2018 FIRST QUARTERLY GROUNDWATER MONITORING REPORT

Former Hygrade Polishing and Plating Company
22-07 41st Avenue
Long Island City, NY 11101
BCP Site No. C241148

June 18, 2018

Prepared for:

Stalingrad Ventures, LLC
100 Field Street
West Babylon, NY 11704

Prepared by:

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June 18, 2018

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New York State Department of Environmental Conservation
Division of Environmental Remediation
1 Hunter's Point Plaza
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Long Island City, NY 11101-5407

Attn: Wendi Zheng

Re**:** **2018 First Quarterly Groundwater Monitoring Report**
Former Hygrade Polishing and Plating Co.
22-07 41st Avenue
Long Island City, NY 11101
BCP Site No.: C241148

Dear Ms. Zheng:

Amec Environment & Engineering, PC is pleased to present this quarterly monitoring report for the first round of quarterly groundwater sampling at the above-referenced facility. The sampling occurred in April 2018.The following report details the field activities and results associated with this event.

If you have any questions, please do not hesitate to call our Office.

Respectfully,

Amec Environment & Engineering, PC

Jazmin Logan
Project Geologist

Eric A. Weinstock
Principal Scientist

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LIST OF ACRONYMS AND ABBREVIATIONS

Amec	Amec Environment & Engineering, PC
BCP	Brownfield Cleanup Program
BMW	Basement Monitoring Well
Cis 1,2-DCE	Cis 1,2-Dichloroethene
COC	Contaminants of Concern
ft^2	square feet
Hygrade	Hygrade Polishing and Plating
IRM	Interim Remedial measure
NYS	New York State
NYCDEP	New York City Department of Environmental Protection
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
MW	Monitoring Well
PCB	Polychlorinated Biphenyls
PCE	Perchloroethene (a.k.a. Tetrachloroethene)
SVOCs	Semi Volatile Organic Compound
TAL	Target Analyte List
TCE	Trichloroethene
TOGS	Technical & Operational Guidance Series
VOCs	Volatile Organic Compound

1.0 INTRODUCTION

Amec Environment & Engineering, PC (Amec) prepared this Quarterly Groundwater Monitoring Report on behalf of Stalingrad Ventures, LLC for the former Hygrade Polishing and Plating (Hygrade) property located in at 22-07 41st Avenue, Long Island City, NY (the Site). The site location is shown on Figure 1. This monitoring program was completed in accordance with an Interim Remedial Measures (IRM) Work Plan dated May 17, 2017 (Ref. 1) and approved by the New York State Department of Environmental Conservation (NYSDEC).

1.1 SITE DESCRIPTION

The Site currently encompasses a 100 foot by 25 foot property developed with a four-story office building and basement level that covers the entirety of the lot. The NYC Tax Map designates the Site as Queens County; Block: 409; Lot: 6. The neighborhood surrounding the subject property consists of a highly urbanized area of Long Island City with adjacent properties consisting of commercial and industrial land use.

1.2 BACKGROUND

The subject property was first developed with the current building circa 1920s. In 1962, Hygrade purchased the subject property to operate their metal polishing and electroplating facility. The operations consisted of plating finishes performed at the former Hygrade facility included chromium, brass (copper & zinc), nickel, and zinc. This process involved gathering parts placed in baskets or hung on racks. The parts would then be dipped in various baths containing alkaline, plating solutions, stripping solutions, and rinses. As a result of these processes, wastewater was generated. The wastewater was treated onsite using a wastewater treatment unit. The treated wastewater was then discharged to the New York City municipal sewer system.

Plating and polishing operations ceased around March 2013 when Stalingrad Ventures, LLC (the current owner) purchased the property. Upon purchase of the subject property, the current owner performed a cleanup of the Hygrade facility under a New York City Department of Environmental Protection (NYCDEP) Commissioner's Order that had been issued to the former owner.

Stalingrad Ventures, LLC continued cleaning up and restoring the building after the NYCDEP Commissioner's Order was satisfied. This included removing the concrete surfacing from the walls, washing and resurfacing the floors, removal of approximately 581 tons of soil from the

basement and replacing it with sand. In 2015, Stalingrad Ventures, LLC entered into a Brownfield Cleanup Agreement for the site.

A Remedial Investigation completed under this program revealed that elevated levels of chlorinated Volatile Organic Compounds (VOCs) and metals were present in the groundwater beneath the building and isolated to the shallow water table. Furthermore, previous investigations (by Amec and others) identified the northerly portion of the Site (in the area of wells of BMW-1 and BMW-2) as containing the highest concentration of metal contaminants and the southerly portion of the Site (in the area of wells of BMW-3 and BMW-4) as containing the highest concentration of VOCs contaminants. The remedial investigation established that the groundwater contamination decreased significantly in off-site groundwater wells collected on the northeast corner of 22nd Street and 41st Avenue.

In December 2017, as part of the NYSDEC-approved IRM, Amec treated the groundwater beneath the basement floor using in-situ injections. The injections consisted of two different bio-remediation products. In the northerly portion of the Site, where the metals were prevalent, Peroxychem Metafix® was applied as part of the injection program. In the southerly portion of the Site, where the VOCs were prevalent, Peroxychem EHC® was applied as part of the injection program. Details of the injection program are described in the IRM Construction Completion Report which is currently in preparation. As part of the injection program, wells BMW-1 through BMW-4 were abandoned to prevent any short circuiting of the injection products. These wells were re-installed after the completion of the injection program.

1.3 CONTAMINANTS OF CONCERNS

The contaminants of concern (COCs) in the groundwater below the Site are the VOCs which are identified as tetrechloroethene (PCE), trichloroethene (TCE), cis-1,2 dichloroethene (cis 1,2-DCE), and vinyl chloride. With respect to metals, the COCs at the Site are identified as Cadmium, Chromium, and to a lesser degree, Nickel.

2.0 FIELD PROCEDURES

An Amec field crew mobilized to the Site on April 26 and 27, 2018 to complete this quarterly groundwater sampling event. The groundwater monitoring wells were sampled using low-flow sampling procedures. A Geotech™ brand peristaltic pump was used to evacuate the water from

the wells. New high density polyethylene (HDPE) tubing was used for the collection of each sample. The wells were purged at a rate of 100 and 500 ml per minute. Temperature, specific conductance, pH, dissolved oxygen, turbidity and redox were recorded as the well was pumped. These readings were logged on field forms and are included in Appendix A. The purged water was contained in 5-gallon plastic pails and staged in the basement for proper disposal. The manifest is included in Appendix B.

Water level indicators were decontaminated with Alconox and laboratory-issued contaminant and PFAS-free certified water after use at each monitoring well location. All other downhole equipment/material were designated for each monitoring well location.

Groundwater samples collected from the on-site basement wells include BMW-1. BMW-2, BMW-3, and BMW-4. Groundwater collected from the downgradient off-site wells include MW-5, MW-6S, and MW-6D. Lastly, a groundwater sample was collected from the upgradient monitoring well MW-E. A sample location map depicting the locations of the groundwater monitoring wells is included in Figure 2.

3.0 LABORATORY ANALYTICAL DATA

Amec subcontracted analytical laboratory, Alpha Analytical of Westborough, MA (an ELAP-certified laboratory) for analysis of Volatile Organic Compounds (VOCs) and TAL Metals (both dissolved and total). At the request of the NYSDEC, Per and Polyfluoroalkyl Substances (PFAS) were added to this round of sampling. (1,4 dioxane was included in the previous round of sampling and was not detected in the samples.) All groundwater samples remained in a cooler with ice until delivered to the laboratory.

The laboratory analytical results were tabulated and compared to the NYSDEC Technical Operational TOGS Ambient Water Quality Standards (NY TOGS standard). The following sections summarizes the results.

3.1 VOLATILE ORGANIC COMPOUNDS

Basement Sample Locations – The laboratory report indicates that the site-related VOCs contaminants are still present in the basement, but at significantly lower concentrations than before the bio-remediation injection program. Using EPA method 8260C, PCE, TCE, cis 1,2-DCE

and vinyl chloride were detected in the water samples collected from the four basement monitoring wells. However, the detections of PCE in all four wells were below NY TOGS groundwater standards. The remaining three VOC COCs were detected above the NY TOGS standards in three of the four basement monitoring wells. There were no exceedances of the TOGS Standards in one of the wells. The following summarizes the concentrations of VOC contaminants for the basement monitoring wells. The laboratory results for VOCS are tabulated on Table 1. A map depicting the concentrations of contaminants of concern for VOCs at each monitoring well location is included as Figure 3.

- PCE was detected in water samples collected from wells BMW-1 and BMW-2 at concentrations below the NY TOGS standard of 5 ug/l. It was not detected in wells BMW-3 and BMW-4, the wells that initially had the highest concentrations of these compounds. For comparison, the groundwater from basement monitoring well BMW-3 had a concentration of 20,700 ug/l of PCE on March 27, 2014 and on April 27, 2018 had a value of non-detect.
- TCE was detected in wells BMW-1, BMW-2, and BMW-3, with detections exceeding the NY TOGS standard of 5 ug/l in only well, the water sample collected from well BMW-2. That sample displayed a concentration of 5.4 ug/l. For comparison, the groundwater from well BMW-3 had a concentration of 2,600 ug/l of TCE on February 19, 2014 and on April 27, 2018 had a value of non-detect.
- Cis 1,2-DCE was detected in water samples collected from all four basement monitoring wells with exceedances above the NY TOGS standard of 5 ug/l in the water samples collected at BMW-2, BMW-3, and BMW-4. For comparison, the groundwater from well BMW-3 had a cis 1,2-DCE concentration of 2,600 ug/l on February 19, 2014 and on April 27, 2018 had a value of 71 ug/l.
- Vinyl Chloride was detected in water samples collected from all four basement monitoring wells with exceedances above the NY TOGS standard for BMW-2, BMW-3, and BMW-4. For comparison, the groundwater from well BMW-3 had a concentration of 1,070 ug/l of VC on February 19, 2014 and on April 27, 2018 had a value of 34 ug/l.
- 2-Butanone (also known as Methyl Ethyl Ketone or MEK) was detected above the NY TOGS standards for water samples collected from BMW-3 and BMW-4. However, this is believed to be attributed to the PVC glue used to repair these wells after the EHC injection process was completed.

- Acetone was detected for samples collected at BMW-3 and BMW-4 but this may be attributed to a laboratory cleaning agents or to the PVC glue used at the site.

Sidewalk Sample Locations – The site-related VOCs contaminants, PCE, TCE, and cis 1.2-DCE, were detected in the water samples from the downgradient monitoring wells located in the sidewalk at low concentrations and below the NY TOG Standards in wells MW-5 and MW-6D. Vinyl Chloride was not detected in any of the downgradient sidewalk monitoring wells. The VOCs PCE, TCE, and cis 1.2-DCE, were detected at concentrations exceeding the NY TOGS Standard for the sample collected from well MW-6S. Well MW-6S is a water table well located directly downgradient of basement monitoring well BMW-3, the well that has historically displayed the highest levels of VOC contamination. There were no detections above the NY TOGS standards for the upgradient monitoring well, MW-E.

3.2 TAL METALS

Basement Sample Locations – The laboratory data indicates site-related metal contaminants are still present in the basement, but at significantly lower concentrations than before the bio-remediation injection program. Cadmium was only detected in excess of the NY TOGS standard of 5 ug/l in the water sample collected from well BMW-2. Nickel was only detected in excess of the NY TOGS standard of 100 ug/l in the water samples collected from BMW-2 and BMW-3. Chromium was not detected in excess of the NY TOGS of 50 ug/l in any of the water samples collected from the basement monitoring wells. For comparison, the groundwater from well BMW-2 had a Chromium concentration of 4,120 ug/l on March 27, 2014 and on April 26, 2018 had a value of 2.03 ug/l.

The naturally occurring metals iron, magnesium, manganese, and sodium were detected at concentrations in excess of the NY TOGS standards in the water samples collected from the basement monitoring wells. This is typical in urban areas like Queens.

Sidewalk Sample Locations – The same naturally occurring metals detected above NY TOGS standards in the water samples collected from the basement monitoring wells – iron, magnesium, manganese and sodium -- were also detected in the wells located in the sidewalk. The site-related metal contaminants, cadmium, chromium and nickel, were not detected above the NY TOGS standards in the samples collected from the downgradient and upgradient sidewalk wells.

The laboratory results for TAL metals are tabulated on Table 2. A map depicting the concentrations of contaminants of concern for TAL Metals at each monitoring well location is included as Figure 4.

3.3 PFAS

At the request of the NYSDEC, PFAS analysis was included in this sample round. As of the date of this report, there are no applicable New York State standard in which to compare PFAS levels to. In May 2016, the United States Environmental Protection Agency (EPA) established drinking water health advisory of 0.07 ppb for the combined concentrations of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) and 400 ppb for Perfluorobutane Sulfonate (PFBS). The concertation of the combined value of PFOA and PFOS exceeded the EPA drinking water advisory in water samples collected from all monitoring well locations with the exception of the upgradient well. The greatest concentrations were detected below the building in samples collected from basement monitoring wells BMW-3 and BMW-4, the wells that had historically displayed the highest VOC detections. None of the groundwater results exceed the EPA drinking water advisory for PFBS.

The laboratory results for PFAS are tabulated on Table 3. A map depicting the concentrations of PFOA, PFOS, and PFBS concentration at each monitoring well location is included as Figure 5.

3.4 BACTERIA ANALYSIS

A water sample was collected from BMW-3 for the bacterial analysis of Dehalococcoides (DHC) and the associated functional genes (BVC, TCR, and VCR), bacteria that have been shown to degrade chlorinated solvents. The sample was submitted to Microbial Insights, Inc. of Knoxville, Tennessee. Generally, the presence of the afore-mentioned bacteria indicates the reduction of various chlorinated VOCs such as PCE, TCE, and vinyl chloride through bacterial consumption. The laboratory report indicated that the DHC and the corresponding functional genes were not detected at a detection level of 5.0×10^{-1} cells/mL. For comparison, the water sample collected from BMW-3 in November 2016, detected DHC and BVC at 0.3 cells/mL (TCR and VCR were non-detect).

4.0 DISCUSSION

VOCs and TAL Metals:

Tables 4 and 5 summarizes the concentration of site-related contaminants from previous groundwater investigations (by Amec and others) performed at the subject property. As shown, the COCs have decreased significantly since the first round of sampling in February 2014. On December 11, 2017, groundwater samples were collected just prior to the injection program. The laboratory results for the groundwater sampling performed in April 2018 (after the injection program), displays a significant decrease in COC concentration. Many of the COCs decreased to concentrations below the NY TOGS standard and some were not detected. For comparison, the groundwater from basement monitoring well BMW-3 had a concentration of 20,700 ug/l of PCE on March 27, 2014 and on April 27, 2018 had a value of non-detect. This is a strong indication that natural bio-degradation of the VOCs has been occurring and was accelerated by the addition of EHC. Similarly, the groundwater from well BMW-2 had a Chromium concentration of 4,120 ug/l on March 27, 2014 and on April 26, 2018 had a value of 2.03 ug/l which is below the NY TOGS Standard. This data suggests that Metafix was successful in reducing the concentrations of these contaminants.

Bacteria

The reason for the decrease of the DHC bacteria and associated functional genes in the groundwater from BMW-3 is unknown at this time. It is possible that the section of the aquifer where the monitoring wells were re-installed was disturbed. Once the groundwater around the re-installed well assimilates the bacteria count may increase. This will be track during future sampling rounds.

PFAS

The April 2018 groundwater sampling event was the first time at this site where water samples were collected for the purposes of PFAS analysis. The analytical data revealed that PFAS is present in the groundwater below the site at concentrations above the EPA drinking water health advisory. Further, PFAS levels are highest underneath the basement and decreases in the direction of the downgradient wells.

The EPA guidance value serves as an advisory for drinking water supplies. However, this area of Queens is serviced by the NYCDEP municipal water supply which derives its water from

reservoirs located in upstate New York. As such, there are no pathways for the PFAS in the groundwater to present a negative impact to human health or the environment. The basement was recently finished with a new concrete slab that is 8-inchs thick. There are no known groundwater supply wells in the area of Queens.

Direction of Ground Water Flow

Based on the elevation of the groundwater measured in the upgradient and downgradient monitoring wells, the direction of groundwater flow is to the west. The measured water table elevation are included on Table 6. A site-specific water table map is indicated on Figure 6.

5.0 CONCLUSION

Laboratory analytical results collected during this quarterly round of monitoring indicate the December 2017 bio-remediation injection program was very effective in addressing the VOCs and Metal contamination at the subject property. The concentrations of both the VOCs and Metals in the groundwater have decreased significantly since the products were injected. Continued monitoring is recommend to confirm that these constituents continue to decrease in concentration over time.

PFAS constituents were detected in all of the site wells at varying concentrations. These concentrations are relatively low with the highest reading detected at just over 5 ug/l. Although these detections exceed the EPA's advisory for drinking water supplies, this area of Queens is serviced by reservoirs located in upstate New York and the basement is sealed with a new 8-inch thick concrete slab. As such, continued monitoring is recommended at this time as there are no receptors affected by the presence of PFAS at this site.

REFERENCES

1. Amec (May 2017) Interim Remedial Measure Plan, Former Hygrade Polishing and Plating Co., 22-07 41st Avenue, Long Island City, NY 11101

2. CA RICH (June 2016) Remedial Investigation Work Plan, Former Hygrade Polishing and Plating Site, 22-07 41st Avenue, Long Island City, NY BCP Site No.: C241148.

3. Julian Soren (February 1978) Subsurface Geology and Paleogeogrphy of Queens County, Long Island, NY USGS Water-Resources Investigation 77-34, Open-File Report.

4. NYSDEC (June 1998) Technical Operational TOGS Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations

5. US EPA (May 2016) Drinking Water Health Advisory for Perfluorooctane Sulfonate (PFOS)

FIGURES

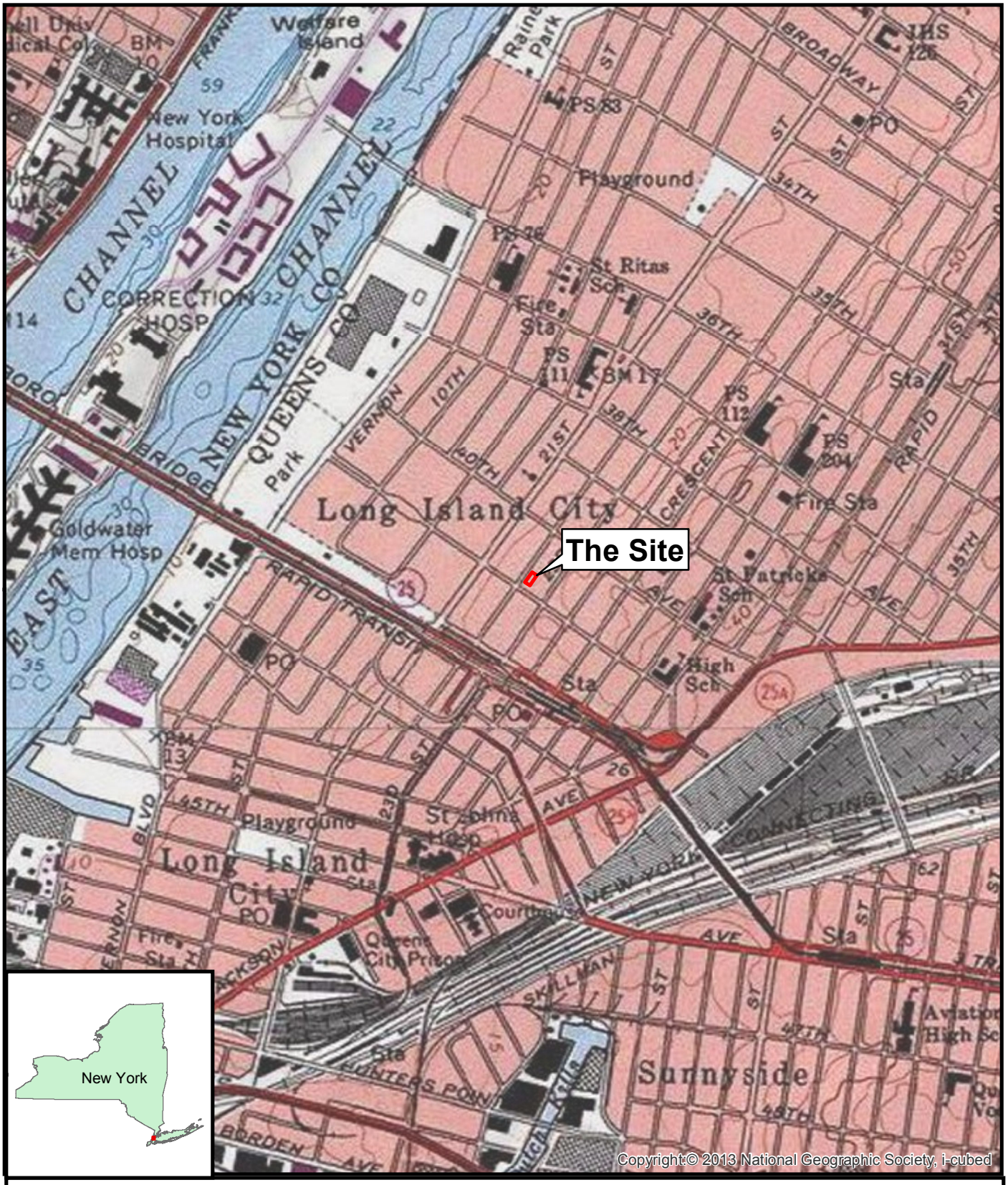


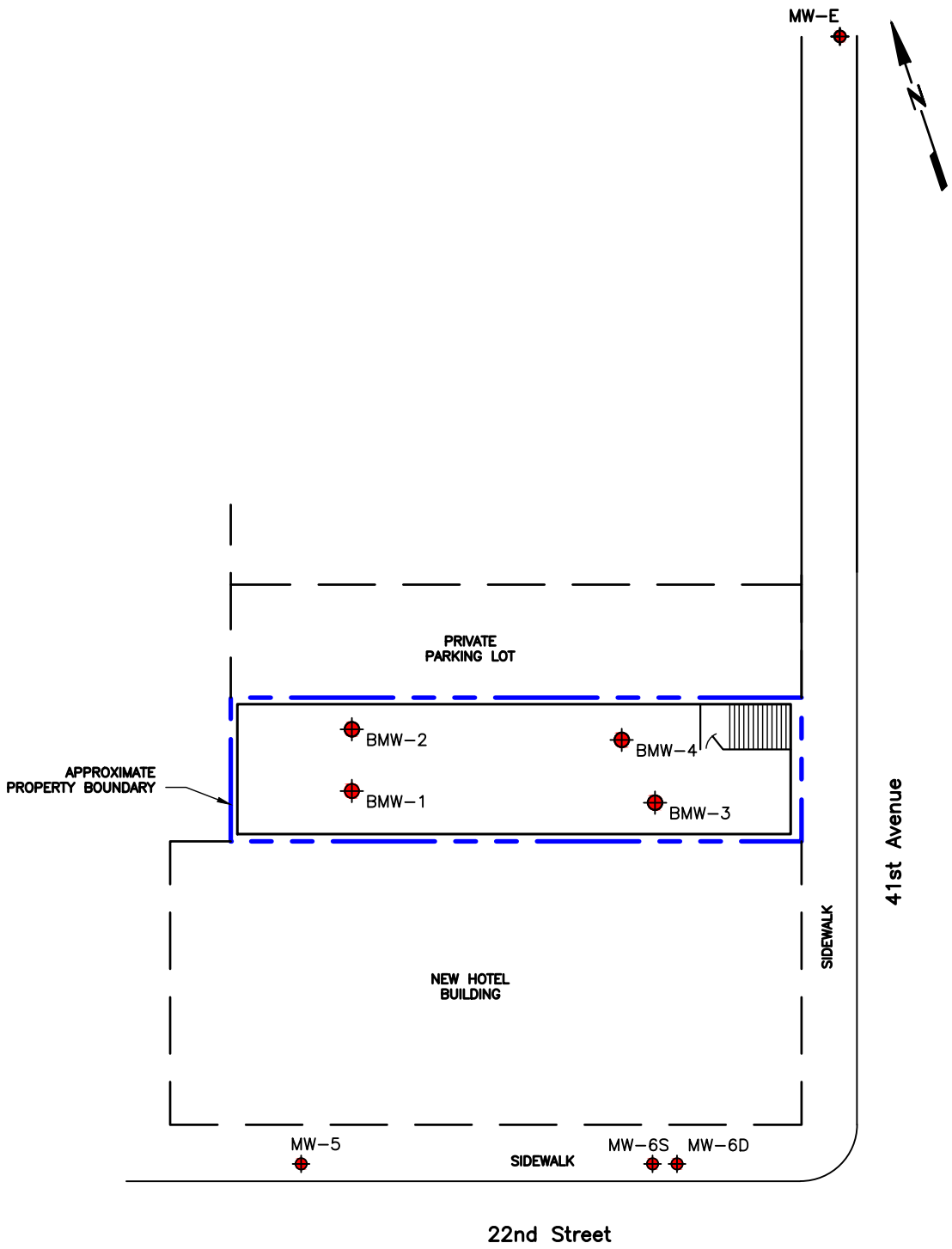
Figure 1
Site Location Map

22-07 41st Avenue
Long Island City, New York

N

0 500 1,000
Feet

Prepared/Date: JCL 12/05/16	Checked/Date: EAW 12/05/16



LEGEND

MONITORING WELL

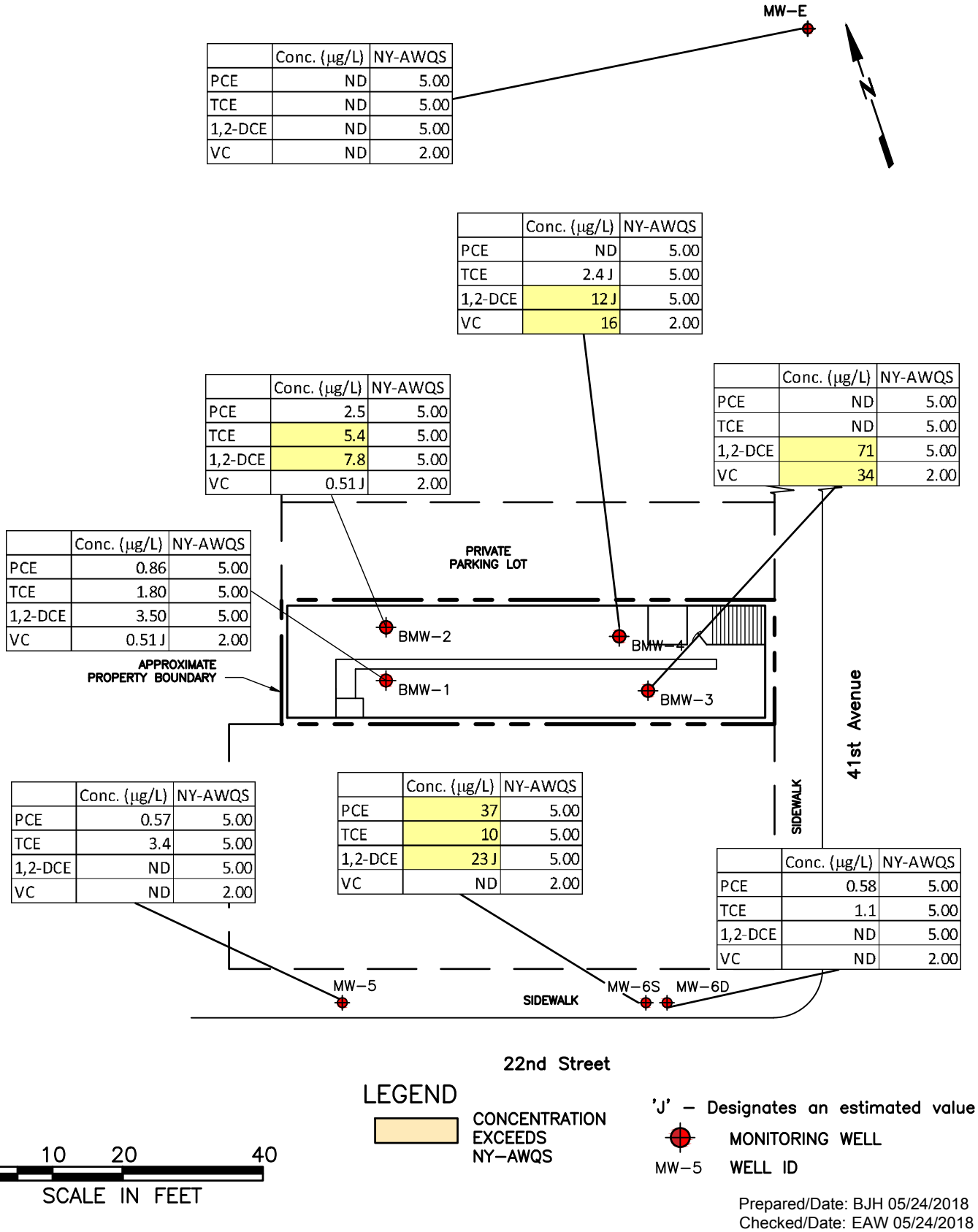
MW-5 WELL ID

0 10 20 40

SCALE IN FEET

Prepared/Date: BJH 05/21/2018
Checked/Date: EAW 05/21/2018

Former Hygrade Plating 22-07 41st Ave Long Island City, NY	Amec E & E, PC 214-25 42nd Avenue, Suite 3R Bayside, New York 11361 (347) 836-4343	Groundwater Monitoring Well Locations Map Project 3612-162-331 Figure 2



	Conc. (µg/L)	NY-AWQS
PCE	ND	5.00
TCE	ND	5.00
1,2-DCE	ND	5.00
VC	ND	2.00

	Conc. (µg/L)	NY-AWQS
PCE	ND	5.00
TCE	2.4 J	5.00
1,2-DCE	12 J	5.00
VC	16	2.00

	Conc. (µg/L)	NY-AWQS
PCE	2.5	5.00
TCE	5.4	5.00
1,2-DCE	7.8	5.00
VC	0.51 J	2.00

	Conc. (µg/L)	NY-AWQS
PCE	ND	5.00
TCE	ND	5.00
1,2-DCE	71	5.00
VC	34	2.00

	Conc. (µg/L)	NY-AWQS
PCE	0.86	5.00
TCE	1.80	5.00
1,2-DCE	3.50	5.00
VC	0.51 J	2.00

	Conc. (µg/L)	NY-AWQS
PCE	0.57	5.00
TCE	3.4	5.00
1,2-DCE	ND	5.00
VC	ND	2.00

	Conc. (µg/L)	NY-AWQS
PCE	37	5.00
TCE	10	5.00
1,2-DCE	23 J	5.00
VC	ND	2.00

	Conc. (µg/L)	NY-AWQS
PCE	0.58	5.00
TCE	1.1	5.00
1,2-DCE	ND	5.00
VC	ND	2.00

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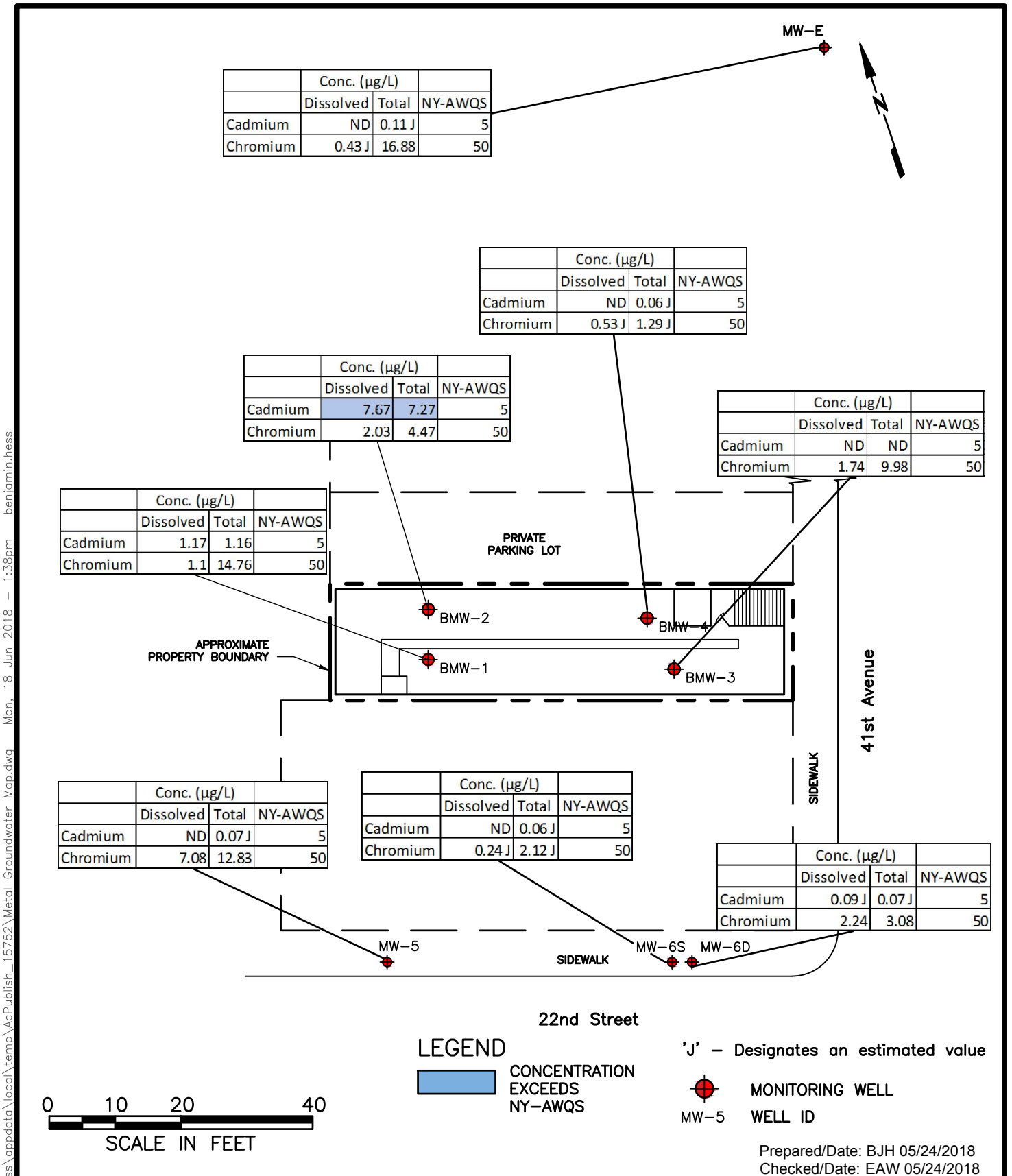
Groundwater Monitoring Well
VOC Concentrations Map
Project 3612-162-331
Figure 3



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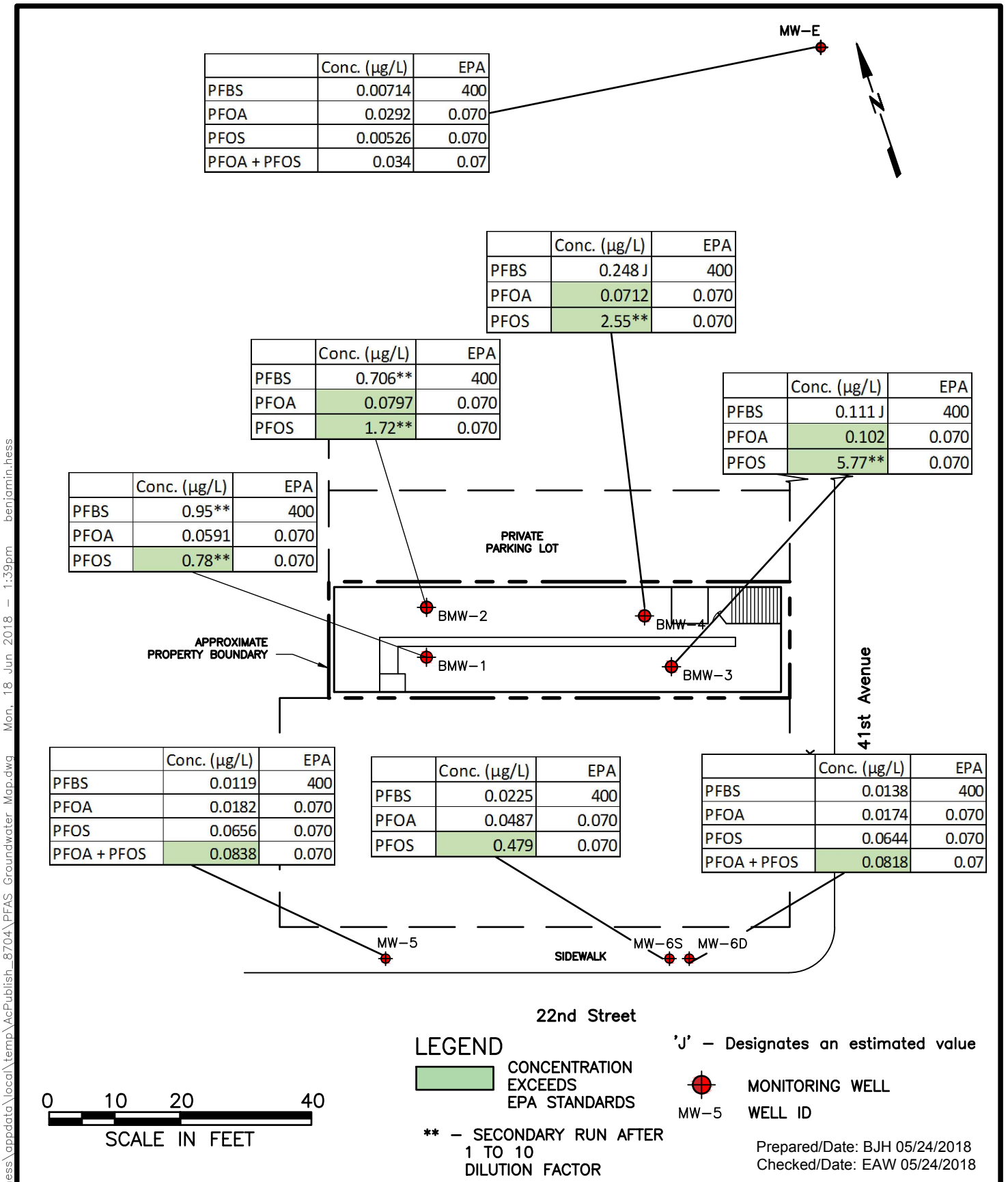
Former Hygrade Plating 22-07 41st Ave Long Island City, NY	Amec E & E, PC 214-25 42nd Avenue, Suite 3R Bayside, New York 11361 (347) 836-4343	Groundwater Monitoring Well Metals Concentrations Map Project 3612-162-331 Figure 4



	Conc. (µg/L)	EPA
PFBS	0.00714	400
PFOA	0.0292	0.070
PFOS	0.00526	0.070
PFOA + PFOS	0.034	0.07

	Conc. (µg/L)	EPA
PFBS	0.248 J	400
PFOA	0.0712	0.070
PFOS	2.55**	0.070

	Conc. (µg/L)	EPA
PFBS	0.706**	400
PFOA	0.0797	0.070
PFOS	1.72**	0.070

	Conc. (µg/L)	EPA
PFBS	0.111 J	400
PFOA	0.102	0.070
PFOS	5.77**	0.070

	Conc. (µg/L)	EPA
PFBS	0.95**	400
PFOA	0.0591	0.070
PFOS	0.78**	0.070

	Conc. (µg/L)	EPA
PFBS	0.0119	400
PFOA	0.0182	0.070
PFOS	0.0656	0.070
PFOA + PFOS	0.0838	0.070

	Conc. (µg/L)	EPA
PFBS	0.0225	400
PFOA	0.0487	0.070
PFOS	0.479	0.070

	Conc. (µg/L)	EPA
PFBS	0.0138	400
PFOA	0.0174	0.070
PFOS	0.0644	0.070
PFOA + PFOS	0.0818	0.07

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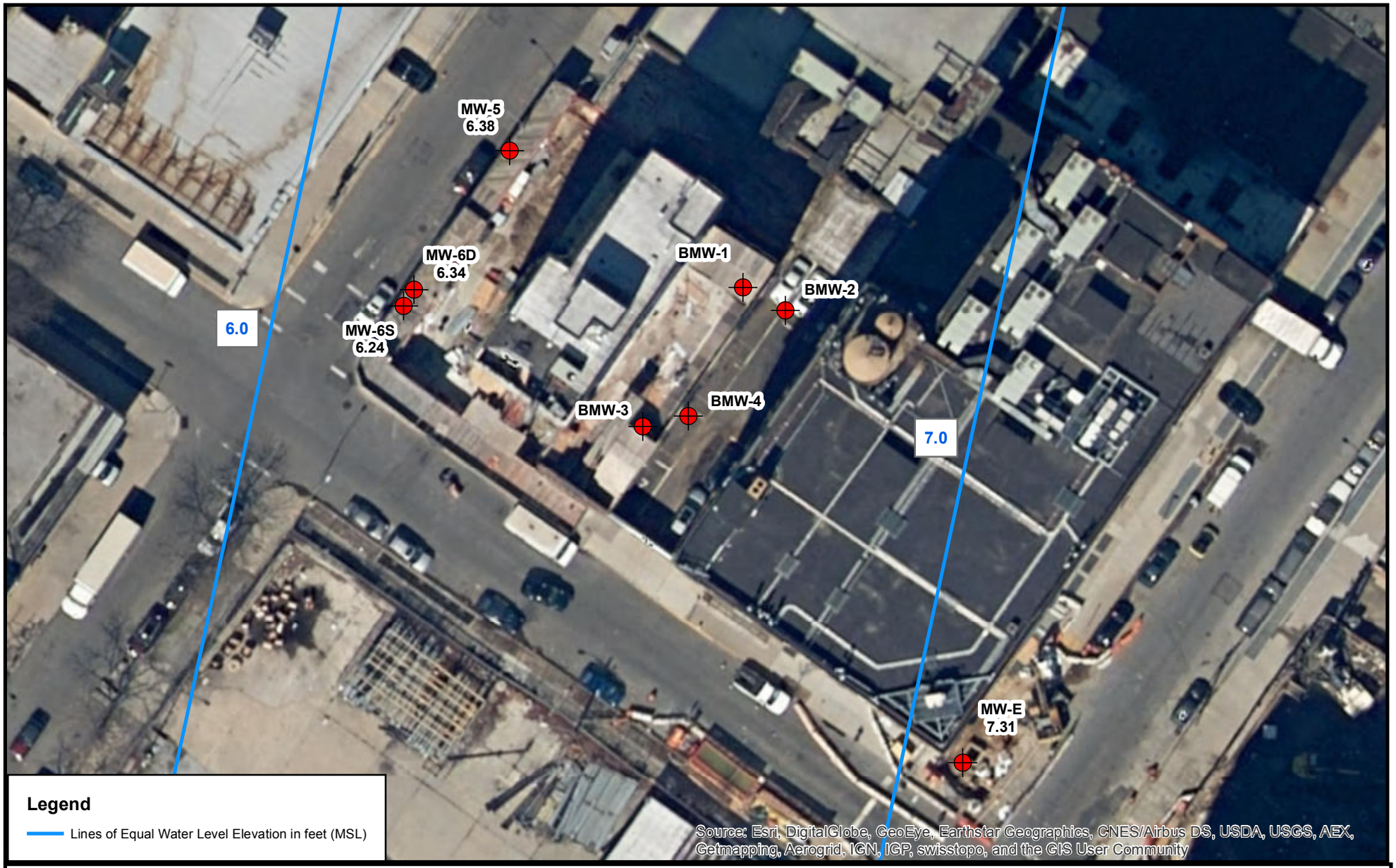
Groundwater Monitoring Well
PFAS Concentrations Map
Project 3612-162-331
Figure 5



amec

Figure 6
Site-Specific Water Table Map

22-07 41st Avenue
Long Island City, New York

N

0 20 40 Feet

Prepared By: JCL 06/07/18	Checked By: EAW 06/07/18

TABLES

TABLE 1: GROUNDWATER VOCs ANALYTICAL RESULTS
22-07 41st Avenue, Long Island City, NY

SAMPLE ID:		BMW-1		BMW-2		BMW-3		BMW-4		MW-5		MW-6S		MW-6D		MW-E		DUPLICATE	
COLLECTION DATE:		4/26/2018		4/26/2018		4/26/2018		4/26/2018		4/27/2018		4/27/2018		4/27/2018		4/27/2018		4/26/2018	
LOCATION:		BASEMENT		BASEMENT		BASEMENT		BASEMENT		SIDEWALK -		SIDEWALK -		SIDEWALK -		SIDEWALK -		BASEMENT	
DEPTH (ft):		1-6		2.5-7.5		3.5-8.5		3.5-8.5		8-18		8-18		26-31		8-18		3.5-8.5	
SAMPLE MATRIX:		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER	
ANALYTE (ppb)	**NY-AWQS**	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual
Volatile Organics by GC/MS-8260																			
Methylene chloride	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
1,1-Dichloroethane	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
Chloroform	7	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
Carbon tetrachloride	5	0.5	U	0.5	U	5	U	5	U	0.5	U	5	U	0.5	U	0.5	U	5	U
1,2-Dichloropropane	1	1	U	1	U	10	U	10	U	1	U	10	U	1	U	1	U	10	U
Dibromochloromethane	50	0.5	U	0.5	U	5	U	5	U	0.5	U	5	U	0.5	U	0.5	U	5	U
1,1,2-Trichloroethane	1	1.5	U	1.5	U	15	U	15	U	1.5	U	15	U	1.5	U	1.5	U	15	U
Tetrachloroethene	5	**0.86**		**2.5**		5	U	5	U	**0.57**		**37**		**0.58**		0.5	U	5	U
Chlorobenzene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
Trichlorofluoromethane	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
1,2-Dichloroethane	0.6	0.5	U	0.5	U	5	U	5	U	0.5	U	5	U	0.5	U	0.5	U	5	U
1,1,1-Trichloroethane	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
Bromodichloromethane	50	0.5	U	0.5	U	5	U	5	U	0.5	U	5	U	0.5	U	0.5	U	5	U
trans-1,3-Dichloropropene	0.4	0.5	U	0.5	U	5	U	5	U	0.5	U	5	U	0.5	U	0.5	U	5	U
cis-1,3-Dichloropropene	0.4	0.5	U	0.5	U	5	U	5	U	0.5	U	5	U	0.5	U	0.5	U	5	U
1,3-Dichloropropene, Total	NS	0.5	U	0.5	U	5	U	5	U	0.5	U	5	U	0.5	U	0.5	U	5	U
1,1-Dichloropropene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
Bromoform	50	2	U	2	U	20	U	20	U	2	U	20	U	2	U	2	U	20	U
1,1,2,2-Tetrachloroethane	5	0.5	U	0.5	U	5	U	5	U	0.5	U	5	U	0.5	U	0.5	U	5	U
Benzene	1	0.5	U	0.19	J	**12**		**2.3**	J	0.5	U	5	U	0.5	U	0.5	U	**2.3**	J
Toluene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
Ethylbenzene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
Chloromethane	NS	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
Bromomethane	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
Vinyl chloride	2	**0.51**	J	**3.1**		**34**		**16**		1	U	10	U	1	U	1	U	**15**	
Chloroethane	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
1,1-Dichloroethene	5	0.5	U	0.5	U	5	U	5	U	0.5	U	5	U	0.5	U	0.5	U	5	U
trans-1,2-Dichloroethene	5	2.5	U	2.5	U	25	U	**7.2**	J	2.5	U	25	U	2.5	U	2.5	U	**7.7**	J
Trichloroethene	5	**1.8**		**5.4**		5	U	**2.4**	J	**3.4**		**10**		**1.1**		0.5	U	**2.1**	J
1,2-Dichlorobenzene	3	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
1,3-Dichlorobenzene	3	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
1,4-Dichlorobenzene	3	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
Methyl tert butyl ether	10	2.5	U	2.5	U	25	U	25	U	2.5	U	**1100**		2.5	U	2.5	U	25	U
p/m-Xylene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
o-Xylene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
Xylenes, Total	NS	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
cis-1,2-Dichloroethene	5	**3.5**		**7.8**		**71**		**12**	J	2.5	U	**23**	J	2.5	U	2.5	U	**11**	J
1,2-Dichloroethene, Total	NS	**3.5**		**7.8**		**71**		**19**	J	2.5	U	**23**	J	2.5	U	2.5	U	**19**	J

