloropropane	0.276	0.280	-1.4	109	0.00	5.51
66		methylcyclohexane	0.396	0.392	1.0	106	0.00	5.50
67		dibromomethane	0.164	0.181	-10.4	113	0.00	5.58
68		bromodichloromethane	0.364	0.388	-6.6	114	0.00	5.70
69		cis-1,3-dichloropropene	0.443	0.474	-7.0	110	0.00	6.04
70		epichlorohydrin	0.047	0.050	-6.4	111	0.00	5.95
71		4-methyl-2-pentanone	0.169	0.170	-0.6	107	0.00	6.14
72		3-methyl-1-butanol	0.016	0.016	0.0	101	0.00	6.15
73	I	chlorobenzene-d5	1.000	1.000	0.0	109	0.00	7.54
74	S	toluene-d8 (s)	1.216	1.120	7.9	102	0.00	6.27
75		toluene	0.731	0.733	-0.3	112	0.00	6.33
76		trans-1,3-dichloropropene	0.450	0.453	-0.7	109	0.00	6.50
77		ethyl methacrylate	0.480	0.464	3.3	111	0.00	6.52
78		1,1,2-trichloroethane	0.236	0.238	-0.8	113	0.00	6.67
79		2-hexanone	0.197	0.183	7.1	105	0.00	6.84
80		tetrachloroethene	0.348	0.355	-2.0	116	0.00	6.77
81		1,3-dichloropropane	0.479	0.468	2.3	110	0.00	6.82
82		butyl acetate	0.288	0.273	5.2	105	0.00	6.92
83		dibromochloromethane	0.309	0.334	-8.1	119	0.00	7.01
84		1,2-dibromoethane	0.339	0.361	-6.5	117	0.00	7.13
85		n-butyl ether	1.314	1.230	6.4	105	0.00	7.60
86		chlorobenzene	0.834	0.842	-1.0	113	0.00	7.56
87		1,1,1,2-tetrachloroethane	0.298	0.309	-3.7	117	0.00	7.63
88		ethylbenzene	1.393	1.351	3.0	110	0.00	7.64
89		m,p-xylene	0.531	0.534	-0.6	114	0.00	7.75
90		o-xylene	0.531	0.523	1.5	113	0.00	8.11
91		butyl acrylate	0.709	0.670	5.5	103	0.00	8.02
92		n-amyl acetate	0.266	0.262	1.5	107	0.00	8.23
93		styrene	0.894	0.906	-1.3	112	0.00	8.13
94		bromoform	0.223	0.260	-16.6	124	0.00	8.31
95		isopropylbenzene	1.313	1.306	0.5	113	0.00	8.45
96		cis-1,4-dichloro-2-butene	0.148	0.169	-14.2	116	0.00	8.50
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	112	0.00	9.75
98	S	4-bromofluorobenzene (s)	0.978	0.914	6.5	106	0.00	8.62

Continuing Calibration Summary

Job Number: JD5004 **Sample:** V1A8612-CC8558
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 1A199772.D
Project: TFC Stage 2, QWD, Long Island City, NY

99	bromobenzene	0.812	0.820	-1.0	117	0.00	8.77
100	1,1,2,2-tetrachloroethane	0.948	0.928	2.1	111	0.00	8.73
101	trans-1,4-dichloro-2-bute	0.258	0.266	-3.1	112	0.00	8.77
102	1,2,3-trichloropropane	0.293	0.294	-0.3	114	0.00	8.80
103	n-propylbenzene	3.239	3.096	4.4	110	0.00	8.85
104	2-chlorotoluene	0.712	0.701	1.5	112	0.00	8.95
105	4-chlorotoluene	0.700	0.715	-2.1	115	0.00	9.06
106	1,3,5-trimethylbenzene	2.290	2.172	5.2	112	0.00	9.02
107	tert-butylbenzene	1.900	1.861	2.1	112	0.00	9.33
108	1,2,4-trimethylbenzene	2.302	2.188	5.0	112	0.00	9.38
109	sec-butylbenzene	2.545	2.474	2.8	111	0.00	9.54
110	1,3-dichlorobenzene	1.362	1.370	-0.6	115	0.00	9.67
111	p-isopropyltoluene	2.167	2.122	2.1	111	0.00	9.69
112	1,4-dichlorobenzene	1.384	1.377	0.5	116	0.00	9.77
113	1,2-dichlorobenzene	1.274	1.285	-0.9	114	0.00	10.13
114	n-butylbenzene	0.944	0.957	-1.4	113	0.00	10.09
115	1,2-dibromo-3-chloropropa	0.259	0.282	-8.9	119	0.00	10.90
116	1,3,5-trichlorobenzene	0.774	0.806	-4.1	116	0.00	11.09
117	1,2,4-trichlorobenzene	0.664	0.690	-3.9	116	0.00	11.73
118	hexachlorobutadiene	0.266	0.275	-3.4	121	0.00	11.86
119	naphthalene	2.219	2.295	-3.4	113	0.00	12.00
120	1,2,3-trichlorobenzene	0.604	0.617	-2.2	114	0.00	12.22
121	hexachloroethane	0.341	0.374	-9.7	117	0.00	10.40
122	benzyl chloride	1.502	1.855	-23.5#	129	0.00	9.88
123	2-ethylhexyl acrylate	0.370	0.344	7.0	101	0.00	11.89
124	2-methylnaphthalene	0.863	0.796	7.8	104	0.00	13.15
125	bis(chloromethyl)ether		----------NA----------				
126	ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1A198441.D M1A8558.M Wed Apr 01 02:56:37 2020

Continuing Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V1A8614-CC8558
Lab FileID: 1A199824.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...a8614 rush\1a199824.d Vial: 2
Acq On : 31 Mar 2020 7:48 am Operator: BridgetK
Sample : cc8558-20 Inst : MSDTEST1A
Misc : MS42041,V1A8614,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\methods\M1A8558.M (RTE Integrator)
Title : SW846 Method V8260C, column Rxi-624 30m x 0.25mm x 1.4 um
Last Update : Fri Feb 14 16:11:39 2020
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert Butyl Alcohol-d9	1.000	1.000	0.0	103	0.00	3.29
2		1,4-dioxane	0.109	0.127	-16.5	117	0.00	5.55
3		ethanol	0.126	0.136	-7.9	117	0.00	2.69
4	M	tertiary butyl alcohol	1.230	1.247	-1.4	106	0.00	3.34
5	I	pentafluorobenzene	1.000	1.000	0.0	107	0.00	4.53
6		chlorodifluoromethane	0.528	0.487	7.8	104	0.00	1.82
7		dichlorodifluoromethane	0.473	0.529	-11.8	122	0.00	1.80
8		chloromethane	0.507	0.522	-3.0	116	0.00	1.96
9		vinyl chloride	0.520	0.506	2.7	108	0.00	2.06
10		bromomethane	0.232	0.287	-23.7#	131	0.00	2.33
11		chloroethane	0.259	0.326	-25.9#	136	0.00	2.41
12		vinyl bromide	0.293	0.362	-23.5#	135	0.00	2.56
13		trichlorofluoromethane	0.581	0.692	-19.1	128	0.00	2.60
14		ethyl ether	0.238	0.276	-16.0	126	0.00	2.79
15		2-chloropropane	0.680	0.724	-6.5	113	0.00	2.89
16		acrolein	0.134	0.132	1.5	103	0.00	2.90
17		freon 113	0.331	0.330	0.3	104	0.00	2.97
18		1,1-dichloroethene	0.381	0.407	-6.8	116	0.00	2.98
19		acetone	0.064	0.067	-4.7	112	0.00	2.99
20		acetonitrile	0.054	0.058	-7.4	119	0.00	3.19
21		iodomethane	0.390	0.375	3.8	95	0.00	3.10
22		iso-butyl alcohol	0.042	0.042	0.0	110	0.00	4.68
23		carbon disulfide	0.989	0.955	3.4	106	0.00	3.16
24		methylene chloride	0.430	0.446	-3.7	116	0.00	3.32
25		methyl acetate	0.114	0.127	-11.4	119	0.00	3.20
26		methyl tert butyl ether	1.285	1.390	-8.2	117	0.00	3.49
27		trans-1,2-dichloroethene	0.395	0.436	-10.4	115	0.00	3.51
28		hexane	0.588	0.543	7.7	102	0.00	3.69
29		di-isopropyl ether	1.506	1.536	-2.0	111	0.00	3.80
30		ethyl tert-butyl ether	1.390	1.423	-2.4	109	0.00	4.05
31		2-butanone	0.087	0.096	-10.3	117	0.00	4.18
32	M	1,1-dichloroethane	0.735	0.763	-3.8	112	0.00	3.81
33		chloroprene	0.633	0.633	0.0	106	0.00	3.86
34		acrylonitrile	0.247	0.262	-6.1	111	0.00	3.47
35		vinyl acetate	0.116	0.131	-12.9	118	0.00	3.78
36		ethyl acetate	0.119	0.125	-5.0	106	0.00	4.18
37		2,2-dichloropropane	0.598	0.657	-9.9	122	0.00	4.22
38		cis-1,2-dichloroethene	0.478	0.510	-6.7	117	0.00	4.21
39		propionitrile	0.094	0.100	-6.4	114	0.00	4.23
40		methyl acrylate	0.096	0.108	-12.5	119	0.00	4.23
41		bromochloromethane	0.220	0.252	-14.5	122	0.00	4.37

Continuing Calibration Summary

Job Number: JD5004 **Sample:** V1A8614-CC8558
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 1A199824.D
Project: TFC Stage 2, QWD, Long Island City, NY

42		tetrahydrofuran	0.094	0.109	-16.0	115	0.00	4.39
43		chloroform	0.724	0.784	-8.3	117	0.00	4.43
44	S	dibromofluoromethane (s)	0.431	0.424	1.6	103	0.00	4.54
45		methacrylonitrile	0.255	0.289	-13.3	124	0.00	4.34
46		1,1,1-trichloroethane	0.640	0.667	-4.2	111	0.00	4.58
47		cyclohexane	0.632	0.568	10.1	100	0.00	4.64
48		1,1-dichloropropene	0.568	0.577	-1.6	109	0.00	4.68
49		carbon tetrachloride	0.550	0.605	-10.0	117	0.00	4.69
50		isopropyl acetate	0.134	0.149	-11.2	117	0.00	4.80
51		tert amyl alcohol	0.037	0.039	-5.4	115	0.00	4.77
52	I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00	5.11
53	S	1,2-dichloroethane-d4 (s)	0.312	0.278	10.9	89	0.00	4.80
54		tert-amyl methyl ether	0.868	0.943	-8.6	115	0.00	4.89
55		2,2,4-trimethylpentane	0.630	0.628	0.3	103	0.00	4.90
56		n-butyl alcohol	0.018	0.019	-5.6	107	0.00	5.16
57	M	benzene	1.068	1.172	-9.7	116	0.00	4.84
58		heptane	0.161	0.138	14.3	92	0.00	5.01
59		1,2-dichloroethane	0.381	0.386	-1.3	111	0.00	4.86
60		trichloroethene	0.270	0.303	-12.2	118	0.00	5.31
61		ethyl acrylate	0.521	0.563	-8.1	112	0.00	5.32
62		2-nitropropane	0.102	0.122	-19.6	130	0.00	5.87
63		2-chloroethyl vinyl ether	0.023	0.095	-313.0#	506#	0.00	5.89
64		methyl methacrylate	0.102	0.115	-12.7	119	0.00	5.50
65		1,2-dichloropropane	0.276	0.298	-8.0	113	0.00	5.51
66		methylcyclohexane	0.396	0.408	-3.0	106	0.00	5.50
67		dibromomethane	0.164	0.194	-18.3	119	0.00	5.58
68		bromodichloromethane	0.364	0.415	-14.0	120	0.00	5.70
69		cis-1,3-dichloropropene	0.443	0.504	-13.8	118	0.00	6.04
70		epichlorohydrin	0.047	0.051	-8.5	114	0.00	5.95
71		4-methyl-2-pentanone	0.169	0.188	-11.2	115	0.00	6.14
72		3-methyl-1-butanol	0.016	0.018	-12.5	106	0.00	6.15
73	I	chlorobenzene-d5	1.000	1.000	0.0	110	0.00	7.54
74	S	toluene-d8 (s)	1.216	1.107	9.0	99	0.00	6.27
75		toluene	0.731	0.769	-5.2	115	0.00	6.33
76		trans-1,3-dichloropropene	0.450	0.474	-5.3	116	0.00	6.50
77		ethyl methacrylate	0.480	0.483	-0.6	113	0.00	6.51
78		1,1,2-trichloroethane	0.236	0.261	-10.6	123	0.00	6.67
79		2-hexanone	0.197	0.202	-2.5	114	0.00	6.84
80		tetrachloroethene	0.348	0.395	-13.5	124	0.00	6.77
81		1,3-dichloropropane	0.479	0.500	-4.4	116	0.00	6.82
82		butyl acetate	0.288	0.296	-2.8	113	0.00	6.92
83		dibromochloromethane	0.309	0.351	-13.6	127	0.00	7.01
84		1,2-dibromoethane	0.339	0.383	-13.0	124	0.00	7.13
85		n-butyl ether	1.314	1.289	1.9	109	0.00	7.60
86		chlorobenzene	0.834	0.891	-6.8	120	0.00	7.56
87		1,1,1,2-tetrachloroethane	0.298	0.332	-11.4	126	0.00	7.63
88		ethylbenzene	1.393	1.449	-4.0	117	0.00	7.64
89		m,p-xylene	0.531	0.566	-6.6	119	0.00	7.75
90		o-xylene	0.531	0.553	-4.1	119	0.00	8.11
91		butyl acrylate	0.709	0.715	-0.8	111	0.00	8.02
92		n-amyl acetate	0.266	0.284	-6.8	119	0.00	8.23
93		styrene	0.894	0.974	-8.9	120	0.00	8.13
94		bromoform	0.223	0.277	-24.2#	139	0.00	8.31
95		isopropylbenzene	1.313	1.375	-4.7	120	0.00	8.45
96		cis-1,4-dichloro-2-butene	0.148	0.174	-17.6	130	0.00	8.50
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	116	0.00	9.75
98	S	4-bromofluorobenzene (s)	0.978	0.900	8.0	109	0.00	8.62

Continuing Calibration Summary

Job Number: JD5004 **Sample:** V1A8614-CC8558
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 1A199824.D
Project: TFC Stage 2, QWD, Long Island City, NY

99	bromobenzene	0.812	0.872	-7.4	129	0.00	8.77
100	1,1,2,2-tetrachloroethane	0.948	0.948	0.0	118	0.00	8.73
101	trans-1,4-dichloro-2-bute	0.258	0.257	0.4	116	0.00	8.77
102	1,2,3-trichloropropane	0.293	0.313	-6.8	127	0.00	8.80
103	n-propylbenzene	3.239	3.172	2.1	116	0.00	8.85
104	2-chlorotoluene	0.712	0.736	-3.4	123	0.00	8.95
105	4-chlorotoluene	0.700	0.714	-2.0	120	0.00	9.06
106	1,3,5-trimethylbenzene	2.290	2.224	2.9	118	0.00	9.02
107	tert-butylbenzene	1.900	1.882	0.9	117	0.00	9.33
108	1,2,4-trimethylbenzene	2.302	2.231	3.1	117	0.00	9.38
109	sec-butylbenzene	2.545	2.525	0.8	116	0.00	9.54
110	1,3-dichlorobenzene	1.362	1.423	-4.5	124	0.00	9.68
111	p-isopropyltoluene	2.167	2.184	-0.8	119	0.00	9.69
112	1,4-dichlorobenzene	1.384	1.413	-2.1	123	0.00	9.77
113	1,2-dichlorobenzene	1.274	1.328	-4.2	124	0.00	10.13
114	n-butylbenzene	0.944	0.933	1.2	116	0.00	10.10
115	1,2-dibromo-3-chloropropa	0.259	0.274	-5.8	124	0.00	10.90
116	1,3,5-trichlorobenzene	0.774	0.785	-1.4	119	0.00	11.09
117	1,2,4-trichlorobenzene	0.664	0.686	-3.3	121	0.00	11.72
118	hexachlorobutadiene	0.266	0.268	-0.8	117	0.00	11.86
119	naphthalene	2.219	2.260	-1.8	121	0.00	12.00
120	1,2,3-trichlorobenzene	0.604	0.623	-3.1	124	0.00	12.21
121	hexachloroethane	0.341	0.363	-6.5	128	0.00	10.40
122	benzyl chloride	1.502	1.797	-19.6	138	0.00	9.88
123	2-ethylhexyl acrylate	0.370	0.306	17.3	105	0.00	11.88
124	2-methylnaphthalene	0.863	0.789	8.6	120	0.00	13.15
125	bis(chloromethyl)ether		----------NA----------				
126	ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1A198440.D M1A8558.M Wed Apr 01 05:02:46 2020

Initial Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V3B7128-ICC7128
Lab FileID: 3B158343.D

Response Factor Report MS3B

Method : C:\MSDCHEM\1\METHODS\M3B7128.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Mon Feb 17 10:01:00 2020
Response via : Initial Calibration

Calibration Files
1 =3B158338.D 4 =3B158340.D 100 =3B158344.D 50 =3B158343.D
20 =3B158342.D 200 =3B158345.D 8 =3B158341.D 0.5 =3B158337.D
2 =3B158339.D 0.2 =3B158336.D = =

Compound	1	4	100	50	20	200	8	0.5	2	0.2	Avg	%RSD
1) I tert butyl alcohol-d9	ISTD											
2) ethanol											0.000	-1.00
3) tertiary butyl alcohol	1.013	1.215	1.210	1.192	1.157	1.190		1.203			1.169	6.11
4) 1,4-dioxane	0.075	0.065	0.081	0.078	0.075	0.076	0.077		0.063		0.074	8.42
5) I pentafluorobenzene	ISTD											
6) chlorodifluoromethane *This compound fails Initial Calibration criteria*	1.355	1.304	1.343	1.441	1.437	1.236	1.425	1.679	1.364	1.306	1.389	8.71
7) dichlorodifluoromethane	1.648	1.503	1.436	1.590	1.520	1.342	1.519	1.264	1.614	1.504	1.494	7.99
8) chloromethane	1.651	1.367	1.386	1.469	1.448	1.313	1.374	1.641	1.527		1.464	8.27
9) vinyl chloride	1.551	1.286	1.380	1.478	1.441	1.310	1.388	1.344	1.414	1.537	1.413	6.35
10) 1,3-butadiene	0.857	0.725	0.739	0.756	0.757	0.666	0.730	0.691	0.752		0.741	7.15
11) bromomethane	0.983	0.835	0.829	0.852	0.851	0.749	0.809		0.896		0.850	8.01
12) chloroethane	0.584	0.489	0.498	0.515	0.497	0.449	0.514		0.532		0.510	7.58
13) trichlorofluoromethane	1.437	1.451	1.400	1.477	1.479	1.288	1.423	1.371	1.547	1.225	1.410	6.74
14) vinyl bromide	0.765	0.676	0.700	0.704	0.694	0.636	0.669		0.745		0.699	5.90
15) ethyl ether	0.204	0.231	0.234	0.236	0.218	0.221		0.179			0.217	9.33
16) 2-chloropropane	0.971	1.025	1.054	1.027	1.038	0.957	1.013	1.256	1.068		1.045	8.29
17) acrolein	0.134	0.126	0.124	0.127	0.119						0.126	4.16
18) freon 113	0.613	0.624	0.606	0.636	0.618	0.564	0.617	0.479	0.532		0.588	8.90
19) 1,1-dichloroethene	0.477	0.477	0.528	0.516	0.528	0.493	0.492	0.636	0.566		0.524	9.73
20) acetone	0.199	0.199	0.229	0.223	0.211	0.200	0.219		0.159		0.205	10.58
21) acetonitrile	0.102	0.114	0.113	0.113	0.100	0.104		0.089			0.105	8.77
22) iodomethane	0.940	0.983	0.927	0.906	0.925	0.869		0.880			0.919	4.17
23) carbon disulfide												

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      1.629 1.669 1.747 1.665 1.678 1.625 1.587 1.779 1.637 2.038  1.705    7.63
24)  methylene chloride
      0.517 0.511 0.585 0.554 0.550 0.556 0.525       0.527        0.541    4.62
25)  methyl acetate
            0.347 0.472 0.462 0.415 0.439 0.378                    0.419   11.64
26)  methyl tert butyl ether
      1.715 1.769 1.861 1.885 1.898 1.652 1.861 2.007 1.823 2.139  1.861    7.51
27)  trans-1,2-dichloroethene
      0.513 0.421 0.473 0.463 0.467 0.428 0.448       0.430        0.455    6.69
28)  hexane
      0.242 0.354 0.329 0.332 0.325 0.311 0.312 0.361 0.297        0.318   11.02
29)  di-isopropyl ether
      1.736 1.737 1.886 1.899 1.876 1.703 1.828 2.008 1.594 2.072  1.834    7.91
30)  2-butanone
            0.051 0.070 0.068 0.065 0.064 0.059       0.045        0.060   15.30
31)  1,1-dichloroethane
      0.746 0.846 0.845 0.838 0.839 0.774 0.823 0.989 0.765 0.836  0.830    8.09
32)  chloroprene
      0.597 0.690 0.757 0.744 0.760 0.695 0.691 0.717 0.670        0.703    7.25
33)  acrylonitrile
            0.137 0.236 0.219 0.210 0.217 0.189                    0.201   17.29
34)  vinyl acetate
                  0.089 0.087 0.082 0.084 0.057                    0.080   16.26
35)  ethyl tert-butyl ether
      1.783 1.803 1.947 1.953 1.903 1.763 1.841 1.860 1.761 1.913  1.853    3.99
36)  ethyl acetate
            0.055 0.108 0.102 0.096       0.091                    0.091   23.19
            ----- Linear regression -----  Coefficient =  0.9992
              Response Ratio = -0.00406 + 0.10903 *A

37)  2,2-dichloropropane
      1.075 1.071 1.036 1.084 1.057 0.944 1.066 1.094 1.064 1.274  1.076    7.53
38)  cis-1,2-dichloroethene
      0.459 0.471 0.504 0.494 0.472 0.474 0.481 0.445 0.459        0.473    3.85
39)  propionitrile
            0.064 0.078 0.078 0.074 0.073 0.070       0.058        0.071   10.28
40)  methyl acrylate  *This compound fails Initial Calibration criteria*
            0.010 0.080 0.073 0.068 0.073 0.037                    0.057   48.07
41)  methacrylonitrile
            0.173 0.210 0.209 0.187 0.201 0.176                    0.193    8.36
42)  bromochloromethane
      0.265 0.240 0.275 0.265 0.264 0.264 0.255 0.280 0.227 0.264  0.260    6.08
43)  tetrahydrofuran
            0.171 0.201 0.202 0.175 0.188 0.186       0.191        0.188    6.32
44)  chloroform
      0.862 0.870 0.889 0.876 0.847 0.818 0.858 0.916 0.800 0.823  0.856    4.10
45)  tert-Butyl Formate
      0.508 0.544 0.605 0.612 0.582 0.534 0.557 0.610 0.477        0.559    8.54
46)  dibromofluoromethane (s)
      0.466 0.457 0.481 0.452 0.467 0.467 0.446 0.450 0.458 0.467  0.461    2.27
47)  1,1,1-trichloroethane
      1.007 1.103 1.180 1.212 1.171 1.086 1.115 1.362 1.117        1.150    8.64
48)  cyclohexane
      0.936 0.908 0.868 0.915 0.879 0.832 0.884 0.654 0.930        0.867    9.95
49)  isobutyl alcohol
                                                                   0.000   -1.00
50)  1,1-dichloropropene
      0.400 0.577 0.581 0.604 0.603 0.547 0.589       0.568        0.559   11.93
51)  carbon tetrachloride
      1.014 0.992 1.034 1.058 1.032 0.953 1.026 1.026 0.959        1.010    3.51
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Initial Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V3B7128-ICC7128
Lab FileID: 3B158343.D

52) tert-amyl alcohol
0.045 0.064 0.069 0.068 0.063 0.063 0.060 0.062 0.062 0.062 11.23
53) isopropyl acetate
0.073 0.121 0.121 0.118 0.115 0.105 0.109 16.92

54) I 1,4-difluorobenzene ----------ISTD----------
55) 1,2-dichloroethane-d4 (s)
0.430 0.439 0.409 0.415 0.427 0.398 0.443 0.432 0.419 0.449 0.426 3.72
56) n-butyl alcohol
0.016 0.019 0.019 0.018 0.018 0.015 0.017 10.29
57) 2,2,4-trimethylpentane
1.273 1.374 1.546 1.585 1.431 1.528 1.383 1.239 1.219 1.354 1.393 9.28
58) benzene
1.182 1.166 1.193 1.213 1.160 1.136 1.196 1.233 1.179 1.265 1.192 3.13
59) tert-amyl methyl ether
1.221 1.351 1.316 1.355 1.349 1.214 1.366 1.425 1.276 1.477 1.335 6.20
60) heptane
0.193 0.211 0.234 0.252 0.220 0.228 0.233 0.246 0.227 8.35
61) 1,2-dichloroethane
0.592 0.560 0.512 0.530 0.520 0.469 0.564 0.545 0.536 7.00
62) ethyl acrylate
0.308 0.515 0.516 0.485 0.505 0.453 0.464 17.22
63) trichloroethene
0.308 0.284 0.320 0.330 0.306 0.304 0.318 0.209 0.308 0.299 12.06
64) 2-chloroethyl vinyl ether
0.174 0.195 0.225 0.223 0.217 0.219 0.209 0.170 0.185 0.202 10.63
65) methyl methacrylate
0.068 0.100 0.097 0.096 0.100 0.087 0.092 13.61
66) methylcyclohexane
0.692 0.710 0.712 0.757 0.700 0.705 0.684 0.772 0.680 0.851 0.726 7.30
67) 1,2-dichloropropane
0.258 0.306 0.327 0.329 0.326 0.306 0.324 0.353 0.335 0.318 8.39
68) dibromomethane
0.186 0.202 0.230 0.229 0.222 0.214 0.214 0.265 0.223 0.221 9.87
69) bromodichloromethane
0.524 0.472 0.516 0.513 0.484 0.482 0.501 0.588 0.466 0.433 0.498 8.41
70) 2-nitropropane
0.130 0.132 0.134 0.126 0.122 0.127 0.128 3.35
71) epichlorohydrin
0.046 0.052 0.048 0.048 0.049 0.050 0.043 0.048 5.62
72) cis-1,3-dichloropropene
0.420 0.506 0.570 0.544 0.530 0.541 0.524 0.539 0.498 0.454 0.512 8.83
73) 4-methyl-2-pentanone
0.157 0.178 0.187 0.185 0.174 0.174 0.177 0.170 0.163 0.153 0.172 6.48
74) isoamyl alcohol
0.017 0.020 0.020 0.019 0.019 0.020 0.018 0.019 5.51

75) I chlorobenzene-d5 ----------ISTD----------
76) toluene-d8 (s)
1.182 1.226 1.178 1.203 1.189 1.190 1.203 1.127 1.166 1.158 1.182 2.32
77) toluene
0.756 0.751 0.815 0.847 0.800 0.758 0.845 0.893 0.786 0.806 6.06
78) ethyl methacrylate
0.429 0.490 0.502 0.488 0.452 0.455 0.417 0.462 7.00
79) trans-1,3-dichloropropene
0.354 0.520 0.552 0.564 0.563 0.506 0.551 0.464 0.509 14.03
80) 1,1,2-trichloroethane
0.255 0.261 0.272 0.278 0.270 0.252 0.262 0.228 0.262 0.260 5.58
81) tetrachloroethene
0.284 0.324 0.332 0.338 0.323 0.301 0.335 0.361 0.344 0.327 7.03

Initial Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V3B7128-ICC7128
Lab FileID: 3B158343.D

```
 82)  2-hexanone
       0.093 0.177 0.180 0.195 0.190 0.167 0.175       0.115        0.162   22.84
             ----- Linear regression -----  Coefficient =  0.9958
               Response Ratio = -0.00483 + 0.17634 *A

 83)  1,3-dichloropropane
       0.406 0.532 0.506 0.517 0.505 0.469 0.512 0.593 0.524        0.507    9.88
 84)  butyl acetate
             0.193 0.279 0.294 0.276 0.260 0.253                    0.259   13.79
 85)  dibromochloromethane
       0.412 0.435 0.460 0.459 0.438 0.424 0.428 0.403 0.430 0.527  0.442    7.94
 86)  1,2-dibromoethane
       0.310 0.391 0.413 0.404 0.392 0.387 0.393 0.321 0.364        0.375    9.66
 87)  n-butyl ether
             1.452 1.541 1.613 1.527 1.461 1.463       1.322        1.483    6.16
 88)  chlorobenzene
       0.878 1.004 0.945 0.967 0.931 0.914 0.959 1.081 0.967 0.796  0.944    7.97
 89)  1,1,1,2-tetrachloroethane
       0.451 0.481 0.486 0.516 0.475 0.447 0.472 0.372 0.457 0.487  0.464    8.21
 90)  ethylbenzene
       1.644 1.598 1.628 1.678 1.620 1.521 1.602 1.837 1.550        1.631    5.56
 91)  m,p-xylene
       0.562 0.649 0.641 0.649 0.647 0.608 0.627 0.612 0.567        0.618    5.48
 92)  o-xylene
       1.329 1.393 1.478 1.497 1.444 1.381 1.455 1.511 1.403 1.488  1.438    4.12
 93)  styrene
       0.911 1.060 1.067 1.063 1.072 1.006 1.047 0.813 0.928        0.996    9.21
 94)  butyl acrylate
             0.764 0.832 0.886 0.867 0.793 0.836                    0.830    5.49
 95)  n-amyl acetate
             0.254 0.295 0.308 0.321 0.270 0.298                    0.291    8.47
 96)  isopropylbenzene
       1.891 1.857 2.002 2.045 1.943 1.879 1.905 1.939 1.784 1.696  1.894    5.34
 97)  bromoform
       0.314 0.376 0.374 0.381 0.366 0.356 0.388 0.376 0.328        0.362    6.98
 98)  cis-1,4-dichloro-2-butene
             0.233 0.239 0.249 0.243 0.218 0.222       0.155        0.223   14.35

 99) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
100)  4-bromofluorobenzene (s)
       0.682 0.711 0.728 0.710 0.708 0.732 0.730 0.703 0.686 0.689  0.708    2.56
101)  1,1,2,2-tetrachloroethane
       0.787 0.828 0.893 0.881 0.816 0.819 0.819 1.051 0.730 0.805  0.843   10.18
102)  trans-1,4-dichloro-2-butene
             0.197 0.258 0.270 0.240 0.234 0.234                    0.239   10.48
103)  1,2,3-trichloropropane
       0.251 0.235 0.262 0.265 0.261 0.241 0.234       0.214        0.245    7.15
104)  bromobenzene
       0.675 0.655 0.766 0.760 0.708 0.707 0.703 0.808 0.597        0.709    8.96
105)  n-propylbenzene
       2.681 2.846 3.101 3.184 2.914 2.889 2.902 2.928 2.690        2.904    5.67
106)  2-chlorotoluene
       0.650 0.614 0.727 0.715 0.637 0.686 0.630 0.637 0.658        0.662    5.93
107)  4-chlorotoluene
       1.716 1.703 1.835 1.853 1.799 1.727 1.772 1.992 1.593        1.777    6.33
108)  1,3,5-trimethylbenzene
       2.053 2.237 2.616 2.652 2.391 2.463 2.294 2.424 2.113 2.366  2.361    8.25
109)  tert-butylbenzene
             1.935 2.418 2.494 2.105 2.296 2.108       1.934        2.184   10.24
110)  1,2,4-trimethylbenzene
```

```
       2.116 2.285 2.591 2.609 2.447 2.436 2.308 2.507 2.211 2.673  2.418    7.61
111)  sec-butylbenzene
       2.921 3.001 3.566 3.632 3.232 3.457 3.057 3.243 2.818 3.130  3.206    8.56
112)  p-isopropyltoluene
       2.517 2.571 3.123 3.130 2.824 3.008 2.684       2.419        2.785   10.03
113)  1,3-dichlorobenzene
       1.209 1.398 1.469 1.487 1.433 1.369 1.403 1.432 1.304        1.389    6.24
114)  1,4-dichlorobenzene
       1.527 1.462 1.518 1.512 1.454 1.423 1.458       1.480        1.479    2.47
115)  1,2-dichlorobenzene
       1.635 1.536 1.643 1.668 1.580 1.556 1.579 1.510 1.481 1.574  1.576    3.77
116)  benzyl chloride
       1.502 1.798 1.986 2.015 1.893 1.866 1.851 1.742 1.845        1.833    8.21
117)  n-butylbenzene
       1.178 1.208 1.465 1.483 1.443 1.399 1.409       1.197        1.348    9.66
118)  hexachloroethane
             0.482 0.651 0.662 0.547 0.636 0.512       0.439        0.561   15.86
119)  1,2-dibromo-3-chloropropane
             0.363 0.392 0.412 0.378 0.373 0.376       0.323        0.374    7.35
120)  1,3,5-trichlorobenzene
       1.669 1.743 1.828 1.912 1.790 1.775 1.769 1.783 1.629        1.766    4.68
121)  2-ethylhexyl acrylate
                   1.200 1.128 0.797 1.254 0.526                    0.981   31.63
             ----- Linear regression -----  Coefficient =  0.9988
               Response Ratio = -0.02815 + 1.27673 *A

122)  1,2,4-trichlorobenzene
       1.361 1.679 1.889 2.061 1.839 1.794 1.850       1.643        1.764   11.77
123)  hexachlorobutadiene
       0.822 0.759 0.810 0.872 0.825 0.801 0.815 0.959 0.773        0.826    7.17
124)  naphthalene
       4.294 4.565 5.180 5.637 5.197 4.844 5.089       4.193        4.875   10.18
125)  1,2,3-trichlorobenzene
       1.639 1.751 2.065 2.275 2.019 1.919 1.993       1.750        1.926   10.73
126)  2-methylnaphthalene
                   3.527 3.733 2.815 3.292 2.227                    3.119   19.38
127)  bis(chloromethyl)ether
                                                                    0.000   -1.00
128)  ethylenimine
                                                                    0.000   -1.00
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M3B7128.M         Mon Feb 17 11:33:16 2020   M3B
```

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V3B7128-ICV7128
Lab FileID: 3B158348.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V3B7128\3B158348.D Vial: 14
Acq On : 16 Feb 2020 6:35 pm Operator: PrashanS
Sample : ICV7128-50 Inst : MS3B
Misc : MS41039,V3B7128,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B7128.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Mon Feb 17 10:01:00 2020
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	118	-0.01	7.94
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.169	1.244	-6.4	122	-0.02	8.08
4		1,4-dioxane	0.074	0.088	-18.9	133	0.00	12.15
5	I	pentafluorobenzene	1.000	1.000	0.0	120	0.00	10.49
6		chlorodifluoromethane		----------NA----------				
7		dichlorodifluoromethane	1.494	1.522	-1.9	115	0.00	4.10
8		chloromethane	1.464	1.437	1.8	118	0.00	4.52
9		vinyl chloride	1.413	1.416	-0.2	115	0.00	4.79
10		1,3-butadiene	0.741	0.828	-11.7	132	0.00	4.83
11		bromomethane	0.850	1.070	-25.9	151	0.00	5.49
12		chloroethane	0.510	0.476	6.7	111	0.00	5.70
13		trichlorofluoromethane	1.410	1.456	-3.3	118	0.00	6.24
14		vinyl bromide	0.699	0.805	-15.2	137	0.00	6.09
15		ethyl ether	0.217	0.241	-11.1	124	0.00	6.70
16		2-chloropropane	1.045	0.954	8.7	112	0.00	6.94
17		acrolein	0.126	0.124	1.6	119	-0.01	6.94
18		freon 113	0.588	0.628	-6.8	119	0.00	7.19
19		1,1-dichloroethene	0.524	0.478	8.8	111	0.00	7.17
20		acetone	0.205	0.220	-7.3	119	0.00	7.17
21		acetonitrile		----------NA----------				
22		iodomethane	0.919	1.187	-29.2	154	0.00	7.46
23		carbon disulfide	1.705	1.925	-12.9	139	0.00	7.63
24		methylene chloride	0.541	0.561	-3.7	122	0.00	8.00
25		methyl acetate	0.419	0.450	-7.4	117	0.00	7.72
26		methyl tert butyl ether	1.861	1.872	-0.6	120	0.00	8.42
27		trans-1,2-dichloroethene	0.455	0.448	1.5	116	0.00	8.46
28		hexane	0.318	0.392	-23.3	142	0.00	8.86
29		di-isopropyl ether	1.834	1.800	1.9	114	0.00	9.10
30		2-butanone	0.060	0.073	-21.7	129	0.00	9.81
31		1,1-dichloroethane	0.830	0.845	-1.8	121	0.00	9.10
32		chloroprene	0.703	0.714	-1.6	115	0.00	9.21
33		acrylonitrile	0.201	0.251	-24.9	138	0.00	8.32
34		vinyl acetate	0.080	0.078	2.5	107	0.00	9.04
35		ethyl tert-butyl ether	1.853	1.872	-1.0	115	0.00	9.61
		----------	True	Calc.	% Drift	----------		
36		ethyl acetate	50.000	44.680	10.6	110	0.00	9.84
		----------	AvgRF	CCRF	% Dev	----------		
37		2,2-dichloropropane	1.076	0.980	8.9	109	0.00	9.92

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V3B7128-ICV7128
Lab FileID: 3B158348.D

38		cis-1,2-dichloroethene	0.473	0.490	-3.6	119	0.00	9.89
39		propionitrile	0.071	0.092	-29.6	142	0.00	9.87
40		methyl acrylate	0.057	0.082	-43.9#	135	0.00	9.93
41		methacrylonitrile	0.193	0.229	-18.7	132	0.00	10.10
42		bromochloromethane	0.260	0.278	-6.9	126	0.00	10.21
43		tetrahydrofuran	0.188	0.211	-12.2	126	-0.01	10.23
44		chloroform	0.856	0.848	0.9	116	0.00	10.31
45		tert-Butyl Formate	0.559	0.633	-13.2	124	0.00	10.34
46	S	dibromofluoromethane (s)	0.461	0.459	0.4	122	0.00	10.51
47		1,1,1-trichloroethane	1.150	1.126	2.1	112	0.00	10.59
48		cyclohexane	0.867	0.974	-12.3	128	0.00	10.71
49		isobutyl alcohol		----------NA----------				
50		1,1-dichloropropene	0.559	0.590	-5.5	117	0.00	10.76
51		carbon tetrachloride	1.010	1.016	-0.6	115	0.00	10.80
52		tert-amyl alcohol	0.062	0.069	-11.3	122	0.00	10.90
53		isopropyl acetate	0.109	0.118	-8.3	117	0.00	10.94
54	I	1,4-difluorobenzene	1.000	1.000	0.0	120	0.00	11.47
55	S	1,2-dichloroethane-d4 (s)	0.426	0.386	9.4	112	0.00	10.96
56		n-butyl alcohol	0.017	0.019	-11.8	120	0.00	11.51
57		2,2,4-trimethylpentane	1.393	1.705	-22.4	129	0.00	11.14
58		benzene	1.192	1.257	-5.5	124	0.00	11.03
59		tert-amyl methyl ether	1.335	1.270	4.9	113	0.00	11.12
60		heptane	0.227	0.265	-16.7	126	0.00	11.31
61		1,2-dichloroethane	0.536	0.507	5.4	115	0.00	11.06
62		ethyl acrylate	0.464	0.521	-12.3	121	0.00	11.78
63		trichloroethene	0.299	0.333	-11.4	121	0.00	11.80
64		2-chloroethyl vinyl ether	0.202	0.258	-27.7	139	0.00	12.63
65		methyl methacrylate	0.092	0.111	-20.7	137	0.00	12.06
66		methylcyclohexane	0.726	0.777	-7.0	123	0.00	12.11
67		1,2-dichloropropane	0.318	0.341	-7.2	124	0.00	12.10
68		dibromomethane	0.221	0.231	-4.5	121	0.00	12.21
69		bromodichloromethane	0.498	0.500	-0.4	117	0.00	12.38
70		2-nitropropane	0.128	0.147	-14.8	133	0.00	12.57
71		epichlorohydrin	0.048	0.054	-12.5	134	0.00	12.71
72		cis-1,3-dichloropropene	0.512	0.571	-11.5	126	0.00	12.86
73		4-methyl-2-pentanone	0.172	0.203	-18.0	132	0.00	12.95
74		isoamyl alcohol	0.019	0.021	-10.5	126	0.00	12.96
75	I	chlorobenzene-d5	1.000	1.000	0.0	126	0.00	14.81
76	S	toluene-d8 (s)	1.182	1.187	-0.4	125	0.00	13.19
77		toluene	0.806	0.848	-5.2	127	0.00	13.26
78		ethyl methacrylate	0.462	0.535	-15.8	135	0.00	13.45
79		trans-1,3-dichloropropene	0.509	0.578	-13.6	130	0.00	13.47
80		1,1,2-trichloroethane	0.260	0.292	-12.3	133	0.00	13.70
81		tetrachloroethene	0.327	0.351	-7.3	131	0.00	13.87
		----------	True	Calc.	% Drift	----------		
82		2-hexanone	200.000	223.497	-11.7	127	0.00	13.86
		----------	AvgRF	CCRF	% Dev	----------		
83		1,3-dichloropropane	0.507	0.531	-4.7	130	0.00	13.90
84		butyl acetate	0.259	0.301	-16.2	129	0.00	13.96
85		dibromochloromethane	0.442	0.477	-7.9	131	0.00	14.17
86		1,2-dibromoethane	0.375	0.439	-17.1	137	0.00	14.33
87		n-butyl ether	1.483	1.571	-5.9	123	0.00	14.80
88		chlorobenzene	0.944	1.022	-8.3	134	0.00	14.85
89		1,1,1,2-tetrachloroethane	0.464	0.497	-7.1	122	0.00	14.92
90		ethylbenzene	1.631	1.699	-4.2	128	0.00	14.91
91		m,p-xylene	0.618	0.666	-7.8	130	0.00	15.04

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V3B7128-ICV7128
Lab FileID: 3B158348.D

92		o-xylene	1.438	1.518	-5.6	128	0.00	15.47
93		styrene	0.996	1.114	-11.8	133	0.00	15.49
94		butyl acrylate	0.830	0.877	-5.7	125	0.00	15.28
95		n-amyl acetate	0.291	0.308	-5.8	127	0.00	15.50
96		isopropylbenzene	1.894	2.049	-8.2	127	0.00	15.85
97		bromoform	0.362	0.416	-14.9	138	0.00	15.74
98		cis-1,4-dichloro-2-butene	0.223	0.259	-16.1	132	0.00	15.88
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	127	0.00	17.31
100	S	4-bromofluorobenzene (s)	0.708	0.727	-2.7	130	0.00	16.07
101		1,1,2,2-tetrachloroethane	0.843	0.929	-10.2	134	0.00	16.14
102		trans-1,4-dichloro-2-bute	0.239	0.259	-8.4	121	0.00	16.17
103		1,2,3-trichloropropane	0.245	0.270	-10.2	129	0.00	16.24
104		bromobenzene	0.709	0.786	-10.9	131	0.00	16.27
105		n-propylbenzene	2.904	3.249	-11.9	129	0.00	16.29
106		2-chlorotoluene	0.662	0.739	-11.6	131	0.00	16.44
107		4-chlorotoluene	1.777	1.986	-11.8	136	0.00	16.56
108		1,3,5-trimethylbenzene	2.361	2.625	-11.2	125	0.00	16.45
109		tert-butylbenzene	2.184	2.426	-11.1	123	0.00	16.82
110		1,2,4-trimethylbenzene	2.418	2.666	-10.3	129	0.00	16.87
111		sec-butylbenzene	3.206	3.652	-13.9	127	0.00	17.05
112		p-isopropyltoluene	2.785	3.250	-16.7	132	0.00	17.19
113		1,3-dichlorobenzene	1.389	1.555	-12.0	133	0.00	17.24
114		1,4-dichlorobenzene	1.479	1.561	-5.5	131	0.00	17.34
115		1,2-dichlorobenzene	1.576	1.702	-8.0	129	0.00	17.72
116		benzyl chloride	1.833	1.519	17.1	95	0.00	17.42
117		n-butylbenzene	1.348	1.521	-12.8	130	0.00	17.61
118		hexachloroethane	0.561	0.644	-14.8	123	0.00	18.03
119		1,2-dibromo-3-chloropropa	0.374	0.388	-3.7	120	0.00	18.49
120		1,3,5-trichlorobenzene	1.766	1.902	-7.7	126	0.00	18.68
		----------	True	Calc.	% Drift	----------		
121		2-ethylhexyl acrylate	10.000	11.166	-11.7	144	0.00	19.27
		----------	AvgRF	CCRF	% Dev	----------		
122		1,2,4-trichlorobenzene	1.764	1.946	-10.3	120	0.00	19.31
123		hexachlorobutadiene	0.826	0.864	-4.6	126	0.00	19.40
124		naphthalene	4.875	5.454	-11.9	123	0.00	19.59
125		1,2,3-trichlorobenzene	1.926	2.189	-13.7	122	0.00	19.80
126		2-methylnaphthalene	3.119	3.921	-25.7	133	0.00	20.75
127		bis(chloromethyl)ether		----------NA----------				
128		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0

3B158343.D M3B7128.M Mon Feb 17 11:33:03 2020 M3B

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V3B7128-ICV7128
Lab FileID: 3B158349.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V3B7128\3B158349.D Vial: 15
Acq On : 16 Feb 2020 7:04 pm Operator: PrashanS
Sample : ICV7128-50 Inst : MS3B
Misc : MS41039,V3B7128,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B7128.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Mon Feb 17 10:01:00 2020
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	122	-0.02	7.93
2		ethanol		----------NA----------				
3		tertiary butyl alcohol		----------NA----------				
4		1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	123	0.00	10.49
6		chlorodifluoromethane		----------NA----------				
7		dichlorodifluoromethane		----------NA----------				
8		chloromethane		----------NA----------				
9		vinyl chloride		----------NA----------				
10		1,3-butadiene		----------NA----------				
11		bromomethane		----------NA----------				
12		chloroethane		----------NA----------				
13		trichlorofluoromethane		----------NA----------				
14		vinyl bromide		----------NA----------				
15		ethyl ether		----------NA----------				
16		2-chloropropane		----------NA----------				
17		acrolein		----------NA----------				
18		freon 113		----------NA----------				
19		1,1-dichloroethene		----------NA----------				
20		acetone		----------NA----------				
21		acetonitrile	0.105	0.116	-10.5	126	0.00	7.64
22		iodomethane		----------NA----------				
23		carbon disulfide		----------NA----------				
24		methylene chloride		----------NA----------				
25		methyl acetate		----------NA----------				
26		methyl tert butyl ether		----------NA----------				
27		trans-1,2-dichloroethene		----------NA----------				
28		hexane		----------NA----------				
29		di-isopropyl ether		----------NA----------				
30		2-butanone		----------NA----------				
31		1,1-dichloroethane		----------NA----------				
32		chloroprene		----------NA----------				
33		acrylonitrile	0.201	0.216	-7.5	121	-0.01	8.32
34		vinyl acetate		----------NA----------				
35		ethyl tert-butyl ether		----------NA----------				
		----------	True	Calc.	% Drift	----------		
36		ethyl acetate		----------NA----------				
		----------	AvgRF	CCRF	% Dev	----------		
37		2,2-dichloropropane		----------NA----------				

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V3B7128-ICV7128
Lab FileID: 3B158349.D

38		cis-1,2-dichloroethene		----------NA----------					
39		propionitrile		----------NA----------					
40		methyl acrylate		----------NA----------					
41		methacrylonitrile		----------NA----------					
42		bromochloromethane		----------NA----------					
43		tetrahydrofuran		----------NA----------					
44		chloroform		----------NA----------					
45		tert-Butyl Formate		----------NA----------					
46	S	dibromofluoromethane (s)	0.461	0.452	2.0	123	0.00	10.51	
47		1,1,1-trichloroethane		----------NA----------					
48		cyclohexane		----------NA----------					
49		isobutyl alcohol		----------NA----------					
50		1,1-dichloropropene		----------NA----------					
51		carbon tetrachloride		----------NA----------					
52		tert-amyl alcohol		----------NA----------					
53		isopropyl acetate		----------NA----------					
54	I	1,4-difluorobenzene	1.000	1.000	0.0	124	0.00	11.47	
55	S	1,2-dichloroethane-d4 (s)	0.426	0.390	8.5	117	0.00	10.96	
56		n-butyl alcohol		----------NA----------					
57		2,2,4-trimethylpentane		----------NA----------					
58		benzene		----------NA----------					
59		tert-amyl methyl ether		----------NA----------					
60		heptane		----------NA----------					
61		1,2-dichloroethane		----------NA----------					
62		ethyl acrylate		----------NA----------					
63		trichloroethene		----------NA----------					
64		2-chloroethyl vinyl ether		----------NA----------					
65		methyl methacrylate		----------NA----------					
66		methylcyclohexane		----------NA----------					
67		1,2-dichloropropane		----------NA----------					
68		dibromomethane		----------NA----------					
69		bromodichloromethane		----------NA----------					
70		2-nitropropane		----------NA----------					
71		epichlorohydrin		----------NA----------					
72		cis-1,3-dichloropropene		----------NA----------					
73		4-methyl-2-pentanone		----------NA----------					
74		isoamyl alcohol		----------NA----------					
75	I	chlorobenzene-d5	1.000	1.000	0.0	130	0.00	14.81	
76	S	toluene-d8 (s)	1.182	1.167	1.3	126	0.00	13.19	
77		toluene		----------NA----------					
78		ethyl methacrylate		----------NA----------					
79		trans-1,3-dichloropropene		----------NA----------					
80		1,1,2-trichloroethane		----------NA----------					
81		tetrachloroethene	0.327	0.331	-1.2	127	0.00	13.87	
		----------	True	Calc.	% Drift	----------			
82		2-hexanone		----------NA----------					
		----------	AvgRF	CCRF	% Dev	----------			
83		1,3-dichloropropane		----------NA----------					
84		butyl acetate		----------NA----------					
85		dibromochloromethane		----------NA----------					
86		1,2-dibromoethane		----------NA----------					
87		n-butyl ether		----------NA----------					
88		chlorobenzene		----------NA----------					
89		1,1,1,2-tetrachloroethane		----------NA----------					
90		ethylbenzene		----------NA----------					
91		m,p-xylene		----------NA----------					

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V3B7128-ICV7128
Lab FileID: 3B158349.D

92		o-xylene			----------NA----------			
93		styrene			----------NA----------			
94		butyl acrylate			----------NA----------			
95		n-amyl acetate			----------NA----------			
96		isopropylbenzene			----------NA----------			
97		bromoform			----------NA----------			
98		cis-1,4-dichloro-2-butene			----------NA----------			
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	139	0.00	17.31
100	S	4-bromofluorobenzene (s)	0.708	0.691	2.4	135	0.00	16.07
101		1,1,2,2-tetrachloroethane			----------NA----------			
102		trans-1,4-dichloro-2-bute			----------NA----------			
103		1,2,3-trichloropropane			----------NA----------			
104		bromobenzene			----------NA----------			
105		n-propylbenzene			----------NA----------			
106		2-chlorotoluene			----------NA----------			
107		4-chlorotoluene			----------NA----------			
108		1,3,5-trimethylbenzene			----------NA----------			
109		tert-butylbenzene			----------NA----------			
110		1,2,4-trimethylbenzene			----------NA----------			
111		sec-butylbenzene			----------NA----------			
112		p-isopropyltoluene			----------NA----------			
113		1,3-dichlorobenzene			----------NA----------			
114		1,4-dichlorobenzene			----------NA----------			
115		1,2-dichlorobenzene			----------NA----------			
116		benzyl chloride			----------NA----------			
117		n-butylbenzene			----------NA----------			
118		hexachloroethane			----------NA----------			
119		1,2-dibromo-3-chloropropa			----------NA----------			
120		1,3,5-trichlorobenzene			----------NA----------			
		----------	True	Calc.	% Drift	----------		
121		2-ethylhexyl acrylate			----------NA----------			
		----------	AvgRF	CCRF	% Dev	----------		
122		1,2,4-trichlorobenzene			----------NA----------			
123		hexachlorobutadiene			----------NA----------			
124		naphthalene			----------NA----------			
125		1,2,3-trichlorobenzene			----------NA----------			
126		2-methylnaphthalene			----------NA----------			
127		bis(chloromethyl)ether			----------NA----------			
128		ethylenimine			----------NA----------			

(#) = Out of Range SPCC's out = 0 CCC's out = 0

3B158343.D M3B7128.M Mon Feb 17 11:33:05 2020 M3B

Continuing Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: V3B7168-CC7128
Lab FileID: 3B159100.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...b7168-rush\3b159100.d Vial: 2
Acq On : 27 Mar 2020 7:28 am Operator: brittank
Sample : cc7128-20 Inst : MS3B
Misc : MS42044,V3B7168,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B7128.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Mon Feb 17 10:01:00 2020
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	120	0.00	7.95
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.169	1.131	3.3	114	-0.02	8.08
4		1,4-dioxane	0.074	0.073	1.4	117	0.00	12.15
5	I	pentafluorobenzene	1.000	1.000	0.0	118	0.00	10.48
6		chlorodifluoromethane	1.389	1.534	-10.4	126	0.00	4.14
7		dichlorodifluoromethane	1.494	1.667	-11.6	130	0.01	4.11
8		chloromethane	1.464	1.442	1.5	118	0.00	4.52
9		vinyl chloride	1.413	1.298	8.1	107	0.00	4.78
10		1,3-butadiene	0.741	0.731	1.3	114	0.01	4.84
11		bromomethane	0.850	0.800	5.9	111	0.00	5.50
12		chloroethane	0.510	0.486	4.7	116	0.01	5.70
13		trichlorofluoromethane	1.410	1.383	1.9	111	0.00	6.24
14		vinyl bromide	0.699	0.656	6.2	112	0.00	6.09
15		ethyl ether	0.217	0.227	-4.6	114	0.00	6.70
16		2-chloropropane	1.045	1.020	2.4	116	0.00	6.93
17		acrolein	0.126	0.093	26.2#	89	0.00	6.96
18		freon 113	0.588	0.589	-0.2	113	0.01	7.20
19		1,1-dichloroethene	0.524	0.496	5.3	111	0.00	7.17
20		acetone	0.205	0.206	-0.5	116	0.00	7.17
21		acetonitrile	0.105	0.108	-2.9	114	0.00	7.64
22		iodomethane	0.919	0.933	-1.5	122	0.00	7.46
23		carbon disulfide	1.705	1.648	3.3	116	0.00	7.63
24		methylene chloride	0.541	0.541	0.0	116	0.00	8.00
25		methyl acetate	0.419	0.396	5.5	113	0.00	7.72
26		methyl tert butyl ether	1.861	1.848	0.7	115	0.00	8.42
27		trans-1,2-dichloroethene	0.455	0.433	4.8	110	0.00	8.46
28		hexane	0.318	0.300	5.7	109	0.00	8.86
29		di-isopropyl ether	1.834	1.741	5.1	110	0.00	9.10
30		2-butanone	0.060	0.066	-10.0	119	0.00	9.81
31		1,1-dichloroethane	0.830	0.805	3.0	114	0.00	9.10
32		chloroprene	0.703	0.641	8.8	100	0.00	9.21
33		acrylonitrile	0.201	0.201	0.0	113	0.00	8.33
34		vinyl acetate	0.080	0.074	7.5	106	0.02	9.05
35		ethyl tert-butyl ether	1.853	1.820	1.8	113	0.00	9.61
		----------	True	Calc.	% Drift	----------		
36		ethyl acetate	20.000	17.091	14.5	102	0.00	9.84
		----------	AvgRF	CCRF	% Dev	----------		
37		2,2-dichloropropane	1.076	1.035	3.8	116	-0.01	9.91

