

**SUPPLEMENTAL REMEDIAL
INVESTIGATION REPORT**

FOR

**AMERICAN DRIVE-IN CLEANERS
OF HEWLETT, INC.**

**1345 PENINSULA BOULEVARD
HEWLETT, NEW YORK**

Site No.: 130228

Index No.: CO 1-20180509-116

PREPARED FOR

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

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**FINAL
August 2022 (revised)**

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1.0 INTRODUCTION

This Supplemental Remedial Investigation Report (SRIR) has been developed pursuant to the requirements of an executed Order on Consent (OOC) dated June 25, 2018. Previously the site was listed under the Voluntary Cleanup Agreement (June, 2003) between the New York State Department of Environmental Conservation, Division of Environmental Remediation (DER), and American Drive-In Cleaners of Hewlett, Inc., the Volunteer. The site has formally transitioned to an Order on Consent as of the June 25, 2018 date. The site is located at 1345 Peninsula Boulevard, Hewlett, New York 11557 (see Figure 1), fully described as Section 038, Block 446, Lot Nos. 61, 63, 70 and 72.

1.1 Purpose

The purpose of the SRIR is to:

- determine the current nature and delineate the extent of contamination in groundwater and soil gas on-site and emanating from the site;
- collect and evaluate on and off-site groundwater and soil gas data to evaluate the current potential impact to public health and the environment;
- Identify collected data needed for monitoring natural attenuation, potential feasible cleanup technologies and presumptive remedies.

2.0 SITE HISTORY

2.1 Physical Site Description

Site Name: American Drive-In Cleaners of Hewlett, Inc.

Owner: Mr. Bertram Moreida, President of American Drive-In Cleaners of Hewlett, Inc.

Location: 1345 Peninsula Boulevard, Hewlett, New York 11557,
Latitude 40° 38'40" N, Longitude 73°42'7"W

Former Voluntary Cleanup Agreement: Site No.: V-00616-1

2.2 Site Description, History of Ownership and Land Use

The American Drive-In Cleaners of Hewlett, Inc. (American Drive-In Cleaners) site is situated on a triangular shaped parcel approximately 0.6686 acres in size located on

the south side of Peninsula Boulevard and 432.28 feet east of the intersection of Mill Road and Peninsula Boulevard (Figures 1 and 2). The eastern boundary of the site abuts the Rockaway Branch right-of-way of the Long Island Railroad (LIRR). The LIRR tracks are installed in a north/south direction and parallel to Harris Avenue located to the east of this right-of-way.

The site is developed with a one-story slab-on-grade approximately 10,000 ft² cinder block/ brick-faced building that encompasses more than 60 percent of the footprint of the subject parcel. The building is situated along the eastern boundary of the parcel. The building shape is an irregular triangle and measures between 144 feet and 164 feet in the north/south direction and between 35 feet and 178 feet in the east/west direction. The south rear-side of the building measures approximately 50-feet in the east/west direction. The front side (entrance) of the property is at the south side of Peninsula Boulevard. The undeveloped portion of the property, to the west and south of the building, is asphalt paved for parking.

In an interview with Mr. Moreida on October 3, 2003, he indicated that the subject property had been developed from vacant land circa 1958-59 for use as a dry cleaner. He purchased solely the dry cleaning business at the subject property in 1960 and the real estate (the subject property) in 1965 from the Estate of Philip Bassar. He further indicated that the original portion of the building (northern portion) was constructed in 1958-59 with two minor additions to the southern portion of the building in 1963 (boiler room) and circa 1985 (dry cleaning machine room).

2.3 Adjacent Property Land Use

The Peninsula Boulevard corridor and surrounding areas have been used for commercial purposes and residential housing since before the date of development of the subject property. (see Figures 2 and 3). In particular, the adjacent properties' current uses include:

North: Directly to the north is Peninsula Boulevard. A strip shopping center is present on the north side of Peninsula Boulevard with various retail/commercial operations such as the following: jewelry store, liquor store, food restaurant, hair cutting salon, nail salon, clothing store, butcher, florist, shoe store, electronic store, optical store, stationary stores, video store, toy shop, bakery and a large supermarket (Foodtown located at 1368 Peninsula Boulevard). A ballfield and associated park are located to the north of the shopping center.

South: The areas to the southeast and southwest of the subject property are predominantly residential. A u-shaped residentially developed street is

present to the southwest (Chestnut Drive) with additional residential development along Harris Avenue to the southeast.

East: Directly to the east of the subject property is the elevated portion of the railroad tracks of the Long Island Railroad. Further to the east is residential development along Harris Avenue.

West: Directly to the west is a commercial bank building (HSBC). Further to the west is a Sunoco Gasoline Station, a Shell Gasoline Station, a hair cutting salon and another dry cleaners (Mill Road Drive-In Dry Cleaners), along Mill Road. To the northwest, along Peninsula Boulevard, a commercial retail zone exists. Further to the west-southwest is residential development

2.4 Geographic Setting

Previous investigators have concluded that the Laurentide continental ice sheet deposited two major terminal moraines on Long Island during the Wisconsin stage of the Pleistocene Epoch (Cadwell, 1989). These moraines formed two lines of hills that trend generally east-west along the island. American Drive-In Cleaners of Hewlett, Inc. lies in the outwash plain south of the confluence of the Harbor Hill and Ronkonkoma moraines and is within the drainage area of the south shore bays of Long Island.

2.5 Hydrogeology

A concise and accurate description of the geology, physiography and drainage of Nassau County is found in the Soil Survey of Nassau County, New York (USDA). Relevant excerpts of this study are included below. Nassau County is part of the Coastal Plain physiographic province. The county is characterized by undulating or rolling landscapes in the northern part and a flat plain with a gently southward tilt in the southern part. A lobe of rolling topography protrudes farther to the south along the eastern edge of the county. Extensive tidal areas and marshes are just south of the plain and a barrier beach and dunes form the southern outline of the county.

Elevation in the county ranges from sea level to about 340 feet above sea level near the eastern edge of the county, just south of NYS Route 25. The landforms at the higher elevations were deposited as a terminal moraine. These areas have irregular topography that is crossed by deep glacial drainage channels near the north shore. These channels empty into deep bays on the north shore. The steepest relief is along drainage channels or on the side slopes adjacent to the bays. An outwash plain, which

is to the south of the terminal moraine, has a maximum elevation of about 180 feet just northeast of Hicksville and slopes gradually to the south some 8 to 10 miles, finally reaching tidal area at sea level.

Nassau County is underlain by bedrock, but most of it is at a depth of several hundred feet. The closest surficial bedrock is to the west in the boroughs of Bronx and Queens in New York City and areas to the northwest in Westchester County near Long Island Sound. From these areas of surface exposure, the rock surface dips to the southeast to form a solid basement below Nassau County. Most of the bedrock consists of Cretaceous sedimentary layers. Some of the older rocks in the area are the 200 million year old Triassic red beds and lava flows off New Jersey and Connecticut and Cambrian metamorphic rocks in the New York City area that are 450 million years old.

During the late Cretaceous Period the sediments from the eroding Appalachian Highlands were carried by streams and rivers to low-lying coastal areas. The sand, silt and clay of the Raritan and Magothy formations, which form the foundation of Long Island, were deposited as deltas in areas of shallow water. The Raritan formation is below sea level and the Magothy formation is at the surface of several sites along the north shore. The Magothy is the primary potable water supply aquifer on Long Island.

During the Tertiary Period the area of Long Island was uplifted above sea level and the Cretaceous sediments were eroded and dissected by streams and rivers. The valley now occupied by Long Island Sound was cut by a major river and smaller tributary streams formed valleys which are now the north shore bays.

During the Pleistocene Epoch of the Quaternary Period, several major glacial advances into the northern United States occurred. This epoch is divided into four major glacial stages. From oldest to youngest, they are: Nebraskan, Kansan, Illinoian and Wisconsinan. During the Illinoian advance, the ice sheet reached a position just north of the Long Island area. Outwash sand and gravel, of the Jameco gravel formation, was deposited by meltwater streams. Following the Illinoian stage, sea level rose close to its present level and a clay (Gardiner clay) containing marine fossils was deposited in the shallow coastal waters surrounding Long Island.

During the Wisconsinan glacial advance the ice reached a position represented on most of Long Island by the Ronkonkoma terminal moraine. In the latter part of this stage, the ice sheet receded from a point east of Lake Success and established a new position along the north shore marked by the Harbor Hill terminal moraine. West of Lake Success this lobe of ice overrode the Ronkonkoma moraine and pushed as far south as Staten Island. This caused the terminal moraine/deposits in Nassau County to form a wide band of irregular topography occupying the northern half of the county, while in adjacent Suffolk County the terminal moraine deposits were far

enough apart to be two distinct landforms separated by a flat plain. During the Wisconsin advance sea level dropped about 350 feet below its current elevation to expose a broad flat coastal plain.

As the climate again warmed, about 11,000 years ago, the Wisconsin period ended and the Holocene, or present, period began. The ice sheet receded to its present polar limits and sea level rose to its present level. Currents and wave action modified the outwash plain to create the present-day shoreline.

These overlying Pleistocene deposits, referred to as the Upper Glacial aquifer, is a highly prolific aquifer and consists of three distinct units. The oldest and deepest unit is a sand and gravel layer associated with the Ronkonkoma ice sheet. After the recession of the ice sheet sea level rose to near its' present level. During this interstadial period, marine and/or lacustrine sediments were deposited over the Ronkonkoma deposits, a clay bed at the base, separated from an upper clay bed by a band of silty sandy beds. Overlying the clay is a terminal moraine and adjacent outwash deposits associated with the Harbor Hill ice sheet.

Direction and rate of groundwater flow are controlled by the rate and distribution of water entering and leaving the aquifer systems, the geometry of these systems and the distribution of water transmitting and storage properties of these aquifer systems. Based upon a projection from review of Nassau County Water Table Maps, local groundwater flow direction in the shallowest aquifer (the Upper Glacial aquifer) is expected to be in the south (either southwest or southeast) dependent upon local discharge patterns to surface water headwater areas. Published literature values for estimated average hydraulic conductivity for the Upper Glacial Aquifer is 270 feet per day horizontal with rates of 27 feet per day for vertical flow. Previous work performed by BEI proximate to the study area has determined the depth to groundwater within the Upper Glacial aquifer as approximately 5-10 feet below grade surface (bgs). Previous groundwater flow surveys conducted have documented flow direction to the northwest, possibly due to the PSW (N-01346) to the northwest changing the gradient. An updated groundwater flow survey will be conducted and will include: updated casing elevations and also current depth to water measurements.

The subject property is located within the boundaries of Hydrogeologic Zone VII: South Shore Shallow Flow Discharge System. Zone VII is located south of the Magothy recharge zone on the South Shore and discharges to Nassau and western Suffolk South Shore bays where tidal exchange facilitates the dilution and dispersion of contaminants. Zone VII is a shallow flow zone, thus contamination from activities in Zone VII will mainly affect the Glacial aquifer. Zone VII contains a number of streams that feed the South Shore bays. These streams are important recreationally, ecologically and as a freshwater source to South Shore bays.

2.6 Topography

The subject site is located approximately 25-30 feet above mean sea level and the National Geodetic Vertical Datum of 1929 (USGS-Lynbrook Quadrangle - Figure 2). The land surface is relatively flat within the study area with slope in topographic grade to the south-southwest towards proximate surface water (canals and bays).

2.7 Water Supply Wells

Berninger Environmental conducted an investigation on the potable (drinking) and non-potable water supply wells located within a half-mile radius of the subject site. Region I of the NYSDEC requires that all wells (potable supply and non-potable supply) which pump at least 45 gallons per minute must be permitted. A review of these records indicated that the Long Island Water Corporation (LIWC) is the distributor of potable water in the area of the subject site and one public supply well (N-01346) is located within approximately ½ mile of the study site. The location of this well is presented in Figure 4. This public supply well is located approximately ½ mile to the northwest and hydraulic down gradient of the site. The table below provides data on this well. An updated groundwater flow survey will be provided in order to determine if contamination emanating from the subject site is potentially impacting the PSW. More information on the updated survey is provided in section 4.0-Task 3.

Well Field Data

Well No.	Aquifer	Land Surface	Depth to Bottom	Depth to Screen
N-01346	Jameco	10 ft msl	160 ft bgs	135 ft bgs

2.8 Drainage Pattern

There are several proximate surface water areas relative to the study property. These include Motts Creek (closest), Willow Pond and Georges Creek within a one mile radius. Based upon an evaluation of topographic grade changes, the local surficial and hydraulic drainage pattern is likely into the drainage basin of Motts Creek (slightly up gradient) or Georges Creek, which ultimately discharge to the areas of the south shore bays and the Atlantic Ocean. The surface water bodies observed within a ½ mile radius of the site include only Motts Creek. The localized groundwater flow direction for the shallow Upper Glacial aquifer at the site is to the north northwest as depicted in the localized groundwater flow survey. Figure-5.

2.9 Soils

According to the United States Department of Agriculture Soil Conservation Service and the Soil Survey of Nassau County, New York, the soils at the subject site are classified Us-Urban land Sudbury complex. This unit consists of urbanized areas and very deep, moderately well drained soils. This soil unit is noted to be on nearly level plains. The areas of this soil are variable in shape and are as much as several hundred acres each. Slope ranges from 0 to 3 percent. This unit consists of about 70 percent urbanized areas, 20 percent moderately well drained Sudbury soils and 10 percent other soils. The urbanized areas and Sudbury soils are so intermingled that it was not practical to map them separately. The urbanized areas are buildings, roads, driveways, parking lots and other manmade structures. Included with this soil, in mapping, are small areas of excessively drained to moderately well drained Udipsamments and well drained Riverhead soils. The Udipsamments are in areas of construction activity where sandy material has been mixed with the surface layer and subsoil. The typical sequence, depth and composition of the layers of Sudbury soils are as follows:

Surface layer: Surface to 5-inches, dark reddish brown fine sandy loam

Subsoil: 5 to 18-inches, yellowish brown sandy loam

18+-inches, mottled, yellowish brown gravelly loamy sand

Substratum: 28-to 40-inches, mottled, pale brown very gravelly sand
40 to 60-inches, very pale brown, very gravelly sand

2.10 Infrastructure

During the interview with Mr. Moreida, the following site specific information regarding utilities and infrastructure relative to the subject property was established see Figure 6. The property has been connected to the municipal sewer system since its development circa 1958-59. Therefore, all bathrooms and wastewater piping within the building have been and are connected to the on-site municipal sanitary system. No other in-situ drainage structure were identified within the building. The municipal sewer line enters the building at its northwest corner, at which location both natural gas and municipal water lines are also present.

Electric and telephone service enter the building from above ground poles. The property is served by natural gas (KeySpan), which is used predominantly for a dual-fired boiler steam generation and heating system. A 1,000 gallon No. 2 fuel oil above ground storage tank (AST), with secondary containment (lube cube-style) is present

at the western exterior side of the building, near the interior boiler room. A small capacity on-site water supply well is used, in addition to municipal potable water, for make-up water for the non-contact cooling water system. The hazardous materials storage area is a steel trailer located at the rear southern portion of the subject property, exterior and not joined to the building. The current and historic dumpster location is at the mid-central portion of the subject property.

No storm water dry wells or catch basins were observed to be present on the subject property. Drainage appears to flow into Peninsula Boulevard and to perimeter areas of the subject property.

3.0 SUMMARY OF PAST INVESTIGATIONS

Information available to Berninger Environmental, Inc. (BEI) from an interview with Mr. Moreida indicated that the Nassau County Department of Health (NCDH) had previously inspected, collected and analyzed samples of wastewater emanating from boiler blow-down water and/or former evaporative water discharges and the shallow soils at the southeastern perimeter of the subject property. A discussion of these activities is provided below; BEI has not been provided with actual copies of the NCDH inspection reports, except for that data provided in Appendix B. These inspection reports have been requested under the Freedom of Information (FOIL) Process

3.1 NCDH Sampling 2002 Program

On January 15, 2002, Nassau County Department of Health (NCDH) collected samples of wastewater being discharged to a location outside the southeastern side of the site building. The water samples were collected from a wastewater stream caused by either former boiler blow-down and/or evaporator discharges from a unit located within the American Drive-In Cleaners. This sample analyzed by the NCDH laboratory detected a concentration of tetrachloroethylene (PCE) at a concentration of 7.3 parts per billion (ppb). A second round of sampling in March 2002 reported a concentration of 16 ppb.

On March 19, 2002 soil samples were also collected by NCDH at the same wastewater discharge location at the southeastern side of the building from a depth of 2 to 6-inches below grade surface (bgs). These soil samples reported concentrations of PCE up to 4,000 ppb. The same soil sample contained an elevated concentration of abreakdown product of PCE, known as cis-1,2-Dichloroethene (1,2-DCE) at a concentration of 7,400 ppb.

A soil gas study was also conducted during January of 2008 and the results concluded that neither PCE nor TCE was detected in three (3) soil gas samples collected. The samples were collected south of the site within the backyard areas of the three (3) closest residences to the subject site. Please refer to Appendix-A for the complete soil gas sampling Report.

4.0 SUPPLEMENTAL REMEDIAL INVESTIGATION RESULTS

Task 1 - Monitoring Well Sampling and Off-site Groundwater Collection

A total of seven (7) monitoring wells were sampled from the subject property on July 31, 2019 and analyzed via EPA test method 8260 (VOCs) and select wells MW-1, 3 and 6A were sampled for emerging contaminants PFAS (21 list) and 1,4 Dioxane. During the investigation off-site monitoring wells MW-4, 5 and 6 were unable to be located as new construction of the sidewalk in this area north of the site, appeared to be the cause for the missing wells. In lieu of sampling from the off-site wells, temporary sampling points were installed off-site at these locations in order to replicate the sampling intervals proposed in the SRIWP.

Utilizing the currently viable monitoring wells located throughout the site, samples were obtained using low-flow sampling techniques. Temporary well points were installed to the north of the property along Peninsula Boulevard and sampled at depths of 5-9'; 15-19' and 26-30'. Further information on the sample collection protocol is provided in section 5.0 of the SRIWP. Please see Figure-7 for the locations of the monitoring wells and temporary off-site well locations.

4.1 On-site Monitoring Well Sampling Results

Analytical data provided for on-site monitoring wells (MW-1, MW-2, MW-3, MW-6A, MW-7, MW-8 and MW-N. Samples were analyzed via EPA method 8260 for VOCs utilizing low-flow sampling techniques. All the on-site monitoring wells exhibited some amount of PCE and daughter breakdown products from 110 ppb in MW-3 to 32,000 ppb at MW-1. Complete breakdown through to Vinyl Chloride was observed at select well locations where *cis*-1, 2 DCE was present at elevated levels ranging from 2,000 ppb 15,000 ppb. The data for each of the wells is tabulated and included as Table-1 of the Report.

4.2 Off-site multi-level Groundwater Results

Off-site groundwater was collected at three (3) locations GW-4, GW-5 and GW-6 and at multiple depths: 5-9', 15-19', 26-30'. The highest concentration detected was *cis*-1, 2, DCE at the GW-4@ 15-19' at 35,000 ppb. Contamination levels at the bottom of GW-4, at the 30' mark was mainly non-detect with very minimal DCE. GW-5 was similar to GW-4 with regard to the distribution of PCE and breakdown products throughout each depth. The highest detection at the GW-5 location was again, *cis*-1, 2 DCE at 15-19' with a concentration of 10,000 ppb and leveling off at 570 ppb from 25-29' bgs. GW-6 was the western most off-site groundwater sample collected. Very minimal contamination was detected at this location with the highest detection in the 15-19' depth with *cis*-1, 2 DCE at 110 ppb and TCE at 12 ppb. Based on these concentration levels, further delineation to the west of GW-6 does not appear necessary. Tabulated

data for the off-site groundwater samples is included as Table-2 and validated lab data for all groundwater data is included as Appendix-C.

4.3 Emerging Contaminants (PFAS and 1, 4 Dioxane) Results

Sampling for emerging contaminants was sampled at select wells MW-1, MW-3 and MW-6A. Sampling was originally intended at MW-2, but there was not enough recovery from this well to procure a sample. MW-6A was used to substitute sampling in lieu of MW-2 and was a field-based decision.

The lab results indicated detections of PFOA and PFOS at MW-1 of 181 ppt and 3,530 ppt; MW-3 at 235 ppt and 40.3 ppt; and MW-6A at 121 ppt and 2,380 ppt respectively.

Tabulate analytical data is provided for PFAS and 1,4 Dioxane as Table-3. Please refer to Figure-7 for the sampling locations. Third party validated lab for the emerging contaminants is included as Appendix- C.

Task 2 - Soil Gas Investigation Results

All soil gas samples were collected in accordance with the New York State Health Department (NYSDOH) “Guidance for Evaluating Soil Vapor Intrusion in the State of New York” protocols. The Geoprobe will be equipped with a Post-Run Tubing System (PRT) and soil gas samples were collected from beneath whatever land surface materials (concrete, asphalt or grass) encountered. The PRT tubing was set at a minimum depth of 4 feet (bgs) and the point was extracted from the probe rods. Upon extracting the probe point, the tubing exiting the probe rods, and the probe rod borehole was sealed with bentonite or a hydraulic cement. The area around the soil gas sample collection point encompassed by a plastic container for the introduction of a tracer gas such as helium. Helium was introduced via a tubing penetration into the plastic container as a tracer gas in order to quantify that no circumvention of air was occurring. The plastic tracer container was sealed to the ground surface and sealed where the tubing exits the container. A helium detector was connected inline between the sample container sampling point to ensure that no more than ten percent (<10%) helium infiltrated the sampling media.

Subsequent to the introduction of helium tracer gas, the annular space was purged a minimum of one volume of soil gas using a personal sampling pump. During purging and sampling, the flow rate did not exceed 0.2 liters per minute. A pre-set regulator and dedicated summa cannister were used to procure the soil gas samples. The cannisters were labeled with all pertinent information for the laboratory. Samples were analyzed via EPA TO-15 for volatile organic compounds with third party lab validation.

4.4 On-site and Off-site Soil Gas Results

A series of on and off-site soil gas samples and one (1) outdoor ambient air sample was collected at select locations as seen on Figure-8. A total of five (5) Soil vapor samples were collected for a two (2) hour flow duration and labeled SV-1-SV-5. The highest concentration of PCE was detected at the SV-3 location with a concentration of 300 µg/m³. The outdoor ambient (OA-1) air sample detected PCE at 108 µg/m³. SV-1, 2, 4 and 5 all detected PCE at or below 60 µg/m³. Please refer to Table-4 for tabulated soil vapor results and Figure-8 for posted concentrations with relation to sampling location. Please see Appendix-D for SVI validated lab data.

Task 3 – Groundwater Gradient Survey

4.5 Groundwater Flow Direction Survey

An updated groundwater flow survey was conducted in order to confirm the groundwater flow of northwest. Casing elevations on a minimum of five (5) monitoring wells were surveyed to the nearest one hundredth (.01') of a foot from the north side of the well casing. Depth to water (DTW) measurements were also included in the be gauged from the north side of the well casing in order to determine the current water table gradient in the area of the subject site. Based upon the updated survey information a groundwater flow direction of NNW (350deg) has been documented. Please refer to Figure-9 for the updated groundwater flow survey.

5.0 HEALTH AND SAFETY PLAN (HASP)

The site-specific Health and Safety Plan developed and approved under the initial Remedial Investigation Work Plan was adhered to by all personnel involved in the investigation. Incorporated into the plan was a section on community health and safety with measures to ensure the public living and working near the site, including facility employees or visitors, were protected from exposure to site contaminants during intrusive activities or on-site treatment actions.

6.0 COMMUNITY AIR MONITORING PLAN

A Community Air Monitoring Plan (CAMP) provides for real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each

designated work area when certain activities are in progress at contaminated sites. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air. VOC and particulate monitoring were performed during all ground intrusive activities and is provided for the July 31st and August 15th investigation activities. Please see Appendix-E for the CAMP data.

7.0 CONCLUSION

In conclusion, groundwater flow direction has been determined to be slightly north of original surveys performed but remains in a generally NNW direction. On-site monitoring wells had contamination at select locations with PCE levels discovered site wide. Vertical off-site delineation has been achieved with only moderate concentrations observed in GW-6 at 30' bgs. Attempting to retrieve samples beyond this depth may risk the potential for mechanically induced vertical transport of contamination as a result of puncturing the confining unit at approximately 32' bgs.

Soil vapor PCE concentrations were detected at off-site locations with SV-3 showing the highest PCE level of 325 ug/m³. Based on these results a supplemental soil gas investigation Work Plan will be developed in order to determine SVI impacts at the strip mall to the north of the site.

Biological degradation is evident both site-wide and off-site in groundwater with daughter breakdown products observed through to Vinyl Chloride. Based on this observation it is accurate to conclude that natural attenuation via the process of dehalorespiration is occurring both on and off-site, and further monitoring of this process is recommended.

FIGURES

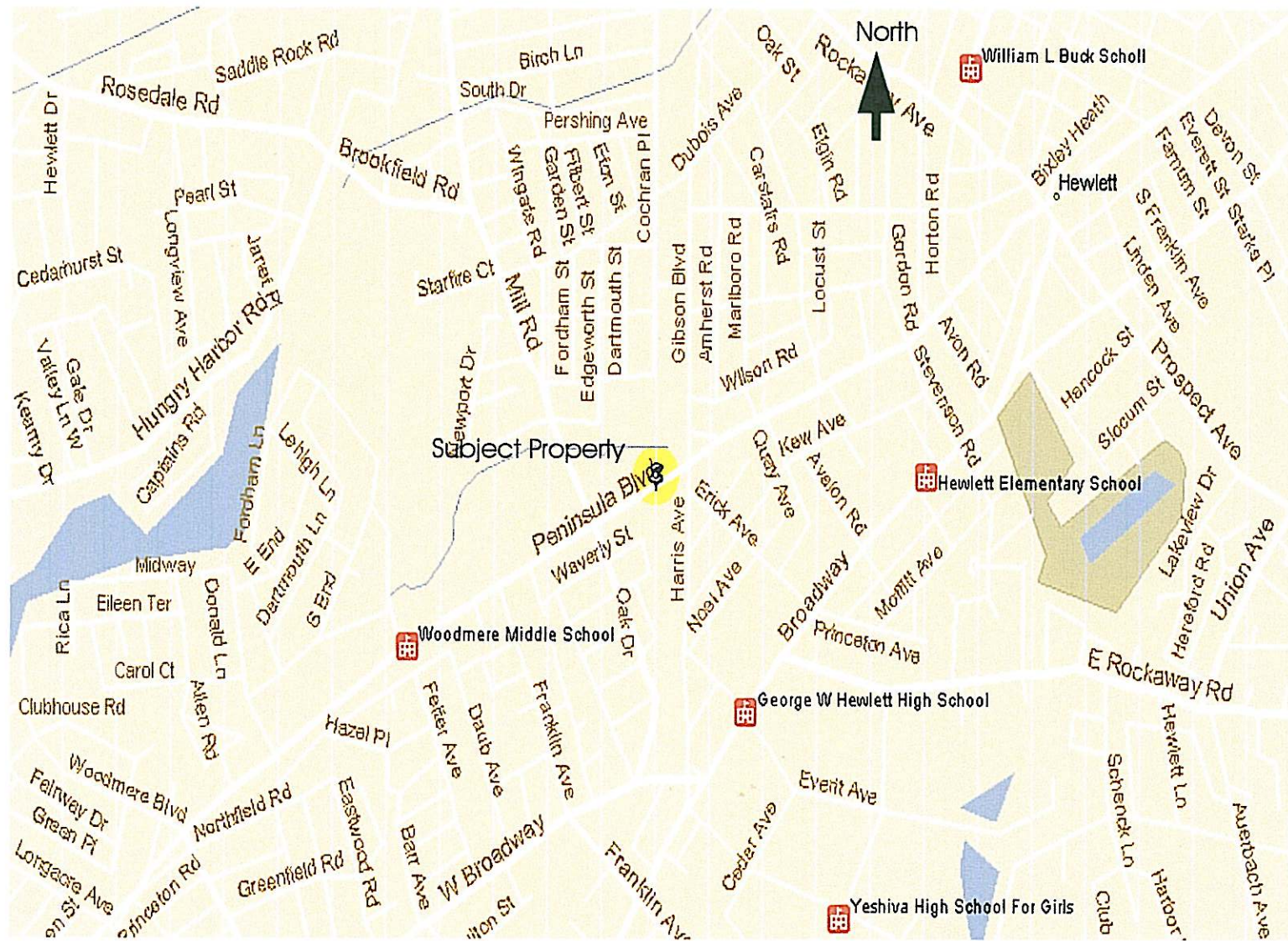
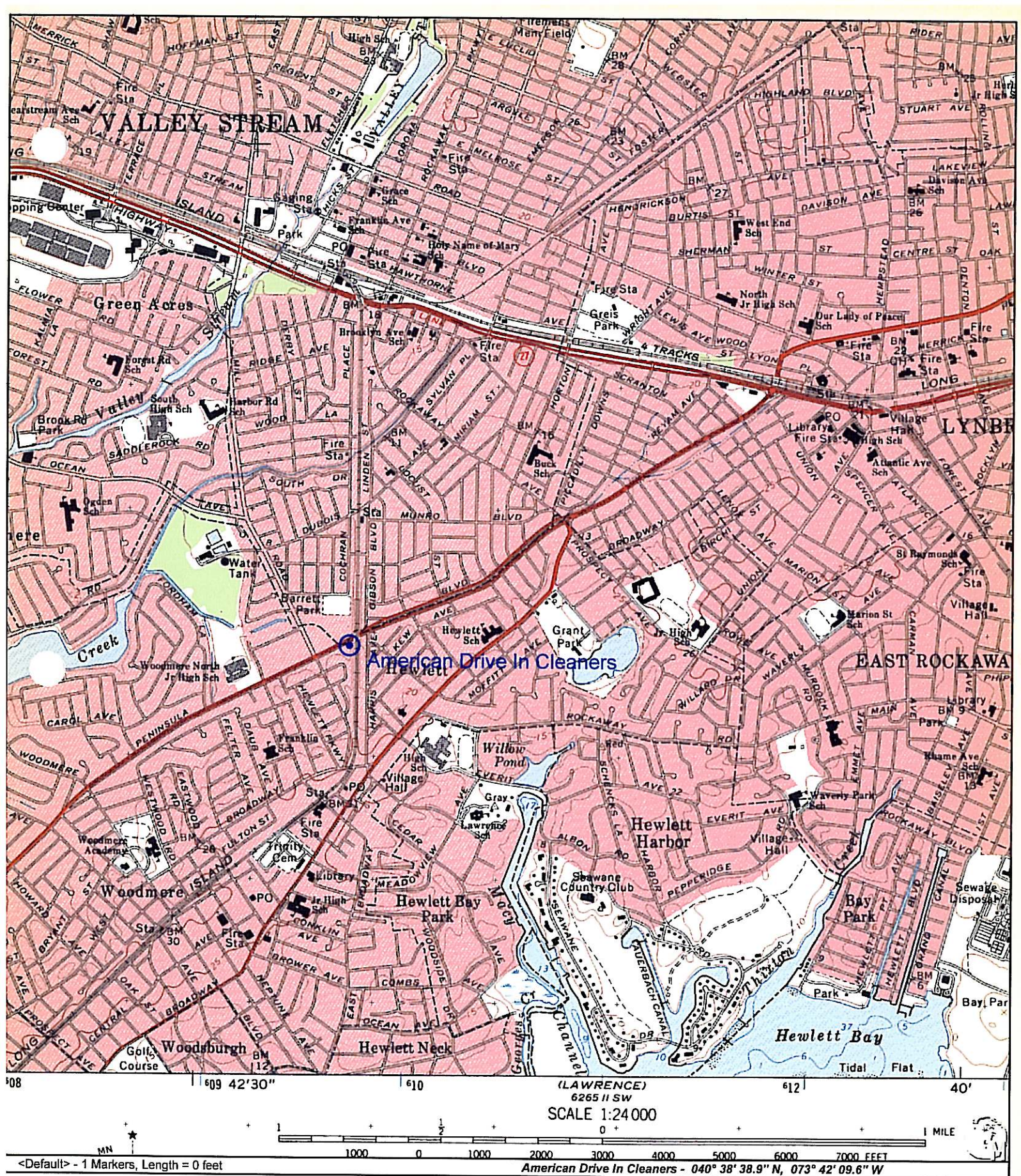


Figure 1 - Location Map for American Drive-In Cleaners
1345 Peninsula Boulevard, Hewlett, New York

No scale



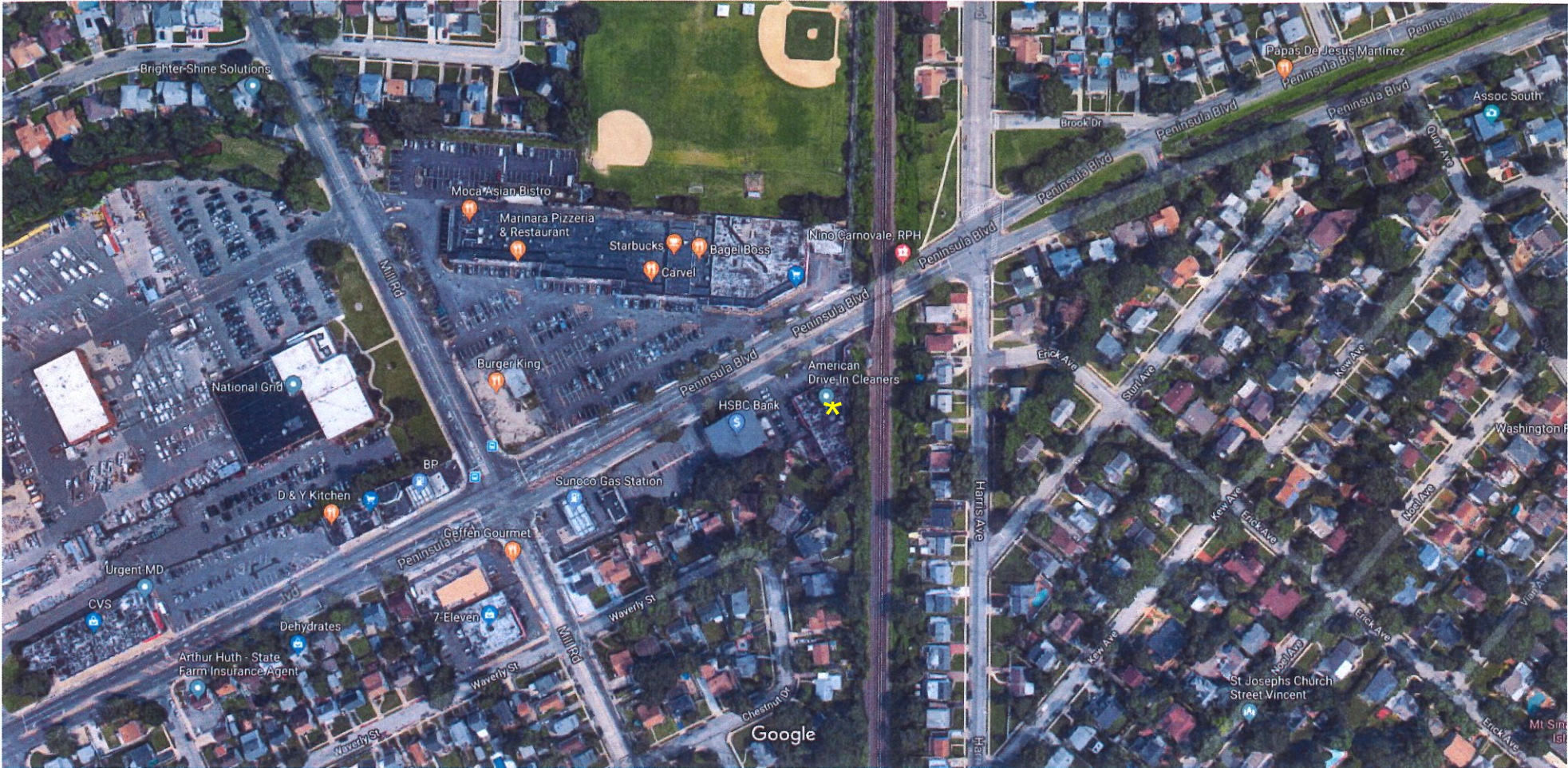
ie: LYNBROOK
Date: 10/3/103
Scale: 1 inch equals 2000 feet

Location: 040° 38' 48.6" N 073° 41' 36.2" W
Caption: American Drive In Cleaners
1345 Peninsula Blvd.
Hewlett, NY 11557

Copyright (C) 1997, Maptech, Inc.