Notes:

ppb	parts per billions
Bold	Analyte detected for sample
NS	No Standard
J	indicates estimated value; concentration is below the reporting limit but above the minimum detection limit
NY-AWQS	New York Ambient Water Quality Standards
*	Duplicate was collected with the BMW-4-0418 sample

Prepared By: JCL

Checked By: EAW

TABLE 1: GROUNDWATER VOCs ANALYTICAL RESULTS
22-07 41st Avenue, Long Island City, NY

SAMPLE ID:		BMW-1		BMW-2		BMW-3		BMW-4		MW-5		MW-6S		MW-6D		MW-E		DUPLICATE*	
COLLECTION DATE:		4/26/2018		4/26/2018		4/26/2018		4/26/2018		4/27/2018		4/27/2018		4/27/2018		4/27/2018		4/26/2018	
LOCATION:		BASEMENT		BASEMENT		BASEMENT		BASEMENT		SIDEWALK -		SIDEWALK -		SIDEWALK -		SIDEWALK -		BASEMENT	
DEPTH (ft):		1-6		2.5-7.5		3.5-8.5		3.5-8.5		8-18		8-18		26-31		8-18		3.5-8.5	
SAMPLE MATRIX:		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER	
ANALYTE (ppb)	**NY-AWQS**	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual
Volatile Organics by GC/MS-8260																			
Dibromomethane	5	5	U	5	U	50	U	50	U	5	U	50	U	5	U	5	U	50	U
1,2,3-Trichloropropane	0.04	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
Acrylonitrile	5	5	U	5	U	50	U	50	U	5	U	50	U	5	U	5	U	50	U
Styrene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
Dichlorodifluoromethane	5	5	U	5	U	50	U	50	U	5	U	50	U	5	U	5	U	50	U
Acetone	50	5	U	5	U	**1000**		**380**		5	U	50	U	5	U	5	U	**380**	
Carbon disulfide	60	5	U	5	U	50	U	50	U	5	U	50	U	5	U	5	U	50	U
2-Butanone	50	5	U	5	U	**1700**		**1400**		5	U	50	U	5	U	5	U	**1400**	
Vinyl acetate	NS	5	U	5	U	50	U	50	U	5	U	50	U	5	U	5	U	50	U
4-Methyl-2-pentanone	NS	5	U	5	U	50	U	50	U	5	U	50	U	5	U	5	U	50	U
2-Hexanone	50	5	U	5	U	50	U	50	U	5	U	50	U	5	U	5	U	50	U
Bromochloromethane	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
2,2-Dichloropropane	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
1,2-Dibromoethane	0.0006	2	U	2	U	20	U	20	U	2	U	20	U	2	U	2	U	20	U
1,3-Dichloropropane	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
1,1,1,2-Tetrachloroethane	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
Bromobenzene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
n-Butylbenzene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
sec-Butylbenzene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
tert-Butylbenzene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
o-Chlorotoluene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
p-Chlorotoluene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
1,2-Dibromo-3-chloropropane	0.04	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
Hexachlorobutadiene	0.5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
Isopropylbenzene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
p-Isopropyltoluene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
Naphthalene	10	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
n-Propylbenzene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
1,2,3-Trichlorobenzene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
1,2,4-Trichlorobenzene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
1,3,5-Trimethylbenzene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
1,2,4-Trimethylbenzene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
1,4-Dioxane	0.035	250	U	250	U	2500	U	2500	U	250	U	2500	U	250	U	250	U	2500	U
p-Diethylbenzene	NS	2	U	2	U	20	U	20	U	2	U	20	U	2	U	2	U	20	U
p-Ethyltoluene	NS	2	U	2	U	20	U	20	U	2	U	20	U	2	U	2	U	20	U
1,2,4,5-Tetramethylbenzene	5	2	U	2	U	20	U	20	U	2	U	20	U	2	U	2	U	20	U
Ethyl ether	NS	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U
trans-1,4-Dichloro-2-butene	5	2.5	U	2.5	U	25	U	25	U	2.5	U	25	U	2.5	U	2.5	U	25	U

Notes:

ppb	parts per billions
Bold	Analyte detected for sample
NS	No Standard
J	indicates estimated value; concentration is below the reporting limit but above the minimum detection limit
NY-AWQS	New York Ambient Water Quality Standards
*	Duplicate was collected with the BMW-4-0418 sample

Prepared By: JCL | Checked By: EAW

TABLE 2: GROUNDWATER METALS ANALYTICAL RESULTS
22-07 41st Avenue, Long Island City, NY

SAMPLE ID:		BMW-1		BMW-2		BMW-3		BMW-4		MW-5		MW-6S		MW-6D		MW-E		DUPLICATE*	
COLLECTION DATE:		4/26/2018		4/26/2018		4/26/2018		4/26/2018		4/27/2018		4/27/2018		4/27/2018		4/27/2018		4/26/2018	
LOCATION:		BASEMENT		BASEMENT		BASEMENT		BASEMENT		SIDEWALK -		SIDEWALK -		SIDEWALK -		SIDEWALK -		BASEMENT	
DEPTH (ft):		1-6		2.5-7.5		3.5-8.5		3.5-8.5		8-18		8-18		26-31		8-18		3.5-8.5	
SAMPLE MATRIX:		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER	
ANALYTE (ppb)	**NY-AWQS**	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual
Dissolved Metals																			
Aluminum, Dissolved	NS	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Antimony, Dissolved	3	4	U	4	U	4	U	4	U	4	U	4	U	4	U	4	U	4	U
Arsenic, Dissolved	25	**1.06**		**0.51**		**2.66**		**5.35**		**0.22**	J	**1.06**		**0.29**	J	**0.6**		**4.88**	
Barium, Dissolved	1000	**103.6**		**124.8**		**201.5**		**147.1**		**109.2**		**194.8**		**105.7**		**84.07**		**143.4**	
Beryllium, Dissolved	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cadmium, Dissolved	5	**1.17**		**7.67**		0.2	U	0.2	U	0.2	U	0.2	U	**0.09**	J	0.2	U	0.2	U
Calcium, Dissolved	NS	**264000**		**307000**		**275000**		**269000**		**201000**		**253000**		**211000**		**109000**		**263000**	
Chromium, Dissolved	50	**1.1**		**2.03**		**1.74**		**0.53**	J	**7.08**		**0.24**	J	**2.24**		**0.43**	J	**0.56**	J
Cobalt, Dissolved	NS	**14.04**		**13.79**		**11.28**		**22.42**		**0.65**		**3.12**		**0.47**	J	**0.22**	J	**20.82**	
Copper, Dissolved	200	**3.3**		**3.67**		1	U	1	U	**1.53**		**1.36**		**2.1**		**0.67**	J	**0.53**	J
Iron, Dissolved	300	**28.5**	J	**24.9**	J	**8360**		**350**	J	**26.9**	J	**20.3**	J	**39.2**	J	50	U	**126**	J
Lead, Dissolved	25	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Magnesium, Dissolved	35000	**30000**		**41300**		**40200**		**55700**		**13700**		**81400**		**18500**		**17200**		**51200**	
Manganese, Dissolved	300	**3816**		**5380**		**4685**		**8175**		**6.47**		**4112**		**59.63**		**271**		**8132**	
Mercury, Dissolved	0.7	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel, Dissolved	100	**83.19**		**123.6**		**368.8**		**59.69**		**5.51**		**32.64**		**3.72**		**1.12**	J	**56.04**	
Potassium, Dissolved	NS	**44400**		**38500**		**63400**		**47900**		**26400**		**16900**		**23700**		**20500**		**48600**	
Selenium, Dissolved	10	5	U	5	U	5	U	5	U	**8.46**		5	U	**4.84**	J+	**4.49**	J	5	U
Silver, Dissolved	50	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Sodium, Dissolved	20000	**203000**		**161000**		**230000**		**207000**		**192000**		**130000**		**113000**		**89800**		**196000**	
Thallium, Dissolved	0.5	**0.3**	J	**0.14**	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vanadium, Dissolved	NS	5	U	5	U	5	U	5	U	5	U	5	U	**1.88**	J	5	U	5	U
Zinc, Dissolved	2000	10	U	10	U	10	U	10	U	**3.69**	J	**10.48**		10	U	10	U	10	U

Notes:

ppb	parts per billions
Bold	Analyte detected for sample
NS	No Standard
J	indicates estimated value; concentration is below the reporting limit but above the minimum detection limit
J+	indicates estimated value and potentially biased high; concentration is below the reporting limit but above the minimum detection limit
NY-AWQS	New York Ambient Water Quality Standards
*	Duplicate was collected with the BMW-4-0418 sample

Prepared By: JCL | Checked By: EAW

TABLE 2: GROUNDWATER METALS ANALYTICAL RESULTS
22-07 41st Avenue, Long Island City, NY

SAMPLE ID:		BMW-1		BMW-2		BMW-3		BMW-4		MW-5		MW-6S		MW-6D		MW-E		DUPLICATE	
COLLECTION DATE:		4/26/2018		4/26/2018		4/26/2018		4/26/2018		4/27/2018		4/27/2018		4/27/2018		4/27/2018		4/26/2018	
LOCATION:		BASEMENT		BASEMENT		BASEMENT		BASEMENT		SIDEWALK -		SIDEWALK -		SIDEWALK -		SIDEWALK -		BASEMENT	
DEPTH (ft):		1-6		2.5-7.5		3.5-8.5		3.5-8.5		8-18		8-18		26-31		8-18		3.5-8.5	
SAMPLE MATRIX:		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER	
ANALYTE (ppb)	**NY-AWQS**	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual
Total Metals																			
Aluminum, Total	NS	**13.2**		**70.7**		**403**		**23.2**		**175**		**212**		**130**		**4830**		**12.1**	
Antimony, Total	3	4	U	4	U	**4**	U	4	U	4	U	4	U	4	U	4	U	4	U
Arsenic, Total	25	**1.25**		**0.8**		**21.26**		**23.36**		**0.31**	J	**1.57**		**0.46**	J	**9.99**		**23.48**	
Barium, Total	1000	**102.5**		**114.6**		**348.7**		**220.1**		**112.5**		**196.3**		**107.3**		**205.8**		**230.1**	
Beryllium, Total	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**0.48**	J	0.5	U
Cadmium, Total	5	**1.16**		**7.27**		0.2	U	**0.06**	J	**0.07**	J	**0.06**	J	**0.07**	J	**0.11**	J	0.2	U
Calcium, Total	NS	**258000**		**284000**		**281000**		**267000**		**201000**		**251000**		**204000**		**118000**		**261000**	
Chromium, Total	50	**14.76**		**4.47**		**9.98**		**1.29**	J	**12.83**		**2.12**	J	**3.08**		**16.88**		**1.24**	J
Cobalt, Total	NS	**13.13**		**14.89**		**13.13**		**22.53**		**0.78**		**3.06**		**0.56**		**8.7**		**21.1**	
Copper, Total	200	**3.66**	J	**4**	J	**4.11**	J	**0.63**	J	**1.55**	J	**2.22**	J	**2.88**	J	**24.03**		**0.65**	J
Iron, Total	300	**464**		**445**		**80000**		**30200**		**332**		**482**		**233**		**15600**		**30600**	
Lead, Total	25	**0.44**	J	1	U	**0.81**	J	1	U	**2.3**		**1.89**		**0.62**	J	**7.33**		1	U
Magnesium, Total	35000	**29800**		**40700**		**40800**		**52500**		**14000**		**74600**		**18100**		**22200**		**50200**	
Manganese, Total	300	**3659**		**5743**		**5194**		**8368**		**8**		**4051**		**47.49**		**2088**		**8359**	
Mercury, Total	0.7	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel, Total	100	**79.21**		**136.9**		**383**		**57.9**		**4.19**		**31.38**		**4.07**		**17.42**		**55.86**	
Potassium, Total	NS	**43600**		**34300**		**64600**		**45900**		**26800**		**16500**		**23900**		**22500**		**47600**	
Selenium, Total	10	**1.81**	J	5	U	5	U	5	U	**8.7**		5	U	**4.63**	J	**5.55**		5	U
Silver, Total	50	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Sodium, Total	20000	**204000**		**162000**		**229000**		**196000**		**196000**		**125000**		**110000**		**92200**		**192000**	
Thallium, Total	0.5	**0.29**	J	**0.15**	J	0.5	U	0.5	U	0.5	U	0.5	U	**0.14**	J	0.5	U	0.5	U
Vanadium, Total	NS	5	U	5	U	**5.42**		5	U	5	U	5	U	**2.6**	J	**18.56**		5	U
Zinc, Total	2000	10	U	10	U	**13.42**		10	U	10	U	**16.09**		10	U	**49.41**		10	U

Notes:

ppb	parts per billions
Bold	Analyte detected for sample
NS	No Standard
J	indicates estimated value; concentration is below the reporting limit but above the minimum detection limit
J+	indicates estimated value and potentially biased high; concentration is below the reporting limit but above the minimum detection limit
NY-AWQS	New York Ambient Water Quality Standards
*	Duplicate was collected with the BMW-4-0418 sample

Prepared By: JCL | Checked By: EAW

TABLE 3: GROUNDWATER PFOAS ANALYTICAL RESULTS
22-07 41st Avenue, Long Island City, NY

SAMPLE ID:		BMW-1		BMW-2		BMW-3		BMW-4		MW-5		MW-6S		MW-6D		MW-E		DUPLICATE***	
COLLECTION DATE:		4/26/2018		4/26/2018		4/26/2018		4/26/2018		4/27/2018		4/27/2018		4/27/2018		4/27/2018		4/26/2018	
LOCATION:		BASEMENT		BASEMENT		BASEMENT		BASEMENT		SIDEWALK -		SIDEWALK -		SIDEWALK -		SIDEWALK -		BASEMENT	
DEPTH (ft):		1-6		2.5-7.5		3.5-8.5		3.5-8.5		8-18		8-18		26-31		8-18		3.5-8.5	
SAMPLE MATRIX:		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER		GROUNDWATER	
ANALYTE (ug/L)	**EPA**	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual
Perfluorinated Alkyl Acids by Isotope Dilution																			
Perfluorobutanoic Acid (PFBA)	NSG	**0.0302**		**0.0298**		**0.0289**	J	**0.031**		**0.00862**		**0.0127**		**0.00624**		**0.026**		**0.0304**	
Perfluoropentanoic Acid (PFPeA)	NSG	**0.0618**		**0.0624**		0.0569		**0.0925**		**0.00878**		**0.00742**		**0.00501**		**0.056**		**0.0903**	
Perfluorobutanesulfonic Acid (PFBS)	400	**0.95**	**	**0.706**	**	**0.111**	J	**0.248**	J	**0.0119**		**0.0225**		**0.0138**		**0.00714**		**0.286**	J
Perfluorohexanoic Acid (PFHxA)	NSG	**0.0722**		**0.0457**		**0.104**		**0.104**		**0.00814**		**0.00696**		**0.00603**		**0.0723**		**0.099**	
Perfluoroheptanoic Acid (PFHpA)	NSG	**0.0233**		**0.0201**		**0.0262**		**0.0232**		**0.00482**		**0.00569**		**0.00402**		**0.00933**		**0.0227**	
Perfluorohexanesulfonic Acid (PFHxS)	NSG	**0.148**		**0.322**		**0.0971**	J	**0.106**	J	**0.00481**		**0.0302**		**0.00275**		**0.0017**		**0.108**	J
Perfluorooctanoic Acid (PFOA)*	0.070	**0.0591**		**0.0797**		**0.102**		**0.0712**		**0.0182**		**0.0487**		**0.0174**		**0.0292**		**0.073**	
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	NSG	**0.000721**	J	**0.001**	J	**0.00343**	J	**0.00185**	J	0.00178	U	**0.00526**	J	0.00185	UJ	**0.017**		**0.0018**	J
Perfluoroheptanesulfonic Acid (PFHpS)	NSG	**0.0481**		**0.0832**		**0.115**		**0.075**		0.00178	U	**0.0114**		**0.000744**	J	0.00167	U	**0.0859**	
Perfluorononanoic Acid (PFNA)	NSG	**0.00484**		**0.00343**		**0.0041**		**0.00303**		**0.000628**	J	**0.00248**		**0.00136**	J	**0.000887**	J	**0.00301**	
Perfluorooctanesulfonic Acid (PFOS)*	0.070	**0.78**	**	**1.72**	**	**5.77**	**	**2.55**	**	**0.0656**		**0.479**		**0.0644**		**0.00526**		**3.95**	E
Perfluorodecanoic Acid (PFDA)	NSG	**0.00128**	J	**0.00122**	J	**0.000972**	J	**0.00117**	J	0.00178	U	**0.000852**	J	**0.000481**	J	**0.000843**	J	0.000589	J
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	NSG	0.00172	UJ	0.00192	UJ	0.00172	UJ	0.00192	UJ	0.00178	U	0.00172	U	0.00185	U	0.00167	U	0.00185	UJ
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	NSG	0.00172	U	0.00192	U	0.00172	U	0.00192	U	0.00178	U	0.00172	U	0.00185	U	0.00167	U	0.00185	U
Perfluoroundecanoic Acid (PFUnA)	NSG	0.00172	U	0.00192	U	0.00172	U	**0.000704**	J	0.00178	U	0.00172	U	0.00185	U	0.00167	U	0.00185	U
Perfluorodecanesulfonic Acid (PFDS)	NSG	0.00172	U	0.00192	U	0.00172	U	**0.00115**	J	0.00178	U	0.00172	U	0.00185	U	0.00167	U	0.00185	UJ
Perfluorooctanesulfonamide (FOSA)	NSG	0.00172	UJ	0.00192	UJ	0.00172	UJ	0.00192	UJ	0.00178	UJ	0.00172	UJ	0.00185	UJ	0.00167	UJ	0.00185	U
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	NSG	0.00172	U	0.00192	U	0.00172	U	**0.000515**	J	0.00178	U	0.00172	U	0.00185	U	0.00167	U	0.00185	U
Perfluorododecanoic Acid (PFDoA)	NSG	0.00172	U	0.00192	U	0.00172	U	**0.000762**	J	0.00178	U	0.00172	U	0.00185	U	0.00167	U	0.00185	U
Perfluorotridecanoic Acid (PFTrDA)	NSG	0.00172	U	0.00192	U	0.00172	U	**0.000646**	J	0.00178	U	0.00172	U	0.00185	U	0.00167	U	**0.00185**	U
Perfluorotetradecanoic Acid (PFTA)	NSG	0.00172	U	0.00192	U	0.00172	U	**0.000638**	J	0.00178	U	0.00172	UJ	0.00185	U	0.00167	U	0.00185	U
PFOA + PFOS (combined value)	0.070	-				-				**0.0838**		-		**0.0818**		**0.034**		-	

Notes:

Bold	Analyte detected for sample
E	Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
NSG	No Standard Given
J	indicates estimated value; concentration is below the reporting limit but above the minimum detection limit
EPA	EPA drinking water guideline, May 2016
*	Guideline value for combined concentrations of PFOS and PFOA
**	Due to analyte exceedance above laboratory instrument, the tabulated value is from second laboratory run after a 1 to 10 dilution factor
***	Duplicate was collected with the BMW-4-0418 sample

Prepared By: JCL | Checked By: EAW

TABLE 4: PREVIOUS INVESTIGATION RESULTS FOR CONTAMINANTS OF CONCERN - VOCs
22-07 41ST AVENUE, LONG ISLAND CITY, NY

Former Hygrade Plating GW Results in ug/l

VOCs in ug/l

BMW-1						
Date:	2/19/2014	3/27/2014	11/10/2016	12/11/2017	4/26/2018	NY-AWQS
PCE in ug/l	3.74	18.30	7.50	2.90	0.86	5.00
TCE	10.10	5.37	8.00	6.80	1.80	5.00
c-1,2-DCE	27.70	11.70	16.00	9.80	3.50	5.00
VC	ND	ND	1.40	0.56	0.51 J	2.00

BMW-2						
Date:	2/19/2014	3/27/2014	11/10/2016	12/11/2017	4/26/2018	NY-AWQS
PCE in ug/l	6.56	4.59	17.00	3.10	2.50	5.00
TCE	12.70	5.30	11.00	7.10	5.40	5.00
c-1,2-DCE	15.30	8.07	14.00	6.90	7.80	5.00
VC	ND	ND	1.20	0.26	3.10	2.00

BMW-3						
Date:	2/19/2014	3/27/2014	11/10/2016	12/11/2017	4/26/2018	NY-AWQS
PCE in ug/l	11,900.00	20,700.00	3,300.00	960.00	ND	5.00
TCE	2,600.00	910.00	290.00	130.00	ND	5.00
c-1,2-DCE	4,150.00	2,730.00	450.00	210.00	71.00	5.00
VC	1,070.00	818.00	140.00	46.00	34.00	2.00

BMW-4						
Date:	2/19/2014	3/27/2014	11/10/2016	12/11/2017	4/26/2018	NY-AWQS
PCE in ug/l	464.00	449.00	720.00	340.00	ND	5.00
TCE	56.90	50.50	62.00	52.00	2.4 J	5.00
c-1,2-DCE	33.70	26.70	240.00	86.00	12 J	5.00
VC	6.96	11.20	66.00	34.00	16.00	2.00

MW-5			
Date:	5/4/2017	4/27/2018	NY-AWQS
PCE in ug/l	0.53	0.57	5.00
TCE	2.70	3.40	5.00
c-1,2-DCE	ND	ND	5.00
VC	ND	ND	2.00

MW-6S			
Date:	5/4/2017	4/27/2018	NY-AWQS
PCE in ug/l	0.46	37	5.00
TCE	0.75	10	5.00
c-1,2-DCE	ND	23	5.00
VC	ND	ND	2.00

MW-6D			
Date:	5/4/2017	4/27/2018	NY-AWQS
PCE in ug/l	43	0.58	5.00
TCE	13	1.1	5.00
c-1,2-DCE	ND	ND	5.00
VC	ND	ND	2.00

MW-E			
Date:	5/4/2017	4/27/2018	NY-AWQS
PCE in ug/l	0.31	ND	5.00
TCE	ND	ND	5.00
c-1,2-DCE	ND	ND	5.00
VC	ND	ND	2.00

TABLE 5: PREVIOUS INVESTIGATION RESULTS FOR CONTAMINANTS OF CONCERN - METALS
22-07 41ST AVENUE, LONG ISLAND CITY, NY

Former Hygrade Plating GW Results in ug/l

Dissolved Metals in ug/l

BMW-1					
Date:	2/19/2014	3/27/2014	11/10/2016	4/26/2018	NY-AWQS
Cadmium	1.90	0.15	7.80	1.17	5.00
Chromium	1,000.00	150.00	679.60	1.10	50.00
Hex Chromium	240.00	190.00	593.00		50.00

BMW-2					
Date:	2/19/2014	3/27/2014	11/10/2016	4/26/2018	NY-AWQS
Cadmium	25.00	27.00	27.30	7.60	5.00
Chromium	2,380.00	4,120.00	775.10	2.03	50.00
Hex Chromium	2,410.00	2,630.00	81.00		50.00

BMW-3					
Date:	2/19/2014	3/27/2014	11/10/2016	4/26/2018	NY-AWQS
Cadmium	0.60	0.50	ND	0.20	5.00
Chromium	57.00	31.00	ND	1.40	50.00
Hex Chromium	ND	ND	ND		50.00

BMW-4					
Date:	2/19/2014	3/27/2014	11/10/2016	4/26/2018	NY-AWQS
Cadmium	ND	ND	0.30	0.2	5.00
Chromium	12.00	11.00	12.50	0.23	50.00
Hex Chromium	ND	ND	16.00		50.00

MW-5			
Date:	5/4/2017	4/27/2018	NY-AWQS
Cadmium	0.11	ND	5.00
Chromium	ND	7.08	50.00
Hex Chromium	ND	NA	50.00

MW-6S			
Date:	5/4/2017	4/27/2018	NY-AWQS
Cadmium	0.16	ND	5.00
Chromium	ND	0.24	50.00
Hex Chromium	ND	NA	50.00

MW-6D			
Date:	5/4/2017	4/27/2018	NY-AWQS
Cadmium	ND	0.09	5.00
Chromium	ND	2.24	50.00
Hex Chromium	ND	NA	50.00

MW-E			
Date:	5/4/2017	4/27/2018	NY-AWQS
Cadmium	ND	ND	5.00
Chromium	ND	0.43	50.00
Hex Chromium	ND	NA	50.00

TABLE 6: ELEVATIONS OF MONITORING WELLS AND WATER TABLE
FORMER HYGRADE
LONG ISLAND CITY, NEW YORK

Well ID Number	Elevation of Top of Casing (ft. MSL)	Depth to Water (ft.) in April 2018	Water Table Elevation (ft. MSL)	Depth to Top of Screen Interval (ft.)	Depth to Bottom of Screen Interval (ft.)	Elevation of Top of Screen (ft. MSL)	Elevation of Bottom of Screen Interval (ft. MSL)
MW-E	16.21	8.90	7.31	5	15	11.2	1.2
BMW-1	*	1.17	NA	1	6	NA	NA
BMW-2	*	1.10	NA	2.5	7.5	NA	NA
BMW-3	*	2.67	NA	3.5	8.5	NA	NA
BMW-4	*	1.10	NA	4.6	9.6	NA	NA
MW-5	14.50	8.12	6.38	8	18	6.5	-3.5
MW-6S	14.09	7.85	6.24	8.5	18.5	5.6	-4.4
MW-6D	14.18	7.84	6.34	26.5	31.5	-12.3	-17.3

* Wells were replaced after injection program. Casing elevations are not avalaible.

APPENDIX A – FIELD FORMS

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Stalingrad Ventures	FIELD SAMPLE NUMBER	BMW-1-0418	JOB No.	3612162331
Location	22-07 41st Avenue, Long Island City, NY	SITE TYPE	WELL - BMW-1	DATE	04/25/18
ACTIVITY	START 1130 END 1330	SAMPLE TIME	12:35		

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [x] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER	1.17 FT	WELL DEPTH (TOR)	6.5 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	FT
FINAL DEPTH TO WATER	1.21 FT	SCREEN LENGTH	5 FT	PID AMBIENT AIR	PPM
DRAWDOWN VOLUME (initial - final x 0.16 {2-inch} or x 0.65 {4-inch})	0.0064 GAL	RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED	390.625	PID WELL MOUTH	PPM
TOTAL VOL. PURGED (purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)	2.5 GAL			PRESSURE TO PUMP	PSI
				REFILL SETTING	

CASING / WELL DIFFER. 0.42 FT

WELL DIAM. 2 IN

WELL INTERGRITY:

	YES	NO	N/A
CAP			
CASING			
LOCKED			
COLLAR			

DISCHARGE SETTING

PURGE DATA

TIME	DEPTH TO WATER (ft) < 0.33 ft	PURGE RATE (ml/m) ≤ 500 ml/m	TEMP. (deg. c) ≤ 3%	SPECIFIC CONDUCTANCE (umho/cm) ≤ 3%	pH (units) ≤ 0.1 units	DISS. O2 (mg/L) ≤ 10%	TURBIDITY (ntu) ≤ 50 ntu	REDOX (mv) ≤ 10 units	COMMENTS
1205	1.22	250	16.52	2.489	7.06	0.16	484	-63.4	
1210	1.23	250	16.45	2.490	7.03	0.40	174	-56.5	
1215	1.23	250	16.43	2.478	7.03	0.54	46.9	-45.3	
1220	1.23	250	16.43	2.456	7.04	0.53	23.4	-34.1	
1225	1.23	250	16.41	2.434	7.04	0.51	14.0	-32.8	
1230	1.24	250	16.41	2.415	7.04	0.60	8.88	-30.0	
1235	1.24	250	16.38	2.407	7.04	0.63	6.43	-29.9	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL
[x] GEOPUMP (peristaltic)	[ ] TEFLON OR TEFLON LINED	[ ] Polyvinyl chloride	[ ] TEFLON
[ ] SMCO BLADDER	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] Other _____
[ ] BLADDER	[ ] OTHER _____	[ ] OTHER _____	

ANALYTICAL PARAMETERS

Check if Scheduled for Collection	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED (Check if collected)
[x] VOC	USEPA-8260B	HCL / 4 DEG. C	3 X 40 mL	[ ]
[ ] SVOC	USEPA 8270C	4 DEG. C	2 X 1 LAG	[ ]
[ ] NDMA	EPA 1625	$Na_2S_2O_3$ 4° c	2 X 1 LAG	[ ]
[ ] NDMA	EPA 625	$Na_2S_2O_3$ 4° c	2 X 1 LAG	[ ]
[x] TAL Metals	USEPA 6010B/6020/Hg 7470A	pH<2 HNO_3 4°C	1 X 500 mL	[ ]
[ ] Hex-Chromium	USEPA 7196A	4 DEG. C	1 X 500 mL	[ ]
[ ] Nitrate, nitrate, chloride, sulfate	USEPA 300	4 DEG. C	1 x 500 mL P	[ ]
[ ] SULFIDE	USEPA-376.1	Zinc Acetate/NaOH	1 X 250 mL P	[ ]
[ ] ALKALINITY	USEPA-310.1	4 DEG. C	W/SULFATE	[ ]
[ ] Ammonia	USEPA-350.1	pH<2 H_2SO_4 4° c	1 X 1L poly	[ ]
[ ]				[ ]
[ ]				[ ]
[ ]				[ ]
[ ]				[ ]

h = 5.23 ft

r = 0.167 ft

$V = \pi (0.167)^2 \times 5.23$

$V = 0.4564\ ft^3$

Purge Observations

Purge Water Conatinerized (yes) no

Number of Gallons Generated 2.5

SIGNATURE: _____

LOCATION SKETCH

amec

BMW-2

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Stalingrad Ventures	FIELD SAMPLE NUMBER	BMW-2-0418	JOB No.	3612162331
Location	22-07 41st Avenue, Long Island City, NY	SITE TYPE	WELL	DATE	4/26/18
ACTIVITY	START 1130 END	SAMPLE TIME	1310		

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: ☐ TOP OF WELL RISER ☐ TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER	1.10 FT	WELL DEPTH (TOR)	8 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	0 FT
FINAL DEPTH TO WATER	~~8~~ 8 FT	SCREEN LENGTH	5 FT	CASING / WELL DIFFER.	0.5 FT
DRAWDOWN VOLUME (initial - final x 0.16 {2-inch} or x 0.65 {4-inch})	1.104 GAL	RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED		PID AMBIENT AIR	— PPM
TOTAL VOL. PURGED (purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)	2.184 GAL			PID WELL MOUTH	— PPM
				PRESSURE TO PUMP	— PSI
				REFILL SETTING	—
				WELL DIAM.	2 IN
				DISCHARGE SETTING	—

WELL INTERGRITY:

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

PURGE DATA

TIME	DEPTH TO WATER (ft) < 0.33 ft	PURGE RATE (ml/m) ≤ 500 ml/m	TEMP. (deg. c) ≤ 3%	SPECIFIC CONDUCTANCE (umho/cm) ≤ 3%	pH (units) ≤ 0.1 units	DISS. O2 (mg/L) ≤ 10%	TURBIDITY (ntu) ≤ 50 ntu	REDOX (mv) ≤ 10 units	COMMENTS
1155	1.10	Start	Purging of						
		280	tubing kept silting up						
1225	Begin Purging	280	again						
1235	1.20	280	16.12	2.435	6.96	0.82	914	-12.1	
1240	1.24	280	16.11	2.491	6.96	0.68	391	-9.5	
1245	1.24	280	16.10	2.533	6.97	0.57	123	-8.5	
1250	1.24	280	16.11	2.519	6.98	0.58	80.5	-8.2	
1255	1.24	280	16.11	2.503	6.98	0.60	36.8	-8.0	
1300	1.24	280	16.11	2.501	6.98	0.38	24.8	-8.4	
1305	1.24	280	16.11	2.504	6.98	0.35	17.3	-9.0	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL
☒ GEOPUMP (peristaltic)	☐ TEFLON OR TEFLON LINED	☐ Polyvinyl chloride	☐ TEFLON
☐ SMCO BLADDER	☒ HIGH DENSITY POLYETHYLENE	☐ STAINLESS STEEL	☐ Other _____
☐ BLADDER	☐ OTHER _____	☐ OTHER _____	

ANALYTICAL PARAMETERS

Check if Scheduled for Collection	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED (Check if collected)
☒ VOC	USEPA-8260B	HCL / 4 DEG. C	3 X 40 mL	☒
☐ SVOC	USEPA 8270C	4 DEG. C	2 X 1 LAG	☐
☐ NDMA	EPA 1625	$Na_2S_2O_3$ 4° c	2 X 1 LAG	☐
☐ NDMA	EPA 625	$Na_2S_2O_3$ 4° c	2 X 1 LAG	☐
☒ TAL Metals	USEPA 6010B/6020/Hg 7470A	pH<2 HNO_3 4°C	1 X 500 mL	☒
☐ Hex-Chromium	USEPA 7196A	4 DEG. C	1 X 500 mL	☐
☐ Nitrate, nitrate, chloride, sulfate	USEPA 300	4 DEG. C	1 x 500 mL P	☐
☐ SULFIDE	USEPA-376.1	Zinc Acetate/NaOH	1 X 250 mL P	☐
☐ ALKALINITY	USEPA-310.1	4 DEG. C	W/SULFATE	☐
☐ Ammonia	USEPA-350.1	pH<2 H_2SO_4 4° c	1 X 1L poly	☐
☒ PFAs				☒
☐				☐
☐				☐
☐				☐

6.9' = water column
1.12 = gallons
280 x 30 x 0.00026 =
= 2.184 gallons

Purge Observations

Purge Water Conatinerized (yes) no

Number of Gallons Generated 3

SIGNATURE: Lazar Lazar

LOCATION SKETCH

Has gasoline odor
very silty

amec

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Stalingrad Ventures	FIELD SAMPLE NUMBER	BMW-3-0418	JOB No.	3612162331
Location	22-07 41st Avenue, Long Island City, NY	SITE TYPE	WELL - BMW-3	DATE	4/25/18
ACTIVITY	START 0745 END 1500	SAMPLE TIME	1400		

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER	2.67 FT	WELL DEPTH (TOR)	8.9 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	FT
FINAL DEPTH TO WATER	6.14 FT	SCREEN LENGTH	5 FT	PID AMBIENT AIR	PPM
DRAWDOWN VOLUME	GAL			PID WELL MOUTH	PPM
TOTAL VOL. PURGED	1.5 GAL	RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED		PRESSURE TO PUMP	PSI
				REFILL SETTING	

(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})

(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)

CASING / WELL DIFFER.	0.54 FT		
WELL DIAM.	2 IN		
DISCHARGE SETTING			

WELL INTERGRITY:

	YES	NO	N/A
CAP			
CASING			
LOCKED			
COLLAR			

PURGE DATA

TIME	DEPTH TO WATER (ft) < 0.33 ft	PURGE RATE (ml/m) ≤ 500 ml/m	TEMP. (deg. c) ≤ 3%	SPECIFIC CONDUCTANCE (umho/cm) ≤ 3%	pH (units) ≤ 0.1 units	DISS. O2 (mg/L) ≤ 10%	TURBIDITY (ntu) ≤ 50 ntu	REDOX (mv) ≤ 10 units	COMMENTS
1055	5.47	200	16.97	3.897	6.59	0.41	184	-105.4	
1100	6.85	200	16.97	3.614	6.69	2.55	342	-110.4	
1105	8.25	200	17.04	3.960	6.73	2.83	858	-98.0	
1110									well ran dry/recharge
1400									well recharged, sampling
1415	7.21	250	16.94	1.705	6.81	8.55	142	-106.4	enough water left for one reading

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL
[x] GEOPUMP (peristaltic)	[ ] TEFLON OR TEFLON LINED	[ ] Polyvinyl chloride	[ ] TEFLON
[ ] SMCO BLADDER	[x] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] Other _____
[ ] BLADDER	[ ] OTHER _____	[ ] OTHER _____	

ANALYTICAL PARAMETERS

Check if Scheduled for Collection	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED (Check if collected)
[x] VOC	USEPA-8260B	HCL / 4 DEG. C	3 X 40 mL	[ ]
[ ] SVOC	USEPA 8270C	4 DEG. C	2 X 1 LAG	[ ]
[ ] NDMA	EPA 1625	$Na_2S_2O_3$ 4° c	2 X 1 LAG	[ ]
[ ] NDMA	EPA 625	$Na_2S_2O_3$ 4° c	2 X 1 LAG	[ ]
[x] TAL Metals	USEPA 6010B/6020/Hg 7470A	pH<2 HNO_3 4°C	1 X 500 mL	[ ]
[ ] Hex-Chromium	USEPA 7196A	4 DEG. C	1 X 500 mL	[ ]
[ ] Nitrate, nitrate, chloride, sulfate	USEPA 300	4 DEG. C	1 x 500 mL P	[ ]
[ ] SULFIDE	USEPA-376.1	Zinc Acetate/NaOH	1 X 250 mL P	[ ]
[ ] ALKALINITY	USEPA-310.1	4 DEG. C	W/SULFATE	[ ]
[ ] Ammonia	USEPA-350.1	pH<2 H_2SO_4 4° c	1 X 1L poly	[ ]
[ ] PFAS				[ ]
[ ]				[ ]
[ ]				[ ]
[ ]				[ ]

Purge Observations

Purge Water Conatinerized (yes) no

Number of Gallons Generated: 1.5 gallons

SIGNATURE: _____

LOCATION SKETCH

amec

BMW-4

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Stalingrad Ventures	FIELD SAMPLE NUMBER	BMW-4-0418	JOB No.	3612162331
Location	22-07 41st Avenue, Long Island City, NY	SITE TYPE	WELL	DATE	4/26/18
ACTIVITY	START END	SAMPLE TIME	1100		

WATER LEVEL / PUMP SETTINGS

INITIAL DEPTH TO WATER	1.10 FT	MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING		PROTECTIVE CASING STICKUP (FROM GROUND)	0 FT
FINAL DEPTH TO WATER	1.61 FT	WELL DEPTH (TOR)	9 FT	PID AMBIENT AIR	/ PPM
DRAWDOWN VOLUME (initial - final x 0.16 {2-inch} or x 0.65 {4-inch})	0.0816 GAL	SCREEN LENGTH	5 FT	PID WELL MOUTH	/ PPM
TOTAL VOL. PURGED (purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)	3.06 GAL	RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED		PRESSURE TO PUMP	/ PSI
				REFILL SETTING	/

CASING / WELL DIFFER.	0.45 FT		
WELL DIAM.	2 IN		
WELL INTERGRITY:	YES	NO	N/A
CAP	✓	—	—
CASING	✓	—	—
LOCKED	✓	—	—
COLLAR	✓	—	—
DISCHARGE SETTING	/		

PURGE DATA

TIME	DEPTH TO WATER (ft) < 0.33 ft	PURGE RATE (ml/m) ≤ 500 ml/m	TEMP. (deg. c) ≤ 3%	SPECIFIC CONDUCTANCE (umho/cm) ≤ 3%	pH (units) ≤ 0.1 units	DISS. O2 (mg/L) ≤ 10%	TURBIDITY (ntu) ≤ 50 ntu	REDOX (mv) ≤ 10 units	COMMENTS
1007	1.10	Start pumping							
	320								
1020	320 ↔		16.27	2.695	6.93	0.82	16.7	-100.9	
1025	1.65	320	16.28	2.712	7.01	0.90	11.0	-114.9	
1030	1.67	320	16.27	2.7421	7.05	0.78	5.16	-136.7	
1035	1.61	300	16.28	2.752	7.05	0.51	3.96	-105.3	
1040	1.61	300	16.29	2.759	7.06	0.42	3.19	-126.4	
1045	1.61	300	16.29	2.726	7.09	0.29	2.21	-142.4	
1050	1.61	300	16.29	2.700	7.10	0.35	1.68	-149.6	
1055	1.61	300	16.29	2.650	7.11	0.31	1.29	-150.4	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL
[X] GEOPUMP (peristaltic)	[ ] TEFLON OR TEFLON LINED	[ ] Polyvinyl chloride	[ ] TEFLON
[ ] SMCO BLADDER	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] Other NA
[ ] BLADDER	[ ] OTHER	[X] OTHER NA	

ANALYTICAL PARAMETERS

Check if Scheduled for Collection	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	Check if collected
[X] VOC	USEPA-8260B	HCL / 4 DEG. C	3 X 40 mL	[X]	
[ ] SVOC	USEPA 8270C	4 DEG. C	2 X 1 LAG	[ ]	
[ ] NDMA	EPA 1625	$Na_2S_2O_3$ 4° c	2 X 1 LAG	[ ]	
[ ] NDMA	EPA 625	$Na_2S_2O_3$ 4° c	2 X 1 LAG	[ ]	
[X] TAL Metals	USEPA 6010B/6020/Hg 7470A	pH<2 HNO_3 4°C	1 X 500 mL	[X]	
[ ] Hex-Chromium	USEPA 7196A	4 DEG. C	1 X 500 mL	[ ]	
[ ] Nitrate, nitrate, chloride, sulfate	USEPA 300	4 DEG. C	1 x 500 mL P	[ ]	
[ ] SULFIDE	USEPA-376.1	Zinc Acetate/NaOH	1 X 250 mL P	[ ]	
[ ] ALKALINITY	USEPA-310.1	4 DEG. C	W/SULFATE	[ ]	
[ ] Ammonia	USEPA-350.1	pH<2 H_2SO_4 4° c	1 X 1L poly	[ ]	
[X] PFOA >				[X]	
[ ]				[ ]	
[ ]				[ ]	
[ ]				[ ]	

water column volume 7.9 volume of water

1.2 gal one well volume

Total vol purged = mL/min x min x 0.00026 = 2.88 gallon

duplicate sample

Purge Observations

Purge Water Conatinerized (yes) no

Number of Gallons Generated 3.5

SIGNATURE: Jazmin Yagan

LOCATION SKETCH

water is grayish

amec

MW-05

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Stalingrad Ventures	FIELD SAMPLE NUMBER	MW-5-0418	JOB No.	3612162331
Location	22-07 41st Avenue, Long Island City, NY	SITE TYPE	WELL	DATE	4/27/2018
ACTIVITY	START END	SAMPLE TIME	1005		

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER	8.12 FT	WELL DEPTH (TOR)	13.5 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	0.3 FT
FINAL DEPTH TO WATER	8.54 FT	SCREEN LENGTH	10 FT	CASING / WELL DIFFER.	0 FT
DRAWDOWN VOLUME (initial - final x 0.16 {2-inch} or x 0.65 {4-inch})	0.0672 GAL	PID AMBIENT AIR	/ PPM	WELL DIAM.	IN
TOTAL VOL. PURGED (purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)	3.12 GAL	PID WELL MOUTH	/ PPM		
RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED		PRESSURE TO PUMP	/ PSI	REFILL SETTING	/
				DISCHARGE SETTING	/

WELL INTERGRITY:

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

PURGE DATA

TIME	DEPTH TO WATER (ft) < 0.33 ft	PURGE RATE (ml/m) ≤ 500 ml/m	TEMP. (deg. c) ≤ 3%	SPECIFIC CONDUCTANCE (umho/cm) ≤ 3%	pH (units) ≤ 0.1 units	DISS. O2 (mg/L) ≤ 10%	TURBIDITY (ntu) ≤ 50 ntu	REDOX (mv) ≤ 10 units	COMMENTS
0930	Start Purging								
0940	8.54	400	12.34	2.061	6.53	0.91	38.5	201.8	
0945	8.54	400	12.41	2.073	6.54	0.80	36.8	201.6	
0950	8.54	400	12.39	2.073	6.56	0.76	30.4	201.2	
0955	8.54	400	12.41	2.068	6.54	0.79	22.3	200.6	
1000	8.54	400	12.42	2.069	6.54	0.74	15.5	199.8	
1005	Collect	Sample							

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL
[X] GEOPUMP (peristaltic)	[ ] TEFLON OR TEFLON LINED	[ ] Polyvinyl chloride	[ ] TEFLON
[ ] SMCO BLADDER	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] Other NA
[ ] BLADDER	[ ] OTHER	[ ] OTHER NA	

ANALYTICAL PARAMETERS

Check if Scheduled for Collection	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED (Check if collected)
[X] VOC	USEPA-8260B	HCL / 4 DEG. C	3 X 40 mL	[X]
[ ] SVOC	USEPA 8270C	4 DEG. C	2 X 1 LAG	[ ]
[ ] NDMA	EPA 1625	$Na_2S_2O_3$ 4° c	2 X 1 LAG	[ ]
[ ] NDMA	EPA 625	$Na_2S_2O_3$ 4° c	2 X 1 LAG	[ ]
[X] TAL Metals	USEPA 6010B/6020/Hg 7470A	pH<2 HNO_3 4°C	1 X 500 mL	[X]
[ ] Hex-Chromium	USEPA 7196A	4 DEG. C	1 X 500 mL	[ ]
[ ] Nitrate, nitrate, chloride, sulfate	USEPA 300	4 DEG. C	1 x 500 mL P	[ ]
[ ] SULFIDE	USEPA-376.1	Zinc Acetate/NaOH	1 X 250 mL P	[ ]
[ ] ALKALINITY	USEPA-310.1	4 DEG. C	W/SULFATE	[ ]
[ ] Ammonia	USEPA-350.1	pH<2 H_2SO_4 4° c	1 X 1L poly	[ ]
[X] PFOAs				[X]
[ ]				[ ]
[ ]				[ ]
[ ]				[ ]

1.93 gallons > 1 volume 5

Purge Observations

Purge Water Conatinerized (yes) no

Number of Gallons Generated 3.12

SIGNATURE: Jazmin Lagun

LOCATION SKETCH

amec

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Stalingrad Ventures	FIELD SAMPLE NUMBER	BMW-65-0418	JOB No.	3612162331
Location	22-07 41st Avenue, Long Island City, NY	SITE TYPE	WELL - BMW-65	DATE	04/27/18
ACTIVITY	START END	SAMPLE TIME	850		

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: ☐ TOP OF WELL RISER ☐ TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER	7.85 FT	WELL DEPTH (TOR)	18.5 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	FT
FINAL DEPTH TO WATER	17.68 FT	SCREEN LENGTH	10 FT	PID AMBIENT AIR	PPM
DRAWDOWN VOLUME	GAL	RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED		PID WELL MOUTH	PPM
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})				PRESSURE TO PUMP	PSI
TOTAL VOL. PURGED	GAL			REFILL SETTING	
(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)					

CASING / WELL DIFFER.	FT
WELL DIAM.	2 IN

WELL INTERGRITY:

	YES	NO	N/A
CAP			
CASING			
LOCKED			
COLLAR			

PURGE DATA

TIME	DEPTH TO WATER (ft) < 0.33 ft	PURGE RATE (ml/m) ≤ 500 ml/m	TEMP. (deg. c) ≤ 3%	SPECIFIC CONDUCTANCE (umho/cm) ≤ 3%	pH (units) ≤ 0.1 units	DISS. O2 (mg/L) ≤ 10%	TURBIDITY (ntu) ≤ 50 ntu	REDOX (mv) ≤ 10 units	COMMENTS
755	10.27	300	-9.99 ?	-6.82	6.44	-37.65 ?	37.4	216.6	YSI seems off
800	11.73	300	-9.99 ?	-6.48	6.91	-22.45	17.4	207.1	still neg. temp/ neg DO
825	12.00	300	-9.99	2.180	6.41	1.14	19.0	231.1	recalibrate / temp sensor frozen
830	14.58	300	-9.99	1.973	6.75	1.02	8.74	237.2	
835	16.18	300	-9.99	2.083	6.81	0.95	7.16	237.8	
840	17.60	250	-9.99	2.090	6.84	0.81	6.24	218.1	
845	17.75	250	-9.99	2.100	6.83	0.78	5.74	211.7	
850	17.62	250	-9.99	2.085	6.83	0.74	4.67	208.7	sampling

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL
☒ GEOPUMP (peristaltic)	☐ TEFLON OR TEFLON LINED	☐ Polyvinyl chloride	☐ TEFLON
☐ SMCO BLADDER	☒ HIGH DENSITY POLYETHYLENE	☐ STAINLESS STEEL	☐ Other _____
☐ BLADDER	☐ OTHER _____	☐ OTHER _____	

