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## Caroline Eigenbrodt

Environmental Engineer, Division of Environmental Remediation

New York State Department of Environmental Conservation

625 Broadway, Albany, NY 12233-7015

Re: Former Quick and Clean Cleaners  
380 Rockaway Turnpike  
Cedarhurst, New York  
Site# 130198

Revised Addendum RIR

1. Section 1.5 – Clarify who will be undertaking the additional sampling events details in paragraphs 4 and 5 of this section and when this additional sampling will be taking place.

Response: We are not planning on doing any further investigation. The Report has been revised to reflect that the off-site sampling was completed and fully delineated.

2. Section 2.1 states “from two to six inches (2” – 24”)”, please revise for clarity.

Response: Please see revised text clarifying proper depth in the text.

3. Section 5 must include conclusions for the additional groundwater samples that were collected as part of this RIR Addendum.

Please see the discussion on groundwater results within the revised conclusion.

4. Figure-3, -4, and -5 – The results tables included on these spider figures must have a “white background” so the site plan is not visible through the tables.

Please see the revised Figures-3, 4 and 5.

**FORMER QUICK AND CLEAN CLEANERS**  
**Site # 130198**

**ADDENDUM**  
**TO**  
**REMEDIAL INVESTIGATION REPORT**  
**(RIR)**  
**for**  
**(Part-375 testing and Emerging Contaminants)**

**PREPARED FOR:**  
**380 ROCKAWAY TURNPIKE REALTY CORPORATION**  
**36 LAWRENCE AVENUE**  
**LAWRENCE, NEW YORK 11559**



**Department of  
Environmental  
Conservation**

**PREPARED BY:**

**John V. Soderberg, P.E.  
PO Box 263  
Stony Brook, New York  
11790**

**rev March 2020**

**Final**

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## **1.0      Introduction**

The following report is an addendum to the Remedial Investigation Report (RIR) prepared by John V. Soderberg, P.E. on behalf of 380 Rockaway Turnpike Corporation located at 380 Rockaway Turnpike, Cedarhurst, Nassau County, New York. The site is listed in the New York State Superfund Program. The main objective of the Plan was to complete the site characterization testing to include the full target compound list, (except for VOC data already collected) in order to finalize the site characterization and remedial investigation phase of the project. Once this data is approved, a Remedial Action Plan will be submitted in order issue a Record of Decision (ROD). The following Report documents all the findings from the executed RIWP addendum.

### **1.1    Site Location and Description**

The address for the subject property is 380 Rockaway Turnpike, Cedarhurst, NY. The subject property is designated as Section 39, Block 344, Lots 216 and 220 by the Nassau County Department of Assessment. The subject property is located within the Incorporated Village of Cedarhurst, Town of Hempstead, Nassau County, NY as shown in Figure-1. The lot has 123 feet of frontage on Rockaway Turnpike and is approximately 100 feet deep for a combined area of 0.318 acres (13,853 ft<sup>2</sup>).

The subject site is developed with a 3,984ft<sup>2</sup> 1-story masonry building, built in 1962 for commercial (retail) use. Based on current zoning and the location of the property, it is likely to remain in commercial-retail use.

The elevation of the property ranges from approximately 10 to 13 feet above National Geodetic Vertical Datum (NGVD). The topography in the vicinity of the site generally slopes from southeast to northwest. The depth to groundwater beneath the site, as determined from field measurements, is approximately 4.5 to 5.0 feet below grade surface (bgs). Groundwater flow cannot be determined from regional water table elevation maps and has been reported as ranging from north to southwest at the adjacent property to the north (former Cumberland Farms Service Station). Despite this wide range of anticipated flow the actual direction of groundwater flow is presumably to the northwest. This notion is based upon previously conducted investigation data indicating a northwesterly groundwater flow due to the nature of the findings northwest of the Site and/or source area.

The area surrounding the Site consists of retail “strip stores” and service stations along the east side of Rockaway Turnpike with single-family residential homes located adjacent to the east. Adjacent properties to the north include a former Cumberland Farms Service Station (CFSS) and an active Shell station. Adjacent properties to the south include a Sunoco, Getty and Gulf service stations. In total the subject property is flanked north and south by four (4) active and one (1) former service station. The west side of

Rockaway Turnpike is characterized by larger shopping centers with industrial buildings/warehouses, major oil storage facilities (MOSF) and the Town of Hempstead incinerator plant adjacent to the west.

## **1.2 Site History**

The environmental history of the subject lots was summarized in the SCR dated August 2010 as prepared by Environmental Assessment and Remediation (EAR) under contract to the NYSDEC. This summary consisted of a chronology of events based solely on NCDOH files. According to the SCR the NCDOH identified approximate PCE concentrations of 67,000 in a sample of “industrial wastewater discharge” at the Site on 3/26/80. In 1991 NCDOH reported PCE concentrations of 1.3 million ug/kg in shallow soil (<2 ft) adjacent to a vapor discharge pipe in the rear of the building. This soil was successfully removed in 1992 by the operator under NCDOH oversight and the case was closed by NCDOH on 3/30/92. In 2009 the NYSDEC classified the site with a “P” designation for potential listing on the Inactive Hazardous Waste Site Registry.

## **1.3 Summary of Site Characterization Report**

The field investigation portion of the SCR was conducted at the site from December 8, 2009 through March 25, 2010 and consisted of the collection and analysis of 7 soil samples from 7 boring locations, 28 groundwater samples from 10 on-site locations, 39 groundwater samples from 9 off-site locations and 6 soil gas samples from 4 on-site and 2 off-site locations. All soil and groundwater samples were collected with GeoProbe®-type direct push equipment and tooling.

According to logs contained in the SCR, soil samples were collected for the first 8 feet through a 4 ft macro-core sampler using the single-tube method and then using a 4 ft large bore sampler for the remainder of the boring to a maximum of 20 ft. On-site groundwater sampling performed in December 2009 were collected through a 2 ft mill slotted rod which was driven to multiple depths ranging from 10 to 70 feet with samples collected in 10 foot intervals. Off-site samples collected in March 2010 utilized a 2 ft wire wrap discrete sampler. Purge volumes varied considerably ranging from 0 to 0.5 gallons per sample for the mill slot sampler to 0.10 to 3 gallons for the wire wrap sampler.

The results of this investigation did not identify any chlorinated compounds above unrestricted soil clean up objectives (SCOs) in any of the soil samples collected. However, petroleum VOCs including ethylbenzene, toluene and xylene were reported in 5 of 7 soil samples at concentrations significantly above unrestricted and groundwater protection SCOs. Total petroleum VOCs in soil ranged from 2,550 ug/kg at location EP7 (12-14 ft) to 107,000 ug/kg at EP5 (12-14 ft). EP5 is located near the south property line adjacent to the Sunoco service station.

On-site groundwater samples reported elevated concentrations of both chlorinated VOCs (CVOCs) and petroleum VOCs (PVOCs) at every sampling location. With the exception

of EP7 the highest concentrations of both CVOCs and PVOCs were reported in the shallowest samples. EP7 reported the highest detections of both CVOCs and PVOCs in the 70-72 ft interval and had the highest PVOC concentrations reported with a total of 185,426 ug/L.

CVOC detections in the shallow intervals ranged from low concentrations (<20 ug/L) at EP5 (20-22 ft) to 14,830 ug/L at EP9 (10-12 ft). In addition to EP9, the highest CVOC concentrations were reported at locations MW7, EP8 (10-12 ft) and EP3 (10-12 ft). On-site CVOC totals were comprised almost entirely of cis-dichloroethene (©-DCE) and vinyl chloride (VC). The highest tetrachloroethene (PCE) and trichloroethene (TCE) concentrations were reported as 595 and 217 ug/L, respectively, in EP8 (20-22 ft). On-site CVOC concentrations were generally highest at the rear (east) and north side of the building.

PVOC concentrations in shallow samples ranged from 2,907 ug/L at location EP1 (20-22 ft) to 30,821 ug/L at EP3 (10-12 ft). In almost all cases PVOC concentrations were considerably higher than the CVOC concentrations. The anomalously high CVOC and PVOC concentrations reported at EP7 (70-72 ft) were not explained in the SCR and are likely attributed to deficiencies in the method of sampling.

Off-site CVOC concentrations were highest in samples from the 30-32 ft interval and ranged from 51 ug/L at location EP10 (west of the subject site) to 21,149 ug/L at location EP15. Off-site CVOC concentrations were comprised for the most part of PCE with only small amounts of TCE and the other parameters. Off-site PVOC detections were generally low and ranged from non-detect to 162 ug/L with the highest detections reported in the 50-52 interval.

CVOC detections in soil gas ranged from 11 ug/m<sub>3</sub> to 5,717 ug/m<sub>3</sub> with the highest concentrations occurring in SP2 and SP5 located at the north property line. The main constituent in the soil gas at these locations was cis-DCE.

#### **1.4 Site Geology / Hydrogeology**

According to boring logs included in the SCR, subsurface materials at the site consist of medium to coarse sand and gravel for the upper 10 feet followed by fine to medium sand to 18 feet below grade. A 1 to 2 ft layer of silt and clay was reported at some locations. Soils deeper than 20 feet were not characterized though silt and clay zones were suspected at 34 feet to 52 feet based on limited groundwater recharge and clogging of the groundwater sampling tools with silt and clay. The boring log from location EP7 shows that this condition continued to a final depth of 72 feet. The depth to groundwater was not measured at the site during the site characterization though it is reported in the drill logs at a depth of 11 feet below the surface. However, this is inconsistent with water level measurements made in monitoring wells at the adjacent property to the north that report the depth to water ranging from 3.61 to 4.89 feet. The groundwater flow direction has not been determined at the site and historic measurements made on the adjacent property to the north indicate a variable direction from north to southwest.

## **1.5 Conceptual Site Model (CSM)**

The source of the on-site CVOC contamination has been identified as a former shallow PCE impacted soil area at the rear of the building near the southeast corner of the property. Based on NCDOH reports and follow-up investigations the source area consisted of a 12 ft x 12 ft area which extended 3 to 3.5 feet deep. The area was exposed and covered at the surface with a layer of gravel. Precipitation recharging through this impacted soil would become contaminated with PCE transporting it to the shallow water table as a dissolved component and forming a contaminant plume. The plume would then migrate in the direction of groundwater flow.

The presence of high concentrations of petroleum (gasoline) constituents in soil and groundwater along the south property line and near the southeast corner indicates past migration from the known gasoline spill at the adjacent Sunoco S/S to the south.

According to the modeling figures, PCE is almost exclusively present off-site with almost no transformation products present. This may indicate a second source at an off-site location or the fact that transformation products of PCE tend to lag at the rear of the plume with PCE being detected at the lead or toe of the plume. PCE a DNAPL tends to initiate the formation of the plume by traveling vertical to depth while moving with the flow of groundwater, which in this case appears to be northwest.

In the absence of some induced vertical transport condition such as that created by a pumping well, there does not appear to be any mechanism to account for contaminant migration to the deeper zones of the aquifer. The fact that both CVOCs and PVOCs were found at depths combined with the description of silts, clays and limited recharge of groundwater to sampling equipment points, the possibility exists that PVOC and CVOC contamination may have been transported to deeper depths via sample tooling. In sampling groundwater through highly heterogeneous zones and formations of low permeability, leakage can occur around the borehole and through the threaded connections of the rods themselves, which can transport contamination vertically. Since petroleum constituents are considered to be LNAPL's it is highly unlikely that petroleum impacts to groundwater at 72' bgs are conclusive.

## **2.0 Remedial Investigation Work Plan (RIWP) addendum**

The purpose of the previously executed addendum to the RIWP was to complete the full site characterization in order obtain data on the full suite of chemicals as defined in DER-10 2.4 (d). Sampling was conducted at select locations to analyze for emerging contaminants including: PFAS chemicals and 1, 4 Dioxane.

Soil sampling was also conducted for emerging contaminants (PFAS - 21 list and 1,4 Dioxane) in order to complete analyzation of these emerging contaminants in all media, as this testing was already previously conducted for groundwater. Soil and groundwater was also collected and submitted for testing of the following Part-375 parameters: SVOC BNA+10; PCBs via EPA 8082A; Pesticides via EPA method 8081B; and TAL metals. The initial soil and groundwater sampling conducted during site characterization included the required VOC analysis. Please read below for further information on the sample procurement procedure, protocol and a summary of the analytical results from the supplemental investigation.

### **2.1 Soil Sampling Procedure**

Soil sampling was conducted with the use of a stainless steel hand auger from two to twenty-four inches (2"-24") below the vegetation layer and/or site cover (asphalt layer). Samples were field screened for VOCs with a PID meter and samples were obtained via EPA test method 537 (low level) sampling procedure. This procedure was adhered to for sampling analysis of PFAS chemicals. Soil collected for 1, 4 Dioxane analysis was simply placed in clean laboratory glassware acceptable for this analysis.

Soil cores were also collected from 2"-24" below the site cover and analyzed for SVOC BNA+10; PCBs via EPA 8082A; Pesticides via EPA method 8081B; and TAL metals. Samples were collected in the same manner as discussed above and/or with the use of a track mounted 6610 Geoprobe equipped with the duel tube (DT22) sampling system. Discrete samples were collected in five foot (5') PVC liners and screened in 2.5' intervals with a PID meter prior to sample collection in laboratory approved glassware. The locations of the soil samples are depicted on Figure-2.

### **2.2 Groundwater Sampling Procedure**

Groundwater samples were collected from existing monitoring wells MW-1-MW-4. This was achieved by lowering new poly tubing through the well casing to the bottom of the slotted screen with purging and sampling using a peristaltic pump with a low flow rate (less than 100 ml/minute). During sampling procurement the following procedures were followed:

All groundwater sampling activities were recorded in the project dedicated field book. This will include a description of:

- ▶ Date and time of sample collection
- ▶ Sample location
- ▶ Purging time, duration and volume (3-5 times well volume)
- ▶ Sample appearance
- ▶ Stabilization of pH, conductivity and/or temperature

Groundwater sampling was conducted in order to analyze for : SVOC's BNA+10; PCBs via EPA 8082A; Pesticides via EPA method 8081B; and TAL metals. Details on the lab analysis results from third party data validation is provided in the following section. Monitoring well locations are depicted on Figure-2. Please see Attachment-F for the groundwater sampling parameters.

### **3.0 Remedial Investigation Report (RIR) addendum**

The results from the executed RIWP addendum are discussed in the following sections and include sampling data for soil and groundwater collected as per the RIWP addendum. All sampling data was received from a New York State ELAP certified laboratory with NYS ASP category-B deliverables for certified third party lab data validation. All validated third party lab validation is included as Attachment-E.

#### **3.1 Soil Sampling Results**

Soil samples collected were analyzed for the following parameters: PFAS chemicals; 1, 4 Dioxane (SIM); and SVOC's BNA+10; PCBs via EPA 8082A; Pesticides via EPA method 8081B; and TAL metals.

Sampling results for the PFAS-21chemical list indicate mainly non-detections with minor detections observed at or above the method detection limit (MDL) but below the reporting limit (RL). Please refer to Attachment-A for tabulated emerging contaminant data at each sampling location (B-1-4).

Sampling results for soil collected and analyzed by Part-375 parameters mainly consisted of non-detect readings for SVOCs, and PCBs. Numerous metals were non-detect and many detections within typical background levels with nothing that exceeded the Part-375 unrestricted SCOs. Two pesticides (DDD, DDT) were detected slightly above the SCO of 3.3 ppb. Please refer to Attachment-B for tabulated results for Part-375 testing. Please refer to the spider maps depicting the sampling results for soil, Figure-3 and Figure-4.

### **3.2 Groundwater Sampling Results**

Groundwater sampling results for Part-375 testing indicated one (1) SVOC constituent (Naphthalene) above the TOGS groundwater standard of *10 ppb*. Concentrations ranging from 150-460 ppb were discovered in each well (MW-1-4). The monitoring wells are located down gradient of a New York State spill case involving a fuel spill at the adjacent gas station, that has likely migrated down gradient onto the subject site. Metals Iron, Sodium and Thallium were detected with concentrations above standards, but are within normal back round range for this area of southwest Nassau county. No PCBs or pesticides were detected. Please refer to Attachment-D for tabulated Part-375 lab data for monitoring wells MW-1-4. Please refer to Figure-5 for a spider map depicting the lab results in groundwater.

### **4.0 Community Air Monitoring Plan**

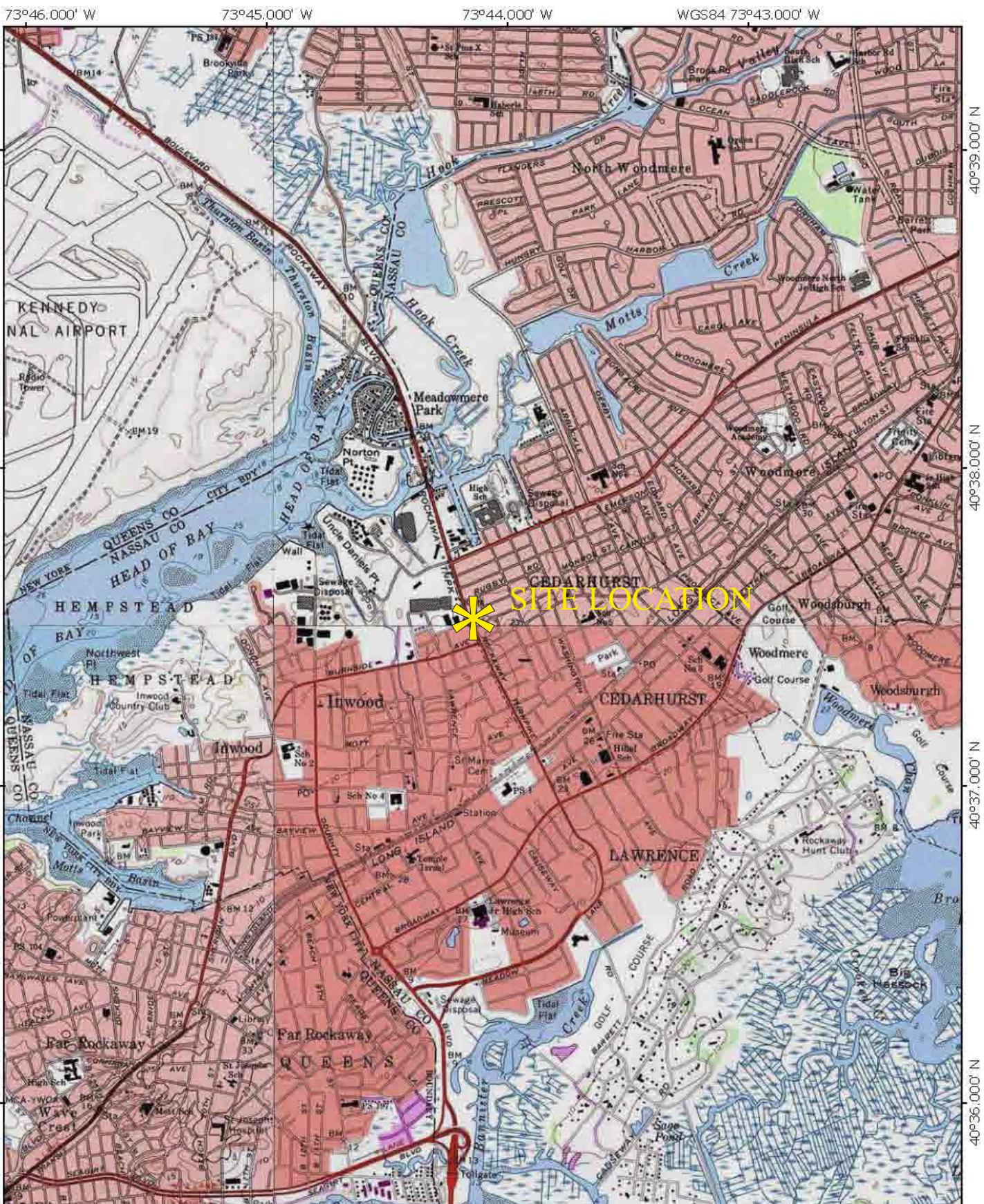
The Community Air Monitoring Plan (CAMP) provided measures for protection for on/off-site workers and the downwind community (i.e., off-site receptors including residences, businesses, and on-site commercial workers) from potential airborne contaminant releases resulting from ground intrusive activities. The action levels specified require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that the sampling work will not spread contamination off-site through the air. The primary concerns during the work are: odors from VOCs. The CAMP data for this investigation is provided as Attachment - C.

### **5.0 Conclusion**

The results for the supplemental soil sampling of the PFAS-21chemical list indicate mainly non-detections with minor detections observed at or above the method detection limit (MDL) but below the reporting limit (RL). Part-375 testing for soils indicated two (2) pesticides above the SCO for unrestricted-use soils. DDT and DDD were detected slightly above the SCO of 3.3 ppb. The location of the sample (B-3), which demonstrated the detections of these pesticides was located in the rear yard of the subject facility. This area receives heavy up gradient surface runoff during rain storms, which could be the source of these minor impacts. Metals concentrations are indicative of background levels typically found in this area of Long Island especially with high Iron concentrations and saltwater intrusion prevalent.

Groundwater consisted of one (1) SVOC constituent (Naphthalene) above the TOGS groundwater standard of *10 ppb*. Concentrations ranging from 150-460 ppb were discovered in each well (MW-1-4). The monitoring wells are located down gradient of a New York State spill case involving a fuel spill at the adjacent gas station, that has likely migrated down gradient onto the subject site. Metals Iron, Sodium and Thallium were detected with concentrations above standards, but are within normal back round range for this area of southwest Nassau county.

## **FIGURES**



73°46.000' W

73°45.000' W

73°44.000' W

WGS84 73°43.000' W

0 5  
1000 0 1000 2000 3000 4000 5000  
MILES  
1000 0 5 0 1000  
KILOMETERS METERS

MN TN

13°

06/15/12

**Former Quick and Clean Cleaners  
380 Rockaway Turnpike  
Cedarhurst, New York**

**Figure-1  
Site Location**

**John V. Soderberg P.E  
PO Box 263  
Stony Brook, New York**

## Former Cumberland Farms

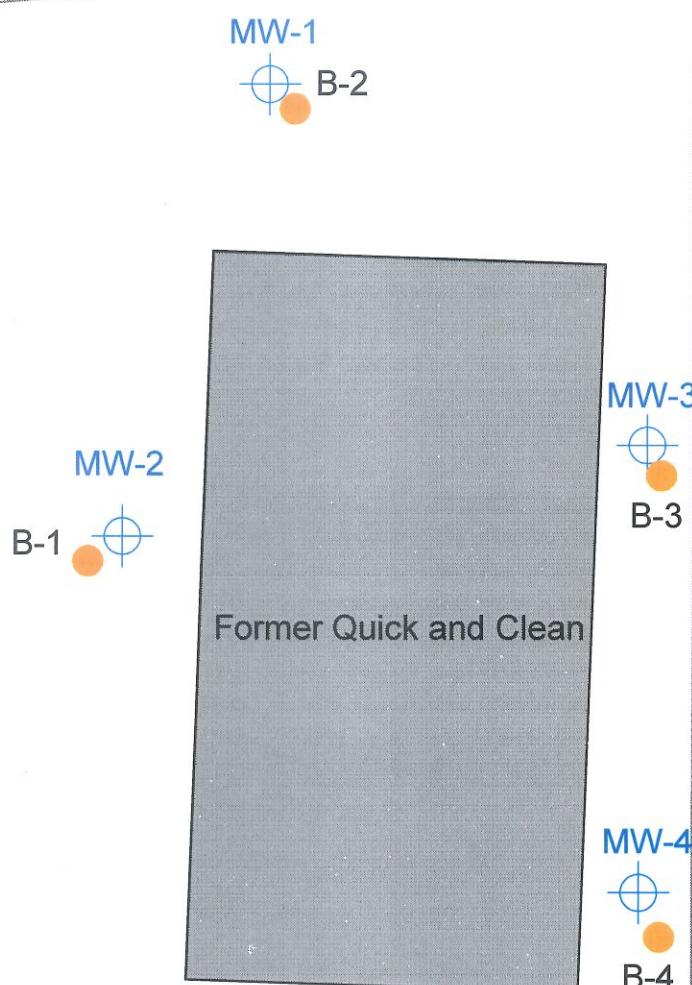


Rockaway Turnpike

Residential



1"=25'



### Key:

monitoring well selected for additional sampling

Soil Sample Location (PFAS; 1, 4 Dioxane  
plus: SVOCs, PCBs, Pest and TAL metals)

Sunoco S/S

Figure-2

Sampling  
Locations

Former Quick and Clean Cleaners

380 Rockaway Turnpike  
Cedarhurst, NY

John V. Soderberg P.E

PO Box 263

Stony Brook, NY 11790

## Former Cumberland Farms

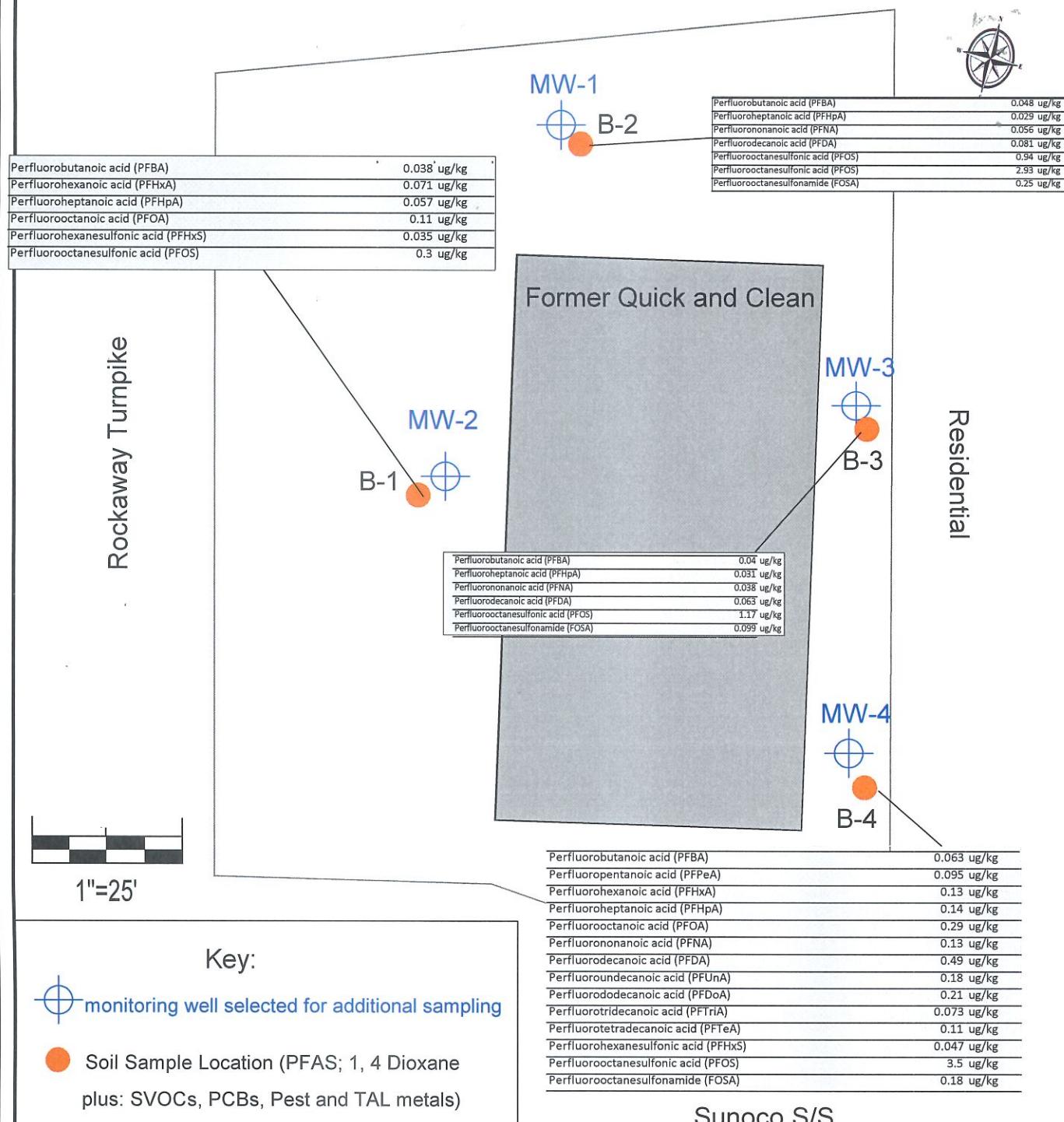


Figure-3

Former Quick and Clean Cleaners

John V. Soderberg P.E.

Sampling Locations

380 Rockaway Turnpike

PO Box 263

PFAS and 1, 4 Dioxane

Cedarhurst, NY

Stony Brook, NY 11790

SVOCs all non-detect or below SCO  
PCB's all non-detect

Rockaway Turnpike

### Former Cumberland Farms

MW-1  
B-2

B-1 @ 2"-24"	
1909078-001	
9/11/2019	
Aluminum	840
Antimony	0.197 U
Arsenic	0.809
Barium	5.05
Beryllium	0.6987 U
Cadmium	0.0493 U
Calcium	1660
Chromium	2.29
Cobalt	0.0987 U
Copper	1.51
Iron	1170
Lead	5.66
Magnesium	641
Manganese	17.5
Mercury	0.0173
Nickel	1.05
Potassium	81
Selenium	0.197 U
Silver	0.0987 U
Sodium	40.7
Thallium	0.298 U
Vanadium	2.48
Zinc	7.32

1"=25'

### Former Quick and Clean

MW-2  
B-1

MW-1  
B-2

### B-3 @ 2"-24" (Pest)

4,4'-DDD	9.5
4,4'-DDT	22

B-3 @ 2"-24"	
1909078-001	
9/11/2019	
Aluminum	1200
Antimony	0.184 U
Arsenic	0.731
Barium	6.89
Beryllium	0.0918 U
Cadmium	0.0459 U
Calcium	505
Chromium	2.91
Cobalt	0.0918 U
Copper	4.74
Iron	1460
Lead	3.35
Magnesium	203
Manganese	23.2
Mercury	0.0077 U
Nickel	1.56
Potassium	110
Selenium	0.184 U
Silver	0.0918 U
Sodium	14
Thallium	0.275 U
Vanadium	3.02
Zinc	8

B-4 @ 2"-24"	
1909078-004	
9/11/2019	
Aluminum	701
Antimony	0.185 U
Arsenic	0.528
Barium	5.42
Beryllium	0.0927 U
Cadmium	0.0945 U
Calcium	170
Chromium	2.11
Cobalt	0.0927 U
Copper	3.05
Iron	880
Lead	11.3
Magnesium	115
Manganese	10.6
Mercury	0.0075 U
Nickel	1.07
Potassium	54
Selenium	0.185 U
Silver	0.0927 U
Sodium	10.1
Thallium	0.278 U
Vanadium	1.92
Zinc	21.1

### Key:

monitoring well selected for additional sampling

Soil Sample Location (PFAS; 1, 4 Dioxane  
plus: SVOCs, PCBs, Pest and TAL metals)

Sunoco S/S

Figure-4

Former Quick and Clean Cleaners

John V. Soderberg P.E

Sampling Locations

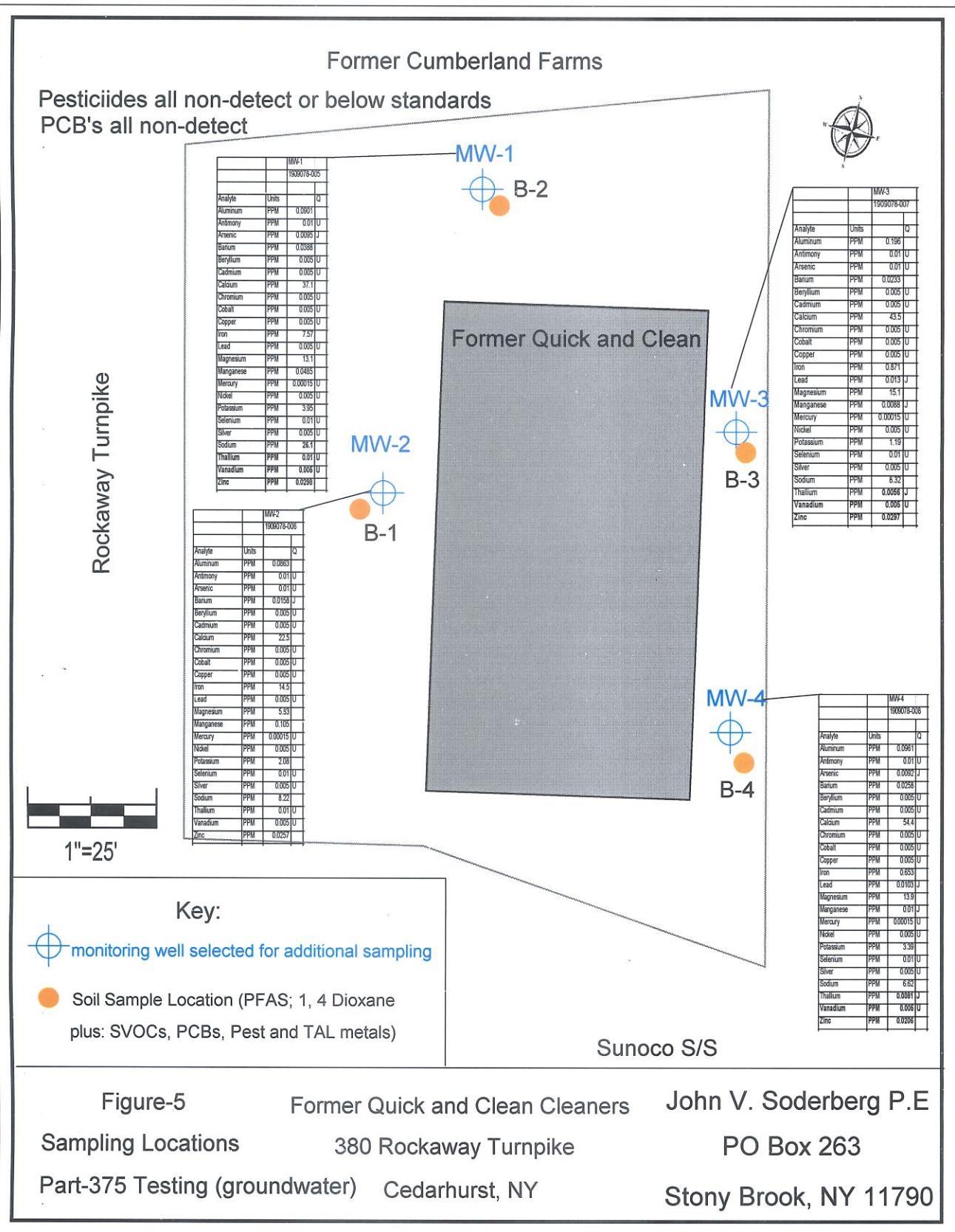
380 Rockaway Turnpike

PO Box 263

Part-375 Testing (soil)

Cedarhurst, NY

Stony Brook, NY 11790



## **ATTACHMENTS**

**Attachment-A  
PFAS data tabulation  
SOIL**

SAMPLE		PREPARED	ANALYZED		ANALYTE	RESULT	UNIT	QUALIFIER	MDL	RL	DIL FAC
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	Perfluorobutanoic acid (PFBA)	0.038	ug/kg	J	0.029	0.21	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	Perfluoropentanoic acid (PFPeA)			U	0.08	0.21	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	Perfluorohexanoic acid (PFHxA)	0.071	ug/kg	J	0.044	0.21	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	Perfluoroheptanoic acid (PFHpA)	0.057	ug/kg	J	0.03	0.21	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	Perfluorooctanoic acid (PFOA)	0.11	ug/kg	J	0.09	0.21	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	Perfluorononanoic acid (PFNA)			U	0.038	0.21	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	Perfluorodecanoic acid (PFDA)			U	0.023	0.21	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	Perfluoroundecanoic acid (PFUnA)			U	0.038	0.21	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	Perfluorododecanoic acid (PFDoA)			U	0.07	0.21	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	Perfluorotridecanoic acid (PFTriA)			U	0.053	0.21	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	Perfluorotetradecanoic acid (PFTeA)			U	0.056	0.21	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	Perfluorobutanesulfonic acid (PFBS)			U	0.026	0.21	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	Perfluorohexanesulfonic acid (PFHxS)	0.035	ug/kg	J	0.032	0.21	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	Perfluoroheptanesulfonic Acid (PFHpS)			U	0.036	0.21	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	Perfluorooctanesulfonic acid (PFOS)	0.3	ug/kg	J	0.21	0.52	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	Perfluorodecanesulfonic acid (PFDS)			U	0.041	0.21	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	Perfluoroctanesulfonamide (FOSA)			U	0.085	0.21	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			U	0.41	2.08	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			U	0.39	2.08	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	6:2 FTS			U	0.16	2.08	1
B-1d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:02	INITIAL	8:2 FTS			U	0.26	2.08	1
B-1d 2-24***	SW8270D	9/17/2019 10:38	9/18/2019 2:28	INITIAL	1,4-Dioxane			U	9.5	100	1

U: Indicates the analyte was analyzed for but not detected.