Figure-2

Google Maps



Imagery ©2018 Google, Map data ©2018 Google 100 ft

Set a home address

Set a work address

Updated 3 min ago



Moderate traffic in this area
Typical conditions



Hewlett

83°

* site (yellow asterisk)

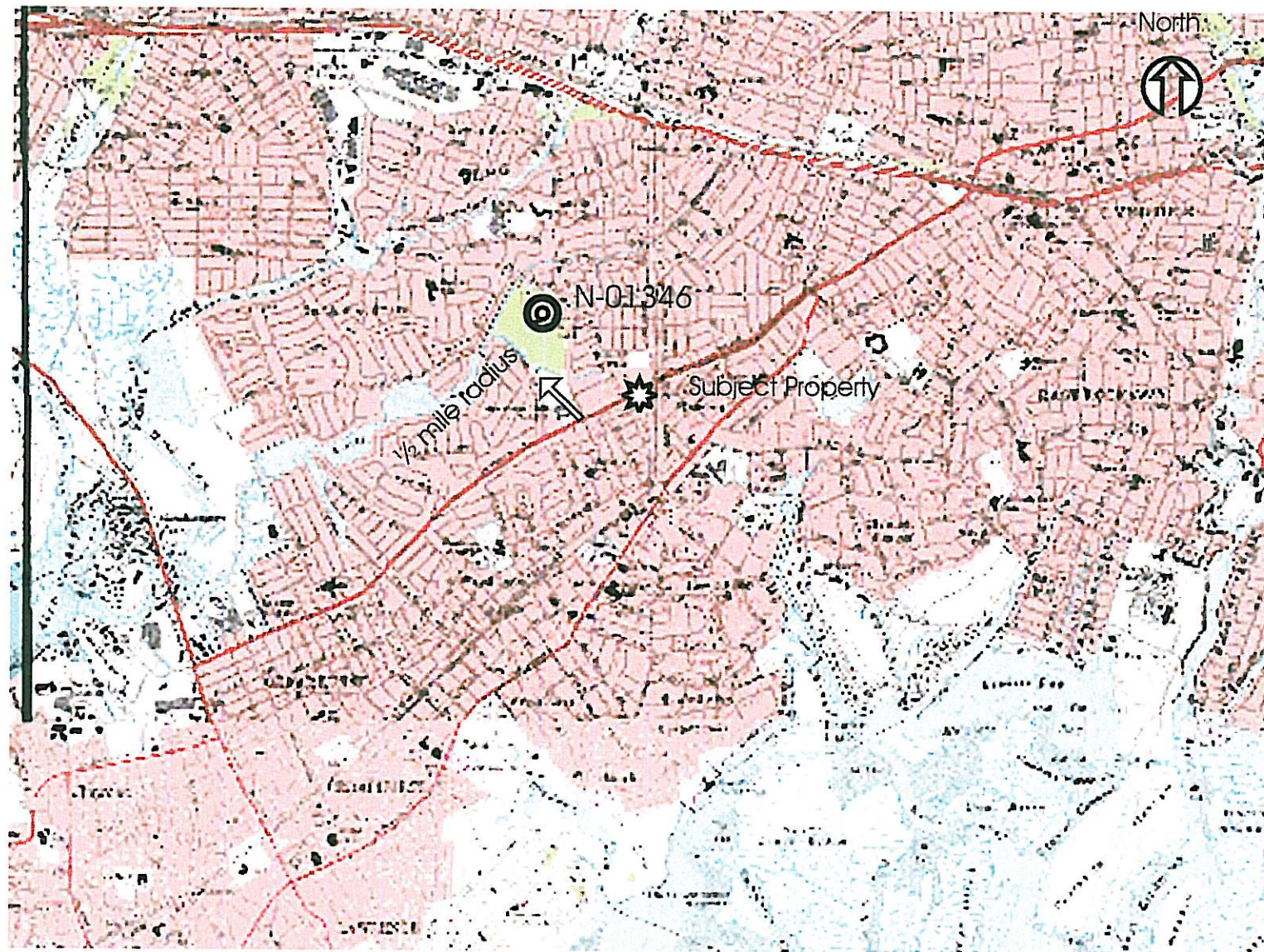


Figure 4 - Public Water Supply Well Location Map

1 inch = Approx. 3,200 feet

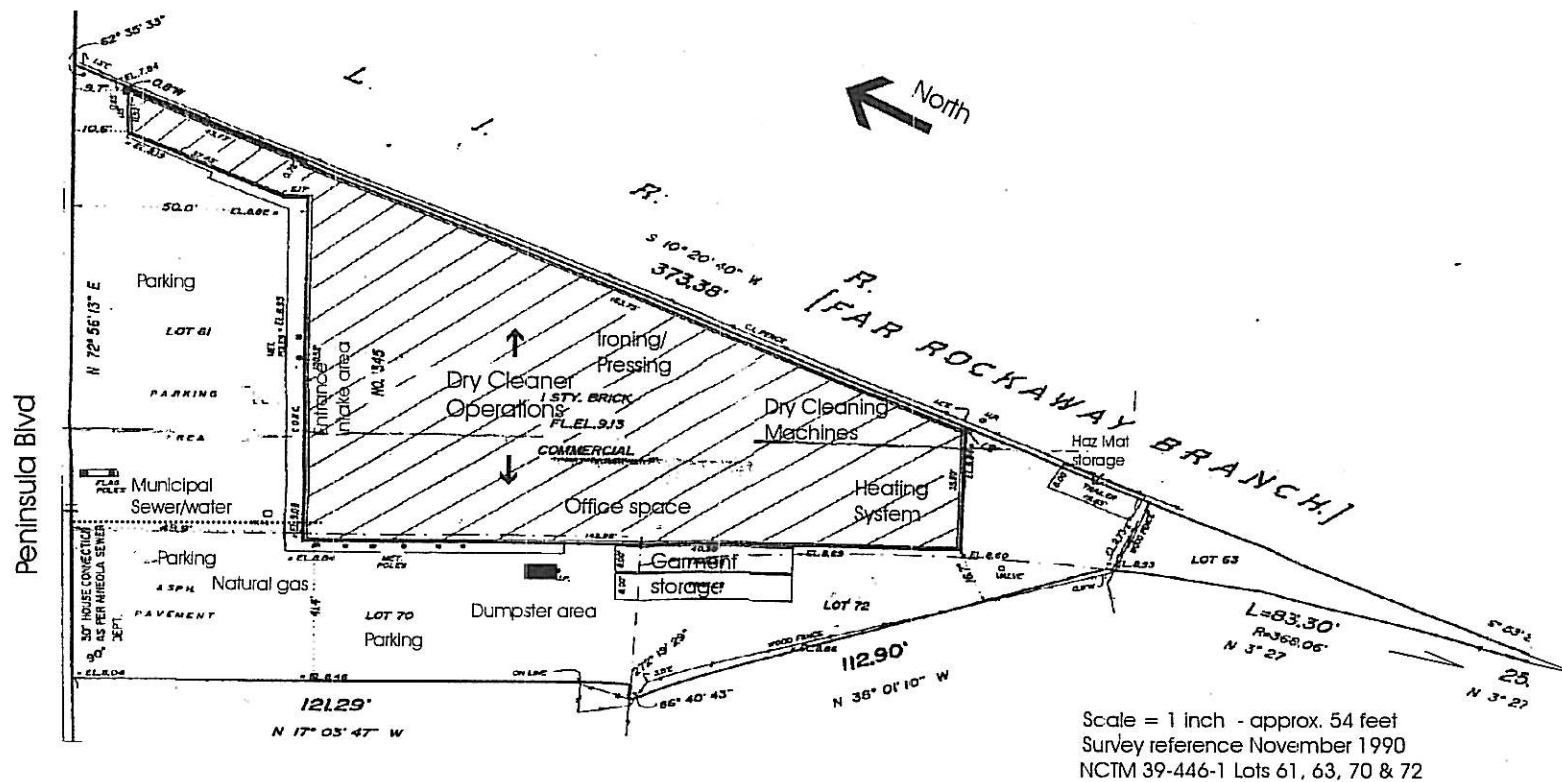


Figure 6 - Site Plan and Survey
 American Drive-In Cleaners of Hewlett, Inc.
 1345 Peninsula Boulevard, Hewlett, New York



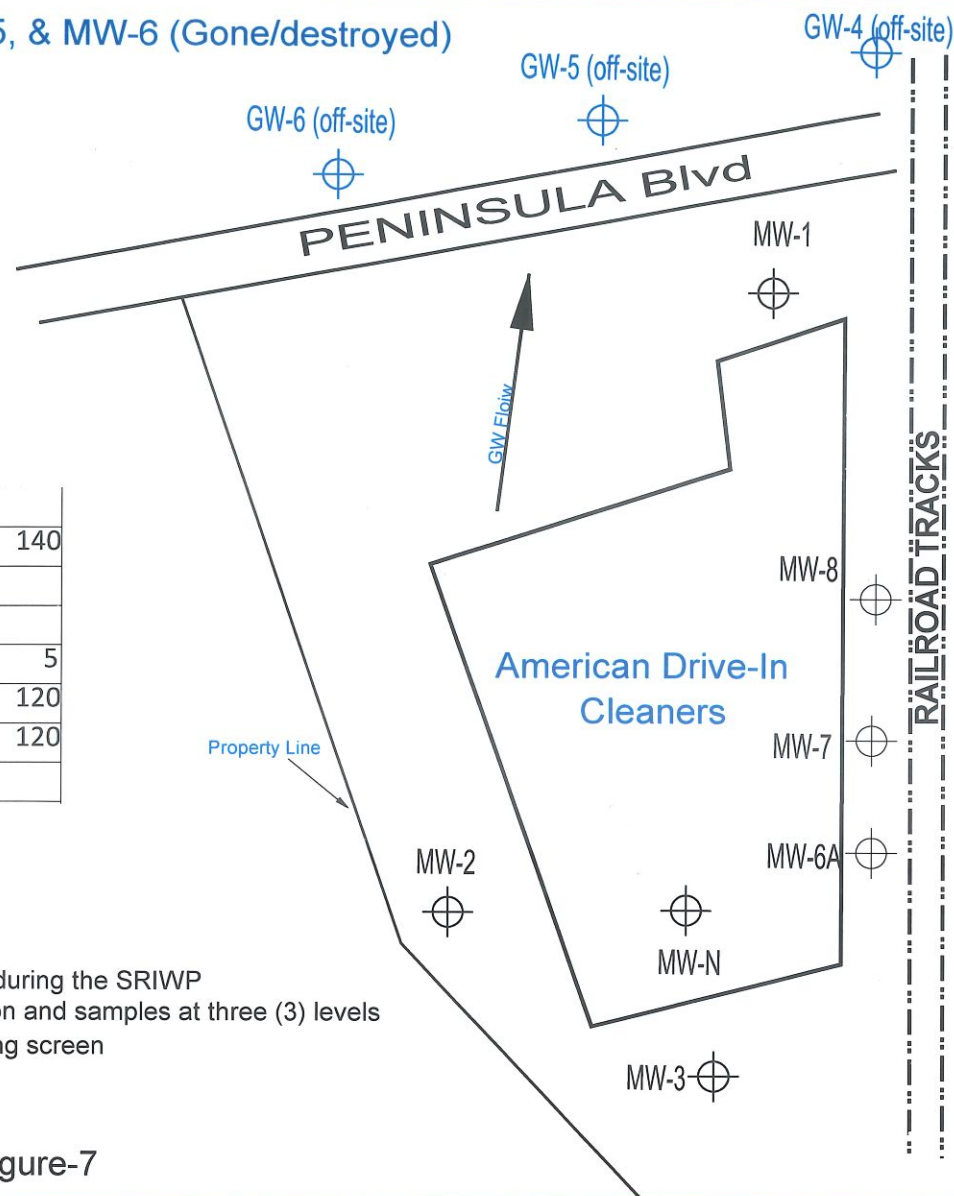
*Monitoring Wells MW-4, MW-5, & MW-6 (Gone/destroyed)

ID	Depth'	PCE	TCE	DCE	VC
GW-4	5-9'	150	100	350	n/d
	15-19'	J	1,300	35,000	24
	26-30'	J	n/d	60	n/d
GW-5	5-9'	33	46	260	n/d
	15-19'	47	1,700	10,000	12
	26-30'	9	300	570	9
GW-6	5-9'	n/d	n/d	7	n/d
	15-19'	n/d	12	110	n/d
	26-30'	n/d	n/d	n/d	n/d

ID	Depth'	PCE	TCE	DCE	VC
MW-1	surf~ 5'	32,000	9,900	14,000	140
MW-2	surf~ 5'	190	75	100	n/d
MW-3	surf~ 5'	110	31	18	n/d
MW-6A	surf~ 5'	5,200	1,400	2,600	5
MW-7	surf~ 5'	11,000	1,300	1,800	120
MW-8	surf~ 5'	270	110	5,625	120
MW-N	surf~ 5'	1,600	13	17	n/d

Note: Off-site wells MW-4, 5 and 6 were found to be covered by new sidewalk during the SRIWP
Temp groundwater borings will be performed at each former off-site MW location and samples at three (3) levels
: surface(5')-9'; 15'-19'; and 26' -30', utilizing a 4' - SP-15 stainless steel sampling screen

Figure-7



BEI Berninger Environmental
groundwater consultants, geologists and scientists
A WRS Environmental Services Company
Phone: 631 589 6521
17 Old Dock Road Yaphank, NY 11980

**AMERICAN DRIVE-IN CLEANERS
MONITORING WELLS**

DRAWN BY: WB

**AMERICAN DRIVE-IN CLEANERS
13454 PENINSULA BLVD.
HEWLETT, NEW YORK**

ID	Soil Vapor ug/m3	PCE	TCE
SV-1	4'	15	28
SV-2	4'	22	33
SV-3	4'	325	60
SV-4	4'	60	n/d
SV-5	4'	29	n/d
OA	10' above msl	108	n/d



Key:

⊕ Soil Gas Sampling Locations

1"=~85'

Google Earth

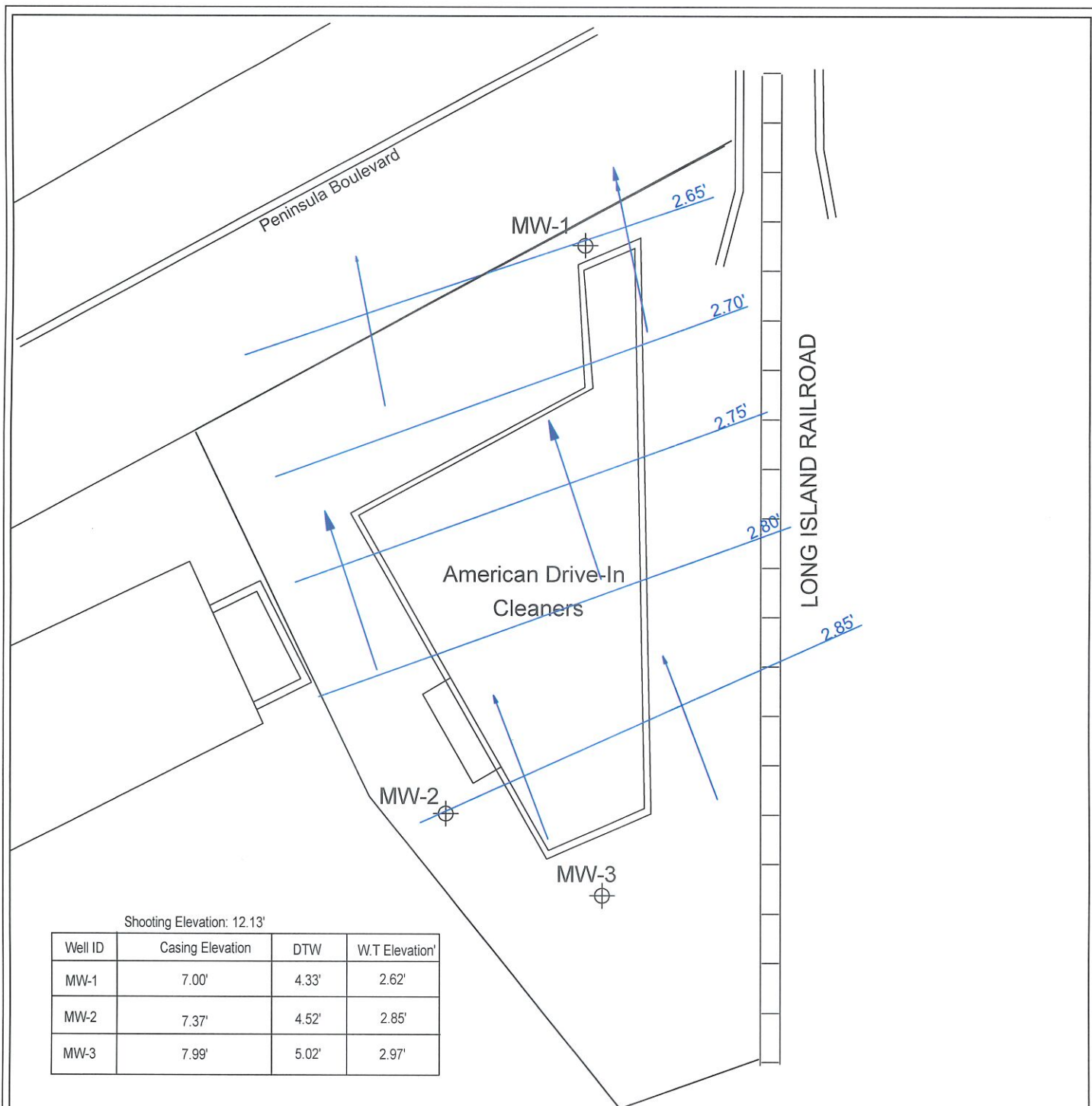
BEi Berninger Environmental
groundwater consultants, geologists and scientists
A WRS Environmental Services Company
Phone: 631 589 6521
17 Old Dock Road Yaphank, NY 11980

AMERICAN DRIVE-IN CLEANERS
13454 PENINSULA BLVD.
HEWLETT, NEW YORK

DRAWN BY: jgh

DATE Sept 2019 jgh

Figure-8
Soil Gas Sampling
Locations



Groundwater Flow
Direction
Figure-9

American Drive-In
1345 Peninsula Blvd.
Hewlett, NY

BEi Berninger
Environmental
groundwater consultants, geologists and scientists
A WRS Environmental Services Company
Phone: 631 589 6521
17 Old Dock Road Yaphank, NY 11980

TABLES

Table-1

Tabulated Monitoring Well Data

American Analytical Laboratories, LLC.

WorkOrder: 1908001

Client: WRS d.b.a Berninger Environmental

Project: American Drive-In Cleaners, 1345 Peninsula Blvd, Hewlett, NY

(19) TOGsGW Limits

Abbreviation:

NA = Not available, no value specified in TOGsGW Limits

		Client Sample ID: Laboratory ID: Sampling Date:	MW-1 1908001-001 07/31/2019	MW-2 1908001-002 07/31/2019	MW-3 1908001-003 07/31/2019	Limits
Cas #:	Procedure:	Analyte:	Units:	Q	Q	Q
630-20-6	VOLATILE SW-846 METHOD 8260	1,1,1,2-Tetrachloroethane	PPB	0.25 U	0.25 U	0.25 U
71-55-6	VOLATILE SW-846 METHOD 8260	1,1,1-Trichloroethane	PPB	0.25 U	0.25 U	0.25 U
79-34-5	VOLATILE SW-846 METHOD 8260	1,1,2,2-Tetrachloroethane	PPB	0.25 U	0.25 U	0.25 U
76-13-1	VOLATILE SW-846 METHOD 8260	1,1,2-Trichloro-1,2,2-trifluoroethane	PPB	0.25 U	0.25 U	0.25 U
79-00-5	VOLATILE SW-846 METHOD 8260	1,1,2-Trichloroethane	PPB	0.25 U	0.25 U	0.25 U
75-34-3	VOLATILE SW-846 METHOD 8260	1,1-Dichloroethane	PPB	0.25 U	0.25 U	0.25 U
75-35-4	VOLATILE SW-846 METHOD 8260	1,1-Dichloroethene	PPB	15	0.25 U	0.25 U
563-58-6	VOLATILE SW-846 METHOD 8260	1,1-Dichloropropene	PPB	0.25 U	0.25 U	0.25 U
87-61-6	VOLATILE SW-846 METHOD 8260	1,2,3-Trichlorobenzene	PPB	0.25 U	0.25 U	0.25 U
96-18-4	VOLATILE SW-846 METHOD 8260	1,2,3-Trichloropropane	PPB	0.25 U	0.25 U	0.25 U
95-93-2	VOLATILE SW-846 METHOD 8260	1,2,4,5-Tetramethylbenzene	PPB	0.25 U	0.25 U	0.25 U
120-82-1	VOLATILE SW-846 METHOD 8260	1,2,4-Trichlorobenzene	PPB	0.25 U	0.25 U	0.25 U
95-63-6	VOLATILE SW-846 METHOD 8260	1,2,4-Trimethylbenzene	PPB	3.6	0.25 U	0.25 U
96-12-8	VOLATILE SW-846 METHOD 8260	1,2-Dibromo-3-chloropropane	PPB	0.25 U	0.25 U	0.25 U
106-93-4	VOLATILE SW-846 METHOD 8260	1,2-Dibromoethane	PPB	0.25 U	0.25 U	0.25 U
95-50-1	VOLATILE SW-846 METHOD 8260	1,2-Dichlorobenzene	PPB	0.65 J	0.25 U	0.25 U
107-06-2	VOLATILE SW-846 METHOD 8260	1,2-Dichloroethane	PPB	0.25 U	0.25 U	0.25 U
78-87-5	VOLATILE SW-846 METHOD 8260	1,2-Dichloropropane	PPB	0.25 U	0.25 U	0.25 U
108-67-8	VOLATILE SW-846 METHOD 8260	1,3,5-Trimethylbenzene	PPB	0.25 U	0.25 U	0.25 U
541-73-1	VOLATILE SW-846 METHOD 8260	1,3-Dichlorobenzene	PPB	0.25 U	0.25 U	0.25 U
142-28-9	VOLATILE SW-846 METHOD 8260	1,3-dichloropropane	PPB	0.25 U	0.25 U	0.25 U
106-46-7	VOLATILE SW-846 METHOD 8260	1,4-Dichlorobenzene	PPB	0.25 U	0.25 U	0.25 U
123-91-1	VOLATILE SW-846 METHOD 8260	1,4-Dioxane	PPB	0.25 U	0.25 U	0.25 U
594-20-7	VOLATILE SW-846 METHOD 8260	2,2-Dichloropropane	PPB	0.25 U	0.25 U	0.25 U
78-93-3	VOLATILE SW-846 METHOD 8260	2-Butanone	PPB	0.50 U	0.50 U	0.50 U
110-75-8	VOLATILE SW-846 METHOD 8260	2-Chloroethyl vinyl ether	PPB	10 U	10 U	10 U
95-49-8	VOLATILE SW-846 METHOD 8260	2-Chlorotoluene	PPB	0.25 U	0.25 U	0.25 U
591-78-6	VOLATILE SW-846 METHOD 8260	2-Hexanone	PPB	0.50 U	0.50 U	0.50 U
67-63-0	VOLATILE SW-846 METHOD 8260	2-Propanol	PPB	0.25 U	0.25 U	0.25 U
106-43-4	VOLATILE SW-846 METHOD 8260	4-Chlorotoluene	PPB	0.25 U	0.25 U	0.25 U
99-87-6	VOLATILE SW-846 METHOD 8260	4-Isopropyltoluene	PPB	0.25 U	0.25 U	0.25 U
108-10-1	VOLATILE SW-846 METHOD 8260	4-Methyl-2-pentanone	PPB	0.50 U	0.50 U	0.50 U
67-64-1	VOLATILE SW-846 METHOD 8260	Acetone	PPB	19 B	39 B	25 B
71-43-2	VOLATILE SW-846 METHOD 8260	Benzene	PPB	0.25 U	0.25 U	0.25 U
108-86-1	VOLATILE SW-846 METHOD 8260	Bromobenzene	PPB	0.25 U	0.25 U	0.25 U
74-97-5	VOLATILE SW-846 METHOD 8260	Bromochloromethane	PPB	0.25 U	0.25 U	0.25 U
75-27-4	VOLATILE SW-846 METHOD 8260	Bromodichloromethane	PPB	0.25 U	0.25 U	0.25 U
75-25-2	VOLATILE SW-846 METHOD 8260	Bromoform	PPB	0.25 U	0.25 U	0.25 U
74-83-9	VOLATILE SW-846 METHOD 8260	Bromomethane	PPB	0.25 U	0.25 U	0.25 U
75-15-0	VOLATILE SW-846 METHOD 8260	Carbon disulfide	PPB	0.25 U	0.25 U	0.25 U
56-23-5	VOLATILE SW-846 METHOD 8260	Carbon tetrachloride	PPB	0.25 U	0.25 U	0.25 U
108-90-7	VOLATILE SW-846 METHOD 8260	Chlorobenzene	PPB	0.25 U	0.25 U	0.25 U
75-45-6	VOLATILE SW-846 METHOD 8260	Chlorodifluoromethane	PPB	0.25 U	0.25 U	0.25 U
75-00-3	VOLATILE SW-846 METHOD 8260	Chloroethane	PPB	0.25 U	0.25 U	0.25 U
67-66-3	VOLATILE SW-846 METHOD 8260	Chloroform	PPB	0.25 U	0.25 U	0.25 U
74-87-3	VOLATILE SW-846 METHOD 8260	Chloromethane	PPB	0.25 U	0.25 U	0.25 U
156-59-2	VOLATILE SW-846 METHOD 8260	cis-1,2-Dichloroethene	PPB	14000 D	100	18
10061-01-5	VOLATILE SW-846 METHOD 8260	cis-1,3-Dichloropropene	PPB	0.25 U	0.25 U	0.25 U
110-82-7	VOLATILE SW-846 METHOD 8260	Cyclohexane	PPB	0.25 U	0.25 U	0.25 U
124-48-1	VOLATILE SW-846 METHOD 8260	Dibromochloromethane	PPB	0.25 U	0.25 U	0.25 U
74-95-3	VOLATILE SW-846 METHOD 8260	Dibromomethane	PPB	0.25 U	0.25 U	0.25 U
75-71-8	VOLATILE SW-846 METHOD 8260	Dichlorodifluoromethane	PPB	0.25 U	0.25 U	0.25 U
108-20-3	VOLATILE SW-846 METHOD 8260	Diisopropyl ether	PPB	0.50 U	0.50 U	0.50 U
64-17-5	VOLATILE SW-846 METHOD 8260	Ethanol	PPB	2.5 U	2.5 U	2.5 U
100-41-4	VOLATILE SW-846 METHOD 8260	Ethylbenzene	PPB	0.76 J	0.25 U	0.25 U
76-14-2	VOLATILE SW-846 METHOD 8260	Freon-114	PPB	0.25 U	0.25 U	0.25 U
87-68-3	VOLATILE SW-846 METHOD 8260	Hexachlorobutadiene	PPB	0.25 U	0.25 U	0.25 U
98-82-8	VOLATILE SW-846 METHOD 8260	Isopropylbenzene	PPB	24	0.25 U	0.25 U
179601-23-1	VOLATILE SW-846 METHOD 8260	m,p-Xylene	PPB	0.67 J	0.50 U	0.50 U
79-20-9	VOLATILE SW-846 METHOD 8260	Methyl Acetate	PPB	0.25 U	0.25 U	0.25 U
1634-04-4	VOLATILE SW-846 METHOD 8260	Methyl tert-butyl ether	PPB	0.25 U	0.25 U	0.25 U
75-09-2	VOLATILE SW-846 METHOD 8260	Methylene chloride	PPB	2.4 B	2.8 B	2.9 B
104-51-8	VOLATILE SW-846 METHOD 8260	n-Butylbenzene	PPB	0.25 U	0.25 U	0.25 U
103-65-1	VOLATILE SW-846 METHOD 8260	n-Propylbenzene	PPB	2.7	0.25 U	0.25 U
91-20-3	VOLATILE SW-846 METHOD 8260	Naphthalene	PPB	0.25 U	0.25 U	0.25 U
95-47-6	VOLATILE SW-846 METHOD 8260	o-Xylene	PPB	1.1 J	0.25 U	0.25 U
105-05-5	VOLATILE SW-846 METHOD 8260	p-Diethylbenzene	PPB	0.25 U	0.25 U	0.25 U
622-96-8	VOLATILE SW-846 METHOD 8260	p-Ethyltoluene	PPB	4.4	0.25 U	0.25 U
135-98-8	VOLATILE SW-846 METHOD 8260	sec-Butylbenzene	PPB	0.25 U	0.25 U	0.25 U
100-42-5	VOLATILE SW-846 METHOD 8260	Styrene	PPB	0.25 U	0.25 U	0.25 U
75-65-0	VOLATILE SW-846 METHOD 8260	t-Butyl alcohol	PPB	2.5 U	2.5 U	2.5 U
98-06-6	VOLATILE SW-846 METHOD 8260	tert-Butylbenzene	PPB	1.0 J	0.25 U	0.25 U
127-18-4	VOLATILE SW-846 METHOD 8260	Tetrachloroethene	PPB	32000 D	190	110
108-88-3	VOLATILE SW-846 METHOD 8260	Toluene	PPB	0.49 J	0.25 U	0.26 B
156-60-5	VOLATILE SW-846 METHOD 8260	trans-1,2-Dichloroethene	PPB	120	0.85 J	1.1 J
10061-02-6	VOLATILE SW-846 METHOD 8260	trans-1,3-Dichloropropene	PPB	0.25 U	0.25 U	0.25 U
79-01-6	VOLATILE SW-846 METHOD 8260	Trichloroethene	PPB	9900 D	75	31
75-69-4	VOLATILE SW-846 METHOD 8260	Trichlorofluoromethane	PPB	0.25 U	0.25 U	0.25 U
108-05-4	VOLATILE SW-846 METHOD 8260	Vinyl acetate	PPB	0.25 U	0.25 U	0.25 U
75-01-4	VOLATILE SW-846 METHOD 8260	Vinyl chloride	PPB	140	0.25 U	0.25 U
108-87-2	VOLATILE SW-846 METHOD 8260	Methylcyclohexane	PPB	0.25 U	0.25 U	0.25 U
107-02-8	VOLATILE SW-846 METHOD 8260	Acrolein	PPB	1.0 U	1.0 U	1.0 U
107-13-1	VOLATILE SW-846 METHOD 8260	Acrylonitrile	PPB	0.25 U	0.25 U	0.25 U
1330-20-7	VOLATILE SW-846 METHOD 8260	Xylenes, Total	PPB	1.8 J	0.75 U	0.75 U

Table-2

Tabulated Off-site Groundwater Data

American Analytical Laboratories, LLC.
WorkOrder: 1908134
Client: WRS d.b.a Berninger Environmental
Project: American Drive-In Cleaners, 1345 Peninsula Blvd, Hewlett, NY

Abbreviation:
NA = Not available, no value specified in TOGs/GW Limits

		Client Sample ID: Laboratory ID: Sampling Date:	GW-4 @ 5-9' 1908134-001 08/15/2019	GW-4 @ 15-19' 1908134-002 08/15/2019	GW-4 @ 26-30' 1908134-003 08/15/2019	TOGs Groundwater Limits
Cas #:	Procedure:	Analyte:	Units:	Q	Q	Q
630-20-6	VOLATILE SW-846 METHOD 8260	1,1,1,2-Tetrachloroethane	PPB	0.25 U	0.25 U	0.25 U
71-55-6	VOLATILE SW-846 METHOD 8260	1,1,1-Trichloroethane	PPB	0.25 U	0.25 U	0.25 U
79-34-5	VOLATILE SW-846 METHOD 8260	1,1,2,2-Tetrachloroethane	PPB	0.25 U	0.25 U	0.25 U
76-13-1	VOLATILE SW-846 METHOD 8260	1,1,2-Trichloro-1,2,2-trifluoroethane	PPB	0.25 U	0.25 U	0.25 U
79-00-5	VOLATILE SW-846 METHOD 8260	1,1,2-Trichloroethane	PPB	0.25 U	0.25 U	0.25 U
75-34-3	VOLATILE SW-846 METHOD 8260	1,1-Dichloroethane	PPB	0.25 U	0.25 U	0.25 U
75-35-4	VOLATILE SW-846 METHOD 8260	1,1-Dichloroethene	PPB	2.1	99	0.25 U
563-58-6	VOLATILE SW-846 METHOD 8260	1,1-Dichloropropene	PPB	0.25 U	0.25 U	0.25 U
87-61-6	VOLATILE SW-846 METHOD 8260	1,2,3-Trichlorobenzene	PPB	0.25 U	0.25 U	0.25 U
96-18-4	VOLATILE SW-846 METHOD 8260	1,2,3-Trichloropropane	PPB	0.25 U	0.25 U	0.25 U
95-93-2	VOLATILE SW-846 METHOD 8260	1,2,4,5-Tetramethylbenzene	PPB	0.25 U	0.25 U	0.25 U
120-82-1	VOLATILE SW-846 METHOD 8260	1,2,4-Trichlorobenzene	PPB	0.25 U	0.25 U	0.25 U
95-63-6	VOLATILE SW-846 METHOD 8260	1,2,4-Trimethylbenzene	PPB	0.25 U	0.25 U	0.25 U
96-12-8	VOLATILE SW-846 METHOD 8260	1,2-Dibromo-3-chloropropane	PPB	0.25 U	0.25 U	0.25 U
106-93-4	VOLATILE SW-846 METHOD 8260	1,2-Dibromoethane	PPB	0.25 U	0.25 U	0.25 U
95-50-1	VOLATILE SW-846 METHOD 8260	1,2-Dichlorobenzene	PPB	0.25 U	0.25 U	0.25 U
107-06-2	VOLATILE SW-846 METHOD 8260	1,2-Dichloroethane	PPB	0.25 U	0.25 U	0.25 U
78-87-5	VOLATILE SW-846 METHOD 8260	1,2-Dichloropropane	PPB	0.25 U	0.25 U	0.25 U
108-67-8	VOLATILE SW-846 METHOD 8260	1,3,5-Trimethylbenzene	PPB	0.25 U	0.25 U	0.25 U
541-73-1	VOLATILE SW-846 METHOD 8260	1,3-Dichlorobenzene	PPB	0.25 U	0.25 U	0.25 U
142-28-9	VOLATILE SW-846 METHOD 8260	1,3-dichloropropane	PPB	0.25 U	0.25 U	0.25 U
106-46-7	VOLATILE SW-846 METHOD 8260	1,4-Dichlorobenzene	PPB	0.25 U	0.25 U	0.25 U
123-91-1	VOLATILE SW-846 METHOD 8260	1,4-Dioxane	PPB	0.25 U	0.25 U	0.25 U
594-20-7	VOLATILE SW-846 METHOD 8260	2,2-Dichloropropane	PPB	0.25 U	0.25 U	0.25 U
78-93-3	VOLATILE SW-846 METHOD 8260	2-Butanone	PPB	0.50 U	0.50 U	0.50 U
110-75-8	VOLATILE SW-846 METHOD 8260	2-Chloroethyl vinyl ether	PPB	10 U	10 U	10 U
95-49-8	VOLATILE SW-846 METHOD 8260	2-Chlorotoluene	PPB	0.25 U	0.25 U	0.25 U
591-78-6	VOLATILE SW-846 METHOD 8260	2-Hexanone	PPB	0.50 U	0.50 U	0.50 U
67-63-0	VOLATILE SW-846 METHOD 8260	2-Propanol	PPB	0.25 U	0.25 U	0.25 U
106-43-4	VOLATILE SW-846 METHOD 8260	4-Chlorotoluene	PPB	0.25 U	0.25 U	0.25 U
99-87-6	VOLATILE SW-846 METHOD 8260	4-Isopropyltoluene	PPB	0.25 U	0.25 U	0.25 U
108-10-1	VOLATILE SW-846 METHOD 8260	4-Methyl-2-pentanone	PPB	0.50 U	0.50 U	0.50 U
67-64-1	VOLATILE SW-846 METHOD 8260	Acetone	PPB	17 B	13 B	11 B
71-43-2	VOLATILE SW-846 METHOD 8260	Benzene	PPB	0.25 U	0.25 U	0.25 U
108-86-1	VOLATILE SW-846 METHOD 8260	Bromobenzene	PPB	0.25 U	0.25 U	0.25 U
74-97-5	VOLATILE SW-846 METHOD 8260	Bromochloromethane	PPB	0.25 U	0.25 U	0.25 U
75-27-4	VOLATILE SW-846 METHOD 8260	Bromodichloromethane	PPB	0.25 U	0.25 U	0.25 U
75-25-2	VOLATILE SW-846 METHOD 8260	Bromoform	PPB	0.25 U	0.25 U	0.25 U
74-83-9	VOLATILE SW-846 METHOD 8260	Bromomethane	PPB	0.25 U	0.25 U	0.25 U
75-15-0	VOLATILE SW-846 METHOD 8260	Carbon disulfide	PPB	0.25 U	0.25 U	0.25 U
56-23-5	VOLATILE SW-846 METHOD 8260	Carbon tetrachloride	PPB	0.25 U	0.25 U	0.25 U
108-90-7	VOLATILE SW-846 METHOD 8260	Chlorobenzene	PPB	0.25 U	0.25 U	0.25 U
75-45-6	VOLATILE SW-846 METHOD 8260	Chlorodifluoromethane	PPB	0.25 U	0.25 U	0.25 U
75-00-3	VOLATILE SW-846 METHOD 8260	Chloroethane	PPB	0.25 U	0.25 U	0.25 U
67-66-3	VOLATILE SW-846 METHOD 8260	Chloroform	PPB	0.25 U	0.25 U	0.25 U
74-87-3	VOLATILE SW-846 METHOD 8260	Chloromethane	PPB	0.25 U	0.25 U	0.25 U
156-59-2	VOLATILE SW-846 METHOD 8260	cis-1,2-Dichloroethene	PPB	330 D	35000 D	59
10061-01-5	VOLATILE SW-846 METHOD 8260	cis-1,3-Dichloropropene	PPB	0.25 U	0.25 U	0.25 U
110-82-7	VOLATILE SW-846 METHOD 8260	Cyclohexane	PPB	0.25 U	0.25 U	0.25 U
124-48-1	VOLATILE SW-846 METHOD 8260	Dibromochloromethane	PPB	0.25 U	0.25 U	0.25 U
74-95-3	VOLATILE SW-846 METHOD 8260	Dibromomethane	PPB	0.25 U	0.25 U	0.25 U
75-71-8	VOLATILE SW-846 METHOD 8260	Dichlorodifluoromethane	PPB	0.25 U	0.25 U	0.25 U
108-20-3	VOLATILE SW-846 METHOD 8260	Diisopropyl ether	PPB	0.50 U	0.50 U	0.50 U
64-17-5	VOLATILE SW-846 METHOD 8260	Ethanol	PPB	2.5 U	2.5 U	2.5 U
100-41-4	VOLATILE SW-846 METHOD 8260	Ethylbenzene	PPB	0.25 U	0.25 U	0.25 U
76-14-2	VOLATILE SW-846 METHOD 8260	Freon-114	PPB	0.25 U	0.25 U	0.25 U
87-68-3	VOLATILE SW-846 METHOD 8260	Hexachlorobutadiene	PPB	0.25 U	0.25 U	0.25 U
98-82-8	VOLATILE SW-846 METHOD 8260	Isopropylbenzene	PPB	0.25 U	0.25 U	0.25 U
179601-23-1	VOLATILE SW-846 METHOD 8260	m,p-Xylene	PPB	0.50 U	0.50 U	0.50 U
79-20-9	VOLATILE SW-846 METHOD 8260	Methyl Acetate	PPB	0.25 U	0.25 U	0.25 U
1634-04-4	VOLATILE SW-846 METHOD 8260	Methyl tert-butyl ether	PPB	0.25 U	0.54 J	0.25 U
75-09-2	VOLATILE SW-846 METHOD 8260	Methylene chloride	PPB	6.4 B	6.2 B	6.3 B
104-51-8	VOLATILE SW-846 METHOD 8260	n-Butylbenzene	PPB	0.25 U	0.25 U	0.25 U
103-65-1	VOLATILE SW-846 METHOD 8260	n-Propylbenzene	PPB	0.25 U	0.25 U	0.25 U
91-20-3	VOLATILE SW-846 METHOD 8260	Naphthalene	PPB	0.25 U	0.25 U	0.25 U
95-47-6	VOLATILE SW-846 METHOD 8260	o-Xylene	PPB	0.25 U	0.25 U	0.25 U
105-05-5	VOLATILE SW-846 METHOD 8260	p-Diethylbenzene	PPB	0.25 U	0.25 U	0.25 U
622-96-8	VOLATILE SW-846 METHOD 8260	p-Ethyltoluene	PPB	0.25 U	0.25 U	0.25 U
135-98-8	VOLATILE SW-846 METHOD 8260	sec-Butylbenzene	PPB	0.25 U	0.25 U	0.25 U
100-42-5	VOLATILE SW-846 METHOD 8260	Styrene	PPB	0.25 U	0.25 U	0.25 U
75-65-0	VOLATILE SW-846 METHOD 8260	t-Butyl alcohol	PPB	2.5 U	2.5 U	2.5 U
98-06-6	VOLATILE SW-846 METHOD 8260	tert-Butylbenzene	PPB	0.25 U	0.25 U	0.25 U
127-18-4	VOLATILE SW-846 METHOD 8260	Tetrachloroethene	PPB	150 D	0.78 J	0.79 J
108-88-3	VOLATILE SW-846 METHOD 8260	Toluene	PPB	0.25 U	0.68 J	0.25 U
156-60-5	VOLATILE SW-846 METHOD 8260	trans-1,2-Dichloroethene	PPB	6.7	190	0.49 J
10061-02-6	VOLATILE SW-846 METHOD 8260	trans-1,3-Dichloropropene	PPB	0.25 U	0.25 U	0.25 U
79-01-6	VOLATILE SW-846 METHOD 8260	Trichloroethene	PPB	100	1300 D	0.25 U
75-69-4	VOLATILE SW-846 METHOD 8260	Trichlorofluoromethane	PPB	0.25 U	0.25 U	0.25 U
108-05-4	VOLATILE SW-846 METHOD 8260	Vinyl acetate	PPB	0.25 U	0.25 U	0.25 U
75-01-4	VOLATILE SW-846 METHOD 8260	Vinyl chloride	PPB	0.25 U	24	0.25 U
1330-20-7	VOLATILE SW-846 METHOD 8260	Xylenes, Total	PPB	0.75 U	0.75 U	0.75 U
108-87-2	VOLATILE SW-846 METHOD 8260	Methylcyclohexane	PPB	0.25 U	0.25 U	0.25 U
107-02-8	VOLATILE SW-846 METHOD 8260	Acrolein	PPB	1.0 U	1.0 U	1.0 U
107-13-1	VOLATILE SW-846 METHOD 8260	Acrylonitrile	PPB	0.25 U	0.25 U	0.25 U