ANALYTICAL PARAMETERS

BP = 758.5

Check if Scheduled for Collection	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED (Check if collected)
☒ VOC	USEPA-8260B	HCL / 4 DEG. C	3 X 40 mL	☐
☐ SVOC	USEPA 8270C	4 DEG. C	2 X 1 LAG	☐
☐ NDMA	EPA 1625	$Na_2S_2O_3$ 4° c	2 X 1 LAG	☐
☐ NDMA	EPA 625	$Na_2S_2O_3$ 4° c	2 X 1 LAG	☐
☒ TAL Metals	USEPA 6010B/6020/Hg 7470A	pH<2 HNO_3 4°C	1 X 500 mL	☐
☐ Hex-Chromium	USEPA 7196A	4 DEG. C	1 X 500 mL	☐
☐ Nitrate, nitrate, chloride, sulfate	USEPA 300	4 DEG. C	1 x 500 mL P	☐
☐ SULFIDE	USEPA-376.1	Zinc Acetate/NaOH	1 X 250 mL P	☐
☐ ALKALINITY	USEPA-310.1	4 DEG. C	W/SULFATE	☐
☐ Ammonia	USEPA-350.1	pH<2 H_2SO_4 4° c	1 X 1L poly	☐
☐ PFAS				☐
☐				☐
☐				☐
☐				☐

Purge Observations

Purge Water Conatinerized yes no

Number of Gallons Generated _____

SIGNATURE: _____

LOCATION SKETCH

amec

MW-6D

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Stalingrad Ventures
Location: 22-07 41st Avenue, Long Island City, NY
ACTIVITY: START END
FIELD SAMPLE NUMBER: MW-6D-0418
SITE TYPE: WELL
SAMPLE TIME: 0850
JOB No.: 3612162331
DATE: 4/27/18

WATER LEVEL / PUMP SETTINGS

INITIAL DEPTH TO WATER: 7.84 FT
FINAL DEPTH TO WATER: 7.92 FT
DRAWDOWN VOLUME: 0.0128 GAL
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})
TOTAL VOL. PURGED: 2.86 GAL
(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)

MEASUREMENT POINT
[X] TOP OF WELL RISER
[ ] TOP OF PROTECTIVE CASING

WELL DEPTH (TOR): 32 FT
SCREEN LENGTH: 10 FT
RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED:

PROTECTIVE CASING STICKUP (FROM GROUND): 0.25 FT
PID AMBIENT AIR: / PPM
PID WELL MOUTH: / PPM
PRESSURE TO PUMP: / PSI
REFILL SETTING: /

CASING / WELL DIFFER.: 0 FT
WELL DIAM.: 2 IN

WELL INTERGRITY:

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

DISCHARGE SETTING: /

PURGE DATA

TIME	DEPTH TO WATER (ft) < 0.33 ft	PURGE RATE (ml/m) ≤ 500 ml/m	TEMP. (deg. c) ≤ 3%	SPECIFIC CONDUCTANCE (umho/cm) ≤ 3%	pH (units) ≤ 0.1 units	DISS. O2 (mg/L) ≤ 10%	TURBIDITY (ntu) ≤ 50 ntu	REDOX (mv) ≤ 10 units	COMMENTS
0755		Start Purging							
0810	7.92	200	13.23	1.407	6.85	1.54	78.6	214.6	
0815	7.92	200	13.20	1.403	6.84	1.19	49.2	213.7	
0820	7.92	200	13.20	1.397	6.85	1.01	41.5	212.8	
0825	7.92	200	13.22	1.405	6.85	1.01	48.6	211.9	
0830	7.92	200	13.18	1.436	6.85	1.15	39.4	209.8	
0835	7.92	200	13.12	1.405	6.86	1.61	26.9	209.3	
0840	7.92	200	13.10	1.511	6.87	1.37	16.0	208.8	
0845	7.92	200	13.10	1.539	6.87	1.18	11.6	208.4	
0850	Collect Sample								

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
[X] GEOPUMP (peristaltic)
[ ] SMCO BLADDER
[ ] BLADDER

TYPE OF TUBING
[ ] TEFLON OR TEFLON LINED
[X] HIGH DENSITY POLYETHYLENE
[ ] OTHER

TYPE OF PUMP MATERIAL
[ ] Polyvinyl chloride
[ ] STAINLESS STEEL
[X] OTHER NA

TYPE OF BLADDER MATERIAL
[ ] TEFLON
[X] Other NA

ANALYTICAL PARAMETERS

Check if Scheduled for Collection		METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED (Check if collected)
[X]	VOC	USEPA-8260B	HCL / 4 DEG. C	3 X 40 mL	[X]
[ ]	SVOC	USEPA 8270C	4 DEG. C	2 X 1 LAG	[ ]
[ ]	NDMA	EPA 1625	$Na_2S_2O_3$ 4° c	2 X 1 LAG	[ ]
[ ]	NDMA	EPA 625	$Na_2S_2O_3$ 4° c	2 X 1 LAG	[ ]
[X]	TAL Metals	USEPA 6010B/6020/Hg 7470A	pH<2 HNO_3 4°C	1 X 500 mL	[X]
[ ]	Hex-Chromium	USEPA 7196A	4 DEG. C	1 X 500 mL	[ ]
[ ]	Nitrate, nitrate, chloride, sulfate	USEPA 300	4 DEG. C	1 x 500 mL P	[ ]
[ ]	SULFIDE	USEPA-376.1	Zinc Acetate/NaOH	1 X 250 mL P	[ ]
[ ]	ALKALINITY	USEPA-310.1	4 DEG. C	W/SULFATE	[ ]
[ ]	Ammonia	USEPA-350.1	pH<2 H_2SO_4 4° c	1 X 1L poly	[ ]
[X]	PFOAs				[X]
[ ]					[ ]
[ ]					[ ]
[ ]					[ ]

MS/MSD

24.16 = length
3.9
= 2.08
1 volume

Purge Observations

Purge Water Containerized: (yes) no
Number of Gallons Generated: 3

SIGNATURE: Jazmin Lopez

LOCATION SKETCH

amec

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Stalingrad Ventures	FIELD SAMPLE NUMBER	MW-E-0418	JOB No.	3612162331
Location	22-07 41st Avenue, Long Island City, NY	SITE TYPE	WELL - MW-E	DATE	04/27/18
ACTIVITY	START END	SAMPLE TIME	1030		

WATER LEVEL / PUMP SETTINGS

INITIAL DEPTH TO WATER: 8.90 FT

FINAL DEPTH TO WATER: 14.30 FT

DRAWDOWN VOLUME: GAL
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})

TOTAL VOL. PURGED: GAL
(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)

MEASUREMENT POINT
- ☐ TOP OF WELL RISER
- ☐ TOP OF PROTECTIVE CASING

WELL DEPTH (TOR): FT

SCREEN LENGTH: FT

RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED:

PROTECTIVE CASING STICKUP (FROM GROUND): FT

PID AMBIENT AIR: PPM

PID WELL MOUTH: PPM

PRESSURE TO PUMP: PSI

REFILL SETTING:

CASING / WELL DIFFER.: FT

WELL DIAM.: 1 IN

WELL INTERGRITY:

	YES	NO	N/A
CAP			
CASING			
LOCKED			
COLLAR			

DISCHARGE SETTING:

PURGE DATA

TIME	DEPTH TO WATER (ft) < 0.33 ft	PURGE RATE (ml/m) ≤ 500 ml/m	TEMP. (deg. c) ≤ 3%	SPECIFIC CONDUCTANCE (umho/cm) ≤ 3%	pH (units) ≤ 0.1 units	DISS. O2 (mg/L) ≤ 10%	TURBIDITY (ntu) ≤ 50 ntu	REDOX (mv) ≤ 10 units	COMMENTS
1000	12.14	250	11.05	-0.30	7.35	0.0	945	164.9	
1005									Well starting sampling
1030	9.37								

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL
☒ GEOPUMP (peristaltic)	☐ TEFLON OR TEFLON LINED	☐ Polyvinyl chloride	☐ TEFLON
☐ SMCO BLADDER	☒ HIGH DENSITY POLYETHYLENE	☐ STAINLESS STEEL	☐ Other _____
☐ BLADDER	☐ OTHER _____	☐ OTHER _____	

ANALYTICAL PARAMETERS

Check if Scheduled for Collection	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED (Check if collected)
☒ VOC	USEPA-8260B	HCL / 4 DEG. C	3 X 40 mL	☐
☐ SVOC	USEPA 8270C	4 DEG. C	2 X 1 LAG	☐
☐ NDMA	EPA 1625	$Na_2S_2O_3$ 4° c	2 X 1 LAG	☐
☐ NDMA	EPA 625	$Na_2S_2O_3$ 4° c	2 X 1 LAG	☐
☒ TAL Metals	USEPA 6010B/6020/Hg 7470A	pH<2 HNO_3 4°C	1 X 500 mL	☐
☐ Hex-Chromium	USEPA 7196A	4 DEG. C	1 X 500 mL	☐
☐ Nitrate, nitrate, chloride, sulfate	USEPA 300	4 DEG. C	1 x 500 mL P	☐
☐ SULFIDE	USEPA-376.1	Zinc Acetate/NaOH	1 X 250 mL P	☐
☐ ALKALINITY	USEPA-310.1	4 DEG. C	W/SULFATE	☐
☐ Ammonia	USEPA-350.1	pH<2 H_2SO_4 4° c	1 X 1L poly	☐
☐ PFAS				☐
☐				☐
☐				☐
☐				☐

Purge Observations

Purge Water Conatinerized yes no

Number of Gallons Generated _____

SIGNATURE: _____

LOCATION SKETCH

amec

APPENDIX B – MANIFEST

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
NYD001531094	1	(267) 406-0083	41235

GENERATOR

5. Generator's Name and Mailing Address
Double "E" Plating Co DBA Hygrade Polishing
22-07 41st Avenue
Long Island City NY 11101
Generator's Phone: 631 293-1998

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name
Innovative Recycling Technologies, Inc.
U.S. EPA ID Number: NYR000134940

7. Transporter 2 Company Name
Republic Environmental Systems (Trans Group)LLC
U.S. EPA ID Number: PAD982661381

8. Designated Facility Name and Site Address
Republic Environmental Systems (PA), LLC
2869 Sandstone Drive
Hatfield PA 19440
Facility's Phone: 215 822-8995
U.S. EPA ID Number: PAD085690592

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non Hazardous Development & Purge Water Non-DOT Regulated	01	DM	350	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
9.1)847016 - Purge Water 1x55 gal
Doc#

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: JOHN DULL on Behalf of Robert Birnbaum
Signature:
Month: 06 Day: 15 Year: 18

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JOHN DULL
Signature:
Month: 06 Day: 15 Year: 18

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name:
Signature:
Month: Day: Year:

APPENDIX C – CERTIFIED LABORATORY ANALYTICAL REPORTS AND DATA USABILITY SUMMARY REPORTS

DATA USABILITY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

1.0 INTRODUCTION

Groundwater samples were collected at the Former Hygrade site in April 2018 and submitted to Alpha Analytical Laboratories located in Mansfield, Massachusetts, and Westborough, Massachusetts, for analysis. Samples were analyzed by the following methods:

- Volatile Organic Compounds (VOCs) by USEPA Method 8260C
- Per- and Polyfluorinated Alkyl Substances (PFAS) by USEPA Method 537(M)
- Total and Dissolved Metals by USEPA Methods 6020A/7470A

Results were reported in the following sample delivery groups (SDGs):

- L1815070
- L1815079

A Data Usability Summary Report (DUSR) review was completed based on the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation guidance (NYSDEC, 2010). Sample event information included in this DUSR is presented in the following tables:

- Table 1 – Summary of Samples and Analytical Methods
- Table 2 – Summary of Analytical Results
- Table 3 – Qualification Action Summary

Laboratory deliverables included:

- Category B deliverables as defined in the NYSDEC Analytical Services Protocols (NYSDEC, 2005).

The DUSR review included the following evaluations. A table of the project control limits for VOCs and metals is presented in Attachment A. Control limits specified by the laboratory and in Method 537 were used for PFAS review. DUSR review checklists and applicable laboratory QC summary forms are included in Attachment B to document QC outliers associated with qualification actions.

- Lab Report Narrative Review
- Data Package Completeness and COC records (Table 1 verification)
- Sample Preservation and Holding Times
- Instrument Calibration (report narrative/lab-qualifier evaluation)
- QC Blanks
- Laboratory Control Samples (LCS)
- Matrix Spike/Matrix Spike Duplicates (MS/MSD)
- Surrogate Spikes (if applicable)

- Internal Standards (if applicable)
- Field Duplicates
- Target Analyte Identification and Quantitation
- Raw Data (chromatograms), Calculation Checks and Transcription Verifications
- Reporting Limits
- Electronic Data Qualification and Verification

The following laboratory or data review qualifiers are used in the final data presentation:

U = target analyte is not detected above the reported detection limit
J = concentration is estimated
J+ = concentration is estimated and potentially biased high

Results are interpreted to be usable as reported by the laboratory unless discussed in the following sections.

2.0 EXECUTIVE SUMMARY

Based on the DUSR review the analytical data meet the data quality objectives, and the majority of sample results are interpreted to be usable as reported by the laboratory. Results for a subset of samples were qualified due to blank contamination, internal standard recoveries, MS/MSD recoveries, and/or field duplicate precision.

3.0 DATA QUALIFICATION ACTIONS AND OBSERVATIONS

Sample Receipt

Sample MW-5-0418 was incorrectly logged into the laboratory (Alpha – Mansfield) as MW-S-0418. The sample identification was corrected during data validation.

VOCs

Low concentration acetone detections less than the reporting limit in a subset of samples were qualified non-detect (U) based on detection in the trip blank. Qualified results are summarized in Table 3 with reason code BL2.

The following samples were analyzed at ten-fold dilutions due to high concentrations of target analytes. Reporting limits for non-detect analytes are elevated (10X):

BMW-3-0418
BMW-4-0418
MW-6S-0418
DUPLICATE

A MS/MSD was performed for sample MW-6D-0418. MS/MSD percent recoveries and relative percent differences (RPDs) were within control limits for VOCs.

A field duplicate (DUPLICATE) was collected at location BMW-4. Results matched well for all VOCs.

PFAS

For all PFAS samples, percent recoveries of one or more extracted internal standards were outside the 50-150 control limits specified by the laboratory. Positive and non-detect results for target compounds associated with internal standards outside control limits were qualified estimated (J). Qualified results are summarized in Table 3 with reason code IS-L or IS-H as applicable.

A MS/MSD was performed for sample MW-6D-0418. MS/MSD percent recoveries and relative percent differences (RPDs) were within control limits for PFAS compounds.

A field duplicate (DUPLICATE) was collected at location BMW-4. Results matched well for all PFAS compounds.

Metals

Detections of total and dissolved antimony were qualified non-detect (U) in all samples based on detections in the method blanks and field blanks. Detections of dissolved aluminum in a subset of samples were qualified non-detect (U) based on detection in the associated method blank. Detections of total chromium and total copper in a subset of samples were qualified estimated (J) based on detections in the field blank. Qualified results are summarized in Table 3 with reason codes BL1 and/or BL2.

A MS/MSD was performed for sample MW-6D-0418. MS/MSD percent recoveries and relative percent differences (RPDs) were within control limits for total metals, and all dissolved metals except selenium (128). The detection of dissolved selenium in sample MW-6D-0418 was qualified estimated (J+) and may represent a potential high bias. The qualified result is included in Table 3 with reason code MS-H.

A field duplicate (DUPLICATE) was collected at location BMW-4. Results matched well for all total metals, and all dissolved metals except iron. Sample and field duplicate results for dissolved iron had an RPD of 94, which is greater than the control limit of 20. Positive results for dissolved iron in sample BMW-4-0418 and associated field duplicate (DUPLICATE) were qualified estimated (J). Qualified results are included in Table 3 with reason code FD.

Reference:

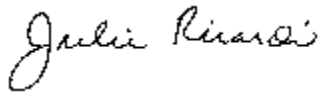
New York State Department of Environmental Conservation (NYSDEC), 2005. "Analytical Services Protocols"; July 2005.

New York State Department of Environmental Conservation (NYSDEC), 2010. "Technical Guidance for Site Investigation and Remediation-Appendix 2B"; DER-10; Division of Environmental Remediation; May 2010.

USEPA, 2012. “ICP-AES Data Validation”; USEPA Region II; SOP # HW-2a, Revision 15; Hazardous Waste Support Section; December 2012.

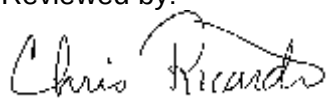
USEPA, 2014. “Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B”; USEPA Region II; SOP # HW-24, Revision 4; Hazardous Waste Support Section; September 2014.

Data Validator: Julie Ricardi



June 14, 2018

Reviewed by:



June 15, 2018

TABLE 1 - SUMMARY OF SAMPLES AND ANALYTICAL METHODS
DATA USABILITY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

						Method	8260C	537(M)	6020A	6020A	7470A	7470A
						Class	VOC	PFAS	Metals	Metals	Mercury	Mercury
						Fraction	T	T	T	D	T	D
SDG	**Location**	**Field Sample ID**	**Sample Date**	**Media**	**Lab Sample ID**	**QC Code**						
L1815070	BMW-1	BMW-1-0418	4/26/2018	GW	L1815070-01	FS	76		22	22	1	1
L1815070	BMW-2	BMW-2-0418	4/26/2018	GW	L1815070-02	FS	76		22	22	1	1
L1815070	BMW-3	BMW-3-0418	4/26/2018	GW	L1815070-03	FS	76		22	22	1	1
L1815070	BMW-4	BMW-4-0418	4/26/2018	GW	L1815070-04	FS	76		22	22	1	1
L1815070	BMW-4	DUPLICATE	4/26/2018	GW	L1815070-09	FD	76		22	22	1	1
L1815070	MW-6D	MW-6D-0418	4/27/2018	GW	L1815070-05	FS	76		22	22	1	1
L1815070	MW-6S	MW-6S-0418	4/27/2018	GW	L1815070-06	FS	76		22	22	1	1
L1815070	MW-E	MW-E-0418	4/27/2018	GW	L1815070-08	FS	76		22	22	1	1
L1815070	MW-5	MW-5-0418	4/27/2018	GW	L1815070-07	FS	76		22	22	1	1
L1815070	QC	FIELD BLANK	4/26/2018	BW	L1815070-10	FB	76		22	22	1	1
L1815070	QC	TRIP BLANK	4/26/2018	BW	L1815070-11	TB	76					
L1815079	BMW-1	BMW-1-0418	4/26/2018	GW	L1815079-01	FS		21				
L1815079	BMW-2	BMW-2-0418	4/26/2018	GW	L1815079-02	FS		21				
L1815079	BMW-3	BMW-3-0418	4/26/2018	GW	L1815079-03	FS		21				
L1815079	BMW-4	BMW-4-0418	4/26/2018	GW	L1815079-04	FS		21				
L1815079	BMW-4	DUPLICATE	4/26/2018	GW	L1815079-09	FD		21				
L1815079	MW-5	MW-5-0418	4/27/2018	GW	L1815079-07	FS		21				
L1815079	MW-6D	MW-6D-0418	4/27/2018	GW	L1815079-05	FS		21				
L1815079	MW-6S	MW-6S-0418	4/27/2018	GW	L1815079-06	FS		21				
L1815079	MW-E	MW-E-0418	4/27/2018	GW	L1815079-08	FS		21				
L1815079	QC	FIELD BLANK	4/26/2018	BW	L1815079-10	FB		21				

GW = groundwater
FS = field sample
FD = field duplicate
FB = field blank
TB = trip blank

VOC = volatile organic compound
PFAS = per- /polyfluorinated alkyl substance
T = total
D = dissolved
Number = number of analytes reported

Prepared by: WCG 6/10/18
Checked by: JAR 6/13/18

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILILTY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

			SDG:	L1815070		L1815070		L1815070		L1815070		L1815070	
			Location:	BMW-1		BMW-2		BMW-3		BMW-4		BMW-4	
			Date Collected:	04/26/18		04/26/18		04/26/18		04/26/18		04/26/18	
			Sample ID:	BMW-1-0418		BMW-2-0418		BMW-3-0418		BMW-4-0418		DUPLICATE	
			Type:	FS		FS		FS		FS		FD	
Method	Fraction	Unit	Parameter	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
8260C	N	UG/L	1,1,1,2-Tetrachloroethane	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	1,1,1-Trichloroethane	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	5	U	5	U	5	U
8260C	N	UG/L	1,1,2-Trichloroethane	1.5	U	1.5	U	15	U	15	U	15	U
8260C	N	UG/L	1,1-Dichloroethane	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	1,1-Dichloroethene	0.5	U	0.5	U	5	U	5	U	5	U
8260C	N	UG/L	1,1-Dichloropropene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	1,2,3-Trichlorobenzene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	1,2,3-Trichloropropane	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	1,2,4-Trichlorobenzene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	1,2,4-Trimethylbenzene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	1,2-Dibromo-3-chloropropane	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	1,2-Dibromoethane	2	U	2	U	20	U	20	U	20	U
8260C	N	UG/L	1,2-Dichlorobenzene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	1,2-Dichloroethane	0.5	U	0.5	U	5	U	5	U	5	U
8260C	N	UG/L	1,2-Dichloroethene (total)	3.5		7.8		71		19	J	19	J
8260C	N	UG/L	1,2-Dichloropropane	1	U	1	U	10	U	10	U	10	U
8260C	N	UG/L	1,3,5-Trimethylbenzene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	1,3-Dichlorobenzene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	1,3-Dichloropropane	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	1,3-Dichloropropene (total)	0.5	U	0.5	U	5	U	5	U	5	U
8260C	N	UG/L	1,4-Dichlorobenzene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	1,4-Dioxane	250	U	250	U	2500	U	2500	U	2500	U
8260C	N	UG/L	2,2-Dichloropropane	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	2-Butanone	5	U	5	U	1700		1400		1400	
8260C	N	UG/L	2-Chlorotoluene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	2-Hexanone	5	U	5	U	50	U	50	U	50	U
8260C	N	UG/L	4-Chlorotoluene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	4-Ethyltoluene	2	U	2	U	20	U	20	U	20	U
8260C	N	UG/L	4-iso-Propyltoluene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	4-Methyl-2-pentanone	5	U	5	U	50	U	50	U	50	U
8260C	N	UG/L	Acetone	5	U	5	U	1000		380		380	

prepared by KMS
reviewed by JAR

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILILTY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

			SDG:	L1815070		L1815070		L1815070		L1815070		L1815070	
			Location:	BMW-1		BMW-2		BMW-3		BMW-4		BMW-4	
			Date Collected:	04/26/18		04/26/18		04/26/18		04/26/18		04/26/18	
			Sample ID:	BMW-1-0418		BMW-2-0418		BMW-3-0418		BMW-4-0418		DUPLICATE	
			Type:	FS		FS		FS		FS		FD	
Method	Fraction	Unit	Parameter	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
8260C	N	UG/L	Acrylonitrile	5	U	5	U	50	U	50	U	50	U
8260C	N	UG/L	Benzene	0.5	U	0.19	J	12		2.3	J	2.3	J
8260C	N	UG/L	Benzene, 1,2,4,5-tetramethyl	2	U	2	U	20	U	20	U	20	U
8260C	N	UG/L	Bromobenzene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Bromochloromethane	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Bromodichloromethane	0.5	U	0.5	U	5	U	5	U	5	U
8260C	N	UG/L	Bromoform	2	U	2	U	20	U	20	U	20	U
8260C	N	UG/L	Bromomethane	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Carbon disulfide	5	U	5	U	50	U	50	U	50	U
8260C	N	UG/L	Carbon tetrachloride	0.5	U	0.5	U	5	U	5	U	5	U
8260C	N	UG/L	Chlorobenzene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Chloroethane	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Chloroform	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Chloromethane	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Cis-1,2-Dichloroethene	3.5		7.8		71		12	J	11	J
8260C	N	UG/L	Cis-1,3-Dichloropropene	0.5	U	0.5	U	5	U	5	U	5	U
8260C	N	UG/L	Dibromochloromethane	0.5	U	0.5	U	5	U	5	U	5	U
8260C	N	UG/L	Dibromomethane	5	U	5	U	50	U	50	U	50	U
8260C	N	UG/L	Dichlorodifluoromethane	5	U	5	U	50	U	50	U	50	U
8260C	N	UG/L	Diethyl ether	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Ethylbenzene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Hexachlorobutadiene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Isopropylbenzene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Methyl Tertbutyl Ether	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Methylene chloride	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	n-Butylbenzene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Naphthalene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	p-Diethylbenzene	2	U	2	U	20	U	20	U	20	U
8260C	N	UG/L	Propylbenzene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	sec-Butylbenzene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Styrene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	tert-Butylbenzene	2.5	U	2.5	U	25	U	25	U	25	U

prepared by KMS
reviewed by JAR

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILILTY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

			SDG:	L1815070		L1815070		L1815070		L1815070		L1815070	
			Location:	BMW-1		BMW-2		BMW-3		BMW-4		BMW-4	
			Date Collected:	04/26/18		04/26/18		04/26/18		04/26/18		04/26/18	
			Sample ID:	BMW-1-0418		BMW-2-0418		BMW-3-0418		BMW-4-0418		DUPLICATE	
			Type:	FS		FS		FS		FS		FD	
Method	Fraction	Unit	Parameter	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
8260C	N	UG/L	Tetrachloroethene	0.86		2.5		5	U	5	U	5	U
8260C	N	UG/L	Toluene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	trans-1,2-Dichloroethene	2.5	U	2.5	U	25	U	7.2	J	7.7	J
8260C	N	UG/L	trans-1,3-Dichloropropene	0.5	U	0.5	U	5	U	5	U	5	U
8260C	N	UG/L	trans-1,4-Dichloro-2-butene	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Trichloroethene	1.8		5.4		5	U	2.4	J	2.1	J
8260C	N	UG/L	Trichlorofluoromethane	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Vinyl acetate	5	U	5	U	50	U	50	U	50	U
8260C	N	UG/L	Vinyl chloride	0.51	J	3.1		34		16		15	
8260C	N	UG/L	Xylene, o	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Xylenes (m&p)	2.5	U	2.5	U	25	U	25	U	25	U
8260C	N	UG/L	Xylenes, Total	2.5	U	2.5	U	25	U	25	U	25	U
6020A	T	MG/L	Aluminum	0.0132		0.0707		0.403		0.0232		0.0121	
6020A	T	MG/L	Antimony	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
6020A	T	MG/L	Arsenic	0.00125		0.0008		0.02126		0.02336		0.02348	
6020A	T	MG/L	Barium	0.1025		0.1146		0.3487		0.2201		0.2301	
6020A	T	MG/L	Beryllium	0.0005	U	0.0005	U	0.0005	U	0.0005	U	0.0005	U
6020A	T	MG/L	Cadmium	0.00116		0.00727		0.0002	U	0.00006	J	0.0002	U
6020A	T	MG/L	Calcium	258		284		281		267		261	
6020A	T	MG/L	Chromium	0.01476		0.00447		0.00998		0.00129	J	0.00124	J
6020A	T	MG/L	Cobalt	0.01313		0.01489		0.01313		0.02253		0.0211	
6020A	T	MG/L	Copper	0.00366	J	0.004	J	0.00411	J	0.00063	J	0.00065	J
6020A	T	MG/L	Iron	0.464		0.445		80		30.2		30.6	
6020A	T	MG/L	Lead	0.00044	J	0.001	U	0.00081	J	0.001	U	0.001	U
6020A	T	MG/L	Magnesium	29.8		40.7		40.8		52.5		50.2	
6020A	T	MG/L	Manganese	3.659		5.743		5.194		8.368		8.359	
6020A	T	MG/L	Nickel	0.07921		0.1369		0.383		0.0579		0.05586	
6020A	T	MG/L	Potassium	43.6		34.3		64.6		45.9		47.6	
6020A	T	MG/L	Selenium	0.00181	J	0.005	U	0.005	U	0.005	U	0.005	U
6020A	T	MG/L	Silver	0.0004	U	0.0004	U	0.0004	U	0.0004	U	0.0004	U
6020A	T	MG/L	Sodium	204		162		229		196		192	
6020A	T	MG/L	Thallium	0.00029	J	0.00015	J	0.0005	U	0.0005	U	0.0005	U

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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILILTY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

			SDG:	L1815070		L1815070		L1815070		L1815070		L1815070	
			Location:	BMW-1		BMW-2		BMW-3		BMW-4		BMW-4	
			Date Collected:	04/26/18		04/26/18		04/26/18		04/26/18		04/26/18	
			Sample ID:	BMW-1-0418		BMW-2-0418		BMW-3-0418		BMW-4-0418		DUPLICATE	
			Type:	FS		FS		FS		FS		FD	
Method	Fraction	Unit	Parameter	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
6020A	T	MG/L	Vanadium	0.005	U	0.005	U	0.00542		0.005	U	0.005	U
6020A	T	MG/L	Zinc	0.01	U	0.01	U	0.01342		0.01	U	0.01	U
7470A	T	MG/L	Mercury	0.0002	U	0.0002	U	0.0002	U	0.0002	U	0.0002	U
6020A	D	MG/L	Aluminum	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
6020A	D	MG/L	Antimony	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
6020A	D	MG/L	Arsenic	0.00106		0.00051		0.00266		0.00535		0.00488	
6020A	D	MG/L	Barium	0.1036		0.1248		0.2015		0.1471		0.1434	
6020A	D	MG/L	Beryllium	0.0005	U	0.0005	U	0.0005	U	0.0005	U	0.0005	U
6020A	D	MG/L	Cadmium	0.00117		0.00767		0.0002	U	0.0002	U	0.0002	U
6020A	D	MG/L	Calcium	264		307		275		269		263	
6020A	D	MG/L	Chromium	0.0011		0.00203		0.00174		0.00053	J	0.00056	J
6020A	D	MG/L	Cobalt	0.01404		0.01379		0.01128		0.02242		0.02082	
6020A	D	MG/L	Copper	0.0033		0.00367		0.001	U	0.001	U	0.00053	J
6020A	D	MG/L	Iron	0.0285	J	0.0249	J	8.36		0.35	J	0.126	J
6020A	D	MG/L	Lead	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
6020A	D	MG/L	Magnesium	30		41.3		40.2		55.7		51.2	
6020A	D	MG/L	Manganese	3.816		5.38		4.685		8.175		8.132	
6020A	D	MG/L	Nickel	0.08319		0.1236		0.3688		0.05969		0.05604	
6020A	D	MG/L	Potassium	44.4		38.5		63.4		47.9		48.6	
6020A	D	MG/L	Selenium	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
6020A	D	MG/L	Silver	0.0004	U	0.0004	U	0.0004	U	0.0004	U	0.0004	U
6020A	D	MG/L	Sodium	203		161		230		207		196	
6020A	D	MG/L	Thallium	0.0003	J	0.00014	J	0.0005	U	0.0005	U	0.0005	U
6020A	D	MG/L	Vanadium	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
6020A	D	MG/L	Zinc	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
7470A	D	MG/L	Mercury	0.0002	U	0.0002	U	0.0002	U	0.0002	U	0.0002	U

Notes:
U = undetected
J = estimated value
FS = field sample
FD = field duplicate
N, T = total

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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILILTY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

			SDG:	L1815070		L1815070		L1815070		L1815070		L1815070	
			Location:	MW-5		MW-6D		MW-6S		MW-E		QC	
			Date Collected:	04/27/18		04/27/18		04/27/18		04/27/18		04/26/18	
			Sample ID:	MW-5-0418		MW-6D-0418		MW-6S-0418		MW-E-0418		TRIP BLANK	
			Type:	FS		FS		FS		FS		TB	
Method	Fraction	Unit	Parameter	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
8260C	N	UG/L	1,1,1,2-Tetrachloroethane	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	1,1,1-Trichloroethane	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	5	U	0.5	U	0.5	U
8260C	N	UG/L	1,1,2-Trichloroethane	1.5	U	1.5	U	15	U	1.5	U	1.5	U
8260C	N	UG/L	1,1-Dichloroethane	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	1,1-Dichloroethene	0.5	U	0.5	U	5	U	0.5	U	0.5	U
8260C	N	UG/L	1,1-Dichloropropene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	1,2,3-Trichlorobenzene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	1,2,3-Trichloropropane	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	1,2,4-Trichlorobenzene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	1,2,4-Trimethylbenzene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	1,2-Dibromo-3-chloropropane	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	1,2-Dibromoethane	2	U	2	U	20	U	2	U	2	U
8260C	N	UG/L	1,2-Dichlorobenzene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	1,2-Dichloroethane	0.5	U	0.5	U	5	U	0.5	U	0.5	U
8260C	N	UG/L	1,2-Dichloroethene (total)	2.5	U	2.5	U	23	J	2.5	U	2.5	U
8260C	N	UG/L	1,2-Dichloropropane	1	U	1	U	10	U	1	U	1	U
8260C	N	UG/L	1,3,5-Trimethylbenzene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	1,3-Dichlorobenzene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	1,3-Dichloropropane	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	1,3-Dichloropropene (total)	0.5	U	0.5	U	5	U	0.5	U	0.5	U
8260C	N	UG/L	1,4-Dichlorobenzene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	1,4-Dioxane	250	U	250	U	2500	U	250	U	250	U
8260C	N	UG/L	2,2-Dichloropropane	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	2-Butanone	5	U	5	U	50	U	5	U	5	U
8260C	N	UG/L	2-Chlorotoluene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	2-Hexanone	5	U	5	U	50	U	5	U	5	U
8260C	N	UG/L	4-Chlorotoluene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	4-Ethyltoluene	2	U	2	U	20	U	2	U	2	U
8260C	N	UG/L	4-iso-Propyltoluene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	4-Methyl-2-pentanone	5	U	5	U	50	U	5	U	5	U
8260C	N	UG/L	Acetone	5	U	5	U	50	U	5	U	4.7	J

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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILILTY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

			SDG:	L1815070		L1815070		L1815070		L1815070		L1815070	
			Location:	MW-5		MW-6D		MW-6S		MW-E		QC	
			Date Collected:	04/27/18		04/27/18		04/27/18		04/27/18		04/26/18	
			Sample ID:	MW-5-0418		MW-6D-0418		MW-6S-0418		MW-E-0418		TRIP BLANK	
			Type:	FS		FS		FS		FS		TB	
Method	Fraction	Unit	Parameter	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
8260C	N	UG/L	Acrylonitrile	5	U	5	U	50	U	5	U	5	U
8260C	N	UG/L	Benzene	0.5	U	0.5	U	5	U	0.5	U	0.5	U
8260C	N	UG/L	Benzene, 1,2,4,5-tetramethyl	2	U	2	U	20	U	2	U	2	U
8260C	N	UG/L	Bromobenzene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	Bromochloromethane	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	Bromodichloromethane	0.5	U	0.5	U	5	U	0.5	U	0.5	U
8260C	N	UG/L	Bromoform	2	U	2	U	20	U	2	U	2	U
8260C	N	UG/L	Bromomethane	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	Carbon disulfide	5	U	5	U	50	U	5	U	5	U
8260C	N	UG/L	Carbon tetrachloride	0.5	U	0.5	U	5	U	0.5	U	0.5	U
8260C	N	UG/L	Chlorobenzene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	Chloroethane	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	Chloroform	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	Chloromethane	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	Cis-1,2-Dichloroethene	2.5	U	2.5	U	23	J	2.5	U	2.5	U
8260C	N	UG/L	Cis-1,3-Dichloropropene	0.5	U	0.5	U	5	U	0.5	U	0.5	U
8260C	N	UG/L	Dibromochloromethane	0.5	U	0.5	U	5	U	0.5	U	0.5	U
8260C	N	UG/L	Dibromomethane	5	U	5	U	50	U	5	U	5	U
8260C	N	UG/L	Dichlorodifluoromethane	5	U	5	U	50	U	5	U	5	U
8260C	N	UG/L	Diethyl ether	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	Ethylbenzene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	Hexachlorobutadiene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	Isopropylbenzene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	Methyl Tertbutyl Ether	2.5	U	2.5	U	1100		2.5	U	2.5	U
8260C	N	UG/L	Methylene chloride	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	n-Butylbenzene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	Naphthalene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	p-Diethylbenzene	2	U	2	U	20	U	2	U	2	U
8260C	N	UG/L	Propylbenzene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	sec-Butylbenzene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	Styrene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	tert-Butylbenzene	2.5	U	2.5	U	25	U	2.5	U	2.5	U

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DATA USABILILTY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

			SDG:	L1815070		L1815070		L1815070		L1815070		L1815070	
			Location:	MW-5		MW-6D		MW-6S		MW-E		QC	
			Date Collected:	04/27/18		04/27/18		04/27/18		04/27/18		04/26/18	
			Sample ID:	MW-5-0418		MW-6D-0418		MW-6S-0418		MW-E-0418		TRIP BLANK	
			Type:	FS		FS		FS		FS		TB	
Method	Fraction	Unit	Parameter	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
8260C	N	UG/L	Tetrachloroethene	0.57		0.58		37		0.5	U	0.5	U
8260C	N	UG/L	Toluene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	trans-1,2-Dichloroethene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	trans-1,3-Dichloropropene	0.5	U	0.5	U	5	U	0.5	U	0.5	U
8260C	N	UG/L	trans-1,4-Dichloro-2-butene	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	Trichloroethene	3.4		1.1		10		0.5	U	0.5	U
8260C	N	UG/L	Trichlorofluoromethane	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	Vinyl acetate	5	U	5	U	50	U	5	U	5	U
8260C	N	UG/L	Vinyl chloride	1	U	1	U	10	U	1	U	1	U
8260C	N	UG/L	Xylene, o	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	Xylenes (m&p)	2.5	U	2.5	U	25	U	2.5	U	2.5	U
8260C	N	UG/L	Xylenes, Total	2.5	U	2.5	U	25	U	2.5	U	2.5	U
6020A	T	MG/L	Aluminum	0.175		0.13		0.212		4.83			
6020A	T	MG/L	Antimony	0.004	U	0.004	U	0.004	U	0.004	U		
6020A	T	MG/L	Arsenic	0.00031	J	0.00046	J	0.00157		0.00999			
6020A	T	MG/L	Barium	0.1125		0.1073		0.1963		0.2058			
6020A	T	MG/L	Beryllium	0.0005	U	0.0005	U	0.0005	U	0.00048	J		
6020A	T	MG/L	Cadmium	0.00007	J	0.00007	J	0.00006	J	0.00011	J		
6020A	T	MG/L	Calcium	201		204		251		118			
6020A	T	MG/L	Chromium	0.01283		0.00308		0.00212	J	0.01688			
6020A	T	MG/L	Cobalt	0.00078		0.00056		0.00306		0.0087			
6020A	T	MG/L	Copper	0.00155	J	0.00288	J	0.00222	J	0.02403			
6020A	T	MG/L	Iron	0.332		0.233		0.482		15.6			
6020A	T	MG/L	Lead	0.0023		0.00062	J	0.00189		0.00733			
6020A	T	MG/L	Magnesium	14		18.1		74.6		22.2			
6020A	T	MG/L	Manganese	0.008		0.04749		4.051		2.088			
6020A	T	MG/L	Nickel	0.00419		0.00407		0.03138		0.01742			
6020A	T	MG/L	Potassium	26.8		23.9		16.5		22.5			
6020A	T	MG/L	Selenium	0.0087		0.00463	J	0.005	U	0.00555			
6020A	T	MG/L	Silver	0.0004	U	0.0004	U	0.0004	U	0.0004	U		
6020A	T	MG/L	Sodium	196		110		125		92.2			
6020A	T	MG/L	Thallium	0.0005	U	0.00014	J	0.0005	U	0.0005	U		

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APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

			SDG:	L1815070		L1815070		L1815070		L1815070		L1815070	
			Location:	MW-5		MW-6D		MW-6S		MW-E		QC	
			Date Collected:	04/27/18		04/27/18		04/27/18		04/27/18		04/26/18	
			Sample ID:	MW-5-0418		MW-6D-0418		MW-6S-0418		MW-E-0418		TRIP BLANK	
			Type:	FS		FS		FS		FS		TB	
Method	Fraction	Unit	Parameter	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
6020A	T	MG/L	Vanadium	0.005	U	0.0026	J	0.005	U	0.01856			
6020A	T	MG/L	Zinc	0.01	U	0.01	U	0.01609		0.04941			
7470A	T	MG/L	Mercury	0.0002	U	0.0002	U	0.0002	U	0.0002	U		
6020A	D	MG/L	Aluminum	0.01	U	0.01	U	0.01	U	0.01	U		
6020A	D	MG/L	Antimony	0.004	U	0.004	U	0.004	U	0.004	U		
6020A	D	MG/L	Arsenic	0.00022	J	0.00029	J	0.00106		0.0006			
6020A	D	MG/L	Barium	0.1092		0.1057		0.1948		0.08407			
6020A	D	MG/L	Beryllium	0.0005	U	0.0005	U	0.0005	U	0.0005	U		
6020A	D	MG/L	Cadmium	0.0002	U	0.00009	J	0.0002	U	0.0002	U		
6020A	D	MG/L	Calcium	201		211		253		109			
6020A	D	MG/L	Chromium	0.00708		0.00224		0.00024	J	0.00043	J		
6020A	D	MG/L	Cobalt	0.00065		0.00047	J	0.00312		0.00022	J		
6020A	D	MG/L	Copper	0.00153		0.0021		0.00136		0.00067	J		
6020A	D	MG/L	Iron	0.0269	J	0.0392	J	0.0203	J	0.05	U		
6020A	D	MG/L	Lead	0.001	U	0.001	U	0.001	U	0.001	U		
6020A	D	MG/L	Magnesium	13.7		18.5		81.4		17.2			
6020A	D	MG/L	Manganese	0.00647		0.05963		4.112		0.271			
6020A	D	MG/L	Nickel	0.00551		0.00372		0.03264		0.00112	J		
6020A	D	MG/L	Potassium	26.4		23.7		16.9		20.5			
6020A	D	MG/L	Selenium	0.00846		0.00484	J+	0.005	U	0.00449	J		
6020A	D	MG/L	Silver	0.0004	U	0.0004	U	0.0004	U	0.0004	U		
6020A	D	MG/L	Sodium	192		113		130		89.8			
6020A	D	MG/L	Thallium	0.0005	U	0.0005	U	0.0005	U	0.0005	U		
6020A	D	MG/L	Vanadium	0.005	U	0.00188	J	0.005	U	0.005	U		
6020A	D	MG/L	Zinc	0.00369	J	0.01	U	0.01048		0.01	U		
7470A	D	MG/L	Mercury	0.0002	U	0.0002	U	0.0002	U	0.0002	U		

Notes:
U = undetected
J = estimated value
FS = field sample
FD = field duplicate
N, T = total

prepared by KMS
reviewed by JAR

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILILTY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

			SDG:	L1815070	
			Location:	QC	
			Date Collected:	04/26/18	
			Sample ID:	FIELD BLANK	
			Type:	FB	
Method	Fraction	Unit	Parameter	Result	Qualifier
8260C	N	UG/L	1,1,1,2-Tetrachloroethane	2.5	U
8260C	N	UG/L	1,1,1-Trichloroethane	2.5	U
8260C	N	UG/L	1,1,2,2-Tetrachloroethane	0.5	U
8260C	N	UG/L	1,1,2-Trichloroethane	1.5	U
8260C	N	UG/L	1,1-Dichloroethane	2.5	U
8260C	N	UG/L	1,1-Dichloroethene	0.5	U
8260C	N	UG/L	1,1-Dichloropropene	2.5	U
8260C	N	UG/L	1,2,3-Trichlorobenzene	2.5	U
8260C	N	UG/L	1,2,3-Trichloropropane	2.5	U
8260C	N	UG/L	1,2,4-Trichlorobenzene	2.5	U
8260C	N	UG/L	1,2,4-Trimethylbenzene	2.5	U
8260C	N	UG/L	1,2-Dibromo-3-chloropropane	2.5	U
8260C	N	UG/L	1,2-Dibromoethane	2	U
8260C	N	UG/L	1,2-Dichlorobenzene	2.5	U
8260C	N	UG/L	1,2-Dichloroethane	0.5	U
8260C	N	UG/L	1,2-Dichloroethene (total)	2.5	U
8260C	N	UG/L	1,2-Dichloropropane	1	U
8260C	N	UG/L	1,3,5-Trimethylbenzene	2.5	U
8260C	N	UG/L	1,3-Dichlorobenzene	2.5	U
8260C	N	UG/L	1,3-Dichloropropane	2.5	U
8260C	N	UG/L	1,3-Dichloropropene (total)	0.5	U
8260C	N	UG/L	1,4-Dichlorobenzene	2.5	U
8260C	N	UG/L	1,4-Dioxane	250	U
8260C	N	UG/L	2,2-Dichloropropane	2.5	U
8260C	N	UG/L	2-Butanone	5	U
8260C	N	UG/L	2-Chlorotoluene	2.5	U
8260C	N	UG/L	2-Hexanone	5	U
8260C	N	UG/L	4-Chlorotoluene	2.5	U
8260C	N	UG/L	4-Ethyltoluene	2	U
8260C	N	UG/L	4-iso-Propyltoluene	2.5	U
8260C	N	UG/L	4-Methyl-2-pentanone	5	U
8260C	N	UG/L	Acetone	5	U

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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILILTY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

			SDG:	L1815070	
			Location:	QC	
			Date Collected:	04/26/18	
			Sample ID:	FIELD BLANK	
			Type:	FB	
Method	Fraction	Unit	Parameter	Result	Qualifier
8260C	N	UG/L	Acrylonitrile	5	U
8260C	N	UG/L	Benzene	0.5	U
8260C	N	UG/L	Benzene, 1,2,4,5-tetramethyl	2	U
8260C	N	UG/L	Bromobenzene	2.5	U
8260C	N	UG/L	Bromochloromethane	2.5	U
8260C	N	UG/L	Bromodichloromethane	0.5	U
8260C	N	UG/L	Bromoform	2	U
8260C	N	UG/L	Bromomethane	2.5	U
8260C	N	UG/L	Carbon disulfide	5	U
8260C	N	UG/L	Carbon tetrachloride	0.5	U
8260C	N	UG/L	Chlorobenzene	2.5	U
8260C	N	UG/L	Chloroethane	2.5	U
8260C	N	UG/L	Chloroform	2.5	U
8260C	N	UG/L	Chloromethane	2.5	U
8260C	N	UG/L	Cis-1,2-Dichloroethene	2.5	U
8260C	N	UG/L	Cis-1,3-Dichloropropene	0.5	U
8260C	N	UG/L	Dibromochloromethane	0.5	U
8260C	N	UG/L	Dibromomethane	5	U
8260C	N	UG/L	Dichlorodifluoromethane	5	U
8260C	N	UG/L	Diethyl ether	2.5	U
8260C	N	UG/L	Ethylbenzene	2.5	U
8260C	N	UG/L	Hexachlorobutadiene	2.5	U
8260C	N	UG/L	Isopropylbenzene	2.5	U
8260C	N	UG/L	Methyl Tertbutyl Ether	2.5	U
8260C	N	UG/L	Methylene chloride	2.5	U
8260C	N	UG/L	n-Butylbenzene	2.5	U
8260C	N	UG/L	Naphthalene	2.5	U
8260C	N	UG/L	p-Diethylbenzene	2	U
8260C	N	UG/L	Propylbenzene	2.5	U
8260C	N	UG/L	sec-Butylbenzene	2.5	U
8260C	N	UG/L	Styrene	2.5	U
8260C	N	UG/L	tert-Butylbenzene	2.5	U

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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILILTY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

			SDG:	L1815070	
			Location:	QC	
			Date Collected:	04/26/18	
			Sample ID:	FIELD BLANK	
			Type:	FB	
Method	Fraction	Unit	Parameter	Result	Qualifier
8260C	N	UG/L	Tetrachloroethene	0.5	U
8260C	N	UG/L	Toluene	2.5	U
8260C	N	UG/L	trans-1,2-Dichloroethene	2.5	U
8260C	N	UG/L	trans-1,3-Dichloropropene	0.5	U
8260C	N	UG/L	trans-1,4-Dichloro-2-butene	2.5	U
8260C	N	UG/L	Trichloroethene	0.5	U
8260C	N	UG/L	Trichlorofluoromethane	2.5	U
8260C	N	UG/L	Vinyl acetate	5	U
8260C	N	UG/L	Vinyl chloride	1	U
8260C	N	UG/L	Xylene, o	2.5	U
8260C	N	UG/L	Xylenes (m&p)	2.5	U
8260C	N	UG/L	Xylenes, Total	2.5	U
6020A	T	MG/L	Aluminum	0.00424	J
6020A	T	MG/L	Antimony	0.00092	J
6020A	T	MG/L	Arsenic	0.0005	U
6020A	T	MG/L	Barium	0.00051	
6020A	T	MG/L	Beryllium	0.0005	U
6020A	T	MG/L	Cadmium	0.0002	U
6020A	T	MG/L	Calcium	0.0718	J
6020A	T	MG/L	Chromium	0.00043	J
6020A	T	MG/L	Cobalt	0.0005	U
6020A	T	MG/L	Copper	0.00089	J
6020A	T	MG/L	Iron	0.0209	J
6020A	T	MG/L	Lead	0.001	U
6020A	T	MG/L	Magnesium	0.07	U
6020A	T	MG/L	Manganese	0.001	U
6020A	T	MG/L	Nickel	0.002	U
6020A	T	MG/L	Potassium	0.089	J
6020A	T	MG/L	Selenium	0.005	U
6020A	T	MG/L	Silver	0.0004	U
6020A	T	MG/L	Sodium	0.248	
6020A	T	MG/L	Thallium	0.0005	U

