BROWNFIELD C L E A N U P P R O G R A M

PILOT STUDY REPORT

FOR

HNJ REALTY LLC.
FOR
SCHMUKLERS CLEANERS
358 - 364 North Avenue, New Rochelle, New York
Site No.: C360088
Index No.: A3-0542-0306

PREPARED FOR
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
625 BROADWAY
ALBANY, NEW YORK 12233-7016

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

PREPARED BY

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January 2016

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1.0 INTRODUCTION

This document serves as a Pilot Study Report (PSR) to be performed at the Site pursuant to the requirements of an executed Brownfield Cleanup Program Agreement (BCA) (dated February 27, 2006), between the New York State Department of Environmental Conservation (NYSDEC), Division of Environmental Remediation (DER)and HNJ Realty, LLC, *the Volunteer*. The Site is a commercial property located at 358 through 364 North Avenue, New Rochelle, New York (see Figures 1 and 2), fully described as Section 4 - Block 1206 - Lot 19 of the tax maps of City of New Rochelle.

The PSR will determine the effectiveness of the completed Pilot Study Work Plan (PSWP) at a select location on-site. It will evaluate the success of the Pilot Study and its ability to reduce groundwater contamination levels. Substantial groundwater impacts have been documented at the Site through the conduct of the Remedial Investigation (RI) for which the presence of chlorinated solvents and petroleum related hydrocarbons were discovered in groundwater. Primarily halogenated volatiles dominate the contamination at the subject site but significant petroleum related hydrocarbons remain on-site in groundwater.

The overall remedial objective of the PS was to determine the effectiveness of the proposed biological treatment method and to assess the practicality of using this method as part of the final remedy for the site. The following PSR will provide pre and post bio-application data in order to support its use as a full scale remedy for both petroleum and chlorinated compounds discovered in groundwater.

1.1 <u>Site History</u>

According to review of the City of New Rochelle records, as well as a review of historical Sanborn Fire Insurance Maps, the Site was developed as early as 1891 with two residential-use buildings.

The property was subsequently redeveloped with a multi-tenant two-story commercial building. The first floor and basement of the building have been utilized by Schmukler's Dry Cleaners since around 1914. This business has historically operated on the first floor and in the basement of the building. Currently, the first floor of the building is being rented by United Community Center owned by Jackie A. The southern portion of the building is currently being rented by Comfort Homes. The second floor of the building provides professional space including: a spa, music studio, taxi cab company, HNJ Realty office and a financial company.

1.2 Site Description

Physical Site Description

Site Name:	Schmukler's Dry Cleaners
	358 through 364 North Avenue, New Rochelle, New York
Owner:	HNJ Realty, LLC
Location:	358 through 364 North Avenue, New Rochelle, New York
	Latitude -73.784480", Longitude "40.914176"

Brownfield Cleanup Agreement Site No.: C360088

Index No.: A3-0542-0306

The Site is located at an elevation of approximately 80 feet above mean sea level according to review of USGS Topographic Map, Mount Vernon Quadrangle (Figure 1). The Site consists of a partial two-story/part one-story commercial building on a 0.21 acre parcel identified as the street addresses 358 through 364 North Avenue, New Rochelle, New York. The subject parcel (Site) is located in the City of New Rochelle, County of Westchester. The property is assessed as 0.21 acres in size and improved with a commercial building constructed in 1914. The owner of record of the Site is HNJ Realty, LLC[1]. An addition was made to the western portion of the building circa 1937. An addition was also made to the southwestern portion of the building sometime prior to 1987. A final addition was made to the northwestern portion of the building (which includes the steam boiler) in 1987.

1.3 Adjacent Property and Land Use

The Site is located within a mixed commercial/residential use area. Properties along North Avenue are predominantly occupied for commercial use, with some maintaining residential apartments above. Commercial uses dominate areas within one block east and west of North Avenue. Beyond this one block area, residences are the prevailing land-use.

The following businesses are located to the north of the subject site on the west side of North Avenue: 366 Real Estate Company; 360 Family Dentistry. Located on the southern side of Lockwood Avenue heading to the west the following businesses are noted: 2 Lockwood, Mattress Dealer; 6 Lockwood, Cabinet Store; 8 Lockwood, LB Inc Swimming Pools.; 10 Lockwood, Modern Press; 12 Lockwood, LBI. Located to the direct west is 17 May Street which is mainly a residential complex. To the south on the west side of North Avenue is Love Music Inc.

1.4 Public Water Supply

Public water is provided to the Site by United Water New Rochelle. No on-site potable or dry cleaning or washing make-up supply wells, active or inactive, were observed during the inspection. According to information provided by United Water, the supply source is surface water that is purchased from the New York City Department of Environmental Protection (NYCDEP). The three sources of the New York City

[1] According to the information provided by the client.

supply that is utilized includes the Croton, Catskill and Delaware Aqueducts. The Central Avenue and little Catskill pump stations supply the day to day demands to the system.

1.5 Surface Water and Hydrogeology

According to the Surficial Geology Map of New York Lower Hudson Sheet produced by the University of the State of New York; State Education Department, 1989, the Site is located within an area of New York where the surficial geology is defined as glacial till. The till is described as variable texture (e.g., clay, silt-clay, boulder clay), usually poorly sorted, which was deposited beneath glacial ice. The till is generally characterized by mixtures of relatively impermeable loamy matrix-to-sandy in areas underlain by gneiss or sandstone. The thickness of the till varies between one and 50 meters.

The Site is located in the eastern portion of the City of New Rochelle and groundwater flow direction could not be determined from published information. As groundwater is not used as a potable water source in the Site vicinity, current groundwater quality data are very limited. No water table elevation maps are available for the City of New Rochelle. However, given both the surface and bedrock topography in the area (which generally slopes down toward the Long Island Sound), groundwater flow in unconsolidated deposits and/or upper weathered bedrock is likely easterly-southeasterly, toward the Long Island Sound. A groundwater flow survey was conducted at the site as part of the supplemental remedial investigation activities utilizing all available overburden wells and bedrock wells. The results of the survey concluded that groundwater appears to be moving in a south-easterly direction.

Due to the heavily developed nature of the immediate surrounding area, groundwater quality is expected to be regionally degraded. No surface water bodies are located on, adjoining or proximate to the Site. Ferris Creek and The Long Island Sound are located approximately 3,250 feet to the east/southeast of the Site. According to Freshwater Wetland, National Wetland Inventory, Westchester Wetlands and Tidal

Wetlands data available on the Westchester County GIS System, there are no regulated wetlands on or adjoining the Site.

2.0 SUMMARY OF SITE CONTAMINATION

Historic data collected over the past several years has indicated the presence of chlorinated VOCs and petroleum related VOCs at the subject site in groundwater. The former dry-cleaning equipment room has been the main source area for chlorinated contamination and continues to be the main focus of our remedial efforts. An SVE/SSDS combo remediation system has been in operation since approximately the winter of 2009 and has been removing volatiles from the sub surface around the clock. The SVE/SSDS system is geared heavily towards the dry cleaning equipment room and the basement. The system also extends to the rear of the building focusing on the former dry-well where substantial PCE was found in GW-9 at 25,000 ppb. Concentrations of PCE have been discovered in GW-4 as high as 830,000 ppb and TCE as high as 58,000 ppb in groundwater beneath the dry-cleaning equipment room. (note: These concentrations are from the August 2007 RI). The active SVE/SSDS system has likely reduced these numbers since the system's inception during the winter of 2009. Please see Figure-3 for historical data discussed above. In December of 2008 MW-3 (located in the equipment room) was sampled and lab data indicated that PCE had a concentration of 26,000 ppb, TCE at 6,000 ppb, DCE at 2,400 ppb and Vinyl Chloride (VC) at 430 ppb. Samples were also collected during November of 2009 from MW-3, just prior to the start-up of the SSDS/SVE system, and PCE was recorded at 75,000 ppb, TCE at 4,000, DCE at 4,100 ppb and VC at 250. Nearly four years later, during August of 2012, PCE concentrations in MW-3 have been reduced to 18,000 ppb, TCE was significantly reduced to 810 ppb, DCE was recorded at 1,400 ppb and VC at just 61 ppb. This is most likely attributed to the active and ongoing SVE/SSDS system installed during the winter 2009 volatilizing VOCs from the shallow water table. The basement area had some levels of PCE detected in groundwater but nothing close to the levels found in the equipment room. A total of three (3) groundwater samples (GW-1, GW-5 and GW-6) were collected from the basement. GW-1 collected in the northeast corner did not detect PCE, GW-6 to the west of this location detected PCE at

310 ppb and GW-5 collected at the center of the southern basement wall detected PCE at 150 ppb. The concentrations in the former dry-cleaning equipment room are far more severe as levels have been discovered at nearly one million parts per billion. Chlorinated VOC levels totaled approximately 10,000 ppb in the basement with the majority of the contamination consisting of DCE (8,700 ppb) in GW-6. Petroleum related contamination has been found throughout the site in groundwater, mainly in the basement and the former dry-cleaning equipment room. Petroleum constituent levels have been detected as high as 890 ppb (1, 3, 5 trimethylbenzene) in the equipment room and 670 ppb (naphthalene). The source of these impacts in unknown but speculation as to the origin of the source widely differs. Regardless of the source origin remedial efforts provided in this work plan will address all significant petroleum related contamination at the site.

3.0 REMEDIAL ACTION OBJECTIVES

Based upon the NYS TOGs document PCE, trichloroethene (TCE), dichloroethene (1-2 DCE) have a water quality standard of 5 ug/L or ppb. VC or vinyl chloride has a water quality standard of 2 ppb. Benzene has a standard value of 1 ppb, but many if not most of the petroleum related constituent standard values are 5 ppb. The goal of the proposed pilot study was to reduce groundwater contamination within the source area (former cleaner equipment room) to the extent practicable with regard to the applicable standards listed above.

4.0 SCOPE OF WORK

A Pilot Study was performed at the Site, which employed a remedial measure focused on treatment of both chlorinated VOCs and petroleum related VOCs via enhanced bioremediation. The use of bacteria (microbes/bac-t or M-1000H®) and Tri-Phasic®12 (nutrients), were used to help stimulate the biological degradation process where the proper naturally occurring microbes may be lackluster or nonexistent.

Supplemental monitoring wells were also installed in order to monitor the effectiveness of the remedy and allow for the collection of degradation parameters. The following sections discuss each phase of the Pilot Study conducted as well as the overall effectiveness of the remedy.

4.1 Supplemental Monitoring Well Installations

Since MW-3 was used as a temporary application well, two (2) monitoring wells (Figure-5) were installed in the area exterior to the rear of the building in order to monitor water levels near the former dry-well area. The well specifications (MW-9 MW-10) are as follows: 10' of (1") PVC riser pipe and 5' of (1") PVC 0.02" slot screen. Each well was installed with a 2' bentonite seal above the screened interval and finished at grade surface with a 5" stainless steel manhole cover, cement sealed to prevent surface water infiltration. Two (2) additional monitoring wells (MW-11 and MW-12) were installed near the western wall of the southern basement section and downgradient of the treatment area in the direction of groundwater flow. The well specs for MW-11 include: 2' of 2" PVC 0.02" slot screen, 3' of 2" PVC riser to grade, sealed and finished at grade (basement floor approximately 8' below ground surface) with a flush mounted, 5" stainless steel manhole cover. The well specs for MW-12 include: 2' of 2" PVC 0.02" slot screen, 4' of 2" PVC riser to grade, sealed and finished at grade (basement floor approximately 8' below ground surface) with a flush mounted, 5" stainless steel manhole cover (Figure-6). These wells were utilized to monitor the former dry-cleaning equipment room located directly adjacent to the western wall and downgradient of the treatment area. Please refer to Figure-3 for the actual locations of the newly installed monitoring wells and locations of additional monitoring wells.

4.2 Dosage Quantities

The bac-t and nutrients were applied in the source area of the former dry-cleaning equipment room. Since this work plan was conducted on a pilot scale, this is the only area that received treatment. Based upon closely estimated concentration values in the pilot study area (MW-3 PCE at 18,000ppb, TCE 810 ppb, DCE at 1,400 ppb), the table below outlines the application dosage applied to the source area:

Treatment Area	M1000H (bac-t)	Nutrient/H2O Mix	Number of Applications
Former Dry Cleaning Equipment Room (MW-3)	5 gallons M1000H	20 gallon nut./h20	1 application event

4.3 Application Procedure

In order to apply the bac-t and nutrient mix to the contaminated source area, existing well MW-3 was utilized as the application well for the pilot test. Considering the location of MW-3 and the fact that it is a fully viable well, this made for ideal conditions to perform this pilot study.

A small submersible pump was connected to a clean 1/4" piece of poly-tubing which was used to draw the bacteria solution from a small 5 gallon container. The tubing was lowered to the bottom of the well and the pump was turned on, dispersing the bacteria into the groundwater at a very low flow rate. The minimal pressure generated from the pump allowed for the solution to disperse vertically and laterally throughout the contaminated aquifer. The nutrient mix was prepared separately (1 gallon of nutrients mixed with 55-gallons of water) and applied in the same manner as the bacteria, at a low flow rate. Please see Figure-4 pilot study area.

During the application event in the source area the SSDS/SVE system was temporarily shut-down. Special monitoring requirements were followed during this time as discussed in section 7.0.

4.4 Application Monitoring

Before, during and post application of the bacteria and nutrient installment, nearby monitoring wells (MW-9, 10, 11 and 12) in the vicinity of MW-3 were gauged for DTW (approximately every five (5) minutes) to ensure that the water level did not rise too quickly. The table below exhibits the DTW readings gauged pre, during and post application. It should be noted that no changes in water level were observed during the application procedure and water remained at static level throughout the procedure.

Monitoring Well Event Time line (Depth to Water Readings)

Time/Well	MW-9	MW-10	MW-11	MW-12
Pre-Application	11.75'	11.66'	4.07'	3.99'
During (every 5 min)	11.75'	11.66'	4.07'	3.99'
Post-Application	11.75'	11.66'	4.07'	3.99'

4.5 Chemical Handling, Staging and Storage

The M1000H was stored off-site, at our facility, prior to the application event. M1000H is a natural, non-pathogenic, non-engineered biological product that meets Environmental Protection Agency (EPA) requirements for release into the environment. Special clothing or equipment is not required for handling M1000H.

5.0 REMEDY EFFECTIVENESS

Prior to the conduct of the pilot injection event, pre-application groundwater samples were collected from the newly installed monitoring wells (MW-9-12) and MW-3 on July 27, 2015. These samples were analyzed for VOC's via EPA method 8260C with the purpose of establishing a baseline for concentrations, in order to gauge the level of effectiveness of the pilot plan, versus the ongoing vapor extraction remedy. Select wells (MW-3, MW-11 and MW-12) that exhibited fuel oil odors were also analyzed by EPA method 8270BN for Semi-Volatile Organic Compounds (SVOCs). Monitoring wells BW-2 and BW-4 were also sampled in order confirm contamination did not migrate to off-site locations. Post-application sampling was also conducted on the wells mentioned above, approximately one (1) month and two (2) months after the completion of the application event. The first round of post application sampling was performed on September 3, 2015 and the second round of post application sampling was performed on October 12, 2015. The following parameters were tested during the first and second post application sampling events: dissolved oxygen, oxygen reduction potential, total organic carbon, pH, temperature, iron, and sulfate. Analyzation of VOC's by EPA method 8260C was also conducted on all monitoring wells and SVOC's by EPA method 8270BN on wells MW-3, MW-11 and MW-12. The following sections discuss the results gathered from each sampling event.

5.1 Pre-application Sampling Results

Pre-application results for MW-3 indicated the presence of elevated chlorinated contamination including: PCE, TCE, 1,2 DCE (total) and VC. PCE was detected at 27,000 ppb, TCE was detected at 960 ppb, 1,2 DCE was detected at 2,112 ppb and VC was detected at 49 ppb.

SVOC's detected in MW-3 included: 2-Methylnaphthalene at 150 ppb, Phenanthrene at 78 ppb, Bis (2-ethylhexyl) phthalate at 45 ppb, Fluorene at 27 ppb, Acenaphthene at 26 ppb and Anthracene at 9.8 ppb.

The sampling results discussed above, as well as the additional wells sampled associated with the pilot program have been tabulated on Table-1. The validated lab results for the pre-application sampling event are included as Attachment-A.

5.2 Post Application Sampling Results (1st and 2nd round)

The following parameters were tested during the first and second post-application sampling event: dissolved oxygen, oxygen reduction potential, total organic carbon, pH, temperature, iron, and sulfate. Analyzation of VOC's by EPA method 8260C was also conducted on all monitoring wells involved and SVOC's by EPA method 8270BN on wells MW-3, MW-11 and MW-12.

The initial post round sampling results in MW-3 were very positive when compared to the pre-application results. A significant decrease in PCE contamination was observed from 27,000 ppb (pre-app concentration) to 5,500 ppb during the initial post round. This is a percent reduction of nearly 80%. The second round post sampling results for MW-3 had PCE results of 8,100 ppb, which is a slight increase from the first round, but still a significant reduction. The increase may be due to a fluctuation in the water table. TCE concentrations increased from 960 ppb (pre-app) to 13,000 ppb for the first post round sampling and 11,000 ppb for the second post round. DCE concentrations for the first post round sampling event indicated concentrations of 974 ppb and 1,517 ppb for the second round. Theses concentrations are down from the pre-application event which documented DCE at 2,112 ppb. VC concentrations have relatively stayed down with 25 ppb detected after the first post round and 53 ppb after the second round.

Petroleum related SVOCs in MW-3 were not documented at exorbitant levels pre-application but exceedances above the standards were documented during the initial round of testing. The first post round testing results for MW-3 indicated a decline in SVOC contamination levels, some below their TOGs standard. The following SVOC concentrations were detected after the first post round sampling event:

2-Methylnaphthalene at 61 ppb, Phenanthrene at 13 ppb, Bis (2-ethylhexyl) phthalate at 4.8 ppb, Fluorene at 5.8 ppb, Acenaphthene at 5.0 ppb and Anthracene at 1.5 ppb. The second post round sampling event documented further degradation of SVOC contamination with the following concentration levels detected: 2-Methylnaphthalene at 31 ppb, Phenanthrene at 3.7 ppb,Bis (2-ethylhexyl) phthalate at 4.8 ppb, Fluorene at 2.3 ppb, Acenaphthene at 2 ppb and Anthracene at 0.53 ppb.

After two (2) rounds of post application sampling the spike in daughter breakdown concentrations, more notably TCE and 1, 2 DCE (total), show that biological degradation is occurring in an environment with very low oxygen reduction potential (ORP) and dissolved oxygen levels (D.O). ORP and D.O readings were recorded during the first and second post round sampling events along with other parameters such as: total organic carbon, pH, temperature and terminal electron acceptors sulfate(SO_4) and iron(Fe). Groundwater quality parameters and TEA analysis data has been tabulated for each post sampling event and can be seen on Tables-2-5. All validated sampling results for each individual event have been tabulated for comparison purposes and can be seen on Table-1. Validated lab results for each post sampling round can be seen as Attachment-B and Attachment-C.

5.3 Additional Well Results

Monitoring wells outside of the study area also showed evidence of contaminant reduction despite not being the focal point of the pilot plan. MW-11 and MW-12, located in the basement area downgradient from MW-3, exhibited elevated SVOC contamination levels prior to the treatment event. The following SVOC contamination levels were detected in MW-11 during the pre-treatment sampling event: 2-Methylnaphthalene at 12,000 ppb, Phenanthrene at 2,000 ppb, Fluorene at 640 ppb, Acenaphthene at 480 ppb and Anthracene at 110 ppb. The first post round SVOC sampling results showed approximately 40-60% reductions of each constituent listed above. The following SVOC concentrations were detected during the initial post round sampling event: 2-Methylnaphthalene at 6,700 ppb, Phenanthrene at 1,200 ppb, Fluorene at 240 ppb, Acenaphthene at 180 ppb and Anthracene at 46 ppb. Further reduction of SVOC contamination was observed after the second post sampling round was conducted. The following results were documented: 2-Methylnaphthalene at 2,200 ppb, Phenanthrene at 540 ppb, Fluorene at 100 ppb, Acenaphthene at 75 ppb and Anthracene at 18 ppb.

MW-12 showed similar progress when compared to MW-11 although contaminant levels were not nearly as high. The highest SVOC concentration detected in MW-12 was 2-Methylnaphthalene at 3,300 ppb, which was detected prior to treatment. 2-Methylnaphthalene was reduced to 1,100 ppb after the second post round sampling event , which is a 65% reduction for this constituent. Other constituents also showed reductions during post application sampling events. Tabulated results for MW-11 and MW-12 are depicted on Table-1.

6.0 HEALTH AND SAFETY

All Micro-Bac® products are natural, non pathogenic, and are not genetically engineered. They were developed by Micro® Bac's research and development laboratories and are manufactured under strict quality guidelines with batch and lot control. No special clothing or equipment was necessary to handle the product. Micro-Bac® products meet United States Environmental Protection Agency (USEPA) requirements for release into the environment.

In order to ensure the safety of our workers and staff involved with the treatment procedure JVS adhered to the Occupational Safety and Health Administration (OSHA) guidelines. During the installment procedure JVS field technicians and staff were equipped with Level D personal protective equipment (PPE). Level D OSHA guidelines require the following PPE:

- Eye protection- wear goggles or face shield (splash prevention)
- Head- hard hat when required
- Respiratory- Use dust respirator approved by NIOSH/MSA
- Hands- Wear neoprene gloves
- Feet- Wear steel-toe boots with chemical resistant soles or neoprene covers
- Clothing- Long sleeve shirts and long pant legs. Consider using Tyvek body suit or coveralls

7.0 COMMUNITY AIR MONITORING PLAN (CAMP)

The CAMP along with special monitoring requirements for indoor work were employed during all ground intrusive activities in order to protect off-site receptors including: residences and businesses, and on-site workers not directly involved with the subject work activities. As part of the PSWP involved work located within 20' of potentially exposed individuals or structures, special requirements were followed in order to monitor and prevent this exposure. During the PSWP particulate and VOC monitoring was conducted over the three (3) day duration of the project. The results from the CAMP monitoring are attached to the PSR as Attachment-D.

Due to the fact that the SVE/SSDS system had to be shutdown during the application procedure in order to protect the system, an indoor air sample was collected for the duration of the application event (third day). Immediately upon completing the application, the SVE/SSDS was turned on after groundwater levels were gauged and confirmed to be at static level. A one (1) month post application indoor air sample was also collected as per the CAMP requirements outlined in the PSWP. The results of the indoor air quality testing during the treatment and one (1) month post treatment are attached as Attachments-E and F.

8.0 CONCLUSION

In conclusion, the pilot study was an overall success with regard to reducing chlorinated and petroleum related contamination in groundwater. Significant reductions of PCE contamination were observed in the immediate area of the pilot study (MW-3) and evidence of biological breakdown was substantial due to the presence of chlorinated daughter breakdown products. Historic data documents PCE concentrations in the pilot study area as high as 830,000 ppb during the August 2007 investigation, prior to the start-up of the SVE/SSDS. These concentrations were significantly reduced with the on-going operation of the

SVE/SSDS as contamination volatilized from groundwater into the vadose zone, subsequently being extracted and treated through the system. In November of 2009 PCE concentrations in MW-3 were documented at 75,000 ppb as part of the on-going investigation work. As off-gassing and extraction of volatile contaminants continued over the years, concentrations of PCE in MW-3 were recently documented at 27,000 ppb during the pre-application sampling event. After two (2) rounds of effectiveness monitoring, post bioaugmentation, PCE concentrations reside in the 5,500 ppb (September 2015) to 8,100 ppb (October 2015) range.

An added bonus from the application event were the effects observed in MW-11 and MW-12, located down gradient from application well MW-3. Petroleum related contamination was significantly degraded in these areas as the biological mixture migrated with the flow of groundwater, enhancing the breakdown of multiple SVOC constituents at downgradient locations.

The results of this study conclude that the biological application performed at the subject site significantly decreased PCE contamination in on-site groundwater, at a rapid rate. The effects of the pilot study also proved to resinate beyond the treatment area, decreasing petroleum related constituents downgradient from the source contamination. Based on these results the pilot study has proved it's ability to simultaneously act as an effective remedy for both chlorinated and petroleum related constituents. The pilot study has also proven it's viability with regard to it's potential to become a full-scale remedial measure. However, based upon the significant downward trend in groundwater contamination observed over the last several years and in the recent months, designation of the SVE/SSDS as the final remedy for the site is being considered.

FIGURES

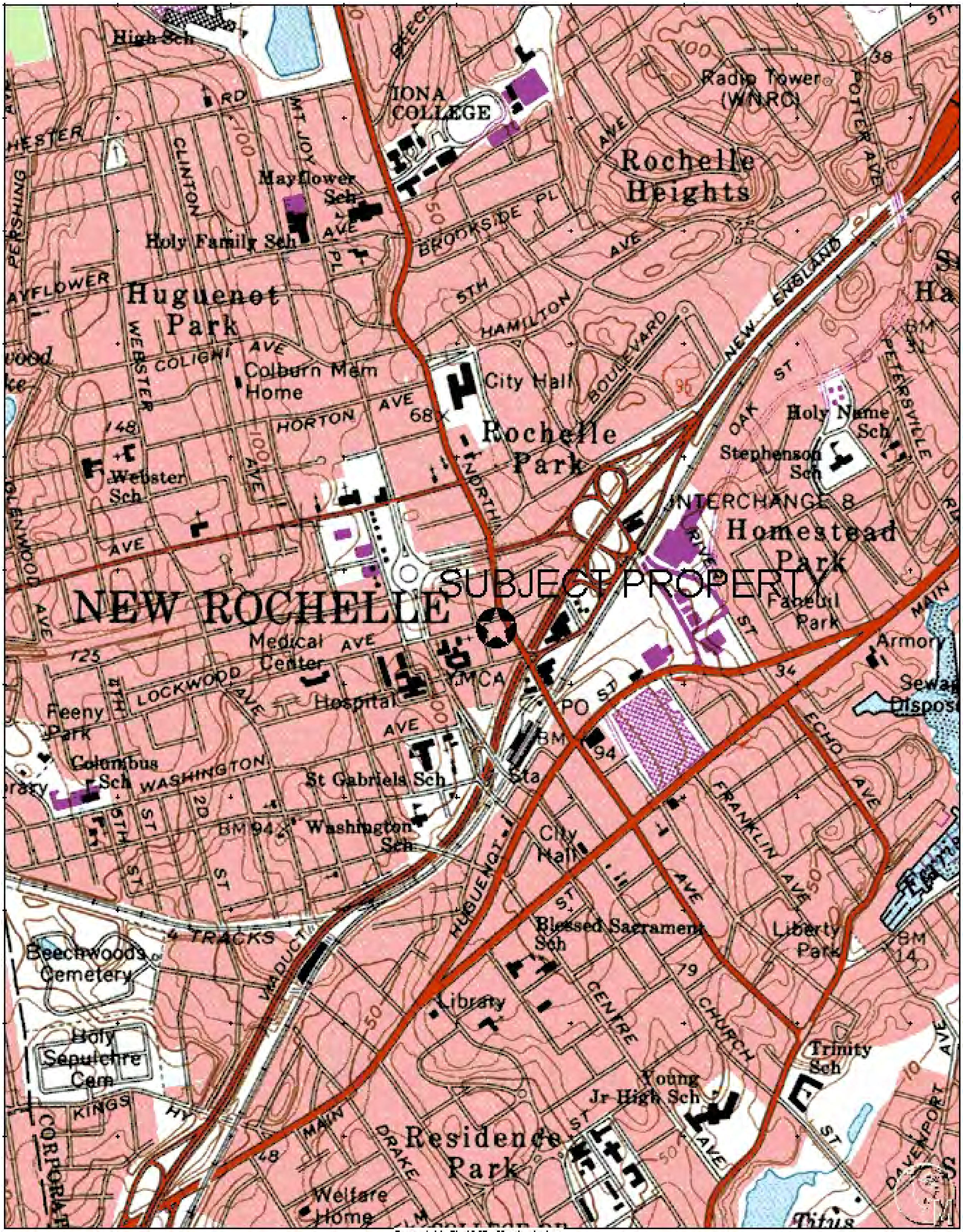
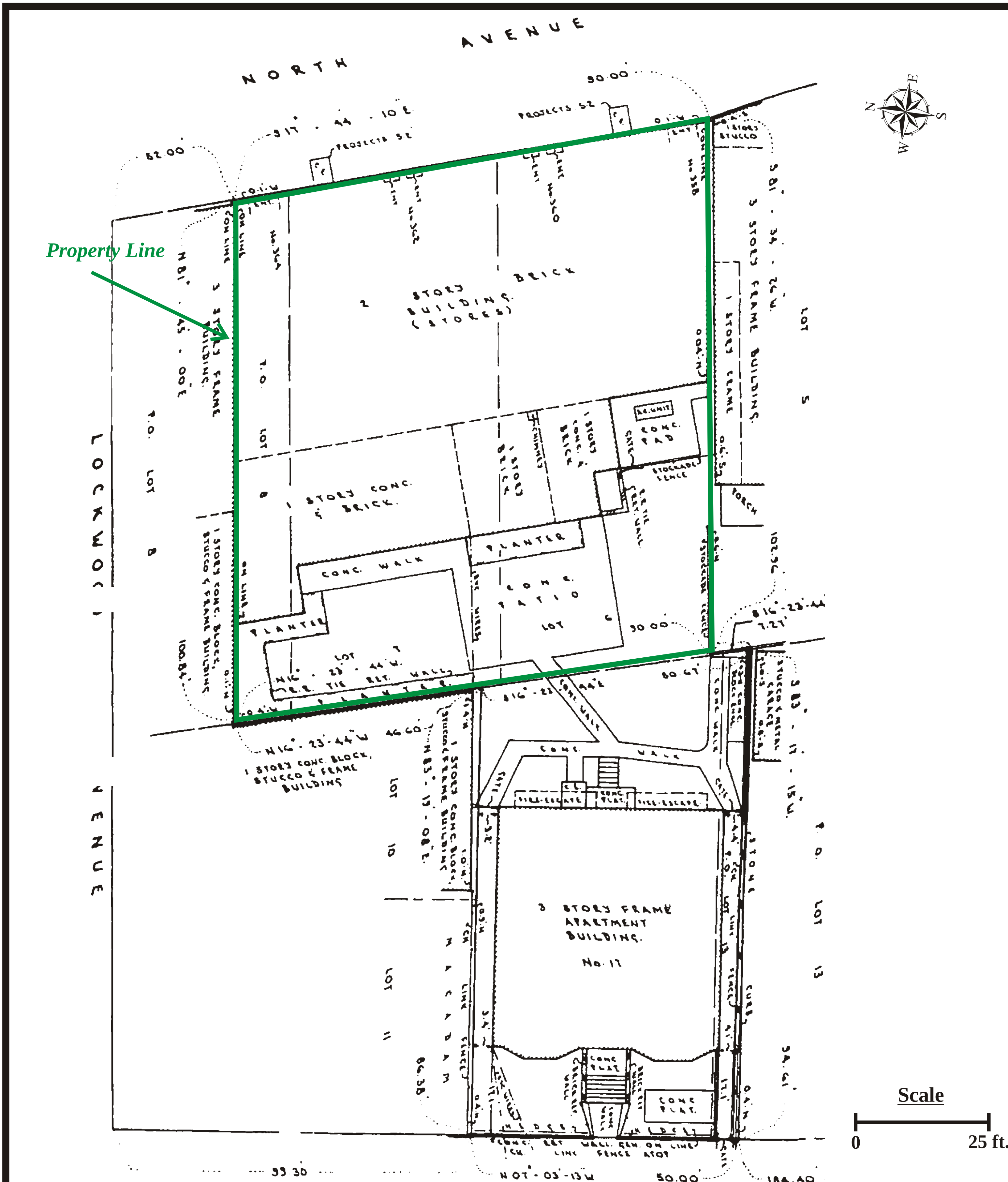


Figure 1- Site Location	**Schmuklers Cleaners** **358 - 364 North Avenue** **New Rochelle, NY** **Site #C360088** **Index# A3-0542-0306**	John V. Soderberg P.E PO BOX 263 Stony Brook, NY



Remedial Investigation Report November 2007

Figure 2 - Site Survey	**Schmuklers Cleaners** **358 - 364 North Avenue** **New Rochelle, NY** **Site #C360088** **Index# A3-0542-0306**	John V. Soderberg P.E PO BOX 263 Stony Brook, NY

-Application Well Location MW-3

-New Pilot Study Monitoring Well Locations

-Viable Existing Monitoring Well

-Non-Viable Existing Monitoring Well

-Bedrock Monitoring Well

-StudyArea

Monitoring Well Locations

Figure-3

Drawn: JGH

Schmuklers Cleaners
358 - 364 North Avenue
New Rochelle, NY
Site #C360088
Index# A3-0542-0306

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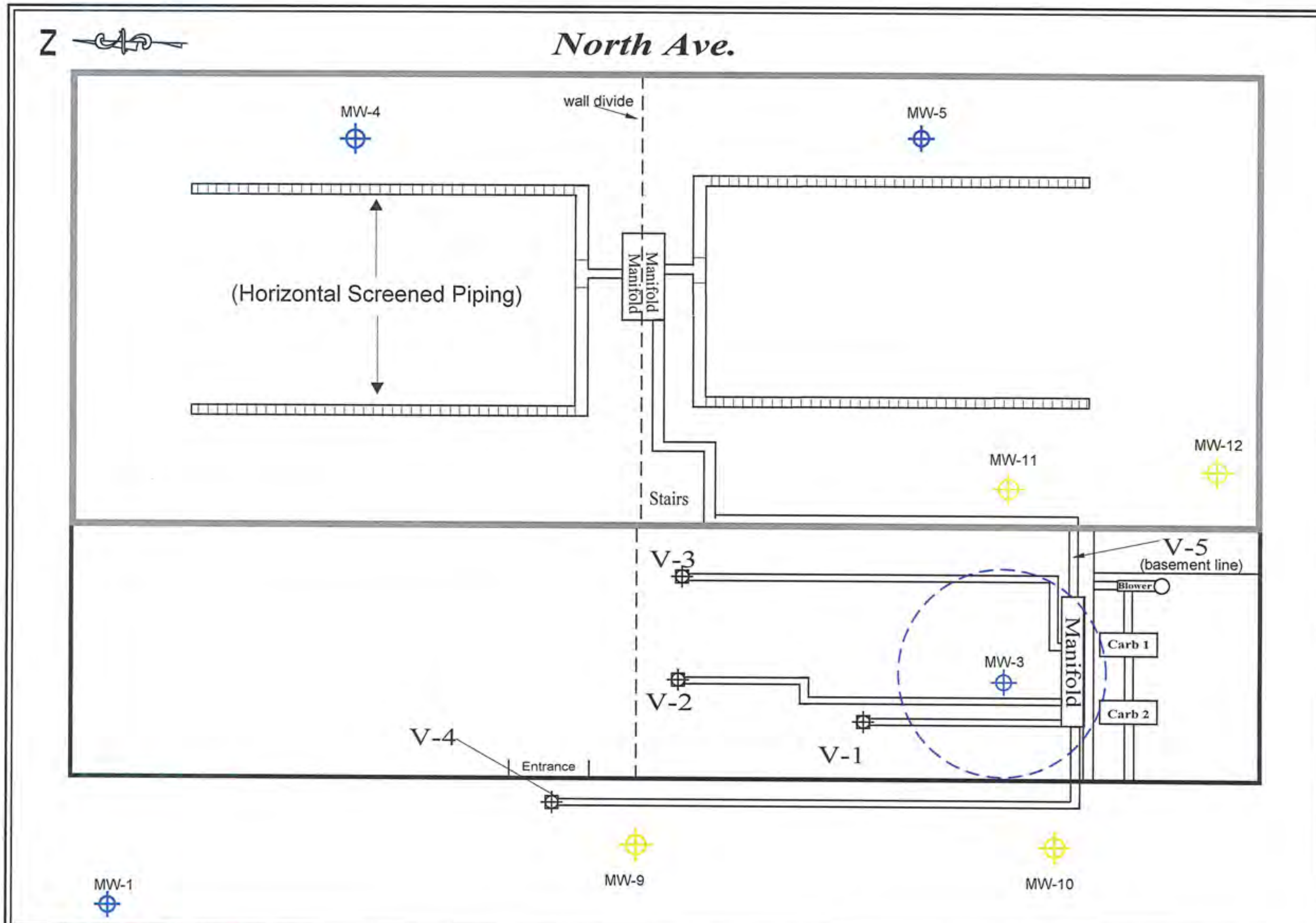

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Schmuklers Cleaners
358-364 North Ave.
New Rochelle, NY
Site# C360088
Figure-4

Key
- Basement Area
- Vapor Extraction Well
- Existing Monitoring Well
- New Monitoring Well
- Area of Proposed Pilot Study

Drawn by: JGH

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Stony Brook, NY

Drawn By: JHG

Specs for MW-9 and 10

Project: Schmuklers Dry Cleaners
Client: HNJ Realty LLC. 358-364 North Ave. New Rochelle, NY
Location: Rear of building
Well No: MW-9 and 10 **Use:** Monitoring
Install Method: Geoprobe direct push
Casing Type: PVC **Casing Dia:** 1" **Casing Length:** 10'
Screen Type: PVC **Screen Dia:** 1" **Screen Length:** 5'
Screen Slot: 0.02" **Gravel Pack:** #2 Fil-pro
Casing Seal: Cement **Finish:** Cement flush

Date: July 2015
Be Job No:
Operator: Butch
Bore Hole Dia: 2.25"
Sample Method: n/a
Depth to Water: 12'
Total Depth: 15'
Security: 5" Manhole

Figure - 5

Depth Below Grade	Sample Information	Well Design	Identification/Remarks
0 Feet			5" Manhole Cover (flush grade, cemented in place)
			Hydraulic Cement Seal
5'			10' of (1") PVC Riser Pipe
			2' Bentonite Seal to Casing
10'			Fil-Pro Gravel Pack Material
			5' - 1"PVC 0.02" Slot Screen
15'			DTB = 15'

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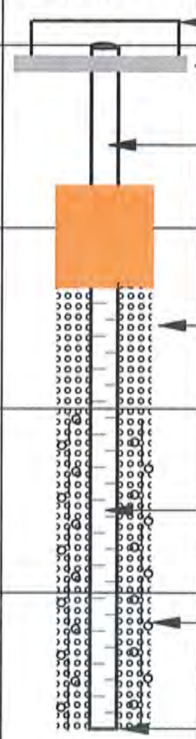
Drawn By: JHG

Specs for MW-11 and 12

Project: Schmuklers Dry Cleaners
Client: HNJ Realty LLC. 358-364 North Ave. New Rochelle, NY
Location: Rear of building
Well No: MW-11 and 12 **Use:** Monitoring
Install Method: Manual Hand Auger
Casing Type: PVC **Casing Dia:** 2" **Casing Length:** 2'
Screen Type: PVC **Screen Dia:** 2" **Screen Length:** 3.5'
Screen Slot: 0.02" **Gravel Pack:** #2 Fil-pro
Casing Seal: Cement **Finish:** Cement flush

Date: June 2015
Be Job No: 6800
Operator: Butch
Bore Hole Dia: 2.25"
Sample Method: 8260/8270
Depth to Water: 4'
Total Depth: 5.5'
Security: 5" Manhole

Figure -6

* Depth Below Grade	Sample Information	Well Design	Identification/Remarks
0 Feet			5" Manhole Cover (flush grade, cemented in place)
1.5'			Hydraulic Cement Seal 2' of (2") PVC Riser Pipe
3'			1' Bentonite Seal to Casing
4.5'			3.5' - 2"PVC 0.02" Slot Screen
6'			Fil-Pro Gravel Pack Material DTB = 5.5'

notes: *wells are located in basement floor approx 8' bgs

TABLES

Table-1

Pre/Post Application Sampling Results

Former Schmuklers Cleaners **358 - 364 North Avenue, New Rochelle, New York**

TABLE-1 **Site No. C360088**

Schmukler's Pilot Study Report

MW-3

VOCs	Pre App Lab	1st Round Post App	2nd Round Post App
PCE	27,000	5,500	8,100
TCE	960	13,000	11,000
1,2-DCE (total)	2,112	974	1,517
VC	49	25	53

SVOCs	Pre App Lab	1st Round Post App	2nd Round Post App
2-methylnaphthalene	150	61	31
Phenanthrene	78	13	3.7
Bis (2-ethylhexyl) phthalate	45	4.8	4.8
Fluorene	27	5.8	2.3
Acenaphthene	26	5	2
Anthracene	9.8	1.5	0.53

MW-11

VOCs	Pre App Lab	1st Round Post App	2nd Round Post App
PCE	1.8	0.96	n/d
TCE	n/d	n/d	n/d
1,2-DCE (total)	n/d	n/d	n/d
VC	n/d	n/d	n/d

SVOCs	Pre App Lab	1st Round Post App	2nd Round Post App
2-methylnaphthalene	12,000	6,700	2,200
Phenanthrene	2,000	1,200	540
Bis (2-ethylhexyl) phthalate	n/d	9.0	4.4
Fluorene	640	240	100
Acenaphthene	480	180	75
Anthracene	110	46	18

MW-12

VOCs	Pre App Lab	1st Round Post App	2nd Round Post App
PCE	n/d	n/d	0.76
TCE	n/d	n/d	n/d
1,2-DCE (total)	n/d	3.8	4.4
VC	n/d	n/d	n/d

SVOCs	Pre App Lab	1st Round Post App	2nd Round Post App
2-methylnaphthalene	3,300	1,400	1,100
Phenanthrene	490	190	170
Bis (2-ethylhexyl) phthalate	n/d	n/d	n/d
Fluorene	180	54	49
Acenaphthene	130	40	35
Anthracene	26	10	7.6

Table-2

1st Post Round Groundwater Parameters

Site Name: Schmuklers Ground Water Data Collection Form **Date: 09/03/15**

Table-2

Sampler(s): Butch and Eusi

Well	Time	DTW	DTP	ORP	PH	Temp	D.O
MW-3		12.53		-292	7.34	77.1	4.91
MW-6		DRY		---	---	---	---
MW-9		12.44		-42	7.53	72.6	4.26
MW-10		12.43		-53	7.20	78.3	3.75
MW-11		4.80		-62	7.08	78.3	3.51
MW-12		4.67		-45	7.06	75.1	5.91
BW-2		12.33		-76	6.87	76.0	4.32
BW-4 (next to MW-6)		12.40	12.39	-45	6.84	78.3	5.02

Table-3

2nd Post Round Groundwater Parameters

Site Name: Schmuklers **Ground Water Data Collection Form** **Date: 10/12/15**

Table-3

Sampler(s): Butch and Eusi

Well	Time	DTW	DTP	ORP	PH	Temp	D.O	Cond.
MW-3		12.33		-9	7.21	69.3	2.07	4568
MW-6		Dry		---	---	---	---	---
MW-9		12.12		227	7.13	62.9	0.77	522.4
MW-10		12.17		-22	7.06	60.9	1.78	527.6
MW-11		4.36		-138	6.78	68.7	1.92	814.3
MW-12		4.50		221	4.49	70.8	1.21	763.8
BW-2		12.25		-80	6.56	68.6	1.62	5807
BW-4 (next to MW-6)		13.52	13.12	19	6.58	69.1	2.42	1967

Table-4

1st Post Round TEA Analysis

Schmukler's Cleaners
358-364 North Avenue
New Rochelle, New York

Table-4

TEA Testing

All units are mg/L

Sample I.D.	Sulfate	Ferrous Iron
MW-3	70.0	2.98
MW-9	-1.0	Under Range
MW-10	33.0	Over Range
MW-11	-3.0	1.3
MW-12	-3.0	1.0
BW-2	-8.0	Over Range
BW-4	-7.0	Over Range

Samples collected on 09/03/15

Table-5

2nd Post Round TEA Analysis

Schmukler's Cleaners
358-364 North Avenue
New Rochelle, New York

Table-5

TEA Testing

All units are mg/L

Sample I.D.	Sulfate	Ferrous Iron
MW-3	76	Over Range
MW-9	-0	Over Range
MW-10	60	1.15
MW-11	-1	-0.00
MW-12	-1	1.97
BW-2	-2	Over Range
BW-4	31	Over Range

Samples collected on 10/12/15

ATTACHMENTS

Attachment-A

Pre-application lab validation

DATA USABILITY SUMMARY REPORT – DUSR
DATA VALIDATION SUMMARY

ORGANIC ANALYSIS

TARGET COMPOUND LIST (TCL) VOLATILES BY GC/MS Method 8260C and BASE NEUTRAL LIST SEMIVOLATILES BY GC/MS Method 8270D

For Groundwater Samples Collected
July 27, 2015
From 358 North Avenue, New Rochelle, NY
Schmucklers
Collected by WRS dba Berninger Environmental, Inc.