		Client Sample ID: Laboratory ID: Sampling Date:	GW-5 @ 5-9' 1908134-004 08/15/2019	GW-5 @ 15-19" 1908134-005 08/15/2019	GW-5 @ 26-30' 1908134-006 08/15/2019	TOGs Groundwater Limits
Cas #:	Procedure:	Analyte:	Units:	Q	Q	Q
630-20-6	VOLATILE SW-846 METHOD 8260	1,1,1,2-Tetrachloroethane	PPB	0.25 U	0.25 U	0.25 U
71-55-6	VOLATILE SW-846 METHOD 8260	1,1,1-Trichloroethane	PPB	0.25 U	0.25 U	0.25 U
79-34-5	VOLATILE SW-846 METHOD 8260	1,1,2,2-Tetrachloroethane	PPB	0.25 U	0.25 U	0.25 U
76-13-1	VOLATILE SW-846 METHOD 8260	1,1,2-Trichloro-1,2,2-trifluoroethane	PPB	0.25 U	0.25 U	0.25 U
79-00-5	VOLATILE SW-846 METHOD 8260	1,1,2-Trichloroethane	PPB	0.25 U	0.25 U	0.25 U
75-34-3	VOLATILE SW-846 METHOD 8260	1,1-Dichloroethane	PPB	0.25 U	0.25 U	0.25 U
75-35-4	VOLATILE SW-846 METHOD 8260	1,1-Dichloroethene	PPB	0.25 U	30	12
563-58-6	VOLATILE SW-846 METHOD 8260	1,1-Dichloropropene	PPB	0.25 U	0.25 U	0.25 U
87-61-6	VOLATILE SW-846 METHOD 8260	1,2,3-Trichlorobenzene	PPB	0.25 U	0.25 U	0.25 U
96-18-4	VOLATILE SW-846 METHOD 8260	1,2,3-Trichloropropane	PPB	0.25 U	0.25 U	0.25 U
95-93-2	VOLATILE SW-846 METHOD 8260	1,2,4,5-Tetramethylbenzene	PPB	0.25 U	0.25 U	0.25 U
120-82-1	VOLATILE SW-846 METHOD 8260	1,2,4-Trichlorobenzene	PPB	0.25 U	0.25 U	0.25 U
95-63-6	VOLATILE SW-846 METHOD 8260	1,2,4-Trimethylbenzene	PPB	0.25 U	0.25 U	0.25 U
96-12-8	VOLATILE SW-846 METHOD 8260	1,2-Dibromo-3-chloropropane	PPB	0.25 U	0.25 U	0.25 U
106-93-4	VOLATILE SW-846 METHOD 8260	1,2-Dibromoethane	PPB	0.25 U	0.25 U	0.25 U
95-50-1	VOLATILE SW-846 METHOD 8260	1,2-Dichlorobenzene	PPB	0.25 U	0.25 U	0.25 U
107-06-2	VOLATILE SW-846 METHOD 8260	1,2-Dichloroethane	PPB	0.25 U	0.25 U	0.25 U
78-87-5	VOLATILE SW-846 METHOD 8260	1,2-Dichloropropane	PPB	0.25 U	0.25 U	0.25 U
108-67-8	VOLATILE SW-846 METHOD 8260	1,3,5-Trimethylbenzene	PPB	0.25 U	0.25 U	0.25 U
541-73-1	VOLATILE SW-846 METHOD 8260	1,3-Dichlorobenzene	PPB	0.25 U	0.25 U	0.25 U
142-28-9	VOLATILE SW-846 METHOD 8260	1,3-dichloropropane	PPB	0.25 U	0.25 U	0.25 U
106-46-7	VOLATILE SW-846 METHOD 8260	1,4-Dichlorobenzene	PPB	0.25 U	0.25 U	0.25 U
123-91-1	VOLATILE SW-846 METHOD 8260	1,4-Dioxane	PPB	0.25 U	0.25 U	0.25 U
594-20-7	VOLATILE SW-846 METHOD 8260	2,2-Dichloropropane	PPB	0.25 U	0.25 U	0.25 U
78-93-3	VOLATILE SW-846 METHOD 8260	2-Butanone	PPB	0.50 U	0.50 U	0.50 U
110-75-8	VOLATILE SW-846 METHOD 8260	2-Chloroethyl vinyl ether	PPB	10 U	10 U	10 U
95-49-8	VOLATILE SW-846 METHOD 8260	2-Chlorotoluene	PPB	0.25 U	0.25 U	0.25 U
591-78-6	VOLATILE SW-846 METHOD 8260	2-Hexanone	PPB	0.50 U	0.50 U	0.50 U
67-63-0	VOLATILE SW-846 METHOD 8260	2-Propanol	PPB	0.25 U	0.25 U	0.25 U
106-43-4	VOLATILE SW-846 METHOD 8260	4-Chlorotoluene	PPB	0.25 U	0.25 U	0.25 U
99-87-6	VOLATILE SW-846 METHOD 8260	4-Isopropyltoluene	PPB	0.25 U	0.25 U	0.25 U
108-10-1	VOLATILE SW-846 METHOD 8260	4-Methyl-2-pentanone	PPB	0.50 U	0.50 U	0.50 U
67-64-1	VOLATILE SW-846 METHOD 8260	Acetone	PPB	19 B	13 B	30 B
71-43-2	VOLATILE SW-846 METHOD 8260	Benzene	PPB	0.25 U	0.25 U	0.25 U
108-86-1	VOLATILE SW-846 METHOD 8260	Bromobenzene	PPB	0.25 U	0.25 U	0.25 U
74-97-5	VOLATILE SW-846 METHOD 8260	Bromochloromethane	PPB	0.25 U	0.25 U	0.25 U
75-27-4	VOLATILE SW-846 METHOD 8260	Bromodichloromethane	PPB	0.25 U	0.25 U	0.25 U
75-25-2	VOLATILE SW-846 METHOD 8260	Bromoform	PPB	0.25 U	0.25 U	0.25 U
74-83-9	VOLATILE SW-846 METHOD 8260	Bromomethane	PPB	0.25 U	0.25 U	0.25 U
75-15-0	VOLATILE SW-846 METHOD 8260	Carbon disulfide	PPB	0.25 U	0.25 U	0.25 U
56-23-5	VOLATILE SW-846 METHOD 8260	Carbon tetrachloride	PPB	0.25 U	0.25 U	0.25 U
108-90-7	VOLATILE SW-846 METHOD 8260	Chlorobenzene	PPB	0.25 U	0.25 U	0.25 U
75-45-6	VOLATILE SW-846 METHOD 8260	Chlorodifluoromethane	PPB	0.25 U	0.25 U	0.25 U
75-00-3	VOLATILE SW-846 METHOD 8260	Chloroethane	PPB	0.25 U	0.25 U	0.25 U
67-66-3	VOLATILE SW-846 METHOD 8260	Chloroform	PPB	0.25 U	0.25 U	0.25 U
74-87-3	VOLATILE SW-846 METHOD 8260	Chloromethane	PPB	0.25 U	0.25 U	0.25 U
156-59-2	VOLATILE SW-846 METHOD 8260	cis-1,2-Dichloroethene	PPB	260 D	10000 D	570 D
10061-01-5	VOLATILE SW-846 METHOD 8260	cis-1,3-Dichloropropene	PPB	0.25 U	0.25 U	0.25 U
110-82-7	VOLATILE SW-846 METHOD 8260	Cyclohexane	PPB	0.25 U	0.25 U	0.25 U
124-48-1	VOLATILE SW-846 METHOD 8260	Dibromochloromethane	PPB	0.25 U	0.25 U	0.25 U
74-95-3	VOLATILE SW-846 METHOD 8260	Dibromomethane	PPB	0.25 U	0.25 U	0.25 U
75-71-8	VOLATILE SW-846 METHOD 8260	Dichlorodifluoromethane	PPB	0.25 U	0.25 U	0.25 U
108-20-3	VOLATILE SW-846 METHOD 8260	Diisopropyl ether	PPB	0.50 U	0.50 U	0.50 U
64-17-5	VOLATILE SW-846 METHOD 8260	Ethanol	PPB	2.5 U	2.5 U	2.5 U
100-41-4	VOLATILE SW-846 METHOD 8260	Ethylbenzene	PPB	0.25 U	0.25 U	0.25 U
76-14-2	VOLATILE SW-846 METHOD 8260	Freon-114	PPB	0.25 U	0.25 U	0.25 U
87-68-3	VOLATILE SW-846 METHOD 8260	Hexachlorobutadiene	PPB	0.25 U	0.25 U	0.25 U
98-82-8	VOLATILE SW-846 METHOD 8260	Isopropylbenzene	PPB	0.25 U	0.25 U	0.25 U
179601-23-1	VOLATILE SW-846 METHOD 8260	m,p-Xylene	PPB	0.50 U	0.50 U	0.50 U
79-20-9	VOLATILE SW-846 METHOD 8260	Methyl Acetate	PPB	0.25 U	0.25 U	0.25 U
1634-04-4	VOLATILE SW-846 METHOD 8260	Methyl tert-butyl ether	PPB	0.25 U	0.27 J	0.25 U
75-09-2	VOLATILE SW-846 METHOD 8260	Methylene chloride	PPB	6.2 B	5.2 B	5.5 B
104-51-8	VOLATILE SW-846 METHOD 8260	n-Butylbenzene	PPB	0.25 U	0.25 U	0.25 U
103-65-1	VOLATILE SW-846 METHOD 8260	n-Propylbenzene	PPB	0.25 U	0.25 U	0.25 U
91-20-3	VOLATILE SW-846 METHOD 8260	Naphthalene	PPB	0.25 U	0.25 U	0.25 U
95-47-6	VOLATILE SW-846 METHOD 8260	o-Xylene	PPB	0.25 U	0.25 U	0.25 U
105-05-5	VOLATILE SW-846 METHOD 8260	p-Diethylbenzene	PPB	0.25 U	0.25 U	0.25 U
622-96-8	VOLATILE SW-846 METHOD 8260	p-Ethyltoluene	PPB	0.25 U	0.25 U	0.25 U
135-98-8	VOLATILE SW-846 METHOD 8260	sec-Butylbenzene	PPB	0.25 U	0.25 U	0.25 U
100-42-5	VOLATILE SW-846 METHOD 8260	Styrene	PPB	0.25 U	0.25 U	0.25 U
75-65-0	VOLATILE SW-846 METHOD 8260	t-Butyl alcohol	PPB	2.5 U	2.5 U	2.5 U
98-06-6	VOLATILE SW-846 METHOD 8260	tert-Butylbenzene	PPB	0.25 U	0.25 U	0.25 U
127-18-4	VOLATILE SW-846 METHOD 8260	Tetrachloroethene	PPB	33	47	9.6
108-88-3	VOLATILE SW-846 METHOD 8260	Toluene	PPB	0.25 U	0.28 J	0.25 U
156-60-5	VOLATILE SW-846 METHOD 8260	trans-1,2-Dichloroethene	PPB	1.5 J	63	2.7
10061-02-6	VOLATILE SW-846 METHOD 8260	trans-1,3-Dichloropropene	PPB	0.25 U	0.25 U	0.25 U
79-01-6	VOLATILE SW-846 METHOD 8260	Trichloroethene	PPB	46	1700 D	300
75-69-4	VOLATILE SW-846 METHOD 8260	Trichlorofluoromethane	PPB	0.25 U	0.25 U	0.25 U
108-05-4	VOLATILE SW-846 METHOD 8260	Vinyl acetate	PPB	0.25 U	0.25 U	0.25 U
75-01-4	VOLATILE SW-846 METHOD 8260	Vinyl chloride	PPB	0.25 U	12	8.9
1330-20-7	VOLATILE SW-846 METHOD 8260	Xylenes, Total	PPB	0.75 U	0.75 U	0.75 U
108-87-2	VOLATILE SW-846 METHOD 8260	Methylcyclohexane	PPB	0.25 U	0.25 U	0.25 U
107-02-8	VOLATILE SW-846 METHOD 8260	Acrolein	PPB	1.0 U	1.0 U	1.0 U
107-13-1	VOLATILE SW-846 METHOD 8260	Acrylonitrile	PPB	0.25 U	0.25 U	0.25 U

		Client Sample ID: Laboratory ID: Sampling Date:		GW-6 @ 5-9' 1908134-007 08/15/2019	GW-6 @ 15-19' 1908134-008 08/15/2019	GW-6 @ 26-30' 1908134-009 08/15/2019	TOGs Groundwater Limits
Cas #:	Procedure:	Analyte:	Units:	Q	Q	Q	
630-20-6	VOLATILE SW-846 METHOD 8260	1,1,1,2-Tetrachloroethane	PPB	0.25 U	0.25 U	0.25 U	5
71-55-6	VOLATILE SW-846 METHOD 8260	1,1,1-Trichloroethane	PPB	0.25 U	0.25 U	0.25 U	5
79-34-5	VOLATILE SW-846 METHOD 8260	1,1,2,2-Tetrachloroethane	PPB	0.25 U	0.25 U	0.25 U	5
76-13-1	VOLATILE SW-846 METHOD 8260	1,1,2-Trichloro-1,2,2-trifluoroethane	PPB	0.25 U	0.25 U	0.25 U	5
79-00-5	VOLATILE SW-846 METHOD 8260	1,1,2-Trichloroethane	PPB	0.25 U	0.25 U	0.25 U	1
75-34-3	VOLATILE SW-846 METHOD 8260	1,1-Dichloroethane	PPB	0.25 U	0.25 U	0.25 U	5
75-35-4	VOLATILE SW-846 METHOD 8260	1,1-Dichloroethene	PPB	0.25 U	0.51 J	0.25 U	5
563-58-6	VOLATILE SW-846 METHOD 8260	1,1-Dichloropropene	PPB	0.25 U	0.25 U	0.25 U	1
87-61-6	VOLATILE SW-846 METHOD 8260	1,2,3-Trichlorobenzene	PPB	0.25 U	0.25 U	0.25 U	5
96-18-4	VOLATILE SW-846 METHOD 8260	1,2,3-Trichloropropane	PPB	0.25 U	0.25 U	0.25 U	5
95-93-2	VOLATILE SW-846 METHOD 8260	1,2,4,5-Tetramethylbenzene	PPB	0.25 U	0.25 U	0.25 U	5
120-82-1	VOLATILE SW-846 METHOD 8260	1,2,4-Trichlorobenzene	PPB	0.25 U	0.25 U	0.25 U	5
95-63-6	VOLATILE SW-846 METHOD 8260	1,2,4-Trimethylbenzene	PPB	0.25 U	0.25 U	0.25 U	5
96-12-8	VOLATILE SW-846 METHOD 8260	1,2-Dibromo-3-chloropropane	PPB	0.25 U	0.25 U	0.25 U	0.04
106-93-4	VOLATILE SW-846 METHOD 8260	1,2-Dibromoethane	PPB	0.25 U	0.25 U	0.25 U	0.0006
95-50-1	VOLATILE SW-846 METHOD 8260	1,2-Dichlorobenzene	PPB	0.25 U	0.25 U	0.25 U	3
107-06-2	VOLATILE SW-846 METHOD 8260	1,2-Dichloroethane	PPB	0.25 U	0.25 U	0.25 U	0.6
78-87-5	VOLATILE SW-846 METHOD 8260	1,2-Dichloropropane	PPB	0.25 U	0.25 U	0.25 U	1
108-67-8	VOLATILE SW-846 METHOD 8260	1,3,5-Trimethylbenzene	PPB	0.25 U	0.25 U	0.25 U	5
541-73-1	VOLATILE SW-846 METHOD 8260	1,3-Dichlorobenzene	PPB	0.25 U	0.25 U	0.25 U	3
142-28-9	VOLATILE SW-846 METHOD 8260	1,3-dichloropropane	PPB	0.25 U	0.25 U	0.25 U	5
106-46-7	VOLATILE SW-846 METHOD 8260	1,4-Dichlorobenzene	PPB	0.25 U	0.25 U	0.25 U	3
123-91-1	VOLATILE SW-846 METHOD 8260	1,4-Dioxane	PPB	0.25 U	0.25 U	0.25 U	NA
594-20-7	VOLATILE SW-846 METHOD 8260	2,2-Dichloropropane	PPB	0.25 U	0.25 U	0.25 U	5
78-93-3	VOLATILE SW-846 METHOD 8260	2-Butanone	PPB	0.50 U	0.50 U	0.50 U	50
110-75-8	VOLATILE SW-846 METHOD 8260	2-Chloroethyl vinyl ether	PPB	10 U	10 U	10 U	NA
95-49-8	VOLATILE SW-846 METHOD 8260	2-Chlorotoluene	PPB	0.25 U	0.25 U	0.25 U	5
591-78-6	VOLATILE SW-846 METHOD 8260	2-Hexanone	PPB	0.50 U	0.50 U	0.50 U	50
67-63-0	VOLATILE SW-846 METHOD 8260	2-Propanol	PPB	0.25 U	0.25 U	0.25 U	NA
106-43-4	VOLATILE SW-846 METHOD 8260	4-Chlorotoluene	PPB	0.25 U	0.25 U	0.25 U	5
99-87-6	VOLATILE SW-846 METHOD 8260	4-Isopropyltoluene	PPB	0.25 U	0.25 U	0.25 U	5
108-10-1	VOLATILE SW-846 METHOD 8260	4-Methyl-2-pentanone	PPB	0.50 U	0.50 U	0.50 U	NA
67-64-1	VOLATILE SW-846 METHOD 8260	Acetone	PPB	16 B	24 B	18 B	50
71-43-2	VOLATILE SW-846 METHOD 8260	Benzene	PPB	0.25 U	0.25 U	0.25 U	1
108-86-1	VOLATILE SW-846 METHOD 8260	Bromobenzene	PPB	0.25 U	0.25 U	0.25 U	5
74-97-5	VOLATILE SW-846 METHOD 8260	Bromochloromethane	PPB	0.25 U	0.25 U	0.25 U	5
75-27-4	VOLATILE SW-846 METHOD 8260	Bromodichloromethane	PPB	0.25 U	0.25 U	0.25 U	50
75-25-2	VOLATILE SW-846 METHOD 8260	Bromoform	PPB	0.25 U	0.25 U	0.25 U	50
74-83-9	VOLATILE SW-846 METHOD 8260	Bromomethane	PPB	0.25 U	0.25 U	0.25 U	5
75-15-0	VOLATILE SW-846 METHOD 8260	Carbon disulfide	PPB	0.25 U	0.25 U	0.25 U	NA
56-23-5	VOLATILE SW-846 METHOD 8260	Carbon tetrachloride	PPB	0.25 U	0.25 U	0.25 U	5
108-90-7	VOLATILE SW-846 METHOD 8260	Chlorobenzene	PPB	0.25 U	0.25 U	0.25 U	5
75-45-6	VOLATILE SW-846 METHOD 8260	Chlorodifluoromethane	PPB	0.25 U	0.25 U	0.25 U	NA
75-00-3	VOLATILE SW-846 METHOD 8260	Chloroethane	PPB	0.25 U	0.25 U	0.25 U	5
67-66-3	VOLATILE SW-846 METHOD 8260	Chloroform	PPB	0.25 U	0.25 U	0.25 U	7
74-87-3	VOLATILE SW-846 METHOD 8260	Chloromethane	PPB	0.25 U	0.25 U	0.25 U	5
156-59-2	VOLATILE SW-846 METHOD 8260	cis-1,2-Dichloroethene	PPB	6.8	110	0.25 U	5
10061-01-5	VOLATILE SW-846 METHOD 8260	cis-1,3-Dichloropropene	PPB	0.25 U	0.25 U	0.25 U	0.4
110-82-7	VOLATILE SW-846 METHOD 8260	Cyclohexane	PPB	0.25 U	0.25 U	0.25 U	NA
124-48-1	VOLATILE SW-846 METHOD 8260	Dibromochloromethane	PPB	0.25 U	0.25 U	0.25 U	50
74-95-3	VOLATILE SW-846 METHOD 8260	Dibromomethane	PPB	0.25 U	0.25 U	0.25 U	5
75-71-8	VOLATILE SW-846 METHOD 8260	Dichlorodifluoromethane	PPB	0.25 U	0.25 U	0.25 U	5
108-20-3	VOLATILE SW-846 METHOD 8260	Diisopropyl ether	PPB	0.50 U	0.50 U	0.50 U	NA
64-17-5	VOLATILE SW-846 METHOD 8260	Ethanol	PPB	2.5 U	2.5 U	2.5 U	NA
100-41-4	VOLATILE SW-846 METHOD 8260	Ethylbenzene	PPB	0.25 U	0.25 U	0.25 U	5
76-14-2	VOLATILE SW-846 METHOD 8260	Freon-114	PPB	0.25 U	0.25 U	0.25 U	NA
87-68-3	VOLATILE SW-846 METHOD 8260	Hexachlorobutadiene	PPB	0.25 U	0.25 U	0.25 U	0.5
98-82-8	VOLATILE SW-846 METHOD 8260	Isopropylbenzene	PPB	0.25 U	0.25 U	0.25 U	5
179601-23-1	VOLATILE SW-846 METHOD 8260	m,p-Xylene	PPB	0.50 U	0.50 U	0.50 U	5
79-20-9	VOLATILE SW-846 METHOD 8260	Methyl Acetate	PPB	0.25 U	0.25 U	0.25 U	NA
1634-04-4	VOLATILE SW-846 METHOD 8260	Methyl tert-butyl ether	PPB	0.25 U	0.60 J	0.25 U	10
75-09-2	VOLATILE SW-846 METHOD 8260	Methylene chloride	PPB	5.8 B	5.6 B	6.9 B	5
104-51-8	VOLATILE SW-846 METHOD 8260	n-Butylbenzene	PPB	0.25 U	0.25 U	0.25 U	5
103-65-1	VOLATILE SW-846 METHOD 8260	n-Propylbenzene	PPB	0.25 U	0.25 U	0.25 U	5
91-20-3	VOLATILE SW-846 METHOD 8260	Naphthalene	PPB	0.25 U	0.25 U	0.25 U	10
95-47-6	VOLATILE SW-846 METHOD 8260	o-Xylene	PPB	0.25 U	0.25 U	0.25 U	5
105-05-5	VOLATILE SW-846 METHOD 8260	p-Diethylbenzene	PPB	0.25 U	0.25 U	0.25 U	NA
622-96-8	VOLATILE SW-846 METHOD 8260	p-Ethyltoluene	PPB	0.25 U	0.25 U	0.25 U	NA
135-98-8	VOLATILE SW-846 METHOD 8260	sec-Butylbenzene	PPB	0.25 U	0.25 U	0.25 U	5
100-42-5	VOLATILE SW-846 METHOD 8260	Styrene	PPB	0.25 U	0.25 U	0.25 U	5
75-65-0	VOLATILE SW-846 METHOD 8260	t-Butyl alcohol	PPB	2.5 U	2.5 U	2.5 U	NA
98-06-6	VOLATILE SW-846 METHOD 8260	tert-Butylbenzene	PPB	0.25 U	0.25 U	0.25 U	5
127-18-4	VOLATILE SW-846 METHOD 8260	Tetrachloroethene	PPB	0.25 U	0.25 U	0.25 U	5
108-88-3	VOLATILE SW-846 METHOD 8260	Toluene	PPB	0.25 U	0.25 U	0.25 U	5
156-60-5	VOLATILE SW-846 METHOD 8260	trans-1,2-Dichloroethene	PPB	0.25 U	0.93 J	0.25 U	5
10061-02-6	VOLATILE SW-846 METHOD 8260	trans-1,3-Dichloropropene	PPB	0.25 U	0.25 U	0.25 U	0.4
79-01-6	VOLATILE SW-846 METHOD 8260	Trichloroethene	PPB	0.25 U	12	0.25 U	5
75-69-4	VOLATILE SW-846 METHOD 8260	Trichlorofluoromethane	PPB	0.25 U	0.25 U	0.25 U	5
108-05-4	VOLATILE SW-846 METHOD 8260	Vinyl acetate	PPB	0.25 U	0.25 U	0.25 U	NA
75-01-4	VOLATILE SW-846 METHOD 8260	Vinyl chloride	PPB	0.25 U	0.25 U	0.25 U	2
1330-20-7	VOLATILE SW-846 METHOD 8260	Xylenes, Total	PPB	0.75 U	0.75 U	0.75 U	5
108-87-2	VOLATILE SW-846 METHOD 8260	Methylcyclohexane	PPB	0.25 U	0.25 U	0.25 U	NA
107-02-8	VOLATILE SW-846 METHOD 8260	Acrolein	PPB	1.0 U	1.0 U	1.0 U	5
107-13-1	VOLATILE SW-846 METHOD 8260	Acrylonitrile	PPB	0.25 U	0.25 U	0.25 U	5

Table-3

Tabulated PFAS and 1, 4 Dioxane Data

SAMPLE		PREPARED	ANALYZED		ANALYTE	RESULT	UNIT	QUALIFIER	MDL	RL	DIL FAC
MW-1	PFOA	8/8/2019 6:01	8/10/2019 20:59	Dilution1	Perfluorobutanoic acid (PFBA)	12.4	ng/l	JD	3.12	17.8	10
MW-1	PFOA	8/8/2019 6:01	8/13/2019 10:07	Dilution2	Perfluorooctanesulfonic acid (PFOS)	3530	ng/l	DB	9.64	35.7	20
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	Perfluoropentanoic acid (PFPeA)	16.2	ng/l		0.44	1.78	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	Perfluorohexanoic acid (PFHxA)	25.9	ng/l		0.52	1.78	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	Perfluoroheptanoic acid (PFHpA)	29	ng/l		0.22	1.78	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	Perfluorooctanoic acid (PFOA)	181	ng/l		0.76	1.78	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	Perfluorononanoic acid (PFNA)	17.5	ng/l		0.24	1.78	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	Perfluorodecanoic acid (PFDA)	17.1	ng/l		0.28	1.78	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	Perfluoroundecanoic acid (PFUnA)	1.45	ng/l	J	0.98	1.78	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	Perfluorododecanoic acid (PFDoA)			U	0.49	1.78	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	Perfluorotridecanoic acid (PFTriA)			U	1.16	1.78	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	Perfluorotetradecanoic acid (PFTeA)			U	0.26	1.78	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	Perfluorobutanesulfonic acid (PFBS)	11.8	ng/l		0.18	1.78	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	Perfluorohexanesulfonic acid (PFHxS)	49.3	ng/l	B	0.15	1.78	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	Perfluoroheptanesulfonic Acid (PFHpS)	27.1	ng/l		0.17	1.78	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	Perfluorodecanesulfonic acid (PFDS)			U	0.29	1.78	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	Perfluorooctanesulfonamide (FOSA)	18.9	ng/l	B	0.31	1.78	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	322	ng/l		2.77	17.8	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	22.9	ng/l		1.7	17.8	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	6:2 FTS			U	1.78	17.8	1
MW-1	PFOA	8/8/2019 6:01	8/9/2019 8:26	INITIAL	8:2 FTS			U	1.78	17.8	1
MW-1	SW8270D SIM	8/6/2019 8:33	8/8/2019 1:20	INITIAL	1,4-Dioxane			UF1*	0.17	0.17	1

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

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

* = RPD of the LCS and LCSD exceeds the control limits

B = Compound was found in the blank and sample.

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

D = Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

SAMPLE		PREPARED	ANALYZED		ANALYTE	RESULT	UNIT	QUALIFIER	MDL	RL	DIL FAC
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	Perfluorobutanoic acid (PFBA)	5.77	ng/l		0.3	1.72	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	Perfluoropentanoic acid (PFPeA)	7.36	ng/l		0.42	1.72	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	Perfluorohexanoic acid (PFHxA)	10.3	ng/l		0.5	1.72	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	Perfluoroheptanoic acid (PFHpA)	7.2	ng/l		0.22	1.72	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	Perfluorooctanoic acid (PFOA)	40.3	ng/l		0.73	1.72	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	Perfluorononanoic acid (PFNA)	6.72	ng/l		0.23	1.72	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	Perfluorodecanoic acid (PFDA)	2.94	ng/l		0.27	1.72	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	Perfluoroundecanoic acid (PFUnA)			U	0.95	1.72	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	Perfluorododecanoic acid (PFDoA)			U	0.47	1.72	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	Perfluorotridecanoic acid (PFTriA)			U	1.12	1.72	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	Perfluorotetradecanoic acid (PFTeA)	0.35	ng/l	J	0.25	1.72	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	Perfluorobutanesulfonic acid (PFBS)	8.11	ng/l		0.17	1.72	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	Perfluorohexanesulfonic acid (PFHxS)	8.88	ng/l	B	0.15	1.72	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	Perfluoroheptanesulfonic Acid (PFHpS)	2.51	ng/l		0.16	1.72	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	Perfluorooctanesulfonic acid (PFOS)	235	ng/l	B	0.47	1.72	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	Perfluorodecanesulfonic acid (PFDS)			U	0.28	1.72	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	Perfluorooctanesulfonamide (FOSA)	0.35	ng/l	JB	0.3	1.72	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			U	2.67	17.2	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			U	1.64	17.2	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	6:2 FTS			U	1.72	17.2	1
MW-3	PFOA	8/8/2019 6:01	8/9/2019 9:14	INITIAL	8:2 FTS			U	1.72	17.2	1
MW-3	SW8270D SIM	8/6/2019 8:33	8/7/2019 9:05	INITIAL	1,4-Dioxane			U*	0.17	0.17	1

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D = Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

SAMPLE		PREPARED	ANALYZED		ANALYTE	RESULT	UNIT	QUALIFIER	MDL	RL	DIL FAC
MW-6A	PFOA	8/8/2019 6:01	8/10/2019 21:47	Dilution1	Perfluorooctanesulfonic acid (PFOS)	2380	ng/l	D	4.81	17.8	10
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	Perfluorobutanoic acid (PFBA)	4.83	ng/l		0.31	1.78	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	Perfluoropentanoic acid (PFPeA)	13.2	ng/l		0.44	1.78	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	Perfluorohexanoic acid (PFHxA)	18.8	ng/l		0.52	1.78	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	Perfluoroheptanoic acid (PFHpA)	21.2	ng/l		0.22	1.78	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	Perfluorooctanoic acid (PFOA)	121	ng/l		0.76	1.78	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	Perfluorononanoic acid (PFNA)	12.1	ng/l		0.24	1.78	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	Perfluorodecanoic acid (PFDA)	6.97	ng/l		0.28	1.78	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	Perfluoroundecanoic acid (PFUnA)	1.96	ng/l		0.98	1.78	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	Perfluorododecanoic acid (PFDoA)	1.22	ng/l	J	0.49	1.78	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	Perfluorotridecanoic acid (PFTriA)			U	1.16	1.78	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	Perfluorotetradecanoic acid (PFTeA)	0.42	ng/l	J	0.26	1.78	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	Perfluorobutanesulfonic acid (PFBS)	14.2	ng/l		0.18	1.78	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	Perfluorohexanesulfonic acid (PFHxS)	111	ng/l	B	0.15	1.78	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	Perfluoroheptanesulfonic Acid (PFHpS)	55.4	ng/l		0.17	1.78	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	Perfluorodecanesulfonic acid (PFDS)			U	0.28	1.78	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	Perfluorooctanesulfonamide (FOSA)	139	ng/l	B	0.31	1.78	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	229	ng/l		2.76	17.8	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	3.07	ng/l	J	1.69	17.8	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	6:2 FTS			U	1.78	17.8	1
MW-6A	PFOA	8/8/2019 6:01	8/9/2019 9:22	INITIAL	8:2 FTS			U	1.78	17.8	1
MW-6A	SW8270D SIM	8/6/2019 8:33	8/7/2019 9:26	INITIAL	1,4-Dioxane			U*	0.17	0.17	1

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

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* = RPD of the LCS and LCSD exceeds the control limits

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Table-4
Tabulated Soil Vapor Data

	Lab Sample ID:		L1934510-01	L1934510-02	L1934510-03	L1934510-04	L1934510-05	L1934510-06
	Sample Name:		SV-1	SV-2	SV-3	SV-4	SV-5	OA-1
	Sample Date:		31-JUL-19	31-JUL-19	31-JUL-19	31-JUL-19	31-JUL-19	31-JUL-19
			-	-	-	-	-	-
Volatile Organics in Air	CasNum	Units						
1,2-Dichlorobenzene	95-50-1	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
2-Butanone	78-93-3	ug/m3	40.1	14.8	15.2	12.6	4.57	1.47 U
1,2,4-Trimethylbenzene	95-63-6	ug/m3	5.51	10	8.65	5.7	4.9	0.983 U
4-Ethyltoluene	622-96-8	ug/m3	1.16	2.06	1.95	1.3	0.983 U	0.983 U
Heptane	142-82-5	ug/m3	65.2	8.61	5.45	3.41	2.22	0.82 U
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
1,1-Dichloroethane	75-34-3	ug/m3	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U
1,4-Dichlorobenzene	106-46-7	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Chlorobenzene	108-90-7	ug/m3	0.921 U	0.921 U	0.921 U	0.921 U	0.921 U	0.921 U
Styrene	100-42-5	ug/m3	1.22	1.55	3.23	1.81	1.15	0.852 U
trans-1,2-Dichloroethene	156-60-5	ug/m3	19.1	1.31	0.9	0.793 U	0.793 U	0.793 U
1,4-Dioxane	123-91-1	ug/m3	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U
1,3-Butadiene	106-99-0	ug/m3	11.3	0.575	4.89	4.62	1.27	0.442 U
3-Chloropropene	107-05-1	ug/m3	0.626 U	0.626 U	0.626 U	0.626 U	0.626 U	0.626 U
1,2-Dichloroethene (total)	540-59-0	ug/m3	73.3	7.57	12.4	0.793 U	0.793 U	0.793 U
1,2-Dichloropropane	78-87-5	ug/m3	0.924 U	0.924 U	0.924 U	0.924 U	0.924 U	0.924 U
Trichlorofluoromethane	75-69-4	ug/m3	3.14	6.07	7.25	3.53	3.96	1.65
Vinyl chloride	75-01-4	ug/m3	2.24	0.511 U	1.6	0.511 U	0.511 U	0.511 U
tert-Butyl Alcohol	75-65-0	ug/m3	13.1	60.9	24.5	25.5	19.1	1.52 U
Bromomethane	74-83-9	ug/m3	0.777 U	0.777 U	0.777 U	0.777 U	0.777 U	0.777 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/m3	1.53 U	1.53 U	1.53 U	1.53 U	1.53 U	1.53 U
1,2,4-Trichlorobenzene	120-82-1	ug/m3	1.48 U	1.48 U	1.48 U	1.48 U	1.48 U	1.48 U
Hexachlorobutadiene	87-68-3	ug/m3	2.13 U	2.13 U	2.13 U	2.13 U	2.13 U	2.13 U
Chloromethane	74-87-3	ug/m3	1.2	1.57	1.02	0.812	0.803	1.14
Dibromochloromethane	124-48-1	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Cyclohexane	110-82-7	ug/m3	38.9	3.92	2.01	2.63	3.89	0.688 U
Benzyl chloride	100-44-7	ug/m3	1.04 U	1.04 U	1.04 U	1.04 U	1.04 U	1.04 U
cis-1,3-Dichloropropene	10061-01-5	ug/m3	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U
trans-1,3-Dichloropropene	10061-02-6	ug/m3	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U
Tetrachloroethene	127-18-4	ug/m3	15.9	21.8	325	60.6	29	108
cis-1,2-Dichloroethene	156-59-2	ug/m3	54.3	6.26	11.5	0.793 U	0.793 U	0.793 U
1,3,5-Trimethylbenzene	108-67-8	ug/m3	1.56	2.69	2.36	1.44	1.35	0.983 U
Ethyl Acetate	141-78-6	ug/m3	1.8 U	8.58	1.8 U	1.8 U	1.8 U	1.8 U
1,1,1-Trichloroethane	71-55-6	ug/m3	1.09 U	1.09 U	1.09 U	1.09 U	1.09 U	1.09 U
1,3-Dichlorobenzene	541-73-1	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Benzene	71-43-2	ug/m3	38.3	13.7	7.99	9.36	4.34	0.891
Dichlorodifluoromethane	75-71-8	ug/m3	0.989 U	0.989 U	0.989 U	1.01	1.18	1.81
Methylene chloride	75-09-2	ug/m3	1.74 U	19.5	1.74 U	1.74 U	1.85	1.74 U
2-Hexanone	591-78-6	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
4-Methyl-2-pentanone	108-10-1	ug/m3	2.05 U	15.8	6.97	3.98	4.96	2.05 U
Carbon disulfide	75-15-0	ug/m3	56.7	5.85	7.63	7.63	6.98	0.623 U
Trichloroethene	79-01-6	ug/m3	27.6	32.6	59.7	1.07 U	1.07 U	1.07 U
o-Xylene	95-47-6	ug/m3	4.52	7.43	7.56	5.21	3.67	0.869 U
Tetrahydrofuran	109-99-9	ug/m3	1.47 U	4.48	1.99	1.69	1.56	1.47 U
Vinyl bromide	593-60-2	ug/m3	0.874 U	0.874 U	0.874 U	0.874 U	0.874 U	0.874 U
1,1,2,2-Tetrachloroethane	79-34-5	ug/m3	1.37 U	1.37 U	1.37 U	1.37 U	1.37 U	1.37 U
1,2-Dichloroethane	107-06-2	ug/m3	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U
Bromoform	75-25-2	ug/m3	2.07 U	2.07 U	2.07 U	2.07 U	2.07 U	2.07 U
Chloroethane	75-00-3	ug/m3	1.69	0.528 U	0.528 U	0.528 U	0.528 U	0.528 U
Ethylbenzene	100-41-4	ug/m3	3.36	6.25	5.73	4.04	2.91	0.869 U
Toluene	108-88-3	ug/m3	26.6	260	27.9	20.6	15.6	2.75
Acetone	67-64-1	ug/m3	242	108	65.3	100	34.7	13.7
1,2-Dibromoethane	106-93-4	ug/m3	1.54 U	1.54 U	1.54 U	1.54 U	1.54 U	1.54 U
iso-Propyl Alcohol	67-63-0	ug/m3	3.64	80.6	1.23 U	2.45	1.23 U	1.23 U
p/m-Xylene	179601-23-1	ug/m3	10.8	19.1	19.8	13	9.47	1.74 U
Bromodichloromethane	75-27-4	ug/m3	1.34 U	1.34 U	1.34 U	1.34 U	1.34 U	1.34 U
Carbon tetrachloride	56-23-5	ug/m3	1.26 U	1.26 U	1.26 U	1.26 U	1.26 U	1.26 U
1,1-Dichloroethene	75-35-4	ug/m3	0.793 U	0.793 U	0.793 U	0.793 U	0.793 U	0.793 U
Ethyl Alcohol	64-17-5	ug/m3	9.61	61.6	11.9	14.2	11	9.42 U
Methyl tert butyl ether	1634-04-4	ug/m3	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U
1,3-Dichloropropene, Total	542-75-6	ug/m3	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U
1,1,2-Trichloroethane	79-00-5	ug/m3	1.09 U	1.09 U	1.09 U	1.09 U	1.09 U	1.09 U
Chloroform	67-66-3	ug/m3	4.98	1.24	12.1	0.977 U	0.977 U	0.977 U
Xylene (Total)	1330-20-7	ug/m3	15.3	26.5	27.4	18.2	13.1	0.869 U
n-Hexane	110-54-3	ug/m3	225	10.2	7.19	5.64	3.04	2.44
2,2,4-Trimethylpentane	540-84-1	ug/m3	0.934 U	12	3.59	3.26	2.62	0.934 U
			-	-	-	-	-	-
			-	-	-	-	-	-
			-	-	-	-	-	-
*Alpha Analytical Labs provides this custom reporting format as a convenience to our clients. As such, we cannot be held liable for errors or omissions associated with the sample results.			*Refer to the laboratory report in Adobe Acrobat (.PDF) format to check results or read any associated project narrative that may be present. In all cases, the signed, hardcopy Alpha Analytical Labs laboratory report is the official document for reporting laboratory results.					