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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILILTY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

			SDG:	L1815070	
			Location:	QC	
			Date Collected:	04/26/18	
			Sample ID:	FIELD BLANK	
			Type:	FB	
Method	Fraction	Unit	Parameter	Result	Qualifier
6020A	T	MG/L	Vanadium	0.005	U
6020A	T	MG/L	Zinc	0.01	U
7470A	T	MG/L	Mercury	0.0002	U
6020A	D	MG/L	Aluminum	0.01	U
6020A	D	MG/L	Antimony	0.00081	J
6020A	D	MG/L	Arsenic	0.0005	U
6020A	D	MG/L	Barium	0.00058	
6020A	D	MG/L	Beryllium	0.0005	U
6020A	D	MG/L	Cadmium	0.0002	U
6020A	D	MG/L	Calcium	0.1	U
6020A	D	MG/L	Chromium	0.001	U
6020A	D	MG/L	Cobalt	0.0005	U
6020A	D	MG/L	Copper	0.001	U
6020A	D	MG/L	Iron	0.05	U
6020A	D	MG/L	Lead	0.001	U
6020A	D	MG/L	Magnesium	0.07	U
6020A	D	MG/L	Manganese	0.001	U
6020A	D	MG/L	Nickel	0.002	U
6020A	D	MG/L	Potassium	0.1	U
6020A	D	MG/L	Selenium	0.005	U
6020A	D	MG/L	Silver	0.0004	U
6020A	D	MG/L	Sodium	0.1	U
6020A	D	MG/L	Thallium	0.0005	U
6020A	D	MG/L	Vanadium	0.005	U
6020A	D	MG/L	Zinc	0.01	U
7470A	D	MG/L	Mercury	0.0002	U

Notes:
U = undetected
J = estimated value
FS = field sample
FD = field duplicate
N, T = total

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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

		SDG:	L1815079		L1815079		L1815079		L1815079		L1815079	
		Location:	BMW-1		BMW-2		BMW-3		BMW-4		BMW-4	
		Date Collected:	04/26/18		04/26/18		04/26/18		04/26/18		04/26/18	
		Sample ID:	BMW-1-0418		BMW-2-0418		BMW-3-0418		BMW-4-0418		DUPLICATE	
		Type:	FS		FS		FS		FS		FD	
Method	Unit	Parameter	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
537(M)	NG/L	6:2 fluorotelomer sulfonate	0.721	J	1	J	3.43	J	1.85	J	1.8	J
537(M)	NG/L	8:2 Fluorotelomer sulfonate	1.72	UJ	1.92	UJ	1.72	UJ	1.92	UJ	1.85	UJ
537(M)	NG/L	N-ethyl perfluorooctanesulfonamidoacetic acid	1.72	U	1.92	U	1.72	U	0.515	J	1.85	U
537(M)	NG/L	N-methyl perfluorooctanesulfonamidoacetic acid	1.72	U	1.92	U	1.72	U	1.92	U	1.85	U
537(M)	NG/L	Perfluorobutanesulfonic acid	950		706		111	J	248	J	286	J
537(M)	NG/L	Perfluorobutanoic acid	30.2		29.8		28.9	J	31		30.4	
537(M)	NG/L	Perfluorodecanesulfonic acid	1.72	U	1.92	U	1.72	U	1.15	J	1.85	U
537(M)	NG/L	Perfluorodecanoic acid	1.28	J	1.22	J	0.972	J	1.17	J	0.589	J
537(M)	NG/L	Perfluorododecanoic acid	1.72	U	1.92	U	1.72	U	0.762	J	1.85	U
537(M)	NG/L	Perfluoroheptanesulfonic acid	48.1		83.2		115		75		85.9	
537(M)	NG/L	Perfluoroheptanoic acid	23.3		20.1		26.2		23.2		22.7	
537(M)	NG/L	Perfluorohexane sulfonic acid	148		322		97.1	J	106	J	108	J
537(M)	NG/L	Perfluorohexanoic acid	72.2		45.7		104		104		99	
537(M)	NG/L	Perfluorononanoic acid	4.84		3.43		4.1		3.03		3.01	
537(M)	NG/L	Perfluorooctane sulfonamide	1.72	UJ	1.92	UJ	1.72	UJ	1.92	UJ	1.85	UJ
537(M)	NG/L	Perfluorooctanesulfonic acid (PFOS)	780		1720		5770		2550		2820	
537(M)	NG/L	Perfluorooctanoic acid (PFOA)	59.1		79.7		65.6		71.2		73	
537(M)	NG/L	Perfluoropentanoic acid	61.8		62.4		56.9		92.5		90.3	
537(M)	NG/L	Perfluorotetradecanoic acid	1.72	U	1.92	U	1.72	U	0.638	J	1.85	U
537(M)	NG/L	Perfluorotridecanoic acid	1.72	U	1.92	U	1.72	U	0.646	J	1.85	U
537(M)	NG/L	Perfluoroundecanoic acid	1.72	U	1.92	U	1.72	U	0.704	J	1.85	U

Notes:
U = undetected
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FS = field sample
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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

		SDG:	L1815079		L1815079		L1815079		L1815079		L1815079	
		Location:	MW-5		MW-6D		MW-6S		MW-E		QC	
		Date Collected:	04/27/18		04/27/18		04/27/18		04/27/18		04/26/18	
		Sample ID:	MW-5-0418		MW-6D-0418		MW-6S-0418		MW-E-0418		FIELD BLANK	
		Type:	FS		FS		FS		FS		FB	
Method	Unit	Parameter	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
537(M)	NG/L	6:2 fluorotelomer sulfonate	1.78	U	1.85	UJ	5.26	J	17		1.85	U
537(M)	NG/L	8:2 Fluorotelomer sulfonate	1.78	U	1.85	U	1.72	U	1.67	U	1.85	U
537(M)	NG/L	N-ethyl perfluorooctanesulfonamidoacetic acid	1.78	U	1.85	U	1.72	U	1.67	U	1.85	U
537(M)	NG/L	N-methyl perfluorooctanesulfonamidoacetic acid	1.78	U	1.85	U	1.72	U	1.67	U	1.85	U
537(M)	NG/L	Perfluorobutanesulfonic acid	11.9		13.8		22.5		7.14		1.85	U
537(M)	NG/L	Perfluorobutanoic acid	8.62		6.24		12.7		26		1.85	U
537(M)	NG/L	Perfluorodecanesulfonic acid	1.78	U	1.85	U	1.72	U	1.67	U	1.85	U
537(M)	NG/L	Perfluorodecanoic acid	1.78	U	0.481	J	0.852	J	0.843	J	1.85	U
537(M)	NG/L	Perfluorododecanoic acid	1.78	U	1.85	U	1.72	U	1.67	U	1.85	U
537(M)	NG/L	Perfluoroheptanesulfonic acid	1.78	U	0.744	J	11.4		1.67	U	1.85	U
537(M)	NG/L	Perfluoroheptanoic acid	4.82		4.02		5.69		9.33		1.85	U
537(M)	NG/L	Perfluorohexane sulfonic acid	4.81		2.75		30.2		1.7		1.85	U
537(M)	NG/L	Perfluorohexanoic acid	8.14		6.03		6.96		72.3		1.85	U
537(M)	NG/L	Perfluorononanoic acid	0.628	J	1.36	J	2.48		0.887	J	1.85	U
537(M)	NG/L	Perfluorooctane sulfonamide	1.78	UJ	1.85	UJ	1.72	UJ	1.67	UJ	1.85	U
537(M)	NG/L	Perfluorooctanesulfonic acid (PFOS)	65.6		64.4		479		5.26		0.126	J
537(M)	NG/L	Perfluorooctanoic acid (PFOA)	18.2		17.4		48.7		29.2		0.7	J
537(M)	NG/L	Perfluoropentanoic acid	8.78		5.01		7.42		56		1.85	U
537(M)	NG/L	Perfluorotetradecanoic acid	1.78	U	1.85	U	1.72	UJ	1.67	U	1.85	U
537(M)	NG/L	Perfluorotridecanoic acid	1.78	U	1.85	U	1.72	U	1.67	U	1.85	U
537(M)	NG/L	Perfluoroundecanoic acid	1.78	U	1.85	U	1.72	U	1.67	U	1.85	U

Notes:
U = undetected
J = estimated value
FS = field sample
FD = field duplicate
N = total

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TABLE 3 - QUALIFICATION ACTIONS SUMMARY
DATA USABILITY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

SDG	Analysis Method	Lab Sample Id	Field Sample Date	Field Sample Id	Fraction	Param Name	Lab Result Text	Lab Qualifier	Final Result	Final Qualifier	Val Reason Code	Result Uom
L1815070	6020A	L1815070-01	4/26/2018	BMW-1-0418	D	Aluminum	0.00393	J	0.01	U	BL1	MG/L
L1815070	6020A	L1815070-01	4/26/2018	BMW-1-0418	D	Antimony	0.00364	J	0.004	U	BL1, BL2	MG/L
L1815070	6020A	L1815070-01	4/26/2018	BMW-1-0418	T	Antimony	0.00363	J	0.004	U	BL1, BL2	MG/L
L1815070	6020A	L1815070-01	4/26/2018	BMW-1-0418	T	Copper	0.00366		0.00366	J	BL2	MG/L
L1815070	8260C	L1815070-01	4/26/2018	BMW-1-0418	N	Acetone	1.9	J	5	U	BL2	UG/L
L1815070	6020A	L1815070-02	4/26/2018	BMW-2-0418	D	Aluminum	0.00489	J	0.01	U	BL1	MG/L
L1815070	6020A	L1815070-02	4/26/2018	BMW-2-0418	D	Antimony	0.00082	J	0.004	U	BL1, BL2	MG/L
L1815070	6020A	L1815070-02	4/26/2018	BMW-2-0418	T	Antimony	0.00068	J	0.004	U	BL1, BL2	MG/L
L1815070	6020A	L1815070-02	4/26/2018	BMW-2-0418	T	Copper	0.004		0.004	J	BL2	MG/L
L1815070	8260C	L1815070-02	4/26/2018	BMW-2-0418	N	Acetone	1.8	J	5	U	BL2	UG/L
L1815070	6020A	L1815070-03	4/26/2018	BMW-3-0418	D	Aluminum	0.00902	J	0.01	U	BL1	MG/L
L1815070	6020A	L1815070-03	4/26/2018	BMW-3-0418	D	Antimony	0.00061	J	0.004	U	BL1, BL2	MG/L
L1815070	6020A	L1815070-03	4/26/2018	BMW-3-0418	T	Antimony	0.00081	J	0.004	U	BL1, BL2	MG/L
L1815070	6020A	L1815070-03	4/26/2018	BMW-3-0418	T	Copper	0.00411		0.00411	J	BL2	MG/L
L1815070	6020A	L1815070-04	4/26/2018	BMW-4-0418	D	Aluminum	0.00343	J	0.01	U	BL1	MG/L
L1815070	6020A	L1815070-04	4/26/2018	BMW-4-0418	D	Antimony	0.00058	J	0.004	U	BL1, BL2	MG/L
L1815070	6020A	L1815070-04	4/26/2018	BMW-4-0418	D	Iron	0.35		0.35	J	FD	MG/L
L1815070	6020A	L1815070-04	4/26/2018	BMW-4-0418	T	Antimony	0.00061	J	0.004	U	BL1, BL2	MG/L
L1815070	6020A	L1815070-04	4/26/2018	BMW-4-0418	T	Chromium	0.00129		0.00129	J	BL2	MG/L
L1815070	6020A	L1815070-04	4/26/2018	BMW-4-0418	T	Copper	0.00063	J	0.00063	J	BL2	MG/L
L1815070	6020A	L1815070-05	4/27/2018	MW-6D-0418	D	Aluminum	0.00492	J	0.01	U	BL1	MG/L
L1815070	6020A	L1815070-05	4/27/2018	MW-6D-0418	D	Antimony	0.00082	J	0.004	U	BL1, BL2	MG/L
L1815070	6020A	L1815070-05	4/27/2018	MW-6D-0418	D	Selenium	0.00484	J	0.00484	J+	MS-H	MG/L
L1815070	6020A	L1815070-05	4/27/2018	MW-6D-0418	T	Antimony	0.0035	J	0.004	U	BL1, BL2	MG/L
L1815070	6020A	L1815070-05	4/27/2018	MW-6D-0418	T	Copper	0.00288		0.00288	J	BL2	MG/L
L1815070	8260C	L1815070-05	4/27/2018	MW-6D-0418	N	Acetone	3.8	J	5	U	BL2	UG/L
L1815070	6020A	L1815070-06	4/27/2018	MW-6S-0418	D	Aluminum	0.00722	J	0.01	U	BL1	MG/L
L1815070	6020A	L1815070-06	4/27/2018	MW-6S-0418	D	Antimony	0.00147	J	0.004	U	BL1, BL2	MG/L
L1815070	6020A	L1815070-06	4/27/2018	MW-6S-0418	T	Antimony	0.00165	J	0.004	U	BL1, BL2	MG/L
L1815070	6020A	L1815070-06	4/27/2018	MW-6S-0418	T	Chromium	0.00212		0.00212	J	BL2	MG/L
L1815070	6020A	L1815070-06	4/27/2018	MW-6S-0418	T	Copper	0.00222		0.00222	J	BL2	MG/L
L1815070	6020A	L1815070-07	4/27/2018	MW-5-0418	D	Aluminum	0.00616	J	0.01	U	BL1	MG/L
L1815070	6020A	L1815070-07	4/27/2018	MW-5-0418	D	Antimony	0.00068	J	0.004	U	BL1, BL2	MG/L
L1815070	6020A	L1815070-07	4/27/2018	MW-5-0418	T	Antimony	0.00077	J	0.004	U	BL1, BL2	MG/L

TABLE 3 - QUALIFICATION ACTIONS SUMMARY
DATA USABILITY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

SDG	Analysis Method	Lab Sample Id	Field Sample Date	Field Sample Id	Fraction	Param Name	Lab Result Text	Lab Qualifier	Final Result	Final Qualifier	Val Reason Code	Result Uom
L1815070	6020A	L1815070-07	4/27/2018	MW-5-0418	T	Copper	0.00155		0.00155	J	BL2	MG/L
L1815070	8260C	L1815070-07	4/27/2018	MW-5-0418	N	Acetone	1.5	J	5	U	BL2	UG/L
L1815070	6020A	L1815070-08	4/27/2018	MW-E-0418	D	Antimony	0.00048	J	0.004	U	BL1, BL2	MG/L
L1815070	6020A	L1815070-08	4/27/2018	MW-E-0418	T	Antimony	0.00094	J	0.004	U	BL1, BL2	MG/L
L1815070	8260C	L1815070-08	4/27/2018	MW-E-0418	N	Acetone	1.6	J	5	U	BL2	UG/L
L1815070	6020A	L1815070-09	4/26/2018	DUPLICATE	D	Antimony	0.00087	J	0.004	U	BL1, BL2	MG/L
L1815070	6020A	L1815070-09	4/26/2018	DUPLICATE	D	Iron	0.126		0.126	J	FD	MG/L
L1815070	6020A	L1815070-09	4/26/2018	DUPLICATE	T	Antimony	0.00048	J	0.004	U	BL1, BL2	MG/L
L1815070	6020A	L1815070-09	4/26/2018	DUPLICATE	T	Chromium	0.00124		0.00124	J	BL2	MG/L
L1815070	6020A	L1815070-09	4/26/2018	DUPLICATE	T	Copper	0.00065	J	0.00065	J	BL2	MG/L

Notes:
U = undetected
J = estimated value
FD = field duplicate precision not met
BL1 = method blank contamination
BL2 = field or trip blank contamination
N, T = total
D = dissolved

TABLE 3 - QUALIFICATION ACTIONS SUMMARY
DATA USABILITY SUMMARY REPORT
APRIL 2018 GROUNDWATER SAMPLING EVENT
FORMER HYGRADE POLISHING AND PLATING COMPANY
LONG ISLAND CITY, NEW YORK

SDG	Analysis Method	Lab Sample Id	Field Sample Date	Field Sample Id	Fraction	Param Name	Lab Result Text	Lab Qualifier	Final Result	Final Qualifier	Val Reason Code	Result Uom
L1815079	537(M)	L1815079-01	4/26/2018	BMW-1-0418	N	6:2 fluorotelomer sulfonate	0.721	J	0.721	J	IS-H	NG/L
L1815079	537(M)	L1815079-01	4/26/2018	BMW-1-0418	N	8:2 Fluorotelomer sulfonate	1.72	U	1.72	UJ	IS-H	NG/L
L1815079	537(M)	L1815079-01	4/26/2018	BMW-1-0418	N	Perfluorooctane sulfonamide	1.72	U	1.72	UJ	IS-L	NG/L
L1815079	537(M)	L1815079-02	4/26/2018	BMW-2-0418	N	6:2 fluorotelomer sulfonate	1	J	1	J	IS-H	NG/L
L1815079	537(M)	L1815079-02	4/26/2018	BMW-2-0418	N	8:2 Fluorotelomer sulfonate	1.92	U	1.92	UJ	IS-H	NG/L
L1815079	537(M)	L1815079-02	4/26/2018	BMW-2-0418	N	Perfluorooctane sulfonamide	1.92	U	1.92	UJ	IS-L	NG/L
L1815079	537(M)	L1815079-03	4/26/2018	BMW-3-0418	N	6:2 fluorotelomer sulfonate	3.43		3.43	J	IS-H	NG/L
L1815079	537(M)	L1815079-03	4/26/2018	BMW-3-0418	N	8:2 Fluorotelomer sulfonate	1.72	U	1.72	UJ	IS-H	NG/L
L1815079	537(M)	L1815079-03	4/26/2018	BMW-3-0418	N	Perfluorobutanesulfonic acid	111		111	J	IS-H	NG/L
L1815079	537(M)	L1815079-03	4/26/2018	BMW-3-0418	N	Perfluorobutanoic acid	28.9		28.9	J	IS-L	NG/L
L1815079	537(M)	L1815079-03	4/26/2018	BMW-3-0418	N	Perfluorohexane sulfonic acid	97.1		97.1	J	IS-H	NG/L
L1815079	537(M)	L1815079-03	4/26/2018	BMW-3-0418	N	Perfluorooctane sulfonamide	1.72	U	1.72	UJ	IS-L	NG/L
L1815079	537(M)	L1815079-04	4/26/2018	BMW-4-0418	N	6:2 fluorotelomer sulfonate	1.85	J	1.85	J	IS-H	NG/L
L1815079	537(M)	L1815079-04	4/26/2018	BMW-4-0418	N	8:2 Fluorotelomer sulfonate	1.92	U	1.92	UJ	IS-H	NG/L
L1815079	537(M)	L1815079-04	4/26/2018	BMW-4-0418	N	Perfluorobutanesulfonic acid	248		248	J	IS-H	NG/L
L1815079	537(M)	L1815079-04	4/26/2018	BMW-4-0418	N	Perfluorohexane sulfonic acid	106		106	J	IS-H	NG/L
L1815079	537(M)	L1815079-04	4/26/2018	BMW-4-0418	N	Perfluorooctane sulfonamide	1.92	U	1.92	UJ	IS-L	NG/L
L1815079	537(M)	L1815079-05	4/27/2018	MW-6D-0418	N	6:2 fluorotelomer sulfonate	1.85	U	1.85	UJ	IS-H	NG/L
L1815079	537(M)	L1815079-05	4/27/2018	MW-6D-0418	N	Perfluorooctane sulfonamide	1.85	U	1.85	UJ	IS-L	NG/L
L1815079	537(M)	L1815079-06	4/27/2018	MW-6S-0418	N	6:2 fluorotelomer sulfonate	5.26		5.26	J	IS-H	NG/L
L1815079	537(M)	L1815079-06	4/27/2018	MW-6S-0418	N	Perfluorooctane sulfonamide	1.72	U	1.72	UJ	IS-L	NG/L
L1815079	537(M)	L1815079-06	4/27/2018	MW-6S-0418	N	Perfluorotetradecanoic acid	1.72	U	1.72	UJ	IS-L	NG/L
L1815079	537(M)	L1815079-07	4/27/2018	MW-5-0418	N	Perfluorooctane sulfonamide	1.78	U	1.78	UJ	IS-L	NG/L
L1815079	537(M)	L1815079-08	4/27/2018	MW-E-0418	N	Perfluorooctane sulfonamide	1.67	U	1.67	UJ	IS-L	NG/L
L1815079	537(M)	L1815079-09	4/26/2018	DUPLICATE	N	6:2 fluorotelomer sulfonate	1.8	J	1.8	J	IS-H	NG/L
L1815079	537(M)	L1815079-09	4/26/2018	DUPLICATE	N	8:2 Fluorotelomer sulfonate	1.85	U	1.85	UJ	IS-H	NG/L
L1815079	537(M)	L1815079-09	4/26/2018	DUPLICATE	N	Perfluorobutanesulfonic acid	286		286	J	IS-H	NG/L
L1815079	537(M)	L1815079-09	4/26/2018	DUPLICATE	N	Perfluorohexane sulfonic acid	108		108	J	IS-H	NG/L
L1815079	537(M)	L1815079-09	4/26/2018	DUPLICATE	N	Perfluorooctane sulfonamide	1.85	U	1.85	UJ	IS-L	NG/L

Notes:
U = undetected
J = estimated value
IS-L = extracted internal standard recovery low
IS-H = extracted internal standard recovery high
N = total

ATTACHMENT A
SUMMARY OF VALIDATION QC LIMITS FOR SURROGATES, SPIKES, AND DUPLICATES
BASED ON THE REGION 2 VALIDATION GUIDELINES

PARAMETER	QC TEST	ANALYTE	Soil (%R)	Soil (RPD)
Volatiles	Surrogate	All Surrogate Compounds	70 - 130	
	LCS	All Target Compounds	70 - 130	
	MS/MSD	All Target Compounds	70 - 130	35
	Field Duplicate	All Target Compounds		100
Per- and Polyfluorinated Alkyl Substances (PFAS)	Surrogate	All Surrogate Compounds	Lab Limits	
	LCS	All Target Compounds	Lab Limits	
	MS/MSD	All Target Compounds	Lab Limits	Lab Limits
	Field Duplicate	All Target Compounds		50
Inorganics-Metals	LCS	All Target Analytes	80 - 120	
	MS/MSD	All Target Analytes	75 -125	35
	Lab Duplicate	All Target Analytes		35
	Field Duplicate	All Target Analytes		35

Notes:
LCS - Laboratory Control Sample
MS/MSD - Matrix spike/ Matrix Spike Duplicate
RPD = Relative percent difference
%R = percent recovery
QC Limits are based on USEPA Region II Data Validation Guidelines and Project QA/QC Objectives

ATTACHMENT B

VOCs

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD

Project: Hygrade
Method: 8260C
Laboratory: Alpha - Westborough **SDG(s):** L1815070
Date: 6/13/18
Reviewer: Julia Ricardi

Review Level [X] NYSDEC DUSR USEPA Region II Guideline

1. ☑ **Case Narrative Review and COC/Data Package Completeness** COMMENTS
   Were problems noted? No
   Are Field Sample IDs and Locations assigned correctly? YES (NO)* (circle one)
   Were all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)
2. ☑ **Holding time and Sample Collection** * MW-5-0418 logged in as MW-S-0418, corrected during data validation & sampler requested revised lab report
   All samples were analyzed within the 14 day holding time. (YES) NO (circle one)
3. ☑ **QC Blanks**
   Are method blanks free of contamination? (YES) NO (circle one)
   Are Trip blanks free of contamination? YES (NO) (circle one) Acetone 4.7 J 4J
   Are Rinse blanks free of contamination? (YES) NO NA (circle one) (4) subst; else > or ND
4. ☑ **Instrument Tuning – Data Package Narrative Review**
   Did the laboratory narrative identify any results that were not within method criteria? YES (NO) (circle one)
   If yes, use professional judgment to evaluate data and qualify results if needed OK
5. ☑ **Instrument Calibration – Data Package Narrative Review**
   Did the laboratory narrative identify compounds that were not within criteria in the initial and/or continuing calibration standards? YES (NO) (circle one)

   Initial Calibration %RSD = 20% **(30% for 1,1-DCE, chloroform, 1,2-DCP, toluene, ethylbenzene, VC)**
   Initial Avg RRF and Continuing RRF should be ≥ 0.05 and 0.10 for Chloromethane, 1,1-Dichloroethane, Bromoform and 0.30 for Chlorobenzene and 1,1,2,2-Tetrachloroethane

   Continuing Calibration %D = 20%

   Did the laboratory qualify results based on initial or continuing calibration exceedances? YES (NO)
   If yes to above, use professional judgment to evaluate data and qualify results if needed
6. ☑ **Internal Standards – Data Package Narrative Review**
   (Area Limits = -50% to +100%, RTs within 30 seconds of daily CCAL standard (or ICAL mid-point if samples follow ICAL)
   Did the laboratory narrative identify any sample internal standards that were not within criteria? YES (NO) (circle one)

   Did the laboratory qualify results based on internal standard exceedances? YES (NO)
   If yes to above, use professional judgment to evaluate data and qualify results if needed
7. ☑ **Surrogate Recovery** - Region II limits (water 80-120%, soil 70-130%)

   Were all results within Region II limits? (YES) NO (circle one)
8. ☑ **Matrix Spike** - Region II limits (water and soil 70-130%, water RPD 20, soil RPD 35)
   MW-60-0418
   Were MS/MSDs submitted/analyzed? (YES) NO

   Were all results within the Region II limits? (YES) NO NA (circle one) 70-130

9. ☑ **Duplicates** - Region II Limits (water RPD 50, soil RPD 100)

Were Field Duplicates submitted/analyzed? (YES) NO BMW-4-041816/DUPLICATE: 01C

Were all results within Region II limits? (soil RPD<100, water RPD<50) (YES) NO NA

10. ☑ **Laboratory Control Sample Results** - Region II (Water and soil 70-130%)

Were all results were within Region II control limits? YES (NO) (circle one)

1,4-dioxane 132%; all samples ND : no goal

11. ☑ **Raw Data Review and Calculation Checks**

See attached

12. ☑ **Electronic Data Review and Edits**

Does the EDD match the Form Is? (YES) NO (circle one)

13. ☑ **Tables and TIC Review**

Table 1 (Samples and Analytical Methods)
Table 2 (Analytical Results)
Table 3 (Qualification Actions)
Were all tables produced and reviewed? (YES) NO (circle one)

Table 4 (TICs) Did lab report TICs? YES (NO) (circle one)

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331

Lab Number: L1815070
Report Date: 05/04/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1815070-01	BMW-1-0418	WATER	LONG ISLAND CITY, NY	04/26/18 12:35	04/27/18
L1815070-02	BMW-2-0418	WATER	LONG ISLAND CITY, NY	04/26/18 13:10	04/27/18
L1815070-03	BMW-3-0418	WATER	LONG ISLAND CITY, NY	04/26/18 14:00	04/27/18
L1815070-04	BMW-4-0418	WATER	LONG ISLAND CITY, NY	04/26/18 11:00	04/27/18
L1815070-05	MW-6D-0418	WATER	LONG ISLAND CITY, NY	04/27/18 08:50	04/27/18
L1815070-06	MW-6S-0418	WATER	LONG ISLAND CITY, NY	04/27/18 08:50	04/27/18
L1815070-07	MW-S-0418	WATER	LONG ISLAND CITY, NY	04/27/18 10:05	04/27/18
L1815070-08	MW-E-0418	WATER	LONG ISLAND CITY, NY	04/27/18 10:30	04/27/18
L1815070-09	DUPLICATE	WATER	LONG ISLAND CITY, NY	04/26/18 11:00	04/27/18
L1815070-10	FIELD BLANK	WATER	LONG ISLAND CITY, NY	04/26/18 14:25	04/27/18
L1815070-11	TRIP BLANK	WATER	LONG ISLAND CITY, NY	04/26/18 00:00	04/27/18

field_sample_id	qc_c	lab_sample_id	analysis	param_name	final_result	final_qualif	result_uom	detection_l	SQL_text	fraction	FD CONC	RPD	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorobutanesulfonic acid	248		NG/L	0.106	1.92	N	286	14.2	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorobutanoic acid	31.0		NG/L	0.126	1.92	N	30.4	2.0	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluoroheptanesulfonic acid	75.0		NG/L	0.149	1.92	N	85.9	13.5	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluoroheptanoic acid	23.2		NG/L	0.089	1.92	N	22.7	2.2	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorohexane sulfonic acid	106		NG/L	0.103	1.92	N	108	1.9	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorohexanoic acid	104		NG/L	0.122	1.92	N	99.0	4.9	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorononanoic acid	3.03		NG/L	0.097	1.92	N	3.01	0.7	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorooctanesulfonic acid	2550		NG/L	2.23	40.0	N	2820	10.1	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorooctanoic acid	71.2		NG/L	0.049	1.92	N	73.0	2.5	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluoropentanoic acid	92.5		NG/L	0.082	1.92	N	90.3	2.4	
BMW-4-0418	FS	L1815070-04	6020A	Aluminum	0.0232		MG/L	0.00327	0.0100	T	0.0121	62.9	OK; PROF JDG, DIFF ~ RL
BMW-4-0418	FS	L1815070-04	6020A	Arsenic	0.00535		MG/L	0.00016	0.00050	D	0.00488	9.2	
BMW-4-0418	FS	L1815070-04	6020A	Arsenic	0.02336		MG/L	0.00016	0.00050	T	0.02348	0.5	
BMW-4-0418	FS	L1815070-04	6020A	Barium	0.1471		MG/L	0.00017	0.00050	D	0.1434	2.5	
BMW-4-0418	FS	L1815070-04	6020A	Barium	0.2201		MG/L	0.00017	0.00050	T	0.2301	4.4	
BMW-4-0418	FS	L1815070-04	6020A	Calcium	269.		MG/L	0.0394	0.100	D	263.	2.3	
BMW-4-0418	FS	L1815070-04	6020A	Calcium	267.		MG/L	0.0394	0.100	T	261.	2.3	
BMW-4-0418	FS	L1815070-04	6020A	Chromium	0.00129		MG/L	0.00017	0.00100	T	0.00124	4.0	
BMW-4-0418	FS	L1815070-04	6020A	Cobalt	0.02242		MG/L	0.00016	0.00050	D	0.02082	7.4	
BMW-4-0418	FS	L1815070-04	6020A	Cobalt	0.02253		MG/L	0.00016	0.00050	T	0.02110	6.6	
BMW-4-0418	FS	L1815070-04	6020A	Iron	0.350		MG/L	0.0191	0.0500	D	0.126	94.1	J SAMPLE AND DUP
BMW-4-0418	FS	L1815070-04	6020A	Iron	30.2		MG/L	0.0191	0.0500	T	30.6	1.3	
BMW-4-0418	FS	L1815070-04	6020A	Magnesium	55.7		MG/L	0.0242	0.0700	D	51.2	8.4	
BMW-4-0418	FS	L1815070-04	6020A	Magnesium	52.5		MG/L	0.0242	0.0700	T	50.2	4.5	
BMW-4-0418	FS	L1815070-04	6020A	Manganese	8.175		MG/L	0.00044	0.00100	D	8.132	0.5	
BMW-4-0418	FS	L1815070-04	6020A	Manganese	8.368		MG/L	0.00044	0.00100	T	8.359	0.1	
BMW-4-0418	FS	L1815070-04	6020A	Nickel	0.05969		MG/L	0.00055	0.00200	D	0.05604	6.3	
BMW-4-0418	FS	L1815070-04	6020A	Nickel	0.05790		MG/L	0.00055	0.00200	T	0.05586	3.6	
BMW-4-0418	FS	L1815070-04	6020A	Potassium	47.9		MG/L	0.0309	0.100	D	48.6	1.5	
BMW-4-0418	FS	L1815070-04	6020A	Potassium	45.9		MG/L	0.0309	0.100	T	47.6	3.6	
BMW-4-0418	FS	L1815070-04	6020A	Sodium	207.		MG/L	0.0293	0.100	D	196.	5.5	
BMW-4-0418	FS	L1815070-04	6020A	Sodium	196.		MG/L	0.0293	0.100	T	192.	2.1	
BMW-4-0418	FS	L1815070-04	8260C	2-Butanone	1400		UG/L	19.	50	N	1400	0	
BMW-4-0418	FS	L1815070-04	8260C	Acetone	380		UG/L	15.	50	N	380	0	
BMW-4-0418	FS	L1815070-04	8260C	Vinyl chloride	16		UG/L	0.71	10	N	15	6.5	

6/13/18

Laboratory Control Sample
Form 3

Client	: Wood Env & Infrastructure Solutions	Lab Number	: L1815070
Project Name	: STALINGRAD/HYGRADE GW Q2 SAMPL	Project Number	: 3612162331
Matrix	: WATER		
LCS Sample ID	: WG1111832-3 Analysis Date : 05/01/18 17:59	File ID	: V01180501N02
LCSD Sample ID	: WG1111832-4 Analysis Date : 05/01/18 18:28	File ID	: V01180501N03

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	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
p-Chlorotoluene	10	9.7	97	10	9.7	97	0	70-130	20
1,2-Dibromo-3-chloropropane	10	8.8	88	10	8.9	89	1	41-144	20
Hexachlorobutadiene	10	10.	100	10	11.	110	10	63-130	20
Isopropylbenzene	10	9.7	97	10	9.8	98	1	70-130	20
p-Isopropyltoluene	10	9.7	97	10	9.8	98	1	70-130	20
Naphthalene	10	8.6	86	10	8.6	86	0	70-130	20
n-Propylbenzene	10	9.8	98	10	9.8	98	0	69-130	20
1,2,3-Trichlorobenzene	10	8.4	84	10	8.6	86	2	70-130	20
1,2,4-Trichlorobenzene	10	9.1	91	10	9.2	92	1	70-130	20
1,3,5-Trimethylbenzene	10	9.6	96	10	9.6	96	0	64-130	20
1,2,4-Trimethylbenzene	10	9.8	98	10	9.8	98	0	70-130	20
1,4-Dioxane J+ (ND)	500	640	128	500	660	132	3	56-162	20
p-Diethylbenzene	10	9.6	96	10	9.7	97	1	70-130	20
p-Ethyltoluene	10	9.8	98	10	9.8	98	0	70-130	20
1,2,4,5-Tetramethylbenzene	10	9.5	95	10	9.4	94	1	70-130	20
Ethyl ether	10	9.7	97	10	9.7	97	0	59-134	20
trans-1,4-Dichloro-2-butene	10	10.	100	10	9.2	92	8	70-130	20

JR
6/13/18

All else 70-130

Sample Calc

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2018\180501N\
Data File : V01180501N15.D
Acq On : 2 May 2018 12:09 am
Operator : VOA101:NLK
Sample : 11815070-06D,31,1,10,,a
Misc : WG1111832,ICAL14549
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 02 11:44:16 2018
Quant Method : I:\VOLATILES\VOA101\2018\180501N\V101_180315A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Mar 20 11:27:54 2018
Response via : Initial Calibration

Conc = 650435 / 507359 × 10 / 1.278 = 10.031
d8-Toluene

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2018\180501N\V01180501N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

OK

100%

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.845	96	662931	10.000 ug/L	0.00
Standard Area 1 = 671112			Recovery = 98.78%		
59) Chlorobenzene-d5	9.637	117	507359	10.000 ug/L	0.00
Standard Area 1 = 513562			Recovery = 98.79%		
79) 1,4-Dichlorobenzene-d4	12.567	152	238134	10.000 ug/L	0.00
Standard Area 1 = 250788			Recovery = 94.95%		
System Monitoring Compounds					
36) Dibromofluoromethane	4.999	113	167535	9.759 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.59%		
43) 1,2-Dichloroethane-d4	5.545	65	187572	11.561 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 115.61%		
60) Toluene-d8	7.645	98	650435	10.034 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.34%		
83) 4-Bromofluorobenzene	11.247	95	240743	10.659 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.59%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D. d	
4) Vinyl chloride	1.731	62	574	N.D.	
5) Bromomethane	2.014	94	471	N.D.	
6) Chloroethane	2.123	64	189	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	2.538	74	73	N.D.	
10) 1,1-Dichloroethene	2.724	96	120	N.D.	
11) Carbon disulfide	2.756	76	2191	N.D.	
15) Methylene chloride	3.264	84	195	N.D.	
17) Acetone	3.318	43	1566	0.827 ug/L #	70
18) trans-1,2-Dichloroethene	3.422	96	286	N.D.	
20) Methyl tert-butyl ether	3.504	73	2823681	110.071 ug/L	94
23) 1,1-Dichloroethane	0.000		0	N.D.	
25) Acrylonitrile	0.000		0	N.D.	
27) Vinyl acetate	0.000		0	N.D.	
28) cis-1,2-Dichloroethene	4.541	96	34716	2.295 ug/L	91
29) 2,2-Dichloropropane	0.000		0	N.D.	
30) Bromochloromethane	0.000		0	N.D.	
32) Chloroform	4.819	83	177	N.D.	

Sample Calc

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2018\180501N\
Data File : V01180501N15.D
Acq On : 2 May 2018 12:09 am
Operator : VOA101:NLK 1)F c 10
Sample : 11815070-06D,31,1,10,,a
Misc : WG1111832,ICAL14549
ALS Vial : 15 Sample Multiplier: 1

Conc PCE = $\frac{54247}{507359} \times \frac{10}{1.2911} \times 10$

Quant Time: May 02 11:44:16 2018
Quant Method : I:\VOLATILES\VOA101\2018\180501N\V101_180315A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Mar 20 11:27:54 2018
Response via : Initial Calibration

$= 36.7 \frac{ug}{L}$

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2018\180501N\V01180501N02.D OK
Sub List : 8260-NYTCL - Megamix plus Diox

JM 6/14/18

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
34) Carbon tetrachloride	0.000		0	N.D.	
37) 1,1,1-Trichloroethane	0.000		0	N.D.	
39) 2-Butanone	0.000		0	N.D. d	
40) 1,1-Dichloropropene	0.000		0	N.D.	
41) Benzene	5.414	78	513	N.D.	
44) 1,2-Dichloroethane	5.637	62	1315	0.086 ug/L #	90
48) Trichloroethene	6.041	95	16096	1.056 ug/L	92
50) Dibromomethane	0.000		0	N.D.	
51) 1,2-Dichloropropane	0.000		0	N.D.	
54) Bromodichloromethane	0.000		0	N.D.	
57) 1,4-Dioxane	0.000		0	N.D.	
58) cis-1,3-Dichloropropene	0.000		0	N.D.	
61) Toluene	0.000		0	N.D.	
62) 4-Methyl-2-pentanone	0.000		0	N.D.	
63) Tetrachloroethene	8.191	166	54247	3.674 ug/L	99
65) trans-1,3-Dichloropropene	0.000		0	N.D.	
68) 1,1,2-Trichloroethane	0.000		0	N.D.	
69) Chlorodibromomethane	0.000		0	N.D.	
70) 1,3-Dichloropropane	0.000		0	N.D.	
71) 1,2-Dibromoethane	0.000		0	N.D.	
72) 2-Hexanone	0.000		0	N.D.	
73) Chlorobenzene	9.653	112	65	N.D.	
74) Ethylbenzene	9.642	91	908	N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
76) p/m Xylene	0.000		0	N.D.	
77) o Xylene	0.000		0	N.D.	
78) Styrene	0.000		0	N.D.	
80) Bromoform	0.000		0	N.D.	
82) Isopropylbenzene	0.000		0	N.D.	
84) Bromobenzene	0.000		0	N.D.	
85) n-Propylbenzene	0.000		0	N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
88) 4-Ethyltoluene	0.000		0	N.D.	
89) 2-Chlorotoluene	0.000		0	N.D.	
90) 1,3,5-Trimethylbenzene	0.000		0	N.D.	
91) 1,2,3-Trichloropropane	11.585	75	108	N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
93) 4-Chlorotoluene	0.000		0	N.D.	
94) tert-Butylbenzene	0.000		0	N.D.	

IRAL calc

Initial Calibration Summary
Form 6

Client	: Wood Env & Infrastructure Solutions	**Lab Number**	: L1815070
Project Name	: STALINGRAD/HYGRADE GW Q2 SAMPL	**Project Number**	: 3612162331
Instrument ID	: VOA101	**Ical Ref**	: ICAL14549
Calibration dates	: 03/15/18 17:44 03/15/18 21:57		

Calibration Files

L11 =V01180315A04.D L1 =V01180315A06.D L2 =V01180315A08.D L3 =V01180315A09.D L4 =V01180315A10.D

L6 =V01180315A11.D L8 =V01180315A12.D L10 =V01180315A13.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
40)	TP	1,1-Dichloropr		0.217	0.312	0.320	0.309	0.316	0.325	0.336	0.305	13.03
41)	TP	Benzene		0.722	0.851	0.872	0.855	0.870	0.898	0.916	0.855	7.35
42)	TP	Tertiary-Amyl Methyl Ether		0.414	0.433	0.466	0.473	0.482	0.497	0.504	0.467	7.03
43)	S	1,2-Dichloroethane-d4	0.237	0.242	0.239	0.241	0.241	0.247	0.250	0.261	0.245	3.12
44)	TP	1,2-Dichloroet		0.225	0.227	0.230	0.228	0.228	0.234	0.240	0.230	2.16
45)	TP	Isobutyl alcohol			0.002	0.002	0.002	0.002	0.002	0.002	0.002#	2.30
46)	TP	2-Methyl-2-but			0.005	0.005	0.005	0.005	0.006	0.006	0.005#	8.29
47)	TP	Methyl cyclohe		0.247	0.371	0.393	0.383	0.393	0.404	0.425	0.374	15.61
48)	TP	Trichloroethene		0.178	0.224	0.230	0.228	0.237	0.248	0.264	0.230	11.49
49)	TP	n-Butanol		0.012	0.018	0.019	0.019	0.019	0.020	0.021	0.018#	15.38
50)	TP	Dibromomethane		0.076	0.096	0.102	0.103	0.103	0.106	0.108	0.099	11.12
51)	TC	1,2-Dichloropr		0.174	0.205	0.214	0.213	0.216	0.223	0.227	0.210	8.32
52)	TP	4-penten-2-ol				0.002	0.002	0.003	0.004	0.004	*L	0.9902
53)	TP	2-Chloroethyl			0.052	0.068	0.071	0.068	0.071	0.071	0.067	11.37
54)	TP	Bromodichlorom		0.203	0.241	0.266	0.266	0.273	0.285	0.293	0.261	11.67
57)	TP	1,4-Dioxane		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	5.37
58)	TP	cis-1,3-Dichlo		0.227	0.280	0.314	0.324	0.333	0.347	0.352	0.311	14.21
59)	I	Chlorobenzene-d5	----------ISTD----------									
60)	S	Toluene-d8	1.301	1.298	1.304	1.286	1.283	1.261	1.251	1.238	1.278	1.94
61)	TC	Toluene		0.591	0.726	0.732	0.727	0.731	0.748	0.764	0.717	7.98
62)	TP	4-Methyl-2-pen			0.036	0.049	0.050	0.051	0.053	0.054	0.049#	13.16
63)	TP	Tetrachloroethene		0.212	0.295	0.306	0.301	0.301	0.308	0.315	0.291	12.13
65)	TP	trans-1,3-Dich		0.197	0.282	0.331	0.348	0.356	0.368	0.374	0.322	19.58
66)	TP	4-Methyl-2-pen			0.014	0.015	0.017	0.020	0.021	0.021	0.018#	17.86
67)	TP	Ethyl methacry			0.139	0.196	0.211	0.216	0.223	0.227	0.202	16.20
68)	TP	1,1,2-Trichlor		0.124	0.150	0.161	0.159	0.159	0.162	0.165	0.154	9.18
69)	TP	Chlorodibromom		0.159	0.184	0.215	0.228	0.233	0.241	0.244	0.215	14.88
70)	TP	1,3-Dichloropr		0.268	0.319	0.332	0.329	0.323	0.330	0.331	0.319	7.19
71)	TP	1,2-Dibromoethane		0.123	0.159	0.175	0.179	0.177	0.181	0.181	0.168	12.68
72)	TP	2-Hexanone			0.040	0.071	0.079	0.080	0.082	0.082	*L	0.9999
73)	TP	Chlorobenzene		0.673	0.776	0.784	0.769	0.774	0.793	0.801	0.767	5.60
74)	TC	Ethylbenzene		1.140	1.395	1.413	1.404	1.430	1.467	1.495	1.392	8.38
75)	TP	1,1,1,2-Tetrac		0.198	0.234	0.257	0.265	0.272	0.278	0.280	0.255	11.62
76)	TP	p/m Xylene		0.430	0.533	0.549	0.550	0.559	0.579	0.594	0.542	9.83
77)	TP	o Xylene		0.414	0.494	0.510	0.511	0.519	0.538	0.549	0.505	8.70
78)	TP	Styrene		0.622	0.739	0.820	0.850	0.867	0.893	0.911	0.815	12.52
79)	I	1,4-Dichlorobenzene-d4	----------ISTD----------									
80)	TP	Bromoform			0.170	0.206	0.224	0.237	0.249	0.253	0.223	14.02

$\overline{RRF}_{PCE} = 0.2911$

$\%RSD_{PCE} = \frac{10.3546}{0.2911} = 12.18$ OK

gr 6/14/18

IRAL calc

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2018\180315A\
Data File : V01180315A09.D
Acq On : 15 Mar 2018 8:04 pm
Operator : VOA101:PK
Sample : ISTDL3
Misc : WG1098570,ICAL
ALS Vial : 9 Sample Multiplier: 1

$RRF = \frac{105554}{344571} \times \frac{10}{10}$ (PLE)

$= 0.3063$

Quant Time: Mar 20 11:21:47 2018
Quant Method : I:\VOLATILES\VOA101\2018\180315A\V101_180315A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Mar 19 21:20:01 2018
Response via : Initial Calibration

OK
JR 6/14/16

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2018\180315A\V01180315A09.D
Sub List : 8260-CurveAlc - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.845	96	455723	10.000	ug/L	0.00
Standard Area 1 = 455723			Recovery = 100.00%			
59) Chlorobenzene-d5	9.637	117	344571	10.000	ug/L	0.00
Standard Area 1 = 344571			Recovery = 100.00%			
79) 1,4-Dichlorobenzene-d4	12.572	152	171112	10.000	ug/L	0.00
Standard Area 1 = 171112			Recovery = 100.00%			
System Monitoring Compounds						
36) Dibromofluoromethane	4.999	113	116284	9.853	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.53%			
43) 1,2-Dichloroethane-d4	5.545	65	109976	9.861	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.61%			
60) Toluene-d8	7.645	98	442990	10.062	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.62%			
83) 4-Bromofluorobenzene	11.247	95	160705	9.902	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.02%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.491	85	83592	10.690	ug/L	99
3) Chloromethane	1.660	50	97715	10.674	ug/L	99
4) Vinyl chloride	1.731	62	102973	10.923	ug/L	100
5) Bromomethane	2.020	94	52692M1	9.394	ug/L	
6) Chloroethane	2.129	64	74843	10.975	ug/L	98
7) Trichlorofluoromethane	2.260	101	154603	10.606	ug/L	99
8) Ethyl ether	2.538	74	39177	10.248	ug/L	96
10) 1,1-Dichloroethene	2.729	96	88354	10.454	ug/L	97
11) Carbon disulfide	2.756	76	225383	10.225	ug/L	99
12) Freon-113	2.762	101	100448	10.534	ug/L #	38
13) Iodomethane	2.860	142	108901	10.161	ug/L	99
14) Acrolein	3.046	56	7133M1	9.155	ug/L	
15) Methylene chloride	3.269	84	92928	9.891	ug/L	97
16) Isopropyl alcohol	3.193	45	7901M1	44.169	ug/L	
17) Acetone	3.313	43	12108M1	9.299	ug/L	
18) trans-1,2-Dichloroethene	3.422	96	97795	10.249	ug/L	97
19) Methyl acetate	3.428	43	31334	9.718	ug/L	97
20) Methyl tert-butyl ether	3.509	73	177452	10.063	ug/L	98
21) tert-Butyl alcohol	3.602	59	14347	50.876	ug/L #	90
22) Diisopropyl ether	3.870	45	305641	10.144	ug/L	99
23) 1,1-Dichloroethane	4.006	63	184823	10.238	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2018\180315A\
Data File : V01180315A09.D
Acq On : 15 Mar 2018 8:04 pm
Operator : VOA101:PK
Sample : ISTDL3
Misc : WG1098570,ICAL
ALS Vial : 9 Sample Multiplier: 1