J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

SAMPLE		PREPARED	ANALYZED		ANALYTE	RESULT	UNIT	QUALIFIER	MDL	RL	DIL FAC
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	Perfluorobutanoic acid (PFBA)	0.048	ug/kg	J	0.028	0.2	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	Perfluorobutanoic acid (PFBA)			U	0.034	0.24	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	Perfluoropentanoic acid (PFPeA)			U	0.093	0.24	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	Perfluoropentanoic acid (PFPeA)			U	0.077	0.2	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	Perfluorohexanoic acid (PFHxA)			U	0.051	0.24	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	Perfluorohexanoic acid (PFHxA)			U	0.042	0.2	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	Perfluoroheptanoic acid (PFHpA)			U	0.035	0.24	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	Perfluoroheptanoic acid (PFHpA)	0.029	ug/kg	J	0.029	0.2	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	Perfluoroctanoic acid (PFOA)			U	0.1	0.24	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	Perfluoroctanoic acid (PFOA)			U	0.086	0.2	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	Perfluorononanoic acid (PFNA)			U	0.043	0.24	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	Perfluorononanoic acid (PFNA)	0.056	ug/kg	J	0.036	0.2	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	Perfluorodecanoic acid (PFDA)	0.081	ug/kg	J	0.022	0.2	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	Perfluorodecanoic acid (PFDA)			U	0.027	0.24	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	Perfluoroundecanoic acid (PFUnA)			U	0.043	0.24	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	Perfluoroundecanoic acid (PFUnA)			U	0.036	0.2	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	Perfluorododecanoic acid (PFDoA)			U	0.081	0.24	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	Perfluorododecanoic acid (PFDoA)			U	0.067	0.2	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	Perfluorotridecanoic acid (PFTriA)			U	0.062	0.24	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	Perfluorotridecanoic acid (PFTriA)			U	0.051	0.2	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	Perfluorotetradecanoic acid (PFTeA)			U	0.065	0.24	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	Perfluorotetradecanoic acid (PFTeA)			U	0.054	0.2	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	Perfluorobutanesulfonic acid (PFBS)			U	0.03	0.24	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	Perfluorobutanesulfonic acid (PFBS)			U	0.025	0.2	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	Perfluorohexanesulfonic acid (PFHxS)			U	0.037	0.24	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	Perfluorohexanesulfonic acid (PFHxS)			U	0.031	0.2	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	Perfluoroheptanesulfonic Acid (PFHpS)			U	0.035	0.2	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	Perfluoroheptanesulfonic Acid (PFHpS)			U	0.042	0.24	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	Perfluoroctanesulfonic acid (PFOS)	0.94	ug/kg	F1	0.24	0.6	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	Perfluoroctanesulfonic acid (PFOS)	2.93	ug/kg		0.2	0.5	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	Perfluorodecanesulfonic acid (PFDS)			U	0.039	0.2	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	Perfluorodecanesulfonic acid (PFDS)			U	0.047	0.24	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	Perfluoroctanesulfonamide (FOSA)	0.25	ug/kg		0.082	0.2	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	Perfluoroctanesulfonamide (FOSA)			U	0.099	0.24	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			U	0.47	2.41	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			U	0.39	2.01	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			U	0.37	2.01	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	N-ethylperfluorooctanesulfonamidoacetic acid (NNetFOSAA)			U	0.45	2.41	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	6:2 FTS			U	0.15	2.01	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	6:2 FTS			U	0.18	2.41	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 5:00	INITIAL	8:2 FTS			U	0.25	2.01	1
B-2d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:12	INITIAL	8:2 FTS			U	0.3	2.41	1
B-2d 2-24'''	SW8270D	9/17/2019 10:38	9/18/2019 3:37	INITIAL	1,4-Dioxane			U	9.8	110	1
B-2d 2-24'''	SW8270D	9/17/2019 10:38	9/17/2019 22:15	INITIAL	1,4-Dioxane			U	11	120	1

U: Indicates the analyte was analyzed for but not detected.

J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

F1: MS and/or MSD Recovery is outside acceptance limits.

SAMPLE		PREPARED	ANALYZED		ANALYTE	RESULT	UNIT	QUALIFIER	MDL	RL	DIL FAC
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	Perfluorobutanoic acid (PFBA)	0.04	ug/kg	J	0.027	0.2	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	Perfluoropentanoic acid (PFPeA)			U	0.075	0.2	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	Perfluorohexanoic acid (PFHxA)			U	0.041	0.2	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	Perfluoroheptanoic acid (PFHpA)	0.031	ug/kg	J	0.028	0.2	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	Perfluorooctanoic acid (PFOA)			U	0.084	0.2	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	Perfluorononanoic acid (PFNA)	0.038	ug/kg	J	0.035	0.2	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	Perfluorodecanoic acid (PFDA)	0.063	ug/kg	J	0.021	0.2	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	Perfluoroundecanoic acid (PFUnA)			U	0.035	0.2	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	Perfluorododecanoic acid (PFDoA)			U	0.065	0.2	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	Perfluorotridecanoic acid (PFTriA)			U	0.05	0.2	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	Perfluorotetradecanoic acid (PFTeA)			U	0.053	0.2	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	Perfluorobutanesulfonic acid (PFBS)			U	0.024	0.2	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	Perfluorohexanesulfonic acid (PFHxS)			U	0.03	0.2	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	Perfluoroheptanesulfonic Acid (PFHpS)			U	0.034	0.2	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	Perfluorooctanesulfonic acid (PFOS)	1.17	ug/kg		0.2	0.49	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	Perfluorodecanesulfonic acid (PFDS)			U	0.038	0.2	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	Perfluorooctanesulfonamide (FOSA)	0.099	ug/kg	J	0.08	0.2	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			U	0.38	1.95	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			U	0.36	1.95	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	6:2 FTS			U	0.15	1.95	1
B-3d 2-24'''	PFOA	9/25/2019 15:18	9/30/2019 4:41	INITIAL	8:2 FTS			U	0.24	1.95	1
B-3d 2-24'''	SW8270D	9/17/2019 10:38	9/18/2019 2:51	INITIAL	1,4-Dioxane			U	9.2	100	1

U: Indicates the analyte was analyzed for but not detected.

J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

SAMPLE		PREPARED	ANALYZED		ANALYTE	RESULT	UNIT	QUALIFIER	MDL	RL	DIL FAC
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	Perfluorobutanoic acid (PFBA)	0.063	ug/kg	JH	0.03	0.21	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	Perfluoropentanoic acid (PFPeA)	0.095	ug/kg	JH	0.082	0.21	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	Perfluorohexanoic acid (PFHxA)	0.13	ug/kg	JH	0.045	0.21	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	Perfluoroheptanoic acid (PFHpA)	0.14	ug/kg	JH	0.031	0.21	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	Perfluoroctanoic acid (PFOA)	0.29	ug/kg	H	0.092	0.21	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	Perfluorononanoic acid (PFNA)	0.13	ug/kg	JH	0.038	0.21	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	Perfluorodecanoic acid (PFDA)	0.49	ug/kg	H	0.023	0.21	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	Perfluoroundecanoic acid (PFUnA)	0.18	ug/kg	JH	0.038	0.21	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	Perfluorododecanoic acid (PFDoA)	0.21	ug/kg	H	0.071	0.21	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	Perfluorotridecanoic acid (PFTriA)	0.073	ug/kg	JH	0.054	0.21	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	Perfluorotetradecanoic acid (PFTeA)	0.11	ug/kg	JH	0.057	0.21	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	Perfluorobutanesulfonic acid (PFBS)			UH	0.027	0.21	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	Perfluorohexanesulfonic acid (PFHxS)	0.047	ug/kg	JH	0.033	0.21	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	Perfluoroheptanesulfonic Acid (PFHpS)			UH	0.037	0.21	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	Perfluoroctanesulfonic acid (PFOS)	3.5	ug/kg	H	0.21	0.53	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	Perfluorodecanesulfonic acid (PFDS)			UH	0.042	0.21	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	Perfluoroctanesulfonamide (FOSA)	0.18	ug/kg	JH	0.087	0.21	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	N-methylperfluoroctanesulfonamidoacetic acid (NMeFOSAA)			UH	0.42	2.13	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	N-ethylperfluoroctanesulfonamidoacetic acid (NEtFOSAA)			UH	0.39	2.13	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	6:2 FTS			UH	0.16	2.13	1
B-4d 2-24***	PFOA	9/25/2019 15:18	9/30/2019 4:50	INITIAL	8:2 FTS			UH	0.27	2.13	1
B-4d 2-24***	SW8270D	9/17/2019 10:38	9/18/2019 3:14	INITIAL	1,4-Dioxane			U	9.9	110	1

U: Indicates the analyte was analyzed for but not detected.

J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

H: Sample was prepped or analyzed beyond the specified holding time.

**Attachment-B**  
**Part-375 data tabulation**  
**SOIL**

SVOC	Client SampleID: Laboratory ID: Sampling Date:		B-1 @ 2"-24" 1909078-001 9/11/2019	B-2 @ 2"-24" 1909078-002 9/11/2019	B-3 @ 2"-24" 1909078-003 9/11/2019	B-4 @ 2"-24" 1909078-004 9/11/2019	DEC Part 375 Unrestricted Use	
	CasNo	Analyte	Units	Q	Q	Q	Q	Limits
	120-82-1	1,2,4-Trichlorobenzene	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>
95-50-1	1,2-Dichlorobenzene	PPB	25 U	25 U	25 U	25 U	1100 <sup>(11)</sup>	
541-73-1	1,3-Dichlorobenzene	PPB	25 U	25 U	25 U	25 U	2400 <sup>(11)</sup>	
106-46-7	1,4-Dichlorobenzene	PPB	25 U	25 U	25 U	25 U	1800 <sup>(11)</sup>	
95-95-4	2,4,5-Trichlorophenol	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
88-06-2	2,4,6-Trichlorophenol	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
120-83-2	2,4-Dichlorophenol	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
105-67-9	2,4-Dimethylphenol	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
51-28-5	2,4-Dinitrophenol	PPB	50 U	50 U	50 U	49 U	NA <sup>(11)</sup>	
121-14-2	2,4-Dinitrotoluene	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
606-20-2	2,6-Dinitrotoluene	PPB	50 U	50 U	50 U	49 U	NA <sup>(11)</sup>	
91-58-7	2-Chloronaphthalene	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
95-57-8	2-Chlorophenol	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
91-57-6	2-Methylnaphthalene	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
95-48-7	2-Methylphenol	PPB	25 U	25 U	25 U	25 U	330 <sup>(11)</sup>	
88-74-4	2-Nitroaniline	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
88-75-5	2-Nitrophenol	PPB	50 U	50 U	50 U	49 U	NA <sup>(11)</sup>	
91-94-1	3,3'-Dichlorobenzidine	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
108-39-4/106-44	3+4-Methylphenol	PPB	25 U	25 U	25 U	25 U	330 <sup>(11)</sup>	
99-09-2	3-Nitroaniline	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
534-52-1	4,6-Dinitro-2-methylphenol	PPB	50 U	50 U	50 U	49 U	NA <sup>(11)</sup>	
101-55-3	4-Bromophenyl phenyl ether	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
59-50-7	4-Chloro-3-methylphenol	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
106-47-8	4-Chloroaniline	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
7005-72-3	4-Chlorophenyl phenyl ether	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
100-01-6	4-Nitroaniline	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
100-02-7	4-Nitrophenol	PPB	50 U	50 U	50 U	49 U	NA <sup>(11)</sup>	
83-32-9	Acenaphthene	PPB	25 U	25 U	25 U	25 U	20000 <sup>(11)</sup>	
208-96-8	Acenaphthylene	PPB	25 U	25 U	25 U	25 U	100000 <sup>(11)</sup>	
98-86-2	Acetophenone	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
62-53-3	Aniline	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
120-12-7	Anthracene	PPB	25 U	25 U	25 U	25 U	100000 <sup>(11)</sup>	
1912-24-9	Atrazine	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
103-33-3	Azobenzene	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
100-52-7	Benzaldehyde	PPB	50 U	50 U	50 U	49 U	NA <sup>(11)</sup>	
92-87-5	Benzidine	PPB	100 U	99 U	100 U	99 U	NA <sup>(11)</sup>	
56-55-3	Benzo(a)anthracene	PPB	25 U	25 U	25 U	25 U	1000 <sup>(11)</sup>	
50-32-8	Benzo(a)pyrene	PPB	25 U	25 U	25 U	25 U	1000 <sup>(11)</sup>	
205-99-2	Benzo(b)fluoranthene	PPB	29 J	25 U	25 U	25 U	1000 <sup>(11)</sup>	
191-24-2	Benzo(g,h,i)perylene	PPB	25 U	25 U	25 U	25 U	100000 <sup>(11)</sup>	
207-08-9	Benzo(k)fluoranthene	PPB	25 U	25 U	25 U	25 U	800 <sup>(11)</sup>	
65-85-0	Benzocic acid	PPB	50 U	50 U	50 U	49 U	NA <sup>(11)</sup>	
100-51-6	Benzyl alcohol	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
92-52-4	Biphenyl	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
111-91-1	Bis(2-chloroethoxy)methane	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
111-44-4	Bis(2-chloroethyl)ether	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
108-60-1	Bis(2-chloroisopropyl)ether	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
117-81-7	Bis(2-ethylhexyl)phthalate	PPB	50 U	50 U	50 U	49 U	NA <sup>(11)</sup>	
85-68-7	Butyl benzyl phthalate	PPB	50 U	50 U	50 U	49 U	NA <sup>(11)</sup>	
105-60-2	Caprolactam	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
86-74-8	Carbazole	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
218-01-9	Chrysene	PPB	26 J	25 U	25 U	25 U	1000 <sup>(11)</sup>	
53-70-3	Dibenzo(a,h)anthracene	PPB	25 U	25 U	25 U	25 U	330 <sup>(11)</sup>	
132-64-9	Dibenzofuran	PPB	25 U	25 U	25 U	25 U	7000 <sup>(11)</sup>	
84-66-2	Diethyl phthalate	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
131-11-3	Dimethyl phthalate	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
84-74-2	Di-n-butyl phthalate	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
117-84-0	Di-n-octyl phthalate	PPB	50 U	50 U	50 U	49 U	NA <sup>(11)</sup>	
206-44-0	Fluoranthene	PPB	64 J	25 U	25 U	25 U	100000 <sup>(11)</sup>	
86-73-7	Fluorene	PPB	25 U	25 U	25 U	25 U	30000 <sup>(11)</sup>	
118-74-1	Hexachlorobenzene	PPB	25 U	25 U	25 U	25 U	330 <sup>(11)</sup>	
87-68-3	Hexachlorobutadiene	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
77-47-4	Hexachlorocyclopentadiene	PPB	130 U	120 U	130 U	120 U	NA <sup>(11)</sup>	
67-72-1	Hexachloroethane	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
193-39-5	Indeno(1,2,3-c,d)pyrene	PPB	25 U	25 U	25 U	25 U	500 <sup>(11)</sup>	
78-59-1	Isophorone	PPB	30 J	25 U	25 U	25 U	NA <sup>(11)</sup>	
91-20-3	Naphthalene	PPB	25 U	25 U	25 U	25 U	12000 <sup>(11)</sup>	
98-95-3	Nitrobenzene	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
62-75-9	N-Nitrosodimethylamine	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
621-64-7	N-Nitrosodi-n-propylamine	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
86-30-6	N-Nitrosodiphenylamine	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	
56-38-2	Parathion	PPB	50 U	50 U	50 U	49 U	NA <sup>(11)</sup>	
87-86-5	Pentachlorophenol	PPB	50 U	50 U	50 U	49 U	800 <sup>(11)</sup>	
85-01-8	Phenanthrene	PPB	35 J	25 U	25 U	25 U	100000 <sup>(11)</sup>	
108-95-2	Phenol	PPB	25 U	25 U	25 U	25 U	330 <sup>(11)</sup>	
129-00-0	Pyrene	PPB	56 J	25 U	25 U	25 U	100000 <sup>(11)</sup>	
110-86-1	Pyridine	PPB	25 U	25 U	25 U	25 U	NA <sup>(11)</sup>	

METALS	Client SampleID:		B-1 @ 2"-24"		B-2 @ 2"-24"		B-3 @ 2"-24"		B-4 @ 2"-24"		DEC Part 375 Unrestricted Use		
	Laboratory ID:	1909078-001	9/11/2019		1909078-002	9/11/2019 <th data-kind="ghost"></th> <th>1909078-003</th> <td data-cs="2" data-kind="parent">9/11/2019<th data-kind="ghost"></th><th>1909078-004</th><td data-cs="2" data-kind="parent">9/11/2019<th data-kind="ghost"></th></td></td>		1909078-003	9/11/2019 <th data-kind="ghost"></th> <th>1909078-004</th> <td data-cs="2" data-kind="parent">9/11/2019<th data-kind="ghost"></th></td>		1909078-004	9/11/2019 <th data-kind="ghost"></th>	
	CasNo	Analyte	Units		Q		Q		Q		Q	Limits	
7429-90-5	Aluminum	PPM	840		372		1200		701			NA <sup>(11)</sup>	
7440-36-0	Antimony	PPM	0.197	U	0.188	U	0.184	U	0.185	U		NA <sup>(11)</sup>	
7440-38-2	Arsenic	PPM	0.809		0.398	J	0.731		0.528			13 <sup>(11)</sup>	
7440-39-3	Barium	PPM	5.05		3.05		6.89		5.42			350 <sup>(11)</sup>	
7440-41-7	Beryllium	PPM	0.0987	U	0.0942	U	0.0918	U	0.0927	U		7.2 <sup>(11)</sup>	
7440-43-9	Cadmium	PPM	0.0493	U	0.0471	U	0.0459	U	0.0945	J		2.5 <sup>(11)</sup>	
7440-70-2	Calcium	PPM	1860		647		505		170			NA <sup>(11)</sup>	
7440-47-3	Chromium	PPM	2.29		1.27		2.91		2.11			NA <sup>(11)</sup>	
7440-48-4	Cobalt	PPM	0.0987	U	0.0942	U	0.0918	U	0.0927	U		NA <sup>(11)</sup>	
7440-50-8	Copper	PPM	1.51		0.635		4.74		3.05			50 <sup>(11)</sup>	
7439-89-6	Iron	PPM	1170		499		1460		880			NA <sup>(11)</sup>	
7439-92-1	Lead	PPM	5.66		1.46		3.35		11.3			63 <sup>(11)</sup>	
7439-95-4	Magnesium	PPM	641		243		203		115			NA <sup>(11)</sup>	
7439-96-5	Manganese	PPM	17.5		6.54		23.2		10.6			1600 <sup>(11)</sup>	
7439-97-6	Mercury	PPM	0.0173		0.00792	U	0.00765	U	0.00752	U		0.18 <sup>(11)</sup>	
7440-02-0	Nickel	PPM	1.05		0.509		1.56		1.07			30 <sup>(11)</sup>	
7440-09-7	Potassium	PPM	61		32.5		110		54			NA <sup>(11)</sup>	
7782-49-2	Selenium	PPM	0.197	U	0.188	U	0.184	U	0.185	U		3.9 <sup>(11)</sup>	
7440-22-4	Silver	PPM	0.0987	U	0.0942	U	0.0918	U	0.0927	U		2 <sup>(11)</sup>	
7440-23-5	Sodium	PPM	40.7		17.2		14		10.1			NA <sup>(11)</sup>	
7440-28-0	Thallium	PPM	0.296	U	0.283	U	0.275	U	0.278	U		NA <sup>(11)</sup>	
7440-62-2	Vanadium	PPM	2.48		1.21		3.02		1.92			NA <sup>(11)</sup>	
7440-66-6	Zinc	PPM	7.32		3.86		8		21.1			109 <sup>(11)</sup>	

**American Analytical Laboratories, LLC.**

(11) NYSDEC 375 UNRES. Limits

WorkOrder: 1909078

Client: WRS d.b.a Berninger Environmental

Abbreviation:

Project: Former Quick &amp; Clean; 380 Rockaway Turnp

NA = Not available, no value specified in NYSDEC 375 UNRES. Limits

PCBS	Client SampleID: Laboratory ID: Sampling Date:			B-1 @ 2"-24" 1909078-001 9/11/2019	B-2 @ 2"-24" 1909078-002 9/11/2019	B-3 @ 2"-24" 1909078-003 9/11/2019	B-4 @ 2"-24" 1909078-004 9/11/2019	DEC Part 375 Unrestricted Use
	CasNo	Analyte	Units	Q	Q	Q	Q	Limits
	12674-11-2	Aroclor 1016	PPB	10 U	10 U	10 U	10 U	100 (11)
WET CHEM	E-11870	Percent Moisture	wt%	1.05	1.02	1.36	1.55	NA (11)

PESTICIDES	Client SampleID: Laboratory ID: Sampling Date:			B-1 @ 2"-24" 1909078-001 9/11/2019		B-2 @ 2"-24" 1909078-002 9/11/2019		B-3 @ 2"-24" 1909078-003 9/11/2019		B-4 @ 2"-24" 1909078-004 9/11/2019		DEC Part 375 Unrestricted Use
	CasNo	Analyte	Units		Q		Q		Q		Q	Limits
	72-54-8	<b>4,4'-DDD</b>	PPB	1	U	1	U	9.5		1	U	3.3 <sup>(11)</sup>
72-55-9		4,4'-DDE	PPB	1	U	1	U	1.9	J	1	U	3.3 <sup>(11)</sup>
50-29-3		<b>4,4'-DDT</b>	PPB	1	U	1	U	22		1	PU	3.3 <sup>(11)</sup>
309-00-2		Aldrin	PPB	1	U	1	U	1	U	1	U	5 <sup>(11)</sup>
319-84-6		alpha-BHC	PPB	1	U	1	U	1	U	1	U	20 <sup>(11)</sup>
5103-71-9		alpha-Chlordane	PPB	6	U	6	U	6	U	6	U	94 <sup>(11)</sup>
319-85-7		beta-BHC	PPB	1	U	1	U	1	U	1	U	36 <sup>(11)</sup>
510-15-6		Chlorobenzilate	PPB	1	U	1	U	1	U	1	U	NA <sup>(11)</sup>
96-12-8		DBCP	PPB	1	U	1	U	1	U	1	U	NA <sup>(11)</sup>
319-86-8		delta-BHC	PPB	1	U	1	U	1	U	1	U	40 <sup>(11)</sup>
60-57-1		Dieldrin	PPB	1	U	1	U	4.8		1	U	5 <sup>(11)</sup>
959-98-8		Endosulfan I	PPB	1	U	1	U	1	U	1	U	2400 <sup>(11)</sup>
33213-65-9		Endosulfan II	PPB	1	U	1	U	1	U	1	U	2400 <sup>(11)</sup>
1031-07-8		Endosulfan sulfate	PPB	1	U	1	U	1	U	1	U	2400 <sup>(11)</sup>
72-20-8		Endrin	PPB	1	U	1	U	1	U	1	U	14 <sup>(11)</sup>
7421-93-4		Endrin aldehyde	PPB	1	U	1	U	1	U	1	U	NA <sup>(11)</sup>
53494-70-5		Endrin ketone	PPB	1	U	1	U	1	U	1	U	NA <sup>(11)</sup>
58-89-9		gamma-BHC	PPB	1	U	1	U	1	U	1	U	100 <sup>(11)</sup>
5566-34-7		gamma-Chlordane	PPB	6	U	6	U	6	U	6	U	NA <sup>(11)</sup>
76-44-8		Heptachlor	PPB	2	U	2	U	2	U	2	U	42 <sup>(11)</sup>
1024-57-3		Heptachlor epoxide	PPB	1	U	1	U	1	U	1	U	NA <sup>(11)</sup>
118-74-1		Hexachlorobenzene	PPB	1	U	1	U	1	U	1	U	330 <sup>(11)</sup>
77-47-4		Hexachlorocyclopentadiene	PPB	3	U	3	U	3	U	3	U	NA <sup>(11)</sup>
72-43-5		Methoxychlor	PPB	1	U	1	U	1	U	1	U	NA <sup>(11)</sup>
8001-35-2		Toxaphene	PPB	13	U	13	U	13	U	13	U	NA <sup>(11)</sup>

**Attachment-C  
Community Air Monitoring Plan (CAMP)  
data**

Instrument: MiniRAE 2000 (PGM7600)

Serial Number: 009059

User ID: 00000001

Site ID: 00000202

Data Points: 356

Gas Name: Isobutylene

Sample Period: 60 sec

Last Calibration Time: 09/02/2019 10:49

Measurement Type:	Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels:	100.0	100.0	100.0
Low Alarm Levels:	50.0	50.0	50.0

Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
--------	------	------	-----------	-----------	-----------

Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	09/11/19	8:39	-----	0.0	0.0
2	09/11/19	8:40	-----	0.0	0.1
3	09/11/19	8:41	-----	0.0	0.0
4	09/11/19	8:42	-----	0.0	0.1
5	09/11/19	8:43	-----	0.0	0.1
6	09/11/19	8:44	-----	0.0	0.1
7	09/11/19	8:45	-----	0.0	0.1
8	09/11/19	8:46	-----	0.0	0.0
9	09/11/19	8:47	-----	0.0	0.1
10	09/11/19	8:48	-----	0.0	0.1
11	09/11/19	8:49	-----	0.0	0.1
12	09/11/19	8:50	-----	0.0	0.1
13	09/11/19	8:51	-----	0.0	0.1
14	09/11/19	8:52	-----	0.0	0.0
15	09/11/19	8:53	-----	0.0	0.1
16	09/11/19	8:54	-----	0.0	0.1
17	09/11/19	8:55	-----	0.0	0.1
18	09/11/19	8:56	-----	0.0	0.1
19	09/11/19	8:57	-----	0.0	0.1
20	09/11/19	8:58	-----	0.0	0.0
21	09/11/19	8:59	-----	0.0	0.0
22	09/11/19	9:00	-----	0.0	0.0
23	09/11/19	9:01	-----	0.0	0.0
24	09/11/19	9:02	-----	0.0	0.0
25	09/11/19	9:03	-----	0.0	0.0
26	09/11/19	9:04	-----	0.0	0.0
27	09/11/19	9:05	-----	0.0	0.0
28	09/11/19	9:06	-----	0.0	0.0
29	09/11/19	9:07	-----	0.0	0.0
30	09/11/19	9:08	-----	0.0	0.0
31	09/11/19	9:09	-----	0.0	0.0
32	09/11/19	9:10	-----	0.0	0.0
33	09/11/19	9:11	-----	0.0	0.1
34	09/11/19	9:12	-----	0.0	0.1
35	09/11/19	9:13	-----	0.0	0.1
36	09/11/19	9:14	-----	0.0	0.1
37	09/11/19	9:15	-----	0.0	0.1
38	09/11/19	9:16	-----	0.0	0.1
39	09/11/19	9:17	-----	0.0	0.1
40	09/11/19	9:18	-----	0.0	0.1
41	09/11/19	9:19	-----	0.0	0.1
42	09/11/19	9:20	-----	0.0	0.1
43	09/11/19	9:21	-----	0.0	0.1
44	09/11/19	9:22	-----	0.0	0.1
45	09/11/19	9:23	-----	0.0	0.1
46	09/11/19	9:24	-----	0.0	0.1
47	09/11/19	9:25	-----	0.0	0.1
48	09/11/19	9:26	-----	0.0	0.1
49	09/11/19	9:27	-----	0.0	0.1
50	09/11/19	9:28	-----	0.0	0.1
51	09/11/19	9:29	-----	0.0	0.1
52	09/11/19	9:30	-----	0.0	0.1

53	09/11/19	9:31	-----	0.0	0.1
54	09/11/19	9:32	-----	0.0	0.1
55	09/11/19	9:33	-----	0.0	0.1
56	09/11/19	9:34	-----	0.0	0.0
57	09/11/19	9:35	-----	0.0	0.1
58	09/11/19	9:36	-----	0.0	0.0
59	09/11/19	9:37	-----	0.0	0.1
60	09/11/19	9:38	-----	0.0	0.1
61	09/11/19	9:39	-----	0.0	0.0
62	09/11/19	9:40	-----	0.0	0.1
63	09/11/19	9:41	-----	0.0	0.1
64	09/11/19	9:42	-----	0.0	0.1
65	09/11/19	9:43	-----	0.0	0.1
66	09/11/19	9:44	-----	0.0	0.0
67	09/11/19	9:45	-----	0.0	0.1
68	09/11/19	9:46	-----	0.0	0.1
69	09/11/19	9:47	-----	0.0	0.1
70	09/11/19	9:48	-----	0.0	0.1
71	09/11/19	9:49	-----	0.0	0.1
72	09/11/19	9:50	-----	0.0	0.0
73	09/11/19	9:51	-----	0.0	0.1
74	09/11/19	9:52	-----	0.0	0.1
75	09/11/19	9:53	-----	0.0	0.1
76	09/11/19	9:54	-----	0.0	0.1
77	09/11/19	9:55	-----	0.0	0.1
78	09/11/19	9:56	-----	0.0	0.1
79	09/11/19	9:57	-----	0.0	0.1
80	09/11/19	9:58	-----	0.0	0.1
81	09/11/19	9:59	-----	0.0	0.1
82	09/11/19	10:00	-----	0.0	0.1
83	09/11/19	10:01	-----	0.0	0.1
84	09/11/19	10:02	-----	0.0	0.1
85	09/11/19	10:03	-----	0.1	0.2
86	09/11/19	10:04	-----	0.4	0.8
87	09/11/19	10:05	-----	0.4	0.9
88	09/11/19	10:06	-----	2.1	4.8
89	09/11/19	10:07	-----	2.4	4.8
90	09/11/19	10:08	-----	2.5	4.8
91	09/11/19	10:09	-----	2.5	4.6
92	09/11/19	10:10	-----	0.0	5.8
93	09/11/19	10:11	-----	0.0	4.7
94	09/11/19	10:12	-----	0.0	4.6
95	09/11/19	10:13	-----	0.0	3.4
96	09/11/19	10:14	-----	0.0	3.2
97	09/11/19	10:15	-----	0.0	2.3
98	09/11/19	10:16	-----	0.0	2.2
99	09/11/19	10:17	-----	0.0	2.2
100	09/11/19	10:18	-----	0.0	2.1
101	09/11/19	10:19	-----	0.0	2.0
102	09/11/19	10:20	-----	0.0	1.8
103	09/11/19	10:21	-----	0.0	1.8
104	09/11/19	10:22	-----	0.0	1.9
105	09/11/19	10:23	-----	0.0	2.0
106	09/11/19	10:24	-----	0.0	1.7
107	09/11/19	10:25	-----	0.0	1.7
108	09/11/19	10:26	-----	0.0	1.6
109	09/11/19	10:27	-----	0.0	1.3
110	09/11/19	10:28	-----	0.0	1.0
111	09/11/19	10:29	-----	0.0	1.0
112	09/11/19	10:30	-----	0.0	0.9
113	09/11/19	10:31	-----	0.0	0.3
114	09/11/19	10:32	-----	0.0	0.3
115	09/11/19	10:33	-----	0.0	0.1

116	09/11/19	10:34	-----	0.0	0.0
117	09/11/19	10:35	-----	0.0	0.1
118	09/11/19	10:36	-----	0.0	0.1
119	09/11/19	10:37	-----	0.0	0.1
120	09/11/19	10:38	-----	0.0	0.1
121	09/11/19	10:39	-----	0.0	0.1
122	09/11/19	10:40	-----	0.0	0.1
123	09/11/19	10:41	-----	0.0	0.1
124	09/11/19	10:42	-----	0.0	0.1
125	09/11/19	10:43	-----	0.0	0.1
126	09/11/19	10:44	-----	0.0	0.1
127	09/11/19	10:45	-----	0.0	0.1
128	09/11/19	10:46	-----	0.0	0.1
129	09/11/19	10:47	-----	0.0	0.1
130	09/11/19	10:48	-----	0.0	0.1
131	09/11/19	10:49	-----	0.0	0.1
132	09/11/19	10:50	-----	0.0	0.1
133	09/11/19	10:51	-----	0.0	0.1
134	09/11/19	10:52	-----	0.0	0.1
135	09/11/19	10:53	-----	0.0	0.1
136	09/11/19	10:54	-----	0.0	0.1
137	09/11/19	10:55	-----	0.0	0.1
138	09/11/19	10:56	-----	0.0	0.1
139	09/11/19	10:57	-----	0.0	0.1
140	09/11/19	10:58	-----	0.0	0.1
141	09/11/19	10:59	-----	0.0	0.1
142	09/11/19	11:00	-----	0.0	0.1
143	09/11/19	11:01	-----	0.0	0.1
144	09/11/19	11:02	-----	0.0	0.1
145	09/11/19	11:03	-----	0.0	0.1
146	09/11/19	11:04	-----	0.0	0.1
147	09/11/19	11:05	-----	0.0	0.0
148	09/11/19	11:06	-----	0.0	0.2
149	09/11/19	11:07	-----	0.0	0.1
150	09/11/19	11:08	-----	0.0	0.1
151	09/11/19	11:09	-----	0.0	0.1
152	09/11/19	11:10	-----	0.0	0.1
153	09/11/19	11:11	-----	0.0	0.1
154	09/11/19	11:12	-----	0.0	0.1
155	09/11/19	11:13	-----	0.0	0.1
156	09/11/19	11:14	-----	0.0	0.1
157	09/11/19	11:15	-----	0.0	0.1
158	09/11/19	11:16	-----	0.0	0.0
159	09/11/19	11:17	-----	0.0	0.1
160	09/11/19	11:18	-----	0.0	0.0
161	09/11/19	11:19	-----	0.0	0.1
162	09/11/19	11:20	-----	0.0	0.1
163	09/11/19	11:21	-----	0.0	0.0
164	09/11/19	11:22	-----	0.0	0.1
165	09/11/19	11:23	-----	0.0	0.1
166	09/11/19	11:24	-----	0.0	0.1
167	09/11/19	11:25	-----	0.0	0.2
168	09/11/19	11:26	-----	0.0	0.0
169	09/11/19	11:27	-----	0.0	0.1
170	09/11/19	11:28	-----	0.0	0.1
171	09/11/19	11:29	-----	0.0	0.1
172	09/11/19	11:30	-----	0.0	0.1
173	09/11/19	11:31	-----	0.0	0.1
174	09/11/19	11:32	-----	0.0	0.0
175	09/11/19	11:33	-----	0.0	0.1
176	09/11/19	11:34	-----	0.0	0.1
177	09/11/19	11:35	-----	0.0	0.1
178	09/11/19	11:36	-----	0.0	0.1

179	09/11/19	11:37	-----	0.0	0.1
180	09/11/19	11:38	-----	0.0	0.1
181	09/11/19	11:39	-----	0.0	0.1
182	09/11/19	11:40	-----	0.0	0.1
183	09/11/19	11:41	-----	0.0	0.1
184	09/11/19	11:42	-----	0.0	0.1
185	09/11/19	11:43	-----	0.0	0.1
186	09/11/19	11:44	-----	0.0	0.1
187	09/11/19	11:45	-----	0.0	0.1
188	09/11/19	11:46	-----	0.0	0.1
189	09/11/19	11:47	-----	0.0	0.1
190	09/11/19	11:48	-----	0.0	0.1
191	09/11/19	11:49	-----	0.0	0.1
192	09/11/19	11:50	-----	0.0	0.1
193	09/11/19	11:51	-----	0.0	0.1
194	09/11/19	11:52	-----	0.0	0.1
195	09/11/19	11:53	-----	0.0	0.1
196	09/11/19	11:54	-----	0.0	0.1
197	09/11/19	11:55	-----	0.0	0.1
198	09/11/19	11:56	-----	0.0	0.1
199	09/11/19	11:57	-----	0.0	0.1
200	09/11/19	11:58	-----	0.0	0.0
201	09/11/19	11:59	-----	0.0	0.1
202	09/11/19	12:00	-----	0.0	0.1
203	09/11/19	12:01	-----	0.0	0.1
204	09/11/19	12:02	-----	0.0	0.1
205	09/11/19	12:03	-----	0.0	0.1
206	09/11/19	12:04	-----	0.0	0.1
207	09/11/19	12:05	-----	0.0	0.0
208	09/11/19	12:06	-----	0.0	0.1
209	09/11/19	12:07	-----	0.0	0.1
210	09/11/19	12:08	-----	0.0	0.1
211	09/11/19	12:09	-----	0.0	0.1
212	09/11/19	12:10	-----	0.0	0.1
213	09/11/19	12:11	-----	0.0	0.1
214	09/11/19	12:12	-----	0.0	0.1
215	09/11/19	12:13	-----	0.0	0.1
216	09/11/19	12:14	-----	0.0	0.1
217	09/11/19	12:15	-----	0.0	0.1
218	09/11/19	12:16	-----	0.0	0.1
219	09/11/19	12:17	-----	0.0	0.1
220	09/11/19	12:18	-----	0.0	0.1
221	09/11/19	12:19	-----	0.0	0.1
222	09/11/19	12:20	-----	0.0	0.1
223	09/11/19	12:21	-----	0.0	0.1
224	09/11/19	12:22	-----	0.0	0.1
225	09/11/19	12:23	-----	0.0	0.1
226	09/11/19	12:24	-----	0.0	0.1
227	09/11/19	12:25	-----	0.0	0.1
228	09/11/19	12:26	-----	0.0	0.1
229	09/11/19	12:27	-----	0.0	0.1
230	09/11/19	12:28	-----	0.0	0.1
231	09/11/19	12:29	-----	0.0	0.1
232	09/11/19	12:30	-----	0.0	0.2
233	09/11/19	12:31	-----	0.0	0.2
234	09/11/19	12:32	-----	0.0	0.5
235	09/11/19	12:33	-----	0.0	0.9
236	09/11/19	12:34	-----	1.1	2.3
237	09/11/19	12:35	-----	1.5	3.5
238	09/11/19	12:36	-----	2.1	3.9
239	09/11/19	12:37	-----	2.2	4.6
240	09/11/19	12:38	-----	2.3	4.9
241	09/11/19	12:39	-----	2.5	5.5