SAMPLE DELIVERY GROUP NUMBER:
1507211
By American Analytical Laboratories, LLC. [ELAP #11418]

SUBMITTED TO:

Mr. Walter Berninger/President
WRS dba Berninger Environmental
17 Old Dock Road
Yaphank, NY 11980

August 21, 2015

PREPARED BY:

Lori A. Beyer/President
L.A.B. Validation Corp.
14 West Point Drive
East Northport, NY 11731

Lori A Beyer

Schmucklers, 358 North Avenue, New Rochelle, NY- Groundwater Samples; July 2015 Sampling Event
Data Usability Summary Report (Data Validation): TCL Volatiles and BN Semivolatiles.

Table of Contents:

Introduction:
A validation was performed on groundwater samples and the associated quality control samples for organic analysis for samples collected under chain of custody documentation by Berninger Environmental Inc. and submitted to American Analytical for subsequent analysis. This report contains the laboratory and validation results for the field samples itemized below. The groundwater samples were collected on July 27, 2015.

The samples were analyzed by American Analytical, utilizing SW846 Methods and submitted under NYSDEC ASP (2005) Category B equivalent deliverable requirements for the associated analytical methodologies employed. The analytical testing consisted of the Target Compound/Analyte List for Volatile Organics and the Base Neutral Analyte List for Semivolatile Organics.

The data was evaluated in accordance with EPA Region II National Functional Guidelines for Organic Data Review and EPA Region II SOPs for 8260 (HW-24 Revision 4), 8270 and also in conjunction with the analytical methodologies for which the samples were analyzed, where applicable and relevant.

The data validation report pertains to the following samples:

Sample Identification	Laboratory Identification	Sample Matrix	Date Collected	Date Received
BW-2	1507211-001A	Groundwater	07/27/15	07/28/15
BW-4	1507211-002A	Groundwater	07/27/15	07/28/15
MW-9	1507211-003A	Groundwater	07/27/15	07/28/15
MW-10	1507211-004A	Groundwater	07/27/15	07/28/15
MW-3	1507211-005A 1507211-005B	Groundwater	07/27/15	07/28/15
MW-11	1507211-006A 1507211-006B	Groundwater	07/27/15	07/28/15
MW-12	1507211-007A 1507211-007B	Groundwater	07/27/15	07/28/15

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 not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

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.

J- - The result is an estimated quantity, but the result may be biased low.

D – Analyte concentration was obtained from diluted analysis.

Sample Receipt:
The Chain of Custody document indicate that the samples were hand delivered by Berninger Environmental field sampling personnel and received at American Analytical on 07/28/15 upon completion of the sampling event. Sample login notes were generated and no problems and/or discrepancies were noted, consequently, the integrity of the samples has been assumed to be good.

The data summary Form I's included in Appendix C 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.

The data package was regenerated by the laboratory since the initial submission listed the incorrect file import for VOA MS/MSD analysis. The laboratory has qualified any peaks that required a manual integration with an "m." This qualifier has been defined in the lab report, however, has been removed as part of the validation/review process to impacted reported analytes.

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 Target Analyte List (TCL) Volatile Organics by GC/MS SW846 Method 8260C

The following method criteria were reviewed: holding times, SMCs, MS, MSD, LCS, Laboratory Spiked Blanks, Method Blanks, Tunes, Calibrations, Internal Standards, Target Component Identification, Quantitation, Reported Quantitation Limits and Overall System Performance. The Volatile results were considered to be valid and useable with the exception of non-detects for 2-Chloroethyl vinyl ether in all samples due to degradation in acidic conditions as noted within the following 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, "UJ", or unusable, "R", if the holding times are grossly exceeded.

Samples pertaining to this SDG were performed within the Method required holding times as well as the technical holding times for data validation of 14 days from collection to analysis and diluted reanalysis. No data validation qualifiers were required based upon holding time.

1.2 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 specifications, qualifications are required to be applied to associated samples and analytes.

Surrogate recoveries (%R) were found to be within acceptable limits for all surrogate compounds for all analyses pertaining to this SDG.

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 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 was performed BW-2. 2-Chloroethyl vinyl ether was not recoverable in the MS and MSD since this compound readily breaks down under acidic conditions. Non-detects have been rejected, "R" in all samples. Remaining spiked analyte recoveries met QC requirements. RPD for 1,2-Dichloropropane (24.6%), Bromoform (21.8%) and Bromomethane (30.1%) fell slightly outside in house established ranges. Based on professional judgment, no additional qualifications to the data was required.

1.4 Laboratory Control Sample/Fortified Blank Spikes

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 recovery values fell within acceptance limits with the exception of 2-Chloroethyl vinyl ether which was non-recoverable due to acid preservation and degradation. Non-detects were previously rejected, "R" in all samples.

1.5 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, Trip, 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

*2x the CRQL for methylene chloride, 2-butanone and acetone.
**4x the CRQL for methylene chloride, 2-butanone, and acetone
***Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ug/L.
Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

A) **Method Blank Contamination:**

Methylene Chloride and Acetone were detected in the method blanks associated with sample analysis. Results were qualified based on the above criteria and negated in field samples.

B) **Field Blank Contamination:**

Field Blank was not submitted with this data set.

C) **Trip Blank Contamination:**

Trip Blank was not submitted with this data set

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 volatile organics is Bromofluorobenzene (BFB).

Instrument performance was generated within acceptable limits and frequency for Bromofluorobenzene (BFB) for all analyses conducted for this SDG.

1.7 Initial and Continuing Calibrations

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

The continuing calibration checks document that the instrument is giving satisfactory daily performance. Initial calibration verification met acceptance criteria.

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 >/= 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". Method 8260C allows for a minimum response factor of 0.1 for Acetone and 2-Butanone.

All the response factors for the target analytes reported were found to be within acceptable limits (>/=0.05) and minimum response criteria in Table 4 of Method 8260C, for the initial and continuing calibrations for all reported analytes.

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 >20% 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. Closing CCV must meet 30% criteria.

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 the exceptions noted below:

CCAL 7/29/15 – 2-Butanone (37.3%), Acetone – 43.4%, Methylene Chloride 64.5% and Tetrachloroethene (20.3%). Results have been qualified "J/UJ" for initial analysis in BW-2, BW-4, MW-10 and MW-3.

CCAL 7/30/15 – 1,2-3-Trichloropropane -23.8%, 1,2,4,5-Tetramethylbenzene - 22.7%, 1,2,4-Trimethylbenzene -23.0%, 2-Butanone – 43.5%, Acetone – 48.7%, Bromoform – 22.6, Bromomethane – 30.4%, Chloromethane – 28.3%, MTBE – 22.6^ and Naphthalene – 20.4%.

***Note: the method allows for analytes to be outside 20% criteria based on number of analytes analyzed.**

Diluted reanalysis for 1,2,4,5-Tetramethylbenzene and/or Naphthalene have been qualified, "J" estimated in BW-4, MW-10, MW-11 and MW-12.

Initial undiluted results for MW-9, MW-11, MW-12 for these compounds have been qualified, "J/UJ" as required.

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 of 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 samples were spiked with internal standards prior to sample analysis. The area responses and retention time of each internal standard met QC criteria in all samples associated with this SDG.

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. Generally for water samples an acceptable RPD is 25%.

Field Duplicate analysis was not collected as part of 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 spectra 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.

1.11 Compound Quantification and Reported Detection Limits

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

As required, the laboratory reported "J" values between the limit of quantitation (LOQ) and limit of detection (LOD). This is consistent with common laboratory practices and a requirement of the National Environmental Laboratory Approval Program (NELAP).

All groundwater samples were initially analyzed undiluted.

Secondary dilutions were required where analyte concentrations were determined to be over the instruments calibration range. Results have been quailed, "D" as required by NYSDEC for those compounds.

1.12 Overall System Performance
Good resolution and chromatographic performance were observed. Raw data was reviewed and confirmed that no carryover exists for any analysis conducted with this data set.

2.0 Base Neutral List (BN) 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 Total Semivolatile results for MW-3, MW-11 and MW-12 are considered to be valid and usable 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". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

Aqueous samples were extracted and analyzed within the method required holding times and the technical holding times (7 days from collection for water samples) required for data validation.

2.2 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 base neutral surrogate standards at the sample extraction portion of analysis. Due to significant matrix interferences, Nitrobenzene d5 recovered high in MW-11 and 2-Fluorobiphenyl was not recoverable in MW-12 for initial diluted analysis. Sample chromatograms demonstrate significant interferences. Upon extract dilution and reanalysis and thus reduced matrix effects, surrogates were seen but again fell outside limits.

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.

Site specific MS/MSD was not performed. Acceptable Laboratory Control Sample - LCS) was performed and resulted in acceptable recoveries for all spiked analytes. Based on professional judgment, no qualifications to the data were made based on non-site specific QC. The National Functional Guidelines states that MS/MSD data alone should not be used alone to qualify data.

2.4 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 and no qualifications were applied.

2.5 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.

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

A) **Method Blank Contamination:**

Target analytes were not detected in the method blank associated with sample analysis.

B) **Field Blank Contamination:**

Field Blank analysis is not applicable to this sampling event.

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 is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving 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 >/= 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 (>/=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 <30% and %D must be <25%. 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 30% 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.

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

Continuing Calibrations: The continuing calibrations provided and the %D was within acceptable limits (20%) for all compounds.

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 of 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 MW-3 and MW-12. Analysis of MW-11 resulted in low response for Naphthalene-d8 and Phenanthrene-d10 for initial analysis. Detected PAH compounds must be considered estimated for this sample. Diluted reanalysis and suppressed matrix effects results in acceptable responses.

2.9 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. Generally for water samples an acceptable RPD is 25%.

Field duplicate analysis was not collected as part of 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 spectra 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.

Samples MW-11 and MW-12 were initially analyzed at 1:10 dilution. These samples were reanalyzed at 1:100 dilution to bring several PAH concentrations within the instruments linear calibration range. The sample chromatograms documents significant non-target compounds and a complex sample matrix.

MW-3 was initially analyzed undiluted but required secondary diluted reanalysis at 1:10 in order to obtain Naphthalene within the instruments linear calibration range. Results for compounds obtained from diluted analysis have been qualified, "D."

2.11 Compound Quantification and Reported Detection Limits

GC/MS quantitative analysis is considered to be acceptable. Correct internal standards and response factors 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).

2.12 Overall System Performance

Acceptable system performance was maintained throughout the analysis for base neutral analysis.

Reviewer's Signature Lori A. Beyer **Date** 8/21/15

Appendix A
Chain of Custody
Document

AMERICAN ANALYTICAL LABORATORIES

CHAIN OF CUSTODY

56 Toledo Street, Farmingdale NY 11735
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CERTIFICATIONS
NY ELAP - 11418 PA DEP - 68-00573
NJ DEP - NY050 CT DOH - PH-0205

Client Information

Company Name: REI
Address: 17 Old Dock Rd.
City: Yaphank State: NY Zip:
Project Contact: Justin Halpin
Phone #: 631-774-6682
E-mail:

Project Information

Project Name: Schmucklers
Street: 358 North Avenue
City: NewRochelle State: NY Zip:
Project #: 6800
Sampler's Name / Company: Justin H.
Sampler's Signature:

Analytical Information: 8260+ethene; 8270 BN

LAB SAMPLE # (LAB USE ONLY)	Client Sample ID	Sample Type	Matrix Code	Date	Time	Glass / Plastic	Total # of bottles	NONE	HCl	NaOH	HNO_3	H_2SO_4	$NaHSO_4$	MeOH	OTHER	8260+ethene	8270 BN
1507211-001	BW-2	G	L	7/27/15	12:00	g	2		✓							✓	
002	BW-4	G	L	7/27/15	12:10	g	2		✓							✓	
003	MW-9	G	L	7/27/15	12:15	g	2		✓							✓	
004	MW-10	G	L	7/27/15	12:36	g	2		✓							✓	
005	MW-3	G	L	7/27/15	12:45	g	3	✓	✓							✓	✓
006	MW-11	G	L	7/27/15	13:00	g	3	✓	✓							✓	✓
007	MW-12	G	L	7/27/15	13:15	g	3	✓	✓							✓	✓

Turnaround Time (Business Days)
- [x] Standard 7-10 Business Days
- [ ] 5 Day RUSH
- [ ] 4 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH

SAMPLE TYPE
G = Grab
C = Composite
B = Blank

MATRIX CODES
L = Liquid PC = Paint Chip
S = Soil SL = Sludge
O = Oil SD = Solid
W = Wipe M = Miscellaneous

Comments / Remarks
Port# 13231
ASP-CAT-B deliv.
Cooler Temp:

Sample custody must be documented below, each time samples change possession, with a signature, date, and time.

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME
	7/28/15 14:15	Justin H.	P Mas	7/28/15 14:15	P Mas

Appendix B
Case Narrative

A. Chain of Custody Document
B. Case Narrative
C. Data Summary Form Is with Qualifications

Introduction:
A validation was performed on groundwater samples and the associated quality control samples for organic analysis for samples collected under chain of custody documentation by Berninger Environmental Inc. and submitted to American Analytical for subsequent analysis. This report contains the laboratory and validation results for the field samples itemized below. The groundwater samples were collected on September 03, 2015.

The samples were analyzed by American Analytical, utilizing SW846 Methods and submitted under NYSDEC ASP (2005) Category B equivalent deliverable requirements for the associated analytical methodologies employed. The analytical testing consisted of the Target Compound/Analyte List for Volatile Organics and the Base Neutral Analyte List for Semivolatile Organics. TOC analysis was performed by Pace Melville.

The data was evaluated in accordance with EPA Region II National Functional Guidelines for Organic Data Review and EPA Region II SOPs for 8260 (HW-24 Revision 4), 8270 and also in conjunction with the analytical methodologies for which the samples were analyzed, where applicable and relevant.

The data validation report pertains to the following samples:

Sample Identification	Laboratory Identification	Sample Matrix	Date Collected	Date Received
BW-2	1509029-001	Groundwater	09/03/15	09/04/15
BW-4	1509029-002	Groundwater	09/03/15	09/04/15
MW-3	1509029-003	Groundwater	09/03/15	09/04/15
MW-9	1509029-004	Groundwater	09/03/15	09/04/15
MW-10	1509029-005	Groundwater	09/03/15	09/04/15
MW-11	1509029-006	Groundwater	09/03/15	09/04/15
MW-12	1509029-007	Groundwater	09/03/15	09/04/15

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 not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

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.

J- - The result is an estimated quantity, but the result may be biased low.

D – Analyte concentration was obtained from diluted analysis.

Sample Receipt:
The Chain of Custody document indicate that the samples were hand delivered by Berninger Environmental field sampling personnel and received at American Analytical on 09/04/15 upon completion of the sampling event. Sample login notes were generated and no problems and/or discrepancies were noted, consequently, the integrity of the samples has been assumed to be good.

The data summary Form I's included in Appendix C 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.

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 Target Analyte List (TCL) Volatile Organics by GC/MS SW846 Method 8260C

The following method criteria were reviewed: holding times, SMCs, MS, MSD, LCS, Laboratory Spiked Blanks, Method Blanks, Tunes, Calibrations, Internal Standards, Target Component Identification, Quantitation, Reported Quantitation Limits and Overall System Performance. The Volatile results were considered to be valid and useable with the exception of non-detects for 2-Chloroethyl vinyl ether in all samples due to degradation in acidic conditions as noted within the following 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, "UJ", or unusable, "R", if the holding times are grossly exceeded.

Samples pertaining to this SDG were performed within the Method required holding times as well as the technical holding times for data validation of 14 days from collection to analysis and diluted reanalysis. No data validation qualifiers were required based upon holding time.

1.2 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 specifications, qualifications are required to be applied to associated samples and analytes.

Surrogate recoveries (%R) were found to be within acceptable limits for all surrogate compounds for all analyses pertaining to this SDG.

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 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.

Batch MS/MSD was submitted.

1.4 Laboratory Control Sample/Fortified Blank Spikes

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 recovery values fell within acceptance limits with the exception of 2-Chloroethyl vinyl ether which was non-recoverable due to acid preservation and degradation. Non-detects were previously rejected, "R" in all samples.

1.5 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, Trip, 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

*2x the CRQL for methylene chloride, 2-butanone and acetone.
**4x the CRQL for methylene chloride, 2-butanone, and acetone
***Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ug/L.
Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

A) **Method Blank Contamination:**

Methylene Chloride and Acetone were detected in the method blanks associated with sample analysis. Results were qualified based on the above criteria and negated in all field samples with the exception of MW-3.

B) **Field Blank Contamination:**

Field Blank was not submitted with this data set.

C) **Trip Blank Contamination:**

Trip Blank was not submitted with this data set

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 volatile organics is Bromofluorobenzene (BFB).

Instrument performance was generated within acceptable limits and frequency for Bromofluorobenzene (BFB) for all analyses conducted for this SDG.

1.7 Initial and Continuing Calibrations

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

The continuing calibration checks document that the instrument is giving satisfactory daily performance. Initial calibration verification met acceptance criteria.

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 >/= 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". Method 8260C allows for a minimum response factor of 0.1 for Acetone and 2-Butanone.

All the response factors for the target analytes reported were found to be within acceptable limits (>/=0.05) and minimum response criteria in Table 4 of Method 8260C, for the initial and continuing calibrations for all reported analytes.

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 >20% 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. Closing CCV must meet 30% criteria.

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 the 2-Butanone, Acetone and Methylene Chloride. Results have been qualified, "UJ" for samples where the associated CCV has %D>20%.

***Note: the method allows for analytes outside 20% criteria based on number of analytes analyzed.**

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 of 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 samples were spiked with internal standards prior to sample analysis. The area responses and retention time of each internal standard met QC criteria in all samples associated with this SDG.

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. Generally for water samples an acceptable RPD is 25%.

Field Duplicate analysis was not collected as part of 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 spectra 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.

1.11 Compound Quantification and Reported Detection Limits

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

As required, the laboratory reported "J" values between the limit of quantitation (LOQ) and limit of detection (LOD). This is consistent with common laboratory practices and a requirement of the National Environmental Laboratory Approval Program (NELAP).

All groundwater samples were initially analyzed undiluted.

Secondary dilutions were required where analyte concentrations were determined to be over the instruments calibration range. Results have been qualified, "D" as required by NYSDEC for those compounds.

1.12 Overall System Performance

Good resolution and chromatographic performance were observed. Raw data was reviewed and confirmed that no carryover exists for any analysis conducted with this data set.

2.0 Base Neutral List (BN) 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 Total Semivolatile results for MW-3, MW-11 and MW-12 are considered to be valid and usable 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". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

Aqueous samples were extracted and analyzed within the method required holding times and the technical holding times (7 days from collection for water samples) required for data validation.

2.2 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 base neutral surrogate standards at the sample extraction portion of analysis. Acceptable surrogate recovery values were obtained.

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.

Site specific MS/MSD was not performed. Acceptable Laboratory Control Sample - LCS) was performed and resulted in acceptable recoveries for all spiked analytes. Based on professional judgment, no qualifications to the data were made based on non-site specific QC. The National Functional Guidelines states that MS/MSD data alone should not be used alone to qualify data.

2.4 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 and no qualifications were applied.

2.5 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.

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

A) **Method Blank Contamination:**

Diethylphthalate was detected in the method blank at acceptable levels (0.53 ug/L). The laboratory reported concentration in MW-3 was negated due to laboratory contamination.

B) **Field Blank Contamination:**

Field Blank analysis is not applicable to this sampling event.

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 is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving 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 >/= 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 (>/=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 <30% and %D must be <25%. 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 30% 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.

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

Continuing Calibrations: The continuing calibrations provided and the %D was within acceptable limits (20%) for all compounds.

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 of 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.

2.9 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. Generally for water samples an acceptable RPD is 25%.

Field duplicate analysis was not collected as part of 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 spectra 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.

Samples MW-11 and MW-12 were initially analyzed undiluted. Reanalysis at 1:10 dilution and also a 1:100 dilution was required to bring several PAH concentrations within the instruments linear calibration range. The sample chromatograms documents significant non-target compounds and a complex sample matrix.

2.11 Compound Quantification and Reported Detection Limits

GC/MS quantitative analysis is considered to be acceptable. Correct internal standards and response factors 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).

2.12 Overall System Performance

Acceptable system performance was maintained throughout the analysis for base neutral analysis.

3.0 Total Organic Carbon by Standard Method 5310B

Groundwater samples were analyzed for Total Organic Carbon by Pace Melville. The groundwater results for these samples were considered to be valid and usable with the appropriate qualifiers as notated in the following text.

3.1 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 analyzed with the method required holding time of 28 days from collection for TOC. No qualifications were applied based on holding time.

3.2 Calibration

Acceptable ICVs and CCVs were analyzed yielding recovery values between 85-115%. No qualifications were applied based upon calibration data.

3.3 Blanks

Quality assurance (QA) blanks, i.e. method, field or preparation blanks are prepared to identify any contamination, which 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.

Acceptable method blanks were analyzed with this SDG as dictated by the analytical method employed. TOC was not detected in any of the calibration blanks.

3.4 Spiked Sample Recovery

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

Matrix Spike was not submitted in the data package.

3.5 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 in order to determine the long-term precision of the analytical method on various matrices.

Laboratory duplicate analysis was not submitted in the data package.

Field duplicate analysis was not collected for this sampling event.

3.6 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.

Acceptable LCS was analyzed yielding recovery values at 99.7% and 99.9%.

3.7 Sample Results Verification

Analyte quantitation was generated in accordance with protocols. The instrument logs were verified and found within the linear ranges of each instrument used for quantitation.

Samples BW-2, BW-4, MW-3, MW-11 and MW-12 were analyzed at 1:50 dilutions due to TOC over the calibration range. Raw data confirms reported results.

3.8 Overall Assessment of Data

The data was of acceptable quality.

Reviewer's Signature Lori Beyer **Date** 10/27/15

Appendix A
Chain of Custody
Document

AMERICAN ANALYTICAL LABORATORIES

CHAIN OF CUSTODY

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www.american-analytical.com

CERTIFICATIONS
NY ELAP - 11418 PA DEP - 68-00573
NJ DEP - NY050 CT DOH - PH-0205

Client Information

Company Name: Berninger Environmental
Address: 17 Old Dock Rd.
City: Yaphank State: NY Zip: 11980
Project Contact: Justin
Phone #: 589-6521
E-mail: jhalpin@wcses.com

Project Information

Project Name: Schmuklers
Street: 358 North Ave.
City: New Rochelle State: NY Zip:
Project #: 6800
Sampler's Name / Company: Beth / Alicia / Justin
Sampler's Signature:

Analytical Information: 8260+ethene; 8270 BN; total organic carbon (TOC); ASP-Cat B deliverables

LAB SAMPLE # (LAB USE ONLY)	Client Sample ID	Sample Type	Matrix Code	Date	Time	Glass / Plastic	Total # of bottles	NONE	HCl	NaOH	HNO_3	H_2SO_4	$NaHSO_4$	MeOH	OTHER	8260+ethene	8270 BN	total organic carbon (TOC)	ASP-Cat B deliverables
1509029-001	BW-2	G	L	9/3/15	10:00	G	3		X			X				X		X	
002	BW-4				10:20		3		X			X				X		X	
003	MW-3				10:40		4	X	X			X				X	X	X	
004	MW-9				10:50		3		X			X				X		X	
005	MW-10				11:00		3		X			X				X		X	
006	MW-11				11:30		4	X	X			X				X	X	X	
007	MW-12				12:30		4	X	X			X				X	X	X	

Turnaround Time (Business Days)
- [x] Standard 7-10 Business Days
- [ ] 5 Day RUSH
- [ ] 4 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH

SAMPLE TYPE: G = Grab, C = Composite, B = Blank

MATRIX CODES: L = Liquid, S = Soil, O = Oil, W = Wipe, PC = Paint Chip, SL = Sludge, SD = Solid, M = Miscellaneous

Comments / Remarks: P# 13986

Cooler Temp: 1.4°C

Sample custody must be documented below, each time samples change possession, with a signature, date, and time.

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME
[signature]	9/4/15 8:50	Eusi Watkins	P Masi	9/4/15 8:55	P Masi

Sample Log-In Check List

Client Name:	Berninger	Work Order Number:	1509029
Logged by:	Lori Beyer	9/4/2015 8:55 AM	Lori Beyer
Completed By:	Lori Beyer	9/4/2015 9:30 AM	Lori Beyer
Reviewed By:	Karen Kelly	9/4/2015 12:00 AM	Karen Kelly

Chain of Custody

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

Log In

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

Special Handling (if applicable)

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

Person Notified: Date:

By Whom: Via [ ] email [ ] Phone [ ] Fax [ ] In Person

Regarding:

Client Instructions:

18. Additional remarks:

TOC subcontract. Sample volume constraints for MW-11. Limited volume available for 8270 extraction. Will proceed and use reduced volume for extraction. Reporting limits will be elevated.

Cooler Information

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

Pace Analytical

CHAIN OF CUSTODY RECORD

Omega COCID 3441

Page 1 of 1

<15090182P1>

150901821

ADDRESS
PACE ANALYTICAL
575 Broad Hollow Road
Melville, NY 11747
TEL: (631) 694-3040
FAX: (631) 420-8436
Website: www.pacelabs.com

SUB CONTRATOR Pace-New York

COMPANY Pace Analytical Services, Inc.

ADDRESS

CITY STATE ZIP Schenectady, NY 12308

PHONE (518) 346-4592 FAX EMAIL

ACCOUNT #

SPECIAL INSTRUCTIONS / COMMENTS

~~345134512451~~

Please analysis for TOC; level 4 deliverables. Results requested by 9/10/15. Please contact Connor D. at extension 6008 with questions. Thank you!

ITEM #	SAMPLE ID	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	DATE COLLECTED	NUMBER OF CONTAINERS	COMMENTS Methanol Preserved Weights HOT Sample Notation, Additional Sample Description.
1	1509400-001A TOC_W_SM (SM5310B)	BW-2	40mlvialh2so4	Liquid	9/3/2015 10:00:00 AM	1	SUBBED AS27314
2	1509400-002A TOC_W_SM (SM5310B)	BW-4	40mlvialh2so4	Liquid	9/3/2015 10:20:00 AM	1	AS27315
3	1509400-003A TOC_W_SM (SM5310B)	MW-3	40mlvialh2so4	Liquid	9/3/2015 10:30:00 AM	1	AS27316
4	1509400-004A TOC_W_SM (SM5310B)	MW-9	40mlvialh2so4	Liquid	9/3/2015 10:50:00 AM	1	AS27317
5	1509400-005A TOC_W_SM (SM5310B)	MW-10	40mlvialh2so4	Liquid	9/3/2015 11:00:00 AM	1	AS27318
6	1509400-006A TOC_W_SM (SM5310B)	MW-11	40mlvialh2so4	Liquid	9/3/2015 11:30:00 AM	1	AS27319
7	1509400-007A TOC_W_SM (SM5310B)	MW-12	40mlvialh2so4	Liquid	9/3/2015 12:30:00 PM	1	AS27320

Relinquished By	Date	Time	Received By	Date	Time
[signature]	9/8	9:42	Cal M[illegible]	9/8	9:42
Relinquished By	Date	Time	Received By [signature] (PACE)	9/8/15	945
Relinquished By	Date	Time	Received By	9/9/15	06:30

TAT: Standard RUSH Next BD 2nd BD 3rd BD

Note: RUSH requests will incur surcharges!

REPORT TRANSMITTAL DESIRED:

HARDCOPY (extra cost) FAX EMAIL ONLINE

FOR LAB USE ONLY

Temp of samples 5.8 (IR) °C Attempt to Cool? Y

Comments

<15090182P2>

150901822

Sample Condition Upon Receipt

CLIENT NAME: PACE - LI
PROJECT: TOC

COURIER: FedEx ☐ UPS ☐ Client ☒ Pace ☐ Other ☐
TRACKING # N/A
CUSTODY SEAL PRESENT: Yes ☐ No ☒ INTACT: Yes ☐ No ☐ N/A ☒
PACKING MATERIAL: Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other ☐
ICE USED: Wet ☒ Blue ☐ None ☐
THERMOMETER USED: #164 ☐ IR Gun 03 ☒ #122087967 ☐
COOLER TEMPERATURE (°C): 5.8
BIOLOGICAL TISSUE IS FROZEN: Yes ☐ No ☐ N/A ☒
Temp should be above freezing to 6°C
COMMENTS:
Temperature is Acceptable? ☒Yes ☐No

Chain of Custody Present:	☒Yes	☐No		1.
Chain of Custody Filled Out:	☒Yes	☐No		2.
Chain of Custody Relinquished:	☐Yes	☒No		3. Not relinquished by PACE courier
Sampler Name / Signature on COC:	☐Yes	☒No		4.
Samples Arrived within Hold Time:	☒Yes	☐No		5.
Short Hold Time Analysis (<72hr):	☐Yes	☒No		6.
Rush Turn Around Time Requested:	☒Yes	☐No		7. 1 day
Sufficient Volume:	☒Yes	☐No		8.
Correct Containers Used:	☒Yes	☐No		9.
- Pace Containers Used:	☒Yes	☐No		
Containers Intact:	☒Yes	☐No		10.
Filtered volume received for Dissolved tests:	☐Yes	☐No	☒N/A	11.
Sample Labels match COC: - Includes date/time/ID/Analysis	☒Yes	☐No		12.
All containers needing preservation have been checked:	☐Yes	☐No	☒N/A	13.
All containers needing preservation are in compliance with EPA recommendation: - Exceptions that are not checked: TOC, VOA, Subcontract Analyses	☐Yes	☐No	☒N/A	Initial when completed: N/A — Lot # of added preservative: N/A
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☒N/A	14.
Trip Blank Present:	☐Yes	☐No	☒N/A	15.
Trip Blank Custody Seals Present:	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot #: N/A				

Sample Receipt form filled in: KAC 9/9/15

Line-Out (Includes Copying Shipping Documents and verifying sample pH): KAC 9/9/15
Log In (Includes notifying PM of any discrepacies and documenting in LIMS): AJB 9/9/15
Labeling (Includes Scanning Bottles and entering LAB IDs into pH logbook): KAC 9/9/15

Appendix B
Case Narrative

American Analytical Laboratories, LLC. - Case Narrative

WO#: 1509029

Date Reported: 9/15/2015
Original

Client:	WRS d.b.a Berninger Environmental
Project:	Schmucklers; 358 North Ave., New Rochelle, NY

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 notated in this Narrative discussion and/or in the QC Summary Section of the lab report with appropriate qualifiers. Additional quality control information such as surrogate recovery values for organic testing is provided as part of the analytical results. Batch MS/MSD results are provided in the QC section of the lab report unless the MS/MSD summary forms indicate one of your sample identifications. MS/MSD results relate only to the parent sample that was spiked.

Volatile LCS are analyzed with preservatives - HCL/NaHSO4/Methanol depending on level of analysis (high/low) similar to sample analysis. Outliers can be attributed to the presence of chemical preservatives. 2-Chloroethyl vinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

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, Isopropyl Acetate, n-Amyl Acetate, n-Butyl Acetate, n-Propyl Acetate. VOA 8260 Liquid; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Isopropyl Acetate, n-Amyl acetate, n-Butyl Acetate, n-Propyl Acetate. Pesticides 8081 Soil; DBCP. Herbicides 8151 Soil; 3,5-Dichlorobenzoic Acid, 4-Nitrophenol, Acifluorfen, Bentazon, Chloramben, DCPA, Picloram .Lachat 10-107-6-1B Ammonia in Soil, SM 2540G Total Volatile Solids, Soil TKN, Soil Organic Nitrogen, 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 ASTMC1152, Water Soluble Chloride by ASTMC1218, Chlorine Demand by SM 2350 B, Total Residual Chlorine in Liquid and Nitrate-Nitrite, Nitrogen in non-potable water and Reactivity to Sulfide and Reactivity to Cyanide.

TOC was performed by Pace Melville. Category B report for TOC is provided under separate cover.

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.

September 11, 2015

CASE NARRATIVE

This data package (SDG ID: 15090182) consists of 7 water samples received on 09/09/2015. The samples are from Project Name: TOC.

This sample delivery group consists of the following samples:

Lab Sample ID	Client ID	Collection Date
AS27314	1509400-001A	09/03/2015 10:00
AS27315	1509400-002A	09/03/2015 10:20
AS27316	1509400-003A	09/03/2015 10:30
AS27317	1509400-004A	09/03/2015 10:50
AS27318	1509400-005A	09/03/2015 11:00
AS27319	1509400-006A	09/03/2015 11:30
AS27320	1509400-007A	09/03/2015 12:30

Sample Delivery and Receipt Conditions

(1.) Lab provided sample pickup service on 09/09/2015.

(2.) All samples were received at the laboratory intact and within holding times.

(3.) All samples were received at the laboratory properly preserved, if applicable.

Total Organic Carbon Analysis

Analysis for Total Organic Carbon was performed by Standard Methods 5310B. The following technical and administrative items were noted for the analysis:

(1.) Samples (LAB ID: AS27317 and AS27318) were re-analyzed at a secondary dilution to bring all target analyte concentrations within the calibration range of the instrument. Please see associated logbook for details.