JR 6/14/18

Quant Time: Mar 20 11:21:47 2018
Quant Method : I:\VOLATILES\VOA101\2018\180315A\V101_180315A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Mar 19 21:20:01 2018
Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2018\180315A\V01180315A09.D
Sub List : 8260-CurveAlc - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
24) Halothane	4.061	117	81752	10.358	ug/L		100
25) Acrylonitrile	4.066	53	14288	9.816	ug/L		94
26) Ethyl tert-butyl ether	4.224	59	252868	9.995	ug/L		94
27) Vinyl acetate	4.252	43	140251	9.071	ug/L		100
28) cis-1,2-Dichloroethene	4.541	96	105205	10.116	ug/L		99
29) 2,2-Dichloropropane	4.639	77	140865	10.290	ug/L		100
30) Bromochloromethane	4.737	128	45593	10.410	ug/L		88
31) Cyclohexane	4.732	56	175697	10.566	ug/L		98
32) Chloroform	4.814	83	173342	10.017	ug/L		98
33) Ethyl acetate	4.934	43	46992	9.339	ug/L		96
34) Carbon tetrachloride	4.944	117	133875	10.080	ug/L		99
35) Tetrahydrofuran	4.966	42	15699	10.627	ug/L		100
37) 1,1,1-Trichloroethane	5.015	97	160936	10.353	ug/L		99
38) 2-Butanol	4.999	45	10988M1	47.174	ug/L		
39) 2-Butanone	5.125	43	21207M1	11.274	ug/L		
40) 1,1-Dichloropropene	5.146	75	145645	10.477	ug/L		98
41) Benzene	5.403	78	397184	10.197	ug/L		100
42) tert-Amyl methyl ether	5.512	73	212253	9.970	ug/L		97
44) 1,2-Dichloroethane	5.621	62	104744	9.987	ug/L		100
45) Isobutyl alcohol	5.736	43	4315	48.937	ug/L	#	40
46) 2-Methyl-2-butanol	5.730	59	11439	48.053	ug/L	#	84
47) Methyl cyclohexane	6.014	83	179248	10.520	ug/L		96
48) Trichloroethene	6.030	95	105027	10.022	ug/L		91
49) n-Butanol	6.014	56	44111	52.800	ug/L		88
50) Dibromomethane	6.505	93	46468	10.284	ug/L		93
51) 1,2-Dichloropropane	6.609	63	97377	10.165	ug/L		97
52) 4-penten-2-ol	6.636	45	4261M1	60.486	ug/L		
53) 2-Chloroethyl vinyl ether	7.362	63	31099	10.228	ug/L		94
54) Bromodichloromethane	6.691	83	121330	10.192	ug/L		99
57) 1,4-Dioxane	6.920	88	15639	517.974	ug/L		97
58) cis-1,3-Dichloropropene	7.427	75	143152	10.097	ug/L		97
61) Toluene	7.705	92	252361	10.212	ug/L		99
62) 4-Methyl-2-pentanone	8.180	58	16735	9.673	ug/L		93
63) Tetrachloroethene	8.191	166	105554	10.525	ug/L		95
65) trans-1,3-Dichloropropene	8.240	75	113957	10.265	ug/L		90
66) 4-Methyl-2-pentanol	8.327	45	25487	41.260	ug/L		94
67) Ethyl methacrylate	8.442	69	67383	9.256	ug/L		89
68) 1,1,2-Trichloroethane	8.437	83	55514	10.439	ug/L		98
69) Chlorodibromomethane	8.660	129	74176	10.027	ug/L		97
70) 1,3-Dichloropropane	8.780	76	114569	10.435	ug/L		100

PFAS

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD
Project: Hygrade - Long Island
Method: EPA 537 Mansfield
Laboratory: Alpha ~~Westborough~~ **SDG(s):** L1815079
Date: 5/16/18
Reviewer: Julie Ricardi

Review Level [X] NYSDEC DUSR USEPA Region II Guideline

1. ☑ **Case Narrative Review and Data Package Completeness** COMMENTS
Were problems noted? Yes, internal standards; addressed below
Were all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)
Are Field Sample IDs and Locations assigned correctly? (YES) NO (circle one)

2. ☑ **Holding time and Sample Collection**
Water: 14 days from collection to extraction; 28 days from extraction to analysis
Hold time met for all samples? (YES) NO (circle one)

3. ☑ **QC Blanks**
Are method blanks free of contamination? YES NO (circle one)
Are rinse blanks free of contamination? YES NO (NA) (circle one)
Are field reagent blanks free of contamination? YES (NO) NA (circle one)
PFOS 0.126 J ng/L; PFOA 0.17 J ng/L All Samples >> ; no goals

4. ☑ **Instrument Tuning – Data Package Narrative Review**
Did the laboratory narrative identify any results that were not within method criteria? YES (NO) (circle one)
If yes, use professional judgment to evaluate data and qualify results if needed OK

5. ☑ **Internal Standards – Data Package Narrative Review** (Injected IS)
(Area Limits = -50% to +100%, RTs within 30 seconds of daily CCAL standard (or ICAL mid-point if samples follow ICAL))
Did the laboratory narrative identify any sample internal standards that were not within criteria?
(YES) NO (circle one) Injected IS used only for quantitation of extracted IS (see surrs below); no action taken for injected IS recoveries
Did the laboratory qualify results based on internal standard exceedances? YES (NO)
If yes to above, use professional judgment to evaluate data and qualify results if needed

6. ☑ **Instrument Calibration – Data Package Narrative Review**
Did the laboratory narrative identify compounds that were not within criteria in the initial and/or continuing calibration standards? YES (NO) (circle one)

Initial Calibration %RSD = 15%, Continuing Calibration %D = 20%

Did the laboratory qualify results based on initial or continuing calibration exceedances? YES (NO)
If yes to above, use professional judgment to evaluate data and qualify results if needed

7. ☑ **Surrogate Recovery** (lab limits) (Extracted IS)
Were all results within limits? YES (NO) (circle one)
Were any recoveries < 10%? (use professional judgment)
See attached summary; qualifiers applied to affected / associated target analytes J/UJ for IS-L or IS-H; these are "extracted IS"

8. ☑ **Matrix Spike** (lab limits)
Were MS/MSDs submitted/analyzed? (YES) NO
Were all results within limits? (YES) NO NA (circle one) 50-150 lab limits
MW-60 - 0418

9. ☑ **Duplicates** (RPD limits = water 50)
Were Field Duplicates submitted/analyzed? (YES) NO
BMW-4-0418/DUPLICATE; All OK
Were RPDs within criteria? (YES) NO NA (circle one)

10. ☑ **Laboratory Control Sample Results** (lab limits)
Were all results within limits? (YES) NO (circle one) 50-150 lab limits

11. ☑ **Raw Data Review and Calculation Checks**
See attached

12. ☑ **Electronic Data Review and Edits**
Does the EDD match the Form Is? (YES) NO (circle one)

13. ☑ **Tables**
Table 1 (Samples and Analytical Methods)
Table 2 (Analytical Results)
Table 3 (Qualification Actions)
Were all tables produced and reviewed? (YES) NO (circle one)

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331

Lab Number: L1815079
Report Date: 05/11/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1815079-01	BMW-1-0418	WATER	LONG ISLAND CITY, NY	04/26/18 12:35	04/27/18
L1815079-02	BMW-2-0418	WATER	LONG ISLAND CITY, NY	04/26/18 13:10	04/27/18
L1815079-03	BMW-3-0418	WATER	LONG ISLAND CITY, NY	04/26/18 14:00	04/27/18
L1815079-04	BMW-4-0418	WATER	LONG ISLAND CITY, NY	04/26/18 11:00	04/27/18
L1815079-05	MW-6D-0418	WATER	LONG ISLAND CITY, NY	04/27/18 08:50	04/27/18
L1815079-06	MW-6S-0418	WATER	LONG ISLAND CITY, NY	04/27/18 08:50	04/27/18
L1815079-07	MW-5-0418	WATER	LONG ISLAND CITY, NY	04/27/18 10:05	04/27/18
L1815079-08	MW-E-0418	WATER	LONG ISLAND CITY, NY	04/27/18 10:30	04/27/18
L1815079-09	DUPLICATE	WATER	LONG ISLAND CITY, NY	04/26/18 11:00	04/27/18
L1815079-10	FIELD BLANK	WATER	LONG ISLAND CITY, NY	04/26/18 14:25	04/27/18

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L1815079-05: The collection date and time on the chain of custody was 27-APR-18 08:50; however, the collection date/time on the container label was 27-APR-18 00:00. At the client's request, the collection date/time is reported as 27-APR-18 08:50. ✓

Perfluorinated Alkyl Acids by Isotope Dilution

L1815079-01, -02, -03, -04, and -09 : The samples were re-extracted on dilution in order to quantify the results within the calibration range. ✓ use RL for "E" compounds

L1815079-01: The internal standard (IS) response(s) for M4PFOS (46%) were below the acceptance criteria; however, re-extraction achieved similar results M3PFBA (49%), M4PFOS (43%) and M2PFDA (46%). Since the IS response was below method criteria, all associated compounds are considered to have a potentially high bias.

Surrogate summary

L1815079-01RE: The Extracted Internal Standard recovery was outside the acceptance criteria for 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (155%).

See checklist for all

L1815079-02: The internal standard (IS) response(s) for M4PFOS (39%) were below the acceptance criteria; however, re-extraction achieved similar results M3PFBA (47%), M4PFOS (40%) and M2PFDA (45%). Since the IS response was below method criteria, all associated compounds are considered to have a potentially high bias.

L1815079-03: The internal standard (IS) response(s) for M3PFBA (46%), M2PFOA (40%), M4PFOS (15%) and M2PFDA (32%) were below the acceptance criteria; however, re-extraction achieved similar results M3PFBA (49%), M4PFOS (40%) and M2PFDA (45%). Since the IS response was below method criteria, all

JM 5/16/18

Case Narrative (continued)

associated compounds are considered to have a potentially high bias.

L1815079-03RE: The Extracted Internal Standard recoveries were outside the acceptance criteria for perfluoro[13c4]butanoic acid (mpfba) (35%) and perfluoro[13c8]octanesulfonamide (m8fosa) (49%) and 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (168%). See checklist

L1815079-04: The internal standard (IS) response(s) for M3PFBA (34%), M2PFOA (36%), M4PFOS (17%) and M2PFDA (27%) were below the acceptance criteria; however, re-extraction achieved similar results M3PFBA (48%), M4PFOS (40%) and M2PFDA (46%). Since the IS response was below method criteria, all associated compounds are considered to have a potentially high bias.

L1815079-04RE: The Extracted Internal Standard recoveries were outside the acceptance criteria for perfluoro[13c4]butanoic acid (mpfba) (43%) and 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (179%).

L1815079-05: The Extracted Internal Standard recoveries were outside the acceptance criteria for and perfluoro[13c8]octanesulfonamide (m8fosa) (15%) 1h,1h,2h,2h-perfluoro[1,2-13c2]hexanesulfonic acid (m2-4:2fts) (202%) and 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (179%).

L1815079-06: The internal standard (IS) response(s) for M4PFOS (42%) and M2PFDA (50%) were below the acceptance criteria; however, re-analysis achieved similar results M3PFBA (29%) M2PFOA (37%), M4PFOS (20%) and M2PFDA (23%). Both runs are reported, however, since the IS response was below method criteria, all associated compounds are considered to have a potentially high bias.

L1815079-06R: The Extracted Internal Standard recoveries were outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (26%) and perfluoro[1,2-13c2]tetradecanoic acid (m2pfteda) (44%) and 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (190%).

L1815079-07: The internal standard (IS) response(s) for M3PFBA (48%), M4PFOS (40%) and M2PFDA (47%) were below the acceptance criteria; however, re-analysis achieved similar results M3PFBA (27%), M2PFOA (29%) M4PFOS (23%) and M2PFDA (24%). Both runs are reported, however, since the IS response was below

JA 5/16/18

Case Narrative (continued)

method criteria, all associated compounds are considered to have a potentially high bias.

L1815079-07R: The Extracted Internal Standard recoveries were outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (19%) and 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (187%). (reanalysis) See checklist

L1815079-08: The internal standard (IS) response(s) for M3PFBA (48%), M4PFOS (44%) and M2PFDA (46%) were below the acceptance criteria; however, re-analysis achieved similar results M3PFBA (28%), M2PFOA (30%), M4PFOS (22%) and M2PFDA (24%). Both runs are reported, however, since the IS response was below method criteria, all associated compounds are considered to have a potentially high bias.

L1815079-08R: The Extracted Internal Standard recoveries were outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (26%) and perfluoro[1,2-13c2]tetradecanoic acid (m2pfteda) (25%). (reanalysis)

L1815079-09: The internal standard (IS) response(s) for M3PFBA (25%), M2PFOA (240%), M4PFOS (12%) and M2PFDA (18%) were below the acceptance criteria; however, re-extraction achieved similar results M3PFBA (45%), M4PFOS (37%) and M2PFDA (40%). Since the IS response was below method criteria, all associated compounds are considered to have a potentially high bias.

L1815079-09RE: The Extracted Internal Standard recoveries were outside the acceptance criteria for perfluoro[13c4]butanoic acid (mpfba) (43%) and 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (192%).

L1815079-10: The Extracted Internal Standard recovery was outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (27%).

WG1113611-1 Method Blank: The Extracted Internal Standard recovery was outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (11%).

WG1114432-1 Method Blank: The Extracted Internal Standard recovery was outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (44%).

JR 5/16/18

Case Narrative (continued)

WG1113611-2/-3 LCS: The Extracted Internal Standard recovery was outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (7%/11%).

WG1114432-3 LCSD: The Extracted Internal Standard recovery was outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (42%).

WG1113611-4/-5 MS/MSD: The Extracted Internal Standard recoveries were outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (25%/17%) and 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (183%/163%).

See checklist ↓ gr 5/16/18

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Report Date: 05/11/18

Title: Technical Director/Representative

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331

Lab Number: L1815079
Report Date: 05/11/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 05/10/18 20:39
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/10/18 09:41

gn 6/14/18

Sample result >> ½ no qual

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-04,09 Batch: WG1114432-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.131
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.086
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.110
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.126
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.092
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.108
Perfluorooctanoic Acid (PFOA)	0.720	J	ng/l	2.00	0.050
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	0.194
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.155
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.101
Perfluorooctanesulfonic Acid (PFOS)	0.176	J	ng/l	2.00	0.112
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.190
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	0.291
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.250
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.191
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.222
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.227
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.373
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.092
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.090
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.072

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 05/09/18 07:50
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/08/18 10:30

gr 6/14/18
Sample results >> ... no quals

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-10 Batch: WG1113611-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.131
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.086
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.110
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.126
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.092
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.108
Perfluorooctanoic Acid (PFOA)	0.792	J	ng/l	2.00	0.050
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	0.194
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.155
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.101
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.112
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.190
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	0.291
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.250
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.191
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.222
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.227
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.373
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.092
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.090
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.072

Form 2
Surrogate Recovery
SEMIVOLATILES

Client: Wood Env & Infrastructure Solutions, Inc
Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Lab Number: L1815079
Project Number: 3612162331
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S1 ()	S2 ()	S3 ()	S4 ()	S5 ()	S6 ()	S7 ()
BMW-1-0418 (L1815079-01)	72	58	87	63	80	121	88
BMW-1-0418 (L1815079-01RE)	56	84	105	85	95	124	101
BMW-2-0418 (L1815079-02RE)	53	90	110	92	102	129	102
BMW-2-0418 (L1815079-02)	78	61	97	64	79	125	83
BMW-3-0418 (L1815079-03RE)	~~35*~~	88	108	85	101	133	97
BMW-3-0418 (L1815079-03) J|UJ	49*	58 J	233*	69	85 J	273*	90
BMW-4-0418 (L1815079-04)	66	65	161*	64	81 J	182*	84
BMW-4-0418 (L1815079-04RE)	~~43*~~	90	109	88	97	133	94
MW-6D-0418 (L1815079-05)	80	68	90	66	79	111	86
MW-6S-0418 (L1815079-06)	67	56	116	71	89	140	88
~~MW-6S-0418 (L1815079-06R)~~	~~66~~	~~56~~	~~96~~	~~63~~	~~81~~	~~119~~	~~83~~
MW-5-0418 (L1815079-07)	71	64	98	74	86	112	89
~~MW-5-0418 (L1815079-07R)~~	~~72~~	~~66~~	~~95~~	~~67~~	~~81~~	~~118~~	~~88~~
~~MW-E-0418 (L1815079-08R)~~	~~51~~	~~79~~	~~88~~	~~72~~	~~81~~	~~102~~	~~79~~
MW-E-0418 (L1815079-08)	51	76	109	79	86	122	85
DUPLICATE (L1815079-09RE)	~~43*~~	92	116	94	97	136	101
DUPLICATE (L1815079-09) J|UJ	53	67	171*	73	89 J	195*	87
FIELD BLANK (L1815079-10)	68	78	84	74	79	101	84
WG1113611-1BLANK	86	84	103	86	95	124	101
WG1113611-2LCS	60	73	89	72	82	105	84
WG1113611-3LCSD	74	74	90	73	82	105	84
MW-6D-0418MS	72	64	87	64	77	109	82
MW-6D-0418MSD	70	64	85	65	81	104	83
WG1114432-1BLANK	87	87	103	90	93	124	94
WG1114432-2LCS	89	87	110	90	101	132	103
WG1114432-3LCSD	84	84	101	89	91	120	96

JR 6/14/18

QC LIMITS

(50-150) S1 = PERFLUORO[13C4]BUTANOIC ACID (MPFBA)
(50-150) S2 = PERFLUORO[13C5]PENTANOIC ACID (M5PFPEA)
(50-150) S3 = PERFLUORO[2,3,4-13C3]BUTANESULFONIC ACID (M3PFBS)
(50-150) S4 = PERFLUORO[1,2,3,4,6-13C5]HEXANOIC ACID (M5PFHXA)
(50-150) S5 = PERFLUORO[1,2,3,4-13C4]HEPTANOIC ACID (M4PFHPA)
(50-150) S6 = PERFLUORO[1,2,3-13C3]HEXANESULFONIC ACID (M3PFHXS)
(50-150) S7 = PERFLUORO[13C8]OCTANOIC ACID (M8PFOA)

* Values outside of QC limits

FORM II A2-NY-537-ISOTOPE

Form 2
Surrogate Recovery
SEMIVOLATILES

Client: Wood Env & Infrastructure Solutions, Inc
Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Lab Number: L1815079
Project Number: 3612162331
Matrix: Water

Use lowest dilution; Assoc. analytes qualified J/UJ for all non-compliant extracted internal standards

CLIENT ID (LAB SAMPLE NO.)	S8 ()	S9 ()	S10 ()	S11 ()	S12 ()	S13 ()	S14 ()
BMW-1-0418 (L1815079-01) J/UJ	173*	82	93	77	UJ 168*	91	75
BMW-1-0418 (L1815079-01RE)	~~155*~~	89	107	99	114	98	101
BMW-2-0418 (L1815079-02RE)	144	94	105	100	115	99	106
BMW-2-0418 (L1815079-02) J/UJ	184*	78	87	73	UJ 165*	87	80
BMW-3-0418 (L1815079-03RE)	~~168*~~	84	103	95	111	87	104
BMW-3-0418 (L1815079-03) J/UJ	663*	71	101	88	UJ 368*	107	89
BMW-4-0418 (L1815079-04) J/UJ	349*	65	83	81	UJ 163*	86	80
BMW-4-0418 (L1815079-04RE)	~~179*~~	86	102	97	120	87	94
MW-6D-0418 (L1815079-05) J/UJ	179*	78	90	88	133	90	86
MW-6S-0418 (L1815079-06) J/UJ	200*	75	92	76	126	64	67
~~MW-6S-0418 (L1815079-06R)~~	~~190*~~	~~80~~	~~86~~	~~78~~	~~137~~	~~73~~	~~71~~
MW-5-0418 (L1815079-07)	143	77	87	81	83	77	83
~~MW-5-0418 (L1815079-07R)~~	~~187*~~	~~76~~	~~95~~	~~84~~	~~119~~	~~87~~	~~84~~
~~MW-E-0418 (L1815079-08R)~~	~~108~~	~~76~~	~~82~~	~~87~~	~~83~~	~~73~~	~~80~~
MW-E-0418 (L1815079-08)	113	76	95	83	84	61	75
DUPLICATE (L1815079-09RE)	~~192*~~	87	105	103	117	103	111
DUPLICATE (L1815079-09) J/UJ	336*	63	78	78	UJ 152*	82	72
FIELD BLANK (L1815079-10)	101	77	89	85	93	83	88
WG1113611-1BLANK	119	93	102	91	112	103	104
WG1113611-2LCS	105	78	93	84	100	93	94
WG1113611-3LCSD	101	74	85	69	94	82	79
MW-6D-0418MS	183*	77	90	84	124	86	85
MW-6D-0418MSD	163*	74	87	79	116	75	79
WG1114432-1BLANK	106	87	108	103	96	98	109
WG1114432-2LCS	113	96	109	101	107	106	114
WG1114432-3LCSD	112	87	102	97	90	101	106

QC LIMITS

(50-150) S8 = 1H,1H,2H,2H-PERFLUORO[1,2-13C2]OCTANESULFONIC ACID (M2-6:2FTS)
(50-150) S9 = PERFLUORO[13C9]NONANOIC ACID (M9PFNA)
(50-150) S10 = PERFLUORO[13C8]OCTANESULFONIC ACID (M8PFOS) M4PFOS
(50-150) S11 = PERFLUORO[1,2,3,4,5,6-13C6]DECANOIC ACID (M6PFDA) M2PFDA
(50-150) S12 = 1H,1H,2H,2H-PERFLUORO[1,2-13C2]DECANESULFONIC ACID (M2-8:2FTS)
(50-150) S13 = N-DEUTERIOMETHYLPERFLUORO-1-OCTANESULFONAMIDOACETIC ACID (D3-NMEFOSAA)
(50-150) S14 = PERFLUORO[1,2,3,4,5,6,7-13C7]UNDECANOIC ACID (M7-PFUDA)

* Values outside of QC limits

FORM II A2-NY-537-ISOTOPE (Continued)

Form 2
Surrogate Recovery
SEMIVOLATILES

Client: Wood Env & Infrastructure Solutions, Inc
Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Lab Number: L1815079
Project Number: 3612162331
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S15 ()	S16 ()	S17 ()	S18 ()	S19 ()	S20 ()	S21 ()	TOT OUT
BMW-1-0418 (L1815079-01)	UJ 40*	84	72	63	--	--	--	3
BMW-1-0418 (L1815079-01RE)	70	111	94	76	--	--	--	1
BMW-2-0418 (L1815079-02RE)	71	113	97	79	--	--	--	0
BMW-2-0418 (L1815079-02)	UJ 32*	90	73	58	--	--	--	3
BMW-3-0418 (L1815079-03RE)	~~49*~~	98	95	78	--	--	--	3
BMW-3-0418 (L1815079-03)	UJ 48*	59	84	62	--	--	--	6
BMW-4-0418 (L1815079-04)	↓ 35*	97	81	62	--	--	--	5
BMW-4-0418 (L1815079-04RE)	53	99	81	66	--	--	--	2
MW-6D-0418 (L1815079-05)	UJ 15*	93	76	60	--	--	--	2
MW-6S-0418 (L1815079-06)	↓ 26*	66	54	UJ 37*	--	--	--	3
~~MW-6S-0418 (L1815079-06R)~~	~~26*~~	~~73~~	~~59~~	~~44*~~	--	--	--	3
MW-5-0418 (L1815079-07)	UJ 20*	76	69	57	--	--	--	1
~~MW-5-0418 (L1815079-07R)~~	~~19*~~	~~89~~	~~70~~	~~59~~	--	--	--	2
~~MW-E-0418 (L1815079-08R)~~	~~26*~~	~~70~~	~~60~~	~~25*~~	--	--	--	2
MW-E-0418 (L1815079-08)	UJ 25*	63	61	25*	--	--	--	2
DUPLICATE (L1815079-09RE)	62	122	101	83	--	--	--	2
DUPLICATE (L1815079-09)	UJ 25*	87	67	51	--	--	--	5
FIELD BLANK (L1815079-10)	27*	94	83	70	--	--	--	1
WG1113611-1BLANK	11*	105	97	86	--	--	--	1
WG1113611-2LCS	7*	89	89	78	--	--	--	1
WG1113611-3LCSD	11*	89	81	79	--	--	--	1
MW-6D-0418MS	25*	100	73	65	--	--	--	2
MW-6D-0418MSD	17*	93	67	58	--	--	--	2
WG1114432-1BLANK	44*	110	101	82	--	--	--	1
WG1114432-2LCS	63	120	106	85	--	--	--	0
WG1114432-3LCSD	42*	107	101	85	--	--	--	1

JV 6/14/18

QC LIMITS

(50-150) S15 = PERFLUORO[13C8]OCTANESULFONAMIDE (M8FOSA)
(50-150) S16 = N-DEUTERIOETHYLPERFLUORO-1-OCTANESULFONAMIDOACETIC ACID (D5-NETFOSAA)
(50-150) S17 = PERFLUORO[1,2-13C2]DODECANOIC ACID (MPFDOA)
(50-150) S18 = PERFLUORO[1,2-13C2]TETRADECANOIC ACID (M2PFTEDA)

* Values outside of QC limits

FORM II A2-NY-537-ISOTOPE (Continued)

field_sample_id	qc_c	lab_sample_id	analysis	param_name	final_result	final_qualif	result_uom	detection_l	SQL_text	fraction	FD CONC	RPD	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorobutanesulfonic acid	248		NG/L	0.106	1.92	N	286	14.2	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorobutanoic acid	31.0		NG/L	0.126	1.92	N	30.4	2.0	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluoroheptanesulfonic acid	75.0		NG/L	0.149	1.92	N	85.9	13.5	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluoroheptanoic acid	23.2		NG/L	0.089	1.92	N	22.7	2.2	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorohexane sulfonic acid	106		NG/L	0.103	1.92	N	108	1.9	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorohexanoic acid	104		NG/L	0.122	1.92	N	99.0	4.9	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorononanoic acid	3.03		NG/L	0.097	1.92	N	3.01	0.7	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorooctanesulfonic acid	2550		NG/L	2.23	40.0	N	2820	10.1	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorooctanoic acid	71.2		NG/L	0.049	1.92	N	73.0	2.5	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluoropentanoic acid	92.5		NG/L	0.082	1.92	N	90.3	2.4	
BMW-4-0418	FS	L1815070-04	6020A	Aluminum	0.0232		MG/L	0.00327	0.0100	T	0.0121	62.9	OK; PROF JDG, DIFF ~ RL
BMW-4-0418	FS	L1815070-04	6020A	Arsenic	0.00535		MG/L	0.00016	0.00050	D	0.00488	9.2	
BMW-4-0418	FS	L1815070-04	6020A	Arsenic	0.02336		MG/L	0.00016	0.00050	T	0.02348	0.5	
BMW-4-0418	FS	L1815070-04	6020A	Barium	0.1471		MG/L	0.00017	0.00050	D	0.1434	2.5	
BMW-4-0418	FS	L1815070-04	6020A	Barium	0.2201		MG/L	0.00017	0.00050	T	0.2301	4.4	
BMW-4-0418	FS	L1815070-04	6020A	Calcium	269.		MG/L	0.0394	0.100	D	263.	2.3	
BMW-4-0418	FS	L1815070-04	6020A	Calcium	267.		MG/L	0.0394	0.100	T	261.	2.3	
BMW-4-0418	FS	L1815070-04	6020A	Chromium	0.00129		MG/L	0.00017	0.00100	T	0.00124	4.0	
BMW-4-0418	FS	L1815070-04	6020A	Cobalt	0.02242		MG/L	0.00016	0.00050	D	0.02082	7.4	
BMW-4-0418	FS	L1815070-04	6020A	Cobalt	0.02253		MG/L	0.00016	0.00050	T	0.02110	6.6	
BMW-4-0418	FS	L1815070-04	6020A	Iron	0.350		MG/L	0.0191	0.0500	D	0.126	94.1	J SAMPLE AND DUP
BMW-4-0418	FS	L1815070-04	6020A	Iron	30.2		MG/L	0.0191	0.0500	T	30.6	1.3	
BMW-4-0418	FS	L1815070-04	6020A	Magnesium	55.7		MG/L	0.0242	0.0700	D	51.2	8.4	
BMW-4-0418	FS	L1815070-04	6020A	Magnesium	52.5		MG/L	0.0242	0.0700	T	50.2	4.5	
BMW-4-0418	FS	L1815070-04	6020A	Manganese	8.175		MG/L	0.00044	0.00100	D	8.132	0.5	
BMW-4-0418	FS	L1815070-04	6020A	Manganese	8.368		MG/L	0.00044	0.00100	T	8.359	0.1	
BMW-4-0418	FS	L1815070-04	6020A	Nickel	0.05969		MG/L	0.00055	0.00200	D	0.05604	6.3	
BMW-4-0418	FS	L1815070-04	6020A	Nickel	0.05790		MG/L	0.00055	0.00200	T	0.05586	3.6	
BMW-4-0418	FS	L1815070-04	6020A	Potassium	47.9		MG/L	0.0309	0.100	D	48.6	1.5	
BMW-4-0418	FS	L1815070-04	6020A	Potassium	45.9		MG/L	0.0309	0.100	T	47.6	3.6	
BMW-4-0418	FS	L1815070-04	6020A	Sodium	207.		MG/L	0.0293	0.100	D	196.	5.5	
BMW-4-0418	FS	L1815070-04	6020A	Sodium	196.		MG/L	0.0293	0.100	T	192.	2.1	
BMW-4-0418	FS	L1815070-04	8260C	2-Butanone	1400		UG/L	19.	50	N	1400	0	
BMW-4-0418	FS	L1815070-04	8260C	Acetone	380		UG/L	15.	50	N	380	0	
BMW-4-0418	FS	L1815070-04	8260C	Vinyl chloride	16		UG/L	0.71	10	N	15	6.5	

Sample calc

)ha Analytical Inc.
taset: C:\MassLynx\Data\2018\180509_537ISO.PRO\Data\wg1113957B.qld
st Altered: Wednesday, May 09, 2018 15:39:06 Eastern Daylight Time
nted: Wednesday, May 09, 2018 15:39:45 Eastern Daylight Time

$\text{Conc}_{PFBA} = \frac{26279}{37686} \times \frac{10}{1.796619} = 8.7534 \frac{ng}{L}$ 6/13/18

thod: C:\MassLynx\Data\2018\180509_537ISO.PRO\MethDB\537ISO_Q.mdb 16 Apr 2018 16:47:05
libration: C:\MassLynx\Data\2018\180509_537ISO.PRO\CurveDB\180416_537ISO_ICAL.cdb 16 Apr 2018 20:58:59

L1815079-01
me: I7037
te: 09-May-2018
ne: 11:59:01
scription: WG1113957,WG1113611,ICAL14628
strument: XEVO-TQSmicro#QEA0276
er: LCMS01:AJ
et Method Name: C:\MassLynx\Data\2018\180509_537ISO.PRO\ACQUDB\LCMS_537_ISO
ne Method Name: C:\MassLynx\Data\2018\180509_537ISO.PRO\ACQUDB\180112_TUNE.IPR
s Method Name: C:\MassLynx\Data\2018\180509_537ISO.PRO\ACQUDB\537ISO26_M.EXP

$\text{Conc}_{PFBA} = 8.753 \frac{ng}{L} \times \frac{1}{1.290} = 30.18 \frac{ng}{L}$

OK

✓ = matches surr summary form

Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Ratio Flag	%Rec	
PFBA	375-22-4	2.11	212.926 > 169.111	26279		8.753	✓	na		
M3PFBA IS	INT STD	2.11	215.926 > 172.122	49072		5.540		na	55.4	
MPFBA Surr	INT STD	2.11	216.926 > 172.137	37686		7.162		na	71.6	✓
PFPeA	2706-90-3	4.99	262.926 > 219.002	53568		17.921		na		
M5PFPEA surr	INT STD	4.99	267.989 > 223.081	34517		5.804		na	58.0	✓
PFBS	375-73-5	5.66	298.989 > 80.295	255690		312.615		na		
M3PFBS Surr	INT STD	5.66	301.989 > 80.254	8184		8.122		na	81.2	87 *
4:2FTS	757124-72-4		326.926 > 306.957			ND		na		
M2-4:2FTS	INT STD	6.83	328.989 > 80.973	2772		20.841		na	208.4	
PFHxA	307-24-4	6.91	312.989 > 269.028	90873		20.943	16.65	NO		
M5PFHxA Surr	INT STD	6.91	317.989 > 273.045	46241		6.314		na	63.1	✓
PFPeS	2706-91-4	7.23	348.926 > 80.251	8527		8.491	2.39	YES		
PFHpA	375-85-9	8.20	362.926 > 319.014	42502		6.747	5.29	NO		
M4PFHpA Surr	INT STD	8.20	366.926 > 321.979	65199		7.965		na	79.6	✓
br-PFHxS	355-46-4	8.13	398.926 > 80.295	6234		7.154	2.49	NO		
L-PFHxS	355-46-4	8.36	398.926 > 80.295	31669		35.811	1.43	NO		
PFHxS	355-46-4		398.926 > 80.295	37903		42.964		na		
M3PFHxS Surr	INT STD	8.36	401.926 > 80.317	8970		11.406		na	114.1	121 *
br-PFOA	335-67-1	8.92	412.989 > 368.9	9853		1.526	1.32	YES		
L-PFOA	335-67-1	9.14	412.989 > 368.9	100754		15.606	8.89	YES		
M2PFOA	INT STD	9.14	415.032 > 369.968	85934		6.433		na	64.3	
PFOA	335-67-1		412.989 > 368.9	110607		17.132		na		
M8PFOA surr	INT STD	9.14	420.989 > 375.979	63692		8.779		na	87.8	✓
6:2FTS	27619-97-2	9.11	426.989 > 406.921	141		0.209	1.00	YES		
M2-6:2FTS surr	INT STD	9.10	428.989 > 408.917	6685		16.378		na	163.8	173 *
PFHpS	375-92-8	9.24	448.926 > 80.257	5497		13.944	0.79	YES		
PFNA	375-95-1	9.89	462.989 > 418.931	6632		1.405	4.09	NO		
M9PFNA surr	INT STD	9.89	472.053 > 426.947	56233		8.181		na	81.8	✓
br-PFOS	1763-23-1	9.70	498.989 > 80.294	121089		146.351	1.42	YES		
L-PFOS	1763-23-1	9.95	498.989 > 80.294	74140		121.031	14.34	YES		
PFOS	1763-23-1		498.989 > 80.294	195229		267.382		na		
M4PFOS surr	INT STD	9.95	503.032 > 80.306	6995		4.559		na	45.6	✓
M8PFOS Surr	INT STD	9.95	507.053 > 80.294	6317		8.871		na	88.7	93 *
PFDA	335-76-2	10.51	513.053 > 468.906	1528		0.372		na		
M2PFDA	INT STD	10.51	515.053 > 469.934	59351		6.188		na	61.9	
M6PFDA Surr	INT STD	10.51	519.053 > 473.931	47059		7.744		na	77.4	✓
8:2FTS	39108-34-4		526.989 > 506.946			ND		na		
M2-8:2FTS Surr	INT STD	10.50	529.053 > 508.945	3448		16.054		na	160.5	168 *
PFNS	68259-12-1		548.989 > 80.249			ND		na		

OK * Δ due to actual component concentration not equal to nominal std. conc.

)ha Analytical Inc.
taset: C:\MassLynx\Data\2018\180509_537ISO.PRO\Data\wg1113957B.qld
st Altered: Wednesday, May 09, 2018 15:39:06 Eastern Daylight Time
nted: Wednesday, May 09, 2018 15:39:45 Eastern Daylight Time

L1815079-01
me: I7037
te: 09-May-2018
ne: 11:59:01
scription: WG1113957,WG1113611,ICAL14628
trument: XEVO-TQSmicro#QEA0276
er: LCMS01:AJ
et Method Name: C:\MassLynx\Data\2018\180509_537ISO.PRO\ACQUDB\LCMS_537_ISO
ne Method Name: C:\MassLynx\Data\2018\180509_537ISO.PRO\ACQUDB\180112_TUNE.IPR
s Method Name: C:\MassLynx\Data\2018\180509_537ISO.PRO\ACQUDB\537ISO26_M.EXP

Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Ratio Flag	%Rec	
d3-NMeFOSAA surr	INT STD	10.89	573.096 > 418.987	6164		9.087		na	90.9	✓
NMeFOSAA	2355-31-9		570.053 > 418.917			ND		na		
PFUnA	2058-94-8		562.989 > 518.903			ND		na		
M7-PFUDA surr	INT STD	11.04	570.053 > 524.923	37070		7.538		na	75.4	✓
PFDS	335-77-3		598.926 > 80.314			ND		na		
FOSA	754-91-6		497.989 > 78.245			ND		na		
M8FOSA surr	INT STD	10.98	506.053 > 78.286	11345		3.976		na	39.8	✓
d5-NEtFOSAA surr	INT STD	11.17	589.117 > 418.929	5093		8.418		na	84.2	✓
NEtFOSAA	2991-50-6		583.989 > 418.927			ND		na		
PFDoA	307-55-1		612.989 > 568.967			ND		na		
MPFDOA surr	INT STD	11.51	614.989 > 569.92	34329		7.157		na	71.6	✓
PFTrDA	72629-94-8		663.053 > 618.969			ND		na		
PFTA	376-06-7	12.27	713.053 > 668.976	32		0.017		na		
M2PFTEDA surr	INT STD	12.27	715.053 > 669.945	21791		6.301		na	63.0	✓

✓ = matches surr summary form

Initial Calibration Summary
Form 6

Client	: Wood Env & Infrastructure Solutions	**Lab Number**	: L1815079
Project Name	: STALINGRAD/HYGRADE GW Q2 SAMPL	**Project Number**	: 3612162331
Instrument ID	: LCMS01	**Ical Ref**	: ICAL14628
Calibration dates	: 04/16/18 17:44 04/16/18 19:56		

Quantify Compound Summary Report **MassLynx MassLynx V4.1 SCN 945**

Alpha Analytical Inc.
Dataset: C:\MassLynx\Data\2018\180416N_537ISO_ICAL.PRO\Data\WG1106902_ICAL.qld
Last Altered: Monday, April 16, 2018 20:58:59 Eastern Daylight Time
Printed: Monday, April 16, 2018 21:02:01 Eastern Daylight Time

Method: C:\MassLynx\Data\2018\180416N_537ISO_ICAL.PRO\MethDB\537ISO_Q.mdb 16 Apr 2018 16:47:05
Calibration: C:\MassLynx\Data\2018\180416N_537ISO_ICAL.PRO\CurveDB\180416_537ISO_ICAL.cdb 16 Apr 2018 20:58:59

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time	RT	IS Area	Area	Conc (ng...	%Rec	RRF	1° S/N	2° S/N	(b/a)
1	I6469	IA2-537STD0.5	16-Apr-18	17:44:24	2.134	109673.000	3963.313	0.454	90.7	0.723	136		0.64
2	I6470	IA2-537STD1.0	16-Apr-18	18:00:55	2.134	95345.102	7186.368	0.946	94.6	0.754	279		0.61
3	I6471	IA2-537STD2.0	16-Apr-18	18:17:33	2.134	97857.102	14796.836	1.898	94.9	0.756	707		0.71
4	I6472	IA2-537STD5.0	16-Apr-18	18:34:06	2.129	95466.383	38912.273	5.117	102.3	0.815	1625		0.70
5	I6473	IA2-537STD10.0	16-Apr-18	18:50:44	2.134	95411.563	71954.297	9.467	94.7	0.754	6187		0.72
6	I6474	IA2-537STD20.0	16-Apr-18	19:07:16	2.129	89286.891	154588.406	21.734	108.7	0.866	12437		0.71
7	I6475	IA2-537STD50.0	16-Apr-18	19:23:49	2.129	94111.375	411127.438	54.838	109.7	0.874	27139		0.67
8	I6476	IA2-537STD125	16-Apr-18	19:40:23	2.129	86001.508	881514.625	128.669	102.9	0.820	47817		0.66
9	I6477	IA2-537STD150	16-Apr-18	19:56:57	2.129	91591.211	1024241.375	140.378	93.6	0.746	48134		0.64

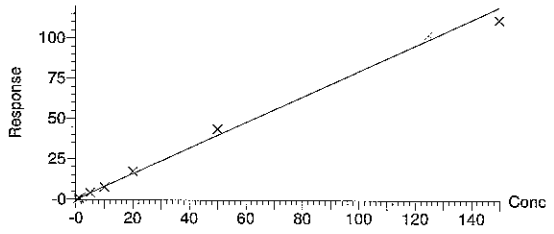
Compound name: PFBA
Coefficient of Determination: R^2 = 0.995973
Calibration curve: 0.796619 * x — regression forced thru zero
Response type: Internal Std (Ref 3), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

OK

jm
6/14/18

RRF = 0.789978
PFBA

Δ slope = 0.86 % OK



its in (ng/mL)

ORGANIC ELN REPORT

Workgroup: WG1113611

Sample/ Type	Extraction									Concentration			
	Extract Date	Analyst	Sample Vol ml	Surr Amt ml	Spike Amt ml	Lot: Spe Cartrid	Flow Rate ml/min	Lot: Clnup Cartrid	Flow Rate 2 ml/min	Conc Date	Analyst	Final Vol ml	Conc Unit
L1815057-02 WATER	05/08/18 10:30	Tyler Russell	7.5	.02		A-007	4	100520 10	4	05/08/18 13:00	Tyler Russell	1	NEVAP 65 5
	DILUTED TO 250 mL DR 5/8/18												
L1815057-03 WATER	05/08/18 10:30	Tyler Russell	7.5	.02		A-007	4	100520 10	4	05/08/18 13:00	Tyler Russell	1	NEVAP 65 5
	DILUTED TO 250 mL DR 5/8/18												
L1815057-04 WATER	05/08/18 10:30	Tyler Russell	7.5	.02		A-007	4	100520 10	4	05/08/18 13:00	Tyler Russell	1	NEVAP 65 5
	DILUTED TO 250 mL DR 5/8/18												
L1815079-01 SAMP	05/08/18 10:30	Tyler Russell	290	.02		A-007	4	100520 10	4	05/08/18 13:00	Tyler Russell	1	NEVAP 65 5
L1815079-02 SAMP	05/08/18 10:30	Tyler Russell	260	.02		A-007	4	100520 10	4	05/08/18 13:00	Tyler Russell	1	NEVAP 65 5
L1815079-03 SAMP	05/08/18 10:30	Tyler Russell	290	.02		A-007	4	100520 10	4	05/08/18 13:00	Tyler Russell	1	NEVAP 65 5
L1815079-04 SAMP	05/08/18 10:30	Tyler Russell	260	.02		A-007	4	100520 10	4	05/08/18 13:00	Tyler Russell	1	NEVAP 65 5
L1815079-05 SAMP	05/08/18 10:30	Tyler Russell	270	.02		A-007	4	100520 10	4	05/08/18 13:00	Tyler Russell	1	NEVAP 65 5
L1815079-06 SAMP	05/08/18 10:30	Tyler Russell	290	.02		A-007	4	100520 10	4	05/08/18 13:00	Tyler Russell	1	NEVAP 65 5
L1815079-07 SAMP	05/08/18 10:30	Tyler Russell	280	.02		A-007	4	100520 10	4	05/08/18 13:00	Tyler Russell	1	NEVAP 65 5

JV 6/14/18

Reported: 11-MAY-18 11:51 AM

METALS

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD
Project:
Method(s):
Laboratory: Alpha ~~Westborough~~ Mansfield **SDG(s):** L1615070
Date:
Reviewer:

Review Level [X] NYSDEC DUSR USEPA Region II Guideline

1. ☑ **Case Narrative Review and Data Package Completeness** COMMENTS
   Were problems noted? See QC problems below; else OK
   Were all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)
   * MW-5-0418 logged in as MW-S-0418; corrected during data val & sampler requested revised lab report
   Are Field Sample IDs and Locations assigned correctly? YES (NO) (circle one)
2. ☑ **Holding time and Sample Collection**
   Were all samples were all prepped and analyzed with the holding time (6 month) (YES) NO
3. ☑ **QC Blanks** Samples filtered @ lab per COC
   Are method blanks clean? YES (NO) (circle one)
   See attached for eval & qual for method blank & field blank
   Are Initial and continuing calibration blanks clean? YES (NO) (circle one) All detections < RL; see method blank for eval & qual
4. ☑ **Instrument Calibration – Data Package Narrative Review**
   Did the laboratory narrative identify any results that were not within criteria in the initial and/or continuing calibration standards? YES (NO) (circle one)

   Initial calibration criteria based on method guidance and continuing calibration standards recovery 90-110% (80-120% Hg)

   Did the laboratory qualify results based on initial or continuing calibration exceedances? YES (NO)
   If yes to above, use professional judgment to evaluate data and qualify results if needed

5. ☑ **Laboratory Control Sample Results**
   Were all results were within 80-120% limits? (YES) NO (circle one)

6. ☑ **Matrix Spike**
   Were MS/MSDs submitted/analyzed? (YES) NO
   MW-6D-0418 MS/MSD
   Were all results were within 75-125% limits? YES (NO) NA (circle one) See attached for (qual)
7. ☑ **Duplicates**
   Were Field Duplicates submitted/analyzed? (YES) NO
   BMW-4-0418/DUPLICATE; See attached; (J) ~~Total~~ Diss. Fe in Dup & sample
   Aqueous RPD within limit? (20%) (YES) (NO) NA (circle one)
   Soil RPD within limit? (35%) YES NO (NA) (circle one)
   Lab Dup RPD <20% for water, 35% for soil values > 5X the CRQL (or ± CRQL) YES NO (NA)

8. ☑ Were both **Total and Dissolved** metals reported? (YES) NO NA (circle one)
   If the dissolved concentration is > 20% of the total concentration then estimate (J) both results using professional judgment OK
9. ☑ **Percent solids** < 50% for any soil/sediment sample? YES NO (NA) (circle one)
   If yes, estimate all results using professional judgment

10. ☑ **Raw Data Review and Calculation Checks**

See attached

11. ☑ **Electronic Data Review and Edits**

Does the EDD match the Form Is? (YES) NO (circle one)

12. ☑ **DUSR Tables Review**

Table 1 (Samples and Analytical Methods)
Table 2 (Analytical Results)
Table 3 (Qualification Actions)

Were all tables produced and reviewed? (YES) NO (circle one)

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Total Metals

L1815070-10: The Field Blank has a result for barium and sodium present above the reporting limit. The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

The WG1111286-3/-4 MS/MSD recoveries for sodium (250%/260%), performed on L1815070-05, do not apply because the sample concentration is greater than four times the spike amount added.

Dissolved Metals

L1815070-10: The Field Blank has a result for barium present above the reporting limit. The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

The WG1111500-3/-4 MS/MSD recoveries, performed on L1815070-05, are outside the acceptance criteria for antimony (MS at 126%) and selenium (MSD at 128%). A post digestion spike was performed and was within acceptance criteria.