APPENDICES

Appendix-A
Previous SVI Report

Berninger Environmental, Inc.

groundwater consultants and geologists

90 - B Knickerbocker Avenue

Bohemia • New York • 11716

Phone: 631 • 589 • 6521

Fax: 631 • 589 • 6528

May 22, 2008

Mr. Mark Bufalini

Project Manager

New York State Department of Environmental Conservation

Division of Environmental Remediation

625 Broadway, 11th Floor

Albany, New York 12233-7015

Re: American Drive-In Cleaners of Hewlett, Inc.

1345 Peninsula Boulevard

Hewlett, New York

Dear Mr. Bufalini:

Berninger Environmental, Inc. (BEI) is providing a summary report on behalf of our client, American Drive-In Cleaners of Hewlett, Inc., for soil vapor samples collected from the rear of three homes located adjacent to the dry cleaners on January 29, 2008.

Background

Berninger Environmental, Inc., under the direction of the New York State Department of Health (NYSDOH), and the NYSDEC obtained these soil gas samples to help assess whether the environmental contamination from operations at the dry cleaner (American Drive-In Cleaners) located at 1345 Peninsula Boulevard, Hewlett, New York has the potential to affect indoor air quality at three homes, located at 1310 Waverly Avenue (SG-1A), 1314 Waverly Avenue (SG-2A) and 1316 Waverly Avenue (SG-3A), Hewlett, New York.

Soil Vapor Migration Study

The three soil gas sampling locations (see attached figure) were installed to collect soil vapor samples in accordance with the February 2005 Draft New York State Department of Health (NYSDOH) "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" protocols (revised 2006).

A hand operated direct drilling system (Geoprobe) was used to implant soil vapor sampling probes to the depths representative of potential vapor movement relative to the adjacent residence. However, at these properties groundwater is very shallow, less than four feet below grade surface (bgs), necessitating a completion of less than 5 feet bgs. Specifically, the Geoprobe equipped with Post-Run Tubing System (PRT), an expendable tip and teflon tubing was used to collect discrete soil gas samples from below grade at a depth of 2.5-3 ft bgs.

After setting up a sealed penetration using hydraulic cement around the top of the PRT, the area around the soil gas sample collection point was encompassed by a plastic container for the introduction of a helium tracer gas. Helium was introduced via a tubing penetration into the plastic container as a tracer gas in order to quantify that no circumvention of air is occurring.

Subsequent to the introduction of helium tracer gas, the annular space was purged a minimum of one to three volumes of soil gas using a personal sampling pump. During purging and sampling, the flow rate did not exceed 0.2 liters per minute. A pre-set regulator and dedicated summa cannister were used to procure the soil

gas sample. Again, the regulator used had a flow rate less than 0.2 liters per minute. Sufficient volume was collected to achieve the detection limits required to evaluate the data relative to the guidelines issued by the NYSDOH.

As specified by the NYSDEC, an ambient air sample was also collected. The ambient outdoor air sample was collected at a representative breathing height (3 to 5 feet above grade), at an upwind location - see attached figure. The ambient air regulator was set to obtain approximately four hours of sampling time; the vacuum readings required that the testing be stopped prior to four hours to ensure that a negative pressure remained. Direct field readings were performed for helium tracer to ensure that the soil gas vapor sample was not compromised due to exterior air circumvention. A sample is considered to be valid if <20 percent tracer gas is present.

After the required pressure changes were observed on the canister gauge, the canister was sealed, and packaged for transport. The field sampling team maintained the following sample log sheet which summarized the following:

- a. sample identification,
- b. date and time of sample collection,
- c. sampling depth,
- d. identity of samplers,
- e. sampling methods and devices,
- f. purge volumes,
- g. volume of soil vapor extracted,
- h. the type of canisters used, the vacuum before and after samples collected,
- i. apparent moisture content (dry, moist, saturated, etc.) of the sampling zone, and
- j. chain of custody protocols and records used to track samples from sampling point to analysis.

After collection, the sampling location was also field screened with a PID and a helium detector to provide real time data; this information was recorded in the field book. PID results were both less than 0.2 parts per million (ppm) response units and no helium above instrument detection limits were recorded.

Upon completion of the day's sample collection, the summa canisters were transported under strict chain-of-custody to an NYSDOH-ELAP certified laboratory H2M Laboratories, Inc. located in Melville, New York for VOC analysis by EPA Method TO-15 methodology. The shallow borings associated with soil vapor testing were abandoned by bentonite grout to grade.

Laboratory Analysis

The three samples were analyzed by H2M Laboratories, Inc., an NYSDOH ELAP-Certified laboratory. Summary data sheets are included in as an appendix of this report. An independent third party validation was performed on this data - see attached appendices. As the State of New York does not have any standards or criteria for concentrations of volatile chemicals in soil gas, the results of the laboratory analysis of the three soil gas samples were compared to the *Background Indoor Air Levels of Volatile Organic Compounds in Homes Sampled by the New York State Department of Health, 1989-1996* published by the NYSDOH Bureau of Toxic Substance Assessment in 1997 and included in the NYSDOH *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*.

As indicated in Table 1, numerous VOCs were detected in each of the three soil gas samples. Of the VOCs present, particular focus was on the concentrations of Tetrachloroethene (PCE), a common dry-cleaning chemical and its typical breakdown products such as Trichloroethene (TCE).

PCE and TCE typically detected at concentrations of less than 100 mcg./cu.m and 5 mcg./cu.m, respectively, in soil gas exterior to a home, generally do not result in significant indoor air impacts. Furthermore, based upon NYSDOH recent long term studies on these types of compounds in indoor air, PCE and TCE can be typically detected at concentrations of 2.9 mcg./cu.m and 0.48 mcg./cu.m, respectively, or less in buildings not known to be affected by a chemical spill or other significant sources of these chemicals.

Based upon this comparison, at this time, no PCE or TCE concentrations were present in subsurface soil gas samples that exceeded any specifically identified NYSDOH requirements (matrix tables) at any of the three residences. Letters were developed for distribution to the three residences with an overview of NYSDOH Fact Sheets on these compounds that summarized these facts.

Summary and Conclusions

As required by the NYSDEC and NYSDOH, BEI has obtained subsurface soil gas data at the three closest adjoining residences in accordance with sampling guidelines for same. Based upon testing of these three properties, no PCE or TCE concentrations were identified present in subsurface soil gas samples that exceeded any specifically identified NYSDOH requirement for monitoring, mitigation, etc. at any of the three residences. Letters were developed for distribution to the three residences with an overview of NYSDOH Fact Sheets on these compounds that summarized these facts.

Please feel free to contact me if you have any questions.

Sincerely,
Berninger Environmental, Inc.

Walter Berninger
President/Consultant

enc.

Berninger Environmental, Inc.

groundwater consultants and geologists

90 - B Knickerbocker Avenue

Bohemia • New York • 11716

Phone: 631 • 589 • 6521

Fax: 631 • 589 • 6528

Mr. Adam Hirsch
1310 Waverly Street
Hewlett, New York

August 07, 2008

Re: Soil Vapor Sampling Results - Rear Yard
1310 Waverly Street, Hewlett, New York

Dear Mr. Hirsch:

Enclosed are the laboratory test results for the soil vapor samples collected from the rear of your home (SG-1A) on January 29, 2008. Berninger Environmental, Inc., under the direction of the New York State Department of Health (NYSDOH), obtained this soil gas sample to help assess whether the environmental contamination from operations at the dry cleaner (American Drive-In Cleaners) located at 1345 Peninsula Boulevard, Hewlett, New York has the potential to affect indoor air quality in your home. The soil gas sample was tested for Tetrachloroethene (PCE), a common dry cleaning chemical and its typical breakdown products such as Trichloroethene (TCE).

Soil Gas Sampling Results

In air, concentrations of PCE and TCE are measured in units of micrograms per cubic meter of air. These units are abbreviated as "mcg/cu.m". PCE was detected at a concentration of 25.2J mcg./cu.m at a location selected within your backyard, between your residence and the dry cleaners. PCE was also detected in the outdoor air at 1.42J mcg./cu.m during this air sampling event. TCE was detected at a concentration of 0.27 mcg./cu.m at the soil gas sampling location. TCE was not detected in the outdoor air during this air sampling event.

According to NYSDOH studies, PCE and TCE typically detected at concentrations of less than 100 mcg./cu.m and 5 mcg./cu.m, respectively, in soil gas exterior to a home, generally do not result in significant indoor air impacts. Therefore, at this time, no specific requirements have been established with respect to your residence, other than possible future monitoring. Furthermore, based upon NYSDOH recent long term studies on these types of compounds in indoor air, PCE and TCE can be typically detected at concentrations of 2.9 mcg./cu.m and 0.48 mcg./cu.m, respectively, or less in buildings not known to be affected by a chemical spill or other significant sources of these chemicals.

Enclosed is an NYSDOH fact sheet entitled "Tetrachloroethene (PCE) in Indoor and Outdoor Air dated May 2003" which provides information about the NYSDOH guideline. Enclosed also is the NYSDOH fact sheet entitled "Trichloroethene in Indoor and Outdoor Air dated February 2005" which provides information about the NYSDOH guidelines. As the fact sheets explain, the guidelines are not a line between levels that cause health effects and those that do not. In addition, it is based on the assumption that people are continuously exposed to PCE or TCE in air all day, every day, for as long as a life time, which, is not likely the case for the typical occupancy of a residence.

If you have any health-related questions, please contact Ms. Katherine Comford, Public Health Specialist II of the New York State Department of Health (NYSDOH) at 1-518-402-7850. If you have any questions relating to the environmental investigation of the American Drive-In Cleaners site, please contact Mr. Mark Bufalini of the New York State Department of Environmental Conservation (NYSDEC) at 1-518-402-7850.

Sincerely,
Berninger Environmental, Inc.

Walter Berninger
President/Consultant
enc.

Berninger Environmental, Inc.

groundwater consultants and geologists

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Phone: 631 • 589 • 6521

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Mr. Ed Surillo
1314 Waverly Street
Hewlett, New York

August 07, 2008

Re: Soil Vapor Sampling Results - Rear Yard
1314 Waverly Street, Hewlett, New York

Dear Mr. Surillo:

Enclosed are the laboratory test results for the soil vapor samples collected from the rear of your home (SG-2A) on January 29, 2008. Berninger Environmental, Inc., under the direction of the New York State Department of Health (NYSDOH), obtained this soil gas sample to help assess whether the environmental contamination from operations at the dry cleaner (American Drive-In Cleaners) located at 1345 Peninsula Boulevard, Hewlett, New York has the potential to affect indoor air quality in your home. The soil gas sample was tested for Tetrachloroethene (PCE), a common dry cleaning chemical and its typical breakdown products such as Trichloroethene (TCE).

Soil Gas Sampling Results

In air, concentrations of PCE and TCE are measured in units of micrograms per cubic meter of air. These units are abbreviated as "mcg/cu.m". PCE was detected at a concentration of 3.32J mcg./cu.m at a location selected within your backyard, between your residence and the dry cleaners. PCE was also detected in the outdoor air at 1.42J mcg./cu.m during this air sampling event. TCE was not detected at the soil gas sampling location. TCE was also not detected in the outdoor air during this air sampling event.

According to NYSDOH studies, PCE and TCE typically detected at concentrations of less than 100 mcg./cu.m and 5 mcg./cu.m, respectively, in soil gas exterior to a home, generally do not result in significant indoor air impacts. Therefore, at this time, no specific requirements have been established with respect to your residence, other than possible future monitoring. Furthermore, based upon NYSDOH recent long term studies on these types of compounds in indoor air, PCE and TCE can be typically detected at concentrations of 2.9 mcg./cu.m and 0.48 mcg./cu.m, respectively, or less in buildings not known to be affected by a chemical spill or other significant sources of these chemicals.

Enclosed is an NYSDOH fact sheet entitled "Tetrachloroethene (PCE) in Indoor and Outdoor Air dated May 2003" which provides information about the NYSDOH guideline. Enclosed also is the NYSDOH fact sheet entitled "Trichloroethene in Indoor and Outdoor Air dated February 2005" which provides information about the NYSDOH guidelines. As the fact sheets explain, the guidelines are not a line between levels that cause health effects and those that do not. In addition, it is based on the assumption that people are continuously exposed to PCE or TCE in air all day, every day, for as long as a life time, which, is not likely the case for the typical occupancy of a residence.

If you have any health-related questions, please contact Ms. Katherine Comford, Public Health Specialist II of the New York State Department of Health (NYSDOH) at 1-518-402-7850. If you have any questions relating to the environmental investigation of the American Drive-In Cleaners site, please contact Mr. Mark Bufalini of the New York State Department of Environmental Conservation (NYSDEC) at 1-518-402-7850.

Sincerely,
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Walter Berninger
President/Consultant
enc.

Berninger Environmental, Inc.

groundwater consultants and geologists

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Mr. Nora Hsu

August 07, 2008

1316 Waverly Street

Hewlett, New York

Re: Soil Vapor Sampling Results - Rear Yard
1316 Waverly Street, Hewlett, New York

Dear Mr. Hsu:

Enclosed are the laboratory test results for the soil vapor samples collected from the rear of your home (SG-3A) on January 29, 2008. Berninger Environmental, Inc., under the direction of the New York State Department of Health (NYSDOH), obtained this soil gas sample to help assess whether the environmental contamination from operations at the dry cleaner (American Drive-In Cleaners) located at 1345 Peninsula Boulevard, Hewlett, New York has the potential to affect indoor air quality in your home. The soil gas sample was tested for Tetrachloroethene (PCE), a common dry cleaning chemical and its typical breakdown products such as Trichloroethene (TCE).

Soil Gas Sampling Results

In air, concentrations of PCE and TCE are measured in units of micrograms per cubic meter of air. These units are abbreviated as "mcg/cu.m". PCE was detected at a concentration of 2.03J mcg./cu.m at a location selected within your backyard, between your residence and the dry cleaners. PCE was also detected in the outdoor air at 1.42J mcg./cu.m during this air sampling event. TCE was detected at a concentration of 1.50 mcg./cu.m at the soil gas sampling location. TCE was not detected in the outdoor air during this air sampling event.

According to NYSDOH studies, PCE and TCE typically detected at concentrations of less than 100 mcg./cu.m and 5 mcg./cu.m, respectively, in soil gas exterior to a home, generally do not result in significant indoor air impacts. Therefore, at this time, no specific requirements have been established with respect to your residence, other than possible future monitoring. Furthermore, based upon NYSDOH recent long term studies on these types of compounds in indoor air, PCE and TCE can be typically detected at concentrations of 2.9 mcg./cu.m and 0.48 mcg./cu.m, respectively, or less in buildings not known to be affected by a chemical spill or other significant sources of these chemicals.

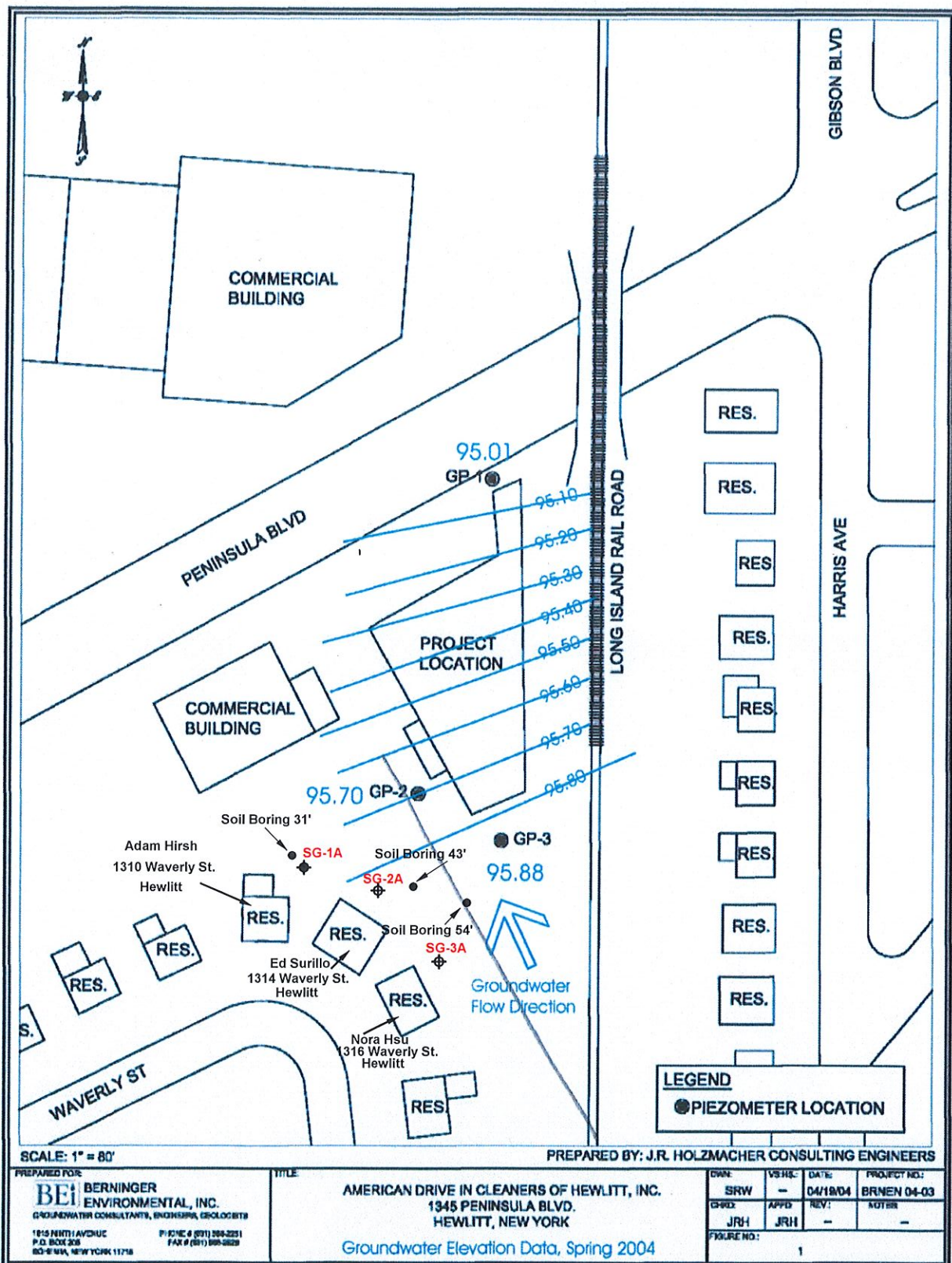
Enclosed is an NYSDOH fact sheet entitled "Tetrachloroethene (PCE) in Indoor and Outdoor Air dated May 2003" which provides information about the NYSDOH guideline. Enclosed also is the NYSDOH fact sheet entitled "Trichloroethene in Indoor and Outdoor Air dated February 2005" which provides information about the NYSDOH guidelines. As the fact sheets explain, the guidelines are not a line between levels that cause health effects and those that do not. In addition, it is based on the assumption that people are continuously exposed to PCE or TCE in air all day, every day, for as long as a life time, which, is not likely the case for the typical occupancy of a residence.

If you have any health-related questions, please contact Ms. Katherine Comford, Public Health Specialist II of the New York State Department of Health (NYSDOH) at 1-518-402-7850. If you have any questions relating to the environmental investigation of the American Drive-In Cleaners site, please contact Mr. Mark Bufalini of the New York State Department of Environmental Conservation (NYSDEC) at 1-518-402-7850.

Sincerely,

Berninger Environmental, Inc.

Walter Berninger
President/Consultant
enc.



SCALE: 1" = 80'

PREPARED BY: J.R. HOLZMACHER CONSULTING ENGINEERS

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AMERICAN DRIVE IN CLEANERS OF HEWLITT, INC.
 1345 PENINSULA BLVD.
 HEWLITT, NEW YORK

Groundwater Elevation Data, Spring 2004

Appendix-B
NCDOH Data

Nassau County Dept of Health
Sampling at [redacted] in Drive in [redacted] [redacted] [redacted]

Sample Date	Sample Location	Sample Matrix	Detections	Concentration*
3/13/02	Rear of Bldg (#1)	Water	C-1,2 DCE TCE PCE	1.3 1.4 7.3
3/19/02	"	Water	C-1,2 DCE TCE PCE	0.7 2.5 16
3/19/02	"	Soil (2-6" depth)	C-1,2 DCE PCE	7400 4000
3/19/02	Below Evaporator Discharge (#2)	Soil (2-8" depth)	PCE	390
3/19/02	Front of Building (#3)	Water	None	
3/19/02	"	Soil (2-6" depth)	PCE	480

- * Sample location numbers refer to attached site diagram.
- * All results are in ppb

Appendix-C
Validated Groundwater Data

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

**ORGANIC ANALYSES
VOLATILES BY GC/MS
1,4-DIOXANE BY SIM GC/MS
ISOTOPE DILUTION ORGANIC ANALYSIS
POLYFLUORINATED ALKYL SUBSTANCES (21 ANALYTES)
BY LIQUID CHROMATOGRAPHY/TANDEM MASS SPECTROMETRY (LC/MS/MS)
BY MODIFIED EPA METHOD 537**

**For Groundwater Samples Collected
July 31, 2019 and August 15, 2019
From 1345 Peninsula Boulevard, Hewlett, New York
American Drive-In Cleaners
Project #11391
Collected by WRS d.b.a. Berninger Environmental.**

**SAMPLE DELIVERY GROUP NUMBERS:
460-188226-1 (1,4-Dioxane and PFAS)
BY EUROFINS TESTAMERICA EDISON - NJ (ELAP #11452)
BY EUROFINS TESTAMERICA, SACRAMENTO -CA (ELAP #11666)
1908001 and 1908134 (Volatiles)
BY AMERICAN ANALYTICAL (ELAP #11418)**

SUBMITTED TO:

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

October 04, 2019



PREPARED BY:

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

American Drive-In Cleaners; 1345 Peninsula Boulevard, Hewlett, New York.

Data Validation Summary (DUSR):

July/August 2019 Groundwater Sampling Events; - Volatiles, 1,4-Dioxane and PFAS.

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3.11	Overall System Performance
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A.	Chain of Custody Documents and Sample Receipt Checklists
B.	Case Narratives
C.	Data Summary Form Is with Qualifications

Introduction:

A validation was performed on groundwater samples and the associated quality control (MS/MSD/Field Duplicate/Field Blanks/Trip Blanks) for organic analysis for samples collected under chain of custody documentation by WRS d.b.a. Berninger Environmental and submitted to American Analytical and Eurofins TestAmerica Edison for subsequent analysis. Samples for EPA Method 537 were sent from Eurofins Edison to Eurofins Sacramento. This report contains the laboratory and validation results for the field samples itemized below with corresponding required analysis.

The samples were analyzed by American Analytical (Volatiles), Eurofins TestAmerica Edison (1,4-Dioxane) and Eurofins TestAmerica Sacramento (PFAS), utilizing SW846 and EPA Methods and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodologies employed. The analytical testing and data review for groundwater samples consisted of Volatile Organics, 1,4-Dioxane Semivolatile Organics and the twenty-one (21) target analytes in EPA Method 537 for PFAS. The data was evaluated in accordance with EPA Region II National Functional Guidelines for Organic Data Review and EPA Region II SOPs for 8260, 8270 and in conjunction with the analytical methodologies for which the samples were analyzed, where applicable and relevant.

Sample ID	Lab ID	Analysis	Date Collected/Received
MW-1 [Plus, MS/MSD]	1908001-001	Volatiles by SW846 Methods 5030C/8260C	7/31/19, 8/01/19
MW-2	1908001-002	Volatiles by SW846 Methods 5030C/8260C	7/31/19, 8/01/19
MW-3	1908001-003	Volatiles by SW846 Methods 5030C/8260C	7/31/19, 8/01/19
MW-6A	1908001-004	Volatiles by SW846 Methods 5030C/8260C	7/31/19, 8/01/19
MW-7	1908001-005	Volatiles by SW846 Methods 5030C/8260C	7/31/19, 8/01/19
MW-8	1908001-006	Volatiles by SW846 Methods 5030C/8260C	7/31/19, 8/01/19
MW-N	1908001-007	Volatiles by SW846 Methods 5030C/8260C	7/31/19, 8/01/19
Trip Blank	1908001-008	Volatiles by SW846 Methods 5030C/8260C	7/31/19, 8/01/19
Field Blank	1908001-009	Volatiles by SW846 Methods 5030C/8260C	7/31/19, 8/01/19
GW-4 @ 5-9'	1908134-001	Volatiles by SW846 Methods 5030C/8260C	8/15/2019
GW-4 @ 15-19'	1908134-002	Volatiles by SW846 Methods 5030C/8260C	8/15/2019
GW-4 @ 26-30'	1908134-003	Volatiles by SW846 Methods 5030C/8260C	8/15/2019
GW-5 @ 5-9'	1908134-004	Volatiles by SW846 Methods 5030C/8260C	8/15/2019
GW-5 @ 15-19'	1908134-005	Volatiles by SW846 Methods 5030C/8260C	8/15/2019
GW-5 @ 26-30'	1908134-006	Volatiles by SW846 Methods 5030C/8260C	8/15/2019
GW-6 @ 5-9' [Plus, MS/MSD]	1908134-007	Volatiles by SW846 Methods 5030C/8260C	8/15/2019
GW-6 @ 15-19'	1908134-008	Volatiles by SW846 Methods 5030C/8260C	8/15/2019
GW-6 @ 26-30'	1908134-009	Volatiles by SW846 Methods 5030C/8260C	8/15/2019
Field Blank	1908134-010	Volatiles by SW846 Methods 5030C/8260C	8/15/2019
Trip Blank	1908134-011	Volatiles by SW846 Methods 5030C/8260C	8/15/2019
MW-1 [Plus, MS/MSD]	460-188226-1	1,4-Dioxane by 8270D SIM, 21 PFAS Compounds by EPA Method 537	7/31/19, 8/02/19
MW-1DUP	460-188226-2	1,4-Dioxane by 8270D SIM, 21 PFAS Compounds by EPA Method 537	7/31/19, 8/02/19
MW-3	460-188226-3	1,4-Dioxane by 8270D SIM, 21 PFAS Compounds by EPA Method 537	7/31/19, 8/02/19
MW-6A	460-188226-4	1,4-Dioxane by 8270D SIM, 21 PFAS Compounds by EPA Method 537	7/31/19, 8/02/19
Field Blanks (F.B.)	460-188226-5	1,4-Dioxane by 8270D SIM, 21 PFAS Compounds by EPA Method 537	7/31/19, 8/02/19

Data Qualifier Definitions:

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

- U - The analyte was analyzed for but was not detected above the reported sample quantitation limit.**
- J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.**
- UJ - The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.**
- R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.**
- N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."**
- NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate quantity.**
- J+ - The result is an estimated quantity, but the result may be biased high. (Equis qualified, JK)**
- J- - The result is an estimated quantity, but the result may be biased low. (Equis qualified, JL)**
- D - Analyte concentration is from diluted analysis.**

Sample Receipt:

The Chain of Custody documents indicates that the samples were received via laboratory courier upon completion of the sampling events. Sample login notes were generated. The cooler temperature for sample receipts was recorded upon receipt and determined to be acceptable (< 6 degrees C). The actual temperatures are recorded on the chain of custody documents and sample receipt checklists provided in Appendix A of this report.

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 include all usable (qualified) and unusable (rejected) results for the samples identified above. The Form I's summarize the detailed narrative section of the report. All data validation qualifications have been reported on the Form I's 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 GC/MS SW846 Method 8260C

The following method criteria were reviewed: holding times, SMCs, MS, MSD, LCS, Laboratory Spiked Blanks, Field Duplicates, Method Blanks, Tunes, Calibrations, Internal Standards, Target Component Identification, Quantitation, Reported Quantitation Limits and Overall System Performance. The Volatile results are valid and useable except for non-detects for 2-Chloroethyl Vinyl Ether in all samples due to non-recoverable MS/MSD/LCS values as a result of acid preservation and non-detects for Acrolein and Ethanol in all samples due to low calibration responses as noted within the following text:

1.1 Holding Time

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

Samples pertaining to these SDGs were analyzed within the Method required holding times as well as the technical holding times for data validation. No data validation qualifiers were required based upon holding time. Groundwater, Field and Trip Blank analysis and reanalysis was performed within holding times of 14 days for HCL preserved vials.

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

Surrogate recoveries (%R) for Dibromofluoromethane, Toluene-d8 and 4-Bromofluorobenzene were found to be within acceptable limits for surrogate compounds for all analyses pertaining to these SDGs.

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 was submitted on MW-1 by Berninger. The laboratory also selected GW-6 @ 5-9' for MS/MSD analysis. 2-Chloroethyl-vinyl ether was not recoverable due to acid preservation. Non-detects in all samples have been rejected, "R."

MW-1 MS/MSD – High recovery was obtained for 1,1,2-Trichloro-1,2,2-trifluoroethane (136%/134%), 1,4-Dioxane (135%/128%), Acetone (138%), Acrylonitrile (121%), Dichlorodifluoromethane (158%/154%), Ethanol (152%) and Methylcyclohexane (140%/136%). These compounds were not found in the parent sample. High recovery does not support any potential loss of detection and/or result bias. No qualifiers were applied based on these outliers. Recovery values for cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-dichloroethene and Trichloroethene were also obtained due to high parent concentration relative to spike amount. No qualifiers are required.

Data was not qualified for RPD outliers. Outliers for RPD were determined to be reasonable per the methodology.

GW-6 5-9' MS/MSD yielded high Acetone (148%/206%), Ethanol (162%/177%) and t-Butyl Alcohol (143%/154%). No qualifiers are required.

Batch MS/MSD data was also submitted in the data packages. Data was not qualified based on samples collected from a different site.

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

1.4 Laboratory Control Sample/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.

Acceptable LCS/Blank Spike and LCS/LCS Duplicate was analyzed. In cases where high recovery was obtained and associated sample results were non-detect, no qualifications to the data is required since high recovery does not support any potential loss of detection and/or result bias. Acceptable recovery values RPD were observed.

Based on professional judgment, no qualifications were made for RPD outliers.

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.

**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:**
The laboratory reported detections of Methylene Chloride, Acetone, Toluene and 1,2,3-Trichlorobenzene have been negated, "U" due to laboratory contamination in all samples.
- B) **Field Blank Contamination:**
Ethylbenzene (0.33 ug/L), m,p-Xylene (1.2 ug/L), o-Xylene (0.50 ug/L) and Acetone were detected in the Field Blank from 7/31/19. Acetone was detected above the reporting limit and therefore reanalyzed. Reanalysis confirms the Acetone detection (which was negated, "U" in all field samples. the laboratory reported concentrations in MW-1 were negated, "U" for Ethylbenzene and Xylenes.
- C) **Trip Blank Contamination:**
Trip Blanks did not have any detections after negated method blank contaminants.

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 (RFB) for all analyses conducted for these SDGs.

1.7 Initial and Continuing Calibrations

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

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

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. Validation criteria allows response factor to be ≥ 0.01 for poor responders (Acetone, MEK, Carbon Disulfide, Chloroethane, Chloromethane, Cyclohexane, 1,2-Dibromoethane, Dichlorodifluoromethane, cis-1,2-Dichloroethene, 1,2-Dichloropropane, 1,2-Dibromo-3-chloropropane, Isopropylbenzene, Methyl Acetate, Methylene Chloride, Methylcyclohexane, MTBE, trans-1,2-Dichloroethene, 4-Methyl-2-Pentanone, 2-Hexanone, Trichlorofluoromethane, 1,1,2-Trichloro-1,2,2-Trifluoroethane).

All the response factors for the target analytes reported were found to be within acceptable limits (≥ 0.05) and (≥ 0.01 for poor responders) and minimum response criteria in Table 4 of Method 8260C, for the initial and continuing calibrations for all reported analytes except for Ethanol and Acrolein. Non-detects in all samples have been rejected, "R."

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. ICV must meet 30% criteria. Poor responders must be $\leq$ 40%.

*Method 8260C allows for several analytes to be outside requirements due to the large number of compounds.

Initial Calibrations: The initial calibrations provided and the %RSD were within acceptable limits (20%) and (40% for poor responders) for all reported compounds.

Continuing Calibrations: The continuing calibrations provided and the %D was within acceptable limits (20%) and (40% for poor responders) for all reported compounds except for Acetone (39.6%) and p-Ethyl toluene (39.0%) in the calibration associated with 7/31/19 samples and Acrylonitrile (85.5%) in the calibration associated with 8/15/19 samples. Results have been qualified, "J/UJ."

1.8 Internal Standards

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

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

All samples were spiked with the internal standards

Fluorobenzene, Chlorobenzene-d5 and 1,4-Dichlorobenzene-d4 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. Acceptable RPD is 50%. Field Duplicates were not required for these sampling events for Volatile Organics.

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 ± 0.06 RRT units of the standard compound and have an ion spectrum which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

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

1.11 Compound Quantification and Reported Detection Limits

GC/MS quantitative analysis is acceptable. Correct internal standards per SW846 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). Groundwater samples were initially analyzed undiluted at 5mls. Based on chlorinated analytes over the instruments' calibration range, secondary and tertiary dilutions were required.

Results are not reported for initial analysis and diluted values qualified, "D as required. Dilutions are reported on the Form I's.

1.12 Overall System Performance

Good resolution and chromatographic performance were observed.

2.0 1,4-Dioxane by GCMS SW846 Method 8270D (SIM).

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 1,4-Dioxane results are valid and usable except for non-detects in MW-1 and MW-1 DUP due to non-recoverable MS/MSD values 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.

Samples were extracted and analyzed within the method required holding times and the technical holding times (7 days from collection for groundwater/field blanks) and 40 days from extraction to analysis) 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 Nitrobenzene-d5 surrogate standard at the sample extraction portion of analysis for 1,4-Dioxane. Recovery values were acceptable.

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.

MS/MSD data was performed on MW-1. 1,4-Dioxane was not recoverable in either the MS or MSD. Spike concentration of 0.8 ug/L was not recoverable. Non-detects in the parent sample and field duplicate (MW-1 DUP) must be considered unreliable and have been rejected, "R."

2.4 Laboratory Control Sample/Laboratory Control Duplicates

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

LCS/LCS Duplicate yielded acceptable recovery values for 1,4 Dioxane. RPD fell outside acceptance range. Data was not qualified based on RPD values.

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.

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

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

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

- A) **Method Blank Contamination:**
1,4-Dioxane was not detected in the method blank associated with sample analysis.
- B) **Field Blank Contamination:**
1,4-Dioxane was not detected in the Field Blank.

2.6 GC/MS Instrument Performance Check

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

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

2.7 Initial and Continuing Calibrations

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

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

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".

1,4-Dioxane response factors 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 $< 20\%$ and %D must be $< 20\%$. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria, non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is $> 30\%$ and eliminating either the high or the low point of the curve does not restore the %RSD to less than or equal to 20% then positive results are qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high-level results will be qualified, "J" in the portion of the curve where non-linearity exists. Due to the large number of analytes in this method, it is expected for some analytes to fall outside acceptance criteria and the calibration is still considered valid.

Acceptable Initial Calibration Verifications were performed.

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

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

CCAL CBNAMS4 8/6/19 – 1,4-Dioxane – 23.8% "UJ" non-detects in MW-3 and MW-6A.

2.8 Internal Standards

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

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

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

Samples were spiked with the internal standard DCBd4 and Naphthalene-d8 for SIM analysis. The area responses and retention time of this internal standard met QC criteria in all samples associated with these samples.

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. An acceptable RPD is 50% for soil samples.

1,4-Dioxane was not detected in MW-1 DUP. Non-detects must be considered unreliable and have been rejected, "R" due to MW-1 MS/MSD data.

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 $\pm 0.06\text{RRT}$ units of the standard compound and have an ion spectrum which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

Mass spectra meet criteria for 1,4-Dioxane.

2.11 Compound Quantification and Reported Detection Limits

GC/MS quantitative analysis is acceptable. Correct internal standards, 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). Samples were analyzed undiluted. 1,4-Dioxane was not detected in any of the groundwater samples.

2.12 Overall System Performance

Acceptable system performance was maintained throughout the analysis.

3.0 PFAS Analytes by LC/MS/MS EPA Modified Method 537

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

3.1 Holding Time

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

Samples were extracted and performed within the method required holding times of 14 days from collection to extraction and 28 days from extraction to analysis for sample extracts. No data validation qualifiers were required based upon holding time.

3.2 System Monitoring Compound (Surrogate) Recovery

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

Surrogate recoveries (%R) were found to be within acceptable limits for all analyses.

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

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

MS/MSD analysis on MW-1 yielded acceptable recovery and RPD values for all spiked analytes where the parent concentration was less than 4x the spike level. Spike recoveries are not applicable where sample concentration exceed 4x the spike level.

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

3.4 Laboratory Control Sample

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

Acceptable LCS was analyzed. Recovery values were acceptable for all spiked compounds.

3.5 Blank Contamination

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

samples during field operations.

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

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

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

A) Method Blank Contamination:

PFHxS was detected at 0.413 ng/L, PFOA 2.574 ng/L and FOSA at 2.482 ng/L in the extraction blank associated with sample analysis. FOSA was negated, "U" in MW-3. Remaining sample detections must be considered real.

B) Field Blank Contamination:

PFHxS was detected in the Field Blank at 0.28 ng/L. No additional qualifiers are required based on this low detection.

3.6 Initial and Continuing Calibrations

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

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

Initial and continuing calibration verifications were acceptable.

3.7 Internal Standards

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

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

All samples were spiked with the internal standards 13C2-PFOA prior to sample analysis. The area responses and retention time of this internal standard met QC criteria except for diluted reanalysis of MW-1 and MW-6A due to complicated matrices. MW-1 MS/MSD exhibited similar response which confirms a sample matrix effect. High internal standard response indicates reported concentrations must be considered estimated, biased low, "J-."

3.8 Field Duplicates

Field duplicate samples are collected and analyzed as an indication of overall precision. These results are expected to have more variability than laboratory duplicate samples. Acceptable precision was observed for MW-1 and MW-1 DUP for all detected compounds.

3.9 Target Compound List Identification

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

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

3.10 Compound Quantification and Reported Detection Limits

LC/MS/MS quantitative analysis is acceptable. Samples were extracted by solid phase extraction techniques. Correct internal standards per EPA Method 537 and response factors were used to calculate final concentrations.

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). Samples were initially analyzed undiluted. MW-1, MW-1 DUP and MW-6A required secondary and tertiary dilutions due to analyte concentration over the instruments' calibration range. Results have been qualified, "D" where compound was obtained from diluted run. EPA Method 537 analysis was performed by Eurofins TestAmerica Sacramento. Results are reported in ng/L where (1 ng/L = 0.001 ug/L).

3.11 Overall System Performance

Good resolution and chromatographic performance were observed.