242	09/11/19	12:40	-----	3.1	6.9
243	09/11/19	12:41	-----	5.2	10.8
244	09/11/19	12:42	-----	5.7	10.5
245	09/11/19	12:43	-----	7.0	10.1
246	09/11/19	12:44	-----	6.1	10.8
247	09/11/19	12:45	-----	7.6	10.5
248	09/11/19	12:46	-----	7.9	9.9
249	09/11/19	12:47	-----	7.9	9.5
250	09/11/19	12:48	-----	7.2	9.2
251	09/11/19	12:49	-----	7.1	8.5
252	09/11/19	12:50	-----	6.3	7.9
253	09/11/19	12:51	-----	6.0	7.3
254	09/11/19	12:52	-----	6.9	7.5
255	09/11/19	12:53	-----	5.5	5.9
256	09/11/19	12:54	-----	0.0	0.1
257	09/11/19	12:55	-----	0.1	0.1
258	09/11/19	12:56	-----	0.1	0.1
259	09/11/19	12:57	-----	0.1	0.0
260	09/11/19	12:58	-----	0.0	0.1
261	09/11/19	12:59	-----	0.0	0.1
262	09/11/19	1:00	-----	0.0	0.1
263	09/11/19	1:01	-----	0.0	0.1
264	09/11/19	1:02	-----	0.0	0.1
265	09/11/19	1:03	-----	0.0	0.0
266	09/11/19	1:04	-----	0.0	0.1
267	09/11/19	1:05	-----	0.0	0.1
268	09/11/19	1:06	-----	0.0	0.1
269	09/11/19	1:07	-----	0.0	0.1
270	09/11/19	1:08	-----	0.0	0.1
271	09/11/19	1:09	-----	0.0	0.1
272	09/11/19	1:10	-----	0.0	0.1
273	09/11/19	1:11	-----	0.0	0.1
274	09/11/19	1:12	-----	0.0	0.1
275	09/11/19	1:13	-----	0.0	0.1
276	09/11/19	1:14	-----	0.0	0.1
277	09/11/19	1:15	-----	0.0	0.1
278	09/11/19	1:16	-----	0.0	0.1
279	09/11/19	1:17	-----	0.0	0.0
280	09/11/19	1:18	-----	0.0	0.0
281	09/11/19	1:19	-----	0.0	0.0
282	09/11/19	1:20	-----	0.0	0.0
283	09/11/19	1:21	-----	0.0	0.0
284	09/11/19	1:22	-----	0.0	0.0
285	09/11/19	1:23	-----	0.0	0.0
286	09/11/19	1:24	-----	0.0	0.0
287	09/11/19	1:25	-----	0.0	0.0
288	09/11/19	1:26	-----	0.0	0.0
289	09/11/19	1:27	-----	0.0	0.0
290	09/11/19	1:28	-----	0.0	0.0
291	09/11/19	1:29	-----	0.0	0.1
292	09/11/19	1:30	-----	0.0	0.1
293	09/11/19	1:31	-----	0.0	0.1
294	09/11/19	1:32	-----	0.0	0.1
295	09/11/19	1:33	-----	0.0	0.1
296	09/11/19	1:34	-----	0.0	0.1
297	09/11/19	1:35	-----	0.0	0.1
298	09/11/19	1:36	-----	0.0	0.0
299	09/11/19	1:37	-----	0.0	0.1
300	09/11/19	1:38	-----	0.0	0.1
301	09/11/19	1:39	-----	0.0	0.1
302	09/11/19	1:40	-----	0.0	0.1
303	09/11/19	1:41	-----	0.0	0.1
304	09/11/19	1:42	-----	0.0	0.1

305	09/11/19	1:43	-----	0.0	0.1
306	09/11/19	1:44	-----	0.0	0.1
307	09/11/19	1:45	-----	0.0	0.1
308	09/11/19	1:46	-----	0.0	0.1
309	09/11/19	1:47	-----	0.0	0.1
310	09/11/19	1:48	-----	0.0	0.1
311	09/11/19	1:49	-----	0.0	0.1
312	09/11/19	1:50	-----	0.0	0.1
313	09/11/19	1:51	-----	0.0	0.1
314	09/11/19	1:52	-----	0.0	0.1
315	09/11/19	1:53	-----	0.0	0.1
316	09/11/19	1:54	-----	0.0	0.1
317	09/11/19	1:55	-----	0.0	0.1
318	09/11/19	1:56	-----	0.0	0.1
319	09/11/19	1:57	-----	0.0	0.1
320	09/11/19	1:58	-----	0.0	0.1
321	09/11/19	1:59	-----	0.0	0.1
322	09/11/19	2:00	-----	0.0	0.1
323	09/11/19	2:01	-----	0.0	0.1
324	09/11/19	2:02	-----	0.0	0.1
325	09/11/19	2:03	-----	0.0	0.1
326	09/11/19	2:04	-----	0.0	0.1
327	09/11/19	2:05	-----	0.0	0.0
328	09/11/19	2:06	-----	0.0	0.0
329	09/11/19	2:07	-----	0.0	0.0
330	09/11/19	2:08	-----	0.0	0.0
331	09/11/19	2:09	-----	0.0	0.0
332	09/11/19	2:10	-----	0.0	0.0
333	09/11/19	2:11	-----	0.0	0.0
334	09/11/19	2:12	-----	0.0	0.0
335	09/11/19	2:13	-----	0.0	0.0
336	09/11/19	2:14	-----	0.0	0.0
337	09/11/19	2:15	-----	0.0	0.0
338	09/11/19	2:16	-----	0.0	0.0
339	09/11/19	2:17	-----	0.0	0.0
340	09/11/19	2:18	-----	0.0	0.0
341	09/11/19	2:19	-----	0.0	0.0
342	09/11/19	2:20	-----	0.0	0.0
343	09/11/19	2:21	-----	0.0	0.0
344	09/11/19	2:22	-----	0.0	0.0
345	09/11/19	2:23	-----	0.0	0.0
346	09/11/19	2:24	-----	0.0	0.0
347	09/11/19	2:25	-----	0.0	0.0
348	09/11/19	2:26	-----	0.0	0.0
349	09/11/19	2:27	-----	0.0	0.0
350	09/11/19	2:28	-----	0.0	0.0
351	09/11/19	2:29	-----	0.0	0.0
352	09/11/19	2:30	-----	0.0	0.0
353	09/11/19	2:31	-----	0.0	0.0
354	09/11/19	2:32	-----	0.0	0.0
355	09/11/19	2:33	-----	0.0	0.0
356	09/11/19	2:34	-----	0.0	0.0



pDR-1000 S/N: 00000

Tag Number: 06

Number of Logged Points: 365

Start time and date: 08:21:00 11-Sept

Elapsed time: 06:04:00

Logging period (sec) : 60

Calibration Factor (%) : 100

Max Display Concentration: 0.060

Time at maximum: 9:57

Max STEL Concentration : 0.060 mg/m<sup>3</sup>

Time at max STEL: 9:57 Sept 11

Overall Avg Conc: 0.000 mg/m<sup>3</sup>

Logged Data:

Point	Date	Time	Avg. (mg/m <sup>3</sup> )
1	11 Sept	8:21	0.000
2	11 Sept	8:22	0.000
3	11 Sept	8:23	0.000
4	11 Sept	8:24	0.000
5	11 Sept	8:25	0.000
6	11 Sept	8:26	0.000
7	11 Sept	8:27	0.000
8	11 Sept	8:28	0.000
9	11 Sept	8:29	0.000
10	11 Sept	8:30	0.000
11	11 Sept	8:31	0.000
12	11 Sept	8:32	0.000
13	11 Sept	8:33	0.004
14	11 Sept	8:34	0.004
15	11 Sept	8:35	0.000
16	11 Sept	8:36	0.000
17	11 Sept	8:37	0.004
18	11 Sept	8:38	0.004
19	11 Sept	8:39	0.000
20	11 Sept	8:40	0.000
21	11 Sept	8:41	0.004
22	11 Sept	8:42	0.004
23	11 Sept	8:43	0.000
24	11 Sept	8:44	0.000
25	11 Sept	8:45	0.004
26	11 Sept	8:46	0.004
27	11 Sept	8:47	0.000
28	11 Sept	8:48	0.000
29	11 Sept	8:49	0.001
30	11 Sept	8:50	0.004
31	11 Sept	8:51	0.004
32	11 Sept	8:52	0.000
33	11 Sept	8:53	0.000
34	11 Sept	8:54	0.000
35	11 Sept	8:55	0.000
36	11 Sept	8:56	0.002
37	11 Sept	8:57	0.000
38	11 Sept	8:58	0.002
39	11 Sept	8:59	0.002
40	11 Sept	9:00	0.001
41	11 Sept	9:01	0.000
42	11 Sept	9:02	0.000
43	11 Sept	9:03	0.000
44	11 Sept	9:04	0.000
45	11 Sept	9:05	0.000
46	11 Sept	9:06	0.001
47	11 Sept	9:07	0.000
48	11 Sept	9:08	0.000
49	11 Sept	9:09	0.000

50	11 Sept	9:10	0.000
51	11 Sept	9:11	0.000
52	11 Sept	9:12	0.000
53	11 Sept	9:13	0.002
54	11 Sept	9:14	0.000
55	11 Sept	9:15	0.003
56	11 Sept	9:16	0.002
57	11 Sept	9:17	0.001
58	11 Sept	9:18	0.000
59	11 Sept	9:19	0.000
60	11 Sept	9:20	0.000
61	11 Sept	9:21	0.000
62	11 Sept	9:22	0.000
63	11 Sept	9:23	0.001
64	11 Sept	9:24	0.002
65	11 Sept	9:25	0.004
66	11 Sept	9:26	0.000
67	11 Sept	9:27	0.000
68	11 Sept	9:28	0.000
69	11 Sept	9:29	0.000
70	11 Sept	9:30	0.000
71	11 Sept	9:31	0.000
72	11 Sept	9:32	0.000
73	11 Sept	9:33	0.001
74	11 Sept	9:34	0.002
75	11 Sept	9:35	0.004
76	11 Sept	9:36	0.000
77	11 Sept	9:37	0.003
78	11 Sept	9:38	0.000
79	11 Sept	9:39	0.000
80	11 Sept	9:40	0.001
81	11 Sept	9:41	0.002
82	11 Sept	9:42	0.003
83	11 Sept	9:43	0.002
84	11 Sept	9:44	0.000
85	11 Sept	9:45	0.003
86	11 Sept	9:46	0.003
87	11 Sept	9:47	0.002
88	11 Sept	9:48	0.001
89	11 Sept	9:49	0.000
90	11 Sept	9:50	0.004
91	11 Sept	9:51	0.006
92	11 Sept	9:52	0.020
93	11 Sept	9:53	0.025
94	11 Sept	9:54	0.029
95	11 Sept	9:55	0.036
96	11 Sept	9:56	0.059
97	11 Sept	9:57	0.060
98	11 Sept	9:58	0.059
99	11 Sept	9:59	0.051
100	11 Sept	10:00	0.048
101	11 Sept	10:01	0.042
102	11 Sept	10:02	0.034
103	11 Sept	10:03	0.031
104	11 Sept	10:04	0.025
105	11 Sept	10:05	0.019
106	11 Sept	10:06	0.009
107	11 Sept	10:07	0.007
108	11 Sept	10:08	0.005
109	11 Sept	10:09	0.001
110	11 Sept	10:10	0.000
111	11 Sept	10:11	0.000
112	11 Sept	10:12	0.000

113	11 Sept	10:13	0.001
114	11 Sept	10:14	0.002
115	11 Sept	10:15	0.004
116	11 Sept	10:16	0.000
117	11 Sept	10:17	0.000
118	11 Sept	10:18	0.000
119	11 Sept	10:19	0.000
120	11 Sept	10:20	0.001
121	11 Sept	10:21	0.001
122	11 Sept	10:22	0.003
123	11 Sept	10:23	0.002
124	11 Sept	10:24	0.000
125	11 Sept	10:25	0.003
126	11 Sept	10:26	0.002
127	11 Sept	10:27	0.001
128	11 Sept	10:28	0.001
129	11 Sept	10:29	0.000
130	11 Sept	10:30	0.000
131	11 Sept	10:31	0.000
132	11 Sept	10:32	0.000
133	11 Sept	10:33	0.001
134	11 Sept	10:34	0.002
135	11 Sept	10:35	0.004
136	11 Sept	10:36	0.000
137	11 Sept	10:37	0.000
138	11 Sept	10:38	0.000
139	11 Sept	10:39	0.000
140	11 Sept	10:40	0.001
141	11 Sept	10:41	0.001
142	11 Sept	10:42	0.003
143	11 Sept	10:43	0.002
144	11 Sept	10:44	0.000
145	11 Sept	10:45	0.003
146	11 Sept	10:46	0.002
147	11 Sept	10:47	0.001
148	11 Sept	10:48	0.000
149	11 Sept	10:49	0.000
150	11 Sept	10:50	0.000
151	11 Sept	10:51	0.000
152	11 Sept	10:52	0.000
153	11 Sept	10:53	0.001
154	11 Sept	10:54	0.002
155	11 Sept	10:55	0.001
156	11 Sept	10:56	0.000
157	11 Sept	10:57	0.000
158	11 Sept	10:58	0.000
159	11 Sept	10:59	0.002
160	11 Sept	11:00	0.003
161	11 Sept	11:01	0.000
162	11 Sept	11:02	0.001
163	11 Sept	11:03	0.001
164	11 Sept	11:04	0.002
165	11 Sept	11:05	0.000
166	11 Sept	11:06	0.000
167	11 Sept	11:07	0.003
168	11 Sept	11:08	0.002
169	11 Sept	11:09	0.000
170	11 Sept	11:10	0.004
171	11 Sept	11:11	0.002
172	11 Sept	11:12	0.002
173	11 Sept	11:13	0.000
174	11 Sept	11:14	0.000
175	11 Sept	11:15	0.003

176	11 Sept	11:16	0.002
177	11 Sept	11:17	0.000
178	11 Sept	11:18	0.004
179	11 Sept	11:19	0.002
180	11 Sept	11:20	0.002
181	11 Sept	11:21	0.000
182	11 Sept	11:22	0.000
183	11 Sept	11:23	0.003
184	11 Sept	11:24	0.002
185	11 Sept	11:25	0.000
186	11 Sept	11:26	0.004
187	11 Sept	11:27	0.002
188	11 Sept	11:28	0.002
189	11 Sept	11:29	0.000
190	11 Sept	11:30	0.000
191	11 Sept	11:31	0.003
192	11 Sept	11:32	0.002
193	11 Sept	11:33	0.000
194	11 Sept	11:34	0.004
195	11 Sept	11:35	0.002
196	11 Sept	11:36	0.001
197	11 Sept	11:37	0.000
198	11 Sept	11:38	0.000
199	11 Sept	11:39	0.000
200	11 Sept	11:40	0.000
201	11 Sept	11:41	0.000
202	11 Sept	11:42	0.001
203	11 Sept	11:43	0.002
204	11 Sept	11:44	0.004
205	11 Sept	11:45	0.000
206	11 Sept	11:46	0.000
207	11 Sept	11:47	0.000
208	11 Sept	11:48	0.000
209	11 Sept	11:49	0.001
210	11 Sept	11:50	0.001
211	11 Sept	11:51	0.003
212	11 Sept	11:52	0.001
213	11 Sept	11:53	0.000
214	11 Sept	11:54	0.000
215	11 Sept	11:55	0.000
216	11 Sept	11:56	0.000
217	11 Sept	11:57	0.000
218	11 Sept	11:58	0.001
219	11 Sept	11:59	0.002
220	11 Sept	12:00	0.002
221	11 Sept	12:01	0.000
222	11 Sept	12:02	0.000
223	11 Sept	12:03	0.000
224	11 Sept	12:04	0.000
225	11 Sept	12:05	0.001
226	11 Sept	12:06	0.001
227	11 Sept	12:07	0.003
228	11 Sept	12:08	0.001
229	11 Sept	12:09	0.000
230	11 Sept	12:10	0.000
231	11 Sept	12:11	0.000
232	11 Sept	12:12	0.000
233	11 Sept	12:13	0.000
234	11 Sept	12:14	0.001
235	11 Sept	12:15	0.002
236	11 Sept	12:16	0.004
237	11 Sept	12:17	0.000
238	11 Sept	12:18	0.000

239	11 Sept	12:19	0.000
240	11 Sept	12:20	0.000
241	11 Sept	12:21	0.001
242	11 Sept	12:22	0.001
243	11 Sept	12:23	0.003
244	11 Sept	12:24	0.002
245	11 Sept	12:25	0.002
246	11 Sept	12:26	0.000
247	11 Sept	12:27	0.000
248	11 Sept	12:28	0.003
249	11 Sept	12:29	0.002
250	11 Sept	12:30	0.000
251	11 Sept	12:31	0.004
252	11 Sept	12:32	0.002
253	11 Sept	12:33	0.001
254	11 Sept	12:34	0.000
255	11 Sept	12:35	0.000
256	11 Sept	12:36	0.000
257	11 Sept	12:37	0.000
258	11 Sept	12:38	0.000
259	11 Sept	12:39	0.001
260	11 Sept	12:40	0.002
261	11 Sept	12:41	0.004
262	11 Sept	12:42	0.000
263	11 Sept	12:43	0.000
264	11 Sept	12:44	0.000
265	11 Sept	12:45	0.000
266	11 Sept	12:46	0.001
267	11 Sept	12:47	0.001
268	11 Sept	12:48	0.003
269	11 Sept	12:49	0.001
270	11 Sept	12:50	0.000
271	11 Sept	12:51	0.000
272	11 Sept	12:52	0.000
273	11 Sept	12:53	0.000
274	11 Sept	12:54	0.000
275	11 Sept	12:55	0.001
276	11 Sept	12:56	0.002
277	11 Sept	12:57	0.004
278	11 Sept	12:58	0.000
279	11 Sept	12:59	0.000
280	11 Sept	1:00	0.000
281	11 Sept	1:01	0.003
282	11 Sept	1:02	0.002
283	11 Sept	1:03	0.000
284	11 Sept	1:04	0.004
285	11 Sept	1:05	0.002
286	11 Sept	1:06	0.001
287	11 Sept	1:07	0.000
288	11 Sept	1:08	0.000
289	11 Sept	1:09	0.000
290	11 Sept	1:10	0.000
291	11 Sept	1:11	0.000
292	11 Sept	1:12	0.001
293	11 Sept	1:13	0.002
294	11 Sept	1:14	0.004
295	11 Sept	1:15	0.000
296	11 Sept	1:16	0.000
297	11 Sept	1:17	0.000
298	11 Sept	1:18	0.000
299	11 Sept	1:19	0.003
300	11 Sept	1:20	0.002
301	11 Sept	1:21	0.000

302	11 Sept	1:22	0.003
303	11 Sept	1:23	0.002
304	11 Sept	1:24	0.002
305	11 Sept	1:25	0.000
306	11 Sept	1:26	0.000
307	11 Sept	1:27	0.000
308	11 Sept	1:28	0.000
309	11 Sept	1:29	0.000
310	11 Sept	1:30	0.002
311	11 Sept	1:31	0.002
312	11 Sept	1:32	0.000
313	11 Sept	1:33	0.003
314	11 Sept	1:34	0.000
315	11 Sept	1:35	0.000
316	11 Sept	1:36	0.000
317	11 Sept	1:37	0.001
318	11 Sept	1:38	0.002
319	11 Sept	1:39	0.003
320	11 Sept	1:40	0.000
321	11 Sept	1:41	0.000
322	11 Sept	1:42	0.000
323	11 Sept	1:43	0.000
324	11 Sept	1:44	0.001
325	11 Sept	1:45	0.001
326	11 Sept	1:46	0.003
327	11 Sept	1:47	0.001
328	11 Sept	1:48	0.000
329	11 Sept	1:49	0.000
330	11 Sept	1:50	0.000
331	11 Sept	1:51	0.000
332	11 Sept	1:52	0.000
333	11 Sept	1:53	0.000
334	11 Sept	1:54	0.000
335	11 Sept	1:55	0.002
336	11 Sept	1:56	0.000
337	11 Sept	1:57	0.000
338	11 Sept	1:58	0.000
339	11 Sept	1:59	0.000
340	11 Sept	2:00	0.001
341	11 Sept	2:01	0.001
342	11 Sept	2:02	0.003
343	11 Sept	2:03	0.001
344	11 Sept	2:04	0.000
345	11 Sept	2:05	0.004
346	11 Sept	2:06	0.000
347	11 Sept	2:07	0.000
348	11 Sept	2:08	0.000
349	11 Sept	2:09	0.002
350	11 Sept	2:10	0.002
351	11 Sept	2:11	0.004
352	11 Sept	2:12	0.000
353	11 Sept	2:13	0.000
354	11 Sept	2:14	0.000
355	11 Sept	2:15	0.000
356	11 Sept	2:16	0.001
357	11 Sept	2:17	0.001
358	11 Sept	2:18	0.000
359	11 Sept	2:19	0.000
360	11 Sept	2:20	0.000
361	11 Sept	2:21	0.000
362	11 Sept	2:22	0.000
363	11 Sept	2:23	0.000
364	11 Sept	2:24	0.000

365 11 Sept 2:25 0.000

**Attachment-D**  
**Groundwater Part-375 tabulated lab**

SVOC	CasNo	Analyte	Units	MW-1	MW-2	MW-3	MW-4	TOGS 111 Groundwater Limits
				9/11/2019	1909078-005	1909078-006	1909078-007	
				9/11/2019	9/11/2019	9/11/2019	9/11/2019	
	120-82-1	1,2,4-Trichlorobenzene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	95-50-1	1,2-Dichlorobenzene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	3 (19)
	541-73-1	1,3-Dichlorobenzene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	3 (19)
	106-46-7	1,4-Dichlorobenzene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	3 (19)
	95-95-4	2,4,5-Trichlorophenol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	88-06-2	2,4,6-Trichlorophenol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	120-83-2	2,4-Dichlorophenol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	105-67-9	2,4-Dimethylphenol	PPB	1 U	1 U	1 U	1 U	50 (19)
	51-28-5	2,4-Dinitrophenol	PPB	1 U	1 U	1 U	1 U	NA (19)
	121-14-2	2,4-Dinitrotoluene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	606-20-2	2,6-Dinitrotoluene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	91-58-7	2-Chloronaphthalene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	10 (19)
	95-57-8	2-Chlorophenol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	91-57-6	2-Methylnaphthalene	PPB	150 D	67	68	65	NA (19)
	95-48-7	2-Methylphenol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	88-74-4	2-Nitroaniline	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	88-75-5	2-Nitrophenol	PPB	1 U	1 U	1 U	1 U	NA (19)
	91-94-1	3,3'-Dichlorobenzidine	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	108-39-4/106-44	3,4-Methylphenol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	1 (19)
	99-09-2	3-Nitroaniline	PPB	1 U	1 U	1 U	1 U	5 (19)
	534-52-1	4,6-Dinitro-2-methylphenol	PPB	1 U	1 U	1 U	1 U	NA (19)
	101-55-3	4-Bromophenyl phenyl ether	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	59-50-7	4-Chloro-3-methylphenol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	106-47-8	4-Chloroaniline	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	7005-72-3	4-Chlorophenyl phenyl ether	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	100-01-6	4-Nitroaniline	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	100-02-7	4-Nitrophenol	PPB	1 U	1 U	1 U	1 U	NA (19)
	83-32-9	Acenaphthene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	20 (19)
	208-96-8	Acenaphthylene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	98-86-2	Acetophenone	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	62-53-3	Aniline	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	120-12-7	Anthracene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)
	1912-24-9	Atrazine	PPB	0.5 U	0.5 U	0.5 U	0.5 U	7.5 (19)
	103-33-3	Azobenzene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.05 (19)
	100-52-7	Benzaldehyde	PPB	1 U	1 U	1 U	1 U	NA (19)
	92-87-5	Benzidine	PPB	1 U	1 U	1 U	1 U	NA (19)
	56-55-3	Benzo(a)anthracene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.002 (19)
	50-32-8	Benzo(a)pyrene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	205-99-2	Benzo(b)fluoranthene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.002 (19)
	191-24-2	Benzo(g,h,i)perylene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	207-08-9	Benzo(k)fluoranthene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.002 (19)
	65-85-0	Benzoic acid	PPB	1 U	1 U	1 U	1 U	NA (19)
	100-51-6	Benzyl alcohol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	92-52-4	Biphenyl	PPB	0.94 J	0.63 J	1.4 J	1.1 J	5 (19)
	111-91-1	Bis(2-chloroethoxy)methane	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	111-44-4	Bis(2-chloroethyl)ether	PPB	0.5 U	0.5 U	0.5 U	0.5 U	1 (19)
	108-60-1	Bis(2-chloroisopropyl)ether	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	117-81-7	Bis(2-ethylhexyl)phthalate	PPB	1 U	1 U	1 U	1 U	5 (19)
	85-68-7	Butyl benzyl phthalate	PPB	1 U	1 U	1 U	1 U	50 (19)
	105-60-2	Caprolactam	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	86-74-8	Carbazole	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	218-01-9	Chrysene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.002 (19)
	53-70-3	Dibenzo(a,h)anthracene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	132-64-9	Dibenzofuran	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	84-66-2	Diethyl phthalate	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	131-11-3	Dimethyl phthalate	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	84-74-2	Di-n-butyl phthalate	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)
	117-84-0	Di-n-octyl phthalate	PPB	1 U	1 U	1 U	1 U	50 (19)
	206-44-0	Fluoranthene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)
	86-73-7	Fluorene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)
	118-74-1	Hexachlorobenzene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.04 (19)
	87-68-3	Hexachlorobutadiene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.5 (19)
	77-47-4	Hexachlorocyclopentadiene	PPB	1 U	1 U	1 U	1 U	5 (19)
	67-72-1	Hexachloroethane	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	193-39-5	Indeno(1,2,3-c,d)pyrene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.002 (19)
	78-59-1	Isophorone	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)
	91-20-3	Naphthalene	PPB	460 D	270 D	150 D	260 D	10 (19)
	98-95-3	Nitrobenzene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.4 (19)
	62-75-9	N-Nitrosodimethylamine	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	621-64-7	N-Nitrosodi-n-propylamine	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	86-30-6	N-Nitrosodiphenylamine	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)
	56-38-2	Parathion	PPB	1 U	1 U	1 U	1 U	1.5 (19)
	87-86-5	Pentachlorophenol	PPB	1 U	1 U	1 U	1 U	NA (19)
	85-01-8	Phenanthrene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)
	108-95-2	Phenol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	129-00-0	Pyrene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)
	110-86-1	Pyridine	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)

METALS	Client SampleID: Laboratory ID: Sampling Date:		MW-1 1909078-005 9/11/2019		MW-2 1909078-006 9/11/2019		MW-3 1909078-007 9/11/2019		MW-4 1909078-008 9/11/2019		TOGS 111 Groundwater Limits
	CasNo	Analyte	Units		Q		Q		Q		Limits
	7429-90-5	Aluminum	PPM	0.0901		0.0863		0.196		0.0961	
7440-36-0	Antimony	PPM	0.01	U	0.01	U	0.01	U	0.01	U	0.003
7440-38-2	Arsenic	PPM	0.0095	J	0.01	U	0.01	U	0.0092	J	0.025
7440-39-3	Barium	PPM	0.0388		0.0158	J	0.0233		0.0258		1
7440-41-7	Beryllium	PPM	0.005	U	0.005	U	0.005	U	0.005	U	0.003
7440-43-9	Cadmium	PPM	0.005	U	0.005	U	0.005	U	0.005	U	0.005
7440-70-2	Calcium	PPM	37.1		22.5		43.5		54.4		NA
7440-47-3	Chromium	PPM	0.005	U	0.005	U	0.005	U	0.005	U	0.05
7440-48-4	Cobalt	PPM	0.005	U	0.005	U	0.005	U	0.005	U	NA
7440-50-8	Copper	PPM	0.005	U	0.005	U	0.005	U	0.005	U	0.2
7439-89-6	Iron	PPM	7.57		14.5		0.871		0.653		0.3
7439-92-1	Lead	PPM	0.005	U	0.005	U	0.013	J	0.0103	J	0.025
7439-95-4	Magnesium	PPM	13.1		5.83		15.1		13.9		35
7439-96-5	Manganese	PPM	0.0485		0.105		0.0088	J	0.01	J	0.3
7439-97-6	Mercury	PPM	0.00015	U	0.00015	U	0.00015	U	0.00015	U	0.0007
7440-02-0	Nickel	PPM	0.005	U	0.005	U	0.005	U	0.005	U	0.1
7440-09-7	Potassium	PPM	3.95		2.08		1.19		3.39		NA
7782-49-2	Selenium	PPM	0.01	U	0.01	U	0.01	U	0.01	U	0.01
7440-22-4	Silver	PPM	0.005	U	0.005	U	0.005	U	0.005	U	0.05
7440-23-5	Sodium	PPM	26.1		8.22		8.32		6.62		20
7440-28-0	Thallium	PPM	0.01	U	0.01	U	0.0056	J	0.0081	J	0.0005
7440-62-2	Vanadium	PPM	0.005	U	0.005	U	0.005	U	0.005	U	NA
7440-66-6	Zinc	PPM	0.0298		0.0257		0.0297		0.0206		2

American Analytical Laboratories, LLC.

(19) TOGsGW Limits

WorkOrder: 1909078

Client: WRS d.b.a Berninger Environmental

Abbreviation:

Project: Former Quick &amp; Clean; 380 Rockaway Turnp

NA = Not available, no value specified in TOGsGW Limits

**PCBS**

	Client SampleID:		MW-1		MW-2		MW-3		MW-4		TOGS 111 Groundwater Limits	
	Laboratory ID:		1909078-005		1909078-006		1909078-007		1909078-008			
	Sampling Date:		9/11/2019		9/11/2019		9/11/2019		9/11/2019			
CasNo	Analyte	Units		Q		Q		Q		Q	Limits	
12674-11-2	Aroclor 1016	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	
11104-28-2	Aroclor 1221	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	
11141-16-5	Aroclor 1232	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	
53469-21-9	Aroclor 1242	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	
12672-29-6	Aroclor 1248	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	
11097-69-1	Aroclor 1254	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	
11096-82-5	Aroclor 1260	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	
37324-23-5	Aroclor 1262	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	
11100-14-4	Aroclor 1268	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	

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PESTICIDES	Client SampleID: Laboratory ID: Sampling Date:			MW-1 1909078-005 9/11/2019	MW-2 1909078-006 9/11/2019	MW-3 1909078-007 9/11/2019	MW-4 1909078-008 9/11/2019	TOGS 111 Groundwater Limits
	CasNo	Analyte	Units	Q	Q	Q	Q	Limits
	72-54-8	4,4'-DDD	PPB	0.012 U	0.012 U	0.012 U	0.025 JP	0.3 <sup>(19)</sup>
72-55-9		4,4'-DDE	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.2 <sup>(19)</sup>
50-29-3		4,4'-DDT	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.2 <sup>(19)</sup>
309-00-2		Aldrin	PPB	0.012 U	0.012 U	0.012 U	0.012 U	NA <sup>(19)</sup>
319-84-6		alpha-BHC	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.01 <sup>(19)</sup>
5103-71-9		alpha-Chlordane	PPB	0.02 U	0.02 PU	0.02 PU	0.02 U	0.05 <sup>(19)</sup>
319-85-7		beta-BHC	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.04 <sup>(19)</sup>
510-15-6		Chlorobenzilate	PPB	0.012 U	0.012 U	0.012 U	0.012 U	NA <sup>(19)</sup>
96-12-8		DBCP	PPB	0.012 U	0.012 U	0.012 U	0.012 U	NA <sup>(19)</sup>
319-86-8		delta-BHC	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.04 <sup>(19)</sup>
60-57-1		Dieldrin	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.004 <sup>(19)</sup>
959-98-8		Endosulfan I	PPB	0.012 U	0.012 U	0.012 U	0.012 U	NA <sup>(19)</sup>
33213-65-9		Endosulfan II	PPB	0.012 U	0.012 U	0.012 U	0.012 U	NA <sup>(19)</sup>
1031-07-8		Endosulfan sulfate	PPB	0.012 U	0.012 U	0.012 U	0.012 U	NA <sup>(19)</sup>
72-20-8		Endrin	PPB	0.012 U	0.012 U	0.012 U	0.012 U	NA <sup>(19)</sup>
7421-93-4		Endrin aldehyde	PPB	0.012 U	0.012 U	0.012 U	0.26 DJ	5 <sup>(19)</sup>
53494-70-5		Endrin ketone	PPB	0.012 U	0.012 U	0.012 U	0.012 U	5 <sup>(19)</sup>
58-89-9		gamma-BHC	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.05 <sup>(19)</sup>
5566-34-7		gamma-Chlordane	PPB	0.025 BJP	0.036 BJP	0.032 BJP	0.02 U	0.05 <sup>(19)</sup>
76-44-8		Heptachlor	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.04 <sup>(19)</sup>
1024-57-3		Heptachlor epoxide	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.03 <sup>(19)</sup>
118-74-1		Hexachlorobenzene	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.04 <sup>(19)</sup>
77-47-4		Hexachlorocyclopentadiene	PPB	0.03 U	0.03 U	0.03 U	0.03 U	5 <sup>(19)</sup>
72-43-5		Methoxychlor	PPB	0.012 U	0.012 U	0.012 U	0.012 PU	35 <sup>(19)</sup>
8001-35-2		Toxaphene	PPB	0.06 U	0.06 U	0.06 U	0.06 U	0.06 <sup>(19)</sup>

SVOC	CasNo	Analyte	Units	MW-1	MW-2	MW-3	MW-4	TOGS 111 Groundwater Limits
				9/11/2019	1909078-005	1909078-006	1909078-007	
				9/11/2019	9/11/2019	9/11/2019	9/11/2019	
	120-82-1	1,2,4-Trichlorobenzene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	95-50-1	1,2-Dichlorobenzene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	3 (19)
	541-73-1	1,3-Dichlorobenzene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	3 (19)
	106-46-7	1,4-Dichlorobenzene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	3 (19)
	95-95-4	2,4,5-Trichlorophenol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	88-06-2	2,4,6-Trichlorophenol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	120-83-2	2,4-Dichlorophenol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	105-67-9	2,4-Dimethylphenol	PPB	1 U	1 U	1 U	1 U	50 (19)
	51-28-5	2,4-Dinitrophenol	PPB	1 U	1 U	1 U	1 U	NA (19)
	121-14-2	2,4-Dinitrotoluene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	606-20-2	2,6-Dinitrotoluene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	91-58-7	2-Chloronaphthalene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	10 (19)
	95-57-8	2-Chlorophenol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	91-57-6	2-Methylnaphthalene	PPB	150 D	67	68	65	NA (19)
	95-48-7	2-Methylphenol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	88-74-4	2-Nitroaniline	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	88-75-5	2-Nitrophenol	PPB	1 U	1 U	1 U	1 U	NA (19)
	91-94-1	3,3'-Dichlorobenzidine	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	108-39-4/106-44	3,4-Methylphenol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	1 (19)
	99-09-2	3-Nitroaniline	PPB	1 U	1 U	1 U	1 U	5 (19)
	534-52-1	4,6-Dinitro-2-methylphenol	PPB	1 U	1 U	1 U	1 U	NA (19)
	101-55-3	4-Bromophenyl phenyl ether	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	59-50-7	4-Chloro-3-methylphenol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	106-47-8	4-Chloroaniline	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	7005-72-3	4-Chlorophenyl phenyl ether	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	100-01-6	4-Nitroaniline	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	100-02-7	4-Nitrophenol	PPB	1 U	1 U	1 U	1 U	NA (19)
	83-32-9	Acenaphthene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	20 (19)
	208-96-8	Acenaphthylene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	98-86-2	Acetophenone	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	62-53-3	Aniline	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	120-12-7	Anthracene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)
	1912-24-9	Atrazine	PPB	0.5 U	0.5 U	0.5 U	0.5 U	7.5 (19)
	103-33-3	Azobenzene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.05 (19)
	100-52-7	Benzaldehyde	PPB	1 U	1 U	1 U	1 U	NA (19)
	92-87-5	Benzidine	PPB	1 U	1 U	1 U	1 U	NA (19)
	56-55-3	Benzo(a)anthracene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.002 (19)
	50-32-8	Benzo(a)pyrene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	205-99-2	Benzo(b)fluoranthene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.002 (19)
	191-24-2	Benzo(g,h,i)perylene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	207-08-9	Benzo(k)fluoranthene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.002 (19)
	65-85-0	Benzoic acid	PPB	1 U	1 U	1 U	1 U	NA (19)
	100-51-6	Benzyl alcohol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	92-52-4	Biphenyl	PPB	0.94 J	0.63 J	1.4 J	1.1 J	5 (19)
	111-91-1	Bis(2-chloroethoxy)methane	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	111-44-4	Bis(2-chloroethyl)ether	PPB	0.5 U	0.5 U	0.5 U	0.5 U	1 (19)
	108-60-1	Bis(2-chloroisopropyl)ether	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	117-81-7	Bis(2-ethylhexyl)phthalate	PPB	1 U	1 U	1 U	1 U	5 (19)
	85-68-7	Butyl benzyl phthalate	PPB	1 U	1 U	1 U	1 U	50 (19)
	105-60-2	Caprolactam	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	86-74-8	Carbazole	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	218-01-9	Chrysene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.002 (19)
	53-70-3	Dibenzo(a,h)anthracene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	132-64-9	Dibenzofuran	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	84-66-2	Diethyl phthalate	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	131-11-3	Dimethyl phthalate	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	84-74-2	Di-n-butyl phthalate	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)
	117-84-0	Di-n-octyl phthalate	PPB	1 U	1 U	1 U	1 U	50 (19)
	206-44-0	Fluoranthene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)
	86-73-7	Fluorene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)
	118-74-1	Hexachlorobenzene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.04 (19)
	87-68-3	Hexachlorobutadiene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.5 (19)
	77-47-4	Hexachlorocyclopentadiene	PPB	1 U	1 U	1 U	1 U	5 (19)
	67-72-1	Hexachloroethane	PPB	0.5 U	0.5 U	0.5 U	0.5 U	5 (19)
	193-39-5	Indeno(1,2,3-c,d)pyrene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.002 (19)
	78-59-1	Isophorone	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)
	91-20-3	Naphthalene	PPB	460 D	270 D	150 D	260 D	10 (19)
	98-95-3	Nitrobenzene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	0.4 (19)
	62-75-9	N-Nitrosodimethylamine	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	621-64-7	N-Nitrosodi-n-propylamine	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	86-30-6	N-Nitrosodiphenylamine	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)
	56-38-2	Parathion	PPB	1 U	1 U	1 U	1 U	1.5 (19)
	87-86-5	Pentachlorophenol	PPB	1 U	1 U	1 U	1 U	NA (19)
	85-01-8	Phenanthrene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)
	108-95-2	Phenol	PPB	0.5 U	0.5 U	0.5 U	0.5 U	NA (19)
	129-00-0	Pyrene	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)
	110-86-1	Pyridine	PPB	0.5 U	0.5 U	0.5 U	0.5 U	50 (19)

METALS	Client SampleID: Laboratory ID: Sampling Date:		MW-1 1909078-005 9/11/2019		MW-2 1909078-006 9/11/2019		MW-3 1909078-007 9/11/2019		MW-4 1909078-008 9/11/2019		TOGS 111 Groundwater Limits
	CasNo	Analyte	Units		Q		Q		Q		Limits
	7429-90-5	Aluminum	PPM	0.0901		0.0863		0.196		0.0961	
7440-36-0	Antimony	PPM	0.01	U	0.01	U	0.01	U	0.01	U	0.003
7440-38-2	Arsenic	PPM	0.0095	J	0.01	U	0.01	U	0.0092	J	0.025
7440-39-3	Barium	PPM	0.0388		0.0158	J	0.0233		0.0258		1
7440-41-7	Beryllium	PPM	0.005	U	0.005	U	0.005	U	0.005	U	0.003
7440-43-9	Cadmium	PPM	0.005	U	0.005	U	0.005	U	0.005	U	0.005
7440-70-2	Calcium	PPM	37.1		22.5		43.5		54.4		NA
7440-47-3	Chromium	PPM	0.005	U	0.005	U	0.005	U	0.005	U	0.05
7440-48-4	Cobalt	PPM	0.005	U	0.005	U	0.005	U	0.005	U	NA
7440-50-8	Copper	PPM	0.005	U	0.005	U	0.005	U	0.005	U	0.2
7439-89-6	Iron	PPM	7.57		14.5		0.871		0.653		0.3
7439-92-1	Lead	PPM	0.005	U	0.005	U	0.013	J	0.0103	J	0.025
7439-95-4	Magnesium	PPM	13.1		5.83		15.1		13.9		35
7439-96-5	Manganese	PPM	0.0485		0.105		0.0088	J	0.01	J	0.3
7439-97-6	Mercury	PPM	0.00015	U	0.00015	U	0.00015	U	0.00015	U	0.0007
7440-02-0	Nickel	PPM	0.005	U	0.005	U	0.005	U	0.005	U	0.1
7440-09-7	Potassium	PPM	3.95		2.08		1.19		3.39		NA
7782-49-2	Selenium	PPM	0.01	U	0.01	U	0.01	U	0.01	U	0.01
7440-22-4	Silver	PPM	0.005	U	0.005	U	0.005	U	0.005	U	0.05
7440-23-5	Sodium	PPM	26.1		8.22		8.32		6.62		20
7440-28-0	Thallium	PPM	0.01	U	0.01	U	0.0056	J	0.0081	J	0.0005
7440-62-2	Vanadium	PPM	0.005	U	0.005	U	0.005	U	0.005	U	NA
7440-66-6	Zinc	PPM	0.0298		0.0257		0.0297		0.0206		2

American Analytical Laboratories, LLC.