The WG1111500-3/-4 MS/MSD recoveries for calcium (MSD at 70%) and sodium (230%/240%), performed on L1815070-05, do not apply because the sample concentrations are greater than four times the spike amounts added.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris Report Date: 05/04/18

Title: Technical Director/Representative

Form 1
METALS

Client	: Wood Env & Infrastructure Solutions	Lab Number	: L1815070
Project Name	: STALINGRAD/HYGRADE GW Q2 SAMP	Project Number	: 3612162331
Lab ID	: WG1111286-1	Date Collected	: NA
Client ID	: WG1111286-1BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 05/02/18 09:09
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020A	Analyst	: AM
Lab File ID	: WG1111705.pdf	Instrument ID	: ICPMSQ2
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/01/18

Method Blank, Total

CAS NO.	Parameter	mg/l Results	RL	MDL	Qualifier
7429-90-5	Aluminum, Total	ND	0.0100	0.00327	U
7440-36-0	Antimony, Total (4) all	0.00087	0.00400	0.00042	J
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	ND	0.00050	0.00017	U
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	ND	0.100	0.0394	U
7440-47-3	Chromium, Total	ND	0.00100	0.00017	U
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	ND	0.0700	0.0242	U
7439-96-5	Manganese, Total	ND	0.00100	0.00044	U
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	ND	0.100	0.0309	U
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	ND	0.100	0.0293	U
7440-28-0	Thallium, Total	ND	0.00050	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

6/14/18

Form 1
METALS

Client	: Wood Env & Infrastructure Solutions	Lab Number	: L1815070
Project Name	: STALINGRAD/HYGRADE GW Q2 SAMP	Project Number	: 3612162331
Lab ID	: WG1111500-1	Date Collected	: NA
Client ID	: WG1111500-1BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 05/02/18 11:33
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020A	Analyst	: AM
Lab File ID	: WG1111705.pdf	Instrument ID	: ICPMSQ2
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/02/18

Method Blank, Dissolved

CAS NO.	Parameter	Results (mg/l)	RL	MDL	Qualifier
7429-90-5	Aluminum, Dissolved (4) all	0.00328	0.0100	0.00327	J
7440-36-0	Antimony, Dissolved (4) all	0.00093	0.00400	0.00042	J
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	ND	0.00050	0.00017	U
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved Dissolved	ND	0.100	0.0394	U
7440-47-3	Chromium, Dissolved	ND	0.00100	0.00017	U
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	ND	0.0700	0.0242	U
7439-96-5	Manganese, Dissolved	ND	0.00100	0.00044	U
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	ND	0.100	0.0309	U
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	ND	0.100	0.0293	U
7440-28-0	Thallium, Dissolved	ND	0.00050	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Wood Env & Infrastructure Solutions	Lab Number	: L1815070
Project Name	: STALINGRAD/HYGRADE GW Q2 SAMP	Project Number	: 3612162331
Lab ID	: L1815070-10	Date Collected	: 04/26/18 14:25
Client ID	: FIELD BLANK	Date Received	: 04/27/18
Sample Location	: LONG ISLAND CITY, NY	Date Analyzed	: 05/02/18 10:43
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020A	Analyst	: AM
Lab File ID	: WG1111705.pdf	Instrument ID	: ICPMSQ2
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/01/18

Field Blank, Total

CAS NO.	Parameter	Results (mg/l)	RL (mg/l)	MDL (mg/l)	Qualifier
7429-90-5	Aluminum, Total >	0.00424	0.0100	0.00327	J
7440-36-0	Antimony, Total (9) all (MB, too)	0.00092	0.00400	0.00042	J
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total >	0.00051	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total >	0.0718	0.100	0.0394	J
7440-47-3	Chromium, Total (J) subset	0.00043	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total (J) subset	0.00089	0.00100	0.00038	J
7439-89-6	Iron, Total >	0.0209	0.0500	0.0191	J
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	ND	0.0700	0.0242	U
7439-96-5	Manganese, Total	ND	0.00100	0.00044	U
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total >	0.0890	0.100	0.0309	J
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total ?	0.248	0.100	0.0293	
7440-28-0	Thallium, Total	ND	0.00050	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

JV 6/14/18

Form 1
METALS

Client	: Wood Env & Infrastructure Solutions	Lab Number	: L1815070
Project Name	: STALINGRAD/HYGRADE GW Q2 SAMP	Project Number	: 3612162331
Lab ID	: L1815070-10	Date Collected	: 04/26/18 14:25
Client ID	: FIELD BLANK	Date Received	: 04/27/18
Sample Location	: LONG ISLAND CITY, NY	Date Analyzed	: 05/02/18 12:21
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,6020A	Analyst	: AM
Lab File ID	: WG1111705.pdf	Instrument ID	: ICPMSQ2
Sample Amount	: 50ml	%Solids	: N/A
Digestion Method	: EPA 3005A	Date Digested	: 05/02/18

Field Blank, Dissolved

mg/l

CAS NO.	Parameter	Results	RL	MDL	Qualifier
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-36-0	Antimony, Dissolved (4) all (MB, has)	0.00081	0.00400	0.00042	J
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved >; no quals	0.00058	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	ND	0.100	0.0394	U
7440-47-3	Chromium, Dissolved	ND	0.00100	0.00017	U
7440-48-4	Cobalt, Dissolved JF 6/14/18	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	ND	0.0700	0.0242	U
7439-96-5	Manganese, Dissolved	ND	0.00100	0.00044	U
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	ND	0.100	0.0309	U
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	ND	0.100	0.0293	U
7440-28-0	Thallium, Dissolved	ND	0.00050	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U

field_sample_id	qc_c	lab_sample_id	analysis	param_name	final_result	final_qualif	result_uom	detection_l	SQL_text	fraction	FD CONC	RPD	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorobutanesulfonic acid	248		NG/L	0.106	1.92	N	286	14.2	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorobutanoic acid	31.0		NG/L	0.126	1.92	N	30.4	2.0	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluoroheptanesulfonic acid	75.0		NG/L	0.149	1.92	N	85.9	13.5	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluoroheptanoic acid	23.2		NG/L	0.089	1.92	N	22.7	2.2	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorohexane sulfonic acid	106		NG/L	0.103	1.92	N	108	1.9	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorohexanoic acid	104		NG/L	0.122	1.92	N	99.0	4.9	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorononanoic acid	3.03		NG/L	0.097	1.92	N	3.01	0.7	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorooctanesulfonic acid	2550		NG/L	2.23	40.0	N	2820	10.1	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluorooctanoic acid	71.2		NG/L	0.049	1.92	N	73.0	2.5	
BMW-4-0418	FS	L1815079-04	537(M)	Perfluoropentanoic acid	92.5		NG/L	0.082	1.92	N	90.3	2.4	
BMW-4-0418	FS	L1815070-04	6020A	Aluminum	0.0232		MG/L	0.00327	0.0100	T	0.0121	62.9	OK; PROF JDG, DIFF ~ RL
BMW-4-0418	FS	L1815070-04	6020A	Arsenic	0.00535		MG/L	0.00016	0.00050	D	0.00488	9.2	
BMW-4-0418	FS	L1815070-04	6020A	Arsenic	0.02336		MG/L	0.00016	0.00050	T	0.02348	0.5	
BMW-4-0418	FS	L1815070-04	6020A	Barium	0.1471		MG/L	0.00017	0.00050	D	0.1434	2.5	
BMW-4-0418	FS	L1815070-04	6020A	Barium	0.2201		MG/L	0.00017	0.00050	T	0.2301	4.4	
BMW-4-0418	FS	L1815070-04	6020A	Calcium	269.		MG/L	0.0394	0.100	D	263.	2.3	
BMW-4-0418	FS	L1815070-04	6020A	Calcium	267.		MG/L	0.0394	0.100	T	261.	2.3	
BMW-4-0418	FS	L1815070-04	6020A	Chromium	0.00129		MG/L	0.00017	0.00100	T	0.00124	4.0	
BMW-4-0418	FS	L1815070-04	6020A	Cobalt	0.02242		MG/L	0.00016	0.00050	D	0.02082	7.4	
BMW-4-0418	FS	L1815070-04	6020A	Cobalt	0.02253		MG/L	0.00016	0.00050	T	0.02110	6.6	
BMW-4-0418	FS	L1815070-04	6020A	Iron	0.350		MG/L	0.0191	0.0500	D	0.126	94.1	J SAMPLE AND DUP
BMW-4-0418	FS	L1815070-04	6020A	Iron	30.2		MG/L	0.0191	0.0500	T	30.6	1.3	
BMW-4-0418	FS	L1815070-04	6020A	Magnesium	55.7		MG/L	0.0242	0.0700	D	51.2	8.4	
BMW-4-0418	FS	L1815070-04	6020A	Magnesium	52.5		MG/L	0.0242	0.0700	T	50.2	4.5	
BMW-4-0418	FS	L1815070-04	6020A	Manganese	8.175		MG/L	0.00044	0.00100	D	8.132	0.5	
BMW-4-0418	FS	L1815070-04	6020A	Manganese	8.368		MG/L	0.00044	0.00100	T	8.359	0.1	
BMW-4-0418	FS	L1815070-04	6020A	Nickel	0.05969		MG/L	0.00055	0.00200	D	0.05604	6.3	
BMW-4-0418	FS	L1815070-04	6020A	Nickel	0.05790		MG/L	0.00055	0.00200	T	0.05586	3.6	
BMW-4-0418	FS	L1815070-04	6020A	Potassium	47.9		MG/L	0.0309	0.100	D	48.6	1.5	
BMW-4-0418	FS	L1815070-04	6020A	Potassium	45.9		MG/L	0.0309	0.100	T	47.6	3.6	
BMW-4-0418	FS	L1815070-04	6020A	Sodium	207.		MG/L	0.0293	0.100	D	196.	5.5	
BMW-4-0418	FS	L1815070-04	6020A	Sodium	196.		MG/L	0.0293	0.100	T	192.	2.1	
BMW-4-0418	FS	L1815070-04	8260C	2-Butanone	1400		UG/L	19.	50	N	1400	0	
BMW-4-0418	FS	L1815070-04	8260C	Acetone	380		UG/L	15.	50	N	380	0	
BMW-4-0418	FS	L1815070-04	8260C	Vinyl chloride	16		UG/L	0.71	10	N	15	6.5	

6/13/18

Form 5a
Matrix Spike Dissolved

Client	: Wood Env & Infrastructure Solutions	Lab Number	: L1815070
Project Name	: STALINGRAD/HYGRADE GW Q2 SAMP	Project Number	: 3612162331
Client Sample ID	: MW-6D-0418	Matrix	: WATER
Lab Sample ID	: L1815070-05		
Matrix Spike	: WG1111500-3	MS Analysis Date	: 05/02/18 11:41
Matrix Spike Dup	: WG1111500-4	MSD Analysis Date	: 05/02/18 11:45

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Aluminum, Dissolved	0.00492J	2	1.97	98	2	1.93	96	2	75-125	20
Antimony, Dissolved (J+)	0.00082J	0.5	0.6284	126 Q	0.5	0.6222	124	1	75-125	20
Arsenic, Dissolved	0.00029J	0.12	0.1349	112	0.12	0.1365	114	1	75-125	20
Barium, Dissolved	0.1057	2	2.240	107	2	2.263	108	1	75-125	20
Beryllium, Dissolved	ND	0.05	0.05431	109	0.05	0.05472	109	1	75-125	20
Cadmium, Dissolved	0.00009J	0.051	0.05774	113	0.051	0.05980	117	4	75-125	20
Calcium, Dissolved > 4X	211.	10	220.	90	10	218. OK	70 Q	1	75-125	20
Chromium, Dissolved	0.00224	0.2	0.2162	107	0.2	0.2108	104	3	75-125	20
Cobalt, Dissolved	0.00047J	0.5	0.5185	104	0.5	0.5172	103	0	75-125	20
Copper, Dissolved	0.00210	0.25	0.2628	104	0.25	0.2714	108	3	75-125	20
Iron, Dissolved	0.0392J	1	1.11	111	1	1.21	121	9	75-125	20
Lead, Dissolved	ND	0.51	0.5597	110	0.51	0.5802	114	4	75-125	20
Magnesium, Dissolved	18.5	10	29.6	111	10	29.3	108	1	75-125	20
Manganese, Dissolved	0.05963	0.5	0.6097	110	0.5	0.5972	108	2	75-125	20
Nickel, Dissolved	0.00372	0.5	0.5434	108	0.5	0.5383	107	1	75-125	20
Potassium, Dissolved	23.7	10	34.1	104	10	34.3	106	1	75-125	20
Selenium, Dissolved (J+)	0.00484J	0.12	0.142	118	0.12	0.154	128 Q	8	75-125	20
Silver, Dissolved Sample only	ND	0.05	0.05682	114	0.05	0.05643	113	1	75-125	20
Sodium, Dissolved > 4X	113.	10	136. OK	230 Q	10	137. OK	240 Q	1	75-125	20
Thallium, Dissolved	ND	0.12	0.1238	103	0.12	0.1283	107	4	75-125	20
Vanadium, Dissolved	0.00188J	0.5	0.5476	110	0.5	0.5193	104	5	75-125	20
Zinc, Dissolved	ND	0.5	0.5516	110	0.5	0.5421	108	2	75-125	20

4 for blanks

JR 6/14/18

Form 5a
Matrix Spike Total

Client	: Wood Env & Infrastructure Solutions	Lab Number	: L1815070
Project Name	: STALINGRAD/HYGRADE GW Q2 SAMP	Project Number	: 3612162331
Client Sample ID	: MW-6D-0418	Matrix	: WATER
Lab Sample ID	: L1815070-05		
Matrix Spike	: WG1111286-3	MS Analysis Date	: 05/02/18 09:25
Matrix Spike Dup	: WG1111286-4	MSD Analysis Date	: 05/02/18 09:29

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Aluminum, Total	0.130	2	2.04	96	2	2.07	97	1	75-125	20
Antimony, Total	0.00350J	0.5	0.5818	116	0.5	0.5964	119	2	75-125	20
Arsenic, Total	0.00046J	0.12	0.1392	116	0.12	0.1401	117	1	75-125	20
Barium, Total	0.1073	2	2.264	108	2	2.234	106	1	75-125	20
Beryllium, Total	ND	0.05	0.05478	110	0.05	0.05394	108	2	75-125	20
Cadmium, Total	0.00007J	0.051	0.05847	115	0.051	0.05779	113	1	75-125	20
Calcium, Total	204.	10	213.	90	10	214.	100	0	75-125	20
Chromium, Total	0.00308	0.2	0.2090	103	0.2	0.2147	106	3	75-125	20
Cobalt, Total	0.00056	0.5	0.5188	104	0.5	0.5108	102	2	75-125	20
Copper, Total	0.00288	0.25	0.2751	109	0.25	0.2673	106	3	75-125	20
Iron, Total	0.233	1	1.36	113	1	1.38	115	1	75-125	20
Lead, Total	0.00062J	0.51	0.5837	114	0.51	0.5769	113	1	75-125	20
Magnesium, Total	18.1	10	29.3	112	10	29.2	111	0	75-125	20
Manganese, Total	0.04749	0.5	0.5667	104	0.5	0.5702	104	1	75-125	20
Nickel, Total	0.00407	0.5	0.5269	104	0.5	0.5366	106	2	75-125	20
Potassium, Total	23.9	10	33.9	100	10	34.2	103	1	75-125	20
Selenium, Total	0.00463J	0.12	0.139	116	0.12	0.141	118	1	75-125	20
Silver, Total	ND	0.05	0.05705	114	0.05	0.05686	114	0	75-125	20
Sodium, Total > 4x	110.	10	135. OK	250 Q	10	136. OK	(260) Q	1	75-125	20
Thallium, Total	0.00014J	0.12	0.1273	106	0.12	0.1276	106	0	75-125	20
Vanadium, Total	0.00260J	0.5	0.5255	105	0.5	0.5175	104	2	75-125	20
Zinc, Total	ND	0.5	0.5406	108	0.5	0.5400	108	0	75-125	20

JR 6/14/18

Alpha ICPMSQ2 Full

5/3/2018 7:36:00 AM

Analysis index: 70 Analysis started at: 5/2/2018 12:29:33 PM Rack: 1
Analysis label: L1815070-01 6020SL User name: ALPHALAB\metals-instrument Vial: 42

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.122 %	112.987 %	0.001 ppb	203,053.641 ppb	30,059.008 ppb	3.927 ppb	44,410.666 ppb	263,874.727 ppb	106.997 %
Concentration per Run 1	105.139 %	113.659 %	0.000 ppb	201,875.996 ppb	29,889.714 ppb	4.418 ppb	44,807.399 ppb	263,561.957 ppb	106.848 %
Concentration per Run 2	104.003 %	114.479 %	-0.003 ppb	198,672.307 ppb	29,117.402 ppb	3.975 ppb	43,886.702 ppb	259,787.531 ppb	106.311 %
Concentration per Run 3	103.223 %	110.822 %	0.006 ppb	208,612.619 ppb	31,169.906 ppb	3.388 ppb	44,537.897 ppb	268,274.693 ppb	107.832 %
Concentration RSD	0.9 %	1.7 %	481.2 %	2.5 %	3.4 %	13.2 %	1.1 %	1.6 %	0.7 %

Category	48Ti (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	398.908 ppb	0.361 ppb	1.109 ppb	3,815.865 ppb	28.535 ppb	14.039 ppb	83.188 ppb	3.308 ppb	3.157 ppb
Concentration per Run 1	401.640 ppb	0.379 ppb	1.116 ppb	3,883.646 ppb	32.711 ppb	13.793 ppb	84.867 ppb	3.287 ppb	3.104 ppb
Concentration per Run 2	389.652 ppb	0.312 ppb	1.066 ppb	3,785.853 ppb	23.105 ppb	14.149 ppb	82.078 ppb	3.439 ppb	3.393 ppb
Concentration per Run 3	405.432 ppb	0.394 ppb	1.144 ppb	3,778.097 ppb	29.788 ppb	14.174 ppb	82.618 ppb	3.199 ppb	2.974 ppb
Concentration RSD	2.1 %	12.1 %	3.5 %	1.5 %	17.3 %	1.5 %	1.8 %	3.7 %	6.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.930 %	1.063 ppb	1.615 ppb	1,252.073 ppb	62.815 ppb	98.820 %	0.000 ppb	1.170 ppb	103.738 %
Concentration per Run 1	106.036 %	1.005 ppb	1.492 ppb	1,257.331 ppb	63.298 ppb	99.781 %	0.003 ppb	1.146 ppb	104.494 %
Concentration per Run 2	105.529 %	1.136 ppb	1.398 ppb	1,245.715 ppb	61.220 ppb	97.672 %	-0.001 ppb	1.156 ppb	102.725 %
Concentration per Run 3	106.225 %	1.048 ppb	1.955 ppb	1,253.175 ppb	63.927 ppb	99.007 %	0.000 ppb	1.207 ppb	103.997 %
Concentration RSD	0.3 %	6.3 %	18.5 %	0.5 %	2.3 %	1.1 %	487.4 %	2.8 %	0.9 %

Category	118Sn (KED AGD)	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.383 ppb	3.649 ppb	103.656 ppb	100.420 %	103.766 %	0.066 ppb	0.310 ppb	0.020 ppb	93.216 %
Concentration per Run 1	1.371 ppb	3.748 ppb	104.308 ppb	99.996 %	103.936 %	0.053 ppb	0.314 ppb	0.020 ppb	91.952 %
Concentration per Run 2	1.407 ppb	3.657 ppb	102.616 ppb	98.861 %	102.341 %	0.063 ppb	0.313 ppb	0.021 ppb	91.143 %
Concentration per Run 3	1.370 ppb	3.541 ppb	104.043 ppb	102.402 %	105.021 %	0.082 ppb	0.302 ppb	0.020 ppb	96.553 %
Concentration RSD	1.5 %	2.9 %	0.9 %	1.8 %	1.3 %	22.4 %	2.2 %	3.5 %	3.1 %

Sample calc

ANALYTICAL REPORT

Lab Number:	L1815070
Client:	Wood Env & Infrastructure Solutions, Inc 214-25 42nd Avenue Suite 3R Bayside, NY 11361
ATTN:	Eric Weinstock
Phone:	(347) 836-4445
Project Name:	STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number:	3612162331
Report Date:	05/04/18

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331

Lab Number: L1815070
Report Date: 05/04/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1815070-01	BMW-1-0418	WATER	LONG ISLAND CITY, NY	04/26/18 12:35	04/27/18
L1815070-02	BMW-2-0418	WATER	LONG ISLAND CITY, NY	04/26/18 13:10	04/27/18
L1815070-03	BMW-3-0418	WATER	LONG ISLAND CITY, NY	04/26/18 14:00	04/27/18
L1815070-04	BMW-4-0418	WATER	LONG ISLAND CITY, NY	04/26/18 11:00	04/27/18
L1815070-05	MW-6D-0418	WATER	LONG ISLAND CITY, NY	04/27/18 08:50	04/27/18
L1815070-06	MW-6S-0418	WATER	LONG ISLAND CITY, NY	04/27/18 08:50	04/27/18
L1815070-07	MW-S-0418	WATER	LONG ISLAND CITY, NY	04/27/18 10:05	04/27/18
L1815070-08	MW-E-0418	WATER	LONG ISLAND CITY, NY	04/27/18 10:30	04/27/18
L1815070-09	DUPLICATE	WATER	LONG ISLAND CITY, NY	04/26/18 11:00	04/27/18
L1815070-10	FIELD BLANK	WATER	LONG ISLAND CITY, NY	04/26/18 14:25	04/27/18
L1815070-11	TRIP BLANK	WATER	LONG ISLAND CITY, NY	04/26/18 00:00	04/27/18

Project Name:	STALINGRAD/HYGRADE GW Q2 SAMPL	**Lab Number:**	L1815070
Project Number:	3612162331	**Report Date:**	05/04/18

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	STALINGRAD/HYGRADE GW Q2 SAMPL	**Lab Number:**	L1815070
Project Number:	3612162331	**Report Date:**	05/04/18

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Total Metals

L1815070-10: The Field Blank has a result for barium and sodium present above the reporting limit. The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

The WG1111286-3/-4 MS/MSD recoveries for sodium (250%/260%), performed on L1815070-05, do not apply because the sample concentration is greater than four times the spike amount added.

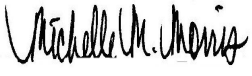
Dissolved Metals

L1815070-10: The Field Blank has a result for barium present above the reporting limit. The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

The WG1111500-3/-4 MS/MSD recoveries, performed on L1815070-05, are outside the acceptance criteria for antimony (MS at 126%) and selenium (MSD at 128%). A post digestion spike was performed and was within acceptance criteria.

The WG1111500-3/-4 MS/MSD recoveries for calcium (MSD at 70%) and sodium (230%/240%), performed on L1815070-05, do not apply because the sample concentrations are greater than four times the spike amounts added.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 05/04/18

ORGANICS

VOLATILES

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-01
Client ID: BMW-1-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 12:35
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/01/18 22:15
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.86		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.51	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-01 Date Collected: 04/26/18 12:35

Client ID: BMW-1-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	1.8		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	3.5		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	3.5		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	1.9	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-01 Date Collected: 04/26/18 12:35

Client ID: BMW-1-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	98		70-130

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-02
Client ID: BMW-2-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 13:10
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/01/18 22:43
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	2.5		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.19	J	ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	3.1		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-02 Date Collected: 04/26/18 13:10

Client ID: BMW-2-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	5.4		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	7.8		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	7.8		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	1.8	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-02 Date Collected: 04/26/18 13:10

Client ID: BMW-2-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	96		70-130

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-03 D
Client ID: BMW-3-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 14:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/01/18 23:12
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
1,3-Dichloropropene, Total	ND		ug/l	5.0	1.4	10
1,1-Dichloropropene	ND		ug/l	25	7.0	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	12		ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	34		ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	ND		ug/l	25	7.0	10

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-03 D
Client ID: BMW-3-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 14:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
Xylenes, Total	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	71		ug/l	25	7.0	10
1,2-Dichloroethene, Total	71		ug/l	25	7.0	10
Dibromomethane	ND		ug/l	50	10.	10
1,2,3-Trichloropropane	ND		ug/l	25	7.0	10
Acrylonitrile	ND		ug/l	50	15.	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	1000		ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	1700		ug/l	50	19.	10
Vinyl acetate	ND		ug/l	50	10.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
2,2-Dichloropropane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,3-Dichloropropane	ND		ug/l	25	7.0	10
1,1,1,2-Tetrachloroethane	ND		ug/l	25	7.0	10
Bromobenzene	ND		ug/l	25	7.0	10
n-Butylbenzene	ND		ug/l	25	7.0	10
sec-Butylbenzene	ND		ug/l	25	7.0	10
tert-Butylbenzene	ND		ug/l	25	7.0	10
o-Chlorotoluene	ND		ug/l	25	7.0	10
p-Chlorotoluene	ND		ug/l	25	7.0	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Hexachlorobutadiene	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
p-Isopropyltoluene	ND		ug/l	25	7.0	10
Naphthalene	ND		ug/l	25	7.0	10

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-03 D
Client ID: BMW-3-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 14:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
1,3,5-Trimethylbenzene	ND		ug/l	25	7.0	10
1,2,4-Trimethylbenzene	ND		ug/l	25	7.0	10
1,4-Dioxane	ND		ug/l	2500	610	10
p-Diethylbenzene	ND		ug/l	20	7.0	10
p-Ethyltoluene	ND		ug/l	20	7.0	10
1,2,4,5-Tetramethylbenzene	ND		ug/l	20	5.4	10
Ethyl ether	ND		ug/l	25	7.0	10
trans-1,4-Dichloro-2-butene	ND		ug/l	25	7.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	98		70-130

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-04 D
Client ID: BMW-4-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 11:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/01/18 23:40
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
1,3-Dichloropropene, Total	ND		ug/l	5.0	1.4	10
1,1-Dichloropropene	ND		ug/l	25	7.0	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	2.3	J	ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	16		ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	7.2	J	ug/l	25	7.0	10

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-04 D
Client ID: BMW-4-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 11:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	2.4	J	ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
Xylenes, Total	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	12	J	ug/l	25	7.0	10
1,2-Dichloroethene, Total	19	J	ug/l	25	7.0	10
Dibromomethane	ND		ug/l	50	10.	10
1,2,3-Trichloropropane	ND		ug/l	25	7.0	10
Acrylonitrile	ND		ug/l	50	15.	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	380		ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	1400		ug/l	50	19.	10
Vinyl acetate	ND		ug/l	50	10.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
2,2-Dichloropropane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,3-Dichloropropane	ND		ug/l	25	7.0	10
1,1,1,2-Tetrachloroethane	ND		ug/l	25	7.0	10
Bromobenzene	ND		ug/l	25	7.0	10
n-Butylbenzene	ND		ug/l	25	7.0	10
sec-Butylbenzene	ND		ug/l	25	7.0	10
tert-Butylbenzene	ND		ug/l	25	7.0	10
o-Chlorotoluene	ND		ug/l	25	7.0	10
p-Chlorotoluene	ND		ug/l	25	7.0	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Hexachlorobutadiene	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
p-Isopropyltoluene	ND		ug/l	25	7.0	10
Naphthalene	ND		ug/l	25	7.0	10

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-04 D
Client ID: BMW-4-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 11:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
1,3,5-Trimethylbenzene	ND		ug/l	25	7.0	10
1,2,4-Trimethylbenzene	ND		ug/l	25	7.0	10
1,4-Dioxane	ND		ug/l	2500	610	10
p-Diethylbenzene	ND		ug/l	20	7.0	10
p-Ethyltoluene	ND		ug/l	20	7.0	10
1,2,4,5-Tetramethylbenzene	ND		ug/l	20	5.4	10
Ethyl ether	ND		ug/l	25	7.0	10
trans-1,4-Dichloro-2-butene	ND		ug/l	25	7.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	98		70-130

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-05
Client ID: MW-6D-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/27/18 08:50
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/01/18 21:47
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.58		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-05 Date Collected: 04/27/18 08:50

Client ID: MW-6D-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	1.1		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.8	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-05 Date Collected: 04/27/18 08:50

Client ID: MW-6D-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	97		70-130

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-06 D
Client ID: MW-6S-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/27/18 08:50
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/02/18 00:09
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	37		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
1,3-Dichloropropene, Total	ND		ug/l	5.0	1.4	10
1,1-Dichloropropene	ND		ug/l	25	7.0	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	ND		ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	ND		ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	ND		ug/l	25	7.0	10

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-06 D
Client ID: MW-6S-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/27/18 08:50
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	10		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	1100		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
Xylenes, Total	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	23	J	ug/l	25	7.0	10
1,2-Dichloroethene, Total	23	J	ug/l	25	7.0	10
Dibromomethane	ND		ug/l	50	10.	10
1,2,3-Trichloropropane	ND		ug/l	25	7.0	10
Acrylonitrile	ND		ug/l	50	15.	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	ND		ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	ND		ug/l	50	19.	10
Vinyl acetate	ND		ug/l	50	10.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
2,2-Dichloropropane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,3-Dichloropropane	ND		ug/l	25	7.0	10
1,1,1,2-Tetrachloroethane	ND		ug/l	25	7.0	10
Bromobenzene	ND		ug/l	25	7.0	10
n-Butylbenzene	ND		ug/l	25	7.0	10
sec-Butylbenzene	ND		ug/l	25	7.0	10
tert-Butylbenzene	ND		ug/l	25	7.0	10
o-Chlorotoluene	ND		ug/l	25	7.0	10
p-Chlorotoluene	ND		ug/l	25	7.0	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Hexachlorobutadiene	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
p-Isopropyltoluene	ND		ug/l	25	7.0	10
Naphthalene	ND		ug/l	25	7.0	10

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-06 D
Client ID: MW-6S-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/27/18 08:50
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
1,3,5-Trimethylbenzene	ND		ug/l	25	7.0	10
1,2,4-Trimethylbenzene	ND		ug/l	25	7.0	10
1,4-Dioxane	ND		ug/l	2500	610	10
p-Diethylbenzene	ND		ug/l	20	7.0	10
p-Ethyltoluene	ND		ug/l	20	7.0	10
1,2,4,5-Tetramethylbenzene	ND		ug/l	20	5.4	10
Ethyl ether	ND		ug/l	25	7.0	10
trans-1,4-Dichloro-2-butene	ND		ug/l	25	7.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	98		70-130

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-07
Client ID: MW-S-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/27/18 10:05
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/02/18 00:37
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.57		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-07 Date Collected: 04/27/18 10:05

Client ID: MW-S-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	3.4		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	1.5	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-07 Date Collected: 04/27/18 10:05

Client ID: MW-S-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	97		70-130

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-08
Client ID: MW-E-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/27/18 10:30
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/02/18 01:05
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-08 Date Collected: 04/27/18 10:30

Client ID: MW-E-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	1.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-08 Date Collected: 04/27/18 10:30

Client ID: MW-E-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	96		70-130

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-09 D
Client ID: DUPLICATE
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 11:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/02/18 11:34
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
1,3-Dichloropropene, Total	ND		ug/l	5.0	1.4	10
1,1-Dichloropropene	ND		ug/l	25	7.0	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	2.3	J	ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	15		ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	7.7	J	ug/l	25	7.0	10

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-09 D
Client ID: DUPLICATE
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 11:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	2.1	J	ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
Xylenes, Total	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	11	J	ug/l	25	7.0	10
1,2-Dichloroethene, Total	19	J	ug/l	25	7.0	10
Dibromomethane	ND		ug/l	50	10.	10
1,2,3-Trichloropropane	ND		ug/l	25	7.0	10
Acrylonitrile	ND		ug/l	50	15.	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	380		ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	1400		ug/l	50	19.	10
Vinyl acetate	ND		ug/l	50	10.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
2,2-Dichloropropane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,3-Dichloropropane	ND		ug/l	25	7.0	10
1,1,1,2-Tetrachloroethane	ND		ug/l	25	7.0	10
Bromobenzene	ND		ug/l	25	7.0	10
n-Butylbenzene	ND		ug/l	25	7.0	10
sec-Butylbenzene	ND		ug/l	25	7.0	10
tert-Butylbenzene	ND		ug/l	25	7.0	10
o-Chlorotoluene	ND		ug/l	25	7.0	10
p-Chlorotoluene	ND		ug/l	25	7.0	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Hexachlorobutadiene	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
p-Isopropyltoluene	ND		ug/l	25	7.0	10
Naphthalene	ND		ug/l	25	7.0	10

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-09 D
Client ID: DUPLICATE
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 11:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
1,3,5-Trimethylbenzene	ND		ug/l	25	7.0	10
1,2,4-Trimethylbenzene	ND		ug/l	25	7.0	10
1,4-Dioxane	ND		ug/l	2500	610	10
p-Diethylbenzene	ND		ug/l	20	7.0	10
p-Ethyltoluene	ND		ug/l	20	7.0	10
1,2,4,5-Tetramethylbenzene	ND		ug/l	20	5.4	10
Ethyl ether	ND		ug/l	25	7.0	10
trans-1,4-Dichloro-2-butene	ND		ug/l	25	7.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	98		70-130

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-10
Client ID: FIELD BLANK
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 14:25
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/02/18 01:34
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-10 Date Collected: 04/26/18 14:25

Client ID: FIELD BLANK Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-10 Date Collected: 04/26/18 14:25

Client ID: FIELD BLANK Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	97		70-130

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-11
Client ID: TRIP BLANK
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 00:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/02/18 02:02
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-11 Date Collected: 04/26/18 00:00

Client ID: TRIP BLANK Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.7	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-11 Date Collected: 04/26/18 00:00

Client ID: TRIP BLANK Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	96		70-130

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/01/18 19:24
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08,10-11 Batch: WG1111832-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/01/18 19:24
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08,10-11 Batch: WG1111832-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/01/18 19:24
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08,10-11 Batch: WG1111832-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Tentatively Identified Compounds

No Tentatively Identified Compounds ND ug/l

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331
Lab Number: L1815070
Report Date: 05/04/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/01/18 19:24
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08,10-11 Batch: WG1111832-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	97		70-130

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/02/18 09:40
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09 Batch: WG1111878-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/02/18 09:40
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09 Batch: WG1111878-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/02/18 09:40
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09 Batch: WG1111878-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Tentatively Identified Compounds

No Tentatively Identified Compounds ND ug/l

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331
Lab Number: L1815070
Report Date: 05/04/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/02/18 09:40
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09 Batch: WG1111878-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	96		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815070

Report Date: 05/04/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08,10-11 Batch: WG1111832-3 WG1111832-4								
Methylene chloride	92		91		70-130	1		20
1,1-Dichloroethane	98		98		70-130	0		20
Chloroform	94		95		70-130	1		20
Carbon tetrachloride	94		94		63-132	0		20
1,2-Dichloropropane	97		98		70-130	1		20
Dibromochloromethane	94		94		63-130	0		20
1,1,2-Trichloroethane	98		97		70-130	1		20
Tetrachloroethene	94		93		70-130	1		20
Chlorobenzene	94		95		75-130	1		20
Trichlorofluoromethane	110		110		62-150	0		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	96		98		67-130	2		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	95		97		70-130	2		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	86		86		54-136	0		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	96		96		70-130	0		20
Toluene	94		94		70-130	0		20
Ethylbenzene	94		94		70-130	0		20
Chloromethane	100		100		64-130	0		20
Bromomethane	73		76		39-139	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815070

Report Date: 05/04/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08,10-11 Batch: WG1111832-3 WG1111832-4								
Vinyl chloride	110		110		55-140	0		20
Chloroethane	92		93		55-138	1		20
1,1-Dichloroethene	99		99		61-145	0		20
trans-1,2-Dichloroethene	96		95		70-130	1		20
Trichloroethene	95		97		70-130	2		20
1,2-Dichlorobenzene	94		95		70-130	1		20
1,3-Dichlorobenzene	94		94		70-130	0		20
1,4-Dichlorobenzene	93		93		70-130	0		20
Methyl tert butyl ether	97		98		63-130	1		20
p/m-Xylene	90		90		70-130	0		20
o-Xylene	90		90		70-130	0		20
cis-1,2-Dichloroethene	93		93		70-130	0		20
Dibromomethane	100		100		70-130	0		20
1,2,3-Trichloropropane	110		110		64-130	0		20
Acrylonitrile	99		100		70-130	1		20
Styrene	90		90		70-130	0		20
Dichlorodifluoromethane	110		100		36-147	10		20
Acetone	96		100		58-148	4		20
Carbon disulfide	98		98		51-130	0		20
2-Butanone	98		100		63-138	2		20
Vinyl acetate	100		100		70-130	0		20
4-Methyl-2-pentanone	96		97		59-130	1		20
2-Hexanone	110		110		57-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815070

Report Date: 05/04/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08,10-11 Batch: WG1111832-3 WG1111832-4								
Bromochloromethane	95		97		70-130	2		20
2,2-Dichloropropane	110		110		63-133	0		20
1,2-Dibromoethane	99		100		70-130	1		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	95		94		64-130	1		20
Bromobenzene	96		96		70-130	0		20
n-Butylbenzene	97		98		53-136	1		20
sec-Butylbenzene	96		96		70-130	0		20
tert-Butylbenzene	97		97		70-130	0		20
o-Chlorotoluene	95		94		70-130	1		20
p-Chlorotoluene	97		97		70-130	0		20
1,2-Dibromo-3-chloropropane	88		89		41-144	1		20
Hexachlorobutadiene	100		110		63-130	10		20
Isopropylbenzene	97		98		70-130	1		20
p-Isopropyltoluene	97		98		70-130	1		20
Naphthalene	86		86		70-130	0		20
n-Propylbenzene	98		98		69-130	0		20
1,2,3-Trichlorobenzene	84		86		70-130	2		20
1,2,4-Trichlorobenzene	91		92		70-130	1		20
1,3,5-Trimethylbenzene	96		96		64-130	0		20
1,2,4-Trimethylbenzene	98		98		70-130	0		20
1,4-Dioxane	128		132		56-162	3		20
p-Diethylbenzene	96		97		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815070

Report Date: 05/04/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08,10-11 Batch: WG1111832-3 WG1111832-4								
p-Ethyltoluene	98		98		70-130	0		20
1,2,4,5-Tetramethylbenzene	95		94		70-130	1		20
Ethyl ether	97		97		59-134	0		20
trans-1,4-Dichloro-2-butene	100		92		70-130	8		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	114		120		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	107		108		70-130
Dibromofluoromethane	99		100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815070

Report Date: 05/04/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG1111878-3 WG1111878-4								
Methylene chloride	91		89		70-130	2		20
1,1-Dichloroethane	98		96		70-130	2		20
Chloroform	94		92		70-130	2		20
Carbon tetrachloride	97		93		63-132	4		20
1,2-Dichloropropane	96		94		70-130	2		20
Dibromochloromethane	91		89		63-130	2		20
1,1,2-Trichloroethane	91		90		70-130	1		20
Tetrachloroethene	92		89		70-130	3		20
Chlorobenzene	92		90		75-130	2		20
Trichlorofluoromethane	110		100		62-150	10		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	100		98		67-130	2		20
Bromodichloromethane	96		93		67-130	3		20
trans-1,3-Dichloropropene	96		94		70-130	2		20
cis-1,3-Dichloropropene	95		94		70-130	1		20
1,1-Dichloropropene	100		96		70-130	4		20
Bromoform	83		82		54-136	1		20
1,1,2,2-Tetrachloroethane	90		90		67-130	0		20
Benzene	96		94		70-130	2		20
Toluene	92		89		70-130	3		20
Ethylbenzene	92		90		70-130	2		20
Chloromethane	110		110		64-130	0		20
Bromomethane	98		89		39-139	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815070

Report Date: 05/04/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG1111878-3 WG1111878-4								
Vinyl chloride	110		100		55-140	10		20
Chloroethane	94		88		55-138	7		20
1,1-Dichloroethene	99		96		61-145	3		20
trans-1,2-Dichloroethene	96		93		70-130	3		20
Trichloroethene	96		93		70-130	3		20
1,2-Dichlorobenzene	92		90		70-130	2		20
1,3-Dichlorobenzene	92		90		70-130	2		20
1,4-Dichlorobenzene	89		88		70-130	1		20
Methyl tert butyl ether	91		91		63-130	0		20
p/m-Xylene	90		85		70-130	6		20
o-Xylene	90		90		70-130	0		20
cis-1,2-Dichloroethene	94		92		70-130	2		20
Dibromomethane	97		98		70-130	1		20
1,2,3-Trichloropropane	100		99		64-130	1		20
Acrylonitrile	92		92		70-130	0		20
Styrene	90		85		70-130	6		20
Dichlorodifluoromethane	110		100		36-147	10		20
Acetone	110		100		58-148	10		20
Carbon disulfide	99		95		51-130	4		20
2-Butanone	91		95		63-138	4		20
Vinyl acetate	95		95		70-130	0		20
4-Methyl-2-pentanone	87		85		59-130	2		20
2-Hexanone	98		100		57-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815070

Report Date: 05/04/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG1111878-3 WG1111878-4								
Bromochloromethane	94		92		70-130	2		20
2,2-Dichloropropane	110		110		63-133	0		20
1,2-Dibromoethane	92		91		70-130	1		20
1,3-Dichloropropane	94		92		70-130	2		20
1,1,1,2-Tetrachloroethane	93		91		64-130	2		20
Bromobenzene	94		92		70-130	2		20
n-Butylbenzene	95		91		53-136	4		20
sec-Butylbenzene	95		91		70-130	4		20
tert-Butylbenzene	96		92		70-130	4		20
o-Chlorotoluene	93		90		70-130	3		20
p-Chlorotoluene	97		94		70-130	3		20
1,2-Dibromo-3-chloropropane	78		80		41-144	3		20
Hexachlorobutadiene	110		100		63-130	10		20
Isopropylbenzene	96		93		70-130	3		20
p-Isopropyltoluene	96		92		70-130	4		20
Naphthalene	76		76		70-130	0		20
n-Propylbenzene	96		93		69-130	3		20
1,2,3-Trichlorobenzene	76		76		70-130	0		20
1,2,4-Trichlorobenzene	85		84		70-130	1		20
1,3,5-Trimethylbenzene	95		92		64-130	3		20
1,2,4-Trimethylbenzene	96		93		70-130	3		20
1,4-Dioxane	126		128		56-162	2		20
p-Diethylbenzene	95		92		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815070

Report Date: 05/04/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG1111878-3 WG1111878-4								
p-Ethyltoluene	97		93		70-130	4		20
1,2,4,5-Tetramethylbenzene	92		91		70-130	1		20
Ethyl ether	93		92		59-134	1		20
trans-1,4-Dichloro-2-butene	100		100		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	116		113		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	108		107		70-130
Dibromofluoromethane	100		100		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331
Lab Number: L1815070
Report Date: 05/04/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08,10-11 QC Batch ID: WG1111832-6 WG1111832-7 QC Sample: L1815070-05 Client ID: MW-6D-0418												
Methylene chloride	ND	10	10	100		9.8	98		70-130	2		20
1,1-Dichloroethane	ND	10	11	110		11	110		70-130	0		20
Chloroform	ND	10	11	110		11	110		70-130	0		20
Carbon tetrachloride	ND	10	11	110		11	110		63-132	0		20
1,2-Dichloropropane	ND	10	11	110		10	100		70-130	10		20
Dibromochloromethane	ND	10	10	100		9.7	97		63-130	3		20
1,1,2-Trichloroethane	ND	10	10	100		10	100		70-130	0		20
Tetrachloroethene	0.58	10	11	104		10	94		70-130	10		20
Chlorobenzene	ND	10	10	100		9.9	99		75-130	1		20
Trichlorofluoromethane	ND	10	12	120		12	120		62-150	0		20
1,2-Dichloroethane	ND	10	12	120		12	120		70-130	0		20
1,1,1-Trichloroethane	ND	10	12	120		11	110		67-130	9		20
Bromodichloromethane	ND	10	10	100		10	100		67-130	0		20
trans-1,3-Dichloropropene	ND	10	10	100		10	100		70-130	0		20
cis-1,3-Dichloropropene	ND	10	10	100		10	100		70-130	0		20
1,1-Dichloropropene	ND	10	11	110		11	110		70-130	0		20
Bromoform	ND	10	8.9	89		8.6	86		54-136	3		20
1,1,2,2-Tetrachloroethane	ND	10	10	100		10	100		67-130	0		20
Benzene	ND	10	11	110		10	100		70-130	10		20
Toluene	ND	10	10	100		10	100		70-130	0		20
Ethylbenzene	ND	10	10	100		9.8	98		70-130	2		20
Chloromethane	ND	10	12	120		12	120		64-130	0		20
Bromomethane	ND	10	8.1	81		9.0	90		39-139	11		20

Matrix Spike Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815070

Report Date: 05/04/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08,10-11 QC Batch ID: WG1111832-6 WG1111832-7 QC Sample: L1815070-05 Client ID: MW-6D-0418												
Vinyl chloride	ND	10	13	130		12	120		55-140	8		20
Chloroethane	ND	10	10	100		10	100		55-138	0		20
1,1-Dichloroethene	ND	10	12	120		11	110		61-145	9		20
trans-1,2-Dichloroethene	ND	10	11	110		10	100		70-130	10		20
Trichloroethene	1.1	10	12	109		11	99		70-130	9		20
1,2-Dichlorobenzene	ND	10	10	100		9.7	97		70-130	3		20
1,3-Dichlorobenzene	ND	10	10	100		9.7	97		70-130	3		20
1,4-Dichlorobenzene	ND	10	9.9	99		9.6	96		70-130	3		20
Methyl tert butyl ether	ND	10	10	100		9.9	99		63-130	1		20
p/m-Xylene	ND	20	20	100		19	95		70-130	5		20
o-Xylene	ND	20	20	100		19	95		70-130	5		20
cis-1,2-Dichloroethene	ND	10	11	110		10	100		70-130	10		20
Dibromomethane	ND	10	11	110		11	110		70-130	0		20
1,2,3-Trichloropropane	ND	10	11	110		11	110		64-130	0		20
Acrylonitrile	ND	10	10	100		10	100		70-130	0		20
Styrene	ND	20	19	95		19	95		70-130	0		20
Dichlorodifluoromethane	ND	10	12	120		11	110		36-147	9		20
Acetone	3.8J	10	12	120		10	100		58-148	18		20
Carbon disulfide	ND	10	11	110		11	110		51-130	0		20
2-Butanone	ND	10	10	100		9.6	96		63-138	4		20
Vinyl acetate	ND	10	10	100		9.7	97		70-130	3		20
4-Methyl-2-pentanone	ND	10	9.8	98		9.4	94		59-130	4		20
2-Hexanone	ND	10	11	110		11	110		57-130	0		20

Matrix Spike Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815070

Report Date: 05/04/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08,10-11 QC Batch ID: WG1111832-6 WG1111832-7 QC Sample: L1815070-05 Client ID: MW-6D-0418												
Bromochloromethane	ND	10	10	100		10	100		70-130	0		20
2,2-Dichloropropane	ND	10	11	110		11	110		63-133	0		20
1,2-Dibromoethane	ND	10	10	100		10	100		70-130	0		20
1,3-Dichloropropane	ND	10	10	100		10	100		70-130	0		20
1,1,1,2-Tetrachloroethane	ND	10	10	100		10	100		64-130	0		20
Bromobenzene	ND	10	10	100		10	100		70-130	0		20
n-Butylbenzene	ND	10	9.8	98		9.6	96		53-136	2		20
sec-Butylbenzene	ND	10	9.9	99		9.6	96		70-130	3		20
tert-Butylbenzene	ND	10	10	100		9.9	99		70-130	1		20
o-Chlorotoluene	ND	10	10	100		9.7	97		70-130	3		20
p-Chlorotoluene	ND	10	10	100		9.9	99		70-130	1		20
1,2-Dibromo-3-chloropropane	ND	10	9.0	90		8.5	85		41-144	6		20
Hexachlorobutadiene	ND	10	10	100		11	110		63-130	10		20
Isopropylbenzene	ND	10	10	100		10	100		70-130	0		20
p-Isopropyltoluene	ND	10	10	100		9.7	97		70-130	3		20
Naphthalene	ND	10	9.0	90		8.5	85		70-130	6		20
n-Propylbenzene	ND	10	10	100		9.9	99		69-130	1		20
1,2,3-Trichlorobenzene	ND	10	8.5	85		8.4	84		70-130	1		20
1,2,4-Trichlorobenzene	ND	10	9.3	93		9.2	92		70-130	1		20
1,3,5-Trimethylbenzene	ND	10	10	100		9.8	98		64-130	2		20
1,2,4-Trimethylbenzene	ND	10	10	100		9.9	99		70-130	1		20
1,4-Dioxane	ND	500	600	120		610	122		56-162	2		20
p-Diethylbenzene	ND	10	10	100		9.6	96		70-130	4		20