Reviewer's Signature

Lou A. Bay Date 10/4/19

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



CERTIFICATIONS

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

Client Information				Project Information				Analytical Test / Information											
Company Name	Address	City	State	Project Name	Street	City	State	Zip											
BET	17 Old Oak Rd.	Yaphank	NY	American Drive-In	Clamers	Yaphank	NY												
Project Contact	Justin			Project # / Purchase Order #															
Phone #	631 588 6521			Sampler's Name / Company															
E-mail	jahand@wres.com			Sampler's Signature															
Sample Information				Sample Collection				Sample Containers											
LAB SAMPLE #	Client Sample ID	Sample Type	Matrix Code	Date	Time	Glass / Plastic	Total # of bottles	None	HC	NaOH	HNO ₃	H ₂ SO ₄	DI Water (5035A)	MeOH	OTHER				
1908001-001	MW-1 (ms/msd)	G	DL	7/31/99	9:50	G	6		X						X				
002	MW-2	I			9:30	I	2		X						X				
003	MW-3	I			10:00	I	2		X						X				
004	MW-6A	I			10:30	I	2		X						X				
005	MW-7	I			11:00	I	2		X						X				
006	MW-8	I			11:30	I	2		X						X				
007	MW-N	I			12:00	I	2		X						X				
008	Trip Blanks	I				I	2		X						X				
009	Field Blanks (FB)	I				I	2		X						X				
Turnaround Time (Business Days)				SAMPLE TYPE				MATRIX CODE				ELECTRONIC DELIVERABLES				Comments / Remarks			
Standard	7-10 Business Days	3 Day RUSH	G = Grab	L = Liquid	PC = Paint Chip	NYCRR Part 375 - please circle				Unres/ Comm/ Industrial/ Residential/ Res Residential/ PGW									
5 Day RUSH	2 Day RUSH	C = Composite	S = Soil	SL = Sludge		NJ Soil Clean Up Criteria				SCDOH Action Levels									
4 Day RUSH	1 Day RUSH	B = Blank	O = Oil	SD = Solid		CP 51 - Gas / Fuel				TCLP Hazardous Waste									
Please contact laboratory for rush service availability				W = Waste	M = Misc	TOGS				NYSDEC EQUIS									
Sample custody must be documented below, each time samples change possession, with a signature, date, and time.				RECEIVED BY LAB (SIGNATURE)				DATE				PRINTED NAME							
RELINQUISHED BY (SIGNATURE)				8/1/99				8/1/99				8/1/99				8/1/99			
RELINQUISHED BY (SIGNATURE)				8/1/99				8/1/99				8/1/99				8/1/99			

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				Project Information				Analytical Test / Information							
Company Name	Address	City	State	Project Name	Street	City	State	Project # / Purchase Order #	Sampler's Name	Sampler's Signature	Comments / Remarks				
1701a Dock Rd.	Yaphank	NY	11980	American Drive-In	1345 Peninsula Blvd.	Yaphank	NY	1345	Peninsula Blvd.	Yaphank	8/15/17				
Project Contact	Phone #	E-mail													
Sample Information				Sample Collection				Sample Containers							
LAB SAMPLE #	Client Sample ID	Sample Type	Matrix Code	Date	Time	Glass / Plastic	Total # of bottles	None	HO	HNO ₃	H ₂ SO ₄	DI Water (5035A)	MeOH	Other	
190834-001	Gw-40 5-9'	G	L	8/15/17	8:00	G	2		X						
002	" 15-19'			8:00					X						
003	" 20-24'			8:00					X						
004	Gw-50 5-9'			9:30					X						
005	Gw-50 15-19'			10:00					X						
006	Gw-50 20-30'			10:15					X						
007	Gw-60 5-9' (field)			11:00					X						
008	Gw-60 15-19'			11:45					X						
009	Gw-60 20-30'			11:30					X						
010	Field Blanks			12:30											
011	Trip Blanks														
Turnaround Time (Business Days)				SAMPLE TYPE				MATRIX CODE				ELECTRONIC DELIVERABLES			
Standard	7-10 Business Days	3 Day RUSH	G = Grab	L = Liquid	PC = Paint Chip	NYCRR Part 375 - please circle				Unres/ Comm/ Industrial/ Residential/ Res Residential/ PGW					
5 Day RUSH	2 Day RUSH	C = Composite	S = Soil	SL = Sludge	NJ Soil Clean Up Criteria				SCDOH Action Levels						
4 Day RUSH	1 Day RUSH	B = Blank	O = Oil	SD = Solid	CP 51 - Gas / Fuel				TCLP Hazardous Waste						
Please contact laboratory for rush service availability				W = Wipe	M = Misc	TOGS				NYSDEC EQUIS					
RELINQUISHED BY (SIGNATURE)				RELINQUISHED BY (SIGNATURE)				RELINQUISHED BY (SIGNATURE)				RELINQUISHED BY (SIGNATURE)			
DATE				DATE				DATE				DATE			
TIME				TIME				TIME				TIME			

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Name (for report and invoice) Justin Halpin (BEI)		Samplers Name (Printed) 1004-1505		Site/Project Identification American Drive-in Cleaners	
Company WRS (dba BEI)		P.O. # 29141		State (Location of site): NJ NY: ☒ Other: ☐	
Address 17 old Dock Rd.		Analysis Turnaround Time Standard ☒ Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐		Regulatory Program: NYS DEC DKQP: ☐	
City Yaphank		State NY		LAB USE ONLY Project No:	
Phone (631) 589-6321		Fax ---		Job No: 188226	
Sample Identification		Date		Sample Numbers	
MW-1 (cup ms/msd)		7/31/19		1,2	
MW-3		↓		3	
MW-6A		↓		4	
Field Blanks (F.B.)		↓		5	
T.B.		↓		6	
Preservation Use: 1 = HCl, 2 = H ₂ SO ₄ , 3 = HNO ₃ , 4 = NaOH, 5 = NaOH, 6 = Other, 7 = Other		Soil: Water:		SUB WORK	

Special Instructions ASP-CAT-B deliverables (NYS)		Water Metals Filtered (Yes/No) ☒	
Relinquished by [Signature]	Company WRS	Date / Time 8/2/19 10:53	Received by [Signature]
Relinquished by [Signature]	Company WRS	Date / Time 8/2/19 10:53	Received by [Signature]
Relinquished by [Signature]	Company WRS	Date / Time 8/2/19 10:53	Received by [Signature]
Relinquished by [Signature]	Company WRS	Date / Time 8/2/19 10:53	Received by [Signature]
Relinquished by [Signature]	Company WRS	Date / Time 8/2/19 10:53	Received by [Signature]

Sample Log-In Check List

Client Name:	Berninger	Work Order Number:	1908001
Logged by:	Lori Beyer	8/1/2019 9:00 AM	<i>Lori Beyer</i>
Completed By:	Lori Beyer	8/1/2019 9:21 AM	<i>Lori Beyer</i>
Reviewed By:	Phyllis Masi	8/1/2019 12:00 AM	<i>Phyllis Masi</i>

Chain of Custody

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

Log In

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

Special Handling (if applicable)

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

Person Notified:

By Whom:

Regarding:

Client Instructions:

Date:

Via ☐ email ☐ Phone ☐ Fax ☐ In Person

18. Additional remarks:

Cooler Information

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

Sample Log-In Check List

Client Name: **Berninger**

Work Order Number: **1908134**

Logged by: **Lori Beyer**

8/15/2019 4:20 PM

Lori Beyer

Completed By: **Lori Beyer**

8/15/2019 4:53 PM

Lori Beyer

Reviewed By: **Lori Beyer**

8/15/2019 5:15 PM

Lori Beyer

Chain of Custody

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

Log In

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

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via ☐ 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			

Login Sample Receipt Checklist

Client: WRS Environmental Services

Job Number: 460-188226-1

Login Number: 188226

List Number: 1

Creator: Rivera, Kenneth

List Source: Eurofins TestAmerica, Edison

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

Login Sample Receipt Checklist

Client: WRS Environmental Services

Job Number: 460-188226-1

Login Number: 188226

List Number: 2

Creator: Kintaudi, Pauline W

List Source: Eurofins TestAmerica, Sacramento

List Creation: 08/05/19 11:46 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

**Appendix B
Case Narratives**

American Analytical Laboratories, LLC. - Case Narrative

WO#: 1908001

Date Reported: 8/16/2019
Revision v1

Client: WRS d.b.a Berninger Environmental
Project: American Drive-In Cleaners, 1345 Peninsula Blvd, Hewlett, 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 noted in this Narrative discussion and/or the QC summary section of the report.

Volatile LCS are analyzed with preservatives - HCL/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.

Field Blank for VOA was determined to contain Acetone above the LOQ. Second vial was analyzed to confirm.

MW-1 was selected for MS/MSD analysis.

In cases where target analyte concentrations were over the calibration range, a diluted reanalysis was performed.

The following parameters (if included in this report) are not offered by NY ELAP: VOA 8260 Soil; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Diisopropyl ether, Ethanol, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Limonene. VOA 8260 Liquid; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Limonene. Pesticides 8081 Soil; DBCP. Herbicides 8151 Soil; 3,5-Dichlorobenzoic Acid, 4-Nitrophenol, Acifluorfen, Bentazon, Chloramben, DCPA, Picloram, SM 2540G Total Volatile Solids, Soil TKN, Soil Organic Nitrogen, Total Phosphorus in soil, Percent Moisture, pH in non-potable water and temperature at which pH is measured, SM 4500-SO₃ B Sulfite in Liquid, Total Sulfur in Soil, Acid Soluble Chloride by ASTM C1152, Water Soluble Chloride by ASTM C1218, Chlorine Demand by SM 2350 B, Total Residual Chlorine in Liquid and Reactivity to Sulfide and Reactivity to Cyanide.

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

for 9/9/19

American Analytical Laboratories, LLC. - Case Narrative

WO#: 1908134

Date Reported: 9/4/2019
Revision v1

Client: WRS d.b.a Berninger Environmental
Project: American Drive-In Cleaners, 1345 Peninsula Blvd, Hewlett, 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.

Volatile LCS are analyzed with preservatives - HCL/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.

GW-6 @ 5-9' was selected for MS/MSD analysis.

The following parameters (if included in this report) are not offered by NY ELAP: VOA 8260 Soil; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Diisopropyl ether, Ethanol, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Limonene. VOA 8260 Liquid; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Limonene. Pesticides 8081 Soil; DBCP. Herbicides 8151 Soil; 3,5-Dichlorobenzoic Acid, 4-Nitrophenol, Acifluorfen, Bentazon, Chloramben, DCPA, Picloram, SM 2540G Total Volatile Solids, Soil TKN, Soil Organic Nitrogen, Total Phosphorus in soil, Percent Moisture, pH in non-potable water and temperature at which pH is measured, SM 4500-SO₃ B Sulfite in Liquid, Total Sulfur in Soil, Acid Soluble Chloride by ASTM C1152, Water Soluble Chloride by ASTM C1218, Chlorine Demand by SM 2350 B, Total Residual Chlorine in Liquid and Reactivity to Sulfide and Reactivity to Cyanide.

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

805
9/9/19

CASE NARRATIVE

Client: WRS Environmental Services

Project: American Drive-in Cleaners

Report Number: 460-188226-1

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

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

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

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

RECEIPT

The samples were received on 08/02/2019; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.5 C.

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

1,4 DIOXANE BY METHOD 8270 SIM

Samples MW-1 (460-188226-1), MW-1DUP (460-188226-2), MW-3 (460-188226-3), MW-6A (460-188226-4) and Field Blanks(F.B) (460-188226-5) were analyzed for 1,4 Dioxane by Method 8270 SIM in accordance with EPA SW-846 Method 8270D SIM DKQP. The samples were prepared on 08/06/2019 and analyzed on 08/07/2019 and 08/08/2019.

The continuing calibration verification (CCV) analyzed in batch 460-630106 was outside the method criteria for the following analyte(s): 1,4-Dioxane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch preparation batch 460-629899 and analytical batch 460-630104 recovered outside control limits for the following analytes: 1,4-Dioxane.

1,4-Dioxane exceeded the RPD limit for LCSD 460-629899/3-A. Refer to the QC report for details.

1,4-Dioxane failed the recovery criteria low for the MS/MSD of sample MW-1MS (460-188226-1) in batch 460-630393.

Refer to the QC report for details.

No other difficulties were encountered during the SVOC SIM DKQP analysis.

All other quality control parameters were within the acceptance limits.

PERFLUORINATED HYDROCARBONS (PFC)

Samples MW-1 (460-188226-1), MW-1DUP (460-188226-2), MW-3 (460-188226-3), MW-6A (460-188226-4) and Field Blanks(F.B) (460-188226-5) were analyzed for Perfluorinated Hydrocarbons (PFC) in accordance with PFC. The samples were prepared on 08/08/2019 and analyzed on 08/09/2019, 08/10/2019 and 08/13/2019.

Due to the high concentration of N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA), the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 320-313282 and analytical batch 320-313696 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

The method blank for preparation batch 320-313282 and analytical batch 320-313696 contained Perfluorooctanesulfonic acid (PFOS) and Perfluorooctanesulfonamide (FOSA) above the reporting limit (RL). Associated samples were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank or below the reporting limit for those analytes.

The matrix spike and matrix spike duplicate has detections which exceeded the calibration range as a result of fortification with standard solution. The parent samples was within the calibration range.

Results for samples MW-1 (460-188226-1), MW-1 (460-188226-1[MS]), MW-1 (460-188226-1[MSD]), MW-1DUP (460-188226-2) and MW-6A (460-188226-4) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Results for samples MW-1 (460-188226-1), MW-1 (460-188226-1[MS]) and MW-1 (460-188226-1[MSD]) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

The following samples are slightly yellow and contain particulate at the bottom of the bottle prior to extraction: W-1 (460-188226-1), MW-1 (460-188226-1[MS]), MW-1 (460-188226-1[MSD]), MW-1DUP (460-188226-2), MW-3 (460-188226-3) and MW-6A (460-188226-4)

During the solid phase extraction process, the following samples have non-settable particulate which clogged the solid phase extraction column MW-1 (460-188226-1[MS]), MW-1 (460-188226-1[MSD]) and MW-1DUP (460-188226-2).

The following samples are slightly yellow after extraction: MW-1 (460-188226-1), MW-1 (460-188226-1[MS]), MW-1 (460-188226-1[MSD]), MW-1DUP (460-188226-2), MW-3 (460-188226-3) and MW-6A (460-188226-4)

Perfluorooctanesulfonamide (FOSA) and Perfluorooctanesulfonic acid (PFOS) were detected in method blank MB 320-313282/1-A at levels exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Perfluorohexanesulfonic acid (PFHxS) was detected in method blank MB 320-313282/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) and Perfluorooctanesulfonic acid (PFOS) failed the recovery criteria high for the MS of sample MW-1MS (460-188226-1) in batch 320-314779.

Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS) failed the recovery criteria low for the MSD of sample MW-1MSD (460-188226-1) in batch 320-314779. N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) failed the recovery criteria high.

Refer to the QC report for details.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Samples MW-1 (460-188226-1)[10X], MW-1 (460-188226-1)[20X], MW-1DUP (460-188226-2)[20X] and MW-6A (460-188226-4)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

All other quality control parameters were within the acceptance limits.

Appendix C
Data Summary Form I's
with Qualifications

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-1

Lab Name: American Analytical Laboratories, LLC. Contract: _____

Lab Code: AAL ClientID: Berninger SAS No.: _____ SDG No.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-001A

Sample wt/vol: 5mL Lab File ID: V1-0035.D

Level: (low/med) LOW Date Collected: 7/31/2019 9:00 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000(µl) Date Prepped: 8/5/2019 8:18 AM

Seq Number: 808758 Date Analyzed: 8/6/2019 6:28 AM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 22885/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0
75-35-4	1,1-Dichloroethene	15		0.25	0.25	2.0
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0
95-63-6	1,2,4-Trimethylbenzene	3.6		0.25	0.25	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0
95-50-1	1,2-Dichlorobenzene	0.65	J	0.25	0.25	2.0
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0
110-75-8	2-Chloroethyl vinyl ether	10	R-8	10	10	20
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0
108-10-1	4-Methyl-2-pentanone	0.50	U	0.50	0.50	4.0
67-64-1	Acetone	19	B-11	5.0	5.0	10

SW8260C

8/9/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-1

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908001Matrix: LiquidLab Sample ID: 1908001-001ASample wt/vol: 5mLLab File ID: V1-0035.DLevel: (low/med) LOWDate Collected: 7/31/2019 9:00 AM% Moisture: N/ADate Received: 8/1/2019 9:00 AMExtract Volume: 5000(µl)Date Prepped: 8/5/2019 8:18 AMSeq Number: 808758Date Analyzed: 8/6/2019 6:28 AMGC Column: V1 06/10/2019 SN#1629116Dilution Factor: 1.00Column ID: 0.18(mm)Batch ID/ Ext Mthd: 22885/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene		0.25	U	0.25	0.25	2.0
108-86-1	Bromobenzene		0.25	U	0.25	0.25	2.0
74-97-5	Bromochloromethane		0.25	U	0.25	0.25	2.0
75-27-4	Bromodichloromethane		0.25	U	0.25	0.25	2.0
75-25-2	Bromoform		0.25	U	0.25	0.25	2.0
74-83-9	Bromomethane		0.25	U	0.25	0.25	2.0
75-15-0	Carbon disulfide		0.25	U	0.25	0.25	2.0
56-23-5	Carbon tetrachloride		0.25	U	0.25	0.25	2.0
108-90-7	Chlorobenzene		0.25	U	0.25	0.25	2.0
75-45-6	Chlorodifluoromethane		0.25	U	0.25	0.25	2.0
75-00-3	Chloroethane		0.25	U	0.25	0.25	2.0
67-66-3	Chloroform		0.25	U	0.25	0.25	2.0
74-87-3	Chloromethane		0.25	U	0.25	0.25	2.0
10061-01-5	cis-1,3-Dichloropropene		0.25	U	0.25	0.25	2.0
110-82-7	Cyclohexane		0.25	U	0.25	0.25	2.0
124-48-1	Dibromochloromethane		0.25	U	0.25	0.25	2.0
74-95-3	Dibromomethane		0.25	U	0.25	0.25	2.0
75-71-8	Dichlorodifluoromethane		0.25	U	0.25	0.25	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	1.0
100-41-4	Ethylbenzene		0.76	U	0.25	0.25	2.0
76-14-2	Freon-114		0.25	U	0.25	0.25	2.0
87-68-3	Hexachlorobutadiene		0.25	U	0.25	0.25	2.0
98-82-8	Isopropylbenzene		24	U	0.25	0.25	2.0
179601-23-1	m,p-Xylene		0.67	U	0.50	0.50	4.0
79-20-9	Methyl Acetate		0.25	U	0.25	0.25	2.0
1634-04-4	Methyl tert-butyl ether		0.25	U	0.25	0.25	2.0
75-09-2	Methylene chloride		2.4	U	0.25	0.25	2.0
104-51-8	n-Butylbenzene		0.25	U	0.25	0.25	2.0
103-65-1	n-Propylbenzene		2.7	U	0.25	0.25	2.0
91-20-3	Naphthalene		0.25	U	0.25	0.25	2.0
95-47-6	o-Xylene		1.1	U	0.25	0.25	2.0
105-05-5	p-Diethylbenzene		0.25	U	0.25	0.25	2.0

SW8260C

for 9/9/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-1

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-001A

Sample wt/vol: 5mL Lab File ID: V1-0035.D

Level: (low/med) LOW Date Collected: 7/31/2019 9:00 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000(µl) Date Prepped: 8/5/2019 8:18 AM

Seq Number: 808758 Date Analyzed: 8/6/2019 6:28 AM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 22885/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
622-96-8	p-Ethyltoluene	4.4		J	0.25	0.25	2.0
135-98-8	sec-Butylbenzene	0.25		U	0.25	0.25	2.0
100-42-5	Styrene	0.25		U	0.25	0.25	2.0
75-65-0	t-Butyl alcohol	2.5		U	2.5	2.5	10
98-06-6	tert-Butylbenzene	1.0		J	0.25	0.25	2.0
108-88-3	Toluene	0.49		J	0.25	0.25	2.0
156-60-5	trans-1,2-Dichloroethene	120			0.25	0.25	2.0
10061-02-6	trans-1,3-Dichloropropene	0.25		U	0.25	0.25	2.0
75-69-4	Trichlorofluoromethane	0.25		U	0.25	0.25	2.0
108-05-4	Vinyl acetate	0.25		U	0.25	0.25	2.0
75-01-4	Vinyl chloride	140			0.25	0.25	2.0
1330-20-7	Xylenes, Total	1.8		J V	0.75	0.75	6.0
108-87-2	Methylcyclohexane	0.25		U	0.25	0.25	2.0
107-02-8	Acrolein	1.0		J R	1.0	1.0	10
107-13-1	Acrylonitrile	0.25		U	0.25	0.25	2.0

SW8260C

for 10/14/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-1

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908001Matrix: LiquidLab Sample ID: 1908001-001ASample wt/vol: 5mLLab File ID: V1-0010.DLevel: (low/med) LOWDate Collected: 7/31/2019 9:00 AM% Moisture: N/ADate Received: 8/1/2019 9:00 AMExtract Volume: 5000 (ul)Date Prepped: 8/8/2019 11:06 AMSeq Number: 810385Date Analyzed: 8/8/2019 5:29 PMGC Column: V1 06/10/2019 SN#1629116Dilution Factor: 100.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
156-59-2	cis-1,2-Dichloroethene	14000	D	25	25	200
79-01-6	Trichloroethene	9900	D	25	25	200

SW8260C

8/9/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-1

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-001A

Sample wt/vol: 5mL Lab File ID: V1-0009.D

Level: (low/med) LOW Date Collected: 7/31/2019 9:00 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000(µl) Date Prepped: 8/8/2019 11:06 AM

Seq Number: 810384 Date Analyzed: 8/8/2019 4:59 PM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 500.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
127-18-4	Tetrachloroethene	32000		D	130	130	1000

SW8260C

for 9/19/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-2

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-002A

Sample wt/vol: 5mL Lab File ID: V1-0012.D

Level: (low/med) LOW Date Collected: 7/31/2019 9:10 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000(ul) Date Prepped: 8/8/2019 11:06 AM

Seq Number: 810387 Date Analyzed: 8/8/2019 6:31 PM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00

Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane		0.25	U	0.25	0.25	2.0
71-55-6	1,1,1-Trichloroethane		0.25	U	0.25	0.25	2.0
79-34-5	1,1,2,2-Tetrachloroethane		0.25	U	0.25	0.25	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.25	U	0.25	0.25	2.0
79-00-5	1,1,2-Trichloroethane		0.25	U	0.25	0.25	2.0
75-34-3	1,1-Dichloroethane		0.25	U	0.25	0.25	2.0
75-35-4	1,1-Dichloroethene		0.25	U	0.25	0.25	2.0
563-58-6	1,1-Dichloropropene		0.25	U	0.25	0.25	2.0
87-61-6	1,2,3-Trichlorobenzene		0.25	U	0.25	0.25	2.0
96-18-4	1,2,3-Trichloropropane		0.25	U	0.25	0.25	2.0
95-93-2	1,2,4,5-Tetramethylbenzene		0.25	U	0.25	0.25	2.0
120-82-1	1,2,4-Trichlorobenzene		0.25	U	0.25	0.25	2.0
95-63-6	1,2,4-Trimethylbenzene		0.25	U	0.25	0.25	2.0
96-12-8	1,2-Dibromo-3-chloropropane		0.25	U	0.25	0.25	2.0
106-93-4	1,2-Dibromoethane		0.25	U	0.25	0.25	2.0
95-50-1	1,2-Dichlorobenzene		0.25	U	0.25	0.25	2.0
107-06-2	1,2-Dichloroethane		0.25	U	0.25	0.25	2.0
78-87-5	1,2-Dichloropropane		0.25	U	0.25	0.25	2.0
108-67-8	1,3,5-Trimethylbenzene		0.25	U	0.25	0.25	2.0
541-73-1	1,3-Dichlorobenzene		0.25	U	0.25	0.25	2.0
142-28-9	1,3-dichloropropane		0.25	U	0.25	0.25	2.0
106-46-7	1,4-Dichlorobenzene		0.25	U	0.25	0.25	2.0
123-91-1	1,4-Dioxane		0.25	U	0.25	0.25	1.0
594-20-7	2,2-Dichloropropane		0.25	U	0.25	0.25	2.0
78-93-3	2-Butanone		0.50	U	0.50	0.50	4.0
110-75-8	2-Chloroethyl vinyl ether	10	U	10	10	20	
95-49-8	2-Chlorotoluene		0.25	U	0.25	0.25	2.0
591-78-6	2-Hexanone		0.50	U	0.50	0.50	4.0
67-63-0	2-Propanol		0.25	U	0.25	0.25	2.0
106-43-4	4-Chlorotoluene		0.25	U	0.25	0.25	2.0
99-87-6	4-Isopropyltoluene		0.25	U	0.25	0.25	2.0
108-10-1	4-Methyl-2-pentanone		0.50	U	0.50	0.50	4.0
67-64-1	Acetone	39	U	5.0	5.0	10	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-2

Lab Name: American Analytical Laboratories, LLC. Contract: _____

Lab Code: AAL ClientID: Berninger SAS No.: _____ SDG No.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-002A

Sample wt/vol: 5mL Lab File ID: V1-0012.D

Level: (low/med) LOW Date Collected: 7/31/2019 9:10 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000 (µl) Date Prepped: 8/8/2019 11:06 AM

Seq Number: 810387 Date Analyzed: 8/8/2019 6:31 PM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00

Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene		0.25	U	0.25	0.25	2.0
108-86-1	Bromobenzene		0.25	U	0.25	0.25	2.0
74-97-5	Bromochloromethane		0.25	U	0.25	0.25	2.0
75-27-4	Bromodichloromethane		0.25	U	0.25	0.25	2.0
75-25-2	Bromoform		0.25	U	0.25	0.25	2.0
74-83-9	Bromomethane		0.25	U	0.25	0.25	2.0
75-15-0	Carbon disulfide		0.25	U	0.25	0.25	2.0
56-23-5	Carbon tetrachloride		0.25	U	0.25	0.25	2.0
108-90-7	Chlorobenzene		0.25	U	0.25	0.25	2.0
75-45-6	Chlorodifluoromethane		0.25	U	0.25	0.25	2.0
75-00-3	Chloroethane		0.25	U	0.25	0.25	2.0
67-66-3	Chloroform		0.25	U	0.25	0.25	2.0
74-87-3	Chloromethane		0.25	U	0.25	0.25	2.0
156-59-2	cis-1,2-Dichloroethene	100			0.25	0.25	2.0
10061-01-5	cis-1,3-Dichloropropene		0.25	U	0.25	0.25	2.0
110-82-7	Cyclohexane		0.25	U	0.25	0.25	2.0
124-48-1	Dibromochloromethane		0.25	U	0.25	0.25	2.0
74-95-3	Dibromomethane		0.25	U	0.25	0.25	2.0
75-71-8	Dichlorodifluoromethane		0.25	U	0.25	0.25	2.0
108-20-3	Diisopropyl ether		0.50	U	0.50	0.50	2.0
64-17-5	Ethanol		2.5	U R	2.5	2.5	10
100-41-4	Ethylbenzene		0.25	U	0.25	0.25	2.0
76-14-2	Freon-114		0.25	U	0.25	0.25	2.0
87-68-3	Hexachlorobutadiene		0.25	U	0.25	0.25	2.0
98-82-8	Isopropylbenzene		0.25	U	0.25	0.25	2.0
179601-23-1	m,p-Xylene		0.50	U	0.50	0.50	4.0
79-20-9	Methyl Acetate		0.25	U	0.25	0.25	2.0
1634-04-4	Methyl tert-butyl ether		0.25	U	0.25	0.25	2.0
75-09-2	Methylene chloride		2.8	U U	0.25	0.25	2.0
104-51-8	n-Butylbenzene		0.25	U	0.25	0.25	2.0
103-65-1	n-Propylbenzene		0.25	U	0.25	0.25	2.0
91-20-3	Naphthalene		0.25	U	0.25	0.25	2.0
95-47-6	o-Xylene		0.25	U	0.25	0.25	2.0

SW8260C

for 9/9/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-2

Lab Name: American Analytical Laboratories, LLC. Contract: _____
 Lab Code: AAL ClientID: Berninger SAS No.: _____ SDG No.: 1908001
 Matrix: Liquid Lab Sample ID: 1908001-002A
 Sample wt/vol: 5mL Lab File ID: V1-0012.D
 Level: (low/med) LOW Date Collected: 7/31/2019 9:10 AM
 % Moisture: N/A Date Received: 8/1/2019 9:00 AM
 Extract Volume: 5000(µl) Date Prepped: 8/8/2019 11:06 AM
 Seq Number: 810387 Date Analyzed: 8/8/2019 6:31 PM
 GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00
 Column ID: 0.18(mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
105-05-5	p-Diethylbenzene	0.25	U		0.25	0.25	2.0
622-96-8	p-Ethyltoluene	0.25		U (U)	0.25	0.25	2.0
135-98-8	sec-Butylbenzene	0.25	U		0.25	0.25	2.0
100-42-5	Styrene	0.25	U		0.25	0.25	2.0
75-65-0	t-Butyl alcohol	2.5	U		2.5	2.5	10
98-06-6	tert-Butylbenzene	0.25	U		0.25	0.25	2.0
127-18-4	Tetrachloroethene	190			0.25	0.25	2.0
108-88-3	Toluene	0.25	U		0.25	0.25	2.0
156-60-5	trans-1,2-Dichloroethene	0.85	J		0.25	0.25	2.0
10061-02-6	trans-1,3-Dichloropropene	0.25	U		0.25	0.25	2.0
79-01-6	Trichloroethene	75			0.25	0.25	2.0
75-69-4	Trichlorofluoromethane	0.25	U		0.25	0.25	2.0
108-05-4	Vinyl acetate	0.25	U		0.25	0.25	2.0
75-01-4	Vinyl chloride	0.25	U		0.25	0.25	2.0
1330-20-7	Xylenes, Total	0.75	U		0.75	0.75	6.0
108-87-2	Methylcyclohexane	0.25	U		0.25	0.25	2.0
107-02-8	Acrolein	1.0		U R	1.0	1.0	10
107-13-1	Acrylonitrile	0.25	U		0.25	0.25	2.0

SW8260C

for
10/3/19

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.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-003A

Sample wt/vol: 5mL Lab File ID: V1-0013.D

Level: (low/med) LOW Date Collected: 7/31/2019 10:20 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000(ul) Date Prepped: 8/8/2019 11:06 AM

Seq Number: 810388 Date Analyzed: 8/8/2019 7:01 PM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0
75-35-4	1,1-Dichloroethene	0.25	U	0.25	0.25	2.0
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	0.25	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	0.25	2.0
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0
110-75-8	2-Chloroethyl vinyl ether	10	U	10	10	20
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0
108-10-1	4-Methyl-2-pentanone	0.50	U	0.50	0.50	4.0
67-64-1	Acetone	25	U	5.0	5.0	10

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.: 1908001
 Matrix: Liquid Lab Sample ID: 1908001-003A
 Sample wt/vol: 5mL Lab File ID: V1-0013.D
 Level: (low/med) LOW Date Collected: 7/31/2019 10:20 AM
 % Moisture: N/A Date Received: 8/1/2019 9:00 AM
 Extract Volume: 5000(µl) Date Prepped: 8/8/2019 11:06 AM
 Seq Number: 810388 Date Analyzed: 8/8/2019 7:01 PM
 GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00
 Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene		0.25	U	0.25	0.25	2.0
108-86-1	Bromobenzene		0.25	U	0.25	0.25	2.0
74-97-5	Bromochloromethane		0.25	U	0.25	0.25	2.0
75-27-4	Bromodichloromethane		0.25	U	0.25	0.25	2.0
75-25-2	Bromoform		0.25	U	0.25	0.25	2.0
74-83-9	Bromomethane		0.25	U	0.25	0.25	2.0
75-15-0	Carbon disulfide		0.25	U	0.25	0.25	2.0
56-23-5	Carbon tetrachloride		0.25	U	0.25	0.25	2.0
108-90-7	Chlorobenzene		0.25	U	0.25	0.25	2.0
75-45-6	Chlorodifluoromethane		0.25	U	0.25	0.25	2.0
75-00-3	Chloroethane		0.25	U	0.25	0.25	2.0
67-66-3	Chloroform		0.25	U	0.25	0.25	2.0
74-87-3	Chloromethane		0.25	U	0.25	0.25	2.0
156-59-2	cis-1,2-Dichloroethene	18			0.25	0.25	2.0
10061-01-5	cis-1,3-Dichloropropene		0.25	U	0.25	0.25	2.0
110-82-7	Cyclohexane		0.25	U	0.25	0.25	2.0
124-48-1	Dibromochloromethane		0.25	U	0.25	0.25	2.0
74-95-3	Dibromomethane		0.25	U	0.25	0.25	2.0
75-71-8	Dichlorodifluoromethane		0.25	U	0.25	0.25	2.0
108-20-3	Diisopropyl ether		0.50	U	0.50	0.50	2.0
64-17-5	Ethanol		2.5	U R	2.5	2.5	10
100-41-4	Ethylbenzene		0.25	U	0.25	0.25	2.0
76-14-2	Freon-114		0.25	U	0.25	0.25	2.0
87-68-3	Hexachlorobutadiene		0.25	U	0.25	0.25	2.0
98-82-8	Isopropylbenzene		0.25	U	0.25	0.25	2.0
179601-23-1	m,p-Xylene		0.50	U	0.50	0.50	4.0
79-20-9	Methyl Acetate		0.25	U	0.25	0.25	2.0
1634-04-4	Methyl tert-butyl ether		0.25	U	0.25	0.25	2.0
75-09-2	Methylene chloride		2.9	U U	0.25	0.25	2.0
104-51-8	n-Butylbenzene		0.25	U	0.25	0.25	2.0
103-65-1	n-Propylbenzene		0.25	U	0.25	0.25	2.0
91-20-3	Naphthalene		0.25	U	0.25	0.25	2.0
95-47-6	o-Xylene		0.25	U	0.25	0.25	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.: 1908001
 Matrix: Liquid Lab Sample ID: 1908001-003A
 Sample wt/vol: 5mL Lab File ID: V1-0013.D
 Level: (low/med) LOW Date Collected: 7/31/2019 10:20 AM
 % Moisture: N/A Date Received: 8/1/2019 9:00 AM
 Extract Volume: 5000(µl) Date Prepped: 8/8/2019 11:06 AM
 Seq Number: 810388 Date Analyzed: 8/8/2019 7:01 PM
 GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00
 Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
105-05-5	p-Diethylbenzene	0.25	U		0.25	0.25	2.0
622-96-8	p-Ethyltoluene	0.25	U U		0.25	0.25	2.0
135-98-8	sec-Butylbenzene	0.25	U		0.25	0.25	2.0
100-42-5	Styrene	0.25	U		0.25	0.25	2.0
75-65-0	t-Butyl alcohol	2.5	U		2.5	2.5	10
98-06-6	tert-Butylbenzene	0.25	U		0.25	0.25	2.0
127-18-4	Tetrachloroethene	110			0.25	0.25	2.0
108-88-3	Toluene	0.26	U U		0.25	0.25	2.0
156-60-5	trans-1,2-Dichloroethene	1.1	J		0.25	0.25	2.0
10061-02-6	trans-1,3-Dichloropropene	0.25	U		0.25	0.25	2.0
79-01-6	Trichloroethene	31			0.25	0.25	2.0
75-69-4	Trichlorofluoromethane	0.25	U		0.25	0.25	2.0
108-05-4	Vinyl acetate	0.25	U		0.25	0.25	2.0
75-01-4	Vinyl chloride	0.25	U		0.25	0.25	2.0
1330-20-7	Xylenes, Total	0.75	U		0.75	0.75	6.0
108-87-2	Methylcyclohexane	0.25	U		0.25	0.25	2.0
107-02-8	Acrolein	1.0	U R		1.0	1.0	10
107-13-1	Acrylonitrile	0.25	U		0.25	0.25	2.0

SW8260C

for 9/1/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-6A

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-004A

Sample wt/vol: 5mL Lab File ID: V1-0014.D

Level: (low/med) LOW Date Collected: 7/31/2019 10:30 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000(µl) Date Prepped: 8/8/2019 11:06 AM

Seq Number: 810389 Date Analyzed: 8/8/2019 7:32 PM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00

Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0	
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0	
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0	
75-35-4	1,1-Dichloroethene	0.50	J	0.25	0.25	2.0	
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0	
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0	
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0	
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0	
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0	
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0	
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0	
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0	
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0	
110-75-8	2-Chloroethyl vinyl ether	10	U	10	10	20	
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0	
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0	
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0	
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0	
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0	
108-10-1	4-Methyl-2-pentanone	0.50	U	0.50	0.50	4.0	
67-64-1	Acetone	47	U	5.0	5.0	10	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-6A

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-004A

Sample wt/vol: 5mL Lab File ID: V1-0014.D

Level: (low/med) LOW Date Collected: 7/31/2019 10:30 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000(µl) Date Prepped: 8/8/2019 11:06 AM

Seq Number: 810389 Date Analyzed: 8/8/2019 7:32 PM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene		0.25	U	0.25	0.25	2.0
108-86-1	Bromobenzene		0.25	U	0.25	0.25	2.0
74-97-5	Bromochloromethane		0.25	U	0.25	0.25	2.0
75-27-4	Bromodichloromethane		0.25	U	0.25	0.25	2.0
75-25-2	Bromoform		0.25	U	0.25	0.25	2.0
74-83-9	Bromomethane		0.25	U	0.25	0.25	2.0
75-15-0	Carbon disulfide		0.25	U	0.25	0.25	2.0
56-23-5	Carbon tetrachloride		0.25	U	0.25	0.25	2.0
108-90-7	Chlorobenzene		0.25	U	0.25	0.25	2.0
75-45-6	Chlorodifluoromethane		0.25	U	0.25	0.25	2.0
75-00-3	Chloroethane		0.25	U	0.25	0.25	2.0
67-66-3	Chloroform		0.25	U	0.25	0.25	2.0
74-87-3	Chloromethane		0.25	U	0.25	0.25	2.0
10061-01-5	cis-1,3-Dichloropropene		0.25	U	0.25	0.25	2.0
110-82-7	Cyclohexane		0.25	U	0.25	0.25	2.0
124-48-1	Dibromochloromethane		0.25	U	0.25	0.25	2.0
74-95-3	Dibromomethane		0.25	U	0.25	0.25	2.0
75-71-8	Dichlorodifluoromethane		0.25	U	0.25	0.25	2.0
108-20-3	Diisopropyl ether		0.50	U	0.50	0.50	2.0
64-17-5	Ethanol		2.5	U R	2.5	2.5	10
100-41-4	Ethylbenzene		0.25	U	0.25	0.25	2.0
76-14-2	Freon-114		0.25	U	0.25	0.25	2.0
87-68-3	Hexachlorobutadiene		0.25	U	0.25	0.25	2.0
98-82-8	Isopropylbenzene		0.25	U	0.25	0.25	2.0
179601-23-1	m,p-Xylene		0.50	U	0.50	0.50	4.0
79-20-9	Methyl Acetate		0.25	U	0.25	0.25	2.0
1634-04-4	Methyl tert-butyl ether		0.25	U	0.25	0.25	2.0
75-09-2	Methylene chloride		2.8	U U	0.25	0.25	2.0
104-51-8	n-Butylbenzene		0.25	U	0.25	0.25	2.0
103-65-1	n-Propylbenzene		0.25	U	0.25	0.25	2.0
91-20-3	Naphthalene		0.25	U	0.25	0.25	2.0
95-47-6	o-Xylene		0.25	U	0.25	0.25	2.0
105-05-5	p-Diethylbenzene		0.25	U	0.25	0.25	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-6A