(19) TOGsGW Limits

WorkOrder: 1909078

Client: WRS d.b.a Berninger Environmental

Abbreviation:

Project: Former Quick &amp; Clean; 380 Rockaway Turnp

NA = Not available, no value specified in TOGsGW Limits

PCBS

	Client SampleID:		MW-1		MW-2		MW-3		MW-4		TOGS 111 Groundwater Limits	
	Laboratory ID:		1909078-005		1909078-006		1909078-007		1909078-008			
	Sampling Date:		9/11/2019		9/11/2019		9/11/2019		9/11/2019			
CasNo	Analyte	Units		Q		Q		Q		Q	Limits	
12674-11-2	Aroclor 1016	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	
11104-28-2	Aroclor 1221	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	
11141-16-5	Aroclor 1232	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	
53469-21-9	Aroclor 1242	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	
12672-29-6	Aroclor 1248	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	
11097-69-1	Aroclor 1254	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	
11096-82-5	Aroclor 1260	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	
37324-23-5	Aroclor 1262	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	
11100-14-4	Aroclor 1268	PPB	0.05	U	0.05	U	0.05	U	0.05	U	0.1	

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PESTICIDES	Client SampleID: Laboratory ID: Sampling Date:			MW-1 1909078-005 9/11/2019	MW-2 1909078-006 9/11/2019	MW-3 1909078-007 9/11/2019	MW-4 1909078-008 9/11/2019	TOGS 111 Groundwater Limits
	CasNo	Analyte	Units	Q	Q	Q	Q	Limits
	72-54-8	4,4'-DDD	PPB	0.012 U	0.012 U	0.012 U	0.025 JP	0.3 <sup>(19)</sup>
72-55-9		4,4'-DDE	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.2 <sup>(19)</sup>
50-29-3		4,4'-DDT	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.2 <sup>(19)</sup>
309-00-2		Aldrin	PPB	0.012 U	0.012 U	0.012 U	0.012 U	NA <sup>(19)</sup>
319-84-6		alpha-BHC	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.01 <sup>(19)</sup>
5103-71-9		alpha-Chlordane	PPB	0.02 U	0.02 PU	0.02 PU	0.02 U	0.05 <sup>(19)</sup>
319-85-7		beta-BHC	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.04 <sup>(19)</sup>
510-15-6		Chlorobenzilate	PPB	0.012 U	0.012 U	0.012 U	0.012 U	NA <sup>(19)</sup>
96-12-8		DBCP	PPB	0.012 U	0.012 U	0.012 U	0.012 U	NA <sup>(19)</sup>
319-86-8		delta-BHC	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.04 <sup>(19)</sup>
60-57-1		Dieldrin	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.004 <sup>(19)</sup>
959-98-8		Endosulfan I	PPB	0.012 U	0.012 U	0.012 U	0.012 U	NA <sup>(19)</sup>
33213-65-9		Endosulfan II	PPB	0.012 U	0.012 U	0.012 U	0.012 U	NA <sup>(19)</sup>
1031-07-8		Endosulfan sulfate	PPB	0.012 U	0.012 U	0.012 U	0.012 U	NA <sup>(19)</sup>
72-20-8		Endrin	PPB	0.012 U	0.012 U	0.012 U	0.012 U	NA <sup>(19)</sup>
7421-93-4		Endrin aldehyde	PPB	0.012 U	0.012 U	0.012 U	0.26 DJ	5 <sup>(19)</sup>
53494-70-5		Endrin ketone	PPB	0.012 U	0.012 U	0.012 U	0.012 U	5 <sup>(19)</sup>
58-89-9		gamma-BHC	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.05 <sup>(19)</sup>
5566-34-7		gamma-Chlordane	PPB	0.025 BJP	0.036 BJP	0.032 BJP	0.02 U	0.05 <sup>(19)</sup>
76-44-8		Heptachlor	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.04 <sup>(19)</sup>
1024-57-3		Heptachlor epoxide	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.03 <sup>(19)</sup>
118-74-1		Hexachlorobenzene	PPB	0.012 U	0.012 U	0.012 U	0.012 U	0.04 <sup>(19)</sup>
77-47-4		Hexachlorocyclopentadiene	PPB	0.03 U	0.03 U	0.03 U	0.03 U	5 <sup>(19)</sup>
72-43-5		Methoxychlor	PPB	0.012 U	0.012 U	0.012 U	0.012 PU	35 <sup>(19)</sup>
8001-35-2		Toxaphene	PPB	0.06 U	0.06 U	0.06 U	0.06 U	0.06 <sup>(19)</sup>

**Attachment-E**  
**Third Party Lab Validation**

**DATA USABILITY SUMMARY REPORT – DUSR  
DATA VALIDATION SUMMARY**

**ORGANIC/INORGANIC ANALYSES  
SEMIVOLATILES BY GC/MS**

**1,4-DIOXANE by SELECTIVE ION MONITORING (SIM) GC/MS AND 8270D  
PESTICIDES/PCBs BY GC**

**ISOTOPE DILUTION ORGANIC ANALYSIS**

**POLYFLUORINATED ALKYL SUBSTANCES (21 ANALYTES)**

**BY LIQUID CHROMATOGRAPHY/TANDEM MASS SPECTROMETRY (LC/MS/MS)  
BY MODIFIED EPA METHOD 537  
METALS BY ICP/CV**

**For Soil and Groundwater Samples Collected  
September 11, 2019**

**From 380 Rockaway Turnpike, Cedarhurst, NY  
Former Quick & Clean  
Project 11372**

**Collected by WRS d.b.a. Berninger Environmental**

**SAMPLE DELIVERY GROUP NUMBERS:**

**1909078, 460-191432-1**

**AMERICAN ANALYTICAL LABORATORIES, LLC. (ELAP #11418)**

**EUROFINS TESTAMERICA, EDISON - NJ (ELAP #11452)**

**EUROFINS TESTAMERICA, SACRAMENTO -CA (ELAP #11666)**

**SUBMITTED TO:**

**Mr. Justin Halpin  
WRS d.b.a. Berninger Environmental  
17 Old Dock Road  
Yaphank, NY 11980**

**November 16, 2019**

**PREPARED BY:**

**Lori A. Beyer/President  
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14 West Point Drive  
East Northport, NY 11731**

*Lori A. Beyer*

**380 Rockaway Turnpike, Cedarhurst, New York**

Data Usability Summary Report (Data Validation)

September 2019 Soil and Groundwater Sampling - Semivolatiles, Pesticides, PCBs, 1,4-Dioxane, 21 PFAS Analytes and Metals.

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**L.A.B. Validation Corp, 14 West Point Drive, East Northport, NY 11731**

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**APPENDICES:**

- A. Chain of Custody Documents and Sample Receipt Checklists
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- C. Data Summary Form Is with Qualifications
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**Introduction:**

A validation was performed on soil and groundwater samples and the associated quality control (MS/MSD/Field Blank) for organic/inorganic analysis for samples collected under chain of custody documentation by WRS d.b.a. Berninger Environmental and submitted to American Analytical and Eurofins TestAmerica Edison for subsequent analysis. Samples for PFAS were sent from Eurofins Edison to Eurofins Sacramento under chain of custody documentation. This report contains the laboratory and validation results for the field samples itemized below with corresponding required analysis. The table below lists are required parameters for each sample location.

The samples were analyzed by American Analytical and Eurofins TestAmerica, utilizing SW846 and EPA Methods and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodologies employed. The analytical testing and data review for soil samples consisted of the full analyte lists for Semivolatile Organics, Pesticides, PCBs, TAL (23) Metals.

Additionally, 1,4-Dioxane and the twenty-one (21) target analytes in EPA Method 537 were analyzed for PFAS. The data was evaluated in accordance with EPA Region II National Functional Guidelines for Organic and Inorganic Data Review and EPA Region II SOPs for 8270, 8081, 8082 and Inorganics (Metals) and in conjunction with the analytical methodologies for which the samples were analyzed, where applicable and relevant.

Sample ID	Lab ID	Analysis	Date Collected/Received
B-1 @ 2"-24"	1909078-001, 460-191432-1	Semivolatiles, Pesticides, PCBs, TAL (23) Metals, 1,4-Dioxane, 21 PFAS Compounds	09/11/19, 09/12/19, 09/13/19
B-2 @ 2"-24" [Plus, MS/MSD]	1909078-002, 460-191432-2	Semivolatiles, Pesticides, PCBs, TAL (23) Metals, 1,4-Dioxane, 21 PFAS Compounds	09/11/19, 09/12/19, 09/13/19
B-3 @ 2"-24"	1909078-003, 460-191432-3	Semivolatiles, Pesticides, PCBs, TAL (23) Metals, 1,4-Dioxane, 21 PFAS Compounds	09/11/19, 09/12/19, 09/13/19
B-4 @ 2"-24"	1909078-004, 460-191432-4	Semivolatiles, Pesticides, PCBs, TAL (23) Metals, 1,4-Dioxane, 21 PFAS Compounds	09/11/19, 09/12/19, 09/13/19
MW-1	1909078-005	Semivolatiles, Pesticides, PCBs, TAL (23) Metals	09/11/19, 09/12/19, 09/13/19
MW-2 [Plus, MS/MSD]	1909078-006	Semivolatiles, Pesticides, PCBs, TAL (23) Metals	09/11/19, 09/12/19, 09/13/19
MW-3	1909078-007	Semivolatiles, Pesticides, PCBs, TAL (23) Metals	09/11/19, 09/12/19, 09/13/19
MW-4	1909078-008	Semivolatiles, Pesticides, PCBs, TAL (23) Metals	09/11/19, 09/12/19, 09/13/19
Field Blank	1909078-009, 460-191432-5	Semivolatiles, Pesticides, PCBs, TAL (23) Metals, 1,4-Dioxane, 21 PFAS Compounds	09/11/19, 09/12/19, 09/13/19

**Data Qualifier Definitions:**

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

**U -** The analyte was analyzed for but was not detected above the reported sample quantitation limit.

**J -** The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

**UJ -** The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**R -** The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.

**N -** The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

**NJ -** The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate quantity.

**J+ -** The result is an estimated quantity, but the result may be biased high. (Equis qualified, JK)

**J- -** The result is an estimated quantity, but the result may be biased low. (Equis qualified, JL)

**D -** Analyte concentration is from diluted analysis.

**Sample Receipt:**

The Chain of Custody documents indicates that the samples were received at American Analytical and Eurofins TestAmerica Laboratories via laboratory courier upon completion of the sampling events. Sample login notes were generated. The cooler temperature for sample receipts was recorded upon receipt and determined to be acceptable (< 6 degrees C). Samples for EPA Modified Method 537 were originally sent to Eurofins TestAmerica Edison and then shipped to Eurofins TestAmerica Sacramento. The actual temperatures are recorded on the chain of custody documents and the case narratives provided in Appendix A/B of this report.

No unresolved problems and/or discrepancies were noted, consequently, the integrity of the samples has been assumed to be good. Any discrepant items were resolved upon receipt at the laboratory and documented in the laboratory narrative. Sample results are not impacted.

Eurofins TestAmerica reported incorrect sample identifications for soil samples. Manual edits were made to the reporting forms to reflect B-1 @ 2"-24" in lieu of reported nomenclature; B-1 d 2"-24", etc.

The data summary Form I's included in Appendix C and Equis deliverable includes all usable (qualified) and unusable (rejected) results for the samples identified above. The Form I's summarize the detailed narrative section of the report. All data validation qualifications have been reported on the Form I's and onto the excel spreadsheet for ease of review and verification.

**NOTE:**

L.A.B. Validation Corp. believes it is appropriate to note that the data validation criteria utilized for data evaluation is different than the method requirements utilized by the laboratory. Qualified data does not necessarily mean that the laboratory was non-compliant in the analysis that was performed.

**1.0 Semivolatile Organics by GC/MS SW846 Method 8270D**

The following method criteria were reviewed: holding times, Surrogates, MS, MSD, LCS, Blanks, Tunes, Calibrations, Internal Standards, Target Component Identification, Quantitation, Reported Quantitation Limits and overall system performance. The Semivolatile results are valid and usable as noted within the following text:

**1.1 Holding Time**

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is

exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

**Samples were extracted and analyzed within the method required holding times and the technical holding times (14 days from collection to extraction for soil samples and 7 days from collection to extraction for groundwater samples and 40 days from extraction to analysis) required for data validation.**

## **1.2 Surrogate Recovery**

All samples are spiked with surrogate compounds prior to sample preparation/extraction to evaluate overall laboratory performance and efficiency of the analytical technique. Additionally, the sample itself may produce effects due to such factors as interferences and high concentrations of analytes. Since the effects of the sample matrix are frequently outside the control of the laboratory and may present relatively unique problems, the evaluation of the data is dependent upon reextraction and/or reanalysis to confirm/negate laboratory error or matrix related problems. Discussion of surrogate recoveries that fell outside (above/below) QC guidelines is itemized below:

**Samples were spiked with six (6) surrogate standards at the sample extraction portion of analysis. Method allows for one (1) base neutral and one (1) acid recovery to be outside acceptance limits without requiring reextraction/reanalysis. For validation, recovery values <10% require analytes from that fraction be rejected, "R." Acceptable surrogate recovery values were obtained for all samples.**

## **1.3 Matrix Spikes (MS)/Matrix Spike Duplicates (MSD)**

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices.

**B-2 @ 2"-24" was selected for soil MS/MSD analysis. Spike recovery values met acceptance criteria for all compounds. RPD for Aniline (21.6%) and Benzoic Acid (30.5%) fell outside 20% criteria. Based on professional judgment, no qualifications to the data were applied for these outliers.**

**MW-2 was selected for groundwater MS/MSD analysis. High recovery values were obtained for Acetophenone, Hexachloroethane and Benzaldehyde. These analytes were not detected in the parent sample and high recovery does not support any potential loss of detection and/or result bias for non-detected parent analytes. No qualifiers were required based on these outliers. Acceptable RPD was obtained for all compounds.**

The National Functional Guidelines provide and allow for flexibility when qualifying the parent sample based on MS/MSD data.

#### **1.4 Laboratory Control Sample/Laboratory Control Duplicates**

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

**Acceptable LCS were analyzed. Recovery values were acceptable.**

#### **1.5 Method Blanks**

Quality assurance (QA) blanks; i.e. method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field blanks measure cross-contamination of samples during field operations.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

For:	Flag Sample Result with a "U" when:	Report CRQL & Qualify "U" when:	No Qualification is Needed when:
Phthalates (common laboratory contaminants)	Sample Conc. is >CRQL, but </=5x blank value	Sample Conc. Is <CRQL and </=5x blank value	Sample Conc. is >CRQL and >5x blank value
Other Contaminants	Sample Conc. is >CRQL, but </=1x blank value	Sample Conc. Is <CRQL and </=1x blank value	Sample Conc. is >CRQL and >1x blank value

Below is a summary of the compounds in the sample and the associated qualification that have been applied:

- A) **Method Blank Contamination:**  
**No target analytes were detected in the method blanks associated with sample analysis.**

- B) **Field Blank Contamination:**  
The Field Blank was determined to contain Benzyl Alcohol (0.74 ug/L), Butyl benzyl phthalate (1.0 ug/L), Di-n-butyl phthalate (0.94 ug/L), Diethyl phthalate (5.6 ug/L) and Dimethyl phthalate (2.6 ug/L). Sample results were evaluated based on blank levels. None of the compounds found in the Field Blank were detected in samples and therefore laboratory reported results are not impacted.

#### **1.6 GC/MS Instrument Performance Check**

Tuning and performance criteria are established to ensure adequate mass resolution proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The Tuning standard for semivolatile organics is decafluorotriphenylphosphine (DFTPP).

**Instrument performance was generated within acceptable limits and frequency (12 hours) for decafluorotriphenylphosphine (DFTPP) for all analyses.**

#### **1.7 Initial and Continuing Calibrations**

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument can give acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

##### **A) Response Factor GC/MS:**

The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be  $\geq 0.05$  in both initial and continuing calibrations. A value  $<0.05$  indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound in the corresponding samples will be rejected, "R".

**All the response factors for the target analytes reported were found to be within acceptable limits ( $\geq 0.05$ ), for the initial (average RRF) and continuing calibrations.**

B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be <20% and %D must be <20%. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria, non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is >30% and eliminating either the high or the low point of the curve does not restore the %RSD to less than or equal to 20% then positive results are qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high-level results will be qualified, "J" in the portion of the curve where non-linearity exists. Due to the large number of analytes in this method, it is expected for some analytes to fall outside acceptance criteria and the calibration is still considered valid.

Acceptable Initial Calibration Verifications were performed.

**Initial Calibrations:** The initial calibrations provided and the %RSD were within acceptable limits (20%) for all reported compounds.

**Continuing Calibrations:** The continuing calibrations provided and the %D was within acceptable limits (20%) for all reported compounds with exceptions noted below:

**CCAL 5977SV2 9/19/19 – Benzoic Acid (20.1%), Hexachlorocyclopentadiene (35.5%), Pentachlorophenol (27.5%); "UJ" non-detects in B-1 @ 2"-24", B-2 @ 2"-24", B-3 @ 2"-24" and B-4 @ 2"-24".**

## 1.8 Internal Standards

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-50% to +100%) from the associated continuing calibration standard.

The retention time of the internal standard must not vary more than +/- 30 seconds from the associated continuing calibration standard. If the area count is outside the (-50% to +100%) range of the associated standard, all the positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 30 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

**All area responses and retention times fell within established QC ranges for sample analysis.**

#### **1.9 Field Duplicates**

**Field duplicate samples are collected and analyzed as an indication of overall precision. These results are expected to have more variability than laboratory duplicate samples. An acceptable RPD is 50% for soil samples.**

**Field Duplicates were not required for this sampling event.**

#### **1.10 Target Compound List Identification**

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within =/- 0.06RRT units of the standard compound and have an ion spectrum which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

**Mass spectra meet criteria for all detected analytes.**

#### **1.11 Compound Quantification and Reported Detection Limits**

GC/MS quantitative analysis is acceptable. Correct internal standards, response factors and percent moisture were used to calculate final concentrations.

**As required, the laboratory reported "J" values between the reporting limits (RL) and Method Detection Limits (MDLs). This**

is consistent with common laboratory practices and a requirement of the National Environmental Laboratory Approval Program (NELAP). Soil samples were extracted by Method 3546 (microwave extraction). Soil samples were analyzed undiluted. Groundwater samples were extracted by separatory funnel extraction; SW846 Method 3510C. Secondary diluted reanalysis (1:1) was required to obtain Naphthalene and/or 2-Methylnaphthalene raw concentrations within the upper half of the instruments' calibration range for MW-1, MW-2, MW-3 and MW-4. Results for these analytes when quantitated from diluted reanalysis have been qualified, "D."

#### **1.12 Overall System Performance**

Acceptable system performance was maintained throughout the analysis. TICs were generated. No TICs were detected in soil samples. Groundwater samples MW-1, MW-2, MW-3 and MW-4 demonstrated non-target presence which primarily consist of aromatic hydrocarbons and substituted benzene isomers.

### **2.0 1,4-Dioxane by GCMS SW846 Method 8270D (SIM) and 8270D**

The following method criteria were reviewed: holding times, SMCs, MS, MSD, LCS, Laboratory Control Samples/Laboratory Control Duplicates, Method Blanks, Tunes, Calibrations, Internal Standards, Field Duplicate, Target Component Identification, Quantitation, Reported Quantitation Limits and Overall System Performance. The 1,4-Dioxane results are valid and useable with qualifications as noted within the following text:

#### **2.1 Holding Time**

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J-" (biased low). The non-detects (sample quantitation limits) are required to be flagged as estimated, "UJ", or unusable, "R", if the holding times are grossly exceeded.

**Samples were extracted within the method required holding time of fourteen (14) days from collection for soil samples and seven (7) for groundwater samples. Extracts were analyzed within the technical and**

**method holding time of 40 days from extraction to analysis required for data validation.**

## **2.2 System Monitoring Compound (Surrogate) Recovery**

All samples are spiked with surrogate compounds prior to sample preparation/extraction to evaluate overall laboratory performance and efficiency of the analytical technique. Additionally, the sample itself may produce effects due to such factors as interferences and high concentrations of analytes. Since the effects of the sample matrix are frequently outside the control of the laboratory and may present relatively unique problems, the evaluation of the data is dependent upon reextraction and/or reanalysis to confirm/negate laboratory error or matrix related problems. Discussion of surrogate recoveries that fell outside (above/below) QC guidelines is itemized below:

**Surrogate 1,4-Dioxane-d8 recovered within limits (10-150%) for SIM analysis of the Field Blank. Soil samples by 8270D also yielded acceptable surrogate recovery values for 2-Fluorophenol, Phenol-d5, Nitrobenzene-d5, 2-Fluorobiphenyl, 2,4,6,-Tribromophenol and Terphenyl-d14.**

## **2.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)**

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis. The MS/MSD may be used in conjunction with other QC criteria for additional qualification of data.

**MS/MSD was listed on the chain of custody for B-2 @ 2"-24" for 1,4-Dioxane. MS/MSD analysis was not performed for 1,4-Dioxane as requested. In lieu of MS/MSD the laboratory inadvertently performed duplicate analysis.**

**The National Functional Guidelines and EPA Region 2 SOPs state that "No qualifications to the data is necessary based on MS data alone."**

## **2.4 Laboratory Control Sample/Laboratory Control Duplicate**

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

**LCS/LCS Duplicates yielded acceptable recovery values for 1,4 Dioxane.**

## **2.5 Blank Contamination**

Quality assurance (QA) blanks; i.e. method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field blanks measure cross-contamination of samples during field operations.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Storage, field, Instrument	Detects	Not Detected	No qualification required
	<CRQL	<CRQL	Report CRQL value with a U
	>/= CRQL and <2x the CRQL		No qualification required
	>CRQL	</= CRQL	Report CRQL value with a U
		>/=CRQL and </= blank concentration	Report blank value for sample concentration with a U
		>/= CRQL and > blank concentration	No qualification required
	=CRQL	</= CRQL	Report CRQL value with a U
		>CRQL	No qualification required
	Gross Contamination	Detects	Report blank value for sample concentration with a U

Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

- A) **Method Blank Contamination:**  
**1,4-Dioxane was not detected in the method blanks associated with sample analysis.**
- B) **Field Blank Contamination:**  
**1,4-Dioxane was not detected in the Field Blank for analysis conducted by selective ion monitoring techniques.**

## **2.6 GC/MS Instrument Performance Check**

Tuning and performance criteria are established to ensure adequate mass resolution proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances.

The Tuning standard for semivolatile organics is decafluorotriphenylphosphine (DFTPP).

**Instrument performance was generated within acceptable limits and frequency (12 hours) for decafluorotriphenylphosphine (DFTPP) for all analyses.**

## **2.7 Initial and Continuing Calibrations**

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument can give acceptable performance at the beginning of an experimental sequence.

The continuing calibration checks document that the instrument is giving satisfactory daily performance.

### **C) Response Factor GC/MS:**

The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be  $\geq 0.05$  in both initial and continuing calibrations. A value  $<0.05$  indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound in the corresponding samples will be rejected, "R".

**Response factors for 1,4-Dioxane was found to be within acceptable limits ( $\geq 0.05$ ), for the initial (average RRF) and continuing calibrations.**

### **D) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):**

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be  $<20\%$  and %D must be  $<20\%$ . A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria, non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is  $>30\%$  and eliminating either the high or the low point of the curve does not restore the %RSD to less than or

equal to 20% then positive results are qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high-level results will be qualified, "J" in the portion of the curve where non-linearity exists. Due to the large number of analytes in this method, it is expected for some analytes to fall outside acceptance criteria and the calibration is still considered valid. Acceptable Initial Calibration Verifications were performed.

**Initial Calibrations:** The initial calibrations provided and the %RSD were within acceptable limits (20%) for 1,4-Dioxane.

**Continuing Calibrations:** The continuing calibrations provided and the %D was within acceptable limits (20%) for 1,4-Dioxane.

## **2.8 Internal Standards**

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-50% to +100%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/- 30 seconds from the associated continuing calibration standard. If the area count is outside the (-50% to +100%) range of the associated standard, all the positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 30 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

**Samples were spiked with the internal standard DCBd4 for SIM Field Blank analysis. The area responses and retention time of this internal standard met QC criteria. Internal standards 1,4-Dichlorobenzene-d4, Naphtalaene-d8, Acenaphthene-d10, Phenanthrene-d10, Chrysene-d12 and Perylene-d12 met acceptance criteria for soil analysis for 1,4-Dioxane by 8270D.**

## **2.9 Field Duplicates**

**Field Duplicates were not required for this sampling event.**

## **2.10 Target Compound List Identification**

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within =/- 0.06RRT units of the standard compound and have an ion spectrum which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

**GC/MS spectra met the qualitative criteria for identification. All retention times were within required specifications.**

## **2.11 Compound Quantification and Reported Detection Limits**

GC/MS quantitative analysis is acceptable. Correct internal standards per SW846, response factors and percent moisture were used to calculate final concentrations.

**As required, the laboratory reports "J" values between the reporting limits (RL) and Method Detection Limits (MDLs). This is consistent with common laboratory practices and a requirement of the National Environmental Laboratory Approval Program (NELAP).**

**Soil samples were analyzed undiluted. Samples were extracted by SW846 Method 3546. B-2 @ 2"-24" was analyzed twice for 1,4-Dioxane since the MS/MSD was listed on a separate line item on the chain of custody. Only MS/MSD was required and not a duplicate analysis, however, the laboratory did not perform MS/MSD. 1,4-Dioxane was not detected in any soil samples.**

## **2.12 Overall System Performance**

**Good resolution and chromatographic performance were observed.**

## **3.0 Pesticides by GC SW846 Method 8081B, PCBs by SW846 Method 8082A,**

The following method criteria were reviewed: holding times, Surrogates, MS, MSD, LCS/LCS Duplicates, Blanks, Analytical Sequences, Calibrations, Target Component Identification, Quantitation, Reported Quantitation Limits and overall system

performance. The Pesticide and PCB results are valid and usable as noted within the following text:

### **3.1 Holding Time**

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

**Samples were extracted and analyzed within the method required holding times and the technical holding times required for data validation (14 days from collection to extraction for soil samples and 7 days for groundwater) for extraction. All extracts were analyzed within forty (40) days in accordance with the analytical method requirements.**

### **3.2 Surrogate Recovery**

All samples are spiked with surrogate compounds prior to sample preparation/extraction to evaluate overall laboratory performance and efficiency of the analytical technique. Additionally, the sample itself may produce effects due to such factors as interferences and high concentrations of analytes. Since the effects of the sample matrix are frequently outside the control of the laboratory and may present relatively unique problems, the evaluation of the data is dependent upon reextraction and/or reanalysis to confirm/negate laboratory error or matrix related problems. No qualifications were applied if one of the spiked surrogates is above acceptance limits on one of the two columns. Discussion of surrogate recoveries that fell outside (above/below) QC guidelines is itemized below:

**Pesticides:**

**Samples were spiked with surrogate standards DCB and TCMX. Acceptable recovery values were obtained.**

**PCBs:**

**Acceptable surrogate recovery values for DCB and TCMX were observed for all samples.**

### **3.3 Matrix Spikes (MS)/Matrix Spike Duplicates (MSD)**

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices.

**Pesticide MS/MSD analysis of MW-2 yielded acceptable recovery and RPD for all pesticide compounds. Soil MS/MSD on B-2 @ 2"-24" also yielded acceptable recovery values for all spiked analytes. RPD for Hexachlorocyclopentadiene (51.5%) fell outside range. Data was not qualified based on this outlier.**

**PCB MS/MSD analysis on B-2 @ 2"-24" and MW-2 yielded acceptable recovery and RPD values for all spiked Aroclors.**

### **3.4 Laboratory Control Sample/Laboratory Control Duplicates**

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

**LCS/LCS Duplicates were analyzed for each analytical extraction batch for Pesticides/PCBs. Acceptable recovery values were obtained for all spiked compounds.**

### **3.5 Blanks**

Quality assurance (QA) blanks; i.e. method, instrument, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Instrument blanks measure carryover for cross contamination. Field blanks measure cross-contamination of samples during field operations.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

For:	Flag Sample Result with a "U" when:	Report CRQL & Qualify "U" when:	No Qualification is Needed when:
Any Contaminant	Sample Conc. is >CRQL, but </=5x blank value	Sample Conc. Is <CRQL and </=5x blank value	Sample Conc. is >CRQL and >5x blank value

Extraction and Instrument blanks were performed at the appropriate frequency.

Below is a summary of blank contamination:

**A) Method Blank Contamination:**

**No target analytes were detected in the associated soil method blanks. Pesticide aqueous method blank yielded low concentrations of gamma-Chlordane (0.026 ug/L) and Heptachlor (0.011 ug/L). The laboratory reported concentrations in groundwater samples were negated, "U" due to contamination.**

**No additional data validation qualifiers were required based upon method blank data.**

**B) Field Blank Contamination: No target analytes were detected in the Field Blank.**

**3.6 Calibration Verification**

Initial and continuing calibration sequence was performed as required for individual and multi-component Pesticide and PCB standards. Acceptable DDT and Endrin breakdown percent difference (<15%) was observed. Acceptable retention times were obtained for all analysis and GC resolution is acceptable for both columns.

Linearity criteria for the initial standards have been satisfied for both columns as detailed below:

%RSD </= 20% for single component compounds except alpha-BHC and delta-BHC

%RSD </=30% for Toxaphene peaks

%RSD </= 30% for surrogates (TCMX and DCB)

%RSD <20% for PCB aroclors

Continuing calibration verifications:

For Pesticide analysis, acceptable percent difference for any analyte is 20%, PCB analysis, the acceptable limit is 15%.

**Calibrations met method requirements for Pesticides and PCBs.**

### **3.7 Field Duplicates**

**Field duplicate samples are collected and analyzed as an indication of overall precision. These results are expected to have more variability than laboratory duplicate samples. Field Duplicates were not required for this sampling event.**

### **3.8 Target Compound Identification**

Qualitative criteria for compound identification have been established to minimize the number of false positives and false negatives. The retention times of all target analytes have been verified in the samples to that of the analyzed reference standards

Acceptable DDT/Endrin breakdown was observed.

Positive Pesticide and PCB results are compared and where %Difference >25% when quantitated on the two columns the qualifications below are applied. Sample chromatograms were reviewed for the presence of interference. The following qualifications were applied where neither column shows interference:

<b>%Difference</b>	<b>Qualifier</b>
0-25%	None
26-70%	"J"
71-100%	"JN"
101-200% (no interference)	"R"
101-200% (interference detected)	*"JN"
>50% (value is <CRQL)**	"U"
>201%	"R"

**\*When the reported %D is 101-200%, but interference is determined on either column, the results shall be qualified, "JN"**

**\*\* When the reported value is lower than the CRQL, and the %D is >50%, raise the value to the CRQL and qualify "U", undetected.**

**No target PCBs were detected in any of the field samples. the laboratory reported concentration of 4,4'-DDT (105.3%) in MW-4 has been qualified, "JN."**

### **3.9 Compound Quantification and Reported Detection Limits**

TCL compounds are identified on the GC by using the analyte's relative retention time (RRT) and by comparison to the primary column and the secondary confirmation column data. The laboratory reported the lower of the concentrations for primary/confirmatory column results as required.

**Samples were analyzed utilizing internal standards for quantitation. Acceptable internal standard response was observed. MW-4 was reanalyzed at 1:10 for Pesticide analysis due to interference in undiluted run for Endrin Aldehyde. Although, detected low; the laboratory reported results of 0.26 ug/L has been qualified, "D" since initial analysis demonstrated interference with potential detection.**

### **3.10 Overall System Performance**

Acceptable system performance was maintained throughout the analysis of all samples. Good resolution and chromatographic performance were observed.

**Analysis is acceptable.**

## **4.0 PFAS Analytes by LC/MS/MS EPA Modified Method 537**

The following method criteria were reviewed: holding times, Surrogates, MS, MSD, LCS/LCS Duplicates, Method Blanks, Calibrations, Internal Standards, Field Duplicate, Target Component Identification, Quantitation, Reported Quantitation Limits and Overall System Performance. The PFAS results are valid and useable as noted within the following text:

### **4.1 Holding Time**

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

**Samples were extracted and performed within the method required holding times of 14 days from collection to extraction and 28 days from extraction to analysis for sample containers. the laboratory reporting form for B-4 @ 2"-24" has qualified all analytes, "H" which would**

indicate a holding time exceedance. Review of the raw data indicates this sample was extracted within 14 days. During the review, the “H” qualifier has been removed. No additional data validation qualifiers were required based upon holding time.

#### **4.2 System Monitoring Compound (Surrogate) Recovery**

All samples are spiked with surrogate compounds prior to sample analysis to evaluate overall laboratory performance and efficiency of the analytical technique. If the measure of surrogate concentrations is outside contract specification, qualifications are required to be applied to associated samples and analytes.

**Surrogate recoveries (%R) were found to be within acceptable limits for all analyses pertaining to these SDGs with exceptions noted below:**

**M2-6:2 FTS – Recovered above limits in B-1 @ 2"-24" and B-4 @ 2"-24"**

**M2-8:2 FTS – Recovered above limits in all samples.**

**Since associated target analytes 6:2 FTS and 8:2 FTS were not detected in any samples, high recovery does not support any potential loss of detection and/or result bias sample results are not impacted.**

#### **4.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)**

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis. The MS/MSD may be used in conjunction with other QC criteria for additional qualification of data.

**MS/MSD analysis on B-2 @ 2"-24" yielded high PFOS (172%/181%) recovery. The laboratory reported concentration has been qualified, “J+” biased high in the parent and laboratory duplicate analysis.**

**The National Functional Guidelines and EPA Region 2 SOPs state that “No qualifications to the data is necessary based on MS data alone.”**

#### **4.4 Laboratory Control Sample**

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

**Acceptable LCS was analyzed. Recovery values were acceptable for all spiked compounds except for high recovery for 6:2 FTS. This target analyte was not detected in field samples. Results are not impacted.**

#### **4.5 Blank Contamination**

Quality assurance (QA) blanks; i.e. method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross-contamination of samples during field operations.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Storage, field, Instrument	Detects	Not Detected	No qualification required
	<CRQL	<CRQL	Report CRQL value with a U
		>/= CRQL and <2x the CRQL	No qualification required
	>CRQL	</= CRQL	Report CRQL value with a U
		>/=CRQL and </= blank concentration	Report blank value for sample concentration with a U
		>/= CRQL and > blank concentration	No qualification required
	=CRQL	</= CRQL	Report CRQL value with a U
		>CRQL	No qualification required
	Gross Contamination	Detects	Report blank value for sample concentration with a U

Below is a summary of the compounds in the blanks and the associated qualifications that have been applied:

##### **A) Method Blank Contamination:**

**PFHxS (0.293 ng/L) and FOSA (0.397 ng/L) were detected in the aqueous blank associated with the Field Blank. The laboratory reported results for these analytes were negated, "U" in the Field Blank.**

**No target compounds were detected in the soil blank.**

**B) Field Blank Contamination:**

Field Blank analysis yielded PFBA at 0.35 ng/L (0.00035 ug/L). Sample detections in B-1 @ 2"-24", B-3 @ 2"-24", B-4 @ 2"-24" and B-2 @ 2"-24" (duplicate) were higher than the blank level. No qualifiers were applied.