Matrix Spike Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815070

Report Date: 05/04/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08,10-11 QC Batch ID: WG1111832-6 WG1111832-7 QC Sample: L1815070-05 Client ID: MW-6D-0418												
p-Ethyltoluene	ND	10	10	100		9.9	99		70-130	1		20
1,2,4,5-Tetramethylbenzene	ND	10	10	100		9.6	96		70-130	4		20
Ethyl ether	ND	10	10	100		9.8	98		59-134	2		20
trans-1,4-Dichloro-2-butene	ND	10	11	110		8.7	87		70-130	**23**	Q	20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		112		70-130
4-Bromofluorobenzene	107		107		70-130
Dibromofluoromethane	99		98		70-130
Toluene-d8	100		100		70-130

METALS

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-01 Date Collected: 04/26/18 12:35

Client ID: BMW-1-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0132		mg/l	0.0100	0.00327	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Antimony, Total	0.00363	J	mg/l	0.00400	0.00042	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Arsenic, Total	0.00125		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Barium, Total	0.1025		mg/l	0.00050	0.00017	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Cadmium, Total	0.00116		mg/l	0.00020	0.00005	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Calcium, Total	258.		mg/l	0.100	0.0394	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Chromium, Total	0.01476		mg/l	0.00100	0.00017	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Cobalt, Total	0.01313		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Copper, Total	0.00366		mg/l	0.00100	0.00038	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Iron, Total	0.464		mg/l	0.0500	0.0191	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Lead, Total	0.00044	J	mg/l	0.00100	0.00034	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Magnesium, Total	29.8		mg/l	0.0700	0.0242	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Manganese, Total	3.659		mg/l	0.00100	0.00044	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	05/01/18 11:50	05/02/18 12:46	EPA 7470A	1,7470A	MG
Nickel, Total	0.07921		mg/l	0.00200	0.00055	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Potassium, Total	43.6		mg/l	0.100	0.0309	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Selenium, Total	0.00181	J	mg/l	0.00500	0.00173	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Sodium, Total	204.		mg/l	0.100	0.0293	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Thallium, Total	0.00029	J	mg/l	0.00050	0.00014	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	05/01/18 08:40	05/02/18 10:24	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00393	J	mg/l	0.0100	0.00327	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Antimony, Dissolved	0.00364	J	mg/l	0.00400	0.00042	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00106		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Barium, Dissolved	0.1036		mg/l	0.00050	0.00017	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-01 Date Collected: 04/26/18 12:35

Client ID: BMW-1-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Cadmium, Dissolved	0.00117		mg/l	0.00020	0.00005	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Calcium, Dissolved	264.		mg/l	0.100	0.0394	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Chromium, Dissolved	0.00110		mg/l	0.00100	0.00017	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Cobalt, Dissolved	0.01404		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Copper, Dissolved	0.00330		mg/l	0.00100	0.00038	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Iron, Dissolved	0.0285	J	mg/l	0.0500	0.0191	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Magnesium, Dissolved	30.0		mg/l	0.0700	0.0242	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Manganese, Dissolved	3.816		mg/l	0.00100	0.00044	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	05/02/18 10:23	05/02/18 16:33	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.08319		mg/l	0.00200	0.00055	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Potassium, Dissolved	44.4		mg/l	0.100	0.0309	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Sodium, Dissolved	203.		mg/l	0.100	0.0293	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Thallium, Dissolved	0.00030	J	mg/l	0.00050	0.00014	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	05/02/18 08:45	05/02/18 12:29	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-02 Date Collected: 04/26/18 13:10

Client ID: BMW-2-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0707		mg/l	0.0100	0.00327	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Antimony, Total	0.00068	J	mg/l	0.00400	0.00042	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Arsenic, Total	0.00080		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Barium, Total	0.1146		mg/l	0.00050	0.00017	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Cadmium, Total	0.00727		mg/l	0.00020	0.00005	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Calcium, Total	284.		mg/l	0.100	0.0394	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Chromium, Total	0.00447		mg/l	0.00100	0.00017	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Cobalt, Total	0.01489		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Copper, Total	0.00400		mg/l	0.00100	0.00038	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Iron, Total	0.445		mg/l	0.0500	0.0191	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Magnesium, Total	40.7		mg/l	0.0700	0.0242	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Manganese, Total	5.743		mg/l	0.00100	0.00044	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	05/01/18 11:50	05/02/18 12:48	EPA 7470A	1,7470A	MG
Nickel, Total	0.1369		mg/l	0.00200	0.00055	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Potassium, Total	34.3		mg/l	0.100	0.0309	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Sodium, Total	162.		mg/l	0.100	0.0293	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Thallium, Total	0.00015	J	mg/l	0.00050	0.00014	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	05/01/18 08:40	05/02/18 10:27	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00489	J	mg/l	0.0100	0.00327	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Antimony, Dissolved	0.00082	J	mg/l	0.00400	0.00042	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00051		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Barium, Dissolved	0.1248		mg/l	0.00050	0.00017	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-02 Date Collected: 04/26/18 13:10

Client ID: BMW-2-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Cadmium, Dissolved	0.00767		mg/l	0.00020	0.00005	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Calcium, Dissolved	307.		mg/l	0.100	0.0394	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Chromium, Dissolved	0.00203		mg/l	0.00100	0.00017	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Cobalt, Dissolved	0.01379		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Copper, Dissolved	0.00367		mg/l	0.00100	0.00038	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Iron, Dissolved	0.0249	J	mg/l	0.0500	0.0191	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Magnesium, Dissolved	41.3		mg/l	0.0700	0.0242	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Manganese, Dissolved	5.380		mg/l	0.00100	0.00044	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	05/02/18 10:23	05/02/18 16:35	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.1236		mg/l	0.00200	0.00055	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Potassium, Dissolved	38.5		mg/l	0.100	0.0309	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Sodium, Dissolved	161.		mg/l	0.100	0.0293	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Thallium, Dissolved	0.00014	J	mg/l	0.00050	0.00014	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	05/02/18 08:45	05/02/18 12:33	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-03 Date Collected: 04/26/18 14:00

Client ID: BMW-3-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.403		mg/l	0.0100	0.00327	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Antimony, Total	0.00081	J	mg/l	0.00400	0.00042	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Arsenic, Total	0.02126		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Barium, Total	0.3487		mg/l	0.00050	0.00017	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Calcium, Total	281.		mg/l	0.100	0.0394	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Chromium, Total	0.00998		mg/l	0.00100	0.00017	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Cobalt, Total	0.01313		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Copper, Total	0.00411		mg/l	0.00100	0.00038	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Iron, Total	80.0		mg/l	0.0500	0.0191	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Lead, Total	0.00081	J	mg/l	0.00100	0.00034	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Magnesium, Total	40.8		mg/l	0.0700	0.0242	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Manganese, Total	5.194		mg/l	0.00100	0.00044	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	05/01/18 11:50	05/02/18 12:50	EPA 7470A	1,7470A	MG
Nickel, Total	0.3830		mg/l	0.00200	0.00055	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Potassium, Total	64.6		mg/l	0.100	0.0309	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Sodium, Total	229.		mg/l	0.100	0.0293	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Vanadium, Total	0.00542		mg/l	0.00500	0.00157	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Zinc, Total	0.01342		mg/l	0.01000	0.00341	1	05/01/18 08:40	05/02/18 10:47	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00902	J	mg/l	0.0100	0.00327	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Antimony, Dissolved	0.00061	J	mg/l	0.00400	0.00042	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00266		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Barium, Dissolved	0.2015		mg/l	0.00050	0.00017	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-03 Date Collected: 04/26/18 14:00

Client ID: BMW-3-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Calcium, Dissolved	275.		mg/l	0.100	0.0394	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Chromium, Dissolved	0.00174		mg/l	0.00100	0.00017	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Cobalt, Dissolved	0.01128		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Iron, Dissolved	8.36		mg/l	0.0500	0.0191	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Magnesium, Dissolved	40.2		mg/l	0.0700	0.0242	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Manganese, Dissolved	4.685		mg/l	0.00100	0.00044	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	05/02/18 10:23	05/02/18 16:36	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.3688		mg/l	0.00200	0.00055	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Potassium, Dissolved	63.4		mg/l	0.100	0.0309	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Sodium, Dissolved	230.		mg/l	0.100	0.0293	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	05/02/18 08:45	05/02/18 12:37	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-04 Date Collected: 04/26/18 11:00

Client ID: BMW-4-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0232		mg/l	0.0100	0.00327	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Antimony, Total	0.00061	J	mg/l	0.00400	0.00042	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Arsenic, Total	0.02336		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Barium, Total	0.2201		mg/l	0.00050	0.00017	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Cadmium, Total	0.00006	J	mg/l	0.00020	0.00005	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Calcium, Total	267.		mg/l	0.100	0.0394	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Chromium, Total	0.00129		mg/l	0.00100	0.00017	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Cobalt, Total	0.02253		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Copper, Total	0.00063	J	mg/l	0.00100	0.00038	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Iron, Total	30.2		mg/l	0.0500	0.0191	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Magnesium, Total	52.5		mg/l	0.0700	0.0242	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Manganese, Total	8.368		mg/l	0.00100	0.00044	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	05/01/18 11:50	05/02/18 12:51	EPA 7470A	1,7470A	MG
Nickel, Total	0.05790		mg/l	0.00200	0.00055	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Potassium, Total	45.9		mg/l	0.100	0.0309	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Sodium, Total	196.		mg/l	0.100	0.0293	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	05/01/18 08:40	05/02/18 10:51	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00343	J	mg/l	0.0100	0.00327	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Antimony, Dissolved	0.00058	J	mg/l	0.00400	0.00042	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00535		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Barium, Dissolved	0.1471		mg/l	0.00050	0.00017	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-04 Date Collected: 04/26/18 11:00

Client ID: BMW-4-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Calcium, Dissolved	269.		mg/l	0.100	0.0394	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Chromium, Dissolved	0.00053	J	mg/l	0.00100	0.00017	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Cobalt, Dissolved	0.02242		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Iron, Dissolved	0.350		mg/l	0.0500	0.0191	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Magnesium, Dissolved	55.7		mg/l	0.0700	0.0242	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Manganese, Dissolved	8.175		mg/l	0.00100	0.00044	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	05/02/18 10:23	05/02/18 16:42	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.05969		mg/l	0.00200	0.00055	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Potassium, Dissolved	47.9		mg/l	0.100	0.0309	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Sodium, Dissolved	207.		mg/l	0.100	0.0293	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	05/02/18 08:45	05/02/18 12:42	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-05 Date Collected: 04/27/18 08:50

Client ID: MW-6D-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.130		mg/l	0.0100	0.00327	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Antimony, Total	0.00350	J	mg/l	0.00400	0.00042	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Arsenic, Total	0.00046	J	mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Barium, Total	0.1073		mg/l	0.00050	0.00017	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Cadmium, Total	0.00007	J	mg/l	0.00020	0.00005	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Calcium, Total	204.		mg/l	0.100	0.0394	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Chromium, Total	0.00308		mg/l	0.00100	0.00017	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Cobalt, Total	0.00056		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Copper, Total	0.00288		mg/l	0.00100	0.00038	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Iron, Total	0.233		mg/l	0.0500	0.0191	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Lead, Total	0.00062	J	mg/l	0.00100	0.00034	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Magnesium, Total	18.1		mg/l	0.0700	0.0242	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Manganese, Total	0.04749		mg/l	0.00100	0.00044	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	05/01/18 11:50	05/02/18 12:24	EPA 7470A	1,7470A	MG
Nickel, Total	0.00407		mg/l	0.00200	0.00055	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Potassium, Total	23.9		mg/l	0.100	0.0309	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Selenium, Total	0.00463	J	mg/l	0.00500	0.00173	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Sodium, Total	110.		mg/l	0.100	0.0293	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Thallium, Total	0.00014	J	mg/l	0.00050	0.00014	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Vanadium, Total	0.00260	J	mg/l	0.00500	0.00157	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	05/01/18 08:40	05/02/18 09:21	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00492	J	mg/l	0.0100	0.00327	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Antimony, Dissolved	0.00082	J	mg/l	0.00400	0.00042	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00029	J	mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Barium, Dissolved	0.1057		mg/l	0.00050	0.00017	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-05 Date Collected: 04/27/18 08:50

Client ID: MW-6D-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Cadmium, Dissolved	0.00009	J	mg/l	0.00020	0.00005	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Calcium, Dissolved	211.		mg/l	0.100	0.0394	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Chromium, Dissolved	0.00224		mg/l	0.00100	0.00017	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Cobalt, Dissolved	0.00047	J	mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Copper, Dissolved	0.00210		mg/l	0.00100	0.00038	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Iron, Dissolved	0.0392	J	mg/l	0.0500	0.0191	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Magnesium, Dissolved	18.5		mg/l	0.0700	0.0242	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.05963		mg/l	0.00100	0.00044	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	05/02/18 10:23	05/02/18 16:27	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.00372		mg/l	0.00200	0.00055	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Potassium, Dissolved	23.7		mg/l	0.100	0.0309	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Selenium, Dissolved	0.00484	J	mg/l	0.00500	0.00173	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Sodium, Dissolved	113.		mg/l	0.100	0.0293	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Vanadium, Dissolved	0.00188	J	mg/l	0.00500	0.00157	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	05/02/18 08:45	05/02/18 11:13	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-06 Date Collected: 04/27/18 08:50

Client ID: MW-6S-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.212		mg/l	0.0100	0.00327	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Antimony, Total	0.00165	J	mg/l	0.00400	0.00042	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Arsenic, Total	0.00157		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Barium, Total	0.1963		mg/l	0.00050	0.00017	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Cadmium, Total	0.00006	J	mg/l	0.00020	0.00005	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Calcium, Total	251.		mg/l	0.100	0.0394	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Chromium, Total	0.00212		mg/l	0.00100	0.00017	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Cobalt, Total	0.00306		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Copper, Total	0.00222		mg/l	0.00100	0.00038	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Iron, Total	0.482		mg/l	0.0500	0.0191	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Lead, Total	0.00189		mg/l	0.00100	0.00034	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Magnesium, Total	74.6		mg/l	0.0700	0.0242	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Manganese, Total	4.051		mg/l	0.00100	0.00044	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	05/01/18 11:50	05/02/18 12:53	EPA 7470A	1,7470A	MG
Nickel, Total	0.03138		mg/l	0.00200	0.00055	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Potassium, Total	16.5		mg/l	0.100	0.0309	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Sodium, Total	125.		mg/l	0.100	0.0293	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Zinc, Total	0.01609		mg/l	0.01000	0.00341	1	05/01/18 08:40	05/02/18 10:55	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00722	J	mg/l	0.0100	0.00327	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Antimony, Dissolved	0.00147	J	mg/l	0.00400	0.00042	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00106		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Barium, Dissolved	0.1948		mg/l	0.00050	0.00017	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-06 Date Collected: 04/27/18 08:50

Client ID: MW-6S-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Calcium, Dissolved	253.		mg/l	0.100	0.0394	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Chromium, Dissolved	0.00024	J	mg/l	0.00100	0.00017	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Cobalt, Dissolved	0.00312		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Copper, Dissolved	0.00136		mg/l	0.00100	0.00038	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Iron, Dissolved	0.0203	J	mg/l	0.0500	0.0191	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Magnesium, Dissolved	81.4		mg/l	0.0700	0.0242	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Manganese, Dissolved	4.112		mg/l	0.00100	0.00044	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	05/02/18 10:23	05/02/18 16:43	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.03264		mg/l	0.00200	0.00055	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Potassium, Dissolved	16.9		mg/l	0.100	0.0309	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Sodium, Dissolved	130.		mg/l	0.100	0.0293	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM
Zinc, Dissolved	0.01048		mg/l	0.01000	0.00341	1	05/02/18 08:45	05/02/18 12:46	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-07 Date Collected: 04/27/18 10:05

Client ID: MW-S-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.175		mg/l	0.0100	0.00327	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Antimony, Total	0.00077	J	mg/l	0.00400	0.00042	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Arsenic, Total	0.00031	J	mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Barium, Total	0.1125		mg/l	0.00050	0.00017	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Cadmium, Total	0.00007	J	mg/l	0.00020	0.00005	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Calcium, Total	201.		mg/l	0.100	0.0394	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Chromium, Total	0.01283		mg/l	0.00100	0.00017	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Cobalt, Total	0.00078		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Copper, Total	0.00155		mg/l	0.00100	0.00038	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Iron, Total	0.332		mg/l	0.0500	0.0191	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Lead, Total	0.00230		mg/l	0.00100	0.00034	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Magnesium, Total	14.0		mg/l	0.0700	0.0242	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Manganese, Total	0.00800		mg/l	0.00100	0.00044	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	05/01/18 11:50	05/02/18 12:55	EPA 7470A	1,7470A	MG
Nickel, Total	0.00419		mg/l	0.00200	0.00055	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Potassium, Total	26.8		mg/l	0.100	0.0309	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Selenium, Total	0.00870		mg/l	0.00500	0.00173	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Sodium, Total	196.		mg/l	0.100	0.0293	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	05/01/18 08:40	05/02/18 10:59	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00616	J	mg/l	0.0100	0.00327	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Antimony, Dissolved	0.00068	J	mg/l	0.00400	0.00042	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00022	J	mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Barium, Dissolved	0.1092		mg/l	0.00050	0.00017	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-07 Date Collected: 04/27/18 10:05

Client ID: MW-S-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Calcium, Dissolved	201.		mg/l	0.100	0.0394	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Chromium, Dissolved	0.00708		mg/l	0.00100	0.00017	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Cobalt, Dissolved	0.00065		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Copper, Dissolved	0.00153		mg/l	0.00100	0.00038	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Iron, Dissolved	0.0269	J	mg/l	0.0500	0.0191	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Magnesium, Dissolved	13.7		mg/l	0.0700	0.0242	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.00647		mg/l	0.00100	0.00044	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	05/02/18 10:23	05/02/18 16:45	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.00551		mg/l	0.00200	0.00055	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Potassium, Dissolved	26.4		mg/l	0.100	0.0309	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Selenium, Dissolved	0.00846		mg/l	0.00500	0.00173	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Sodium, Dissolved	192.		mg/l	0.100	0.0293	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM
Zinc, Dissolved	0.00369	J	mg/l	0.01000	0.00341	1	05/02/18 08:45	05/02/18 12:50	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-08 Date Collected: 04/27/18 10:30

Client ID: MW-E-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4.83		mg/l	0.0100	0.00327	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Antimony, Total	0.00094	J	mg/l	0.00400	0.00042	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Arsenic, Total	0.00999		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Barium, Total	0.2058		mg/l	0.00050	0.00017	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Beryllium, Total	0.00048	J	mg/l	0.00050	0.00010	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Cadmium, Total	0.00011	J	mg/l	0.00020	0.00005	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Calcium, Total	118.		mg/l	0.100	0.0394	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Chromium, Total	0.01688		mg/l	0.00100	0.00017	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Cobalt, Total	0.00870		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Copper, Total	0.02403		mg/l	0.00100	0.00038	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Iron, Total	15.6		mg/l	0.0500	0.0191	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Lead, Total	0.00733		mg/l	0.00100	0.00034	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Magnesium, Total	22.2		mg/l	0.0700	0.0242	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Manganese, Total	2.088		mg/l	0.00100	0.00044	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	05/01/18 11:50	05/02/18 12:57	EPA 7470A	1,7470A	MG
Nickel, Total	0.01742		mg/l	0.00200	0.00055	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Potassium, Total	22.5		mg/l	0.100	0.0309	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Selenium, Total	0.00555		mg/l	0.00500	0.00173	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Sodium, Total	92.2		mg/l	0.100	0.0293	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Vanadium, Total	0.01856		mg/l	0.00500	0.00157	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Zinc, Total	0.04941		mg/l	0.01000	0.00341	1	05/01/18 08:40	05/02/18 11:02	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Antimony, Dissolved	0.00048	J	mg/l	0.00400	0.00042	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00060		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Barium, Dissolved	0.08407		mg/l	0.00050	0.00017	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-08 Date Collected: 04/27/18 10:30

Client ID: MW-E-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Calcium, Dissolved	109.		mg/l	0.100	0.0394	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Chromium, Dissolved	0.00043	J	mg/l	0.00100	0.00017	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Cobalt, Dissolved	0.00022	J	mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Copper, Dissolved	0.00067	J	mg/l	0.00100	0.00038	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Iron, Dissolved	ND		mg/l	0.0500	0.0191	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Magnesium, Dissolved	17.2		mg/l	0.0700	0.0242	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.2710		mg/l	0.00100	0.00044	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	05/02/18 10:23	05/02/18 16:47	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.00112	J	mg/l	0.00200	0.00055	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Potassium, Dissolved	20.5		mg/l	0.100	0.0309	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Selenium, Dissolved	0.00449	J	mg/l	0.00500	0.00173	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Sodium, Dissolved	89.8		mg/l	0.100	0.0293	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	05/02/18 08:45	05/02/18 12:54	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-09 Date Collected: 04/26/18 11:00

Client ID: DUPLICATE Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0121		mg/l	0.0100	0.00327	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Antimony, Total	0.00048	J	mg/l	0.00400	0.00042	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Arsenic, Total	0.02348		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Barium, Total	0.2301		mg/l	0.00050	0.00017	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Calcium, Total	261.		mg/l	0.100	0.0394	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Chromium, Total	0.00124		mg/l	0.00100	0.00017	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Cobalt, Total	0.02110		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Copper, Total	0.00065	J	mg/l	0.00100	0.00038	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Iron, Total	30.6		mg/l	0.0500	0.0191	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Magnesium, Total	50.2		mg/l	0.0700	0.0242	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Manganese, Total	8.359		mg/l	0.00100	0.00044	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	05/01/18 11:50	05/02/18 12:58	EPA 7470A	1,7470A	MG
Nickel, Total	0.05586		mg/l	0.00200	0.00055	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Potassium, Total	47.6		mg/l	0.100	0.0309	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Sodium, Total	192.		mg/l	0.100	0.0293	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	05/01/18 08:40	05/02/18 11:06	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Antimony, Dissolved	0.00087	J	mg/l	0.00400	0.00042	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00488		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Barium, Dissolved	0.1434		mg/l	0.00050	0.00017	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-09 Date Collected: 04/26/18 11:00

Client ID: DUPLICATE Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Calcium, Dissolved	263.		mg/l	0.100	0.0394	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Chromium, Dissolved	0.00056	J	mg/l	0.00100	0.00017	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Cobalt, Dissolved	0.02082		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Copper, Dissolved	0.00053	J	mg/l	0.00100	0.00038	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Iron, Dissolved	0.126		mg/l	0.0500	0.0191	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Magnesium, Dissolved	51.2		mg/l	0.0700	0.0242	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Manganese, Dissolved	8.132		mg/l	0.00100	0.00044	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	05/02/18 10:23	05/02/18 16:49	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.05604		mg/l	0.00200	0.00055	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Potassium, Dissolved	48.6		mg/l	0.100	0.0309	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Sodium, Dissolved	196.		mg/l	0.100	0.0293	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	05/02/18 08:45	05/02/18 13:13	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-10 Date Collected: 04/26/18 14:25

Client ID: FIELD BLANK Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.00424	J	mg/l	0.0100	0.00327	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Antimony, Total	0.00092	J	mg/l	0.00400	0.00042	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Barium, Total	0.00051		mg/l	0.00050	0.00017	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Calcium, Total	0.0718	J	mg/l	0.100	0.0394	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Chromium, Total	0.00043	J	mg/l	0.00100	0.00017	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Copper, Total	0.00089	J	mg/l	0.00100	0.00038	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Iron, Total	0.0209	J	mg/l	0.0500	0.0191	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Manganese, Total	ND		mg/l	0.00100	0.00044	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	05/01/18 11:50	05/02/18 13:03	EPA 7470A	1,7470A	MG
Nickel, Total	ND		mg/l	0.00200	0.00055	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Potassium, Total	0.0890	J	mg/l	0.100	0.0309	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Sodium, Total	0.248		mg/l	0.100	0.0293	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	05/01/18 08:40	05/02/18 10:43	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Antimony, Dissolved	0.00081	J	mg/l	0.00400	0.00042	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	ND		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Barium, Dissolved	0.00058		mg/l	0.00050	0.00017	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

SAMPLE RESULTS

Lab ID: L1815070-10 Date Collected: 04/26/18 14:25

Client ID: FIELD BLANK Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Calcium, Dissolved	ND		mg/l	0.100	0.0394	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Chromium, Dissolved	ND		mg/l	0.00100	0.00017	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Cobalt, Dissolved	ND		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Iron, Dissolved	ND		mg/l	0.0500	0.0191	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Magnesium, Dissolved	ND		mg/l	0.0700	0.0242	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Manganese, Dissolved	ND		mg/l	0.00100	0.00044	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	05/02/18 10:23	05/02/18 16:51	EPA 7470A	1,7470A	MG
Nickel, Dissolved	ND		mg/l	0.00200	0.00055	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Potassium, Dissolved	ND		mg/l	0.100	0.0309	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Sodium, Dissolved	ND		mg/l	0.100	0.0293	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	05/02/18 08:45	05/02/18 12:21	EPA 3005A	1,6020A	AM

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-10 Batch: WG1111286-1										
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Antimony, Total	0.00087	J	mg/l	0.00400	0.00042	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Barium, Total	ND		mg/l	0.00050	0.00017	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Calcium, Total	ND		mg/l	0.100	0.0394	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Chromium, Total	ND		mg/l	0.00100	0.00017	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Copper, Total	ND		mg/l	0.00100	0.00038	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Iron, Total	ND		mg/l	0.0500	0.0191	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Manganese, Total	ND		mg/l	0.00100	0.00044	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Nickel, Total	ND		mg/l	0.00200	0.00055	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Potassium, Total	ND		mg/l	0.100	0.0309	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Sodium, Total	ND		mg/l	0.100	0.0293	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	05/01/18 08:40	05/02/18 09:09	1,6020A	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-10 Batch: WG1111431-1										
Mercury, Total	ND		mg/l	0.00020	0.00006	1	05/01/18 11:50	05/02/18 12:17	1,7470A	MG

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-10 Batch: WG1111500-1										
Aluminum, Dissolved	0.00328	J	mg/l	0.0100	0.00327	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Antimony, Dissolved	0.00093	J	mg/l	0.00400	0.00042	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Arsenic, Dissolved	ND		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Barium, Dissolved	ND		mg/l	0.00050	0.00017	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Calcium, Dissolved	ND		mg/l	0.100	0.0394	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Chromium, Dissolved	ND		mg/l	0.00100	0.00017	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Cobalt, Dissolved	ND		mg/l	0.00050	0.00016	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Iron, Dissolved	ND		mg/l	0.0500	0.0191	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Magnesium, Dissolved	ND		mg/l	0.0700	0.0242	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Manganese, Dissolved	ND		mg/l	0.00100	0.00044	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Nickel, Dissolved	ND		mg/l	0.00200	0.00055	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Potassium, Dissolved	ND		mg/l	0.100	0.0309	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Sodium, Dissolved	ND		mg/l	0.100	0.0293	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	05/02/18 08:45	05/02/18 11:33	1,6020A	AM

Prep Information

Digestion Method: EPA 3005A

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815070

Project Number: 3612162331 **Report Date:** 05/04/18

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-10 Batch: WG1111768-1										
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	05/02/18 10:23	05/02/18 16:24	1,7470A	MG

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815070

Report Date: 05/04/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-10 Batch: WG1111286-2								
Aluminum, Total	95		-		80-120	-		
Antimony, Total	110		-		80-120	-		
Arsenic, Total	106		-		80-120	-		
Barium, Total	103		-		80-120	-		
Beryllium, Total	107		-		80-120	-		
Cadmium, Total	110		-		80-120	-		
Calcium, Total	104		-		80-120	-		
Chromium, Total	102		-		80-120	-		
Cobalt, Total	100		-		80-120	-		
Copper, Total	105		-		80-120	-		
Iron, Total	115		-		80-120	-		
Lead, Total	108		-		80-120	-		
Magnesium, Total	108		-		80-120	-		
Manganese, Total	105		-		80-120	-		
Nickel, Total	104		-		80-120	-		
Potassium, Total	107		-		80-120	-		
Selenium, Total	111		-		80-120	-		
Silver, Total	112		-		80-120	-		
Sodium, Total	111		-		80-120	-		
Thallium, Total	103		-		80-120	-		
Vanadium, Total	103		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815070

Report Date: 05/04/18

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-10 Batch: WG1111286-2					
Zinc, Total	107	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 01-10 Batch: WG1111431-2					
Mercury, Total	93	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815070

Report Date: 05/04/18

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-10 Batch: WG1111500-2					
Aluminum, Dissolved	96	-	80-120	-	
Antimony, Dissolved	105	-	80-120	-	
Arsenic, Dissolved	110	-	80-120	-	
Barium, Dissolved	105	-	80-120	-	
Beryllium, Dissolved	106	-	80-120	-	
Cadmium, Dissolved	111	-	80-120	-	
Calcium, Dissolved	101	-	80-120	-	
Chromium, Dissolved	103	-	80-120	-	
Cobalt, Dissolved	102	-	80-120	-	
Copper, Dissolved	106	-	80-120	-	
Iron, Dissolved	120	-	80-120	-	
Lead, Dissolved	110	-	80-120	-	
Magnesium, Dissolved	102	-	80-120	-	
Manganese, Dissolved	106	-	80-120	-	
Nickel, Dissolved	102	-	80-120	-	
Potassium, Dissolved	100	-	80-120	-	
Selenium, Dissolved	108	-	80-120	-	
Silver, Dissolved	110	-	80-120	-	
Sodium, Dissolved	104	-	80-120	-	
Thallium, Dissolved	102	-	80-120	-	
Vanadium, Dissolved	102	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815070

Report Date: 05/04/18

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-10 Batch: WG1111500-2					
Zinc, Dissolved	111	-	80-120	-	
Dissolved Metals - Mansfield Lab Associated sample(s): 01-10 Batch: WG1111768-2					
Mercury, Dissolved	108	-	80-120	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331
Lab Number: L1815070
Report Date: 05/04/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-10 0418	QC Batch ID: WG1111286-3					WG1111286-4			QC Sample: L1815070-05			Client ID: MW-6D-
Aluminum, Total	0.130	2	2.04	96		2.07	97		75-125	1		20
Antimony, Total	0.00350J	0.5	0.5818	116		0.5964	119		75-125	2		20
Arsenic, Total	0.00046J	0.12	0.1392	116		0.1401	117		75-125	1		20
Barium, Total	0.1073	2	2.264	108		2.234	106		75-125	1		20
Beryllium, Total	ND	0.05	0.05478	110		0.05394	108		75-125	2		20
Cadmium, Total	0.00007J	0.051	0.05847	115		0.05779	113		75-125	1		20
Calcium, Total	204.	10	213	90		214	100		75-125	0		20
Chromium, Total	0.00308	0.2	0.2090	103		0.2147	106		75-125	3		20
Cobalt, Total	0.00056	0.5	0.5188	104		0.5108	102		75-125	2		20
Copper, Total	0.00288	0.25	0.2751	109		0.2673	106		75-125	3		20
Iron, Total	0.233	1	1.36	113		1.38	115		75-125	1		20
Lead, Total	0.00062J	0.51	0.5837	114		0.5769	113		75-125	1		20
Magnesium, Total	18.1	10	29.3	112		29.2	111		75-125	0		20
Manganese, Total	0.04749	0.5	0.5667	104		0.5702	104		75-125	1		20
Nickel, Total	0.00407	0.5	0.5269	104		0.5366	106		75-125	2		20
Potassium, Total	23.9	10	33.9	100		34.2	103		75-125	1		20
Selenium, Total	0.00463J	0.12	0.139	116		0.141	118		75-125	1		20
Silver, Total	ND	0.05	0.05705	114		0.05686	114		75-125	0		20
Sodium, Total	110.	10	135	**250**	Q	136	**260**	Q	75-125	1		20
Thallium, Total	0.00014J	0.12	0.1273	106		0.1276	106		75-125	0		20
Vanadium, Total	0.00260J	0.5	0.5255	105		0.5175	104		75-125	2		20

Matrix Spike Analysis
Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331

Lab Number: L1815070
Report Date: 05/04/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-10 0418	QC Batch ID: WG1111286-3				WG1111286-4		QC Sample: L1815070-05	Client ID: MW-6D-	
Zinc, Total	ND	0.5	0.5406	108	0.5400	108	75-125	0	20
Total Metals - Mansfield Lab Associated sample(s): 01-10 0418	QC Batch ID: WG1111431-3				WG1111431-4		QC Sample: L1815070-05	Client ID: MW-6D-	
Mercury, Total	ND	0.005	0.00481	96	0.00470	94	75-125	2	20

Matrix Spike Analysis
Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331

Lab Number: L1815070
Report Date: 05/04/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery		Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-10 QC Batch ID: WG1111500-3 WG1111500-4 QC Sample: L1815070-05 Client ID: MW-6D-0418											
Aluminum, Dissolved	0.00492J	2	1.97	98		1.93	96		75-125	2	20
Antimony, Dissolved	0.00082J	0.5	0.6284	**126**	Q	0.6222	124		75-125	1	20
Arsenic, Dissolved	0.00029J	0.12	0.1349	112		0.1365	114		75-125	1	20
Barium, Dissolved	0.1057	2	2.240	107		2.263	108		75-125	1	20
Beryllium, Dissolved	ND	0.05	0.05431	109		0.05472	109		75-125	1	20
Cadmium, Dissolved	0.00009J	0.051	0.05774	113		0.05980	117		75-125	4	20
Calcium, Dissolved	211.	10	220	90		218	**70**	Q	75-125	1	20
Chromium, Dissolved	0.00224	0.2	0.2162	107		0.2108	104		75-125	3	20
Cobalt, Dissolved	0.00047J	0.5	0.5185	104		0.5172	103		75-125	0	20
Copper, Dissolved	0.00210	0.25	0.2628	104		0.2714	108		75-125	3	20
Iron, Dissolved	0.0392J	1	1.11	111		1.21	121		75-125	9	20
Lead, Dissolved	ND	0.51	0.5597	110		0.5802	114		75-125	4	20
Magnesium, Dissolved	18.5	10	29.6	111		29.3	108		75-125	1	20
Manganese, Dissolved	0.05963	0.5	0.6097	110		0.5972	108		75-125	2	20
Nickel, Dissolved	0.00372	0.5	0.5434	108		0.5383	107		75-125	1	20
Potassium, Dissolved	23.7	10	34.1	104		34.3	106		75-125	1	20
Selenium, Dissolved	0.00484J	0.12	0.142	118		0.154	**128**	Q	75-125	8	20
Silver, Dissolved	ND	0.05	0.05682	114		0.05643	113		75-125	1	20
Sodium, Dissolved	113.	10	136	**230**	Q	137	**240**	Q	75-125	1	20
Thallium, Dissolved	ND	0.12	0.1238	103		0.1283	107		75-125	4	20
Vanadium, Dissolved	0.00188J	0.5	0.5476	110		0.5193	104		75-125	5	20

Matrix Spike Analysis
Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331
Lab Number: L1815070
Report Date: 05/04/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-10 QC Batch ID: WG1111500-3 WG1111500-4 QC Sample: L1815070-05 Client ID: MW-6D-0418									
Zinc, Dissolved	ND	0.5	0.5516	110	0.5421	108	75-125	2	20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-10 QC Batch ID: WG1111768-3 WG1111768-4 QC Sample: L1815070-05 Client ID: MW-6D-0418									
Mercury, Dissolved	ND	0.005	0.00503	101	0.00508	102	75-125	1	20

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331

Lab Number: L1815070
Report Date: 05/04/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1815070-01A	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-01B	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-01C	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-01D	Plastic 250ml unpreserved	A	7	7	4.0	Y	Absent		-
L1815070-01E	Plastic 250ml HNO3 preserved	A	<2	<2	4.0	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1815070-01X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.0	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1815070-02A	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-02B	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-02C	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-02D	Plastic 250ml unpreserved	A	7	7	4.0	Y	Absent		-
L1815070-02E	Plastic 250ml HNO3 preserved	A	<2	<2	4.0	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)

*Values in parentheses indicate holding time in days

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331

Lab Number: L1815070
Report Date: 05/04/18

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1815070-02X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.0	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1815070-03A	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-03B	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-03C	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-03D	Plastic 250ml unpreserved	A	7	7	4.0	Y	Absent		-
L1815070-03E	Plastic 250ml HNO3 preserved	A	<2	<2	4.0	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1815070-03X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.0	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1815070-04A	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-04B	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-04C	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-04D	Plastic 250ml unpreserved	A	7	7	4.0	Y	Absent		-
L1815070-04E	Plastic 250ml HNO3 preserved	A	<2	<2	4.0	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)

*Values in parentheses indicate holding time in days

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1815070-04X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.0	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1815070-05A	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-05A1	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-05A2	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-05B	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-05B1	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-05B2	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-05C	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-05C1	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-05C2	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-05D	Plastic 250ml unpreserved	A	7	7	4.0	Y	Absent		-
L1815070-05D1	Plastic 250ml unpreserved	A	7	7	4.0	Y	Absent		-
L1815070-05D2	Plastic 250ml unpreserved	A	7	7	4.0	Y	Absent		-
L1815070-05E	Plastic 250ml HNO3 preserved	A	<2	<2	4.0	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1815070-05E1	Plastic 250ml HNO3 preserved	A	<2	<2	4.0	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)

*Values in parentheses indicate holding time in days

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331

Lab Number: L1815070
Report Date: 05/04/18

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1815070-05E2	Plastic 250ml HNO3 preserved	A	<2	<2	4.0	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1815070-05X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.0	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1815070-06A	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-06B	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-06C	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-06D	Plastic 250ml unpreserved	A	7	7	4.0	Y	Absent		-
L1815070-06E	Plastic 250ml HNO3 preserved	A	<2	<2	4.0	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1815070-06X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.0	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1815070-07A	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-07B	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-07C	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-07D	Plastic 250ml unpreserved	A	7	7	4.0	Y	Absent		-

*Values in parentheses indicate holding time in days

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1815070-07E	Plastic 250ml HNO3 preserved	A	<2	<2	4.0	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1815070-07X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.0	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1815070-08A	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-08B	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-08C	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-08D	Plastic 250ml unpreserved	A	7	7	4.0	Y	Absent		-
L1815070-08E	Plastic 250ml HNO3 preserved	A	<2	<2	4.0	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1815070-08X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.0	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1815070-09A	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-09B	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-09C	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-09D	Plastic 250ml unpreserved	A	7	7	4.0	Y	Absent		-

*Values in parentheses indicate holding time in days

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331

Lab Number: L1815070
Report Date: 05/04/18

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1815070-09E	Plastic 250ml HNO3 preserved	A	<2	<2	4.0	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1815070-09X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.0	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1815070-10A	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-10B	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-10C	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-10D	Plastic 250ml unpreserved	A	7	7	4.0	Y	Absent		-
L1815070-10E	Plastic 250ml HNO3 preserved	A	<2	<2	4.0	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1815070-10X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.0	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1815070-11A	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)
L1815070-11B	Vial HCl preserved	A	NA		4.0	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	STALINGRAD/HYGRADE GW Q2 SAMPL	**Lab Number:**	L1815070
Project Number:	3612162331	**Report Date:**	05/04/18

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: DU Report with 'J' Qualifiers

Project Name:	STALINGRAD/HYGRADE GW Q2 SAMPL	**Lab Number:**	L1815070
Project Number:	3612162331	**Report Date:**	05/04/18

Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	STALINGRAD/HYGRADE GW Q2 SAMPL	**Lab Number:**	L1815070
Project Number:	3612162331	**Report Date:**	05/04/18

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193

Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 4/27/18

ALPHA Job #: L1815070

Client Information
Client: Amec Foster Wheeler
Address: 214-2542nd Ave Suite 3R
Bayside NY 11361
Phone: 347 836 4445
Fax:
Email: eric.weinstock@amecfw.com

Project Information
Project Name: Stallingrad / Hygate GW Q2 sampling
Project Location: Long Island City, NY
Project # 36121623.1
(Use Project name as Project #) ☐
Project Manager: Eric Weinstock
ALPHAQuote #: Q5256

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☒ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:
Lab to do sample filtration

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☒ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs	Dissolved TAL metals	Total TAL metals	Total Bottle	Sample Specific Comments
15070-01	BMW-1-0418	04/26/18	1235	GW	BH	X	X	X		
-02	BMW-2-0418	04/26/18	1310	GW	JL	X	X	X		
-03	BMW-3-0418	04/26/18	1400	GW	BH	X	X	X		
-04	BMW-4-0418	04/26/18	1100	GW	JL	X	X	X		
-05	MW-6D-0418	04/27/18	0850	GW	JL	X	X	X		
-06	MW-6S-0418	04/27/18	0850	GW	BH	X	X	X		
-07	MW-5-0418	04/27/18	1005	GW	JL	X	X	X		
-08	MW-E-0418	04/27/18	1030	GW	BH	X	X	X		
-09	~~Replicate~~ Duplicate	04/26/18	1100	GW	JL	X	X	X		
-10	Field Blank	04/26/18	1425	GW	JL	X	X	X		
	Container Type					A	P	P		
	Preservative					B	A	C		

Preservative Code: A = None; B = HCl; C = HNO_3; D = H_2SO_4; E = NaOH; F = MeOH; G = $NaHSO_4$; H = $Na_2S_2O_3$; K/E = Zn Ac/NaOH; O = Other

Container Code: P = Plastic; A = Amber Glass; V = Vial; G = Glass; B = Bacteria Cup; C = Cube; O = Other; E = Encore; D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Ben Hess	4/27/18 1300	Don D AAL	4/27/18 1300
Don D AAL	4/27/18 1805	Daniel Santos AAL	4/27/18 1830
Daniel Santos AAL	4/27/18 2310		4/27/18 2310

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ALPHA — NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab:

ALPHA Job #:

Westborough, MA 01581, 8 Walkup Dr., TEL: 508-898-9220, FAX: 508-898-9193
Mansfield, MA 02048, 320 Forbes Blvd, TEL: 508-822-9300, FAX: 508-822-3288

Client Information

Client: Amec Foster Wheeler
Address: 211-25 47th Ave, Fl 3R
Bayside NY 11361
Phone: 347 836 4445
Fax:
Email: eric.weinstock@amecfw...

Project Information

Project Name: Steinway / Hygrade
Project Location: Long Island City, NY
Project #: 3612162331
(Use Project name as Project #) ☐
Project Manager: Eric Weinstock
ALPHAQuote #: Q5256

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☒ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☒ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:
lab to do sample filtration, MS/MSD collected from MW-60-0418 @ 4/30/18

Please specify Metals or TAL.

Sample Filtration
☐ Done
☒ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs	Dissolved TAL Metals	Total TAL Metals						Sample Specific Comments	Total Bottles
	MS	04/27/18	0550	GW	JL	X	X	X							
	MSD	04/27/18	0550	GW	JL	X	X	X							
	Trip Blank			GW		X									

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code:
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
Ben Hess	4/27/18 1300	Don D AAL	4/27/18 1300
Don D AAL	4/27/18		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193
Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab:

ALPHA Job #:

Client Information
Client: Amec Foster Wheeler
Address: 214-25 42nd Ave, Ste 3R Bayside, NY 11361
Phone: 347 836 4445
Fax:
Email: Eric.Weinstock@amecfw.com

Project Information
Project Name: Stallingrad Upgrade
Project Location: Long Island City, NY
Project #: 3612162331
(Use Project name as Project #): ☐
Project Manager: Eric Weinstock
ALPHAQuote #: Q5256

Turn-Around Time
Standard: ☒ Due Date:
Rush (only if pre approved): ☐ # of Days:

These samples have been previously analyzed by Alpha: ☐

Other project specific requirements/comments:
Lab to do Sample filtration

Please specify Metals or TAL.

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☒ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

Sample Filtration
☐ Done
☒ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: VOCs	Dissolved TAL Metals	Total TAL Metals	Total Bottle	Sample Specific Comments
15070-05	MS	04/27/18	0850	GW	JL	X	X	X		
-05	MSD	04/27/18	0850	GW	JL	X	X	X		
-11	Trip Blank			GW		X				

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
Ben Hess	4/27/18 1300	[illegible]	4/27/18 1310
[illegible]	4/27/18 1805	Daniel Santos AAL	4/27/18 1820
Daniel Santos AAL	4/27/18 2310	[illegible]	4/27/18 2310

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L1815079
Client:	Wood Env & Infrastructure Solutions, Inc 214-25 42nd Avenue Suite 3R Bayside, NY 11361
ATTN:	Eric Weinstock
Phone:	(347) 836-4445
Project Name:	STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number:	3612162331
Report Date:	05/11/18

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331

Lab Number: L1815079
Report Date: 05/11/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1815079-01	BMW-1-0418	WATER	LONG ISLAND CITY, NY	04/26/18 12:35	04/27/18
L1815079-02	BMW-2-0418	WATER	LONG ISLAND CITY, NY	04/26/18 13:10	04/27/18
L1815079-03	BMW-3-0418	WATER	LONG ISLAND CITY, NY	04/26/18 14:00	04/27/18
L1815079-04	BMW-4-0418	WATER	LONG ISLAND CITY, NY	04/26/18 11:00	04/27/18
L1815079-05	MW-6D-0418	WATER	LONG ISLAND CITY, NY	04/27/18 08:50	04/27/18
L1815079-06	MW-6S-0418	WATER	LONG ISLAND CITY, NY	04/27/18 08:50	04/27/18
L1815079-07	MW-5-0418	WATER	LONG ISLAND CITY, NY	04/27/18 10:05	04/27/18
L1815079-08	MW-E-0418	WATER	LONG ISLAND CITY, NY	04/27/18 10:30	04/27/18
L1815079-09	DUPLICATE	WATER	LONG ISLAND CITY, NY	04/26/18 11:00	04/27/18
L1815079-10	FIELD BLANK	WATER	LONG ISLAND CITY, NY	04/26/18 14:25	04/27/18

Project Name:	STALINGRAD/HYGRADE GW Q2 SAMPL	**Lab Number:**	L1815079
Project Number:	3612162331	**Report Date:**	05/11/18

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	STALINGRAD/HYGRADE GW Q2 SAMPL	**Lab Number:**	L1815079
Project Number:	3612162331	**Report Date:**	05/11/18

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L1815079-05: The collection date and time on the chain of custody was 27-APR-18 08:50; however, the collection date/time on the container label was 27-APR-18 00:00. At the client's request, the collection date/time is reported as 27-APR-18 08:50.

Perfluorinated Alkyl Acids by Isotope Dilution

L1815079-01, -02, -03, -04, and -09 : The samples were re-extracted on dilution in order to quantify the results within the calibration range.

L1815079-01: The internal standard (IS) response(s) for M4PFOS (46%) were below the acceptance criteria; however, re-extraction achieved similar results M3PFBA (49%), M4PFOS (43%) and M2PFDA (46%). Since the IS response was below method criteria, all associated compounds are considered to have a potentially high bias.

L1815079-01RE: The Extracted Internal Standard recovery was outside the acceptance criteria for 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (155%).

L1815079-02: The internal standard (IS) response(s) for M4PFOS (39%) were below the acceptance criteria; however, re-extraction achieved similar results M3PFBA (47%), M4PFOS (40%) and M2PFDA (45%). Since the IS response was below method criteria, all associated compounds are considered to have a potentially high bias.

L1815079-03: The internal standard (IS) response(s) for M3PFBA (46%), M2PFOA (40%), M4PFOS (15%) and M2PFDA (32%) were below the acceptance criteria; however, re-extraction achieved similar results M3PFBA (49%), M4PFOS (40%) and M2PFDA (45%). Since the IS response was below method criteria, all

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Project Number:	3612162331	**Report Date:**	05/11/18

Case Narrative (continued)

associated compounds are considered to have a potentially high bias.
L1815079-03RE: The Extracted Internal Standard recoveries were outside the acceptance criteria for perfluoro[13c4]butanoic acid (mpfba) (35%) and perfluoro[13c8]octanesulfonamide (m8fosa) (49%) and 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (168%).

L1815079-04: The internal standard (IS) response(s) for M3PFBA (34%), M2PFOA (36%), M4PFOS (17%) and M2PFDA (27%) were below the acceptance criteria; however, re-extraction achieved similar results M3PFBA (48%), M4PFOS (40%) and M2PFDA (46%). Since the IS response was below method criteria, all associated compounds are considered to have a potentially high bias.
L1815079-04RE: The Extracted Internal Standard recoveries were outside the acceptance criteria for perfluoro[13c4]butanoic acid (mpfba) (43%) and 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (179%).

L1815079-05: The Extracted Internal Standard recoveries were outside the acceptance criteria for and perfluoro[13c8]octanesulfonamide (m8fosa) (15%) 1h,1h,2h,2h-perfluoro[1,2-13c2]hexanesulfonic acid (m2-4:2fts) (202%) and 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (179%).