Continuing Calibration Summary

Job Number: JD5004 **Sample:** V3B7168-CC7128
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 3B159100.D
Project: TFC Stage 2, QWD, Long Island City, NY

38		cis-1,2-dichloroethene	0.473	0.480	-1.5	120	0.00	9.88
39		propionitrile	0.071	0.071	0.0	113	0.00	9.87
40		methyl acrylate	0.057	0.066	-15.8	114	0.00	9.93
41		methacrylonitrile	0.193	0.195	-1.0	124	0.00	10.10
42		bromochloromethane	0.260	0.256	1.5	115	0.00	10.21
43		tetrahydrofuran	0.188	0.179	4.8	121	-0.01	10.23
44		chloroform	0.856	0.839	2.0	117	0.00	10.30
45		tert-Butyl Formate	0.559	0.588	-5.2	120	0.00	10.34
46	S	dibromofluoromethane (s)	0.461	0.461	0.0	117	0.00	10.51
47		1,1,1-trichloroethane	1.150	1.098	4.5	111	-0.01	10.58
48		cyclohexane	0.867	0.884	-2.0	119	0.00	10.71
49		isobutyl alcohol		----------NA----------				
50		1,1-dichloropropene	0.559	0.564	-0.9	111	0.00	10.76
51		carbon tetrachloride	1.010	0.989	2.1	114	0.00	10.80
52		tert-amyl alcohol	0.062	0.064	-3.2	122	0.00	10.90
53		isopropyl acetate	0.109	0.118	-8.3	118	0.00	10.93
54	I	1,4-difluorobenzene	1.000	1.000	0.0	115	0.00	11.47
55	S	1,2-dichloroethane-d4 (s)	0.426	0.418	1.9	113	-0.01	10.95
56		n-butyl alcohol	0.017	0.017	0.0	111	0.00	11.51
57		2,2,4-trimethylpentane	1.393	1.426	-2.4	115	0.00	11.14
58		benzene	1.192	1.119	6.1	111	0.00	11.02
59		tert-amyl methyl ether	1.335	1.325	0.7	113	0.00	11.12
60		heptane	0.227	0.222	2.2	116	0.00	11.31
61		1,2-dichloroethane	0.536	0.518	3.4	115	0.00	11.06
62		ethyl acrylate	0.464	0.475	-2.4	113	0.00	11.78
63		trichloroethene	0.299	0.308	-3.0	116	-0.01	11.79
64		2-chloroethyl vinyl ether	0.202	0.218	-7.9	115	0.00	12.63
65		methyl methacrylate	0.092	0.092	0.0	110	-0.01	12.05
66		methylcyclohexane	0.726	0.695	4.3	114	0.00	12.11
67		1,2-dichloropropane	0.318	0.300	5.7	106	0.00	12.09
68		dibromomethane	0.221	0.220	0.5	114	-0.01	12.21
69		bromodichloromethane	0.498	0.490	1.6	117	0.00	12.38
70		2-nitropropane	0.128	0.129	-0.8	118	0.00	12.56
71		epichlorohydrin	0.048	0.048	0.0	114	0.00	12.70
72		cis-1,3-dichloropropene	0.512	0.523	-2.1	114	0.00	12.86
73		4-methyl-2-pentanone	0.172	0.179	-4.1	118	0.00	12.95
74		isoamyl alcohol	0.019	0.019	0.0	117	0.00	12.96
75	I	chlorobenzene-d5	1.000	1.000	0.0	119	0.00	14.81
76	S	toluene-d8 (s)	1.182	1.168	1.2	117	0.00	13.19
77		toluene	0.806	0.775	3.8	115	0.00	13.26
78		ethyl methacrylate	0.462	0.469	-1.5	114	0.00	13.45
79		trans-1,3-dichloropropene	0.509	0.524	-2.9	110	0.00	13.46
80		1,1,2-trichloroethane	0.260	0.265	-1.9	117	0.00	13.70
81		tetrachloroethene	0.327	0.307	6.1	113	0.00	13.86
		----------	True	Calc.	% Drift		----------	
82		2-hexanone	80.000	81.269	-1.6	110	0.00	13.86
		----------	AvgRF	CCRF	% Dev		----------	
83		1,3-dichloropropane	0.507	0.506	0.2	119	0.00	13.89
84		butyl acetate	0.259	0.274	-5.8	118	0.00	13.96
85		dibromochloromethane	0.442	0.429	2.9	116	0.00	14.16
86		1,2-dibromoethane	0.375	0.411	-9.6	125	-0.01	14.33
87		n-butyl ether	1.483	1.440	2.9	112	0.00	14.80
88		chlorobenzene	0.944	0.913	3.3	116	0.00	14.84
89		1,1,1,2-tetrachloroethane	0.464	0.485	-4.5	121	0.00	14.92
90		ethylbenzene	1.631	1.536	5.8	113	0.00	14.91
91		m,p-xylene	0.618	0.628	-1.6	115	0.00	15.04

Continuing Calibration Summary

Job Number: JD5004 **Sample:** V3B7168-CC7128
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 3B159100.D
Project: TFC Stage 2, QWD, Long Island City, NY

92		o-xylene	1.438	1.393	3.1	114	0.00	15.47
93		styrene	0.996	1.056	-6.0	117	0.00	15.48
94		butyl acrylate	0.830	0.804	3.1	110	0.00	15.28
95		n-amyl acetate	0.291	0.308	-5.8	114	0.00	15.50
96		isopropylbenzene	1.894	1.870	1.3	114	0.00	15.84
97		bromoform	0.362	0.377	-4.1	122	0.00	15.74
98		cis-1,4-dichloro-2-butene	0.223	0.234	-4.9	114	0.00	15.87
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	116	0.00	17.30
100	S	4-bromofluorobenzene (s)	0.708	0.707	0.1	116	0.00	16.06
101		1,1,2,2-tetrachloroethane	0.843	0.823	2.4	117	-0.01	16.13
102		trans-1,4-dichloro-2-bute	0.239	0.232	2.9	112	0.00	16.17
103		1,2,3-trichloropropane	0.245	0.248	-1.2	110	0.00	16.24
104		bromobenzene	0.709	0.706	0.4	116	0.00	16.27
105		n-propylbenzene	2.904	2.925	-0.7	117	0.00	16.29
106		2-chlorotoluene	0.662	0.684	-3.3	125	0.00	16.43
107		4-chlorotoluene	1.777	1.708	3.9	110	0.00	16.55
108		1,3,5-trimethylbenzene	2.361	2.406	-1.9	117	0.00	16.45
109		tert-butylbenzene	2.184	2.118	3.0	117	0.00	16.82
110		1,2,4-trimethylbenzene	2.418	2.415	0.1	115	0.00	16.87
111		sec-butylbenzene	3.206	3.252	-1.4	117	0.00	17.05
112		p-isopropyltoluene	2.785	2.870	-3.1	118	0.00	17.18
113		1,3-dichlorobenzene	1.389	1.402	-0.9	114	0.00	17.23
114		1,4-dichlorobenzene	1.479	1.470	0.6	117	0.00	17.33
115		1,2-dichlorobenzene	1.576	1.602	-1.6	118	0.00	17.72
116		benzyl chloride	1.833	1.927	-5.1	118	0.00	17.42
117		n-butylbenzene	1.348	1.359	-0.8	109	0.00	17.61
118		hexachloroethane	0.561	0.568	-1.2	121	0.00	18.03
119		1,2-dibromo-3-chloropropa	0.374	0.368	1.6	113	0.00	18.49
120		1,3,5-trichlorobenzene	1.766	1.790	-1.4	116	0.00	18.68
		----------	True	Calc.	% Drift	----------		
121		2-ethylhexyl acrylate	4.000	3.543	11.4	113	0.00	19.27
		----------	AvgRF	CCRF	% Dev	----------		
122		1,2,4-trichlorobenzene	1.764	1.902	-7.8	120	0.00	19.30
123		hexachlorobutadiene	0.826	0.781	5.4	110	0.00	19.40
124		naphthalene	4.875	5.248	-7.7	117	-0.01	19.58
125		1,2,3-trichlorobenzene	1.926	2.079	-7.9	120	0.00	19.80
126		2-methylnaphthalene	3.119	2.757	11.6	114	0.00	20.75
127		bis(chloromethyl)ether		----------NA----------				
128		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3B158342.D M3B7128.M Fri Mar 27 15:19:20 2020

Run Sequence Report

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Run ID: V1A8558 **Method:** SW846 8260C **Instrument ID:** GCMS1A

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V1A8558-BFB	1A198433.D	02/11/20 17:42	n/a	BFB Tune
V1A8558-IC8558	1A198434.D	02/11/20 18:13	n/a	Initial cal 0.2
V1A8558-IC8558	1A198435.D	02/11/20 18:38	n/a	Initial cal 0.5
V1A8558-IC8558	1A198436.D	02/11/20 19:03	n/a	Initial cal 1
V1A8558-IC8558	1A198437.D	02/11/20 19:28	n/a	Initial cal 2
V1A8558-IC8558	1A198438.D	02/11/20 19:53	n/a	Initial cal 4
V1A8558-IC8558	1A198439.D	02/11/20 20:17	n/a	Initial cal 8
V1A8558-IC8558	1A198440.D	02/11/20 20:42	n/a	Initial cal 20
V1A8558-ICC8558	1A198441.D	02/11/20 21:07	n/a	Initial cal 50
V1A8558-IC8558	1A198442.D	02/11/20 21:32	n/a	Initial cal 100
V1A8558-IC8558	1A198443.D	02/11/20 21:57	n/a	Initial cal 200
V1A8558-ICV8558	1A198446.D	02/11/20 23:12	n/a	Initial cal verification 50
V1A8558-ICV8558	1A198447.D	02/11/20 23:37	n/a	Initial cal verification 50
V1A8558-BFB2	1A198449.D	02/12/20 08:24	n/a	BFB Tune
V1A8558-ICV8558	1A198450.D	02/12/20 08:56	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Run ID: V1A8612 **Method:** SW846 8260C **Instrument ID:** GCMS1A

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V1A8612-BFB	1A199772.D	03/29/20 12:23	n/a	BFB Tune
V1A8612-CC8558	1A199772.D	03/29/20 12:23	n/a	Continuing cal 50
V1A8612-BS	1A199773.D	03/29/20 13:08	n/a	Blank Spike
V1A8612-MB	1A199775.D	03/29/20 13:58	n/a	Method Blank
ZZZZZZ	1A199776.D	03/29/20 14:32	n/a	(unrelated sample)
JD5010-3	1A199778.D	03/29/20 15:22	n/a	(used for QC only; not part of job JD5004)
JD5010-4	1A199779.D	03/29/20 15:47	n/a	(used for QC only; not part of job JD5004)
ZZZZZZ	1A199780.D	03/29/20 16:12	n/a	(unrelated sample)
ZZZZZZ	1A199781.D	03/29/20 16:42	n/a	(unrelated sample)
ZZZZZZ	1A199782.D	03/29/20 17:07	n/a	(unrelated sample)
JD5010-3MS	1A199783.D	03/29/20 17:32	n/a	Matrix Spike
JD5010-4DUP	1A199785.D	03/29/20 18:22	n/a	Duplicate
ZZZZZZ	1A199786.D	03/29/20 18:46	n/a	(unrelated sample)
JD5004-6	1A199787.D	03/29/20 19:11	n/a	TRC-MW25R
ZZZZZZ	1A199788.D	03/29/20 19:36	n/a	(unrelated sample)
ZZZZZZ	1A199789.D	03/29/20 20:01	n/a	(unrelated sample)
ZZZZZZ	1A199791.D	03/29/20 20:51	n/a	(unrelated sample)
JD5004-1	1A199792.D	03/29/20 21:16	n/a	TRC-MW18
JD5004-2	1A199793.D	03/29/20 21:40	n/a	TRC-MW18DUP
JD5004-3	1A199794.D	03/29/20 22:05	n/a	TRC-MW17

Run Sequence Report

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Run ID: V1A8614 **Method:** SW846 8260C **Instrument ID:** GCMS1A

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V1A8614-BFB	1A199824.D	03/31/20 07:48	n/a	BFB Tune
V1A8614-CC8558	1A199824.D	03/31/20 07:48	n/a	Continuing cal 20
V1A8614-BS	1A199825.D	03/31/20 08:37	n/a	Blank Spike
V1A8614-MB	1A199827.D	03/31/20 09:27	n/a	Method Blank
ZZZZZZ	1A199828.D	03/31/20 10:34	n/a	(unrelated sample)
ZZZZZZ	1A199829.D	03/31/20 10:59	n/a	(unrelated sample)
ZZZZZZ	1A199830.D	03/31/20 11:24	n/a	(unrelated sample)
JD4900-2	1A199832.D	03/31/20 12:13	n/a	(used for QC only; not part of job JD5004)
JD4900-2MS	1A199833.D	03/31/20 12:38	n/a	Matrix Spike
JD4900-2MSD	1A199834.D	03/31/20 13:03	n/a	Matrix Spike Duplicate
ZZZZZZ	1A199836.D	03/31/20 13:52	n/a	(unrelated sample)
JD5004-1	1A199838.D	03/31/20 14:42	n/a	TRC-MW18
JD5004-3	1A199839.D	03/31/20 15:06	n/a	TRC-MW17
JD5004-2	1A199840.D	03/31/20 15:31	n/a	TRC-MW18DUP
ZZZZZZ	1A199842.D	03/31/20 16:21	n/a	(unrelated sample)
ZZZZZZ	1A199844.D	03/31/20 17:20	n/a	(unrelated sample)
ZZZZZZ	1A199845.D	03/31/20 17:45	n/a	(unrelated sample)
ZZZZZZ	1A199846.D	03/31/20 18:10	n/a	(unrelated sample)
ZZZZZZ	1A199847.D	03/31/20 18:34	n/a	(unrelated sample)

Run Sequence Report

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Run ID: V3B7128	**Method:** SW846 8260C	**Instrument ID:** GCMS3B

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V3B7128-BFB	3B158335.D	02/16/20 12:16	n/a	BFB Tune
V3B7128-IC7128	3B158336.D	02/16/20 12:54	n/a	Initial cal 0.2
V3B7128-IC7128	3B158337.D	02/16/20 13:22	n/a	Initial cal 0.5
V3B7128-IC7128	3B158338.D	02/16/20 13:50	n/a	Initial cal 1
V3B7128-IC7128	3B158339.D	02/16/20 14:19	n/a	Initial cal 2
V3B7128-IC7128	3B158340.D	02/16/20 14:47	n/a	Initial cal 4
V3B7128-IC7128	3B158341.D	02/16/20 15:16	n/a	Initial cal 8
V3B7128-IC7128	3B158342.D	02/16/20 15:44	n/a	Initial cal 20
V3B7128-ICC7128	3B158343.D	02/16/20 16:12	n/a	Initial cal 50
V3B7128-IC7128	3B158344.D	02/16/20 16:41	n/a	Initial cal 100
V3B7128-IC7128	3B158345.D	02/16/20 17:09	n/a	Initial cal 200
V3B7128-ICV7128	3B158348.D	02/16/20 18:35	n/a	Initial cal verification 50
V3B7128-ICV7128	3B158349.D	02/16/20 19:04	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Run ID: V3B7168	**Method:** SW846 8260C	**Instrument ID:** GCMS3B

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V3B7168-BFB	3B159100.D	03/27/20 07:28	n/a	BFB Tune
V3B7168-CC7128	3B159100.D	03/27/20 07:28	n/a	Continuing cal 20
V3B7168-BS	3B159101.D	03/27/20 08:11	n/a	Blank Spike
V3B7168-MB	3B159103.D	03/27/20 09:08	n/a	Method Blank
JD4932-1	3B159104.D	03/27/20 09:41	n/a	(used for QC only; not part of job JD5004)
JD4932-2	3B159105.D	03/27/20 10:10	n/a	(used for QC only; not part of job JD5004)
ZZZZZZ	3B159106.D	03/27/20 10:38	n/a	(unrelated sample)
ZZZZZZ	3B159107.D	03/27/20 11:07	n/a	(unrelated sample)
ZZZZZZ	3B159108.D	03/27/20 11:35	n/a	(unrelated sample)
JD4932-1MS	3B159109.D	03/27/20 12:05	n/a	Matrix Spike
JD4932-2DUP	3B159111.D	03/27/20 13:02	n/a	Duplicate
ZZZZZZ	3B159112.D	03/27/20 13:31	n/a	(unrelated sample)
ZZZZZZ	3B159113.D	03/27/20 14:00	n/a	(unrelated sample)
ZZZZZZ	3B159114.D	03/27/20 14:28	n/a	(unrelated sample)
ZZZZZZ	3B159115.D	03/27/20 15:05	n/a	(unrelated sample)
ZZZZZZ	3B159116.D	03/27/20 15:33	n/a	(unrelated sample)
ZZZZZZ	3B159118.D	03/27/20 16:30	n/a	(unrelated sample)
JD5004-5	3B159120.D	03/27/20 17:27	n/a	FIELD BLANK
JD5004-7	3B159121.D	03/27/20 17:55	n/a	TRIP BLANK
JD5004-4	3B159122.D	03/27/20 18:23	n/a	TRC-MW15B

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26675-MB1	3E111036.D	1	03/26/20	CS	03/25/20	OP26675	E3E5003

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

JD5004-1, JD5004-2, JD5004-3, JD5004-4, JD5004-5, JD5004-6

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	

Method Blank Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26675-MB1	3E111036.D	1	03/26/20	CS	03/25/20	OP26675	E3E5003

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

JD5004-1, JD5004-2, JD5004-3, JD5004-4, JD5004-5, JD5004-6

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	45%	10-73%
4165-62-2	Phenol-d5	29%	10-64%
118-79-6	2,4,6-Tribromophenol	96%	31-130%

Method Blank Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26675-MB1	3E111036.D	1	03/26/20	CS	03/25/20	OP26675	E3E5003

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

JD5004-1, JD5004-2, JD5004-3, JD5004-4, JD5004-5, JD5004-6

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	74%	28-126%
321-60-8	2-Fluorobiphenyl	89%	26-114%
1718-51-0	Terphenyl-d14	116%	16-122%

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

Method Blank Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26675-MB1	6P489762.D	1	04/02/20	AR	03/25/20	OP26675	E6P2934

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

JD5004-1, JD5004-2, JD5004-3, JD5004-4, JD5004-5, JD5004-6

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	

Method Blank Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26675-MB1	6P489762.D	1	04/02/20	AR	03/25/20	OP26675	E6P2934

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

JD5004-1, JD5004-2, JD5004-3, JD5004-4, JD5004-5, JD5004-6

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	49%	10-73%
4165-62-2	Phenol-d5	32%	10-64%
118-79-6	2,4,6-Tribromophenol	93%	31-130%

Method Blank Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26675-MB1	6P489762.D	1	04/02/20	AR	03/25/20	OP26675	E6P2934

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

JD5004-1, JD5004-2, JD5004-3, JD5004-4, JD5004-5, JD5004-6

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	90%	28-126%
321-60-8	2-Fluorobiphenyl	82%	26-114%
1718-51-0	Terphenyl-d14	101%	16-122%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Internal standard added for SIM test	6.23	4.3	ug/l	J
57-10-3	n-Hexadecanoic acid	9.66	4.9	ug/l	JN
	Internal standard added for SIM test	10.34	4.2	ug/l	J
	Internal standard added for SIM test	13.59	5.8	ug/l	J
	Total TIC, Semi-Volatile		4.9	ug/l	J

Blank Spike/Blank Spike Duplicate Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26675-BS1	3E111037.D	1	03/26/20	CS	03/25/20	OP26675	E3E5003
OP26675-BSD	3E111038.D	1	03/26/20	CS	03/25/20	OP26675	E3E5003

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

JD5004-1, JD5004-2, JD5004-3, JD5004-4, JD5004-5, JD5004-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	50	32.9	66	37.5	75	13	33-102/34
59-50-7	4-Chloro-3-methyl phenol	50	37.5	75	41.4	83	10	46-113/28
120-83-2	2,4-Dichlorophenol	50	38.4	77	42.2	84	9	45-111/31
105-67-9	2,4-Dimethylphenol	50	34.0	68	38.2	76	12	39-124/30
51-28-5	2,4-Dinitrophenol	100	109	109	118	118	8	30-156/30
534-52-1	4,6-Dinitro-o-cresol	50	47.0	94	51.6	103	9	41-138/29
95-48-7	2-Methylphenol	50	31.7	63	35.9	72	12	26-101/32
	3&4-Methylphenol	50	30.3	61	34.3	69	12	23-98/32
88-75-5	2-Nitrophenol	50	38.7	77	43.5	87	12	42-125/34
100-02-7	4-Nitrophenol	50	24.6	49	27.5	55	11	10-91/35
87-86-5	Pentachlorophenol	50	49.9	100	54.8	110	9	37-147/31
108-95-2	Phenol	50	17.3	35	19.9	40	14	10-77/35
95-95-4	2,4,5-Trichlorophenol	50	47.4	95	51.0	102	7	39-125/28
88-06-2	2,4,6-Trichlorophenol	50	46.8	94	49.6	99	6	40-127/28
83-32-9	Acenaphthene	50	46.5	93	49.1	98	5	36-112/27
208-96-8	Acenaphthylene	50	44.1	88	48.1	96	9	40-111/27
98-86-2	Acetophenone	50	37.5	75	41.3	83	10	44-110/30
120-12-7	Anthracene	50	43.1	86	46.2	92	7	50-110/27
1912-24-9	Atrazine	50	48.3	97	49.8	100	3	61-140/31
100-52-7	Benzaldehyde	50	34.4	69	39.0	78	13	20-117/35
56-55-3	Benzo(a)anthracene	50	46.7	93	49.7	99	6	52-111/27
50-32-8	Benzo(a)pyrene	50	49.0	98	52.8	106	7	46-115/29
205-99-2	Benzo(b)fluoranthene	50	49.9	100	53.8	108	8	41-127/28
191-24-2	Benzo(g,h,i)perylene	50	48.2	96	52.4	105	8	48-123/32
207-08-9	Benzo(k)fluoranthene	50	49.8	100	52.3	105	5	45-119/27
101-55-3	4-Bromophenyl phenyl ether	50	50.0	100	53.0	106	6	44-115/29
85-68-7	Butyl benzyl phthalate	50	42.3	85	45.2	90	7	49-121/29
92-52-4	1,1'-Biphenyl	50	46.1	92	49.7	99	8	34-114/29
91-58-7	2-Chloronaphthalene	50	44.7	89	47.5	95	6	29-112/29
106-47-8	4-Chloroaniline	50	24.6	49	18.6	37	28	15-88/48
86-74-8	Carbazole	50	43.3	87	48.2	96	11	54-115/28
105-60-2	Caprolactam	50	9.5	19	10.1	20	6	10-71/34
218-01-9	Chrysene	50	45.5	91	47.9	96	5	48-113/28
111-91-1	bis(2-Chloroethoxy)methane	50	40.1	80	45.1	90	12	44-115/29
111-44-4	bis(2-Chloroethyl)ether	50	37.5	75	42.2	84	12	38-116/32
108-60-1	2,2'-Oxybis(1-chloropropane)	50	42.6	85	49.8	100	16	41-132/34

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26675-BS1	3E111037.D	1	03/26/20	CS	03/25/20	OP26675	E3E5003
OP26675-BSD	3E111038.D	1	03/26/20	CS	03/25/20	OP26675	E3E5003

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

JD5004-1, JD5004-2, JD5004-3, JD5004-4, JD5004-5, JD5004-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
7005-72-3	4-Chlorophenyl phenyl ether	50	51.5	103	54.4	109	5	35-119/28
121-14-2	2,4-Dinitrotoluene	50	51.0	102	53.1	106	4	47-128/27
606-20-2	2,6-Dinitrotoluene	50	49.2	98	53.6	107	9	48-127/28
91-94-1	3,3'-Dichlorobenzidine	100	74.2	74	61.1	61	19	18-103/38
53-70-3	Dibenzo(a,h)anthracene	50	48.4	97	52.8	106	9	43-124/31
132-64-9	Dibenzofuran	50	47.3	95	51.7	103	9	35-119/27
84-74-2	Di-n-butyl phthalate	50	41.7	83	44.9	90	7	50-122/29
117-84-0	Di-n-octyl phthalate	50	44.6	89	48.6	97	9	40-127/28
84-66-2	Diethyl phthalate	50	46.3	93	50.1	100	8	49-117/28
131-11-3	Dimethyl phthalate	50	46.0	92	48.7	97	6	49-114/28
117-81-7	bis(2-Ethylhexyl)phthalate	50	40.0	80	42.5	85	6	44-127/29
206-44-0	Fluoranthene	50	46.9	94	50.9	102	8	54-117/30
86-73-7	Fluorene	50	49.6	99	53.5	107	8	43-118/27
118-74-1	Hexachlorobenzene	50	48.1	96	50.9	102	6	46-113/29
87-68-3	Hexachlorobutadiene	50	35.1	70	39.1	78	11	17-111/37
77-47-4	Hexachlorocyclopentadiene	100	69.4	69	73.7	74	6	10-112/40
67-72-1	Hexachloroethane	50	31.6	63	35.4	71	11	18-101/38
193-39-5	Indeno(1,2,3-cd)pyrene	50	51.5	103	55.3	111	7	43-122/33
78-59-1	Isophorone	50	35.5	71	40.0	80	12	47-119/28
91-57-6	2-Methylnaphthalene	50	40.5	81	46.3	93	13	30-116/32
88-74-4	2-Nitroaniline	50	44.1	88	50.5	101	14	35-133/28
99-09-2	3-Nitroaniline	50	35.8	72	29.8	60	18	31-102/39
100-01-6	4-Nitroaniline	50	47.4	95	53.5	107	12	51-118/30
91-20-3	Naphthalene	50	38.7	77	42.8	86	10	36-110/31
98-95-3	Nitrobenzene	50	36.7	73	41.4	83	12	36-120/29
621-64-7	N-Nitroso-di-n-propylamine	50	36.7	73	43.4	87	17	41-118/30
86-30-6	N-Nitrosodiphenylamine	50	44.9	90	47.5	95	6	46-112/29
85-01-8	Phenanthrene	50	44.7	89	48.1	96	7	48-111/27
129-00-0	Pyrene	50	47.8	96	50.2	100	5	51-113/28

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	47%	53%	10-73%
4165-62-2	Phenol-d5	33%	38%	10-64%
118-79-6	2,4,6-Tribromophenol	92%	94%	31-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26675-BS1	3E111037.D	1	03/26/20	CS	03/25/20	OP26675	E3E5003
OP26675-BSD	3E111038.D	1	03/26/20	CS	03/25/20	OP26675	E3E5003

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

JD5004-1, JD5004-2, JD5004-3, JD5004-4, JD5004-5, JD5004-6

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	75%	84%	28-126%
321-60-8	2-Fluorobiphenyl	92%	96%	26-114%
1718-51-0	Terphenyl-d14	112%	120%	16-122%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample:	E3E4960-DFTPP	**Injection Date:**	02/18/20
Lab File ID:	3E110162.D	**Injection Time:**	23:27
Instrument ID:	GCMS3E		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	72221	34.6		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	88078	42.2		Pass
70	Less than 2.0% of mass 69	680	0.33	(0.77) [a]	Pass
127	40.0 - 60.0% of mass 198	108616	52.0		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	208957	100.0		Pass
199	5.0 - 9.0% of mass 198	14046	6.72		Pass
275	10.0 - 30.0% of mass 198	61354	29.4		Pass
365	1.0 - 100.0% of mass 198	9344	4.47		Pass
441	Present, but less than mass 443	25674	12.3	(89.6) [b]	Pass
442	40.0 - 100.0% of mass 198	161346	77.2		Pass
443	17.0 - 23.0% of mass 442	28657	13.7	(17.8) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3E4960-IC4960	3E110163.D	02/18/20	23:42	00:15	Initial cal 100
E3E4960-IC4960	3E110164.D	02/19/20	00:07	00:40	Initial cal 80
E3E4960-ICC4960	3E110165.D	02/19/20	00:32	01:05	Initial cal 50
E3E4960-IC4960	3E110166.D	02/19/20	00:57	01:30	Initial cal 25
E3E4960-IC4960	3E110167.D	02/19/20	01:22	01:55	Initial cal 10
E3E4960-IC4960	3E110168.D	02/19/20	01:47	02:20	Initial cal 5
E3E4960-IC4960	3E110169.D	02/19/20	02:12	02:45	Initial cal 2
E3E4960-IC4960	3E110170.D	02/19/20	02:37	03:10	Initial cal 1
E3E4960-ICV4960	3E110171.D	02/19/20	03:02	03:35	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4961-DFTPP
Lab File ID: 3E110172.D
Instrument ID: GCMS3E
Injection Date: 02/19/20
Injection Time: 03:54

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	85799	33.0		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	105268	40.5		Pass
70	Less than 2.0% of mass 69	571	0.22	(0.54) [a]	Pass
127	40.0 - 60.0% of mass 198	137469	52.9		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	260096	100.0		Pass
199	5.0 - 9.0% of mass 198	17921	6.89		Pass
275	10.0 - 30.0% of mass 198	74730	28.7		Pass
365	1.0 - 100.0% of mass 198	10909	4.19		Pass
441	Present, but less than mass 443	34157	13.1	(89.7) [b]	Pass
442	40.0 - 100.0% of mass 198	207296	79.7		Pass
443	17.0 - 23.0% of mass 442	38093	14.6	(18.4) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3E4961-IC4961	3E110173.D	02/19/20	04:06	00:12	Initial cal 100
E3E4961-IC4961	3E110174.D	02/19/20	04:31	00:37	Initial cal 80
E3E4961-ICC4961	3E110175.D	02/19/20	04:56	01:02	Initial cal 50
E3E4961-IC4961	3E110176.D	02/19/20	05:21	01:27	Initial cal 25
E3E4961-IC4961	3E110177.D	02/19/20	05:46	01:52	Initial cal 10
E3E4961-IC4961	3E110178.D	02/19/20	06:11	02:17	Initial cal 5
E3E4961-IC4961	3E110179.D	02/19/20	06:36	02:42	Initial cal 2
E3E4961-IC4961	3E110180.D	02/19/20	07:01	03:07	Initial cal 1
E3E4961-ICV4961	3E110181.D	02/19/20	07:26	03:32	Initial cal verification 50
E3E4961-ICV4961	3E110182.D	02/19/20	07:51	03:57	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4962-DFTPP
Lab File ID: 3E110184.D
Instrument ID: GCMS3E
Injection Date: 02/19/20
Injection Time: 11:37

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	95465	33.0		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	114971	39.7		Pass
70	Less than 2.0% of mass 69	638	0.22	(0.55) [a]	Pass
127	40.0 - 60.0% of mass 198	151514	52.3		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	289464	100.0		Pass
199	5.0 - 9.0% of mass 198	19026	6.57		Pass
275	10.0 - 30.0% of mass 198	84648	29.2		Pass
365	1.0 - 100.0% of mass 198	12671	4.38		Pass
441	Present, but less than mass 443	34178	11.8	(82.0) [b]	Pass
442	40.0 - 100.0% of mass 198	222208	76.8		Pass
443	17.0 - 23.0% of mass 442	41664	14.4	(18.8) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3E4962-IC4962	3E110185.D	02/19/20	11:50	00:13	Initial cal 1
E3E4962-IC4962	3E110186.D	02/19/20	12:20	00:43	Initial cal 2
E3E4962-IC4962	3E110187.D	02/19/20	12:45	01:08	Initial cal 5
E3E4962-IC4962	3E110188.D	02/19/20	13:10	01:33	Initial cal 10
E3E4962-IC4962	3E110189.D	02/19/20	13:36	01:59	Initial cal 25
E3E4962-ICC4962	3E110190.D	02/19/20	14:01	02:24	Initial cal 50
E3E4962-IC4962	3E110191.D	02/19/20	14:27	02:50	Initial cal 80
E3E4962-IC4962	3E110192.D	02/19/20	14:53	03:16	Initial cal 100
E3E4962-ICV4962	3E110193.D	02/19/20	15:19	03:42	Initial cal verification 50
E3E4962-ICV4962	3E110194.D	02/19/20	15:45	04:08	Initial cal verification 50
E3E4962-ICV4962	3E110195.D	02/19/20	16:11	04:34	Initial cal verification 50
E3E4962-ICV4962	3E110196.D	02/19/20	16:37	05:00	Initial cal verification 50
E3E4962-ICV4962	3E110197.D	02/19/20	17:03	05:26	Initial cal verification 50
E3E4962-ICV4962	3E110198.D	02/19/20	17:29	05:52	Initial cal verification 50
E3E4962-ICV4961	3E110198A.D	02/19/20	17:29	05:52	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E5003-DFTPP
Lab File ID: 3E111031.D
Instrument ID: GCMS3E
Injection Date: 03/26/20
Injection Time: 13:15

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	79491	31.4		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	102372	40.5		Pass
70	Less than 2.0% of mass 69	436	0.17	(0.43) [a]	Pass
127	40.0 - 60.0% of mass 198	130225	51.5		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	253056	100.0		Pass
199	5.0 - 9.0% of mass 198	16400	6.48		Pass
275	10.0 - 30.0% of mass 198	67693	26.8		Pass
365	1.0 - 100.0% of mass 198	8922	3.53		Pass
441	Present, but less than mass 443	24761	9.78	(86.3) [b]	Pass
442	40.0 - 100.0% of mass 198	162957	64.4		Pass
443	17.0 - 23.0% of mass 442	28706	11.3	(17.6) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3E5003-CC4962	3E111032.D	03/26/20	13:27	00:12	Continuing cal 50
E3E5003-CC4960	3E111033.D	03/26/20	13:52	00:37	Continuing cal 50
E3E5003-CC4961	3E111034.D	03/26/20	14:17	01:02	Continuing cal 50
OP26675-MB1	3E111036.D	03/26/20	15:45	02:30	Method Blank
OP26675-BS1	3E111037.D	03/26/20	16:10	02:55	Blank Spike
OP26675-BSD	3E111038.D	03/26/20	16:35	03:20	Blank Spike Duplicate
JD5004-5	3E111039.D	03/26/20	17:00	03:45	FIELD BLANK
JD5004-6	3E111040.D	03/26/20	17:25	04:10	TRC-MW25R
ZZZZZZ	3E111041.D	03/26/20	17:50	04:35	(unrelated sample)
ZZZZZZ	3E111042.D	03/26/20	18:15	05:00	(unrelated sample)
ZZZZZZ	3E111043.D	03/26/20	18:40	05:25	(unrelated sample)
ZZZZZZ	3E111044.D	03/26/20	19:05	05:50	(unrelated sample)
ZZZZZZ	3E111045.D	03/26/20	19:31	06:16	(unrelated sample)
ZZZZZZ	3E111046.D	03/26/20	19:56	06:41	(unrelated sample)
ZZZZZZ	3E111047.D	03/26/20	20:21	07:06	(unrelated sample)
ZZZZZZ	3E111049.D	03/26/20	21:11	07:56	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E5004-DFTPP
Lab File ID: 3E111055.D
Instrument ID: GCMS3E
Injection Date: 03/27/20
Injection Time: 11:48

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	76444	30.9		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	89454	36.2		Pass
70	Less than 2.0% of mass 69	589	0.24	(0.66) [a]	Pass
127	40.0 - 60.0% of mass 198	119434	48.3		Pass
197	Less than 1.0% of mass 198	677	0.27		Pass
198	Base peak, 100% relative abundance	247385	100.0		Pass
199	5.0 - 9.0% of mass 198	15616	6.31		Pass
275	10.0 - 30.0% of mass 198	65696	26.6		Pass
365	1.0 - 100.0% of mass 198	8219	3.32		Pass
441	Present, but less than mass 443	22177	8.96	(82.6) [b]	Pass
442	40.0 - 100.0% of mass 198	150693	60.9		Pass
443	17.0 - 23.0% of mass 442	26853	10.9	(17.8) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3E5004-CC4962	3E111056.D	03/27/20	12:01	00:13	Continuing cal 50
E3E5004-CC4961	3E111058.D	03/27/20	12:51	01:03	Continuing cal 50
E3E5004-CC4960	3E111059.D	03/27/20	13:57	02:09	Continuing cal 50
OP26687-MB1	3E111060.D	03/27/20	14:22	02:34	Method Blank
OP26687-BS1	3E111061.D	03/27/20	14:47	02:59	Blank Spike
JD5004-1	3E111062.D	03/27/20	15:12	03:24	TRC-MW18
JD5004-3	3E111063.D	03/27/20	15:37	03:49	TRC-MW17
ZZZZZZ	3E111064.D	03/27/20	16:02	04:14	(unrelated sample)
ZZZZZZ	3E111065.D	03/27/20	16:27	04:39	(unrelated sample)
ZZZZZZ	3E111066.D	03/27/20	16:52	05:04	(unrelated sample)
ZZZZZZ	3E111071.D	03/27/20	18:58	07:10	(unrelated sample)
ZZZZZZ	3E111074.D	03/27/20	20:14	08:26	(unrelated sample)
ZZZZZZ	3E111075.D	03/27/20	20:39	08:51	(unrelated sample)
ZZZZZZ	3E111076.D	03/27/20	21:04	09:16	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2901-DFTPP
Lab File ID: 6P488950.D
Instrument ID: GCMS6P
Injection Date: 02/28/20
Injection Time: 14:58

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	43933	35.9		Pass
68	Less than 2.0% of mass 69	652	0.53	(1.33) [a]	Pass
69	Mass 69 relative abundance	48878	40.0		Pass
70	Less than 2.0% of mass 69	162	0.13	(0.33) [a]	Pass
127	40.0 - 60.0% of mass 198	66128	54.1		Pass
197	Less than 1.0% of mass 198	1010	0.83		Pass
198	Base peak, 100% relative abundance	122258	100.0		Pass
199	5.0 - 9.0% of mass 198	8495	6.95		Pass
275	10.0 - 30.0% of mass 198	34981	28.6		Pass
365	1.0 - 100.0% of mass 198	5279	4.32		Pass
441	Present, but less than mass 443	13453	11.0	(87.0) [b]	Pass
442	40.0 - 100.0% of mass 198	82517	67.5		Pass
443	17.0 - 23.0% of mass 442	15463	12.6	(18.7) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P2901-IC2901	6P488952.D	02/28/20	16:46	01:48	Initial cal 1
E6P2901-IC2901	6P488953.D	02/28/20	17:11	02:13	Initial cal 100
E6P2901-IC2901	6P488954.D	02/28/20	17:34	02:36	Initial cal 80
E6P2901-ICC2901	6P488955.D	02/28/20	17:58	03:00	Initial cal 50
E6P2901-IC2901	6P488956.D	02/28/20	18:21	03:23	Initial cal 25
E6P2901-IC2901	6P488957.D	02/28/20	18:45	03:47	Initial cal 10
E6P2901-IC2901	6P488958.D	02/28/20	19:08	04:10	Initial cal 5
E6P2901-IC2901	6P488959A.D	02/28/20	20:27	05:29	Initial cal 2
E6P2901-ICV2901	6P488960.D	02/28/20	20:51	05:53	Initial cal verification 50
E6P2901-ICV2901	6P488961.D	02/28/20	21:14	06:16	Initial cal verification 50
E6P2901-ICV2901	6P488963.D	02/28/20	22:01	07:03	Initial cal verification 50
E6P2901-ICV2901	6P488964.D	02/28/20	22:24	07:26	Initial cal verification 50
E6P2901-ICV2901	6P488965.D	02/28/20	22:48	07:50	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2902-DFTPP
Lab File ID: 6P488966.D
Instrument ID: GCMS6P
Injection Date: 02/28/20
Injection Time: 23:07

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	46328	32.3		Pass
68	Less than 2.0% of mass 69	876	0.61	(1.67) [a]	Pass
69	Mass 69 relative abundance	52311	36.5		Pass
70	Less than 2.0% of mass 69	158	0.11	(0.30) [a]	Pass
127	40.0 - 60.0% of mass 198	75309	52.6		Pass
197	Less than 1.0% of mass 198	1154	0.81		Pass
198	Base peak, 100% relative abundance	143301	100.0		Pass
199	5.0 - 9.0% of mass 198	9586	6.69		Pass
275	10.0 - 30.0% of mass 198	42512	29.7		Pass
365	1.0 - 100.0% of mass 198	6321	4.41		Pass
441	Present, but less than mass 443	17140	12.0	(89.1) [b]	Pass
442	40.0 - 100.0% of mass 198	100890	70.4		Pass
443	17.0 - 23.0% of mass 442	19246	13.4	(19.1) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P2902-IC2902	6P488967.D	02/28/20	23:20	00:13	Initial cal 1
E6P2902-IC2902	6P488968.D	02/28/20	23:43	00:36	Initial cal 100
E6P2902-IC2902	6P488969.D	02/29/20	00:07	01:00	Initial cal 80
E6P2902-ICC2902	6P488970.D	02/29/20	00:30	01:23	Initial cal 50
E6P2902-IC2902	6P488971.D	02/29/20	00:53	01:46	Initial cal 25
E6P2902-IC2902	6P488972.D	02/29/20	01:17	02:10	Initial cal 10
E6P2902-IC2902	6P488973.D	02/29/20	01:40	02:33	Initial cal 5
E6P2902-IC2902	6P488974.D	02/29/20	02:03	02:56	Initial cal 2
E6P2902-ICV2902	6P488975.D	02/29/20	02:27	03:20	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2903-DFTPP
Lab File ID: 6P488977.D
Instrument ID: GCMS6P
Injection Date: 02/29/20
Injection Time: 03:00

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	51210	35.5		Pass
68	Less than 2.0% of mass 69	847	0.59	(1.47) [a]	Pass
69	Mass 69 relative abundance	57626	39.9		Pass
70	Less than 2.0% of mass 69	194	0.13	(0.34) [a]	Pass
127	40.0 - 60.0% of mass 198	77466	53.7		Pass
197	Less than 1.0% of mass 198	1154	0.80		Pass
198	Base peak, 100% relative abundance	144248	100.0		Pass
199	5.0 - 9.0% of mass 198	9627	6.67		Pass
275	10.0 - 30.0% of mass 198	39501	27.4		Pass
365	1.0 - 100.0% of mass 198	5649	3.92		Pass
441	Present, but less than mass 443	14191	9.84	(86.0) [b]	Pass
442	40.0 - 100.0% of mass 198	84532	58.6		Pass
443	17.0 - 23.0% of mass 442	16504	11.4	(19.5) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P2903-IC2903	6P488978.D	02/29/20	03:15	00:15	Initial cal 1
E6P2903-IC2903	6P488979.D	02/29/20	03:38	00:38	Initial cal 100
E6P2903-IC2903	6P488980.D	02/29/20	04:01	01:01	Initial cal 80
E6P2903-ICC2903	6P488981.D	02/29/20	04:25	01:25	Initial cal 50
E6P2903-IC2903	6P488982.D	02/29/20	04:48	01:48	Initial cal 25
E6P2903-IC2903	6P488983.D	02/29/20	05:11	02:11	Initial cal 10
E6P2903-IC2903	6P488985.D	02/29/20	05:58	02:58	Initial cal 2
E6P2903-IC2903	6P488989.D	02/29/20	06:21	03:21	Initial cal 5
E6P2903-ICV2903	6P488986.D	02/29/20	06:45	03:45	Initial cal verification 50
E6P2903-ICV2903	6P488987.D	02/29/20	07:08	04:08	Initial cal verification 50
E6P2903-ICV2903	6P488988.D	02/29/20	07:31	04:31	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2904-DFTPP
Lab File ID: 6P488992.D
Instrument ID: GCMS6P
Injection Date: 03/02/20
Injection Time: 12:50

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	41056	34.8		Pass
68	Less than 2.0% of mass 69	815	0.69	(1.79) [a]	Pass
69	Mass 69 relative abundance	45445	38.5		Pass
70	Less than 2.0% of mass 69	141	0.12	(0.31) [a]	Pass
127	40.0 - 60.0% of mass 198	62333	52.8		Pass
197	Less than 1.0% of mass 198	701	0.59		Pass
198	Base peak, 100% relative abundance	118146	100.0		Pass
199	5.0 - 9.0% of mass 198	7947	6.73		Pass
275	10.0 - 30.0% of mass 198	32405	27.4		Pass
365	1.0 - 100.0% of mass 198	5074	4.29		Pass
441	Present, but less than mass 443	13002	11.0	(79.5) [b]	Pass
442	40.0 - 100.0% of mass 198	84736	71.7		Pass
443	17.0 - 23.0% of mass 442	16365	13.9	(19.3) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P2904-ICV2901	6P488993.D	03/02/20	13:04	00:14	Initial cal verification 50
E6P2904-CC2901	6P488995.D	03/02/20	16:01	03:11	Continuing cal 50
OP26213-MB1	6P488996.D	03/02/20	16:27	03:37	Method Blank
OP26213-LB34	6P488997.D	03/02/20	17:03	04:13	Leachate Blank
OP26213-BS1	6P488998.D	03/02/20	17:27	04:37	Blank Spike
OP26213-LS26	6P488999.D	03/02/20	17:51	05:01	Leachate Spike
OP26213-MS	6P488999.D	03/02/20	17:51	05:01	Matrix Spike
OP26213-MSD	6P489000.D	03/02/20	18:16	05:26	Matrix Spike Duplicate
ZZZZZZ	6P489003.D	03/02/20	19:28	06:38	(unrelated sample)
ZZZZZZ	6P489004.D	03/02/20	19:52	07:02	(unrelated sample)
ZZZZZZ	6P489005.D	03/02/20	20:16	07:26	(unrelated sample)
ZZZZZZ	6P489006.D	03/02/20	20:41	07:51	(unrelated sample)
ZZZZZZ	6P489007.D	03/02/20	21:05	08:15	(unrelated sample)
ZZZZZZ	6P489008.D	03/02/20	21:28	08:38	(unrelated sample)
ZZZZZZ	6P489009.D	03/02/20	21:52	09:02	(unrelated sample)
ZZZZZZ	6P489010.D	03/02/20	22:17	09:27	(unrelated sample)
ZZZZZZ	6P489011.D	03/02/20	22:40	09:50	(unrelated sample)
ZZZZZZ	6P489012.D	03/02/20	23:04	10:14	(unrelated sample)
ZZZZZZ	6P489013.D	03/02/20	23:28	10:38	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2934-DFTPP
Lab File ID: 6P489753.D
Instrument ID: GCMS6P
Injection Date: 04/02/20
Injection Time: 12:40

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	62141	40.1		Pass
68	Less than 2.0% of mass 69	1245	0.80	(1.83) [a]	Pass
69	Mass 69 relative abundance	67870	43.7		Pass
70	Less than 2.0% of mass 69	173	0.11	(0.25) [a]	Pass
127	40.0 - 60.0% of mass 198	86677	55.9		Pass
197	Less than 1.0% of mass 198	490	0.32		Pass
198	Base peak, 100% relative abundance	155133	100.0		Pass
199	5.0 - 9.0% of mass 198	10630	6.85		Pass
275	10.0 - 30.0% of mass 198	43640	28.1		Pass
365	1.0 - 100.0% of mass 198	6988	4.50		Pass
441	Present, but less than mass 443	20466	13.2	(81.3) [b]	Pass
442	40.0 - 100.0% of mass 198	129968	83.8		Pass
443	17.0 - 23.0% of mass 442	25161	16.2	(19.4) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P2934-CC2901	6P489754.D	04/02/20	12:53	00:13	Continuing cal 50
E6P2934-CC2902	6P489755.D	04/02/20	13:17	00:37	Continuing cal 50
E6P2934-CC2903	6P489756.D	04/02/20	13:41	01:01	Continuing cal 50
OP26687-MB1	6P489759.D	04/02/20	15:43	03:03	Method Blank
ZZZZZZ	6P489760.D	04/02/20	16:07	03:27	(unrelated sample)
OP26675-MB1	6P489762.D	04/02/20	16:55	04:15	Method Blank
ZZZZZZ	6P489763.D	04/02/20	17:19	04:39	(unrelated sample)
JD5004-2	6P489764.D	04/02/20	17:43	05:03	TRC-MW18DUP
ZZZZZZ	6P489765.D	04/02/20	18:07	05:27	(unrelated sample)
ZZZZZZ	6P489766.D	04/02/20	18:31	05:51	(unrelated sample)
JD4423-14	6P489767.D	04/02/20	18:55	06:15	(used for QC only; not part of job JD5004)
ZZZZZZ	6P489768.D	04/02/20	19:19	06:39	(unrelated sample)
JD4976-1	6P489769.D	04/02/20	19:43	07:03	(used for QC only; not part of job JD5004)
OP26652-MS	6P489770.D	04/02/20	20:07	07:27	Matrix Spike
OP26652-MSD	6P489771.D	04/02/20	20:31	07:51	Matrix Spike Duplicate
OP26687-MS	6P489772.D	04/02/20	20:55	08:15	Matrix Spike
OP26687-MSD	6P489773.D	04/02/20	21:19	08:39	Matrix Spike Duplicate
JD4423-14	6P489774.D	04/02/20	21:44	09:04	(used for QC only; not part of job JD5004)

Instrument Performance Check (DFTPP)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2935-DFTPP
Lab File ID: 6P489776.D
Instrument ID: GCMS6P
Injection Date: 04/03/20
Injection Time: 11:40

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	60755	39.3		Pass
68	Less than 2.0% of mass 69	1291	0.83	(1.99) [a]	Pass
69	Mass 69 relative abundance	64853	41.9		Pass
70	Less than 2.0% of mass 69	241	0.16	(0.37) [a]	Pass
127	40.0 - 60.0% of mass 198	84624	54.7		Pass
197	Less than 1.0% of mass 198	943	0.61		Pass
198	Base peak, 100% relative abundance	154627	100.0		Pass
199	5.0 - 9.0% of mass 198	9951	6.44		Pass
275	10.0 - 30.0% of mass 198	43829	28.3		Pass
365	1.0 - 100.0% of mass 198	7002	4.53		Pass
441	Present, but less than mass 443	19367	12.5	(80.2) [b]	Pass
442	40.0 - 100.0% of mass 198	129493	83.7		Pass
443	17.0 - 23.0% of mass 442	24163	15.6	(18.7) [c]	Pass

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

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P2935-CC2901	6P489777.D	04/03/20	11:53	00:13	Continuing cal 25
E6P2935-CC2902	6P489778.D	04/03/20	12:17	00:37	Continuing cal 25
E6P2935-CC2903	6P489779.D	04/03/20	12:41	01:01	Continuing cal 25
OP26652-MB1	6P489780.D	04/03/20	13:05	01:25	Method Blank
OP26823-MB1	6P489781.D	04/03/20	13:29	01:49	Method Blank
OP26823-BS1	6P489782.D	04/03/20	13:53	02:13	Blank Spike
ZZZZZZ	6P489783.D	04/03/20	14:17	02:37	(unrelated sample)
ZZZZZZ	6P489784.D	04/03/20	14:41	03:01	(unrelated sample)
ZZZZZZ	6P489785.D	04/03/20	15:05	03:25	(unrelated sample)
ZZZZZZ	6P489786.D	04/03/20	15:29	03:49	(unrelated sample)
ZZZZZZ	6P489787.D	04/03/20	15:53	04:13	(unrelated sample)
ZZZZZZ	6P489788.D	04/03/20	16:17	04:37	(unrelated sample)
ZZZZZZ	6P489789.D	04/03/20	16:41	05:01	(unrelated sample)
ZZZZZZ	6P489790.D	04/03/20	17:05	05:25	(unrelated sample)
JD5004-4	6P489800.D	04/03/20	17:29	05:49	TRC-MW15B
JD5004-1	6P489801.D	04/03/20	17:53	06:13	TRC-MW18
ZZZZZZ	6P489791.D	04/03/20	18:41	07:01	(unrelated sample)
ZZZZZZ	6P489792.D	04/03/20	19:05	07:25	(unrelated sample)
ZZZZZZ	6P489793.D	04/03/20	19:29	07:49	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample:	E6P2935-DFTPP	**Injection Date:**	04/03/20
Lab File ID:	6P489776.D	**Injection Time:**	11:40
Instrument ID:	GCMS6P		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	6P489794.D	04/03/20	19:53	08:13	(unrelated sample)
ZZZZZZ	6P489795.D	04/03/20	20:17	08:37	(unrelated sample)
JD5456-1	6P489796.D	04/03/20	20:41	09:01	(used for QC only; not part of job JD5004)
OP26823-MS	6P489797.D	04/03/20	21:05	09:25	Matrix Spike
ZZZZZZ	6P489799.D	04/03/20	21:53	10:13	(unrelated sample)

Internal Standard Area Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Check Std:	E3E5003-CC4962	**Injection Date:**	03/26/20
Lab File ID:	3E111032.D	**Injection Time:**	13:27
Instrument ID:	GCMS3E	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	391374	4.33	1459258	5.34	899668	7.30	1777828	9.42	1664119	13.56	1358192	15.66
Upper Limit [a]	782748	4.83	2918516	5.84	1799336	7.80	3555656	9.92	3328238	14.06	2716384	16.16
Lower Limit [b]	195687	3.83	729629	4.84	449834	6.80	888914	8.92	832060	13.06	679096	15.16

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP26675-MB1	275307	4.33	1067450	5.34	565426	7.30	1166330	9.41	1035382	13.55	1022054	15.64
OP26675-BS1	267761	4.33	1007616	5.34	527542	7.30	1090290	9.41	950340	13.55	782908	15.64
OP26675-BSD	268282	4.33	1019575	5.34	541355	7.30	1119384	9.41	983380	13.55	806977	15.64
JD5004-5	282765	4.33	1130226	5.34	606439	7.30	1266451	9.41	1134255	13.54	1100086	15.64
JD5004-6	267968	4.32	1021983	5.34	519430	7.30	986688	9.41	852230	13.55	848417	15.64
ZZZZZZ	257245	4.33	986958	5.34	476469	7.30	951622	9.41	927745	13.54	915643	15.64
ZZZZZZ	238946	4.32	943436	5.34	517643	7.30	1072314	9.41	979044	13.54	937729	15.64
ZZZZZZ	283101	4.32	1109793	5.34	574875	7.30	1173259	9.41	1090079	13.54	1085232	15.64
ZZZZZZ	255365	4.32	989227	5.34	512113	7.30	1001978	9.41	941915	13.54	920828	15.63
ZZZZZZ	283927	4.33	1066427	5.34	527862	7.30	998177	9.41	975373	13.54	996356	15.64
ZZZZZZ	268955	4.33	1036139	5.34	527442	7.30	1074508	9.41	966289	13.54	985117	15.64
ZZZZZZ	275845	4.33	1085659	5.34	593902	7.30	1209856	9.41	1082709	13.54	1034726	15.64
ZZZZZZ	267899	4.33	1025329	5.34	544352	7.30	1054040	9.41	847462	13.54	845544	15.64

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

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

Internal Standard Area Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Check Std:	E3E5004-CC4962	**Injection Date:**	03/27/20
Lab File ID:	3E111056.D	**Injection Time:**	12:01
Instrument ID:	GCMS3E	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	310619	4.41	1121942	5.44	686829	7.43	1255958	9.55	1257652	13.70	1072642	15.79
Upper Limit [a]	621238	4.91	2243884	5.94	1373658	7.93	2511916	10.05	2515304	14.20	2145284	16.29
Lower Limit [b]	155310	3.91	560971	4.94	343415	6.93	627979	9.05	628826	13.20	536321	15.29