Respectfully submitted,

Nicole Johnson

Nicole D. Johnson
Project Manager

Appendix C
Data Summary Form I's
With Qualifications

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

BW-2

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-001A

Sample wt/vol: 5mL Lab File ID: V24411.D

Level: (low/med) LOW Date Collected: 9/3/2015 10:00 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl) Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200084 Date Analyzed: 9/5/2015 12:08 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	52		0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
95-63-6	1,2,4-Trimethylbenzene	0.50	U	0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
108-67-8	1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.50	2.0
78-93-3	2-Butanone	2.0	~~J~~ J	1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	~~U~~ R	0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	0.65	J	0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0
67-64-1	Acetone	3.0	~~BJm*~~ UJ	1.0	1.0	4.0

SW8260C

10/27/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

BW-2

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-001A

Sample wt/vol: 5mL Lab File ID: V24411.D

Level: (low/med) LOW Date Collected: 9/3/2015 10:00 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl) Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200084 Date Analyzed: 9/5/2015 12:08 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene	9.3		0.50	0.50	2.0
108-86-1	Bromobenzene	0.50	U	0.50	0.50	2.0
74-97-5	Bromochloromethane	0.50	U	0.50	0.50	2.0
75-27-4	Bromodichloromethane	0.50	U	0.50	0.50	2.0
75-25-2	Bromoform	0.50	U	0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	1.0	1.0	4.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U	0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U	0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U	0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U	0.50	0.50	2.0
67-66-3	Chloroform	0.50	U	0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U	0.50	0.50	2.0
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
110-82-7	Cyclohexane	47		0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U	0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U	0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	2.5	2.5	10
100-41-4	Ethylbenzene	0.52	J	0.50	0.50	2.0
76-14-2	Freon-114	0.50	U	0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	2.0
98-82-8	Isopropylbenzene	9.3		0.50	0.50	2.0
179601-23-1	m,p-Xylene	1.0	U	1.0	1.0	4.0
79-20-9	Methyl Acetate	0.50	U	0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0
75-09-2	Methylene chloride	5.4	~~B*~~ UJ	0.50	0.50	2.0
104-51-8	n-Butylbenzene	11		0.50	0.50	2.0
103-65-1	n-Propylbenzene	15		0.50	0.50	2.0
91-20-3	Naphthalene	8.9	~~M~~	0.50	0.50	2.0
95-47-6	o-Xylene	0.64	J	0.50	0.50	2.0

SW8260C

SOP 10/27/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

BW-2

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-001A

Sample wt/vol: 5mL Lab File ID: V24411.D

Level: (low/med) LOW Date Collected: 9/3/2015 10:00 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl) Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200084 Date Analyzed: 9/5/2015 12:08 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
105-05-5	p-Diethylbenzene	5.7		0.50	0.50	2.0
622-96-8	p-Ethyltoluene	1.9	J	0.50	0.50	2.0
135-98-8	sec-Butylbenzene	5.8		0.50	0.50	2.0
100-42-5	Styrene	0.50	U	0.50	0.50	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.50	U	0.50	0.50	2.0
127-18-4	Tetrachloroethene	0.50	U	0.50	0.50	2.0
108-88-3	Toluene	0.50	U	0.50	0.50	2.0
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
79-01-6	Trichloroethene	0.50	U	0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U	0.50	0.50	2.0
75-01-4	Vinyl chloride	0.50	U	0.50	0.50	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

BW-4

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-002A

Sample wt/vol: 5mL Lab File ID: V24413.D

Level: (low/med) LOW Date Collected: 9/3/2015 10:20 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl) Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200085 Date Analyzed: 9/5/2015 1:04 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
95-63-6	1,2,4-Trimethylbenzene	130		0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
108-67-8	1,3,5-Trimethylbenzene	42		0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.50	2.0
78-93-3	2-Butanone	1.0	U	1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	~~U~~ R	0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	7.3		0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0
67-64-1	Acetone	2.2	~~BJ*~~ UJ	1.0	1.0	4.0
71-43-2	Benzene	0.51	J	0.50	0.50	2.0

SW8260C

[illegible] 10/27/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

BW-4

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-002A

Sample wt/vol: 5mL Lab File ID: V24413.D

Level: (low/med) LOW Date Collected: 9/3/2015 10:20 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl) Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200085 Date Analyzed: 9/5/2015 1:04 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
108-86-1	Bromobenzene	0.50	U	0.50	0.50	2.0
74-97-5	Bromochloromethane	0.50	U	0.50	0.50	2.0
75-27-4	Bromodichloromethane	0.50	U	0.50	0.50	2.0
75-25-2	Bromoform	0.50	U	0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	1.0	1.0	4.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U	0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U	0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U	0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U	0.50	0.50	2.0
67-66-3	Chloroform	0.50	U	0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U	0.50	0.50	2.0
156-59-2	cis-1,2-Dichloroethene	1.9	J	0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
110-82-7	Cyclohexane	26		0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U	0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U	0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	2.5	2.5	10
100-41-4	Ethylbenzene	18		0.50	0.50	2.0
76-14-2	Freon-114	0.50	U	0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	2.0
98-82-8	Isopropylbenzene	6.2		0.50	0.50	2.0
179601-23-1	m,p-Xylene	53		1.0	1.0	4.0
79-20-9	Methyl Acetate	0.50	U	0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0
75-09-2	Methylene chloride	5.0	~~B*~~ UJ	0.50	0.50	2.0
104-51-8	n-Butylbenzene	11		0.50	0.50	2.0
103-65-1	n-Propylbenzene	11		0.50	0.50	2.0
95-47-6	o-Xylene	23		0.50	0.50	2.0
105-05-5	p-Diethylbenzene	75		0.50	0.50	2.0
622-96-8	p-Ethyltoluene	67		0.50	0.50	2.0

SW8260C

10/27/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

BW-4

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-002A

Sample wt/vol: 5mL Lab File ID: V24413.D

Level: (low/med) LOW Date Collected: 9/3/2015 10:20 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl) Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200085 Date Analyzed: 9/5/2015 1:04 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
135-98-8	sec-Butylbenzene	5.8		0.50	0.50	2.0
100-42-5	Styrene	0.50	U	0.50	0.50	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.50	U	0.50	0.50	2.0
127-18-4	Tetrachloroethene	0.50	U	0.50	0.50	2.0
108-88-3	Toluene	3.8		0.50	0.50	2.0
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
79-01-6	Trichloroethene	0.50	U	0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U	0.50	0.50	2.0
75-01-4	Vinyl chloride	0.50	U	0.50	0.50	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

BW-4

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-002A

Sample wt/vol: 5mL Lab File ID: V24488.D

Level: (low/med) LOW Date Collected: 9/3/2015 10:20 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl) Date Prepped: 9/8/2015 10:42 AM

Seq Number: 200701 Date Analyzed: 9/9/2015 5:40 AM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 10.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6283/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
95-93-2	1,2,4,5-Tetramethylbenzene	110	~~DM~~	5.0	5.0	20
91-20-3	Naphthalene	130	D	5.0	5.0	20

SW8260C

SOR 10/27/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-003A

Sample wt/vol: 5mL Lab File ID: V24415.D

Level: (low/med) LOW Date Collected: 9/3/2015 10:40 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl) Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200086 Date Analyzed: 9/5/2015 1:59 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	4.5		0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	3.8		0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	34		0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.69	J	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	6.7		0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	33	~~M~~	0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
95-63-6	1,2,4-Trimethylbenzene	13		0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.90	J	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
108-67-8	1,3,5-Trimethylbenzene	3.9		0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	2.3		0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.50	2.0
78-93-3	2-Butanone	35	~~*~~ J	1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	~~U~~ R	0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	1.9	J	0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0
67-64-1	Acetone	110	~~B*~~ J	1.0	1.0	4.0

SW8260C

JOP 10/27/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-003A

Sample wt/vol: 5mL Lab File ID: V24415.D

Level: (low/med) LOW Date Collected: 9/3/2015 10:40 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl) Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200086 Date Analyzed: 9/5/2015 1:59 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.51	J	0.50	0.50	2.0
108-86-1	Bromobenzene	0.50	U	0.50	0.50	2.0
74-97-5	Bromochloromethane	0.50	U	0.50	0.50	2.0
75-27-4	Bromodichloromethane	0.50	U	0.50	0.50	2.0
75-25-2	Bromoform	0.50	U	0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	1.0	1.0	4.0
75-15-0	Carbon disulfide	8.5	~~m~~	0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U	0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U	0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U	0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U	0.50	0.50	2.0
67-66-3	Chloroform	1.2	J	0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U	0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
110-82-7	Cyclohexane	9.3		0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U	0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U	0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	2.5	2.5	10
100-41-4	Ethylbenzene	14		0.50	0.50	2.0
76-14-2	Freon-114	0.50	U	0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	2.0
98-82-8	Isopropylbenzene	0.87	J	0.50	0.50	2.0
179601-23-1	m,p-Xylene	3.1	J	1.0	1.0	4.0
79-20-9	Methyl Acetate	0.50	U	0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0
75-09-2	Methylene chloride	5.6	~~B*~~ UJ	0.50	0.50	2.0
104-51-8	n-Butylbenzene	1.5	J	0.50	0.50	2.0
103-65-1	n-Propylbenzene	1.3	J	0.50	0.50	2.0
91-20-3	Naphthalene	18		0.50	0.50	2.0
95-47-6	o-Xylene	6.2		0.50	0.50	2.0
105-05-5	p-Diethylbenzene	10		0.50	0.50	2.0

SW8260C

LO 10/27/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-003A

Sample wt/vol: 5mL Lab File ID: V24415.D

Level: (low/med) LOW Date Collected: 9/3/2015 10:40 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl) Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200086 Date Analyzed: 9/5/2015 1:59 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
622-96-8	p-Ethyltoluene	5.6		0.50	0.50	2.0
135-98-8	sec-Butylbenzene	0.91	J	0.50	0.50	2.0
100-42-5	Styrene	0.50	U	0.50	0.50	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.50	U	0.50	0.50	2.0
108-88-3	Toluene	2.5		0.50	0.50	2.0
156-60-5	trans-1,2-Dichloroethene	34		0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U	0.50	0.50	2.0
75-01-4	Vinyl chloride	25		0.50	0.50	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-003A

Sample wt/vol: 5mL Lab File ID: V24492.D

Level: (low/med) LOW Date Collected: 9/3/2015 10:40 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl) Date Prepped: 9/8/2015 10:42 AM

Seq Number: 200705 Date Analyzed: 9/9/2015 7:30 AM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 10.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6283/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
156-59-2	cis-1,2-Dichloroethene	940	D	5.0	5.0	20

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-003A

Sample wt/vol: 5mL Lab File ID: V24491.D

Level: (low/med) LOW Date Collected: 9/3/2015 10:40 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl) Date Prepped: 9/8/2015 10:42 AM

Seq Number: 200704 Date Analyzed: 9/9/2015 7:03 AM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 100.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6283/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
127-18-4	Tetrachloroethene	5500	D	50	50	200
79-01-6	Trichloroethene	13000	D	50	50	200

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-9

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-004A

Sample wt/vol: 5mL Lab File ID: V24417.D

Level: (low/med) LOW Date Collected: 9/3/2015 10:50 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl) Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200087 Date Analyzed: 9/5/2015 2:54 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	0.50	U	0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
95-63-6	1,2,4-Trimethylbenzene	0.50	U	0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
108-67-8	1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.50	2.0
78-93-3	2-Butanone	1.0	U	1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	~~U~~ R	0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	0.50	U	0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0
67-64-1	Acetone	1.5	~~BJ*~~ UJ	1.0	1.0	4.0

SW8260C

LQP 10/27/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-9

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1509029

Matrix: Liquid   Lab Sample ID: 1509029-004A

Sample wt/vol: 5mL   Lab File ID: V24417.D

Level: (low/med) LOW   Date Collected: 9/3/2015 10:50 AM

% Moisture: N/A   Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl)   Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200087   Date Analyzed: 9/5/2015 2:54 PM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 1.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.50	0.50	2.0
108-86-1	Bromobenzene	0.50	U	0.50	0.50	2.0
74-97-5	Bromochloromethane	0.50	U	0.50	0.50	2.0
75-27-4	Bromodichloromethane	0.50	U	0.50	0.50	2.0
75-25-2	Bromoform	0.50	U	0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	1.0	1.0	4.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U	0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U	0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U	0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U	0.50	0.50	2.0
67-66-3	Chloroform	0.50	U	0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U	0.50	0.50	2.0
156-59-2	cis-1,2-Dichloroethene	14		0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
110-82-7	Cyclohexane	0.50	U	0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U	0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U	0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	2.5	2.5	10
100-41-4	Ethylbenzene	0.50	U	0.50	0.50	2.0
76-14-2	Freon-114	0.50	U	0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	2.0
98-82-8	Isopropylbenzene	0.50	U	0.50	0.50	2.0
179601-23-1	m,p-Xylene	1.0	U	1.0	1.0	4.0
79-20-9	Methyl Acetate	0.50	U	0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0
75-09-2	Methylene chloride	4.8	~~B*~~ UJ	0.50	0.50	2.0
104-51-8	n-Butylbenzene	0.50	U	0.50	0.50	2.0
103-65-1	n-Propylbenzene	0.50	U	0.50	0.50	2.0
91-20-3	Naphthalene	0.50	U	0.50	0.50	2.0
95-47-6	o-Xylene	0.50	U	0.50	0.50	2.0

SW8260C

LAR 10/27/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-9

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-004A

Sample wt/vol: 5mL Lab File ID: V24417.D

Level: (low/med) LOW Date Collected: 9/3/2015 10:50 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl) Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200087 Date Analyzed: 9/5/2015 2:54 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
105-05-5	p-Diethylbenzene	0.50	U	0.50	0.50	2.0
622-96-8	p-Ethyltoluene	0.50	U	0.50	0.50	2.0
135-98-8	sec-Butylbenzene	0.50	U	0.50	0.50	2.0
100-42-5	Styrene	0.50	U	0.50	0.50	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.50	U	0.50	0.50	2.0
127-18-4	Tetrachloroethene	33		0.50	0.50	2.0
108-88-3	Toluene	0.50	U	0.50	0.50	2.0
156-60-5	trans-1,2-Dichloroethene	0.78	J	0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
79-01-6	Trichloroethene	13		0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U	0.50	0.50	2.0
75-01-4	Vinyl chloride	0.58	J	0.50	0.50	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-10

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1509029

Matrix: Liquid   Lab Sample ID: 1509029-005A

Sample wt/vol: 5mL   Lab File ID: V24419.D

Level: (low/med) LOW   Date Collected: 9/3/2015 11:00 AM

% Moisture: N/A   Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl)   Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200088   Date Analyzed: 9/5/2015 3:50 PM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 1.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	89	~~m~~	0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
95-63-6	1,2,4-Trimethylbenzene	5.6	~~m~~	0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
108-67-8	1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.50	2.0
78-93-3	2-Butanone	1.0	U	1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	~~U~~ R	0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	5.0		0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0
67-64-1	Acetone	2.8	~~BJm~~* UJ	1.0	1.0	4.0

SW8260C

[illegible] 10/27/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-10

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1509029

Matrix: Liquid   Lab Sample ID: 1509029-005A

Sample wt/vol: 5mL   Lab File ID: V24419.D

Level: (low/med) LOW   Date Collected: 9/3/2015 11:00 AM

% Moisture: N/A   Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl)   Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200088   Date Analyzed: 9/5/2015 3:50 PM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 1.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.50	0.50	2.0
108-86-1	Bromobenzene	0.50	U	0.50	0.50	2.0
74-97-5	Bromochloromethane	0.50	U	0.50	0.50	2.0
75-27-4	Bromodichloromethane	0.50	U	0.50	0.50	2.0
75-25-2	Bromoform	0.50	U	0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	1.0	1.0	4.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U	0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U	0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U	0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U	0.50	0.50	2.0
67-66-3	Chloroform	0.50	U	0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U	0.50	0.50	2.0
156-59-2	cis-1,2-Dichloroethene	10		0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
110-82-7	Cyclohexane	59		0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U	0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U	0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	2.5	2.5	10
100-41-4	Ethylbenzene	5.8		0.50	0.50	2.0
76-14-2	Freon-114	0.50	U	0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	2.0
98-82-8	Isopropylbenzene	6.2		0.50	0.50	2.0
179601-23-1	m,p-Xylene	1.0	U	1.0	1.0	4.0
79-20-9	Methyl Acetate	0.50	U	0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0
75-09-2	Methylene chloride	5.5	~~B*~~ UJ	0.50	0.50	2.0
104-51-8	n-Butylbenzene	8.1		0.50	0.50	2.0
103-65-1	n-Propylbenzene	11		0.50	0.50	2.0
91-20-3	Naphthalene	92		0.50	0.50	2.0
95-47-6	o-Xylene	0.58	J	0.50	0.50	2.0

SW8260C

[illegible] 10/27/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-10

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1509029

Matrix: Liquid   Lab Sample ID: 1509029-005A

Sample wt/vol: 5mL   Lab File ID: V24419.D

Level: (low/med) LOW   Date Collected: 9/3/2015 11:00 AM

% Moisture: N/A   Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl)   Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200088   Date Analyzed: 9/5/2015 3:50 PM

GC Column: V2_06/19/15_SN#1293167   Dilution Factor: 1.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
105-05-5	p-Diethylbenzene	4.8		0.50	0.50	2.0
622-96-8	p-Ethyltoluene	1.4	J	0.50	0.50	2.0
135-98-8	sec-Butylbenzene	5.2		0.50	0.50	2.0
100-42-5	Styrene	0.50	U	0.50	0.50	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.76	J	0.50	0.50	2.0
127-18-4	Tetrachloroethene	0.75	J	0.50	0.50	2.0
108-88-3	Toluene	0.50	U	0.50	0.50	2.0
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
79-01-6	Trichloroethene	0.94	J	0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U	0.50	0.50	2.0
75-01-4	Vinyl chloride	0.50	U	0.50	0.50	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-11

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-006A

Sample wt/vol: 5mL Lab File ID: V24421.D

Level: (low/med) LOW Date Collected: 9/3/2015 11:30 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl) Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200089 Date Analyzed: 9/5/2015 4:45 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.50	2.0
78-93-3	2-Butanone	1.0	U	1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	~~U~~ R	0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	89		0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0
67-64-1	Acetone	4.0	~~BJ*~~ UJ	1.0	1.0	4.0
71-43-2	Benzene	2.0	J	0.50	0.50	2.0
108-86-1	Bromobenzene	0.50	U	0.50	0.50	2.0
74-97-5	Bromochloromethane	0.50	U	0.50	0.50	2.0

SW8260C

JG 10/27/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-11

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1509029

Matrix: Liquid   Lab Sample ID: 1509029-006A

Sample wt/vol: 5mL   Lab File ID: V24421.D

Level: (low/med) LOW   Date Collected: 9/3/2015 11:30 AM

% Moisture: N/A   Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl)   Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200089   Date Analyzed: 9/5/2015 4:45 PM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 1.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
75-27-4	Bromodichloromethane	0.50	U	0.50	0.50	2.0
75-25-2	Bromoform	0.50	U	0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	1.0	1.0	4.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U	0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U	0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U	0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U	0.50	0.50	2.0
67-66-3	Chloroform	0.50	U	0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U	0.50	0.50	2.0
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U	0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U	0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	2.5	2.5	10
100-41-4	Ethylbenzene	99		0.50	0.50	2.0
76-14-2	Freon-114	0.50	U	0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	2.0
98-82-8	Isopropylbenzene	61		0.50	0.50	2.0
79-20-9	Methyl Acetate	0.50	U	0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0
75-09-2	Methylene chloride	5.2	~~B*~~ UJ	0.50	0.50	2.0
104-51-8	n-Butylbenzene	85		0.50	0.50	2.0
103-65-1	n-Propylbenzene	130		0.50	0.50	2.0
95-47-6	o-Xylene	68		0.50	0.50	2.0
135-98-8	sec-Butylbenzene	75		0.50	0.50	2.0
100-42-5	Styrene	0.79	J	0.50	0.50	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	8.3		0.50	0.50	2.0
127-18-4	Tetrachloroethene	0.96	J	0.50	0.50	2.0
108-88-3	Toluene	3.8		0.50	0.50	2.0

SW8260C

LoM 10/27/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-11

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1509029

Matrix: Liquid   Lab Sample ID: 1509029-006A

Sample wt/vol: 5mL   Lab File ID: V24421.D

Level: (low/med) LOW   Date Collected: 9/3/2015 11:30 AM

% Moisture: N/A   Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl)   Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200089   Date Analyzed: 9/5/2015 4:45 PM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 1.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
79-01-6	Trichloroethene	0.50	U	0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U	0.50	0.50	2.0
75-01-4	Vinyl chloride	0.50	U	0.50	0.50	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-11

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1509029

Matrix: Liquid   Lab Sample ID: 1509029-006A

Sample wt/vol: 5mL   Lab File ID: V24489.D

Level: (low/med) LOW   Date Collected: 9/3/2015 11:30 AM

% Moisture: N/A   Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl)   Date Prepped: 9/8/2015 10:42 AM

Seq Number: 200702   Date Analyzed: 9/9/2015 6:07 AM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 10.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6283/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
95-93-2	1,2,4,5-Tetramethylbenzene	270	D~~m~~	5.0	5.0	20
95-63-6	1,2,4-Trimethylbenzene	170	D	5.0	5.0	20
108-67-8	1,3,5-Trimethylbenzene	54	D	5.0	5.0	20
110-82-7	Cyclohexane	66	D	5.0	5.0	20
179601-23-1	m,p-Xylene	83	D	10	10	40
91-20-3	Naphthalene	210	D	5.0	5.0	20
105-05-5	p-Diethylbenzene	100	D	5.0	5.0	20
622-96-8	p-Ethyltoluene	77	D	5.0	5.0	20

SW8260C

LOP 10/27/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-12

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1509029

Matrix: Liquid   Lab Sample ID: 1509029-007A

Sample wt/vol: 5mL   Lab File ID: V24423.D

Level: (low/med) LOW   Date Collected: 9/3/2015 12:30 PM

% Moisture: N/A   Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(ul)   Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200090   Date Analyzed: 9/5/2015 5:40 PM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 1.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
95-63-6	1,2,4-Trimethylbenzene	1.5	J	0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
108-67-8	1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.50	2.0
78-93-3	2-Butanone	1.0	U	1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	~~U~~ R	0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	2.0	J	0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0
67-64-1	Acetone	2.1	~~BJ*~~ UJ	1.0	1.0	4.0
71-43-2	Benzene	0.50	U	0.50	0.50	2.0

SW8260C

SO 10/22/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-12

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-007A

Sample wt/vol: 5mL Lab File ID: V24423.D

Level: (low/med) LOW Date Collected: 9/3/2015 12:30 PM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl) Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200090 Date Analyzed: 9/5/2015 5:40 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
108-86-1	Bromobenzene	0.50	U	0.50	0.50	2.0
74-97-5	Bromochloromethane	0.50	U	0.50	0.50	2.0
75-27-4	Bromodichloromethane	0.50	U	0.50	0.50	2.0
75-25-2	Bromoform	0.50	U	0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	1.0	1.0	4.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U	0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U	0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U	0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U	0.50	0.50	2.0
67-66-3	Chloroform	0.50	U	0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U	0.50	0.50	2.0
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
110-82-7	Cyclohexane	160		0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U	0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U	0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	2.5	2.5	10
100-41-4	Ethylbenzene	17		0.50	0.50	2.0
76-14-2	Freon-114	0.50	U	0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	2.0
98-82-8	Isopropylbenzene	27		0.50	0.50	2.0
179601-23-1	m,p-Xylene	1.0	U	1.0	1.0	4.0
79-20-9	Methyl Acetate	0.50	U	0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0
75-09-2	Methylene chloride	4.5	~~B*~~ U	0.50	0.50	2.0
104-51-8	n-Butylbenzene	44		0.50	0.50	2.0
103-65-1	n-Propylbenzene	50		0.50	0.50	2.0
95-47-6	o-Xylene	0.50	U	0.50	0.50	2.0
105-05-5	p-Diethylbenzene	23		0.50	0.50	2.0
622-96-8	p-Ethyltoluene	3.3		0.50	0.50	2.0

SW8260C

JOM 10/27/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-12

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-007A

Sample wt/vol: 5mL Lab File ID: V24423.D

Level: (low/med) LOW Date Collected: 9/3/2015 12:30 PM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl) Date Prepped: 9/4/2015 10:43 AM

Seq Number: 200090 Date Analyzed: 9/5/2015 5:40 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6277/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
135-98-8	sec-Butylbenzene	36		0.50	0.50	2.0
100-42-5	Styrene	0.50	U	0.50	0.50	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	3.7		0.50	0.50	2.0
127-18-4	Tetrachloroethene	0.50	U	0.50	0.50	2.0
108-88-3	Toluene	0.50	U	0.50	0.50	2.0
156-60-5	trans-1,2-Dichloroethene	3.8		0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
79-01-6	Trichloroethene	0.50	U	0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U	0.50	0.50	2.0
75-01-4	Vinyl chloride	0.50	U	0.50	0.50	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-12

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1509029

Matrix: Liquid   Lab Sample ID: 1509029-007A

Sample wt/vol: 5mL   Lab File ID: V24490.D

Level: (low/med) LOW   Date Collected: 9/3/2015 12:30 PM

% Moisture: N/A   Date Received: 9/4/2015 8:55 AM

Extract Volume: 5000(µl)   Date Prepped: 9/8/2015 10:42 AM

Seq Number: 200703   Date Analyzed: 9/9/2015 6:35 AM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 10.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6283/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
95-93-2	1,2,4,5-Tetramethylbenzene	120	D~~M~~	5.0	5.0	20
91-20-3	Naphthalene	270	D	5.0	5.0	20

SW8260C

JB 10/27/15

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-003C

Sample wt/vol: 700mL Lab File ID: SV17650.D

Level: (low/med) LOW Date Collected: 9/3/2015 10:40 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 1000(µl) Date Prepped: 9/9/2015 7:30 AM

Seq Number: 200686 Date Analyzed: 9/9/2015 1:38 PM

GC Column: SV1, 7/7/15, SN-1281262 Dilution Factor: 1.00

Column ID: 0.25mmID(mm) Batch ID/ Ext Mthd: 6292/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
120-82-1	1,2,4-Trichlorobenzene	0.71	U	0.71	0.71	7.1
95-50-1	1,2-Dichlorobenzene	1.6	J	0.71	0.71	7.1
541-73-1	1,3-Dichlorobenzene	0.71	U	0.71	0.71	7.1
106-46-7	1,4-Dichlorobenzene	4.6	J	0.71	0.71	7.1
121-14-2	2,4-Dinitrotoluene	0.71	U	0.71	0.71	7.1
606-20-2	2,6-Dinitrotoluene	0.71	U	0.71	0.71	7.1
91-58-7	2-Chloronaphthalene	0.71	U	0.71	0.71	7.1
91-57-6	2-Methylnaphthalene	61		0.71	0.71	7.1
88-74-4	2-Nitroaniline	0.71	U	0.71	0.71	7.1
99-09-2	3-Nitroaniline	0.71	U	0.71	0.71	7.1
101-55-3	4-Bromophenyl phenyl ether	0.71	U	0.71	0.71	7.1
106-47-8	4-Chloroaniline	0.71	U	0.71	0.71	7.1
7005-72-3	4-Chlorophenyl phenyl ether	0.71	U	0.71	0.71	7.1
100-01-6	4-Nitroaniline	0.71	U	0.71	0.71	7.1
83-32-9	Acenaphthene	5.0	J	0.71	0.71	7.1
208-96-8	Acenaphthylene	0.71	U	0.71	0.71	7.1
62-53-3	Aniline	0.71	U	0.71	0.71	7.1
120-12-7	Anthracene	1.5	J	0.71	0.71	7.1
103-33-3	Azobenzene	0.71	U	0.71	0.71	7.1
56-55-3	Benzo(a)anthracene	0.71	U	0.71	0.71	7.1
50-32-8	Benzo(a)pyrene	0.71	U	0.71	0.71	7.1
205-99-2	Benzo(b)fluoranthene	0.71	U	0.71	0.71	7.1
191-24-2	Benzo(g,h,i)perylene	0.71	U	0.71	0.71	7.1
207-08-9	Benzo(k)fluoranthene	0.71	U	0.71	0.71	7.1
100-51-6	Benzyl alcohol	0.71	U	0.71	0.71	7.1
111-91-1	Bis(2-chloroethoxy)methane	0.71	U	0.71	0.71	7.1
111-44-4	Bis(2-chloroethyl)ether	0.71	U	0.71	0.71	7.1
108-60-1	Bis(2-chloroisopropyl)ether	0.71	U	0.71	0.71	7.1
	Bis(2-ethylhexyl)phthalate	4.8	J	0.71	0.71	7.1
85-68-7	Butyl benzyl phthalate	0.71	U	0.71	0.71	7.1
86-74-8	Carbazole	0.71	U	0.71	0.71	7.1
218-01-9	Chrysene	0.71	U	0.71	0.71	7.1
84-74-2	Di-n-butyl phthalate	0.71	U	0.71	0.71	7.1

SW8270D

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-003C

Sample wt/vol: 700mL Lab File ID: SV17650.D

Level: (low/med) LOW Date Collected: 9/3/2015 10:40 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 1000(µl) Date Prepped: 9/9/2015 7:30 AM

Seq Number: 200686 Date Analyzed: 9/9/2015 1:38 PM

GC Column: SV1, 7/7/15, SN-1281262 Dilution Factor: 1.00

Column ID: 0.25mmID(mm) Batch ID/ Ext Mthd: 6292/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
117-84-0	Di-n-octyl phthalate	0.71	U	0.71	0.71	7.1
53-70-3	Dibenzo(a,h)anthracene	0.71	U	0.71	0.71	7.1
132-64-9	Dibenzofuran	0.71	U	0.71	0.71	7.1
84-66-2	Diethyl phthalate	2.3	~~J~~ U	0.71	0.71	7.1
131-11-3	Dimethyl phthalate	0.71	U	0.71	0.71	7.1
206-44-0	Fluoranthene	0.71	U	0.71	0.71	7.1
86-73-7	Fluorene	5.8	J	0.71	0.71	7.1
118-74-1	Hexachlorobenzene	0.71	U	0.71	0.71	7.1
87-68-3	Hexachlorobutadiene	0.71	U	0.71	0.71	7.1
77-47-4	Hexachlorocyclopentadiene	1.4	U	1.4	1.4	14
67-72-1	Hexachloroethane	0.71	U	0.71	0.71	7.1
193-39-5	Indeno(1,2,3-c,d)pyrene	0.71	U	0.71	0.71	7.1
78-59-1	Isophorone	0.71	U	0.71	0.71	7.1
621-64-7	N-Nitrosodi-n-propylamine	0.71	U	0.71	0.71	7.1
62-75-9	N-Nitrosodimethylamine	0.71	U	0.71	0.71	7.1
86-30-6	N-Nitrosodiphenylamine	0.71	U	0.71	0.71	7.1
91-20-3	Naphthalene	32		0.71	0.71	7.1
98-95-3	Nitrobenzene	0.71	U	0.71	0.71	7.1
85-01-8	Phenanthrene	13		0.71	0.71	7.1
129-00-0	Pyrene	1.5	J	0.71	0.71	7.1
110-86-1	Pyridine	0.71	U	0.71	0.71	7.1

SW8270D

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1509029

Matrix: Liquid   Lab Sample ID: 1509029-003C

Sample wt/vol: 700mL   Lab File ID: SV17650.D

Level: (low/med) LOW   Date Collected: 9/3/2015 10:40 AM

% Moisture: N/A   Date Received: 9/4/2015 8:55 AM

Extract Volume: 1000(µl)   Date Prepped: 9/9/2015 7:30 AM

Seq Number: 200694   Date Analyzed: 9/9/2015 1:38 PM

GC Column: SV1, 7/7/15, SN-1281262   Dilution Factor: 1.00

Column ID: 0.25mmID(mm)   Batch ID/ Ext Mthd: 6292/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
91-94-1	3,3´-Dichlorobenzidine	0.71	U	0.71	0.71	7.1
92-87-5	Benzidine	1.4	U	1.4	1.4	14

SW8270D

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.: MW-11

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-006C

Sample wt/vol: 300mL Lab File ID: SV17651.D

Level: (low/med) LOW Date Collected: 9/3/2015 11:30 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 1000(µl) Date Prepped: 9/9/2015 7:30 AM

Seq Number: 200687 Date Analyzed: 9/9/2015 2:10 PM

GC Column: SV1, 7/7/15, SN-1281262 Dilution Factor: 1.00

Column ID: 0.25mmID(mm) Batch ID/ Ext Mthd: 6292/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
120-82-1	1,2,4-Trichlorobenzene	1.7	U	1.7	1.7	17
95-50-1	1,2-Dichlorobenzene	1.7	U	1.7	1.7	17
541-73-1	1,3-Dichlorobenzene	1.7	U	1.7	1.7	17
106-46-7	1,4-Dichlorobenzene	1.7	U	1.7	1.7	17
121-14-2	2,4-Dinitrotoluene	1.7	U	1.7	1.7	17
606-20-2	2,6-Dinitrotoluene	1.7	U	1.7	1.7	17
91-58-7	2-Chloronaphthalene	1.7	U	1.7	1.7	17
88-74-4	2-Nitroaniline	1.7	U	1.7	1.7	17
99-09-2	3-Nitroaniline	1.7	U	1.7	1.7	17
101-55-3	4-Bromophenyl phenyl ether	1.7	U	1.7	1.7	17
106-47-8	4-Chloroaniline	1.7	U	1.7	1.7	17
7005-72-3	4-Chlorophenyl phenyl ether	1.7	U	1.7	1.7	17
100-01-6	4-Nitroaniline	1.7	U	1.7	1.7	17
83-32-9	Acenaphthene	180		1.7	1.7	17
208-96-8	Acenaphthylene	1.7	U	1.7	1.7	17
62-53-3	Aniline	1.7	U	1.7	1.7	17
120-12-7	Anthracene	46		1.7	1.7	17
103-33-3	Azobenzene	1.7	U	1.7	1.7	17
56-55-3	Benzo(a)anthracene	1.7	U	1.7	1.7	17
50-32-8	Benzo(a)pyrene	1.7	U	1.7	1.7	17
205-99-2	Benzo(b)fluoranthene	1.7	U	1.7	1.7	17
191-24-2	Benzo(g,h,i)perylene	1.7	U	1.7	1.7	17
207-08-9	Benzo(k)fluoranthene	1.7	U	1.7	1.7	17
100-51-6	Benzyl alcohol	1.7	U	1.7	1.7	17
111-91-1	Bis(2-chloroethoxy)methane	1.7	U	1.7	1.7	17
111-44-4	Bis(2-chloroethyl)ether	1.7	U	1.7	1.7	17
108-60-1	Bis(2-chloroisopropyl)ether	1.7	U	1.7	1.7	17
	Bis(2-ethylhexyl)phthalate	9.0	J	1.7	1.7	17
85-68-7	Butyl benzyl phthalate	1.7	U	1.7	1.7	17
86-74-8	Carbazole	1.7	U	1.7	1.7	17
218-01-9	Chrysene	1.7	J	1.7	1.7	17
84-74-2	Di-n-butyl phthalate	1.7	U	1.7	1.7	17
117-84-0	Di-n-octyl phthalate	1.7	U	1.7	1.7	17

SW8270D

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-11

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-006C

Sample wt/vol: 300mL Lab File ID: SV17651.D

Level: (low/med) LOW Date Collected: 9/3/2015 11:30 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 1000(µl) Date Prepped: 9/9/2015 7:30 AM

Seq Number: 200687 Date Analyzed: 9/9/2015 2:10 PM

GC Column: SV1, 7/7/15, SN-1281262 Dilution Factor: 1.00

Column ID: 0.25mmID(mm) Batch ID/ Ext Mthd: 6292/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
53-70-3	Dibenzo(a,h)anthracene	1.7	U	1.7	1.7	17
132-64-9	Dibenzofuran	1.7	U	1.7	1.7	17
84-66-2	Diethyl phthalate	1.7	U	1.7	1.7	17
131-11-3	Dimethyl phthalate	1.7	U	1.7	1.7	17
206-44-0	Fluoranthene	25		1.7	1.7	17
86-73-7	Fluorene	240		1.7	1.7	17
118-74-1	Hexachlorobenzene	1.7	U	1.7	1.7	17
87-68-3	Hexachlorobutadiene	1.7	U	1.7	1.7	17
77-47-4	Hexachlorocyclopentadiene	3.3	U	3.3	3.3	33
67-72-1	Hexachloroethane	1.7	U	1.7	1.7	17
193-39-5	Indeno(1,2,3-c,d)pyrene	1.7	U	1.7	1.7	17
78-59-1	Isophorone	1.7	U	1.7	1.7	17
621-64-7	N-Nitrosodi-n-propylamine	1.7	U	1.7	1.7	17
62-75-9	N-Nitrosodimethylamine	1.7	U	1.7	1.7	17
86-30-6	N-Nitrosodiphenylamine	1.7	U	1.7	1.7	17
98-95-3	Nitrobenzene	1.7	U	1.7	1.7	17
129-00-0	Pyrene	44		1.7	1.7	17
110-86-1	Pyridine	1.7	U	1.7	1.7	17

SW8270D

JOK 10/27/15

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-11

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-006C

Sample wt/vol: 300mL Lab File ID: SV17665.D

Level: (low/med) LOW Date Collected: 9/3/2015 11:30 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 1000(µl) Date Prepped: 9/9/2015 7:30 AM

Seq Number: 200863 Date Analyzed: 9/10/2015 12:32 PM

GC Column: SV1, 7/7/15, SN-1281262 Dilution Factor: 100.00

Column ID: 0.25mmID(mm) Batch ID/ Ext Mthd: 6292/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
91-57-6	2-Methylnaphthalene	6700	D	170	170	1700

SW8270D

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-11

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-006C

Sample wt/vol: 300mL Lab File ID: SV17651.D

Level: (low/med) LOW Date Collected: 9/3/2015 11:30 AM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 1000(µl) Date Prepped: 9/9/2015 7:30 AM

Seq Number: 200695 Date Analyzed: 9/9/2015 2:10 PM

GC Column: SV1, 7/7/15, SN-1281262 Dilution Factor: 1.00

Column ID: 0.25mmID(mm) Batch ID/ Ext Mthd: 6292/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
91-94-1	3,3´-Dichlorobenzidine	1.7	U	1.7	1.7	17
92-87-5	Benzidine	3.3	U	3.3	3.3	33

SW8270D

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-11

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1509029

Matrix: Liquid   Lab Sample ID: 1509029-006C

Sample wt/vol: 300mL   Lab File ID: SV17658.D

Level: (low/med) LOW   Date Collected: 9/3/2015 11:30 AM

% Moisture: N/A   Date Received: 9/4/2015 8:55 AM

Extract Volume: 1000(µl)   Date Prepped: 9/9/2015 7:30 AM

Seq Number: 200689   Date Analyzed: 9/9/2015 5:10 PM

GC Column: SV1, 7/7/15, SN-1281262   Dilution Factor: 10.00

Column ID: 0.25mmID(mm)   Batch ID/ Ext Mthd: 6292/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
91-20-3	Naphthalene	1400	D	17	17	170
85-01-8	Phenanthrene	1200	D	17	17	170

SW8270D

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-12

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-007C

Sample wt/vol: 1000mL Lab File ID: SV17652.D

Level: (low/med) LOW Date Collected: 9/3/2015 12:30 PM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 1000(µl) Date Prepped: 9/9/2015 7:30 AM

Seq Number: 200688 Date Analyzed: 9/9/2015 2:35 PM

GC Column: SV1, 7/7/15, SN-1281262 Dilution Factor: 1.00

Column ID: 0.25mmID(mm) Batch ID/ Ext Mthd: 6292/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	5.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	5.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	5.0
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.50	5.0
121-14-2	2,4-Dinitrotoluene	0.50	U	0.50	0.50	5.0
606-20-2	2,6-Dinitrotoluene	0.50	U	0.50	0.50	5.0
91-58-7	2-Chloronaphthalene	0.50	U	0.50	0.50	5.0
88-74-4	2-Nitroaniline	0.50	U	0.50	0.50	5.0
99-09-2	3-Nitroaniline	0.50	U	0.50	0.50	5.0
101-55-3	4-Bromophenyl phenyl ether	0.50	U	0.50	0.50	5.0
106-47-8	4-Chloroaniline	0.50	U	0.50	0.50	5.0
7005-72-3	4-Chlorophenyl phenyl ether	0.50	U	0.50	0.50	5.0
100-01-6	4-Nitroaniline	0.50	U	0.50	0.50	5.0
83-32-9	Acenaphthene	40		0.50	0.50	5.0
208-96-8	Acenaphthylene	0.50	U	0.50	0.50	5.0
62-53-3	Aniline	0.50	U	0.50	0.50	5.0
120-12-7	Anthracene	10		0.50	0.50	5.0
103-33-3	Azobenzene	0.50	U	0.50	0.50	5.0
56-55-3	Benzo(a)anthracene	0.50	U	0.50	0.50	5.0
50-32-8	Benzo(a)pyrene	0.50	U	0.50	0.50	5.0
205-99-2	Benzo(b)fluoranthene	0.50	U	0.50	0.50	5.0
191-24-2	Benzo(g,h,i)perylene	0.50	U	0.50	0.50	5.0
207-08-9	Benzo(k)fluoranthene	0.50	U	0.50	0.50	5.0
100-51-6	Benzyl alcohol	0.50	U	0.50	0.50	5.0
111-91-1	Bis(2-chloroethoxy)methane	0.50	U	0.50	0.50	5.0
111-44-4	Bis(2-chloroethyl)ether	0.50	U	0.50	0.50	5.0
108-60-1	Bis(2-chloroisopropyl)ether	0.50	U	0.50	0.50	5.0
	Bis(2-ethylhexyl)phthalate	0.50	U	0.50	0.50	5.0
85-68-7	Butyl benzyl phthalate	0.50	U	0.50	0.50	5.0
86-74-8	Carbazole	0.50	U	0.50	0.50	5.0
218-01-9	Chrysene	0.50	U	0.50	0.50	5.0
84-74-2	Di-n-butyl phthalate	0.50	U	0.50	0.50	5.0
117-84-0	Di-n-octyl phthalate	0.50	U	0.50	0.50	5.0

SW8270D

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-12

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-007C

Sample wt/vol: 1000mL Lab File ID: SV17652.D

Level: (low/med) LOW Date Collected: 9/3/2015 12:30 PM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 1000(µl) Date Prepped: 9/9/2015 7:30 AM

Seq Number: 200688 Date Analyzed: 9/9/2015 2:35 PM

GC Column: SV1, 7/7/15, SN-1281262 Dilution Factor: 1.00

Column ID: 0.25mmID(mm) Batch ID/ Ext Mthd: 6292/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
53-70-3	Dibenzo(a,h)anthracene	0.50	U	0.50	0.50	5.0
132-64-9	Dibenzofuran	0.50	U	0.50	0.50	5.0
84-66-2	Diethyl phthalate	0.50	U	0.50	0.50	5.0
131-11-3	Dimethyl phthalate	0.50	U	0.50	0.50	5.0
206-44-0	Fluoranthene	3.9	J	0.50	0.50	5.0
86-73-7	Fluorene	54		0.50	0.50	5.0
118-74-1	Hexachlorobenzene	0.50	U	0.50	0.50	5.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	5.0
77-47-4	Hexachlorocyclopentadiene	1.0	U	1.0	1.0	10
67-72-1	Hexachloroethane	0.50	U	0.50	0.50	5.0
193-39-5	Indeno(1,2,3-c,d)pyrene	0.50	U	0.50	0.50	5.0
78-59-1	Isophorone	0.50	U	0.50	0.50	5.0
621-64-7	N-Nitrosodi-n-propylamine	0.50	U	0.50	0.50	5.0
62-75-9	N-Nitrosodimethylamine	0.50	U	0.50	0.50	5.0
86-30-6	N-Nitrosodiphenylamine	0.50	U	0.50	0.50	5.0
98-95-3	Nitrobenzene	0.50	U	0.50	0.50	5.0
129-00-0	Pyrene	8.3	~~M~~	0.50	0.50	5.0
110-86-1	Pyridine	0.50	U	0.50	0.50	5.0

SW8270D

10/27/15

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-12

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1509029

Matrix: Liquid   Lab Sample ID: 1509029-007C

Sample wt/vol: 1000mL   Lab File ID: SV17666.D

Level: (low/med) LOW   Date Collected: 9/3/2015 12:30 PM

% Moisture: N/A   Date Received: 9/4/2015 8:55 AM

Extract Volume: 1000(µl)   Date Prepped: 9/9/2015 7:30 AM

Seq Number: 200864   Date Analyzed: 9/10/2015 12:57 PM

GC Column: SV1, 7/7/15, SN-1281262   Dilution Factor: 100.00

Column ID: 0.25mmID(mm)   Batch ID/ Ext Mthd: 6292/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
91-57-6	2-Methylnaphthalene	1400	D	50	50	500