**4.6 Initial and Continuing Calibrations**

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument can produce acceptable performance at the beginning of an experimental sequence.

The continuing calibration checks document that the instrument is giving satisfactory daily performance. Initial and continuing calibration verifications were acceptable.

**4.7 Internal Standards**

Internal Standards (IS) performance criteria ensure that the LC/MS/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 1 (-50% to +50%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/-60 seconds from the associated continuing calibration standard. If the area count is outside the (-50% to +50%) range of the associated standard, all the positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 60 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

**All samples were spiked with the internal standards 13C2-PFOA prior to sample analysis. The area responses and retention time of this internal standard met QC criteria.**

**4.8 Field Duplicates**

**Field duplicate samples are collected and analyzed as an indication of overall precision. These results are expected to have more**

**variability than laboratory duplicate samples. Field Duplicates were not required.**

#### **4.9 Target Compound List Identification**

TCL compounds are identified on the LC/MS/MS by using the analyte's relative retention time (RRT) obtained from known standards.

**LC/MS/MS raw data met the qualitative criteria for identification. All retention times were within required specifications.**

#### **4.10 Compound Quantification and Reported Detection Limits**

LC/MS/MS quantitative analysis is acceptable. Samples were extracted by solid phase extraction techniques. Correct internal standards per EPA Method 537 and response factors were used to calculate final concentrations. Results are reported in ug/kg for all detections.

**As required, the laboratory reported "J" values between the reporting limits (RL) and Method Detection Limits (MDLs). This is consistent with common laboratory practices and a requirement of the National Environmental Laboratory Approval Program (NELAP).**

**Soil Samples were analyzed undiluted. EPA Method 537 analysis was performed by Eurofins TestAmerica Sacramento.**

#### **4.11 Overall System Performance**

**Good resolution and chromatographic performance were observed.**

### **5.0 Metals by ICP/Cold Vapor SW846 Methods 6010C/6010D/7471B**

The following method criteria were reviewed: holding times, CRDL standards, calibration, blanks, MS, laboratory duplicates, LCS, interference check sample, ICP serial dilutions and sample results verification. Metals results are valid and usable with the appropriate qualifiers as noted in the following text:

## **5.1 Holding Times**

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

**Samples were digested and analyzed for Metals within the method required holding times and the technical holding times for data validation. No qualifications were applied based upon holding time criteria.**

## **5.2 Calibration (ICV/CCV)**

Satisfactory instrument calibration is established to ensure that the instruments can produce acceptable quantitative data. An initial calibration demonstrates that the instruments can give acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instruments are giving satisfactory sequential performance and that the initial calibration is still valid.

**The ICP and Mercury instruments were calibrated utilizing a minimum of a four-point curve in addition to blanks at the beginning of each analytical run. The calibrations have been determined to be acceptable, yielding correlation coefficients of 0.995 or greater.**

**For ICP analysis, satisfactory instrument performance near the Contract Required Detection Limit (CRDL) was demonstrated by analyzing a CRDL standard at the beginning and end of the analytical run. The instruments were calibrated properly by analyzing the CRDL solution at the correct levels and analyzed at the required frequency at the beginning and end of each analytical run. Acceptable low level ICV/CCV was also analyzed. All recoveries were within acceptable limits of 90-110 % for initial calibration pertaining to field samples. Continuing calibrations were within acceptable limits of 90-110% recovery of the true values for ICP and Mercury (80-120%) for all field samples. No qualifications were applied based upon ICV/CCV analysis.**

### **5.3 Blanks**

Quality assurance (QA) blanks, i.e. method, field or preparation blanks are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Preparation blanks measure laboratory contamination. Field blanks measure cross-contamination of samples during field operations.

All digestion/prep/ICB/CCB/Field blanks were generated within acceptable limits yielding final concentrations less than the CRDL. No metal detections were found in the method/preparation/digestion blanks. The field blank yielded Aluminum, Calcium, Iron, Magnesium, Sodium and Zinc. Sample results were evaluated to blank levels and Zinc was negated, "U" in MW-1, MW-2, MW-3 and MW-4.

No additional qualifications to the data were made based upon blank contamination.

### **5.4 Spiked Sample Recovery**

The spike data are generated to determine the long terms precision and accuracy of the analytical method in various matrices.

*Soil spike recoveries are qualified based on the criteria below:*

**<10% - "R" all detects and non-detects**

**Between 10%-74% - results >/= MDL "J" and non-detects "UJ"**

**Between 126-200% - results >/=MDL "J"**

**MS/MSD analysis of B-2 @ 2"-24" resulted in high Aluminum, Calcium, Iron and Magnesium recovery values however, the parent sample concentration is greater than 4x the spike level and therefore no qualifications to the data is required.**

**MS/MSD analysis of MW-2 yield high Calcium and Iron. Parent concentration ere greater than 4x the spike level and therefore, recovery values are not applicable. High Selenium recovery was also obtained; however, this element was not detected in the parent sample. Results are not impacted.**

### **5.5 Laboratory/Field Duplicates**

The laboratory uses duplicate sample determinations to demonstrate acceptable method precision at the time of analysis. Duplicate analyses are

also performed to generate data to determine the long-term precision of the analytical method on various matrices.

**Laboratory Duplicates:**

**RPD >20% but <100% - J detected concentrations**

**RPD >/=100% - R all detected and non-detected concentrations**

**MSD was performed in lieu of laboratory duplicate analysis which is acceptable.**

**Field Duplicates:**

**RPD >/=35% but <120% - qualify sample and duplicate results >/= CRQL "J"**

**RPD >/= 120% - rejected sample and duplicate results >/= CRQL "R"**

**Field Duplicates were not required for this sampling event.**

## **5.6      Laboratory Control Sample**

The laboratory Control Sample (LCS) serves as a monitor of the overall performance of each step during the analysis, including the sample preparation. Aqueous and solid Laboratory Control samples shall be analyzed for each analyte utilizing the same sample preparation, analytical methods and QA/QC procedures as employed for the samples.

**The LCS was analyzed and reported for ICP and Mercury analysis. Associated LCS recoveries were within the acceptable limits for Metals analyses (80-120%).**

## **5.7      Interference Check Sample**

The interference check sample (ICS) verifies the laboratory's interelement and background correction factors. The ICS consists of two solutions A and AB. Solution A consists of interference, and solution AB consists of the analytes mixed with interferents.

**SW846 Method 6010 requires solution A and solution AB to be analyzed separately. The recoveries for the ICP interference check sample were all within the acceptable limits of 80-120%. No data qualifications were made based upon ICS analysis.**

### **5.8 ICP Serial Dilution**

The serial dilution of samples quantitated by ICP determines whether significant physical or chemical interferences exist due to sample matrix. An ICP serial dilution analysis must be performed on a sample for each group of samples with a similar matrix type and concentration, or for each Sample Delivery Group (SDG), whichever is more frequent.

**ICP serial dilution was performed on at 5-fold dilutions as required by the method where the initial concentration is equal or greater than 50x MDL. Acceptable serial dilution analysis was performed.**

### **5.9 Sample Results Verification**

**Analyte quantitation was generated in accordance with protocols. The raw data was verified and found within the linear range of each instrument used for quantitation. Raw data supplied corresponds with reported values. Verification of the calculations yielded reported results.**

**Metals analysis resulted in acceptable results. All samples were analyzed by ICP.**

### **5.10 Overall Assessment of Data**

**The data generated were of acceptable quality. For the Metals analysis results are usable at the concentrations presented in the validated Form I's. The data was of acceptable quality.**

**Reviewer's Signature** You A. Beyer **Date** 11/16/2019

**L.A.B. Validation Corp, 14 West Point Drive, East Northport, NY 11731**

**Appendix A  
Chain of Custody Documents and  
Sample Receipt Checklists**



# CHAIN OF CUSTODY

56 Toledo Street, Farmingdale NY 11735  
(T) 631-454-6100 (F) 631-454-8027  
www.american-analytical.com

## Client Information

Company Name	Project Information							Analytical Test Information											
	Project Name	Farmert Quick & Clean	Street	380 Rockaway Turnpike	City	Cedarhurst, NY	State				Zip								
Address	17 Old Dock Rd.																		
City	Yaphank	State	11980	Project # / Purchase Order #	1372 / 29799														
Project Contact	Jostin H.			Sampler's Name / Company	Justin H. BET														
Phone #	511-589-6521			Sampler's Signature															
E-mail	halpinmowers.com																		
SAMPLE #	Sample Information							Sample Collection											
(LAB USE ONLY)	Client Sample ID	Sample Type	Matrix Code	Date	Time	Glass / Plastic	Total # of bottles	Sample Containers											
								None	HDI	NHO	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	MgO	CaO	NaOH	MgO	CaO		
1909078-001	B-1 2"-24"	G	S	9/11/99	9:00	G	1	X	X	X	X	X	X	X	X	X	X	X	X
001	B-2 2"-24" (msd)	G	S	9/11/99	9:30	G	3	X	X	X	X	X	X	X	X	X	X	X	X
003	B-3 2" -24"	G	S	10/1/99	9	I	1	X	X	X	X	X	X	X	X	X	X	X	X
004	B-4 2" -24"	G	S	10/2/99	9	I	1	X	X	X	X	X	X	X	X	X	X	X	X
005	MW-1	G	L	11:00	GP	4	X	X	X	X	X	X	X	X	X	X	X	X	X
006	MW-2 (msd)	G	L	11:10	GP	12	X	X	X	X	X	X	X	X	X	X	X	X	X
007	MW-3	G	L	12:00	GP	4	X	X	X	X	X	X	X	X	X	X	X	X	X
008	MW-4	G	L	12:10	GP	4	X	X	X	X	X	X	X	X	X	X	X	X	X
009	Field Blank	G	L	13:00	GP	4	X	X	X	X	X	X	X	X	X	X	X	X	X
Turnaround Time (Business Days)								MATRIX CODE			ELECTRONIC DELIVERABLES								
								G = Grab			NYCRR Part 375 - please circle								
								C = Composite			Lines/ Commt/ Industrial/ Residential/ Res Residential Facility								
								B = Blank			SCDoh Action Levels								
								L = Liquid			TCP Hazardous Waste								
								S = Soil			NJS Clean Up Criteria								
								O = Oil			CP 51 - Gas / Fuel								
								W = Wipe			TOGS								
								M = Misc			NYSDEC EQUIIS								
Samples custody must be documented below each time samples change possession, with a signature, date, and time.								Comments / Remarks											
Signature	Date	Printed Name	Received by Lab (Signature)	PO# 29799															
<input checked="" type="checkbox"/> Standard	7-10 Business Days	3 Day RUSH	PC = Paint Chip																
<input type="checkbox"/> 5 Day RUSH	2 Day RUSH	SL = Sludge																	
<input type="checkbox"/> 4 Day RUSH	1 Day RUSH	SD = Solid																	
Indicates for rush service availability								NJ Soil Clean Up Criteria											
								TOGS											
								NYSDEC EQUIIS											
Signature	Date	Printed Name	Received by Lab (Signature)	Comments / Remarks															
<input checked="" type="checkbox"/> Standard	7-10 Business Days	Printed Name	Received by Lab (Signature)	PRINTED NAME															
<input type="checkbox"/> 5 Day RUSH	2 Day RUSH	Printed Name	Received by Lab (Signature)	PRINTED NAME															
<input type="checkbox"/> 4 Day RUSH	1 Day RUSH	Printed Name	Received by Lab (Signature)	PRINTED NAME															
								COOLER TEMP:											
								24°C											
								DATE 9/1/99 PRINTED NAME J. Open											
								TIME 9:00 AM											
								DATE 9/1/99 PRINTED NAME J. Open											
								TIME 9:00 AM											

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

**CHAIN OF CUSTODY / ANALYSIS REQUEST**

777 New Durham Road  
Edison, New Jersey 08817  
Phone: (732) 545-3900 Fax: (732) 549-3679

Customer NY

Page 1 of 1

Sample Name (Printed)

Name (for report and invoice)

P.O. #

29142

Site/Project Identification

Quick Clean 380 Hockaway Park

State (Location of site): NJ:  NY:

Other:

Regulatory Program:

ANALYSIS REQUESTED (ENTER X BELOW TO INDICATE REQUEST)

Standard

Rush Charges Authorized For:

2 Week

1 Week

Other

Analysis Turnaround Time

DKQP:

LAB USE ONLY

Project No:

Job No:

191432

Sample Numbers

SUB WORK

Date

Time

Matrix

No. of Cont.

B-18 2<sup>nd</sup> - 24<sup>th</sup>

9/11/91

Soil

1

B-22 2<sup>nd</sup> - 24<sup>th</sup> (miss)

9/11/91

Soil

1

B-33 2<sup>nd</sup> - 24<sup>th</sup>

9/11/91

Soil

2

B-43 2<sup>nd</sup> - 24<sup>th</sup>

9/11/91

Soil

3

Fence Blocks

Line

4

Preservation Used: 1 = ICE, 2 = HCl, 3 = H<sub>2</sub>SO<sub>4</sub>, 4 = HNO<sub>3</sub>, 5 = NaOH

6 = Other  7 = Other

Soil:

Water:

460-191432 Chain of Custody

Barcode

ANALYSIS REQUESTED (ENTER X BELOW TO INDICATE REQUEST)

Special Instructions NYS CAT-B deliv will EDD

Relinquished by Company John BEI Date / Time 9/13/91 11:24 Received by J Water Metals Filtered (Yes/No)? Company J

2) Relinquished by Company John Date / Time 9/13/91 10:00 Received by J Water Metals Filtered (Yes/No)? Company J

3) Relinquished by Company John Date / Time 9/19/91 10:00 Received by J Water Metals Filtered (Yes/No)? Company J

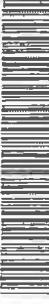
4) Relinquished by Company John Date / Time 9/19/91 10:00 Received by J Water Metals Filtered (Yes/No)? Company J

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Massachusetts (M-NJ312), North Carolina (No. 578) 2-21-3 ~ 11/10/9

TAL - 0016 (0715)

## Chain of Custody Record



### Client Information (Sub Contract Lab)

Client Contact:  
Shipping/Receiving

Company:  
TestAmerica Laboratories, Inc.

Address:

880 Riverside Parkway

City:  
West Sacramento

State/Zip:  
CA 95605

Phone:  
916-373-5600(Tel) 916-372-1059(Fax)

Email:  
lill.miller@testamericalabs.com

Due Date Requested:

9/25/2019

TAT Requested (days):

Sampler:  
Miller, Jill K

Phone:  
E-Mail:  
jill.miller@testamericalabs.com

Carrier Tracking No.:  
460-191432-1

COC No.:  
460-56044-1

Page:  
Page 1 of 1

Job #:  
460-191432-1

Accreditations Required (See note):  
None

Total Number of Contaminants:

Other:

Preservation Codes:

A - HCl  
B - NaOH  
C - Zn Acetate  
D - Nitric Acid  
E - NaHSO4  
F - MeOH  
G - Ammonium Acetate  
H - Acetonitrile  
I - Ice  
J - DI Water  
K - EDTA  
L - EDA  
V - MCAA  
W - pH 4-5  
Z - other (specify)

### Sample Identification - Client ID (Lab ID)

Sample Date	Sample Time	Sample Type (C=Comp, G=Grab) SI=Same, A=Alt)	Matrix (Number, Standard, Concentration, SI=Same, A=Alt)	Preservation Code	Special Instructions/Note:
B-1d 2"-24" (460-191432-1)	9/11/19 09:00	Solid	X		
B-2d 2"-24" (460-191432-2)	9/11/19 09:30	Solid	X		
B-2d 2"-24" (460-191432-2M)	9/11/19 09:30	MS	Solid	X	
B-2d 2"-24" (460-191432-2MS)	9/11/19 09:30	MSD	Solid	X	
B-3d 2"-24" (460-191432-3)	9/11/19 10:00	Solid	X		
B-4d 2"-24" (460-191432-4)	9/11/19 10:00	Solid	X		
Field Blanks (460-191432-5)	9/11/19 09:30	Water	X		
B-2a 2"-24" (460-191432-6)	9/11/19 09:30	Solid	X		

Note: Eurofins laboratories are subject to change. TestAmerica Laboratories, Inc. places the custodianship of material, analysis & accreditation upon the laboratory doing the analysis/matrix being analyzed. The samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

### Possible Hazard Identification

Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify)

Primary Deliverable Rank: 1

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client

Disposal By Lab

Archive For Months

Empty Kit Relinquished by:

Date/Time: 9/11/19 10:00 Company: ET-A Received by: Jill K Date/Time: 9/11/19 Company: ET-A Received by: Jill K

Date/Time: 9/11/19 10:00 Company: ET-A Received by: Jill K Date/Time: 9/11/19 Company: ET-A Received by: Jill K

Relinquished by:

Date/Time: 9/11/19 10:00 Company: ET-A Received by: Jill K Date/Time: 9/11/19 Company: ET-A Received by: Jill K

Relinquished by:

Date/Time: 9/11/19 10:00 Company: ET-A Received by: Jill K Date/Time: 9/11/19 Company: ET-A Received by: Jill K

Custody Seals Intact:  Yes  No Custody Seal No.: 0.3°C

## Sample Log-In Check List

Client Name:	Berninger	Work Order Number:	1909078
Logged by:	Lori Beyer	9/12/2019 8:08 AM	<i>Lori Beyer</i>
Completed By:	Lori Beyer	9/12/2019 10:34 AM	<i>Lori Beyer</i>
Reviewed By:	Phyllis Masi	9/12/2019 12:00 AM	<i>Phyllis Masi</i>

### **Chain of Custody**

1. Were seals intact? Yes  No  Not Present
2. Is Chain of Custody complete? Yes  No  Not Present
3. How was the sample delivered? Yes  No  Not Present

### **Log In**

4. Coolers are present? Yes  No  Not Present
5. Was an attempt made to cool the samples? Yes  No  NA
6. Were all samples received at a temperature of >0° C to 6.0° C Yes  No  NA
7. Sample(s) in proper container(s)? Yes  No
8. Sufficient sample volume for indicated test(s)? Yes  No
9. Are samples (except VOA and ONG) properly preserved? Yes  No
10. Was preservative added to bottles? Yes  No
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes  No  Not Present
12. Were any sample containers received broken? Yes  No
13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes  No
14. Are matrices correctly identified on Chain of Custody? Yes  No
15. Is it clear what analyses were requested? Yes  No
16. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes  No

### **Special Handling (if applicable)**

17. Was client notified of all discrepancies with this order? Yes  No  Not Present

Person Notified:	Date:
By Whom:	Via <input type="checkbox"/> email <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	
Client Instructions:	

18. Additional remarks:

### **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
		Good	No			

## Login Sample Receipt Checklist

Client: WRS Environmental Services

Job Number: 460-191432-1

**Login Number: 191432**

**List Number: 1**

**Creator: Rivera, Kenneth**

**List Source: Eurofins TestAmerica, Edison**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	False	Refer to Job Narrative for details.
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: WRS Environmental Services

Job Number: 460-191432-1

**Login Number:** 191432

**List Source:** Eurofins TestAmerica, Sacramento

**List Number:** 2

**List Creation:** 09/18/19 12:57 PM

**Creator:** Nuval, Mark-Anthony M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

L.A.B. Validation Corp. 14 West Point Drive, East Northport, NY 11731

**Appendix B  
Case Narratives**

# American Analytical Laboratories, LLC. - Case Narrative

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

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**Client:** WRS d.b.a Berninger Environmental

**Project:** Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY

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Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846 and additional methods as detailed throughout the text of the report. All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives with exceptions noted in this Narrative discussion.

SVOA: Calibration for Benzoic Acid does not meet method requirements. Reporting limit must be considered estimated. MS/MSD on MW-2 yielded benzaldehyde, Acetophenone, Hexachloroethane and Napthalene outside range due to matrix interference. LCS met acceptance criteria. TICs are submitted for SVOA analysis.

Pesticide/PCBs are analyzed on two distinct columns. Once a target compound is qualitatively confirmed by detection on both columns and quantitation is determined to be >40% between the two columns, AAL's policy is to report the lower of the values as suggested by SW846 Method 8000C in cases where no interference exists. If in the professional judgment of the laboratory, the higher value must be utilized this is explained in the lab report. TBA cleanup was required on 1909078-008A due to sulfur interference. Pesticide analysis of MW-4 (and the corresponding method blank and LCS) was subjected to sulfur cleanup due to matrix interference.

The following parameters (if included in this report) are not offered by NY ELAP: VOA 8260 Soil; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Diisopropyl ether, Ethanol, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Limonene. VOA 8260 Liquid; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Limonene. Pesticides 8081 Soil; DBCP, Herbicides 8151 Soil; 3,5-Dichlorobenzoic Acid, 4-Nitrophenol, Acifluorfen, Bentazon, Chloramben, DCPA, Picloram, SM 2540G Total Volatile Solids, Soil TKN, Soil Organic Nitrogen, Total Phosphorus in soil, Percent Moisture, pH in non-potable water and temperature at which pH is measured, SM 4500-SO3 B Sulfite in Liquid, Total Sulfur in Soil, Acid Soluble Chloride by ASTM C1152, Water Soluble Chloride by ASTMC1218, Chlorine Demand by SM 2350 B, Total Residual Chlorine in Liquid and Reactivity to Sulfide and Reactivity to Cyanide.

The test results meet the requirements of the NYSDOH and NELAC standards, except where noted. The information contained in this analytical report is the sole property of American Analytical Laboratories, LLC. or the client for which this report was issued. The results contained in this report are only representative of the samples received. The sample receipt checklist is included as part of this lab report. Conditions can vary at different times and at different sampling conditions. American Analytical is not responsible for the use or interpretation of the data included herein.

## CASE NARRATIVE

**Client: WRS Environmental Services**

**Project: Quick&Clean 380 Rockaway Trpk Cedarhurst**

**Report Number: 460-191432-1**

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### **RECEIPT**

The samples were received on 09/13/2019; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.2 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

The following samples were received at the laboratory without a sample collection date and time documented on the chain of custody, and dates/times were entered from the container labels(no sample time on #4,5 containers): B-1d 2"-24" (460-191432-1), B-2d 2"-24" (460-191432-2), B-2d 2"-24" (460-191432-2[MS]), B-2d 2"-24" (460-191432-2[MSD]), B-3d 2"-24" (460-191432-3), B-4d 2"-24" (460-191432-4), Field Blanks (460-191432-5) and B-2d 2"-24" (460-191432-6).

### **1,4 DIOXANE BY 8270D SIM, ISOTOPE DILUTION**

Sample Field Blanks (460-191432-5) was analyzed for 1,4 Dioxane by 8270D SIM, Isotope Dilution in accordance with EPA SW-846 Method 8270D SIM. The samples were prepared on 09/17/2019 and analyzed on 09/18/2019.

No difficulties were encountered during the 1,4 Dioxane analysis.

All quality control parameters were within the acceptance limits.

### **SEMOVOLATILE ORGANIC COMPOUNDS (GC-MS)**

Samples B-1d 2"-24" (460-191432-1), B-2d 2"-24" (460-191432-2), B-3d 2"-24" (460-191432-3), B-4d 2"-24" (460-191432-4) and B-2d 2"-24" (460-191432-6) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 09/17/2019 and analyzed on 09/17/2019 and 09/18/2019.

No difficulties were encountered during the semivolatiles analysis.

All quality control parameters were within the acceptance limits.

### **PERFLUORINATED HYDROCARBONS (PFC)**

Samples B-1d 2"-24" (460-191432-1), B-2d 2"-24" (460-191432-2), B-3d 2"-24" (460-191432-3), B-4d 2"-24" (460-191432-4) and B-2d 2"-24" (460-191432-6) were analyzed for Perfluorinated Hydrocarbons (PFC) in accordance with PFC. The samples were prepared on 09/25/2019 and analyzed on 09/30/2019.

Due to a shortage in the marketplace for 13C3-PFBS, the target analyte PFBS and/or Perfluoropentanesulfonic acid (PFPeS) could not be quantitated against 13C3-PFBS (its labeled variant) as listed in the SOP. PFBS and Perfluoropentanesulfonic acid (PFPeS) was quantitated versus 18O2-PFHxS instead. (ICV 320-322933/11)

Due to a shortage in the marketplace for 13C3-PFBS, the target analyte PFBS and/or Perfluoropentanesulfonic acid (PFPeS) could not be quantitated against 13C3-PFBS (its labeled variant) as listed in the SOP. PFBS and Perfluoropentanesulfonic acid (PFPeS) was quantitated versus 18O2-PFHxS instead.

Due to a shortage in the marketplace for 13C3-PFBS, the target analyte PFBS and/or Perfluoropentanesulfonic acid (PFPeS) could not be quantitated against 13C3-PFBS (its labeled variant) as listed in the SOP. PFBS and Perfluoropentanesulfonic acid (PFPeS) was quantitated versus 18O2-PFHxS instead. (ICV 320-325161/10)

Due to a shortage in the marketplace for 13C3-PFBS, the target analyte PFBS and/or Perfluoropentanesulfonic acid (PFPeS) could not be quantitated against 13C3-PFBS (its labeled variant) as listed in the SOP. PFBS and Perfluoropentanesulfonic acid (PFPeS) was quantitated versus 18O2-PFHxS instead. (ICV 320-325346/11)

Due to a shortage in the marketplace for 13C3-PFBS, the target analyte PFBS and/or Perfluoropentanesulfonic acid (PFPeS) could not be quantitated against 13C3-PFBS (its labeled variant) as listed in the SOP. PFBS and Perfluoropentanesulfonic acid (PFPeS) was quantitated versus 18O2-PFHxS instead. (ICV 320-326599/11)

The target analyte 4:2 FTS was not quantitated using the Isotope Dilution Analyte (IDA) M2-4:2FTS as listed in the Standard Operating Procedure (SOP), WS-LC-0025 Rev. 3.8. Instead, 4:2FTS was quantitated using the IDA 18O2-PFHxS. The low level continuing calibration verification (CCVL), calibration verifications (CCV), and associated preparation batch quality controls were within control limits, therefore, there is no impact to data quality. (ICV 320-325161/10)

Due to a shortage in the marketplace for 13C3-PFBS, the target analyte PFBS and/or Perfluoropentanesulfonic acid (PFPeS) could not be quantitated against 13C3-PFBS (its labeled variant) as listed in the SOP. PFBS and Perfluoropentanesulfonic acid (PFPeS) was quantitated versus 18O2-PFHxS instead. (ICV 320-327743/11)

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 320-326115 and analytical batch 320-327155 were outside control limits for Perfluoroctanesulfonic acid (PFOS). Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-8:2 FTS the following samples: B-2d 2"-24" (460-191432-2), B-2d 2"-24" (460-191432-2[MS]), B-3d 2"-24" (460-191432-3) and B-2d 2"-24" (460-191432-6). The samples were re-analyzed with concurring results. Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-6:2 FTS and M2-8:2 FTS the following samples: B-1d 2"-24" (460-191432-1) and B-4d 2"-24" (460-191432-4). The samples were re-analyzed with concurring results. Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 320-324656 and analytical batch 320-324935 recovered outside control limits for the following analytes: 6:2 FTS. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Perfluoroctanesulfonic acid (PFOS) failed the recovery criteria high for the MS/MSD of sample B-2d 2"-24"MS (460-191432-2) in batch 320-327155.

Refer to the QC report for details.

No other difficulties were encountered during the Perfluorinated Hydrocarbons (PFC) analysis.

All other quality control parameters were within the acceptance limits.

#### **PERFLUORINATED HYDROCARBONS (PFC)**

Sample Field Blanks (460-191432-5) was analyzed for Perfluorinated Hydrocarbons (PFC) in accordance with PFC. The samples were prepared on 09/19/2019 and analyzed on 09/20/2019.

Perfluorohexanesulfonic acid (PFHxS) and Perfluoroctanesulfonamide (FOSA) were detected in method blank MB 320-324656/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

6:2 FTS failed the recovery criteria high for LCS 320-324656/2-A. 6:2 FTS failed the recovery criteria high for LCSD 320-324656/3-A. Refer to the QC report for details.

No other difficulties were encountered during the Perfluorinated Hydrocarbons (PFC) analysis.

All other quality control parameters were within the acceptance limits.

#### **PERCENT SOLIDS/PERCENT MOISTURE**

Samples B-1d 2"-24" (460-191432-1), B-2d 2"-24" (460-191432-2), B-3d 2"-24" (460-191432-3), B-4d 2"-24" (460-191432-4) and B-2d 2"-24" (460-191432-6) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 09/24/2019.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

L.A.B. Validation Corp, 14 West Point Drive, East Northport, NY 11731

**Appendix C  
Data Summary Form I's  
With Qualifications**

**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 9:00:00 AM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-001		Matrix: Soil
Client Sample ID:	B-1 @ 2"-24"		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
<b>TOTAL METALS</b>	<b>Method: 7471</b>			<b>SW7471B</b>		<b>Analyst: JP</b>		
<b>MERCURY</b>								
Mercury	0.0173		0.00749	0.00749	0.0140	mg/Kg-dry	1	9/16/2019 2:33 PM
<b>PCB's as AROCLORS SW-846 METHOD 8082</b>			<b>Method: 8082A</b>			<b>SW3546</b>	<b>Analyst: SB</b>	
Aroclor 1016	10	U	10	10	20	µg/Kg-dry	1	9/23/2019 11:57 PM
Aroclor 1221	10	U	10	10	20	µg/Kg-dry	1	9/23/2019 11:57 PM
Aroclor 1232	10	U	10	10	20	µg/Kg-dry	1	9/23/2019 11:57 PM
Aroclor 1242	10	U	10	10	20	µg/Kg-dry	1	9/23/2019 11:57 PM
Aroclor 1248	10	U	10	10	20	µg/Kg-dry	1	9/23/2019 11:57 PM
Aroclor 1254	10	U	10	10	20	µg/Kg-dry	1	9/23/2019 11:57 PM
Aroclor 1260	10	U	10	10	20	µg/Kg-dry	1	9/23/2019 11:57 PM
Aroclor 1262	10	U	10	10	20	µg/Kg-dry	1	9/23/2019 11:57 PM
Aroclor 1268	10	U	10	10	20	µg/Kg-dry	1	9/23/2019 11:57 PM
Surr: DCB	50.5			14-145		%Rec	1	9/23/2019 11:57 PM
Surr: DCB	52.9			14-145		%Rec	1	9/23/2019 11:57 PM
Surr: TCX	61.8			15-140		%Rec	1	9/23/2019 11:57 PM
Surr: TCX	66.2			15-140		%Rec	1	9/23/2019 11:57 PM
<b>PESTICIDES SW-846 METHOD 8081</b>			<b>Method: 8081B</b>			<b>SW3546</b>	<b>Analyst: NF</b>	
4,4'-DDD	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
4,4'-DDE	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
4,4'-DDT	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
Aldrin	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
alpha-BHC	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
alpha-Chlordane	6.0	U	6.0	6.0	10	µg/Kg-dry	1	9/23/2019 11:23 AM
beta-BHC	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
Chlorobenzilate	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
DBCP	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
delta-BHC	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
Dieldrin	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
Endosulfan I	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
Endosulfan II	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
Endosulfan sulfate	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
Endrin	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
Endrin aldehyde	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
Endrin ketone	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
gamma-BHC	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
gamma-Chlordane	6.0	U	6.0	6.0	10	µg/Kg-dry	1	9/23/2019 11:23 AM
Heptachlor	2.0	U	2.0	2.0	3.0	µg/Kg-dry	1	9/23/2019 11:23 AM
Heptachlor epoxide	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
Hexachlorobenzene	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
Hexachlorocyclopentadiene	3.0	U	3.0	3.0	3.0	µg/Kg-dry	1	9/23/2019 11:23 AM
Methoxychlor	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:23 AM
Toxaphene	13	U	13	13	25	µg/Kg-dry	1	9/23/2019 11:23 AM

**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

<b>Client:</b>	WRS d.b.a Berninger Environmental	<b>Collection Date:</b>	9/11/2019 9:00:00 AM
<b>Project:</b>	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
<b>Lab ID:</b>	1909078-001	<b>Matrix:</b>	Soil
<b>Client Sample ID:</b>	B-1 @ 2"-24"		

<b>Analysis</b>	<b>Result</b>	<b>Qual</b>	<b>DL</b>	<b>LOD</b>	<b>LOQ</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
Surr: DCB	72.0			20-145		%Rec	1	9/23/2019 11:23 AM
Surr: DCB	76.2			20-145		%Rec	1	9/23/2019 11:23 AM
Surr: TCX	76.5			20-140		%Rec	1	9/23/2019 11:23 AM
Surr: TCX	76.6			20-140		%Rec	1	9/23/2019 11:23 AM

<b>PERCENT MOISTURE</b>	<b>Method: D2216</b>					<b>Analyst: MR</b>	
Percent Moisture	1.05		0	0	1.00	wt%	1 9/16/2019 10:00 AM

<b>TOTAL METALS</b>	<b>Method: 6010</b>					<b>SW3050B</b>	<b>Analyst: JP</b>
Aluminum	840		0.197	0.197	0.395 mg/Kg-dry	1	9/18/2019 9:57 AM
Antimony	0.197	U	0.197	0.197	0.493 mg/Kg-dry	1	9/18/2019 9:57 AM
Arsenic	0.809		0.197	0.197	0.493 mg/Kg-dry	1	9/18/2019 9:57 AM
Barium	5.05		0.197	0.197	0.395 mg/Kg-dry	1	9/18/2019 9:57 AM
Beryllium	0.0987	U	0.0987	0.0987	0.395 mg/Kg-dry	1	9/18/2019 9:57 AM
Cadmium	0.0493	U	0.0493	0.0493	0.395 mg/Kg-dry	1	9/18/2019 9:57 AM
Calcium	1860		0.197	0.197	0.493 mg/Kg-dry	1	9/18/2019 9:57 AM
Chromium	2.29		0.0987	0.0987	0.395 mg/Kg-dry	1	9/18/2019 9:57 AM
Cobalt	0.0987	U	0.0987	0.0987	0.395 mg/Kg-dry	1	9/18/2019 9:57 AM
Copper	1.51		0.0987	0.0987	0.395 mg/Kg-dry	1	9/18/2019 9:57 AM
Iron	1170		0.197	0.197	0.395 mg/Kg-dry	1	9/18/2019 9:57 AM
Lead	5.66		0.197	0.197	0.395 mg/Kg-dry	1	9/18/2019 9:57 AM
Magnesium	641		0.0987	0.0987	0.395 mg/Kg-dry	1	9/18/2019 9:57 AM
Manganese	17.5		0.0987	0.0987	0.395 mg/Kg-dry	1	9/18/2019 9:57 AM
Nickel	1.05		0.0987	0.0987	0.395 mg/Kg-dry	1	9/18/2019 9:57 AM
Potassium	61.0		0.493	0.493	0.493 mg/Kg-dry	1	9/18/2019 9:57 AM
Selenium	0.197	U	0.197	0.197	0.493 mg/Kg-dry	1	9/18/2019 9:57 AM
Silver	0.0987	U	0.0987	0.0987	0.395 mg/Kg-dry	1	9/18/2019 9:57 AM
Sodium	40.7		0.197	0.197	0.493 mg/Kg-dry	1	9/18/2019 9:57 AM
Thallium	0.296	U	0.296	0.296	0.493 mg/Kg-dry	1	9/18/2019 9:57 AM
Vanadium	2.48		0.0987	0.0987	0.395 mg/Kg-dry	1	9/18/2019 9:57 AM
Zinc	7.32		0.0987	0.0987	0.395 mg/Kg-dry	1	9/18/2019 9:57 AM

<b>SEMIVOLATILE SW-846 METHOD 8270</b>	<b>Method: 8270D</b>					<b>SW3546</b>	<b>Analyst: MH</b>
Biphenyl	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 3:39 PM
1,2,4-Trichlorobenzene	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 3:39 PM
1,2-Dichlorobenzene	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 3:39 PM
1,3-Dichlorobenzene	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 3:39 PM
1,4-Dichlorobenzene	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 3:39 PM
2,4,5-Trichlorophenol	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 3:39 PM
2,4,6-Trichlorophenol	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 3:39 PM
2,4-Dichlorophenol	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 3:39 PM
2,4-Dimethylphenol	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 3:39 PM
2,4-Dinitrophenol	50	U	50	50	500 µg/Kg-dry	1	9/19/2019 3:39 PM
2,4-Dinitrotoluene	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 3:39 PM

**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 9:00:00 AM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-001	Matrix:	Soil
Client Sample ID:	B-1 @ 2"-24"		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
2,6-Dinitrotoluene	50	U	50	50	250	µg/Kg-dry	1	9/19/2019 3:39 PM
2-Chloronaphthalene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
2-Chlorophenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
2-Methylnaphthalene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
2-Methylphenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
2-Nitroaniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
2-Nitrophenol	50	U	50	50	250	µg/Kg-dry	1	9/19/2019 3:39 PM
3+4-Methylphenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
3,3'-Dichlorobenzidine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
3-Nitroaniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
4,6-Dinitro-2-methylphenol	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 3:39 PM
4-Bromophenyl phenyl ether	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
4-Chloro-3-methylphenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
4-Chloroaniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
4-Chlorophenyl phenyl ether	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
4-Nitroaniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
4-Nitrophenol	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 3:39 PM
Acenaphthene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Acenaphthylene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Acetophenone	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Aniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Anthracene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Atrazine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Azobenzene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Benzaldehyde	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 3:39 PM
Benzidine	100	U	100	100	500	µg/Kg-dry	1	9/19/2019 3:39 PM
Benzo(a)anthracene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Benzo(a)pyrene	25	U	25	25	150	µg/Kg-dry	1	9/19/2019 3:39 PM
Benzo(b)fluoranthene	29	J	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Benzo(g,h,i)perylene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Benzo(k)fluoranthene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Benzoic acid	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 3:39 PM
Benzyl alcohol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Bis(2-chloroethoxy)methane	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Bis(2-chloroethyl)ether	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Bis(2-chloroisopropyl)ether	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Bis(2-ethylhexyl)phthalate	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 3:39 PM
Butyl benzyl phthalate	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 3:39 PM
Caprolactam	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Carbazole	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Chrysene	26	J	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Di-n-butyl phthalate	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Di-n-octyl phthalate	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 3:39 PM
Dibenzo(a,h)anthracene	25	U	25	25	150	µg/Kg-dry	1	9/19/2019 3:39 PM
Dibenzofuran	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM