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP26687-MB1	259883	4.41	976971	5.44	533767	7.42	1070046	9.54	942018	13.68	921303	15.79
OP26687-BS1	306078	4.41	1130166	5.44	586270	7.42	1147469	9.55	1086996	13.69	871107	15.79
JD5004-1	289641	4.41	1105606	5.44	559978	7.42	1084918	9.55	952038	13.69	943320	15.79
JD5004-3 [c]	257793	4.41	983170	5.44	511258	7.42	1028755	9.55	910214	13.69	908771	15.79
ZZZZZZ	283352	4.41	1092564	5.44	564925	7.42	1136927	9.55	923068	13.69	839211	15.79
ZZZZZZ	268743	4.41	1019448	5.44	500078	7.42	1093371	9.54	842472	13.69	739931	15.79
ZZZZZZ	226124	4.41	858703	5.44	451220	7.42	914584	9.54	754111	13.69	713693	15.79
ZZZZZZ	234756	4.41	890950	5.44	466067	7.43	901825	9.55	690013	13.70	643029	15.81
ZZZZZZ	238137	4.41	894211	5.45	412969	7.43	791738	9.56	644794	13.74	601265	15.85
ZZZZZZ	220607	4.41	833780	5.45	439668	7.43	754523	9.56	618066*	13.74	520353*	15.84
ZZZZZZ	196199	4.41	734590	5.45	352176	7.43	619722*	9.56	520624*	13.76	426251*	15.87

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

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

Internal Standard Area Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Check Std:	E6P2934-CC2901	**Injection Date:**	04/02/20
Lab File ID:	6P489754.D	**Injection Time:**	12:53
Instrument ID:	GCMS6P	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	355821	4.50	1452484	5.52	891178	7.24	1569018	8.93	1421250	12.10	1532167	13.69
Upper Limit [a]	711642	5.00	2904968	6.02	1782356	7.74	3138036	9.43	2842500	12.60	3064334	14.19
Lower Limit [b]	177911	4.00	726242	5.02	445589	6.74	784509	8.43	710625	11.60	766084	13.19

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP26687-MB1	287834	4.50	1148973	5.51	576918	7.24	1064821	8.92	842178	12.08	845564	13.68
ZZZZZZ	262211	4.50	1074873	5.51	540171	7.24	1008113	8.92	913591	12.09	992293	13.69
OP26675-MB1	247430	4.50	995206	5.51	504448	7.24	933819	8.92	829280	12.08	889579	13.68
ZZZZZZ	344554	4.50	1423283	5.52	775765	7.25	1449049	8.94	1262754	12.09	1351177	13.69
JD5004-2	281734	4.50	1121185	5.51	571721	7.24	1060573	8.93	919562	12.09	1000736	13.69
ZZZZZZ	296837	4.50	1155688	5.51	555413	7.24	984308	8.93	787846	12.09	823138	13.69
ZZZZZZ	309259	4.50	1233560	5.51	615677	7.24	1148156	8.93	1015053	12.09	1118788	13.69
JD4423-14	313427	4.50	1267183	5.51	641635	7.24	1172479	8.93	1067971	12.09	1167174	13.69
ZZZZZZ	298375	4.50	1170991	5.51	580197	7.24	1072091	8.93	1001683	12.10	1171614	13.70
JD4976-1	346392	4.50	1348396	5.52	667849	7.24	1182396	8.93	1036875	12.09	1199424	13.69
OP26652-MS	361452	4.51	1517147	5.52	765361	7.25	1385489	8.93	1209671	12.10	1363363	13.70
OP26652-MSD	314913	4.51	1246180	5.52	634529	7.25	1146131	8.94	1014692	12.10	1154528	13.71
OP26687-MS	276795	4.51	1099301	5.52	542395	7.25	961833	8.97	927316	12.15	1041151	13.74
OP26687-MSD	309108	4.51	1205998	5.52	594995	7.26	1079036	8.97	1067920	12.15	1225618	13.75
JD4423-14	276709	4.51	1104950	5.52	547236	7.26	1025339	8.97	994777	12.16	1138995	13.76

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

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

Internal Standard Area Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Check Std: E6P2935-CC2901 **Injection Date:** 04/03/20
Lab File ID: 6P489777.D **Injection Time:** 11:53
Instrument ID: GCMS6P **Method:** SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	328135	4.50	1264954	5.51	757577	7.24	1342768	8.93	1142341	12.10	1278290	13.70
Upper Limit [a]	656270	5.00	2529908	6.01	1515154	7.74	2685536	9.43	2284682	12.60	2556580	14.20
Lower Limit [b]	164068	4.00	632477	5.01	378789	6.74	671384	8.43	571171	11.60	639145	13.20

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP26652-MB1	264489	4.50	1034960	5.51	501259	7.24	927583	8.92	764516	12.09	767169	13.69
OP26823-MB1	283142	4.50	1097026	5.51	545525	7.24	988804	8.92	830405	12.09	844123	13.69
OP26823-BS1	292109	4.50	1107186	5.51	544695	7.24	991258	8.93	820709	12.09	818305	13.69
ZZZZZZ	306799	4.50	1171407	5.51	574760	7.24	1025296	8.92	858984	12.09	851441	13.69
ZZZZZZ	293654	4.50	1134331	5.51	549429	7.24	986554	8.92	838920	12.08	845335	13.69
ZZZZZZ	298038	4.50	1152645	5.51	569479	7.24	1049312	8.92	874370	12.08	871493	13.69
ZZZZZZ	278682	4.50	1071829	5.51	528445	7.23	972135	8.92	830441	12.08	831857	13.68
ZZZZZZ	275436	4.50	1085436	5.51	525162	7.24	945428	8.92	767575	12.08	775216	13.68
ZZZZZZ	273396	4.50	1074663	5.51	520159	7.23	940277	8.92	779561	12.08	778905	13.68
ZZZZZZ	272364	4.50	1057547	5.51	515510	7.23	915738	8.92	783258	12.08	782779	13.68
ZZZZZZ	274661	4.50	1069491	5.51	521658	7.23	934651	8.92	746806	12.08	775776	13.68
JD5004-4	277106	4.50	1103023	5.51	559411	7.24	1018287	8.92	885392	12.08	964120	13.69
JD5004-1	206538	4.50	836776	5.51	426770	7.24	785829	8.92	675371	12.09	729379	13.69
ZZZZZZ	298711	4.50	1138101	5.51	558073	7.23	996854	8.92	805619	12.08	827374	13.68
ZZZZZZ	284134	4.50	1103378	5.51	540091	7.23	981477	8.92	790435	12.08	822328	13.68
ZZZZZZ	289707	4.50	1099278	5.51	544538	7.23	949830	8.92	808747	12.09	877205	13.69
ZZZZZZ	280519	4.50	1076118	5.51	511890	7.23	912921	8.92	714190	12.08	750843	13.68
ZZZZZZ	268604	4.50	1039848	5.51	502334	7.23	898314	8.91	726114	12.08	785449	13.68
JD5456-1	321950	4.50	1219274	5.51	583670	7.23	1061119	8.92	816735	12.08	915015	13.68
OP26823-MS	296448	4.50	1142122	5.51	557182	7.24	983542	8.92	776150	12.09	851050	13.69
ZZZZZZ	297435	4.50	1150513	5.51	542421	7.24	972128	8.92	807462	12.09	954901	13.69

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

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

Surrogate Recovery Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Method: SW846 8270D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JD5004-1	3E111062.D	44	32	103	81	93	83
JD5004-1	6P489801.D	49	35	108	98	91	83
JD5004-2	6P489764.D	46	32	102	95	87	72
JD5004-3	3E111063.D	37	27	86	69	81	74
JD5004-4	6P489800.D	42	30	96	84	82	93
JD5004-5	3E111039.D	41	26	95	70	85	117
JD5004-6	3E111040.D	42	29	106	77	91	90
OP26675-BS1	3E111037.D	47	33	92	75	92	112
OP26675-BSD	3E111038.D	53	38	94	84	96	120
OP26675-MB1	3E111036.D	45	29	96	74	89	116
OP26675-MB1	6P489762.D	49	32	93	90	82	101

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-73%
S2 = Phenol-d5	10-64%
S3 = 2,4,6-Tribromophenol	31-130%
S4 = Nitrobenzene-d5	28-126%
S5 = 2-Fluorobiphenyl	26-114%
S6 = Terphenyl-d14	16-122%

Initial Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4960-ICC4960
Lab FileID: 3E110165.D

Response Factor Report SVOAMS3E

Method : C:\MSDCHEM\1\METHODS\M3E4960.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 10:09:09 2020
Last Update : Wed Feb 19 10:09:09 2020
Response via : Initial Calibration

Calibration Files
2 =3e110169.D 5 =3e110168.D 25 =3e110166.D 80 =3e110164.D
100 =3e110163.D 50 =3e110165.D 1 =3e110170.D 10 =3e110167.D

Compound	2	5	25	80	100	50	1	10	Avg %RSD
101) 1,4-Dichlorobenzene-d	ISTD								
102) Benzaldehyde	1.048	1.039	1.025	1.044	1.061	1.041	1.080	1.017	1.044 1.88
105) Phenanthrene-d10a	ISTD								
106) Atrazine	0.109	0.106	0.114	0.116	0.115	0.115	0.105	0.109	0.111 3.85
107) pentachloron	0.037	0.036	0.040	0.045	0.045	0.043	0.037	0.037	0.040# 9.61

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

M3E4959.M Wed Feb 19 10:13:52 2020 YING

8.6.1

8

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4960-ICV4960
Lab FileID: 3E110171.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E4960\3e110171.D Vial: 24
Acq On : 19 Feb 2020 3:02 am Operator: chriss2
Sample : icv4960-50 Inst : SVOAMS3E
Misc : op22261,e3e4960,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M3E4959.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 10:09:09 2020
Last Update : Wed Feb 19 10:09:09 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	136	0.00	4.40
102	Benzaldehyde	1.044	1.043	0.1	137	0.00	4.07
105	Phenanthrene-d10a	1.000	1.000	0.0	131	0.00	9.54
106	Atrazine	0.111	0.114	-2.7	130	0.01	9.22
107	pentachloronitrobenzene	0.040	0.039#	2.5	120	0.00	9.30

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3e110165a.D M3E4959.M Wed Feb 19 10:14:05 2020 YING

8.6.2

8

Initial Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4961-ICC4961
Lab FileID: 3E110175.D

Response Factor Report SVOAMS3E

Method : C:\MSDCHEM\1\METHODS\M3E4961.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 10:41:26 2020
Last Update : Wed Feb 19 10:41:26 2020
Response via : Initial Calibration

Calibration Files
2 =3e110179.D 5 =3e110178.D 25 =3e110176.D 80 =3e110174.D
100 =3e110173.D 50 =3e110175.D 1 =3e110180.D 10 =3e110177.D

Compound	2	5	25	80	100	50	1	10	Avg %RSD
103) Acenaphthene-d10a	----------ISTD----------								
104) 1,2,4,5-Tetr	0.577	0.583	0.607	0.647	0.674	0.617	0.628	0.605	0.617 5.18
108) I Chrysene-d12a	----------ISTD----------								
109) benzidine	0.670	0.752	0.918	0.956	0.982	0.964	0.848	0.870	13.70
110) I Naphthalene-d8a	----------ISTD----------								
111) Hydroquinone	0.271	0.343	0.351	0.365	0.362	0.306	0.333	11.12	
112) Phenanthrene-d10b	----------ISTD----------								
113) 1-chloroocta	0.053	0.047	0.054	0.055	0.056	0.055	0.048	0.053	0.053 6.43
114) o-terphenyl	0.508	0.524	0.559	0.593	0.625	0.579	0.552	0.543	0.560 6.75

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

M3E4959.M Wed Feb 19 11:53:42 2020 YING

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4961-ICV4961
Lab FileID: 3E110181.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E4961\3e110181.D Vial: 33
Acq On : 19 Feb 2020 7:26 am Operator: chriss2
Sample : icv4961-50 Inst : SVOAMS3E
Misc : op22261,e3e4961,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M3E4959.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 10:41:26 2020
Last Update : Wed Feb 19 10:41:26 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
103	Acenaphthene-d10a	1.000	1.000	0.0	91	0.00	7.41
104	1,2,4,5-Tetrachlorobenzen	0.617	0.532	13.8	78	0.00	6.34

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3e110175a.D M3E4959.M Wed Feb 19 11:54:11 2020 YING

8.6.4

8

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4961-ICV4961
Lab FileID: 3E110182.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E4961\3e110182.D Vial: 34
Acq On : 19 Feb 2020 7:51 am Operator: chriss2
Sample : icv4961-50 Inst : SVOAMS3E
Misc : op22261,e3e4961,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M3E4959.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 10:41:26 2020
Last Update : Wed Feb 19 10:41:26 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
110 I	Naphthalene-d8a	1.000	1.000	0.0	62	0.00	5.43
111 T	Hydroquinone	0.333	0.427	-28.2	74	-0.01	5.88

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3e110175a.D M3E4959.M Wed Feb 19 11:54:14 2020 YING

8.6.5

8

Initial Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4962-ICC4962
Lab FileID: 3E110190.D

Response Factor Report SVOAMS3E

Method : C:\MSDCHEM\1\METHODS\M3E4962.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 15:41:28 2020
Last Update : Wed Feb 19 15:41:28 2020
Response via : Initial Calibration

Calibration Files
2 =3e110186.D 5 =3e110187.D 25 =3e110189.D 80 =3e110191.D
100 =3e110192.D 50 =3e110190.D 1 =3e110185.D 10 =3e110188.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	ISTD									
2) 1,4-Dioxane	0.507	0.475	0.484	0.494	0.511	0.491	0.526	0.454	0.493	4.57
3) Pyridine	1.009	1.123	1.262	1.255	1.347	1.279	0.855	1.109	1.155	14.18
4) N-Nitrosodim	0.663	0.685	0.717	0.761	0.801	0.740	0.653	0.688	0.714	7.18
5) 2-Fluorophen	1.135	1.074	1.197	1.280	1.340	1.238	1.089	1.095	1.181	8.35
6) Indene	2.210	2.264	2.334	2.483	2.599	2.447	2.256	2.224	2.352	6.04
7) Cumene	2.982	3.016	3.121	3.278	3.396	3.234	2.968	2.937	3.117	5.43
8) Phenol-d5	1.453	1.409	1.537	1.662	1.737	1.612	1.390	1.436	1.529	8.42
9) Phenol	1.528	1.530	1.808	1.915	1.952	1.872	1.499	1.574	1.710	11.39
10) Aniline	1.757	1.790	1.881	2.011	2.084	1.950	1.663	1.796	1.867	7.57
11) bis(2-Chloro	1.224	1.163	1.224	1.249	1.282	1.239	1.156	1.139	1.210	4.22
12) 2-Chlorophen	1.371	1.293	1.400	1.450	1.512	1.427	1.380	1.319	1.394	5.06
13) Decane	0.908	0.890	0.907	0.954	1.002	0.945	0.909	0.855	0.921	4.85
14) 1,3-Dichloro	1.513	1.469	1.509	1.574	1.630	1.557	1.465	1.456	1.522	4.03
15) 1,4-Dichloro	1.495	1.494	1.543	1.584	1.656	1.590	1.538	1.472	1.547	3.95
16) Benzyl alcoh	0.737	0.755	0.812	0.882	0.928	0.842	0.757	0.732	0.806	9.04
17) 1,2-Dichloro	1.423	1.386	1.434	1.516	1.568	1.493	1.358	1.359	1.442	5.34
18) Acetophenone	1.832	1.721	1.839	1.925	1.998	1.907	1.749	1.728	1.838	5.50
19) 2-Methylphen	1.169	1.144	1.219	1.261	1.315	1.244	1.157	1.129	1.205	5.44
20) 2,2'-oxybis(	0.413	0.394	0.396	0.409	0.425	0.411	0.453	0.391	0.412	4.96
21) 3&4-Methylph	1.125	1.152	1.267	1.326	1.367	1.317	1.095	1.166	1.227	8.51
22) n-Nitroso-di	0.993	0.938	0.984	1.047	1.085	1.023	0.953	0.918	0.993	5.72
23) Hexachloroet	0.532	0.490	0.518	0.531	0.541	0.541	0.530	0.503	0.523	3.52
24) I Naphthalene-d8	ISTD									
25) Nitrobenzene	0.362	0.369	0.395	0.422	0.442	0.421	0.369	0.362	0.393	8.11
26) Nitrobenzene	0.366	0.374	0.407	0.441	0.461	0.437	0.388	0.380	0.407	8.71
27) Quinoline	0.671	0.657	0.721	0.722	0.735	0.748	0.684	0.678	0.702	4.76
28) Isophorone	0.625	0.631	0.691	0.737	0.776	0.742	0.625	0.637	0.683	9.04
29) 2-Nitropheno	0.177	0.177	0.196	0.219	0.232	0.217	0.171	0.180	0.196	11.92
30) 2,4-Dimethyl	0.361	0.349	0.386	0.414	0.430	0.408	0.349	0.365	0.383	8.20
31) Benzoic acid		0.204	0.284	0.316	0.331	0.318		0.242	0.282	17.72
---- Quadratic regression ---- Coefficient = 0.9995										
Response Ratio = -0.01385 + 0.30376 *A + 0.01241 *A^2										
32) bis(2-Chloro	0.388	0.370	0.391	0.410	0.425	0.416	0.364	0.373	0.392	5.86
33) 2,4-Dichloro	0.281	0.283	0.306	0.320	0.333	0.323	0.301	0.288	0.304	6.48
34) 2,6-Dichloro	0.266	0.270	0.292	0.300	0.310	0.309	0.277	0.276	0.287	6.15
35) 1,3,5-Trichl	0.322	0.309	0.328	0.345	0.355	0.347	0.326	0.307	0.330	5.44
36) 1,2,4-Trichl	0.326	0.316	0.335	0.338	0.349	0.348	0.327	0.322	0.332	3.62
37) 1,2,3-Trichl	0.312	0.305	0.314	0.317	0.322	0.322	0.324	0.295	0.314	3.17
38) Naphthalene	0.975	0.980	1.051	1.098	1.133	1.097	1.008	1.008	1.044	5.75
39) 4-Chloroanil	0.411	0.415	0.441	0.462	0.490	0.468	0.412	0.417	0.439	6.98
40) 2,3-Dichloro	0.342	0.330	0.363	0.355	0.360	0.371	0.352	0.335	0.351	4.05
41) Caprolactam	0.120	0.121	0.124	0.127	0.131	0.129	0.154	0.112	0.127	9.72
42) Hexachlorobu	0.193	0.184	0.195	0.193	0.198	0.199	0.204	0.183	0.194	3.67

Initial Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4962-ICC4962
Lab FileID: 3E110190.D

```
43) 4-Chloro-3-m 0.312 0.320 0.345 0.361 0.377 0.371 0.316 0.324 0.341   7.72
44) 2-Methylnaph 0.558 0.561 0.606 0.619 0.634 0.626 0.562 0.569 0.592   5.52
45) 1-Methylnaph 0.610 0.617 0.654 0.665 0.684 0.676 0.609 0.616 0.641   4.96
46) Dimethylnaph 0.620 0.627 0.664 0.641 0.662 0.670 0.616 0.632 0.641   3.33

47) I   Acenaphthene-d10      ----------------ISTD---------------------
48) Hexachlorocy 0.313 0.318 0.371 0.419 0.437 0.406       0.344 0.372  13.33
49) 2,4,6-Trichl 0.358 0.358 0.372 0.391 0.401 0.386 0.363 0.360 0.374   4.49
50) 2,4,5-Trichl 0.347 0.367 0.384 0.400 0.421 0.402 0.357 0.356 0.379   7.03
51) 2-Fluorobiph 1.353 1.327 1.339 1.401 1.453 1.398 1.339 1.319 1.366   3.40
52) 2-Chloronaph 1.127 1.093 1.119 1.187 1.248 1.164 1.157 1.105 1.150   4.40
53) Biphenyl     1.427 1.432 1.444 1.542 1.615 1.500 1.460 1.429 1.481   4.55
54) 2-Nitroanili 0.312 0.314 0.356 0.405 0.433 0.393 0.339 0.325 0.360  12.65
55) Dimethylphth 1.382 1.338 1.352 1.421 1.471 1.417 1.347 1.305 1.379   3.92
56) Acenaphthyle 1.802 1.781 1.817 1.906 1.990 1.908 1.799 1.763 1.846   4.32
57) 2,6-Dinitrot 0.255 0.260 0.295 0.319 0.325 0.309 0.256 0.277 0.287  10.09
58) 3-Nitroanili 0.303 0.306 0.330 0.353 0.370 0.356 0.294 0.308 0.327   8.80
59) Acenaphthene 1.226 1.177 1.222 1.289 1.335 1.272 1.182 1.181 1.236   4.70
60) 2,4-Dinitrop 0.071 0.084 0.144 0.186 0.198 0.174       0.112 0.138  36.50
            ---- Quadratic regression ----  Coefficient =  0.9988
              Response Ratio = -0.00969 + 0.13838 *A + 0.01256 *A^2

61) 4-Nitropheno       0.182 0.248 0.280 0.297 0.265       0.210 0.247  17.70
            ---- Quadratic regression ----  Coefficient =  0.9999
              Response Ratio = -0.00842 + 0.24377 *A + 0.02189 *A^2

62) Dibenzofuran 1.567 1.532 1.605 1.691 1.736 1.644 1.553 1.555 1.610   4.58
63) 2,4-Dinitrot 0.341 0.352 0.410 0.452 0.468 0.439 0.324 0.373 0.395  13.91
64) 2,3,4,6-Tetr 0.296 0.291 0.301 0.309 0.318 0.304 0.290 0.285 0.299   3.65
65) Diethylphtha 1.363 1.354 1.462 1.534 1.584 1.489 1.384 1.376 1.443   6.03
66) Fluorene     1.331 1.265 1.326 1.361 1.410 1.361 1.286 1.275 1.327   3.77
67) 4-Chlorophen 0.639 0.631 0.642 0.651 0.673 0.649 0.659 0.630 0.647   2.23
68) 4-Nitroanili 0.286 0.308 0.334 0.351 0.360 0.343 0.255 0.309 0.318  11.22

69) I   Phenanthrene-d10      ----------------ISTD---------------------
70) 4,6-Dinitro-       0.088 0.116 0.134 0.140 0.133       0.097 0.118  18.24
            ---- Quadratic regression ----  Coefficient =  0.9993
              Response Ratio = -0.00556 + 0.12431 *A + 0.00702 *A^2

71) n-Nitrosodip 0.501 0.500 0.498 0.499 0.519 0.512 0.507 0.490 0.503   1.79
72) 1,2-Diphenyl 0.688 0.709 0.741 0.803 0.838 0.790 0.677 0.708 0.744   7.96
73) 2,4,6-Tribro 0.105 0.102 0.103 0.097 0.100 0.104 0.096 0.104 0.101   3.52
74) 4-Bromopheny 0.210 0.201 0.202 0.199 0.205 0.201 0.207 0.203 0.204   1.85
75) Hexachlorobe 0.214 0.217 0.209 0.204 0.208 0.211 0.229 0.212 0.213   3.52
76) Pentachlorop 0.092 0.099 0.128 0.142 0.146 0.141       0.111 0.123  18.04
            ---- Quadratic regression ----  Coefficient =  0.9993
              Response Ratio = -0.00527 + 0.12860 *A + 0.00389 *A^2

77) Phenanthrene 1.022 0.998 0.986 0.984 1.015 1.005 1.030 0.982 1.003   1.83
78) Anthracene   1.011 1.030 1.011 1.011 1.051 1.041 1.032 1.012 1.025   1.54
79) Carbazole    0.927 0.946 0.954 0.967 1.008 0.992 0.944 0.943 0.960   2.87
80) Di-n-butylph 1.197 1.219 1.316 1.394 1.461 1.388 1.208 1.244 1.303   7.76
81) Fluoranthene 1.071 1.046 1.113 1.147 1.181 1.151 1.046 1.077 1.104   4.67
82) Octadecane   0.331 0.335 0.348 0.382 0.401 0.378 0.341 0.327 0.355   7.82

83) I   Chrysene-d12          ----------------ISTD---------------------
84) Pyrene       1.220 1.226 1.257 1.253 1.263 1.278 1.201 1.246 1.243   2.04
85) Terphenyl-d1 0.825 0.824 0.832 0.851 0.860 0.856 0.816 0.819 0.835   2.13
86) Butylbenzylp 0.571 0.596 0.659 0.693 0.715 0.694 0.572 0.625 0.641   9.00
87) Benzo[a]anth 1.208 1.151 1.188 1.213 1.245 1.211 1.240 1.155 1.201   2.90
```

Initial Calibration Summary

Job Number: JD5004 **Sample:** E3E4962-ICC4962
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 3E110190.D
Project: TFC Stage 2, QWD, Long Island City, NY

```
 88) 3,3'-Dichlor 0.434 0.436 0.475 0.492 0.495 0.488 0.406 0.450 0.459   7.13
 89) Chrysene     1.123 1.067 1.077 1.081 1.101 1.089 1.104 1.089 1.092   1.62
 90) bis(2-Ethylh 0.789 0.796 0.874 0.910 0.933 0.905 0.782 0.825 0.852   7.15

 91) I   Perylene-d12          ----------------ISTD--------------------
 92) Di-n-octylph 1.156 1.232 1.490 1.792 1.926 1.679       1.288 1.509  19.76
             ---- Quadratic regression ----  Coefficient =  0.9997
               Response Ratio = -0.01628 + 1.37597 *A + 0.22137 *A^2

 93) Benzo[b]fluo 1.061 1.057 1.218 1.434 1.529 1.339 1.085 1.125 1.231  14.84
 94) Benzo[k]fluo 1.024 1.012 1.060 1.134 1.183 1.155 1.002 0.997 1.071   7.04
 95) Benzo[a]pyre 0.924 0.926 1.014 1.153 1.220 1.123 0.957 0.951 1.033  11.20
 96) Indeno[1,2,3 0.821 0.843 0.954 1.116 1.175 1.053 0.830 0.856 0.956  14.79
 97) Dibenz(a,h)a 0.784 0.771 0.887 1.025 1.083 0.988 0.776 0.812 0.891  14.02
 98) Dibenz[a,h]a 0.930 0.904 0.990 1.078 1.137 1.070 0.840 0.914 0.983  10.51
 99) 7,12-Dimethy       0.402 0.521 0.661 0.709 0.621       0.446 0.560  21.93
             ---- Quadratic regression ----  Coefficient =  0.9996
               Response Ratio = -0.01838 + 0.51778 *A + 0.07918 *A^2

100) Benzo[g,h,i] 0.848 0.856 0.919 0.988 1.038 0.974 0.841 0.850 0.914   8.43


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

           M3E4962.M         Wed Feb 19 17:26:30 2020   YING
```

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4962-ICV4962
Lab FileID: 3E110193.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E4962\3e110193.D Vial: 10
Acq On : 19 Feb 2020 3:19 pm Operator: hennys
Sample : icv4962-50 Inst : SVOAMS3E
Misc : op22261,e3e4962,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M3E4962.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 15:41:28 2020
Last Update : Wed Feb 19 15:41:28 2020
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	115	0.00	4.40
4	t	N-Nitrosodimethylamine	0.714	0.736	-3.1	115	0.03	2.18
11	t	bis(2-Chloroethyl)ether	1.210	1.240	-2.5	115	0.00	4.20
14	t	1,3-Dichlorobenzene	1.522	1.458	4.2	108	0.00	4.35
15	t	1,4-Dichlorobenzene	1.547	1.536	0.7	111	0.00	4.41
17	t	1,2-Dichlorobenzene	1.442	1.369	5.1	106	0.00	4.52
20	t	2,2'-oxybis(1-Chloropropa	0.412	0.473	-14.8	133	0.00	4.61
22	t	n-Nitroso-di-n-propylamin	0.993	1.018	-2.5	115	0.00	4.70
23	t	Hexachloroethane	0.523	0.487	6.9	104	0.00	4.78
24	I	Naphthalene-d8	1.000	1.000	0.0	120	0.00	5.43
26	t	Nitrobenzene	0.407	0.401	1.5	110	0.00	4.83
28	t	Isophorone	0.683	0.711	-4.1	115	0.00	5.02

		----------	AvgRF	CCRF	% Dev	----------		
32	t	bis(2-Chloroethoxy)methan	0.392	0.403	-2.8	116	0.00	5.21
36	t	1,2,4-Trichlorobenzene	0.332	0.307	7.5	106	0.00	5.38
38	t	Naphthalene	1.044	1.076	-3.1	118	0.00	5.44
42	t	Hexachlorobutadiene	0.194	0.178	8.2	107	0.00	5.57
47	I	Acenaphthene-d10	1.000	1.000	0.0	104	0.00	7.40
48	t	Hexachlorocyclopentadiene	0.372	0.355	4.6	90	0.00	6.33
52	t	2-Chloronaphthalene	1.150	1.218	-5.9	109	0.00	6.70
55	t	Dimethylphthalate	1.379	1.474	-6.9	108	0.00	7.09
56	t	Acenaphthylene	1.846	1.972	-6.8	107	0.00	7.22
57	t	2,6-Dinitrotoluene	0.287	0.319	-11.1	107	0.00	7.16
59	t	Acenaphthene	1.236	1.319	-6.7	108	0.00	7.45
63	t	2,4-Dinitrotoluene	0.395	0.417	-5.6	99	0.00	7.70
65	t	Diethylphthalate	1.443	1.563	-8.3	109	0.00	8.07
66	t	Fluorene	1.327	1.465	-10.4	112	0.00	8.16
67	t	4-Chlorophenyl-phenylethe	0.647	0.673	-4.0	108	0.00	8.19
69	I	Phenanthrene-d10	1.000	1.000	0.0	108	0.00	9.53

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4962-ICV4962
Lab FileID: 3E110193.D

			AvgRF	CCRF	% Dev			
71	t	n-Nitrosodiphenylamine	0.503	0.518	-3.0	109	0.00	8.37
72	t	1,2-Diphenylhydrazine	0.744	0.838	-12.6	114	0.00	8.41
74	t	4-Bromophenyl-phenylether	0.204	0.198	2.9	106	0.00	8.89
75	t	Hexachlorobenzene	0.213	0.210	1.4	107	0.00	8.97

			AvgRF	CCRF	% Dev			
77	t	Phenanthrene	1.003	1.039	-3.6	111	0.00	9.56
78	t	Anthracene	1.025	1.045	-2.0	108	0.00	9.64
80	t	Di-n-butylphthalate	1.303	1.355	-4.0	105	0.00	10.56
81	t	Fluoranthene	1.104	1.149	-4.1	107	0.00	11.40
83	I	Chrysene-d12	1.000	1.000	0.0	101	0.00	13.67
84	t	Pyrene	1.243	1.319	-6.1	104	0.00	11.74
86	t	Butylbenzylphthalate	0.641	0.702	-9.5	102	0.00	12.91
87	t	Benzo[a]anthracene	1.201	1.206	-0.4	100	0.00	13.65
89	t	Chrysene	1.092	1.086	0.5	101	0.00	13.71
90	t	bis(2-Ethylhexyl)phthalat	0.852	0.909	-6.7	101	0.00	13.87
91	I	Perylene-d12	1.000	1.000	0.0	92	0.00	15.76

			True	Calc.	% Drift			
92	t	Di-n-octylphthalate	50.000	54.003	-8.0	99	0.00	14.85

			AvgRF	CCRF	% Dev			
93	t	Benzo[b]fluoranthene	1.231	1.229	0.2	85	0.00	15.24
94	t	Benzo[k]fluoranthene	1.071	1.232	-15.0	98	0.00	15.29
95	t	Benzo[a]pyrene	1.033	1.130	-9.4	93	0.00	15.68
96	t	Indeno[1,2,3-cd]pyrene	0.956	1.084	-13.4	95	0.00	17.13
98	t	Dibenz[a,h]anthracene	0.983	1.044	-6.2	90	0.00	17.16

			AvgRF	CCRF	% Dev			
100	t	Benzo[g,h,i]perylene	0.914	1.003	-9.7	95	0.00	17.49

(#) = Out of Range SPCC's out = 0 CCC's out = 0

3e110175a.D M3E4962.M Wed Feb 19 15:50:49 2020 YING

8.6.7

8

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4962-ICV4962
Lab FileID: 3E110194.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E4962\3e110194.D Vial: 11
Acq On : 19 Feb 2020 3:45 pm Operator: hennys
Sample : icv4962-50 Inst : SVOAMS3E
Misc : op22261,e3e4962,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M3E4962.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 15:41:28 2020
Last Update : Wed Feb 19 15:41:28 2020
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	115	0.00	4.39
2	t	1,4-Dioxane	0.493	0.465	5.7	109	0.03	1.87
6	t	Indene	2.352	2.241	4.7	106	0.00	4.58
7	t	Cumene	3.117	3.276	-5.1	117	0.00	3.80
13	t	Decane	0.921	0.957	-3.9	117	0.00	4.28
18	t	Acetophenone	1.838	1.856	-1.0	112	0.00	4.70
24	I	Naphthalene-d8	1.000	1.000	0.0	119	0.00	5.42
27	t	Quinoline	0.702	0.714	-1.7	114	-0.01	5.77
40	t	2,3-Dichloroaniline	0.351	0.314	10.5	101	0.00	6.47
41	t	Caprolactam	0.127	0.118	7.1	109	-0.03	5.84
45	t	1-Methylnaphthalene	0.641	0.613	4.4	108	0.00	6.25
46	t	Dimethylnaphthalene	0.641	0.655	-2.2	116	0.00	6.88
47	I	Acenaphthene-d10	1.000	1.000	0.0	117	0.00	7.40
53	t	Biphenyl	1.481	1.492	-0.7	117	0.00	6.69
69	I	Phenanthrene-d10	1.000	1.000	0.0	120	0.00	9.53
82	t	Octadecane	0.355	0.365	-2.8	116	0.00	9.52

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3e110175a.D M3E4962.M Wed Feb 19 16:08:33 2020 YING

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4962-ICV4962
Lab FileID: 3E110195.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E4962\3e110195.D Vial: 12
Acq On : 19 Feb 2020 4:11 pm Operator: hennys
Sample : icv4962-50 Inst : SVOAMS3E
Misc : op22261,e3e4962,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M3E4962.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 15:41:28 2020
Last Update : Wed Feb 19 15:41:28 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	128	0.00	4.39
9 t	Phenol	1.710	1.514	11.5	104	0.00	4.17
12 t	2-Chlorophenol	1.394	1.298	6.9	117	0.00	4.25
19 t	2-Methylphenol	1.205	1.182	1.9	122	0.00	4.61
21 t	3&4-Methylphenol	1.227	1.252	-2.0	122	0.00	4.73
24 I	Naphthalene-d8	1.000	1.000	0.0	132	0.00	5.42
29 t	2-Nitrophenol	0.196	0.186	5.1	114	0.00	5.09
30 t	2,4-Dimethylphenol	0.383	0.380	0.8	123	0.00	5.15
	----------	True	Calc.	% Drift	----------		
31 t	Benzoic acid	50.000	44.782	10.4	114	0.00	5.29
	----------	AvgRF	CCRF	% Dev	----------		
33 t	2,4-Dichlorophenol	0.304	0.283	6.9	116	0.00	5.32
34 t	2,6-Dichlorophenol	0.287	0.282	1.7	121	0.00	5.51
43 t	4-Chloro-3-methylphenol	0.341	0.332	2.6	118	-0.01	6.02
47 I	Acenaphthene-d10	1.000	1.000	0.0	117	0.00	7.40
49 t	2,4,6-Trichlorophenol	0.374	0.398	-6.4	121	0.00	6.48
50 t	2,4,5-Trichlorophenol	0.379	0.401	-5.8	117	-0.01	6.54
	----------	True	Calc.	% Drift	----------		
60 t	2,4-Dinitrophenol	50.000	53.959	-7.9	118	-0.01	7.51
61 t	4-Nitrophenol	50.000	46.846	6.3	109	0.00	7.70
	----------	AvgRF	CCRF	% Dev	----------		
64	2,3,4,6-Tetrachlorophenol	0.299	0.326	-9.0	126	0.00	7.88
69 I	Phenanthrene-d10	1.000	1.000	0.0	122	0.00	9.53
	----------	True	Calc.	% Drift	----------		
70 t	4,6-Dinitro-2-methylpheno	50.000	48.953	2.1	115	-0.01	8.27
	----------	True	Calc.	% Drift	----------		
76 t	Pentachlorophenol	50.000	57.480	-15.0	128	0.00	9.29

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4962-ICV4962
Lab FileID: 3E110195.D

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3e110175a.D M3E4962.M Wed Feb 19 16:42:53 2020 YING

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4962-ICV4962
Lab FileID: 3E110196.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E4962\3e110196.D Vial: 13
Acq On : 19 Feb 2020 4:37 pm Operator: hennys
Sample : icv4962-50 Inst : SVOAMS3E
Misc : op22261,e3e4962,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M3E4962.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 15:41:28 2020
Last Update : Wed Feb 19 15:41:28 2020
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	117	0.00	4.39
3	t	Pyridine	1.155	1.323	-14.5	121	0.02	2.21
10		Aniline	1.867	1.987	-6.4	119	0.00	4.16
16	t	Benzyl alcohol	0.806	0.941	-16.7	131	0.00	4.51
24	I	Naphthalene-d8	1.000	1.000	0.0	121	0.00	5.42
39	t	4-Chloroaniline	0.439	0.424	3.4	110	0.00	5.50
44	t	2-Methylnaphthalene	0.592	0.679	-14.7	132	0.00	6.15
47	I	Acenaphthene-d10	1.000	1.000	0.0	119	0.00	7.40
54	t	2-Nitroaniline	0.360	0.373	-3.6	113	0.00	6.84
58	t	3-Nitroaniline	0.327	0.349	-6.7	116	0.00	7.38

		----------	AvgRF	CCRF	% Dev	---	----------	
62	t	Dibenzofuran	1.610	1.725	-7.1	125	0.00	7.69
68	t	4-Nitroaniline	0.318	0.354	-11.3	123	0.00	8.23
69	I	Phenanthrene-d10	1.000	1.000	0.0	113	0.00	9.53
79	t	Carbazole	0.960	1.074	-11.9	123	0.00	9.92

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3e110175a.D M3E4962.M Wed Feb 19 17:17:57 2020 YING

8.6.10

8

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4962-ICV4962
Lab FileID: 3E110197.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E4962\3e110197.D Vial: 14
Acq On : 19 Feb 2020 5:03 pm Operator: hennys
Sample : icv4962-50 Inst : SVOAMS3E
Misc : op22261,e3e4962,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M3E4962.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 15:41:28 2020
Last Update : Wed Feb 19 15:41:28 2020
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	139	0.00	4.39
5	S	2-Fluorophenol	1.181	1.069	9.5	120	0.00	3.43
8	S	Phenol-d5	1.529	1.326	13.3	115	0.00	4.17
24	I	Naphthalene-d8	1.000	1.000	0.0	143	0.00	5.42
25	S	Nitrobenzene-d5	0.393	0.356	9.4	121	0.00	4.81
47	I	Acenaphthene-d10	1.000	1.000	0.0	140	0.00	7.40
51	S	2-Fluorobiphenyl	1.366	1.220	10.7	122	0.00	6.57
69	I	Phenanthrene-d10	1.000	1.000	0.0	139	0.00	9.53
		----------	True	Calc.	% Drift	----------		
73	S	2,4,6-Tribromophenol	0.101	0.092	8.9	122	0.00	8.51
83	I	Chrysene-d12	1.000	1.000	0.0	125	0.00	13.66
85	S	Terphenyl-d14	0.835	0.975	-16.8	142	0.00	12.07

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3e110175a.D M3E4962.M Wed Feb 19 17:24:53 2020 YING

8.6.11

8

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4962-ICV4962
Lab FileID: 3E110198.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E4962\3e110198.D Vial: 15
Acq On : 19 Feb 2020 5:29 pm Operator: hennys
Sample : icv4962-50 Inst : SVOAMS3E
Misc : op22261,e3e4962,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M3E4962.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 15:41:28 2020
Last Update : Wed Feb 19 15:41:28 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	107	-0.01	13.65
88 t	3,3'-Dichlorobenzidine	0.459	0.466	-1.5	103	0.00	13.67

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3e110175a.D M3E4962.M Wed Feb 19 17:51:59 2020 YING

8.6.12

8

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E4962-ICV4961
Lab FileID: 3E110198A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E3E4962\3e110198a.D Vial: 15
Acq On : 19 Feb 2020 5:29 pm Operator: hennys
Sample : icv4961-50 Inst : SVOAMS3E
Misc : op22261,e3e4962,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M3E4962.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 15:41:28 2020
Last Update : Wed Feb 19 15:41:28 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
108 I	Chrysene-d12a	1.000	1.000	0.0	112	-0.01	13.65
109 T	benzidine	0.870	0.771	11.4	90	-0.01	11.67

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3e110175a.D M3E4962.M Wed Feb 19 17:52:02 2020 YING

8.6.13

8

Continuing Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E5003-CC4962
Lab FileID: 3E111032.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jo...20\e3e5003\3e111032.d Vial: 2
Acq On : 26 Mar 2020 1:27 pm Operator: chriss2
Sample : cc4962-50 Inst : SVOAMS3E
Misc : op22261,e3e5003,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M3E4962.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 15:41:28 2020
Last Update : Thu Mar 26 15:25:05 2020
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	-0.03	4.33
2	t	1,4-Dioxane	0.493	0.359	27.2#	74	-0.04	1.76
3	t	Pyridine	1.155	1.012	12.4	80	-0.05	2.10
4	t	N-Nitrosodimethylamine	0.714	0.625	12.5	85	-0.05	2.06
5	S	2-Fluorophenol	1.181	1.161	1.7	95	-0.04	3.35
6	t	Indene	2.352	2.319	1.4	96	-0.03	4.51
7	t	Cumene	3.117	2.949	5.4	92	-0.03	3.72
8	S	Phenol-d5	1.529	1.574	-2.9	99	-0.03	4.10
9	t	Phenol	1.710	1.837	-7.4	99	-0.03	4.11
10		Aniline	1.867	1.713	8.2	89	-0.03	4.09
11	t	bis(2-Chloroethyl)ether	1.210	1.168	3.5	95	-0.03	4.14
12	t	2-Chlorophenol	1.394	1.432	-2.7	101	-0.03	4.18
13	t	Decane	0.921	0.844	8.4	90	-0.03	4.22
14	t	1,3-Dichlorobenzene	1.522	1.517	0.3	98	-0.03	4.28
15	t	1,4-Dichlorobenzene	1.547	1.557	-0.6	99	-0.03	4.34
16	t	Benzyl alcohol	0.806	0.829	-2.9	99	-0.03	4.44
17	t	1,2-Dichlorobenzene	1.442	1.525	-5.8	103	-0.03	4.45
18	t	Acetophenone	1.838	1.824	0.8	96	-0.03	4.63
19	t	2-Methylphenol	1.205	1.178	2.2	96	-0.03	4.55
20	t	2,2'-oxybis(1-Chloropropa	0.412	0.392	4.9	96	-0.03	4.54
21	t	3&4-Methylphenol	1.227	1.269	-3.4	97	-0.03	4.66
22	t	n-Nitroso-di-n-propylamin	0.993	0.986	0.7	97	-0.03	4.64
23	t	Hexachloroethane	0.523	0.534	-2.1	100	-0.03	4.70
24	I	Naphthalene-d8	1.000	1.000	0.0	104	-0.04	5.34
25	S	Nitrobenzene-d5	0.393	0.386	1.8	95	-0.03	4.75
26	t	Nitrobenzene	0.407	0.393	3.4	93	-0.03	4.77
27	t	Quinoline	0.702	0.731	-4.1	101	-0.04	5.70
28	t	Isophorone	0.683	0.682	0.1	96	-0.03	4.96
29	t	2-Nitrophenol	0.196	0.220	-12.2	106	-0.03	5.02
30	t	2,4-Dimethylphenol	0.383	0.364	5.0	93	-0.03	5.08
		---------- True Calc. % Drift ----------						
31	t	Benzoic acid	50.000	51.431	-2.9	104	-0.02	5.24
		---------- AvgRF CCRF % Dev ----------						
32	t	bis(2-Chloroethoxy)methan	0.392	0.380	3.1	95	-0.04	5.14
33	t	2,4-Dichlorophenol	0.304	0.325	-6.9	105	-0.04	5.24
34	t	2,6-Dichlorophenol	0.287	0.316	-10.1	106	-0.04	5.43
35		1,3,5-Trichlorobenzene	0.330	0.345	-4.5	103	-0.03	5.03
36	t	1,2,4-Trichlorobenzene	0.332	0.341	-2.7	102	-0.04	5.29
37		1,2,3-Trichlorobenzene	0.314	0.317	-1.0	102	-0.04	5.50

Continuing Calibration Summary

Job Number: JD5004 **Sample:** E3E5003-CC4962
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 3E111032.D
Project: TFC Stage 2, QWD, Long Island City, NY

38	t	Naphthalene	1.044	1.082	-3.6	103	-0.04	5.36
39	t	4-Chloroaniline	0.439	0.460	-4.8	102	-0.04	5.43
40	t	2,3-Dichloroaniline	0.351	0.375	-6.8	105	-0.04	6.38
41	t	Caprolactam	0.127	0.116	8.7	94	-0.03	5.80
42	t	Hexachlorobutadiene	0.194	0.199	-2.6	104	-0.04	5.49
43	t	4-Chloro-3-methylphenol	0.341	0.340	0.3	95	-0.04	5.95
44	t	2-Methylnaphthalene	0.592	0.621	-4.9	103	-0.04	6.05
45	t	1-Methylnaphthalene	0.641	0.673	-5.0	103	-0.04	6.16
46	t	Dimethylnaphthalene	0.641	0.703	-9.7	109	-0.04	6.78
47	I	Acenaphthene-d10	1.000	1.000	0.0	107	-0.05	7.30
48	t	Hexachlorocyclopentadiene	0.372	0.386	-3.8	102	-0.04	6.24
49	t	2,4,6-Trichlorophenol	0.374	0.393	-5.1	109	-0.04	6.39
50	t	2,4,5-Trichlorophenol	0.379	0.408	-7.7	109	-0.04	6.45
51	S	2-Fluorobiphenyl	1.366	1.414	-3.5	108	-0.04	6.48
52	t	2-Chloronaphthalene	1.150	1.143	0.6	105	-0.04	6.61
53	t	Biphenyl	1.481	1.532	-3.4	110	-0.04	6.59
54	t	2-Nitroaniline	0.360	0.374	-3.9	102	-0.04	6.76
55	t	Dimethylphthalate	1.379	1.376	0.2	104	-0.04	7.00
56	t	Acenaphthylene	1.846	1.876	-1.6	105	-0.05	7.11
57	t	2,6-Dinitrotoluene	0.287	0.317	-10.5	110	-0.04	7.07
58	t	3-Nitroaniline	0.327	0.351	-7.3	106	-0.04	7.28
59	t	Acenaphthene	1.236	1.239	-0.2	104	-0.04	7.35
			True	Calc.	% Drift			
60	t	2,4-Dinitrophenol	100.000	123.715	-23.7#	132	-0.04	7.43
61	t	4-Nitrophenol	50.000	45.380	9.2	96	-0.04	7.60
			AvgRF	CCRF	% Dev			
62	t	Dibenzofuran	1.610	1.688	-4.8	110	-0.04	7.58
63	t	2,4-Dinitrotoluene	0.395	0.446	-12.9	109	-0.04	7.61
64		2,3,4,6-Tetrachlorophenol	0.299	0.341	-14.0	120	-0.04	7.78
65	t	Diethylphthalate	1.443	1.457	-1.0	105	-0.04	7.97
66	t	Fluorene	1.327	1.398	-5.4	110	-0.05	8.05
67	t	4-Chlorophenyl-phenylethe	0.647	0.693	-7.1	115	-0.04	8.08
68	t	4-Nitroaniline	0.318	0.339	-6.6	106	-0.04	8.15
69	I	Phenanthrene-d10	1.000	1.000	0.0	113	-0.04	9.42
			True	Calc.	% Drift			
70	t	4,6-Dinitro-2-methylpheno	50.000	57.013	-14.0	126	-0.04	8.19
			AvgRF	CCRF	% Dev			
71	t	n-Nitrosodiphenylamine	0.503	0.514	-2.2	114	-0.05	8.26
72	t	1,2-Diphenylhydrazine	0.744	0.696	6.5	100	-0.05	8.31
73	S	2,4,6-Tribromophenol	0.101	0.105	-4.0	115	-0.05	8.41
74	t	4-Bromophenyl-phenylether	0.204	0.221	-8.3	124	-0.04	8.79
75	t	Hexachlorobenzene	0.213	0.215	-0.9	116	-0.05	8.86
			True	Calc.	% Drift			
76	t	Pentachlorophenol	100.000	111.513	-11.5	123	-0.04	9.19
			AvgRF	CCRF	% Dev			
77	t	Phenanthrene	1.003	0.965	3.8	109	-0.04	9.46
78	t	Anthracene	1.025	1.012	1.3	110	-0.04	9.54
79	t	Carbazole	0.960	0.955	0.5	109	-0.05	9.82
80	t	Di-n-butylphthalate	1.303	1.274	2.2	104	-0.04	10.46
81	t	Fluoranthene	1.104	1.191	-7.9	117	-0.05	11.29
82	t	Octadecane	0.355	0.336	5.4	100	-0.05	9.41

Continuing Calibration Summary

Job Number: JD5004 **Sample:** E3E5003-CC4962
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 3E111032.D
Project: TFC Stage 2, QWD, Long Island City, NY

83	I	Chrysene-d12	1.000	1.000	0.0	114	-0.16	13.56
84	t	Pyrene	1.243	1.274	-2.5	113	-0.15	11.63
85	S	Terphenyl-d14	0.835	0.889	-6.5	118	-0.15	11.96
86	t	Butylbenzylphthalate	0.641	0.601	6.2	98	-0.15	12.80
87	t	Benzo[a]anthracene	1.201	1.181	1.7	111	-0.17	13.54
88	t	3,3'-Dichlorobenzidine	0.459	0.472	-2.8	110	-0.16	13.57
89	t	Chrysene	1.092	1.027	6.0	107	-0.16	13.61
90	t	bis(2-Ethylhexyl)phthalat	0.852	0.754	11.5	95	-0.16	13.77
91	I	Perylene-d12	1.000	1.000	0.0	96	-0.10	15.66
		----------	True	Calc.	% Drift	----------		
92	t	Di-n-octylphthalate	50.000	50.184	-0.4	94	-0.09	14.75
		----------	AvgRF	CCRF	% Dev	----------		
93	t	Benzo[b]fluoranthene	1.231	1.374	-11.6	98	-0.09	15.15
94	t	Benzo[k]fluoranthene	1.071	1.144	-6.8	95	-0.09	15.19
95	t	Benzo[a]pyrene	1.033	1.096	-6.1	94	-0.10	15.58
96	t	Indeno[1,2,3-cd]pyrene	0.956	1.076	-12.6	98	-0.11	17.01
97	t	Dibenz(a,h)acridine	0.891	0.991	-11.2	96	-0.10	16.73
98	t	Dibenz[a,h]anthracene	0.983	1.093	-11.2	98	-0.11	17.05
		----------	True	Calc.	% Drift	----------		
99	t	7,12-Dimethylbenz(a)anthr	50.000	50.750	-1.5	95	-0.09	15.15
		----------	AvgRF	CCRF	% Dev	----------		
100	t	Benzo[g,h,i]perylene	0.914	0.939	-2.7	93	-0.11	17.37

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3e110942.d M3E4962.M Fri Mar 27 14:59:12 2020

8.6.14

8

Continuing Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E3E5003-CC4960
Lab FileID: 3E111033.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jo...20\e3e5003\3e111033.d Vial: 3
Acq On : 26 Mar 2020 1:52 pm Operator: chriss2
Sample : cc4960-50 Inst : SVOAMS3E
Misc : op22261,e3e5003,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M3E4962.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 15:41:28 2020
Last Update : Thu Mar 26 15:25:05 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	70	-0.03	4.33
102	Benzaldehyde	1.044	1.044	0.0	70	-0.03	4.00
105	Phenanthrene-d10a	1.000	1.000	0.0	77	-0.05	9.41
106	Atrazine	0.111	0.127	-14.4	85	-0.04	9.11
107	pentachloronitrobenzene	0.040	0.053	-32.5#	96	-0.05	9.18

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3e110942.d M3E4962.M Fri Mar 27 14:59:22 2020

8.6.15

8

Continuing Calibration Summary

Job Number: JD5004 **Sample:** E3E5003-CC4961
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 3E111034.D
Project: TFC Stage 2, QWD, Long Island City, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jo...20\e3e5003\3e111034.d Vial: 4
Acq On : 26 Mar 2020 2:17 pm Operator: chriss2
Sample : cc4961-50 Inst : SVOAMS3E
Misc : op22261,e3e5003,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M3E4962.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 15:41:28 2020
Last Update : Thu Mar 26 15:25:05 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
103	Acenaphthene-d10a	1.000	1.000	0.0	96	-0.05	7.30
104	1,2,4,5-Tetrachlorobenzen	0.617	0.646	-4.7	101	-0.04	6.24
108 I	Chrysene-d12a	1.000	1.000	0.0	106	-0.18	13.55
109 T	benzidine	0.870	0.895	-2.9	99	-0.15	11.57
110 I	Naphthalene-d8a	1.000	1.000	0.0	95	-0.04	5.34
111 T	Hydroquinone	0.333	0.348	-4.5	91	-0.04	5.80
112	Phenanthrene-d10b	1.000	1.000	0.0	101	-0.05	9.41
113 S	1-chlorooctadecane	0.053	0.051	3.8	95	-0.04	11.29
114 S	o-terphenyl	0.560	0.624	-11.4	109	-0.04	10.07

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3e110942.d M3E4962.M Fri Mar 27 14:59:25 2020