SW8270D

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-12

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-007C

Sample wt/vol: 1000mL Lab File ID: SV17652.D

Level: (low/med) LOW Date Collected: 9/3/2015 12:30 PM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 1000(µl) Date Prepped: 9/9/2015 7:30 AM

Seq Number: 200696 Date Analyzed: 9/9/2015 2:35 PM

GC Column: SV1, 7/7/15, SN-1281262 Dilution Factor: 1.00

Column ID: 0.25mmID(mm) Batch ID/ Ext Mthd: 6292/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
91-94-1	3,3´-Dichlorobenzidine	0.50	U	0.50	0.50	5.0
92-87-5	Benzidine	1.0	U	1.0	1.0	10

SW8270D

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-12

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1509029

Matrix: Liquid Lab Sample ID: 1509029-007C

Sample wt/vol: 1000mL Lab File ID: SV17659.D

Level: (low/med) LOW Date Collected: 9/3/2015 12:30 PM

% Moisture: N/A Date Received: 9/4/2015 8:55 AM

Extract Volume: 1000(µl) Date Prepped: 9/9/2015 7:30 AM

Seq Number: 200690 Date Analyzed: 9/9/2015 5:36 PM

GC Column: SV1, 7/7/15, SN-1281262 Dilution Factor: 10.00

Column ID: 0.25mmID(mm) Batch ID/ Ext Mthd: 6292/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
91-20-3	Naphthalene	470	D	5.0	5.0	50
85-01-8	Phenanthrene	190	D	5.0	5.0	50

SW8270D

Analytical Sample Results

Job Number: 15090182

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PACE ANALYTICAL SERVICES - LONG ISLAND
Project: TOC
Client Sample ID: 1509400-001A BW-2
Lab Sample ID: 15090182-01 (AS27314)

Collection Date: 09/03/2015 10:00
Sample Matrix: WATER
Received Date: 09/09/2015 06:30
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1	817	SM 5310B	09/09/2015 14:56	JLM	NA	NA	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Total Organic Carbon	OC002	**346**	25.0	50.00		817

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Lat 10/27/15

Pace Analytical®

Analytical Sample Results

Job Number: 15090182

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PACE ANALYTICAL SERVICES - LONG ISLAND
Project: TOC
Client Sample ID: 1509400-002A BW-4
Lab Sample ID: 15090182-02 (AS27315)

Collection Date: 09/03/2015 10:20
Sample Matrix: WATER
Received Date: 09/09/2015 06:30
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	817	SM 5310B	09/09/2015 15:09	JLM	NA	NA	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Total Organic Carbon	OC002	**56.0**	25.0	50.00		817

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

LOK 10/27/15

Pace Analytical®

Analytical Sample Results

Job Number: 15090182

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PACE ANALYTICAL SERVICES - LONG ISLAND
Project: TOC
Client Sample ID: 1509400-003A MW-3
Lab Sample ID: 15090182-03 (AS27316)

Collection Date: 09/03/2015 10:30
Sample Matrix: WATER
Received Date: 09/09/2015 06:30
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	817	SM 5310B	09/09/2015 15:20	JLM	NA	NA	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Total Organic Carbon	OC002	**617**	25.0	50.00		817

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Lor 10/27/15

Analytical Sample Results

Job Number: 15090182

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PACE ANALYTICAL SERVICES - LONG ISLAND
Project: TOC
Client Sample ID: 1509400-004A MW-9
Lab Sample ID: 15090182-04 (AS27317)

Collection Date: 09/03/2015 10:50
Sample Matrix: WATER
Received Date: 09/09/2015 06:30
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	818	SM 5310B	09/10/2015 10:00	JLM	NA	NA	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Total Organic Carbon	OC002	**6.11**	0.500	1.00		818

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

JQ 10/21/15

Analytical Sample Results

Job Number: 15090182

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PACE ANALYTICAL SERVICES - LONG ISLAND
Project: TOC
Client Sample ID: 1509400-005A MW-10
Lab Sample ID: 15090182-05 (AS27318)

Collection Date: 09/03/2015 11:00
Sample Matrix: WATER
Received Date: 09/09/2015 06:30
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	818	SM 5310B	09/10/2015 10:15	JLM	NA	NA	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Total Organic Carbon	OC002	15.7	0.500	1.00		818

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

LGN 10/27/15

Pace Analytical®

Analytical Sample Results

Job Number: 15090182

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PACE ANALYTICAL SERVICES - LONG ISLAND
Project: TOC
Client Sample ID: 1509400-006A MW-11
Lab Sample ID: 15090182-06 (AS27319)

Collection Date: 09/03/2015 11:30
Sample Matrix: WATER
Received Date: 09/09/2015 06:30
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	817	SM 5310B	09/09/2015 15:56	JLM	NA	NA	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Total Organic Carbon	OC002	66.0	25.0	50.00		817

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

PAN 10/27/15

Pace Analytical®

Analytical Sample Results

Job Number: 15090182

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PACE ANALYTICAL SERVICES - LONG ISLAND
Project: TOC
Client Sample ID: 1509400-007A MW-12
Lab Sample ID: 15090182-07 (AS27320)

Collection Date: 09/03/2015 12:30
Sample Matrix: WATER
Received Date: 09/09/2015 06:30
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	817	SM 5310B	09/09/2015 16:09	JLM	NA	NA	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Total Organic Carbon	OC002	82.4	25.0	50.00		817

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

for 10/27/15

Attachment-C

Second post round lab validation

DATA USABILITY SUMMARY REPORT – DUSR
DATA VALIDATION SUMMARY

ORGANIC ANALYSIS

TARGET COMPOUND LIST (TCL) VOLATILES BY GC/MS Method 8260C
and BASE NEUTRAL LIST SEMIVOLATILES BY GC/MS Method 8270D
TOTAL ORGANIC CARBON (TOC) BY STANDARD METHOD 5310B

For Groundwater Samples Collected
October 12, 2015
From 358 North Avenue, New Rochelle, NY
Schmucklers
Collected by WRS dba Berninger Environmental, Inc.

SAMPLE DELIVERY GROUP NUMBER:
1510095 (VOA/SVOA BN)
By American Analytical Laboratories, LLC. [ELAP #11418]
And Pace Analytical [ELAP #11078]

SUBMITTED TO:

Mr. Walter Berninger/President
WRS dba Berninger Environmental
17 Old Dock Road
Yaphank, NY 11980

November 10, 2015

PREPARED BY:

Lori A. Beyer/President
L.A.B. Validation Corp.
14 West Point Drive
East Northport, NY 11731

Lori A Beyer

Schmucklers, 358 North Avenue, New Rochelle, NY- Groundwater Samples; October 2015 Sampling Event ;Data Usability Summary Report (Data Validation): TCL Volatiles, BN Semivolatiles and Total Organic Carbon (TOC).

Table of Contents:

Introduction:
A validation was performed on groundwater samples and the associated quality control samples for organic analysis for samples collected under chain of custody documentation by Berninger Environmental Inc. and submitted to American Analytical for subsequent analysis. This report contains the laboratory and validation results for the field samples itemized below. The groundwater samples were collected on October 12, 2015.

The samples were analyzed by American Analytical, utilizing SW846 Methods and submitted under NYSDEC ASP (2005) Category B equivalent deliverable requirements for the associated analytical methodologies employed. The analytical testing consisted of the Target Compound/Analyte List for Volatile Organics and the Base Neutral Analyte List for Semivolatile Organics. TOC analysis was performed by Pace Analytical.

The data was evaluated in accordance with EPA Region II National Functional Guidelines for Organic Data Review and EPA Region II SOPs for 8260 (HW-24 Revision 4), 8270 and also in conjunction with the analytical methodologies for which the samples were analyzed, where applicable and relevant.

The data validation report pertains to the following samples:

Sample Identification	Laboratory Identification	Sample Matrix	Date Collected	Date Received
BW-2	1510095-001	Groundwater	10/12/15	10/13/15
MW-3	1510095-002	Groundwater	10/12/15	10/13/15
BW-4	1510095-003	Groundwater	10/12/15	10/13/15
MW-9	1510095-004	Groundwater	10/12/15	10/13/15
MW-10	1510095-005	Groundwater	10/12/15	10/13/15
MW-11	1510095-006	Groundwater	10/12/15	10/13/15
MW-12	1510095-007	Groundwater	10/12/15	10/13/15

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 not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

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.

J- - The result is an estimated quantity, but the result may be biased low.

D – Analyte concentration was obtained from diluted analysis.

Sample Receipt:
The Chain of Custody document indicate that the samples were hand delivered by Berninger Environmental field sampling personnel and received at American Analytical on 10/13/15 upon completion of the sampling event. Sample login notes were generated and no problems and/or discrepancies were noted, consequently, the integrity of the samples has been assumed to be good.

The data summary Form I's included in Appendix C 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.

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 Target Analyte List (TCL) Volatile Organics by GC/MS SW846 Method 8260C

The following method criteria were reviewed: holding times, SMCs, MS, MSD, LCS, Laboratory Spiked Blanks, Method Blanks, Tunes, Calibrations, Internal Standards, Target Component Identification, Quantitation, Reported Quantitation Limits and Overall System Performance. The Volatile results were considered to be valid and useable with the exception of non-detects for 2-Chloroethyl vinyl ether in all samples due to degradation in acidic conditions as noted within the following 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, "UJ", or unusable, "R", if the holding times are grossly exceeded.

Samples pertaining to this SDG were performed within the Method required holding times as well as the technical holding times for data validation of 14 days from collection to analysis and diluted reanalysis. No data validation qualifiers were required based upon holding time.

1.2 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 specifications, qualifications are required to be applied to associated samples and analytes.

Surrogate recoveries (%R) were found to be within acceptable limits for all surrogate compounds for all analyses pertaining to this SDG with the exception of Toluene-d8 which recovered low at 64.5% in initial undiluted analysis of MW-3. Reanalysis at a 1:10 and 1:100 dilutions due to target analytes over the instruments linear calibration range resulted in acceptable surrogate recovery values with reduced matrix interferences. Toluene and 1,1,2-Trichloroethane concentrations reported from initial analysis must be considered estimated, "J."

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 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.

Batch MS/MSD was submitted.

1.4 Laboratory Control Sample/Fortified Blank Spikes

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 recovery values fell within acceptance limits with the exception of 2-Chloroethyl vinyl ether which was non-recoverable due to acid preservation and degradation. Non-detects were previously rejected, "R" in all samples.

1.5 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, Trip, 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

*2x the CRQL for methylene chloride, 2-butanone and acetone.
**4x the CRQL for methylene chloride, 2-butanone, and acetone
***Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ug/L.
Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

A) **Method Blank Contamination:**

Acceptable levels of Methylene Chloride and Acetone were detected in the method blanks associated with sample analysis. Results were qualified based on the above criteria and negated in all field samples.

B) **Field Blank Contamination:**

Field Blank was not submitted with this data set.

C) **Trip Blank Contamination:**

Trip Blank was not submitted with this data set

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 volatile organics is Bromofluorobenzene (BFB).

Instrument performance was generated within acceptable limits and frequency for Bromofluorobenzene (BFB) for all analyses conducted for this SDG.

1.7 Initial and Continuing Calibrations

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

The continuing calibration checks document that the instrument is giving satisfactory daily performance. Initial calibration verification met acceptance criteria.

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 >/= 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". Method 8260C allows for a minimum response factor of 0.1 for Acetone and 2-Butanone.

All the response factors for the target analytes reported were found to be within acceptable limits (>/=0.05) and minimum response criteria in Table 4 of Method 8260C, for the initial and continuing calibrations for all reported analytes.

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 >20% 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. Closing CCV must meet 30% criteria.

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 the 2-Butanone, Acetone, Methylene Chloride, Acrolein, Cyclohexane and Freon 114. Sample results have been qualified, "J/UJ" for samples where the associated CCV has %D>20%.

***Note: the method allows for analytes outside 20% criteria based on number of analytes analyzed.**

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 of 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 samples were spiked with internal standards prior to sample analysis. The area responses and retention time of each internal standard met QC criteria in all samples associated with this SDG.

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. Generally for water samples an acceptable RPD is 25%.

Field Duplicate analysis was not collected as part of 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 spectra 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.

1.11 Compound Quantification and Reported Detection Limits

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

As required, the laboratory reported "J" values between the limit of quantitation (LOQ) and limit of detection (LOD). This is consistent with common laboratory practices and a requirement of the National Environmental Laboratory Approval Program (NELAP).

All groundwater samples were initially analyzed undiluted.

Secondary dilutions were required where analyte concentrations were determined to be over the instruments calibration range. Results have been qualified, "D" as required by NYSDEC for those compounds.

1.12 Overall System Performance

Good resolution and chromatographic performance were observed. Raw data was reviewed and confirmed that no carryover exists for any analysis conducted with this data set.

2.0 Base Neutral List (BN) 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 Total Semivolatile results for MW-3, MW-11 and MW-12 are considered to be valid and usable 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”. The non-detects (sample quantitation limits) are required to be flagged as estimated, “J”, or unusable, “R”, if the holding times are grossly exceeded.

Aqueous samples were extracted and analyzed within the method required holding times and the technical holding times (7 days from collection for water samples) required for data validation.

2.2 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 base neutral surrogate standards at the sample extraction portion of analysis. Acceptable surrogate recovery values were obtained.

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.

Site specific MS/MSD was not performed. Acceptable Laboratory Control Sample - LCS) was performed and resulted in acceptable recoveries for all spiked analytes. Based on professional judgment, no qualifications to the data were made based on non-site specific QC. The National Functional Guidelines states that MS/MSD data alone should not be used alone to qualify data.

2.4 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 with the exception of Diethyl phthalate (33.8%) and Dimethylphthalate (7.32%). Results for these analytes have been qualified, "J/UJ" in MW-3, MW-11 and MW-12. No additional qualifications were applied.

2.5 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.

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

A) **Method Blank Contamination:**

Butylbenzylphthalate was detected in the method blank at acceptable levels. The laboratory reported concentration in MW-3, MW-11 and MW-12 were negated due to laboratory contamination.

B) **Field Blank Contamination:**

Field Blank analysis is not applicable to this sampling event.

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 is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving 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 >/= 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 (>/=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 <30% and %D must be <25%. 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 30% 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.

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

Continuing Calibrations: The continuing calibrations provided and the %D was within acceptable limits (20%) for all compounds.

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 of 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.

2.9 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. Generally for water samples an acceptable RPD is 25%.

Field duplicate analysis was not collected as part of 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 spectra 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.

Samples MW-11 and MW-12 were initially analyzed undiluted. Reanalysis at 1:10 dilutions were required to bring several PAH concentrations within the instruments linear calibration range. The sample chromatograms document significant non-target compounds and a complex sample matrix. 2-Methylnaphthalene raw concentrations were slightly over the range in 1:10 analysis of MW-11 and MW-12. Results have been qualified, "J" (in addition to "D" due to dilution).

2.11 Compound Quantification and Reported Detection Limits

GC/MS quantitative analysis is considered to be acceptable. Correct internal standards and response factors 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).

2.12 Overall System Performance

Acceptable system performance was maintained throughout the analysis for base neutral analysis.

3.0 Total Organic Carbon by Standard Method 5310B

Groundwater samples were submitted for Total Organic Carbon to Pace Melville. Due to instrument problems, the samples were shipped to Pace Schenectady and analyzed for TOC. The groundwater results for these samples were considered to be valid and usable with the appropriate qualifiers as notated in the following text.

3.1 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 analyzed with the method required holding time of 28 days from collection for TOC. No qualifications were applied based on holding time.

3.2 Calibration

Acceptable ICVs and CCVs were analyzed yielding recovery values between 85-115%. No qualifications were applied based upon calibration data.

3.3 Blanks

Quality assurance (QA) blanks, i.e. method, field or preparation blanks are prepared to identify any contamination, which 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.

Acceptable method blanks were analyzed with this SDG as dictated by the analytical method employed. TOC was not detected in any of the calibration blanks.

3.4 Spiked Sample Recovery

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

Matrix Spike was not submitted in the data package.

3.5 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 in order to determine the long-term precision of the analytical method on various matrices.

Laboratory duplicate analysis was not submitted in the data package.

Field duplicate analysis was not collected for this sampling event.

3.6 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.

Acceptable LCS was analyzed.

3.7 Sample Results Verification

Analyte quantitation was generated in accordance with protocols. The instrument logs were verified and found within the linear ranges of each instrument used for quantitation.

3.8 Overall Assessment of Data

The data was of acceptable quality.

Reviewer's Signature Lori A Beyer **Date** 11/11/2015

Appendix C
Data Summary Form I's
With Qualifications

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

BW-2

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Beringer SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-001A

Sample wt/vol: 5mL Lab File ID: V25951.D

Level: (low/med) LOW Date Collected: 10/12/2015 9:36 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl) Date Prepped: 10/16/2015 10:47 AM

Seq Number: 221016 Date Analyzed: 10/17/2015 3:40 AM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6813/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	13		0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
95-63-6	1,2,4-Trimethylbenzene	0.50	U	0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
108-67-8	1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.50	2.0
78-93-3	2-Butanone	1.0	U J	1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	~~U~~ R	0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	0.50	U	0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0
67-64-1	Acetone	3.4	~~BJ*~~ UJ	1.0	1.0	4.0

SW8260C

[illegible] 11/10/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

BW-2

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-001A

Sample wt/vol: 5mL Lab File ID: V25951.D

Level: (low/med) LOW Date Collected: 10/12/2015 9:36 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl) Date Prepped: 10/16/2015 10:47 AM

Seq Number: 221016 Date Analyzed: 10/17/2015 3:40 AM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6813/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene	6.9		0.50	0.50	2.0
108-86-1	Bromobenzene	0.50	U	0.50	0.50	2.0
74-97-5	Bromochloromethane	0.50	U	0.50	0.50	2.0
75-27-4	Bromodichloromethane	0.50	U	0.50	0.50	2.0
75-25-2	Bromoform	0.50	U	0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	1.0	1.0	4.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U	0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U	0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U	0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U	0.50	0.50	2.0
67-66-3	Chloroform	0.50	U	0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U	0.50	0.50	2.0
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
110-82-7	Cyclohexane	32	J	0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U	0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U	0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	2.5	2.5	10
100-41-4	Ethylbenzene	0.50	U	0.50	0.50	2.0
76-14-2	Freon-114	0.50	U J	0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	2.0
98-82-8	Isopropylbenzene	6.1		0.50	0.50	2.0
179601-23-1	m,p-Xylene	1.0	U	1.0	1.0	4.0
79-20-9	Methyl Acetate	0.50	U	0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0
75-09-2	Methylene chloride	5.8	~~B*~~ UJ	0.50	0.50	2.0
104-51-8	n-Butylbenzene	4.6		0.50	0.50	2.0
103-65-1	n-Propylbenzene	8.4		0.50	0.50	2.0
91-20-3	Naphthalene	0.84	J	0.50	0.50	2.0
95-47-6	o-Xylene	0.50	U	0.50	0.50	2.0

SW8260C

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

BW-2

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1510095

Matrix: Liquid   Lab Sample ID: 1510095-001A

Sample wt/vol: 5mL   Lab File ID: V25951.D

Level: (low/med) LOW   Date Collected: 10/12/2015 9:36 AM

% Moisture: N/A   Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl)   Date Prepped: 10/16/2015 10:47 AM

Seq Number: 221016   Date Analyzed: 10/17/2015 3:40 AM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 1.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6813/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q		DL	LOD	LOQ
105-05-5	p-Diethylbenzene	1.9	~~Jm~~	J	0.50	0.50	2.0
622-96-8	p-Ethyltoluene	1.2	J		0.50	0.50	2.0
135-98-8	sec-Butylbenzene	2.4			0.50	0.50	2.0
100-42-5	Styrene	0.50	U		0.50	0.50	2.0
75-65-0	t-Butyl alcohol	2.5	U		2.5	2.5	10
98-06-6	tert-Butylbenzene	0.50	U		0.50	0.50	2.0
127-18-4	Tetrachloroethene	0.50	U		0.50	0.50	2.0
108-88-3	Toluene	0.50	U		0.50	0.50	2.0
156-60-5	trans-1,2-Dichloroethene	0.50	U		0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U		0.50	0.50	2.0
79-01-6	Trichloroethene	0.50	U		0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U		0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U		0.50	0.50	2.0
75-01-4	Vinyl chloride	0.50	U		0.50	0.50	2.0
107-02-8	Acrolein	5.3	~~Jm*~~	J	5.0	5.0	10
107-13-1	Acrylonitrile	0.50	U		0.50	0.50	2.0

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1510095

Matrix: Liquid   Lab Sample ID: 1510095-002A

Sample wt/vol: 5mL   Lab File ID: V25952.D

Level: (low/med) LOW   Date Collected: 10/12/2015 9:49 AM

% Moisture: N/A   Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl)   Date Prepped: 10/16/2015 10:47 AM

Seq Number: 221018   Date Analyzed: 10/17/2015 4:08 AM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 1.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6813/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	4.4		0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	7.0		0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	26	J	0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.78	J	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	13		0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	18	~~M*~~	0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
95-63-6	1,2,4-Trimethylbenzene	11		0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
108-67-8	1,3,5-Trimethylbenzene	2.9		0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.50	2.0
78-93-3	2-Butanone	1.0	U J	1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	~~U~~ R	0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	1.4	J	0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0
67-64-1	Acetone	13	~~B*~~ UJ	1.0	1.0	4.0

SW8260C

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC.

Contract:

Lab Code: AAL

ClientID: Berninger

SAS No.:

SDG No.: 1510095

Matrix: Liquid

Lab Sample ID: 1510095-002A

Sample wt/vol: 5mL

Lab File ID: V25952.D

Level: (low/med) LOW

Date Collected: 10/12/2015 9:49 AM

% Moisture: N/A

Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl)

Date Prepped: 10/16/2015 10:47 AM

Seq Number: 221018

Date Analyzed: 10/17/2015 4:08 AM

GC Column: V2 06/19/15 SN#1293167

Dilution Factor: 1.00

Column ID: 0.18(mm)

Batch ID/ Ext Mthd: 6813/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.70	J	0.50	0.50	2.0
108-86-1	Bromobenzene	0.50	U	0.50	0.50	2.0
74-97-5	Bromochloromethane	0.50	U	0.50	0.50	2.0
75-27-4	Bromodichloromethane	0.50	U	0.50	0.50	2.0
75-25-2	Bromoform	0.50	U	0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	1.0	1.0	4.0
75-15-0	Carbon disulfide	8.0		0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U	0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U	0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U	0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U	0.50	0.50	2.0
67-66-3	Chloroform	1.5	J	0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U	0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
110-82-7	Cyclohexane	12	J	0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U	0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U	0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	2.5	2.5	10
100-41-4	Ethylbenzene	4.5		0.50	0.50	2.0
76-14-2	Freon-114	0.50	U J	0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	2.0
98-82-8	Isopropylbenzene	0.84	J	0.50	0.50	2.0
179601-23-1	m,p-Xylene	3.5	J	1.0	1.0	4.0
79-20-9	Methyl Acetate	0.50	U	0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0
75-09-2	Methylene chloride	6.1	~~B*~~ UJ	0.50	0.50	2.0
104-51-8	n-Butylbenzene	1.2	J	0.50	0.50	2.0
103-65-1	n-Propylbenzene	1.3	J	0.50	0.50	2.0
91-20-3	Naphthalene	20		0.50	0.50	2.0
95-47-6	o-Xylene	7.3		0.50	0.50	2.0
105-05-5	p-Diethylbenzene	6.3		0.50	0.50	2.0

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-002A

Sample wt/vol: 5mL Lab File ID: V25952.D

Level: (low/med) LOW Date Collected: 10/12/2015 9:49 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl) Date Prepped: 10/16/2015 10:47 AM

Seq Number: 221018 Date Analyzed: 10/17/2015 4:08 AM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6813/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
622-96-8	p-Ethyltoluene	4.7		0.50	0.50	2.0
135-98-8	sec-Butylbenzene	0.67	J	0.50	0.50	2.0
100-42-5	Styrene	0.50	U	0.50	0.50	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.50	U	0.50	0.50	2.0
108-88-3	Toluene	1.5	~~J~~ J	0.50	0.50	2.0
156-60-5	trans-1,2-Dichloroethene	17		0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U	0.50	0.50	2.0
75-01-4	Vinyl chloride	53		0.50	0.50	2.0
107-02-8	Acrolein	5.0	U J	5.0	5.0	10
107-13-1	Acrylonitrile	0.50	U	0.50	0.50	2.0

SW8260C

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-002A

Sample wt/vol: 5mL Lab File ID: V26005.D

Level: (low/med) LOW Date Collected: 10/12/2015 9:49 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl) Date Prepped: 10/19/2015 3:11 PM

Seq Number: 221042 Date Analyzed: 10/19/2015 3:38 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 10.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6844/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
156-59-2	cis-1,2-Dichloroethene	1500	D	5.0	5.0	20

SW8260C

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VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1510095

Matrix: Liquid   Lab Sample ID: 1510095-002A

Sample wt/vol: 5mL   Lab File ID: V26004.D

Level: (low/med) LOW   Date Collected: 10/12/2015 9:49 AM

% Moisture: N/A   Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl)   Date Prepped: 10/19/2015 3:11 PM

Seq Number: 221040   Date Analyzed: 10/19/2015 3:10 PM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 100.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6844/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
127-18-4	Tetrachloroethene	8100	D	50	50	200
79-01-6	Trichloroethene	11000	D	50	50	200

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VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

BW-4

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1510095

Matrix: Liquid   Lab Sample ID: 1510095-003A

Sample wt/vol: 5mL   Lab File ID: V25953.D

Level: (low/med) LOW   Date Collected: 10/12/2015 10:00 AM

% Moisture: N/A   Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl)   Date Prepped: 10/16/2015 10:47 AM

Seq Number: 221021   Date Analyzed: 10/17/2015 4:36 AM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 1.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6813/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U J	0.50	0.50	2.0
78-93-3	2-Butanone	1.0	U	1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	~~U~~ R	0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	44		0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0
67-64-1	Acetone	9.3	~~B*~~ UJ	1.0	1.0	4.0
71-43-2	Benzene	0.55	J	0.50	0.50	2.0
108-86-1	Bromobenzene	0.50	U	0.50	0.50	2.0
74-97-5	Bromochloromethane	0.50	U	0.50	0.50	2.0

SW8260C

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

BW-4

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-003A

Sample wt/vol: 5mL Lab File ID: V25953.D

Level: (low/med) LOW Date Collected: 10/12/2015 10:00 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl) Date Prepped: 10/16/2015 10:47 AM

Seq Number: 221021 Date Analyzed: 10/17/2015 4:36 AM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6813/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
75-27-4	Bromodichloromethane	0.50	U	0.50	0.50	2.0
75-25-2	Bromoform	0.50	U	0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	1.0	1.0	4.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U	0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U	0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U	0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U	0.50	0.50	2.0
67-66-3	Chloroform	0.50	U	0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U	0.50	0.50	2.0
156-59-2	cis-1,2-Dichloroethene	2.2		0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
110-82-7	Cyclohexane	43	J	0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U	0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U	0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	2.5	2.5	10
100-41-4	Ethylbenzene	18		0.50	0.50	2.0
76-14-2	Freon-114	0.50	U J	0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	2.0
98-82-8	Isopropylbenzene	13		0.50	0.50	2.0
179601-23-1	m,p-Xylene	87		1.0	1.0	4.0
79-20-9	Methyl Acetate	0.50	U	0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0
75-09-2	Methylene chloride	5.7	~~B*~~ UJ	0.50	0.50	2.0
104-51-8	n-Butylbenzene	39		0.50	0.50	2.0
103-65-1	n-Propylbenzene	24		0.50	0.50	2.0
95-47-6	o-Xylene	38		0.50	0.50	2.0
135-98-8	sec-Butylbenzene	27		0.50	0.50	2.0
100-42-5	Styrene	0.50	U	0.50	0.50	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.50	U	0.50	0.50	2.0

SW8260C

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

BW-4

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-003A

Sample wt/vol: 5mL Lab File ID: V25953.D

Level: (low/med) LOW Date Collected: 10/12/2015 10:00 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(ul) Date Prepped: 10/16/2015 10:47 AM

Seq Number: 221021 Date Analyzed: 10/17/2015 4:36 AM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6813/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
127-18-4	Tetrachloroethene	7.7		0.50	0.50	2.0
108-88-3	Toluene	3.4		0.50	0.50	2.0
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
79-01-6	Trichloroethene	6.5		0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U	0.50	0.50	2.0
75-01-4	Vinyl chloride	0.50	U	0.50	0.50	2.0
107-02-8	Acrolein	14	~~m*~~ J	5.0	5.0	10
107-13-1	Acrylonitrile	0.50	U	0.50	0.50	2.0

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

BW-4

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-003A

Sample wt/vol: 5mL Lab File ID: V26007.D

Level: (low/med) LOW Date Collected: 10/12/2015 10:00 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl) Date Prepped: 10/19/2015 3:11 PM

Seq Number: 221047 Date Analyzed: 10/19/2015 4:34 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 10.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6844/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
95-93-2	1,2,4,5-Tetramethylbenzene	1300	~~Dm~~ D	5.0	5.0	20
95-63-6	1,2,4-Trimethylbenzene	460	~~Dm~~ D	5.0	5.0	20
108-67-8	1,3,5-Trimethylbenzene	190	D	5.0	5.0	20
91-20-3	Naphthalene	640	D	5.0	5.0	20
105-05-5	p-Diethylbenzene	580	D	5.0	5.0	20
622-96-8	p-Ethyltoluene	270	D	5.0	5.0	20

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-9

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1510095

Matrix: Liquid   Lab Sample ID: 1510095-004A

Sample wt/vol: 5mL   Lab File ID: V25998.D

Level: (low/med) LOW   Date Collected: 10/12/2015 10:20 AM

% Moisture: N/A   Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl)   Date Prepped: 10/19/2015 3:11 PM

Seq Number: 221037   Date Analyzed: 10/19/2015 12:24 PM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 1.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6844/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	0.50	U	0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
95-63-6	1,2,4-Trimethylbenzene	0.50	U	0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
108-67-8	1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.50	2.0
78-93-3	2-Butanone	1.0	U J	1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	~~U~~ R	0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	0.50	U	0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0
67-64-1	Acetone	2.6	~~BJm*~~ UJ	1.0	1.0	4.0

SW8260C

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-9

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1510095

Matrix: Liquid   Lab Sample ID: 1510095-004A

Sample wt/vol: 5mL   Lab File ID: V25998.D

Level: (low/med) LOW   Date Collected: 10/12/2015 10:20 AM

% Moisture: N/A   Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(ul)   Date Prepped: 10/19/2015 3:11 PM

Seq Number: 221037   Date Analyzed: 10/19/2015 12:24 PM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 1.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6844/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.50	0.50	2.0
108-86-1	Bromobenzene	0.50	U	0.50	0.50	2.0
74-97-5	Bromochloromethane	0.50	U	0.50	0.50	2.0
75-27-4	Bromodichloromethane	0.50	U	0.50	0.50	2.0
75-25-2	Bromoform	0.50	U	0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	1.0	1.0	4.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U	0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U	0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U	0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U	0.50	0.50	2.0
67-66-3	Chloroform	0.68	J	0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U	0.50	0.50	2.0
156-59-2	cis-1,2-Dichloroethene	0.71	J	0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
110-82-7	Cyclohexane	0.50	U	0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U	0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U	0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	2.5	2.5	10
100-41-4	Ethylbenzene	0.50	U	0.50	0.50	2.0
76-14-2	Freon-114	0.50	U	0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	2.0
98-82-8	Isopropylbenzene	0.50	U	0.50	0.50	2.0
179601-23-1	m,p-Xylene	1.0	U	1.0	1.0	4.0
79-20-9	Methyl Acetate	0.50	U	0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0
75-09-2	Methylene chloride	5.8	~~B*~~ U	0.50	0.50	2.0
104-51-8	n-Butylbenzene	0.50	U	0.50	0.50	2.0
103-65-1	n-Propylbenzene	0.50	U	0.50	0.50	2.0
91-20-3	Naphthalene	0.50	U	0.50	0.50	2.0
95-47-6	o-Xylene	0.50	U	0.50	0.50	2.0

SW8260C

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-9

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-004A

Sample wt/vol: 5mL Lab File ID: V25998.D

Level: (low/med) LOW Date Collected: 10/12/2015 10:20 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl) Date Prepped: 10/19/2015 3:11 PM

Seq Number: 221037 Date Analyzed: 10/19/2015 12:24 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6844/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
105-05-5	p-Diethylbenzene	0.50	U	0.50	0.50	2.0
622-96-8	p-Ethyltoluene	0.50	U	0.50	0.50	2.0
135-98-8	sec-Butylbenzene	0.50	U	0.50	0.50	2.0
100-42-5	Styrene	0.50	U	0.50	0.50	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.50	U	0.50	0.50	2.0
127-18-4	Tetrachloroethene	75		0.50	0.50	2.0
108-88-3	Toluene	0.75	J	0.50	0.50	2.0
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
79-01-6	Trichloroethene	1.1	J	0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U	0.50	0.50	2.0
75-01-4	Vinyl chloride	0.50	U	0.50	0.50	2.0
107-02-8	Acrolein	5.0	U	J 5.0	5.0	10
107-13-1	Acrylonitrile	0.50	U	0.50	0.50	2.0

SW8260C

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-10

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-005A

Sample wt/vol: 5mL Lab File ID: V25955.D

Level: (low/med) LOW Date Collected: 10/12/2015 10:30 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl) Date Prepped: 10/16/2015 10:47 AM

Seq Number: 221023 Date Analyzed: 10/17/2015 5:31 AM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6813/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
95-63-6	1,2,4-Trimethylbenzene	16	~~R~~	0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
108-67-8	1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.50	2.0
78-93-3	2-Butanone	1.0	U J	1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	~~U~~ R	0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	26		0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0
67-64-1	Acetone	3.9	~~BJ*~~ UJ	1.0	1.0	4.0
71-43-2	Benzene	0.50	U	0.50	0.50	2.0

SW8260C

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-10

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1510095

Matrix: Liquid   Lab Sample ID: 1510095-005A

Sample wt/vol: 5mL   Lab File ID: V25955.D

Level: (low/med) LOW   Date Collected: 10/12/2015 10:30 AM

% Moisture: N/A   Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl)   Date Prepped: 10/16/2015 10:47 AM

Seq Number: 221023   Date Analyzed: 10/17/2015 5:31 AM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 1.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6813/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
108-86-1	Bromobenzene	0.50	U	0.50	0.50	2.0
74-97-5	Bromochloromethane	0.50	U	0.50	0.50	2.0
75-27-4	Bromodichloromethane	0.50	U	0.50	0.50	2.0
75-25-2	Bromoform	0.50	U	0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	1.0	1.0	4.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U	0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U	0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U	0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U	0.50	0.50	2.0
67-66-3	Chloroform	0.50	U	0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U	0.50	0.50	2.0
156-59-2	cis-1,2-Dichloroethene	7.8		0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U	0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U	0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	2.5	2.5	10
100-41-4	Ethylbenzene	11		0.50	0.50	2.0
76-14-2	Freon-114	0.50	U	0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	2.0
98-82-8	Isopropylbenzene	19		0.50	0.50	2.0
179601-23-1	m,p-Xylene	1.3	J	1.0	1.0	4.0
79-20-9	Methyl Acetate	0.50	U	0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0
75-09-2	Methylene chloride	5.3	~~B*~~ UJ	0.50	0.50	2.0
104-51-8	n-Butylbenzene	41		0.50	0.50	2.0
103-65-1	n-Propylbenzene	44		0.50	0.50	2.0
95-47-6	o-Xylene	1.1	J	0.50	0.50	2.0
105-05-5	p-Diethylbenzene	23		0.50	0.50	2.0
622-96-8	p-Ethyltoluene	5.2		0.50	0.50	2.0
135-98-8	sec-Butylbenzene	26		0.50	0.50	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-10

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Beringer SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-005A

Sample wt/vol: 5mL Lab File ID: V25955.D

Level: (low/med) LOW Date Collected: 10/12/2015 10:30 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl) Date Prepped: 10/16/2015 10:47 AM

Seq Number: 221023 Date Analyzed: 10/17/2015 5:31 AM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6813/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
100-42-5	Styrene	0.50	U	0.50	0.50	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	3.2		0.50	0.50	2.0
127-18-4	Tetrachloroethene	2.0		0.50	0.50	2.0
108-88-3	Toluene	0.97	J	0.50	0.50	2.0
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
79-01-6	Trichloroethene	0.50	U	0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U	0.50	0.50	2.0
75-01-4	Vinyl chloride	0.50	U	0.50	0.50	2.0
107-02-8	Acrolein	41	~~*~~ J	5.0	5.0	10
107-13-1	Acrylonitrile	0.50	U	0.50	0.50	2.0

SW8260C

for 11/10/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-10

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-005A

Sample wt/vol: 5mL Lab File ID: V26008.D

Level: (low/med) LOW Date Collected: 10/12/2015 10:30 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl) Date Prepped: 10/19/2015 3:11 PM

Seq Number: 221049 Date Analyzed: 10/19/2015 5:01 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 10.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6844/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
95-93-2	1,2,4,5-Tetramethylbenzene	570	~~Dm~~ D	5.0	5.0	20
110-82-7	Cyclohexane	260	D	5.0	5.0	20
91-20-3	Naphthalene	340	D	5.0	5.0	20

SW8260C

for
11/10/15

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-11

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-006A

Sample wt/vol: 5mL Lab File ID: V26011.D

Level: (low/med) LOW Date Collected: 10/12/2015 10:39 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl) Date Prepped: 10/19/2015 3:11 PM

Seq Number: 221056 Date Analyzed: 10/19/2015 6:25 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6844/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
108-67-8	1,3,5-Trimethylbenzene	68		0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.50	2.0
78-93-3	2-Butanone	1.0	U J	1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	~~U~~ R	0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	24		0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0
67-64-1	Acetone	2.8	~~BJ*~~ UJ	1.0	1.0	4.0
71-43-2	Benzene	1.5	J	0.50	0.50	2.0
108-86-1	Bromobenzene	0.50	U	0.50	0.50	2.0

SW8260C

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-11

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-006A

Sample wt/vol: 5mL Lab File ID: V26011.D

Level: (low/med) LOW Date Collected: 10/12/2015 10:39 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl) Date Prepped: 10/19/2015 3:11 PM

Seq Number: 221056 Date Analyzed: 10/19/2015 6:25 PM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6844/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
74-97-5	Bromochloromethane	0.50	U	0.50	0.50	2.0
75-27-4	Bromodichloromethane	0.50	U	0.50	0.50	2.0
75-25-2	Bromoform	0.50	U	0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	1.0	1.0	4.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U	0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U	0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U	0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U	0.50	0.50	2.0
67-66-3	Chloroform	0.50	U	0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U	0.50	0.50	2.0
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
110-82-7	Cyclohexane	83		0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U	0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U	0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	2.5	2.5	10
100-41-4	Ethylbenzene	29		0.50	0.50	2.0
76-14-2	Freon-114	0.50	U	0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	2.0
98-82-8	Isopropylbenzene	13		0.50	0.50	2.0
179601-23-1	m,p-Xylene	70		1.0	1.0	4.0
79-20-9	Methyl Acetate	0.50	U	0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0
75-09-2	Methylene chloride	3.1	~~B*~~ UJ	0.50	0.50	2.0
104-51-8	n-Butylbenzene	30		0.50	0.50	2.0
103-65-1	n-Propylbenzene	26		0.50	0.50	2.0
95-47-6	o-Xylene	9.4		0.50	0.50	2.0
622-96-8	p-Ethyltoluene	100		0.50	0.50	2.0
135-98-8	sec-Butylbenzene	17		0.50	0.50	2.0
100-42-5	Styrene	0.50	U	0.50	0.50	2.0

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-11

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1510095

Matrix: Liquid   Lab Sample ID: 1510095-006A

Sample wt/vol: 5mL   Lab File ID: V26011.D

Level: (low/med) LOW   Date Collected: 10/12/2015 10:39 AM

% Moisture: N/A   Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl)   Date Prepped: 10/19/2015 3:11 PM

Seq Number: 221056   Date Analyzed: 10/19/2015 6:25 PM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 1.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6844/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.50	U	0.50	0.50	2.0
127-18-4	Tetrachloroethene	0.50	U	0.50	0.50	2.0
108-88-3	Toluene	1.5	J	0.50	0.50	2.0
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
79-01-6	Trichloroethene	0.50	U	0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U	0.50	0.50	2.0
75-01-4	Vinyl chloride	0.50	U	0.50	0.50	2.0
107-02-8	Acrolein	17	~~m*~~ J	5.0	5.0	10
107-13-1	Acrylonitrile	0.50	U	0.50	0.50	2.0