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908001Matrix: LiquidLab Sample ID: 1908001-004ASample wt/vol: 5mLLab File ID: V1-0014.DLevel: (low/med) LOWDate Collected: 7/31/2019 10:30 AM% Moisture: N/ADate Received: 8/1/2019 9:00 AMExtract Volume: 5000(µl)Date Prepped: 8/8/2019 11:06 AMSeq Number: 810389Date Analyzed: 8/8/2019 7:32 PMGC Column: V1 06/10/2019 SN#1629116Dilution Factor: 1.00Column ID: 0.18(mm)Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
622-96-8	p-Ethyltoluene	0.25	U <u>U</u>	0.25	0.25	2.0
135-98-8	sec-Butylbenzene	0.25	U	0.25	0.25	2.0
100-42-5	Styrene	0.25	U	0.25	0.25	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.25	U	0.25	0.25	2.0
108-88-3	Toluene	0.36	U <u>U</u>	0.25	0.25	2.0
156-60-5	trans-1,2-Dichloroethene	25		0.25	0.25	2.0
10061-02-6	trans-1,3-Dichloropropene	0.25	U	0.25	0.25	2.0
75-69-4	Trichlorofluoromethane	0.25	U	0.25	0.25	2.0
108-05-4	Vinyl acetate	0.25	U	0.25	0.25	2.0
75-01-4	Vinyl chloride	5.0		0.25	0.25	2.0
1330-20-7	Xylenes, Total	0.75	U	0.75	0.75	6.0
108-87-2	Methylcyclohexane	0.25	U	0.25	0.25	2.0
107-02-8	Acrolein	1.0	U <u>R</u>	1.0	1.0	10
107-13-1	Acrylonitrile	0.25	U	0.25	0.25	2.0

SW8260C

for 9/9/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-6A

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908001Matrix: LiquidLab Sample ID: 1908001-004ASample wt/vol: 5mLLab File ID: V1-0013.DLevel: (low/med) LOWDate Collected: 7/31/2019 10:30 AM% Moisture: N/ADate Received: 8/1/2019 9:00 AMExtract Volume: 5000 (ul)Date Prepped: 8/9/2019 8:02 AMSeq Number: 811569Date Analyzed: 8/9/2019 3:24 PMGC Column: V1 06/10/2019 SN#1629116Dilution Factor: 100.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 22956/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
156-59-2	cis-1,2-Dichloroethene	2600		D	25	25	200
127-18-4	Tetrachloroethene	5200		D	25	25	200
79-01-6	Trichloroethene	1400		D	25	25	200

SW8260C

8/9/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-7

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-005A

Sample wt/vol: 5mL Lab File ID: V1-0015.D

Level: (low/med) LOW Date Collected: 7/31/2019 11:00 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000 (µl) Date Prepped: 8/8/2019 11:06 AM

Seq Number: 810390 Date Analyzed: 8/8/2019 8:03 PM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00

Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0
75-35-4	1,1-Dichloroethene	1.0	J	0.25	0.25	2.0
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	0.25	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	0.25	2.0
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0
110-75-8	2-Chloroethyl vinyl ether	10	U	10	10	20
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0
108-10-1	4-Methyl-2-pentanone	0.50	U	0.50	0.50	4.0
67-64-1	Acetone	23	U	5.0	5.0	10

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-7

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-005A

Sample wt/vol: 5mL Lab File ID: V1-0015.D

Level: (low/med) LOW Date Collected: 7/31/2019 11:00 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000(µl) Date Prepped: 8/8/2019 11:06 AM

Seq Number: 810390 Date Analyzed: 8/8/2019 8:03 PM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene		0.25	U	0.25	0.25	2.0
108-86-1	Bromobenzene		0.25	U	0.25	0.25	2.0
74-97-5	Bromochloromethane		0.25	U	0.25	0.25	2.0
75-27-4	Bromodichloromethane		0.25	U	0.25	0.25	2.0
75-25-2	Bromoform		0.25	U	0.25	0.25	2.0
74-83-9	Bromomethane		0.25	U	0.25	0.25	2.0
75-15-0	Carbon disulfide		0.25	U	0.25	0.25	2.0
56-23-5	Carbon tetrachloride		0.25	U	0.25	0.25	2.0
108-90-7	Chlorobenzene		0.25	U	0.25	0.25	2.0
75-45-6	Chlorodifluoromethane		0.25	U	0.25	0.25	2.0
75-00-3	Chloroethane		0.25	U	0.25	0.25	2.0
67-66-3	Chloroform		0.25	U	0.25	0.25	2.0
74-87-3	Chloromethane		0.25	U	0.25	0.25	2.0
10061-01-5	cis-1,3-Dichloropropene		0.25	U	0.25	0.25	2.0
110-82-7	Cyclohexane		0.25	U	0.25	0.25	2.0
124-48-1	Dibromochloromethane		0.25	U	0.25	0.25	2.0
74-95-3	Dibromomethane		0.25	U	0.25	0.25	2.0
75-71-8	Dichlorodifluoromethane		0.25	U	0.25	0.25	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		0.25	U	0.25	0.25	2.0
76-14-2	Freon-114		0.25	U	0.25	0.25	2.0
87-68-3	Hexachlorobutadiene		0.25	U	0.25	0.25	2.0
98-82-8	Isopropylbenzene		0.25	U	0.25	0.25	2.0
179601-23-1	m,p-Xylene		0.50	U	0.50	0.50	4.0
79-20-9	Methyl Acetate		0.25	U	0.25	0.25	2.0
1634-04-4	Methyl tert-butyl ether		0.25	U	0.25	0.25	2.0
75-09-2	Methylene chloride		2.7	U	0.25	0.25	2.0
104-51-8	n-Butylbenzene		0.25	U	0.25	0.25	2.0
103-65-1	n-Propylbenzene		0.25	U	0.25	0.25	2.0
91-20-3	Naphthalene		0.25	U	0.25	0.25	2.0
95-47-6	o-Xylene		0.25	U	0.25	0.25	2.0
105-05-5	p-Diethylbenzene		0.25	U	0.25	0.25	2.0

SW8260C

8/15/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-7

Lab Name: American Analytical Laboratories, LLC. Contract: _____
 Lab Code: AAL ClientID: Berninger SAS No.: _____ SDG No.: 1908001
 Matrix: Liquid Lab Sample ID: 1908001-005A
 Sample wt/vol: 5mL Lab File ID: V1-0015.D
 Level: (low/med) LOW Date Collected: 7/31/2019 11:00 AM
 % Moisture: N/A Date Received: 8/1/2019 9:00 AM
 Extract Volume: 5000(ul) Date Prepped: 8/8/2019 11:06 AM
 Seq Number: 810390 Date Analyzed: 8/8/2019 8:03 PM
 GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00
 Column ID: 0.18(mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
622-96-8	p-Ethyltoluene	0.25		U	0.25	0.25	2.0
135-98-8	sec-Butylbenzene	0.25		U	0.25	0.25	2.0
100-42-5	Styrene	0.25		U	0.25	0.25	2.0
75-65-0	t-Butyl alcohol	2.5		U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.25		U	0.25	0.25	2.0
108-88-3	Toluene	0.25		U	0.25	0.25	2.0
156-60-5	trans-1,2-Dichloroethene	23			0.25	0.25	2.0
10061-02-6	trans-1,3-Dichloropropene	0.25		U	0.25	0.25	2.0
75-69-4	Trichlorofluoromethane	0.25		U	0.25	0.25	2.0
108-05-4	Vinyl acetate	0.25		U	0.25	0.25	2.0
75-01-4	Vinyl chloride	23			0.25	0.25	2.0
1330-20-7	Xylenes, Total	0.75		U	0.75	0.75	6.0
108-87-2	Methylcyclohexane	0.25		U	0.25	0.25	2.0
107-02-8	Acrolein	1.0		U	1.0	1.0	10
107-13-1	Acrylonitrile	0.25		U	0.25	0.25	2.0

SW8260C

8/10/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-7

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908001Matrix: LiquidLab Sample ID: 1908001-005ASample wt/vol: 5mLLab File ID: V1-0014.DLevel: (low/med) LOWDate Collected: 7/31/2019 11:00 AM% Moisture: N/ADate Received: 8/1/2019 9:00 AMExtract Volume: 5000(µl)Date Prepped: 8/9/2019 8:02 AMSeq Number: 811570Date Analyzed: 8/9/2019 3:55 PMGC Column: V1 06/10/2019 SN#1629116Dilution Factor: 100.00Column ID: 0.18(mm)Batch ID/ Ext Mthd: 22956/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
156-59-2	cis-1,2-Dichloroethene	1800		D	25	25	200
127-18-4	Tetrachloroethene	11000		D	25	25	200
79-01-6	Trichloroethene	1300		D	25	25	200

SW8260C

8/19/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-8

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-006A

Sample wt/vol: 5mL Lab File ID: V1-0016.D

Level: (low/med) LOW Date Collected: 7/31/2019 11:30 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000(ul) Date Prepped: 8/8/2019 11:06 AM

Seq Number: 810391 Date Analyzed: 8/8/2019 8:34 PM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00

Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0
75-35-4	1,1-Dichloroethene	1.1	J	0.25	0.25	2.0
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	0.25	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	0.25	2.0
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0
110-75-8	2-Chloroethyl vinyl ether	10	U	10	10	20
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0
108-10-1	4-Methyl-2-pentanone	0.50	U	0.50	0.50	4.0
67-64-1	Acetone	23	U	5.0	5.0	10

SW8260C

8/9/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-8

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-006A

Sample wt/vol: 5mL Lab File ID: V1-0016.D

Level: (low/med) LOW Date Collected: 7/31/2019 11:30 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000(ul) Date Prepped: 8/8/2019 11:06 AM

Seq Number: 810391 Date Analyzed: 8/8/2019 8:34 PM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.25	U	0.25	0.25	2.0
108-86-1	Bromobenzene	0.25	U	0.25	0.25	2.0
74-97-5	Bromochloromethane	0.25	U	0.25	0.25	2.0
75-27-4	Bromodichloromethane	0.44	J	0.25	0.25	2.0
75-25-2	Bromoform	0.25	U	0.25	0.25	2.0
74-83-9	Bromomethane	0.25	U	0.25	0.25	2.0
75-15-0	Carbon disulfide	0.25	U	0.25	0.25	2.0
56-23-5	Carbon tetrachloride	0.25	U	0.25	0.25	2.0
108-90-7	Chlorobenzene	0.25	U	0.25	0.25	2.0
75-45-6	Chlorodifluoromethane	0.25	U	0.25	0.25	2.0
75-00-3	Chloroethane	0.25	U	0.25	0.25	2.0
67-66-3	Chloroform	0.29	J	0.25	0.25	2.0
74-87-3	Chloromethane	0.25	U	0.25	0.25	2.0
10061-01-5	cis-1,3-Dichloropropene	0.25	U	0.25	0.25	2.0
110-82-7	Cyclohexane	0.25	U	0.25	0.25	2.0
124-48-1	Dibromochloromethane	0.25	U	0.25	0.25	2.0
74-95-3	Dibromomethane	0.25	U	0.25	0.25	2.0
75-71-8	Dichlorodifluoromethane	0.25	U	0.25	0.25	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	0.25	U	0.25	0.25	2.0
76-14-2	Freon-114	0.25	U	0.25	0.25	2.0
87-68-3	Hexachlorobutadiene	0.25	U	0.25	0.25	2.0
98-82-8	Isopropylbenzene	0.25	U	0.25	0.25	2.0
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50	4.0
79-20-9	Methyl Acetate	0.25	U	0.25	0.25	2.0
1634-04-4	Methyl tert-butyl ether	0.25	U	0.25	0.25	2.0
75-09-2	Methylene chloride	2.9	U	0.25	0.25	2.0
104-51-8	n-Butylbenzene	0.25	U	0.25	0.25	2.0
103-65-1	n-Propylbenzene	0.25	U	0.25	0.25	2.0
91-20-3	Naphthalene	0.25	U	0.25	0.25	2.0
95-47-6	o-Xylene	0.25	U	0.25	0.25	2.0
105-05-5	p-Diethylbenzene	0.25	U	0.25	0.25	2.0

SW8260C

8/9/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-8

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908001Matrix: LiquidLab Sample ID: 1908001-006ASample wt/vol: 5mLLab File ID: V1-0016.DLevel: (low/med) LOWDate Collected: 7/31/2019 11:30 AM% Moisture: N/ADate Received: 8/1/2019 9:00 AMExtract Volume: 5000(ul)Date Prepped: 8/8/2019 11:06 AMSeq Number: 810391Date Analyzed: 8/8/2019 8:34 PMGC Column: V1 06/10/2019 SN#1629116Dilution Factor: 1.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
622-96-8	p-Ethyltoluene	0.25		U U	0.25	0.25	2.0
135-98-8	sec-Butylbenzene	0.25		U	0.25	0.25	2.0
100-42-5	Styrene	0.25		U	0.25	0.25	2.0
75-65-0	t-Butyl alcohol	2.5		U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.25		U	0.25	0.25	2.0
108-88-3	Toluene	0.25		U	0.25	0.25	2.0
156-60-5	trans-1,2-Dichloroethene	120			0.25	0.25	2.0
10061-02-6	trans-1,3-Dichloropropene	0.25		U	0.25	0.25	2.0
79-01-6	Trichloroethene	110			0.25	0.25	2.0
75-69-4	Trichlorofluoromethane	0.25		U	0.25	0.25	2.0
108-05-4	Vinyl acetate	0.25		U	0.25	0.25	2.0
75-01-4	Vinyl chloride	120			0.25	0.25	2.0
1330-20-7	Xylenes, Total	0.75		U	0.75	0.75	6.0
108-87-2	Methylcyclohexane	0.25		U	0.25	0.25	2.0
107-02-8	Acrolein	1.0		U R	1.0	1.0	10
107-13-1	Acrylonitrile	0.25		U	0.25	0.25	2.0

SW8260C

for
10/13/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-8

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-006A

Sample wt/vol: 5mL Lab File ID: V1-0015.D

Level: (low/med) LOW Date Collected: 7/31/2019 11:30 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000 (ul) Date Prepped: 8/9/2019 8:02 AM

Seq Number: 811571 Date Analyzed: 8/9/2019 4:25 PM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 100.00

Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 22956/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
156-59-2	cis-1,2-Dichloroethene	5500	D	25	25	200
127-18-4	Tetrachloroethene	270	D	25	25	200

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-N

Lab Name: American Analytical Contract:
Laboratories, LLC.Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908001Matrix: Liquid Lab Sample ID: 1908001-007ASample wt/vol: 5mL Lab File ID: V1-0017.DLevel: (low/med) LOW Date Collected: 7/31/2019 12:00 PM% Moisture: N/A Date Received: 8/1/2019 9:00 AMExtract Volume: 5000(ul) Date Prepped: 8/8/2019 11:06 AMSeq Number: 810392 Date Analyzed: 8/8/2019 9:04 PMGC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00Column ID: 0.18(mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0	
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0	
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0	
75-35-4	1,1-Dichloroethene	0.25	U	0.25	0.25	2.0	
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0	
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0	
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0	
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0	
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0	
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0	
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0	
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0	
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0	
110-75-8	2-Chloroethyl vinyl ether	10	U	10	10	20	
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0	
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0	
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0	
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0	
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0	
108-10-1	4-Methyl-2-pentanone	0.50	U	0.50	0.50	4.0	
67-64-1	Acetone	18	U	5.0	5.0	10	

SW8260C

for 9/19/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-N

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908001Matrix: LiquidLab Sample ID: 1908001-007ASample wt/vol: 5mLLab File ID: V1-0017.DLevel: (low/med) LOWDate Collected: 7/31/2019 12:00 PM% Moisture: N/ADate Received: 8/1/2019 9:00 AMExtract Volume: 5000(µl)Date Prepped: 8/8/2019 11:06 AMSeq Number: 810392Date Analyzed: 8/8/2019 9:04 PMGC Column: V1 06/10/2019 SN#1629116Dilution Factor: 1.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene		0.25	U	0.25	0.25	2.0
108-86-1	Bromobenzene		0.25	U	0.25	0.25	2.0
74-97-5	Bromochloromethane		0.25	U	0.25	0.25	2.0
75-27-4	Bromodichloromethane		0.25	U	0.25	0.25	2.0
75-25-2	Bromoform		0.25	U	0.25	0.25	2.0
74-83-9	Bromomethane		0.25	U	0.25	0.25	2.0
75-15-0	Carbon disulfide		0.25	U	0.25	0.25	2.0
56-23-5	Carbon tetrachloride		0.25	U	0.25	0.25	2.0
108-90-7	Chlorobenzene		0.25	U	0.25	0.25	2.0
75-45-6	Chlorodifluoromethane		0.25	U	0.25	0.25	2.0
75-00-3	Chloroethane		0.25	U	0.25	0.25	2.0
67-66-3	Chloroform		0.25	U	0.25	0.25	2.0
74-87-3	Chloromethane		0.25	U	0.25	0.25	2.0
156-59-2	cis-1,2-Dichloroethene	17			0.25	0.25	2.0
10061-01-5	cis-1,3-Dichloropropene		0.25	U	0.25	0.25	2.0
110-82-7	Cyclohexane		0.25	U	0.25	0.25	2.0
124-48-1	Dibromochloromethane		0.25	U	0.25	0.25	2.0
74-95-3	Dibromomethane		0.25	U	0.25	0.25	2.0
75-71-8	Dichlorodifluoromethane		0.25	U	0.25	0.25	2.0
108-20-3	Diisopropyl ether		0.50	U	0.50	0.50	2.0
64-17-5	Ethanol		2.5	U R	2.5	2.5	10
100-41-4	Ethylbenzene		0.25	U	0.25	0.25	2.0
76-14-2	Freon-114		0.25	U	0.25	0.25	2.0
87-68-3	Hexachlorobutadiene		0.25	U	0.25	0.25	2.0
98-82-8	Isopropylbenzene		0.25	U	0.25	0.25	2.0
179601-23-1	m,p-Xylene		0.50	U	0.50	0.50	4.0
79-20-9	Methyl Acetate		0.25	U	0.25	0.25	2.0
1634-04-4	Methyl tert-butyl ether		0.25	U	0.25	0.25	2.0
75-09-2	Methylene chloride		2.8	U U	0.25	0.25	2.0
104-51-8	n-Butylbenzene		0.25	U	0.25	0.25	2.0
103-65-1	n-Propylbenzene		0.25	U	0.25	0.25	2.0
91-20-3	Naphthalene		0.25	U	0.25	0.25	2.0
95-47-6	o-Xylene		0.25	U	0.25	0.25	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-N

Lab Name: American Analytical Laboratories, LLC. Contract: _____
 Lab Code: AAL ClientID: Berninger SAS No.: _____ SDG No.: 1908001
 Matrix: Liquid Lab Sample ID: 1908001-007A
 Sample wt/vol: 5mL Lab File ID: V1-0017.D
 Level: (low/med) LOW Date Collected: 7/31/2019 12:00 PM
 % Moisture: N/A Date Received: 8/1/2019 9:00 AM
 Extract Volume: 5000(µl) Date Prepped: 8/8/2019 11:06 AM
 Seq Number: 810392 Date Analyzed: 8/8/2019 9:04 PM
 GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00
 Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
105-05-5	p-Diethylbenzene	0.25	U		0.25	0.25	2.0
622-96-8	p-Ethyltoluene	0.25		U UT	0.25	0.25	2.0
135-98-8	sec-Butylbenzene	0.25	U		0.25	0.25	2.0
100-42-5	Styrene	0.25	U		0.25	0.25	2.0
75-65-0	t-Butyl alcohol	2.5	U		2.5	2.5	10
98-06-6	tert-Butylbenzene	0.25	U		0.25	0.25	2.0
108-88-3	Toluene	0.31		U U	0.25	0.25	2.0
156-60-5	trans-1,2-Dichloroethene	0.25	U		0.25	0.25	2.0
10061-02-6	trans-1,3-Dichloropropene	0.25	U		0.25	0.25	2.0
79-01-6	Trichloroethene	13			0.25	0.25	2.0
75-69-4	Trichlorofluoromethane	0.25	U		0.25	0.25	2.0
108-05-4	Vinyl acetate	0.25	U		0.25	0.25	2.0
75-01-4	Vinyl chloride	0.25	U		0.25	0.25	2.0
1330-20-7	Xylenes, Total	0.75	U		0.75	0.75	6.0
108-87-2	Methylcyclohexane	0.25	U		0.25	0.25	2.0
107-02-8	Acrolein	1.0		U R	1.0	1.0	10
107-13-1	Acrylonitrile	0.25	U		0.25	0.25	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-N

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908001Matrix: LiquidLab Sample ID: 1908001-007ASample wt/vol: 5mLLab File ID: V1-0016.DLevel: (low/med) LOWDate Collected: 7/31/2019 12:00 PM% Moisture: N/ADate Received: 8/1/2019 9:00 AMExtract Volume: 5000(µl)Date Prepped: 8/9/2019 8:02 AMSeq Number: 811572Date Analyzed: 8/9/2019 4:56 PMGC Column: V1 06/10/2019 SN#1629116Dilution Factor: 100.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 22956/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
127-18-4	Tetrachloroethene	1600	D	25	25	200	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

Trip Blank

Lab Name: American Analytical Laboratories, LLC Contract: _____

Lab Code: AAL ClientID: Berninger SAS No.: _____ SDG No.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-008A

Sample wt/vol: 5mL Lab File ID: V1-0007.D

Level: (low/med) LOW Date Collected: 7/31/2019 12:00 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000(ul) Date Prepped: 8/8/2019 11:06 AM

Seq Number: 810382 Date Analyzed: 8/8/2019 3:57 PM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00

Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane		0.25	U	0.25	0.25	2.0
71-55-6	1,1,1-Trichloroethane		0.25	U	0.25	0.25	2.0
79-34-5	1,1,2,2-Tetrachloroethane		0.25	U	0.25	0.25	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.25	U	0.25	0.25	2.0
79-00-5	1,1,2-Trichloroethane		0.25	U	0.25	0.25	2.0
75-34-3	1,1-Dichloroethane		0.25	U	0.25	0.25	2.0
75-35-4	1,1-Dichloroethene		0.25	U	0.25	0.25	2.0
563-58-6	1,1-Dichloropropene		0.25	U	0.25	0.25	2.0
87-61-6	1,2,3-Trichlorobenzene		0.48	BJ ✓	0.25	0.25	2.0
96-18-4	1,2,3-Trichloropropane		0.25	U	0.25	0.25	2.0
95-93-2	1,2,4,5-Tetramethylbenzene		0.25	U	0.25	0.25	2.0
120-82-1	1,2,4-Trichlorobenzene		0.25	U	0.25	0.25	2.0
95-63-6	1,2,4-Trimethylbenzene		0.25	U	0.25	0.25	2.0
96-12-8	1,2-Dibromo-3-chloropropane		0.25	U	0.25	0.25	2.0
106-93-4	1,2-Dibromoethane		0.25	U	0.25	0.25	2.0
95-50-1	1,2-Dichlorobenzene		0.25	U	0.25	0.25	2.0
107-06-2	1,2-Dichloroethane		0.25	U	0.25	0.25	2.0
78-87-5	1,2-Dichloropropane		0.25	U	0.25	0.25	2.0
108-67-8	1,3,5-Trimethylbenzene		0.25	U	0.25	0.25	2.0
541-73-1	1,3-Dichlorobenzene		0.25	U	0.25	0.25	2.0
142-28-9	1,3-dichloropropane		0.25	U	0.25	0.25	2.0
106-46-7	1,4-Dichlorobenzene		0.25	U	0.25	0.25	2.0
123-91-1	1,4-Dioxane		0.25	U	0.25	0.25	1.0
594-20-7	2,2-Dichloropropane		0.25	U	0.25	0.25	2.0
78-93-3	2-Butanone		0.50	U	0.50	0.50	4.0
110-75-8	2-Chloroethyl vinyl ether		10	R ✓	10	10	20
95-49-8	2-Chlorotoluene		0.25	U	0.25	0.25	2.0
591-78-6	2-Hexanone		0.50	U	0.50	0.50	4.0
67-63-0	2-Propanol		0.25	U	0.25	0.25	2.0
106-43-4	4-Chlorotoluene		0.25	U	0.25	0.25	2.0
99-87-6	4-Isopropyltoluene		0.25	U	0.25	0.25	2.0
108-10-1	4-Methyl-2-pentanone		0.50	U	0.50	0.50	4.0
67-64-1	Acetone		8.8	BJ ✓	5.0	5.0	10

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

Trip Blank

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-008A

Sample wt/vol: 5mL Lab File ID: V1-0007.D

Level: (low/med) LOW Date Collected: 7/31/2019 12:00 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000(ul) Date Prepped: 8/8/2019 11:06 AM

Seq Number: 810382 Date Analyzed: 8/8/2019 3:57 PM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.25	U	0.25	0.25	2.0
108-86-1	Bromobenzene	0.25	U	0.25	0.25	2.0
74-97-5	Bromochloromethane	0.25	U	0.25	0.25	2.0
75-27-4	Bromodichloromethane	0.25	U	0.25	0.25	2.0
75-25-2	Bromoform	0.25	U	0.25	0.25	2.0
74-83-9	Bromomethane	0.25	U	0.25	0.25	2.0
75-15-0	Carbon disulfide	0.25	U	0.25	0.25	2.0
56-23-5	Carbon tetrachloride	0.25	U	0.25	0.25	2.0
108-90-7	Chlorobenzene	0.25	U	0.25	0.25	2.0
75-45-6	Chlorodifluoromethane	0.25	U	0.25	0.25	2.0
75-00-3	Chloroethane	0.25	U	0.25	0.25	2.0
67-66-3	Chloroform	0.25	U	0.25	0.25	2.0
74-87-3	Chloromethane	0.25	U	0.25	0.25	2.0
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	0.25	2.0
10061-01-5	cis-1,3-Dichloropropene	0.25	U	0.25	0.25	2.0
110-82-7	Cyclohexane	0.25	U	0.25	0.25	2.0
124-48-1	Dibromochloromethane	0.25	U	0.25	0.25	2.0
74-95-3	Dibromomethane	0.25	U	0.25	0.25	2.0
75-71-8	Dichlorodifluoromethane	0.25	U	0.25	0.25	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	0.25	U	0.25	0.25	2.0
76-14-2	Freon-114	0.25	U	0.25	0.25	2.0
87-68-3	Hexachlorobutadiene	0.25	U	0.25	0.25	2.0
98-82-8	Isopropylbenzene	0.25	U	0.25	0.25	2.0
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50	4.0
79-20-9	Methyl Acetate	0.25	U	0.25	0.25	2.0
1634-04-4	Methyl tert-butyl ether	0.25	U	0.25	0.25	2.0
75-09-2	Methylene chloride	3.5	U	0.25	0.25	2.0
104-51-8	n-Butylbenzene	0.25	U	0.25	0.25	2.0
103-65-1	n-Propylbenzene	0.25	U	0.25	0.25	2.0
91-20-3	Naphthalene	0.25	U	0.25	0.25	2.0
95-47-6	o-Xylene	0.25	U	0.25	0.25	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

Trip Blank

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908001Matrix: LiquidLab Sample ID: 1908001-008ASample wt/vol: 5mLLab File ID: V1-0007.DLevel: (low/med) LOWDate Collected: 7/31/2019 12:00 AM% Moisture: N/ADate Received: 8/1/2019 9:00 AMExtract Volume: 5000 (ul)Date Prepped: 8/8/2019 11:06 AMSeq Number: 810382Date Analyzed: 8/8/2019 3:57 PMGC Column: V1 06/10/2019 SN#1629116Dilution Factor: 1.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
105-05-5	p-Diethylbenzene	0.25	U		0.25	0.25	2.0
622-96-8	p-Ethyltoluene	0.25	U U		0.25	0.25	2.0
135-98-8	sec-Butylbenzene	0.25	U		0.25	0.25	2.0
100-42-5	Styrene	0.25	U		0.25	0.25	2.0
75-65-0	t-Butyl alcohol	2.5	U		2.5	2.5	10
98-06-6	tert-Butylbenzene	0.25	U		0.25	0.25	2.0
127-18-4	Tetrachloroethene	0.25	U		0.25	0.25	2.0
108-88-3	Toluene	0.25	U		0.25	0.25	2.0
156-60-5	trans-1,2-Dichloroethene	0.25	U		0.25	0.25	2.0
10061-02-6	trans-1,3-Dichloropropene	0.25	U		0.25	0.25	2.0
79-01-6	Trichloroethene	0.25	U		0.25	0.25	2.0
75-69-4	Trichlorofluoromethane	0.25	U		0.25	0.25	2.0
108-05-4	Vinyl acetate	0.25	U		0.25	0.25	2.0
75-01-4	Vinyl chloride	0.25	U		0.25	0.25	2.0
1330-20-7	Xylenes, Total	0.75	U		0.75	0.75	6.0
108-87-2	Methylcyclohexane	0.25	U		0.25	0.25	2.0
107-02-8	Acrolein	1.0	U R		1.0	1.0	10
107-13-1	Acrylonitrile	0.25	U		0.25	0.25	2.0

SW8260C

for
10/3/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

Field Blank

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-009A

Sample wt/vol: 5mL Lab File ID: V1-0008.D

Level: (low/med) LOW Date Collected: 7/31/2019 12:00 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000 (ul) Date Prepped: 8/8/2019 11:06 AM

Seq Number: 810383 Date Analyzed: 8/8/2019 4:28 PM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00

Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0	
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0	
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0	
75-35-4	1,1-Dichloroethene	0.25	U	0.25	0.25	2.0	
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0	
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0	
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0	
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0	
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0	
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0	
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0	
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0	
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0	
110-75-8	2-Chloroethyl vinyl ether	10	U	10	10	20	
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0	
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0	
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0	
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0	
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0	
108-10-1	4-Methyl-2-pentanone	0.50	U	0.50	0.50	4.0	
71-43-2	Benzene	0.25	U	0.25	0.25	2.0	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

Field Blank

Lab Name: American Analytical Laboratories, LLC. Contract: _____

Lab Code: AAL ClientID: Berninger SAS No.: _____ SDG No.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-009A

Sample wt/vol: 5mL Lab File ID: V1-0008.D

Level: (low/med) LOW Date Collected: 7/31/2019 12:00 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000(µl) Date Prepped: 8/8/2019 11:06 AM

Seq Number: 810383 Date Analyzed: 8/8/2019 4:28 PM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00

Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
108-86-1	Bromobenzene	0.25	U	0.25	0.25	2.0	
74-97-5	Bromochloromethane	0.25	U	0.25	0.25	2.0	
75-27-4	Bromodichloromethane	0.25	U	0.25	0.25	2.0	
75-25-2	Bromoform	0.25	U	0.25	0.25	2.0	
74-83-9	Bromomethane	0.25	U	0.25	0.25	2.0	
75-15-0	Carbon disulfide	0.25	U	0.25	0.25	2.0	
56-23-5	Carbon tetrachloride	0.25	U	0.25	0.25	2.0	
108-90-7	Chlorobenzene	0.25	U	0.25	0.25	2.0	
75-45-6	Chlorodifluoromethane	0.25	U	0.25	0.25	2.0	
75-00-3	Chloroethane	0.25	U	0.25	0.25	2.0	
67-66-3	Chloroform	0.25	U	0.25	0.25	2.0	
74-87-3	Chloromethane	0.25	U	0.25	0.25	2.0	
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	0.25	2.0	
10061-01-5	cis-1,3-Dichloropropene	0.25	U	0.25	0.25	2.0	
110-82-7	Cyclohexane	0.25	U	0.25	0.25	2.0	
124-48-1	Dibromochloromethane	0.25	U	0.25	0.25	2.0	
74-95-3	Dibromomethane	0.25	U	0.25	0.25	2.0	
75-71-8	Dichlorodifluoromethane	0.25	U	0.25	0.25	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	0.33	J	0.25	0.25	2.0	
76-14-2	Freon-114	0.25	U	0.25	0.25	2.0	
87-68-3	Hexachlorobutadiene	0.25	U	0.25	0.25	2.0	
98-82-8	Isopropylbenzene	0.25	U	0.25	0.25	2.0	
179601-23-1	m,p-Xylene	1.2	J	0.50	0.50	4.0	
79-20-9	Methyl Acetate	0.25	U	0.25	0.25	2.0	
1634-04-4	Methyl tert-butyl ether	0.25	U	0.25	0.25	2.0	
75-09-2	Methylene chloride	3.0	U	0.25	0.25	2.0	
104-51-8	n-Butylbenzene	0.25	U	0.25	0.25	2.0	
103-65-1	n-Propylbenzene	0.25	U	0.25	0.25	2.0	
91-20-3	Naphthalene	0.25	U	0.25	0.25	2.0	
95-47-6	o-Xylene	0.50	J	0.25	0.25	2.0	
105-05-5	p-Diethylbenzene	0.25	U	0.25	0.25	2.0	

SW8260C

8/19/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

Field Blank

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908001Matrix: LiquidLab Sample ID: 1908001-009ASample wt/vol: 5mLLab File ID: V1-0008.DLevel: (low/med) LOWDate Collected: 7/31/2019 12:00 AM% Moisture: N/ADate Received: 8/1/2019 9:00 AMExtract Volume: 5000(µl)Date Prepped: 8/8/2019 11:06 AMSeq Number: 810383Date Analyzed: 8/8/2019 4:28 PMGC Column: V1 06/10/2019 SN#1629116Dilution Factor: 1.00Column ID: 0.18(mm)Batch ID/ Ext Mthd: 22944/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
622-96-8	p-Ethyltoluene	0.25		U	0.25	0.25	2.0
135-98-8	sec-Butylbenzene	0.25		U	0.25	0.25	2.0
100-42-5	Styrene	0.25		U	0.25	0.25	2.0
75-65-0	t-Butyl alcohol	2.5		U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.25		U	0.25	0.25	2.0
127-18-4	Tetrachloroethene	0.25		U	0.25	0.25	2.0
108-88-3	Toluene	0.25		U	0.25	0.25	2.0
156-60-5	trans-1,2-Dichloroethene	0.25		U	0.25	0.25	2.0
10061-02-6	trans-1,3-Dichloropropene	0.25		U	0.25	0.25	2.0
79-01-6	Trichloroethene	0.25		U	0.25	0.25	2.0
75-69-4	Trichlorofluoromethane	0.25		U	0.25	0.25	2.0
108-05-4	Vinyl acetate	0.25		U	0.25	0.25	2.0
75-01-4	Vinyl chloride	0.25		U	0.25	0.25	2.0
1330-20-7	Xylenes, Total	1.7		J	0.75	0.75	6.0
108-87-2	Methylcyclohexane	0.25		U	0.25	0.25	2.0
107-02-8	Acrolein	1.0		U	1.0	1.0	10
107-13-1	Acrylonitrile	0.25		U	0.25	0.25	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

Field Blank

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908001

Matrix: Liquid Lab Sample ID: 1908001-009A

Sample wt/vol: 5mL Lab File ID: V1-0007.D

Level: (low/med) LOW Date Collected: 7/31/2019 12:00 AM

% Moisture: N/A Date Received: 8/1/2019 9:00 AM

Extract Volume: 5000 (µl) Date Prepped: 8/9/2019 8:02 AM

Seq Number: 811563 Date Analyzed: 8/9/2019 12:20 PM

GC Column: V1 06/10/2019 SN#1629116 Dilution Factor: 1.00

Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 22956/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
67-64-1	Acetone	46	B (U)	5.0	5.0	10

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-4 @ 5-9'

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-001ASample wt/vol: 5mLLab File ID: V2-0066.DLevel: (low/med) LOWDate Collected: 8/15/2019 8:00 AM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000 (ul)Date Prepped: 8/23/2019 1:50 PMSeq Number: 822057Date Analyzed: 8/24/2019 9:04 PMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 1.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0	
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0	
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0	
75-35-4	1,1-Dichloroethene	2.1		0.25	0.25	2.0	
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0	
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0	
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0	
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0	
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0	
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0	
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0	
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0	
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0	
110-75-8	2-Chloroethyl vinyl ether	10	U	10	10	20	
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0	
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0	
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0	
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0	
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0	
108-10-1	4-Methyl-2-pentanone	0.50	U	0.50	0.50	4.0	
67-64-1	Acetone	17	U	5.0	5.0	10	

SW8260C

8/24/2019

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-4 @ 5-9'

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134

Matrix: Liquid Lab Sample ID: 1908134-001A

Sample wt/vol: 5mL Lab File ID: V2-0066.D

Level: (low/med) LOW Date Collected: 8/15/2019 8:00 AM

% Moisture: N/A Date Received: 8/15/2019 4:20 PM

Extract Volume: 5000 (ul) Date Prepped: 8/23/2019 1:50 PM

Seq Number: 822057 Date Analyzed: 8/24/2019 9:04 PM

GC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00

Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.25	U	0.25	0.25	2.0	
108-86-1	Bromobenzene	0.25	U	0.25	0.25	2.0	
74-97-5	Bromochloromethane	0.25	U	0.25	0.25	2.0	
75-27-4	Bromodichloromethane	0.25	U	0.25	0.25	2.0	
75-25-2	Bromoform	0.25	U	0.25	0.25	2.0	
74-83-9	Bromomethane	0.25	U	0.25	0.25	2.0	
75-15-0	Carbon disulfide	0.25	U	0.25	0.25	2.0	
56-23-5	Carbon tetrachloride	0.25	U	0.25	0.25	2.0	
108-90-7	Chlorobenzene	0.25	U	0.25	0.25	2.0	
75-45-6	Chlorodifluoromethane	0.25	U	0.25	0.25	2.0	
75-00-3	Chloroethane	0.25	U	0.25	0.25	2.0	
67-66-3	Chloroform	0.25	U	0.25	0.25	2.0	
74-87-3	Chloromethane	0.25	U	0.25	0.25	2.0	
10061-01-5	cis-1,3-Dichloropropene	0.25	U	0.25	0.25	2.0	
110-82-7	Cyclohexane	0.25	U	0.25	0.25	2.0	
124-48-1	Dibromochloromethane	0.25	U	0.25	0.25	2.0	
74-95-3	Dibromomethane	0.25	U	0.25	0.25	2.0	
75-71-8	Dichlorodifluoromethane	0.25	U	0.25	0.25	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	0.25	U	0.25	0.25	2.0	
76-14-2	Freon-114	0.25	U	0.25	0.25	2.0	
87-68-3	Hexachlorobutadiene	0.25	U	0.25	0.25	2.0	
98-82-8	Isopropylbenzene	0.25	U	0.25	0.25	2.0	
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50	4.0	
79-20-9	Methyl Acetate	0.25	U	0.25	0.25	2.0	
1634-04-4	Methyl tert-butyl ether	0.25	U	0.25	0.25	2.0	
75-09-2	Methylene chloride	6.4	U	0.25	0.25	2.0	
104-51-8	n-Butylbenzene	0.25	U	0.25	0.25	2.0	
103-65-1	n-Propylbenzene	0.25	U	0.25	0.25	2.0	
91-20-3	Naphthalene	0.25	U	0.25	0.25	2.0	
95-47-6	o-Xylene	0.25	U	0.25	0.25	2.0	
105-05-5	p-Diethylbenzene	0.25	U	0.25	0.25	2.0	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-4 @ 5-9'

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-001ASample wt/vol: 5mLLab File ID: V2-0066.DLevel: (low/med) LOWDate Collected: 8/15/2019 8:00 AM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000 (ul)Date Prepped: 8/23/2019 1:50 PMSeq Number: 822057Date Analyzed: 8/24/2019 9:04 PMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 1.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
622-96-8	p-Ethyltoluene	0.25		U	0.25	0.25	2.0
135-98-8	sec-Butylbenzene	0.25		U	0.25	0.25	2.0
100-42-5	Styrene	0.25		U	0.25	0.25	2.0
75-65-0	t-Butyl alcohol	2.5		U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.25		U	0.25	0.25	2.0
108-88-3	Toluene	0.25		U	0.25	0.25	2.0
156-60-5	trans-1,2-Dichloroethene	6.7			0.25	0.25	2.0
10061-02-6	trans-1,3-Dichloropropene	0.25		U	0.25	0.25	2.0
79-01-6	Trichloroethene	100			0.25	0.25	2.0
75-69-4	Trichlorofluoromethane	0.25		U	0.25	0.25	2.0
108-05-4	Vinyl acetate	0.25		U	0.25	0.25	2.0
75-01-4	Vinyl chloride	0.25		U	0.25	0.25	2.0
1330-20-7	Xylenes, Total	0.75		U	0.75	0.75	6.0
108-87-2	Methylcyclohexane	0.25		U	0.25	0.25	2.0
107-02-8	Acrolein	1.0		U R	1.0	1.0	10
107-13-1	Acrylonitrile	0.25		U VJ	0.25	0.25	2.0