8.6.16

8

Continuing Calibration Summary

Job Number: JD5004 **Sample:** E3E5004-CC4962
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 3E111056.D
Project: TFC Stage 2, QWD, Long Island City, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jeryllr\e3e5004\3e111056.d Vial: 2
Acq On : 27 Mar 2020 12:01 pm Operator: chriss2
Sample : cc4962-50 Inst : SVOAMS3E
Misc : op22261,e3e5004,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M3E4962.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 15:41:28 2020
Last Update : Thu Mar 26 05:54:47 2020
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	80	0.02	4.41
2	t	1,4-Dioxane	0.493	0.403	18.3	66	0.03	1.87
3	t	Pyridine	1.155	1.092	5.5	68	0.03	2.23
4	t	N-Nitrosodimethylamine	0.714	0.636	10.9	69	0.04	2.19
5	S	2-Fluorophenol	1.181	1.176	0.4	76	0.01	3.44
6	t	Indene	2.352	2.290	2.6	75	0.02	4.60
7	t	Cumene	3.117	2.998	3.8	74	0.01	3.80
8	S	Phenol-d5	1.529	1.538	-0.6	76	0.02	4.18
9	t	Phenol	1.710	1.746	-2.1	75	0.01	4.19
10		Aniline	1.867	1.613	13.6	66	0.02	4.17
11	t	bis(2-Chloroethyl)ether	1.210	1.149	5.0	74	0.02	4.22
12	t	2-Chlorophenol	1.394	1.372	1.6	77	0.01	4.26
13	t	Decane	0.921	0.790	14.2	67	0.01	4.30
14	t	1,3-Dichlorobenzene	1.522	1.546	-1.6	80	0.01	4.37
15	t	1,4-Dichlorobenzene	1.547	1.573	-1.7	79	0.01	4.42
16	t	Benzyl alcohol	0.806	0.811	-0.6	77	0.02	4.53
17	t	1,2-Dichlorobenzene	1.442	1.514	-5.0	81	0.01	4.53
18	t	Acetophenone	1.838	1.762	4.1	74	0.02	4.72
19	t	2-Methylphenol	1.205	1.139	5.5	73	0.02	4.63
20	t	2,2'-oxybis(1-Chloropropa	0.412	0.395	4.1	77	0.01	4.62
21	t	3&4-Methylphenol	1.227	1.206	1.7	73	0.02	4.75
22	t	n-Nitroso-di-n-propylamin	0.993	0.923	7.0	72	0.02	4.72
23	t	Hexachloroethane	0.523	0.546	-4.4	81	0.01	4.79
24	I	Naphthalene-d8	1.000	1.000	0.0	80	0.01	5.44
25	S	Nitrobenzene-d5	0.393	0.370	5.9	70	0.02	4.84
26	t	Nitrobenzene	0.407	0.389	4.4	71	0.02	4.85
27	t	Quinoline	0.702	0.718	-2.3	77	0.03	5.80
28	t	Isophorone	0.683	0.666	2.5	72	0.02	5.05
29	t	2-Nitrophenol	0.196	0.224	-14.3	82	0.02	5.11
30	t	2,4-Dimethylphenol	0.383	0.368	3.9	72	0.02	5.17
		---------- True Calc. % Drift ----------						
31	t	Benzoic acid	50.000	49.589	0.8	77	0.03	5.32
		---------- AvgRF CCRF % Dev ----------						
32	t	bis(2-Chloroethoxy)methan	0.392	0.374	4.6	72	0.02	5.23
33	t	2,4-Dichlorophenol	0.304	0.322	-5.9	80	0.01	5.33
34	t	2,6-Dichlorophenol	0.287	0.310	-8.0	80	0.02	5.54
35		1,3,5-Trichlorobenzene	0.330	0.364	-10.3	84	0.02	5.12
36	t	1,2,4-Trichlorobenzene	0.332	0.356	-7.2	82	0.01	5.39
37		1,2,3-Trichlorobenzene	0.314	0.330	-5.1	82	0.01	5.60

Continuing Calibration Summary

Job Number: JD5004 **Sample:** E3E5004-CC4962
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 3E111056.D
Project: TFC Stage 2, QWD, Long Island City, NY

38	t	Naphthalene	1.044	1.073	-2.8	78	0.02	5.46
39	t	4-Chloroaniline	0.439	0.439	0.0	75	0.02	5.53
40	t	2,3-Dichloroaniline	0.351	0.372	-6.0	80	0.02	6.49
41	t	Caprolactam	0.127	0.108	15.0	67	0.03	5.90
42	t	Hexachlorobutadiene	0.194	0.209	-7.7	84	0.01	5.59
43	t	4-Chloro-3-methylphenol	0.341	0.332	2.6	71	0.02	6.05
44	t	2-Methylnaphthalene	0.592	0.614	-3.7	78	0.02	6.16
45	t	1-Methylnaphthalene	0.641	0.667	-4.1	79	0.02	6.27
46	t	Dimethylnaphthalene	0.641	0.697	-8.7	83	0.02	6.90
47	I	Acenaphthene-d10	1.000	1.000	0.0	82	0.02	7.43
48	t	Hexachlorocyclopentadiene	0.372	0.400	-7.5	81	0.01	6.34
49	t	2,4,6-Trichlorophenol	0.374	0.411	-9.9	87	0.02	6.51
50	t	2,4,5-Trichlorophenol	0.379	0.426	-12.4	87	0.01	6.56
51	S	2-Fluorobiphenyl	1.366	1.427	-4.5	84	0.02	6.59
52	t	2-Chloronaphthalene	1.150	1.161	-1.0	82	0.02	6.72
53	t	Biphenyl	1.481	1.537	-3.8	84	0.02	6.70
54	t	2-Nitroaniline	0.360	0.358	0.6	75	0.02	6.87
55	t	Dimethylphthalate	1.379	1.400	-1.5	81	0.02	7.11
56	t	Acenaphthylene	1.846	1.843	0.2	79	0.02	7.24
57	t	2,6-Dinitrotoluene	0.287	0.320	-11.5	85	0.03	7.18
58	t	3-Nitroaniline	0.327	0.337	-3.1	77	0.02	7.40
59	t	Acenaphthene	1.236	1.245	-0.7	80	0.02	7.47
			True	Calc.	% Drift			
60	t	2,4-Dinitrophenol	100.000	121.374	-21.4#	99	0.03	7.55
61	t	4-Nitrophenol	50.000	45.367	9.3	73	0.02	7.72
			AvgRF	CCRF	% Dev			
62	t	Dibenzofuran	1.610	1.681	-4.4	84	0.02	7.70
63	t	2,4-Dinitrotoluene	0.395	0.452	-14.4	84	0.02	7.72
64		2,3,4,6-Tetrachlorophenol	0.299	0.348	-16.4	94	0.02	7.90
65	t	Diethylphthalate	1.443	1.465	-1.5	81	0.02	8.09
66	t	Fluorene	1.327	1.398	-5.4	84	0.02	8.18
67	t	4-Chlorophenyl-phenylethe	0.647	0.714	-10.4	90	0.01	8.20
68	t	4-Nitroaniline	0.318	0.318	0.0	76	0.03	8.27
69	I	Phenanthrene-d10	1.000	1.000	0.0	80	0.02	9.55
			True	Calc.	% Drift			
70	t	4,6-Dinitro-2-methylpheno	50.000	61.621	-23.2#	97	0.03	8.31
			AvgRF	CCRF	% Dev			
71	t	n-Nitrosodiphenylamine	0.503	0.561	-11.5	88	0.02	8.39
72	t	1,2-Diphenylhydrazine	0.744	0.726	2.4	74	0.02	8.43
73	S	2,4,6-Tribromophenol	0.101	0.120	-18.8	92	0.02	8.53
74	t	4-Bromophenyl-phenylether	0.204	0.245	-20.1#	98	0.02	8.91
75	t	Hexachlorobenzene	0.213	0.247	-16.0	94	0.02	8.99
			True	Calc.	% Drift			
76	t	Pentachlorophenol	100.000	116.248	-16.2	91	0.02	9.31
			AvgRF	CCRF	% Dev			
77	t	Phenanthrene	1.003	1.040	-3.7	83	0.03	9.59
78	t	Anthracene	1.025	1.065	-3.9	82	0.02	9.67
79	t	Carbazole	0.960	1.002	-4.4	81	0.03	9.95
80	t	Di-n-butylphthalate	1.303	1.328	-1.9	77	0.02	10.58
81	t	Fluoranthene	1.104	1.242	-12.5	86	0.03	11.43
82	t	Octadecane	0.355	0.326	8.2	69	0.01	9.53

Continuing Calibration Summary

Job Number: JD5004 **Sample:** E3E5004-CC4962
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 3E111056.D
Project: TFC Stage 2, QWD, Long Island City, NY

83	I	Chrysene-d12	1.000	1.000	0.0	86	0.03	13.70
84	t	Pyrene	1.243	1.247	-0.3	84	0.03	11.77
85	S	Terphenyl-d14	0.835	0.921	-10.3	92	0.02	12.09
86	t	Butylbenzylphthalate	0.641	0.594	7.3	74	0.02	12.93
87	t	Benzo[a]anthracene	1.201	1.211	-0.8	86	0.03	13.68
88	t	3,3'-Dichlorobenzidine	0.459	0.470	-2.4	83	0.03	13.70
89	t	Chrysene	1.092	1.044	4.4	82	0.03	13.74
90	t	bis(2-Ethylhexyl)phthalat	0.852	0.726	14.8	69	0.02	13.90
91	I	Perylene-d12	1.000	1.000	0.0	76	0.03	15.79
		----------	True	Calc.	% Drift	----------		
92	t	Di-n-octylphthalate	50.000	47.519	5.0	70	0.02	14.88
		----------	AvgRF	CCRF	% Dev	----------		
93	t	Benzo[b]fluoranthene	1.231	1.318	-7.1	75	0.04	15.29
94	t	Benzo[k]fluoranthene	1.071	1.110	-3.6	73	0.04	15.33
95	t	Benzo[a]pyrene	1.033	1.088	-5.3	73	0.04	15.72
96	t	Indeno[1,2,3-cd]pyrene	0.956	1.154	-20.7#	83	0.05	17.18
97	t	Dibenz(a,h)acridine	0.891	1.032	-15.8	79	0.04	16.88
98	t	Dibenz[a,h]anthracene	0.983	1.131	-15.1	80	0.04	17.21
		----------	True	Calc.	% Drift	----------		
99	t	7,12-Dimethylbenz(a)anthr	50.000	48.521	3.0	71	0.03	15.29
		----------	AvgRF	CCRF	% Dev	----------		
100	t	Benzo[g,h,i]perylene	0.914	1.003	-9.7	78	0.05	17.55

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3e110175a.D M3E4962.M Mon Mar 30 00:23:43 2020

Continuing Calibration Summary

Job Number: JD5004 **Sample:** E3E5004-CC4961
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 3E111058.D
Project: TFC Stage 2, QWD, Long Island City, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jeryllr\e3e5004\3e111058.d Vial: 4
Acq On : 27 Mar 2020 12:51 pm Operator: chriss2
Sample : cc4961-50 Inst : SVOAMS3E
Misc : op22261,e3e5004,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M3E4962.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 15:41:28 2020
Last Update : Thu Mar 26 05:54:47 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
103	Acenaphthene-d10a	1.000	1.000	0.0	74	0.00	7.42
104	1,2,4,5-Tetrachlorobenzen	0.617	0.661	-7.1	79	0.00	6.35
108 I	Chrysene-d12a	1.000	1.000	0.0	81	0.02	13.69
109 T	benzidine	0.870	0.794	8.7	67	0.02	11.70
110 I	Naphthalene-d8a	1.000	1.000	0.0	75	0.01	5.44
111 T	Hydroquinone	0.333	0.334	-0.3	69	0.00	5.90
112	Phenanthrene-d10b	1.000	1.000	0.0	77	0.01	9.54
113 S	1-chlorooctadecane	0.053	0.049#	7.5	68	0.00	11.40
114 S	o-terphenyl	0.560	0.628	-12.1	84	0.01	10.20

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3e110175a.D M3E4962.M Mon Mar 30 00:23:49 2020

8.6.18

8

Continuing Calibration Summary

Job Number: JD5004 **Sample:** E3E5004-CC4960
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 3E111059.D
Project: TFC Stage 2, QWD, Long Island City, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jeryllr\e3e5004\3e111059.d Vial: 5
Acq On : 27 Mar 2020 1:57 pm Operator: chriss2
Sample : cc4960-50 Inst : SVOAMS3E
Misc : op22261,e3e5004,1000,,,1,1 Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M3E4962.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msplus 30m x .25mm x .25MWed Feb 19 15:41:28 2020
Last Update : Thu Mar 26 05:54:47 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	64	0.01	4.41
102	Benzaldehyde	1.044	1.058	-1.3	65	0.01	4.08
105	Phenanthrene-d10a	1.000	1.000	0.0	71	0.01	9.55
106	Atrazine	0.111	0.127	-14.4	79	0.02	9.23
107	pentachloronitrobenzene	0.040	0.057	-42.5#	95	0.01	9.31

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3e110175a.D M3E4962.M Mon Mar 30 00:23:52 2020

8.6.19

8

Initial Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2901-ICC2901
Lab FileID: 6P488955.D

Response Factor Report MS6P

Method : C:\MSDCHEM\1\METHODS\M6P2901.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 09:15:20 2020
Last Update : Mon Mar 02 09:15:20 2020
Response via : Initial Calibration

Calibration Files
2 =6p488959a.D 5 =6p488958.D 25 =6p488956.D 80 =6p488954.D
100 =6p488953.D 50 =6p488955.D 1 =6p488952.D 10 =6p488957.D

Compound	2	5	25	80	100	50	1	10	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	ISTD									
2) 1,4-Dioxane	0.516	0.477	0.499	0.498	0.500	0.499	0.510	0.475	0.497	2.87
3) Pyridine	1.184	1.173	1.249	1.272	1.296	1.300	1.156	1.185	1.227	4.81
4) N-Nitrosodim	0.757	0.708	0.752	0.747	0.759	0.768	0.730	0.702	0.740	3.31
5) 2-Fluorophen	1.165	1.127	1.233	1.224	1.238	1.256	1.186	1.159	1.199	3.82
6) Indene	2.332	2.350	2.416	2.281	2.347	2.391	2.455	2.333	2.363	2.33
7) Cumene	3.060	2.933	2.953	2.867	2.899	2.964	2.966	2.875	2.940	2.12
8) Phenol-d5	1.371	1.432	1.507	1.498	1.509	1.533	1.437	1.427	1.464	3.78
9) Phenol	1.667	1.708	1.766	1.740	1.767	1.797	1.757	1.695	1.737	2.50
10) Aniline	1.851	1.874	1.932	1.907	1.929	1.922	1.899	1.915	1.904	1.49
11) bis(2-Chloro	1.203	1.195	1.232	1.215	1.255	1.248	1.321	1.200	1.234	3.38
12) 2-Chlorophen	1.336	1.330	1.428	1.415	1.423	1.454	1.312	1.367	1.383	3.86
13) Decane	1.050	1.002	1.027	0.964	1.004	1.022	1.134	0.988	1.024	5.05
14) 1,3-Dichloro	1.537	1.519	1.552	1.502	1.534	1.539	1.529	1.502	1.527	1.16
15) 1,4-Dichloro	1.615	1.536	1.573	1.532	1.554	1.571	1.555	1.522	1.557	1.88
16) Benzyl alcoh	0.755	0.731	0.794	0.813	0.807	0.812	0.716	0.747	0.772	5.08
17) 1,2-Dichloro	1.482	1.458	1.494	1.442	1.466	1.479	1.456	1.450	1.466	1.22
18) Acetophenone	1.825	1.792	1.834	1.732	1.768	1.828	1.884	1.802	1.808	2.54
19) 2-Methylphen	1.109	1.103	1.198	1.180	1.200	1.199	1.139	1.150	1.160	3.47
20) 2,2'-oxybis(	0.415	0.418	0.421	0.426	0.434	0.432	0.463	0.407	0.427	3.96
21) 3&4-Methylph	1.132	1.181	1.233	1.195	1.204	1.262	1.176	1.201	1.198	3.24
22) n-Nitroso-di	0.875	0.883	0.910	0.887	0.900	0.917	0.900	0.881	0.894	1.66
23) Hexachloroet	0.463	0.473	0.496	0.505	0.502	0.512	0.513	0.476	0.492	3.90
24) I Naphthalene-d8	ISTD									
25) Nitrobenzene	0.297	0.297	0.330	0.323	0.316	0.333	0.285	0.314	0.312	5.55
26) Nitrobenzene	0.324	0.330	0.353	0.339	0.341	0.354	0.312	0.341	0.337	4.26
27) Quinoline	0.688	0.690	0.730	0.710	0.709	0.733	0.656	0.695	0.701	3.56
28) Isophorone	0.577	0.601	0.628	0.599	0.608	0.625	0.590	0.608	0.604	2.81
29) 2-Nitropheno	0.134	0.135	0.170	0.173	0.154	0.180	0.108	0.149	0.150	16.00
30) 2,4-Dimethyl	0.327	0.329	0.346	0.345	0.350	0.352	0.314	0.339	0.338	3.97
31) Benzoic acid	0.100	0.087	0.156	0.165		0.179		0.110	0.133	28.95
----- Quadratic regression -----								Coefficient =		0.9917
Response Ratio = -0.00542 + 0.15951 *A + 0.00681 *A^2										
32) bis(2-Chloro	0.386	0.383	0.389	0.378	0.385	0.390	0.383	0.381	0.384	1.04
33) 2,4-Dichloro	0.268	0.273	0.299	0.294	0.294	0.305	0.255	0.285	0.284	6.08
34) 2,6-Dichloro	0.255	0.270	0.285	0.284	0.281	0.289	0.257	0.279	0.275	4.74
35) 1,3,5-Trichl	0.317	0.303	0.313	0.300	0.300	0.309	0.324	0.309	0.309	2.77
36) 1,2,4-Trichl	0.312	0.319	0.319	0.311	0.312	0.322	0.316	0.310	0.315	1.35
37) 1,2,3-Trichl	0.313	0.298	0.306	0.300	0.304	0.309	0.289	0.305	0.303	2.48
38) Naphthalene	1.049	1.037	1.041	0.992	1.005	1.028	1.058	1.031	1.030	2.13
39) 4-Chloroanil	0.433	0.442	0.458	0.444	0.445	0.462	0.409	0.447	0.443	3.72
40) 2,3-Dichloro	0.345	0.337	0.361	0.354	0.355	0.365	0.337	0.350	0.351	2.95
41) Caprolactam	0.113	0.121	0.134	0.131	0.127	0.137	0.086	0.124	0.122	13.42
42) Hexachlorobu	0.176	0.173	0.176	0.170	0.175	0.176	0.163	0.172	0.173	2.58

Initial Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2901-ICC2901
Lab FileID: 6P488955.D

```
43) 4-Chloro-3-m 0.282 0.282 0.319 0.311 0.311 0.326 0.261 0.300 0.299   7.46
44) 2-Methylnaph 0.564 0.564 0.580 0.558 0.562 0.581 0.569 0.560 0.567   1.53
45) 1-Methylnaph 0.621 0.595 0.616 0.598 0.606 0.625 0.607 0.612 0.610   1.74
46) Dimethylnaph 0.613 0.630 0.656 0.637 0.645 0.662 0.597 0.635 0.634   3.39

47) I   Acenaphthene-d10      ----------------ISTD---------------------
48) Hexachlorocy 0.227 0.249 0.306 0.318 0.313 0.319 0.213 0.280 0.278  15.45
49) 2,4,6-Trichl 0.325 0.326 0.361 0.352 0.345 0.361 0.289 0.339 0.337   7.05
50) 2,4,5-Trichl 0.328 0.332 0.383 0.380 0.377 0.385 0.291 0.362 0.355   9.61
51) 2-Fluorobiph 1.368 1.358 1.359 1.309 1.328 1.334 1.346 1.345 1.343   1.44
52) 2-Chloronaph 1.172 1.170 1.172 1.134 1.149 1.162 1.174 1.165 1.162   1.19
53) Biphenyl     1.483 1.474 1.467 1.417 1.447 1.429 1.457 1.464 1.455   1.55
54) 2-Nitroanili 0.215 0.216 0.286 0.289 0.274 0.296       0.250 0.261  13.14
55) Dimethylphth 1.365 1.342 1.381 1.320 1.331 1.346 1.298 1.341 1.341   1.91
56) Acenaphthyle 1.782 1.819 1.856 1.794 1.834 1.845 1.706 1.805 1.805   2.62
57) 2,6-Dinitrot 0.169 0.179 0.267 0.280 0.264 0.280 0.129 0.216 0.223  26.11
            ----- Linear regression -----  Coefficient =  0.9973
              Response Ratio = -0.00537 + 0.27356 *A

58) 3-Nitroanili 0.237 0.256 0.334 0.336 0.321 0.342       0.288 0.302  13.91
59) Acenaphthene 1.189 1.214 1.215 1.176 1.194 1.205 1.194 1.215 1.200   1.21
60) 2,4-Dinitrop 0.053 0.051 0.101 0.127       0.123       0.069 0.087  38.97
         ----- Quadratic regression -----               Coefficient =  0.9953
              Response Ratio = -0.00695 + 0.09435 *A + 0.00928 *A^2

61) 4-Nitropheno 0.140 0.142 0.182 0.180 0.178 0.187       0.158 0.167  11.85
62) Dibenzofuran 1.615 1.628 1.652 1.562 1.584 1.607 1.582 1.609 1.605   1.76
63) 2,4-Dinitrot 0.204 0.251 0.372 0.389 0.374 0.396 0.166 0.305 0.307  29.37
            ----- Linear regression -----  Coefficient =  0.9976
              Response Ratio = -0.00830 + 0.38521 *A

64) 2,3,4,6-Tetr 0.236 0.250 0.297 0.302 0.295 0.302 0.193 0.270 0.268  14.64
65) Diethylphtha 1.367 1.375 1.415 1.349 1.370 1.390 1.240 1.380 1.361   3.85
66) Fluorene     1.303 1.333 1.371 1.297 1.322 1.346 1.294 1.331 1.325   1.98
67) 4-Chlorophen 0.650 0.646 0.654 0.629 0.634 0.647 0.656 0.650 0.646   1.47
68) 4-Nitroanili 0.250 0.287 0.369 0.365 0.366 0.373       0.328 0.334  14.44

69) I   Phenanthrene-d10      ----------------ISTD---------------------
70) 4,6-Dinitro-       0.044 0.083 0.105 0.092 0.102       0.057 0.080  30.85
         ----- Quadratic regression -----               Coefficient =  0.9936
              Response Ratio = -0.01033 + 0.11160 *A + -0.00445 *A^2

71) n-Nitrosodip 0.509 0.534 0.551 0.537 0.542 0.542 0.502 0.544 0.533   3.31
72) 1,2-Diphenyl 0.668 0.695 0.697 0.668 0.685 0.686 0.651 0.700 0.681   2.53
73) 2,4,6-Tribro 0.082 0.093 0.107 0.113 0.107 0.111       0.100 0.102  10.92
74) 4-Bromopheny 0.209 0.205 0.211 0.215 0.216 0.216 0.191 0.212 0.209   3.96
75) Hexachlorobe 0.232 0.235 0.237 0.235 0.235 0.235 0.232 0.228 0.234   1.17
76) Pentachlorop 0.099 0.114 0.149 0.155 0.151 0.155       0.131 0.136  16.46
77) Phenanthrene 1.161 1.103 1.096 1.049 1.063 1.069 1.091 1.102 1.092   3.15
78) Anthracene   1.074 1.126 1.132 1.088 1.102 1.118 1.030 1.137 1.101   3.27
79) Carbazole    1.017 1.035 1.064 1.027 1.052 1.055 0.957 1.068 1.034   3.49
80) Di-n-butylph 1.132 1.209 1.323 1.269 1.296 1.312 0.916 1.281 1.217  11.25
81) Fluoranthene 1.102 1.124 1.197 1.142 1.176 1.184 1.031 1.161 1.140   4.73
82) Octadecane   0.339 0.352 0.382 0.372 0.379 0.379 0.346 0.378 0.366   4.71

83) I   Chrysene-d12          ----------------ISTD---------------------
84) Pyrene       1.236 1.320 1.338 1.288 1.318 1.318 1.186 1.344 1.293   4.28
85) Terphenyl-d1 0.866 0.860 0.896 0.879 0.896 0.895       0.872 0.881   1.73
86) Butylbenzylp 0.445 0.530 0.624 0.623 0.614 0.636       0.579 0.579  11.94
87) Benzo[a]anth 1.197 1.189 1.231 1.189 1.220 1.236 1.135 1.215 1.201   2.70
```