SW8260C

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-11

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1510095

Matrix: Liquid   Lab Sample ID: 1510095-006A

Sample wt/vol: 5mL   Lab File ID: V26010.D

Level: (low/med) LOW   Date Collected: 10/12/2015 10:39 AM

% Moisture: N/A   Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl)   Date Prepped: 10/19/2015 3:11 PM

Seq Number: 221054   Date Analyzed: 10/19/2015 5:57 PM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 10.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6844/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
95-93-2	1,2,4,5-Tetramethylbenzene	62	~~Dm~~ D	5.0	5.0	20
95-63-6	1,2,4-Trimethylbenzene	57	D	5.0	5.0	20
91-20-3	Naphthalene	110	D	5.0	5.0	20
105-05-5	p-Diethylbenzene	25	D	5.0	5.0	20

SW8260C

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-12

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1510095

Matrix: Liquid   Lab Sample ID: 1510095-007A

Sample wt/vol: 5mL   Lab File ID: V25957.D

Level: (low/med) LOW   Date Collected: 10/12/2015 10:53 AM

% Moisture: N/A   Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl)   Date Prepped: 10/16/2015 10:47 AM

Seq Number: 221025   Date Analyzed: 10/17/2015 6:27 AM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 1.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6813/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	71		0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
95-63-6	1,2,4-Trimethylbenzene	0.50	U	0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
108-67-8	1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.50	2.0
78-93-3	2-Butanone	1.0	U J	1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	~~U~~ R	0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	0.64	J	0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0
67-64-1	Acetone	2.9	~~BJm*~~ UJ	1.0	1.0	4.0

SW8260C

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-12

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-007A

Sample wt/vol: 5mL Lab File ID: V25957.D

Level: (low/med) LOW Date Collected: 10/12/2015 10:53 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl) Date Prepped: 10/16/2015 10:47 AM

Seq Number: 221025 Date Analyzed: 10/17/2015 6:27 AM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6813/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.50	U	0.50	0.50	2.0
108-86-1	Bromobenzene	0.50	U	0.50	0.50	2.0
74-97-5	Bromochloromethane	0.50	U	0.50	0.50	2.0
75-27-4	Bromodichloromethane	0.50	U	0.50	0.50	2.0
75-25-2	Bromoform	0.50	U	0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	1.0	1.0	4.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U	0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U	0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U	0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U	0.50	0.50	2.0
67-66-3	Chloroform	0.50	U	0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U	0.50	0.50	2.0
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
110-82-7	Cyclohexane	79	J	0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U	0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U	0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	2.5	2.5	10
100-41-4	Ethylbenzene	7.7		0.50	0.50	2.0
76-14-2	Freon-114	0.50	U J	0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	2.0
98-82-8	Isopropylbenzene	8.7		0.50	0.50	2.0
179601-23-1	m,p-Xylene	1.0	U	1.0	1.0	4.0
79-20-9	Methyl Acetate	0.50	U	0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0
75-09-2	Methylene chloride	5.7	~~B*~~ UJ	0.50	0.50	2.0
104-51-8	n-Butylbenzene	16		0.50	0.50	2.0
103-65-1	n-Propylbenzene	14		0.50	0.50	2.0
95-47-6	o-Xylene	0.50	U	0.50	0.50	2.0
105-05-5	p-Diethylbenzene	8.1	~~m~~	0.50	0.50	2.0

SW8260C

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-12

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-007A

Sample wt/vol: 5mL Lab File ID: V25957.D

Level: (low/med) LOW Date Collected: 10/12/2015 10:53 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(µl) Date Prepped: 10/16/2015 10:47 AM

Seq Number: 221025 Date Analyzed: 10/17/2015 6:27 AM

GC Column: V2 06/19/15 SN#1293167 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 6813/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
622-96-8	p-Ethyltoluene	0.50	U	0.50	0.50	2.0
135-98-8	sec-Butylbenzene	9.3		0.50	0.50	2.0
100-42-5	Styrene	0.50	U	0.50	0.50	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	1.2	J	0.50	0.50	2.0
127-18-4	Tetrachloroethene	0.76	J	0.50	0.50	2.0
108-88-3	Toluene	0.50	U	0.50	0.50	2.0
156-60-5	trans-1,2-Dichloroethene	4.4		0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
79-01-6	Trichloroethene	0.50	U	0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U	0.50	0.50	2.0
75-01-4	Vinyl chloride	0.50	U	0.50	0.50	2.0
107-02-8	Acrolein	12	~~m*~~ J	5.0	5.0	10
107-13-1	Acrylonitrile	0.50	U	0.50	0.50	2.0

SW8260C

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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-12

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1510095

Matrix: Liquid   Lab Sample ID: 1510095-007A

Sample wt/vol: 5mL   Lab File ID: V26009.D

Level: (low/med) LOW   Date Collected: 10/12/2015 10:53 AM

% Moisture: N/A   Date Received: 10/13/2015 2:30 PM

Extract Volume: 5000(ul)   Date Prepped: 10/19/2015 3:11 PM

Seq Number: 221051   Date Analyzed: 10/19/2015 5:29 PM

GC Column: V2 06/19/15 SN#1293167   Dilution Factor: 10.00

Column ID: 0.18(mm)   Batch ID/ Ext Mthd: 6844/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
91-20-3	Naphthalene	130	D	5.0	5.0	20

SW8260C

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Beringer SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-002C

Sample wt/vol: 955mL Lab File ID: SV27937.D

Level: (low/med) LOW Date Collected: 10/12/2015 9:49 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 1000(ul) Date Prepped: 10/19/2015 9:26 AM

Seq Number: 222028 Date Analyzed: 10/20/2015 4:11 PM

GC Column: SV2 9/30/15 SN-1324624 Dilution Factor: 1.00

Column ID: 0.25(mm) Batch ID/ Ext Mthd: 6822/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
120-82-1	1,2,4-Trichlorobenzene	0.52	U	0.52	0.52	5.2
95-50-1	1,2-Dichlorobenzene	1.1	J	0.52	0.52	5.2
541-73-1	1,3-Dichlorobenzene	0.52	U	0.52	0.52	5.2
106-46-7	1,4-Dichlorobenzene	3.7	J	0.52	0.52	5.2
121-14-2	2,4-Dinitrotoluene	0.52	U	0.52	0.52	5.2
606-20-2	2,6-Dinitrotoluene	0.52	U	0.52	0.52	5.2
91-58-7	2-Chloronaphthalene	0.52	U	0.52	0.52	5.2
91-57-6	2-Methylnaphthalene	31		0.52	0.52	5.2
88-74-4	2-Nitroaniline	0.52	U	0.52	0.52	5.2
99-09-2	3-Nitroaniline	0.52	U	0.52	0.52	5.2
101-55-3	4-Bromophenyl phenyl ether	0.52	U	0.52	0.52	5.2
106-47-8	4-Chloroaniline	0.52	U	0.52	0.52	5.2
7005-72-3	4-Chlorophenyl phenyl ether	0.52	U	0.52	0.52	5.2
100-01-6	4-Nitroaniline	0.52	U	0.52	0.52	5.2
83-32-9	Acenaphthene	2.0	J	0.52	0.52	5.2
208-96-8	Acenaphthylene	0.52	U	0.52	0.52	5.2
62-53-3	Aniline	0.52	U	0.52	0.52	5.2
120-12-7	Anthracene	0.53	J	0.52	0.52	5.2
103-33-3	Azobenzene	0.52	U	0.52	0.52	5.2
56-55-3	Benzo(a)anthracene	0.52	U	0.52	0.52	5.2
50-32-8	Benzo(a)pyrene	0.52	U	0.52	0.52	5.2
205-99-2	Benzo(b)fluoranthene	0.52	U	0.52	0.52	5.2
191-24-2	Benzo(g,h,i)perylene	0.52	U	0.52	0.52	5.2
207-08-9	Benzo(k)fluoranthene	0.52	U	0.52	0.52	5.2
100-51-6	Benzyl alcohol	0.52	U	0.52	0.52	5.2
111-91-1	Bis(2-chloroethoxy)methane	0.52	U	0.52	0.52	5.2
111-44-4	Bis(2-chloroethyl)ether	0.52	U	0.52	0.52	5.2
108-60-1	Bis(2-chloroisopropyl)ether	0.52	U	0.52	0.52	5.2
	Bis(2-ethylhexyl)phthalate	4.8	~~JM~~ J	0.52	0.52	5.2
85-68-7	Butyl benzyl phthalate	1.1	~~BJ~~ U	0.52	0.52	5.2
86-74-8	Carbazole	1.6	J	0.52	0.52	5.2
218-01-9	Chrysene	0.52	U	0.52	0.52	5.2
84-74-2	Di-n-butyl phthalate	0.52	U	0.52	0.52	5.2

SW8270D

for 11/10/15

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-002C

Sample wt/vol: 955mL Lab File ID: SV27937.D

Level: (low/med) LOW Date Collected: 10/12/2015 9:49 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 1000(µl) Date Prepped: 10/19/2015 9:26 AM

Seq Number: 222028 Date Analyzed: 10/20/2015 4:11 PM

GC Column: SV2 9/30/15 SN-1324624 Dilution Factor: 1.00

Column ID: 0.25(mm) Batch ID/ Ext Mthd: 6822/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q		DL	LOD	LOQ
117-84-0	Di-n-octyl phthalate	0.52	U		0.52	0.52	5.2
53-70-3	Dibenzo(a,h)anthracene	0.52	U		0.52	0.52	5.2
132-64-9	Dibenzofuran	0.52	U		0.52	0.52	5.2
84-66-2	Diethyl phthalate	1.7	~~J~~	J	0.52	0.52	5.2
131-11-3	Dimethyl phthalate	0.52	U	J	0.52	0.52	5.2
206-44-0	Fluoranthene	0.52	U		0.52	0.52	5.2
86-73-7	Fluorene	2.3	J		0.52	0.52	5.2
118-74-1	Hexachlorobenzene	0.52	U		0.52	0.52	5.2
87-68-3	Hexachlorobutadiene	0.52	U		0.52	0.52	5.2
77-47-4	Hexachlorocyclopentadiene	1.0	U		1.0	1.0	10
67-72-1	Hexachloroethane	0.52	U		0.52	0.52	5.2
193-39-5	Indeno(1,2,3-c,d)pyrene	0.52	U		0.52	0.52	5.2
78-59-1	Isophorone	0.52	U		0.52	0.52	5.2
621-64-7	N-Nitrosodi-n-propylamine	0.52	U		0.52	0.52	5.2
62-75-9	N-Nitrosodimethylamine	0.52	U		0.52	0.52	5.2
86-30-6	N-Nitrosodiphenylamine	0.52	U		0.52	0.52	5.2
91-20-3	Naphthalene	25			0.52	0.52	5.2
98-95-3	Nitrobenzene	0.52	U		0.52	0.52	5.2
85-01-8	Phenanthrene	3.7	J		0.52	0.52	5.2
129-00-0	Pyrene	0.52	U		0.52	0.52	5.2
110-86-1	Pyridine	0.52	U		0.52	0.52	5.2

SW8270D

JoP 11/10/15

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1510095

Matrix: Liquid   Lab Sample ID: 1510095-002C

Sample wt/vol: 955mL   Lab File ID: SV27937.D

Level: (low/med) LOW   Date Collected: 10/12/2015 9:49 AM

% Moisture: N/A   Date Received: 10/13/2015 2:30 PM

Extract Volume: 1000(µl)   Date Prepped: 10/19/2015 9:26 AM

Seq Number: 222039   Date Analyzed: 10/20/2015 4:11 PM

GC Column: SV2 9/30/15 SN-1324624   Dilution Factor: 1.00

Column ID: 0.25(mm)   Batch ID/ Ext Mthd: 6822/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
91-94-1	3,3´-Dichlorobenzidine	0.52	U	0.52	0.52	5.2
92-87-5	Benzidine	1.0	U	1.0	1.0	10

SW8270D

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-11

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-006C

Sample wt/vol: 780mL Lab File ID: SV27938.D

Level: (low/med) LOW Date Collected: 10/12/2015 10:39 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 1000(µl) Date Prepped: 10/19/2015 9:26 AM

Seq Number: 222029 Date Analyzed: 10/20/2015 4:36 PM

GC Column: SV2 9/30/15 SN-1324624 Dilution Factor: 1.00

Column ID: 0.25(mm) Batch ID/ Ext Mthd: 6822/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
120-82-1	1,2,4-Trichlorobenzene	0.64	U	0.64	0.64	6.4
95-50-1	1,2-Dichlorobenzene	0.64	U	0.64	0.64	6.4
541-73-1	1,3-Dichlorobenzene	0.64	U	0.64	0.64	6.4
106-46-7	1,4-Dichlorobenzene	0.64	U	0.64	0.64	6.4
121-14-2	2,4-Dinitrotoluene	0.64	U	0.64	0.64	6.4
606-20-2	2,6-Dinitrotoluene	0.64	U	0.64	0.64	6.4
91-58-7	2-Chloronaphthalene	0.64	U	0.64	0.64	6.4
88-74-4	2-Nitroaniline	0.64	U	0.64	0.64	6.4
99-09-2	3-Nitroaniline	0.64	U	0.64	0.64	6.4
101-55-3	4-Bromophenyl phenyl ether	0.64	U	0.64	0.64	6.4
106-47-8	4-Chloroaniline	0.64	U	0.64	0.64	6.4
7005-72-3	4-Chlorophenyl phenyl ether	0.64	U	0.64	0.64	6.4
100-01-6	4-Nitroaniline	0.64	U	0.64	0.64	6.4
83-32-9	Acenaphthene	75		0.64	0.64	6.4
208-96-8	Acenaphthylene	0.64	U	0.64	0.64	6.4
62-53-3	Aniline	0.64	U	0.64	0.64	6.4
120-12-7	Anthracene	18		0.64	0.64	6.4
103-33-3	Azobenzene	0.64	U	0.64	0.64	6.4
56-55-3	Benzo(a)anthracene	0.64	U	0.64	0.64	6.4
50-32-8	Benzo(a)pyrene	0.64	U	0.64	0.64	6.4
205-99-2	Benzo(b)fluoranthene	0.64	U	0.64	0.64	6.4
191-24-2	Benzo(g,h,i)perylene	0.64	U	0.64	0.64	6.4
207-08-9	Benzo(k)fluoranthene	0.64	U	0.64	0.64	6.4
100-51-6	Benzyl alcohol	0.64	U	0.64	0.64	6.4
111-91-1	Bis(2-chloroethoxy)methane	0.64	U	0.64	0.64	6.4
111-44-4	Bis(2-chloroethyl)ether	0.64	U	0.64	0.64	6.4
108-60-1	Bis(2-chloroisopropyl)ether	0.64	U	0.64	0.64	6.4
	Bis(2-ethylhexyl)phthalate	4.4	J	0.64	0.64	6.4
85-68-7	Butyl benzyl phthalate	2.2	~~BJ~~ U	0.64	0.64	6.4
86-74-8	Carbazole	0.64	U	0.64	0.64	6.4
218-01-9	Chrysene	0.78	J	0.64	0.64	6.4
84-74-2	Di-n-butyl phthalate	0.64	U	0.64	0.64	6.4
117-84-0	Di-n-octyl phthalate	0.64	U	0.64	0.64	6.4

SW8270D

Sa/ 11/10/15

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-11

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-006C

Sample wt/vol: 780mL Lab File ID: SV27938.D

Level: (low/med) LOW Date Collected: 10/12/2015 10:39 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 1000(µl) Date Prepped: 10/19/2015 9:26 AM

Seq Number: 222029 Date Analyzed: 10/20/2015 4:36 PM

GC Column: SV2 9/30/15 SN-1324624 Dilution Factor: 1.00

Column ID: 0.25(mm) Batch ID/ Ext Mthd: 6822/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
53-70-3	Dibenzo(a,h)anthracene	0.64	U	0.64	0.64	6.4
132-64-9	Dibenzofuran	0.64	U	0.64	0.64	6.4
84-66-2	Diethyl phthalate	0.64	~~U~~ UJ	0.64	0.64	6.4
131-11-3	Dimethyl phthalate	0.64	~~U~~ UJ	0.64	0.64	6.4
206-44-0	Fluoranthene	12		0.64	0.64	6.4
86-73-7	Fluorene	100		0.64	0.64	6.4
118-74-1	Hexachlorobenzene	0.64	U	0.64	0.64	6.4
87-68-3	Hexachlorobutadiene	0.64	U	0.64	0.64	6.4
77-47-4	Hexachlorocyclopentadiene	1.3	U	1.3	1.3	13
67-72-1	Hexachloroethane	0.64	U	0.64	0.64	6.4
193-39-5	Indeno(1,2,3-c,d)pyrene	0.64	U	0.64	0.64	6.4
78-59-1	Isophorone	0.64	U	0.64	0.64	6.4
621-64-7	N-Nitrosodi-n-propylamine	0.64	U	0.64	0.64	6.4
62-75-9	N-Nitrosodimethylamine	0.64	U	0.64	0.64	6.4
86-30-6	N-Nitrosodiphenylamine	0.64	U	0.64	0.64	6.4
98-95-3	Nitrobenzene	0.64	U	0.64	0.64	6.4
129-00-0	Pyrene	16		0.64	0.64	6.4
110-86-1	Pyridine	0.64	U	0.64	0.64	6.4

SW8270D

[signature] 11/10/15

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-11

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1510095

Matrix: Liquid   Lab Sample ID: 1510095-006C

Sample wt/vol: 780mL   Lab File ID: SV27964.D

Level: (low/med) LOW   Date Collected: 10/12/2015 10:39 AM

% Moisture: N/A   Date Received: 10/13/2015 2:30 PM

Extract Volume: 1000(µl)   Date Prepped: 10/19/2015 9:26 AM

Seq Number: 222554   Date Analyzed: 10/22/2015 2:12 PM

GC Column: SV2 9/30/15 SN-1324624   Dilution Factor: 10.00

Column ID: 0.25(mm)   Batch ID/ Ext Mthd: 6822/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
91-57-6	2-Methylnaphthalene	2200	~~DE~~ JD	6.4	6.4	64
91-20-3	Naphthalene	650	D	6.4	6.4	64
85-01-8	Phenanthrene	540	D	6.4	6.4	64

SW8270D

Jon

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-11

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-006C

Sample wt/vol: 780mL Lab File ID: SV27938.D

Level: (low/med) LOW Date Collected: 10/12/2015 10:39 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 1000(µl) Date Prepped: 10/19/2015 9:26 AM

Seq Number: 222040 Date Analyzed: 10/20/2015 4:36 PM

GC Column: SV2 9/30/15 SN-1324624 Dilution Factor: 1.00

Column ID: 0.25(mm) Batch ID/ Ext Mthd: 6822/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
91-94-1	3,3´-Dichlorobenzidine	0.64	U	0.64	0.64	6.4
92-87-5	Benzidine	1.3	U	1.3	1.3	13

SW8270D

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-12

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-007C

Sample wt/vol: 1000mL Lab File ID: SV27939.D

Level: (low/med) LOW Date Collected: 10/12/2015 10:53 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 1000(µl) Date Prepped: 10/19/2015 9:26 AM

Seq Number: 222030 Date Analyzed: 10/20/2015 5:00 PM

GC Column: SV2 9/30/15 SN-1324624 Dilution Factor: 1.00

Column ID: 0.25(mm) Batch ID/ Ext Mthd: 6822/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	5.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	5.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	5.0
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.50	5.0
121-14-2	2,4-Dinitrotoluene	0.50	U	0.50	0.50	5.0
606-20-2	2,6-Dinitrotoluene	0.50	U	0.50	0.50	5.0
91-58-7	2-Chloronaphthalene	0.50	U	0.50	0.50	5.0
88-74-4	2-Nitroaniline	0.50	U	0.50	0.50	5.0
99-09-2	3-Nitroaniline	0.50	U	0.50	0.50	5.0
101-55-3	4-Bromophenyl phenyl ether	0.50	U	0.50	0.50	5.0
106-47-8	4-Chloroaniline	0.50	U	0.50	0.50	5.0
7005-72-3	4-Chlorophenyl phenyl ether	0.50	U	0.50	0.50	5.0
100-01-6	4-Nitroaniline	0.50	U	0.50	0.50	5.0
83-32-9	Acenaphthene	35		0.50	0.50	5.0
208-96-8	Acenaphthylene	0.50	U	0.50	0.50	5.0
62-53-3	Aniline	0.50	U	0.50	0.50	5.0
120-12-7	Anthracene	7.6		0.50	0.50	5.0
103-33-3	Azobenzene	0.50	U	0.50	0.50	5.0
56-55-3	Benzo(a)anthracene	0.50	U	0.50	0.50	5.0
50-32-8	Benzo(a)pyrene	0.50	U	0.50	0.50	5.0
205-99-2	Benzo(b)fluoranthene	0.50	U	0.50	0.50	5.0
191-24-2	Benzo(g,h,i)perylene	0.50	U	0.50	0.50	5.0
207-08-9	Benzo(k)fluoranthene	0.50	U	0.50	0.50	5.0
100-51-6	Benzyl alcohol	0.50	U	0.50	0.50	5.0
111-91-1	Bis(2-chloroethoxy)methane	0.50	U	0.50	0.50	5.0
111-44-4	Bis(2-chloroethyl)ether	0.50	U	0.50	0.50	5.0
108-60-1	Bis(2-chloroisopropyl)ether	0.50	U	0.50	0.50	5.0
	Bis(2-ethylhexyl)phthalate	0.50	U	0.50	0.50	5.0
85-68-7	Butyl benzyl phthalate	0.64	~~BJ~~ U	0.50	0.50	5.0
86-74-8	Carbazole	0.50	U	0.50	0.50	5.0
218-01-9	Chrysene	0.50	U	0.50	0.50	5.0
84-74-2	Di-n-butyl phthalate	0.50	U	0.50	0.50	5.0
117-84-0	Di-n-octyl phthalate	0.50	U	0.50	0.50	5.0

SW8270D

 JGP 11/10/15

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.: MW-12

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1510095

Matrix: Liquid   Lab Sample ID: 1510095-007C

Sample wt/vol: 1000mL   Lab File ID: SV27939.D

Level: (low/med) LOW   Date Collected: 10/12/2015 10:53 AM

% Moisture: N/A   Date Received: 10/13/2015 2:30 PM

Extract Volume: 1000(µl)   Date Prepped: 10/19/2015 9:26 AM

Seq Number: 222030   Date Analyzed: 10/20/2015 5:00 PM

GC Column: SV2 9/30/15 SN-1324624   Dilution Factor: 1.00

Column ID: 0.25(mm)   Batch ID/ Ext Mthd: 6822/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
53-70-3	Dibenzo(a,h)anthracene	0.50	U	0.50	0.50	5.0
132-64-9	Dibenzofuran	0.50	U	0.50	0.50	5.0
84-66-2	Diethyl phthalate	0.50	~~U~~ UJ	0.50	0.50	5.0
131-11-3	Dimethyl phthalate	0.50	~~U~~ UJ	0.50	0.50	5.0
206-44-0	Fluoranthene	3.5	J	0.50	0.50	5.0
86-73-7	Fluorene	49		0.50	0.50	5.0
118-74-1	Hexachlorobenzene	0.50	U	0.50	0.50	5.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	5.0
77-47-4	Hexachlorocyclopentadiene	1.0	U	1.0	1.0	10
67-72-1	Hexachloroethane	0.50	U	0.50	0.50	5.0
193-39-5	Indeno(1,2,3-c,d)pyrene	0.50	U	0.50	0.50	5.0
78-59-1	Isophorone	0.50	U	0.50	0.50	5.0
621-64-7	N-Nitrosodi-n-propylamine	0.50	U	0.50	0.50	5.0
62-75-9	N-Nitrosodimethylamine	0.50	U	0.50	0.50	5.0
86-30-6	N-Nitrosodiphenylamine	0.50	U	0.50	0.50	5.0
98-95-3	Nitrobenzene	0.50	U	0.50	0.50	5.0
129-00-0	Pyrene	7.0	~~m~~	0.50	0.50	5.0
110-86-1	Pyridine	0.50	U	0.50	0.50	5.0

SW8270D

LO 11/10/15

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.: MW-12

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1510095

Matrix: Liquid Lab Sample ID: 1510095-007C

Sample wt/vol: 1000mL Lab File ID: SV27965.D

Level: (low/med) LOW Date Collected: 10/12/2015 10:53 AM

% Moisture: N/A Date Received: 10/13/2015 2:30 PM

Extract Volume: 1000(µl) Date Prepped: 10/19/2015 9:26 AM

Seq Number: 222555 Date Analyzed: 10/22/2015 2:36 PM

GC Column: SV2 9/30/15 SN-1324624 Dilution Factor: 10.00

Column ID: 0.25(mm) Batch ID/ Ext Mthd: 6822/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
91-57-6	2-Methylnaphthalene	1100	~~DE~~ J D	5.0	5.0	50
91-20-3	Naphthalene	460	D	5.0	5.0	50
85-01-8	Phenanthrene	170	D	5.0	5.0	50

SW8270D

Lap 11/10/15

Form I

SEMIVOLATILE SW-846 METHOD 8270 (BN)

CLIENT SAMPLE NO.

MW-12

Lab Name: American Analytical Laboratories, LLC.   Contract:

Lab Code: AAL   ClientID: Berninger   SAS No.:   SDG No.: 1510095

Matrix: Liquid   Lab Sample ID: 1510095-007C

Sample wt/vol: 1000mL   Lab File ID: SV27939.D

Level: (low/med) LOW   Date Collected: 10/12/2015 10:53 AM

% Moisture: N/A   Date Received: 10/13/2015 2:30 PM

Extract Volume: 1000(µl)   Date Prepped: 10/19/2015 9:26 AM

Seq Number: 222041   Date Analyzed: 10/20/2015 5:00 PM

GC Column: SV2 9/30/15 SN-1324624   Dilution Factor: 1.00

Column ID: 0.25(mm)   Batch ID/ Ext Mthd: 6822/SEPF

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
91-94-1	3,3´-Dichlorobenzidine	0.50	U	0.50	0.50	5.0
92-87-5	Benzidine	1.0	U	1.0	1.0	10

SW8270D

Pace Analytical®

Analytical Sample Results

Job Number: 15100430

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PACE ANALYTICAL SERVICES - LONG ISLAND
Project: TOC
Client Sample ID: BW-2
Lab Sample ID: 15100430-01 (AS32866)

Collection Date: 10/13/2015 09:36
Sample Matrix: WATER
Received Date: 10/17/2015 10:30
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	828	SM 5310B	10/20/2015 14:52	JS	NA	NA	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Total Organic Carbon	OC002	**19.0**	1.00	2.00		828

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

5

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

American Analytical Laboratories
56 Toledo Street
Farmingdale, NY 11735
Attn To : Lori Beyer

Collected : 10/13/2015 9:36:00 AM
Received : 10/14/2015 2:00:00 PM 1510095
Collected By CLIENT

Lab No. : 1510B28-001
Client Sample ID: BW-2

Sample Information:
Type : Liquid

Origin:

Analytical Method: SM5310 C

Analyst: Sub

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Total Organic Carbon sub (see attached)	19.0		2	mg/L	10/20/2015 2:52 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found In Blank
D.F. = Dilution Factor D = Results for Dilution
H = Received/analyzed outside of analytical holding time
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
c = Calibration acceptability criteria exceeded for this analyte
R = Reporting limit below calibration range. Value estimated.
J = Estimated value - below calibration range
S = Recovery exceeded control limits for this analyte
N = Indicates presumptive evidence of compound

Connor K. Durkin
Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Date Reported : 10/22/2015

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Analytical Sample Results

Job Number: 15100430

Client: PACE ANALYTICAL SERVICES - LONG ISLAND
Project: TOC
Client Sample ID: MW-3
Lab Sample ID: 15100430-02 (AS32867)

Collection Date: 10/13/2015 09:49
Sample Matrix: WATER
Received Date: 10/17/2015 10:30
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	828	SM 5310B	10/20/2015 15:08	JS	NA	NA	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Total Organic Carbon	OC002	191	5.00	10.00		828

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit): Denotes lowest analyte concentration reportable for the sample.

5

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested

American Analytical Laboratories
56 Toledo Street
Farmingdale, NY 11735
Attn To : Lori Beyer

Collected : 10/13/2015 9:49:00 AM
Received : 10/14/2015 2:00:00 PM
Collected By CLIENT

Lab No. : 1510B28-002
Client Sample ID: MW-3

Sample Information:
Type : Liquid

Origin:

Analytical Method: SM5310 C

Analyst: Sub

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Total Organic Carbon sub (see attached)	191		10	mg/L	10/20/2015 3:08 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
H = Received/analyzed outside of analytical holding time
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
c = Calibration acceptability criteria exceeded for this analyte
R = Reporting limit below calibration range. Value estimated.
J = Estimated value - below calibration range
S = Recovery exceeded control limits for this analyte
N = Indicates presumptive evidence of compound

Connor K. Durkin
Project Manager

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Date Reported : 10/22/2015

Analytical Sample Results

Job Number: 15100430

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PACE ANALYTICAL SERVICES - LONG ISLAND
Project: TOC
Client Sample ID: BW-4
Lab Sample ID: 15100430-03 (AS32868)

Collection Date: 10/13/2015 10:00
Sample Matrix: WATER
Received Date: 10/17/2015 10:30
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	828	SM 5310B	10/20/2015 15:21	JS	NA	NA	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Total Organic Carbon	OC002	16.1	1.00	2.00		828

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

5

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results for the samples and analytes requested

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American Analytical Laboratories
56 Toledo Street
Farmingdale, NY 11735
Attn To : Lori Beyer
Collected : 10/13/2015 10:00:00 AM
Received : 10/14/2015 2:00:00 PM
Collected By CLIENT

Lab No. : 1510B28-003
Client Sample ID: BW-4

Sample Information:
Type : Liquid

Origin:

Analytical Method: SM5310 C — Analyst: Sub

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Total Organic Carbon sub (see attached)	16.1		2	mg/L	10/20/2015 3:21 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
H = Received/analyzed outside of analytical holding time
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
c = Calibration acceptability criteria exceeded for this analyte
R = Reporting limit below calibration range. Value estimated.
J = Estimated value - below calibration range
S = Recovery exceeded control limits for this analyte
N = Indicates presumptive evidence of compound

Connor K. Durkin
Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

Date Reported : 10/22/2015

Pace Analytical®

Analytical Sample Results

Job Number: 15100430

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PACE ANALYTICAL SERVICES - LONG ISLAND
Project: TOC
Client Sample ID: MW-9
Lab Sample ID: 15100430-04 (AS32869)

Collection Date: 10/13/2015 10:20
Sample Matrix: WATER
Received Date: 10/17/2015 10:30
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	828	SM 5310B	10/20/2015 15:38	JS	NA	NA	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Total Organic Carbon	OC002	**33.8**	2.50	5.00		828

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

5

Pace Analytical
675 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested

American Analytical Laboratories
56 Toledo Street
Farmingdale, NY 11735
Attn To : Lori Beyer
Collected : 10/13/2015 10:20:00 AM
Received : 10/14/2015 2:00:00 PM
Collected By CLIENT

Lab No. : 1510B28-004
Client Sample ID: MW-9

Sample Information:
Type : Liquid
Origin:

Analytical Method: SM5310 C
Analyst: Sub

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Total Organic Carbon sub (see attached)	33.8		5	mg/L	10/20/2015 3:38 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
H = Received/analyzed outside of analytical holding time
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
c = Calibration acceptability criteria exceeded for this analyte
R = Reporting limit below calibration range. Value estimated.
J = Estimated value - below calibration range
S = Recovery exceeded control limits for this analyte
N = Indicates presumptive evidence of compound

Date Reported : 10/22/2015

Connor K. Durkin
Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

Pace Analytical®

Analytical Sample Results

Job Number: 15100430

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PACE ANALYTICAL SERVICES - LONG ISLAND
Project: TOC
Client Sample ID: MW-10
Lab Sample ID: 15100430-05 (AS32870)

Collection Date: 10/13/2015 10:30
Sample Matrix: WATER
Received Date: 10/17/2015 10:30
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	828	SM 5310B	10/20/2015 16:28	JS	NA	NA	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Total Organic Carbon	OC002	59.4	2.50	5.00		828

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit) Denotes lowest analyte concentration reportable for the sample

5

Pace Analytical
575 Broad Hollow Road, Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results for the samples and analytes requested

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American Analytical Laboratories
56 Toledo Street
Farmingdale, NY 11735
Attn To : Lori Beyer

Collected : 10/13/2015 10:30:00 AM
Received : 10/14/2015 2:00:00 PM
Collected By CLIENT

Lab No. : 1510B28-005
Client Sample ID: MW-10

Sample Information:
Type : Liquid
Origin:

Analytical Method: SM5310 C

Analyst: Sub

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Total Organic Carbon sub (see attached)	59.4		5	mg/L	10/20/2015 4:28 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
H = Received/analyzed outside of analytical holding time
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S = Recovery exceeded control limits for this analyte
N = Indicates presumptive evidence of compound

Date Reported : 10/22/2015

Connor K. Drukin
Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

Pace Analytical®

Analytical Sample Results

Job Number: 15100430

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PACE ANALYTICAL SERVICES - LONG ISLAND
Project: TOC
Client Sample ID: MW-11
Lab Sample ID: 15100430-06 (AS32871)

Collection Date: 10/13/2015 10:39
Sample Matrix: WATER
Received Date: 10/17/2015 10:30
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	828	SM 5310B	10/20/2015 17:29	JS	NA	NA	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Total Organic Carbon	OC002	53.7	2.50	5.00		828

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

5

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575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results for the samples and analytes requested

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American Analytical Laboratories
56 Toledo Street
Farmingdale, NY 11735
Attn To : Lori Beyer
Collected : 10/13/2015 10:39:00 AM
Received : 10/14/2015 2:00:00 PM
Collected By CLIENT

Lab No. : 1510B28-006
Client Sample ID: MW-11

Sample Information:
Type : Liquid
Origin:

Analytical Method: SM5310 C

Analyst: Sub

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Total Organic Carbon sub (see attached)	53.7		5	mg/L	10/20/2015 5:29 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
H = Received/analyzed outside of analytical holding time
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Connett K. Dunkin
Project Manager

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Date Reported : 10/22/2015

Pace Analytical®

Analytical Sample Results

Job Number: 15100430

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PACE ANALYTICAL SERVICES - LONG ISLAND
Project: TOC
Client Sample ID: MW-12
Lab Sample ID: 15100430-07 (AS32872)

Collection Date: 10/13/2015 10:53
Sample Matrix: WATER
Received Date: 10/17/2015 10:30
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	828	SM 5310B	10/20/2015 17:45	JS	NA	NA	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Total Organic Carbon	OC002	24.3	1.00	2.00		828

ND: Denotes analyte not detected at a concentration greater than the PQL.
PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

5

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested

American Analytical Laboratories
56 Toledo Street
Farmingdale, NY 11735
Attn To : Lori Beyer
Collected : 10/13/2015 10:53:00 AM
Received : 10/14/2015 2:00:00 PM
Collected By CLIENT

Lab No. : **1510B28-007**
Client Sample ID: **MW-12**

Sample Information:
Type : Liquid
Origin:

Analytical Method: SM5310 C Analyst: Sub

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Total Organic Carbon sub (see attached)	24.3		2	mg/L	10/20/2015 5:45 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
H = Received/analyzed outside of analytical holding time
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c = Calibration acceptability criteria exceeded for this analyte
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J = Estimated value - below calibration range
S = Recovery exceeded control limits for this analyte
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Connor K. Dunkin
Project Manager

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Date Reported : 10/22/2015

Appendix A
Chain of Custody
Documents

AMERICAN ANALYTICAL LABORATORIES

CHAIN OF CUSTODY

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

CERTIFICATIONS
NY ELAP - 11418 PA DEP - 68-00573
NJ DEP - NY050 CT DOH - PH-0205

Client Information

Company Name: BERNINGER ENVIRO INC
Address: 17 OLD DOCK RD
City: YAPHANK, N.Y State Zip
Project Contact:
Phone #:
E-mail:

Project Information

Project Name: SCHAMDEKER DRY CLN
Street: 358 NORTH AVE
City: NEW ROCHELLE, N.Y State Zip
Project #: 6800
Sampler's Name / Company: DUTCH MEYERS - BEI
Sampler's Signature: Butch Meyers

Analytical Information: 8260 2 VOAs; SM5310 TOC 1 VOA; 8270BN - Brown

LAB SAMPLE # (LAB USE ONLY)	Client Sample ID	Sample Type	Matrix Code	Date	Time	Glass / Plastic	Total # of bottles	NONE	HCl	NaOH	HNO_3	H_2SO_4	$NaHSO_4$	NaOH	OTHER	8260 2 VOAs	SM5310 TOC 1 VOA	8270BN - Brown		
510095-001	BW-2	G	L	10/14/15	9:36	G	3		X			X				X	X			
002	MW-3				9:49	G	4		X			X				X	X	X		
003	~~MW-6~~ BW-4	G	L		10:00	G	3		X			X				X	X			
004	MW-9	G	L		10:20	G	3		X			X				X	X			
005	MW-10	G	L		10:30	G	3		X			X				X	X			
006	MW-11				10:35	G	4		X			X				X	X	X		
007	MW-12				10:53	G	4		X			X				X	X	X		
	YES STACK EMISSION	G	AIR		11:00	TEDLAR BAG			X							X				← 15 min 9V

Turnaround Time (Business Days)
- ✓ Standard 7-10 Business Days
- 5 Day RUSH
- 4 Day RUSH
- 3 Day RUSH
- 2 Day RUSH
- 1 Day RUSH

SAMPLE TYPE
- G = Grab
- C = Composite
- B = Blank

MATRIX CODES
- L = Liquid
- S = Soil
- O = Oil
- W = Wipe
- PC = Paint Chip
- SL = Sludge
- SD = Solid
- M = Miscellaneous

Comments / Remarks
P.O.# 14342

Cooler Temp: 1.8°C

Sample custody must be documented below, each time samples change possession, with a signature, date, and time.

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME
[signature]	DATE 10/13/15 TIME 9:25	Russ Walther	P Masi	DATE 10/13/15 TIME 1430	P. Masi
RELINQUISHED BY (SIGNATURE)	DATE TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE TIME	PRINTED NAME

AMERICAN ANALYTICAL LABORATORIES

CHAIN OF CUSTODY RECORD

ACCREDITED IN ACCORDANCE WITH nelac

Omega COCID 458	PAGE: 1	OF: 1

ADDRESS
American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100
FAX: (631) 454-8027
Website: www.American-Analytical.com

SUB CONTRATOR: PACE ANALYTICAL COMPANY: Pace Analytical Services
ADDRESS: 575 Broad Hollow Road
CITY, STATE, ZIP: Melville, NY 11747
PHONE: (631) 694-3040 FAX: (631) 420-8436 EMAIL:
ACCOUNT #:

SPECIAL INSTRUCTIONS / COMMENTS:
TOC by SM5310.

ANALYTICAL PARAMETERS

ITEM #	SAMPLE ID	Client Sample ID	Bottle Type	MATRIX	DATE COLLECTED	NUMBER OF CONTAINERS	M5310C-00,-11	COMMENTS Methanol Preserved Weights HOT Sample Notation Additional Sample Description, etc.
1	1510095-001B	BW-2	40ml H2SO4	Liquid	10/13/2015 9:36:00 AM	1	√	1 1510B28
2	1510095-002B	MW-3	40ml H2SO4	Liquid	10/13/2015 9:49:00 AM	1	√	2
3	1510095-003B	BW-4	40ml H2SO4	Liquid	10/13/2015 10:00:00 AM	1	√	3
4	1510095-004B	MW-9	40ml H2SO4	Liquid	10/13/2015 10:20:00 AM	1	√	4
5	1510095-005B	MW-10	40ml H2SO4	Liquid	10/13/2015 10:30:00 AM	1	√	5
6	1510095-006B	MW-11	40ml H2SO4	Liquid	10/13/2015 10:39:00 AM	1	√	6
7	1510095-007B	MW-12	40ml H2SO4	Liquid	10/13/2015 10:53:00 AM	1	√	7

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
[signature]	10-14-15	1120	[signature]	10/14/15	1900
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAT: Standard ☐ RUSH Next BD ☐ 2nd BD ☐ 3rd BD ☐
Note: RUSH requests will incur surcharges!