L1815079-06: The internal standard (IS) response(s) for M4PFOS (42%) and M2PFDA (50%) were below the acceptance criteria; however, re-analysis achieved similar results M3PFBA (29%) M2PFOA (37%), M4PFOS (20%) and M2PFDA (23%). Both runs are reported, however, since the IS response was below method criteria, all associated compounds are considered to have a potentially high bias.
L1815079-06R: The Extracted Internal Standard recoveries were outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (26%) and perfluoro[1,2-13c2]tetradecanoic acid (m2pfteda) (44%) and 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (190%).

L1815079-07: The internal standard (IS) response(s) for M3PFBA (48%), M4PFOS (40%) and M2PFDA (47%) were below the acceptance criteria; however, re-analysis achieved similar results M3PFBA (27%), M2PFOA (29%) M4PFOS (23%) and M2PFDA (24%). Both runs are reported, however, since the IS response was below

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Case Narrative (continued)

method criteria, all associated compounds are considered to have a potentially high bias.
L1815079-07R: The Extracted Internal Standard recoveries were outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (19%) and 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (187%).

L1815079-08: The internal standard (IS) response(s) for M3PFBA (48%), M4PFOS (44%) and M2PFDA (46%) were below the acceptance criteria; however, re-analysis achieved similar results M3PFBA (28%), M2PFOA (30%), M4PFOS (22%) and M2PFDA (24%). Both runs are reported, however, since the IS response was below method criteria, all associated compounds are considered to have a potentially high bias.
L1815079-08R: The Extracted Internal Standard recoveries were outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (26%) and perfluoro[1,2-13c2]tetradecanoic acid (m2pfteda) (25%).

L1815079-09: The internal standard (IS) response(s) for M3PFBA (25%), M2PFOA (240%), M4PFOS (12%) and M2PFDA (18%) were below the acceptance criteria; however, re-extraction achieved similar results M3PFBA (45%), M4PFOS (37%) and M2PFDA (40%). Since the IS response was below method criteria, all associated compounds are considered to have a potentially high bias.
L1815079-09RE: The Extracted Internal Standard recoveries were outside the acceptance criteria for perfluoro[13c4]butanoic acid (mpfba) (43%) and 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (192%).

L1815079-10: The Extracted Internal Standard recovery was outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (27%).

WG1113611-1 Method Blank: The Extracted Internal Standard recovery was outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (11%).
WG1114432-1 Method Blank: The Extracted Internal Standard recovery was outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (44%).

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Case Narrative (continued)

WG1113611-2/-3 LCS: The Extracted Internal Standard recovery was outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (7%/11%).

WG1114432-3 LCSD: The Extracted Internal Standard recovery was outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (42%).

WG1113611-4/-5 MS/MSD: The Extracted Internal Standard recoveries were outside the acceptance criteria for perfluoro[13c8]octanesulfonamide (m8fosa) (25%/17%) and 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (183%/163%).

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Elizabeth Porta

Title: Technical Director/Representative Date: 05/11/18

ORGANICS

SEMIVOLATILES

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-01
Client ID: BMW-1-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 12:35
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/09/18 11:59
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/08/18 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	30.2		ng/l	1.72	0.113	1
Perfluoropentanoic Acid (PFPeA)	61.8		ng/l	1.72	0.074	1
Perfluorobutanesulfonic Acid (PFBS)	1080	E	ng/l	1.72	0.095	1
Perfluorohexanoic Acid (PFHxA)	72.2		ng/l	1.72	0.109	1
Perfluoroheptanoic Acid (PFHpA)	23.3		ng/l	1.72	0.080	1
Perfluorohexanesulfonic Acid (PFHxS)	148		ng/l	1.72	0.093	1
Perfluorooctanoic Acid (PFOA)	59.1		ng/l	1.72	0.043	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	0.721	J	ng/l	1.72	0.167	1
Perfluoroheptanesulfonic Acid (PFHpS)	48.1		ng/l	1.72	0.134	1
Perfluorononanoic Acid (PFNA)	4.84		ng/l	1.72	0.087	1
Perfluorooctanesulfonic Acid (PFOS)	922	E	ng/l	1.72	0.096	1
Perfluorodecanoic Acid (PFDA)	1.28	J	ng/l	1.72	0.164	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.72	0.251	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.72	0.216	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.72	0.165	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.72	0.192	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.72	0.196	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.72	0.321	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.72	0.079	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.72	0.078	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.72	0.062	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-01 Date Collected: 04/26/18 12:35

Client ID: BMW-1-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	72		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	58		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	87		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	63		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	80		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	121		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	88		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**173**	Q	50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	82		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	93		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	77		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	**168**	Q	50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	91		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	75		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**40**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	84		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	72		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	63		50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-01 RE
Client ID: BMW-1-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 12:35
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/10/18 21:29
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/10/18 09:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	28.0		ng/l	10.0	0.656	1
Perfluoropentanoic Acid (PFPeA)	55.9		ng/l	10.0	0.428	1
Perfluorobutanesulfonic Acid (PFBS)	950		ng/l	10.0	0.550	1
Perfluorohexanoic Acid (PFHxA)	67.1		ng/l	10.0	0.632	1
Perfluoroheptanoic Acid (PFHpA)	21.3		ng/l	10.0	0.462	1
Perfluorohexanesulfonic Acid (PFHxS)	130		ng/l	10.0	0.538	1
Perfluorooctanoic Acid (PFOA)	53.1		ng/l	10.0	0.252	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	5.48	J	ng/l	10.0	0.970	1
Perfluoroheptanesulfonic Acid (PFHpS)	42.0		ng/l	10.0	0.776	1
Perfluorononanoic Acid (PFNA)	5.20	J	ng/l	10.0	0.504	1
Perfluorooctanesulfonic Acid (PFOS)	780		ng/l	10.0	0.558	1
Perfluorodecanoic Acid (PFDA)	2.10	J	ng/l	10.0	0.952	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	10.0	1.45	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	10.0	1.25	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	10.0	0.956	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	10.0	1.11	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	10.0	1.13	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	10.0	1.86	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	10.0	0.458	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	10.0	0.452	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	10.0	0.360	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-01 RE
Client ID: BMW-1-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 12:35
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	56		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	84		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	105		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	85		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	95		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	124		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	101		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**155**	Q	50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	89		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	107		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	99		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	114		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	98		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	101		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	70		50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	111		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	94		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	76		50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-02
Client ID: BMW-2-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 13:10
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/09/18 12:15
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/08/18 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	29.8		ng/l	1.92	0.126	1
Perfluoropentanoic Acid (PFPeA)	62.4		ng/l	1.92	0.082	1
Perfluorobutanesulfonic Acid (PFBS)	806	E	ng/l	1.92	0.106	1
Perfluorohexanoic Acid (PFHxA)	45.7		ng/l	1.92	0.122	1
Perfluoroheptanoic Acid (PFHpA)	20.1		ng/l	1.92	0.089	1
Perfluorohexanesulfonic Acid (PFHxS)	322		ng/l	1.92	0.103	1
Perfluorooctanoic Acid (PFOA)	79.7		ng/l	1.92	0.049	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1.00	J	ng/l	1.92	0.186	1
Perfluoroheptanesulfonic Acid (PFHpS)	83.2		ng/l	1.92	0.149	1
Perfluorononanoic Acid (PFNA)	3.43		ng/l	1.92	0.097	1
Perfluorooctanesulfonic Acid (PFOS)	2130	E	ng/l	1.92	0.107	1
Perfluorodecanoic Acid (PFDA)	1.22	J	ng/l	1.92	0.183	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.92	0.280	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.92	0.241	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.92	0.184	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.92	0.214	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.92	0.218	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.92	0.358	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.92	0.088	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.92	0.087	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.92	0.069	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-02 Date Collected: 04/26/18 13:10

Client ID: BMW-2-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	78		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	61		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	97		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	64		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	79		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	125		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	83		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**184**	Q	50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	78		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	87		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	73		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	**165**	Q	50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	87		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	80		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**32**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	90		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	73		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	58		50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-02 RE
Client ID: BMW-2-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 13:10
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/10/18 21:45
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/10/18 09:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	27.6		ng/l	20.0	1.31	1
Perfluoropentanoic Acid (PFPeA)	52.7		ng/l	20.0	0.856	1
Perfluorobutanesulfonic Acid (PFBS)	706		ng/l	20.0	1.10	1
Perfluorohexanoic Acid (PFHxA)	39.8		ng/l	20.0	1.26	1
Perfluoroheptanoic Acid (PFHpA)	19.5	J	ng/l	20.0	0.924	1
Perfluorohexanesulfonic Acid (PFHxS)	294		ng/l	20.0	1.08	1
Perfluorooctanoic Acid (PFOA)	74.0		ng/l	20.0	0.504	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	8.20	J	ng/l	20.0	1.94	1
Perfluoroheptanesulfonic Acid (PFHpS)	69.6		ng/l	20.0	1.55	1
Perfluorononanoic Acid (PFNA)	3.52	J	ng/l	20.0	1.01	1
Perfluorooctanesulfonic Acid (PFOS)	1720		ng/l	20.0	1.12	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	20.0	1.90	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	20.0	2.91	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	20.0	2.50	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	20.0	1.91	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	20.0	2.22	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	20.0	2.27	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	20.0	3.73	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	20.0	0.916	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	20.0	0.904	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	20.0	0.720	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-02 RE
Client ID: BMW-2-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 13:10
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	53		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	90		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	110		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	92		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	102		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	129		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	102		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	144		50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	94		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	105		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	100		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	115		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	99		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	106		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	71		50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	113		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	97		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	79		50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-03
Client ID: BMW-3-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 14:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/09/18 12:32
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/08/18 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	28.9		ng/l	1.72	0.113	1
Perfluoropentanoic Acid (PFPeA)	56.9		ng/l	1.72	0.074	1
Perfluorobutanesulfonic Acid (PFBS)	111		ng/l	1.72	0.095	1
Perfluorohexanoic Acid (PFHxA)	104		ng/l	1.72	0.109	1
Perfluoroheptanoic Acid (PFHpA)	26.2		ng/l	1.72	0.080	1
Perfluorohexanesulfonic Acid (PFHxS)	97.1		ng/l	1.72	0.093	1
Perfluorooctanoic Acid (PFOA)	65.6		ng/l	1.72	0.043	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	3.43		ng/l	1.72	0.167	1
Perfluoroheptanesulfonic Acid (PFHpS)	115		ng/l	1.72	0.134	1
Perfluorononanoic Acid (PFNA)	4.10		ng/l	1.72	0.087	1
Perfluorooctanesulfonic Acid (PFOS)	8390	E	ng/l	1.72	0.096	1
Perfluorodecanoic Acid (PFDA)	0.972	J	ng/l	1.72	0.164	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.72	0.251	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.72	0.216	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.72	0.165	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.72	0.192	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.72	0.196	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.72	0.321	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.72	0.079	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.72	0.078	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.72	0.062	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-03 Date Collected: 04/26/18 14:00

Client ID: BMW-3-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	**49**	Q	50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	58		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	**233**	Q	50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	69		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	85		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	**273**	Q	50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	90		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**663**	Q	50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	71		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	101		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	88		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	**368**	Q	50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	107		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	89		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**48**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	59		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	84		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	62		50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-03 RE
Client ID: BMW-3-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 14:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/10/18 22:02
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/10/18 09:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	100	6.56	1
Perfluoropentanoic Acid (PFPeA)	44.2	J	ng/l	100	4.28	1
Perfluorobutanesulfonic Acid (PFBS)	120		ng/l	100	5.50	1
Perfluorohexanoic Acid (PFHxA)	74.2	J	ng/l	100	6.32	1
Perfluoroheptanoic Acid (PFHpA)	19.8	J	ng/l	100	4.62	1
Perfluorohexanesulfonic Acid (PFHxS)	152		ng/l	100	5.38	1
Perfluorooctanoic Acid (PFOA)	102		ng/l	100	2.52	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	100	9.70	1
Perfluoroheptanesulfonic Acid (PFHpS)	92.6	J	ng/l	100	7.76	1
Perfluorononanoic Acid (PFNA)	5.20	J	ng/l	100	5.04	1
Perfluorooctanesulfonic Acid (PFOS)	5770		ng/l	100	5.58	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	100	9.52	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	100	14.5	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	100	12.5	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	100	9.56	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	100	11.1	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	100	11.3	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	100	18.6	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	100	4.58	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	100	4.52	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	100	3.60	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-03 RE
Client ID: BMW-3-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 14:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	**35**	Q	50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	88		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	108		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	85		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	101		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	133		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	97		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**168**	Q	50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	84		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	103		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	95		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	111		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	87		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	104		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**49**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	98		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	95		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	78		50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-04
Client ID: BMW-4-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 11:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/09/18 12:48
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/08/18 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	31.0		ng/l	1.92	0.126	1
Perfluoropentanoic Acid (PFPeA)	92.5		ng/l	1.92	0.082	1
Perfluorobutanesulfonic Acid (PFBS)	248		ng/l	1.92	0.106	1
Perfluorohexanoic Acid (PFHxA)	104		ng/l	1.92	0.122	1
Perfluoroheptanoic Acid (PFHpA)	23.2		ng/l	1.92	0.089	1
Perfluorohexanesulfonic Acid (PFHxS)	106		ng/l	1.92	0.103	1
Perfluorooctanoic Acid (PFOA)	71.2		ng/l	1.92	0.049	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1.85	J	ng/l	1.92	0.186	1
Perfluoroheptanesulfonic Acid (PFHpS)	75.0		ng/l	1.92	0.149	1
Perfluorononanoic Acid (PFNA)	3.03		ng/l	1.92	0.097	1
Perfluorooctanesulfonic Acid (PFOS)	3750	E	ng/l	1.92	0.107	1
Perfluorodecanoic Acid (PFDA)	1.17	J	ng/l	1.92	0.183	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.92	0.280	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.92	0.241	1
Perfluoroundecanoic Acid (PFUnA)	0.704	J	ng/l	1.92	0.184	1
Perfluorodecanesulfonic Acid (PFDS)	1.15	J	ng/l	1.92	0.214	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.92	0.218	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	0.515	J	ng/l	1.92	0.358	1
Perfluorododecanoic Acid (PFDoA)	0.762	J	ng/l	1.92	0.088	1
Perfluorotridecanoic Acid (PFTrDA)	0.646	J	ng/l	1.92	0.087	1
Perfluorotetradecanoic Acid (PFTA)	0.638	J	ng/l	1.92	0.069	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-04 Date Collected: 04/26/18 11:00

Client ID: BMW-4-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	66		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	65		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	**161**	Q	50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	64		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	81		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	**182**	Q	50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	84		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**349**	Q	50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	65		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	83		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	81		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	**163**	Q	50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	86		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	80		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**35**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	97		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	81		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	62		50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-04 RE
Client ID: BMW-4-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 11:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/10/18 22:19
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/10/18 09:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	31.7	J	ng/l	40.0	2.62	1
Perfluoropentanoic Acid (PFPeA)	84.2		ng/l	40.0	1.71	1
Perfluorobutanesulfonic Acid (PFBS)	229		ng/l	40.0	2.20	1
Perfluorohexanoic Acid (PFHxA)	93.0		ng/l	40.0	2.53	1
Perfluoroheptanoic Acid (PFHpA)	21.0	J	ng/l	40.0	1.85	1
Perfluorohexanesulfonic Acid (PFHxS)	89.6		ng/l	40.0	2.15	1
Perfluorooctanoic Acid (PFOA)	85.8		ng/l	40.0	1.01	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	40.0	3.88	1
Perfluoroheptanesulfonic Acid (PFHpS)	40.2		ng/l	40.0	3.10	1
Perfluorononanoic Acid (PFNA)	3.04	J	ng/l	40.0	2.02	1
Perfluorooctanesulfonic Acid (PFOS)	2550		ng/l	40.0	2.23	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	40.0	3.81	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	40.0	5.82	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	40.0	5.01	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	40.0	3.82	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	40.0	4.45	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	40.0	4.54	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	40.0	7.46	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	40.0	1.83	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	40.0	1.81	1
Perfluorotetradecanoic Acid (PFTA)	2.08	J	ng/l	40.0	1.44	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-04 RE
Client ID: BMW-4-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 11:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	**43**	Q	50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	90		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	109		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	88		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	97		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	133		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	94		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**179**	Q	50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	86		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	102		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	97		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	120		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	87		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	94		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	53		50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	99		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	81		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	66		50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-05
Client ID: MW-6D-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/27/18 08:50
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/10/18 18:43
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/08/18 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	6.24		ng/l	1.85	0.121	1
Perfluoropentanoic Acid (PFPeA)	5.01		ng/l	1.85	0.079	1
Perfluorobutanesulfonic Acid (PFBS)	13.8		ng/l	1.85	0.102	1
Perfluorohexanoic Acid (PFHxA)	6.03		ng/l	1.85	0.117	1
Perfluoroheptanoic Acid (PFHpA)	4.02		ng/l	1.85	0.086	1
Perfluorohexanesulfonic Acid (PFHxS)	2.75		ng/l	1.85	0.100	1
Perfluorooctanoic Acid (PFOA)	17.4		ng/l	1.85	0.047	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.85	0.180	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.744	J	ng/l	1.85	0.144	1
Perfluorononanoic Acid (PFNA)	1.36	J	ng/l	1.85	0.093	1
Perfluorooctanesulfonic Acid (PFOS)	64.4		ng/l	1.85	0.103	1
Perfluorodecanoic Acid (PFDA)	0.481	J	ng/l	1.85	0.176	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.85	0.269	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.85	0.232	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.85	0.177	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.85	0.206	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.85	0.210	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.85	0.345	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.85	0.085	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.85	0.084	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.85	0.067	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-05 Date Collected: 04/27/18 08:50

Client ID: MW-6D-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	80		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	68		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	90		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	66		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	79		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	111		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	86		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**179**	Q	50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	78		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	90		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	88		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	133		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	90		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	86		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**15**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	93		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	76		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	60		50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-06
Client ID: MW-6S-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/27/18 08:50
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/09/18 13:54
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/08/18 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	12.7		ng/l	1.72	0.113	1
Perfluoropentanoic Acid (PFPeA)	7.42		ng/l	1.72	0.074	1
Perfluorobutanesulfonic Acid (PFBS)	22.5		ng/l	1.72	0.095	1
Perfluorohexanoic Acid (PFHxA)	6.96		ng/l	1.72	0.109	1
Perfluoroheptanoic Acid (PFHpA)	5.69		ng/l	1.72	0.080	1
Perfluorohexanesulfonic Acid (PFHxS)	30.2		ng/l	1.72	0.093	1
Perfluorooctanoic Acid (PFOA)	48.7		ng/l	1.72	0.043	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	5.26		ng/l	1.72	0.167	1
Perfluoroheptanesulfonic Acid (PFHpS)	11.4		ng/l	1.72	0.134	1
Perfluorononanoic Acid (PFNA)	2.48		ng/l	1.72	0.087	1
Perfluorooctanesulfonic Acid (PFOS)	479		ng/l	1.72	0.096	1
Perfluorodecanoic Acid (PFDA)	0.852	J	ng/l	1.72	0.164	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.72	0.251	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.72	0.216	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.72	0.165	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.72	0.192	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.72	0.196	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.72	0.321	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.72	0.079	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.72	0.078	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.72	0.062	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-06 Date Collected: 04/27/18 08:50

Client ID: MW-6S-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	67		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	56		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	116		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	71		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	89		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	140		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	88		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**200**	Q	50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	75		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	92		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	76		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	126		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	64		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	67		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**26**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	66		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	54		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	**37**	Q	50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-06 R
Client ID: MW-6S-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/27/18 08:50
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/10/18 19:32
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/08/18 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	12.7		ng/l	1.72	0.113	1
Perfluoropentanoic Acid (PFPeA)	7.55		ng/l	1.72	0.074	1
Perfluorobutanesulfonic Acid (PFBS)	23.0		ng/l	1.72	0.095	1
Perfluorohexanoic Acid (PFHxA)	7.17		ng/l	1.72	0.109	1
Perfluoroheptanoic Acid (PFHpA)	5.70		ng/l	1.72	0.080	1
Perfluorohexanesulfonic Acid (PFHxS)	29.4		ng/l	1.72	0.093	1
Perfluorooctanoic Acid (PFOA)	48.8		ng/l	1.72	0.043	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	4.58		ng/l	1.72	0.167	1
Perfluoroheptanesulfonic Acid (PFHpS)	11.0		ng/l	1.72	0.134	1
Perfluorononanoic Acid (PFNA)	2.32		ng/l	1.72	0.087	1
Perfluorooctanesulfonic Acid (PFOS)	474		ng/l	1.72	0.096	1
Perfluorodecanoic Acid (PFDA)	0.710	J	ng/l	1.72	0.164	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.72	0.251	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.72	0.216	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.72	0.165	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.72	0.192	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.72	0.196	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.72	0.321	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.72	0.079	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.72	0.078	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.72	0.062	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-06 R
Client ID: MW-6S-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/27/18 08:50
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	66		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	56		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	96		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	63		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	81		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	119		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	83		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**190**	Q	50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	80		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	86		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	78		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	137		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	73		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	71		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**26**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	73		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	59		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	**44**	Q	50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-07
Client ID: MW-5-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/27/18 10:05
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/09/18 14:11
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/08/18 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	8.62		ng/l	1.78	0.117	1
Perfluoropentanoic Acid (PFPeA)	8.78		ng/l	1.78	0.076	1
Perfluorobutanesulfonic Acid (PFBS)	11.9		ng/l	1.78	0.098	1
Perfluorohexanoic Acid (PFHxA)	8.14		ng/l	1.78	0.113	1
Perfluoroheptanoic Acid (PFHpA)	4.82		ng/l	1.78	0.083	1
Perfluorohexanesulfonic Acid (PFHxS)	4.81		ng/l	1.78	0.096	1
Perfluorooctanoic Acid (PFOA)	18.2		ng/l	1.78	0.045	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.78	0.173	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.78	0.138	1
Perfluorononanoic Acid (PFNA)	0.628	J	ng/l	1.78	0.090	1
Perfluorooctanesulfonic Acid (PFOS)	65.6		ng/l	1.78	0.100	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.78	0.170	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.78	0.260	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.78	0.224	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.78	0.171	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.78	0.198	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.78	0.202	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.78	0.333	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.78	0.082	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.78	0.081	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.78	0.064	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-07 Date Collected: 04/27/18 10:05

Client ID: MW-5-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	71		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	64		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	98		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	74		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	86		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	112		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	89		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	143		50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	77		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	87		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	81		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	83		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	77		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	83		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**20**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	76		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	69		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	57		50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-07 R
Client ID: MW-5-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/27/18 10:05
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/10/18 19:49
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/08/18 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	8.52		ng/l	1.78	0.117	1
Perfluoropentanoic Acid (PFPeA)	8.69		ng/l	1.78	0.076	1
Perfluorobutanesulfonic Acid (PFBS)	12.2		ng/l	1.78	0.098	1
Perfluorohexanoic Acid (PFHxA)	8.06		ng/l	1.78	0.113	1
Perfluoroheptanoic Acid (PFHpA)	4.98		ng/l	1.78	0.083	1
Perfluorohexanesulfonic Acid (PFHxS)	4.12		ng/l	1.78	0.096	1
Perfluorooctanoic Acid (PFOA)	18.1		ng/l	1.78	0.045	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.78	0.173	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.782	J	ng/l	1.78	0.138	1
Perfluorononanoic Acid (PFNA)	0.714	J	ng/l	1.78	0.090	1
Perfluorooctanesulfonic Acid (PFOS)	64.6		ng/l	1.78	0.100	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.78	0.170	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.78	0.260	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.78	0.224	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.78	0.171	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.78	0.198	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.78	0.202	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.78	0.333	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.78	0.082	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.78	0.081	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.78	0.064	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-07 R
Client ID: MW-5-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/27/18 10:05
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	72		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	66		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	95		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	67		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	81		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	118		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	88		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**187**	Q	50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	76		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	95		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	84		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	119		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	87		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	84		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**19**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	89		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	70		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	59		50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-08
Client ID: MW-E-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/27/18 10:30
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/09/18 14:27
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/08/18 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	26.0		ng/l	1.67	0.109	1
Perfluoropentanoic Acid (PFPeA)	56.0		ng/l	1.67	0.071	1
Perfluorobutanesulfonic Acid (PFBS)	7.14		ng/l	1.67	0.092	1
Perfluorohexanoic Acid (PFHxA)	72.3		ng/l	1.67	0.105	1
Perfluoroheptanoic Acid (PFHpA)	9.33		ng/l	1.67	0.077	1
Perfluorohexanesulfonic Acid (PFHxS)	1.70		ng/l	1.67	0.090	1
Perfluorooctanoic Acid (PFOA)	29.2		ng/l	1.67	0.042	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	17.0		ng/l	1.67	0.162	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.67	0.129	1
Perfluorononanoic Acid (PFNA)	0.887	J	ng/l	1.67	0.084	1
Perfluorooctanesulfonic Acid (PFOS)	5.26		ng/l	1.67	0.093	1
Perfluorodecanoic Acid (PFDA)	0.843	J	ng/l	1.67	0.159	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.67	0.242	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.67	0.209	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.67	0.159	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.67	0.185	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.67	0.189	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.67	0.311	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.67	0.076	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.67	0.075	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.67	0.060	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-08 Date Collected: 04/27/18 10:30

Client ID: MW-E-0418 Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	51		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	76		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	109		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	79		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	86		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	122		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	85		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	113		50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	76		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	95		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	83		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	84		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	61		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	75		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**25**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	63		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	61		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	**25**	Q	50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-08 R
Client ID: MW-E-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/27/18 10:30
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/10/18 20:06
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/08/18 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	26.1		ng/l	1.67	0.109	1
Perfluoropentanoic Acid (PFPeA)	55.4		ng/l	1.67	0.071	1
Perfluorobutanesulfonic Acid (PFBS)	7.52		ng/l	1.67	0.092	1
Perfluorohexanoic Acid (PFHxA)	73.8		ng/l	1.67	0.105	1
Perfluoroheptanoic Acid (PFHpA)	9.88		ng/l	1.67	0.077	1
Perfluorohexanesulfonic Acid (PFHxS)	1.59	J	ng/l	1.67	0.090	1
Perfluorooctanoic Acid (PFOA)	31.6		ng/l	1.67	0.042	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	15.9		ng/l	1.67	0.162	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.67	0.129	1
Perfluorononanoic Acid (PFNA)	0.737	J	ng/l	1.67	0.084	1
Perfluorooctanesulfonic Acid (PFOS)	5.08		ng/l	1.67	0.093	1
Perfluorodecanoic Acid (PFDA)	0.533	J	ng/l	1.67	0.159	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.67	0.242	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.67	0.209	1
Perfluoroundecanoic Acid (PFUnA)	0.167	J	ng/l	1.67	0.159	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.67	0.185	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.67	0.189	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.67	0.311	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.67	0.076	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.67	0.075	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.67	0.060	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-08 R
Client ID: MW-E-0418
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/27/18 10:30
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	51		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	79		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	88		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	72		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	81		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	102		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	79		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	108		50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	76		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	82		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	87		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	83		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	73		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	80		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**26**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	70		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	60		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	**25**	Q	50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-09
Client ID: DUPLICATE
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 11:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/09/18 14:44
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/08/18 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	30.4		ng/l	1.85	0.121	1
Perfluoropentanoic Acid (PFPeA)	90.3		ng/l	1.85	0.079	1
Perfluorobutanesulfonic Acid (PFBS)	286		ng/l	1.85	0.102	1
Perfluorohexanoic Acid (PFHxA)	99.0		ng/l	1.85	0.117	1
Perfluoroheptanoic Acid (PFHpA)	22.7		ng/l	1.85	0.086	1
Perfluorohexanesulfonic Acid (PFHxS)	108		ng/l	1.85	0.100	1
Perfluorooctanoic Acid (PFOA)	73.0		ng/l	1.85	0.047	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1.80	J	ng/l	1.85	0.180	1
Perfluoroheptanesulfonic Acid (PFHpS)	85.9		ng/l	1.85	0.144	1
Perfluorononanoic Acid (PFNA)	3.01		ng/l	1.85	0.093	1
Perfluorooctanesulfonic Acid (PFOS)	3950	E	ng/l	1.85	0.103	1
Perfluorodecanoic Acid (PFDA)	0.589	J	ng/l	1.85	0.176	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.85	0.269	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.85	0.232	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.85	0.177	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.85	0.206	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.85	0.210	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.85	0.345	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.85	0.085	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.85	0.084	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.85	0.067	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-09 Date Collected: 04/26/18 11:00

Client ID: DUPLICATE Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	53		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	67		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	**171**	Q	50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	73		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	89		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	**195**	Q	50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	87		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**336**	Q	50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	63		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	78		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	78		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	**152**	Q	50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	82		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	72		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**25**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	87		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	67		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	51		50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-09 RE
Client ID: DUPLICATE
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 11:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/10/18 22:35
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/10/18 09:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	28.8	J	ng/l	40.0	2.62	1
Perfluoropentanoic Acid (PFPeA)	76.3		ng/l	40.0	1.71	1
Perfluorobutanesulfonic Acid (PFBS)	267		ng/l	40.0	2.20	1
Perfluorohexanoic Acid (PFHxA)	81.4		ng/l	40.0	2.53	1
Perfluoroheptanoic Acid (PFHpA)	20.6	J	ng/l	40.0	1.85	1
Perfluorohexanesulfonic Acid (PFHxS)	102		ng/l	40.0	2.15	1
Perfluorooctanoic Acid (PFOA)	84.2		ng/l	40.0	1.01	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	40.0	3.88	1
Perfluoroheptanesulfonic Acid (PFHpS)	42.2		ng/l	40.0	3.10	1
Perfluorononanoic Acid (PFNA)	5.52	J	ng/l	40.0	2.02	1
Perfluorooctanesulfonic Acid (PFOS)	2820		ng/l	40.0	2.23	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	40.0	3.81	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	40.0	5.82	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	40.0	5.01	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	40.0	3.82	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	40.0	4.45	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	40.0	4.54	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	40.0	7.46	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	40.0	1.83	1
Perfluorotridecanoic Acid (PFTrDA)	2.48	J	ng/l	40.0	1.81	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	40.0	1.44	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-09 RE
Client ID: DUPLICATE
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 11:00
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	**43**	Q	50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	92		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	116		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	94		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	97		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	136		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	101		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**192**	Q	50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	87		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	105		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	103		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	117		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	103		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	111		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	62		50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	122		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	101		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	83		50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-10
Client ID: FIELD BLANK
Sample Location: LONG ISLAND CITY, NY

Date Collected: 04/26/18 14:25
Date Received: 04/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 05/10/18 18:26
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/08/18 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.85	0.121	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.85	0.079	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.85	0.102	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.85	0.117	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.85	0.086	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.85	0.100	1
Perfluorooctanoic Acid (PFOA)	0.700	J	ng/l	1.85	0.047	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.85	0.180	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.85	0.144	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.85	0.093	1
Perfluorooctanesulfonic Acid (PFOS)	0.126	J	ng/l	1.85	0.103	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.85	0.176	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.85	0.269	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.85	0.232	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.85	0.177	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.85	0.206	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.85	0.210	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.85	0.345	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.85	0.085	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.85	0.084	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.85	0.067	1

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL **Lab Number:** L1815079

Project Number: 3612162331 **Report Date:** 05/11/18

SAMPLE RESULTS

Lab ID: L1815079-10 Date Collected: 04/26/18 14:25

Client ID: FIELD BLANK Date Received: 04/27/18

Sample Location: LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	68		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	78		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	84		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	74		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	79		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	101		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	84		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	101		50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	77		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	89		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	85		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	93		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	83		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	88		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**27**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	94		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	83		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	70		50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331
Lab Number: L1815079
Report Date: 05/11/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 05/09/18 07:50
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/08/18 10:30

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-10 Batch: WG1113611-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.131
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.086
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.110
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.126
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.092
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.108
Perfluorooctanoic Acid (PFOA)	0.792	J	ng/l	2.00	0.050
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	0.194
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.155
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.101
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.112
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.190
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	0.291
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.250
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.191
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.222
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.227
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.373
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.092
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.090
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.072

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331
Lab Number: L1815079
Report Date: 05/11/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 05/09/18 07:50
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/08/18 10:30

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-10 Batch: WG1113611-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	86		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	84		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	103		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	86		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	95		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	124		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	101		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	119		50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	93		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	102		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	91		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	112		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	103		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	104		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**11**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	105		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	97		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	86		50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Lab Number: L1815079
Project Number: 3612162331
Report Date: 05/11/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 05/10/18 20:39
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/10/18 09:41

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-04,09 Batch: WG1114432-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.131
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.086
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.110
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.126
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.092
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.108
Perfluorooctanoic Acid (PFOA)	0.720	J	ng/l	2.00	0.050
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	0.194
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.155
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.101
Perfluorooctanesulfonic Acid (PFOS)	0.176	J	ng/l	2.00	0.112
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.190
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	0.291
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.250
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.191
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.222
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.227
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.373
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.092
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.090
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.072

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331
Lab Number: L1815079
Report Date: 05/11/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 05/10/18 20:39
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 05/10/18 09:41

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-04,09 Batch: WG1114432-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	87		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	87		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	103		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	90		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	93		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	124		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	94		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	106		50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	87		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	108		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	103		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	96		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	98		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	109		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**44**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	110		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	101		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	82		50-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815079

Report Date: 05/11/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-10 Batch: WG1113611-2 WG1113611-3								
Perfluorobutanoic Acid (PFBA)	107		105		50-150	2		30
Perfluoropentanoic Acid (PFPeA)	106		103		50-150	3		30
Perfluorobutanesulfonic Acid (PFBS)	106		107		50-150	1		30
Perfluorohexanoic Acid (PFHxA)	115		111		50-150	4		30
Perfluoroheptanoic Acid (PFHpA)	102		100		50-150	2		30
Perfluorohexanesulfonic Acid (PFHxS)	115		118		50-150	3		30
Perfluorooctanoic Acid (PFOA)	102		112		50-150	9		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	112		110		50-150	2		30
Perfluoroheptanesulfonic Acid (PFHpS)	108		118		50-150	9		30
Perfluorononanoic Acid (PFNA)	119		110		50-150	8		30
Perfluorooctanesulfonic Acid (PFOS)	94		90		50-150	4		30
Perfluorodecanoic Acid (PFDA)	110		118		50-150	7		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	104		96		50-150	8		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	101		100		50-150	1		30
Perfluoroundecanoic Acid (PFUnA)	106		105		50-150	1		30
Perfluorodecanesulfonic Acid (PFDS)	88		89		50-150	1		30
Perfluorooctanesulfonamide (FOSA)	103		112		50-150	8		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	102		91		50-150	11		30
Perfluorododecanoic Acid (PFDoA)	100		100		50-150	0		30
Perfluorotridecanoic Acid (PFTrDA)	93		97		50-150	4		30
Perfluorotetradecanoic Acid (PFTA)	114		110		50-150	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815079

Report Date: 05/11/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-10 Batch: WG1113611-2 WG1113611-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	60		74		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	73		74		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	89		90		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	72		73		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	82		82		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	105		105		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	84		84		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	105		101		50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	78		74		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	93		85		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	84		69		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	100		94		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	93		82		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	94		79		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**7**	Q	**11**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	89		89		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	89		81		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	78		79		50-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815079

Report Date: 05/11/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04,09 Batch: WG1114432-2 WG1114432-3								
Perfluorobutanoic Acid (PFBA)	83		86		50-150	4		30
Perfluoropentanoic Acid (PFPeA)	79		82		50-150	4		30
Perfluorobutanesulfonic Acid (PFBS)	86		86		50-150	0		30
Perfluorohexanoic Acid (PFHxA)	87		89		50-150	2		30
Perfluoroheptanoic Acid (PFHpA)	79		87		50-150	10		30
Perfluorohexanesulfonic Acid (PFHxS)	91		94		50-150	3		30
Perfluorooctanoic Acid (PFOA)	79		84		50-150	6		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	93		86		50-150	8		30
Perfluoroheptanesulfonic Acid (PFHpS)	90		85		50-150	6		30
Perfluorononanoic Acid (PFNA)	84		88		50-150	5		30
Perfluorooctanesulfonic Acid (PFOS)	72		78		50-150	8		30
Perfluorodecanoic Acid (PFDA)	87		90		50-150	3		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	96		90		50-150	6		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	74		77		50-150	4		30
Perfluoroundecanoic Acid (PFUnA)	77		84		50-150	9		30
Perfluorodecanesulfonic Acid (PFDS)	68		72		50-150	6		30
Perfluorooctanesulfonamide (FOSA)	79		80		50-150	1		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	72		81		50-150	12		30
Perfluorododecanoic Acid (PFDoA)	82		82		50-150	0		30
Perfluorotridecanoic Acid (PFTrDA)	68		76		50-150	11		30
Perfluorotetradecanoic Acid (PFTA)	90		92		50-150	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815079

Report Date: 05/11/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04,09 Batch: WG1114432-2 WG1114432-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	89		84		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	87		84		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	110		101		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	90		89		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	101		91		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	132		120		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	103		96		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	113		112		50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	96		87		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	109		102		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	101		97		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	107		90		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	106		101		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	114		106		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	63		**42**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	120		107		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	106		101		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	85		85		50-150

Matrix Spike Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL

Project Number: 3612162331

Lab Number: L1815079

Report Date: 05/11/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-10 QC Batch ID: WG1113611-4 WG1113611-5 QC Sample: L1815079-05 Client ID: MW-6D-0418												
Perfluorobutanoic Acid (PFBA)	6.24	37	43.7	101		44.9	101		50-150	3		30
Perfluoropentanoic Acid (PFPeA)	5.01	37	41.3	98		42.6	98		50-150	3		30
Perfluorobutanesulfonic Acid (PFBS)	13.8	37	52.1	103		54.0	105		50-150	4		30
Perfluorohexanoic Acid (PFHxA)	6.03	37	45.3	106		47.7	108		50-150	5		30
Perfluoroheptanoic Acid (PFHpA)	4.02	37	40.7	99		42.5	100		50-150	4		30
Perfluorohexanesulfonic Acid (PFHxS)	2.75	37	43.9	111		46.2	113		50-150	5		30
Perfluorooctanoic Acid (PFOA)	17.4	37	56.4	105		59.0	108		50-150	5		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	37	36.2	98		43.3	113		50-150	18		30
Perfluoroheptanesulfonic Acid (PFHpS)	0.744J	37	43.3	117		41.5	108		50-150	4		30
Perfluorononanoic Acid (PFNA)	1.36J	37	41.4	112		44.9	117		50-150	8		30
Perfluorooctanesulfonic Acid (PFOS)	64.4	37	99.0	93		99.9	92		50-150	1		30
Perfluorodecanoic Acid (PFDA)	0.481J	37	39.9	108		42.9	112		50-150	7		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	37	39.6	107		40.3	105		50-150	2		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	37	35.8	97		42.3	110		50-150	17		30
Perfluoroundecanoic Acid (PFUnA)	ND	37	37.1	100		39.6	103		50-150	7		30
Perfluorodecanesulfonic Acid (PFDS)	ND	37	27.8	75		31.0	81		50-150	11		30
Perfluorooctanesulfonamide (FOSA)	ND	37	35.3	95		37.7	98		50-150	7		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	37	33.3	90		37.4	97		50-150	12		30
Perfluorododecanoic Acid (PFDoA)	ND	37	37.1	100		39.8	103		50-150	7		30
Perfluorotridecanoic Acid (PFTrDA)	ND	37	33.8	91		38.4	100		50-150	13		30
Perfluorotetradecanoic Acid (PFTA)	ND	37	38.6	104		44.0	114		50-150	13		30

Matrix Spike Analysis

Batch Quality Control

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL ***Lab Number:*** L1815079

Project Number: 3612162331 ***Report Date:*** 05/11/18

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-10 QC Batch ID: WG1113611-4 WG1113611-5 QC Sample: L1815079-05 Client ID: MW-6D-0418												

Surrogate	*MS % Recovery*	*MS Qualifier*	*MSD % Recovery*	*MSD Qualifier*	*Acceptance Criteria*
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	124		116		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	**183**	Q	**163**	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	100		93		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	86		75		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	85		79		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	84		79		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	64		65		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	77		81		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	109		104		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	73		67		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	65		58		50-150
Perfluoro[13C4]Butanoic Acid (MPFBA)	72		70		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	64		64		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	**25**	Q	**17**	Q	50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	90		87		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	82		83		50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	77		74		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	87		85		50-150

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331

Lab Number: L1815079
Report Date: 05/11/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1815079-01A	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-01B	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-01C	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-02A	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-02B	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-02C	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-03A	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-03B	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-03C	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-04A	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-04B	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-04C	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-05A	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-05A1	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-05A2	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-05B	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-05B1	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-05B2	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-05C	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-05C1	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-05C2	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-06A	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-06B	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)

*Values in parentheses indicate holding time in days

Project Name: STALINGRAD/HYGRADE GW Q2 SAMPL
Project Number: 3612162331

Lab Number: L1815079
Report Date: 05/11/18

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1815079-06C	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-07A	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-07B	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-07C	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-08A	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-08B	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-08C	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-09A	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-09B	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-09C	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-10A	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1815079-10B	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		-
L1815079-10C	3 Plastic Trizma/1 Plastic/1 H20+Trizma	A	NA		2.5	Y	Absent		-

*Values in parentheses indicate holding time in days

Project Name:	STALINGRAD/HYGRADE GW Q2 SAMPL	**Lab Number:**	L1815079
Project Number:	3612162331	**Report Date:**	05/11/18

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: DU Report with 'J' Qualifiers

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Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	STALINGRAD/HYGRADE GW Q2 SAMPL	**Lab Number:**	L1815079
Project Number:	3612162331	**Report Date:**	05/11/18

REFERENCES

122 Determination of Selected Perfluorintated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537, EPA/600/R-08/092. Version 1.1, September 2009.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 4/28/18

ALPHA Job #: L1815079

Client Information

Client: Amec Foster Wheeler
Address: 214-25 42nd Ave Suite 3R
Bayside, NY 11361
Phone: 347 436 4445
Fax:
Email: eric.weinstock@amecfw.com

Project Information

Project Name: Stallingol / Upgrade GW Q2 Sampling
Project Location: Long Island City, NY
Project #: 3612162331
(Use Project name as Project #)
Project Manager: Eric Weinstock
ALPHAQuote #: Q5256

Turn-Around Time

Standard [X]
Rush (only if pre approved) [ ]
Due Date:
# of Days:

These samples have been previously analyzed by Alpha [ ]

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables

[ ] ASP-A [X] ASP-B
[ ] EQuIS (1 File) [ ] EQuIS (4 File)
[ ] Other

Regulatory Requirement

[ ] NY TOGS [ ] NY Part 375
[ ] AWQ Standards [ ] NY CP-51
[ ] NY Restricted Use [ ] Other
[ ] NY Unrestricted Use
[ ] NYC Sewer Discharge

Billing Information

[ ] Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
[ ] NJ [ ] NY
[ ] Other:

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TAL-537	Total Bottle
1815079.01	BMW-1-0418	04/26/18	1235	GW	BH	X	
02	BMW-2-0418	04/26/18	1310	GW	BH/JL	X	
03	BMW-3-0418	04/26/18	1400	GW	BH	X	
04	BMW-4-0418	04/26/18	1100	GW	JL	X	
05	MW-6D-0418	04/27/18	0850	GW	JL	X	
06	MW-6S-0418	04/27/18	0850	GW	BH	X	
07	MW-5-0418	04/27/18	1005	GW	JL	X	
08	MW-E-0418	04/27/18	1030	GW	BH	X	
09	Replicate	04/26/18	1100	GW	JL	X	
10	Field Blank	04/26/18	1425	GW	JL	X	

Sample Filtration
[ ] Done
[ ] Lab to do
Preservation
[ ] Lab to do
(Please Specify below)

Sample Specific Comments

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	P									
Preservative	O									

Relinquished By:	Date/Time	Received By:	Date/Time
Ben Hess	04/27/18 1340	Dan D AAL	4/27/18 1300
Dan D AAL	4/27/18 1805	Daniel Santos AAL	4/27/18 1830
Daniel Santos AAL	4/27/18 2310		4/27/18 2310
	04/28/18 0545		4/28/18 0545

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

MANSFIELD CHAIN OF CUSTODY

PAGE 2 OF 2

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 4/28/18

ALPHA Job #: L1815079

Client Information

Client: AMEC Foster Wheeler
Address: 214-25 42nd Ave, Ste. 3R Bayside, NY 11361
Phone: 347-836-4445
Fax:
Email: eric.weinstock@amecfw.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Stalingrad / Hygrade
Project Location: Long Island City, NY
Project #: 3612162331
Project Manager: Eric Weinstock
ALPHA Quote #: Q5256

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

Other Project Specific Requirements/Comments/Detection Limits:

PLEASE NOTE
MS/MSD (at unit cost) will be omitted unless you check here: ☐

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS 8FAA-375	SAMPLE HANDLING	TOTAL # BOTTLES
L1815079.05	MS	04/27/18	0850	GW	JL	X		
.05	MSD	04/27/18	0850	GW	JL	X		

SAMPLE HANDLING: Filtration ☐ Done ☐ Not needed ☐ Lab to do; Preservation ☐ Lab to do (Please specify below); Sample Specific Comments

Container Type																			
Preservative																			

Relinquished By:	Date/Time	Received By:	Date/Time
Ben Hess	04/27/18/1300	Don D AAL	4/27/18 1300
Don D AAL	04/27/18 1805	Daniel Santos AAL	4/27/18 1930
Daniel Santos AAL	4/27/18 2310		4/27/18 2310
04/28/18 0315			04/28/18 0345

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Revised COC 4/30/18

MANSFIELD CHAIN OF CUSTODY

PAGE 2 OF 2

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1815079

Client Information

Client: Amec Foster Wheeler
Address: 214 25 (12th) Ave, Ste 3R Bayside NY 11361
Phone: 347-836 4445
Fax:
Email: eric.weinstock@amecfw.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Taling..t / Hygrade
Project Location: Long Island City NY
Project #: 3612176233?
Project Manager: Eric Weinstock
ALPHA Quote #: 05256

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

Other Project Specific Requirements/Comments/Detection Limits:
MSD & MS collected from MW-10-0418 @ 04/30/18

PLEASE NOTE MS/MSD (at unit cost) will be omitted unless you check here: ☐

ANALYSIS: PFAA 375

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PFAA 375	Sample Specific Comments	TOTAL # BOTTLES
15079 .05	MS	04/27/18	0850	GW	JL	X		
.05	MSD	04/27/18	0850	GW	JL	X		

Container Type	
Preservative	

Relinquished By:	Date/Time	Received By:	Date/Time
[illegible]	04/27/18 [illegible]	Don DAAL	4/27/18 1300
DON DAAL	04/27/18		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 101-09 (rev. 27-SEP-10)

10515 Research Drive
Knoxville, TN 37932
Phone: (865) 573-8188
Fax: (865) 573-8133

Client: Eric Weinstock
Wood Environment & Infrastructure Solutions, Inc.
214-25 42nd Ave.
Bayside, NY 11361

Phone:

Fax:

Identifier: 085PD **Date Rec:** 04/27/2018 **Report Date:** 05/01/2018

Client Project #: 3612162331 **Client Project Name:** Stalingrad/Hygrade Q2 GW Sampling

Purchase Order #:

Analysis Requested: CENSUS

Reviewed By:

MICROBIAL INSIGHTS, INC.

10515 Research Dr., Knoxville, TN 37932
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **Wood Environment & Infrastructure Solutions**
Project: Stalingrad/Hygrade Q2 GW Sampling

MI Project Number: **085PD**
Date Received: 04/27/2018

Sample Information

Client Sample ID:	**BMW-3-0418**
Sample Date:	04/26/2018
Units:	cells/mL
Analyst/Reviewer:	JS

Dechlorinating Bacteria

Dehalococcoides	*DHC*	<5.00E-01
tceA Reductase	TCE	<5.00E-01
BAV1 Vinyl Chloride Reductase	BVC	<5.00E-01
Vinyl Chloride Reductase	VCR	<5.00E-01

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received **4/27/2018**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
BVC	04/27/2018	05/01/2018	0 °C	104%	non-detect	non-detect
TCE	04/27/2018	05/01/2018	0 °C	103%	non-detect	non-detect
VCR	04/27/2018	05/01/2018	0 °C	103%	non-detect	non-detect
DHC	04/27/2018	05/01/2018	0 °C	100%	non-detect	non-detect