Initial Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2901-ICC2901
Lab FileID: 6P488955.D

```
 88) 3,3'-Dichlor 0.274 0.344 0.430 0.447 0.445 0.457       0.394 0.399  16.96
 89) Chrysene     1.149 1.220 1.217 1.178 1.225 1.217 1.236 1.207 1.206   2.37
 90) bis(2-Ethylh 0.572 0.720 0.863 0.860 0.868 0.888       0.802 0.796  14.32

 91) I   Perylene-d12          ----------------ISTD--------------------
 92) Di-n-octylph 0.686 0.906 1.243 1.249 1.262 1.287       1.110 1.106  20.63
         ----- Quadratic regression -----                Coefficient =  0.9996
              Response Ratio = -0.03665 + 1.30104 *A + -0.01032 *A^2

 93) Benzo[b]fluo 0.935 1.021 1.134 1.214 1.196 1.132 0.870 1.066 1.071  11.45
 94) Benzo[k]fluo 1.030 1.099 1.131 1.000 1.136 1.134 0.910 1.129 1.071   7.79
 95) Benzo[a]pyre 0.804 0.908 1.019 1.029 1.065 1.049 0.691 0.982 0.943  14.16
 96) Indeno[1,2,3 0.934 1.079 1.262 1.287 1.347 1.301 0.775 1.167 1.144  17.64
 97) Dibenz(a,h)a 0.619 0.723 0.916 0.937 0.969 0.954       0.820 0.848  15.75
 98) Dibenz[a,h]a 0.797 0.934 1.077 1.101 1.157 1.127 0.694 1.005 0.986  16.90
 99) 7,12-Dimethy 0.323 0.379 0.469 0.518 0.552 0.516       0.447 0.458  17.97
100) Benzo[g,h,i] 0.798 0.851 1.004 1.019 1.074 1.032 0.716 0.929 0.928  13.75

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

           M6P2901.M         Mon Mar 02 09:18:07 2020   ACLIMS
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8.6.20

8

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2901-ICV2901
Lab FileID: 6P488960.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2901\6p488960.D Vial: 10
Acq On : 28 Feb 2020 8:51 pm Operator: jamesc1
Sample : icv2901-50 Inst : MS6P
Misc : op17006,e6p2901,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M6P2901.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 09:15:20 2020
Last Update : Mon Mar 02 09:15:20 2020
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	107	0.00	4.66
4	t	N-Nitrosodimethylamine	0.740	0.740	0.0	103	0.00	2.49
11	t	bis(2-Chloroethyl)ether	1.234	1.233	0.1	106	0.00	4.45
14	t	1,3-Dichlorobenzene	1.527	1.458	4.5	101	0.00	4.61
15	t	1,4-Dichlorobenzene	1.557	1.520	2.4	103	0.00	4.67
17	t	1,2-Dichlorobenzene	1.466	1.392	5.0	101	0.00	4.79
20	t	2,2'-oxybis(1-Chloropropa	0.427	0.488	-14.3	121	0.00	4.87
22	t	n-Nitroso-di-n-propylamin	0.894	0.869	2.8	101	0.00	4.96
23	t	Hexachloroethane	0.492	0.477	3.0	99	0.00	5.05
24	I	Naphthalene-d8	1.000	1.000	0.0	103	0.00	5.69
26	t	Nitrobenzene	0.337	0.318	5.6	92	0.00	5.10
28	t	Isophorone	0.604	0.609	-0.8	100	0.00	5.29
		----------	AvgRF	CCRF	% Dev		----------	
32	t	bis(2-Chloroethoxy)methan	0.384	0.381	0.8	100	0.00	5.47
36	t	1,2,4-Trichlorobenzene	0.315	0.308	2.2	98	0.00	5.64
38	t	Naphthalene	1.030	1.036	-0.6	103	0.00	5.71
42	t	Hexachlorobutadiene	0.173	0.178	-2.9	103	0.00	5.83
47	I	Acenaphthene-d10	1.000	1.000	0.0	96	0.00	7.43
48	t	Hexachlorocyclopentadiene	0.278	0.225	8.3	82	0.00	6.52
52	t	2-Chloronaphthalene	1.162	1.119	3.7	93	0.00	6.84
55	t	Dimethylphthalate	1.341	1.286	4.1	92	0.00	7.15
56	t	Acenaphthylene	1.805	1.757	2.7	92	0.00	7.28
		----------	True	Calc.	% Drift		----------	
57	t	2,6-Dinitrotoluene	50.000	43.006	14.0	79	0.00	7.20
		----------	AvgRF	CCRF	% Dev		----------	
59	t	Acenaphthene	1.200	1.163	3.1	93	0.00	7.47
		----------	True	Calc.	% Drift		----------	
63	t	2,4-Dinitrotoluene	50.000	38.662	22.7	71	0.00	7.65
		----------	AvgRF	CCRF	% Dev		----------	

8.6.21
8

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2901-ICV2901
Lab FileID: 6P488960.D

65	t	Diethylphthalate	1.361	1.316	3.3	91	0.00	7.94
66	t	Fluorene	1.325	1.340	-1.1	96	0.00	8.04
67	t	4-Chlorophenyl-phenylethe	0.646	0.631	2.3	94	0.00	8.05
69	I	Phenanthrene-d10	1.000	1.000	0.0	93	0.00	9.13
			AvgRF	CCRF	% Dev			
71	t	n-Nitrosodiphenylamine	0.533	0.542	-1.7	93	0.00	8.19
72	t	1,2-Diphenylhydrazine	0.681	0.691	-1.5	93	0.00	8.24
74	t	4-Bromophenyl-phenylether	0.209	0.216	-3.3	93	0.00	8.62
75	t	Hexachlorobenzene	0.234	0.238	-1.7	94	0.00	8.69
77	t	Phenanthrene	1.092	1.068	2.2	93	0.00	9.16
78	t	Anthracene	1.101	1.090	1.0	90	0.00	9.21
80	t	Di-n-butylphthalate	1.217	1.241	-2.0	88	0.00	9.87
81	t	Fluoranthene	1.140	1.157	-1.5	91	0.00	10.57
83	I	Chrysene-d12	1.000	1.000	0.0	87	0.00	12.30
84	t	Pyrene	1.293	1.367	-5.7	91	0.00	10.84
86	t	Butylbenzylphthalate	0.579	0.625	-7.9	86	0.00	11.67
87	t	Benzo[a]anthracene	1.201	1.203	-0.2	85	0.00	12.28
89	t	Chrysene	1.206	1.197	0.7	86	0.00	12.33
90	t	bis(2-Ethylhexyl)phthalat	0.796	0.860	-8.0	85	0.00	12.39
91	I	Perylene-d12	1.000	1.000	0.0	84	0.00	13.89
			True	Calc.	% Drift			
92	t	Di-n-octylphthalate	50.000	51.339	-2.7	84	0.00	13.12
			AvgRF	CCRF	% Dev			
93	t	Benzo[b]fluoranthene	1.071	1.088	-1.6	80	0.00	13.50
94	t	Benzo[k]fluoranthene	1.071	1.103	-3.0	81	0.00	13.53
95	t	Benzo[a]pyrene	0.943	1.004	-6.5	80	0.00	13.84
96	t	Indeno[1,2,3-cd]pyrene	1.144	1.210	-5.8	78	0.00	15.04
98	t	Dibenz[a,h]anthracene	0.986	1.014	-2.8	75	0.00	15.06
100	t	Benzo[g,h,i]perylene	0.928	0.987	-6.4	80	0.00	15.37

(#) = Out of Range SPCC's out = 0 CCC's out = 0

6p488955.D M6P2901.M Mon Mar 02 09:19:08 2020 ACLIMS

8.6.21

8

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2901-ICV2901
Lab FileID: 6P488961.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2901\6p488961.D Vial: 11
Acq On : 28 Feb 2020 9:14 pm Operator: jamesc1
Sample : icv2901-50 Inst : MS6P
Misc : op17006,e6p2901,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M6P2901.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 09:15:20 2020
Last Update : Mon Mar 02 09:15:20 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	88	0.00	4.66
2 t	1,4-Dioxane	0.497	0.444	10.7	78	0.00	2.20
6 t	Indene	2.363	2.211	6.4	81	0.00	4.86
7 t	Cumene	2.940	2.866	2.5	85	0.00	4.06
13 t	Decane	1.024	0.918	10.4	79	0.00	4.55
18 t	Acetophenone	1.808	1.780	1.5	85	0.00	4.96
24 I	Naphthalene-d8	1.000	1.000	0.0	86	0.00	5.69
27 t	Quinoline	0.701	0.667	4.9	78	-0.01	6.01
40 t	2,3-Dichloroaniline	0.351	0.312	11.1	73	0.00	6.63
41 t	Caprolactam	0.122	0.113	7.4	71	-0.03	6.04
45 t	1-Methylnaphthalene	0.610	0.561	8.0	77	0.00	6.45
46 t	Dimethylnaphthalene	0.634	0.619	2.4	80	0.00	6.98
47 I	Acenaphthene-d10	1.000	1.000	0.0	79	0.00	7.43
53 t	Biphenyl	1.455	1.471	-1.1	82	0.00	6.82
69 I	Phenanthrene-d10	1.000	1.000	0.0	77	0.00	9.12
82 t	Octadecane	0.366	0.378	-3.3	76	0.00	9.06
91 I	Perylene-d12	1.000	1.000	0.0	67	0.00	13.89
99 t	7,12-Dimethylbenz(a)anthr	0.458	0.462	-0.9	60	0.00	13.49

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p488955.D M6P2901.M Mon Mar 02 09:19:10 2020 ACLIMS

8.6.22
8

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2901-ICV2901
Lab FileID: 6P488963.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2901\6p488963.D Vial: 13
Acq On : 28 Feb 2020 10:01 pm Operator: jamesc1
Sample : icv2901-50 Inst : MS6P
Misc : op17006,e6p2901,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M6P2901.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 09:15:20 2020
Last Update : Mon Mar 02 09:15:20 2020
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	85	0.00	4.66
3	t	Pyridine	1.227	1.355	-10.4	89	0.09	2.60
10		Aniline	1.904	1.993	-4.7	89	0.00	4.41
16	t	Benzyl alcohol	0.772	0.937	-21.4	99	0.00	4.76
24	I	Naphthalene-d8	1.000	1.000	0.0	89	0.00	5.69
39	t	4-Chloroaniline	0.443	0.399	9.9	77	0.00	5.75
44	t	2-Methylnaphthalene	0.567	0.587	-3.5	90	0.00	6.35
47	I	Acenaphthene-d10	1.000	1.000	0.0	85	0.00	7.43
54	t	2-Nitroaniline	0.261	0.260	0.4	75	0.00	6.94
		----------	AvgRF	CCRF	% Dev		----------	
58	t	3-Nitroaniline	0.302	0.285	5.6	71	0.00	7.39
62	t	Dibenzofuran	1.605	1.602	0.2	85	0.00	7.66
68	t	4-Nitroaniline	0.334	0.307	8.1	70	-0.01	8.06
69	I	Phenanthrene-d10	1.000	1.000	0.0	84	0.00	9.13
79	t	Carbazole	1.034	1.003	3.0	80	0.00	9.41

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p488955.D M6P2901.M Mon Mar 02 09:19:12 2020 ACLIMS

8.6.23

8

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2901-ICV2901
Lab FileID: 6P488964.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2901\6p488964.D Vial: 14
Acq On : 28 Feb 2020 10:24 pm Operator: jamesc1
Sample : icv2901-50 Inst : MS6P
Misc : op17006,e6p2901,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M6P2901.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 09:15:20 2020
Last Update : Mon Mar 02 09:15:20 2020
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	100	0.00	4.66
5	S	2-Fluorophenol	1.199	1.244	-3.8	99	0.00	3.67
8	S	Phenol-d5	1.464	1.448	1.1	94	0.00	4.38
24	I	Naphthalene-d8	1.000	1.000	0.0	96	0.00	5.69
25	S	Nitrobenzene-d5	0.312	0.333	-6.7	96	0.00	5.08
47	I	Acenaphthene-d10	1.000	1.000	0.0	90	0.00	7.43
51	S	2-Fluorobiphenyl	1.343	1.374	-2.3	93	0.00	6.72
69	I	Phenanthrene-d10	1.000	1.000	0.0	87	0.00	9.12
		----------	True	Calc.	% Drift	----------		
73	S	2,4,6-Tribromophenol	0.102	0.095	6.9	74	0.00	8.32
83	I	Chrysene-d12	1.000	1.000	0.0	81	0.00	12.30
85	S	Terphenyl-d14	0.881	1.116	-26.7	101	0.00	11.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p488955.D M6P2901.M Mon Mar 02 09:19:14 2020 ACLIMS

8.6.24
8

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2901-ICV2901
Lab FileID: 6P488965.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2901\6p488965.D Vial: 15
Acq On : 28 Feb 2020 10:48 pm Operator: jamesc1
Sample : icv2901-50 Inst : MS6P
Misc : op17006,e6p2901,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M6P2901.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 09:15:20 2020
Last Update : Mon Mar 02 09:15:20 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	130	0.00	12.30
88 t	3,3'-Dichlorobenzidine	0.399	0.472	-18.3	134	0.00	12.28

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p488955.D M6P2901.M Mon Mar 02 09:19:16 2020 ACLIMS

8.6.25

8

Initial Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2902-ICC2902
Lab FileID: 6P488970.D

Response Factor Report MS6P

Method : C:\MSDCHEM\1\METHODS\M6P2902.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 09:55:15 2020
Last Update : Mon Mar 02 09:55:15 2020
Response via : Initial Calibration

Calibration Files
2 =6p488974.D 5 =6p488973.D 25 =6p488971.D 80 =6p488969.D
100 =6p488968.D 50 =6p488970.D 1 =6p488967.D 10 =6p488972.D

Compound	2	5	25	80	100	50	1	10	Avg %RSD
101) 1,4-Dichlorobenzene-d	ISTD								
102) Benzaldehyde	1.062	1.059	1.052	1.026	1.008	1.038	1.075	1.064	1.048 2.13
105) Phenanthrene-d10a	ISTD								
106) pentachloron	0.021	0.030	0.039	0.039	0.034		0.024	0.031#	24.50
----- Quadratic regression ----- Coefficient = 0.9992									
Response Ratio = -0.00150 + 0.03072 *A + 0.00397 *A^2									
107) Atrazine	0.073	0.084	0.098	0.111	0.107	0.106	0.074	0.092	0.093 16.03

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

M6P2901.M Mon Mar 02 10:01:04 2020 ACLIMS

8.6.26

8

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2902-ICV2902
Lab FileID: 6P488975.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2902\6p488975.D Vial: 24
Acq On : 29 Feb 2020 2:27 am Operator: jamesc1
Sample : icv2902-50 Inst : MS6P
Misc : op17006,e6p2902,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M6P2901.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 09:55:15 2020
Last Update : Mon Mar 02 09:55:15 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	68	0.00	4.66
102	Benzaldehyde	1.048	1.002	4.4	66	0.00	4.33
105	Phenanthrene-d10a	1.000	1.000	0.0	70	0.00	9.13
	---------- True Calc. % Drift ----------						
106	pentachloronitrobenzene	50.000	49.153	1.7	69	0.00	8.94
	---------- AvgRF CCRF % Dev ----------						
107	Atrazine	0.093	0.108	-16.1	71	0.00	8.83

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p488970a.D M6P2901.M Mon Mar 02 10:00:48 2020 ACLIMS

8.6.27

8

Initial Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2903-ICC2903
Lab FileID: 6P488981.D

Response Factor Report MS6P

Method : C:\MSDCHEM\1\METHODS\M6P2902.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 10:38:14 2020
Last Update : Mon Mar 02 10:38:14 2020
Response via : Initial Calibration

Calibration Files
2 =6p488985.D 5 =6p488989.D 25 =6p488982.D 80 =6p488980.D
100 =6p488979.D 50 =6p488981.D 1 =6p488978.D 10 =6p488983.D

Compound	2	5	25	80	100	50	1	10	Avg %RSD
103) Acenaphthene-d10a	ISTD								
104) 1,2,4,5-Tetr	0.602	0.595	0.613	0.591	0.597	0.600	0.616	0.597	0.602 1.47
108) I Chrysene-d12a	ISTD								
109) benzidine	0.322	0.653	0.799	0.797	0.807		0.477	0.643	31.57
----- Quadratic regression ----- Coefficient = 0.9983									
Response Ratio = -0.06950 + 0.80756 *A + 0.01090 *A^2									
110) I Naphthalene-d8a	ISTD								
111) Hydroquinone	0.270	0.330	0.336	0.312			0.230	0.295	15.25
112) Phenanthrene-d10b	ISTD								
113) 1-chloroocta	0.167	0.245	0.260	0.264	0.263		0.211	0.235	16.57
114) o-terphenyl	0.541	0.537	0.598	0.588	0.597	0.606	0.544	0.584	0.574 5.02

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

M6P2901.M Mon Mar 02 10:46:24 2020 ACLIMS

8.6.28

8

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2903-ICV2903
Lab FileID: 6P488986.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2903\6p488986.D Vial: 33
Acq On : 29 Feb 2020 6:45 am Operator: jamesc1
Sample : icv2903-50 Inst : MS6P
Misc : op17006,e6p2903,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M6P2901.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 10:38:14 2020
Last Update : Mon Mar 02 10:38:14 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
103	Acenaphthene-d10a	1.000	1.000	0.0	81	0.00	7.43
104	1,2,4,5-Tetrachlorobenzen	0.602	0.564	6.3	76	0.00	6.52

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p488981a.D M6P2901.M Mon Mar 02 10:46:38 2020 ACLIMS

8.6.29

8

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2903-ICV2903
Lab FileID: 6P488987.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2903\6p488987.D Vial: 34
Acq On : 29 Feb 2020 7:08 am Operator: jamesc1
Sample : icv2903-50 Inst : MS6P
Misc : op17006,e6p2903,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M6P2901.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 10:38:14 2020
Last Update : Mon Mar 02 10:38:14 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
110 I	Naphthalene-d8a	1.000	1.000	0.0	74	0.00	5.69
111 T	Hydroquinone	0.295	0.344	-16.6	82	0.00	6.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p488981a.D M6P2901.M Mon Mar 02 10:46:40 2020 ACLIMS

8.6.30

8

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2903-ICV2903
Lab FileID: 6P488988.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2903\6p488988.D Vial: 35
Acq On : 29 Feb 2020 7:31 am Operator: jamesc1
Sample : icv2903-50 Inst : MS6P
Misc : op17006,e6p2903,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M6P2901.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 10:38:14 2020
Last Update : Mon Mar 02 10:38:14 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
108 I	Chrysene-d12a	1.000	1.000	0.0	85	0.00	12.30
	---------- True	Calc.	% Drift	----------			
109 T	benzidine	50.000	37.455	25.1	59	0.00	10.75

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p488981a.D M6P2901.M Mon Mar 02 10:46:42 2020 ACLIMS

8.9.31

8

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2904-ICV2901
Lab FileID: 6P488993.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2904\6p488993.D Vial: 2
Acq On : 2 Mar 2020 1:04 pm Operator: jamesc1
Sample : icv2901-50 Inst : MS6P
Misc : op17006,e6p2904,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M6P2901.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 10:38:14 2020
Last Update : Mon Mar 02 10:38:14 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	75	0.00	4.66
9 t	Phenol	1.737	1.622	6.6	68	0.00	4.40
12 t	2-Chlorophenol	1.383	1.445	-4.5	75	0.00	4.50
19 t	2-Methylphenol	1.160	1.226	-5.7	77	0.00	4.84
21 t	3&4-Methylphenol	1.198	1.307	-9.1	78	0.00	4.96
24 I	Naphthalene-d8	1.000	1.000	0.0	75	0.00	5.69
29 t	2-Nitrophenol	0.150	0.180	-20.0	75	0.00	5.36
30 t	2,4-Dimethylphenol	0.338	0.359	-6.2	76	0.00	5.40
	----------	True	Calc.	% Drift		----------	
31 t	Benzoic acid	50.000	48.383	3.2	66	-0.02	5.48
	----------	AvgRF	CCRF	% Dev		----------	
33 t	2,4-Dichlorophenol	0.284	0.302	-6.3	74	0.00	5.56
34 t	2,6-Dichlorophenol	0.275	0.302	-9.8	78	0.00	5.76
43 t	4-Chloro-3-methylphenol	0.299	0.316	-5.7	72	0.00	6.20
47 I	Acenaphthene-d10	1.000	1.000	0.0	63	0.00	7.43
49 t	2,4,6-Trichlorophenol	0.337	0.422	-25.2	73	0.00	6.63
50 t	2,4,5-Trichlorophenol	0.355	0.448	-26.2	73	-0.01	6.66
	----------	True	Calc.	% Drift		----------	
60 t	2,4-Dinitrophenol	50.000	49.290	1.4	63	0.00	7.50
	----------	AvgRF	CCRF	% Dev		----------	
61 t	4-Nitrophenol	0.167	0.186	-11.4	62	0.00	7.57
	----------	AvgRF	CCRF	% Dev		----------	
64	2,3,4,6-Tetrachlorophenol	0.268	0.337	-25.7	70	0.00	7.80
69 I	Phenanthrene-d10	1.000	1.000	0.0	66	0.00	9.13
	----------	True	Calc.	% Drift		----------	
70 t	4,6-Dinitro-2-methylpheno	50.000	49.491	1.0	63	0.00	8.10
	----------	AvgRF	CCRF	% Dev		----------	

Initial Calibration Verification

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2904-ICV2901
Lab FileID: 6P488993.D

76 t	Pentachlorophenol	0.136	0.169	-24.3	76	0.00	8.92

(#) = Out of Range SPCC's out = 0 CCC's out = 0

6p488981a.D M6P2901.M Mon Mar 02 13:56:48 2020 ACLIMS

8.6.32

8

Continuing Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2934-CC2901
Lab FileID: 6P489754.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...el\e6p2934\6p489754.d Vial: 2
Acq On : 2 Apr 2020 12:53 pm Operator: angelar
Sample : cc2901-50 Inst : MS6P
Misc : op17006,e6p2934,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M6P2901.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 10:38:14 2020
Last Update : Fri Apr 03 08:16:33 2020
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	174	0.00	4.50
2	t	1,4-Dioxane	0.497	0.530	-6.6	185	-0.03	2.00
3	t	Pyridine	1.227	1.390	-13.3	186	-0.03	2.35
4	t	N-Nitrosodimethylamine	0.740	0.826	-11.6	187	-0.02	2.31
5	S	2-Fluorophenol	1.199	1.329	-10.8	184	-0.03	3.57
6	t	Indene	2.363	2.559	-8.3	186	0.00	4.69
7	t	Cumene	2.940	3.129	-6.4	184	0.00	3.91
8	S	Phenol-d5	1.464	1.673	-14.3	190	-0.02	4.30
9	t	Phenol	1.737	1.914	-10.2	186	-0.02	4.31
10		Aniline	1.904	1.422	25.3#	129	0.00	4.27
11	t	bis(2-Chloroethyl)ether	1.234	1.456	-18.0	203#	0.00	4.31
12	t	2-Chlorophenol	1.383	1.523	-10.1	182	-0.01	4.37
13	t	Decane	1.024	1.394	-36.1#	238#	0.00	4.39
14	t	1,3-Dichlorobenzene	1.527	1.565	-2.5	177	0.00	4.46
15	t	1,4-Dichlorobenzene	1.557	1.556	0.1	173	0.00	4.52
16	t	Benzyl alcohol	0.772	0.919	-19.0	197	0.00	4.63
17	t	1,2-Dichlorobenzene	1.466	1.511	-3.1	178	0.00	4.63
18	t	Acetophenone	1.808	2.003	-10.8	191	0.00	4.81
19	t	2-Methylphenol	1.160	1.317	-13.5	191	0.00	4.74
20	t	2,2'-oxybis(1-Chloropropa	0.427	0.447	-4.7	180	0.00	4.71
21	t	3&4-Methylphenol	1.198	1.425	-18.9	197	-0.01	4.86
22	t	n-Nitroso-di-n-propylamin	0.894	1.081	-20.9#	205#	0.00	4.82
23	t	Hexachloroethane	0.492	0.518	-5.3	176	0.00	4.89
24	I	Naphthalene-d8	1.000	1.000	0.0	179	0.00	5.52
25	S	Nitrobenzene-d5	0.312	0.373	-19.6	201#	0.00	4.93
26	t	Nitrobenzene	0.337	0.394	-16.9	200	0.00	4.95
27	t	Quinoline	0.701	0.407	41.9#	99	0.00	5.85
28	t	Isophorone	0.604	0.687	-13.7	197	0.00	5.14
29	t	2-Nitrophenol	0.150	0.222	-48.0#	222#	0.00	5.20
30	t	2,4-Dimethylphenol	0.338	0.364	-7.7	185	-0.01	5.26
		---------- True	Calc.	% Drift	----------			
31	t	Benzoic acid	50.000	95.376	-90.8#	332	-0.01	5.42
		---------- AvgRF	CCRF	% Dev	----------			
32	t	bis(2-Chloroethoxy)methan	0.384	0.411	-7.0	189	0.00	5.31
33	t	2,4-Dichlorophenol	0.284	0.305	-7.4	179	-0.01	5.43
34	t	2,6-Dichlorophenol	0.275	0.295	-7.3	183	0.00	5.61
35		1,3,5-Trichlorobenzene	0.309	0.306	1.0	177	0.00	5.21
36	t	1,2,4-Trichlorobenzene	0.315	0.310	1.6	173	0.00	5.47
37		1,2,3-Trichlorobenzene	0.303	0.297	2.0	172	0.00	5.67

Continuing Calibration Summary

Job Number: JD5004 **Sample:** E6P2934-CC2901
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 6P489754.D
Project: TFC Stage 2, QWD, Long Island City, NY

38	t	Naphthalene	1.030	1.043	-1.3	182	0.00	5.53
39	t	4-Chloroaniline	0.443	0.347	21.7#	135	0.00	5.60
40	t	2,3-Dichloroaniline	0.351	0.358	-2.0	176	0.00	6.46
41	t	Caprolactam	0.122	0.177	-45.1#	233#	0.00	5.94
42	t	Hexachlorobutadiene	0.173	0.167	3.5	170	0.00	5.65
43	t	4-Chloro-3-methylphenol	0.299	0.352	-17.7	194	0.00	6.09
44	t	2-Methylnaphthalene	0.567	0.582	-2.6	180	0.00	6.17
45	t	1-Methylnaphthalene	0.610	0.626	-2.6	180	0.00	6.27
46	t	Dimethylnaphthalene	0.634	0.676	-6.6	183	0.00	6.80
47	I	Acenaphthene-d10	1.000	1.000	0.0	181	0.00	7.24
48	t	Hexachlorocyclopentadiene	0.278	0.315	-13.3	179	0.00	6.33
49	t	2,4,6-Trichlorophenol	0.337	0.377	-11.9	189	0.00	6.48
50	t	2,4,5-Trichlorophenol	0.355	0.397	-11.8	186	-0.01	6.53
51	S	2-Fluorobiphenyl	1.343	1.344	-0.1	182	0.00	6.54
52	t	2-Chloronaphthalene	1.162	1.153	0.8	179	0.00	6.66
53	t	Biphenyl	1.455	1.463	-0.5	185	0.00	6.64
54	t	2-Nitroaniline	0.261	0.392	-50.2#	240#	0.00	6.78
55	t	Dimethylphthalate	1.341	1.366	-1.9	184	0.00	6.97
56	t	Acenaphthylene	1.805	1.843	-2.1	181	0.00	7.09
		----------	True	Calc.	% Drift	----------		
57	t	2,6-Dinitrotoluene	50.000	61.619	-23.2#	215	0.00	7.04
		----------	AvgRF	CCRF	% Dev	----------		
58	t	3-Nitroaniline	0.302	0.261	13.6	138	0.00	7.22
59	t	Acenaphthene	1.200	1.182	1.5	177	0.00	7.28
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	100.000	162.739	-62.7#	312	0.00	7.34
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.167	0.199	-19.2	192	-0.03	7.50
62	t	Dibenzofuran	1.605	1.616	-0.7	182	0.00	7.47
		----------	True	Calc.	% Drift	----------		
63	t	2,4-Dinitrotoluene	50.000	60.564	-21.1#	210	0.00	7.48
		----------	AvgRF	CCRF	% Dev	----------		
64		2,3,4,6-Tetrachlorophenol	0.268	0.308	-14.9	184	0.00	7.63
65	t	Diethylphthalate	1.361	1.419	-4.3	184	0.00	7.75
66	t	Fluorene	1.325	1.398	-5.5	188	0.00	7.86
67	t	4-Chlorophenyl-phenylethe	0.646	0.666	-3.1	186	0.00	7.86
68	t	4-Nitroaniline	0.334	0.279	16.5	135	0.00	7.92
69	I	Phenanthrene-d10	1.000	1.000	0.0	174	0.00	8.93
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	50.000	84.409	-68.8#	282	0.00	7.95
		----------	AvgRF	CCRF	% Dev	----------		
71	t	n-Nitrosodiphenylamine	0.533	0.567	-6.4	182	0.00	8.01
72	t	1,2-Diphenylhydrazine	0.681	0.791	-16.2	201#	0.00	8.04
73	S	2,4,6-Tribromophenol	0.102	0.119	-16.7	187	0.00	8.13
74	t	4-Bromophenyl-phenylether	0.209	0.221	-5.7	179	0.00	8.42
75	t	Hexachlorobenzene	0.234	0.235	-0.4	174	0.00	8.49
76	t	Pentachlorophenol	0.136	0.153	-12.5	171	0.00	8.74
77	t	Phenanthrene	1.092	1.098	-0.5	179	0.00	8.96
78	t	Anthracene	1.101	1.129	-2.5	176	0.00	9.02
79	t	Carbazole	1.034	1.036	-0.2	171	0.00	9.23

Continuing Calibration Summary

Job Number: JD5004 **Sample:** E6P2934-CC2901
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 6P489754.D
Project: TFC Stage 2, QWD, Long Island City, NY

80	t	Di-n-butylphthalate	1.217	1.408	-15.7	187	0.00	9.67
81	t	Fluoranthene	1.140	1.180	-3.5	174	0.00	10.37
82	t	Octadecane	0.366	0.494	-35.0#	228#	0.00	8.86
83	I	Chrysene-d12	1.000	1.000	0.0	169	0.01	12.10
84	t	Pyrene	1.293	1.359	-5.1	174	0.00	10.63
85	S	Terphenyl-d14	0.881	0.940	-6.7	177	0.00	10.85
86	t	Butylbenzylphthalate	0.579	0.709	-22.5#	188	0.00	11.46
87	t	Benzo[a]anthracene	1.201	1.269	-5.7	173	0.00	12.08
88	t	3,3'-Dichlorobenzidine	0.399	0.362	9.3	134	0.00	12.08
89	t	Chrysene	1.206	1.200	0.5	166	0.00	12.13
90	t	bis(2-Ethylhexyl)phthalat	0.796	0.981	-23.2#	186	0.00	12.17
91	I	Perylene-d12	1.000	1.000	0.0	157	0.01	13.69
			True	Calc.	% Drift			
92	t	Di-n-octylphthalate	50.000	61.975	-24.0#	191	0.00	12.92
			AvgRF	CCRF	% Dev			
93	t	Benzo[b]fluoranthene	1.071	1.303	-21.7#	181	0.00	13.31
94	t	Benzo[k]fluoranthene	1.071	1.087	-1.5	151	0.00	13.33
95	t	Benzo[a]pyrene	0.943	1.078	-14.3	162	0.00	13.63
96	t	Indeno[1,2,3-cd]pyrene	1.144	1.364	-19.2	165	0.00	14.78
97	t	Dibenz(a,h)acridine	0.848	1.022	-20.5#	169	0.00	14.53
98	t	Dibenz[a,h]anthracene	0.986	1.208	-22.5#	169	0.00	14.80
99	t	7,12-Dimethylbenz(a)anthr	0.458	0.537	-17.2	164	0.00	13.30
100	t	Benzo[g,h,i]perylene	0.928	1.060	-14.2	162	-0.01	15.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p489756.d M6P2901.M Fri Apr 03 08:17:10 2020

8.6.33

8

Continuing Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2934-CC2902
Lab FileID: 6P489755.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...el\e6p2934\6p489755.d Vial: 3
Acq On : 2 Apr 2020 1:17 pm Operator: angelar
Sample : cc2902-50 Inst : MS6P
Misc : op17006,e6p2934,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M6P2901.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 10:38:14 2020
Last Update : Fri Apr 03 08:16:33 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	152	0.00	4.50
102	Benzaldehyde	1.048	1.167	-11.4	171	0.00	4.18
105	Phenanthrene-d10a	1.000	1.000	0.0	148	0.00	8.93
		True	Calc.	% Drift			
106	pentachloronitrobenzene	50.000	70.568	-41.1#	225	0.00	8.74
		AvgRF	CCRF	% Dev			
107	Atrazine	0.093	0.122	-31.2#	170	0.00	8.65

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p489756.d M6P2901.M Fri Apr 03 08:17:12 2020

Continuing Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2934-CC2903
Lab FileID: 6P489756.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...el\e6p2934\6p489756.d Vial: 4
Acq On : 2 Apr 2020 1:41 pm Operator: angelar
Sample : cc2903-50 Inst : MS6P
Misc : op17006,e6p2934,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M6P2901.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 10:38:14 2020
Last Update : Fri Apr 03 08:16:33 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
103	Acenaphthene-d10a	1.000	1.000	0.0	147	0.00	7.24
104	1,2,4,5-Tetrachlorobenzen	0.602	0.584	3.0	143	0.00	6.34
108 I	Chrysene-d12a	1.000	1.000	0.0	136	0.00	12.09
	----------	True	Calc.	% Drift	----------		
109 T	benzidine	50.000	25.465	49.1#	61	0.00	10.55
	----------	AvgRF	CCRF	% Dev	----------		
110 I	Naphthalene-d8a	1.000	1.000	0.0	151	0.00	5.51
111 T	Hydroquinone	0.295	0.371	-25.8#	179	0.00	5.95
112	Phenanthrene-d10b	1.000	1.000	0.0	146	0.00	8.93
113 s	1-chlorooctadecane	0.235	0.375	-59.6#	208#	0.00	10.29
114 s	o-terphenyl	0.574	0.609	-6.1	146	0.00	9.40

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p489756.d M6P2901.M Fri Apr 03 08:17:15 2020

8.6.35

8

Continuing Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2935-CC2901
Lab FileID: 6P489777.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jo...20\e6p2935\6p489777.d Vial: 2
Acq On : 3 Apr 2020 11:53 am Operator: angelar
Sample : cc2901-25 Inst : MS6P
Misc : op17006,e6p2935,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M6P2901.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 10:38:14 2020
Last Update : Fri Apr 03 06:24:34 2020
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	159	-0.15	4.50
2	t	1,4-Dioxane	0.497	0.475	4.4	151	-0.19	2.00
3	t	Pyridine	1.227	1.218	0.7	155	-0.16	2.35
4	t	N-Nitrosodimethylamine	0.740	0.731	1.2	154	-0.16	2.32
5	S	2-Fluorophenol	1.199	1.213	-1.2	156	-0.10	3.57
6	t	Indene	2.363	2.384	-0.9	156	-0.16	4.69
7	t	Cumene	2.940	2.946	-0.2	158	-0.16	3.90
8	S	Phenol-d5	1.464	1.487	-1.6	157	-0.09	4.29
9	t	Phenol	1.737	1.702	2.0	153	-0.09	4.30
10		Aniline	1.904	1.735	8.9	142	-0.14	4.27
11	t	bis(2-Chloroethyl)ether	1.234	1.265	-2.5	163	-0.15	4.31
12	t	2-Chlorophenol	1.383	1.437	-3.9	160	-0.13	4.37
13	t	Decane	1.024	1.184	-15.6	183	-0.16	4.38
14	t	1,3-Dichlorobenzene	1.527	1.491	2.4	152	-0.16	4.46
15	t	1,4-Dichlorobenzene	1.557	1.544	0.8	156	-0.16	4.51
16	t	Benzyl alcohol	0.772	0.807	-4.5	161	-0.13	4.63
17	t	1,2-Dichlorobenzene	1.466	1.423	2.9	151	-0.16	4.63
18	t	Acetophenone	1.808	1.790	1.0	155	-0.16	4.81
19	t	2-Methylphenol	1.160	1.192	-2.8	158	-0.12	4.73
20	t	2,2'-oxybis(1-Chloropropa	0.427	0.416	2.6	157	-0.16	4.71
21	t	3&4-Methylphenol	1.198	1.282	-7.0	165	-0.12	4.85
22	t	n-Nitroso-di-n-propylamin	0.894	0.899	-0.6	157	-0.16	4.81
23	t	Hexachloroethane	0.492	0.503	-2.2	161	-0.17	4.88
24	I	Naphthalene-d8	1.000	1.000	0.0	157	-0.18	5.51
25	S	Nitrobenzene-d5	0.312	0.341	-9.3	162	-0.16	4.92
26	t	Nitrobenzene	0.337	0.352	-4.5	156	-0.16	4.94
27	t	Quinoline	0.701	0.715	-2.0	154	-0.18	5.84
28	t	Isophorone	0.604	0.628	-4.0	157	-0.16	5.13
29	t	2-Nitrophenol	0.150	0.214	-42.7#	198	-0.17	5.20
30	t	2,4-Dimethylphenol	0.338	0.335	0.9	152	-0.14	5.26
		---------- True Calc. % Drift ----------						
31	t	Benzoic acid	25.000	45.530	-82.1#	297	-0.12	5.38
		---------- AvgRF CCRF % Dev ----------						
32	t	bis(2-Chloroethoxy)methan	0.384	0.385	-0.3	155	-0.17	5.30
33	t	2,4-Dichlorophenol	0.284	0.298	-4.9	157	-0.14	5.42
34	t	2,6-Dichlorophenol	0.275	0.286	-4.0	158	-0.16	5.60
35		1,3,5-Trichlorobenzene	0.309	0.312	-1.0	156	-0.17	5.20
36	t	1,2,4-Trichlorobenzene	0.315	0.312	1.0	154	-0.18	5.46
37		1,2,3-Trichlorobenzene	0.303	0.296	2.3	152	-0.18	5.66

Continuing Calibration Summary

Job Number: JD5004 **Sample:** E6P2935-CC2901
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 6P489777.D
Project: TFC Stage 2, QWD, Long Island City, NY

38	t	Naphthalene	1.030	1.024	0.6	154	-0.18	5.53
39	t	4-Chloroaniline	0.443	0.434	2.0	148	-0.16	5.59
40	t	2,3-Dichloroaniline	0.351	0.350	0.3	152	-0.18	6.45
41	t	Caprolactam	0.122	0.143	-17.2	167	-0.16	5.91
42	t	Hexachlorobutadiene	0.173	0.169	2.3	151	-0.19	5.64
43	t	4-Chloro-3-methylphenol	0.299	0.325	-8.7	160	-0.13	6.07
44	t	2-Methylnaphthalene	0.567	0.558	1.6	151	-0.19	6.17
45	t	1-Methylnaphthalene	0.610	0.605	0.8	154	-0.19	6.26
46	t	Dimethylnaphthalene	0.634	0.653	-3.0	156	-0.19	6.80
47	I	Acenaphthene-d10	1.000	1.000	0.0	157	-0.19	7.24
48	t	Hexachlorocyclopentadiene	0.278	0.293	-5.4	151	-0.19	6.33
49	t	2,4,6-Trichlorophenol	0.337	0.372	-10.4	162	-0.17	6.47
50	t	2,4,5-Trichlorophenol	0.355	0.388	-9.3	159	-0.18	6.52
51	S	2-Fluorobiphenyl	1.343	1.332	0.8	154	-0.19	6.53
52	t	2-Chloronaphthalene	1.162	1.151	0.9	154	-0.19	6.65
53	t	Biphenyl	1.455	1.428	1.9	153	-0.19	6.63
54	t	2-Nitroaniline	0.261	0.346	-32.6#	191	-0.17	6.78
55	t	Dimethylphthalate	1.341	1.336	0.4	152	-0.19	6.96
56	t	Acenaphthylene	1.805	1.810	-0.3	153	-0.19	7.09
		----------	True	Calc.	% Drift	----------		
57	t	2,6-Dinitrotoluene	25.000	29.574	-18.3	185	-0.18	7.03
		----------	AvgRF	CCRF	% Dev	----------		
58	t	3-Nitroaniline	0.302	0.350	-15.9	165	-0.17	7.22
59	t	Acenaphthene	1.200	1.161	3.2	150	-0.20	7.27
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	80.711	-61.4#	275	-0.16	7.34
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.167	0.161	3.6	139	-0.16	7.49
62	t	Dibenzofuran	1.605	1.589	1.0	151	-0.20	7.47
		----------	True	Calc.	% Drift	----------		
63	t	2,4-Dinitrotoluene	25.000	29.428	-17.7	186	-0.18	7.47
		----------	AvgRF	CCRF	% Dev	----------		
64		2,3,4,6-Tetrachlorophenol	0.268	0.290	-8.2	153	-0.17	7.63
65	t	Diethylphthalate	1.361	1.345	1.2	150	-0.19	7.74
66	t	Fluorene	1.325	1.355	-2.3	155	-0.20	7.85
67	t	4-Chlorophenyl-phenylethe	0.646	0.660	-2.2	159	-0.20	7.86
68	t	4-Nitroaniline	0.334	0.334	0.0	143	-0.17	7.90
69	I	Phenanthrene-d10	1.000	1.000	0.0	152	-0.20	8.93
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	25.000	38.741	-55.0#	275	-0.17	7.94
		----------	AvgRF	CCRF	% Dev	----------		
71	t	n-Nitrosodiphenylamine	0.533	0.552	-3.6	153	-0.20	7.99
72	t	1,2-Diphenylhydrazine	0.681	0.714	-4.8	156	-0.20	8.03
73	S	2,4,6-Tribromophenol	0.102	0.115	-12.7	164	-0.19	8.13
74	t	4-Bromophenyl-phenylether	0.209	0.217	-3.8	157	-0.20	8.41
75	t	Hexachlorobenzene	0.234	0.232	0.9	150	-0.20	8.49
76	t	Pentachlorophenol	0.136	0.131	3.7	134	-0.18	8.74
77	t	Phenanthrene	1.092	1.066	2.4	148	-0.20	8.95
78	t	Anthracene	1.101	1.107	-0.5	149	-0.20	9.01
79	t	Carbazole	1.034	1.020	1.4	146	-0.19	9.23

Continuing Calibration Summary

Job Number: JD5004 **Sample:** E6P2935-CC2901
Account: FLSNYNY Fleming-Lee Shue, Inc. **Lab FileID:** 6P489777.D
Project: TFC Stage 2, QWD, Long Island City, NY

80	t	Di-n-butylphthalate	1.217	1.322	-8.6	152	-0.20	9.67
81	t	Fluoranthene	1.140	1.155	-1.3	147	-0.21	10.36
82	t	Octadecane	0.366	0.428	-16.9	171	-0.21	8.86
83	I	Chrysene-d12	1.000	1.000	0.0	136	-0.20	12.10
84	t	Pyrene	1.293	1.411	-9.1	143	-0.21	10.63
85	S	Terphenyl-d14	0.881	0.979	-11.1	149	-0.21	10.85
86	t	Butylbenzylphthalate	0.579	0.674	-16.4	147	-0.21	11.46
87	t	Benzo[a]anthracene	1.201	1.238	-3.1	137	-0.20	12.08
88	t	3,3'-Dichlorobenzidine	0.399	0.463	-16.0	146	-0.20	12.08
89	t	Chrysene	1.206	1.184	1.8	132	-0.21	12.12
90	t	bis(2-Ethylhexyl)phthalat	0.796	0.925	-16.2	146	-0.21	12.17
91	I	Perylene-d12	1.000	1.000	0.0	132	-0.20	13.70
			True	Calc.	% Drift			
92	t	Di-n-octylphthalate	25.000	29.041	-16.2	153	-0.21	12.91
			AvgRF	CCRF	% Dev			
93	t	Benzo[b]fluoranthene	1.071	1.194	-11.5	139	-0.20	13.30
94	t	Benzo[k]fluoranthene	1.071	1.084	-1.2	127	-0.21	13.33
95	t	Benzo[a]pyrene	0.943	1.052	-11.6	137	-0.20	13.63
96	t	Indeno[1,2,3-cd]pyrene	1.144	1.336	-16.8	140	-0.26	14.78
97	t	Dibenz(a,h)acridine	0.848	1.008	-18.9	145	-0.25	14.53
98	t	Dibenz[a,h]anthracene	0.986	1.168	-18.5	143	-0.27	14.80
99	t	7,12-Dimethylbenz(a)anthr	0.458	0.468	-2.2	132	-0.21	13.29
100	t	Benzo[g,h,i]perylene	0.928	1.051	-13.3	138	-0.28	15.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p488982a.D M6P2901.M Mon Apr 06 01:29:09 2020

8.6.36

8

Continuing Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2935-CC2902
Lab FileID: 6P489778.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jo...20\e6p2935\6p489778.d Vial: 3
Acq On : 3 Apr 2020 12:17 pm Operator: angelar
Sample : cc2902-25 Inst : MS6P
Misc : op17006,e6p2935,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M6P2901.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 10:38:14 2020
Last Update : Fri Apr 03 06:24:34 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	141	-0.16	4.50
102	Benzaldehyde	1.048	1.091	-4.1	146	-0.15	4.18
105	Phenanthrene-d10a	1.000	1.000	0.0	130	-0.20	8.93
	----------	True	Calc.	% Drift	----------		
106	pentachloronitrobenzene	25.000	40.366	-61.5#	230	-0.20	8.74
	----------	AvgRF	CCRF	% Dev	----------		
107	Atrazine	0.093	0.126	-35.5#	167	-0.19	8.64

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p488982a.D M6P2901.M Mon Apr 06 01:29:16 2020

8.6.37

8

Continuing Calibration Summary

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Sample: E6P2935-CC2903
Lab FileID: 6P489779.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jo...20\e6p2935\6p489779.d Vial: 4
Acq On : 3 Apr 2020 12:41 pm Operator: angelar
Sample : cc2903-25 Inst : MS6P
Misc : op17006,e6p2935,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M6P2901.M (RTE Integrator)
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Mar 02 10:38:14 2020
Last Update : Fri Apr 03 06:24:34 2020
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	167	-0.16	4.50
102	Benzaldehyde	----------	NA	----------			
103	Acenaphthene-d10a	1.000	1.000	0.0	187	-0.20	7.24
104	1,2,4,5-Tetrachlorobenzen	0.602	0.594	1.3	181	-0.19	6.33
108 I	Chrysene-d12a	1.000	1.000	0.0	174	-0.21	12.09
	----------	True	Calc.	% Drift	----------		
109 T	benzidine	25.000	18.738	25.0#	132	-0.20	10.55
	----------	AvgRF	CCRF	% Dev	----------		
110 I	Naphthalene-d8a	1.000	1.000	0.0	185	-0.18	5.51
111 T	Hydroquinone	0.295	0.331	-12.2	227#	-0.11	5.94
112	Phenanthrene-d10b	1.000	1.000	0.0	183	-0.20	8.93
113 s	1-chlorooctadecane	0.235	0.313	-33.2#	234#	-0.21	10.28
114 s	o-terphenyl	0.574	0.606	-5.6	186	-0.21	9.40

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6p488982a.D M6P2901.M Mon Apr 06 01:29:19 2020

8.6.38

8

Run Sequence Report

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Run ID: E3E4960 **Method:** SW846 8270D **Instrument ID:** GCMS3E

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
E3E4960-DFTPP	3E110162.D	02/18/20 23:27	n/a	DFTPP Tune
E3E4960-IC4960	3E110163.D	02/18/20 23:42	n/a	Initial cal 100
E3E4960-IC4960	3E110164.D	02/19/20 00:07	n/a	Initial cal 80
E3E4960-ICC4960	3E110165.D	02/19/20 00:32	n/a	Initial cal 50
E3E4960-IC4960	3E110166.D	02/19/20 00:57	n/a	Initial cal 25
E3E4960-IC4960	3E110167.D	02/19/20 01:22	n/a	Initial cal 10
E3E4960-IC4960	3E110168.D	02/19/20 01:47	n/a	Initial cal 5
E3E4960-IC4960	3E110169.D	02/19/20 02:12	n/a	Initial cal 2
E3E4960-IC4960	3E110170.D	02/19/20 02:37	n/a	Initial cal 1
E3E4960-ICV4960	3E110171.D	02/19/20 03:02	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Run ID: E3E4961 **Method:** SW846 8270D **Instrument ID:** GCMS3E

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
E3E4961-DFTPP	3E110172.D	02/19/20 03:54	n/a	DFTPP Tune
E3E4961-IC4961	3E110173.D	02/19/20 04:06	n/a	Initial cal 100
E3E4961-IC4961	3E110174.D	02/19/20 04:31	n/a	Initial cal 80
E3E4961-ICC4961	3E110175.D	02/19/20 04:56	n/a	Initial cal 50
E3E4961-IC4961	3E110176.D	02/19/20 05:21	n/a	Initial cal 25
E3E4961-IC4961	3E110177.D	02/19/20 05:46	n/a	Initial cal 10
E3E4961-IC4961	3E110178.D	02/19/20 06:11	n/a	Initial cal 5
E3E4961-IC4961	3E110179.D	02/19/20 06:36	n/a	Initial cal 2
E3E4961-IC4961	3E110180.D	02/19/20 07:01	n/a	Initial cal 1
E3E4961-ICV4961	3E110181.D	02/19/20 07:26	n/a	Initial cal verification 50
E3E4961-ICV4961	3E110182.D	02/19/20 07:51	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Run ID: E3E4962 **Method:** SW846 8270D **Instrument ID:** GCMS3E

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
E3E4962-DFTPP	3E110184.D	02/19/20 11:37	n/a	DFTPP Tune
E3E4962-IC4962	3E110185.D	02/19/20 11:50	n/a	Initial cal 1
E3E4962-IC4962	3E110186.D	02/19/20 12:20	n/a	Initial cal 2
E3E4962-IC4962	3E110187.D	02/19/20 12:45	n/a	Initial cal 5
E3E4962-IC4962	3E110188.D	02/19/20 13:10	n/a	Initial cal 10
E3E4962-IC4962	3E110189.D	02/19/20 13:36	n/a	Initial cal 25
E3E4962-ICC4962	3E110190.D	02/19/20 14:01	n/a	Initial cal 50
E3E4962-IC4962	3E110191.D	02/19/20 14:27	n/a	Initial cal 80
E3E4962-IC4962	3E110192.D	02/19/20 14:53	n/a	Initial cal 100
E3E4962-ICV4962	3E110193.D	02/19/20 15:19	n/a	Initial cal verification 50
E3E4962-ICV4962	3E110194.D	02/19/20 15:45	n/a	Initial cal verification 50
E3E4962-ICV4962	3E110195.D	02/19/20 16:11	n/a	Initial cal verification 50
E3E4962-ICV4962	3E110196.D	02/19/20 16:37	n/a	Initial cal verification 50
E3E4962-ICV4962	3E110197.D	02/19/20 17:03	n/a	Initial cal verification 50
E3E4962-ICV4961	3E110198A.D	02/19/20 17:29	n/a	Initial cal verification 50
E3E4962-ICV4962	3E110198.D	02/19/20 17:29	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Run ID: E3E5003 **Method:** SW846 8270D **Instrument ID:** GCMS3E

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
E3E5003-DFTPP	3E111031.D	03/26/20 13:15	n/a	DFTPP Tune
E3E5003-CC4962	3E111032.D	03/26/20 13:27	n/a	Continuing cal 50
E3E5003-CC4960	3E111033.D	03/26/20 13:52	n/a	Continuing cal 50
E3E5003-CC4961	3E111034.D	03/26/20 14:17	n/a	Continuing cal 50
OP26675-MB1	3E111036.D	03/26/20 15:45	OP26675	Method Blank
OP26675-BS1	3E111037.D	03/26/20 16:10	OP26675	Blank Spike
OP26675-BSD	3E111038.D	03/26/20 16:35	OP26675	Blank Spike Duplicate
JD5004-5	3E111039.D	03/26/20 17:00	OP26675	FIELD BLANK
JD5004-6	3E111040.D	03/26/20 17:25	OP26675	TRC-MW25R
ZZZZZZ	3E111041.D	03/26/20 17:50	OP26675	(unrelated sample)
ZZZZZZ	3E111042.D	03/26/20 18:15	OP26675	(unrelated sample)
ZZZZZZ	3E111043.D	03/26/20 18:40	OP26675	(unrelated sample)
ZZZZZZ	3E111044.D	03/26/20 19:05	OP26675	(unrelated sample)
ZZZZZZ	3E111045.D	03/26/20 19:31	OP26675	(unrelated sample)
ZZZZZZ	3E111046.D	03/26/20 19:56	OP26675	(unrelated sample)
ZZZZZZ	3E111047.D	03/26/20 20:21	OP26675	(unrelated sample)
ZZZZZZ	3E111049.D	03/26/20 21:11	OP26675	(unrelated sample)

Run Sequence Report

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Run ID: E3E5004 **Method:** SW846 8270D **Instrument ID:** GCMS3E

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
E3E5004-DFTPP	3E111055.D	03/27/20 11:48	n/a	DFTPP Tune
E3E5004-CC4962	3E111056.D	03/27/20 12:01	n/a	Continuing cal 50
E3E5004-CC4961	3E111058.D	03/27/20 12:51	n/a	Continuing cal 50
E3E5004-CC4960	3E111059.D	03/27/20 13:57	n/a	Continuing cal 50
OP26687-MB1	3E111060.D	03/27/20 14:22	OP26687	Method Blank
OP26687-BS1	3E111061.D	03/27/20 14:47	OP26687	Blank Spike
JD5004-1	3E111062.D	03/27/20 15:12	OP26675	TRC-MW18
JD5004-3	3E111063.D	03/27/20 15:37	OP26675	TRC-MW17
ZZZZZZ	3E111064.D	03/27/20 16:02	OP26687	(unrelated sample)
ZZZZZZ	3E111065.D	03/27/20 16:27	OP26687	(unrelated sample)
ZZZZZZ	3E111066.D	03/27/20 16:52	OP26687	(unrelated sample)
ZZZZZZ	3E111071.D	03/27/20 18:58	OP26687	(unrelated sample)
ZZZZZZ	3E111074.D	03/27/20 20:14	OP26687	(unrelated sample)
ZZZZZZ	3E111075.D	03/27/20 20:39	OP26687	(unrelated sample)
ZZZZZZ	3E111076.D	03/27/20 21:04	OP26687	(unrelated sample)

Run Sequence Report

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Run ID: E6P2901 **Method:** SW846 8270D **Instrument ID:** GCMS6P

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
E6P2901-DFTPP	6P488950.D	02/28/20 14:58	n/a	DFTPP Tune
E6P2901-IC2901	6P488952.D	02/28/20 16:46	n/a	Initial cal 1
E6P2901-IC2901	6P488953.D	02/28/20 17:11	n/a	Initial cal 100
E6P2901-IC2901	6P488954.D	02/28/20 17:34	n/a	Initial cal 80
E6P2901-ICC2901	6P488955.D	02/28/20 17:58	n/a	Initial cal 50
E6P2901-IC2901	6P488956.D	02/28/20 18:21	n/a	Initial cal 25
E6P2901-IC2901	6P488957.D	02/28/20 18:45	n/a	Initial cal 10
E6P2901-IC2901	6P488958.D	02/28/20 19:08	n/a	Initial cal 5
E6P2901-IC2901	6P488959A.D	02/28/20 20:27	n/a	Initial cal 2
E6P2901-ICV2901	6P488960.D	02/28/20 20:51	n/a	Initial cal verification 50
E6P2901-ICV2901	6P488961.D	02/28/20 21:14	n/a	Initial cal verification 50
E6P2901-ICV2901	6P488963.D	02/28/20 22:01	n/a	Initial cal verification 50
E6P2901-ICV2901	6P488964.D	02/28/20 22:24	n/a	Initial cal verification 50
E6P2901-ICV2901	6P488965.D	02/28/20 22:48	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Run ID: E6P2902	**Method:** SW846 8270D	**Instrument ID:** GCMS6P

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
E6P2902-DFTPP	6P488966.D	02/28/20 23:07	n/a	DFTPP Tune
E6P2902-IC2902	6P488967.D	02/28/20 23:20	n/a	Initial cal 1
E6P2902-IC2902	6P488968.D	02/28/20 23:43	n/a	Initial cal 100
E6P2902-IC2902	6P488969.D	02/29/20 00:07	n/a	Initial cal 80
E6P2902-ICC2902	6P488970.D	02/29/20 00:30	n/a	Initial cal 50
E6P2902-IC2902	6P488971.D	02/29/20 00:53	n/a	Initial cal 25
E6P2902-IC2902	6P488972.D	02/29/20 01:17	n/a	Initial cal 10
E6P2902-IC2902	6P488973.D	02/29/20 01:40	n/a	Initial cal 5
E6P2902-IC2902	6P488974.D	02/29/20 02:03	n/a	Initial cal 2
E6P2902-ICV2902	6P488975.D	02/29/20 02:27	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Run ID: E6P2903	**Method:** SW846 8270D	**Instrument ID:** GCMS6P

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
E6P2903-DFTPP	6P488977.D	02/29/20 03:00	n/a	DFTPP Tune
E6P2903-IC2903	6P488978.D	02/29/20 03:15	n/a	Initial cal 1
E6P2903-IC2903	6P488979.D	02/29/20 03:38	n/a	Initial cal 100
E6P2903-IC2903	6P488980.D	02/29/20 04:01	n/a	Initial cal 80
E6P2903-ICC2903	6P488981.D	02/29/20 04:25	n/a	Initial cal 50
E6P2903-IC2903	6P488982.D	02/29/20 04:48	n/a	Initial cal 25
E6P2903-IC2903	6P488983.D	02/29/20 05:11	n/a	Initial cal 10
E6P2903-IC2903	6P488985.D	02/29/20 05:58	n/a	Initial cal 2
E6P2903-IC2903	6P488989.D	02/29/20 06:21	n/a	Initial cal 5
E6P2903-ICV2903	6P488986.D	02/29/20 06:45	n/a	Initial cal verification 50
E6P2903-ICV2903	6P488987.D	02/29/20 07:08	n/a	Initial cal verification 50
E6P2903-ICV2903	6P488988.D	02/29/20 07:31	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Run ID: E6P2904 **Method:** SW846 8270D **Instrument ID:** GCMS6P

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
E6P2904-DFTPP	6P488992.D	03/02/20 12:50	n/a	DFTPP Tune
E6P2904-ICV2901	6P488993.D	03/02/20 13:04	n/a	Initial cal verification 50
E6P2904-CC2901	6P488995.D	03/02/20 16:01	n/a	Continuing cal 50
OP26213-MB1	6P488996.D	03/02/20 16:27	OP26213	Method Blank
OP26213-LB34	6P488997.D	03/02/20 17:03	OP26213	Leachate Blank
OP26213-BS1	6P488998.D	03/02/20 17:27	OP26213	Blank Spike
OP26213-LS26	6P488999.D	03/02/20 17:51	OP26213	Leachate Spike
OP26213-MS	6P488999.D	03/02/20 17:51	OP26213	Matrix Spike
OP26213-MSD	6P489000.D	03/02/20 18:16	OP26213	Matrix Spike Duplicate
ZZZZZZ	6P489003.D	03/02/20 19:28	OP26213	(unrelated sample)
ZZZZZZ	6P489004.D	03/02/20 19:52	OP26213	(unrelated sample)
ZZZZZZ	6P489005.D	03/02/20 20:16	OP26213	(unrelated sample)
ZZZZZZ	6P489006.D	03/02/20 20:41	OP26213	(unrelated sample)
ZZZZZZ	6P489007.D	03/02/20 21:05	OP26213	(unrelated sample)
ZZZZZZ	6P489008.D	03/02/20 21:28	OP26213	(unrelated sample)
ZZZZZZ	6P489009.D	03/02/20 21:52	OP26213	(unrelated sample)
ZZZZZZ	6P489010.D	03/02/20 22:17	OP26213	(unrelated sample)
ZZZZZZ	6P489011.D	03/02/20 22:40	OP26213	(unrelated sample)
ZZZZZZ	6P489012.D	03/02/20 23:04	OP26213	(unrelated sample)
ZZZZZZ	6P489013.D	03/02/20 23:28	OP26213	(unrelated sample)

Run Sequence Report

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Run ID: E6P2934	**Method:** SW846 8270D	**Instrument ID:** GCMS6P

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
E6P2934-DFTPP	6P489753.D	04/02/20 12:40	n/a	DFTPP Tune
E6P2934-CC2901	6P489754.D	04/02/20 12:53	n/a	Continuing cal 50
E6P2934-CC2902	6P489755.D	04/02/20 13:17	n/a	Continuing cal 50
E6P2934-CC2903	6P489756.D	04/02/20 13:41	n/a	Continuing cal 50
OP26687-MB1	6P489759.D	04/02/20 15:43	OP26687	Method Blank
ZZZZZZ	6P489760.D	04/02/20 16:07	OP26687	(unrelated sample)
OP26675-MB1	6P489762.D	04/02/20 16:55	OP26675	Method Blank
ZZZZZZ	6P489763.D	04/02/20 17:19	OP26675	(unrelated sample)
JD5004-2	6P489764.D	04/02/20 17:43	OP26675	TRC-MW18DUP
ZZZZZZ	6P489765.D	04/02/20 18:07	OP26652	(unrelated sample)
ZZZZZZ	6P489766.D	04/02/20 18:31	OP26687	(unrelated sample)
JD4423-14	6P489767.D	04/02/20 18:55	OP26687	(used for QC only; not part of job JD5004)
ZZZZZZ	6P489768.D	04/02/20 19:19	OP26687	(unrelated sample)
JD4976-1	6P489769.D	04/02/20 19:43	OP26652	(used for QC only; not part of job JD5004)
OP26652-MS	6P489770.D	04/02/20 20:07	OP26652	Matrix Spike
OP26652-MSD	6P489771.D	04/02/20 20:31	OP26652	Matrix Spike Duplicate
OP26687-MS	6P489772.D	04/02/20 20:55	OP26687	Matrix Spike
OP26687-MSD	6P489773.D	04/02/20 21:19	OP26687	Matrix Spike Duplicate
JD4423-14	6P489774.D	04/02/20 21:44	OP26687	(used for QC only; not part of job JD5004)

Run Sequence Report

Job Number: JD5004
Account: FLSNYNY Fleming-Lee Shue, Inc.
Project: TFC Stage 2, QWD, Long Island City, NY

Run ID: E6P2935	**Method:** SW846 8270D	**Instrument ID:** GCMS6P

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
E6P2935-DFTPP	6P489776.D	04/03/20 11:40	n/a	DFTPP Tune
E6P2935-CC2901	6P489777.D	04/03/20 11:53	n/a	Continuing cal 25
E6P2935-CC2902	6P489778.D	04/03/20 12:17	n/a	Continuing cal 25
E6P2935-CC2903	6P489779.D	04/03/20 12:41	n/a	Continuing cal 25
OP26652-MB1	6P489780.D	04/03/20 13:05	OP26652	Method Blank
OP26823-MB1	6P489781.D	04/03/20 13:29	OP26823	Method Blank
OP26823-BS1	6P489782.D	04/03/20 13:53	OP26823	Blank Spike
ZZZZZZ	6P489783.D	04/03/20 14:17	OP26823	(unrelated sample)
ZZZZZZ	6P489784.D	04/03/20 14:41	OP26823	(unrelated sample)
ZZZZZZ	6P489785.D	04/03/20 15:05	OP26823	(unrelated sample)
ZZZZZZ	6P489786.D	04/03/20 15:29	OP26823	(unrelated sample)
ZZZZZZ	6P489787.D	04/03/20 15:53	OP26823	(unrelated sample)
ZZZZZZ	6P489788.D	04/03/20 16:17	OP26823	(unrelated sample)
ZZZZZZ	6P489789.D	04/03/20 16:41	OP26823	(unrelated sample)
ZZZZZZ	6P489790.D	04/03/20 17:05	OP26823	(unrelated sample)
JD5004-4	6P489800.D	04/03/20 17:29	OP26675	TRC-MW15B
JD5004-1	6P489801.D	04/03/20 17:53	OP26675	TRC-MW18
ZZZZZZ	6P489791.D	04/03/20 18:41	OP26823	(unrelated sample)
ZZZZZZ	6P489792.D	04/03/20 19:05	OP26823	(unrelated sample)
ZZZZZZ	6P489793.D	04/03/20 19:29	OP26823	(unrelated sample)
ZZZZZZ	6P489794.D	04/03/20 19:53	OP26823	(unrelated sample)
ZZZZZZ	6P489795.D	04/03/20 20:17	OP26823	(unrelated sample)
JD5456-1	6P489796.D	04/03/20 20:41	OP26823	(used for QC only; not part of job JD5004)