REPORT TRANSMITTAL DESIRED:
☐ HARDCOPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE

FOR LAB USE ONLY
Temp of samples ________ °C Attempt to Cool ? ________
Comments: ________

Temp 2.6°C

Pace Analytical™

CHAIN OF CUSTODY RECORD

Omega COCID 3677 PAGE: 1 OF: 1

<15100430P1>

151004301

ADDRESS
PACE ANALYTICAL
575 Broad Hollow Road
Melville, NY 11747
TEL: (631) 694-3040
FAX: (631) 420-8436
Website: www.pacelabs.com

SUB CONTRATOR: Pace-New York COMPANY Pace Analytical Services, Inc.
ADDRESS
CITY, STATE, ZIP Schenectady, NY 12308
PHONE (518) 346-4592 FAX: EMAIL:
ACCOUNT #

SPECIAL INSTRUCTIONS / COMMENTS:
Please analyze for TOC. Results requested 10/20/15. If you have any questions please contact Connor. D at ext 6008. Thank you!

ITEM #	SAMPLE ID	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	DATE COLLECTED	NUMBER OF CONTAINERS	COMMENTS: Methanol Preserved Weights HOT Sample Notation, Additional Sample Description
1	1510B28-001A TOC_W_SM_SUB (SM5310 C)	BW-2	40mlvialh2so4	Liquid	10/13/2015 9:36:00 AM	1	SUBBED A532866
2	1510B28-002A TOC_W_SM_SUB (SM5310 C)	MW-3	40mlvialh2so4	Liquid	10/13/2015 9:49:00 AM	1	A532867
3	1510B28-003A TOC_W_SM_SUB (SM5310 C)	BW-4	40mlvialh2so4	Liquid	10/13/2015 10:00:00 AM	1	A532868
4	1510B28-004A TOC_W_SM_SUB (SM5310 C)	MW-9	40mlvialh2so4	Liquid	10/13/2015 10:20:00 AM	1	A532869
5	1510B28-005A TOC_W_SM_SUB (SM5310 C)	MW-10	40mlvialh2so4	Liquid	10/13/2015 10:30:00 AM	1	A532870
6	1510B28-006A TOC_W_SM_SUB (SM5310 C)	MW-11	40mlvialh2so4	Liquid	10/13/2015 10:39:00 AM	1	A532871
7	1510B28-007A TOC_W_SM_SUB (SM5310 C)	MW-12	40mlvialh2so4	Liquid	10/13/2015 10:53:00 AM	1	A532872

Relinquished By	Date	Time	Received By	Date	Time
[signature]	10/16/15	18:00	Fedex		
Fedex	10/17/15	10:30	[signature]	10/17/15	10:30

TAT: Standard RUSH Next BD 2nd BD 3rd BD

Note: RUSH requests will incur surcharges!

REPORT TRANSMITTAL DESIRED
HARDCOPY (extra cost) FAX EMAIL ONLINE

FOR LAB USE ONLY
Temp of samples 4.9 (FA) °C Attempt to Cool? Y
Comments

Sample Log-In Check List

Client Name:	Berninger		Work Order Number: 1510095
Logged by:	Lori Beyer	10/13/2015 2:47 PM	Lori Beyer
Completed By:	Lori Beyer	10/13/2015 2:49 PM	Lori Beyer
Reviewed By:	Karen Kelly	10/13/2015 12:00 AM	Karen Kelly

Chain of Custody

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

Log In

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

Special Handling (if applicable)

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

Person Notified: Date:

By Whom: Via [ ] email [ ] Phone [ ] Fax [ ] 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			

PACE ANALYTICAL
575 Broad Hollow Road
Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
Website: www.pacelabs.com

Sample Receipt Checklist

Client Name **AMAN-ECO** Date and Time Received: **10/14/2015 2:00:00 PM**

Work Order Number: **1510B28** RcptNo: **1** Received by **Erick Johnson**

Completed by: Paige Doherty Reviewed by: Connor K. Durkin

Completed Date: 10/14/2015 11:29:24 PM Reviewed Date: 10/16/2015 9:40:01 PM

Carrier name: Client

Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Are matrices correctly identified on Chain of custody?	Yes ☑	No ☐	
Is it clear what analyses were requested?	Yes ☑	No ☐	
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ✔
Samples in proper container/bottle?	Yes ☑	No ☐	
Were correct preservatives used and noted?	Yes ☑	No ☐	NA ☐
Preservative added to bottles:			
Sample Condition?	Intact ☑	Broken ☐	Leaking ☐
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
Were container labels complete (ID, Pres, Date)?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
All samples received at a temp. of > 0° C to 6.0° C?	Yes ☑	No ☐	NA ☐
Response when temperature is outside of range:			
Sample Temp. taken and recorded upon receipt?	Yes ☑	No ☐	To 2.6 °
Water - Were bubbles absent in VOC vials?	Yes ☐	No ☐	No Vials ☑
Water - Was there Chlorine Present?	Yes ☐	No ☐	NA ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	No Water ☐
Are Samples considered acceptable?	Yes ☑	No ☐	
Custody Seals present?	Yes ☐	No ☑	
Airbill or Sticker?	Air Bil ☐	Sticker ☐	Not Present ☑
Airbill No:			

Case Number: SDG: SAS:

Any No response should be detailed in the comments section below, if applicable.

Client Contacted? ☐ Yes ☐ No ☑ NA Person Contacted:

Contact Mode: ☐ Phone: ☐ Fax: ☐ Email: ☐ In Person:

Client Instructions:

Date Contacted: Contacted By:

Regarding:

Comments:

CorrectiveAction:

Pace Analytical®

SAMPLE RECEIPT REPORT
15100430

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

CLIENT: PACE ANALYTICAL SERVICES - LONG ISLAND
PROJECT: TOC
LRF: 15100430
REPORT: ANALYTICAL REPORT
EDD: NO
LRF TAT: *1 DAY*

RECEIVED DATE: 10/17/2015 10:30
SHIPPED VIA: FEDEX
SHIPPING ID: 7747 6211 8632
NUMBER OF COOLERS: 1
CUSTODY SEAL INTACT: NA
COOLER STATUS: CHILLED
TEMPERATURE(S): [5]4.9 (IR) °C

SAMPLE SEALS INTACT: NA
[1,2]SAMPLES PRESERVED PER METHOD GUIDANCE: YES
[3] SAMPLES REC'D IN HOLDTIME: YES
DISPOSAL: BY LAB (45 DAYS)
COC DISCREPANCY: NO

COMMENTS:

CLIENT ID (LAB ID)	TAT-DUE Date[4]	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUEST
BW-2 (AS32866)	*1 DAY* 10-20-15	10/13/2015 09:36	Water	SM 5310B-00,-11	Total Organic Carbon	
MW-3 (AS32867)	*1 DAY* 10-20-15	10/13/2015 09:49	Water	SM 5310B-00,-11	Total Organic Carbon	
BW-4 (AS32868)	*1 DAY* 10-20-15	10/13/2015 10:00	Water	SM 5310B-00,-11	Total Organic Carbon	
MW-9 (AS32869)	*1 DAY* 10-20-15	10/13/2015 10:20	Water	SM 5310B-00,-11	Total Organic Carbon	
MW-10 (AS32870)	*1 DAY* 10-20-15	10/13/2015 10:30	Water	SM 5310B-00,-11	Total Organic Carbon	
MW-11 (AS32871)	*1 DAY* 10-20-15	10/13/2015 10:39	Water	SM 5310B-00,-11	Total Organic Carbon	
MW-12 (AS32872)	*1 DAY* 10-20-15	10/13/2015 10:53	Water	SM 5310B-00,-11	Total Organic Carbon	

[1]The pH preservation check of Oil and Grease (Method 1664) and Total Organic Carbon (Method 5310B) are performed as soon as possible after sample receipt and may not be included in this report.
[2]The pH preservation check of aqueous volatile samples is not performed until after the analysis of the sample to maintain zero headspace and is not included in this report.
[3]Samples received for pH analysis are not marked as a hold time exceedance here. SW-846 methods suggests analysis to be done within 15 minutes of sample collection. Because of transportation time it is not possible for the laboratory to perform the test in that time. Sample Certificates of Analysis reports are noted as such.
[4]Samples arriving at the laboratory after 4:00 pm are assigned a due date as if they arrived the following business day unless other arrangements have been made.
The due date represents the date the lab report is expected to be completed on or before 5:00 pm (EST) for the date specified.
[5]All samples which require thermal preservation shall be considered acceptable when received greater than 6 degrees Celsius if they are collected on the same day as received and there is evidence that the chilling process has begun, such as arrival on ice.Control limits are between 0-6 Degrees Celsius. Control limits do not apply for metals analysis.
[6]Samples requesting analysis for Orthophosphate (SM 4500-P E-99,-11) require the samples to be filtered in the field within 15 minutes of the sampling event. Samples that are received unfiltered will be noted as not method compliant on the Certificates of Analysis.

Reporting Parameters and Lists

SM 5310B-00,-11 - Total Organic Carbon - (mg/L)

Total Organic Carbon

Appendix B
Case Narratives

American Analytical Laboratories, LLC. - Case Narrative

WO#: 1510095

Date Reported: 10/26/2015
Revision v1

Client: WRS d.b.a Berninger Environmental

Project: Schmucklers Dry Cleaners, North Ave, New Rochelle, NY

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 notated in this Narrative discussion and/or in the QC Summary Section of the lab report with appropriate qualifiers. Additional quality control information such as surrogate recovery values for organic testing is provided as part of the analytical results. Batch MS/MSD results are provided in the QC section of the lab report unless the MS/MSD summary forms indicate one of your sample identifications. MS/MSD results relate only to the parent sample that was spiked.

Volatile LCS are analyzed with preservatives - HCL/NaHSO4/Methanol depending on level of analysis (high/low) similar to sample analysis. Outliers can be attributed to the presence of chemical preservatives. 2-Chloroethyl vinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

TOC was performed by Pace Analytical a NYSDOH ELAP Certified Laboratory.

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, Isopropyl Acetate, n-Amyl Acetate, n-Butyl Acetate, n-Propyl Acetate. VOA 8260 Liquid; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Isopropyl Acetate, n-Amyl acetate, n-Butyl Acetate, n-Propyl Acetate. Pesticides 8081 Soil; DBCP. Herbicides 8151 Soil; 3,5-Dichlorobenzoic Acid, 4-Nitrophenol, Acifluorfen, Bentazon, Chloramben, DCPA, Picloram .Lachat 10-107-6-1B Ammonia in Soil, SM 2540G Total Volatile Solids, Soil TKN, Soil Organic Nitrogen, 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 ASTMC1152, Water Soluble Chloride by ASTMC1218, Chlorine Demand by SM 2350 B, Total Residual Chlorine in Liquid and Nitrate-Nitrite, Nitrogen in non-potable water 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.

October 21, 2015

CASE NARRATIVE

This data package (SDG ID: 15100430) consists of 7 water samples received on 10/17/2015. The samples are from Project Name: TOC.

This sample delivery group consists of the following samples:

Lab Sample ID	Client ID	Collection Date
AS32866	BW-2	10/13/2015 09:36
AS32867	MW-3	10/13/2015 09:49
AS32868	BW-4	10/13/2015 10:00
AS32869	MW-9	10/13/2015 10:20
AS32870	MW-10	10/13/2015 10:30
AS32871	MW-11	10/13/2015 10:39
AS32872	MW-12	10/13/2015 10:53

Sample Delivery and Receipt Conditions

(1.) All samples were delivered to the laboratory via FEDEX delivery service on 10/17/2015.

(2.) All samples were received at the laboratory intact and within holding times.

(3.) All samples were received at the laboratory properly preserved, if applicable.

Total Organic Carbon Analysis

Analysis for Total Organic Carbon was performed by Standard Methods 5310B. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Respectfully submitted,

Nicole Johnson

Nicole D. Johnson
Project Manager

S:\Lims Data\1510\15100430\Package\CN_15100430_Rev00 doc

American Analytical Laboratories, LLC. - Definitions and Acronyms

Date Reported: 10/26/2015
Revision v1

Organic Qualifiers for Level III and Level IV Data Deliverables - ELAP #11418

U - This flag indicates the compound was analyzed for but not detected.

J - This flag indicates an estimated value. This flag is used when:

1) estimating a concentration for Tentatively Identified Compounds (TICs) where a 1:1 response is assumed.
2) the mass spectral and rentention time (RT) data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the adjusted LOQ but greater than zero.
3) the RT data indicate the presence of a comopund that meets the pesticide and/or Aroclor identification criteria, and the result is less than the adjusted LOQ but greater than zero. For example, if the sample's adjusted LOQ is 5.0 ug/L, but a concentration of 3.0 ug/L is calculated, report it as 3.0J.

N - This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search and must be used in combination with the J flag. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, or for an "unknown" (no matches), the "N" flag is not used.

P - This flag is used for pesticide and Aroclor target comopunds hwen there is greater than 25% difference for detecte concentrations between the two GC columns. The lower of the two values is reported on the results Form and flagged with a "P." The "P" flag is not used unless a compound is identified on both columns.

C - This flag applies to pesticide and Aroclor results when the identification has been cofnirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do not apply this flag; use a laboratory-defined flag instead

B - This flag is used when the analyte is found in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data used to take appropriate action.

E - This flag identified compounds whose response exceed the response of the highest standard in the initial calibration range of the instrument for that specific analysis. If one of more compounds have an "E" then the sample is further diluted and appended the "DL" suffix.

D - If a sample or extract is reanalyzed at a DF great er than 1, the DL suffix is appended to the sample identification for the more diluted samples and all reported concentrations on that result form are flagged with the "D" flag. This flag alerts data users that any discrepancies between the reportee concentration may be due to dilution of the sample or extract.

* - Calibration exceeds method requirement. Due to the large number of analytes for organic testing, the method allows 10% of analytes to have %RSD and/or %D to be >20%.

Inorganic Qualifiers for Level III and Level IV Data Deliverables - ELAP #11418
J - The reported value was obtained from a reading that was less than the LOQ but greater than or equal to the LOD.

U - The reading is less than the LOD.

E - the reporte value is estimated due to the presence of interference.

N or S- spiked sample recovery not within control limits

* - Duplicate analysis not within control limits

D - the reported value is from a dilution

ND - Not detected at the reporting limit/Limit of Quantitation

Inorganic Method Codes:
CV - Cold Vapor AA
P - Inductively Coupled Plasma
WC - Wet Chemistry

Attachment-D

CAMP data (particulate and VOC monitoring)

July 24, 2015 (PID)

Instrument: MiniRAE 2000 (PGM7600) Serial Number: 009059
User ID: 00000001 Site ID: 00000257
Data Points: 235 Gas Name: Isobutylene Sample Period: 60 sec
Last Calibration Time: 06/03/2015 16:43

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)
1	07/24/2015 09:47	-----	0.0	0.0
2	07/24/2015 09:48	-----	0.0	0.0
3	07/24/2015 09:49	-----	0.0	0.0
4	07/24/2015 09:50	-----	0.0	0.0
5	07/24/2015 09:51	-----	0.0	0.0
6	07/24/2015 09:52	-----	0.0	0.0
7	07/24/2015 09:53	-----	0.0	0.0
8	07/24/2015 09:54	-----	0.0	0.0
9	07/24/2015 09:55	-----	0.0	0.0
10	07/24/2015 09:56	-----	0.0	0.0
11	07/24/2015 09:57	-----	0.0	0.0
12	07/24/2015 09:58	-----	0.0	0.0
13	07/24/2015 09:59	-----	0.0	0.0
14	07/24/2015 10:00	-----	0.0	0.0
15	07/24/2015 10:01	-----	0.0	0.0
16	07/24/2015 10:02	-----	0.0	0.0
17	07/24/2015 10:03	-----	0.0	0.0
18	07/24/2015 10:04	-----	0.0	0.0
19	07/24/2015 10:05	-----	0.0	0.0
20	07/24/2015 10:06	-----	0.0	0.0
21	07/24/2015 10:07	-----	0.0	0.0
22	07/24/2015 10:08	-----	0.0	0.0
23	07/24/2015 10:09	-----	0.0	0.0
24	07/24/2015 10:10	-----	0.0	0.0
25	07/24/2015 10:11	-----	0.0	0.0
26	07/24/2015 10:12	-----	0.0	0.0
27	07/24/2015 10:13	-----	0.0	0.0
28	07/24/2015 10:14	-----	0.0	0.0
29	07/24/2015 10:15	-----	0.0	0.0
30	07/24/2015 10:16	-----	0.0	0.0
31	07/24/2015 10:17	-----	0.0	0.2
32	07/24/2015 10:18	-----	0.0	0.0
33	07/24/2015 10:19	-----	0.0	0.0
34	07/24/2015 10:20	-----	0.0	0.0
35	07/24/2015 10:21	-----	0.0	0.0
36	07/24/2015 10:22	-----	0.0	0.1
37	07/24/2015 10:23	-----	0.0	0.2
38	07/24/2015 10:24	-----	0.0	0.0
39	07/24/2015 10:25	-----	0.0	0.5
40	07/24/2015 10:26	-----	0.0	0.0
41	07/24/2015 10:27	-----	0.0	1.1
42	07/24/2015 10:28	-----	0.0	0.0
43	07/24/2015 10:29	-----	0.0	0.9
44	07/24/2015 10:30	-----	0.0	0.0
45	07/24/2015 10:31	-----	0.0	0.0
46	07/24/2015 10:32	-----	0.0	0.0
47	07/24/2015 10:33	-----	0.1	1.7
48	07/24/2015 10:34	-----	0.0	0.3
49	07/24/2015 10:35	-----	0.1	0.9
50	07/24/2015 10:36	-----	0.0	0.0
51	07/24/2015 10:37	-----	0.0	0.1
52	07/24/2015 10:38	-----	0.0	0.0
53	07/24/2015 10:39	-----	0.1	2.1
54	07/24/2015 10:40	-----	0.0	1.0
55	07/24/2015 10:41	-----	0.0	0.0
56	07/24/2015 10:42	-----	0.0	0.0
57	07/24/2015 10:43	-----	0.0	0.0
58	07/24/2015 10:44	-----	0.0	0.0

59	07/24/2015 10:45	-----	0.0	0.0
60	07/24/2015 10:46	-----	0.0	0.0
61	07/24/2015 10:47	-----	0.0	0.0
62	07/24/2015 10:48	-----	0.0	0.0
63	07/24/2015 10:49	-----	0.0	0.0
64	07/24/2015 10:50	-----	0.0	0.2
65	07/24/2015 10:51	-----	0.0	0.9
66	07/24/2015 10:52	-----	0.0	0.0
67	07/24/2015 10:53	-----	0.5	3.6
68	07/24/2015 10:54	-----	0.2	3.0
69	07/24/2015 10:55	-----	0.0	0.1
70	07/24/2015 10:56	-----	0.0	0.6
71	07/24/2015 10:57	-----	0.6	9.1
72	07/24/2015 10:58	-----	0.2	1.3
73	07/24/2015 10:59	-----	0.3	2.7
74	07/24/2015 11:00	-----	0.7	5.5
75	07/24/2015 11:01	-----	0.0	0.5
76	07/24/2015 11:02	-----	0.0	2.1
77	07/24/2015 11:03	-----	0.0	0.4
78	07/24/2015 11:04	-----	0.3	2.9
79	07/24/2015 11:05	-----	0.0	0.9
80	07/24/2015 11:06	-----	0.4	4.7
81	07/24/2015 11:07	-----	0.1	2.3
82	07/24/2015 11:08	-----	0.2	2.2
83	07/24/2015 11:09	-----	0.0	1.3
84	07/24/2015 11:10	-----	0.1	0.9
85	07/24/2015 11:11	-----	0.0	0.4
86	07/24/2015 11:12	-----	0.0	1.3
87	07/24/2015 11:13	-----	0.0	0.4
88	07/24/2015 11:14	-----	0.0	0.3
89	07/24/2015 11:15	-----	0.0	0.0
90	07/24/2015 11:16	-----	0.0	0.0
91	07/24/2015 11:17	-----	0.0	0.7
92	07/24/2015 11:18	-----	0.0	0.0
93	07/24/2015 11:19	-----	0.0	0.0
94	07/24/2015 11:20	-----	0.0	0.0
95	07/24/2015 11:21	-----	0.1	1.2
96	07/24/2015 11:22	-----	0.1	2.0
97	07/24/2015 11:23	-----	0.0	0.8
98	07/24/2015 11:24	-----	0.1	2.1
99	07/24/2015 11:25	-----	0.2	1.7
100	07/24/2015 11:26	-----	0.2	1.8
101	07/24/2015 11:27	-----	0.0	0.0
102	07/24/2015 11:28	-----	0.1	2.6
103	07/24/2015 11:29	-----	0.0	1.2
104	07/24/2015 11:30	-----	0.0	0.0
105	07/24/2015 11:31	-----	0.0	0.3
106	07/24/2015 11:32	-----	0.0	0.6
107	07/24/2015 11:33	-----	0.0	1.0
108	07/24/2015 11:34	-----	0.1	1.2
109	07/24/2015 11:35	-----	0.0	0.4
110	07/24/2015 11:36	-----	0.0	0.0
111	07/24/2015 11:37	-----	0.0	0.0
112	07/24/2015 11:38	-----	0.0	0.7
113	07/24/2015 11:39	-----	0.0	0.7
114	07/24/2015 11:40	-----	0.0	0.0
115	07/24/2015 11:41	-----	0.0	0.0
116	07/24/2015 11:42	-----	0.0	0.0
117	07/24/2015 11:43	-----	0.0	0.4
118	07/24/2015 11:44	-----	0.0	0.0
119	07/24/2015 11:45	-----	0.1	0.9
120	07/24/2015 11:46	-----	0.0	0.6
121	07/24/2015 11:47	-----	0.0	0.0
122	07/24/2015 11:48	-----	0.0	0.0
123	07/24/2015 11:49	-----	0.0	0.0
124	07/24/2015 11:50	-----	0.1	0.9
125	07/24/2015 11:51	-----	0.0	0.0
126	07/24/2015 11:52	-----	0.0	0.0
127	07/24/2015 11:53	-----	0.0	0.0

128	07/24/2015 11:54	-----	0.0	0.0
129	07/24/2015 11:55	-----	0.0	0.0
130	07/24/2015 11:56	-----	0.0	0.5
131	07/24/2015 11:57	-----	0.1	2.6
132	07/24/2015 11:58	-----	0.0	1.8
133	07/24/2015 11:59	-----	0.0	0.9
134	07/24/2015 12:00	-----	0.1	1.5
135	07/24/2015 12:01	-----	0.5	2.3
136	07/24/2015 12:02	-----	0.4	3.3
137	07/24/2015 12:03	-----	0.0	0.1
138	07/24/2015 12:04	-----	0.0	0.4
139	07/24/2015 12:05	-----	0.0	0.1
140	07/24/2015 12:06	-----	0.0	0.0
141	07/24/2015 12:07	-----	0.0	0.2
142	07/24/2015 12:08	-----	0.0	0.0
143	07/24/2015 12:09	-----	0.0	0.2
144	07/24/2015 12:10	-----	0.0	0.3
145	07/24/2015 12:11	-----	0.0	0.0
146	07/24/2015 12:12	-----	0.0	0.0
147	07/24/2015 12:13	-----	0.0	0.0
148	07/24/2015 12:14	-----	0.0	0.0
149	07/24/2015 12:15	-----	0.0	0.0
150	07/24/2015 12:16	-----	0.0	0.0
151	07/24/2015 12:17	-----	0.0	0.0
152	07/24/2015 12:18	-----	0.0	0.0
153	07/24/2015 12:19	-----	0.0	0.0
154	07/24/2015 12:20	-----	0.0	0.0
155	07/24/2015 12:21	-----	0.0	0.0
156	07/24/2015 12:22	-----	0.0	0.0
157	07/24/2015 12:23	-----	0.0	0.0
158	07/24/2015 12:24	-----	0.0	0.0
159	07/24/2015 12:25	-----	0.0	0.0
160	07/24/2015 12:26	-----	0.0	0.0
161	07/24/2015 12:27	-----	0.0	0.0
162	07/24/2015 12:28	-----	0.0	0.0
163	07/24/2015 12:29	-----	0.0	0.0
164	07/24/2015 12:30	-----	0.0	0.0
165	07/24/2015 12:31	-----	0.0	0.1
166	07/24/2015 12:32	-----	0.0	0.1
167	07/24/2015 12:33	-----	0.0	0.1
168	07/24/2015 12:34	-----	0.0	0.1
169	07/24/2015 12:35	-----	0.0	0.1
170	07/24/2015 12:36	-----	0.0	0.1
171	07/24/2015 12:37	-----	0.0	0.1
172	07/24/2015 12:38	-----	0.0	0.1
173	07/24/2015 12:39	-----	0.0	0.1
174	07/24/2015 12:40	-----	0.0	0.1
175	07/24/2015 12:41	-----	0.0	0.1
176	07/24/2015 12:42	-----	0.0	0.1
177	07/24/2015 12:43	-----	0.0	0.1
178	07/24/2015 12:44	-----	0.0	0.1
179	07/24/2015 12:45	-----	0.0	0.1
180	07/24/2015 12:46	-----	0.0	0.1
181	07/24/2015 12:47	-----	0.0	0.1
182	07/24/2015 12:48	-----	0.0	0.1
183	07/24/2015 12:49	-----	2.1	7.9
184	07/24/2015 12:50	-----	1.0	2.0
185	07/24/2015 12:51	-----	0.5	0.9
186	07/24/2015 12:52	-----	0.2	0.4
187	07/24/2015 12:53	-----	0.2	0.3
188	07/24/2015 12:54	-----	0.1	0.3
189	07/24/2015 12:55	-----	0.4	1.2
190	07/24/2015 12:56	-----	0.3	0.5
191	07/24/2015 12:57	-----	0.2	0.5
192	07/24/2015 12:58	-----	0.4	0.6
193	07/24/2015 12:59	-----	0.2	0.2
194	07/24/2015 13:00	-----	0.5	0.9
195	07/24/2015 13:01	-----	0.5	0.7
196	07/24/2015 13:02	-----	0.6	0.8

197	07/24/2015 13:03	-----	0.4	0.7
198	07/24/2015 13:04	-----	0.5	0.9
199	07/24/2015 13:05	-----	0.6	1.1
200	07/24/2015 13:06	-----	0.5	1.1
201	07/24/2015 13:07	-----	0.2	0.4
202	07/24/2015 13:08	-----	0.1	0.3
203	07/24/2015 13:09	-----	0.1	0.3
204	07/24/2015 13:10	-----	0.0	0.2
205	07/24/2015 13:11	-----	0.0	0.1
206	07/24/2015 13:12	-----	0.4	0.7
207	07/24/2015 13:13	-----	0.5	0.9
208	07/24/2015 13:14	-----	0.4	0.7
209	07/24/2015 13:15	-----	0.2	0.3
210	07/24/2015 13:16	-----	0.2	0.3
211	07/24/2015 13:17	-----	0.2	0.4
212	07/24/2015 13:18	-----	0.3	0.7
213	07/24/2015 13:19	-----	1.1	1.6
214	07/24/2015 13:20	-----	1.6	2.0
215	07/24/2015 13:21	-----	2.0	2.2
216	07/24/2015 13:22	-----	1.4	1.9
217	07/24/2015 13:23	-----	1.1	1.7
218	07/24/2015 13:24	-----	0.9	1.4
219	07/24/2015 13:25	-----	0.9	1.5
220	07/24/2015 13:26	-----	0.7	1.0
221	07/24/2015 13:27	-----	1.2	1.9
222	07/24/2015 13:28	-----	1.7	1.9
223	07/24/2015 13:29	-----	1.6	1.8
224	07/24/2015 13:30	-----	1.9	2.2
225	07/24/2015 13:31	-----	1.6	2.2
226	07/24/2015 13:32	-----	1.5	1.8
227	07/24/2015 13:33	-----	1.0	1.7
228	07/24/2015 13:34	-----	0.9	1.4
229	07/24/2015 13:35	-----	1.1	1.7
230	07/24/2015 13:36	-----	1.0	1.4
231	07/24/2015 13:37	-----	1.7	2.5
232	07/24/2015 13:38	-----	1.3	2.0
233	07/24/2015 13:39	-----	1.2	1.6
234	07/24/2015 13:40	-----	1.3	1.8
235	07/24/2015 13:41	-----	1.7	2.3

Instrument: MiniRAE 2000 (PGM7600) Serial Number: 009059
User ID: 00000001 Site ID: 00000258
Data Points: 38 Gas Name: Isobutylene Sample Period: 60 sec
Last Calibration Time: 06/03/2015 16:43

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)
1	07/24/2015 13:56	-----	0.5	0.7
2	07/24/2015 13:57	-----	0.6	1.0
3	07/24/2015 13:58	-----	1.4	2.1
4	07/24/2015 13:59	-----	0.8	1.4
5	07/24/2015 14:00	-----	1.2	2.0
6	07/24/2015 14:01	-----	1.5	2.1
7	07/24/2015 14:02	-----	1.5	2.0
8	07/24/2015 14:03	-----	1.9	2.2
9	07/24/2015 14:04	-----	1.0	2.0
10	07/24/2015 14:05	-----	0.1	0.2
11	07/24/2015 14:06	-----	0.0	0.1
12	07/24/2015 14:07	-----	0.0	0.0
13	07/24/2015 14:08	-----	0.0	0.0
14	07/24/2015 14:09	-----	0.0	0.0
15	07/24/2015 14:10	-----	0.0	0.0
16	07/24/2015 14:11	-----	0.0	0.0
17	07/24/2015 14:12	-----	0.0	0.0
18	07/24/2015 14:13	-----	0.0	0.0
19	07/24/2015 14:14	-----	0.0	0.0
20	07/24/2015 14:15	-----	0.0	0.0
21	07/24/2015 14:16	-----	0.0	0.0
22	07/24/2015 14:17	-----	0.0	0.0
23	07/24/2015 14:18	-----	0.0	0.0
24	07/24/2015 14:19	-----	0.2	0.7
25	07/24/2015 14:20	-----	0.0	0.2
26	07/24/2015 14:21	-----	0.2	0.6
27	07/24/2015 14:22	-----	0.5	0.6
28	07/24/2015 14:23	-----	0.3	0.6
29	07/24/2015 14:24	-----	0.2	0.4
30	07/24/2015 14:25	-----	0.3	0.4
31	07/24/2015 14:26	-----	0.2	0.4
32	07/24/2015 14:27	-----	0.1	0.2
33	07/24/2015 14:28	-----	0.1	0.3
34	07/24/2015 14:29	-----	0.1	0.2
35	07/24/2015 14:30	-----	0.0	0.2
36	07/24/2015 14:31	-----	0.0	0.2
37	07/24/2015 14:32	-----	0.0	0.1
38	07/24/2015 14:33	-----	0.0	0.1

July 27, 2015 (PID)

Instrument: MiniRAE 2000 (PGM7600) Serial Number: 009059
User ID: 00000001 Site ID: 00000259
Data Points: 283 Gas Name: Isobutylene Sample Period: 60 sec
Last Calibration Time: 06/03/2015 16:43

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)
1	07/27/2015 10:59	-----	0.2	0.2
2	07/27/2015 11:00	-----	0.2	0.2
3	07/27/2015 11:01	-----	0.2	0.2
4	07/27/2015 11:02	-----	0.2	0.2
5	07/27/2015 11:03	-----	0.2	0.2
6	07/27/2015 11:04	-----	0.2	0.2
7	07/27/2015 11:05	-----	0.3	1.3
8	07/27/2015 11:06	-----	6.1	56.5L
9	07/27/2015 11:07	-----	0.4	0.6
10	07/27/2015 11:08	-----	0.4	0.4
11	07/27/2015 11:09	-----	0.4	0.4
12	07/27/2015 11:10	-----	0.4	0.4
13	07/27/2015 11:11	-----	0.4	0.4
14	07/27/2015 11:12	-----	0.4	0.4
15	07/27/2015 11:13	-----	0.4	0.4
16	07/27/2015 11:14	-----	0.4	0.4
17	07/27/2015 11:15	-----	0.4	0.5
18	07/27/2015 11:16	-----	0.5	0.5
19	07/27/2015 11:17	-----	0.5	0.6
20	07/27/2015 11:18	-----	0.6	0.7
21	07/27/2015 11:19	-----	0.7	0.7
22	07/27/2015 11:20	-----	0.7	0.8
23	07/27/2015 11:21	-----	0.8	0.8
24	07/27/2015 11:22	-----	0.8	0.9
25	07/27/2015 11:23	-----	0.8	0.9
26	07/27/2015 11:24	-----	0.9	1.0
27	07/27/2015 11:25	-----	0.9	1.0
28	07/27/2015 11:26	-----	1.0	1.0
29	07/27/2015 11:27	-----	1.0	1.1
30	07/27/2015 11:28	-----	1.0	1.1
31	07/27/2015 11:29	-----	1.1	1.1
32	07/27/2015 11:30	-----	0.5	1.2
33	07/27/2015 11:31	-----	0.2	0.3
34	07/27/2015 11:32	-----	0.1	0.2
35	07/27/2015 11:33	-----	0.1	0.2
36	07/27/2015 11:34	-----	0.1	0.1
37	07/27/2015 11:35	-----	0.1	0.1
38	07/27/2015 11:36	-----	0.1	0.1
39	07/27/2015 11:37	-----	0.1	0.1
40	07/27/2015 11:38	-----	0.1	0.1
41	07/27/2015 11:39	-----	0.1	0.1
42	07/27/2015 11:40	-----	0.1	0.1
43	07/27/2015 11:41	-----	0.1	0.1
44	07/27/2015 11:42	-----	0.1	0.1
45	07/27/2015 11:43	-----	0.1	0.1
46	07/27/2015 11:44	-----	0.1	0.1
47	07/27/2015 11:45	-----	0.0	0.1
48	07/27/2015 11:46	-----	0.0	0.1
49	07/27/2015 11:47	-----	0.0	0.1
50	07/27/2015 11:48	-----	0.0	0.1
51	07/27/2015 11:49	-----	0.0	0.1
52	07/27/2015 11:50	-----	0.0	0.1
53	07/27/2015 11:51	-----	0.0	0.1
54	07/27/2015 11:52	-----	0.0	0.1
55	07/27/2015 11:53	-----	0.0	0.1
56	07/27/2015 11:54	-----	0.0	0.1
57	07/27/2015 11:55	-----	0.0	0.1
58	07/27/2015 11:56	-----	0.0	0.0

59	07/27/2015 11:57	-----	0.0	0.1
60	07/27/2015 11:58	-----	0.0	0.1
61	07/27/2015 11:59	-----	0.1	0.1
62	07/27/2015 12:00	-----	0.0	0.1
63	07/27/2015 12:01	-----	0.0	0.1
64	07/27/2015 12:02	-----	0.0	0.1
65	07/27/2015 12:03	-----	0.0	0.1
66	07/27/2015 12:04	-----	0.0	0.1
67	07/27/2015 12:05	-----	0.0	0.1
68	07/27/2015 12:06	-----	0.1	0.1
69	07/27/2015 12:07	-----	0.1	0.1
70	07/27/2015 12:08	-----	0.1	0.2
71	07/27/2015 12:09	-----	0.1	0.1
72	07/27/2015 12:10	-----	0.1	0.1
73	07/27/2015 12:11	-----	0.1	0.1
74	07/27/2015 12:12	-----	0.1	0.1
75	07/27/2015 12:13	-----	0.1	0.1
76	07/27/2015 12:14	-----	0.1	0.1
77	07/27/2015 12:15	-----	0.1	0.1
78	07/27/2015 12:16	-----	0.1	0.1
79	07/27/2015 12:17	-----	0.1	0.1
80	07/27/2015 12:18	-----	0.1	0.1
81	07/27/2015 12:19	-----	0.1	0.1
82	07/27/2015 12:20	-----	0.1	0.1
83	07/27/2015 12:21	-----	0.1	0.1
84	07/27/2015 12:22	-----	0.1	0.1
85	07/27/2015 12:23	-----	0.1	0.1
86	07/27/2015 12:24	-----	0.1	0.1
87	07/27/2015 12:25	-----	0.1	0.1
88	07/27/2015 12:26	-----	0.1	0.1
89	07/27/2015 12:27	-----	0.1	0.3
90	07/27/2015 12:28	-----	0.5	1.4
91	07/27/2015 12:29	-----	1.1	1.7
92	07/27/2015 12:30	-----	1.0	1.4
93	07/27/2015 12:31	-----	1.2	2.2
94	07/27/2015 12:32	-----	1.2	2.2
95	07/27/2015 12:33	-----	2.2	3.4
96	07/27/2015 12:34	-----	3.7	4.0
97	07/27/2015 12:35	-----	3.8	4.1
98	07/27/2015 12:36	-----	3.6	3.9
99	07/27/2015 12:37	-----	3.8	4.2
100	07/27/2015 12:38	-----	2.8	4.1
101	07/27/2015 12:39	-----	1.5	3.1
102	07/27/2015 12:40	-----	1.2	1.8
103	07/27/2015 12:41	-----	1.0	2.3
104	07/27/2015 12:42	-----	2.1	3.4
105	07/27/2015 12:43	-----	3.7	4.7
106	07/27/2015 12:44	-----	2.2	2.9
107	07/27/2015 12:45	-----	3.4	5.3
108	07/27/2015 12:46	-----	5.2	5.7
109	07/27/2015 12:47	-----	5.4	5.9
110	07/27/2015 12:48	-----	5.9	6.2
111	07/27/2015 12:49	-----	6.1	6.4
112	07/27/2015 12:50	-----	6.3	6.5
113	07/27/2015 12:51	-----	6.2	6.3
114	07/27/2015 12:52	-----	6.1	6.3
115	07/27/2015 12:53	-----	6.1	6.4
116	07/27/2015 12:54	-----	2.7	5.8
117	07/27/2015 12:55	-----	1.4	2.0
118	07/27/2015 12:56	-----	1.3	3.0
119	07/27/2015 12:57	-----	2.0	3.1
120	07/27/2015 12:58	-----	1.8	2.5
121	07/27/2015 12:59	-----	1.5	3.4
122	07/27/2015 13:00	-----	0.9	1.4
123	07/27/2015 13:01	-----	0.6	1.5
124	07/27/2015 13:02	-----	1.3	1.9
125	07/27/2015 13:03	-----	0.8	1.1
126	07/27/2015 13:04	-----	1.2	1.9
127	07/27/2015 13:05	-----	1.0	1.3

128	07/27/2015 13:06	-----	0.8	0.9
129	07/27/2015 13:07	-----	0.8	0.9
130	07/27/2015 13:08	-----	0.7	1.0
131	07/27/2015 13:09	-----	0.3	0.6
132	07/27/2015 13:10	-----	0.3	0.6
133	07/27/2015 13:11	-----	0.5	0.9
134	07/27/2015 13:12	-----	0.5	1.6
135	07/27/2015 13:13	-----	3.4	9.5
136	07/27/2015 13:14	-----	2.9	3.3
137	07/27/2015 13:15	-----	2.9	4.0
138	07/27/2015 13:16	-----	1.0	2.1
139	07/27/2015 13:17	-----	0.6	0.7
140	07/27/2015 13:18	-----	0.7	0.8
141	07/27/2015 13:19	-----	0.6	0.7
142	07/27/2015 13:20	-----	0.5	0.6
143	07/27/2015 13:21	-----	0.4	0.5
144	07/27/2015 13:22	-----	0.4	0.5
145	07/27/2015 13:23	-----	0.4	0.4
146	07/27/2015 13:24	-----	0.4	0.4
147	07/27/2015 13:25	-----	0.3	0.4
148	07/27/2015 13:26	-----	0.3	0.4
149	07/27/2015 13:27	-----	0.3	0.4
150	07/27/2015 13:28	-----	0.3	0.4
151	07/27/2015 13:29	-----	0.3	0.3
152	07/27/2015 13:30	-----	0.2	0.3
153	07/27/2015 13:31	-----	0.2	0.3
154	07/27/2015 13:32	-----	0.2	0.3
155	07/27/2015 13:33	-----	0.2	0.3
156	07/27/2015 13:34	-----	0.2	0.3
157	07/27/2015 13:35	-----	0.2	0.3
158	07/27/2015 13:36	-----	0.2	0.4
159	07/27/2015 13:37	-----	0.3	0.4
160	07/27/2015 13:38	-----	0.3	0.4
161	07/27/2015 13:39	-----	0.3	0.4
162	07/27/2015 13:40	-----	0.4	0.6
163	07/27/2015 13:41	-----	0.2	0.5
164	07/27/2015 13:42	-----	0.6	1.1
165	07/27/2015 13:43	-----	0.8	1.1
166	07/27/2015 13:44	-----	0.4	0.7
167	07/27/2015 13:45	-----	0.2	0.3
168	07/27/2015 13:46	-----	0.2	0.3
169	07/27/2015 13:47	-----	0.3	0.4
170	07/27/2015 13:48	-----	0.3	0.4
171	07/27/2015 13:49	-----	0.3	0.5
172	07/27/2015 13:50	-----	0.2	0.2
173	07/27/2015 13:51	-----	0.2	0.3
174	07/27/2015 13:52	-----	0.3	0.3
175	07/27/2015 13:53	-----	0.2	0.3
176	07/27/2015 13:54	-----	0.3	0.5
177	07/27/2015 13:55	-----	0.2	0.3
178	07/27/2015 13:56	-----	0.2	0.2
179	07/27/2015 13:57	-----	0.2	0.2
180	07/27/2015 13:58	-----	0.2	0.4
181	07/27/2015 13:59	-----	0.2	0.3
182	07/27/2015 14:00	-----	0.2	0.2
183	07/27/2015 14:01	-----	0.2	0.2
184	07/27/2015 14:02	-----	0.2	0.3
185	07/27/2015 14:03	-----	16.8	355.1H
186	07/27/2015 14:04	-----	1.1	9.9
187	07/27/2015 14:05	-----	0.3	0.4
188	07/27/2015 14:06	-----	0.2	0.3
189	07/27/2015 14:07	-----	0.2	0.3
190	07/27/2015 14:08	-----	0.2	0.3
191	07/27/2015 14:09	-----	0.3	0.5
192	07/27/2015 14:10	-----	0.4	0.5
193	07/27/2015 14:11	-----	0.4	0.5
194	07/27/2015 14:12	-----	0.3	0.5
195	07/27/2015 14:13	-----	0.2	0.6
196	07/27/2015 14:14	-----	0.2	0.4