**American Analytical Laboratories, LLC. - Analytical Report**

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Date Reported: 9/25/2019  
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Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 9:00:00 AM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-001	Matrix:	Soil
Client Sample ID:	B-1 @ 2"-24"		

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Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Diethyl phthalate	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Dimethyl phthalate	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Fluoranthene	64	J	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Fluorene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Hexachlorobenzene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Hexachlorobutadiene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Hexachlorocyclopentadiene	130	✓ UJ	130	130	500	µg/Kg-dry	1	9/19/2019 3:39 PM
Hexachloroethane	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Indeno(1,2,3-c,d)pyrene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Isophorone	30	J	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
N-Nitrosodi-n-propylamine	25	U	25	25	150	µg/Kg-dry	1	9/19/2019 3:39 PM
N-Nitrosodimethylamine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
N-Nitrosodiphenylamine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Naphthalene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Nitrobenzene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Parathion	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 3:39 PM
Pentachlorophenol	50	✓ UJ	50	50	500	µg/Kg-dry	1	9/19/2019 3:39 PM
Phenanthrene	35	J	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Phenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Pyrene	56	J	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Pyridine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 3:39 PM
Surr: 2,4,6-Tribromophenol	68.8			15-130		%Rec	1	9/19/2019 3:39 PM
Surr: 2-Fluorobiphenyl	65.5			17-131		%Rec	1	9/19/2019 3:39 PM
Surr: 2-Fluorophenol	77.1			12-130		%Rec	1	9/19/2019 3:39 PM
Surr: 4-Terphenyl-d14	68.0			21-131		%Rec	1	9/19/2019 3:39 PM
Surr: Nitrobenzene-d5	74.1			15-125		%Rec	1	9/19/2019 3:39 PM
Surr: Phenol-d6	78.4			14-125		%Rec	1	9/19/2019 3:39 PM

9/19/19  
11/1/19

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Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 9:30:00 AM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-002	Matrix:	Soil
Client Sample ID:	B-2 @ 2"-24"		

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Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
<b>TOTAL METALS</b>	<b>Method: 7471</b>			<b>SW7471B</b>		<b>Analyst: JP</b>		
<b>MERCURY</b>								
Mercury	0.00792	U	0.00792	0.00792	0.0149	mg/Kg-dry	1	9/16/2019 2:35 PM
<b>PCB's as AROCLORS SW-846 METHOD 8082</b>			<b>Method: 8082A</b>		<b>SW3546</b>		<b>Analyst: SB</b>	
Aroclor 1016	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 12:26 AM
Aroclor 1221	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 12:26 AM
Aroclor 1232	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 12:26 AM
Aroclor 1242	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 12:26 AM
Aroclor 1248	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 12:26 AM
Aroclor 1254	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 12:26 AM
Aroclor 1260	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 12:26 AM
Aroclor 1262	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 12:26 AM
Aroclor 1268	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 12:26 AM
Surr: DCB	39.2			14-145		%Rec	1	9/24/2019 12:26 AM
Surr: DCB	40.5			14-145		%Rec	1	9/24/2019 12:26 AM
Surr: TCX	60.3			15-140		%Rec	1	9/24/2019 12:26 AM
Surr: TCX	62.8			15-140		%Rec	1	9/24/2019 12:26 AM
<b>PESTICIDES SW-846 METHOD 8081</b>			<b>Method: 8081B</b>		<b>SW3546</b>		<b>Analyst: NF</b>	
4,4'-DDD	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
4,4'-DDE	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
4,4'-DDT	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
Aldrin	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
alpha-BHC	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
alpha-Chlordane	6.0	U	6.0	6.0	10	µg/Kg-dry	1	9/23/2019 11:42 AM
beta-BHC	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
Chlorobenzilate	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
DBCP	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
delta-BHC	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
Dieldrin	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
Endosulfan I	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
Endosulfan II	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
Endosulfan sulfate	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
Endrin	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
Endrin aldehyde	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
Endrin ketone	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
gamma-BHC	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
gamma-Chlordane	6.0	U	6.0	6.0	10	µg/Kg-dry	1	9/23/2019 11:42 AM
Heptachlor	2.0	U	2.0	2.0	3.0	µg/Kg-dry	1	9/23/2019 11:42 AM
Heptachlor epoxide	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
Hexachlorobenzene	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
Hexachlorocyclopentadiene	3.0	U	3.0	3.0	3.0	µg/Kg-dry	1	9/23/2019 11:42 AM
Methoxychlor	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 11:42 AM
Toxaphene	13	U	13	13	25	µg/Kg-dry	1	9/23/2019 11:42 AM

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Date Reported: 9/25/2019  
Revision v1

Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 9:30:00 AM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-002	Matrix:	Soil
Client Sample ID:	B-2 @ 2"-24"		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Surr: DCB	68.5			20-145		%Rec	1	9/23/2019 11:42 AM
Surr: DCB	75.9			20-145		%Rec	1	9/23/2019 11:42 AM
Surr: TCX	74.7			20-140		%Rec	1	9/23/2019 11:42 AM
Surr: TCX	77.7			20-140		%Rec	1	9/23/2019 11:42 AM
<b>PERCENT MOISTURE</b>				<b>Method: D2216</b>				<b>Analyst: MR</b>
Percent Moisture	1.02			0	0	1.00 wt%	1	9/16/2019 10:00 AM
<b>TOTAL METALS</b>				<b>Method: 6010</b>		<b>SW3050B</b>		<b>Analyst: JP</b>
<b>TOTAL METALS</b>								
Aluminum	372		0.188	0.188	0.377 mg/Kg-dry		1	9/18/2019 9:59 AM
Antimony	0.188	U	0.188	0.188	0.471 mg/Kg-dry		1	9/18/2019 9:59 AM
Arsenic	0.398	J	0.188	0.188	0.471 mg/Kg-dry		1	9/18/2019 9:59 AM
Barium	3.05		0.188	0.188	0.377 mg/Kg-dry		1	9/18/2019 9:59 AM
Beryllium	0.0942	U	0.0942	0.0942	0.377 mg/Kg-dry		1	9/18/2019 9:59 AM
Cadmium	0.0471	U	0.0471	0.0471	0.377 mg/Kg-dry		1	9/18/2019 9:59 AM
Calcium	647		0.188	0.188	0.471 mg/Kg-dry		1	9/18/2019 9:59 AM
Chromium	1.27		0.0942	0.0942	0.377 mg/Kg-dry		1	9/18/2019 9:59 AM
Cobalt	0.0942	U	0.0942	0.0942	0.377 mg/Kg-dry		1	9/18/2019 9:59 AM
Copper	0.635		0.0942	0.0942	0.377 mg/Kg-dry		1	9/18/2019 9:59 AM
Iron	499		0.188	0.188	0.377 mg/Kg-dry		1	9/18/2019 9:59 AM
Lead	1.46		0.188	0.188	0.377 mg/Kg-dry		1	9/18/2019 9:59 AM
Magnesium	243		0.0942	0.0942	0.377 mg/Kg-dry		1	9/18/2019 9:59 AM
Manganese	6.54		0.0942	0.0942	0.377 mg/Kg-dry		1	9/18/2019 9:59 AM
Nickel	0.509		0.0942	0.0942	0.377 mg/Kg-dry		1	9/18/2019 9:59 AM
Potassium	32.5		0.471	0.471	0.471 mg/Kg-dry		1	9/18/2019 9:59 AM
Selenium	0.188	U	0.188	0.188	0.471 mg/Kg-dry		1	9/18/2019 9:59 AM
Silver	0.0942	U	0.0942	0.0942	0.377 mg/Kg-dry		1	9/18/2019 9:59 AM
Sodium	17.2		0.188	0.188	0.471 mg/Kg-dry		1	9/18/2019 9:59 AM
Thallium	0.283	U	0.283	0.283	0.471 mg/Kg-dry		1	9/18/2019 9:59 AM
Vanadium	1.21		0.0942	0.0942	0.377 mg/Kg-dry		1	9/18/2019 9:59 AM
Zinc	3.86		0.0942	0.0942	0.377 mg/Kg-dry		1	9/18/2019 9:59 AM

SEMIVOLATILE SW-846 METHOD 8270	Method: 8270D				SW3546	Analyst: MH	
Biphenyl	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 4:08 PM
1,2,4-Trichlorobenzene	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 4:08 PM
1,2-Dichlorobenzene	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 4:08 PM
1,3-Dichlorobenzene	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 4:08 PM
1,4-Dichlorobenzene	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 4:08 PM
2,4,5-Trichlorophenol	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 4:08 PM
2,4,6-Trichlorophenol	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 4:08 PM
2,4-Dichlorophenol	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 4:08 PM
2,4-Dimethylphenol	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 4:08 PM
2,4-Dinitrophenol	50	U	50	50	500 µg/Kg-dry	1	9/19/2019 4:08 PM
2,4-Dinitrotoluene	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 4:08 PM

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WO#: 1909078

Date Reported: 9/25/2019

Revision v1

Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 9:30:00 AM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-002	Matrix:	Soil
Client Sample ID:	B-2 @ 2"-24"		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
2,6-Dinitrotoluene	50	U	50	50	250	µg/Kg-dry	1	9/19/2019 4:08 PM
2-Chloronaphthalene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
2-Chlorophenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
2-Methylnaphthalene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
2-Methylphenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
2-Nitroaniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
2-Nitrophenol	50	U	50	50	250	µg/Kg-dry	1	9/19/2019 4:08 PM
3+4-Methylphenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
3,3'-Dichlorobenzidine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
3-Nitroaniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
4,6-Dinitro-2-methylphenol	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 4:08 PM
4-Bromophenyl phenyl ether	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
4-Chloro-3-methylphenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
4-Chloroaniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
4-Chlorophenyl phenyl ether	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
4-Nitroaniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
4-Nitrophenol	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 4:08 PM
Acenaphthene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Acenaphthylene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Acetophenone	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Aniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Anthracene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Atrazine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Azobenzene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Benzaldehyde	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 4:08 PM
Benzidine	99	U	99	99	500	µg/Kg-dry	1	9/19/2019 4:08 PM
Benzo(a)anthracene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Benzo(a)pyrene	25	U	25	25	150	µg/Kg-dry	1	9/19/2019 4:08 PM
Benzo(b)fluoranthene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Benzo(g,h,i)perylene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Benzo(k)fluoranthene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Benzoic acid	50	<i>+ UJ</i>	50	50	500	µg/Kg-dry	1	9/19/2019 4:08 PM
Benzyl alcohol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Bis(2-chloroethoxy)methane	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Bis(2-chloroethyl)ether	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Bis(2-chloroisopropyl)ether	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Bis(2-ethylhexyl)phthalate	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 4:08 PM
Butyl benzyl phthalate	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 4:08 PM
Caprolactam	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Carbazole	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Chrysene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Di-n-butyl phthalate	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Di-n-octyl phthalate	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 4:08 PM
Dibenzo(a,h)anthracene	25	U	25	25	150	µg/Kg-dry	1	9/19/2019 4:08 PM
Dibenzofuran	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM

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Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 9:30:00 AM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-002	Matrix:	Soil
Client Sample ID:	B-2 @ 2"-24"		

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Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Diethyl phthalate	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Dimethyl phthalate	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Fluoranthene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Fluorene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Hexachlorobenzene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Hexachlorobutadiene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Hexachlorocyclopentadiene	120	+UJ	120	120	500	µg/Kg-dry	1	9/19/2019 4:08 PM
Hexachloroethane	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Indeno(1,2,3-c,d)pyrene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Isophorone	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
N-Nitrosodi-n-propylamine	25	U	25	25	150	µg/Kg-dry	1	9/19/2019 4:08 PM
N-Nitrosodimethylamine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
N-Nitrosodiphenylamine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Naphthalene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Nitrobenzene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Parathion	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 4:08 PM
Pentachlorophenol	50	+UJ	50	50	500	µg/Kg-dry	1	9/19/2019 4:08 PM
Phenanthrene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Phenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Pyrene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Pyridine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 4:08 PM
Surr: 2,4,6-Tribromophenol	66.0			15-130		%Rec	1	9/19/2019 4:08 PM
Surr: 2-Fluorobiphenyl	69.6			17-131		%Rec	1	9/19/2019 4:08 PM
Surr: 2-Fluorophenol	82.6			12-130		%Rec	1	9/19/2019 4:08 PM
Surr: 4-Terphenyl-d14	69.3			21-131		%Rec	1	9/19/2019 4:08 PM
Surr: Nitrobenzene-d5	82.2			15-125		%Rec	1	9/19/2019 4:08 PM
Surr: Phenol-d6	85.7			14-125		%Rec	1	9/19/2019 4:08 PM

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11/14/19

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Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 10:00:00 AM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-003	Matrix:	Soil
Client Sample ID:	B-3 @ 2"-24"		

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Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
<b>TOTAL METALS</b>	<b>Method: 7471</b>			<b>SW7471B</b>		<b>Analyst: JP</b>		
<b>MERCURY</b>								
Mercury	0.00765	U	0.00765	0.00765	0.0143	mg/Kg-dry	1	9/16/2019 2:45 PM
<b>PCB's as AROCLORS SW-846 METHOD 8082</b>			<b>Method: 8082A</b>		<b>SW3546</b>		<b>Analyst: SB</b>	
Aroclor 1016	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 1:53 AM
Aroclor 1221	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 1:53 AM
Aroclor 1232	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 1:53 AM
Aroclor 1242	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 1:53 AM
Aroclor 1248	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 1:53 AM
Aroclor 1254	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 1:53 AM
Aroclor 1260	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 1:53 AM
Aroclor 1262	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 1:53 AM
Aroclor 1268	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 1:53 AM
Surr: DCB	57.0			14-145		%Rec	1	9/24/2019 1:53 AM
Surr: DCB	59.5			14-145		%Rec	1	9/24/2019 1:53 AM
Surr: TCX	60.0			15-140		%Rec	1	9/24/2019 1:53 AM
Surr: TCX	63.4			15-140		%Rec	1	9/24/2019 1:53 AM
<b>PESTICIDES SW-846 METHOD 8081</b>			<b>Method: 8081B</b>		<b>SW3546</b>		<b>Analyst: NF</b>	
4,4'-DDD	9.5		1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
4,4'-DDE	1.9	J	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
4,4'-DDT	22		1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
Aldrin	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
alpha-BHC	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
alpha-Chlordane	6.0	U	6.0	6.0	10	µg/Kg-dry	1	9/23/2019 12:37 PM
beta-BHC	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
Chlorobenzilate	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
DBCP	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
delta-BHC	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
Dieldrin	4.8		1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
Endosulfan I	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
Endosulfan II	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
Endosulfan sulfate	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
Endrin	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
Endrin aldehyde	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
Endrin ketone	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
gamma-BHC	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
gamma-Chlordane	6.0	U	6.0	6.0	10	µg/Kg-dry	1	9/23/2019 12:37 PM
Heptachlor	2.0	U	2.0	2.0	3.0	µg/Kg-dry	1	9/23/2019 12:37 PM
Heptachlor epoxide	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
Hexachlorobenzene	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
Hexachlorocyclopentadiene	3.0	U	3.0	3.0	3.0	µg/Kg-dry	1	9/23/2019 12:37 PM
Methoxychlor	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:37 PM
Toxaphene	13	U	13	13	25	µg/Kg-dry	1	9/23/2019 12:37 PM

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<b>Client:</b>	WRS d.b.a Berninger Environmental	<b>Collection Date:</b>	9/11/2019 10:00:00 AM
<b>Project:</b>	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
<b>Lab ID:</b>	1909078-003	<b>Matrix:</b>	Soil
<b>Client Sample ID:</b>	B-3 @ 2"-24"		

<b>Analysis</b>	<b>Result</b>	<b>Qual</b>	<b>DL</b>	<b>LOD</b>	<b>LOQ</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
Surr: DCB	74.4			20-145		%Rec	1	9/23/2019 12:37 PM
Surr: DCB	80.8			20-145		%Rec	1	9/23/2019 12:37 PM
Surr: TCX	78.9			20-140		%Rec	1	9/23/2019 12:37 PM
Surr: TCX	80.8			20-140		%Rec	1	9/23/2019 12:37 PM

<b>PERCENT MOISTURE</b>	<b>Method: D2216</b>					<b>Analyst: MR</b>	
Percent Moisture	1.36		0	0	1.00	wt%	1 9/16/2019 10:00 AM

<b>TOTAL METALS</b>	<b>Method: 6010</b>					<b>SW3050B</b>	<b>Analyst: JP</b>
Aluminum	1200		0.184	0.184	0.367	mg/Kg-dry	1 9/18/2019 10:13 AM
Antimony	0.184	U	0.184	0.184	0.459	mg/Kg-dry	1 9/18/2019 10:13 AM
Arsenic	0.731		0.184	0.184	0.459	mg/Kg-dry	1 9/18/2019 10:13 AM
Barium	6.89		0.184	0.184	0.367	mg/Kg-dry	1 9/18/2019 10:13 AM
Beryllium	0.0918	U	0.0918	0.0918	0.367	mg/Kg-dry	1 9/18/2019 10:13 AM
Cadmium	0.0459	U	0.0459	0.0459	0.367	mg/Kg-dry	1 9/18/2019 10:13 AM
Calcium	505		0.184	0.184	0.459	mg/Kg-dry	1 9/18/2019 10:13 AM
Chromium	2.91		0.0918	0.0918	0.367	mg/Kg-dry	1 9/18/2019 10:13 AM
Cobalt	0.0918	U	0.0918	0.0918	0.367	mg/Kg-dry	1 9/18/2019 10:13 AM
Copper	4.74		0.0918	0.0918	0.367	mg/Kg-dry	1 9/18/2019 10:13 AM
Iron	1460		0.184	0.184	0.367	mg/Kg-dry	1 9/18/2019 10:13 AM
Lead	3.35		0.184	0.184	0.367	mg/Kg-dry	1 9/18/2019 10:13 AM
Magnesium	203		0.0918	0.0918	0.367	mg/Kg-dry	1 9/18/2019 10:13 AM
Manganese	23.2		0.0918	0.0918	0.367	mg/Kg-dry	1 9/18/2019 10:13 AM
Nickel	1.56		0.0918	0.0918	0.367	mg/Kg-dry	1 9/18/2019 10:13 AM
Potassium	110		0.459	0.459	0.459	mg/Kg-dry	1 9/18/2019 10:13 AM
Selenium	0.184	U	0.184	0.184	0.459	mg/Kg-dry	1 9/18/2019 10:13 AM
Silver	0.0918	U	0.0918	0.0918	0.367	mg/Kg-dry	1 9/18/2019 10:13 AM
Sodium	14.0		0.184	0.184	0.459	mg/Kg-dry	1 9/18/2019 10:13 AM
Thallium	0.275	U	0.275	0.275	0.459	mg/Kg-dry	1 9/18/2019 10:13 AM
Vanadium	3.02		0.0918	0.0918	0.367	mg/Kg-dry	1 9/18/2019 10:13 AM
Zinc	8.00		0.0918	0.0918	0.367	mg/Kg-dry	1 9/18/2019 10:13 AM

<b>SEMICVOLATILE SW-846 METHOD 8270</b>	<b>Method: 8270D</b>					<b>SW3546</b>	<b>Analyst: MH</b>
Biphenyl	25	U	25	25	250	µg/Kg-dry	1 9/19/2019 5:35 PM
1,2,4-Trichlorobenzene	25	U	25	25	250	µg/Kg-dry	1 9/19/2019 5:35 PM
1,2-Dichlorobenzene	25	U	25	25	250	µg/Kg-dry	1 9/19/2019 5:35 PM
1,3-Dichlorobenzene	25	U	25	25	250	µg/Kg-dry	1 9/19/2019 5:35 PM
1,4-Dichlorobenzene	25	U	25	25	250	µg/Kg-dry	1 9/19/2019 5:35 PM
2,4,5-Trichlorophenol	25	U	25	25	250	µg/Kg-dry	1 9/19/2019 5:35 PM
2,4,6-Trichlorophenol	25	U	25	25	250	µg/Kg-dry	1 9/19/2019 5:35 PM
2,4-Dichlorophenol	25	U	25	25	250	µg/Kg-dry	1 9/19/2019 5:35 PM
2,4-Dimethylphenol	25	U	25	25	250	µg/Kg-dry	1 9/19/2019 5:35 PM
2,4-Dinitrophenol	50	U	50	50	500	µg/Kg-dry	1 9/19/2019 5:35 PM
2,4-Dinitrotoluene	25	U	25	25	250	µg/Kg-dry	1 9/19/2019 5:35 PM

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Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 10:00:00 AM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-003	Matrix:	Soil
Client Sample ID:	B-3 @ 2"-24"		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
2,6-Dinitrotoluene	50	U	50	50	250	µg/Kg-dry	1	9/19/2019 5:35 PM
2-Chloronaphthalene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
2-Chlorophenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
2-Methylnaphthalene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
2-Methylphenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
2-Nitroaniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
2-Nitrophenol	50	U	50	50	250	µg/Kg-dry	1	9/19/2019 5:35 PM
3+4-Methylphenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
3,3'-Dichlorobenzidine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
3-Nitroaniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
4,6-Dinitro-2-methylphenol	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 5:35 PM
4-Bromophenyl phenyl ether	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
4-Chloro-3-methylphenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
4-Chloroaniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
4-Chlorophenyl phenyl ether	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
4-Nitroaniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
4-Nitrophenol	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 5:35 PM
Acenaphthene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Acenaphthylene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Acetophenone	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Aniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Anthracene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Atrazine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Azobenzene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Benzaldehyde	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 5:35 PM
Benzidine	100	U	100	100	500	µg/Kg-dry	1	9/19/2019 5:35 PM
Benzo(a)anthracene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Benzo(a)pyrene	25	U	25	25	150	µg/Kg-dry	1	9/19/2019 5:35 PM
Benzo(b)fluoranthene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Benzo(g,h,i)perylene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Benzo(k)fluoranthene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Benzoic acid	50	<i>✓ UJ</i>	50	50	500	µg/Kg-dry	1	9/19/2019 5:35 PM
Benzyl alcohol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Bis(2-chloroethoxy)methane	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Bis(2-chloroethyl)ether	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Bis(2-chloroisopropyl)ether	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Bis(2-ethylhexyl)phthalate	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 5:35 PM
Butyl benzyl phthalate	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 5:35 PM
Caprolactam	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Carbazole	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Chrysene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Di-n-butyl phthalate	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Di-n-octyl phthalate	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 5:35 PM
Dibenzo(a,h)anthracene	25	U	25	25	150	µg/Kg-dry	1	9/19/2019 5:35 PM
Dibenzofuran	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM

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Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 10:00:00 AM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-003	Matrix:	Soil
Client Sample ID:	B-3 @ 2"-24"		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Diethyl phthalate	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Dimethyl phthalate	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Fluoranthene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Fluorene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Hexachlorobenzene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Hexachlorobutadiene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Hexachlorocyclopentadiene	130	✓ UJ	130	130	500	µg/Kg-dry	1	9/19/2019 5:35 PM
Hexachloroethane	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Indeno(1,2,3-c,d)pyrene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Isophorone	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
N-Nitrosodi-n-propylamine	25	U	25	25	150	µg/Kg-dry	1	9/19/2019 5:35 PM
N-Nitrosodimethylamine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
N-Nitrosodiphenylamine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Naphthalene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Nitrobenzene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Parathion	50	U	50	50	500	µg/Kg-dry	1	9/19/2019 5:35 PM
Pentachlorophenol	50	✓ UJ	50	50	500	µg/Kg-dry	1	9/19/2019 5:35 PM
Phenanthrene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Phenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Pyrene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Pyridine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 5:35 PM
Surr: 2,4,6-Tribromophenol	64.2			15-130		%Rec	1	9/19/2019 5:35 PM
Surr: 2-Fluorobiphenyl	70.1			17-131		%Rec	1	9/19/2019 5:35 PM
Surr: 2-Fluorophenol	83.3			12-130		%Rec	1	9/19/2019 5:35 PM
Surr: 4-Terphenyl-d14	70.3			21-131		%Rec	1	9/19/2019 5:35 PM
Surr: Nitrobenzene-d5	79.1			15-125		%Rec	1	9/19/2019 5:35 PM
Surr: Phenol-d6	85.1			14-125		%Rec	1	9/19/2019 5:35 PM

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**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

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Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 10:30:00 AM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-004	Matrix:	Soil
Client Sample ID:	B-4 @ 2"-24"		

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Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
<b>TOTAL METALS</b>	<b>Method: 7471</b>			<b>SW7471B</b>		<b>Analyst: JP</b>		
<b>MERCURY</b>								
Mercury	0.00752	U	0.00752	0.00752	0.0141	mg/Kg-dry	1	9/16/2019 2:47 PM
<b>PCB's as AROCLORS SW-846 METHOD 8082</b>			<b>Method: 8082A</b>		<b>SW3546</b>		<b>Analyst: SB</b>	
Aroclor 1016	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 2:22 AM
Aroclor 1221	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 2:22 AM
Aroclor 1232	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 2:22 AM
Aroclor 1242	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 2:22 AM
Aroclor 1248	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 2:22 AM
Aroclor 1254	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 2:22 AM
Aroclor 1260	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 2:22 AM
Aroclor 1262	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 2:22 AM
Aroclor 1268	10	U	10	10	20	µg/Kg-dry	1	9/24/2019 2:22 AM
Surr: DCB	47.3			14-145		%Rec	1	9/24/2019 2:22 AM
Surr: DCB	48.8			14-145		%Rec	1	9/24/2019 2:22 AM
Surr: TCX	58.6			15-140		%Rec	1	9/24/2019 2:22 AM
Surr: TCX	63.6			15-140		%Rec	1	9/24/2019 2:22 AM
<b>PESTICIDES SW-846 METHOD 8081</b>			<b>Method: 8081B</b>		<b>SW3546</b>		<b>Analyst: NF</b>	
4,4'-DDD	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
4,4'-DDE	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
4,4'-DDT	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
Aldrin	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
alpha-BHC	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
alpha-Chlordane	6.0	U	6.0	6.0	10	µg/Kg-dry	1	9/23/2019 12:55 PM
beta-BHC	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
Chlorobenzilate	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
DBCP	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
delta-BHC	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
Dieldrin	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
Endosulfan I	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
Endosulfan II	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
Endosulfan sulfate	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
Endrin	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
Endrin aldehyde	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
Endrin ketone	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
gamma-BHC	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
gamma-Chlordane	6.0	U	6.0	6.0	10	µg/Kg-dry	1	9/23/2019 12:55 PM
Heptachlor	2.0	U	2.0	2.0	3.0	µg/Kg-dry	1	9/23/2019 12:55 PM
Heptachlor epoxide	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
Hexachlorobenzene	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
Hexachlorocyclopentadiene	3.0	U	3.0	3.0	3.0	µg/Kg-dry	1	9/23/2019 12:55 PM
Methoxychlor	1.0	U	1.0	1.0	2.5	µg/Kg-dry	1	9/23/2019 12:55 PM
Toxaphene	13	U	13	13	25	µg/Kg-dry	1	9/23/2019 12:55 PM

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<b>Client:</b>	WRS d.b.a Berninger Environmental	<b>Collection Date:</b>	9/11/2019 10:30:00 AM
<b>Project:</b>	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
<b>Lab ID:</b>	1909078-004	<b>Matrix:</b>	Soil
<b>Client Sample ID:</b>	B-4 @ 2"-24"		

<b>Analysis</b>	<b>Result</b>	<b>Qual</b>	<b>DL</b>	<b>LOD</b>	<b>LOQ</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
Surr: DCB	78.0			20-145		%Rec	1	9/23/2019 12:55 PM
Surr: DCB	84.6			20-145		%Rec	1	9/23/2019 12:55 PM
Surr: TCX	80.6			20-140		%Rec	1	9/23/2019 12:55 PM
Surr: TCX	81.7			20-140		%Rec	1	9/23/2019 12:55 PM

<b>PERCENT MOISTURE</b>	<b>Method: D2216</b>					<b>Analyst: MR</b>	
Percent Moisture	1.55		0	0	1.00	wt%	1 9/16/2019 10:00 AM

<b>TOTAL METALS</b>	<b>Method: 6010</b>					<b>SW3050B</b>	<b>Analyst: JP</b>
Aluminum	701		0.185	0.185	0.371 mg/Kg-dry	1	9/18/2019 10:40 AM
Antimony	0.185	U	0.185	0.185	0.463 mg/Kg-dry	1	9/18/2019 10:40 AM
Arsenic	0.528		0.185	0.185	0.463 mg/Kg-dry	1	9/18/2019 10:40 AM
Barium	5.42		0.185	0.185	0.371 mg/Kg-dry	1	9/18/2019 10:40 AM
Beryllium	0.0927	U	0.0927	0.0927	0.371 mg/Kg-dry	1	9/18/2019 10:40 AM
Cadmium	0.0945	J	0.0463	0.0463	0.371 mg/Kg-dry	1	9/18/2019 10:40 AM
Calcium	170		0.185	0.185	0.463 mg/Kg-dry	1	9/18/2019 10:40 AM
Chromium	2.11		0.0927	0.0927	0.371 mg/Kg-dry	1	9/18/2019 10:40 AM
Cobalt	0.0927	U	0.0927	0.0927	0.371 mg/Kg-dry	1	9/18/2019 10:40 AM
Copper	3.05		0.0927	0.0927	0.371 mg/Kg-dry	1	9/18/2019 10:40 AM
Iron	880		0.185	0.185	0.371 mg/Kg-dry	1	9/18/2019 10:40 AM
Lead	11.3		0.185	0.185	0.371 mg/Kg-dry	1	9/18/2019 10:40 AM
Magnesium	115		0.0927	0.0927	0.371 mg/Kg-dry	1	9/18/2019 10:40 AM
Manganese	10.6		0.0927	0.0927	0.371 mg/Kg-dry	1	9/18/2019 10:40 AM
Nickel	1.07		0.0927	0.0927	0.371 mg/Kg-dry	1	9/18/2019 10:40 AM
Potassium	54.0		0.463	0.463	0.463 mg/Kg-dry	1	9/18/2019 10:40 AM
Selenium	0.185	U	0.185	0.185	0.463 mg/Kg-dry	1	9/18/2019 10:40 AM
Silver	0.0927	U	0.0927	0.0927	0.371 mg/Kg-dry	1	9/18/2019 10:40 AM
Sodium	10.1		0.185	0.185	0.463 mg/Kg-dry	1	9/18/2019 10:40 AM
Thallium	0.278	U	0.278	0.278	0.463 mg/Kg-dry	1	9/18/2019 10:40 AM
Vanadium	1.92		0.0927	0.0927	0.371 mg/Kg-dry	1	9/18/2019 10:40 AM
Zinc	21.1		0.0927	0.0927	0.371 mg/Kg-dry	1	9/18/2019 10:40 AM

<b>SEMIVOLATILE SW-846 METHOD 8270</b>	<b>Method: 8270D</b>					<b>SW3546</b>	<b>Analyst: MH</b>
Biphenyl	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 6:04 PM
1,2,4-Trichlorobenzene	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 6:04 PM
1,2-Dichlorobenzene	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 6:04 PM
1,3-Dichlorobenzene	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 6:04 PM
1,4-Dichlorobenzene	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 6:04 PM
2,4,5-Trichlorophenol	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 6:04 PM
2,4,6-Trichlorophenol	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 6:04 PM
2,4-Dichlorophenol	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 6:04 PM
2,4-Dimethylphenol	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 6:04 PM
2,4-Dinitrophenol	49	U	49	49	490 µg/Kg-dry	1	9/19/2019 6:04 PM
2,4-Dinitrotoluene	25	U	25	25	250 µg/Kg-dry	1	9/19/2019 6:04 PM

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Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-004	Matrix:	Soil
Client Sample ID:	B-4 @ 2"-24"		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
2,6-Dinitrotoluene	49	U	49	49	250	µg/Kg-dry	1	9/19/2019 6:04 PM
2-Chloronaphthalene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
2-Chlorophenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
2-Methylnaphthalene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
2-Methylphenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
2-Nitroaniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
2-Nitrophenol	49	U	49	49	250	µg/Kg-dry	1	9/19/2019 6:04 PM
3+4-Methylphenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
3,3'-Dichlorobenzidine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
3-Nitroaniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
4,6-Dinitro-2-methylphenol	49	U	49	49	490	µg/Kg-dry	1	9/19/2019 6:04 PM
4-Bromophenyl phenyl ether	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
4-Chloro-3-methylphenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
4-Chloroaniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
4-Chlorophenyl phenyl ether	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
4-Nitroaniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
4-Nitrophenol	49	U	49	49	490	µg/Kg-dry	1	9/19/2019 6:04 PM
Acenaphthene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Acenaphthylene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Acetophenone	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Aniline	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Anthracene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Atrazine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Azobenzene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Benzaldehyde	49	U	49	49	490	µg/Kg-dry	1	9/19/2019 6:04 PM
Benzidine	99	U	99	99	490	µg/Kg-dry	1	9/19/2019 6:04 PM
Benzo(a)anthracene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Benzo(a)pyrene	25	U	25	25	150	µg/Kg-dry	1	9/19/2019 6:04 PM
Benzo(b)fluoranthene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Benzo(g,h,i)perylene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Benzo(k)fluoranthene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Benzoic acid	49	U	49	49	490	µg/Kg-dry	1	9/19/2019 6:04 PM
Benzyl alcohol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Bis(2-chloroethoxy)methane	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Bis(2-chloroethyl)ether	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Bis(2-chloroisopropyl)ether	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Bis(2-ethylhexyl)phthalate	49	U	49	49	490	µg/Kg-dry	1	9/19/2019 6:04 PM
Butyl benzyl phthalate	49	U	49	49	490	µg/Kg-dry	1	9/19/2019 6:04 PM
Caprolactam	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Carbazole	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Chrysene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Di-n-butyl phthalate	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Di-n-octyl phthalate	49	U	49	49	490	µg/Kg-dry	1	9/19/2019 6:04 PM
Dibenzo(a,h)anthracene	25	U	25	25	150	µg/Kg-dry	1	9/19/2019 6:04 PM
Dibenzofuran	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM

for 11/14/19

**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

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Revision v1

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Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 10:30:00 AM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-004	Matrix:	Soil
Client Sample ID:	B-4 @ 2"-24"		

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Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Diethyl phthalate	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Dimethyl phthalate	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Fluoranthene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Fluorene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Hexachlorobenzene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Hexachlorobutadiene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Hexachlorocyclopentadiene	120	<i>+ UJ</i>	120	120	490	µg/Kg-dry	1	9/19/2019 6:04 PM
Hexachloroethane	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Indeno(1,2,3-c,d)pyrene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Isophorone	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
N-Nitrosodi-n-propylamine	25	U	25	25	150	µg/Kg-dry	1	9/19/2019 6:04 PM
N-Nitrosodimethylamine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
N-Nitrosodiphenylamine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Naphthalene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Nitrobenzene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Parathion	49	U	49	49	490	µg/Kg-dry	1	9/19/2019 6:04 PM
Pentachlorophenol	49	<i>+ UJ</i>	49	49	490	µg/Kg-dry	1	9/19/2019 6:04 PM
Phenanthrene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Phenol	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Pyrene	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Pyridine	25	U	25	25	250	µg/Kg-dry	1	9/19/2019 6:04 PM
Surr: 2,4,6-Tribromophenol	56.9			15-130		%Rec	1	9/19/2019 6:04 PM
Surr: 2-Fluorobiphenyl	65.3			17-131		%Rec	1	9/19/2019 6:04 PM
Surr: 2-Fluorophenol	77.3			12-130		%Rec	1	9/19/2019 6:04 PM
Surr: 4-Terphenyl-d14	67.8			21-131		%Rec	1	9/19/2019 6:04 PM
Surr: Nitrobenzene-d5	78.4			15-125		%Rec	1	9/19/2019 6:04 PM
Surr: Phenol-d6	77.6			14-125		%Rec	1	9/19/2019 6:04 PM

*For  
11/12/19*

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Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 11:00:00 AM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-005	Matrix:	Liquid
Client Sample ID:	MW-1		

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Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
<b>TOTAL METALS</b>	<b>Method: 245.1</b>			<b>E245.1 Rev3.0</b>			<b>Analyst: JP</b>	
<b>MERCURY, Total</b>								
Mercury	0.000150	U	0.000150	0.000150	0.000300	mg/L	1	9/16/2019 1:45 PM
<b>PCB's as AROCLORS SW-846 METHOD 8082</b>			<b>Method: 8082A</b>			<b>SW3510C</b>	<b>Analyst: SB</b>	
Aroclor 1016	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:25 AM
Aroclor 1221	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:25 AM
Aroclor 1232	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:25 AM
Aroclor 1242	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:25 AM
Aroclor 1248	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:25 AM
Aroclor 1254	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:25 AM
Aroclor 1260	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:25 AM
Aroclor 1262	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:25 AM
Aroclor 1268	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:25 AM
Surr: DCB	60.3			24-145		%Rec	1	9/17/2019 11:25 AM
Surr: DCB	74.1			24-145		%Rec	1	9/17/2019 11:25 AM
Surr: TCX	112			20-135		%Rec	1	9/17/2019 11:25 AM
Surr: TCX	97.2			20-135		%Rec	1	9/17/2019 11:25 AM
<b>PESTICIDES SW-846 METHOD 8081</b>			<b>Method: 8081B</b>			<b>SW3510C</b>	<b>Analyst: NF</b>	
4,4'-DDD	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
4,4'-DDE	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
4,4'-DDT	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
Aldrin	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
alpha-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
alpha-Chlordane	0.020	U	0.020	0.020	0.10	µg/L	1	9/16/2019 6:41 PM
beta-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
Chlorobenzilate	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
DBCP	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
delta-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
Dieldrin	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
Endosulfan I	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
Endosulfan II	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
Endosulfan sulfate	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
Endrin	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
Endrin aldehyde	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
Endrin ketone	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
gamma-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
gamma-Chlordane	0.025	BU	0.020	0.020	0.10	µg/L	1	9/16/2019 6:41 PM
Heptachlor	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
Heptachlor epoxide	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
Hexachlorobenzene	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM
Hexachlorocyclopentadiene	0.030	U	0.030	0.030	0.050	µg/L	1	9/16/2019 6:41 PM
Methoxychlor	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:41 PM