OP26823-MS	6P489797.D	04/03/20 21:05	OP26823	Matrix Spike
ZZZZZZ	6P489799.D	04/03/20 21:53	OP26823	(unrelated sample)

APPENDIX D

Data Validator Resume

JOEL E. KANE

New York, NY | **Phone**: (406) 321-0586 | **Email:** joelekane@gmail.com |

PROFESSIONAL EXPERIENCE

Fleming-Lee Shue **May 2018 - Present**
Project Manager *New York, NY*

- Experienced guiding clients through city and state regulatory programs including the NYSDEC Brownfield Cleanup Program, Office of Environmental Remediation, Spills Program, and NY City and State Environmental Quality Review programs (CEQR/SEQR).
- Experienced conducting data validation and generating data usability reports.
- Experienced developing Phase I and II ESAs and Environmental Assessment Statements.
- Experienced writing site reclamation plans, designing and implementing remedial technologies.
- Experienced in business development, RFP drafting, budget tracking and finance forecasting.

Pioneer Technical Services **May 2015 – December 2017**
Environmental Scientist II *Billings, MT*

- Developed long-term compliance programs for Oil and Gas clients including SPCC, SWPPP, air permitting, and hazardous site closure. Experienced guiding clients from initial remedial work plans to final closure reports.
- Provided 3rd party data validations services.
- Experienced at successful grant writing. Two Top 10 DNRC Renewable Resource Project Grants in 2017.

Environmental Monitoring Service **February 2015 Year – May 2015**
Emissions Scientist *Billings, MT*

- Monitored refinery equipment for VOC leaks using FID at the Exxon-Mobil Refinery. Installed and sampled monitoring wells.

Kelly Scientific **February 2014 – December 2014**
Contract Chemist *Sydney, Australia*

- Leased out to clients in various short-term roles including chemist, analyst and field sampling technician.
- Trained in 3rd party data validation and data validation report generation.

Energy Laboratories **May 2013 – February 2014**
Organic Chemist *Billings, MT*

- Extraction and analysis of herbicides, pesticides and PCBs from soil, drinking water, and industrial oils. Management of extraction chemist team. Experienced in GC/MS and LC/MS analyses and repair.

EDUCATION

Gonzaga University **May, 2013**
BS Biology Minors*:* Chemistry, English. *Spokane, WA*

- *Magna cum laude;* Sigma Tau Delta Honor Society; 3.72 GPA
- Studied in Chimfunshi, Zambia researching chimpanzee group dynamics and giant termite colonies effect on local soil chemistry.

RELEVANT SKILLS & INTERESTS

Certifications: HAZWOPER 40hr (May 2016); HAZWOPER 8hr Refresher (May 2019); OSHA Construction 8hr; Optical Gas Thermographer (Sept 2016); SWPPP Administrator (Sept 2018).
Skills: EQuIS; CAD; ArcGIS; technical writing; grant writing; optical gas thermography; organic chemistry; bench chemistry; data validation and working-level Spanish.

APPENDIX D

Annual Inspection Reports

Form 1
Annual Inspection Checklist
Queens West Development -Stage 2
Building / Parcel 1
Address: 45-60 Center Boulevard, Long Island City, NY

Building Manager: Jesus Carlo (718) 606-8945

Sub-Slab Depressurization System Component	Condition	No	Yes	Describe Deficiency	Notes
Discharge location of the vent pipe	Any open windows air intakes near vent	x			
Building floor slab	Holes crack or other physical deficiencies ?	x			
Sump Pits	Holes crack or other physical deficiencies ?	x			
	Debris or obstruction in the sump pit?	x			
Riser Pipes	Holes crack or other physical deficiencies ?	x			
	Blockages in the vent pipes ?	x			
System Alarm	Operational ?	n/a			Passive System
Fan	Operational?	n/a			Passive System
Site Covers	**Condition**	**No**	**Yes**	**Describe Deficiency**	**Notes**
Vapor Barrier	Holes crack or other physical deficiencies ?	x			
Composite Cover	Holes crack or other physical deficiencies ?	x			
Clean fill cover layer	properly maintained?		x		

Jordan Arey
Name of Inspector

Jordan V. Arey
Signature of Inspector

2/16/2021
Date of Inspection

Form 1
Annual Inspection Checklist
Queens West Development -Stage 2
Building / Parcel 2
Address: 45-45 Center Boulevard, Long Island City, NY

Building Manager: Michal Mirek (718) 606-6095

Sub-Slab Depressurization System Component	Condition	No	Yes	Describe Deficiency	Notes
Discharge location of the vent pipe	Any open windows air intakes near vent	x			
Building floor slab	Holes crack or other physical deficiencies ?	x			
Sump Pits	Holes crack or other physical deficiencies ?	x			
	Debris or obstruction in the sump pit?	x			
Riser Pipes	Holes crack or other physical deficiencies ?	x			
	Blockages in the vent pipes ?	x			
System Alarm	Operational ?	n/a			Passive System
Fan	Operational?	n/a			Passive System
Site Covers	**Condition**	**No**	**Yes**	**Describe Deficiency**	**Notes**
Vapor Barrier	Holes crack or other physical deficiencies ?	x			
Composite Cover	Holes crack or other physical deficiencies ?	x			
Clean fill cover layer	Properly maintained?		x		

Jordan Arey

Name of Inspector

Jordan V. Arey

Signature of Inspector

2/16/2021

Date of Inspection

Well	Product Thickness (ft.)
L56PN	0.01
L56PE	0.00

Form 1
Annual Inspection Checklist
Queens West Development -Stage 2
Building / Parcel 3
Address: 46-10 Center Boulevard, Long Island City, NY

Building Manager: Marcin Kaminski (718) 440-8559

Sub-Slab Depressurization System Component	Condition	No	Yes	Describe Deficiency	Notes
Discharge location of the vent pipe	Any open windows air intakes near vent	x			
Building floor slab	Holes crack or other physical deficiencies ?	x			
Sump Pits	Holes crack or other physical deficiencies ?	x			
	Debris or obstruction in the sump pit?	x			
Riser Pipes	Holes crack or other physical deficiencies ?	x			
	Blockages in the vent pipes ?	x			
System Alarm	Operational ?	n/a			Passive System
Fan	Operational?	n/a			Passive System
Site Covers	**Condition**	**No**	**Yes**	**Describe Deficiency**	**Notes**
Vapor Barrier	Holes crack or other physical deficiencies ?	x			
Composite Cover	Holes crack or other physical deficiencies ?	x			
Clean fill cover layer	properly maintained?		x		

Jordan Arey
Name of Inspector

Jordan V. Arey
Signature of Inspector

2/16/2021
Date of Inspection

Form 1
Annual Inspection Checklist
Queens West Development -Stage 2
Building / Parcel 4
Address: 46-15 Center Boulevard, Long Island City, NY

Building Manager: Elvedin (Dino) Jarovic (718) 606-2757

Sub-Slab Depressurization System Component	Condition	No	Yes	Describe Deficiency	Notes
Discharge location of the vent pipe	Any open windows air intakes near vent	x			
Building floor slab	Holes crack or other physical deficiencies ?	x			
Sump Pits	Holes crack or other physical deficiencies ?	x			
	Debris or obstruction in the sump pit?	x			
Riser Pipes	Holes crack or other physical deficiencies ?	x			
	Blockages in the vent pipes ?	x			
System Alarm	Operational ?	n/a			Passive System
Fan	Operational?	n/a			Passive System
Site Covers	**Condition**	**No**	**Yes**	**Describe Deficiency**	**Notes**
Vapor Barrier	Holes crack or other physical deficiencies ?	x			
Composite Cover	Holes crack or other physical deficiencies ?	x			
Clean fill cover layer	properly maintained?		x		

Jordan Arey
Name of Inspector

Jordan V. Arey
Signature of Inspector

2/16/2021
Date of Inspection

Form 1
Annual Inspection Checklist
Queens West Development -Stage 2
Building / Parcel 5
Address: 46-30 Center Boulevard, Long Island City, NY

Building Manager: Gjon Gjelaj (718) 606-1190

Sub-Slab Depressurization System Component	Condition	No	Yes	Describe Deficiency	Notes
Discharge location of the vent pipe	Any open windows air intakes near vent	x			
Building floor slab	Holes crack or other physical deficiencies ?	x			
Sump Pits	Holes crack or other physical deficiencies ?	x			
	Debris or obstruction in the sump pit?	x			
Riser Pipes	Holes crack or other physical deficiencies ?	x			
	Blockages in the vent pipes ?	x			
System Alarm	Operational ?		x		
Fan	Operational?		x		
Site Covers	**Condition**	**No**	**Yes**	**Describe Deficiency**	**Notes**
Vapor Barrier	Holes crack or other physical deficiencies ?	x			
Composite Cover	Holes crack or other physical deficiencies ?	x			
Clean fill cover layer	properly maintained?		x		

Jordan Arey
Name of Inspector

Jordan V. Arey
Signature of Inspector

2/16/2021
Date of Inspection

Form 1
Annual Inspection Checklist
Queens West Development -Stage 2
Building / Parcel 6
Address: 47-20 Center Boulevard, Long Island City, NY

Building Manager: Lyuben Antonov (718) 606-9465

Sub-Slab Depressurization System Component	Condition	No	Yes	Describe Deficiency	Notes
Discharge location of the vent pipe	Any open windows air intakes near vent	x			
Building floor slab	Holes crack or other physical deficiencies ?	x			
Sump Pits	Holes crack or other physical deficiencies ?	x			
	Debris or obstruction in the sump pit?	x			
Riser Pipes	Holes crack or other physical deficiencies ?	x			
	Blockages in the vent pipes ?	x			
System Alarm	Operational ?	n/a			Passive System
Fan	Operational?	n/a			Passive System
Site Covers	**Condition**	**No**	**Yes**	**Describe Deficiency**	**Notes**
Vapor Barrier	Holes crack or other physical deficiencies ?	x			
Composite Cover	Holes crack or other physical deficiencies ?	x			
Clean fill cover layer	properly maintained?		x		

Jordan Arey
Name of Inspector

Jordan V. Arey
Signature of Inspector

2/16/2021
Date of Inspection

Form 1
Annual Inspection Checklist
Queens West Development -Stage 2
Building / Parcel 3
Pepsi Sign / Surrounding Park

Site Covers	Condition	No	Yes	Describe Deficiency	Notes
Composite Cover	Holes crack or other physical deficiencies ?	x			
Clean fill cover layer	properly maintained?		x		

Jordan Arey
Name of Inspector

Signature of Inspector

2/16/2021
Date of Inspection

ANNUAL INSPECTION REPORT
QUEENS WEST
PUBLIC SCHOOL 312Q (Q078)
48-09 CENTER BOULEVARD
QUEENS, NY 11109

PREPARED FOR:

New York City Department of Education
Office of Environmental Health and Safety
44-36 Vernon Blvd.
Long Island City, New York 11101

PREPARED BY:

ATC Group Services LLC
104 East 25th Street, 10th Floor
New York, New York 10010-2917

Date of Issue: March 2, 2021

ATC Project No. Z214YI2119

TABLE OF CONTENTS

Attachments:

PROJECT DIRECTORY

OWNER/CLIENT:	New York City Department of Education Office of Environmental Health and Safety 44-36 Vernon Blvd. Long Island City, New York 11101
PROJECT LOCATION:	Queens West Public School 312Q (Q078) 48-09 Center Boulevard Queens, NY 11109
PROJECT TECHNICAL SUPPORT	New York City School Construction Authority 30-30 Thomson Avenue Long Island City, New York 11101 STV Incorporated 225 Park Avenue South New York, New York 10003
DESCRIPTION OF WORK:	Review O&M plan and prior reports; review custodian's logbook, walk-through visual inspection
ATC REPRESENTATIVES:	Gilbert Gedeon, P.E., Principal Engineer Denise Cosenza, Inspector

EXECUTIVE SUMMARY

ATC Group Services, LLC (ATC) conducted the annual site inspection of the Engineering Controls as they relate to the Gas Vapor Barrier and the Sub-Slab Depressurization System (SSDS) at Public School 312Q (Q078) located at 48-09 Center Boulevard, Queens, NY 11109, on January 26, 2021.

During the inspection, ATC noted that the custodian's Monthly or Severe Condition Inspection Forms were prepared for the months of February 2020 through December 2020. In addition, the Routine and Preventative Maintenance Checklists were completed for the months of May 2020 and November 2020. ATC observed that the Building Management System (BMS) was functional and connected to the SSDS fan units. ATC also observed that the SSDS fan units were operational. ATC noted that flow meters were not installed at both SSDS risers.

ATC did not observe any significant cracks on the ground floor except for the same hairline cracks in Rooms 125 and 130 with no change in condition. These hairline cracks were smoke-tested on March 13, 2018 and found to have no potential vapor barrier impact or leaks.

A spare fan unit was available at the school in Room 629. All monitoring points were checked for their condition and found to be clear of obstructions and properly secured.

Based on the aforementioned, ATC concludes that the Engineering Controls have not changed and appear to be effective, and no changes have occurred that would reduce the ability of the controls to protect public health and the environment. However, flow meters should be installed at both SSDS risers. Even though the hairline cracks in Rooms 125 and 130 are not a concern, ATC advised the custodian that any significant cracks observed during the monthly inspections should be sealed with patching cement or grout. In addition, monthly and semi-annual inspections should continue to be conducted and documented in the Monthly or Severe Condition Inspection Forms as well as the Routine and Preventative Maintenance Checklists. These recommendations were brought to the attention of the custodial staff.

1.0 INTRODUCTION

ATC is pleased to provide this Annual Inspection Report to the New York City Department of Education Office of Environmental Health and Safety (NYC DOE/EHS) as it relates to Public School 312Q (Q078) located at 48-09 Center Boulevard, Queens, NY 11109. The school opened in 2013 and is currently attended by approximately 666 students. This work was completed as per the request of NYC DOE.

The scope of work for this service included:

1. Review of the school custodian's inspection logs indicating his routine walk-through to identify any observed changes to the interior surfaces and roof mounted fan units;
2. SSDS roof-mounted fan unit inspection;
3. Ground floor inspection for concrete cracks;
4. Verification of the condition of monitoring points;
5. Review of prior reports; and
6. Photographic documentation of observations.

This report was developed to document: (a) the changes to the engineering controls if any, and (b) whether the program for maintenance and monitoring is being followed and is effective. Ms. Denise Cosenza, under direct supervision of Mr. Gilbert Gedeon, Professional Engineer (PE), of ATC, conducted the annual site inspection on January 26, 2021. During the inspection, ATC was accompanied by Mr. Marcus Correa, the school's fireman.

2.0 ENGINEERING CONTROLS

According to the Operation and Maintenance (O&M) Plan prepared by STV Incorporated dated August 21, 2013, Public School 312Q (Q078) contains engineering controls that include a Gas Vapor Barrier and a Sub-Slab Depressurization System (SSDS) constructed beneath the school to prevent residual soil gas vapors from entering the building. A program for maintenance and monitoring was developed to ensure that the engineering controls implemented during the school's operation are properly maintained.

2.1 Gas Vapor Barrier (Sheet Membrane)

The water proofing sheet membrane, manufactured by W.R. Grace, was installed beneath the school as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The vapor barrier was installed above the SSDS gas permeable aggregate (gravel) layer below the first floor slab. The membrane forms a continuous barrier beneath the building and around the pits and sumps which protects from water intrusion and is also impermeable to soil gas vapors. It is a standard practice of New York City School Construction Authority (NYCSCA) to require a gas vapor barrier, membrane or alternative product such as waterproofing that prevents soil gas from entering building spaces for all new school construction projects beginning in 2007.

2.2 Sub-Slab Depressurization System

An SSDS was also installed beneath the school as an added precaution to prevent any soil gas vapors from entering the school building in the future.

The primary components of the SSDS include the following:

1. Six (6) sub-slab suction pits are connected to sub-slab piping located beneath the first floor slab of the building;

2. Two (2) vertical risers connecting pits and sub-slab piping to two (2) roof top fans (SSDS-1 and SSDS-2) with a vacuum gauge installed at each riser;

3. Differential pressure switches installed near the inlets of the suction fans that will signal an alarm to the BMS if a low vacuum condition occurs; and

4. Seven (7) monitoring points (MP-1 through MP-7) located in the first floor slab of the school building.

3.0 SITE INSPECTIONS AND SSDS REPAIRS

3.1 Review of Custodian's Inspection Logs

The following was discussed with Mr. Correa:

1. The custodian's Monthly or Severe Condition Inspection Forms were prepared for the months of February through December 2020.

2. The Routine and Preventative Maintenance Checklists were completed for the months of May and November 2020.

3. As part of the annual inspection, ATC provided annual refresher training and advised the custodial staff to continue to conduct the inspections on a monthly and semi-annual basis and document the observations in the Monthly or Severe Condition Inspection Forms as well as the Routine and Preventative Maintenance Checklists, respectively.

The Monthly or Severe Condition Inspection Forms are included in Attachment 1. The Routine and Preventative Maintenance Checklists are included in Attachment 2. The Training Acknowledgement Letter is included in Attachment 3.

3.2 ATC's Visual Observations

ATC conducted visual observations and photographic documentation while accompanied by Mr. Correa. Site photographs are included in Attachment 4, the Annual Inspection Form is included in Attachment 5, and the Annual Monitoring Point Inspection Checklist is included in Attachment 6.

During the walkthrough inspection, ATC noted the following:

- The BMS was functional;
- The SSDS fan units were operational;
- Flow meters were missing at both SSDS risers; and
- A spare fan unit was available at the school and stored in Room 629.

3.2.1 SSDS Roof Vent Inspection

1. Rust or other debris was not observed in the vicinity of the posts and sleeves of the vent stacks associated with the SSDS fan units;
2. SSDS fan stack guy wires were tight and in good condition;
3. SSDS fan mounting and vibration isolators were intact;
4. Motor housing was intact and exterior surfaces were clean; and
5. Bolts and set screws were tight with slight rusting around the base of the SSDS fan units.

3.2.2 Ground Floor Inspection

ATC inspected the accessible areas of the ground floor and walls and did not observe any significant visible cracks penetrating into the ground floor or wall during the annual inspection, except for the same hairline cracks in Rooms 125 and 130. There were no change in condition associated with these hairline cracks were previously smoke tested on March 13, 2018 and were observed to have no potential leaks through them.

Although these cracks are not a concern, monitoring during monthly inspections is required for any significant change in the width of the cracks. Significant cracks observed during these inspections will require patching with cement or grout material.

ATC also checked the monitoring points associated with the SSDS system and verified that they were in good condition and properly secured.

ATC's observation of the ground concrete floor was limited due to architectural finishes such as ceramic floor tiles, vinyl floor tiles and wood flooring. ATC's observation of the floors and walls was also limited by shelving, cabinets, equipment and furniture.

3.2.3 Exterior Inspection

ATC inspected the perimeter of the school property including paved and unpaved areas. There was no evidence of pavement removal. No structures have been constructed on the unpaved areas. There were no signs of soil washing or erosion.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on visual observations, ATC concludes the following:

1. The BMS is functioning properly and connected to the SSDS fan units;
2. The SSDS fan units are operational;
3. Flow meters were missing at both SSDS risers;
4. Hairline cracks observed in Rooms 125 and 130 are not a concern;
5. A spare fan unit is available at the school in Room 629;
6. Engineering controls have not changed and appear to be effective; and
7. No changes have occurred that would reduce the ability of the controls to protect public health and the environment.

Based on document review and visual observations, ATC recommends the following:

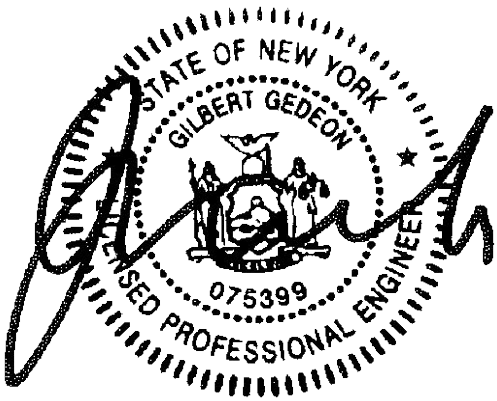
1. Install flow meters at both SSDS risers;
2. Monitor or seal the surficial cracks observed in in Rooms 125 and 130. Significant cracks observed during these inspections will require patching with cement, caulk or grout material; and
3. Monthly and routine/preventative maintenance inspections should continue to be conducted and Monthly and Routine/Preventative Maintenance Forms should continue to be completed by the custodial staff.

5.0 STANDARDS OF CARE

ATC's work was performed in a professional manner with the best interest of our client in mind. Our objective was to perform our work with care, exercising the customary skills and competence of consulting professionals in the relevant disciplines. The conclusions presented in this report are professional opinions based upon visual observations, site documents review and real-time environmental measurements. The conclusions expressed in this report reflect only the limited inspections of specific locations. The opinions and recommendations presented herein apply to site conditions existing at the time of our observations. ATC cannot act as insurers, and no expressed or implied representation or warrant is included or intended in our report except that our work was performed, within the limits prescribed by our clients, with the customary thoroughness and competence of our profession at the time and place the services were rendered.

It is our pleasure to provide our consultative services to the NYCDOE. If you have any questions about this report, please contact us at (212) 353-8280.

Sincerely,
ATC GROUP SERVICES, LLC



Gilbert Gedeon, PE
Principal Engineer

cc: Y. Efstathiou
N. Guevara

Attachment 1
Custodian Monthly or Severe Condition Inspection Forms

PS/IS 312 QUEENS WEST
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 2/5/20

Purpose: (circle one) (Monthly Inspection) **Severe Condition Inspection (describe)**

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	NO	
	* Any other visible openings (unintended) in the floor or subgrade walls?	No	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	N/A	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	Yes	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	Yes	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	N/A	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

	Vacuum		
SF-1:	2 in WC	Date taken:	2.5.20
SF-2:	5 in WC	Date taken:	2.5.20

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	in WC	VR-1:	CFM	Date taken:	2.5.20
VR-2:	in WC	VR-2:	CFM	Date taken:	2.5.20

Inspector's Signature:

PS/IS 312 QUEENS WEST
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 3/4/20

Purpose: (circle one) ~~Monthly Inspection~~ **Severe Condition Inspection (describe)**

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	No	
	* Any other visible openings (unintended) in the floor or subgrade walls?	No	
	* Any construction activities affecting the floor or subgrade walls?	No	
	* Any visible cracks in any accessible pits?	NA	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - *Note the length and width of the crack/opening.*		
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	No	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	Yes	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	Yes	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NA	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 2 in WC — Date taken: 3.4.20

SF-2: 5 in WC — Date taken: 3.4.20

SSDS Riser Measurements:

	Vaccum	Flow	
VR-1:	____ in WC	____ CFM	Date taken: 3.4.20
VR-2:	____ in WC	____ CFM	Date taken: 3.4.20

Inspector's Signature:

PS/IS 312 QUEENS WEST
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 4.5.20

Purpose: (circle one) (Monthly Inspection) **Severe Condition Inspection (describe)**

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	No	
	* Any other visible openings (unintended) in the floor or subgrade walls?	No	
	* Any construction activities affecting the floor or subgrade walls?	No	
	* Any visible cracks in any accessible pits?	N/A	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	No	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	Yes	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	Yes	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	N/A	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 2 in WC — Date taken: 4.5.20

SF-2: 5 in WC — Date taken: 4.5.20

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	4	in WC	VR-1:	CFM	Date taken: 4.5.20
VR-2:	5	in WC	VR-2:	CFM	Date taken: 4.5.20

Inspector's Signature:

PS/IS 312 QUEENS WEST
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 5.3.20

Purpose: (circle one) (Monthly Inspection) **Severe Condition Inspection (describe)**

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	YES	
	* Any visible cracks in the floor or subgrade walls?	NO	
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NA	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	YES	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	YES	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	YES	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	YES	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NA	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 4 in WC — Date taken: 5.3.20

SF-2: 3 in WC — Date taken: 5.3.20

SSDS Riser Measurements:

	Vacuum		Flow		Date taken:
VR-1:	5	in WC	NA	CFM	5.3.20
VR-2:	3	in WC		CFM	5.3.20

Inspector's Signature:

PS/IS 312 QUEENS WEST
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 6.3.20

Purpose: (circle one) (Monthly Inspection) **Severe Condition Inspection (describe)**

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	No	
	* Any other visible openings (unintended) in the floor or subgrade walls?	No	
	* Any construction activities affecting the floor or subgrade walls?	No	
	* Any visible cracks in any accessible pits?	NA	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	No	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	Yes	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	Yes	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NA	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 4 in WC — Date taken: 6.3.20

SF-2: 5 in WC — Date taken: 6.3.20

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	5	in WC	NA	CFM	Date taken: 6.3.20
VR-2:	5	in WC		CFM	Date taken: 6.3.20

Inspector's Signature:

PS/IS 312 QUEENS WEST
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 7.2.20

Purpose: (circle one) (Monthly Inspection) **Severe Condition Inspection (describe)**

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	NO	
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NA	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	Yes	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	Yes	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NA	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 4 in WC — Date taken: 7.2.20

SF-2: 3 in WC — Date taken: 7.2.20

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	5	in WC	VR-1:	CFM	Date taken: 7.2.20
VR-2:	5	in WC	VR-2:	CFM	Date taken: 7.2.20

Inspector's Signature:

PS/IS 312 QUEENS WEST
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 9.11.20

Purpose: (circle one) (Monthly Inspection) **Severe Condition Inspection (describe)**

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	NO	
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	No	
	* Any visible cracks in any accessible pits?	NA	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	Yes	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	Yes	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NA	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 4 in WC — Date taken: 9.11.20

SF-2: 5 in WC — Date taken: 9.11.20

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	5	in WC	VR-1:	CFM	Date taken: 9.11.20
VR-2:	5	in WC	VR-2:	CFM	Date taken: 9.11.20

Inspector's Signature: [signature]

PS/IS 312 QUEENS WEST
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 10/11/20

Purpose: (circle one) (Monthly Inspection) **Severe Condition Inspection (describe)**

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	No	
	* Any other visible openings (unintended) in the floor or subgrade walls?	No	
	* Any construction activities affecting the floor or subgrade walls?	No	
	* Any visible cracks in any accessible pits?	NA	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	No	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	Yes	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	Yes	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NA	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 in WC — Date taken: 10.11.20

SF-2: 5 in WC — Date taken: 10.11.20

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	5	in WC	VR-1:	CFM	Date taken: 10.11.20
VR-2:	5	in WC	VR-2:	CFM	Date taken: 10.11.20

Inspector's Signature:

PS/IS 312 QUEENS WEST
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 11/20/20

Purpose: (circle one) (Monthly Inspection) **Severe Condition Inspection (describe)**

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	No	
	* Any other visible openings (unintended) in the floor or subgrade walls?	No	
	* Any construction activities affecting the floor or subgrade walls?	No	
	* Any visible cracks in any accessible pits?	NA	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	No	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	No	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	No	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NA	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 in WC — Date taken: 11/20/20

SF-2: 5 in WC — Date taken: 11/20/20

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	5	in WC	NA	CFM	Date taken: 11/20/20
VR-2:	4	in WC	NA	CFM	Date taken: 11/20/20

Inspector's Signature: [signature]

PS/IS 312 QUEENS WEST
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 12/19/20

Purpose: (circle one) ~~Monthly Inspection~~ **Severe Condition Inspection (describe)**

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	No	
	* Any other visible openings (unintended) in the floor or subgrade walls?	No	
	* Any construction activities affecting the floor or subgrade walls?	No	
	* Any visible cracks in any accessible pits?	NA	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	No	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	No	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	No	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NA	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 in WC — Date taken: 12/19/20

SF-2: 5 in WC — Date taken: 12/19/20

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	5	in WC	VR-1: NA	CFM	Date taken: 12/19/20
VR-2:	4	in WC	VR-2:	CFM	Date taken: 12/19/20

Inspector's Signature:

Attachment 2
Routine and Preventative Maintenance Checklists

PS/IS 312 QUEENS WEST
ROUTINE AND PREVENTATIVE MAINTENANCE CHECKLIST
SSDS FANS

Inspector's Name: Marcus Correa

Inspection Date/Time: 5.11.20

Purpose (circle one): (Biannual Inspection) Fan Malfunction (describe)

SSDS Fan Maintenance Checklist

	Complete the steps below for every SSDS fan during a biannual inspection or for any SSDS fan experiencing issues	Completed? Y/N	List Any Issues or Malfunction
1	Disconnect, lock out, and tag fan electrical power source	Yes	
2	Inspect SSDS fan drive belt for tightness and wear. Adjust/replace if required	Yes	
3	Clean/blow down centrifugal fan wheel, inlet, fan, and motor housing	NO	
4	Grease fan shaft bearing pillow blocks	NO	
5	Inspect fan inlet and outlet ductwork flex joints	Yes	
6	Inspect damper for proper orientation	Yes	
7	Inspect fan stack guy wires	Yes	
8	Inspect fan mounting and vibration isolators	Yes	

*Notify the DOE EHS of any fan unit/component failure. In the event that a fan component fails, the component will be replaced by DOE EHS. DOE EHS will make appropriate arrangements in advance with suppliers to provide SSDS replacement parts within 12 hours notice. In the event that a fan unit fails, the fan unit will be replaced by DOE EHS. A spare fan will be available on-site for immediate replacement in case of fan failure.

Inspector's Signature:

PS/IS 312 QUEENS WEST
ROUTINE AND PREVENTATIVE MAINTENANCE CHECKLIST
SSDS FANS

Inspector's Name:

Inspection Date/Time: 11/11/20

Purpose (circle one): ~~Biannual Inspection~~ Fan Malfunction (describe)

SSDS Fan Maintenance Checklist

	Complete the steps below for every SSDS fan during a biannual inspection or for any SSDS fan experiencing issues	Completed? Y/N	List Any Issues or Malfunction
1	Disconnect, lock out, and tag fan electrical power source	Yes	
2	Inspect SSDS fan drive belt for tightness and wear. Adjust/replace if required	Yes	
3	Clean/blow down centrifugal fan wheel, inlet, fan, and motor housing	No	
4	Grease fan shaft bearing pillow blocks	No	
5	Inspect fan inlet and outlet ductwork flex joints	Yes	
6	Inspect damper for proper orientation	Yes	
7	Inspect fan stack guy wires	Yes	
8	Inspect fan mounting and vibration isolators	Yes	

*Notify the DOE EHS of any fan unit/component failure. In the event that a fan component fails, the component will be replaced by DOE EHS. DOE EHS will make appropriate arrangements in advance with suppliers to provide SSDS replacement parts within 12 hours notice. In the event that a fan unit fails, the fan unit will be replaced by DOE EHS. A spare fan will be available on-site for immediate replacement in case of fan failure.

Inspector's Signature:

Attachment 3
Training Acknowledgement

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

104 East 25th St, 8th Floor
New York, NY 10010-2917
www.atcgroupservices.com
212-353-8280
Fax 212-353-8306

Annual Training Acknowledgement
Engineering Controls Operation and Maintenance

Location: R317

Custodian/Fireman: Marcus Correa

I, Marcus Correa, received annual refresher training on Engineering Controls Operation and Maintenance by ATC Group Services, LLC (ATC) on 1/26/21. As part of the annual refresher training I conducted a walkthrough with ATC during which all elements covered by the Operation and Maintenance Plan were explained to me including the completion of the daily logs and monthly inspection form.

Signed by: _____ **Date:** 1/26/21
Custodian/Fireman

Recommendations:

1) Install flow meters on both SSMS risers located in the Bi cafeteria pipe chase.

Please submit a work order ASAP to get the completed and call me (G.I Gedeon) on 917-418-0224.

Attachment 4
Photographic Documentation

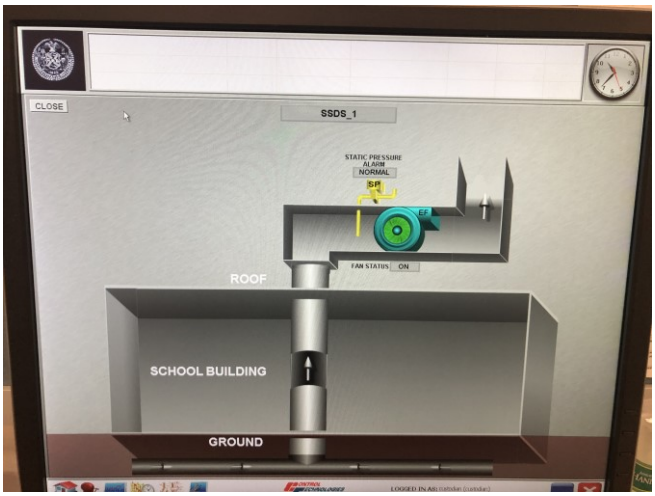


Photo 1: View of operational BMS connected to SSDS-1.

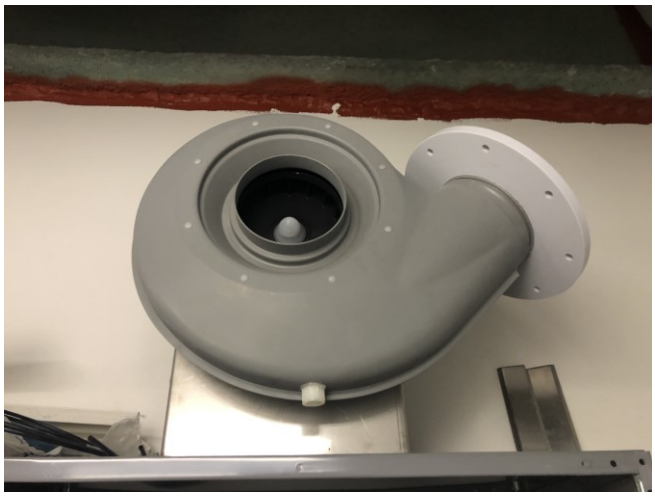


Photo 2: View of spare fan unit stored in Room 629.

Photo 3: View of SSDS fan unit SSDS-1.

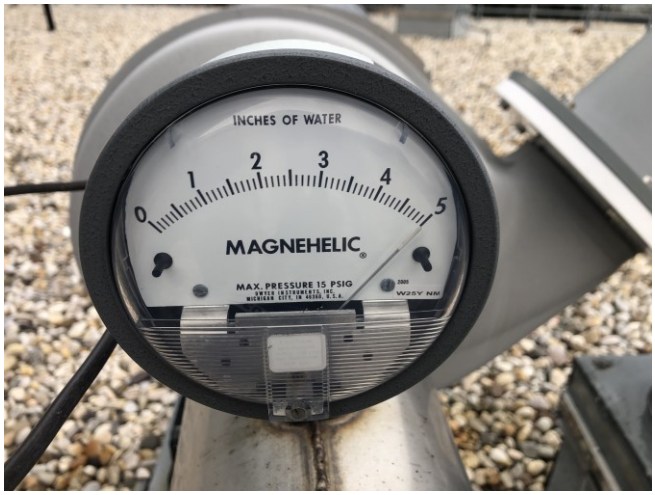


Photo 4: View of vacuum gauge for fan unit SSDS-1.

Photo 5: View of typical bare concrete floor in Room 135A.

Photo 6: View of typical monitoring point in Room 127.

Attachment 5
Annual Inspection Form

PS/IS 312 QUEENS WEST
ANNUAL INSPECTION FORM

Inspector's Name:	Gil Gleden	Weather Conditions:	Cloudy
Inspection Date:	1/26/21	Air Temperature (°F):	28°F
Inspection Time:			
Comments:			

A. PRE-INSPECTION CHECKLIST

- [x] * Schedule Annual Inspection when school is not occupied by students.
- [x] * Review 12 Previous Monthly Inspection Checklists.
- [x] * Meet with Custodial Engineer ~~and Principal~~ to solicit comments/concerns regarding the operation of the Engineering Controls over the last 12 months
- [x] * Conduct Annual Refresher Training with DOE EHS.
- [x] * Follow proper safety protocols including lockout/tagout.

Comments:

B. SSDS SYSTEM INSPECTION

Walk the entire roof surface of school building amd check SSDS risers at basement l

- [x] * Inspect fan stack guy wires.
- [x] * Inspect monitoring points (look for obstructions, check manhole/bolts, quick connects).
- [x] * Record vacuum gauge and flowmeter readings on riser pipes and SSDS fans (as applicable); review monthly data to check for decreases in flow/vacuum. SSDS-2 @ 2 SSDS-1 @ 5
- [x] * Ensure all SSDS accessories listed in section 15860 are functioning properly.
- [x] * Inspect bolts and set screws for tightness and rusty condition. -Minor rust SSDS-2
- [x] * Inspect SSDS fan for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing,
- [x] * Are the indicator lights on the Building Management System functioning properly? Yes
- [x] * Is the spare fan unit present/available at the school? Yes - Rm 624

Comments (see or hear anything unusual?):

C. VAPOR BARRIER INSPECTION

Walk all of the basement floor

- [x] * Review all cracks or other openings identified in first floor during previous inspections.
- [x] * Any new visible cracks in the floor? No
- [x] * Any new visible opening (unintended) in the floor? NO
- [x] * Any new visible cracks in accessible pits? N/A
- [x] * Note the length of any new cracks/openings in the floor. N/A
- [ ] * Draw approximate location of floor cracks/openings that appear to have potential leak through vapor barrier

Comments:

D. REPAIR

Summarize needed/completed repairs to Engineering Controls:

Inspector's Signature:

Attachment 6
Annual Monitoring Point Inspection Checklist

PS/IS 312 QUEENS WEST

Annual Monitoring Point Inspection Checklist

Monitoring Point ID	Room Number	Any obstructions over MP	Manhole cover secure and bolts in tact	Comments
MP-1	Auditorium	Y / N	Y / N	
MP-2	~~Fire Water Room~~ Telecom	Y / N	Y / N	
MP-3	Vestibule at 46th Ave Entrance	Y / N	Y / N	
MP-4	Storage Room	Y / N	Y / N	
MP-5	~~Communication Room~~ Ladies Rm	Y / N	Y / N	
MP-6	Northeast Corner Cafeteria	Y / N	Y / N	
MP-7	Storage RM at Vestibule for 5th Street Main Entrance	Y / N	Y / N	

Inspect all monitoring point locations for obstructions; check the manhole covers/bolts along with the quick connections inside the manhole.

February 5, 2021

Mr. Joseph Flanagan
Vice President Property Management
Rockrose Development Corp.
15 East 26th Street 7th Floor
New York, NY 10010

Re: Annual SSDS Inspection
Parcel 7 Building
4705 Center Blvd.
Long Island City, New York

Dear Mr. Flanagan:

EnviroTrac Ltd. (EnviroTrac) conducted annual testing and reporting of the sub-slab depressurization system (SSDS) and engineering controls at the above-referenced property on January 8, 2021.

Task 1 – Methane Monitoring

Methane measurements were collected at MP-4 and MP-11 monitoring points. MP-9 is inaccessible due to a refrigeration counter installed over the monitoring point. Methane testing from the points did not produce any detection levels of methane during the inspection event via an MSA MultiGas Meter model # 10058981 (refer to **Table 1**). The meter was calibrated prior to conducting the monitoring event. Vacuum readings were collected at accessible monitoring points via a Extech manometer model # HD750. Refer to attachment for results.

Table 1 – Methane Monitoring Results on January 8, 2021

Sample Point	Methane Concentration (% volume)
MP-4	0
MP-9	NA
MP-11	0

Task 2 – Inspection of Engineering Controls

EnviroTrac inspected the engineering controls that include the site development covers and SSDS. For the SSDS, the fan bearings, fan wheel, and motor appear to be in good working condition. The location of the discharge piping is located in a manner in which it will not impact any vents or open windows. During the inspection, the floor slab and foundation walls were inspecting for cracks and/or holes. The floor slab adjacent to MP-9 was found to show signs of cracking. The cracks appear to have been previously sealed as noted in previous inspection reports.

The integrity of the accessible riser pipe was tested to ensure it had not been compromised using a smoke test kit. Available building maintenance personnel were interviewed regarding the Heating, Ventilation, and Air Conditioning (HVAC) system as to any modifications that would impact the SSDS operation.

Maintenance personnel confirmed that no modifications had been performed to the HVAC system and no property alterations were performed that could compromise the barrier layer and site development covers. Additionally, EnviroTrac completed the Annual/Inspection/Monitoring Checklist (Form 1) and the Annual NYSDEC Institutional and Engineering Controls Certification Form (Form 2), attached.

Professional Opinion

The annual inspection of the SSDS has been completed for the reporting period. Based on the results, the SSDS is functioning properly and all engineering controls are in-place and maintained.

If you have any questions, please contact me.

Sincerely,
EnviroTrac Ltd.

Jeffrey A. Bohlen, PG
Senior Project Manager

Attachments:
Monitoring Point Data
Photograph Documentation
Form 1 – Annual Inspection Checklist
Form 2 – Engineering Controls Certification

Parcel 7 Building
4705 Center Blvd.
Long Island City, NY
Site No. V00505B

Date: January 8, 2021

Monitoring Point	Readings		Comments/Observations
	VAC ("H_2O)	Methane (%Conc.)	
1	.028	0	
2	.317	NA	
3	.179	NA	
4	1.29	0	
5	1.022	NA	
6	.547	NA	
7	.081	NA	
8	NA	NA	Blocked by shelving units.
9	NA	NA	Supermarket equipment over well.
10	NA	NA	Resturaunt equipment over well.
11	.51	0	

Photograph Documentation on January 8, 2021

Parcel 7 Building
4705 Center Blvd.
Long Island City, NY
Site No. V00505B

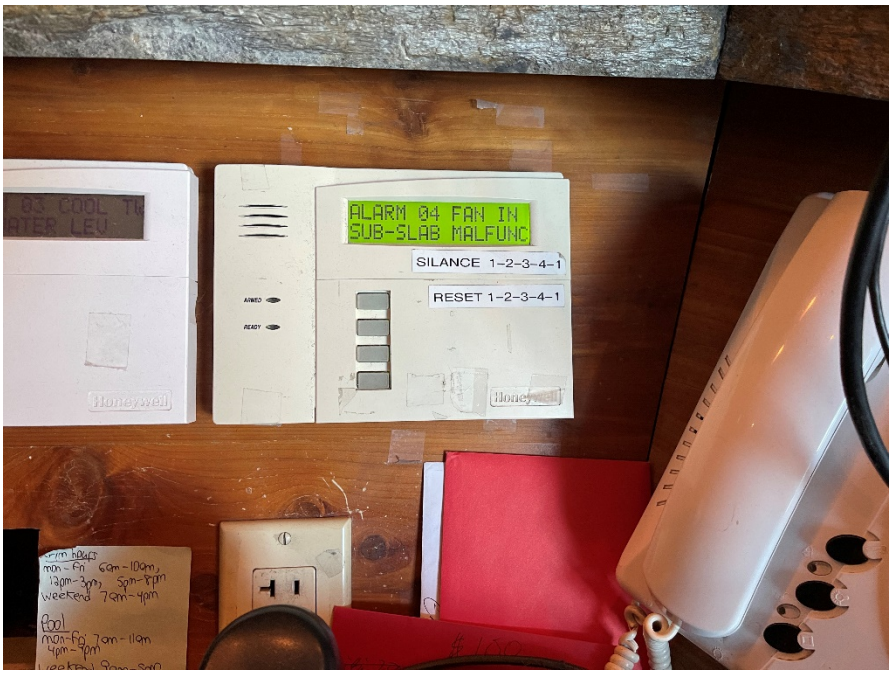
1. Sub-Slab Depressurization System Operational On Roof

2. Section of Accessible Sub-Slab Depressurization System Piping

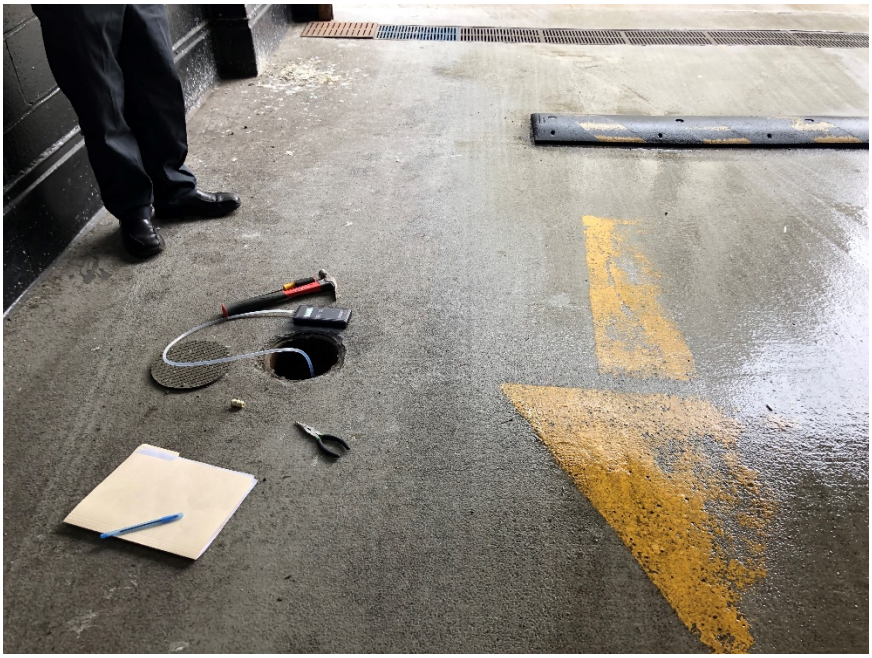
EnviroTrac

Photograph Documentation on January 8, 2021

Parcel 7 Building
4705 Center Blvd.
Long Island City, NY
Site No. V00505B



3. Alarm Panel Confirmation Following Visible and Audible Tests



4. Sub-Slab Vapor Monitoring Point #5

EnviroTrac

Form 1
Queens West Development - Stage 2 Site
VCP Site V00505B
Sub-Slab Depressurization System Annual Inspection/Monitoring Checklist
Parcel 7 Building

Sub-Slab Depressurization System Component	Condition	No	Yes	Describe Deficiency	Notes
HVAC System	Operational and Maintained?		X		
Discharge location of vent pipe	Any open windows or air intakes near vent?	X			
Building Floor Slab	Holes, cracks or other physical deficiencies?	X			
Sump Pits	Holes, cracks or other physical deficiencies?	X			
	Debris or obstructions in sump pit?	X			
Riser Pipes	Holes, cracks or other physical deficiencies?	X			
	Blockages in vent pipe?	X			
System Alarm	Operational?		X		
Fan	Operational?		X		
Sub-slab vapor monitoring for methane	Methane detected?	NA	NA		
Indoor air monitoring for methane	Methane detected indoor air?	NA	NA		

Notes:

Dylan Moscarella
Name of Inspector

Signature of Inspector

1.08.2021
Date of Inspection

FORM-2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
INSTITUTIONAL AND ENGINEERING CONTROLS CERTIFICATION FORM

SITE DETAILS

SITE NO. V00505B

SITE NAME Queens West Development - Stage 2 Site

SITE ADDRESS: ~~46-00 Fifth Avenue~~ 46-30 and 47-05 Center Blvd ZIP CODE: 11101

CITY/TOWN: Long Island City

COUNTY: Queens

CURRENT USE: Mixed Use (commercial and residential)

Reporting Period: January 1, 2020 to December 31, 2020

CURRENT CERTIFICATION FREQUENCY: EVERY 1 YEAR(S)

VERIFICATION OF SITE DETAILS

		YES	NO
1.	Are the SITE DETAILS above, correct?	☒	☐
	If NO, are changes handwritten above or included on a separate sheet?	☐	
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment since the initial/last certification?	☐	☒
	If YES, is documentation or evidence that documentation has been previously submitted included with this certification?	☐	
3.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property since the initial/last certification?	☐	☒
	If YES, is documentation or evidence that documentation has been previously submitted included with this certification?	☐	
4.	Has a change-of-use occurred since the initial/last certification?	☒	☐
	If YES, is documentation or evidence that documentation has been previously submitted included with this certification?	☐	
5.	Has any new information come to your attention to indicate that assumptions made in the qualitative exposure assessment for offsite contamination are no longer valid (applies to non-significant threat sites subject to ECL 27-1415.7(c))? **NA**	☐	☐
	If YES, is the new information or evidence that new information has been previously submitted included with this certification?	☐	
6.	Are the assumptions in the qualitative exposure assessment still valid (must be certified every five years for non-significant threat sites subject to ECL 27-1415.7(c))?**NA**	☐	☐
	If NO, are changes in the assessment included with this certification?	☐	

Description of Institutional/Engineering Control	Control Certification
ENVIRONMENTAL EASEMENT	☐
DEED RESTRICTIONS	☐
OTHER CONTROLS (Engineering Controls)	☒

CONTROL CERTIFICATION STATEMENT

For each institutional or engineering control listed above, I certify by checking "Yes" that all of the following statements are true:

(a) the institutional control and/or engineering control employed at this site is unchanged from the date the control was put in-place, or last approved by the Department;

(b) nothing has occurred that would impair the ability of such control to protect public health and the environment;

(c) nothing has occurred that would constitute a violation or failure to comply with any Site Management Plan for this control; and

(d) access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control.

(e) if a financial assurance mechanism is required under the remedial work plan for the site, the mechanism remains valid and sufficient for their intended purpose under the work plan.

CONTROL CERTIFICATIONS
SITE NO. V00505B

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Stephen Sussman (print name), 5 Old Dock Road, Yaphank, NY (print business address), am certifying as Owner's Designated Site Representative (Owner or Owner's Designated Site Representative (if the site consists of multiple properties, I have been authorized and designated by all site owners to sign this certification) for the Site named in the Site Details section of this form.

Stephen Sussman
Signature of Site Owner or Representative Rendering Certification

2/05/2021
Date

QUALIFIED ENVIRONMENTAL PROFESSIONAL (QEP) SIGNATURE

I certify that all information and statements in this Certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Dale Konas (print name), 5 Old Dock Road, Yaphank , NY (print business address), am certifying as a Qualified Environmental Professional for the Owner's Rep (Owner or Owner's Representative) for the Site named in the Site Details section of this form.

STATE OF NEW YORK
DALE C. KONAS
No. 081035
LICENSED PROFESSIONAL ENGINEER

Stamp (if Required)

2/5/2021
Date

Signature of Qualified Environmental Professional, for the Owner or the Owner's Representative, Rendering Certification

Enclosure

Certification of Institutional Controls/ Engineering Controls (ICs/ECs) Step-by-Step Instructions, Certification Requirements and Definitions