197	07/27/2015 14:15	-----	2.5	5.7
198	07/27/2015 14:16	-----	0.3	0.7
199	07/27/2015 14:17	-----	0.2	0.3
200	07/27/2015 14:18	-----	0.2	0.3
201	07/27/2015 14:19	-----	0.2	0.3
202	07/27/2015 14:20	-----	0.2	0.3
203	07/27/2015 14:21	-----	0.2	0.3
204	07/27/2015 14:22	-----	0.2	0.4
205	07/27/2015 14:23	-----	0.2	0.3
206	07/27/2015 14:24	-----	0.2	0.3
207	07/27/2015 14:25	-----	0.2	0.2
208	07/27/2015 14:26	-----	0.2	0.2
209	07/27/2015 14:27	-----	0.2	0.2
210	07/27/2015 14:28	-----	0.2	0.3
211	07/27/2015 14:29	-----	0.1	0.3
212	07/27/2015 14:30	-----	0.1	0.3
213	07/27/2015 14:31	-----	0.2	0.3
214	07/27/2015 14:32	-----	0.2	0.3
215	07/27/2015 14:33	-----	0.2	0.3
216	07/27/2015 14:34	-----	0.2	0.3
217	07/27/2015 14:35	-----	0.3	0.4
218	07/27/2015 14:36	-----	0.3	0.4
219	07/27/2015 14:37	-----	0.2	0.4
220	07/27/2015 14:38	-----	0.1	0.3
221	07/27/2015 14:39	-----	0.1	0.2
222	07/27/2015 14:40	-----	0.1	0.3
223	07/27/2015 14:41	-----	0.1	0.2
224	07/27/2015 14:42	-----	0.1	0.2
225	07/27/2015 14:43	-----	0.1	0.2
226	07/27/2015 14:44	-----	0.1	0.2
227	07/27/2015 14:45	-----	0.1	0.2
228	07/27/2015 14:46	-----	0.1	0.3
229	07/27/2015 14:47	-----	0.1	0.2
230	07/27/2015 14:48	-----	0.1	0.2
231	07/27/2015 14:49	-----	0.1	0.2
232	07/27/2015 14:50	-----	0.0	0.2
233	07/27/2015 14:51	-----	0.1	0.2
234	07/27/2015 14:52	-----	0.0	0.2
235	07/27/2015 14:53	-----	0.1	0.2
236	07/27/2015 14:54	-----	0.1	0.2
237	07/27/2015 14:55	-----	0.0	0.2
238	07/27/2015 14:56	-----	0.0	0.1
239	07/27/2015 14:57	-----	0.0	0.2
240	07/27/2015 14:58	-----	0.0	0.2
241	07/27/2015 14:59	-----	0.0	0.2
242	07/27/2015 15:00	-----	0.0	0.1
243	07/27/2015 15:01	-----	0.0	0.1
244	07/27/2015 15:02	-----	0.0	0.1
245	07/27/2015 15:03	-----	0.0	0.2
246	07/27/2015 15:04	-----	0.0	0.1
247	07/27/2015 15:05	-----	0.1	0.1
248	07/27/2015 15:06	-----	0.0	0.1
249	07/27/2015 15:07	-----	0.0	0.1
250	07/27/2015 15:08	-----	0.1	0.1
251	07/27/2015 15:09	-----	0.0	0.1
252	07/27/2015 15:10	-----	0.1	0.1
253	07/27/2015 15:11	-----	0.0	0.1
254	07/27/2015 15:12	-----	0.0	0.1
255	07/27/2015 15:13	-----	0.1	0.1
256	07/27/2015 15:14	-----	0.1	0.1
257	07/27/2015 15:15	-----	0.1	0.1
258	07/27/2015 15:16	-----	0.1	0.1
259	07/27/2015 15:17	-----	0.1	0.1
260	07/27/2015 15:18	-----	0.1	0.1
261	07/27/2015 15:19	-----	0.1	0.1
262	07/27/2015 15:20	-----	0.1	0.1
263	07/27/2015 15:21	-----	0.1	0.1
264	07/27/2015 15:22	-----	0.1	0.1
265	07/27/2015 15:23	-----	0.1	0.1

266	07/27/2015 15:24	-----	0.1	0.1
267	07/27/2015 15:25	-----	0.1	0.1
268	07/27/2015 15:26	-----	0.1	0.1
269	07/27/2015 15:27	-----	0.1	0.1
270	07/27/2015 15:28	-----	0.1	0.1
271	07/27/2015 15:29	-----	0.1	0.1
272	07/27/2015 15:30	-----	0.1	0.1
273	07/27/2015 15:31	-----	0.1	0.1
274	07/27/2015 15:32	-----	0.1	0.1
275	07/27/2015 15:33	-----	0.1	0.1
276	07/27/2015 15:34	-----	0.1	0.1
277	07/27/2015 15:35	-----	0.1	0.1
278	07/27/2015 15:36	-----	0.1	0.1
279	07/27/2015 15:37	-----	0.1	0.1
280	07/27/2015 15:38	-----	0.1	0.1
281	07/27/2015 15:39	-----	0.1	0.1
282	07/27/2015 15:40	-----	0.1	0.1
283	07/27/2015 15:41	-----	0.1	0.1

July 28, 2015 (PID)

Instrument: MiniRAE 2000 (PGM7600)   Serial Number: 009059
User ID: 00000001   Site ID: 00000260
Data Points: 205   Gas Name: Isobutylene   Sample Period: 60 sec
Last Calibration Time: 06/03/2015 16:43

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)
1	07/28/2015 10:57	-----	0.0	0.0
2	07/28/2015 10:58	-----	0.0	0.0
3	07/28/2015 10:59	-----	0.0	0.0
4	07/28/2015 11:00	-----	0.0	0.0
5	07/28/2015 11:01	-----	0.0	0.0
6	07/28/2015 11:02	-----	0.0	0.0
7	07/28/2015 11:03	-----	0.0	0.0
8	07/28/2015 11:04	-----	0.0	0.0
9	07/28/2015 11:05	-----	0.0	0.0
10	07/28/2015 11:06	-----	0.0	0.0
11	07/28/2015 11:07	-----	0.0	0.1
12	07/28/2015 11:08	-----	0.0	0.1
13	07/28/2015 11:09	-----	0.0	0.1
14	07/28/2015 11:10	-----	0.0	0.1
15	07/28/2015 11:11	-----	0.0	0.1
16	07/28/2015 11:12	-----	0.1	0.1
17	07/28/2015 11:13	-----	0.1	0.1
18	07/28/2015 11:14	-----	0.1	0.1
19	07/28/2015 11:15	-----	0.1	0.1
20	07/28/2015 11:16	-----	0.1	0.1
21	07/28/2015 11:17	-----	0.1	0.1
22	07/28/2015 11:18	-----	0.1	0.1
23	07/28/2015 11:19	-----	0.1	0.1
24	07/28/2015 11:20	-----	0.1	0.1
25	07/28/2015 11:21	-----	0.1	0.2
26	07/28/2015 11:22	-----	0.1	0.2
27	07/28/2015 11:23	-----	0.1	0.1
28	07/28/2015 11:24	-----	0.1	0.2
29	07/28/2015 11:25	-----	0.2	0.2
30	07/28/2015 11:26	-----	0.2	0.2
31	07/28/2015 11:27	-----	0.2	0.2
32	07/28/2015 11:28	-----	0.2	0.2
33	07/28/2015 11:29	-----	0.2	0.2
34	07/28/2015 11:30	-----	0.2	0.2
35	07/28/2015 11:31	-----	0.2	0.2
36	07/28/2015 11:32	-----	0.2	0.3
37	07/28/2015 11:33	-----	0.2	0.3
38	07/28/2015 11:34	-----	0.2	0.3
39	07/28/2015 11:35	-----	0.2	0.3
40	07/28/2015 11:36	-----	0.2	0.3
41	07/28/2015 11:37	-----	0.2	0.3
42	07/28/2015 11:38	-----	0.2	0.3
43	07/28/2015 11:39	-----	0.2	0.3
44	07/28/2015 11:40	-----	0.2	0.3
45	07/28/2015 11:41	-----	0.2	0.3
46	07/28/2015 11:42	-----	0.2	0.3
47	07/28/2015 11:43	-----	0.2	0.3
48	07/28/2015 11:44	-----	0.3	0.3
49	07/28/2015 11:45	-----	0.2	0.3
50	07/28/2015 11:46	-----	0.2	0.3
51	07/28/2015 11:47	-----	0.2	0.3
52	07/28/2015 11:48	-----	0.2	0.3
53	07/28/2015 11:49	-----	0.2	0.3
54	07/28/2015 11:50	-----	0.2	0.3
55	07/28/2015 11:51	-----	0.3	0.3
56	07/28/2015 11:52	-----	0.3	0.3
57	07/28/2015 11:53	-----	0.3	0.3
58	07/28/2015 11:54	-----	0.3	0.3

59	07/28/2015 11:55	-----	0.2	0.3
60	07/28/2015 11:56	-----	0.3	0.3
61	07/28/2015 11:57	-----	0.3	0.3
62	07/28/2015 11:58	-----	0.3	0.3
63	07/28/2015 11:59	-----	0.2	0.3
64	07/28/2015 12:00	-----	0.3	0.3
65	07/28/2015 12:01	-----	0.3	0.3
66	07/28/2015 12:02	-----	0.3	0.3
67	07/28/2015 12:03	-----	0.3	0.3
68	07/28/2015 12:04	-----	0.3	0.3
69	07/28/2015 12:05	-----	0.2	0.3
70	07/28/2015 12:06	-----	0.3	0.3
71	07/28/2015 12:07	-----	0.3	0.5
72	07/28/2015 12:08	-----	0.2	0.3
73	07/28/2015 12:09	-----	0.3	0.5
74	07/28/2015 12:10	-----	0.3	0.4
75	07/28/2015 12:11	-----	0.3	0.3
76	07/28/2015 12:12	-----	0.2	0.3
77	07/28/2015 12:13	-----	0.2	0.3
78	07/28/2015 12:14	-----	0.3	0.3
79	07/28/2015 12:15	-----	0.3	0.3
80	07/28/2015 12:16	-----	0.3	0.3
81	07/28/2015 12:17	-----	0.3	0.3
82	07/28/2015 12:18	-----	0.2	0.3
83	07/28/2015 12:19	-----	0.2	0.3
84	07/28/2015 12:20	-----	0.2	0.3
85	07/28/2015 12:21	-----	0.2	0.3
86	07/28/2015 12:22	-----	0.2	0.3
87	07/28/2015 12:23	-----	0.2	0.3
88	07/28/2015 12:24	-----	0.2	0.3
89	07/28/2015 12:25	-----	0.2	0.3
90	07/28/2015 12:26	-----	0.3	0.3
91	07/28/2015 12:27	-----	0.2	0.3
92	07/28/2015 12:28	-----	0.2	0.3
93	07/28/2015 12:29	-----	0.3	0.3
94	07/28/2015 12:30	-----	0.3	0.4
95	07/28/2015 12:31	-----	0.3	0.4
96	07/28/2015 12:32	-----	0.3	0.4
97	07/28/2015 12:33	-----	0.3	0.4
98	07/28/2015 12:34	-----	0.3	0.4
99	07/28/2015 12:35	-----	0.3	0.4
100	07/28/2015 12:36	-----	0.3	0.4
101	07/28/2015 12:37	-----	0.3	0.3
102	07/28/2015 12:38	-----	0.3	0.4
103	07/28/2015 12:39	-----	0.3	0.3
104	07/28/2015 12:40	-----	0.3	0.4
105	07/28/2015 12:41	-----	0.3	0.4
106	07/28/2015 12:42	-----	0.3	0.4
107	07/28/2015 12:43	-----	0.3	0.4
108	07/28/2015 12:44	-----	0.3	0.4
109	07/28/2015 12:45	-----	0.3	0.4
110	07/28/2015 12:46	-----	0.3	0.4
111	07/28/2015 12:47	-----	0.3	0.4
112	07/28/2015 12:48	-----	0.3	0.4
113	07/28/2015 12:49	-----	0.3	0.4
114	07/28/2015 12:50	-----	0.3	0.4
115	07/28/2015 12:51	-----	0.3	0.4
116	07/28/2015 12:52	-----	0.3	0.4
117	07/28/2015 12:53	-----	0.3	0.4
118	07/28/2015 12:54	-----	0.3	0.4
119	07/28/2015 12:55	-----	0.3	0.4
120	07/28/2015 12:56	-----	0.3	0.4
121	07/28/2015 12:57	-----	0.3	0.4
122	07/28/2015 12:58	-----	0.3	0.4
123	07/28/2015 12:59	-----	0.3	0.4
124	07/28/2015 13:00	-----	0.3	0.4
125	07/28/2015 13:01	-----	0.3	0.4
126	07/28/2015 13:02	-----	0.3	0.4
127	07/28/2015 13:03	-----	0.4	0.4

128	07/28/2015 13:04	-----	0.3	0.4
129	07/28/2015 13:05	-----	0.3	0.4
130	07/28/2015 13:06	-----	0.3	0.4
131	07/28/2015 13:07	-----	0.4	0.4
132	07/28/2015 13:08	-----	0.4	0.4
133	07/28/2015 13:09	-----	0.4	0.4
134	07/28/2015 13:10	-----	0.4	0.4
135	07/28/2015 13:11	-----	0.4	0.4
136	07/28/2015 13:12	-----	0.4	0.4
137	07/28/2015 13:13	-----	0.4	0.4
138	07/28/2015 13:14	-----	0.4	0.4
139	07/28/2015 13:15	-----	0.3	0.4
140	07/28/2015 13:16	-----	0.3	0.4
141	07/28/2015 13:17	-----	0.3	0.4
142	07/28/2015 13:18	-----	0.3	0.4
143	07/28/2015 13:19	-----	0.3	0.4
144	07/28/2015 13:20	-----	0.3	0.4
145	07/28/2015 13:21	-----	0.3	0.4
146	07/28/2015 13:22	-----	0.3	0.4
147	07/28/2015 13:23	-----	0.4	0.4
148	07/28/2015 13:24	-----	0.4	0.4
149	07/28/2015 13:25	-----	0.4	0.4
150	07/28/2015 13:26	-----	0.4	0.4
151	07/28/2015 13:27	-----	0.4	0.4
152	07/28/2015 13:28	-----	0.4	0.4
153	07/28/2015 13:29	-----	0.4	0.4
154	07/28/2015 13:30	-----	0.4	0.4
155	07/28/2015 13:31	-----	0.4	0.4
156	07/28/2015 13:32	-----	0.4	0.4
157	07/28/2015 13:33	-----	0.4	0.4
158	07/28/2015 13:34	-----	0.4	0.4
159	07/28/2015 13:35	-----	0.4	0.4
160	07/28/2015 13:36	-----	0.4	0.4
161	07/28/2015 13:37	-----	0.4	0.4
162	07/28/2015 13:38	-----	0.4	0.4
163	07/28/2015 13:39	-----	0.4	0.4
164	07/28/2015 13:40	-----	0.3	0.4
165	07/28/2015 13:41	-----	0.4	0.7
166	07/28/2015 13:42	-----	0.4	0.5
167	07/28/2015 13:43	-----	0.3	0.4
168	07/28/2015 13:44	-----	0.3	0.4
169	07/28/2015 13:45	-----	0.2	0.3
170	07/28/2015 13:46	-----	0.3	0.3
171	07/28/2015 13:47	-----	0.3	0.3
172	07/28/2015 13:48	-----	0.2	0.3
173	07/28/2015 13:49	-----	0.2	0.3
174	07/28/2015 13:50	-----	0.2	0.3
175	07/28/2015 13:51	-----	0.2	0.3
176	07/28/2015 13:52	-----	0.2	0.3
177	07/28/2015 13:53	-----	0.2	0.3
178	07/28/2015 13:54	-----	0.2	0.3
179	07/28/2015 13:55	-----	0.2	0.3
180	07/28/2015 13:56	-----	0.2	0.3
181	07/28/2015 13:57	-----	0.2	0.3
182	07/28/2015 13:58	-----	0.2	0.3
183	07/28/2015 13:59	-----	0.2	0.3
184	07/28/2015 14:00	-----	0.2	0.3
185	07/28/2015 14:01	-----	0.2	0.3
186	07/28/2015 14:02	-----	0.2	0.3
187	07/28/2015 14:03	-----	0.2	0.3
188	07/28/2015 14:04	-----	0.2	0.3
189	07/28/2015 14:05	-----	0.2	0.3
190	07/28/2015 14:06	-----	0.2	0.3
191	07/28/2015 14:07	-----	0.2	0.3
192	07/28/2015 14:08	-----	0.2	0.3
193	07/28/2015 14:09	-----	0.2	0.2
194	07/28/2015 14:10	-----	0.2	0.2
195	07/28/2015 14:11	-----	0.2	0.3
196	07/28/2015 14:12	-----	0.2	0.3

197	07/28/2015 14:13	-----	0.2	0.2
198	07/28/2015 14:14	-----	0.2	0.2
199	07/28/2015 14:15	-----	0.2	0.3
200	07/28/2015 14:16	-----	0.1	0.2
201	07/28/2015 14:17	-----	0.2	0.3
202	07/28/2015 14:18	-----	0.2	0.2
203	07/28/2015 14:19	-----	0.2	0.2
204	07/28/2015 14:20	-----	0.2	0.2
205	07/28/2015 14:21	-----	0.2	0.2

July 24, 2015 (Partic.)

pDR-1000
Tag Number: 03
Number of logged points: 279
Start time and date: 07:27:05 24-Jul
Elapsed time: 04:39:00
Logging period (sec): 60
Calibration Factor (%): 100
Max Display Concentration: 1.094 mg/m³
Time at maximum: 10:09:39 Jul 24
Max STEL Concentration: 0.227 mg/m³
Time at max STEL: 10:15:35 Jul 24
Overall Avg Conc: 0.035 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	24 Jul	07:28:05	0.024
2	24 Jul	07:29:05	0.025
3	24 Jul	07:30:05	0.015
4	24 Jul	07:31:05	0.006
5	24 Jul	07:32:05	0.000
6	24 Jul	07:33:05	0.000
7	24 Jul	07:34:05	0.001
8	24 Jul	07:35:05	0.006
9	24 Jul	07:36:05	0.001
10	24 Jul	07:37:05	0.001
11	24 Jul	07:38:05	0.008
12	24 Jul	07:39:05	0.001
13	24 Jul	07:40:05	0.005
14	24 Jul	07:41:05	0.000
15	24 Jul	07:42:05	0.001
16	24 Jul	07:43:05	0.010
17	24 Jul	07:44:05	0.001
18	24 Jul	07:45:05	0.002
19	24 Jul	07:46:05	0.001
20	24 Jul	07:47:05	0.005
21	24 Jul	07:48:05	0.000
22	24 Jul	07:49:05	0.001
23	24 Jul	07:50:05	0.001
24	24 Jul	07:51:05	0.000
25	24 Jul	07:52:05	0.002
26	24 Jul	07:53:05	0.000
27	24 Jul	07:54:05	0.000
28	24 Jul	07:55:05	0.002
29	24 Jul	07:56:05	0.004
30	24 Jul	07:57:05	0.000
31	24 Jul	07:58:05	0.001
32	24 Jul	07:59:05	0.000
33	24 Jul	08:00:05	0.002
34	24 Jul	08:01:05	0.000
35	24 Jul	08:02:05	0.001
36	24 Jul	08:03:05	0.004
37	24 Jul	08:04:05	0.002
38	24 Jul	08:05:05	0.000
39	24 Jul	08:06:05	0.000
40	24 Jul	08:07:05	0.000
41	24 Jul	08:08:05	0.001
42	24 Jul	08:09:05	0.000
43	24 Jul	08:10:05	0.002
44	24 Jul	08:11:05	0.011
45	24 Jul	08:12:05	0.001
46	24 Jul	08:13:05	0.002
47	24 Jul	08:14:05	0.000
48	24 Jul	08:15:05	0.003
49	24 Jul	08:16:05	0.003
50	24 Jul	08:17:05	0.002
51	24 Jul	08:18:05	0.001
52	24 Jul	08:19:05	0.002
53	24 Jul	08:20:05	0.005
54	24 Jul	08:21:05	0.003
55	24 Jul	08:22:05	0.000
56	24 Jul	08:23:05	0.003
57	24 Jul	08:24:05	0.003

58,	24 Jul,	08:25:05,	0.003
59,	24 Jul,	08:26:05,	0.004
60,	24 Jul,	08:27:05,	0.002
61,	24 Jul,	08:28:05,	0.001
62,	24 Jul,	08:29:05,	0.001
63,	24 Jul,	08:30:05,	0.001
64,	24 Jul,	08:31:05,	0.001
65,	24 Jul,	08:32:05,	0.000
66,	24 Jul,	08:33:05,	0.001
67,	24 Jul,	08:34:05,	0.004
68,	24 Jul,	08:35:05,	0.002
69,	24 Jul,	08:36:05,	0.005
70,	24 Jul,	08:37:05,	0.004
71,	24 Jul,	08:38:05,	0.002
72,	24 Jul,	08:39:05,	0.004
73,	24 Jul,	08:40:05,	0.001
74,	24 Jul,	08:41:05,	0.000
75,	24 Jul,	08:42:05,	0.000
76,	24 Jul,	08:43:05,	0.001
77,	24 Jul,	08:44:05,	0.000
78,	24 Jul,	08:45:05,	0.000
79,	24 Jul,	08:46:05,	0.000
80,	24 Jul,	08:47:05,	0.000
81,	24 Jul,	08:48:05,	0.001
82,	24 Jul,	08:49:05,	0.000
83,	24 Jul,	08:50:05,	0.002
84,	24 Jul,	08:51:05,	0.003
85,	24 Jul,	08:52:05,	0.000
86,	24 Jul,	08:53:05,	0.000
87,	24 Jul,	08:54:05,	0.008
88,	24 Jul,	08:55:05,	0.000
89,	24 Jul,	08:56:05,	0.001
90,	24 Jul,	08:57:05,	0.001
91,	24 Jul,	08:58:05,	0.002
92,	24 Jul,	08:59:05,	0.001
93,	24 Jul,	09:00:05,	0.000
94,	24 Jul,	09:01:05,	0.007
95,	24 Jul,	09:02:05,	0.002
96,	24 Jul,	09:03:05,	0.003
97,	24 Jul,	09:04:05,	0.005
98,	24 Jul,	09:05:05,	0.002
99,	24 Jul,	09:06:05,	0.001
100,	24 Jul,	09:07:05,	0.003
101,	24 Jul,	09:08:05,	0.000
102,	24 Jul,	09:09:05,	0.000
103,	24 Jul,	09:10:05,	0.001
104,	24 Jul,	09:11:05,	0.001
105,	24 Jul,	09:12:05,	0.001
106,	24 Jul,	09:13:05,	0.000
107,	24 Jul,	09:14:05,	0.000
108,	24 Jul,	09:15:05,	0.001
109,	24 Jul,	09:16:05,	0.005
110,	24 Jul,	09:17:05,	0.000
111,	24 Jul,	09:18:05,	0.001
112,	24 Jul,	09:19:05,	0.015
113,	24 Jul,	09:20:05,	0.082
114,	24 Jul,	09:21:05,	0.035
115,	24 Jul,	09:22:05,	0.109
116,	24 Jul,	09:23:05,	0.002
117,	24 Jul,	09:24:05,	0.002
118,	24 Jul,	09:25:05,	0.001
119,	24 Jul,	09:26:05,	0.002
120,	24 Jul,	09:27:05,	0.002
121,	24 Jul,	09:28:05,	0.001
122,	24 Jul,	09:29:05,	0.000
123,	24 Jul,	09:30:05,	0.000
124,	24 Jul,	09:31:05,	0.002
125,	24 Jul,	09:32:05,	0.001
126,	24 Jul,	09:33:05,	0.007
127,	24 Jul,	09:34:05,	0.000
128,	24 Jul,	09:35:05,	0.002

129,	24 Jul,	09:36:05,	0.003
130,	24 Jul,	09:37:05,	0.002
131,	24 Jul,	09:38:05,	0.001
132,	24 Jul,	09:39:05,	0.003
133,	24 Jul,	09:40:05,	0.000
134,	24 Jul,	09:41:05,	0.004
135,	24 Jul,	09:42:05,	0.003
136,	24 Jul,	09:43:05,	0.008
137,	24 Jul,	09:44:05,	0.001
138,	24 Jul,	09:45:05,	0.000
139,	24 Jul,	09:46:05,	0.001
140,	24 Jul,	09:47:05,	0.000
141,	24 Jul,	09:48:05,	0.001
142,	24 Jul,	09:49:05,	0.029
143,	24 Jul,	09:50:05,	0.021
144,	24 Jul,	09:51:05,	0.022
145,	24 Jul,	09:52:05,	0.074
146,	24 Jul,	09:53:05,	0.026
147,	24 Jul,	09:54:05,	0.029
148,	24 Jul,	09:55:05,	0.021
149,	24 Jul,	09:56:05,	0.018
150,	24 Jul,	09:57:05,	0.017
151,	24 Jul,	09:58:05,	0.011
152,	24 Jul,	09:59:05,	0.018
153,	24 Jul,	10:00:05,	0.029
154,	24 Jul,	10:01:05,	0.192
155,	24 Jul,	10:02:05,	0.100
156,	24 Jul,	10:03:05,	0.036
157,	24 Jul,	10:04:05,	0.240
158,	24 Jul,	10:05:05,	0.220
159,	24 Jul,	10:06:05,	0.111
160,	24 Jul,	10:07:05,	0.127
161,	24 Jul,	10:08:05,	0.168
162,	24 Jul,	10:09:05,	0.410
163,	24 Jul,	10:10:05,	0.467
164,	24 Jul,	10:11:05,	0.425
165,	24 Jul,	10:12:05,	0.310
166,	24 Jul,	10:13:05,	0.230
167,	24 Jul,	10:14:05,	0.195
168,	24 Jul,	10:15:05,	0.125
169,	24 Jul,	10:16:05,	0.107
170,	24 Jul,	10:17:05,	0.077
171,	24 Jul,	10:18:05,	0.088
172,	24 Jul,	10:19:05,	0.113
173,	24 Jul,	10:20:05,	0.115
174,	24 Jul,	10:21:05,	0.098
175,	24 Jul,	10:22:05,	0.087
176,	24 Jul,	10:23:05,	0.124
177,	24 Jul,	10:24:05,	0.093
178,	24 Jul,	10:25:05,	0.084
179,	24 Jul,	10:26:05,	0.141
180,	24 Jul,	10:27:05,	0.121
181,	24 Jul,	10:28:05,	0.135
182,	24 Jul,	10:29:05,	0.091
183,	24 Jul,	10:30:05,	0.111
184,	24 Jul,	10:31:05,	0.075
185,	24 Jul,	10:32:05,	0.090
186,	24 Jul,	10:33:05,	0.061
187,	24 Jul,	10:34:05,	0.086
188,	24 Jul,	10:35:05,	0.052
189,	24 Jul,	10:36:05,	0.065
190,	24 Jul,	10:37:05,	0.101
191,	24 Jul,	10:38:05,	0.086
192,	24 Jul,	10:39:05,	0.092
193,	24 Jul,	10:40:05,	0.074
194,	24 Jul,	10:41:05,	0.076
195,	24 Jul,	10:42:05,	0.060
196,	24 Jul,	10:43:05,	0.051
197,	24 Jul,	10:44:05,	0.054
198,	24 Jul,	10:45:05,	0.075
199,	24 Jul,	10:46:05,	0.050

200,	24 Jul,	10:47:05,	0.069
201,	24 Jul,	10:48:05,	0.049
202,	24 Jul,	10:49:05,	0.040
203,	24 Jul,	10:50:05,	0.056
204,	24 Jul,	10:51:05,	0.053
205,	24 Jul,	10:52:05,	0.068
206,	24 Jul,	10:53:05,	0.047
207,	24 Jul,	10:54:05,	0.032
208,	24 Jul,	10:55:05,	0.052
209,	24 Jul,	10:56:05,	0.049
210,	24 Jul,	10:57:05,	0.035
211,	24 Jul,	10:58:05,	0.068
212,	24 Jul,	10:59:05,	0.056
213,	24 Jul,	11:00:05,	0.050
214,	24 Jul,	11:01:05,	0.072
215,	24 Jul,	11:02:05,	0.043
216,	24 Jul,	11:03:05,	0.046
217,	24 Jul,	11:04:05,	0.046
218,	24 Jul,	11:05:05,	0.054
219,	24 Jul,	11:06:05,	0.071
220,	24 Jul,	11:07:05,	0.045
221,	24 Jul,	11:08:05,	0.068
222,	24 Jul,	11:09:05,	0.054
223,	24 Jul,	11:10:05,	0.065
224,	24 Jul,	11:11:05,	0.039
225,	24 Jul,	11:12:05,	0.049
226,	24 Jul,	11:13:05,	0.049
227,	24 Jul,	11:14:05,	0.050
228,	24 Jul,	11:15:05,	0.036
229,	24 Jul,	11:16:05,	0.055
230,	24 Jul,	11:17:05,	0.055
231,	24 Jul,	11:18:05,	0.041
232,	24 Jul,	11:19:05,	0.064
233,	24 Jul,	11:20:05,	0.040
234,	24 Jul,	11:21:05,	0.048
235,	24 Jul,	11:22:05,	0.039
236,	24 Jul,	11:23:05,	0.040
237,	24 Jul,	11:24:05,	0.032
238,	24 Jul,	11:25:05,	0.035
239,	24 Jul,	11:26:05,	0.032
240,	24 Jul,	11:27:05,	0.040
241,	24 Jul,	11:28:05,	0.065
242,	24 Jul,	11:29:05,	0.041
243,	24 Jul,	11:30:05,	0.037
244,	24 Jul,	11:31:05,	0.057
245,	24 Jul,	11:32:05,	0.044
246,	24 Jul,	11:33:05,	0.048
247,	24 Jul,	11:34:05,	0.035
248,	24 Jul,	11:35:05,	0.033
249,	24 Jul,	11:36:05,	0.030
250,	24 Jul,	11:37:05,	0.031
251,	24 Jul,	11:38:05,	0.039
252,	24 Jul,	11:39:05,	0.029
253,	24 Jul,	11:40:05,	0.040
254,	24 Jul,	11:41:05,	0.027
255,	24 Jul,	11:42:05,	0.037
256,	24 Jul,	11:43:05,	0.047
257,	24 Jul,	11:44:05,	0.043
258,	24 Jul,	11:45:05,	0.030
259,	24 Jul,	11:46:05,	0.026
260,	24 Jul,	11:47:05,	0.020
261,	24 Jul,	11:48:05,	0.030
262,	24 Jul,	11:49:05,	0.035
263,	24 Jul,	11:50:05,	0.044
264,	24 Jul,	11:51:05,	0.023
265,	24 Jul,	11:52:05,	0.021
266,	24 Jul,	11:53:05,	0.021
267,	24 Jul,	11:54:05,	0.026
268,	24 Jul,	11:55:05,	0.025
269,	24 Jul,	11:56:05,	0.023
270,	24 Jul,	11:57:05,	0.019

```
271, 24 Jul, 11:58:05,  0.021
272, 24 Jul, 11:59:05,  0.015
273, 24 Jul, 12:00:05,  0.009
274, 24 Jul, 12:01:05,  0.020
275, 24 Jul, 12:02:05,  0.012
276, 24 Jul, 12:03:05,  0.006
277, 24 Jul, 12:04:05,  0.013
278, 24 Jul, 12:05:05,  0.005
279, 24 Jul, 12:06:05,  0.016
```

pDR-1000
Tag Number: 04
Number of logged points: 256
Start time and date: 08:32:43 27-Jul
Elapsed time: 04:16:00
Logging period (sec): 60
Calibration Factor (%): 100
Max Display Concentration: 1.188 mg/m³
Time at maximum: 10:38:27 Jul 27
Max STEL Concentration: 0.194 mg/m³
Time at max STEL: 10:38:44 Jul 27
Overall Avg Conc: 0.035 mg/m³
Logged Data:

July 27, 2015

Point	Date	Time	Avg.(mg/m³)
1	27 Jul	08:33:43	0.008
2	27 Jul	08:34:43	0.003
3	27 Jul	08:35:43	0.002
4	27 Jul	08:36:43	0.000
5	27 Jul	08:37:43	0.000
6	27 Jul	08:38:43	0.000
7	27 Jul	08:39:43	0.000
8	27 Jul	08:40:43	0.005
9	27 Jul	08:41:43	0.009
10	27 Jul	08:42:43	0.000
11	27 Jul	08:43:43	0.001
12	27 Jul	08:44:43	0.020
13	27 Jul	08:45:43	0.006
14	27 Jul	08:46:43	0.005
15	27 Jul	08:47:43	0.012
16	27 Jul	08:48:43	0.007
17	27 Jul	08:49:43	0.001
18	27 Jul	08:50:43	0.004
19	27 Jul	08:51:43	0.013
20	27 Jul	08:52:43	0.005
21	27 Jul	08:53:43	0.008
22	27 Jul	08:54:43	0.025
23	27 Jul	08:55:43	0.010
24	27 Jul	08:56:43	0.004
25	27 Jul	08:57:43	0.026
26	27 Jul	08:58:43	0.015
27	27 Jul	08:59:43	0.010
28	27 Jul	09:00:43	0.005
29	27 Jul	09:01:43	0.007
30	27 Jul	09:02:43	0.019
31	27 Jul	09:03:43	0.001
32	27 Jul	09:04:43	0.006
33	27 Jul	09:05:43	0.055
34	27 Jul	09:06:43	0.023
35	27 Jul	09:07:43	0.027
36	27 Jul	09:08:43	0.007
37	27 Jul	09:09:43	0.003
38	27 Jul	09:10:43	0.008
39	27 Jul	09:11:43	0.006
40	27 Jul	09:12:43	0.007
41	27 Jul	09:13:43	0.010
42	27 Jul	09:14:43	0.010
43	27 Jul	09:15:43	0.011
44	27 Jul	09:16:43	0.004
45	27 Jul	09:17:43	0.010
46	27 Jul	09:18:43	0.015
47	27 Jul	09:19:43	0.024
48	27 Jul	09:20:43	0.013
49	27 Jul	09:21:43	0.011
50	27 Jul	09:22:43	0.004
51	27 Jul	09:23:43	0.018
52	27 Jul	09:24:43	0.008
53	27 Jul	09:25:43	0.004
54	27 Jul	09:26:43	0.026
55	27 Jul	09:27:43	0.009
56	27 Jul	09:28:43	0.026
57	27 Jul	09:29:43	0.031

```
 58, 27 Jul, 09:30:43,  0.004
 59, 27 Jul, 09:31:43,  0.010
 60, 27 Jul, 09:32:43,  0.009
 61, 27 Jul, 09:33:43,  0.023
 62, 27 Jul, 09:34:43,  0.081
 63, 27 Jul, 09:35:43,  0.047
 64, 27 Jul, 09:36:43,  0.021
 65, 27 Jul, 09:37:43,  0.018
 66, 27 Jul, 09:38:43,  0.048
 67, 27 Jul, 09:39:43,  0.067
 68, 27 Jul, 09:40:43,  0.036
 69, 27 Jul, 09:41:43,  0.084
 70, 27 Jul, 09:42:43,  0.046
 71, 27 Jul, 09:43:43,  0.081
 72, 27 Jul, 09:44:43,  0.028
 73, 27 Jul, 09:45:43,  0.019
 74, 27 Jul, 09:46:43,  0.028
 75, 27 Jul, 09:47:43,  0.018
 76, 27 Jul, 09:48:43,  0.022
 77, 27 Jul, 09:49:43,  0.033
 78, 27 Jul, 09:50:43,  0.023
 79, 27 Jul, 09:51:43,  0.011
 80, 27 Jul, 09:52:43,  0.016
 81, 27 Jul, 09:53:43,  0.009
 82, 27 Jul, 09:54:43,  0.042
 83, 27 Jul, 09:55:43,  0.018
 84, 27 Jul, 09:56:43,  0.011
 85, 27 Jul, 09:57:43,  0.008
 86, 27 Jul, 09:58:43,  0.021
 87, 27 Jul, 09:59:43,  0.015
 88, 27 Jul, 10:00:43,  0.017
 89, 27 Jul, 10:01:43,  0.010
 90, 27 Jul, 10:02:43,  0.023
 91, 27 Jul, 10:03:43,  0.048
 92, 27 Jul, 10:04:43,  0.077
 93, 27 Jul, 10:05:43,  0.040
 94, 27 Jul, 10:06:43,  0.059
 95, 27 Jul, 10:07:43,  0.062
 96, 27 Jul, 10:08:43,  0.061
 97, 27 Jul, 10:09:43,  0.128
 98, 27 Jul, 10:10:43,  0.112
 99, 27 Jul, 10:11:43,  0.080
100, 27 Jul, 10:12:43,  0.084
101, 27 Jul, 10:13:43,  0.082
102, 27 Jul, 10:14:43,  0.066
103, 27 Jul, 10:15:43,  0.054
104, 27 Jul, 10:16:43,  0.045
105, 27 Jul, 10:17:43,  0.074
106, 27 Jul, 10:18:43,  0.057
107, 27 Jul, 10:19:43,  0.058
108, 27 Jul, 10:20:43,  0.149
109, 27 Jul, 10:21:43,  0.386
110, 27 Jul, 10:22:43,  0.307
111, 27 Jul, 10:23:43,  0.311
112, 27 Jul, 10:24:43,  0.187
113, 27 Jul, 10:25:43,  0.146
114, 27 Jul, 10:26:43,  0.196
115, 27 Jul, 10:27:43,  0.184
116, 27 Jul, 10:28:43,  0.156
117, 27 Jul, 10:29:43,  0.109
118, 27 Jul, 10:30:43,  0.086
119, 27 Jul, 10:31:43,  0.151
120, 27 Jul, 10:32:43,  0.123
121, 27 Jul, 10:33:43,  0.149
122, 27 Jul, 10:34:43,  0.100
123, 27 Jul, 10:35:43,  0.169
124, 27 Jul, 10:36:43,  0.341
125, 27 Jul, 10:37:43,  0.365
126, 27 Jul, 10:38:43,  0.446
127, 27 Jul, 10:39:43,  0.130
128, 27 Jul, 10:40:43,  0.086
```