SW8260C

for 10/3/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-4 @ 5-9'

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-001ASample wt/vol: 5mLLab File ID: V2-0027.DLevel: (low/med) LOWDate Collected: 8/15/2019 8:00 AM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000 (µl)Date Prepped: 8/27/2019 9:59 AMSeq Number: 821910Date Analyzed: 8/27/2019 11:47 PMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 20.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 23161/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
156-59-2	cis-1,2-Dichloroethene	330	D	5.0	5.0	40	
127-18-4	Tetrachloroethene	150	D	5.0	5.0	40	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-4 @ 15-19'

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-002ASample wt/vol: 5mLLab File ID: V2-0067.DLevel: (low/med) LOWDate Collected: 8/15/2019 8:30 AM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000 (ul)Date Prepped: 8/23/2019 1:50 PMSeq Number: 822058Date Analyzed: 8/24/2019 9:34 PMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 1.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0	
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0	
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0	
75-35-4	1,1-Dichloroethene	99		0.25	0.25	2.0	
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0	
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0	
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0	
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0	
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0	
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0	
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0	
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0	
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0	
110-75-8	2-Chloroethyl vinyl ether	10	RU	10	10	20	
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0	
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0	
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0	
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0	
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0	
108-10-1	4-Methyl-2-pentanone	0.50	U	0.50	0.50	4.0	
67-64-1	Acetone	13	RU	5.0	5.0	10	

SW8260C

for 9/9/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-4 @ 15-19'

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-002ASample wt/vol: 5mLLab File ID: V2-0067.DLevel: (low/med) LOWDate Collected: 8/15/2019 8:30 AM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000 (ul)Date Prepped: 8/23/2019 1:50 PMSeq Number: 822058Date Analyzed: 8/24/2019 9:34 PMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 1.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene		0.25	U	0.25	0.25	2.0
108-86-1	Bromobenzene		0.25	U	0.25	0.25	2.0
74-97-5	Bromochloromethane		0.25	U	0.25	0.25	2.0
75-27-4	Bromodichloromethane		0.25	U	0.25	0.25	2.0
75-25-2	Bromoform		0.25	U	0.25	0.25	2.0
74-83-9	Bromomethane		0.25	U	0.25	0.25	2.0
75-15-0	Carbon disulfide		0.25	U	0.25	0.25	2.0
56-23-5	Carbon tetrachloride		0.25	U	0.25	0.25	2.0
108-90-7	Chlorobenzene		0.25	U	0.25	0.25	2.0
75-45-6	Chlorodifluoromethane		0.25	U	0.25	0.25	2.0
75-00-3	Chloroethane		0.25	U	0.25	0.25	2.0
67-66-3	Chloroform		0.25	U	0.25	0.25	2.0
74-87-3	Chloromethane		0.25	U	0.25	0.25	2.0
10061-01-5	cis-1,3-Dichloropropene		0.25	U	0.25	0.25	2.0
110-82-7	Cyclohexane		0.25	U	0.25	0.25	2.0
124-48-1	Dibromochloromethane		0.25	U	0.25	0.25	2.0
74-95-3	Dibromomethane		0.25	U	0.25	0.25	2.0
75-71-8	Dichlorodifluoromethane		0.25	U	0.25	0.25	2.0
108-20-3	Diisopropyl ether		0.50	U	0.50	0.50	2.0
64-17-5	Ethanol		2.5	U R	2.5	2.5	10
100-41-4	Ethylbenzene		0.25	U	0.25	0.25	2.0
76-14-2	Freon-114		0.25	U	0.25	0.25	2.0
87-68-3	Hexachlorobutadiene		0.25	U	0.25	0.25	2.0
98-82-8	Isopropylbenzene		0.25	U	0.25	0.25	2.0
179601-23-1	m,p-Xylene		0.50	U	0.50	0.50	4.0
79-20-9	Methyl Acetate		0.25	U	0.25	0.25	2.0
1634-04-4	Methyl tert-butyl ether		0.54	J	0.25	0.25	2.0
75-09-2	Methylene chloride		6.2	U U	0.25	0.25	2.0
104-51-8	n-Butylbenzene		0.25	U	0.25	0.25	2.0
103-65-1	n-Propylbenzene		0.25	U	0.25	0.25	2.0
91-20-3	Naphthalene		0.25	U	0.25	0.25	2.0
95-47-6	o-Xylene		0.25	U	0.25	0.25	2.0
105-05-5	p-Diethylbenzene		0.25	U	0.25	0.25	2.0

SW8260C

for 9/19/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-4 @ 15-19'

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-002ASample wt/vol: 5mLLab File ID: V2-0067.DLevel: (low/med) LOWDate Collected: 8/15/2019 8:30 AM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000(µl)Date Prepped: 8/23/2019 1:50 PMSeq Number: 822058Date Analyzed: 8/24/2019 9:34 PMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 1.00Column ID: 0.18(mm)Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
622-96-8	p-Ethyltoluene	0.25		U	0.25	0.25	2.0
135-98-8	sec-Butylbenzene	0.25		U	0.25	0.25	2.0
100-42-5	Styrene	0.25		U	0.25	0.25	2.0
75-65-0	t-Butyl alcohol	2.5		U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.25		U	0.25	0.25	2.0
127-18-4	Tetrachloroethene	0.78		J	0.25	0.25	2.0
108-88-3	Toluene	0.68		J	0.25	0.25	2.0
156-60-5	trans-1,2-Dichloroethene	190			0.25	0.25	2.0
10061-02-6	trans-1,3-Dichloropropene	0.25		U	0.25	0.25	2.0
75-69-4	Trichlorofluoromethane	0.25		U	0.25	0.25	2.0
108-05-4	Vinyl acetate	0.25		U	0.25	0.25	2.0
75-01-4	Vinyl chloride	24			0.25	0.25	2.0
1330-20-7	Xylenes, Total	0.75		U	0.75	0.75	6.0
108-87-2	Methylcyclohexane	0.25		U	0.25	0.25	2.0
107-02-8	Acrolein	1.0		U R	1.0	1.0	10
107-13-1	Acrylonitrile	0.25		U U.T	0.25	0.25	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-4 @ 15-19'

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-002ASample wt/vol: 5mLLab File ID: V2-0029.DLevel: (low/med) LOWDate Collected: 8/15/2019 8:30 AM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000(µl)Date Prepped: 8/27/2019 9:59 AMSeq Number: 821912Date Analyzed: 8/28/2019 12:47 AMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 500.00Column ID: 0.18(mm)Batch ID/ Ext Mthd: 23161/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
156-59-2	cis-1,2-Dichloroethene	35000		D	130	130	1000

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-4 @ 15-19'

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-002ASample wt/vol: 5mLLab File ID: V2-0028.DLevel: (low/med) LOWDate Collected: 8/15/2019 8:30 AM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000 (µl)Date Prepped: 8/27/2019 9:59 AMSeq Number: 821911Date Analyzed: 8/28/2019 12:17 AMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 100.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 23161/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
79-01-6	Trichloroethene	1300	D	25	25	200	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-4 @ 26-30'

Lab Name: American Analytical Contract:
Laboratories, LLC.Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134Matrix: Liquid Lab Sample ID: 1908134-003ASample wt/vol: 5mL Lab File ID: V2-0068.DLevel: (low/med) LOW Date Collected: 8/15/2019 9:00 AM% Moisture: N/A Date Received: 8/15/2019 4:20 PMExtract Volume: 5000 (ul) Date Prepped: 8/23/2019 1:50 PMSeq Number: 822059 Date Analyzed: 8/24/2019 10:04 PMGC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0
75-35-4	1,1-Dichloroethene	0.25	U	0.25	0.25	2.0
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	0.25	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	0.25	2.0
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0
110-75-8	2-Chloroethyl vinyl ether	10	U	10	10	20
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0
108-10-1	4-Methyl-2-pentanone	0.50	U	0.50	0.50	4.0
67-64-1	Acetone	11	U	5.0	5.0	10

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-4 @ 26-30'

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-003ASample wt/vol: 5mLLab File ID: V2-0068.DLevel: (low/med) LOWDate Collected: 8/15/2019 9:00 AM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000 (ul)Date Prepped: 8/23/2019 1:50 PMSeq Number: 822059Date Analyzed: 8/24/2019 10:04 PMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 1.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.25	U	0.25	0.25	2.0	
108-86-1	Bromobenzene	0.25	U	0.25	0.25	2.0	
74-97-5	Bromochloromethane	0.25	U	0.25	0.25	2.0	
75-27-4	Bromodichloromethane	0.25	U	0.25	0.25	2.0	
75-25-2	Bromoform	0.25	U	0.25	0.25	2.0	
74-83-9	Bromomethane	0.25	U	0.25	0.25	2.0	
75-15-0	Carbon disulfide	0.25	U	0.25	0.25	2.0	
56-23-5	Carbon tetrachloride	0.25	U	0.25	0.25	2.0	
108-90-7	Chlorobenzene	0.25	U	0.25	0.25	2.0	
75-45-6	Chlorodifluoromethane	0.25	U	0.25	0.25	2.0	
75-00-3	Chloroethane	0.25	U	0.25	0.25	2.0	
67-66-3	Chloroform	0.25	U	0.25	0.25	2.0	
74-87-3	Chloromethane	0.25	U	0.25	0.25	2.0	
156-59-2	cis-1,2-Dichloroethene	59		0.25	0.25	2.0	
10061-01-5	cis-1,3-Dichloropropene	0.25	U	0.25	0.25	2.0	
110-82-7	Cyclohexane	0.25	U	0.25	0.25	2.0	
124-48-1	Dibromochloromethane	0.25	U	0.25	0.25	2.0	
74-95-3	Dibromomethane	0.25	U	0.25	0.25	2.0	
75-71-8	Dichlorodifluoromethane	0.25	U	0.25	0.25	2.0	
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0	
64-17-5	Ethanol	2.5	NR	2.5	2.5	10	
100-41-4	Ethylbenzene	0.25	U	0.25	0.25	2.0	
76-14-2	Freon-114	0.25	U	0.25	0.25	2.0	
87-68-3	Hexachlorobutadiene	0.25	U	0.25	0.25	2.0	
98-82-8	Isopropylbenzene	0.25	U	0.25	0.25	2.0	
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50	4.0	
79-20-9	Methyl Acetate	0.25	U	0.25	0.25	2.0	
1634-04-4	Methyl tert-butyl ether	0.25	U	0.25	0.25	2.0	
75-09-2	Methylene chloride	6.3	NR	0.25	0.25	2.0	
104-51-8	n-Butylbenzene	0.25	U	0.25	0.25	2.0	
103-65-1	n-Propylbenzene	0.25	U	0.25	0.25	2.0	
91-20-3	Naphthalene	0.25	U	0.25	0.25	2.0	
95-47-6	o-Xylene	0.25	U	0.25	0.25	2.0	

SW8260C

8/29/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-4 @ 26-30'

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-003ASample wt/vol: 5mLLab File ID: V2-0068.DLevel: (low/med) LOWDate Collected: 8/15/2019 9:00 AM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000(µl)Date Prepped: 8/23/2019 1:50 PMSeq Number: 822059Date Analyzed: 8/24/2019 10:04 PMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 1.00Column ID: 0.18(mm)Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
105-05-5	p-Diethylbenzene	0.25	U	0.25	0.25	2.0
622-96-8	p-Ethyltoluene	0.25	U	0.25	0.25	2.0
135-98-8	sec-Butylbenzene	0.25	U	0.25	0.25	2.0
100-42-5	Styrene	0.25	U	0.25	0.25	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.25	U	0.25	0.25	2.0
127-18-4	Tetrachloroethene	0.79	J	0.25	0.25	2.0
108-88-3	Toluene	0.25	U	0.25	0.25	2.0
156-60-5	trans-1,2-Dichloroethene	0.49	J	0.25	0.25	2.0
10061-02-6	trans-1,3-Dichloropropene	0.25	U	0.25	0.25	2.0
79-01-6	Trichloroethene	0.25	U	0.25	0.25	2.0
75-69-4	Trichlorofluoromethane	0.25	U	0.25	0.25	2.0
108-05-4	Vinyl acetate	0.25	U	0.25	0.25	2.0
75-01-4	Vinyl chloride	0.25	U	0.25	0.25	2.0
1330-20-7	Xylenes, Total	0.75	U	0.75	0.75	6.0
108-87-2	Methylcyclohexane	0.25	U	0.25	0.25	2.0
107-02-8	Acrolein	1.0	U R	1.0	1.0	10
107-13-1	Acrylonitrile	0.25	U VJ	0.25	0.25	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-5 @ 5-9'

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-004ASample wt/vol: 5mLLab File ID: V2-0069.DLevel: (low/med) LOWDate Collected: 8/15/2019 9:30 AM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000(ul)Date Prepped: 8/23/2019 1:50 PMSeq Number: 822060Date Analyzed: 8/24/2019 10:34 PMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 1.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0	
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0	
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0	
75-35-4	1,1-Dichloroethene	0.25	U	0.25	0.25	2.0	
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0	
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0	
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0	
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0	
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0	
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0	
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0	
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0	
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0	
110-75-8	2-Chloroethyl vinyl ether	10	U	10	10	20	
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0	
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0	
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0	
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0	
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0	
108-10-1	4-Methyl-2-pentanone	0.50	U	0.50	0.50	4.0	
67-64-1	Acetone	19	U	5.0	5.0	10	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-5 @ 5-9'

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134

Matrix: Liquid Lab Sample ID: 1908134-004A

Sample wt/vol: 5mL Lab File ID: V2-0069.D

Level: (low/med) LOW Date Collected: 8/15/2019 9:30 AM

% Moisture: N/A Date Received: 8/15/2019 4:20 PM

Extract Volume: 5000(ul) Date Prepped: 8/23/2019 1:50 PM

Seq Number: 822060 Date Analyzed: 8/24/2019 10:34 PM

GC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00

Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene		0.25	U	0.25	0.25	2.0
108-86-1	Bromobenzene		0.25	U	0.25	0.25	2.0
74-97-5	Bromochloromethane		0.25	U	0.25	0.25	2.0
75-27-4	Bromodichloromethane		0.25	U	0.25	0.25	2.0
75-25-2	Bromoform		0.25	U	0.25	0.25	2.0
74-83-9	Bromomethane		0.25	U	0.25	0.25	2.0
75-15-0	Carbon disulfide		0.25	U	0.25	0.25	2.0
56-23-5	Carbon tetrachloride		0.25	U	0.25	0.25	2.0
108-90-7	Chlorobenzene		0.25	U	0.25	0.25	2.0
75-45-6	Chlorodifluoromethane		0.25	U	0.25	0.25	2.0
75-00-3	Chloroethane		0.25	U	0.25	0.25	2.0
67-66-3	Chloroform		0.25	U	0.25	0.25	2.0
74-87-3	Chloromethane		0.25	U	0.25	0.25	2.0
10061-01-5	cis-1,3-Dichloropropene		0.25	U	0.25	0.25	2.0
110-82-7	Cyclohexane		0.25	U	0.25	0.25	2.0
124-48-1	Dibromochloromethane		0.25	U	0.25	0.25	2.0
74-95-3	Dibromomethane		0.25	U	0.25	0.25	2.0
75-71-8	Dichlorodifluoromethane		0.25	U	0.25	0.25	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		0.25	U	0.25	0.25	2.0
76-14-2	Freon-114		0.25	U	0.25	0.25	2.0
87-68-3	Hexachlorobutadiene		0.25	U	0.25	0.25	2.0
98-82-8	Isopropylbenzene		0.25	U	0.25	0.25	2.0
179601-23-1	m,p-Xylene		0.50	U	0.50	0.50	4.0
79-20-9	Methyl Acetate		0.25	U	0.25	0.25	2.0
1634-04-4	Methyl tert-butyl ether		0.25	U	0.25	0.25	2.0
75-09-2	Methylene chloride		6.2	U	0.25	0.25	2.0
104-51-8	n-Butylbenzene		0.25	U	0.25	0.25	2.0
103-65-1	n-Propylbenzene		0.25	U	0.25	0.25	2.0
91-20-3	Naphthalene		0.25	U	0.25	0.25	2.0
95-47-6	o-Xylene		0.25	U	0.25	0.25	2.0
105-05-5	p-Diethylbenzene		0.25	U	0.25	0.25	2.0

SW8260C

8/19/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-5 @ 5-9'

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134

Matrix: Liquid Lab Sample ID: 1908134-004A

Sample wt/vol: 5mL Lab File ID: V2-0069.D

Level: (low/med) LOW Date Collected: 8/15/2019 9:30 AM

% Moisture: N/A Date Received: 8/15/2019 4:20 PM

Extract Volume: 5000(µl) Date Prepped: 8/23/2019 1:50 PM

Seq Number: 822060 Date Analyzed: 8/24/2019 10:34 PM

GC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
622-96-8	p-Ethyltoluene	0.25	U	0.25	0.25	2.0	
135-98-8	sec-Butylbenzene	0.25	U	0.25	0.25	2.0	
100-42-5	Styrene	0.25	U	0.25	0.25	2.0	
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10	
98-06-6	tert-Butylbenzene	0.25	U	0.25	0.25	2.0	
127-18-4	Tetrachloroethene	33		0.25	0.25	2.0	
108-88-3	Toluene	0.25	U	0.25	0.25	2.0	
156-60-5	trans-1,2-Dichloroethene	1.5	J	0.25	0.25	2.0	
10061-02-6	trans-1,3-Dichloropropene	0.25	U	0.25	0.25	2.0	
79-01-6	Trichloroethene	46		0.25	0.25	2.0	
75-69-4	Trichlorofluoromethane	0.25	U	0.25	0.25	2.0	
108-05-4	Vinyl acetate	0.25	U	0.25	0.25	2.0	
75-01-4	Vinyl chloride	0.25	U	0.25	0.25	2.0	
1330-20-7	Xylenes, Total	0.75	U	0.75	0.75	6.0	
108-87-2	Methylcyclohexane	0.25	U	0.25	0.25	2.0	
107-02-8	Acrolein	1.0	8/15	1.0	1.0	10	
107-13-1	Acrylonitrile	0.25	8/15	0.25	0.25	2.0	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-5 @ 5-9'

Lab Name: American Analytical Contract:
Laboratories, LLC.Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134Matrix: Liquid Lab Sample ID: 1908134-004ASample wt/vol: 5mL Lab File ID: V2-0031.DLevel: (low/med) LOW Date Collected: 8/15/2019 9:30 AM% Moisture: N/A Date Received: 8/15/2019 4:20 PMExtract Volume: 5000 (ul) Date Prepped: 8/27/2019 9:59 AMSeq Number: 821914 Date Analyzed: 8/28/2019 1:47 AMGC Column: V2 08-01-19 SN#1629117 Dilution Factor: 5.00Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 23161/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
156-59-2	cis-1,2-Dichloroethene	260	D	1.3	1.3	10	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-5 @ 15-19"

Lab Name: American Analytical Contract:
Laboratories, LLC.Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134Matrix: Liquid Lab Sample ID: 1908134-005ASample wt/vol: 5mL Lab File ID: V2-0070.DLevel: (low/med) LOW Date Collected: 8/15/2019 10:00 AM% Moisture: N/A Date Received: 8/15/2019 4:20 PMExtract Volume: 5000(ul) Date Prepped: 8/23/2019 1:50 PMSeq Number: 822061 Date Analyzed: 8/24/2019 11:04 PMGC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0	
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0	
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0	
75-35-4	1,1-Dichloroethene	30		0.25	0.25	2.0	
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0	
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0	
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0	
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0	
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0	
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0	
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0	
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0	
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0	
110-75-8	2-Chloroethyl vinyl ether	10	RU	10	10	20	
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0	
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0	
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0	
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0	
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0	
108-10-1	4-Methyl-2-pentanone	0.50	U	0.50	0.50	4.0	
67-64-1	Acetone	13	RU	5.0	5.0	10	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-5 @ 15-19"

Lab Name: American Analytical Contract:
Laboratories, LLC.Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134Matrix: Liquid Lab Sample ID: 1908134-005ASample wt/vol: 5mL Lab File ID: V2-0070.DLevel: (low/med) LOW Date Collected: 8/15/2019 10:00 AM% Moisture: N/A Date Received: 8/15/2019 4:20 PMExtract Volume: 5000(ul) Date Prepped: 8/23/2019 1:50 PMSeq Number: 822061 Date Analyzed: 8/24/2019 11:04 PMGC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene		0.25	U	0.25	0.25	2.0
108-86-1	Bromobenzene		0.25	U	0.25	0.25	2.0
74-97-5	Bromochloromethane		0.25	U	0.25	0.25	2.0
75-27-4	Bromodichloromethane		0.25	U	0.25	0.25	2.0
75-25-2	Bromoform		0.25	U	0.25	0.25	2.0
74-83-9	Bromomethane		0.25	U	0.25	0.25	2.0
75-15-0	Carbon disulfide		0.25	U	0.25	0.25	2.0
56-23-5	Carbon tetrachloride		0.25	U	0.25	0.25	2.0
108-90-7	Chlorobenzene		0.25	U	0.25	0.25	2.0
75-45-6	Chlorodifluoromethane		0.25	U	0.25	0.25	2.0
75-00-3	Chloroethane		0.25	U	0.25	0.25	2.0
67-66-3	Chloroform		0.25	U	0.25	0.25	2.0
74-87-3	Chloromethane		0.25	U	0.25	0.25	2.0
10061-01-5	cis-1,3-Dichloropropene		0.25	U	0.25	0.25	2.0
110-82-7	Cyclohexane		0.25	U	0.25	0.25	2.0
124-48-1	Dibromochloromethane		0.25	U	0.25	0.25	2.0
74-95-3	Dibromomethane		0.25	U	0.25	0.25	2.0
75-71-8	Dichlorodifluoromethane		0.25	U	0.25	0.25	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		0.25	U	0.25	0.25	2.0
76-14-2	Freon-114		0.25	U	0.25	0.25	2.0
87-68-3	Hexachlorobutadiene		0.25	U	0.25	0.25	2.0
98-82-8	Isopropylbenzene		0.25	U	0.25	0.25	2.0
179601-23-1	m,p-Xylene		0.50	U	0.50	0.50	4.0
79-20-9	Methyl Acetate		0.25	U	0.25	0.25	2.0
1634-04-4	Methyl tert-butyl ether		0.27	U	0.25	0.25	2.0
75-09-2	Methylene chloride		5.2	U	0.25	0.25	2.0
104-51-8	n-Butylbenzene		0.25	U	0.25	0.25	2.0
103-65-1	n-Propylbenzene		0.25	U	0.25	0.25	2.0
91-20-3	Naphthalene		0.25	U	0.25	0.25	2.0
95-47-6	o-Xylene		0.25	U	0.25	0.25	2.0
105-05-5	p-Diethylbenzene		0.25	U	0.25	0.25	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-5 @ 15-19"

Lab Name: American Analytical Laboratories, LLC. Contract: _____
 Lab Code: AAL ClientID: Berninger SAS No.: _____ SDG No.: 1908134
 Matrix: Liquid Lab Sample ID: 1908134-005A
 Sample wt/vol: 5mL Lab File ID: V2-0070.D
 Level: (low/med) LOW Date Collected: 8/15/2019 10:00 AM
 % Moisture: N/A Date Received: 8/15/2019 4:20 PM
 Extract Volume: 5000(µl) Date Prepped: 8/23/2019 1:50 PM
 Seq Number: 822061 Date Analyzed: 8/24/2019 11:04 PM
 GC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00
 Column ID: 0.18(mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
622-96-8	p-Ethyltoluene	0.25	U	0.25	0.25	2.0	
135-98-8	sec-Butylbenzene	0.25	U	0.25	0.25	2.0	
100-42-5	Styrene	0.25	U	0.25	0.25	2.0	
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10	
98-06-6	tert-Butylbenzene	0.25	U	0.25	0.25	2.0	
127-18-4	Tetrachloroethene	47		0.25	0.25	2.0	
108-88-3	Toluene	0.28	J	0.25	0.25	2.0	
156-60-5	trans-1,2-Dichloroethene	63		0.25	0.25	2.0	
10061-02-6	trans-1,3-Dichloropropene	0.25	U	0.25	0.25	2.0	
75-69-4	Trichlorofluoromethane	0.25	U	0.25	0.25	2.0	
108-05-4	Vinyl acetate	0.25	U	0.25	0.25	2.0	
75-01-4	Vinyl chloride	12		0.25	0.25	2.0	
1330-20-7	Xylenes, Total	0.75	U	0.75	0.75	6.0	
108-87-2	Methylcyclohexane	0.25	U	0.25	0.25	2.0	
107-02-8	Acrolein	1.0	U R	1.0	1.0	10	
107-13-1	Acrylonitrile	0.25	U U	0.25	0.25	2.0	

SW8260C


 10/3/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-5 @ 15-19"

Lab Name: American Analytical Contract:
Laboratories, LLC.Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134Matrix: Liquid Lab Sample ID: 1908134-005ASample wt/vol: 5mL Lab File ID: V2-0032.DLevel: (low/med) LOW Date Collected: 8/15/2019 10:00 AM% Moisture: N/A Date Received: 8/15/2019 4:20 PMExtract Volume: 5000(ul) Date Prepped: 8/27/2019 9:59 AMSeq Number: 821915 Date Analyzed: 8/28/2019 2:17 AMGC Column: V2 08-01-19 SN#1629117 Dilution Factor: 100.00Column ID: 0.18(mm) Batch ID/ Ext Mthd: 23161/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
156-59-2	cis-1,2-Dichloroethene	10000	D	25	25	200	
79-01-6	Trichloroethene	1700	D	25	25	200	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-5 @ 26-30'

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134

Matrix: Liquid Lab Sample ID: 1908134-006A

Sample wt/vol: 5mL Lab File ID: V2-0071.D

Level: (low/med) LOW Date Collected: 8/15/2019 10:15 AM

% Moisture: N/A Date Received: 8/15/2019 4:20 PM

Extract Volume: 5000(µl) Date Prepped: 8/23/2019 1:50 PM

Seq Number: 822062 Date Analyzed: 8/24/2019 11:34 PM

GC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0
75-35-4	1,1-Dichloroethene	12		0.25	0.25	2.0
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	0.25	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	0.25	2.0
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0
110-75-8	2-Chloroethyl vinyl ether	10	RU	10	10	20
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0
108-10-1	4-Methyl-2-pentanone	0.50	U	0.50	0.50	4.0
67-64-1	Acetone	30	BU	5.0	5.0	10

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-5 @ 26-30'

Lab Name: American Analytical Contract:
Laboratories, LLC.Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134Matrix: Liquid Lab Sample ID: 1908134-006ASample wt/vol: 5mL Lab File ID: V2-0071.DLevel: (low/med) LOW Date Collected: 8/15/2019 10:15 AM% Moisture: N/A Date Received: 8/15/2019 4:20 PMExtract Volume: 5000 (µl) Date Prepped: 8/23/2019 1:50 PMSeq Number: 822062 Date Analyzed: 8/24/2019 11:34 PMGC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene		0.25	U	0.25	0.25	2.0
108-86-1	Bromobenzene		0.25	U	0.25	0.25	2.0
74-97-5	Bromochloromethane		0.25	U	0.25	0.25	2.0
75-27-4	Bromodichloromethane		0.25	U	0.25	0.25	2.0
75-25-2	Bromoform		0.25	U	0.25	0.25	2.0
74-83-9	Bromomethane		0.25	U	0.25	0.25	2.0
75-15-0	Carbon disulfide		0.25	U	0.25	0.25	2.0
56-23-5	Carbon tetrachloride		0.25	U	0.25	0.25	2.0
108-90-7	Chlorobenzene		0.25	U	0.25	0.25	2.0
75-45-6	Chlorodifluoromethane		0.25	U	0.25	0.25	2.0
75-00-3	Chloroethane		0.25	U	0.25	0.25	2.0
67-66-3	Chloroform		0.25	U	0.25	0.25	2.0
74-87-3	Chloromethane		0.25	U	0.25	0.25	2.0
10061-01-5	cis-1,3-Dichloropropene		0.25	U	0.25	0.25	2.0
110-82-7	Cyclohexane		0.25	U	0.25	0.25	2.0
124-48-1	Dibromochloromethane		0.25	U	0.25	0.25	2.0
74-95-3	Dibromomethane		0.25	U	0.25	0.25	2.0
75-71-8	Dichlorodifluoromethane		0.25	U	0.25	0.25	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		0.25	U	0.25	0.25	2.0
76-14-2	Freon-114		0.25	U	0.25	0.25	2.0
87-68-3	Hexachlorobutadiene		0.25	U	0.25	0.25	2.0
98-82-8	Isopropylbenzene		0.25	U	0.25	0.25	2.0
179601-23-1	m,p-Xylene		0.50	U	0.50	0.50	4.0
79-20-9	Methyl Acetate		0.25	U	0.25	0.25	2.0
1634-04-4	Methyl tert-butyl ether		0.25	U	0.25	0.25	2.0
75-09-2	Methylene chloride		5.5	U	0.25	0.25	2.0
104-51-8	n-Butylbenzene		0.25	U	0.25	0.25	2.0
103-65-1	n-Propylbenzene		0.25	U	0.25	0.25	2.0
91-20-3	Naphthalene		0.25	U	0.25	0.25	2.0
95-47-6	o-Xylene		0.25	U	0.25	0.25	2.0
105-05-5	p-Diethylbenzene		0.25	U	0.25	0.25	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-5 @ 26-30'

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-006ASample wt/vol: 5mLLab File ID: V2-0071.DLevel: (low/med) LOWDate Collected: 8/15/2019 10:15 AM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000(µl)Date Prepped: 8/23/2019 1:50 PMSeq Number: 822062Date Analyzed: 8/24/2019 11:34 PMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 1.00Column ID: 0.18(mm)Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
622-96-8	p-Ethyltoluene	0.25	U	0.25	0.25	2.0	
135-98-8	sec-Butylbenzene	0.25	U	0.25	0.25	2.0	
100-42-5	Styrene	0.25	U	0.25	0.25	2.0	
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10	
98-06-6	tert-Butylbenzene	0.25	U	0.25	0.25	2.0	
127-18-4	Tetrachloroethene	9.6		0.25	0.25	2.0	
108-88-3	Toluene	0.25	U	0.25	0.25	2.0	
156-60-5	trans-1,2-Dichloroethene	2.7		0.25	0.25	2.0	
10061-02-6	trans-1,3-Dichloropropene	0.25	U	0.25	0.25	2.0	
79-01-6	Trichloroethene	300		0.25	0.25	2.0	
75-69-4	Trichlorofluoromethane	0.25	U	0.25	0.25	2.0	
108-05-4	Vinyl acetate	0.25	U	0.25	0.25	2.0	
75-01-4	Vinyl chloride	8.9		0.25	0.25	2.0	
1330-20-7	Xylenes, Total	0.75	U	0.75	0.75	6.0	
108-87-2	Methylcyclohexane	0.25	U	0.25	0.25	2.0	
107-02-8	Acrolein	1.0	U R	1.0	1.0	10	
107-13-1	Acrylonitrile	0.25	U JJ	0.25	0.25	2.0	

SW8260C

8/24/19
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Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-5 @ 26-30'

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-006ASample wt/vol: 5mLLab File ID: V2-0033.DLevel: (low/med) LOWDate Collected: 8/15/2019 10:15 AM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000(µl)Date Prepped: 8/27/2019 9:59 AMSeq Number: 821916Date Analyzed: 8/28/2019 2:47 AMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 50.00Column ID: 0.18(mm)Batch ID/ Ext Mthd: 23161/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
156-59-2	cis-1,2-Dichloroethene	570	D	13	13	100	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-6 @ 5-9'

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134

Matrix: Liquid Lab Sample ID: 1908134-007A

Sample wt/vol: 5mL Lab File ID: V2-0074.D

Level: (low/med) LOW Date Collected: 8/15/2019 12:00 PM

% Moisture: N/A Date Received: 8/15/2019 4:20 PM

Extract Volume: 5000(ul) Date Prepped: 8/23/2019 1:50 PM

Seq Number: 822065 Date Analyzed: 8/25/2019 1:05 AM

GC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0	
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0	
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0	
75-35-4	1,1-Dichloroethene	0.25	U	0.25	0.25	2.0	
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0	
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0	
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0	
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0	
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0	
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0	
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0	
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0	
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0	
110-75-8	2-Chloroethyl vinyl ether	10	U	10	10	20	
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0	
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0	
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0	
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0	
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0	
108-10-1	4-Methyl-2-pentanone	0.50	U	0.50	0.50	4.0	
67-64-1	Acetone	16	U	5.0	5.0	10	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-6 @ 5-9'

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-007ASample wt/vol: 5mLLab File ID: V2-0074.DLevel: (low/med) LOWDate Collected: 8/15/2019 12:00 PM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000(µl)Date Prepped: 8/23/2019 1:50 PMSeq Number: 822065Date Analyzed: 8/25/2019 1:05 AMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 1.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene		0.25	U	0.25	0.25	2.0
108-86-1	Bromobenzene		0.25	U	0.25	0.25	2.0
74-97-5	Bromochloromethane		0.25	U	0.25	0.25	2.0
75-27-4	Bromodichloromethane		0.25	U	0.25	0.25	2.0
75-25-2	Bromoform		0.25	U	0.25	0.25	2.0
74-83-9	Bromomethane		0.25	U	0.25	0.25	2.0
75-15-0	Carbon disulfide		0.25	U	0.25	0.25	2.0
56-23-5	Carbon tetrachloride		0.25	U	0.25	0.25	2.0
108-90-7	Chlorobenzene		0.25	U	0.25	0.25	2.0
75-45-6	Chlorodifluoromethane		0.25	U	0.25	0.25	2.0
75-00-3	Chloroethane		0.25	U	0.25	0.25	2.0
67-66-3	Chloroform		0.25	U	0.25	0.25	2.0
74-87-3	Chloromethane		0.25	U	0.25	0.25	2.0
156-59-2	cis-1,2-Dichloroethene	6.8			0.25	0.25	2.0
10061-01-5	cis-1,3-Dichloropropene		0.25	U	0.25	0.25	2.0
110-82-7	Cyclohexane		0.25	U	0.25	0.25	2.0
124-48-1	Dibromochloromethane		0.25	U	0.25	0.25	2.0
74-95-3	Dibromomethane		0.25	U	0.25	0.25	2.0
75-71-8	Dichlorodifluoromethane		0.25	U	0.25	0.25	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		0.25	U	0.25	0.25	2.0
76-14-2	Freon-114		0.25	U	0.25	0.25	2.0
87-68-3	Hexachlorobutadiene		0.25	U	0.25	0.25	2.0
98-82-8	Isopropylbenzene		0.25	U	0.25	0.25	2.0
179601-23-1	m,p-Xylene		0.50	U	0.50	0.50	4.0
79-20-9	Methyl Acetate		0.25	U	0.25	0.25	2.0
1634-04-4	Methyl tert-butyl ether		0.25	U	0.25	0.25	2.0
75-09-2	Methylene chloride	5.8		U	0.25	0.25	2.0
104-51-8	n-Butylbenzene		0.25	U	0.25	0.25	2.0
103-65-1	n-Propylbenzene		0.25	U	0.25	0.25	2.0
91-20-3	Naphthalene		0.25	U	0.25	0.25	2.0
95-47-6	o-Xylene		0.25	U	0.25	0.25	2.0

SW8260C

for 9/9/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-6 @ 5-9'

Lab Name: American Analytical Laboratories, LLC. Contract:
 Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134
 Matrix: Liquid Lab Sample ID: 1908134-007A
 Sample wt/vol: 5mL Lab File ID: V2-0074.D
 Level: (low/med) LOW Date Collected: 8/15/2019 12:00 PM
 % Moisture: N/A Date Received: 8/15/2019 4:20 PM
 Extract Volume: 5000(ul) Date Prepped: 8/23/2019 1:50 PM
 Seq Number: 822065 Date Analyzed: 8/25/2019 1:05 AM
 GC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00
 Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
105-05-5	p-Diethylbenzene	0.25	U	0.25	0.25	2.0	
622-96-8	p-Ethyltoluene	0.25	U	0.25	0.25	2.0	
135-98-8	sec-Butylbenzene	0.25	U	0.25	0.25	2.0	
100-42-5	Styrene	0.25	U	0.25	0.25	2.0	
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10	
98-06-6	tert-Butylbenzene	0.25	U	0.25	0.25	2.0	
127-18-4	Tetrachloroethene	0.25	U	0.25	0.25	2.0	
108-88-3	Toluene	0.25	U	0.25	0.25	2.0	
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	0.25	2.0	
10061-02-6	trans-1,3-Dichloropropene	0.25	U	0.25	0.25	2.0	
79-01-6	Trichloroethene	0.25	U	0.25	0.25	2.0	
75-69-4	Trichlorofluoromethane	0.25	U	0.25	0.25	2.0	
108-05-4	Vinyl acetate	0.25	U	0.25	0.25	2.0	
75-01-4	Vinyl chloride	0.25	U	0.25	0.25	2.0	
1330-20-7	Xylenes, Total	0.75	U	0.75	0.75	6.0	
108-87-2	Methylcyclohexane	0.25	U	0.25	0.25	2.0	
107-02-8	Acrolein	1.0	U	1.0	1.0	10	
107-13-1	Acrylonitrile	0.25	U	0.25	0.25	2.0	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-6 @ 15-19'

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134

Matrix: Liquid Lab Sample ID: 1908134-008A

Sample wt/vol: 5mL Lab File ID: V2-0072.D

Level: (low/med) LOW Date Collected: 8/15/2019 11:45 AM

% Moisture: N/A Date Received: 8/15/2019 4:20 PM

Extract Volume: 5000(ul) Date Prepped: 8/23/2019 1:50 PM

Seq Number: 822063 Date Analyzed: 8/25/2019 12:05 AM

GC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0	
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0	
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0	
75-35-4	1,1-Dichloroethene	0.51	J	0.25	0.25	2.0	
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0	
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0	
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0	
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0	
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0	
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0	
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0	
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0	
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0	
110-75-8	2-Chloroethyl vinyl ether	10	U	10	10	20	
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0	
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0	
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0	
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0	
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0	
108-10-1	4-Methyl-2-pentanone	0.50	U	0.50	0.50	4.0	
67-64-1	Acetone	24	U	5.0	5.0	10	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-6 @ 15-19'