The Site owner, or site owner's representative, and when necessary, a Professional Engineer (P.E.), or the Qualified Environmental Professional (QEP), must review and complete the IC/EC Certification Form, sign it, and return it, along with the Periodic Site Management Report, within 45 days of the date of this notice.

Institutional Controls (defined below) are organized into 4 categories: Governmental Controls (e.g., groundwater-use restrictions), Proprietary Controls (e.g., Environmental Easements), Enforcement and Permit Tools (e.g., Consent Orders), and Informational Devices (e.g., State Registries of Inactive Hazardous Waste Sites). The Certification Form shows the Control information the Department has for this Site. Please use the following instructions to complete the IC/EC Certification.

I. Verification of Site Details (First and Second Boxes):

1. Verify the accuracy of information in the **Site Details** section by answering the 6 questions. If necessary, you and/or your P.E. or QEP may handwrite changes and submit supporting documentation.

II. Verification of Institutional / Engineering Controls (Third and Fourth Boxes)

1. Review the listed Institutional / Engineering Controls and select "YES" or "NO" for **Control Certification** for each IC/EC, based on Sections (a)-(d) of the **Control Certification Statement.**

2. If you cannot certify "Yes" for each Control, please continue to complete the remainder of this **Control Certification** form. Attach supporting documentation that explains why the **Control Certification** cannot be rendered, as well as a statement of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Control Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is conducted.

   If the Department concurs with the explanation, the corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued. If the Department has any questions or concerns regarding the completion of the certification, the Project Manager will contact you.

III. Certification by Signature (Fifth and Sixth Boxes):

1. WHY IC/EC Certification is required:
   The Section of the New York Environmental Conservation Law that includes the requirement of a periodic certification of IC(s) and EC(s) is as follows:

   For Environmental Restoration Projects: N.Y. Envtl Conserv.Law Section 56-0503 (Environmental restoration projects; state assistance)

   For State Superfund Projects: Envtl Conserv.Law Section 27-1318. (Institutional and engineering controls)

   For Brownfields Cleanup Program Projects: Envtl Conserv.Law Section 27-1415. (Remedial program requirements)

   Voluntary Cleanup Program: Applicable program guidance.

2. To determine WHO signs the **Control Certification,** please use the following table:

Signature Requirements for IC/EC Certification Form		
Type of Control	**Example of IC/EC**	**Required Signatures**
IC	Environmental Easement Deed Restriction.	Site Owner or their designated representative, e.g., a Property Manager.
EC with no treatment system, or engineered caps.	Fence, Clean Soil Cover.	Site Owner or their designated representative, and QEP. (P.E. license not required)
EC that includes treatment systems, or engineered caps.	Pump & Treat System providing hydraulic control of a plume, Part 360 Cap.	Site Owner or his designated representative, and QEP with P.E. License.

3. WHERE to mail the signed Certification Form within 45 days of the date of the notice:

New York State Department of Environmental Conservation
Division of Environmental Remediation
47-40 21st Street
Long Island City, NY 11101-5401
Attention: Daniel Walsh

Please note that extra postage may be required.

IV. Definitions:

"Engineering Control" (EC), means any physical barrier or method employed to actively or passively contain, stabilize, or monitor any hazardous waste or petroleum waste to ensure the long-term effectiveness of an inactive site remedial program or brownfield site remedial program or environmental restoration project, or to eliminate potential exposure pathways to any such hazardous waste or petroleum waste. Engineering Controls include, but are not limited to: pavement, caps, covers, subsurface barriers and slurry walls; building ventilation systems; fences, other barriers and access controls; and provision of alternative water supplies via connection to an existing public water supply, addition of treatment technologies to an existing public water supply, and installation of filtration devices on an existing private water supply.

"Institutional Control" (IC), means any non-physical means of enforcing a restriction on the use of real property, that limits human or environmental exposure to any hazardous waste or petroleum waste, restricts the use of groundwater; provides notice to potential owners, operators, or members of the public; or prevents actions that would interfere with the effectiveness of an inactive site remedial program or brownfield site remedial program or environmental restoration project, or with the effectiveness and/or integrity of Site Management activities at or pertaining to any site.

"Professional Engineer" means a person, including a firm headed by such a person, who holds a current New York State Professional Engineering license or registration, and has the equivalent of three (3) years of full-time relevant experience in site investigation and remediation of the type detailed in this Control Certification.

"Property Owner" means, for purposes of an IC/EC certification, the actual owner of a property. If the site has multiple properties with different owners, the Department requires that the owners be represented by a single representative to sign the certification.

"Oversight Document" means any document the Department issues pursuant to each Remedial Program (see below) to define the role of a person participating in the investigation and/or remediation of a site or area(s) of concern. Examples for the various programs are as follows:

BCP (after approval of the BCP application by DEC) - Brownfield Site Cleanup Agreement.
ERP (after approval of the ERP application by DEC) - State Assistance Contract.
Federal Superfund Sites - Federal Consent Decrees, Administrative Orders on Consent or Unilateral Orders issued pursuant to CERCLA.
Oil Spill Program - Order on Consent, or Stipulation pursuant to Article 12 of the Navigation Law (and the New York Environmental Conservation Law).
State Superfund Program - Administrative Consent Order.
VCP (after approval of the VCP application by DEC) - Voluntary Cleanup Agreement.

RCRA Corrective Action Sites- Federal Consent Decrees, Administrative Orders on Consent or permit conditions issued pursuant to RCRA.

"Qualified Environmental Professional" (QEP), means a person, including a firm headed by such a person, who possesses sufficient specific education, training, and experience necessary to exercise professional judgment, to develop opinions and conclusions regarding the presence of releases or threatened releases to the surface or subsurface of a property or off-site areas, sufficient to meet the objectives and performance factors for the areas of practice identified by this guidance (DER10 Technical Guide).

1. Such a person must:
   i. Hold a current Professional Engineering or a Professional Geologist license or registration, and have the equivalent of three (3) years of full-time relevant experience in site investigation and remediation of the type detailed in this guidance; or
   ii. Be a site remediation professional licensed or certified by the federal government, a state; or a recognized, accrediting agency, to perform investigation or remediation tasks identified by this guidance, and have the equivalent of three (3) years of full-time relevant experience. Examples of such license or certification include, but are not limited to, the following titles:
      - Licensed Site Professional, by the State of Massachusetts
      - Licensed Environmental Professional, by the State of Connecticut
      - Qualified Environmental Professional, by the Institute of Professional Environmental Practice
        Certified Hazardous Materials Manager, by the Institute of Hazardous Materials Management

2. The definition of QEP provided above does not preempt State Professional licensing or registration requirements such as those for a Professional Geologist, Engineer, or Site Remediation Professional. Before commencing work, a person should determine the applicability of State professional licensing or registration laws to the activities to be undertaken pursuant to section 1.5 (DER10 Technical Guide).

3. A person who does not meet the above definition of a QEP under the foregoing definition may assist in the conduct of all appropriate investigation or remediation activities in accordance with this document if such person is under the supervision or responsible charge of a person meeting the definition provided above.

"Remedial Party" means any person or persons, as defined in 6NYCRR 375, who executes, or is otherwise subject to, an oversight document (State Superfund, BCP, ERP or VCP Program). For purposes of this guidance, remedial party also includes:

1. Any person or persons who is performing the investigation and/or remediation, or has control over the person (for example, contractor or consultant) who is performing the investigation and/or remediation, including, without limitation, an owner, operator or volunteer; and

2. The DER for State-funded investigation and/or remediation activities.

"Site Management" (SM) means the activities included in the last phase of the remediation of a site, in accordance with a Site Management Plan, which continue until the remedial action objectives for the project are met and the site can be closed-out. Site Management includes the management of the institutional and engineering controls required for a site, as well as the implementation of any necessary long-term monitoring and/or operation and maintenance of the remedy. (Formerly referred to as Operation and Maintenance (O&M)).

"Site Management Plan" (SMP) means a document which details the steps necessary to assure that the institutional and engineering controls required for a site are in-place, and any physical components of the remedy are operated, maintained and monitored to assure their continued effectiveness, developed pursuant to Section 6 (DER10 Technical Guide).

"Site Owner" means the actual owner of a site. If the site has multiple owners of multiple properties with ICs and/or ECs, the Department requires that the owners designate a single representative for IC/EC Certification activities.

"Site Owner's Designated Representative" means a person, including a firm headed by such a person, who has been designated in writing by the Site Owner(s) to complete and sign the Institutional and Engineering Controls Certification Form.

APPENDIX E

Memorandums to File

Environmental, Planning, and Engineering Consultants
440 Park Avenue South
7th Floor
New York, NY 10016
tel: 212 696-0670
fax: 212 213-3191
www.akrf.com

March 16, 2020

Ms. Jane O'Connell
NYSDEC
Division of Environmental Remediation – Region 2
1 Hunter's Point Plaza
47-40 21st Street
Long Island City, NY 11101

Re: Summary Report of Soil Disturbance Activities within Gantry Plaza State Park

Dear Ms. O'Connell:

AKRF, Inc. (AKRF) is pleased to present this summary report, on behalf of the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), to document the soil disturbance activities related to construction of a shade structure within the Gantry Plaza State Park (GPSP) Dog Run (the "Site") performed between November 15, 2019 and February 27, 2020. The Site is located along Center Boulevard north-adjacent of the GPSP Sports Field (4-09 47th Road) and south-adjacent of the residential high-rise building located at 46-15 Center Boulevard in Long Island City, New York. The Site is maintained by OPRHP in coordination with 4540 East Coast, LLC, the owner of the north-adjacent building.

The scope of work, which is described in detail below, included excavation of an approximately 25-square foot (sf) section of the Site to approximately 5 feet below existing grade, construction of a concrete support structure onto which a pre-fabricated shade structure was affixed, and off-site disposal of clean backfill and residual soil/fill removed as part of construction. The scope of work was overseen by AKRF, and was performed in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Site Management Plan (SMP), 29 CFR 1910.120, as well as a notification letter (prepared by AKRF) to NYSDEC, which included a Construction Health and Safety Plan (CHASP) and the Community Air Monitoring Plan (CAMP).

BACKGROUND

GPSP is a 12-acre New York State Park located along the East River in Hunter's Point, Long Island City, New York. The parkland was designated in 1998, and was constructed concurrently with the Queens West Development (QWD) by the Queens West Development Corporation, a subsidiary of New York State's Empire State Development Corp., under the collective sponsorship of the Port Authority of New York and New Jersey, the New York City Economic Development Corporation, and the Empire State Development Corporation.

The Site was constructed as part of the remediation and redevelopment of QWD Operating Unit (OU)-2 under New York State Voluntary Cleanup Agreement (VCP) No. V00505B. As outlined in the SMP prepared by TRC Engineers, Inc. dated March 2007 and revised by Fleming Lee Shue, Inc. and dated December 2013, a demarcation barrier was placed above residual soil/fill across the Site between approximately 3 and 4 feet below existing grade following remedial excavation. The Site was then

backfilled above the demarcation barrier with clean fill material, and a composite cover consisting of sand, landscaping, and concrete-paved sidewalk. In accordance with the SMP in place for OU-2, AKRF notified the NYSDEC of the proposed soil disturbance activities in a letter dated May 2, 2019, and NYSDEC approved the proposed scope via email on May 14, 2019.

SCOPE OF WORK

Excavation and Construction

Prior to soil disturbance activities, the dog run, which is secured at all times with a metal chain link fence, was closed to the general public. Within the Site, barriers (traffic cones) were erected around the excavation area where residual soil/fill was disturbed, and access points were established. Unauthorized persons were not allowed access to the Site and/or to interior work zones during construction activities.

Intrusive work was conducted at the Site on November 15, 2019. Soil disturbance included excavation of an approximately 5-foot wide by 5-foot long by 5-foot deep area in the northwestern corner of the Site. Approximately 2 cubic yards of composite cover sand (the interval from ground surface to 2 feet below existing grade), 2 cubic yards of clean backfill (the interval from 2 to 4 feet below existing grade), and 0.5 cubic yards of residual soil/fill from beneath the demarcation barrier (total of approximately 4.5 cubic yards) were excavated from the Site. The residual soil/fill, clean backfill, and composite cover material were segregated and temporarily stockpiled on plastic sheeting on-site in accordance with the NYSDEC-approved SMP.

Upon completion of the excavation, a wooden form was constructed, rebar was laid, and concrete was poured into the form to surface grade. Once the concrete was in place, the demarcation barrier was reinstalled in the excavation pit around the form, and the existing composite cover material was used to fill the area back to grade. The residual soil/fill and clean backfill material placed in double-bagged, heavy duty plastic bags and stored within a locked storage room on-site. Prior to removal to the storage room, the excavation contractor collected a grab and five-point composite waste characterization sample set from the bagged soil, and submitted the samples to Phoenix Laboratories of Manchester, CT, a New York State Department of Health (NYSDOH)-certified laboratory. The laboratory report is included as Attachment A.

The construction crew returned to the Site on February 5 and February 6, 2020 to secure the new shade structure on top of the concrete support. The location and construction of the shade structure is shown in the Shade Structure, Details and Notes, included as Attachment B.

During all soil disturbance activities, work zone air monitoring was performed, as required under the SMP and CHASP. No staining or odors were observed in the soil/fill during excavation, and no photoionization detector (PID) detections were noted. The air monitoring results were included in a daily report that was submitted to NYSDEC on November 15, 2019. Daily reports, which include maps, photographs, and air monitoring results, are provided as Attachment C.

Off-Site Disposal

The laboratory results of the waste characterization soil samples collected by the contractor during excavation were provided to the Rodota Fill Site, in Belvidere, NJ for review and approval. The approval letter, dated February 25, 2020, is included as Attachment D. On February 27, 2020, the bagged soil was loaded into a truck, secured/covered with a tarp and disposed of off-site in accordance with all local, state and federal regulations at the Rodota Fill Site. The fully-executed disposal manifest is included as Attachment E.

CONCLUSIONS AND RECOMMENDATIONS

Approximately, 4.5 cubic yards of residual soil/fill, clean backfill, and composite cover material were excavated from the GPSP Dog Run as part of construction of a new shade structure at the Site. Following construction of the concrete support structure, the demarcation barrier was reinstalled in the subsurface and the remaining excavation area was backfilled to grade with existing composite cover material. The remaining 2.5 cubic yards of clean backfill and residual soil/fill were transported off-site for disposal.

This report will be provided to OPRHP and 4540 East Coast, LLC for inclusion in their annual Site Management Annual Report for the Site (VCP No. V00505B), which will be provided to NYSDEC for review. Please contact Marc Godick at (914) 922-2356 or Michelle Lapin at (646) 388-9520 if you have any questions or require additional information.

Sincerely,
AKRF, Inc.

Marc Godick, L.E.P.
Senior Vice President

Michelle Lapin, P.E.
Senior Vice President
NYS P.E. License No. 073934-1

cc: S. McCorkell – OPRHP
J. Diggins - AKRF

Attachments

Attachment A – Laboratory Report
Attachment B – Shade Structure As-Built, Details and Notes
Attachment C – Daily Reports
Attachment D – Facility Approval Letter
Attachment E – Facility-executed Soil Disposal Manifest

W:\Projects\190143 - GPSP DOG RUN SHADE STRUCTURE\Technical\Hazmat\Summary Report\AKRF.NYSDEC Summary Report.GPSP Dog Run.docx/

ATTACHMENT A

Laboratory Report

PHOENIX
Environmental Laboratories, Inc.

Tuesday, November 26, 2019

Attn: Mr. Scott Taylor
Taylord Environment, Inc.
PO BOX 613
Wingdale, NY 12594

Project ID: GANTRY DOG PARK
SDG ID: GCE62532
Sample ID#s: CE62532 - CE62533

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

SDG Comments

November 26, 2019

SDG I.D.: GCE62532

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

PA Clean Fill comment:
Some compounds were evaluated below the lowest calibration standard in order to meet the requested criteria. The requested criteria could not be achieved for some compounds because the limit of detection (LOD) was greater than the criteria.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

Sample Id Cross Reference

November 26, 2019

SDG I.D.: GCE62532

Project ID: GANTRY DOG PARK

Client Id	Lab Id	Matrix
SP-1 GRAB	CE62532	SOIL
SP-1 COMP	CE62533	SOIL

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

November 26, 2019

FOR: Attn: Mr. Scott Taylor
Taylord Environment, Inc.
PO BOX 613
Wingdale, NY 12594

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	ST	11/15/19	12:45
Location Code:	TAYLORD	Received by:	CP	11/18/19	16:52
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCE62532
Phoenix ID: CE62532

Project ID: GANTRY DOG PARK
Client ID: SP-1 GRAB

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1	11/21/19	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
1,1,2-Trichloroethane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
1,1-Dichloroethane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
1,1-Dichloroethene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
1,1-Dichloropropene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
1,2,3-Trichloropropane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
1,2-Dibromoethane	ND	1.2	ug/Kg	1	11/21/19	JLI	SW8260C	
1,2-Dichlorobenzene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
1,2-Dichloroethane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
1,2-Dichloropropane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
1,3-Dichlorobenzene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
1,3-Dichloropropane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
1,4-Dichlorobenzene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
2,2-Dichloropropane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
2-Chlorotoluene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
2-Hexanone	ND	27	ug/Kg	1	11/21/19	JLI	SW8260C	
2-Isopropyltoluene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	1
4-Chlorotoluene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
4-Methyl-2-pentanone	ND	27	ug/Kg	1	11/21/19	JLI	SW8260C	

Project ID: GANTRY DOG PARK
Client ID: SP-1 GRAB

Phoenix I.D.: CE62532

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Acetone	ND	27	ug/Kg	1	11/21/19	JLI	SW8260C	
Acrylonitrile	ND	8.7	ug/Kg	1	11/21/19	JLI	SW8260C	
Benzene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Bromobenzene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Bromochloromethane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Bromodichloromethane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Bromoform	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Bromomethane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Carbon Disulfide	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Carbon tetrachloride	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Chlorobenzene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Chloroethane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Chloroform	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Chloromethane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
cis-1,2-Dichloroethene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
cis-1,3-Dichloropropene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Dibromochloromethane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Dibromomethane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Dichlorodifluoromethane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Ethylbenzene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Hexachlorobutadiene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Isopropylbenzene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
m&p-Xylene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Methyl Ethyl Ketone	ND	27	ug/Kg	1	11/21/19	JLI	SW8260C	
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	11/21/19	JLI	SW8260C	
Methylene chloride	ND	11	ug/Kg	1	11/21/19	JLI	SW8260C	
Naphthalene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
n-Butylbenzene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
n-Propylbenzene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
o-Xylene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
p-Isopropyltoluene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
sec-Butylbenzene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Styrene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
tert-Butylbenzene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Tetrachloroethene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	11/21/19	JLI	SW8260C	1
Toluene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Total Xylenes	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
trans-1,2-Dichloroethene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
trans-1,3-Dichloropropene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	11/21/19	JLI	SW8260C	
Trichloroethene	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Trichlorofluoromethane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Trichlorotrifluoroethane	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Vinyl chloride	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	100		%	1	11/21/19	JLI	70 - 130 %	
% Bromofluorobenzene	94		%	1	11/21/19	JLI	70 - 130 %	
% Dibromofluoromethane	95		%	1	11/21/19	JLI	70 - 130 %	

Ver 1

Project ID: GANTRY DOG PARK
Client ID: SP-1 GRAB

Phoenix I.D.: CE62532

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Toluene-d8	95		%	1	11/21/19	JLI	70 - 130 %	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	22	ug/Kg	1	11/21/19	JLI	SW8260C	
Acrolein	ND	1.1	ug/Kg	1	11/21/19	JLI	SW8260C	
Acrylonitrile	ND	8.7	ug/Kg	1	11/21/19	JLI	SW8260C	
Tert-butyl alcohol	ND	110	ug/Kg	1	11/21/19	JLI	SW8260C	
Methylacetate	ND	5.5	ug/Kg	1	11/21/19	JLI	SW8260C	
Volatile Library Search Top 15	Completed				11/22/19	JLI		
Field Extraction	Completed				11/15/19		SW5035A	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
November 26, 2019
Reviewed and Released by: Phyllis Shiller, Laboratory Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

November 26, 2019

FOR: Attn: Mr. Scott Taylor
Taylord Environment, Inc.
PO BOX 613
Wingdale, NY 12594

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	ST	11/15/19	12:45
Location Code:	TAYLORD	Received by:	CP	11/18/19	16:52
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCE62532
Phoenix ID: CE62533

Project ID: GANTRY DOG PARK
Client ID: SP-1 COMP

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36		mg/Kg	1	11/19/19	CPP	SW6010D
Aluminum	1740	5.4		mg/Kg	1	11/19/19	CPP	SW6010D
Arsenic	2.21	0.72		mg/Kg	1	11/19/19	CPP	SW6010D
Barium	4.76	0.36		mg/Kg	1	11/19/19	CPP	SW6010D
Beryllium	< 0.29	0.29		mg/Kg	1	11/19/19	CPP	SW6010D
Calcium	1960	5.4		mg/Kg	1	11/19/19	CPP	SW6010D
Cadmium	< 0.36	0.36		mg/Kg	1	11/19/19	CPP	SW6010D
Cobalt	1.94	0.36		mg/Kg	1	11/19/19	CPP	SW6010D
Chromium	7.69	0.36		mg/Kg	1	11/19/19	CPP	SW6010D
Copper	2.8	0.7		mg/kg	1	11/19/19	CPP	SW6010D
Iron	6990	5.4		mg/Kg	1	11/19/19	CPP	SW6010D
Mercury	< 0.03	0.03		mg/Kg	2	11/19/19	RS	SW7471B
Potassium	883	5.4		mg/Kg	1	11/19/19	CPP	SW6010D
Magnesium	768	5.4		mg/Kg	1	11/19/19	CPP	SW6010D
Manganese	43.2	0.36		mg/Kg	1	11/19/19	CPP	SW6010D
Sodium	34.6	5.4		mg/Kg	1	11/19/19	CPP	SW6010D
Nickel	3.89	0.36		mg/Kg	1	11/19/19	CPP	SW6010D
Lead	4.18	0.36		mg/Kg	1	11/19/19	CPP	SW6010D
Antimony	< 3.6	3.6		mg/Kg	1	11/19/19	CPP	SW6010D
Selenium	< 1.4	1.4		mg/Kg	1	11/19/19	CPP	SW6010D
TCLP Silver	< 0.10	0.10		mg/L	1	11/20/19	TH	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10		mg/L	1	11/20/19	TH	SW846 1311/6000/
TCLP Barium	0.17	0.10		mg/L	1	11/20/19	TH	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050		mg/L	1	11/20/19	TH	SW846 1311/6010
TCLP Chromium	< 0.10	0.10		mg/L	1	11/20/19	TH	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002		mg/L	1	11/19/19	RS	SW846 1311/6000/
TCLP Lead	< 0.10	0.10		mg/L	1	11/20/19	TH	SW846 1311/6010
TCLP Selenium	< 0.10	0.10		mg/L	1	11/20/19	TH	SW846 1311/6010D

Ver 1

Project ID: GANTRY DOG PARK
Client ID: SP-1 COMP

Phoenix I.D.: CE62533

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 3.2	3.2		mg/Kg	1	11/19/19	CPP	SW6010D	
TCLP Metals Digestion	Completed					11/19/19	LS/LS	SW3010A	
Trivalent Chromium	7.69	0.36		mg/kg	1	11/19/19		CALC 6010-7196	
Vanadium	8.84	0.36		mg/Kg	1	11/19/19	CPP	SW6010D	
Zinc	13.8	0.7		mg/Kg	1	11/19/19	CPP	SW6010D	
Percent Solid	95			%		11/18/19	VT	SW846-%Solid	
Corrosivity	Negative			Pos/Neg	1	11/18/19	AP	SW846-Corr	1
Flash Point	>200	200		Degree F	1	11/20/19	KT	1010/CH7/ASTMD92	
Chromium, Hex. (SW3060 digestion)	< 0.42	0.42		mg/Kg	1	11/19/19	BJA/ARG	SW7196A	
Ignitability	Passed	140		degree F	1	11/20/19	KT	SW846-Ignit	1
pH at 25C - Soil	8.05	1.00		pH Units	1	11/18/19 20:01	AP	SW846 9045	1
Reactivity Cyanide	< 5	5		mg/Kg	1	11/21/19	EG	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20		mg/Kg	1	11/21/19	KT/GD	SW846 CH7	1
Reactivity	Negative			Pos/Neg	1	11/21/19	KT/GD	SW846-React	1
Redox Potential	185			mV	1	11/18/19	AP	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.48	0.48		mg/Kg	1	11/20/19	EG	SW9012B	
Soil Extraction for PCB	Completed					11/18/19	MM/LE	SW3545A	
Soil Extraction for Pesticides	Completed					11/18/19	MM/LE	SW3545A	
Soil Extraction for SVOA	Completed					11/19/19	VV/LE	SW3545A	
Mercury Digestion	Completed					11/19/19	LS/LS	SW7471B	
EPH Extraction	Completed					11/18/19	GG/LE	NJDEP 10-08 R3	
Paint Filter Test	Passed			PASS/FAIL		11/18/19	M	SW9095B	
TCLP Digestion Mercury	Completed					11/19/19	LS/LS	SW7470A	
TCLP Extraction for Metals	Completed					11/18/19	Q	SW1311	
Total Metals Digest	Completed					11/18/19	M/AG/BF	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)									
>C28-C40	ND	51		mg/kg	1	11/20/19	JRB	NJEPH 10-08 R3	1
C9-C28	ND	51		mg/kg	1	11/20/19	JRB	NJEPH 10-08 R3	1
Total EPH	ND	51		mg/kg	1	11/20/19	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates									
% COD (surr)	73			%	1	11/20/19	JRB	40 - 140 %	
% Terphenyl (surr)	81			%	1	11/20/19	JRB	40 - 140 %	
Polychlorinated Biphenyls									
PCB-1016	ND	69		ug/Kg	2	11/20/19	SC	SW8082A	
PCB-1221	ND	69		ug/Kg	2	11/20/19	SC	SW8082A	
PCB-1232	ND	69		ug/Kg	2	11/20/19	SC	SW8082A	
PCB-1242	ND	69		ug/Kg	2	11/20/19	SC	SW8082A	
PCB-1248	ND	69		ug/Kg	2	11/20/19	SC	SW8082A	
PCB-1254	ND	69		ug/Kg	2	11/20/19	SC	SW8082A	
PCB-1260	ND	69		ug/Kg	2	11/20/19	SC	SW8082A	
PCB-1262	ND	69		ug/Kg	2	11/20/19	SC	SW8082A	
PCB-1268	ND	69		ug/Kg	2	11/20/19	SC	SW8082A	
QA/QC Surrogates									
% DCBP	83			%	2	11/20/19	SC	30 - 150 %	
% DCBP (Confirmation)	83			%	2	11/20/19	SC	30 - 150 %	
% TCMX	83			%	2	11/20/19	SC	30 - 150 %	
% TCMX (Confirmation)	78			%	2	11/20/19	SC	30 - 150 %	

Ver 1

Project ID: GANTRY DOG PARK
Client ID: SP-1 COMP

Phoenix I.D.: CE62533

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Pesticides - Soil								
4,4' -DDD	ND	2.1		ug/Kg	2	11/20/19	AW	SW8081B
4,4' -DDE	ND	2.1		ug/Kg	2	11/20/19	AW	SW8081B
4,4' -DDT	ND	2.1		ug/Kg	2	11/20/19	AW	SW8081B
a-BHC	ND	6.9		ug/Kg	2	11/20/19	AW	SW8081B
a-Chlordane	ND	3.4		ug/Kg	2	11/20/19	AW	SW8081B
Aldrin	ND	3.4		ug/Kg	2	11/20/19	AW	SW8081B
b-BHC	ND	6.9		ug/Kg	2	11/20/19	AW	SW8081B
Chlordane	ND	34		ug/Kg	2	11/20/19	AW	SW8081B
d-BHC	ND	6.9		ug/Kg	2	11/20/19	AW	SW8081B
Dieldrin	ND	3.4		ug/Kg	2	11/20/19	AW	SW8081B
Endosulfan I	ND	6.9		ug/Kg	2	11/20/19	AW	SW8081B
Endosulfan II	ND	6.9		ug/Kg	2	11/20/19	AW	SW8081B
Endosulfan sulfate	ND	6.9		ug/Kg	2	11/20/19	AW	SW8081B
Endrin	ND	6.9		ug/Kg	2	11/20/19	AW	SW8081B
Endrin aldehyde	ND	6.9		ug/Kg	2	11/20/19	AW	SW8081B
Endrin ketone	ND	6.9		ug/Kg	2	11/20/19	AW	SW8081B
g-BHC	ND	1.4		ug/Kg	2	11/20/19	AW	SW8081B
g-Chlordane	ND	3.4		ug/Kg	2	11/20/19	AW	SW8081B
Heptachlor	ND	6.9		ug/Kg	2	11/20/19	AW	SW8081B
Heptachlor epoxide	ND	6.9		ug/Kg	2	11/20/19	AW	SW8081B
Methoxychlor	ND	34		ug/Kg	2	11/20/19	AW	SW8081B
Toxaphene	ND	140		ug/Kg	2	11/20/19	AW	SW8081B
QA/QC Surrogates								
% DCBP	75			%	2	11/20/19	AW	30 - 150 %
% DCBP (Confirmation)	74			%	2	11/20/19	AW	30 - 150 %
% TCMX	59			%	2	11/20/19	AW	30 - 150 %
% TCMX (Confirmation)	63			%	2	11/20/19	AW	30 - 150 %
Semivolatiles								
1,2,4,5-Tetrachlorobenzene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	150		ug/Kg	1	11/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	210		ug/Kg	1	11/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	68		ug/Kg	1	11/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
2-Chloronaphthalene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
2-Chlorophenol	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
2-Methylnaphthalene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
2-Nitroaniline	ND	68		ug/Kg	1	11/19/19	WB	SW8270D
2-Nitrophenol	ND	240		ug/Kg	1	11/19/19	WB	SW8270D

Project ID: GANTRY DOG PARK
Client ID: SP-1 COMP

Phoenix I.D.: CE62533

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
3&4-Methylphenol (m&p-cresol)	ND	340		ug/Kg	1	11/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
3-Nitroaniline	ND	68		ug/Kg	1	11/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	340		ug/Kg	1	11/19/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	340		ug/Kg	1	11/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
4-Chloroaniline	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
4-Nitroaniline	ND	68		ug/Kg	1	11/19/19	WB	SW8270D
4-Nitrophenol	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Acenaphthene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Acenaphthylene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Acetophenone	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Aniline	ND	160		ug/Kg	1	11/19/19	WB	SW8270D
Anthracene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Benz(a)anthracene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Benzidine	ND	78		ug/Kg	1	11/19/19	WB	SW8270D
Benzo(a)pyrene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Benzoic acid	ND	680		ug/Kg	1	11/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	68		ug/Kg	1	11/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Carbazole	ND	340		ug/Kg	1	11/19/19	WB	SW8270D
Chrysene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Dibenzofuran	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Diethyl phthalate	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Dimethylphthalate	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Di-n-butylphthalate	ND	340		ug/Kg	1	11/19/19	WB	SW8270D
Di-n-octylphthalate	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Fluoranthene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Fluorene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Hexachlorobenzene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Hexachlorobutadiene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Hexachloroethane	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Isophorone	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Naphthalene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Nitrobenzene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	68		ug/Kg	1	11/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	68		ug/Kg	1	11/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	340		ug/Kg	1	11/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	340		ug/Kg	1	11/19/19	WB	SW8270D

Project ID: GANTRY DOG PARK
Client ID: SP-1 COMP

Phoenix I.D.: CE62533

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Pentachlorophenol	ND	340		ug/Kg	1	11/19/19	WB	SW8270D
Phenanthrene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Phenol	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Pyrene	ND	240		ug/Kg	1	11/19/19	WB	SW8270D
Pyridine	ND	110		ug/Kg	1	11/19/19	WB	SW8270D
QA/QC Surrogates								
% 2,4,6-Tribromophenol	68			%	1	11/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	58			%	1	11/19/19	WB	30 - 130 %
% 2-Fluorophenol	48			%	1	11/19/19	WB	30 - 130 %
% Nitrobenzene-d5	48			%	1	11/19/19	WB	30 - 130 %
% Phenol-d5	55			%	1	11/19/19	WB	30 - 130 %
% Terphenyl-d14	62			%	1	11/19/19	WB	30 - 130 %
Additional Semi-Volatile Compounds								
1,1-Biphenyl	ND	240	100	ug/Kg	1	11/19/19	WB	SW8270D
1,2,4,5-Tetrachlorobenzene	ND	240	120	ug/Kg	1	11/19/19	WB	SW8270D
Atrazine	ND	130	68	ug/Kg	1	11/19/19	WB	SW8270D
Benzaldehyde	ND	240	100	ug/Kg	1	11/19/19	WB	SW8270D
Benzo(a)pyrene	ND	240	110	ug/Kg	1	11/19/19	WB	SW8270D
Caprolactam	ND	140	240	ug/Kg	1	11/19/19	WB	SW8270D
QA/QC Surrogates								
% 2,4,6-Tribromophenol	68			%	1	11/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	58			%	1	11/19/19	WB	30 - 130 %
% 2-Fluorophenol	48			%	1	11/19/19	WB	30 - 130 %
% Nitrobenzene-d5	48			%	1	11/19/19	WB	30 - 130 %
% Phenol-d5	55			%	1	11/19/19	WB	30 - 130 %
% Terphenyl-d14	62			%	1	11/19/19	WB	30 - 130 %
SVOA Library Search Top 15	Completed					11/20/19	MR	

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Hexavalent Chromium:
This sample is in a reducing state.

Semi-Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
November 26, 2019
Reviewed and Released by: Phyllis Shiller, Laboratory Director

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: SP-1 GRAB

Lab Name: Phoenix Environmental Labs Client: TAYLORD

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCE62532

Matrix:(soil/water) SOIL Lab Sample ID: CE62532

Sample wt/vol: 4.6 (g/mL) g Lab File ID: 1121_26.D

Level: (low/med) Low Date Received: 11/18/19

% Moisture: not dec. 0 Date Analyzed: 11/21/19

GC Column: RTX-VMS ID: 0.18mm Dilution Factor: 1

Purge Volume: 5000 (uL) Soil Aliquot Vol (uL): 5000

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: SP-1 COMP

Lab Name: Phoenix Environmental Labs Client: TAYLORD

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCE62532

Matrix:(soil/water) SOIL Lab Sample ID: CE62533

Sample wt/vol: 15.38 (g/mL) g Lab File ID: 1119_09.D

Level: (low/med) Low Date Received: 11/18/19

% Moisture: not dec. 5 decanted:(Y/N) NA Date Extracted: 11/19/19

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 11/19/2019

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 1 (uL)

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.745	21000	JNA

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

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QA/QC Report

November 26, 2019

QA/QC Data

SDG I.D.: GCE62532

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 506845 (mg/kg), QC Sample No: CE62533 40X (CE62533)														
Chromium, Hexavalent - Soil														
Chromium, Hexavalent	BRL	0.40	<0.42	<0.42	NC	100						85 - 115	30	
Chromium, Hexavalent (Ins)						91.1			102			85 - 115	30	
Chromium, Hexavalent (Sol)						92.6			38.2			85 - 115	30	m
Comment:														
The QC sample is in a reducing state, acceptance criteria are not applicable for samples in a reducing state. The soluble spike was analyzed twice with similar recoveries.														
QA/QC Batch 506851 (mg/kg), QC Sample No: CE62136 2X (CE62533)														
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	97.2	94.4	2.9	109	115	5.4	70 - 130	30	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 506853 (mg/L), QC Sample No: CE62533 (CE62533)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	110			115			80 - 120	20	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 506854 (mg/L), QC Sample No: CE57022 (CE62533)														
ICP Metals - TCLP Extraction														
Arsenic	BRL	0.05	<0.05	<0.05	NC	108	112	3.6	106			75 - 125	20	
Barium	BRL	0.01	0.45	0.44	2.20	103	106	2.9	99.0			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	99.8	103	3.2	93.9			75 - 125	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	101	104	2.9	97.5			75 - 125	20	
Lead	BRL	0.010	0.132	0.128	3.10	97.3	101	3.7	94.8			75 - 125	20	
Selenium	BRL	0.05	<0.05	<0.05	NC	115	116	0.9	115			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	107	108	0.9	108			75 - 125	20	
QA/QC Batch 506816 (mg/kg), QC Sample No: CE62356 (CE62533)														
ICP Metals - Soil														
Aluminum	BRL	5.0	13100	13100	0	102	97.5	4.5	NC			75 - 125	30	
Antimony	BRL	3.3	<3.7	<3.7	NC	94.2	94.9	0.7	85.1			75 - 125	30	
Arsenic	BRL	0.67	1.83	1.79	NC	90.2	91.4	1.3	85.0			75 - 125	30	
Barium	BRL	0.33	88.5	84.4	4.70	94.3	118	22.3	91.5			75 - 125	30	
Beryllium	BRL	0.27	0.42	0.42	NC	101	117	14.7	97.0			75 - 125	30	
Cadmium	BRL	0.33	<0.37	<0.37	NC	87.8	127	36.5	89.4			75 - 125	30	l,r
Calcium	BRL	5.0	3600	2560	33.8	93.3	100	6.9	NC			75 - 125	30	r
Chromium	BRL	0.33	41.0	37.1	10.0	99.7	99.1	0.6	93.2			75 - 125	30	
Cobalt	BRL	0.33	11.2	12.8	13.3	99.4	109	9.2	92.6			75 - 125	30	
Copper	BRL	0.67	38.2	30.7	21.8	104	104	0.0	101			75 - 125	30	
Iron	BRL	5.0	21300	19800	7.30	97.4	89.3	8.7	NC			75 - 125	30	
Lead	BRL	0.33	9.6	6.69	35.7	89.0	89.2	0.2	91.6			75 - 125	30	r
Magnesium	BRL	5.0	5060	4670	8.00	98.9	94.9	4.1	NC			75 - 125	30	
Manganese	BRL	0.33	383	481	22.7	97.9	112	13.4	106			75 - 125	30	

QA/QC Data

SDG I.D.: GCE62532

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Nickel	BRL	0.33	25.5	24.9	2.40	98.7	108	9.0	90.2			75 - 125	30
Potassium	BRL	5.0	2660	2600	2.30	102	100	2.0	92.2			75 - 125	30
Selenium	BRL	1.3	<1.5	<1.5	NC	92.8	76.5	19.3	90.1			75 - 125	30
Silver	BRL	0.33	<0.37	<0.37	NC	93.8	93.7	0.1	95.2			75 - 125	30
Sodium	BRL	5.0	368	301	20.0	105	109	3.7	114			75 - 125	30
Thallium	BRL	3.0	<1.5	<3.3	NC	101	107	5.8	92.8			75 - 125	30
Vanadium	BRL	0.33	45.1	43.5	3.60	102	103	1.0	95.3			75 - 125	30
Zinc	BRL	0.67	56.9	50.4	12.1	93.3	96.2	3.1	86.5			75 - 125	30

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

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NY # 11301

QA/QC Report

November 26, 2019

QA/QC Data

SDG I.D.: GCE62532

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 506966 (mg/Kg), QC Sample No: CE62052 50X (CE62533)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.58	<0.58	NC	86.2			109			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 507054 (mg/Kg), QC Sample No: CE62071 5X (CE62533)													
Reactivity Cyanide	BRL	0.05	<5	<5.2	NC	92.7						85 - 115	30
Reactivity Sulfide	BRL	20	<20	<20	NC	92.0						80 - 120	30
QA/QC Batch 506831 (PH), QC Sample No: CE62071 (CE62533)													
pH at 25C - Soil			7.64	7.61	0.40	101						85 - 115	20
QA/QC Batch 507153 (Degree F), QC Sample No: CE62237 (CE62533)													
Flash Point			110	115	NC	103						75 - 125	30
Comment:													
Additional criteria matrix spike acceptance range is 75-125%.													

PHOENIX

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QA/QC Report

November 26, 2019

QA/QC Data

SDG I.D.: GCE62532

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 506757 (mg/kg), QC Sample No: CE61786 (CE62533)											
Extractable Petroleum Hydrocarbons - Soil											
C9-C28	ND	50	54	61	12.2	48	79	48.8	40 - 140	30	r
>C28-C40	ND	50	53	60	12.4	48	76	45.2	40 - 140	30	r
% Terphenyl (surr)	72	%	55	34	47.2	51	77	40.6	40 - 140	30	l,r
% COD (surr)	65	%	62	35	55.7	56	90	46.6	40 - 140	30	l,r
Comment:											
Additional EPH fractionation criteria: Breakthrough criteria (BT) is 0 to 5%											
QA/QC Batch 506744 (ug/Kg), QC Sample No: CE61779 2X (CE62533)											
Polychlorinated Biphenyls - Soil											
PCB-1016	ND	33	100	100	0.0	92	88	4.4	40 - 140	30	
PCB-1221	ND	33							40 - 140	30	
PCB-1232	ND	33							40 - 140	30	
PCB-1242	ND	33							40 - 140	30	
PCB-1248	ND	33							40 - 140	30	
PCB-1254	ND	33							40 - 140	30	
PCB-1260	ND	33	105	107	1.9	104	96	8.0	40 - 140	30	
PCB-1262	ND	33							40 - 140	30	
PCB-1268	ND	33							40 - 140	30	
% DCBP (Surrogate Rec)	107	%	116	121	4.2	107	100	6.8	30 - 150	30	
% DCBP (Surrogate Rec) (Confirm	108	%	116	122	5.0	109	99	9.6	30 - 150	30	
% TCMX (Surrogate Rec)	99	%	98	102	4.0	89	82	8.2	30 - 150	30	
% TCMX (Surrogate Rec) (Confirm	97	%	96	104	8.0	91	84	8.0	30 - 150	30	
QA/QC Batch 506749 (ug/Kg), QC Sample No: CE61779 2X (CE62533)											
Pesticides - Soil											
4,4' -DDD	ND	1.7	92	93	1.1	83	89	7.0	40 - 140	30	
4,4' -DDE	ND	1.7	84	78	7.4	62	69	10.7	40 - 140	30	
4,4' -DDT	ND	1.7	83	87	4.7	88	95	7.7	40 - 140	30	
a-BHC	ND	1.0	87	78	10.9	59	63	6.6	40 - 140	30	
a-Chlordane	ND	3.3	85	81	4.8	95	101	6.1	40 - 140	30	
Aldrin	ND	1.0	78	74	5.3	59	64	8.1	40 - 140	30	
b-BHC	ND	1.0	116	107	8.1	86	94	8.9	40 - 140	30	
Chlordane	ND	33	85	82	3.6	86	93	7.8	40 - 140	30	
d-BHC	ND	3.3	85	79	7.3	59	68	14.2	40 - 140	30	
Dieldrin	ND	1.0	87	83	4.7	70	76	8.2	40 - 140	30	
Endosulfan I	ND	3.3	88	85	3.5	60	66	9.5	40 - 140	30	
Endosulfan II	ND	3.3	93	95	2.1	73	81	10.4	40 - 140	30	
Endosulfan sulfate	ND	3.3	102	102	0.0	89	94	5.5	40 - 140	30	
Endrin	ND	3.3	72	75	4.1	78	83	6.2	40 - 140	30	
Endrin aldehyde	ND	3.3	91	100	9.4	91	95	4.3	40 - 140	30	
Endrin ketone	ND	3.3	100	100	0.0	78	87	10.9	40 - 140	30	
g-BHC	ND	1.0	89	79	11.9	61	66	7.9	40 - 140	30	

QA/QC Data

SDG I.D.: GCE62532

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
g-Chlordane	ND	3.3	85	82	3.6	86	93	7.8	40 - 140	30	
Heptachlor	ND	3.3	81	75	7.7	67	73	8.6	40 - 140	30	
Heptachlor epoxide	ND	3.3	81	79	2.5	67	73	8.6	40 - 140	30	
Methoxychlor	ND	3.3	91	87	4.5	74	82	10.3	40 - 140	30	
Toxaphene	ND	130	NA	NA	NC	NA	NA	NC	40 - 140	30	
% DCBP	89	%	93	90	3.3	71	79	10.7	30 - 150	30	
% DCBP (Confirmation)	92	%	92	91	1.1	72	79	9.3	30 - 150	30	
% TCMX	78	%	81	77	5.1	59	63	6.6	30 - 150	30	
% TCMX (Confirmation)	78	%	79	80	1.3	59	64	8.1	30 - 150	30	
QA/QC Batch 506910 (ug/kg), QC Sample No: CE63479 (CE62533)											
Semivolatiles - Soil											
1,1-Biphenyl	ND	230	56	49	13.3	59	59	0.0	30 - 130	30	
1,2,4,5-Tetrachlorobenzene	ND	230	54	47	13.9	56	56	0.0	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	58	50	14.8	57	58	1.7	30 - 130	30	
1,2-Dichlorobenzene	ND	180	52	46	12.2	49	50	2.0	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	60	53	12.4	64	62	3.2	30 - 130	30	
1,3-Dichlorobenzene	ND	230	51	43	17.0	45	45	0.0	30 - 130	30	
1,4-Dichlorobenzene	ND	230	51	44	14.7	46	48	4.3	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	63	58	8.3	70	69	1.4	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	65	58	11.4	69	67	2.9	30 - 130	30	
2,4-Dichlorophenol	ND	130	64	57	11.6	69	68	1.5	30 - 130	30	
2,4-Dimethylphenol	ND	230	69	62	10.7	68	63	7.6	30 - 130	30	
2,4-Dinitrophenol	ND	230	54	44	20.4	31	35	12.1	30 - 130	30	
2,4-Dinitrotoluene	ND	130	65	59	9.7	75	73	2.7	30 - 130	30	
2,6-Dinitrotoluene	ND	130	63	57	10.0	73	70	4.2	30 - 130	30	
2-Chloronaphthalene	ND	230	60	52	14.3	63	63	0.0	30 - 130	30	
2-Chlorophenol	ND	230	61	53	14.0	62	64	3.2	30 - 130	30	
2-Methylnaphthalene	ND	230	58	52	10.9	60	61	1.7	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	59	53	10.7	62	61	1.6	30 - 130	30	
2-Nitroaniline	ND	330	72	66	8.7	80	75	6.5	30 - 130	30	
2-Nitrophenol	ND	230	61	55	10.3	65	66	1.5	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	61	55	10.3	63	63	0.0	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	51	50	2.0	69	58	17.3	30 - 130	30	
3-Nitroaniline	ND	330	70	63	10.5	80	76	5.1	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	62	54	13.8	50	49	2.0	30 - 130	30	
4-Bromophenyl phenyl ether	ND	230	61	54	12.2	67	67	0.0	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	67	61	9.4	73	72	1.4	30 - 130	30	
4-Chloroaniline	ND	230	57	50	13.1	63	62	1.6	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	60	53	12.4	66	65	1.5	30 - 130	30	
4-Nitroaniline	ND	230	65	59	9.7	70	69	1.4	30 - 130	30	
4-Nitrophenol	ND	230	66	59	11.2	75	69	8.3	30 - 130	30	
Acenaphthene	ND	230	62	54	13.8	66	65	1.5	30 - 130	30	
Acenaphthylene	ND	130	60	53	12.4	65	64	1.6	30 - 130	30	
Acetophenone	ND	230	51	46	10.3	53	55	3.7	30 - 130	30	
Aniline	ND	330	42	36	15.4	50	48	4.1	30 - 130	30	
Anthracene	ND	230	62	56	10.2	69	68	1.5	30 - 130	30	
Atrazine	ND	130	39	38	2.6	47	44	6.6	30 - 130	30	
Benz(a)anthracene	ND	230	63	56	11.8	72	69	4.3	30 - 130	30	
Benzaldehyde	ND	230	78	74	5.3	79	75	5.2	30 - 130	30	
Benzidine	ND	330	<10	<10	NC	13	<10	NC	30 - 130	30	l,m
Benzo(a)pyrene	ND	130	63	57	10.0	61	62	1.6	30 - 130	30	
Benzo(b)fluoranthene	ND	160	61	53	14.0	62	62	0.0	30 - 130	30	