**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 11:00:00 AM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-005		Matrix: Liquid
Client Sample ID:	MW-1		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Toxaphene	0.060	U	0.060	0.060	0.25	µg/L	1	9/16/2019 6:41 PM
Surr: DCB	109			20-140		%Rec	1	9/16/2019 6:41 PM
Surr: DCB	80.9			20-140		%Rec	1	9/16/2019 6:41 PM
Surr: TCX	111			20-134		%Rec	1	9/16/2019 6:41 PM
Surr: TCX	88.4			20-134		%Rec	1	9/16/2019 6:41 PM

TOTAL METALS	Method: 200.7			E200.7 Rev4.4		Analyst: JP		
TOTAL METALS								
Aluminum	0.0901		0.00500	0.00500	0.0200	mg/L	1	9/16/2019 10:51 AM
Antimony	0.0100	U	0.00600	0.0100	0.0200	mg/L	1	9/16/2019 10:51 AM
Arsenic	0.00950	J	0.00800	0.0100	0.0250	mg/L	1	9/16/2019 10:51 AM
Barium	0.0388		0.00900	0.00500	0.0200	mg/L	1	9/16/2019 10:51 AM
Beryllium	0.00500	U	0.00500	0.00500	0.0200	mg/L	1	9/16/2019 10:51 AM
Cadmium	0.00500	U	0.00200	0.00500	0.0100	mg/L	1	9/16/2019 10:51 AM
Calcium	37.1		0.0100	0.0100	0.0250	mg/L	1	9/16/2019 10:51 AM
Chromium	0.00500	U	0.00400	0.00500	0.0200	mg/L	1	9/16/2019 10:51 AM
Cobalt	0.00500	U	0.00300	0.00500	0.0200	mg/L	1	9/16/2019 10:51 AM
Copper	0.00500	U	0.00600	0.00500	0.0200	mg/L	1	9/16/2019 10:51 AM
Iron	7.57		0.00300	0.00500	0.0200	mg/L	1	9/16/2019 10:51 AM
Lead	0.00500	U	0.00600	0.00500	0.0150	mg/L	1	9/16/2019 10:51 AM
Magnesium	13.1		0.00500	0.00500	0.0200	mg/L	1	9/16/2019 10:51 AM
Manganese	0.0485		0.00200	0.00500	0.0200	mg/L	1	9/16/2019 10:51 AM
Nickel	0.00500	U	0.00300	0.00500	0.0200	mg/L	1	9/16/2019 10:51 AM
Potassium	3.95		0.100	0.100	0.200	mg/L	1	9/16/2019 10:51 AM
Selenium	0.0100	U	0.0100	0.0100	0.0250	mg/L	1	9/16/2019 10:51 AM
Silver	0.00500	U	0.00500	0.00500	0.0200	mg/L	1	9/16/2019 10:51 AM
Sodium	26.1		0.0100	0.0100	0.0300	mg/L	1	9/16/2019 10:51 AM
Thallium	0.0100	U	0.00500	0.0100	0.0150	mg/L	1	9/16/2019 10:51 AM
Vanadium	0.00500	U	0.00500	0.00500	0.0200	mg/L	1	9/16/2019 10:51 AM
Zinc	0.0298	U	0.00500	0.00500	0.0200	mg/L	1	9/16/2019 10:51 AM

SEMIVOLATILE SW-846 METHOD 8270	Method: 8270D			SW3510C		Analyst: MH		
Biphenyl	0.94	J	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
1,2-Dichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
1,3-Dichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
1,4-Dichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
2,4,5-Trichlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
2,4,6-Trichlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
2,4-Dichlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
2,4-Dimethylphenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:10 PM
2,4-Dinitrophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:10 PM
2,4-Dinitrotoluene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
2,6-Dinitrotoluene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
2-Chloronaphthalene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM

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**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

<b>Client:</b>	WRS d.b.a Berninger Environmental	<b>Collection Date:</b>	9/11/2019 11:00:00 AM
<b>Project:</b>	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
<b>Lab ID:</b>	1909078-005		<b>Matrix:</b> Liquid
<b>Client Sample ID:</b>	MW-1		

<b>Analysis</b>	<b>Result</b>	<b>Qual</b>	<b>DL</b>	<b>LOD</b>	<b>LOQ</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
2-Chlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
2-Methylnaphthalene	150	D	5.0	5.0	50	µg/L	10	9/19/2019 10:44 AM
2-Methylphenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
2-Nitroaniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
2-Nitrophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:10 PM
3+4-Methylphenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
3,3'-Dichlorobenzidine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
3-Nitroaniline	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:10 PM
4,6-Dinitro-2-methylphenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:10 PM
4-Bromophenyl phenyl ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
4-Chloro-3-methylphenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
4-Chloroaniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
4-Chlorophenyl phenyl ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
4-Nitroaniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
4-Nitrophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:10 PM
Acenaphthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Acenaphthylene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Acetophenone	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Aniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Anthracene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Atrazine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Azobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Benzaldehyde	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:10 PM
Benzidine	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:10 PM
Benzo(a)anthracene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Benzo(a)pyrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Benzo(b)fluoranthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Benzo(g,h,i)perylene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Benzo(k)fluoranthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Benzoic acid	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:10 PM
Benzyl alcohol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Bis(2-chloroethoxy)methane	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Bis(2-chloroethyl)ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Bis(2-chloroisopropyl)ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Bis(2-ethylhexyl)phthalate	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:10 PM
Butyl benzyl phthalate	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:10 PM
Caprolactam	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Carbazole	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Chrysene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Di-n-butyl phthalate	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Di-n-octyl phthalate	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:10 PM
Dibenzo(a,h)anthracene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Dibenzofuran	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Diethyl phthalate	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Dimethyl phthalate	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM

**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

**Date Reported:** 9/25/2019  
**Revision v1**

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**Client:** WRS d.b.a Berninger Environmental      **Collection Date:** 9/11/2019 11:00:00 AM  
**Project:** Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY  
**Lab ID:** 1909078-005      **Matrix:** Liquid  
**Client Sample ID:** MW-1

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<b>Analysis</b>	<b>Result</b>	<b>Qual</b>	<b>DL</b>	<b>LOD</b>	<b>LOQ</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
Fluoranthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Fluorene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Hexachlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Hexachlorobutadiene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Hexachlorocyclopentadiene	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:10 PM
Hexachloroethane	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Indeno(1,2,3-c,d)pyrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Isophorone	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
N-Nitrosodi-n-propylamine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
N-Nitrosodimethylamine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
N-Nitrosodiphenylamine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Naphthalene	460	D	5.0	5.0	50	µg/L	10	9/19/2019 10:44 AM
Nitrobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Parathion	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:10 PM
Pentachlorophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:10 PM
Phenanthrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Phenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Pyrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Pyridine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:10 PM
Surr: 2,4,6-Tribromophenol	70.0			28-136		%Rec	1	9/18/2019 2:10 PM
Surr: 2-Fluorobiphenyl	62.0			22-123		%Rec	1	9/18/2019 2:10 PM
Surr: 2-Fluorophenol	32.6			20-120		%Rec	1	9/18/2019 2:10 PM
Surr: 4-Terphenyl-d14	70.2			20-133		%Rec	1	9/18/2019 2:10 PM
Surr: Nitrobenzene-d5	63.3			22-130		%Rec	1	9/18/2019 2:10 PM
Surr: Phenol-d6	24.8			10-105		%Rec	1	9/18/2019 2:10 PM

**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 11:30:00 AM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-006		Matrix: Liquid
Client Sample ID:	MW-2		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
<b>TOTAL METALS</b>	<b>Method: 245.1</b>			<b>E245.1 Rev3.0</b>			<b>Analyst: JP</b>	
<b>MERCURY, Total</b>								
Mercury	0.000150	U	0.000150	0.000150	0.000300	mg/L	1	9/16/2019 1:47 PM
<b>PCB's as AROCLORS SW-846 METHOD 8082</b>	<b>Method: 8082A</b>			<b>SW3510C</b>			<b>Analyst: SB</b>	
Aroclor 1016	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:54 AM
Aroclor 1221	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:54 AM
Aroclor 1232	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:54 AM
Aroclor 1242	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:54 AM
Aroclor 1248	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:54 AM
Aroclor 1254	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:54 AM
Aroclor 1260	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:54 AM
Aroclor 1262	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:54 AM
Aroclor 1268	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 11:54 AM
Surr: DCB	71.8			24-145		%Rec	1	9/17/2019 11:54 AM
Surr: DCB	76.2			24-145		%Rec	1	9/17/2019 11:54 AM
Surr: TCX	77.8			20-135		%Rec	1	9/17/2019 11:54 AM
Surr: TCX	81.9			20-135		%Rec	1	9/17/2019 11:54 AM
<b>PESTICIDES SW-846 METHOD 8081</b>	<b>Method: 8081B</b>			<b>SW3510C</b>			<b>Analyst: NF</b>	
4,4'-DDD	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
4,4'-DDE	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
4,4'-DDT	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
Aldrin	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
alpha-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
alpha-Chlordane	0.020	U	0.020	0.020	0.10	µg/L	1	9/16/2019 6:59 PM
beta-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
Chlorobenzilate	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
DBCP	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
delta-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
Dieldrin	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
Endosulfan I	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
Endosulfan II	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
Endosulfan sulfate	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
Endrin	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
Endrin aldehyde	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
Endrin ketone	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
gamma-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
gamma-Chlordane	0.036	BJ P	0.020	0.020	0.10	µg/L	1	9/16/2019 6:59 PM
Heptachlor	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
Heptachlor epoxide	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
Hexachlorobenzene	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM
Hexachlorocyclopentadiene	0.030	U	0.030	0.030	0.050	µg/L	1	9/16/2019 6:59 PM
Methoxychlor	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 6:59 PM

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**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

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Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 11:30:00 AM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-006	Matrix:	Liquid
Client Sample ID:	MW-2		

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Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Toxaphene	0.060	U	0.060	0.060	0.25	µg/L	1	9/16/2019 6:59 PM
Surr: DCB	82.7			20-140		%Rec	1	9/16/2019 6:59 PM
Surr: DCB	98.3			20-140		%Rec	1	9/16/2019 6:59 PM
Surr: TCX	84.1			20-134		%Rec	1	9/16/2019 6:59 PM
Surr: TCX	85.3			20-134		%Rec	1	9/16/2019 6:59 PM
<b>TOTAL METALS</b>				<b>Method: 200.7</b>		<b>E200.7 Rev4.4</b>		<b>Analyst: JP</b>
<b>TOTAL METALS</b>								
Aluminum	0.0863		0.00500	0.00500	0.0200	mg/L	1	9/16/2019 10:54 AM
Antimony	0.0100	U	0.00600	0.0100	0.0200	mg/L	1	9/16/2019 10:54 AM
Arsenic	0.0100	U	0.00800	0.0100	0.0250	mg/L	1	9/16/2019 10:54 AM
Barium	0.0158	J	0.00900	0.00500	0.0200	mg/L	1	9/16/2019 10:54 AM
Beryllium	0.00500	U	0.00500	0.00500	0.0200	mg/L	1	9/16/2019 10:54 AM
Cadmium	0.00500	U	0.00200	0.00500	0.0100	mg/L	1	9/16/2019 10:54 AM
Calcium	22.5		0.0100	0.0100	0.0250	mg/L	1	9/16/2019 10:54 AM
Chromium	0.00500	U	0.00400	0.00500	0.0200	mg/L	1	9/16/2019 10:54 AM
Cobalt	0.00500	U	0.00300	0.00500	0.0200	mg/L	1	9/16/2019 10:54 AM
Copper	0.00500	U	0.00600	0.00500	0.0200	mg/L	1	9/16/2019 10:54 AM
Iron	14.5		0.00300	0.00500	0.0200	mg/L	1	9/16/2019 10:54 AM
Lead	0.00500	U	0.00600	0.00500	0.0150	mg/L	1	9/16/2019 10:54 AM
Magnesium	5.83		0.00500	0.00500	0.0200	mg/L	1	9/16/2019 10:54 AM
Manganese	0.105		0.00200	0.00500	0.0200	mg/L	1	9/16/2019 10:54 AM
Nickel	0.00500	U	0.00300	0.00500	0.0200	mg/L	1	9/16/2019 10:54 AM
Potassium	2.08		0.100	0.100	0.200	mg/L	1	9/16/2019 10:54 AM
Selenium	0.0100	U	0.0100	0.0100	0.0250	mg/L	1	9/16/2019 10:54 AM
Silver	0.00500	U	0.00500	0.00500	0.0200	mg/L	1	9/16/2019 10:54 AM
Sodium	8.22		0.0100	0.0100	0.0300	mg/L	1	9/16/2019 10:54 AM
Thallium	0.0100	U	0.00500	0.0100	0.0150	mg/L	1	9/16/2019 10:54 AM
Vanadium	0.00500	U	0.00500	0.00500	0.0200	mg/L	1	9/16/2019 10:54 AM
Zinc	0.0257	✓	0.00500	0.00500	0.0200	mg/L	1	9/16/2019 10:54 AM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>				<b>Method: 8270D</b>		<b>SW3510C</b>		<b>Analyst: MH</b>
Biphenyl	0.63	J	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
1,2-Dichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
1,3-Dichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
1,4-Dichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
2,4,5-Trichlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
2,4,6-Trichlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
2,4-Dichlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
2,4-Dimethylphenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:39 PM
2,4-Dinitrophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:39 PM
2,4-Dinitrotoluene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
2,6-Dinitrotoluene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
2-Chloronaphthalene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM

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<b>Client:</b>	WRS d.b.a Berninger Environmental	<b>Collection Date:</b>	9/11/2019 11:30:00 AM
<b>Project:</b>	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
<b>Lab ID:</b>	1909078-006	<b>Matrix:</b>	Liquid
<b>Client Sample ID:</b>	MW-2		

<b>Analysis</b>	<b>Result</b>	<b>Qual</b>	<b>DL</b>	<b>LOD</b>	<b>LOQ</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
2-Chlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
2-Methylnaphthalene	67		0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
2-Methylphenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
2-Nitroaniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
2-Nitrophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:39 PM
3+4-Methylphenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
3,3'-Dichlorobenzidine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
3-Nitroaniline	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:39 PM
4,6-Dinitro-2-methylphenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:39 PM
4-Bromophenyl phenyl ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
4-Chloro-3-methylphenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
4-Chloroaniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
4-Chlorophenyl phenyl ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
4-Nitroaniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
4-Nitrophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:39 PM
Acenaphthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Acenaphthylene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Acetophenone	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Aniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Anthracene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Atrazine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Azobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Benzaldehyde	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:39 PM
Benzidine	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:39 PM
Benzo(a)anthracene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Benzo(a)pyrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Benzo(b)fluoranthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Benzo(g,h,i)perylene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Benzo(k)fluoranthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Benzoic acid	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:39 PM
Benzyl alcohol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Bis(2-chloroethoxy)methane	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Bis(2-chloroethyl)ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Bis(2-chloroisopropyl)ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Bis(2-ethylhexyl)phthalate	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:39 PM
Butyl benzyl phthalate	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:39 PM
Caprolactam	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Carbazole	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Chrysene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Di-n-butyl phthalate	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Di-n-octyl phthalate	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:39 PM
Dibenz(a,h)anthracene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Dibenzofuran	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Diethyl phthalate	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Dimethyl phthalate	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM

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<b>Client:</b>	WRS d.b.a Berninger Environmental	<b>Collection Date:</b>	9/11/2019 11:30:00 AM
<b>Project:</b>	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
<b>Lab ID:</b>	1909078-006	<b>Matrix:</b>	Liquid
<b>Client Sample ID:</b>	MW-2		

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<b>Analysis</b>	<b>Result</b>	<b>Qual</b>	<b>DL</b>	<b>LOD</b>	<b>LOQ</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
Fluoranthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Fluorene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Hexachlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Hexachlorobutadiene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Hexachlorocyclopentadiene	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:39 PM
Hexachloroethane	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Indeno(1,2,3-c,d)pyrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Isophorone	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
N-Nitrosodi-n-propylamine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
N-Nitrosodimethylamine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
N-Nitrosodiphenylamine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Naphthalene	270	D	5.0	5.0	50	µg/L	10	9/20/2019 1:49 PM
Nitrobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Parathion	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:39 PM
Pentachlorophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 2:39 PM
Phenanthrrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Phenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Pyrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Pyridine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 2:39 PM
Surr: 2,4,6-Tribromophenol	70.1			28-136		%Rec	1	9/18/2019 2:39 PM
Surr: 2-Fluorobiphenyl	64.4			22-123		%Rec	1	9/18/2019 2:39 PM
Surr: 2-Fluorophenol	40.1			20-120		%Rec	1	9/18/2019 2:39 PM
Surr: 4-Terphenyl-d14	71.0			20-133		%Rec	1	9/18/2019 2:39 PM
Surr: Nitrobenzene-d5	66.0			22-130		%Rec	1	9/18/2019 2:39 PM
Surr: Phenol-d6	27.3			10-105		%Rec	1	9/18/2019 2:39 PM

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Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 12:00:00 PM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-007	Matrix:	Liquid
Client Sample ID:	MW-3		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
<b>TOTAL METALS</b>	<b>Method: 245.1</b>				<b>E245.1 Rev3.0</b>		<b>Analyst: JP</b>	
<b>MERCURY, Total</b>								
Mercury	0.000150	U	0.000150	0.000150	0.000300	mg/L	1	9/16/2019 1:55 PM
<b>PCB's as AROCLORS SW-846 METHOD 8082</b>	<b>Method: 8082A</b>				<b>SW3510C</b>		<b>Analyst: SB</b>	
Aroclor 1016	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:20 PM
Aroclor 1221	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:20 PM
Aroclor 1232	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:20 PM
Aroclor 1242	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:20 PM
Aroclor 1248	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:20 PM
Aroclor 1254	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:20 PM
Aroclor 1260	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:20 PM
Aroclor 1262	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:20 PM
Aroclor 1268	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:20 PM
Surr: DCB	72.6			24-145		%Rec	1	9/17/2019 1:20 PM
Surr: DCB	74.8			24-145		%Rec	1	9/17/2019 1:20 PM
Surr: TCX	112			20-135		%Rec	1	9/17/2019 1:20 PM
Surr: TCX	89.0			20-135		%Rec	1	9/17/2019 1:20 PM
<b>PESTICIDES SW-846 METHOD 8081</b>	<b>Method: 8081B</b>				<b>SW3510C</b>		<b>Analyst: NF</b>	
4,4'-DDD	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
4,4'-DDE	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
4,4'-DDT	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
Aldrin	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
alpha-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
alpha-Chlordane	0.020	U	0.020	0.020	0.10	µg/L	1	9/16/2019 7:54 PM
beta-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
Chlorobenzilate	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
DBCP	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
delta-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
Dieldrin	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
Endosulfan I	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
Endosulfan II	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
Endosulfan sulfate	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
Endrin	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
Endrin aldehyde	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
Endrin ketone	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
gamma-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
gamma-Chlordane	0.032	B <u>J</u> P	0.020	0.020	0.10	µg/L	1	9/16/2019 7:54 PM
Heptachlor	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
Heptachlor epoxide	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
Hexachlorobenzene	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM
Hexachlorocyclopentadiene	0.030	U	0.030	0.030	0.050	µg/L	1	9/16/2019 7:54 PM
Methoxychlor	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 7:54 PM

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<b>Client:</b>	WRS d.b.a Berninger Environmental	<b>Collection Date:</b>	9/11/2019 12:00:00 PM
<b>Project:</b>	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
<b>Lab ID:</b>	1909078-007	<b>Matrix:</b>	Liquid
<b>Client Sample ID:</b>	MW-3		

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<b>Analysis</b>	<b>Result</b>	<b>Qual</b>	<b>DL</b>	<b>LOD</b>	<b>LOQ</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
Toxaphene	0.060	U	0.060	0.060	0.25	µg/L	1	9/16/2019 7:54 PM
Surr: DCB	80.7			20-140		%Rec	1	9/16/2019 7:54 PM
Surr: DCB	91.3			20-140		%Rec	1	9/16/2019 7:54 PM
Surr: TCX	70.4			20-134		%Rec	1	9/16/2019 7:54 PM
Surr: TCX	80.0			20-134		%Rec	1	9/16/2019 7:54 PM

<b>TOTAL METALS</b>	<b>Method: 200.7</b>				<b>E200.7 Rev4.4</b>		<b>Analyst: JP</b>	
<b>TOTAL METALS</b>								
Aluminum	0.196		0.00500	0.00500	0.0200	mg/L	1	9/16/2019 11:12 AM
Antimony	0.0100	U	0.00600	0.0100	0.0200	mg/L	1	9/16/2019 11:12 AM
Arsenic	0.0100	U	0.00800	0.0100	0.0250	mg/L	1	9/16/2019 11:12 AM
Barium	0.0233		0.00900	0.00500	0.0200	mg/L	1	9/16/2019 11:12 AM
Beryllium	0.00500	U	0.00500	0.00500	0.0200	mg/L	1	9/16/2019 11:12 AM
Cadmium	0.00500	U	0.00200	0.00500	0.0100	mg/L	1	9/16/2019 11:12 AM
Calcium	43.5		0.0100	0.0100	0.0250	mg/L	1	9/16/2019 11:12 AM
Chromium	0.00500	U	0.00400	0.00500	0.0200	mg/L	1	9/16/2019 11:12 AM
Cobalt	0.00500	U	0.00300	0.00500	0.0200	mg/L	1	9/16/2019 11:12 AM
Copper	0.00500	U	0.00600	0.00500	0.0200	mg/L	1	9/16/2019 11:12 AM
Iron	0.871		0.00300	0.00500	0.0200	mg/L	1	9/16/2019 11:12 AM
Lead	0.0130	J	0.00600	0.00500	0.0150	mg/L	1	9/16/2019 11:12 AM
Magnesium	15.1		0.00500	0.00500	0.0200	mg/L	1	9/16/2019 11:12 AM
Manganese	0.00880	J	0.00200	0.00500	0.0200	mg/L	1	9/16/2019 11:12 AM
Nickel	0.00500	U	0.00300	0.00500	0.0200	mg/L	1	9/16/2019 11:12 AM
Potassium	1.19		0.100	0.100	0.200	mg/L	1	9/16/2019 11:12 AM
Selenium	0.0100	U	0.0100	0.0100	0.0250	mg/L	1	9/16/2019 11:12 AM
Silver	0.00500	U	0.00500	0.00500	0.0200	mg/L	1	9/16/2019 11:12 AM
Sodium	8.32		0.0100	0.0100	0.0300	mg/L	1	9/16/2019 11:12 AM
Thallium	0.00560	J	0.00500	0.0100	0.0150	mg/L	1	9/16/2019 11:12 AM
Vanadium	0.00500	U	0.00500	0.00500	0.0200	mg/L	1	9/16/2019 11:12 AM
Zinc	0.0297	U	0.00500	0.00500	0.0200	mg/L	1	9/16/2019 11:12 AM

<b>SEMIVOLATILE SW-846 METHOD 8270</b>	<b>Method: 8270D</b>				<b>SW3510C</b>		<b>Analyst: MH</b>	
Biphenyl	1.4	J	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
1,2-Dichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
1,3-Dichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
1,4-Dichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
2,4,5-Trichlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
2,4,6-Trichlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
2,4-Dichlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
2,4-Dimethylphenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:07 PM
2,4-Dinitrophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:07 PM
2,4-Dinitrotoluene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
2,6-Dinitrotoluene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
2-Chloronaphthalene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM

9/11/19

**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 12:00:00 PM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-007		Matrix: Liquid
Client Sample ID:	MW-3		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
2-Chlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
2-Methylnaphthalene	68		0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
2-Methylphenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
2-Nitroaniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
2-Nitrophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:07 PM
3+4-Methylphenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
3,3'-Dichlorobenzidine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
3-Nitroaniline	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:07 PM
4,6-Dinitro-2-methylphenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:07 PM
4-Bromophenyl phenyl ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
4-Chloro-3-methylphenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
4-Chloroaniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
4-Chlorophenyl phenyl ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
4-Nitroaniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
4-Nitrophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:07 PM
Acenaphthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Acenaphthylene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Acetophenone	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Aniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Anthracene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Atrazine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Azobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Benzaldehyde	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:07 PM
Benzidine	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:07 PM
Benzo(a)anthracene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Benzo(a)pyrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Benzo(b)fluoranthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Benzo(g,h,i)perylene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Benzo(k)fluoranthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Benzoic acid	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:07 PM
Benzyl alcohol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Bis(2-chloroethoxy)methane	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Bis(2-chloroethyl)ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Bis(2-chloroisopropyl)ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Bis(2-ethylhexyl)phthalate	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:07 PM
Butyl benzyl phthalate	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:07 PM
Caprolactam	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Carbazole	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Chrysene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Di-n-butyl phthalate	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Di-n-octyl phthalate	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:07 PM
Dibenzo(a,h)anthracene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Dibenzofuran	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Diethyl phthalate	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Dimethyl phthalate	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM

**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

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<b>Client:</b>	WRS d.b.a Berninger Environmental	<b>Collection Date:</b>	9/11/2019 12:00:00 PM
<b>Project:</b>	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
<b>Lab ID:</b>	1909078-007	<b>Matrix:</b>	Liquid
<b>Client Sample ID:</b>	MW-3		

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<b>Analysis</b>	<b>Result</b>	<b>Qual</b>	<b>DL</b>	<b>LOD</b>	<b>LOQ</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
Fluoranthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Fluorene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Hexachlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Hexachlorobutadiene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Hexachlorocyclopentadiene	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:07 PM
Hexachloroethane	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Indeno(1,2,3-c,d)pyrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Isophorone	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
N-Nitrosodi-n-propylamine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
N-Nitrosodimethylamine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
N-Nitrosodiphenylamine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Naphthalene	150	D	5.0	5.0	50	µg/L	10	9/19/2019 11:43 AM
Nitrobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Parathion	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:07 PM
Pentachlorophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:07 PM
Phenanthrone	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Phenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Pyrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Pyridine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:07 PM
Surr: 2,4,6-Tribromophenol	69.8			28-136		%Rec	1	9/18/2019 4:07 PM
Surr: 2-Fluorobiphenyl	61.8			22-123		%Rec	1	9/18/2019 4:07 PM
Surr: 2-Fluorophenol	39.1			20-120		%Rec	1	9/18/2019 4:07 PM
Surr: 4-Terphenyl-d14	73.5			20-133		%Rec	1	9/18/2019 4:07 PM
Surr: Nitrobenzene-d5	64.9			22-130		%Rec	1	9/18/2019 4:07 PM
Surr: Phenol-d6	27.0			10-105		%Rec	1	9/18/2019 4:07 PM

**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

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Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 12:30:00 PM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-008	Matrix:	Liquid
Client Sample ID:	MW-4		

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Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
<b>TOTAL METALS</b>	<b>Method: 245.1</b>				<b>E245.1 Rev3.0</b>		<b>Analyst: JP</b>	
<b>MERCURY, Total</b>								
Mercury	0.000150	U	0.000150	0.000150	0.000300	mg/L	1	9/16/2019 1:57 PM
<b>PCB's as AROCLORS SW-846 METHOD 8082</b>	<b>Method: 8082A</b>				<b>SW3510C</b>		<b>Analyst: SB</b>	
Aroclor 1016	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:49 PM
Aroclor 1221	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:49 PM
Aroclor 1232	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:49 PM
Aroclor 1242	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:49 PM
Aroclor 1248	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:49 PM
Aroclor 1254	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:49 PM
Aroclor 1260	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:49 PM
Aroclor 1262	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:49 PM
Aroclor 1268	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 1:49 PM
Surr: DCB	55.8			24-145		%Rec	1	9/17/2019 1:49 PM
Surr: DCB	67.2			24-145		%Rec	1	9/17/2019 1:49 PM
Surr: TCX	54.7			20-135		%Rec	1	9/17/2019 1:49 PM
Surr: TCX	62.4			20-135		%Rec	1	9/17/2019 1:49 PM
<b>PESTICIDES SW-846 METHOD 8081</b>	<b>Method: 8081B</b>				<b>SW3510C</b>		<b>Analyst: NF</b>	
4,4'-DDD	0.025	JP JN	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
4,4'-DDE	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
4,4'-DDT	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
Aldrin	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
alpha-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
alpha-Chlordane	0.020	U	0.020	0.020	0.10	µg/L	1	9/16/2019 8:12 PM
beta-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
Chlorobenzilate	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
DBCP	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
delta-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
Dieldrin	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
Endosulfan I	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
Endosulfan II	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
Endosulfan sulfate	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
Endrin	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
Endrin aldehyde	0.26	DJ	0.20	0.24	1.0	µg/L	20	9/19/2019 10:37 AM
Endrin ketone	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
gamma-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
gamma-Chlordane	0.020	U	0.020	0.020	0.10	µg/L	1	9/16/2019 8:12 PM
Heptachlor	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
Heptachlor epoxide	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
Hexachlorobenzene	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
Hexachlorocyclopentadiene	0.030	U	0.030	0.030	0.050	µg/L	1	9/16/2019 8:12 PM
Methoxychlor	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:12 PM
Toxaphene	0.060	U	0.060	0.060	0.25	µg/L	1	9/16/2019 8:12 PM

for Bill 4/19

**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 12:30:00 PM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-008		Matrix: Liquid
Client Sample ID:	MW-4		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Surr: DCB	107			20-140		%Rec	1	9/16/2019 8:12 PM
Surr: DCB	78.1			20-140		%Rec	1	9/16/2019 8:12 PM
Surr: TCX	103			20-134		%Rec	1	9/16/2019 8:12 PM
Surr: TCX	75.1			20-134		%Rec	1	9/16/2019 8:12 PM

TOTAL METALS	Method: 200.7			E200.7 Rev4.4		Analyst: JP		
TOTAL METALS								
Aluminum	0.0961		0.00500	0.00500	0.0200	mg/L	1	9/16/2019 11:49 AM
Antimony	0.0100	U	0.00600	0.0100	0.0200	mg/L	1	9/16/2019 11:49 AM
Arsenic	0.00920	J	0.00800	0.0100	0.0250	mg/L	1	9/16/2019 11:49 AM
Barium	0.0258		0.00900	0.00500	0.0200	mg/L	1	9/16/2019 11:49 AM
Beryllium	0.00500	U	0.00500	0.00500	0.0200	mg/L	1	9/16/2019 11:49 AM
Cadmium	0.00500	U	0.00200	0.00500	0.0100	mg/L	1	9/16/2019 11:49 AM
Calcium	54.4		0.0100	0.0100	0.0250	mg/L	1	9/16/2019 11:49 AM
Chromium	0.00500	U	0.00400	0.00500	0.0200	mg/L	1	9/16/2019 11:49 AM
Cobalt	0.00500	U	0.00300	0.00500	0.0200	mg/L	1	9/16/2019 11:49 AM
Copper	0.00500	U	0.00600	0.00500	0.0200	mg/L	1	9/16/2019 11:49 AM
Iron	0.653		0.00300	0.00500	0.0200	mg/L	1	9/16/2019 11:49 AM
Lead	0.0103	J	0.00600	0.00500	0.0150	mg/L	1	9/16/2019 11:49 AM
Magnesium	13.9		0.00500	0.00500	0.0200	mg/L	1	9/16/2019 11:49 AM
Manganese	0.0100	J	0.00200	0.00500	0.0200	mg/L	1	9/16/2019 11:49 AM
Nickel	0.00500	U	0.00300	0.00500	0.0200	mg/L	1	9/16/2019 11:49 AM
Potassium	3.39		0.100	0.100	0.200	mg/L	1	9/16/2019 11:49 AM
Selenium	0.0100	U	0.0100	0.0100	0.0250	mg/L	1	9/16/2019 11:49 AM
Silver	0.00500	U	0.00500	0.00500	0.0200	mg/L	1	9/16/2019 11:49 AM
Sodium	6.62		0.0100	0.0100	0.0300	mg/L	1	9/16/2019 11:49 AM
Thallium	0.00810	J	0.00500	0.0100	0.0150	mg/L	1	9/16/2019 11:49 AM
Vanadium	0.00500	U	0.00500	0.00500	0.0200	mg/L	1	9/16/2019 11:49 AM
Zinc	0.0206	U	0.00500	0.00500	0.0200	mg/L	1	9/16/2019 11:49 AM

SEMIVOLATILE SW-846 METHOD 8270	Method: 8270D			SW3510C		Analyst: MH		
Biphenyl	1.1	J	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
1,2-Dichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
1,3-Dichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
1,4-Dichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
2,4,5-Trichlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
2,4,6-Trichlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
2,4-Dichlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
2,4-Dimethylphenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:37 PM
2,4-Dinitrophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:37 PM
2,4-Dinitrotoluene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
2,6-Dinitrotoluene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
2-Chloronaphthalene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
2-Chlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM

Sept 11 2019

**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

Client:	WRS d.b.a Berninger Environmental	Collection Date:	9/11/2019 12:30:00 PM
Project:	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
Lab ID:	1909078-008	Matrix:	Liquid
Client Sample ID:	MW-4		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
2-Methylnaphthalene	65		0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
2-Methylphenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
2-Nitroaniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
2-Nitrophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:37 PM
3+4-Methylphenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
3,3'-Dichlorobenzidine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
3-Nitroaniline	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:37 PM
4,6-Dinitro-2-methylphenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:37 PM
4-Bromophenyl phenyl ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
4-Chloro-3-methylphenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
4-Chloroaniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
4-Chlorophenyl phenyl ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
4-Nitroaniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
4-Nitrophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:37 PM
Acenaphthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Acenaphthylene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Acetophenone	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Aniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Anthracene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Atrazine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Azobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Benzaldehyde	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:37 PM
Benzidine	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:37 PM
Benzo(a)anthracene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Benzo(a)pyrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Benzo(b)fluoranthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Benzo(g,h,i)perylene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Benzo(k)fluoranthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Benzoic acid	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:37 PM
Benzyl alcohol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Bis(2-chloroethoxy)methane	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Bis(2-chloroethyl)ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Bis(2-chloroisopropyl)ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Bis(2-ethylhexyl)phthalate	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:37 PM
Butyl benzyl phthalate	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:37 PM
Caprolactam	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Carbazole	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Chrysene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Di-n-butyl phthalate	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Di-n-octyl phthalate	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:37 PM
Dibenzo(a,h)anthracene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Dibenzofuran	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Diethyl phthalate	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Dimethyl phthalate	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Fluoranthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM

**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

<b>Client:</b>	WRS d.b.a Berninger Environmental	<b>Collection Date:</b>	9/11/2019 12:30:00 PM
<b>Project:</b>	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
<b>Lab ID:</b>	1909078-008		<b>Matrix:</b> Liquid
<b>Client Sample ID:</b>	MW-4		

<b>Analysis</b>	<b>Result</b>	<b>Qual</b>	<b>DL</b>	<b>LOD</b>	<b>LOQ</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
Fluorene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Hexachlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Hexachlorobutadiene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Hexachlorocyclopentadiene	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:37 PM
Hexachloroethane	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Indeno(1,2,3-c,d)pyrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Isophorone	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
N-Nitrosodi-n-propylamine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
N-Nitrosodimethylamine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
N-Nitrosodiphenylamine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Naphthalene	260	D	5.0	5.0	50	µg/L	10	9/19/2019 12:12 PM
Nitrobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Parathion	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:37 PM
Pentachlorophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 4:37 PM
Phenanthrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Phenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Pyrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Pyridine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 4:37 PM
Surr: 2,4,6-Tribromophenol	68.9			28-136		%Rec	1	9/18/2019 4:37 PM
Surr: 2-Fluorobiphenyl	58.9			22-123		%Rec	1	9/18/2019 4:37 PM
Surr: 2-Fluorophenol	33.0			20-120		%Rec	1	9/18/2019 4:37 PM
Surr: 4-Terphenyl-d14	68.1			20-133		%Rec	1	9/18/2019 4:37 PM
Surr: Nitrobenzene-d5	57.6			22-130		%Rec	1	9/18/2019 4:37 PM
Surr: Phenol-d6	24.4			10-105		%Rec	1	9/18/2019 4:37 PM

**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

Client: WRS d.b.a Berninger Environmental Collection Date: 9/11/2019 1:00:00 PM  
Project: Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY  
Lab ID: 1909078-009 Matrix: Liquid  
Client Sample ID: Field Blank