129,	27 Jul,	10:41:43,	0.034
130,	27 Jul,	10:42:43,	0.077
131,	27 Jul,	10:43:43,	0.049
132,	27 Jul,	10:44:43,	0.017
133,	27 Jul,	10:45:43,	0.023
134,	27 Jul,	10:46:43,	0.013
135,	27 Jul,	10:47:43,	0.005
136,	27 Jul,	10:48:43,	0.008
137,	27 Jul,	10:49:43,	0.014
138,	27 Jul,	10:50:43,	0.006
139,	27 Jul,	10:51:43,	0.026
140,	27 Jul,	10:52:43,	0.018
141,	27 Jul,	10:53:43,	0.021
142,	27 Jul,	10:54:43,	0.015
143,	27 Jul,	10:55:43,	0.010
144,	27 Jul,	10:56:43,	0.008
145,	27 Jul,	10:57:43,	0.007
146,	27 Jul,	10:58:43,	0.008
147,	27 Jul,	10:59:43,	0.008
148,	27 Jul,	11:00:43,	0.010
149,	27 Jul,	11:01:43,	0.006
150,	27 Jul,	11:02:43,	0.009
151,	27 Jul,	11:03:43,	0.009
152,	27 Jul,	11:04:43,	0.013
153,	27 Jul,	11:05:43,	0.006
154,	27 Jul,	11:06:43,	0.009
155,	27 Jul,	11:07:43,	0.008
156,	27 Jul,	11:08:43,	0.005
157,	27 Jul,	11:09:43,	0.004
158,	27 Jul,	11:10:43,	0.005
159,	27 Jul,	11:11:43,	0.013
160,	27 Jul,	11:12:43,	0.020
161,	27 Jul,	11:13:43,	0.010
162,	27 Jul,	11:14:43,	0.013
163,	27 Jul,	11:15:43,	0.015
164,	27 Jul,	11:16:43,	0.026
165,	27 Jul,	11:17:43,	0.048
166,	27 Jul,	11:18:43,	0.053
167,	27 Jul,	11:19:43,	0.010
168,	27 Jul,	11:20:43,	0.011
169,	27 Jul,	11:21:43,	0.008
170,	27 Jul,	11:22:43,	0.015
171,	27 Jul,	11:23:43,	0.022
172,	27 Jul,	11:24:43,	0.010
173,	27 Jul,	11:25:43,	0.011
174,	27 Jul,	11:26:43,	0.014
175,	27 Jul,	11:27:43,	0.029
176,	27 Jul,	11:28:43,	0.085
177,	27 Jul,	11:29:43,	0.326
178,	27 Jul,	11:30:43,	0.151
179,	27 Jul,	11:31:43,	0.042
180,	27 Jul,	11:32:43,	0.039
181,	27 Jul,	11:33:43,	0.059
182,	27 Jul,	11:34:43,	0.033
183,	27 Jul,	11:35:43,	0.020
184,	27 Jul,	11:36:43,	0.028
185,	27 Jul,	11:37:43,	0.017
186,	27 Jul,	11:38:43,	0.026
187,	27 Jul,	11:39:43,	0.021
188,	27 Jul,	11:40:43,	0.021
189,	27 Jul,	11:41:43,	0.018
190,	27 Jul,	11:42:43,	0.020
191,	27 Jul,	11:43:43,	0.024
192,	27 Jul,	11:44:43,	0.040
193,	27 Jul,	11:45:43,	0.027
194,	27 Jul,	11:46:43,	0.040
195,	27 Jul,	11:47:43,	0.070
196,	27 Jul,	11:48:43,	0.104
197,	27 Jul,	11:49:43,	0.043
198,	27 Jul,	11:50:43,	0.013
199,	27 Jul,	11:51:43,	0.003

200,	27 Jul,	11:52:43,	0.002
201,	27 Jul,	11:53:43,	0.002
202,	27 Jul,	11:54:43,	0.002
203,	27 Jul,	11:55:43,	0.002
204,	27 Jul,	11:56:43,	0.004
205,	27 Jul,	11:57:43,	0.004
206,	27 Jul,	11:58:43,	0.002
207,	27 Jul,	11:59:43,	0.002
208,	27 Jul,	12:00:43,	0.005
209,	27 Jul,	12:01:43,	0.003
210,	27 Jul,	12:02:43,	0.002
211,	27 Jul,	12:03:43,	0.001
212,	27 Jul,	12:04:43,	0.002
213,	27 Jul,	12:05:43,	0.001
214,	27 Jul,	12:06:43,	0.005
215,	27 Jul,	12:07:43,	0.002
216,	27 Jul,	12:08:43,	0.001
217,	27 Jul,	12:09:43,	0.002
218,	27 Jul,	12:10:43,	0.012
219,	27 Jul,	12:11:43,	0.004
220,	27 Jul,	12:12:43,	0.005
221,	27 Jul,	12:13:43,	0.004
222,	27 Jul,	12:14:43,	0.005
223,	27 Jul,	12:15:43,	0.002
224,	27 Jul,	12:16:43,	0.002
225,	27 Jul,	12:17:43,	0.002
226,	27 Jul,	12:18:43,	0.002
227,	27 Jul,	12:19:43,	0.001
228,	27 Jul,	12:20:43,	0.001
229,	27 Jul,	12:21:43,	0.002
230,	27 Jul,	12:22:43,	0.001
231,	27 Jul,	12:23:43,	0.002
232,	27 Jul,	12:24:43,	0.002
233,	27 Jul,	12:25:43,	0.002
234,	27 Jul,	12:26:43,	0.003
235,	27 Jul,	12:27:43,	0.004
236,	27 Jul,	12:28:43,	0.002
237,	27 Jul,	12:29:43,	0.004
238,	27 Jul,	12:30:43,	0.001
239,	27 Jul,	12:31:43,	0.002
240,	27 Jul,	12:32:43,	0.002
241,	27 Jul,	12:33:43,	0.004
242,	27 Jul,	12:34:43,	0.003
243,	27 Jul,	12:35:43,	0.005
244,	27 Jul,	12:36:43,	0.002
245,	27 Jul,	12:37:43,	0.008
246,	27 Jul,	12:38:43,	0.003
247,	27 Jul,	12:39:43,	0.003
248,	27 Jul,	12:40:43,	0.001
249,	27 Jul,	12:41:43,	0.008
250,	27 Jul,	12:42:43,	0.008
251,	27 Jul,	12:43:43,	0.000
252,	27 Jul,	12:44:43,	0.001
253,	27 Jul,	12:45:43,	0.000
254,	27 Jul,	12:46:43,	0.001
255,	27 Jul,	12:47:43,	0.001
256,	27 Jul,	12:48:43,	0.000

pDR-1000
Tag Number: 05
Number of logged points: 204
Start time and date: 08:32:29 28-Jul
Elapsed time: 03:24:00
Logging period (sec): 60
Calibration Factor (%): 100
Max Display Concentration: 0.759 mg/m³
Time at maximum: 09:55:33 Jul 28
Max STEL Concentration: 0.056 mg/m³
Time at max STEL: 11:38:29 Jul 28
Overall Avg Conc: 0.028 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	28 Jul	08:33:29	0.030
2	28 Jul	08:34:29	0.025
3	28 Jul	08:35:29	0.025
4	28 Jul	08:36:29	0.022
5	28 Jul	08:37:29	0.034
6	28 Jul	08:38:29	0.032
7	28 Jul	08:39:29	0.040
8	28 Jul	08:40:29	0.025
9	28 Jul	08:41:29	0.024
10	28 Jul	08:42:29	0.029
11	28 Jul	08:43:29	0.025
12	28 Jul	08:44:29	0.042
13	28 Jul	08:45:29	0.019
14	28 Jul	08:46:29	0.035
15	28 Jul	08:47:29	0.025
16	28 Jul	08:48:29	0.027
17	28 Jul	08:49:29	0.049
18	28 Jul	08:50:29	0.018
19	28 Jul	08:51:29	0.028
20	28 Jul	08:52:29	0.022
21	28 Jul	08:53:29	0.026
22	28 Jul	08:54:29	0.015
23	28 Jul	08:55:29	0.020
24	28 Jul	08:56:29	0.021
25	28 Jul	08:57:29	0.016
26	28 Jul	08:58:29	0.030
27	28 Jul	08:59:29	0.033
28	28 Jul	09:00:29	0.034
29	28 Jul	09:01:29	0.020
30	28 Jul	09:02:29	0.021
31	28 Jul	09:03:29	0.014
32	28 Jul	09:04:29	0.014
33	28 Jul	09:05:29	0.013
34	28 Jul	09:06:29	0.022
35	28 Jul	09:07:29	0.021
36	28 Jul	09:08:29	0.024
37	28 Jul	09:09:29	0.043
38	28 Jul	09:10:29	0.020
39	28 Jul	09:11:29	0.029
40	28 Jul	09:12:29	0.033
41	28 Jul	09:13:29	0.040
42	28 Jul	09:14:29	0.037
43	28 Jul	09:15:29	0.020
44	28 Jul	09:16:29	0.029
45	28 Jul	09:17:29	0.021
46	28 Jul	09:18:29	0.101
47	28 Jul	09:19:29	0.099
48	28 Jul	09:20:29	0.062
49	28 Jul	09:21:29	0.022
50	28 Jul	09:22:29	0.024
51	28 Jul	09:23:29	0.043
52	28 Jul	09:24:29	0.024
53	28 Jul	09:25:29	0.030
54	28 Jul	09:26:29	0.016
55	28 Jul	09:27:29	0.022
56	28 Jul	09:28:29	0.018
57	28 Jul	09:29:29	0.038

58,	28 Jul,	09:30:29,	0.078
59,	28 Jul,	09:31:29,	0.028
60,	28 Jul,	09:32:29,	0.027
61,	28 Jul,	09:33:29,	0.020
62,	28 Jul,	09:34:29,	0.033
63,	28 Jul,	09:35:29,	0.017
64,	28 Jul,	09:36:29,	0.025
65,	28 Jul,	09:37:29,	0.024
66,	28 Jul,	09:38:29,	0.017
67,	28 Jul,	09:39:29,	0.010
68,	28 Jul,	09:40:29,	0.013
69,	28 Jul,	09:41:29,	0.009
70,	28 Jul,	09:42:29,	0.051
71,	28 Jul,	09:43:29,	0.042
72,	28 Jul,	09:44:29,	0.021
73,	28 Jul,	09:45:29,	0.031
74,	28 Jul,	09:46:29,	0.022
75,	28 Jul,	09:47:29,	0.015
76,	28 Jul,	09:48:29,	0.023
77,	28 Jul,	09:49:29,	0.017
78,	28 Jul,	09:50:29,	0.022
79,	28 Jul,	09:51:29,	0.019
80,	28 Jul,	09:52:29,	0.010
81,	28 Jul,	09:53:29,	0.015
82,	28 Jul,	09:54:29,	0.020
83,	28 Jul,	09:55:29,	0.142
84,	28 Jul,	09:56:29,	0.065
85,	28 Jul,	09:57:29,	0.020
86,	28 Jul,	09:58:29,	0.026
87,	28 Jul,	09:59:29,	0.035
88,	28 Jul,	10:00:29,	0.028
89,	28 Jul,	10:01:29,	0.031
90,	28 Jul,	10:02:29,	0.017
91,	28 Jul,	10:03:29,	0.014
92,	28 Jul,	10:04:29,	0.023
93,	28 Jul,	10:05:29,	0.013
94,	28 Jul,	10:06:29,	0.014
95,	28 Jul,	10:07:29,	0.014
96,	28 Jul,	10:08:29,	0.014
97,	28 Jul,	10:09:29,	0.012
98,	28 Jul,	10:10:29,	0.019
99,	28 Jul,	10:11:29,	0.016
100,	28 Jul,	10:12:29,	0.015
101,	28 Jul,	10:13:29,	0.013
102,	28 Jul,	10:14:29,	0.014
103,	28 Jul,	10:15:29,	0.012
104,	28 Jul,	10:16:29,	0.011
105,	28 Jul,	10:17:29,	0.014
106,	28 Jul,	10:18:29,	0.014
107,	28 Jul,	10:19:29,	0.017
108,	28 Jul,	10:20:29,	0.015
109,	28 Jul,	10:21:29,	0.015
110,	28 Jul,	10:22:29,	0.030
111,	28 Jul,	10:23:29,	0.027
112,	28 Jul,	10:24:29,	0.019
113,	28 Jul,	10:25:29,	0.079
114,	28 Jul,	10:26:29,	0.025
115,	28 Jul,	10:27:29,	0.023
116,	28 Jul,	10:28:29,	0.013
117,	28 Jul,	10:29:29,	0.017
118,	28 Jul,	10:30:29,	0.016
119,	28 Jul,	10:31:29,	0.018
120,	28 Jul,	10:32:29,	0.025
121,	28 Jul,	10:33:29,	0.021
122,	28 Jul,	10:34:29,	0.014
123,	28 Jul,	10:35:29,	0.013
124,	28 Jul,	10:36:29,	0.015
125,	28 Jul,	10:37:29,	0.013
126,	28 Jul,	10:38:29,	0.014
127,	28 Jul,	10:39:29,	0.011
128,	28 Jul,	10:40:29,	0.012

129,	28 Jul,	10:41:29,	0.013
130,	28 Jul,	10:42:29,	0.012
131,	28 Jul,	10:43:29,	0.029
132,	28 Jul,	10:44:29,	0.021
133,	28 Jul,	10:45:29,	0.018
134,	28 Jul,	10:46:29,	0.013
135,	28 Jul,	10:47:29,	0.017
136,	28 Jul,	10:48:29,	0.027
137,	28 Jul,	10:49:29,	0.012
138,	28 Jul,	10:50:29,	0.014
139,	28 Jul,	10:51:29,	0.011
140,	28 Jul,	10:52:29,	0.027
141,	28 Jul,	10:53:29,	0.010
142,	28 Jul,	10:54:29,	0.023
143,	28 Jul,	10:55:29,	0.018
144,	28 Jul,	10:56:29,	0.017
145,	28 Jul,	10:57:29,	0.014
146,	28 Jul,	10:58:29,	0.014
147,	28 Jul,	10:59:29,	0.020
148,	28 Jul,	11:00:29,	0.011
149,	28 Jul,	11:01:29,	0.009
150,	28 Jul,	11:02:29,	0.013
151,	28 Jul,	11:03:29,	0.016
152,	28 Jul,	11:04:29,	0.018
153,	28 Jul,	11:05:29,	0.013
154,	28 Jul,	11:06:29,	0.041
155,	28 Jul,	11:07:29,	0.024
156,	28 Jul,	11:08:29,	0.028
157,	28 Jul,	11:09:29,	0.012
158,	28 Jul,	11:10:29,	0.014
159,	28 Jul,	11:11:29,	0.041
160,	28 Jul,	11:12:29,	0.077
161,	28 Jul,	11:13:29,	0.047
162,	28 Jul,	11:14:29,	0.037
163,	28 Jul,	11:15:29,	0.042
164,	28 Jul,	11:16:29,	0.047
165,	28 Jul,	11:17:29,	0.037
166,	28 Jul,	11:18:29,	0.028
167,	28 Jul,	11:19:29,	0.067
168,	28 Jul,	11:20:29,	0.025
169,	28 Jul,	11:21:29,	0.018
170,	28 Jul,	11:22:29,	0.032
171,	28 Jul,	11:23:29,	0.051
172,	28 Jul,	11:24:29,	0.079
173,	28 Jul,	11:25:29,	0.090
174,	28 Jul,	11:26:29,	0.042
175,	28 Jul,	11:27:29,	0.034
176,	28 Jul,	11:28:29,	0.021
177,	28 Jul,	11:29:29,	0.044
178,	28 Jul,	11:30:29,	0.039
179,	28 Jul,	11:31:29,	0.096
180,	28 Jul,	11:32:29,	0.080
181,	28 Jul,	11:33:29,	0.043
182,	28 Jul,	11:34:29,	0.030
183,	28 Jul,	11:35:29,	0.039
184,	28 Jul,	11:36:29,	0.062
185,	28 Jul,	11:37:29,	0.076
186,	28 Jul,	11:38:29,	0.068
187,	28 Jul,	11:39:29,	0.027
188,	28 Jul,	11:40:29,	0.037
189,	28 Jul,	11:41:29,	0.037
190,	28 Jul,	11:42:29,	0.034
191,	28 Jul,	11:43:29,	0.042
192,	28 Jul,	11:44:29,	0.044
193,	28 Jul,	11:45:29,	0.033
194,	28 Jul,	11:46:29,	0.024
195,	28 Jul,	11:47:29,	0.032
196,	28 Jul,	11:48:29,	0.026
197,	28 Jul,	11:49:29,	0.030
198,	28 Jul,	11:50:29,	0.024
199,	28 Jul,	11:51:29,	0.024

```
200, 28 Jul, 11:52:29,  0.023
201, 28 Jul, 11:53:29,  0.019
202, 28 Jul, 11:54:29,  0.022
203, 28 Jul, 11:55:29,  0.025
204, 28 Jul, 11:56:29,  0.023
```

Attachment-E

Indoor CAMP IAQ lab validation

DATA USABILITY SUMMARY REPORT (DUSR)

ORGANIC ANALYSIS

EPA Compendium Method TO-15
VOLATILES BY GC/MS

For Ambient/Indoor Air Sample IA-072815
Collected July 28, 2015
For Schmucklers
from New Rochelle, New York
by WRS d.b.a Berninger Environmental
Project #: 6800

SAMPLE DELIVERY GROUP NUMBER: L1517720
Alpha Analytical (ELAP #11148)

SUBMITTED TO:

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

August 21, 2015

PREPARED BY:

Lori A. Beyer/President
L.A.B. Validation Corp.
14 West Point Drive
East Northport, NY 11731

Lori A. Beyer

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

Schmucklers, New Rochelle, New York; July 2015.
Data Validation Report: Volatile Organics-TO15

Table of Contents:

Phone (516) 523-7891 email LABValidation@aol.com

Introduction:

A validation was performed on one (1) indoor air sample for Volatile Organic analysis collected by WRS d.b.a. Berninger Environmental and submitted to Alpha Analytical for subsequent analysis under chain of custody documentation. This report contains the laboratory and validation results for the one air sample. The sample was collected on July28, 2015.

The sample was analyzed by Alpha Analytical utilizing EPA Method TO-15 and in accordance with NYSDEC Analytical Services Protocol and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodology employed. The analytical testing consisted of the TO-15 Compound List as provided in Appendix C. Select chlorinated analytes were analyzed via Selective Ion Monitoring (SIM) techniques in order to achieve lower reporting levels.

The data was evaluated in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (Publication 9240.1-05), EPA SOP #HW31 (Revision 6) and in conjunction with the analytical methodology for which the samples were analyzed, where applicable and relevant.

The data validation report pertains to the following air sample:

Sample Identification	Laboratory Identification	Sample Matrix (Air Type)	Collection Date
IA-072815	L1517720-01	Indoor/Ambient Air	07/28/15

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.

J- - The result is an estimated quantity, but the result may be biased low.

D - Analyte concentration is from diluted analysis.

Sample Receipt:

The Chain of Custody document from 07/28/15 indicates that the air sample was received on 07/29/15 via laboratory courier following completion of the sampling event. Sample login notes and the chain of custody indicate that at the Validated Time of Sample Receipt (VTSR) no discrepancies were noted.

The 6L Summa Canister was leak tested prior to collection of each sample. Initial pressure gauge is recorded on the chain of custody. Canister pressure is required to be approximately 30 psi with zero air. Acceptable pressure was determined for this sample.

The data summary Form I's included in Appendix C includes all usable (qualified) and unusable (rejected) results for the sample 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 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 Volatile Organics by EPA Compendium Method TO-15 GC/MS

The following method criteria were reviewed: holding times, surrogate standards, LCS, Blanks, Tunes, Calibrations, Internal Standards, Target Component Identification and Quantitation, Reported Quantitation Limits and Overall System Performance. The volatile results were considered to be valid and useable as noted on the data summary Form I's in Appendix A and 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.

The air sample pertaining to this SDG was performed within the method and technical required holding times of thirty (30) days from sample collection for analysis. No qualifications were required based upon holding time criteria.

1.2 Surrogate Standards

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.

The sample was not spiked with surrogate standards. Method TO15 does not mandate the addition of surrogate standards.

1.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)/Duplicate /Field Duplicate Analysis

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

Matrix Spike/Matrix Spike Duplicate analysis was not performed on the sample pertaining to this SDG.

Laboratory duplicate analysis was submitted with this data package and performed on a non site specific sample. Acceptable precision (RPD); <25% was observed.

Field Duplicate analysis was not collected for this sampling event. Acceptable precision for air samples is 25%. The following criteria are utilized for Field Duplicate analysis when performed:

Criteria	Detected Compounds	Non-Detected Compounds
The RPD is within the limits of 0 and 25%	No qualification	No qualification
The RPD >25%	J in the parent and duplicate samples	Not applicable
The RPD could not be calculated since the compound was only detected in either the parent of duplicate sample. However, the detected concentration was </=2x the reporting limit	No qualification	No qualification
The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample However, the detected concentration was >2x the reporting limit.	J in the parent or duplicate sample	UJ in the parent of duplicate sample

No additional qualifications to the data were required based on MS/MSD/Laboratory Duplicate and Field Duplicate analysis.

1.4 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 with all applicable spiked target compounds yielding recovery values between 70-130%.

1.5 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. Storage blanks measure cross-contamination during sample storage of the field samples. Canister blanks measure cross-contamination from the sampling media.

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, Trip, 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

*2x the CRQL for methylene chloride, 2-butanone and acetone.
**4x the CRQL for methylene chloride, 2-butanone, and acetone
***Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ug/L.
Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

A) **Method Blank Contamination:**

Method and Canister blanks were determined to be free of any contamination.

Canister cleaning documentation met QC requirements.

B) **Field Blank Contamination:**

Field Blank analysis was not conducted for this SDG.

C) **Trip Blank Contamination:**

Trip Blank analysis was not submitted with this SDG.

D) **Storage Blank Contamination:**

Storage blanks were not submitted for this SDG. It should be noted that storage blanks are not mandated by EPA Method TO-15.

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 volatile organics is Bromofluorobenzene (BFB).

Instrument performance was generated within acceptable limits and frequency (24 hours) for Bromofluorobenzene (BFB) for all analyses conducted for this SDG.

1.7 Initial and Continuing Calibrations

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving 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 >/= 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".

The following compounds are allowed to be >0.01 without qualification:
2-Butanone
Carbon Disulfide
Chloroethane
Chloromethane
1,2-Dibromoethane
1,2-Dichloropropane
1,4-Dioxane
1,2-Dibromo-3-chloroproane
Methylene Chloride

All the response factors for the target analytes reported were found to be within acceptable limits (>/=0.05) [or >/=0.01 for the 9 compounds above] and remaining analytes, for the initial 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 <30% and %D must be <30%. 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 (>90%), 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. The poor responders are permitted to have a maximum RSD and %D of 40%.

Initial Calibrations: The initial calibrations provided and the %RSD was within acceptable limits (30%) for all requested target compounds.

Continuing Calibrations: The continuing calibrations provided and the %D was within acceptable limits (30%) for all reported target compounds.

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 (-40% to +40%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/- 20 seconds from the associated continuing calibration standard. If the area count is outside the (-40% to +40%) range of the associated standard, all of 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 20 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

Internal Standard area responses met QC requirements for all analysis pertaining to this data set as compared to the continuing calibration.

1.9 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 spectra 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.

1.10 Tentatively Identified Compounds (TICs)

TICs were reported in accordance with the project requirements. The identification must be considered tentative (both quantitative and qualitative) due to the lack of required compound specific response factors. Consequently all concentrations should be considered estimated, "J" and as a result of the qualitative uncertainty should be qualified, "N" where an identification has been made.

TICs were not required with this data set.

1.11 Compound Quantification and Reported Detection Limits

GC/MS quantitative analysis is considered to be acceptable. Correct internal standards and response factors and air volumes were used to calculate final concentrations.

Sample results have been presented in ug/m3 as well as ppbv on the laboratory reporting forms. The sample was analyzed undiluted at 250ml. Values less than the reporting limit has not been reported. This is consistent with NELAP requirements.

1.12 Overall System Performance

GC/MS analytical methodology was acceptable for this analysis. The data reported agrees with the raw data provided in the final report. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.

Reviewer's Signature Lori A. Beyer **Date** 08/24/15

Appendix A
Chain of Custody

AIR ANALYSIS

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 7/30/15

ALPHA Job #: L1517720

Client Information

Client: WRS (Benine Env.)
Address: 17 Old Dock Rd. Bellport, NY 11713
Phone: 631 589 6521
Fax:
Email: jhalpin@wrses.com

❑ These samples have been previously analyzed by Alpha

Project Information

Project Name: Schmuklers
Project Location: New Rochelle
Project #: 6800
Project Manager: J Ott
ALPHA Quote #:

Turn-Around Time

☑ Standard ❑ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

❑ FAX
❑ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
❑ EMAIL (standard pdf report)
☑ Additional Deliverables: ASP-Cat-B (NYS)
Report to: (if different than Project Manager)

Billing Information

❑ Same as Client info PO #: 13695

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
NYS		

Other Project Specific Requirements/Comments: ASP-Cat-B (NYS) deliverables

All Columns Below Must Be Filled Out

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Start Time	Collection End Time	Collection Initial Vacuum	Collection Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
7720.01	IA-072815	7/28	9:40	13:05	28	4	AA	JO	6L	1431	0214		X						

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
Walter [illegible]	7/29/15 16:23	Dan [illegible] (AAL)	7/29/15 16:23
Dan [illegible] AAL	7/29/15 19:35	[illegible] AAL	7/29/15 19:35
[illegible]	[illegible]	[illegible]	7/30/15 00:45

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Form No: 101-02 (19-Jun-09)

Sample Delivery Group Form

Laboratory Job number: L1517720
Project Manager: Chris Anderson **Review Date:** 07/31/2015
Project Number: 6800
Project Name: SCHMUKLERS **Received:** 07/29/2015 16:23
Client Account: WRS Environmental Services, Inc. **Received by:** KB/BB

Samples Delivered by: COURIER **Call Tracker #**
Bill Of Laden N/A **Trackingnum**
Coc Present Present

Container Status Intact **Sample IDs**

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? No
No sample id/Date/ or time on label. Can ID on coc #14312 does not match #1884 on label. No other can submitted.

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt N/A **Are samples Properly Preserved?** Yes
Initial pH **preserved in house with** **Final pH**
Other Issues
Chlorine Check N/A

Are VOA/VPH Vials Present? No
Aqueous: Do Vials Contain Head Space? N/A
Soils: Is MeOHCovering the Soil? N/A
Reagent H2O Preserved vials Frozen on N/A
Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
N/A	Absent	No	No	-	No	No

Appendix B
Case Narrative

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

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

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on July 27, 2015. The canister certification results are provided as an addendum.

Sample Receipt

The canister ID number for the sample designated IA-072815 (L1517720-01) is listed on the chain of custody form as 14312 but should 1884.

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

Authorized Signature: Christopher J. Anderson

Report Date: 08/04/15

Title: Technical Director/Representative

Appendix C
Data Summary
Form I's
With Qualifications

Form 1
Volatile Organics

Client	: WRS Environmental Services, Inc.		Lab Number	: L1517720
Project Name	: SCHMUKLERS		Project Number:	6800
Lab ID	: L1517720-01		Date Collected :	07/28/15 13:05
Client ID	: IA-072815		Date Received :	07/29/15
Sample Location	: NEW ROCHELLE		Date Analyzed :	07/30/15 19:09
Sample Matrix	: AIR		Dilution Factor :	1
Analytical Method	: 48,TO-15		Analyst	: RY
Lab File ID	: R143128		Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml		GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.446	0.200	--	2.21	0.989	--	
74-87-3	Chloromethane	0.937	0.200	--	1.93	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	140	2.50	--	264	4.71	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	42.6	1.00	--	101	2.38	--	
75-69-4	Trichlorofluoromethane	0.353	0.200	--	1.98	1.12	--	
67-63-0	Isopropanol	76.1	0.500	--	187	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	5.80	0.500	--	20.1	1.74	--	
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	1.10	0.500	--	3.24	1.47	--	
141-78-6	Ethyl Acetate	2.20	0.500	--	7.93	1.80	--	
67-66-3	Chloroform	0.336	0.200	--	1.64	0.977	--	
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	0.983	0.200	--	3.98	0.809	--	
110-54-3	n-Hexane	0.348	0.200	--	1.23	0.705	--	
71-43-2	Benzene	0.315	0.200	--	1.01	0.639	--	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U

Form 1
Volatile Organics

Client	: WRS Environmental Services, Inc.	Lab Number	: L1517720
Project Name	: SCHMUKLERS	Project Number:	6800
Lab ID	: L1517720-01	Date Collected	: 07/28/15 13:05
Client ID	: IA-072815	Date Received	: 07/29/15
Sample Location	: NEW ROCHELLE	Date Analyzed	: 07/30/15 19:09
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R143128	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	0.532	0.200	--	2.48	0.934	--	
142-82-5	Heptane	1.03	0.200	--	4.22	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	4.12	0.200	--	15.5	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	0.276	0.200	--	1.20	0.869	--	
179601-23-1	p/m-Xylene	0.939	0.400	--	4.08	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.329	0.200	--	1.43	0.869	--	
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	0.406	0.200	--	2.00	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: WRS Environmental Services, Inc.		Lab Number	: L1517720
Project Name	: SCHMUKLERS		Project Number:	6800
Lab ID	: L1517720-01		Date Collected	: 07/28/15 13:05
Client ID	: IA-072815		Date Received	: 07/29/15
Sample Location	: NEW ROCHELLE		Date Analyzed	: 07/30/15 19:09
Sample Matrix	: AIR		Dilution Factor	: 1
Analytical Method	: 48,TO-15-SIM		Analyst	: RY
Lab File ID	: R143128		Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml		GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	0.044	0.020	--	0.174	0.079	--	
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.072	0.020	--	0.453	0.126	--	
79-01-6	Trichloroethene	0.062	0.020	--	0.333	0.107	--	
127-18-4	Tetrachloroethene	1.95	0.020	--	13.2	0.136	--	

Attachment-F

Indoor CAMP IAQ lab validation (one month post application)

DATA USABILITY SUMMARY REPORT (DUSR)

ORGANIC ANALYSIS

EPA Compendium Method TO-15
VOLATILES BY GC/MS

For Ambient/Indoor Air Sample IA-090315
Collected September 03, 2015
For Schmucklers
from New Rochelle, New York
by WRS d.b.a Berninger Environmental
Project #: 6800

SAMPLE DELIVERY GROUP NUMBER: L1521834
Alpha Analytical (ELAP #11148)

SUBMITTED TO:

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

October 27, 2015

PREPARED BY:

Lori A. Beyer/President
L.A.B. Validation Corp.
14 West Point Drive
East Northport, NY 11731

Lori A. Beyer

Schmucklers, New Rochelle, New York; September 2015
Data Validation Report: Volatile Organics-TO15

Table of Contents:

Introduction:

A validation was performed on one (1) indoor air sample for Volatile Organic analysis collected by WRS d.b.a. Berninger Environmental and submitted to Alpha Analytical for subsequent analysis under chain of custody documentation. This report contains the laboratory and validation results for the one air sample. The sample was collected on September 03, 2015.

The sample was analyzed by Alpha Analytical utilizing EPA Method TO-15 and in accordance with NYSDEC Analytical Services Protocol and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodology employed. The analytical testing consisted of the TO-15 Compound List as provided in Appendix C. Select chlorinated analytes were analyzed via Selective Ion Monitoring (SIM) techniques in order to achieve lower reporting levels.

The data was evaluated in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (Publication 9240.1-05), EPA SOP #HW31 (Revision 6) and in conjunction with the analytical methodology for which the samples were analyzed, where applicable and relevant.

The data validation report pertains to the following air sample:

Sample Identification	Laboratory Identification	Sample Matrix (Air Type)	Collection Date
IA-090315	L1521834-01	Indoor/Ambient Air	09/03/15

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.

J- - The result is an estimated quantity, but the result may be biased low.

D - Analyte concentration is from diluted analysis.

Sample Receipt:

The Chain of Custody document from 09/03/15 indicates that the air sample was received on 09/04/15 via laboratory courier following completion of the sampling event. Sample login notes and the chain of custody indicate that at the Validated Time of Sample Receipt (VTSR) no discrepancies were noted.

The 6L Summa Canister was leak tested prior to collection of each sample. Initial pressure gauge is recorded on the chain of custody. Canister pressure is required to be approximately 30 psi with zero air. Acceptable pressure was determined for this sample.

The data summary Form I's included in Appendix C includes all usable (qualified) and unusable (rejected) results for the sample 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 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 Volatile Organics by EPA Compendium Method TO-15 GC/MS

The following method criteria were reviewed: holding times, surrogate standards, LCS, Blanks, Tunes, Calibrations, Internal Standards, Target Component Identification and Quantitation, Reported Quantitation Limits and Overall System Performance. The volatile results were considered to be valid and useable as noted on the data summary Form I's in Appendix C and 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.

The air sample pertaining to this SDG was performed within the method and technical required holding times of thirty (30) days from sample collection for analysis. No qualifications were required based upon holding time criteria.

1.2 Surrogate Standards

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.

The sample was not spiked with surrogate standards. Method TO15 does not mandate the addition of surrogate standards.

1.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)/Duplicate /Field Duplicate Analysis

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

Matrix Spike/Matrix Spike Duplicate analysis was not performed on the sample pertaining to this SDG.

Laboratory duplicate analysis was submitted with this data package and performed sample IA-090315. Acceptable precision (RPD); <25% was observed.

Field Duplicate analysis was not collected for this sampling event. Acceptable precision for air samples is 25%. The following criteria are utilized for Field Duplicate analysis when performed:

Criteria	Detected Compounds	Non-Detected Compounds
The RPD is within the limits of 0 and 25%	No qualification	No qualification
The RPD >25%	J in the parent and duplicate samples	Not applicable
The RPD could not be calculated since the compound was only detected in either the parent of duplicate sample. However, the detected concentration was </=2x the reporting limit	No qualification	No qualification
The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample However, the detected concentration was >2x the reporting limit.	J in the parent or duplicate sample	UJ in the parent of duplicate sample

No qualifications to the data were required based on MS/MSD/Laboratory Duplicate and Field Duplicate analysis.

1.4 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 with all applicable spiked target compounds yielding recovery values between 70-130%.

1.5 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. Storage blanks measure cross-contamination during sample storage of the field samples. Canister blanks measure cross-contamination from the sampling media.

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, Trip, 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

*2x the CRQL for methylene chloride, 2-butanone and acetone.
**4x the CRQL for methylene chloride, 2-butanone, and acetone
***Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ug/L.
Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

A) **Method Blank Contamination:**

Method and Canister blanks were determined to be free of any contamination.

Canister cleaning documentation met QC requirements.

B) **Field Blank Contamination:**

Field Blank analysis was not conducted for this SDG.

C) **Trip Blank Contamination:**

Trip Blank analysis was not submitted with this SDG.

D) **Storage Blank Contamination:**

Storage blanks were not submitted for this SDG. It should be noted that storage blanks are not mandated by EPA Method TO-15.

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 volatile organics is Bromofluorobenzene (BFB).

Instrument performance was generated within acceptable limits and frequency (24 hours) for Bromofluorobenzene (BFB) for all analyses conducted for this SDG.

1.7 Initial and Continuing Calibrations

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving 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 >/= 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".

The following compounds are allowed to be >0.01 without qualification:
2-Butanone
Carbon Disulfide
Chloroethane
Chloromethane
1,2-Dibromoethane
1,2-Dichloropropane
1,4-Dioxane
1,2-Dibromo-3-chloroproane
Methylene Chloride

All the response factors for the target analytes reported were found to be within acceptable limits (>/=0.05) [or >/=0.01 for the 9 compounds above] and remaining analytes, for the initial 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 <30% and %D must be <30%. 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 (>90%), 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. The poor responders are permitted to have a maximum RSD and %D of 40%.

Initial Calibrations: The initial calibrations provided and the %RSD was within acceptable limits (30%) for all requested target compounds.

Continuing Calibrations: The continuing calibrations provided and the %D was within acceptable limits (30%) for all reported target compounds.

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 (-40% to +40%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/- 20 seconds from the associated continuing calibration standard. If the area count is outside the (-40% to +40%) range of the associated standard, all of 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 20 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

Internal Standard area responses met QC requirements for all analysis pertaining to this data set as compared to the continuing calibration.

1.9 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 spectra 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.

1.10 Tentatively Identified Compounds (TICs)

TICs were reported in accordance with the project requirements. The identification must be considered tentative (both quantitative and qualitative) due to the lack of required compound specific response factors. Consequently all concentrations should be considered estimated, "J" and as a result of the qualitative uncertainty should be qualified, "N" where an identification has been made.

TICs were not required with this data set.

1.11 Compound Quantification and Reported Detection Limits

GC/MS quantitative analysis is considered to be acceptable. Correct internal standards and response factors and air volumes were used to calculate final concentrations.

Sample results have been presented in ug/m3 as well as ppbv on the laboratory reporting forms. The sample was analyzed undiluted at 250ml. Values less than the reporting limit has not been reported. This is consistent with NELAP requirements.

1.12 Overall System Performance

GC/MS analytical methodology was acceptable for this analysis. The data reported agrees with the raw data provided in the final report. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.

Reviewer's Signature Lori a Beyer **Date** 10/27/2015

Appendix A
Chain of Custody

AIR ANALYSIS

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 9/4/15

ALPHA Job #: L1521834

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: WRS (Berninger Env.)
Address: 17 Old Dock Road Yaphank, NY
Phone: (631) 589 6521
Fax: ______
Email: jhalpin@wrses.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Schmuklers
Project Location: New Rochelle
Project #: 6800
Project Manager: J.H
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☑ EMAIL (standard pdf report)
☑ Additional Deliverables: ASP-cat-B (NYS)
Report to: (if different than Project Manager)

Billing Information

☑ Same as Client info PO #: 13955

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria

Other Project Specific Requirements/Comments:

NYS - ASP - Cat B deliverables

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
21834-01	IA-090315	9/3/15	10:00	14:00	-29	-4	AA	JG	6L	1818	0637		X						

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	9/4/11:00	[signature] AAL	9/4/15 12:20
[signature] AAL	9/4/15 [illegible]	[signature] AAL	9/4/15 [illegible]
[signature] AAL	9/4/15 [illegible]	[signature]	9/4/15 23:30

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Form No: 101-02 (19-Jun-09)

Sample Delivery Group Form

Laboratory Job number: L1521834
Project Manager: Chris Anderson **Review Date:** 09/09/2015
Project Number: 6800
Project Name: SCHMUKLERS **Received:** 09/04/2015 12:26
Client Account: WRS Environmental Services, Inc. **Received by:** BB

Samples Delivered by: COURIER **Call Tracker #**
Bill Of Laden N/A **Trackingnum**
Coc Present Present

Container Status Intact **Sample IDs**

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes
MATCHED BY CAN #

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt N/A **Are samples Properly Preserved?** Yes
Initial pH **preserved in house with** **Final pH**
Other Issues
Chlorine Check N/A

Are VOA/VPH Vials Present? No
Aqueous: Do Vials Contain Head Space? N/A
Soils: Is MeOHCovering the Soil? N/A
Reagent H2O Preserved vials Frozen on N/A
Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
N/A	Absent	No	No	-	No	No

Appendix B
Case Narrative

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

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

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on September 2, 2015. The canister certification results are provided as an addendum.

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

Authorized Signature: Christopher J. Anderson Report Date: 09/14/15

Title: Technical Director/Representative

Appendix C
Data Summary
Form I's
With Qualifications

Form 1
Volatile Organics

Client	: WRS Environmental Services, Inc.		Lab Number	: L1521834
Project Name	: SCHMUKLERS		Project Number:	6800
Lab ID	: L1521834-01		Date Collected :	09/03/15 14:00
Client ID	: IA-090315		Date Received :	09/04/15
Sample Location	: NEW ROCHELLE		Date Analyzed :	09/09/15 19:04
Sample Matrix	: AIR		Dilution Factor :	1
Analytical Method	: 48,TO-15		Analyst	: RY
Lab File ID	: R143942		Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml		GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.447	0.200	--	2.21	0.989	--	
74-87-3	Chloromethane	0.675	0.200	--	1.39	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	76.3	2.50	--	144	4.71	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	25.9	1.00	--	61.5	2.38	--	
75-69-4	Trichlorofluoromethane	0.596	0.200	--	3.35	1.12	--	
67-63-0	Isopropanol	39.1	0.500	--	96.1	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	9.32	0.500	--	32.4	1.74	--	
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	0.665	0.500	--	1.96	1.47	--	
141-78-6	Ethyl Acetate	0.663	0.500	--	2.39	1.80	--	
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	0.214	0.200	--	0.866	0.809	--	
110-54-3	n-Hexane	0.293	0.200	--	1.03	0.705	--	
71-43-2	Benzene	0.265	0.200	--	0.847	0.639	--	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U

Form 1
Volatile Organics

Client	: WRS Environmental Services, Inc.	Lab Number	: L1521834
Project Name	: SCHMUKLERS	Project Number:	6800
Lab ID	: L1521834-01	Date Collected :	09/03/15 14:00
Client ID	: IA-090315	Date Received :	09/04/15
Sample Location	: NEW ROCHELLE	Date Analyzed :	09/09/15 19:04
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R143942	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	0.242	0.200	--	1.13	0.934	--	
142-82-5	Heptane	0.364	0.200	--	1.49	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	2.98	0.200	--	11.2	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	0.498	0.400	--	2.16	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Form 1
Volatile Organics

Client	: WRS Environmental Services, Inc.	Lab Number	: L1521834
Project Name	: SCHMUKLERS	Project Number:	6800
Lab ID	: L1521834-01	Date Collected :	09/03/15 14:00
Client ID	: IA-090315	Date Received :	09/04/15
Sample Location	: NEW ROCHELLE	Date Analyzed :	09/09/15 19:04
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15-SIM	Analyst	: RY
Lab File ID	: R143942	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	0.037	0.020	--	0.147	0.079	--	
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.095	0.020	--	0.598	0.126	--	
79-01-6	Trichloroethene	0.128	0.020	--	0.688	0.107	--	
127-18-4	Tetrachloroethene	1.34	0.020	--	9.09	0.136	--	