QA/QC Data

SDG I.D.: GCE62532

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benzo(ghi)perylene	ND	230	47	49	4.2	39	43	9.8	30 - 130	30	
Benzo(k)fluoranthene	ND	230	63	56	11.8	64	65	1.6	30 - 130	30	
Benzoic Acid	ND	330	36	30	18.2	16	18	11.8	30 - 130	30	m
Benzyl butyl phthalate	ND	230	65	59	9.7	75	71	5.5	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	58	51	12.8	60	61	1.7	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	49	43	13.0	50	51	2.0	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	46	41	11.5	45	47	4.3	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	67	60	11.0	76	72	5.4	30 - 130	30	
Caprolactam	ND	230	57	46	21.4	52	48	8.0	30 - 130	30	
Carbazole	ND	230	63	58	8.3	72	70	2.8	30 - 130	30	
Chrysene	ND	230	62	55	12.0	72	70	2.8	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	55	55	0.0	47	51	8.2	30 - 130	30	
Dibenzofuran	ND	230	62	55	12.0	66	65	1.5	30 - 130	30	
Diethyl phthalate	ND	230	61	55	10.3	67	66	1.5	30 - 130	30	
Dimethylphthalate	ND	230	62	54	13.8	65	64	1.6	30 - 130	30	
Di-n-butylphthalate	ND	670	67	61	9.4	74	71	4.1	30 - 130	30	
Di-n-octylphthalate	ND	230	61	55	10.3	68	64	6.1	30 - 130	30	
Fluoranthene	ND	230	63	57	10.0	72	70	2.8	30 - 130	30	
Fluorene	ND	230	61	55	10.3	67	66	1.5	30 - 130	30	
Hexachlorobenzene	ND	130	61	53	14.0	64	63	1.6	30 - 130	30	
Hexachlorobutadiene	ND	230	54	49	9.7	53	53	0.0	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	43	33	26.3	30	28	6.9	30 - 130	30	m
Hexachloroethane	ND	130	50	43	15.1	43	43	0.0	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	53	55	3.7	47	50	6.2	30 - 130	30	
Isophorone	ND	130	54	47	13.9	56	56	0.0	30 - 130	30	
Naphthalene	ND	230	58	51	12.8	58	59	1.7	30 - 130	30	
Nitrobenzene	ND	130	56	50	11.3	58	59	1.7	30 - 130	30	
N-Nitrosodimethylamine	ND	230	54	44	20.4	46	48	4.3	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	57	52	9.2	59	61	3.3	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	60	54	10.5	65	63	3.1	30 - 130	30	
Pentachloronitrobenzene	ND	230	57	52	9.2	64	63	1.6	30 - 130	30	
Pentachlorophenol	ND	230	56	52	7.4	75	72	4.1	30 - 130	30	
Phenanthrene	ND	130	62	56	10.2	68	69	1.5	30 - 130	30	
Phenol	ND	230	60	53	12.4	61	63	3.2	30 - 130	30	
Pyrene	ND	230	64	57	11.6	72	71	1.4	30 - 130	30	
Pyridine	ND	230	35	29	18.8	35	36	2.8	30 - 130	30	l
% 2,4,6-Tribromophenol	43	%	60	54	10.5	62	61	1.6	30 - 130	30	
% 2-Fluorobiphenyl	48	%	57	49	15.1	59	59	0.0	30 - 130	30	
% 2-Fluorophenol	49	%	56	49	13.3	55	58	5.3	30 - 130	30	
% Nitrobenzene-d5	47	%	53	48	9.9	55	58	5.3	30 - 130	30	
% Phenol-d5	53	%	58	51	12.8	59	61	3.3	30 - 130	30	
% Terphenyl-d14	50	%	54	49	9.7	59	58	1.7	30 - 130	30	

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 507458 (ug/kg), QC Sample No: CE64149 (CE62532)

Volatiles - Soil (Low Level)

1,1,1,2-Tetrachloroethane	ND	5.0	106	109	2.8	107	107	0.0	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	106	102	3.8	111	110	0.9	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	111	108	2.7	111	111	0.0	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	104	102	1.9	102	98	4.0	70 - 130	30	
1,1-Dichloroethane	ND	5.0	102	97	5.0	106	106	0.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCE62532

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,1-Dichloroethene	ND	5.0	114	110	3.6	119	118	0.8	70 - 130	30	
1,1-Dichloropropene	ND	5.0	110	106	3.7	110	107	2.8	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	118	116	1.7	85	85	0.0	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	119	116	2.6	121	120	0.8	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	121	119	1.7	84	84	0.0	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	111	110	0.9	101	101	0.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	102	101	1.0	97	98	1.0	70 - 130	30	
1,2-Dibromoethane	ND	5.0	107	107	0.0	105	104	1.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	111	108	2.7	96	97	1.0	70 - 130	30	
1,2-Dichloroethane	ND	5.0	117	112	4.4	114	111	2.7	70 - 130	30	
1,2-Dichloropropane	ND	5.0	106	101	4.8	106	103	2.9	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	113	110	2.7	109	108	0.9	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	111	110	0.9	98	99	1.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0	112	112	0.0	111	111	0.0	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	109	107	1.9	94	97	3.1	70 - 130	30	
2,2-Dichloropropane	ND	5.0	104	106	1.9	109	105	3.7	70 - 130	30	
2-Chlorotoluene	ND	5.0	108	107	0.9	106	107	0.9	70 - 130	30	
2-Hexanone	ND	25	89	87	2.3	68	64	6.1	70 - 130	30	m
2-Isopropyltoluene	ND	5.0	104	102	1.9	99	103	4.0	70 - 130	30	
4-Chlorotoluene	ND	5.0	106	106	0.0	100	103	3.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	98	93	5.2	87	84	3.5	70 - 130	30	
Acetone	ND	10	93	82	12.6	79	80	1.3	70 - 130	30	
Acrolein	ND	25	97	93	4.2	<10	<10	NC	70 - 130	30	m
Acrylonitrile	ND	5.0	83	80	3.7	79	79	0.0	70 - 130	30	
Benzene	ND	1.0	108	106	1.9	109	105	3.7	70 - 130	30	
Bromobenzene	ND	5.0	110	110	0.0	104	106	1.9	70 - 130	30	
Bromochloromethane	ND	5.0	98	97	1.0	99	103	4.0	70 - 130	30	
Bromodichloromethane	ND	5.0	109	108	0.9	108	105	2.8	70 - 130	30	
Bromoform	ND	5.0	92	91	1.1	83	88	5.8	70 - 130	30	
Bromomethane	ND	5.0	115	115	0.0	129	124	4.0	70 - 130	30	
Carbon Disulfide	ND	5.0	103	100	3.0	103	104	1.0	70 - 130	30	
Carbon tetrachloride	ND	5.0	94	105	11.1	115	101	13.0	70 - 130	30	
Chlorobenzene	ND	5.0	107	108	0.9	104	106	1.9	70 - 130	30	
Chloroethane	ND	5.0	107	105	1.9	113	114	0.9	70 - 130	30	
Chloroform	ND	5.0	104	101	2.9	110	109	0.9	70 - 130	30	
Chloromethane	ND	5.0	85	84	1.2	87	91	4.5	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	98	97	1.0	99	102	3.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	104	102	1.9	95	95	0.0	70 - 130	30	
Dibromochloromethane	ND	3.0	103	102	1.0	99	102	3.0	70 - 130	30	
Dibromomethane	ND	5.0	106	106	0.0	101	99	2.0	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	111	107	3.7	116	116	0.0	70 - 130	30	
Ethylbenzene	ND	1.0	109	109	0.0	108	108	0.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	118	118	0.0	98	102	4.0	70 - 130	30	
Isopropylbenzene	ND	1.0	107	103	3.8	112	111	0.9	70 - 130	30	
m&p-Xylene	ND	2.0	108	108	0.0	105	104	1.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	86	80	7.2	79	77	2.6	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	101	97	4.0	101	102	1.0	70 - 130	30	
Methylacetate	ND	5.0	111	104	6.5	122	112	8.5	70 - 130	30	
Methylene chloride	ND	5.0	96	93	3.2	108	105	2.8	70 - 130	30	
Naphthalene	ND	5.0	117	113	3.5	78	75	3.9	70 - 130	30	
n-Butylbenzene	ND	1.0	114	114	0.0	102	103	1.0	70 - 130	30	
n-Propylbenzene	ND	1.0	109	107	1.9	109	109	0.0	70 - 130	30	
o-Xylene	ND	2.0	107	107	0.0	105	106	0.9	70 - 130	30	

QA/QC Data

SDG I.D.: GCE62532

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
p-Isopropyltoluene	ND	1.0	111	110	0.9	103	104	1.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	117	115	1.7	115	118	2.6	70 - 130	30	
Styrene	ND	5.0	106	106	0.0	96	96	0.0	70 - 130	30	
tert-butyl alcohol	ND	100	123	123	0.0	131	150	13.5	70 - 130	30	m
tert-Butylbenzene	ND	1.0	110	108	1.8	114	112	1.8	70 - 130	30	
Tetrachloroethene	ND	5.0	109	106	2.8	110	101	8.5	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	83	78	6.2	83	82	1.2	70 - 130	30	
Toluene	ND	1.0	106	105	0.9	108	104	3.8	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	113	108	4.5	115	117	1.7	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	106	104	1.9	94	93	1.1	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	95	93	2.1	84	86	2.4	70 - 130	30	
Trichloroethene	ND	5.0	106	103	2.9	107	100	6.8	70 - 130	30	
Trichlorofluoromethane	ND	5.0	114	109	4.5	119	120	0.8	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	108	103	4.7	113	113	0.0	70 - 130	30	
Vinyl chloride	ND	5.0	96	92	4.3	103	100	3.0	70 - 130	30	
% 1,2-dichlorobenzene-d4	99	%	100	99	1.0	100	100	0.0	70 - 130	30	
% Bromofluorobenzene	95	%	98	100	2.0	98	99	1.0	70 - 130	30	
% Dibromofluoromethane	89	%	93	94	1.1	97	99	2.0	70 - 130	30	
% Toluene-d8	96	%	98	100	2.0	98	98	0.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
November 26, 2019

Tuesday, November 26, 2019

Criteria: NJ: ISCC, NRC, RC; NY: 375, 375GWP, 375R

State: NY

Sample Criteria Exceedances Report

GCE62532 - TAYLORD

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CE62532	$NJADD-SM	Acrolein	PA / Clean Fill Limits FP-1a / Organics	ND	1.1	0.62	0.62	ug/Kg
CE62533	$8270-SMR	N-Nitrosodimethylamine	PA / Clean Fill Limits FP-1a / Organics	ND	68	0.041	0.041	ug/Kg
CE62533	$8270-SMR	N-Nitrosodimethylamine	PA / Reg Fill Limits GP-1a / Organics	ND	68	0.17	0.17	ug/Kg
CE62533	$8270-SMR	Bis(2-chloroethyl)ether	PA / Clean Fill Limits FP-1a / Organics	ND	68	3.9	3.9	ug/Kg
CE62533	$8270-SMR	Bis(2-chloroethyl)ether	PA / Reg Fill Limits GP-1a / Organics	ND	68	17	17	ug/Kg
CE62533	$8270-SMR	N-Nitrosodi-n-propylamine	PA / Clean Fill Limits FP-1a / Organics	ND	68	1.3	1.3	ug/Kg
CE62533	$8270-SMR	N-Nitrosodi-n-propylamine	PA / Reg Fill Limits GP-1a / Organics	ND	68	5.1	5.1	ug/Kg
CE62533	$8270-SMR	4-Nitroaniline	PA / Clean Fill Limits FP-1a / Organics	ND	68	31	31	ug/Kg
CE62533	$8270-SMR	3-Nitroaniline	PA / Clean Fill Limits FP-1a / Organics	ND	68	33	33	ug/Kg
CE62533	$8270-SMR	2,4-Dinitrotoluene	PA / Clean Fill Limits FP-1a / Organics	ND	68	50	50	ug/Kg
CE62533	$8270-SMR	2-Nitroaniline	PA / Clean Fill Limits FP-1a / Organics	ND	68	38	38	ug/Kg

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

Analysis Comments

November 26, 2019 SDG I.D.: GCE62532

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

PEST Narration

AU-ECD7 11/19/19-1: CE62533

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CE62533
Preceding CC N19A030 - None.
Succeeding CC N19A044 - Endosulfan I 21%L (20%)
A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.

SVOA Narration

CHEM29 11/19/19-1: CE62533

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

The following Initial Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.061 (0.1), Hexachlorobenzene 0.085 (0.1)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.066 (0.1), Hexachlorobenzene 0.088 (0.1)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

VOA Narration

CHEM03 11/21/19-1: CE62532

The following Initial Calibration compounds did not meet RSD% criteria: Acetone 29% (20%), Methylene chloride 24% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: Acetone 0.090 (0.1), Acrolein 0.047 (0.05), Tetrachloroethene 0.198 (0.2)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet recommended response factors: Acrolein 0.047 (0.05)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

Environmental Laboratories, Inc.
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

NY Temperature Narration

November 26, 2019

SDG I.D.: GCE62532

The samples in this delivery group were received at 1.8°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

PHOENIX Environmental Laboratories, Inc.

NY/NJ CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax: (860) 645-0823
Client Services (860) 645-8726

Cooler: Yes ☑ No ☐
Coolant: IPK ☑ ICE ☐ No ☐
Temp: 4 °C Pg 1 of 1

Contact Options:
☐ Fax
☐ Phone
☒ Email

Customer: Taylord Environment, Inc
Address: PO Box 613
Wingdale, NY 12594
914-419-9740

Project: Gantry Dog Park
4615 Center Ave
Long Island City, NY

Project P O

This section MUST be completed with Bottle Quantities.

Sampler's Signature: [signature] Date: 11/15/19

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water **RW**=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil **B**=Bulk **L**=Liquid

PHOENIX USE ONLY SAMPLE #	Client Sample Identification	Sample Matrix	Date	Time	8260 Plus TICs	8270 Plus TICs	TAL Metals Plus CN	Hex & Tri Cr	TCLP RCRA 8	Paint Filter	PCB	Pesticide	EPH	pH	Ignitability, Corrosivity, Reactivity	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil Container 8 oz	GL Soil Container 4 oz	40 ml VOA Vial [ ] As [ ] HCl	GL Amber 1000ml [ ] As [ ] HCl	PL As [ ] 125ml [ ] 500ml [ ] H2SO4	PL HNO3 [ ] 125ml [ ] 250ml [ ] 500ml [ ] 1000ml	PL NaOH 250ml	Bacteria Bottle
62532	SP-1	S	11/15/19	1245	X											3								
62533	SP-1	S	11/15/19	1245		X	X	X	X	X	X	X	X	X	X		2							

Relinquished by: [signature] **Accepted by:** [signature]

Date	Time
11/18/19	12:10
11/18/19	6:52

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☐ 5 Days
☐ 10 Days
☐ Other
*SURCHARGE APPLIES

NJ
☑ Res. Criteria
☑ Non-Res. Criteria
☑ Impact to GW Soil Cleanup Criteria
☐ GW Criteria

NY
☑ NY 375 GWP
☑ NY375 Unrestricted Use Soil
☑ NY375 Residential
☐ Restricted Residential
☐ Commercial
☐ Industrial

Data Format
☐ Phoenix Std Report
☑ Excel
☑ PDF
☐ GIS/Key
☐ EQuIS
☐ NJ Hazsite EDD
☐ NY E-EDD (ASP)
☐ Other

Comments, Special Requirements or Regulations:
Please Report Analytes on the Taylord Environment Watch List
Please Compare to PA Clean and PA Regulated

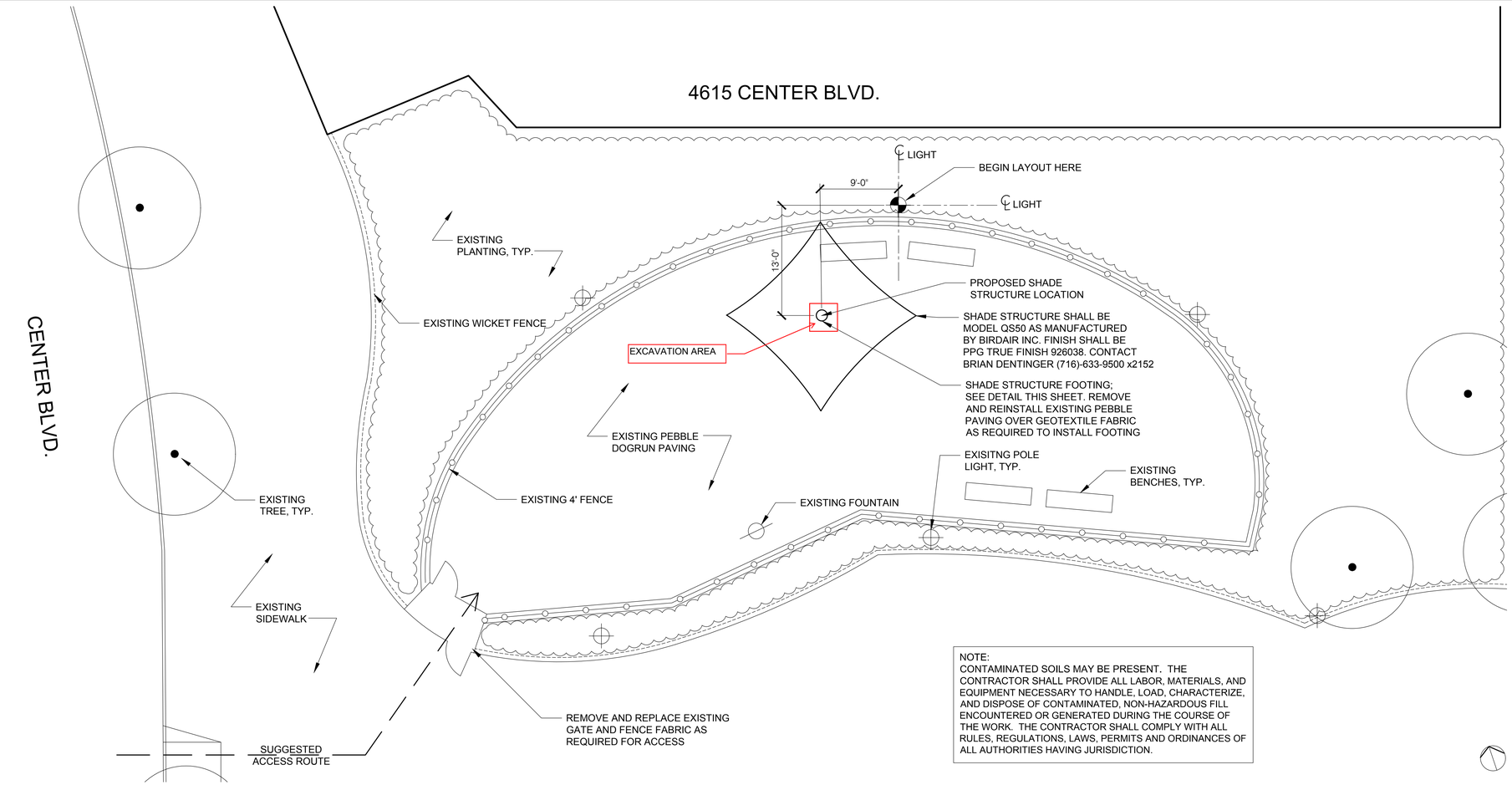
Note: VOC SAMPLES ARE GRAB SAMPLES, COMPOSITES SAMPLES ARE FIVE POINT COMPOSITES SAMPLES

State where samples were collected: NY

Data Package
☐ NJ Reduced Deliv.*
☐ NY Enhanced (ASP B)*
☐ Other

ATTACHMENT B

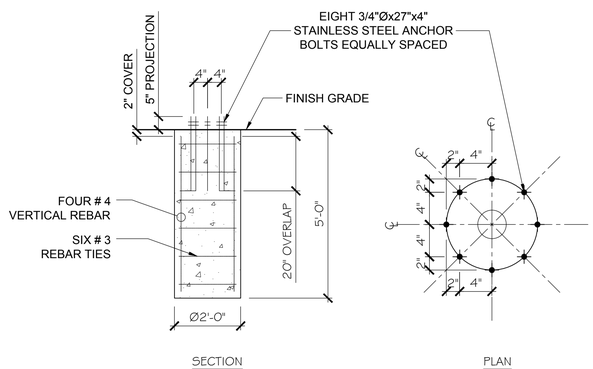
Shade Structure, Details and Notes



NOTE:
CONTAMINATED SOILS MAY BE PRESENT. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO HANDLE, LOAD, CHARACTERIZE, AND DISPOSE OF CONTAMINATED, NON-HAZARDOUS FILL ENCOUNTERED OR GENERATED DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL COMPLY WITH ALL RULES, REGULATIONS, LAWS, PERMITS AND ORDINANCES OF ALL AUTHORITIES HAVING JURISDICTION.

1 SHADE STRUCTURE LAYOUT PLAN

N.T.S.



2 SHADE STRUCTURE FOOTING

N.T.S.

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT BUILDING CODE OF THE STATE OF NEW YORK INCLUDING ALL APPLICABLE REFERENCE STANDARDS.
2. THE CONTRACTOR SHALL APPLY FOR AND SECURE ALL REQUIRED PERMITS, INSPECTIONS, TESTING AND APPROVALS REQUIRED BY LOCAL, STATE AND FEDERAL AGENCIES HAVING JURISDICTIONS.
3. PRIOR TO BEGINNING OF ANY WORK, THE CONTRACTOR SHALL SET UP A SCHEDULE WITH THE DIRECTOR'S REPRESENTATIVE COORDINATING ALL WORK REQUIRED. THE DIRECTOR'S REPRESENTATIVE MUST APPROVE THIS SCHEDULE.
4. BEFORE COMMENCING WORK, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON DRAWINGS AT THE JOB SITE, AND SHALL NOTIFY THE DIRECTOR'S REPRESENTATIVE OF ANY DISCREPANCIES, OMISSIONS AND/OR CONFLICTS BEFORE PROCEEDING WITH THE WORK.
5. INSTALL ALL WORK IN A PLUMB LEVEL, SECURE MANNER IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS.
6. DO NOT SCALE DRAWINGS, WRITTEN DIMENSIONS SHALL GOVERN.
7. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION.
8. ANY ITEM OF LABOR OR EQUIPMENT NOT SPECIFIED IN DETAIL BY THE SPECIFICATIONS OR INDICATED ON THE DRAWING BUT WHICH IS INCIDENTAL OR NECESSARY TO COMPLETE THE SCOPE OF WORK DESCRIBED HEREIN OR REASONABLY IMPLIED SHALL BE FURNISHED AS IF CALLED FOR IN DETAIL.
9. PROVIDE BARRICADES AROUND WORK AREAS AS REQUIRED TO PREVENT UNAUTHORIZED PERSONS FROM ENTERING THEREIN.
10. THE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE COLLAPSE, DISTORTIONS, AND OFF ALIGNMENTS, ACCORDING TO CODES AND STANDARDS OF GOOD PRACTICE.
11. THE CONTRACTOR(S) SHALL HAVE SHOP DRAWINGS AND MATERIALS REVIEWED BY THE DIRECTOR'S REPRESENTATIVE BEFORE PROCEEDING WITH ANY FABRICATION OR ERECTION OF THE WORK INDICATED ON THE SHOP DRAWINGS.
12. THE CONTRACTOR(S) SHALL KEEP THE WORK SITE FREE OF DEBRIS AND ACCUMULATED REFUSE AND SHALL HAVE SOLE RESPONSIBILITY FOR PROTECTING DANGEROUS AREAS FORM ENTRY BY UNAUTHORIZED PARTIES. THE SITE WILL BE LEFT BROOM CLEAN AT THE END OF EACH WORK DAY.
13. THE CONTRACTOR(S) SHALL BE RESPONSIBLE TO RESTORE THE SITE TO THE SAME CONDITION AS BEFORE COMMENCEMENT OF THE WORK.
14. ALL MATERIALS AND EQUIPMENT NECESSARY FOR THE WORK SHALL BE SAFELY AND SECURELY STORED IN LOCATIONS APPROVED BY THE DIRECTOR'S REPRESENTATIVE.
15. THE CONTRACTOR(S) SHALL PERFORM ALL CUTTING AND PATCHING REQUIRED TO COMPLETE THE WORK OR TO MAKE ITS PARTS FIT TOGETHER PROPERLY WITHOUT COMPROMISING THE QUALITY OF WORK.
16. THE CONTRACTOR(S) SHALL PATCH AND REPAIR ALL CURBS, WALL, FENCING, PLANTING, ETC. DAMAGED DUE TO WORK OR REMOVALS AND FINISH TO MATCH ADJOINING SURFACES.
17. WHERE MANUFACTURER'S MODELS AND PRODUCT NUMBERS ARE INDICATED ON THE DRAWINGS, IT SHALL BE CONSTRUED TO MEAN THE ESTABLISHED QUALITY AND PERFORMANCE OF SUCH ITEMS. ALL OTHER PRODUCT SHALL BE SUBMITTED TO THE DIRECTOR'S REPRESENTATIVE FOR APPROVAL BEFORE THEY SHALL BE DEEMED EQUAL.
18. THE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR ALL METHODS AND MEANS OF CONSTRUCTION AND PROVIDE ALL SAFE GUARDS TO ENSURE SAFETY TO THE PUBLIC FOR THE DURATION OF THIS RENOVATION PROJECT.

PROJECT :

GANTRY PLAZA STATE PARK
DOGRUN SHADE STRUCTURE

BETWEEN 5TH STREET & CENTER BOULEVARD AT 46TH ROAD, LONG ISLAND CITY, NY

CLIENT:

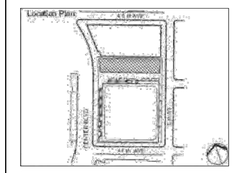
NEW YORK STATE OF OPPORTUNITY.
Parks, Recreation and Historic Preservation

NEW YORK STATE
OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
163 WEST 125TH ST, 17TH FLOOR
NEW YORK, NY 10027

PREPARED BY:

NV5
37 OLD SLIP, SUITE 401
NEW YORK, NEW YORK 10005
P: 212.741.8090 WWW.NV5.COM

KEY PLAN:



SEALS:

ISSUED FOR PRICING
JUNE 12, 2018

No. Date Revision

DRAWING TITLE:

SHADE STRUCTURE PLAN, DETAILS AND NOTES

Date:
Scale:
Drawn:
Checked:
Job No:

DRAWING NO.:

L101

ATTACHMENT C

Daily Reports

Daily Activity Report

Gantry Plaza State Park (GPSP) Dog Run Renovation Project
46-15 Center Boulevard, Long Island City, Queens, New York
VCP No. V00505B

General Site Information

Date:	Friday, November 15, 2019
Weather:	Clear, 35-52°F
Wind Direction/Speed:	North 1 mph
AKRF Personnel on Site:	Evan Venice
AKRF Equipment on Site:	Mini RAE 3000 Photoionization Detectors [(PID) x3] and DustTrak Aerosol Monitors (x3)
Visitors:	None

Contractor Information

Contracting Company	Main Personnel	Equipment
Galvin Brothers, Inc. (GBI)	Paul Gregory, Antero Santos & Carmine Casha	Hand Tools

Description and Location of Work Activities Performed

GBI hand excavated an approximately 2 ft. by 2 ft. by 5 ft. area in order to install the foundation element for the new shade structure.
GBI dug down to the demarcation barrier (orange snow fencing) and stockpiled the composite cover material from above the barrier (from approximately ground surface to 2 ft. below grade) on filter fabric east of the work area.
GBI dug down the remaining 3 ft. (approximately 2 to 5 ft below existing grade) and temporarily stockpiled residual soil/fill from below the demarcation barrier, on filter fabric located west of the work area.

GBI installed the foundation element using a sonotube with rebar, concrete and anchor points within the interior of the sonotube. Orange snow fencing was placed at the base of the excavation as a demarcation barrier, and the composite cover material was reused as backfill for the exterior portion around the sonotube (from ground surface to approximately 5 ft below grade. Once the excavation area was backfilled to grade, geotextile fabric was placed over the composite cover and existing Site gravel was spread over the fabric.

A set of grab and composite soil samples were collected from the soil/fill stockpile for waste characterization analyses. Approximately 1 cubic yard of residual soil/fill generated during the excavation was placed within heavy duty plastic bags and stored in a locked storage closet adjacent to Dog Run. Laboratory results will be sent to a soil disposal facility for approval. Once approval is obtained, a approval letter will be provide to NYSDEC for review and the soil will be scheduled to be transported off-site to the approved facility.

No air monitoring exceedances were observed.

Destination Facility	Daily Trucks	Total Trucks	Daily Approx. Cubic Yds	Total Approx. Cubic Yds	Total Site Loads	Total Approximate Cubic Yards
TBD	-	-	-	-	-	-
TBD	-	-	-	-		

CAMP Air Monitoring Results

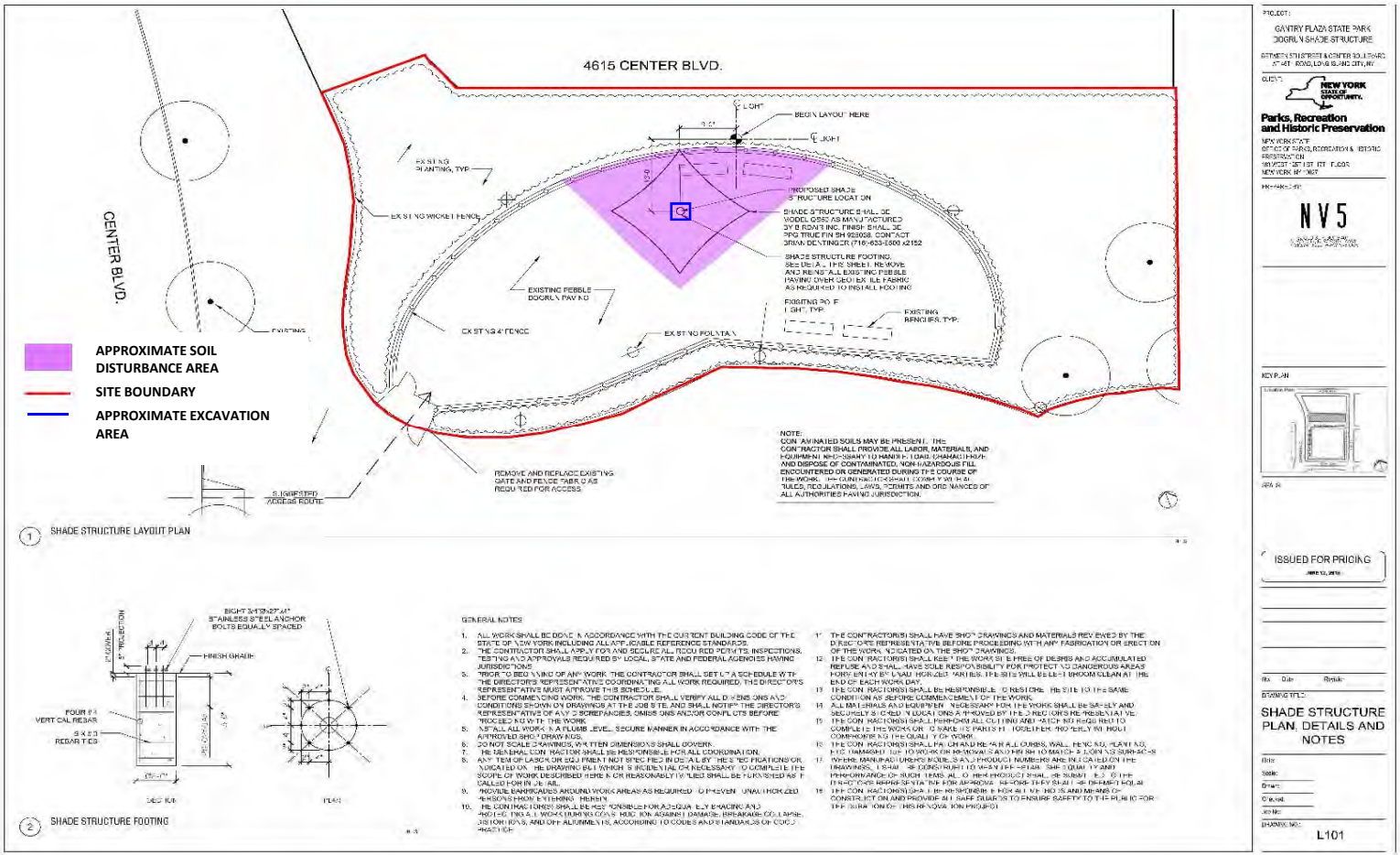
CAMP Station	Downwind CAMP Station	Upwind CAMP Station	Roving
Odors:	None	None	None
VOC Action Level Exceedance(s):	N/A	N/A	None
Particulate Action Level Exceedance(s):	N/A	N/A	None
Maximum VOC Level (ppm):	0.3019	0.1222	ND
Maximum Particulate Level (mg/m³):	0.0284	0.062	0.090

CAMP Response Actions: None

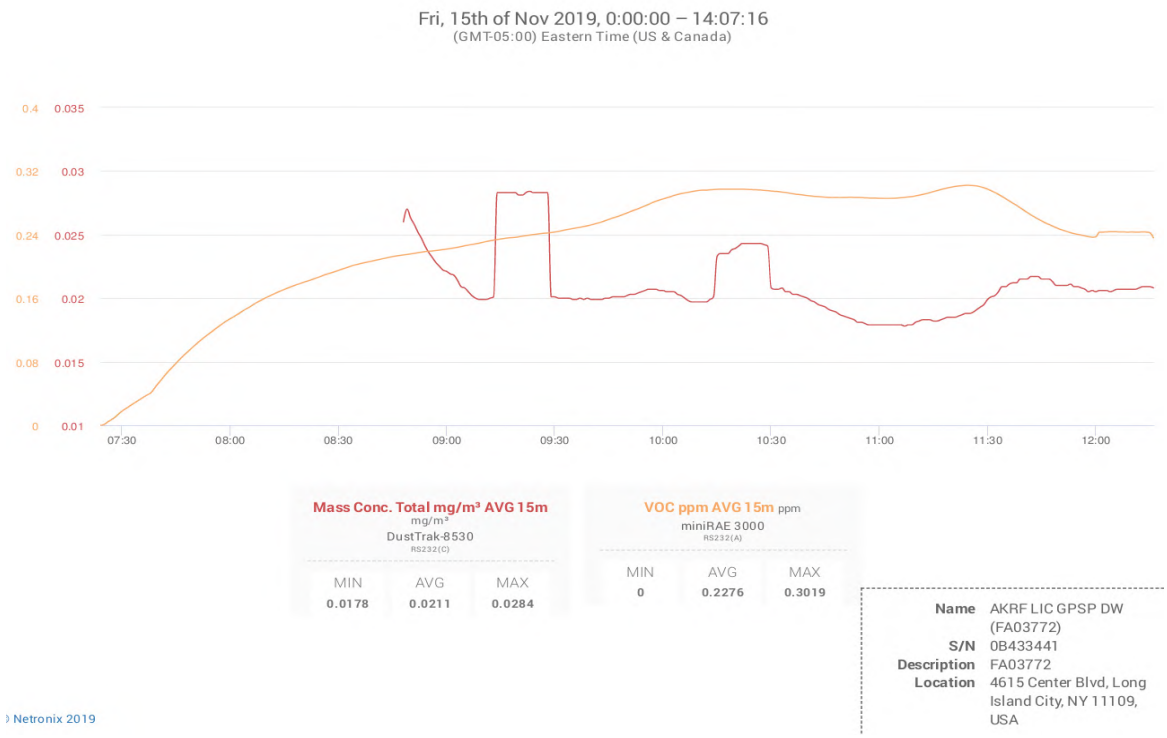
Additional Information

Planned Work Activity for Following Day/Week:	GBI to continue installing the above grade portions of the shade structure next week. No soil disturbance activities are planned. Upon laboratory analysis of the composite soil sample and NYSDEC approval of a proposed soil disposal facility, AKRF will be on-site to conduct CAMP during off-site transportation activities, which are expected within the next several weeks.
Comments:	None.

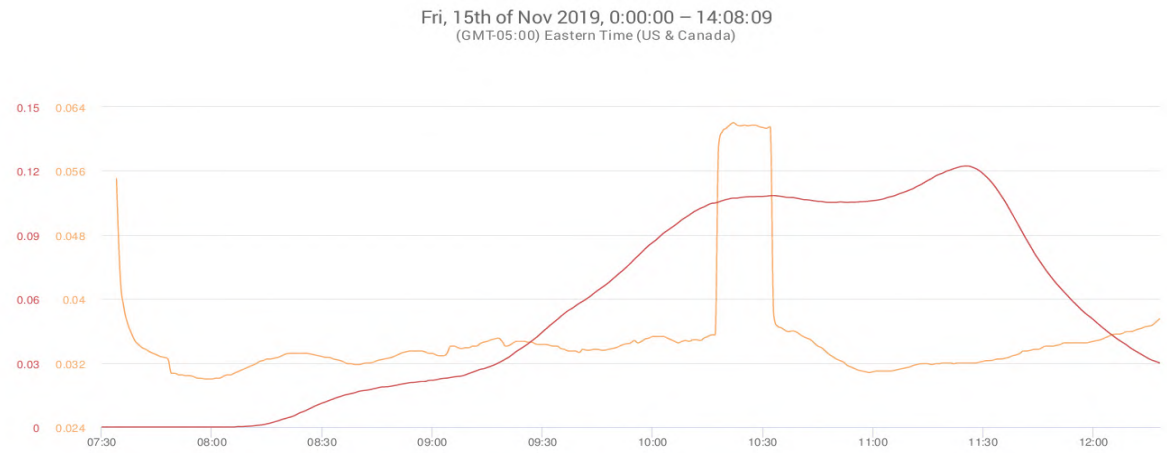
GPSP Dog Run Renovation Site Map



GPSP Dog Run Renovation CAMP Downwind Station



GPSP Dog Run Renovation Upwind CAMP Station



Mass Conc. Total mg/m³ AVG 15m
mg/m³
DustTrak-8530
RS232(C)

MIN	AVG	MAX
0.03	0.035	0.062

VOC ppm AVG 15m ppm
miniRAE 3000
RS232(A)

MIN	AVG	MAX
0	0.0565	0.1222

Name AKRF LIC GPSP UW (FA03979)
S/N 0B383329
Description FA03979
Location 4615 Center Blvd, Long Island City, NY 11109, USA

GPSP Dog Run Renovation Photographic Log	
Photograph 1 - Hand excavation in the composite cover material for installation of the shade structure foundation element, facing north.	
Photograph 2 - Reinstalling the demarcation barrier around the sonotube, facing south.	
Photograph 3 - Stockpiling of residual soil/fill on filter fabric, facing northwest. The soil/fill was subsequently stored in heavy duty plastic bags in a locked room.	

Daily Activity Report

Gantry Plaza State Park (GPSP) Dog Run Renovation Project
46-15 Center Boulevard, Long Island City, Queens, New York
VCP No. V00505B

General Site Information

Date:	Thursday, February 27, 2020
Weather:	Clear, 38-42°F
Wind Direction/Speed:	South, 10 mph
AKRF Personnel on Site:	Marco Balletta
AKRF Equipment on Site:	Mini RAE 3000 Photoionization Detectors [(PID) x3] and DustTrak Aerosol Monitors (x3)
Visitors:	None

Contractor Information

Contracting Company	Main Personnel	Equipment
Galvin Brothers, Inc. (GBI)	Francisco Bonilla	Truck for soil disposal

Description and Location of Work Activities Performed

Approximately 1 cubic yard of residual soil/fill, previously generated during excavation and placed within double-lined heavy duty plastic bags and stored in a locked storage closet, was loaded onto a truck and transported off-site to the Rodota Fill Site.

Soil disturbance activities did not occur, so air monitoring was not conducted.

Destination Facility	Daily Trucks	Total Trucks	Daily Approx. Cubic Yds	Total Approx. Cubic Yds	Total Site Loads	Total Approximate Cubic Yards
Rodota Fill Site	1	1	1	1	1	1

CAMP Air Monitoring Results

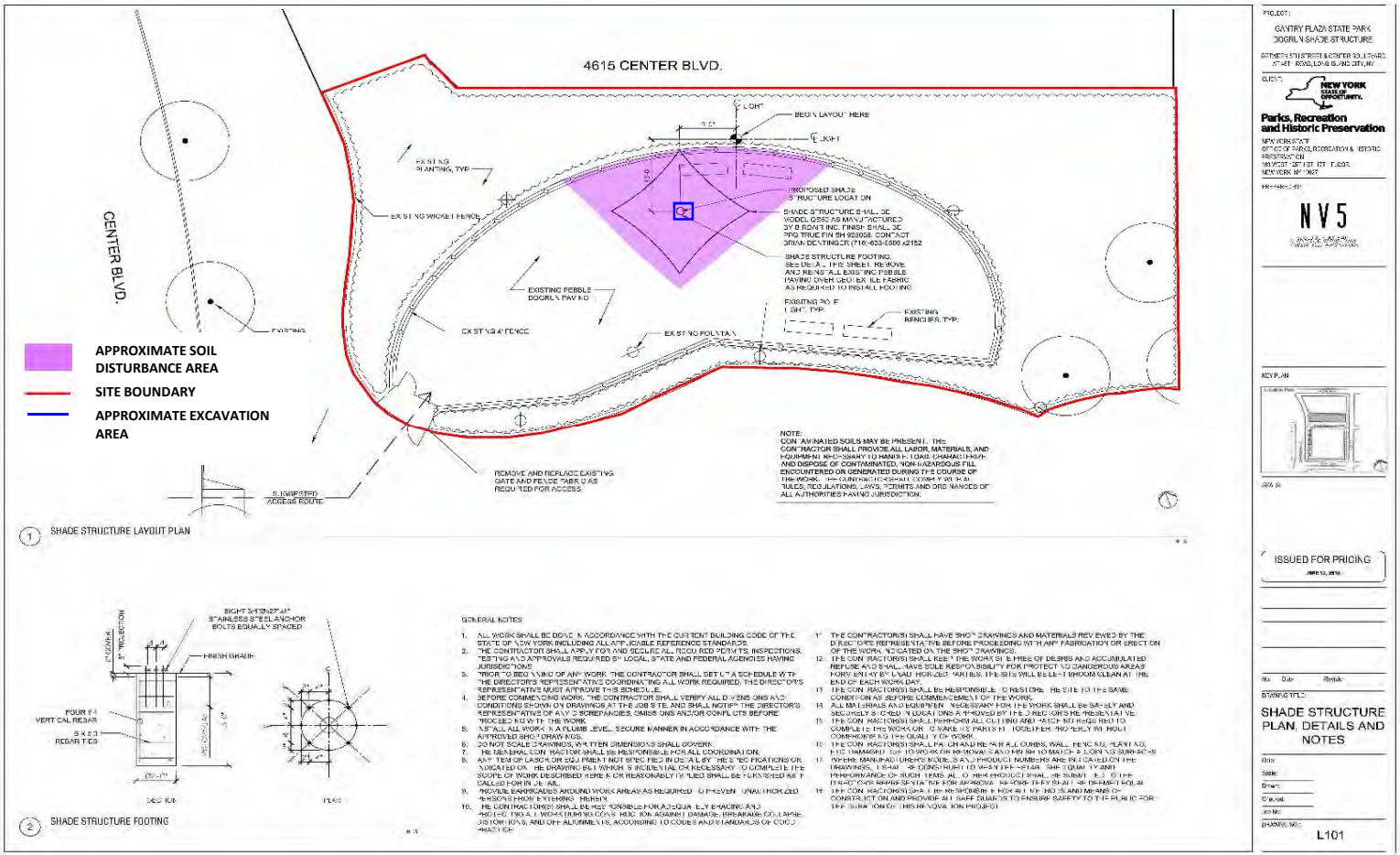
CAMP Station	Downwind CAMP Station	Upwind CAMP Station	Roving
Odors:	None	None	None
VOC Action Level Exceedance(s):	N/A	N/A	N/A
Particulate Action Level Exceedance(s):	N/A	N/A	N/A
Maximum VOC Level (ppm):	N/A	N/A	N/A
Maximum Particulate Level (mg/m³):	N/A	N/A	N/A

CAMP Response Actions: None. CAMP was not performed because soil disturbance activities were not performed.

Additional Information

Planned Work Activity for Following Day/Week:	No further work is planned for this project. A summary report will be provided to NYSDEC within 30 days.
Comments:	None.

GPSP Dog Run Renovation Site Map



GPSP Dog Run Renovation CAMP Downwind Station
N/A

GPSP Dog Run Renovation Upwind CAMP Station
N/A

GPSP Dog Run Renovation Photographic Log	
Photograph 1 - Soil/fill stored in heavy duty plastic bags in a locked room.	
Photograph 2 - Loading heavy duty plastic bags containing soil/fill into a truck.	
Photograph 3 - Heavy duty plastic bags containing soil/fill covered with tarp and secured in a truck.	

ATTACHMENT D

Facility Approval Letter

New York State Office of Parks, Recreation and Historic Preservation
625 Broadway
Albany, NY 12207

February 25th, 2020

Re: Approval Code: **RTE013-20**
Gantry Plaza State Dog Park
46-15 Center Blvd
Long Island City, NY 11101
NYSDEC VCP No. V00505B
1,000 cubic yards (1,500 tons)

Dear Mr. McCorkell;

The Rodota Fill Site (Rodota) has received and evaluated the source material that is being submitted for acceptance at our Facility located at 401 S Bridgeville Rd in Belvidere, New Jersey 07823 (Block 48 / Lot 6.02). The Rodota Fill Site operates in accordance with the New Jersey State Department of Environmental Protection (NJDEP) Residential Direct Contact Soil Remediation Standards (RDCSRS) and New Jersey Soil Erosion and Sediment Control Act, Chapter 251, P.L.1975 as amended. The Rodota Fill Site is monitored by the Warren County Soil Conservation District (Facility ID #: 16017-12015-08095).

EarthEfficient (EE) provides professional Third-Party Environmental Oversight on behalf of Rodota to ensure compliance. EE reviews and evaluates all documentation that is provided and associated with the proposed donor source. Rodota is permitted to accept only chemically clean soil and construction site fill material below the and Residential Direct Contact Soil Remediation Standards (RDCSRS). Approved material shall be placed for beneficial use pursuant to their approved Soil Erosion & Sedimentation Control (SE & SC) and Grading Plans.

EE has reviewed the following supporting documentation supplied by New York State Office of Parks, Recreation and Historic Preservation, AKRF Inc, Taylord Environmental, and Galvin Bros Inc;

- Analytical Report #GCE62532 by Phoenix Environmental dated 11.15.19
- Analytical Report #GCE62532 in Excel by Phoenix Environmental dated 11.15.19
- Sampling Map by Taylord Environmental dated 01.16.20

Based on the review of the supporting documentation, the subject material represented by the following one (1) Composite Sample ID and associated VOC grab is suitable for acceptance:

#	Composite Sample / Cell IDs	Associated VOC Grab Sample IDs
1	SP-1 Comp	SP-1 Grab

Samples of the imported fill material were collected in accordance with the NJDEP Regulations, including Technical Regulations (NJAC 7:26E-2) and with the NJDEP's Field Sampling Procedures Manual.

The material shall be accepted under Rodota Approval Code: **RTE013-20**

Please note that any material received that does not meet the physical, visual or olfactory acceptance criteria and specifications will be rejected/reloaded and returned to the site of origin. All associated transportation fees and facility handling cost that may be accrued due to non-acceptance of material will be the responsibility of the client. EE, on behalf of Rodota, holds the generator and client responsible for providing accurate information in relation to the source material. Additional QA/QC analysis may be performed at our discretion.

The following non-analytical factors will apply:

Types of Acceptable Material	Photo-Ionization Detector Limit (PPM)	Material Size Limitation	Moisture Content Limitation	Treated & Untreated Wood Limitation	Coal/Ash/Slag/ Cinder Limitation	Types of Unacceptable Material
Soil & Construction Fill Material Meeting the Facilities NJ Clean Fill Criteria	0	12"	No Free-Standing Liquid	<1%	0%	MSW, Deleterious Material, Industrial or Hazardous Waste

Based on the available information, the 1,000 cubic yards of clean soil and construction site fill represented by the material addressed in this letter is suitable for placement at the Rodota Fill Site.

Should you have any questions or comments, please feel free to call 631.209.4245.

Sincerely,

Jamie M. Spero
Director of Environmental Compliance
EarthEfficient

ATTACHMENT E

Soil Disposal Manifest

81076

401 S BRIDGEVILLE RD · BELVIDERE, NJ 07823
WARREN COUNTY SOIL CONSERVATION DISTRICT FACILITY ID #: 16017-12015-08095
NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name: New York State office of Parks, Recreation and Historic Preservation
Address: 625 Broadway
Albany NY 12207

Generating Location: Gantry Place State Dog Park
NYS DEC UCP# U00405B
Address: 46-15 Center Blvd
Long Island City NY 11101

Phone No. [ ][ ][ ]-[ ][ ][ ][ ][ ][ ][ ]

Description of Material

RTE 013-20
NJDEP Residential Direct Contact Soil Remediation Standards (RDCSRS)
CELL SP-1 Comp

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name | Signature | Shipment Date: 02/27/20

TRANSPORTER

Truck No. Glenn Bros #01
Phone No.
Transporter Name
Driver Name (Print)
Address
Vehicle License No./State 35879-MK -NY

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature | Shipment Date: 02/27/20

DESTINATION

Site Name: RODOTA FILL SITE
Phone No. [ ][ ][ ]-[ ][ ][ ][ ][ ][ ][ ]
Address: 401 S. BRIDGEVILLE RD., BELVIDERE, NJ 07823

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Brian F E | Signature | Receipt Date: 02/27/20

White - Destination Green - Destination Yellow - Transporter Pink - Generator Goldenrod - Consultant

Arnold F. Fleming
&

Fleming Lee Shue

Environmental Management & Consulting

February 25, 2020

Memorandum to File

Re: **Stage II Queens West Waterfront Development Sites, Queens County**
Street Opening Telecommunication Install
BCP Site Nos. C241095 (OU-4) and C241096 (OU-3)
Long Island City, NY

This memorandum documents the installation of fiber optic cable that required street and sidewalk opening activity at the above referenced Brownfield Cleanup Program (BCP) Sites. On January 22, 2020, the New York City Department of Transportation (NYCDOT) gave notice to Westmoreland Construction (the contractor) of an environmental hold on five street opening permit applications (Nos. 2020012100459380 – 0001, 0002, 0003, 0004, and 0005) for fiber optic conduit installation along 5th Street, 46th Avenue and Center Boulevard within BCP Site Nos. C241095 and C241096 in Long Island City, New York. An environmental hold takes place for any project or work in an area requiring coordination with third parties and/or approvals from the New York State Department of Environmental Conservation (NYSDEC). Fleming-Lee Shue, Inc. (FLS) conducted the excavation oversight and Site cover inspection per the requirements of the Site Management Plans (SMPs) dated May 2014 and their subsequent revisions. A Site Location and Site Plan are presented below as Figure 1 and Figure 2, respectively.

The contractor submitted excavation plan diagrams (Attachment 1) and a description of the proposed work to FLS on January 23, 2020. On January 28, 2020, FLS recommended a release on the environmental hold, which was approved by NYSDEC. Excavation began on February 21, 2020 with the opening of a trench just off Site near the southwest corner of 5th Street and 46th Avenue. This trench was approximately 2'x 3' x 2.5' and was dug to connect the fiber optic cable to an existing telecommunications manhole. No invasive work occurred and no residual soils were encountered. The fiber optic conduit extended from this trench down 46th Avenue and Center Boulevard in front of 4540 Center Boulevard in a 2" x 10" micro-trench. The contractor used a walk behind concrete saw to cut through the asphalt. On the first day, the contractor was able to lay the fiber optic conduit from 5th Street all the way to Center Boulevard.

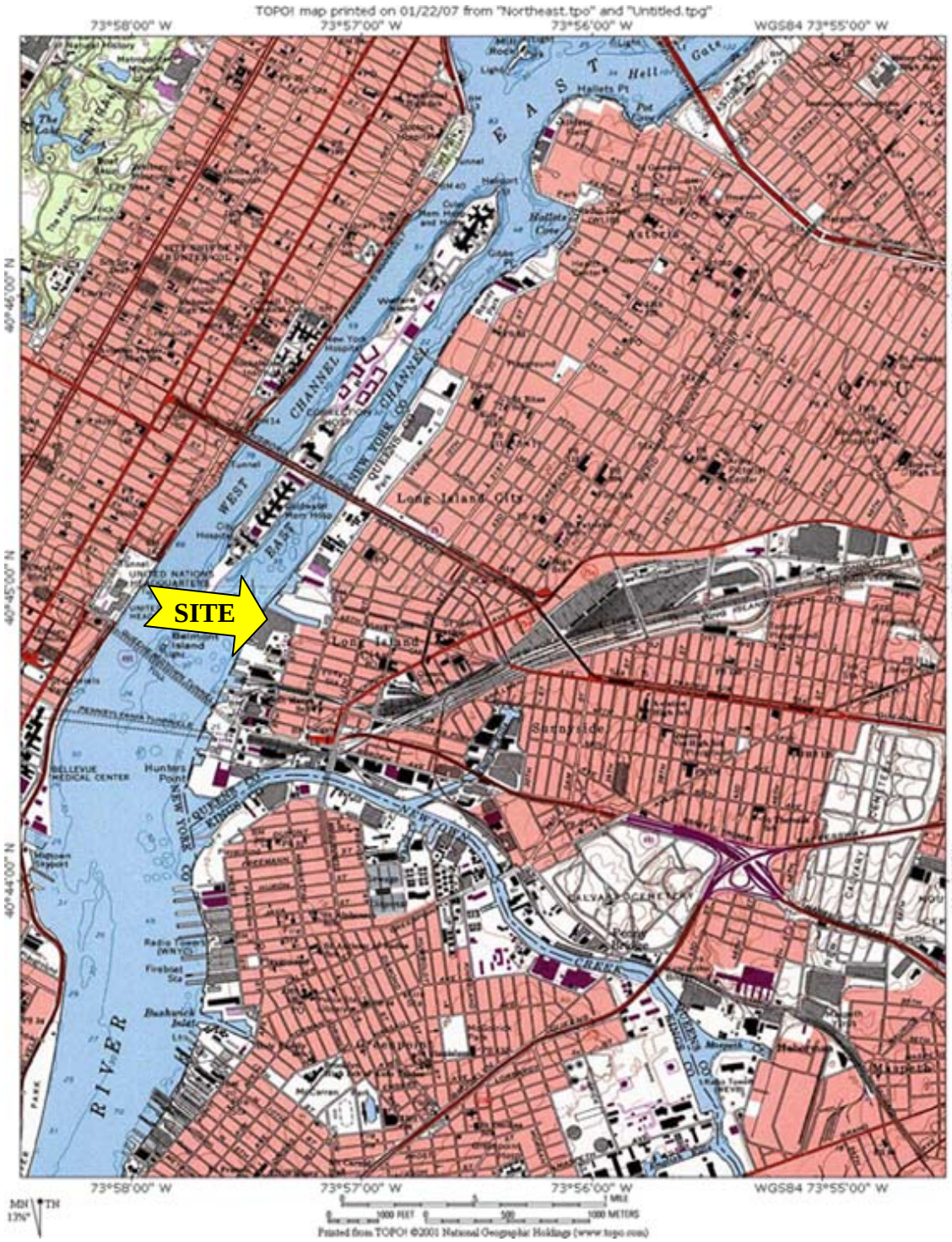
Work continued on February 22, 2020 along Center Boulevard with the sawing of the asphalt and laying of remaining fiber optic conduit. A second trench was dug in the pavers along the west side of Center Boulevard in front of 4540 Center Boulevard and was the location for the telecommunication junction box. This trench was approximately 4' x 3' x 3', and was located within the boundary of BCP Site No. C241095. While on-Site, FLS did not observe any stained

soils or noxious odors. FLS did not observe any penetration into residually contaminated soils. All material removed from the trench was clean aggregate fill (~0.9 yd^3) (construction material) and no imported materials were brought on-Site. The pavers and concrete made up approximately 1 ft. of the trench depth profile, with the re-used clean aggregate fill making up the remaining 2 ft. of the profile. FLS confirmed that the 0.9 yd^3 was unregulated under the SMP in a call with S. Martinkat of NYSDEC on February 25, 2020.

This telecommunication fiber optic conduit installation was completed on February 22, 2020. On February 24, 2020, FLS confirmed that the restoration of the Site cover was adequate. The contractor restored the pavers around the junction box and sealed the micro-trench in the street with concrete and pitch. A photograph log documenting the progression of this excavation is provided as Attachment 2. Email correspondence regarding the scope and coordination of this work is provided as Attachment 3.

Attachments: Figure 1 – Site Location
Figure 2 – Site Plan
Attachment 1 – Excavation Plans
Attachment 2 – Photograph Log
Attachment 3 – Correspondence

FIGURES



40074-G1 Weehawken, NJ NY Quadrant 7.5 Minute Topographic Map, published by the USGS, and obtained from TOPO! ©2001

Fleming Lee Shue

FIGURE 1: SITE LOCATION MAP

SITE: **BCP Site No. C241095**
Long Island City, NY

CLIENT: Queens West Development Corporation - Stage 2

PENINSULA PARK

47TH ROAD INLET

C O V E

V00505C

PLAY AREA

WATER PLAY FEATURE

PEPSI CO.
BLOCK 21, LOT 120

PEPSI SIGN

E A S T R I V E R

GAZING POOL

V00505A

C241096

COMMUNITY GARDEN

TFCORNERSTONE
RESIDENTIAL/COMMERCIAL BLDG.
47-20 CENTER BLVD.
BLOCK 21, LOT 70

TFCORNERSTONE
RESIDENTIAL BLDG.
45-60 CENTER BLVD.
BLOCK 21, LOT 10

TFCORNERSTONE
RESIDENTIAL/COMMERCIAL BLDG.
46-30 CENTER BLVD.
BLOCK 21, LOT 100

TFCORNERSTONE
FUTURE RESIDENTIAL BLDG.
46-10 CENTER BLVD.
BLOCK 21, LOT 110

CENTER BOULEVARD

BOULEVARD

ANABLE BASIN ROAD

ANABLE BASIN

TFCORNERSTONE
RESIDENTIAL BLDG.
46-15 CENTER BLVD.
BLOCK 21, LOT 35

C241095

V00505B

SPORTS FIELD

P.S.
312Q

NYSCA P.S. 312 Q
46-08 5TH STREET.
BLOCK 21, LOT 30

ROCKROSE
RESIDENTIAL/COMMERCIAL BLDG.
47-05 CENTER BLVD.
BLOCK 21, LOT 60

TFCORNERSTONE
RESIDENTIAL BLDG.
45-45 CENTER BLVD.
BLOCK 21, LOT 20

5th STREET

47th R

47th A

46th

46th

0 100 200
SCALE IN FEET

FILE: P:\10165 - TF Cornerstone\Figures\Site Plan\FIG 1 Site Plan.dwg DATE: 2/25/2020

Fleming Lee Shue

Environmental Management & Consulting

158 West 28th Street, 9th Fl.
New York, NY 10001

QUEENS WEST DEVELOPMENT
STAGE 2
LONG ISLAND CITY, NY

FIGURE 2

SITE PLAN

Date
March 2017

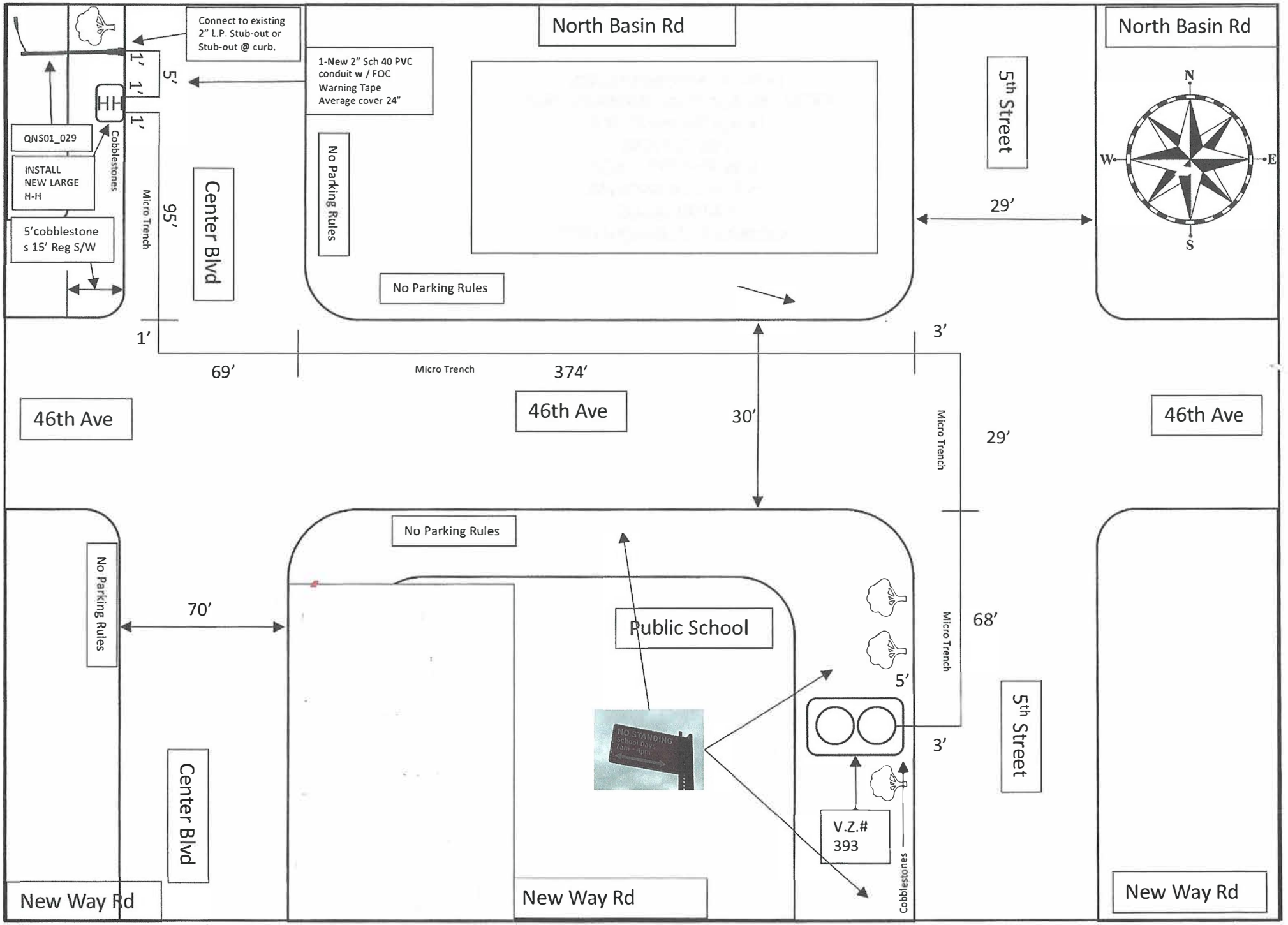
Project Number
10165-001-3

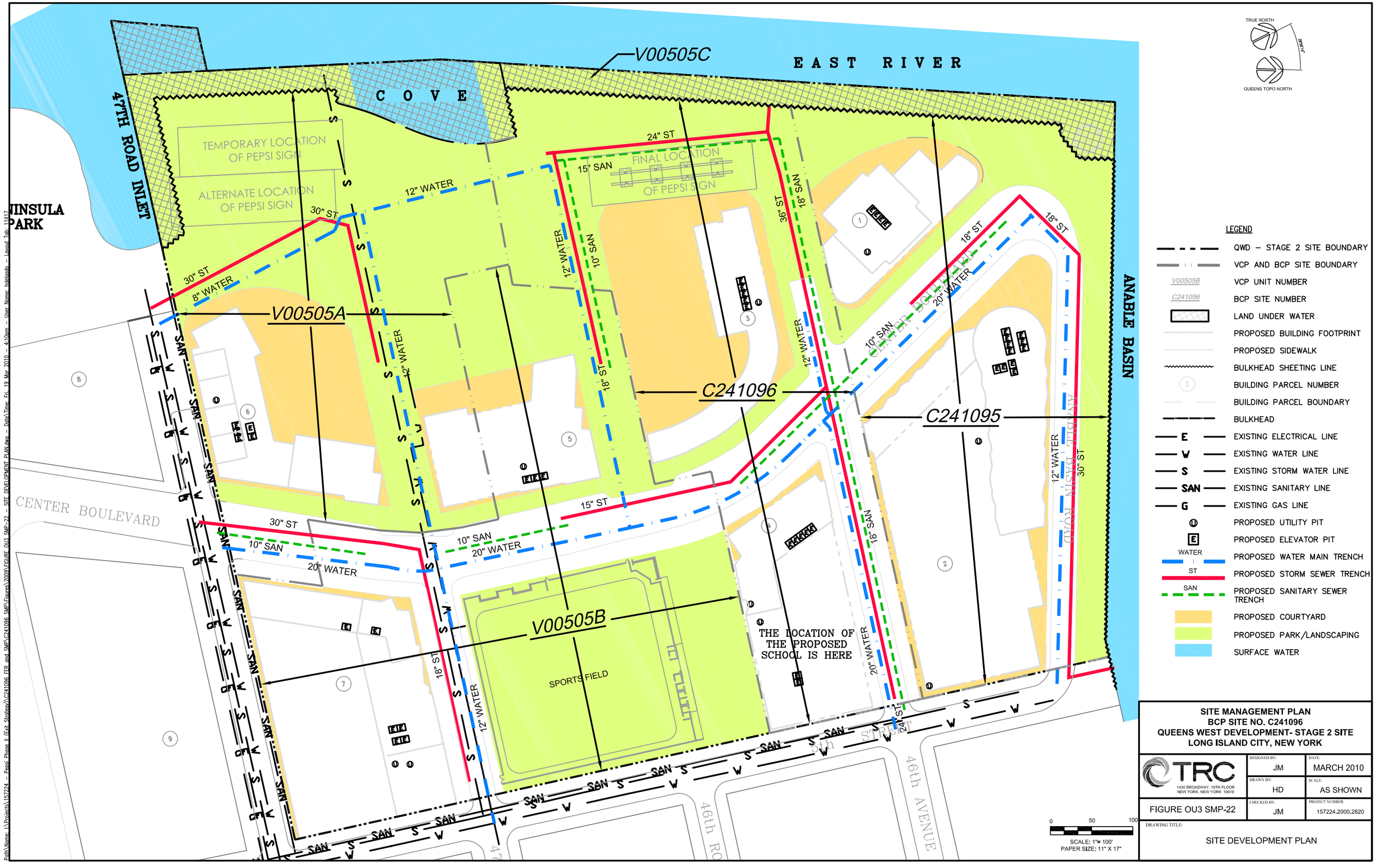
LEGEND

- BARRIER WALL
- SHEETING
- SITE BOUNDARY
- BCP / VCP BOUNDARY
- BUILDING FOOTPRINT
- (7) BUILDING PARCEL NUMBER
- PARCEL BOUNDARY
- V00505A VCP SITE NUMBER
- C241098 BCP SITE NUMBER

Attachment 1

Excavation Plans

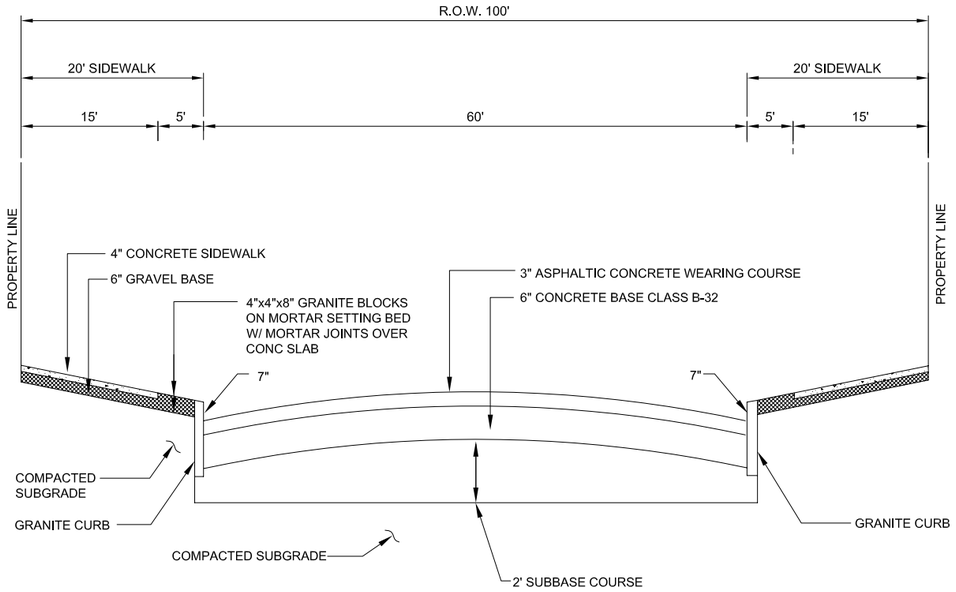

Connect to existing 2" L.P. Stub-out or Stub-out @ curb.
1-New 2" Sch 40 PVC conduit w / FOC Warning Tape Average cover 24"
North Basin Rd
North Basin Rd
5th Street
HH
QNS01_029
INSTALL NEW LARGE H-H
Cobblestones
5'cobblestone s 15' Reg S/W
Micro Trench
Center Blvd
No Parking Rules
No Parking Rules
1'
1'
1'
5'
95'
29'
N
W
E
S
1'
3'
69'
Micro Trench
374'
46th Ave
46th Ave
46th Ave
30'
Micro Trench
29'
No Parking Rules
No Parking Rules
70'
Public School
Micro Trench
68'
5'
3'
5th Street
Center Blvd
V.Z.# 393
Cobblestones
New Way Rd
New Way Rd
New Way Rd



SITE MANAGEMENT PLAN
BCP SITE NO. C241096
QUEENS WEST DEVELOPMENT- STAGE 2 SITE
LONG ISLAND CITY, NEW YORK

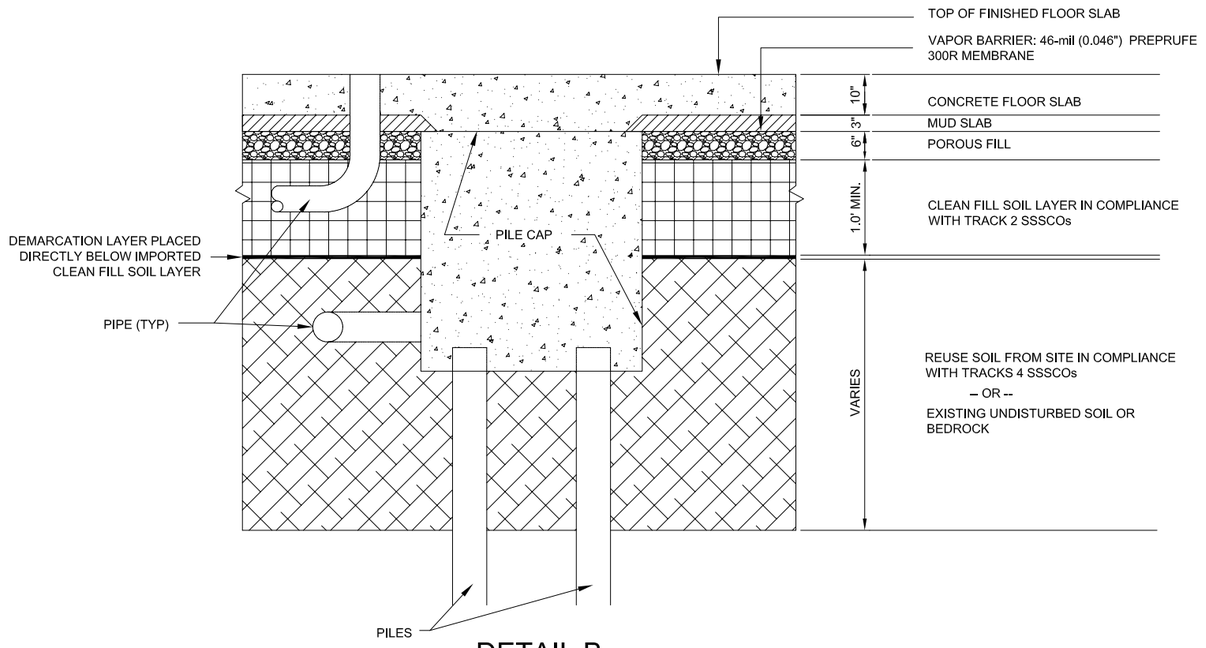
TRC 1430 BROADWAY, 10TH FLOOR NEW YORK, NEW YORK 10018	DESIGNED BY: JM	DATE: MARCH 2010
	DRAWN BY: HD	SCALE: AS SHOWN
FIGURE OU3 SMP-22	CHECKED BY: JM	PROJECT NUMBER: 157224.2000.2820

DRAWING TITLE: SITE DEVELOPMENT PLAN



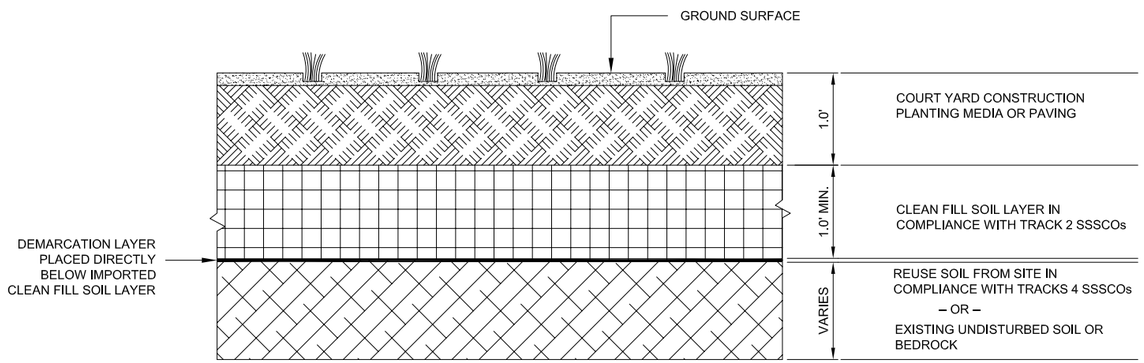
DETAIL A
ROAD RIGHT OF WAY TYPICAL SECTION
(CENTER BOULEVARD)

N.T.S.



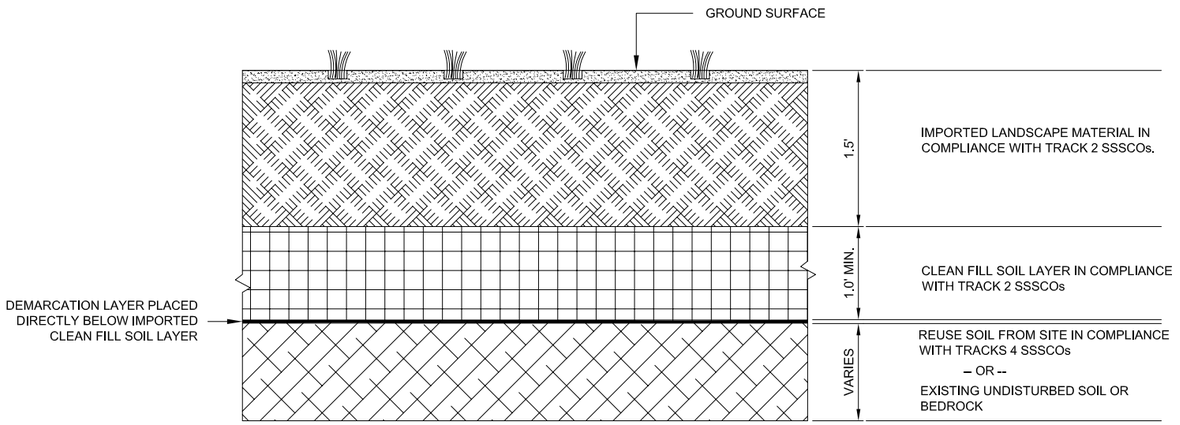
DETAIL B
BUILDING

N.T.S.



DETAIL C
COURT YARDS

N.T.S.



DETAIL D
PARK AREAS

N.T.S.

NOTES:

1. ALL BUILDINGS ARE ON-GRADE CONSTRUCTION.
2. DEMARCATION LAYER WILL NOT BE PLACED IN ROAD AND UTILITY CORRIDORS.

SITE MANAGEMENT PLAN
BCP SITE NO. C241096
QUEENS WEST DEVELOPMENT- STAGE 2 SITE
LONG ISLAND CITY, NEW YORK

TRC
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018

	DESIGNED BY: JM	DATE: MARCH 2010
	DRAWN BY: HD	SCALE: AS SHOWN
FIGURE OU3 SMP-23	CHECKED BY: JM	PROJECT NUMBER: 157224.2000.2820

DRAWING TITLE:
FINAL SITE DEVELOPMENT
COVERS DETAILS

Attachment 2

Photograph Log

Photo 1. Excavation work on 5th St. with P.S. 78 on the left. (facing south).

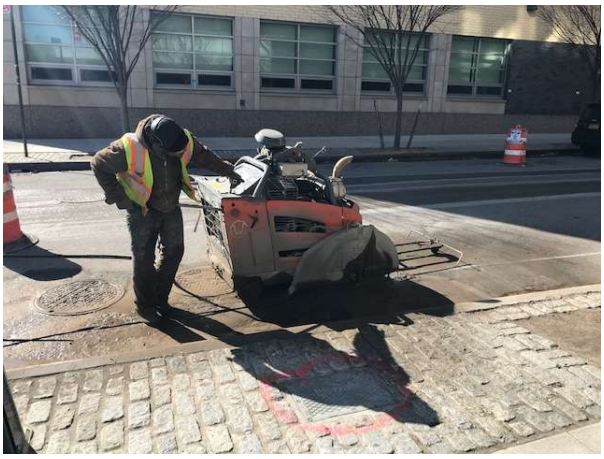


Photo 2. Walk behind concrete saw opening up conduit micro trench on 46th Ave. (facing south).

Photo 3. View of micro-trench (white line) along 46th Ave. (facing west).

Photo 4. Small trench on 5th Street to connect conduit box to telecommunications infrastructure.

Photo 5. Close-up of micro trench.

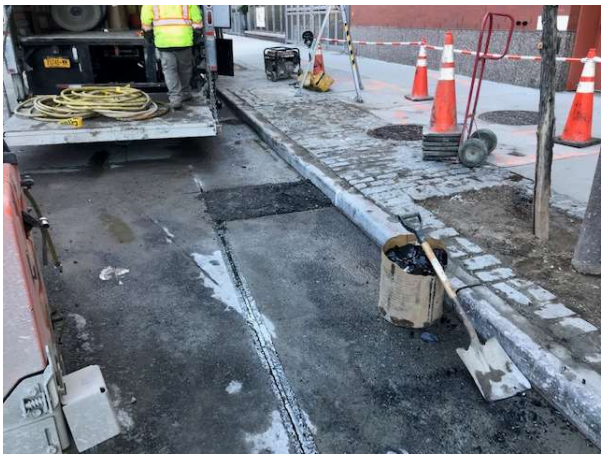


Photo 6. Trench on 5th St. refilled and recovered with asphalt.

Photo 7. View from 5th St. and 46th Ave. intersection and tar sealed micro-trench (facing northwest).

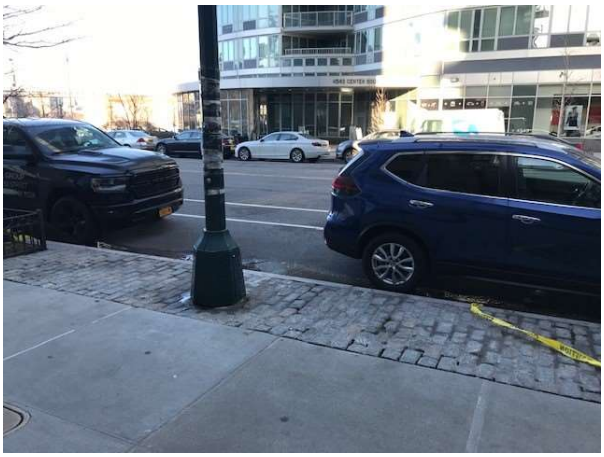


Photo 8. View of junction box location along Center Blvd. pre-excavation (facing northeast).

Photo 9. Junction box (facing north).

Photo 10. Beginning of trench excavation along Center Blvd.

Photo 11. Final trench depth along Center Blvd.

Photo 12. View of micro-trench for conduit along at intersection of 46th Ave. and Center Blvd. (facing south).

Photo 13. View restored pavers at Site cover inspection.

Photo 14. View restored pavers at Site cover inspection from Center Blvd.

Photo 15. View of sealed micro-trench on Center Blvd. (facing northwest).

Photo 16. View of sealed micro-trench from intersection of Center Blvd. and 46th Ave. (facing northwest).

Attachment 3

Email Correspondence

Jordan Arey

From: Steve Panter
Sent: Monday, February 24, 2020 10:21 AM
To: Jordan Arey
Cc: Steve Panter
Subject: FW: NYCStreets Permit Applications Fiber Conduit Installation 46th Ave (Queens West Site)
Attachments: Diagram.pdf; Street_cross_section_plan_view.pdf

Steven E. Panter, CGWP, PG
Senior Consultant
Fleming-Lee Shue, Inc.
158 W. 29th Street
New York, NY 10001
212.675.3225

From: Steve Panter [mailto:steve@flemingleeshue.com]
Sent: Tuesday, January 28, 2020 10:51 AM
To: Michael Toczylowski <miket@westmoreland.nyc>; Wynn, Simon (ESD) <Simon.Wynn@esd.ny.gov>; Mark Hutson <mark@flemingleeshue.com>
Cc: envhold <envhold@dot.nyc.gov>; Harrison Paletta <hpaletta@westmoreland.nyc>; 33028_permits@westmoreland.nyc; Cindy Marcelino <cmarcelino@westmoreland.nyc>; Lisa Wudi <lwudi@westmoreland.nyc>; Cory O'Farrell <cofarrell@westmoreland.nyc>; O'Connell, Jane H (DEC) <jane.oconnell@dec.ny.gov>; Martinkat, Sondra (DEC) <sondra.martinkat@dec.ny.gov>; Tobi Jaiyesimi <tobijaiy@gmail.com>; Ethan Newberry <enewberry@westmoreland.nyc>; Mike Paletta <mpaletta22@gmail.com>; Steve Panter <steve@flemingleeshue.com>
Subject: RE: NYCStreets Permit Applications Fiber Conduit Installation 46th Ave (Queens West Site)

Re: Environmental Hold Release

Dear Mr. Toczylowski:

This email is in response to our conversation yesterday regarding Westmoreland's installation of fiber optic cables in 5th Street, 46th Avenue, and Center Boulevard in the Queens West Development in Long Island City, New York (Permit Application Nos. 2020012100459380 - 0001, 0002, 0003, 0004, and 0005).

Based on our discussion and the documentation you sent earlier, Westmoreland will be installing the fiber optic cables in an approximate 700-foot-long micro trench with the dimensions of 2 inches wide by 10 inches deep in the referenced streets. A hand-held cable junction box approximately 30 inches long by 24 inches wide by 24 inches deep will be installed in the sidewalk at the terminus of the cables. In no case will the excavations extend deeper than 2 feet. As such, all excavations will remain within the protective composite cover and will not encounter residual contamination. Therefore, the special procedures required by the Site Management Plans for work in this area are not required. The excavations will be restored by a paving contractor and at this time you do not anticipate importing material to fill the excavations. With this understanding, I am releasing the environmental hold.

Please note that the entire Queens West Development is in the New York State Brownfield Cleanup Program (BCP). This means that the area has been remediated but residual contamination remains in place and special procedures are required when encountering this material. Typically, the residual contamination boundary is demarked by a plastic barrier, but this is not the case beneath streets. I have included the Site Management Plans for both areas in which you will be working in the attached links (there are two plans because you will be working in two separate BCP sites but the SMP contents are effectively the same).

https://www.dropbox.com/s/o1ved5bhhwl1j55/C241096%20SMP%20Final%20May%202014.pdf?dl=0

https://www.dropbox.com/s/692s842v9y8kuqn/OU-4%20C241095%20SMP%20Rev.%2010.07.15.pdf?dl=0

In the event that you will be importing fill, note that the SMP contains special procedures for this purpose (Section 2.3.2.9 *Backfill from Off-Site Sources*). Imported fill must meet certain requirements and be approved by the New York State Department of Environmental Conservation (NYSDEC) *in advance.* If you think this project will require importing backfill, then I encourage you to begin this process soon, as testing and approval can take some time. Importing fill from your yard without prior NYSDEC approval is not allowed under the BCP. Likewise, if you will be removing soil from the site, all material must be disposed of in accordance with all state and federal regulations and the requirements outlined in the SMP (Section 2 of the SMPs).

As the engineer for these BCP sites, we are required to inspect the work. Therefore, we request that you notify us at least two days before starting so we can arrange for an inspection.

We are here to help. So if you have any questions, please do not hesitate to contact us.

Thank you,

Steven E. Panter, CGWP, PG
Senior Consultant
Fleming-Lee Shue, Inc.
158 W. 29th Street
New York, NY 10001
212.675.3225

> **From:** Michael Toczylowski [mailto:miket@westmoreland.nyc]
> **Sent:** Thursday, January 23, 2020 3:17 PM
> **To:** Wynn, Simon (ESD) <Simon.Wynn@esd.ny.gov>; mark@fleminleeshue.com; Steve Panter <steve@flemingleeshue.com>
> **Cc:** envhold <envhold@dot.nyc.gov>; Harrison Paletta <hpaletta@westmoreland.nyc>; 33028_permits@westmoreland.nyc; Cindy Marcelino <cmarcelino@westmoreland.nyc>; Lisa Wudi <lwudi@westmoreland.nyc>; Cory O'Farrell <cofarrell@westmoreland.nyc>; O'Connell, Jane H (DEC) <jane.oconnell@dec.ny.gov>; Martinkat, Sondra (DEC) <sondra.martinkat@dec.ny.gov>; Steve Panter <stevepanter@gmail.com>; Tobi Jaiyesimi <tobijaiy@gmail.com>; Ethan Newberry <enewberry@westmoreland.nyc>; Mike Paletta <mpaletta22@gmail.com>
> **Subject:** Re: NYCStreets Permit Applications Fiber Conduit Installation 46th Ave (Queens West Site)
>
> Good Afternoon Mark/Steve,

As we spoke on the phone here is all the info related to our project at this location. We will be installing a micro trench from the VZMH to a proposed handhole to light pole connection at this location. Our excavation of this site shall not exceed 10" deep and 2" wide throughout the entire length of the dig. The one location where we shall install a handhole in the sidewalk and a conventional 2" pipe to connect with the light pole will require further excavation. Please let me know if you have any questions.

On Thu, Jan 23, 2020 at 1:57 PM Wynn, Simon (ESD) <Simon.Wynn@esd.ny.gov> wrote:

> Dear Mr. Paletta: In order for QWDC to approve NYCDOT issuing a permit for the work in question, please contact our environmental consultant Steve Panter at Fleming Lee Shue. Steve can be contacted at the email addresses above, or by phone at (212) 675-3225. We can take care of this quite quickly (you will likely need to send Steve a description and plan of work).

Thank you.

Simon Wynn

Senior Counsel - Litigation

Empire State Development

633 Third Avenue, New York, NY 10017

(212) 803-3755 | Simon.Wynn@esd.ny.gov

www.esd.ny.gov

From: envhold <envhold@dot.nyc.gov>
Sent: Wednesday, January 22, 2020 8:38 PM
To: 'Harrison Paletta' <hpaletta@westmoreland.nyc>; envhold <envhold@dot.nyc.gov>; '33028_permits@westmoreland.nyc' <33028_permits@westmoreland.nyc>
Cc: Cindy Marcelino <cmarcelino@westmoreland.nyc>; Lisa Wudi <lwudi@westmoreland.nyc>; Michael Toczylowski <miket@westmoreland.nyc>; Cory O'Farrell <cofarrell@westmoreland.nyc>; O'Connell, Jane H (DEC) <jane.oconnell@dec.ny.gov>; Wynn, Simon (ESD) <Simon.Wynn@esd.ny.gov>; Martinkat, Sondra (DEC) <sondra.martinkat@dec.ny.gov>
Subject: NYCStreets Permit Applications Fiber Conduit Installation 46th Ave (Queens West Site)

Dear Permit Applicant:

Please be advised that NYC DOT is in receipt of five street opening permit applications, as described below. Permit requests in this area are subject to screening due to an environmental hold. This hold is in place because the proposed work falls within an area that requires coordination with third parties and/or approvals from the New York State Department of Environmental Conservation (NYSDEC). Depending on the work proposed, you may be required to take certain precautions including ensuring worker health and safety precautions, material handling and disposal and restoration as a result of residual contamination that was left in place at this site.

Before these holds can be released, you must contact Mr. Simon Wynn at Simon.Wynn@esd.ny.gov and Ms. Sondra Martinkat at sondra.martinkat@dec.ny.gov for further information and instructions. NYC DOT can only release these holds once approval is received directly from both QWDC/ESD and NYSDEC.

Thank you for your cooperation.

NYC DOT

Permittee: TC Systems Inc.
Work Description: Install fiber optic conduit in street and sidewalk

Applications Expires: 2/25/2020

Permit Application Number:	**Location:**
2020012100459380 0001	46 Avenue and Center Boulevard
2020012100459380 0002	Center Blvd b/w 46 Ave and Bend
2020012100459380 0003	Center Blvd b/w 46 Ave and Bend
2020012100459380 0004	Center Blvd b/w 46 Ave and Bend
2020012100459380 0005	46 Avenue b/w 5th St and Center Blvd

From: Harrison Paletta [mailto:hpaletta@westmoreland.nyc]
Sent: Tuesday, January 21, 2020 2:27 PM
To: envhold <envhold@dot.nyc.gov>
Cc: Cindy Marcelino <cmarcelino@westmoreland.nyc>; Lisa Wudi <lwudi@westmoreland.nyc>; Michael Toczylowski <miket@westmoreland.nyc>; Cory O'Farrell <cofarrell@westmoreland.nyc>
Subject: Fiber Conduit Installation 46th ave

hi this is harrison paletta from Westmoreland Construction.

We have an environmental hold on our permit application. Tracking number is 2020012100459380. Permittee number 33028. Please see attached diagram. We will be installing a new micro trench conduit from an existing verizon manhole to a new handhole box that we will install.

Please let us know what is required to get this permit released.

Thank you, Harrison P

NYC – Department of Transportation

--
Thank you

Kind Regards,

Michael Toczylowski
Westmoreland Construction
office: (718) 994-3111
email: miket@westmoreland.nyc