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
<b>TOTAL METALS</b>	<b>Method: 245.1</b>				<b>E245.1 Rev3.0</b>		<b>Analyst: JP</b>	
<b>MERCURY, Total</b>								
Mercury	0.000150	U	0.000150	0.000150	0.000300	mg/L	1	9/16/2019 2:05 PM
<b>PCB's as AROCLORS SW-846 METHOD 8082</b>	<b>Method: 8082A</b>				<b>SW3510C</b>		<b>Analyst: SB</b>	
Aroclor 1016	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 2:18 PM
Aroclor 1221	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 2:18 PM
Aroclor 1232	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 2:18 PM
Aroclor 1242	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 2:18 PM
Aroclor 1248	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 2:18 PM
Aroclor 1254	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 2:18 PM
Aroclor 1260	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 2:18 PM
Aroclor 1262	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 2:18 PM
Aroclor 1268	0.050	U	0.050	0.050	0.10	µg/L	1	9/17/2019 2:18 PM
Surr: DCB	66.3			24-145		%Rec	1	9/17/2019 2:18 PM
Surr: DCB	73.2			24-145		%Rec	1	9/17/2019 2:18 PM
Surr: TCX	65.0			20-135		%Rec	1	9/17/2019 2:18 PM
Surr: TCX	70.2			20-135		%Rec	1	9/17/2019 2:18 PM
<b>PESTICIDES SW-846 METHOD 8081</b>	<b>Method: 8081B</b>				<b>SW3510C</b>		<b>Analyst: NF</b>	
4,4'-DDD	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
4,4'-DDE	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
4,4'-DDT	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
Aldrin	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
alpha-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
alpha-Chlordane	0.020	U	0.020	0.020	0.10	µg/L	1	9/16/2019 8:30 PM
beta-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
Chlorobenzilate	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
DBCP	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
delta-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
Dieldrin	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
Endosulfan I	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
Endosulfan II	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
Endosulfan sulfate	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
Endrin	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
Endrin aldehyde	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
Endrin ketone	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
gamma-BHC	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
gamma-Chlordane	0.023	DU	0.020	0.020	0.10	µg/L	1	9/16/2019 8:30 PM
Heptachlor	0.012	DU	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
Heptachlor epoxide	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
Hexachlorobenzene	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
Hexachlorocyclopentadiene	0.030	U	0.030	0.030	0.050	µg/L	1	9/16/2019 8:30 PM
Methoxychlor	0.012	U	0.010	0.012	0.050	µg/L	1	9/16/2019 8:30 PM
Toxaphene	0.060	U	0.060	0.060	0.25	µg/L	1	9/16/2019 8:30 PM

for 11/11/19

**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

<b>Client:</b>	WRS d.b.a Berninger Environmental	<b>Collection Date:</b>	9/11/2019 1:00:00 PM
<b>Project:</b>	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
<b>Lab ID:</b>	1909078-009		<b>Matrix:</b> Liquid
<b>Client Sample ID:</b>	Field Blank		

<b>Analysis</b>	<b>Result</b>	<b>Qual</b>	<b>DL</b>	<b>LOD</b>	<b>LOQ</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
Surr: DCB	74.1			20-140		%Rec	1	9/16/2019 8:30 PM
Surr: DCB	84.3			20-140		%Rec	1	9/16/2019 8:30 PM
Surr: TCX	66.9			20-134		%Rec	1	9/16/2019 8:30 PM
Surr: TCX	74.0			20-134		%Rec	1	9/16/2019 8:30 PM

<b>TOTAL METALS</b>	<b>Method: 200.7</b>				<b>E200.7 Rev4.4</b>		<b>Analyst: JP</b>
Aluminum	0.0175	J	0.00500	0.00500	0.0200	mg/L	1 9/16/2019 11:52 AM
Antimony	0.0100	U	0.00600	0.0100	0.0200	mg/L	1 9/16/2019 11:52 AM
Arsenic	0.0100	U	0.00800	0.0100	0.0250	mg/L	1 9/16/2019 11:52 AM
Barium	0.00500	U	0.00900	0.00500	0.0200	mg/L	1 9/16/2019 11:52 AM
Beryllium	0.00500	U	0.00500	0.00500	0.0200	mg/L	1 9/16/2019 11:52 AM
Cadmium	0.00500	U	0.00200	0.00500	0.0100	mg/L	1 9/16/2019 11:52 AM
Calcium	1.88		0.0100	0.0100	0.0250	mg/L	1 9/16/2019 11:52 AM
Chromium	0.00500	U	0.00400	0.00500	0.0200	mg/L	1 9/16/2019 11:52 AM
Cobalt	0.00500	U	0.00300	0.00500	0.0200	mg/L	1 9/16/2019 11:52 AM
Copper	0.00500	U	0.00600	0.00500	0.0200	mg/L	1 9/16/2019 11:52 AM
Iron	0.0144	J	0.00300	0.00500	0.0200	mg/L	1 9/16/2019 11:52 AM
Lead	0.00500	U	0.00600	0.00500	0.0150	mg/L	1 9/16/2019 11:52 AM
Magnesium	0.415		0.00500	0.00500	0.0200	mg/L	1 9/16/2019 11:52 AM
Manganese	0.00500	U	0.00200	0.00500	0.0200	mg/L	1 9/16/2019 11:52 AM
Nickel	0.00500	U	0.00300	0.00500	0.0200	mg/L	1 9/16/2019 11:52 AM
Potassium	0.100	U	0.100	0.100	0.200	mg/L	1 9/16/2019 11:52 AM
Selenium	0.0100	U	0.0100	0.0100	0.0250	mg/L	1 9/16/2019 11:52 AM
Silver	0.00500	U	0.00500	0.00500	0.0200	mg/L	1 9/16/2019 11:52 AM
Sodium	0.114		0.0100	0.0100	0.0300	mg/L	1 9/16/2019 11:52 AM
Thallium	0.0100	U	0.00500	0.0100	0.0150	mg/L	1 9/16/2019 11:52 AM
Vanadium	0.00500	U	0.00500	0.00500	0.0200	mg/L	1 9/16/2019 11:52 AM
Zinc	0.0342		0.00500	0.00500	0.0200	mg/L	1 9/16/2019 11:52 AM

<b>SEMIVOLATILE SW-846 METHOD 8270</b>	<b>Method: 8270D</b>				<b>SW3510C</b>		<b>Analyst: MH</b>
Biphenyl	0.50	U	0.50	0.50	5.0	µg/L	1 9/18/2019 5:06 PM
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1 9/18/2019 5:06 PM
1,2-Dichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1 9/18/2019 5:06 PM
1,3-Dichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1 9/18/2019 5:06 PM
1,4-Dichlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1 9/18/2019 5:06 PM
2,4,5-Trichlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1 9/18/2019 5:06 PM
2,4,6-Trichlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1 9/18/2019 5:06 PM
2,4-Dichlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1 9/18/2019 5:06 PM
2,4-Dimethylphenol	1.0	U	1.0	1.0	10	µg/L	1 9/18/2019 5:06 PM
2,4-Dinitrophenol	1.0	U	1.0	1.0	10	µg/L	1 9/18/2019 5:06 PM
2,4-Dinitrotoluene	0.50	U	0.50	0.50	5.0	µg/L	1 9/18/2019 5:06 PM
2,6-Dinitrotoluene	0.50	U	0.50	0.50	5.0	µg/L	1 9/18/2019 5:06 PM
2-Chloronaphthalene	0.50	U	0.50	0.50	5.0	µg/L	1 9/18/2019 5:06 PM
2-Chlorophenol	0.50	U	0.50	0.50	5.0	µg/L	1 9/18/2019 5:06 PM

**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

<b>Client:</b>	WRS d.b.a Berninger Environmental	<b>Collection Date:</b>	9/11/2019 1:00:00 PM
<b>Project:</b>	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
<b>Lab ID:</b>	1909078-009	<b>Matrix:</b>	Liquid
<b>Client Sample ID:</b>	Field Blank		

<b>Analysis</b>	<b>Result</b>	<b>Qual</b>	<b>DL</b>	<b>LOD</b>	<b>LOQ</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
2-Methylnaphthalene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
2-Methylphenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
2-Nitroaniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
2-Nitrophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 5:06 PM
3+4-Methylphenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
3,3'-Dichlorobenzidine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
3-Nitroaniline	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 5:06 PM
4,6-Dinitro-2-methylphenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 5:06 PM
4-Bromophenyl phenyl ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
4-Chloro-3-methylphenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
4-Chloroaniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
4-Chlorophenyl phenyl ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
4-Nitroaniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
4-Nitrophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 5:06 PM
Acenaphthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Acenaphthylene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Acetophenone	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Aniline	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Anthracene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Atrazine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Azobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Benzaldehyde	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 5:06 PM
Benzidine	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 5:06 PM
Benzo(a)anthracene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Benzo(a)pyrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Benzo(b)fluoranthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Benzo(g,h,i)perylene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Benzo(k)fluoranthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Benzoic acid	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 5:06 PM
Benzyl alcohol	0.74	J	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Bis(2-chloroethoxy)methane	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Bis(2-chloroethyl)ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Bis(2-chloroisopropyl)ether	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Bis(2-ethylhexyl)phthalate	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 5:06 PM
Butyl benzyl phthalate	1.0	J	1.0	1.0	10	µg/L	1	9/18/2019 5:06 PM
Caprolactam	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Carbazole	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Chrysene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Di-n-butyl phthalate	0.94	J	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Di-n-octyl phthalate	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 5:06 PM
Dibenzo(a,h)anthracene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Dibenzofuran	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Diethyl phthalate	5.6		0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Dimethyl phthalate	2.6	J	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Fluoranthene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM

**American Analytical Laboratories, LLC. - Analytical Report**

WO#: 1909078

Date Reported: 9/25/2019  
Revision v1

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<b>Client:</b>	WRS d.b.a Berninger Environmental	<b>Collection Date:</b>	9/11/2019 1:00:00 PM
<b>Project:</b>	Former Quick & Clean; 380 Rockaway Turnpike, Cedarhurst, NY		
<b>Lab ID:</b>	1909078-009	<b>Matrix:</b>	Liquid
<b>Client Sample ID:</b>	Field Blank		

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<b>Analysis</b>	<b>Result</b>	<b>Qual</b>	<b>DL</b>	<b>LOD</b>	<b>LOQ</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
Fluorene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Hexachlorobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Hexachlorobutadiene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Hexachlorocyclopentadiene	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 5:06 PM
Hexachloroethane	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Indeno(1,2,3-c,d)pyrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Isophorone	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
N-Nitrosodi-n-propylamine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
N-Nitrosodimethylamine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
N-Nitrosodiphenylamine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Naphthalene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Nitrobenzene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Parathion	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 5:06 PM
Pentachlorophenol	1.0	U	1.0	1.0	10	µg/L	1	9/18/2019 5:06 PM
Phenanthrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Phenol	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Pyrene	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Pyridine	0.50	U	0.50	0.50	5.0	µg/L	1	9/18/2019 5:06 PM
Surr: 2,4,6-Tribromophenol	59.1			28-136		%Rec	1	9/18/2019 5:06 PM
Surr: 2-Fluorobiphenyl	60.9			22-123		%Rec	1	9/18/2019 5:06 PM
Surr: 2-Fluorophenol	41.2			20-120		%Rec	1	9/18/2019 5:06 PM
Surr: 4-Terphenyl-d14	70.1			20-133		%Rec	1	9/18/2019 5:06 PM
Surr: Nitrobenzene-d5	62.5			22-130		%Rec	1	9/18/2019 5:06 PM
Surr: Phenol-d6	27.1			10-105		%Rec	1	9/18/2019 5:06 PM

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-191432-1

SDG No.:

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Client Sample ID: B-1~~d~~ 2"-24"

Lab Sample ID: 460-191432-1

Matrix: Solid

Lab File ID: Z50525.d

Analysis Method: 8270D

Date Collected: 09/11/2019 09:00

Extract. Method: 3546

Date Extracted: 09/17/2019 10:38

Sample wt/vol: 15.0357(g)

Date Analyzed: 09/18/2019 02:28

Con. Extract Vol.: 1(mL)

Dilution Factor: 1

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 3.9

GPC Cleanup:(Y/N) N

Analysis Batch No.: 639986

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1, 4-Dioxane	9.5	U	100	9.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	55		25-113
4165-62-2	Phenol-d5 (Surr)	53		28-109
1718-51-0	Terphenyl-d14 (Surr)	74		27-123
118-79-6	2, 4, 6-Tribromophenol (Surr)	56		10-137
367-12-4	2-Fluorophenol (Surr)	51		20-115
321-60-8	2-Fluorobiphenyl	65		29-107

Sept 11/14/19

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-191432-1  
 SDG No.: ①  
 Client Sample ID: B-~~2d~~ 2"-24" Lab Sample ID: 460-191432-2  
 Matrix: Solid Lab File ID: Z50514.d  
 Analysis Method: 8270D Date Collected: 09/11/2019 09:30  
 Extract. Method: 3546 Date Extracted: 09/17/2019 10:38  
 Sample wt/vol: 15.0515(g) Date Analyzed: 09/17/2019 22:15  
 Con. Extract Vol.: 1(mL) Dilution Factor: 1  
 Injection Volume: 1(uL) Level: (low/med) Low  
 % Moisture: 16.4 GPC Cleanup:(Y/N) N  
 Analysis Batch No.: 639986 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	11	U	120	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	57		25-113
4165-62-2	Phenol-d5 (Surr)	55		28-109
1718-51-0	Terphenyl-d14 (Surr)	80		27-123
118-79-6	2,4,6-Tribromophenol (Surr)	67		10-13 <sup>7</sup>
367-12-4	2-Fluorophenol (Surr)	55		20-115
321-60-8	2-Fluorobiphenyl	63		29-107

for  
11/14/19

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-191432-1  
 SDG No.: 1  
 Client Sample ID: B-34 2"-24" Lab Sample ID: 460-191432-3  
 Matrix: Solid Lab File ID: Z50526.d  
 Analysis Method: 8270D Date Collected: 09/11/2019 10:00  
 Extract. Method: 3546 Date Extracted: 09/17/2019 10:38  
 Sample wt/vol: 15.0249(g) Date Analyzed: 09/18/2019 02:51  
 Con. Extract Vol.: 1(mL) Dilution Factor: 1  
 Injection Volume: 1(uL) Level: (low/med) Low  
 % Moisture: 1.5 GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 639986 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	9.2	U	100	9.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	69		25-113
4165-62-2	Phenol-d5 (Surr)	62		28-109
1718-51-0	Terphenyl-d14 (Surr)	81		27-123
118-79-6	2,4,6-Tribromophenol (Surr)	64		10-137
367-12-4	2-Fluorophenol (Surr)	63		20-115
321-60-8	2-Fluorobiphenyl	75		29-107

8/14/19

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-191432-1

SDG No.:

Client Sample ID: B-41 2"-24"

Matrix: Solid

Analysis Method: 8270D

Extract. Method: 3546

Sample wt/vol: 15.0155(g)

Con. Extract Vol.: 1(mL)

Injection Volume: 1(uL)

% Moisture: 8.1

Analysis Batch No.: 639986

Lab Sample ID: 460-191432-4

Lab File ID: Z50527.d

Date Collected: 09/11/2019 00:00

Date Extracted: 09/17/2019 10:38

Date Analyzed: 09/18/2019 03:14

Dilution Factor: 1

Level: (low/med) Low

GPC Cleanup: (Y/N) N

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1, 4-Dioxane	9.9	U	110	9.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	60		25-113
4165-62-2	Phenol-d5 (Surr)	54		28-109
1718-51-0	Terphenyl-d14 (Surr)	73		27-123
118-79-6	2, 4, 6-Tribromophenol (Surr)	59		10-137
367-12-4	2-Fluorophenol (Surr)	55		20-115
321-60-8	2-Fluorobiphenyl	66		29-107

for 11/14/19

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-191432-1

SDG No.: Q

Client Sample ID: B-~~20~~ 2"-24"

Lab Sample ID: 460-191432-6

Matrix: Solid

Lab File ID: Z50528.d

Analysis Method: 8270D

Date Collected: 09/11/2019 09:30

Extract. Method: 3546

Date Extracted: 09/17/2019 10:38

Sample wt/vol: 15.0338(g)

Date Analyzed: 09/18/2019 03:37

Con. Extract Vol.: 1(mL)

Dilution Factor: 1

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 7.4

GPC Cleanup:(Y/N) N

Analysis Batch No.: 639986

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	9.8	U	110	9.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	52		25-113
4165-62-2	Phenol-d5 (Surr)	52		28-109
1718-51-0	Terphenyl-d14 (Surr)	72		27-123
118-79-6	2,4,6-Tribromophenol (Surr)	64		10-137
367-12-4	2-Fluorophenol (Surr)	49		20-115
321-60-8	2-Fluorobiphenyl	64		29-107

Form 111419

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Edison</u>	Job No.: <u>460-191432-1</u>
SDG No.:	
Client Sample ID: <u>Field Blanks</u>	Lab Sample ID: <u>460-191432-5</u>
Matrix: <u>Water</u>	Lab File ID: <u>C4810.D</u>
Analysis Method: <u>8270D SIM ID</u>	Date Collected: <u>09/11/2019 00:00</u>
Extract. Method: <u>3510C</u>	Date Extracted: <u>09/17/2019 16:42</u>
Sample wt/vol: <u>250 (mL)</u>	Date Analyzed: <u>09/18/2019 08:49</u>
Con. Extract Vol.: <u>2 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>5 (uL)</u>	Level: (low/med) <u>Low</u>
% Moisture:	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>640024</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.016	U	0.20	0.016

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	37		10-150

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 460-191432-1  
 SDG No.: ①  
 Client Sample ID: B-1~~2~~ 2"-24" Lab Sample ID: 460-191432-1  
 Matrix: Solid Lab File ID: 2019.09.29LLA\_056.d  
 Analysis Method: 537 (modified) Date Collected: 09/11/2019 09:00  
 Extraction Method: SHAKE Date Extracted: 09/25/2019 15:18  
 Sample wt/vol: 4.99(g) Date Analyzed: 09/30/2019 04:02  
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)  
 % Moisture: 3.9 GPC Cleanup:(Y/N) N  
 Analysis Batch No.: 327155 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.038	J	0.21	0.029
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.080	U	0.21	0.080
307-24-4	Perfluorohexanoic acid (PFHxA)	0.071	J	0.21	0.044
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.057	J	0.21	0.030
335-67-1	Perfluorooctanoic acid (PFOA)	0.11	J	0.21	0.090
375-95-1	Perfluorononanoic acid (PFNA)	0.038	U	0.21	0.038
335-76-2	Perfluorodecanoic acid (PFDA)	0.023	U	0.21	0.023
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.038	U	0.21	0.038
307-55-1	Perfluorododecanoic acid (PFDoA)	0.070	U	0.21	0.070
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.053	U	0.21	0.053
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.056	U	0.21	0.056
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.026	U	0.21	0.026
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.035	J	0.21	0.032
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.036	U	0.21	0.036
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.30	J	0.52	0.21
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.041	U	0.21	0.041
754-91-6	Perfluorooctanesulfonamide (FOSA)	0.085	U	0.21	0.085
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.41	U	2.08	0.41
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.39	U	2.08	0.39
27619-97-2	6:2 FTS	0.16	U	2.08	0.16
39108-34-4	8:2 FTS	0.26	U	2.08	0.26

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FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 460-191432-1  
 SDG No.: Q  
 Client Sample ID: B-2a 2"-24"  
 Matrix: Solid  
 Analysis Method: 537 (modified)  
 Extraction Method: SHAKE  
 Sample wt/vol: 4.96(g)  
 Con. Extract Vol.: 10.0(mL)  
 Injection Volume: 20(uL)  
 % Moisture: 16.4  
 Analysis Batch No.: 327155  
 Lab Sample ID: 460-191432-2  
 Lab File ID: 2019.09.29LLA\_057.d  
 Date Collected: 09/11/2019 09:30  
 Date Extracted: 09/25/2019 15:18  
 Date Analyzed: 09/30/2019 04:12  
 Dilution Factor: 1  
 GC Column: GeminiC18 3x100 ID: 3(mm)  
 GPC Cleanup:(Y/N) N  
 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.034	U	0.24	0.034
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.093	U	0.24	0.093
307-24-4	Perfluorohexanoic acid (PFHxA)	0.051	U	0.24	0.051
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.035	U	0.24	0.035
335-67-1	Perfluoroctanoic acid (PFOA)	0.10	U	0.24	0.10
375-95-1	Perfluorononanoic acid (PFNA)	0.043	U	0.24	0.043
335-76-2	Perfluorodecanoic acid (PFDA)	0.027	U	0.24	0.027
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.043	U	0.24	0.043
307-55-1	Perfluorododecanoic acid (PFDoA)	0.081	U	0.24	0.081
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.062	U	0.24	0.062
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.065	U	0.24	0.065
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.030	U	0.24	0.030
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.037	U	0.24	0.037
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.042	U	0.24	0.042
1763-23-1	Perfluoroctanesulfonic acid (PFOS)	0.94	PI J+	0.60	0.24
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.047	U	0.24	0.047
754-91-6	Perfluorooctanesulfonamide (FOSA)	0.099	U	0.24	0.099
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.47	U	2.41	0.47
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.45	U	2.41	0.45
27619-97-2	6:2 FTS	0.18	U	2.41	0.18
39108-34-4	8:2 FTS	0.30	U	2.41	0.30

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 460-191432-1  
 SDG No.: Q  
 Client Sample ID: B-3d 2"-24" Lab Sample ID: 460-191432-3  
 Matrix: Solid Lab File ID: 2019.09.29LLA\_060.d  
 Analysis Method: 537 (modified) Date Collected: 09/11/2019 10:00  
 Extraction Method: SHAKE Date Extracted: 09/25/2019 15:18  
 Sample wt/vol: 5.20(g) Date Analyzed: 09/30/2019 04:41  
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)  
 % Moisture: 1.5 GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 327155 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.040	J	0.20	0.027
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.075	U	0.20	0.075
307-24-4	Perfluorohexanoic acid (PFHxA)	0.041	U	0.20	0.041
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.031	J	0.20	0.028
335-67-1	Perfluorooctanoic acid (PFOA)	0.084	U	0.20	0.084
375-95-1	Perfluorononanoic acid (PFNA)	0.038	J	0.20	0.035
335-76-2	Perfluorodecanoic acid (PFDA)	0.063	J	0.20	0.021
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.035	U	0.20	0.035
307-55-1	Perfluorododecanoic acid (PFDoA)	0.065	U	0.20	0.065
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.050	U	0.20	0.050
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.053	U	0.20	0.053
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.024	U	0.20	0.024
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.030	U	0.20	0.030
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.034	U	0.20	0.034
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1.17		0.49	0.20
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.038	U	0.20	0.038
754-91-6	Perfluorooctanesulfonamide (FOSA)	0.099	J	0.20	0.080
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.38	U	1.95	0.38
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.36	U	1.95	0.36
27619-97-2	6:2 FTS	0.15	U	1.95	0.15
39108-34-4	8:2 FTS	0.24	U	1.95	0.24

For  
11/15/19

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 460-191432-1  
 SDG No.: Q  
 Client Sample ID: B-4d 2"-24" Lab Sample ID: 460-191432-4  
 Matrix: Solid Lab File ID: 2019.09.29LLA\_061.d  
 Analysis Method: 537 (modified) Date Collected: 09/11/2019 00:00  
 Extraction Method: SHAKE Date Extracted: 09/25/2019 15:18  
 Sample wt/vol: 5.11(g) Date Analyzed: 09/30/2019 04:50  
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)  
 % Moisture: 8.1 GPC Cleanup:(Y/N) N  
 Analysis Batch No.: 327155 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.063	J H J	0.21	0.030
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.095	J H J	0.21	0.082
307-24-4	Perfluorohexanoic acid (PFHxA)	0.13	J H J	0.21	0.045
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.14	J H J	0.21	0.031
335-67-1	Perfluorooctanoic acid (PFOA)	0.29	H	0.21	0.092
375-95-1	Perfluorononanoic acid (PFNA)	0.13	J H J	0.21	0.038
335-76-2	Perfluorodecanoic acid (PFDA)	0.49	H	0.21	0.023
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.18	J H J	0.21	0.038
307-55-1	Perfluorododecanoic acid (PFDoA)	0.21	H	0.21	0.071
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.073	J H J	0.21	0.054
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.11	J H J	0.21	0.057
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.027	U H U	0.21	0.027
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.047	J H J	0.21	0.033
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.037	U H U	0.21	0.037
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3.50	H	0.53	0.21
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.042	U H U	0.21	0.042
754-91-6	Perfluorooctanesulfonamide (FOSA)	0.18	J H J	0.21	0.087
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.42	U H U	2.13	0.42
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.39	U H U	2.13	0.39
27619-97-2	6:2 FTS	0.16	U H U	2.13	0.16
39108-34-4	8:2 FTS	0.27	U H U	2.13	0.27

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 460-191432-1  
SDG No.:  
Client Sample ID: Field Blanks Lab Sample ID: 460-191432-5  
Matrix: Water Lab File ID: 2019.09.19LLB\_040.d  
Analysis Method: 537 (modified) Date Collected: 09/11/2019 00:00  
Extraction Method: 3535 Date Extracted: 09/19/2019 05:54  
Sample wt/vol: 250.1 (mL) Date Analyzed: 09/20/2019 09:55  
Con. Extract Vol.: 10 (mL) Dilution Factor: 1  
Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)  
% Moisture: GPC Cleanup: (Y/N) N  
Analysis Batch No.: 324935 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.35	J	2.00	0.35
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.49	U	2.00	0.49
307-24-4	Perfluorohexanoic acid (PFHxA)	0.58	U	2.00	0.58
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.25	U	2.00	0.25
335-67-1	Perfluoroctanoic acid (PFOA)	0.85	U	2.00	0.85
375-95-1	Perfluorononanoic acid (PFNA)	0.27	U	2.00	0.27
335-76-2	Perfluorodecanoic acid (PFDA)	0.31	U	2.00	0.31
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.10	U	2.00	1.10
307-55-1	Perfluorododecanoic acid (PFDoA)	0.55	U	2.00	0.55
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.30	U	2.00	1.30
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.29	U	2.00	0.29
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.20	U	2.00	0.20
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.30	J-B U	2.00	0.17
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.19	U	2.00	0.19
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.54	U	2.00	0.54
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.32	U	2.00	0.32
754-91-6	Perfluorooctanesulfonamide (FOSA)	0.48	J-B U	2.00	0.35
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	3.10	U	20.0	3.10
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.90	U	20.0	1.90
27619-97-2	6:2 FTS	2.00	J-B U	20.0	2.00
39108-34-4	8:2 FTS	2.00	U	20.0	2.00

*for  
11/15/19*

FORM I  
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 460-191432-1  
 SDG No.: 8  
 Client Sample ID: B-2d 2"-24" Lab Sample ID: 460-191432-6  
 Matrix: Solid Lab File ID: 2019.09.29LLA\_062.d  
 Analysis Method: 537 (modified) Date Collected: 09/11/2019 09:30  
 Extraction Method: SHAKE Date Extracted: 09/25/2019 15:18  
 Sample wt/vol: 5.37(g) Date Analyzed: 09/30/2019 05:00  
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1  
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)  
 % Moisture: 7.4 GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 327155 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.048	J	0.20	0.028
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.077	U	0.20	0.077
307-24-4	Perfluorohexanoic acid (PFHxA)	0.042	U	0.20	0.042
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.029	J	0.20	0.029
335-67-1	Perfluoroctanoic acid (PFOA)	0.086	U	0.20	0.086
375-95-1	Perfluorononanoic acid (PFNA)	0.056	J	0.20	0.036
335-76-2	Perfluorodecanoic acid (PFDA)	0.081	J	0.20	0.022
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.036	U	0.20	0.036
307-55-1	Perfluorododecanoic acid (PFDoA)	0.067	U	0.20	0.067
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.051	U	0.20	0.051
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.054	U	0.20	0.054
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.025	U	0.20	0.025
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.031	U	0.20	0.031
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.035	U	0.20	0.035
1763-23-1	Perfluoroctanesulfonic acid (PFOS)	2.93	J+	0.50	0.20
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.039	U	0.20	0.039
754-91-6	Perfluorooctanesulfonamide (FOSA)	0.25		0.20	0.082
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.39	U	2.01	0.39
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.37	U	2.01	0.37
27619-97-2	6:2 FTS	0.15	U	2.01	0.15
39108-34-4	8:2 FTS	0.25	U	2.01	0.25

10/15/19

**Appendix D**  
**Tentatively Identified Compounds**  
**(TICs)**

Client: WRS d.b.a. Berninger Environmental	Client ID: B-1 @ 2"-24"
Date received: 9/12/2019	Laboratory ID: 1909078-001A
Date extracted: 9/18/2019	Matrix: Soil
Date analyzed: 9/19/2019	Certification: NY-11418 NJ-NY050

## TENTATIVELY IDENTIFIED COMPOUND LIST SEMIVOLATILE

PARAMETER	RETENTION TIME	ESTIMATED CONCENTRATION ug/kg (dry weight)
No Compounds Found		

Parameters Analyzed by GCMS, EPA Method 8270D

J – Indicates an estimated value due to lack of compound specific response factor.

N – Indicates presumptive evidence due to lack of analyzed reference standards.

Client: WRS d.b.a. Berninger Environmental	Client ID: B-2 @ 2"-24"
Date received: 9/12/2019	Laboratory ID: 1909078-002A
Date extracted: 9/18/2019	Matrix: Soil
Date analyzed: 9/19/2019	Certification: NY-11418 NJ-NY050

## **TENTATIVELY IDENTIFIED COMPOUND LIST SEMIVOLATILE**

PARAMETER	RETENTION TIME	ESTIMATED CONCENTRATION ug/kg (dry weight)
No Compounds Found		

Parameters Analyzed by GCMS, EPA Method 8270D

J – Indicates an estimated value due to lack of compound specific response factor.

N – Indicates presumptive evidence due to lack of analyzed reference standards.

Client: WRS d.b.a. Berninger Environmental	Client ID: B-3 @ 2"-24"
Date received: 9/12/2019	Laboratory ID: 1909078-003A
Date extracted: 9/18/2019	Matrix: Soil
Date analyzed: 9/19/2019	Certification: NY-11418 NJ-NY050

## TENTATIVELY IDENTIFIED COMPOUND LIST SEMIVOLATILE

PARAMETER	RETENTION TIME	ESTIMATED CONCENTRATION ug/kg (dry weight)
No Compounds Found		

Parameters Analyzed by GCMS, EPA Method 8270D

J – Indicates an estimated value due to lack of compound specific response factor.

N – Indicates presumptive evidence due to lack of analyzed reference standards.

Client: WRS d.b.a. Berninger Environmental	Client ID: B-4 @ 2"-24"
Date received: 9/12/2019	Laboratory ID: 1909078-004A
Date extracted: 9/18/2019	Matrix: Soil
Date analyzed: 9/19/2019	Certification: NY-11418 NJ-NY050

**TENTATIVELY IDENTIFIED COMPOUND LIST  
SEMIVOLATILE**

PARAMETER	RETENTION TIME	ESTIMATED CONCENTRATION ug/kg (dry weight)
Unknown Phenolic Compound	11.586	470 J

Parameters Analyzed by GCMS, EPA Method 8270D

J – Indicates an estimated value due to lack of compound specific response factor.

N – Indicates presumptive evidence due to lack of analyzed reference standards.

Client: WRS d.b.a. Berninger Environmental	Client ID: MW-1
Date received: 9/12/2019	Laboratory ID: 1909078-005A
Date extracted: 9/17/2019	Matrix: Liquid
Date analyzed: 9/19/2019	Certification: NY-11418 NJ-NY050

## TENTATIVELY IDENTIFIED COMPOUND LIST SEMIVOLATILE

PARAMETER	RETENTION TIME	ESTIMATED CONCENTRATION ug/L
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Ethyl Methyl Benzene Isomer	5.088	29 J
Ethyl Methyl Benzene Isomer	5.244	15 J
Trimethyl Benzene Isomer	5.381	49 J
Trimethyl Benzene Isomer	5.602	20 J
Unknown Aromatic Compound	5.721	14 J
Methyl Propyl Benzene Isomer	5.804	6.9 J
Substituted Benzene Isomer	5.846	7.4 J
Ethyl Dimethyl Benzene Isomer	5.995	4.2 J
Tetramethyl Benzene Isomer	6.294	2.6 J
Tetramethyl Benzene Isomer	6.318	3.9 J
Unknown Aromatic Compound	6.473	3.3 J
Unknown Aromatic Compound	6.544	10 J
1-Methyl Naphthalene	7.595	3.6 JN
Unknown	8.627	17 J
Unknown	10.560	15 J

Parameters Analyzed by GCMS, EPA Method 8270D

J – Indicates an estimated value due to lack of compound specific response factor.

N – Indicates presumptive evidence due to lack of analyzed reference standards.

Client: WRS d.b.a. Berninger Environmental	Client ID: MW-2
Date received: 9/12/2019	Laboratory ID: 1909078-006A
Date extracted: 9/17/2019	Matrix: Liquid
Date analyzed: 9/19/2019	Certification: NY-11418 NJ-NY050

## TENTATIVELY IDENTIFIED COMPOUND LIST SEMIVOLATILE

PARAMETER	RETENTION TIME	ESTIMATED CONCENTRATION ug/L
Methyl Ethyl Benzene Isomer	4.760	37 J
Substituted Benzene Isomer	5.029	70 J
Methyl Ethyl Benzene Isomer	5.088	510 J
Methyl Ethyl Benzene Isomer	5.243	300 J
Trimethyl Benzene Isomer	5.375	1000 J
Trimethyl Benzene Isomer	5.596	340 J
Unknown Aromatic Compound	5.715	240 J
Diethyl Benzene Isomer	5.781	56 J
Methyl Propyl Benzene Isomer	5.804	46 J
Unknown Aromatic Compound	5.846	140 J
Methyl Propyl Benzene Isomer	5.924	35 J
Ethyl Dimethyl Benzene Isomer	5.995	92 J
Tetramethyl Benzene Isomer	6.318	4.4 J
Unknown Aromatic Compound	6.473	3.9 J
Unknown Aromatic Compound	6.538	6.9 J
1-Methyl Naphthalene	7.595	3.1 JN
Unknown	7.678	51 J

Parameters Analyzed by GCMS, EPA Method 8270D

J – Indicates an estimated value due to lack of compound specific response factor.

N – Indicates presumptive evidence due to lack of analyzed reference standards.

Client: WRS d.b.a. Berninger Environmental	Client ID: MW-3
Date received: 9/12/2019	Laboratory ID: 1909078-007A
Date extracted: 9/17/2019	Matrix: Liquid
Date analyzed: 9/19/2019	Certification: NY-11418 NJ-NY050

## TENTATIVELY IDENTIFIED COMPOUND LIST SEMIVOLATILE

PARAMETER	RETENTION TIME	ESTIMATED CONCENTRATION ug/L
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Unknown	3.083	10 J
Methyl Ethyl Benzene Isomer	4.760	36 J
Propyl Benzene	5.029	84 J
Ethyl Methyl Benzene Isomer	5.088	470 J
Ethyl Methyl Benzene Isomer	5.243	230 J
Trimethyl Benzene Isomer	5.375	790 J
Trimethyl Benzene Isomer	5.596	270 J
Unknown Aromatic Compound	5.715	130 J
Substituted Benzene Isomer	5.781	29 J
Methyl Propyl Benzene Isomer	5.804	42 J
Ethyl Dimethyl Benzene Isomer	5.846	100 J
Methyl Propyl Benzene Isomer	5.924	24 J
Ethyl Dimethyl Benzene Isomer	5.995	51 J
Tetramethyl Benzene Isomer	6.318	5.6 J
Unknown Aromatic Compound	6.473	5.4 J
Unknown Aromatic Compound	6.538	11 J
Dimethyl Naphthalene Isomer	8.114	6.0 J

Parameters Analyzed by GCMS, EPA Method 8270D

J – Indicates an estimated value due to lack of compound specific response factor.

N – Indicates presumptive evidence due to lack of analyzed reference standards.

Client: WRS d.b.a. Berninger Environmental	Client ID: MW-4
Date received: 9/12/2019	Laboratory ID: 1909078-008A
Date extracted: 9/17/2019	Matrix: Liquid
Date analyzed: 9/19/2019	Certification: NY-11418 NJ-NY050

## TENTATIVELY IDENTIFIED COMPOUND LIST SEMIVOLATILE

PARAMETER	RETENTION TIME	ESTIMATED CONCENTRATION ug/L
Methyl Ethyl Benzene Isomer	4.760	39 J
Propyl Benzene	5.029	81 JN
Ethyl Methyl Benzene Isomer	5.089	550 J
Ethyl Methyl Benzene Isomer	5.244	260 J
Trimethyl Benzene Isomer	5.375	870 J
Trimethyl Benzene Isomer	5.596	320 J
Unknown Aromatic Compound	5.715	210 J
Methyl Propyl Benzene Isomer	5.805	95 J
Ethyl Dimethyl Benzene Isomer	5.846	100 J
Methyl Propyl Benzene Isomer	5.924	32 J
Ethyl Dimethyl Benzene Isomer	5.996	55 J
Tetramethyl Benzene Isomer	6.294	2.9 J
Tetramethyl Benzene Isomer	6.318	4.1 J
Unknown Aromatic Compound	6.473	4.1 J
Unknown Aromatic Compound	6.539	7.6 J
1-Methyl Naphthalene	7.595	3.4 JN
Unknown	10.561	17 J

Parameters Analyzed by GCMS, EPA Method 8270D

J – Indicates an estimated value due to lack of compound specific response factor.

N – Indicates presumptive evidence due to lack of analyzed reference standards.

Client: WRS d.b.a. Berninger Environmental	Client ID: Field Blank
Date received: 9/12/2019	Laboratory ID: 1909078-009A
Date extracted: 9/17/2019	Matrix: Liquid
Date analyzed: 9/19/2019	Certification: NY-11418 NJ-NY050

## TENTATIVELY IDENTIFIED COMPOUND LIST SEMIVOLATILE

PARAMETER	RETENTION TIME	ESTIMATED CONCENTRATION ug/L
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Unknown	4.540	4.2 J
Unknown	5.590	2.7 J
Unknown	6.157	3.5 J
Unknown	6.694	3.4 J
Unknown	7.064	7.4 J
Unknown	9.868	6.6 J
Unknown	13.806	5.0 J

Parameters Analyzed by GCMS, EPA Method 8270D

J – Indicates an estimated value due to lack of compound specific response factor.

N – Indicates presumptive evidence due to lack of analyzed reference standards.

**Attachment-F**  
**Groundwater Sampling Parameters**

## **Site Name: Quick and Clean**

## **Ground Water Data Collection Form**

Date: September 11, 2019

**Sampler:** Toby and Steve