Lab Name: American Analytical Contract:
Laboratories, LLC.Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134Matrix: Liquid Lab Sample ID: 1908134-008ASample wt/vol: 5mL Lab File ID: V2-0072.DLevel: (low/med) LOW Date Collected: 8/15/2019 11:45 AM% Moisture: N/A Date Received: 8/15/2019 4:20 PMExtract Volume: 5000(ul) Date Prepped: 8/23/2019 1:50 PMSeq Number: 822063 Date Analyzed: 8/25/2019 12:05 AMGC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00Column ID: 0.18(mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.25	U	0.25	0.25	2.0	
108-86-1	Bromobenzene	0.25	U	0.25	0.25	2.0	
74-97-5	Bromochloromethane	0.25	U	0.25	0.25	2.0	
75-27-4	Bromodichloromethane	0.25	U	0.25	0.25	2.0	
75-25-2	Bromoform	0.25	U	0.25	0.25	2.0	
74-83-9	Bromomethane	0.25	U	0.25	0.25	2.0	
75-15-0	Carbon disulfide	0.25	U	0.25	0.25	2.0	
56-23-5	Carbon tetrachloride	0.25	U	0.25	0.25	2.0	
108-90-7	Chlorobenzene	0.25	U	0.25	0.25	2.0	
75-45-6	Chlorodifluoromethane	0.25	U	0.25	0.25	2.0	
75-00-3	Chloroethane	0.25	U	0.25	0.25	2.0	
67-66-3	Chloroform	0.25	U	0.25	0.25	2.0	
74-87-3	Chloromethane	0.25	U	0.25	0.25	2.0	
156-59-2	cis-1,2-Dichloroethene	110		0.25	0.25	2.0	
10061-01-5	cis-1,3-Dichloropropene	0.25	U	0.25	0.25	2.0	
110-82-7	Cyclohexane	0.25	U	0.25	0.25	2.0	
124-48-1	Dibromochloromethane	0.25	U	0.25	0.25	2.0	
74-95-3	Dibromomethane	0.25	U	0.25	0.25	2.0	
75-71-8	Dichlorodifluoromethane	0.25	U	0.25	0.25	2.0	
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0	
64-17-5	Ethanol	2.5	U R	2.5	2.5	10	
100-41-4	Ethylbenzene	0.25	U	0.25	0.25	2.0	
76-14-2	Freon-114	0.25	U	0.25	0.25	2.0	
87-68-3	Hexachlorobutadiene	0.25	U	0.25	0.25	2.0	
98-82-8	Isopropylbenzene	0.25	U	0.25	0.25	2.0	
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50	4.0	
79-20-9	Methyl Acetate	0.25	U	0.25	0.25	2.0	
1634-04-4	Methyl tert-butyl ether	0.60	J	0.25	0.25	2.0	
75-09-2	Methylene chloride	5.6	U U	0.25	0.25	2.0	
104-51-8	n-Butylbenzene	0.25	U	0.25	0.25	2.0	
103-65-1	n-Propylbenzene	0.25	U	0.25	0.25	2.0	
91-20-3	Naphthalene	0.25	U	0.25	0.25	2.0	
95-47-6	o-Xylene	0.25	U	0.25	0.25	2.0	

SW8260C

for 9/19/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-6 @ 15-19'

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134

Matrix: Liquid Lab Sample ID: 1908134-008A

Sample wt/vol: 5mL Lab File ID: V2-0072.D

Level: (low/med) LOW Date Collected: 8/15/2019 11:45 AM

% Moisture: N/A Date Received: 8/15/2019 4:20 PM

Extract Volume: 5000(µl) Date Prepped: 8/23/2019 1:50 PM

Seq Number: 822063 Date Analyzed: 8/25/2019 12:05 AM

GC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
105-05-5	p-Diethylbenzene	0.25	U	0.25	0.25	2.0
622-96-8	p-Ethyltoluene	0.25	U	0.25	0.25	2.0
135-98-8	sec-Butylbenzene	0.25	U	0.25	0.25	2.0
100-42-5	Styrene	0.25	U	0.25	0.25	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.25	U	0.25	0.25	2.0
127-18-4	Tetrachloroethene	0.25	U	0.25	0.25	2.0
108-88-3	Toluene	0.25	U	0.25	0.25	2.0
156-60-5	trans-1,2-Dichloroethene	0.93	J	0.25	0.25	2.0
10061-02-6	trans-1,3-Dichloropropene	0.25	U	0.25	0.25	2.0
79-01-6	Trichloroethene	12		0.25	0.25	2.0
75-69-4	Trichlorofluoromethane	0.25	U	0.25	0.25	2.0
108-05-4	Vinyl acetate	0.25	U	0.25	0.25	2.0
75-01-4	Vinyl chloride	0.25	U	0.25	0.25	2.0
1330-20-7	Xylenes, Total	0.75	U	0.75	0.75	6.0
108-87-2	Methylcyclohexane	0.25	U	0.25	0.25	2.0
107-02-8	Acrolein	1.0	U P	1.0	1.0	10
107-13-1	Acrylonitrile	0.25	U UT	0.25	0.25	2.0

SW8260C

805
10/3/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-6 @ 26-30'

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134

Matrix: Liquid Lab Sample ID: 1908134-009A

Sample wt/vol: 5mL Lab File ID: V2-0034.D

Level: (low/med) LOW Date Collected: 8/15/2019 11:30 AM

% Moisture: N/A Date Received: 8/15/2019 4:20 PM

Extract Volume: 5000(µl) Date Prepped: 8/27/2019 9:59 AM

Seq Number: 821917 Date Analyzed: 8/28/2019 3:17 AM

GC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00

Column ID: 0.18(mm) Batch ID/ Ext Mthd: 23161/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0	
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0	
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0	
75-35-4	1,1-Dichloroethene	0.25	U	0.25	0.25	2.0	
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0	
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0	
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0	
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0	
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0	
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0	
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0	
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0	
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0	
110-75-8	2-Chloroethyl vinyl ether	10	U	10	10	20	
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0	
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0	
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0	
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0	
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0	
108-10-1	4-Methyl-2-pentanone	0.50	U	0.50	0.50	4.0	
67-64-1	Acetone	18	U	5.0	5.0	10	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-6 @ 26-30'

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-009ASample wt/vol: 5mLLab File ID: V2-0034.DLevel: (low/med) LOWDate Collected: 8/15/2019 11:30 AM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000 (ul)Date Prepped: 8/27/2019 9:59 AMSeq Number: 821917Date Analyzed: 8/28/2019 3:17 AMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 1.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 23161/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene	0.25	U	0.25	0.25	2.0
108-86-1	Bromobenzene	0.25	U	0.25	0.25	2.0
74-97-5	Bromochloromethane	0.25	U	0.25	0.25	2.0
75-27-4	Bromodichloromethane	0.25	U	0.25	0.25	2.0
75-25-2	Bromoform	0.25	U	0.25	0.25	2.0
74-83-9	Bromomethane	0.25	U	0.25	0.25	2.0
75-15-0	Carbon disulfide	0.25	U	0.25	0.25	2.0
56-23-5	Carbon tetrachloride	0.25	U	0.25	0.25	2.0
108-90-7	Chlorobenzene	0.25	U	0.25	0.25	2.0
75-45-6	Chlorodifluoromethane	0.25	U	0.25	0.25	2.0
75-00-3	Chloroethane	0.25	U	0.25	0.25	2.0
67-66-3	Chloroform	0.25	U	0.25	0.25	2.0
74-87-3	Chloromethane	0.25	U	0.25	0.25	2.0
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	0.25	2.0
10061-01-5	cis-1,3-Dichloropropene	0.25	U	0.25	0.25	2.0
110-82-7	Cyclohexane	0.25	U	0.25	0.25	2.0
124-48-1	Dibromochloromethane	0.25	U	0.25	0.25	2.0
74-95-3	Dibromomethane	0.25	U	0.25	0.25	2.0
75-71-8	Dichlorodifluoromethane	0.25	U	0.25	0.25	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	0.25	U	0.25	0.25	2.0
76-14-2	Freon-114	0.25	U	0.25	0.25	2.0
87-68-3	Hexachlorobutadiene	0.25	U	0.25	0.25	2.0
98-82-8	Isopropylbenzene	0.25	U	0.25	0.25	2.0
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50	4.0
79-20-9	Methyl Acetate	0.25	U	0.25	0.25	2.0
1634-04-4	Methyl tert-butyl ether	0.25	U	0.25	0.25	2.0
75-09-2	Methylene chloride	6.9	U	0.25	0.25	2.0
104-51-8	n-Butylbenzene	0.25	U	0.25	0.25	2.0
103-65-1	n-Propylbenzene	0.25	U	0.25	0.25	2.0
91-20-3	Naphthalene	0.25	U	0.25	0.25	2.0
95-47-6	o-Xylene	0.25	U	0.25	0.25	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

GW-6 @ 26-30'

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-009ASample wt/vol: 5mLLab File ID: V2-0034.DLevel: (low/med) LOWDate Collected: 8/15/2019 11:30 AM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000(µl)Date Prepped: 8/27/2019 9:59 AMSeq Number: 821917Date Analyzed: 8/28/2019 3:17 AMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 1.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 23161/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
105-05-5	p-Diethylbenzene	0.25	U	0.25	0.25	2.0
622-96-8	p-Ethyltoluene	0.25	U	0.25	0.25	2.0
135-98-8	sec-Butylbenzene	0.25	U	0.25	0.25	2.0
100-42-5	Styrene	0.25	U	0.25	0.25	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.25	U	0.25	0.25	2.0
127-18-4	Tetrachloroethene	0.25	U	0.25	0.25	2.0
108-88-3	Toluene	0.25	U	0.25	0.25	2.0
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	0.25	2.0
10061-02-6	trans-1,3-Dichloropropene	0.25	U	0.25	0.25	2.0
79-01-6	Trichloroethene	0.25	U	0.25	0.25	2.0
75-69-4	Trichlorofluoromethane	0.25	U	0.25	0.25	2.0
108-05-4	Vinyl acetate	0.25	U	0.25	0.25	2.0
75-01-4	Vinyl chloride	0.25	U	0.25	0.25	2.0
1330-20-7	Xylenes, Total	0.75	U	0.75	0.75	6.0
108-87-2	Methylcyclohexane	0.25	U	0.25	0.25	2.0
107-02-8	Acrolein	1.0	U R	1.0	1.0	10
107-13-1	Acrylonitrile	0.25	U U.T	0.25	0.25	2.0

SW8260C

8/25
10/3/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

Field Blank

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134

Matrix: Liquid Lab Sample ID: 1908134-010A

Sample wt/vol: 5mL Lab File ID: V2-0060.D

Level: (low/med) LOW Date Collected: 8/15/2019 12:30 PM

% Moisture: N/A Date Received: 8/15/2019 4:20 PM

Extract Volume: 5000 (ul) Date Prepped: 8/23/2019 1:50 PM

Seq Number: 822051 Date Analyzed: 8/24/2019 6:04 PM

GC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00

Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0	
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0	
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0	
75-35-4	1,1-Dichloroethene	0.25	U	0.25	0.25	2.0	
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0	
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0	
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0	
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0	
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0	
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0	
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0	
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0	
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0	
110-75-8	2-Chloroethyl vinyl ether	10	U	10	10	20	
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0	
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0	
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0	
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0	
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0	
108-10-1	4-Methyl-2-pentanone	0.74	J	0.50	0.50	4.0	
67-64-1	Acetone	23	U	5.0	5.0	10	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

Field Blank

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-010ASample wt/vol: 5mLLab File ID: V2-0060.DLevel: (low/med) LOWDate Collected: 8/15/2019 12:30 PM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000 (ul)Date Prepped: 8/23/2019 1:50 PMSeq Number: 822051Date Analyzed: 8/24/2019 6:04 PMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 1.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene		0.25	U	0.25	0.25	2.0
108-86-1	Bromobenzene		0.25	U	0.25	0.25	2.0
74-97-5	Bromochloromethane		0.25	U	0.25	0.25	2.0
75-27-4	Bromodichloromethane		0.25	U	0.25	0.25	2.0
75-25-2	Bromoform		0.25	U	0.25	0.25	2.0
74-83-9	Bromomethane		0.25	U	0.25	0.25	2.0
75-15-0	Carbon disulfide		0.25	U	0.25	0.25	2.0
56-23-5	Carbon tetrachloride		0.25	U	0.25	0.25	2.0
108-90-7	Chlorobenzene		0.25	U	0.25	0.25	2.0
75-45-6	Chlorodifluoromethane		0.25	U	0.25	0.25	2.0
75-00-3	Chloroethane		0.25	U	0.25	0.25	2.0
67-66-3	Chloroform		0.25	U	0.25	0.25	2.0
74-87-3	Chloromethane		0.25	U	0.25	0.25	2.0
156-59-2	cis-1,2-Dichloroethene		0.25	U	0.25	0.25	2.0
10061-01-5	cis-1,3-Dichloropropene		0.25	U	0.25	0.25	2.0
110-82-7	Cyclohexane		0.25	U	0.25	0.25	2.0
124-48-1	Dibromochloromethane		0.25	U	0.25	0.25	2.0
74-95-3	Dibromomethane		0.25	U	0.25	0.25	2.0
75-71-8	Dichlorodifluoromethane		0.25	U	0.25	0.25	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		0.25	U	0.25	0.25	2.0
76-14-2	Freon-114		0.25	U	0.25	0.25	2.0
87-68-3	Hexachlorobutadiene		0.25	U	0.25	0.25	2.0
98-82-8	Isopropylbenzene		0.25	U	0.25	0.25	2.0
179601-23-1	m,p-Xylene		0.50	U	0.50	0.50	4.0
79-20-9	Methyl Acetate		0.25	U	0.25	0.25	2.0
1634-04-4	Methyl tert-butyl ether		0.25	U	0.25	0.25	2.0
75-09-2	Methylene chloride		4.8	U	0.25	0.25	2.0
104-51-8	n-Butylbenzene		0.25	U	0.25	0.25	2.0
103-65-1	n-Propylbenzene		0.25	U	0.25	0.25	2.0
91-20-3	Naphthalene		0.25	U	0.25	0.25	2.0
95-47-6	o-Xylene		0.25	U	0.25	0.25	2.0

SW8260C

8/24/19

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

Field Blank

Lab Name: American Analytical Laboratories, LLC. Contract:
 Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134
 Matrix: Liquid Lab Sample ID: 1908134-010A
 Sample wt/vol: 5mL Lab File ID: V2-0060.D
 Level: (low/med) LOW Date Collected: 8/15/2019 12:30 PM
 % Moisture: N/A Date Received: 8/15/2019 4:20 PM
 Extract Volume: 5000(ul) Date Prepped: 8/23/2019 1:50 PM
 Seq Number: 822051 Date Analyzed: 8/24/2019 6:04 PM
 GC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00
 Column ID: 0.18(mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
105-05-5	p-Diethylbenzene	0.25	U	0.25	0.25	2.0
622-96-8	p-Ethyltoluene	0.25	U	0.25	0.25	2.0
135-98-8	sec-Butylbenzene	0.25	U	0.25	0.25	2.0
100-42-5	Styrene	0.25	U	0.25	0.25	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.25	U	0.25	0.25	2.0
127-18-4	Tetrachloroethene	0.25	U	0.25	0.25	2.0
108-88-3	Toluene	0.30	J	0.25	0.25	2.0
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	0.25	2.0
10061-02-6	trans-1,3-Dichloropropene	0.25	U	0.25	0.25	2.0
79-01-6	Trichloroethene	0.25	U	0.25	0.25	2.0
75-69-4	Trichlorofluoromethane	0.25	U	0.25	0.25	2.0
108-05-4	Vinyl acetate	0.25	U	0.25	0.25	2.0
75-01-4	Vinyl chloride	0.25	U	0.25	0.25	2.0
1330-20-7	Xylenes, Total	0.75	U	0.75	0.75	6.0
108-87-2	Methylcyclohexane	0.25	U	0.25	0.25	2.0
107-02-8	Acrolein	1.0	U	1.0	1.0	10
107-13-1	Acrylonitrile	0.25	U	0.25	0.25	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

Trip Blank

Lab Name: American Analytical
Laboratories, LLC.

Contract:

Lab Code: AALClientID: Berninger

SAS No.:

SDG No.: 1908134Matrix: LiquidLab Sample ID: 1908134-011ASample wt/vol: 5mLLab File ID: V2-0061.DLevel: (low/med) LOWDate Collected: 8/15/2019 12:00 AM% Moisture: N/ADate Received: 8/15/2019 4:20 PMExtract Volume: 5000 (ul)Date Prepped: 8/23/2019 1:50 PMSeq Number: 822052Date Analyzed: 8/24/2019 6:34 PMGC Column: V2 08-01-19 SN#1629117Dilution Factor: 1.00Column ID: 0.18 (mm)Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
71-55-6	1,1,1-Trichloroethane	0.25	U	0.25	0.25	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.25	0.25	2.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.25	U	0.25	0.25	2.0	
79-00-5	1,1,2-Trichloroethane	0.25	U	0.25	0.25	2.0	
75-34-3	1,1-Dichloroethane	0.25	U	0.25	0.25	2.0	
75-35-4	1,1-Dichloroethene	0.25	U	0.25	0.25	2.0	
563-58-6	1,1-Dichloropropene	0.25	U	0.25	0.25	2.0	
87-61-6	1,2,3-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
96-18-4	1,2,3-Trichloropropane	0.25	U	0.25	0.25	2.0	
95-93-2	1,2,4,5-Tetramethylbenzene	0.25	U	0.25	0.25	2.0	
120-82-1	1,2,4-Trichlorobenzene	0.25	U	0.25	0.25	2.0	
95-63-6	1,2,4-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
96-12-8	1,2-Dibromo-3-chloropropane	0.25	U	0.25	0.25	2.0	
106-93-4	1,2-Dibromoethane	0.25	U	0.25	0.25	2.0	
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
107-06-2	1,2-Dichloroethane	0.25	U	0.25	0.25	2.0	
78-87-5	1,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
108-67-8	1,3,5-Trimethylbenzene	0.25	U	0.25	0.25	2.0	
541-73-1	1,3-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
142-28-9	1,3-dichloropropane	0.25	U	0.25	0.25	2.0	
106-46-7	1,4-Dichlorobenzene	0.25	U	0.25	0.25	2.0	
123-91-1	1,4-Dioxane	0.25	U	0.25	0.25	1.0	
594-20-7	2,2-Dichloropropane	0.25	U	0.25	0.25	2.0	
78-93-3	2-Butanone	0.50	U	0.50	0.50	4.0	
110-75-8	2-Chloroethyl vinyl ether	10	U	10	10	20	
95-49-8	2-Chlorotoluene	0.25	U	0.25	0.25	2.0	
591-78-6	2-Hexanone	0.50	U	0.50	0.50	4.0	
67-63-0	2-Propanol	0.25	U	0.25	0.25	2.0	
106-43-4	4-Chlorotoluene	0.25	U	0.25	0.25	2.0	
99-87-6	4-Isopropyltoluene	0.25	U	0.25	0.25	2.0	
108-10-1	4-Methyl-2-pentanone	0.50	U	0.50	0.50	4.0	
67-64-1	Acetone	29	U	5.0	5.0	10	

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

Trip Blank

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134

Matrix: Liquid Lab Sample ID: 1908134-011A

Sample wt/vol: 5mL Lab File ID: V2-0061.D

Level: (low/med) LOW Date Collected: 8/15/2019 12:00 AM

% Moisture: N/A Date Received: 8/15/2019 4:20 PM

Extract Volume: 5000(ul) Date Prepped: 8/23/2019 1:50 PM

Seq Number: 822052 Date Analyzed: 8/24/2019 6:34 PM

GC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00

Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC.	UNITS: µg/L	Q	DL	LOD	LOQ
71-43-2	Benzene		0.25	U	0.25	0.25	2.0
108-86-1	Bromobenzene		0.25	U	0.25	0.25	2.0
74-97-5	Bromochloromethane		0.25	U	0.25	0.25	2.0
75-27-4	Bromodichloromethane		0.25	U	0.25	0.25	2.0
75-25-2	Bromoform		0.25	U	0.25	0.25	2.0
74-83-9	Bromomethane		0.25	U	0.25	0.25	2.0
75-15-0	Carbon disulfide		0.25	U	0.25	0.25	2.0
56-23-5	Carbon tetrachloride		0.25	U	0.25	0.25	2.0
108-90-7	Chlorobenzene		0.25	U	0.25	0.25	2.0
75-45-6	Chlorodifluoromethane		0.25	U	0.25	0.25	2.0
75-00-3	Chloroethane		0.25	U	0.25	0.25	2.0
67-66-3	Chloroform		0.25	U	0.25	0.25	2.0
74-87-3	Chloromethane		0.25	U	0.25	0.25	2.0
156-59-2	cis-1,2-Dichloroethene		0.25	U	0.25	0.25	2.0
10061-01-5	cis-1,3-Dichloropropene		0.25	U	0.25	0.25	2.0
110-82-7	Cyclohexane		0.25	U	0.25	0.25	2.0
124-48-1	Dibromochloromethane		0.25	U	0.25	0.25	2.0
74-95-3	Dibromomethane		0.25	U	0.25	0.25	2.0
75-71-8	Dichlorodifluoromethane		0.25	U	0.25	0.25	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		0.25	U	0.25	0.25	2.0
76-14-2	Freon-114		0.25	U	0.25	0.25	2.0
87-68-3	Hexachlorobutadiene		0.25	U	0.25	0.25	2.0
98-82-8	Isopropylbenzene		0.25	U	0.25	0.25	2.0
179601-23-1	m,p-Xylene		0.50	U	0.50	0.50	4.0
79-20-9	Methyl Acetate		0.25	U	0.25	0.25	2.0
1634-04-4	Methyl tert-butyl ether		0.25	U	0.25	0.25	2.0
75-09-2	Methylene chloride		5.7	U	0.25	0.25	2.0
104-51-8	n-Butylbenzene		0.25	U	0.25	0.25	2.0
103-65-1	n-Propylbenzene		0.25	U	0.25	0.25	2.0
91-20-3	Naphthalene		0.25	U	0.25	0.25	2.0
95-47-6	o-Xylene		0.25	U	0.25	0.25	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

Trip Blank

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: Berninger SAS No.: SDG No.: 1908134

Matrix: Liquid Lab Sample ID: 1908134-011A

Sample wt/vol: 5mL Lab File ID: V2-0061.D

Level: (low/med) LOW Date Collected: 8/15/2019 12:00 AM

% Moisture: N/A Date Received: 8/15/2019 4:20 PM

Extract Volume: 5000 (ul) Date Prepped: 8/23/2019 1:50 PM

Seq Number: 822052 Date Analyzed: 8/24/2019 6:34 PM

GC Column: V2 08-01-19 SN#1629117 Dilution Factor: 1.00

Column ID: 0.18 (mm) Batch ID/ Ext Mthd: 23128/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
105-05-5	p-Diethylbenzene	0.25	U	0.25	0.25	2.0
622-96-8	p-Ethyltoluene	0.25	U	0.25	0.25	2.0
135-98-8	sec-Butylbenzene	0.25	U	0.25	0.25	2.0
100-42-5	Styrene	0.25	U	0.25	0.25	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.25	U	0.25	0.25	2.0
127-18-4	Tetrachloroethene	0.25	U	0.25	0.25	2.0
108-88-3	Toluene	0.25	U	0.25	0.25	2.0
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	0.25	2.0
10061-02-6	trans-1,3-Dichloropropene	0.25	U	0.25	0.25	2.0
79-01-6	Trichloroethene	0.25	U	0.25	0.25	2.0
75-69-4	Trichlorofluoromethane	0.25	U	0.25	0.25	2.0
108-05-4	Vinyl acetate	0.25	U	0.25	0.25	2.0
75-01-4	Vinyl chloride	0.25	U	0.25	0.25	2.0
1330-20-7	Xylenes, Total	0.75	U	0.75	0.75	6.0
108-87-2	Methylcyclohexane	0.25	U	0.25	0.25	2.0
107-02-8	Acrolein	1.0	U	1.0	1.0	10
107-13-1	Acrylonitrile	0.25	U	0.25	0.25	2.0

SW8260C

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-188226-1
SDG No.: _____
Client Sample ID: MW-1 Lab Sample ID: 460-188226-1
Matrix: Water Lab File ID: U68044.D
Analysis Method: 8270D SIM Date Collected: 07/31/2019 09:00
Extract. Method: 3510C Date Extracted: 08/06/2019 08:33
Sample wt/vol: 250(mL) Date Analyzed: 08/08/2019 01:20
Con. Extract Vol.: 2(mL) Dilution Factor: 1
Injection Volume: 5(uL) Level: (low/med) Low
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 630393 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.17	U FL R	0.17	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	71		38-125

for 9/17/19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-188226-1
SDG No.: _____
Client Sample ID: MW-1DUP Lab Sample ID: 460-188226-2
Matrix: Water Lab File ID: h2383264.D
Analysis Method: 8270D SIM Date Collected: 07/31/2019 09:00
Extract. Method: 3510C Date Extracted: 08/06/2019 11:40
Sample wt/vol: 250 (mL) Date Analyzed: 08/07/2019 09:38
Con. Extract Vol.: 2 (mL) Dilution Factor: 1
Injection Volume: 5 (uL) Level: (low/med) Low
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 630104 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.17	U* <i>NR</i>	0.17	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	78		38-125

for 9/17/19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-188226-1
SDG No.: _____
Client Sample ID: MW-3 Lab Sample ID: 460-188226-3
Matrix: Water Lab File ID: U68028.D
Analysis Method: 8270D SIM Date Collected: 07/31/2019 11:00
Extract. Method: 3510C Date Extracted: 08/06/2019 08:33
Sample wt/vol: 250 (mL) Date Analyzed: 08/07/2019 09:05
Con. Extract Vol.: 2 (mL) Dilution Factor: 1
Injection Volume: 5 (uL) Level: (low/med) Low
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 630106 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.17	0.17 0.17	0.17	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	83		38-125

8/19/19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-188226-1
SDG No.: _____
Client Sample ID: MW-6A Lab Sample ID: 460-188226-4
Matrix: Water Lab File ID: U68029.D
Analysis Method: 8270D SIM Date Collected: 07/31/2019 12:00
Extract. Method: 3510C Date Extracted: 08/06/2019 08:33
Sample wt/vol: 250 (mL) Date Analyzed: 08/07/2019 09:26
Con. Extract Vol.: 2 (mL) Dilution Factor: 1
Injection Volume: 5 (uL) Level: (low/med) Low
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 630106 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.17	U <u>UJ</u>	0.17	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	74		38-125

for 9/11/19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-188226-1
SDG No.: _____
Client Sample ID: Field Blanks (F.B) Lab Sample ID: 460-188226-5
Matrix: Water Lab File ID: h2383259.D
Analysis Method: 8270D SIM Date Collected: 07/31/2019 00:00
Extract. Method: 3510C Date Extracted: 08/06/2019 08:33
Sample wt/vol: 250 (mL) Date Analyzed: 08/07/2019 07:52
Con. Extract Vol.: 2 (mL) Dilution Factor: 1
Injection Volume: 5 (uL) Level: (low/med) Low
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 630104 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.17	<u>U</u>	0.17	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	80		38-125

for 9/11/19

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 460-188226-1
 SDG No.: _____
 Client Sample ID: MW-1 Lab Sample ID: 460-188226-1
 Matrix: Water Lab File ID: 2019.08.08LLC_058.d
 Analysis Method: 537 (modified) Date Collected: 07/31/2019 09:00
 Extraction Method: 3535 Date Extracted: 08/08/2019 06:01
 Sample wt/vol: 280.2(mL) Date Analyzed: 08/09/2019 08:26
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: Acquity ID: 2.1(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 313696 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2706-90-3	Perfluoropentanoic acid (PFPeA)	16.2		1.78	0.44
307-24-4	Perfluorohexanoic acid (PFHxA)	25.9		1.78	0.52
375-85-9	Perfluoroheptanoic acid (PFHpA)	29.0		1.78	0.22
335-67-1	Perfluorooctanoic acid (PFOA)	181		1.78	0.76
375-95-1	Perfluorononanoic acid (PFNA)	17.5		1.78	0.24
335-76-2	Perfluorodecanoic acid (PFDA)	17.1		1.78	0.28
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.45	J	1.78	0.98
307-55-1	Perfluorododecanoic acid (PFDoA)	0.49	U	1.78	0.49
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.16	U	1.78	1.16
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.26	U	1.78	0.26
375-73-5	Perfluorobutanesulfonic acid (PFBS)	11.8		1.78	0.18
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	49.3	E	1.78	0.15
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	27.1		1.78	0.17
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.29	U	1.78	0.29
754-91-6	Perfluorooctanesulfonamide (FOSA)	18.9	E	1.78	0.31
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	322		17.8	2.77
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	22.9		17.8	1.70
27619-97-2	6:2 FTS	1.78	U	17.8	1.78
39108-34-4	8:2 FTS	1.78	U	17.8	1.78

for 9/11/19

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 460-188226-1
 SDG No.: _____
 Client Sample ID: MW-1 DL Lab Sample ID: 460-188226-1 DL
 Matrix: Water Lab File ID: 2019.08.10LLAA_032.d
 Analysis Method: 537 (modified) Date Collected: 07/31/2019 09:00
 Extraction Method: 3535 Date Extracted: 08/08/2019 06:01
 Sample wt/vol: 280.2 (mL) Date Analyzed: 08/10/2019 20:59
 Con. Extract Vol.: 10.0 (mL) Dilution Factor: 10
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 314174 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	12.4	JD JD-	17.8	3.12

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	65		25-150

for 9/17/19

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 460-188226-1
 SDG No.: _____
 Client Sample ID: MW-1 DL2 Lab Sample ID: 460-188226-1 DL2
 Matrix: Water Lab File ID: 2019.08.13 LLA_008.d
 Analysis Method: 537 (modified) Date Collected: 07/31/2019 09:00
 Extraction Method: 3535 Date Extracted: 08/08/2019 06:01
 Sample wt/vol: 280.2(mL) Date Analyzed: 08/13/2019 10:07
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 20
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 314779 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3530	35.7 JD-	35.7	9.64

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	75		25-150

for 11/9

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 460-188226-1
 SDG No.: _____
 Client Sample ID: MW-1DUP Lab Sample ID: 460-188226-2
 Matrix: Water Lab File ID: 2019.08.08LLC_063.d
 Analysis Method: 537 (modified) Date Collected: 07/31/2019 09:00
 Extraction Method: 3535 Date Extracted: 08/08/2019 06:01
 Sample wt/vol: 289.7(mL) Date Analyzed: 08/09/2019 09:06
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: Acquity ID: 2.1 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 313696 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2706-90-3	Perfluoropentanoic acid (PFPeA)	14.9		1.73	0.42
307-24-4	Perfluorohexanoic acid (PFHxA)	26.7		1.73	0.50
375-85-9	Perfluoroheptanoic acid (PFHpA)	30.7		1.73	0.22
335-67-1	Perfluorooctanoic acid (PFOA)	186		1.73	0.73
375-95-1	Perfluorononanoic acid (PFNA)	20.9		1.73	0.23
335-76-2	Perfluorodecanoic acid (PFDA)	18.1		1.73	0.27
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.37	J	1.73	0.95
307-55-1	Perfluorododecanoic acid (PFDoA)	0.47	U	1.73	0.47
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.12	U	1.73	1.12
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.25	U	1.73	0.25
375-73-5	Perfluorobutanesulfonic acid (PFBS)	12.1		1.73	0.17
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	48.0	P	1.73	0.15
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	26.5		1.73	0.16
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.28	U	1.73	0.28
754-91-6	Perfluorooctanesulfonamide (FOSA)	16.8	P	1.73	0.30
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	341		17.3	2.68
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	21.1		17.3	1.64
27619-97-2	6:2 FTS	1.73	U	17.3	1.73
39108-34-4	8:2 FTS	1.73	U	17.3	1.73

for 9/11/19

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 460-188226-1
 SDG No.: _____
 Client Sample ID: MW-1DUP DL Lab Sample ID: 460-188226-2 DL
 Matrix: Water Lab File ID: 2019.08.10LLAA_037.d
 Analysis Method: 537 (modified) Date Collected: 07/31/2019 09:00
 Extraction Method: 3535 Date Extracted: 08/08/2019 06:01
 Sample wt/vol: 289.7(mL) Date Analyzed: 08/10/2019 21:39
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 20
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 314174 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	10.8	J D	34.5	6.04
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3620	D	34.5	9.32

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	57		25-150
STL00991	13C4 PFOS	61		25-150

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FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 460-188226-1
 SDG No.: _____
 Client Sample ID: MW-3 Lab Sample ID: 460-188226-3
 Matrix: Water Lab File ID: 2019.08.08LLC_064.d
 Analysis Method: 537 (modified) Date Collected: 07/31/2019 11:00
 Extraction Method: 3535 Date Extracted: 08/08/2019 06:01
 Sample wt/vol: 290.1(mL) Date Analyzed: 08/09/2019 09:14
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: Acquity ID: 2.1(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 313696 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	5.77		1.72	0.30
2706-90-3	Perfluoropentanoic acid (PFPeA)	7.36		1.72	0.42
307-24-4	Perfluorohexanoic acid (PFHxA)	10.3		1.72	0.50
375-85-9	Perfluoroheptanoic acid (PFHpA)	7.20		1.72	0.22
335-67-1	Perfluorooctanoic acid (PFOA)	40.3		1.72	0.73
375-95-1	Perfluorononanoic acid (PFNA)	6.72		1.72	0.23
335-76-2	Perfluorodecanoic acid (PFDA)	2.94		1.72	0.27
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.95	U	1.72	0.95
307-55-1	Perfluorododecanoic acid (PFDoA)	0.47	U	1.72	0.47
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.12	U	1.72	1.12
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.35	J	1.72	0.25
375-73-5	Perfluorobutanesulfonic acid (PFBS)	8.11		1.72	0.17
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	8.88	B	1.72	0.15
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	2.51		1.72	0.16
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	235	B	1.72	0.47
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.28	U	1.72	0.28
754-91-6	Perfluorooctanesulfonamide (FOSA)	0.35	J B U	1.72	0.30
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.67	U	17.2	2.67
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.64	U	17.2	1.64
27619-97-2	6:2 FTS	1.72	U	17.2	1.72
39108-34-4	8:2 FTS	1.72	U	17.2	1.72

for 9/17/19

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 460-188226-1
 SDG No.: _____
 Client Sample ID: MW-6A Lab Sample ID: 460-188226-4
 Matrix: Water Lab File ID: 2019.08.08LLC_065.d
 Analysis Method: 537 (modified) Date Collected: 07/31/2019 12:00
 Extraction Method: 3535 Date Extracted: 08/08/2019 06:01
 Sample wt/vol: 280.9(mL) Date Analyzed: 08/09/2019 09:22
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: Acquity ID: 2.1 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 313696 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	4.83		1.78	0.31
2706-90-3	Perfluoropentanoic acid (PFPeA)	13.2		1.78	0.44
307-24-4	Perfluorohexanoic acid (PFHxA)	18.8		1.78	0.52
375-85-9	Perfluoroheptanoic acid (PFHpA)	21.2		1.78	0.22
335-67-1	Perfluorooctanoic acid (PFOA)	121		1.78	0.76
375-95-1	Perfluorononanoic acid (PFNA)	12.1		1.78	0.24
335-76-2	Perfluorodecanoic acid (PFDA)	6.97		1.78	0.28
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.96		1.78	0.98
307-55-1	Perfluorododecanoic acid (PFDoA)	1.22	J	1.78	0.49
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.16	U	1.78	1.16
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.42	J	1.78	0.26
375-73-5	Perfluorobutanesulfonic acid (PFBS)	14.2		1.78	0.18
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	111	B	1.78	0.15
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	55.4		1.78	0.17
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.28	U	1.78	0.28
754-91-6	Perfluorooctanesulfonamide (FOSA)	139	B	1.78	0.31
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	229		17.8	2.76
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	3.07	J	17.8	1.69
27619-97-2	6:2 FTS	1.78	U	17.8	1.78
39108-34-4	8:2 FTS	1.78	U	17.8	1.78

8/9/19

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 460-188226-1
 SDG No.: _____
 Client Sample ID: MW-6A DL Lab Sample ID: 460-188226-4 DL
 Matrix: Water Lab File ID: 2019.08.10LLAA_038.d
 Analysis Method: 537 (modified) Date Collected: 07/31/2019 12:00
 Extraction Method: 3535 Date Extracted: 08/08/2019 06:01
 Sample wt/vol: 280.9(mL) Date Analyzed: 08/10/2019 21:47
 Con. Extract Vol.: 10.0(mL) Dilution Factor: 10
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 314174 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2380	17.8 JD-	17.8	4.81

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	51		25-150

Handwritten signature/initials in red ink.

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 460-188226-1

SDG No.: _____

Client Sample ID: Field Blanks(F.B)

Lab Sample ID: 460-188226-5

Matrix: Water

Lab File ID: 2019.08.10LLAA_030.d

Analysis Method: 537 (modified)

Date Collected: 07/31/2019 00:00

Extraction Method: 3535

Date Extracted: 08/08/2019 06:01

Sample wt/vol: 286.7(mL)

Date Analyzed: 08/10/2019 20:43

Con. Extract Vol.: 10.0(mL)

Dilution Factor: 1

Injection Volume: 20(uL)

GC Column: GeminiC18 3x100 ID: 3(mm)

% Moisture: _____

GPC Cleanup: (Y/N) N

Analysis Batch No.: 314174

Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.31	U	1.74	0.31
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.43	U	1.74	0.43
307-24-4	Perfluorohexanoic acid (PFHxA)	0.51	U	1.74	0.51
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.22	U	1.74	0.22
335-67-1	Perfluorooctanoic acid (PFOA)	0.74	U	1.74	0.74
375-95-1	Perfluorononanoic acid (PFNA)	0.24	U	1.74	0.24
335-76-2	Perfluorodecanoic acid (PFDA)	0.27	U	1.74	0.27
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.96	U	1.74	0.96
307-55-1	Perfluorododecanoic acid (PFDoA)	0.48	U	1.74	0.48
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.13	U	1.74	1.13
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.25	U	1.74	0.25
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.17	U	1.74	0.17
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.28	J	1.74	0.15
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.17	U	1.74	0.17
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.47	U	1.74	0.47
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.28	U	1.74	0.28
754-91-6	Perfluorooctanesulfonamide (FOSA)	0.31	U	1.74	0.31
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.70	U	17.4	2.70
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.66	U	17.4	1.66
27619-97-2	6:2 FTS	1.74	U	17.4	1.74
39108-34-4	8:2 FTS	1.74	U	17.4	1.74

for 9/17/19

Appendix-D
Validated SVI Data

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

ORGANIC ANALYSIS

**EPA Compendium Method TO-15
VOLATILES BY GC/MS**

**For Soil Vapor and Outside Air Samples Collected
July 31, 2019
From 1345 Peninsula Boulevard, Hewlett, New York
American Drive-In Cleaners
Project #11391
Collected by WRS d.b.a. Berninger Environmental.**

**SAMPLE DELIVERY GROUP NUMBER: L1934510
Alpha Analytical (ELAP #11148)**

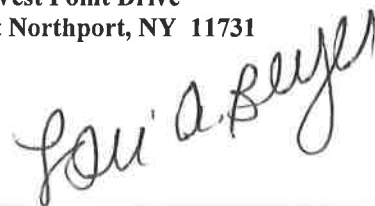
SUBMITTED TO:

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

October 02, 2019

PREPARED BY:

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



American Drive-In Cleaners

1345 Peninsula Boulevard, Hewlett, New York; July 2019.

Data Validation Report: Volatile Organics by EPA Method TO15

Table of Contents:

Introduction

Data Qualifier Definitions

Sample Receipt

- 1.0 Volatile Organics by GC/MS EPA Compendium Method TO-15
 - 1.1 Holding Time
 - 1.2 Surrogate Standards
 - 1.3 Matrix Spikes (MS), Matrix Spike Duplicates (MSD), Laboratory Duplicate, Field Duplicate Analysis
 - 1.4 Laboratory Control Sample
 - 1.5 Blank Contamination
 - 1.6 GC/MS Instrument Performance Check
 - 1.7 Initial and Continuing Calibrations
 - 1.8 Internal Standards
 - 1.9 Target Compound List Identification
 - 1.10 Tentatively Identified Compounds
 - 1.11 Compound Quantification and Reported Detection Limits
 - 1.12 Overall System Performance

APPENDICES:

- A. Chain of Custody Document and Sample Receipt Checklist
- B. Case Narrative
- C. Data Summary Form I's with Qualifications

Introduction:

A validation was performed on five (5) soil vapor and one (1) outside air samples 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 field samples itemized below. The samples were collected on July 31, 2019

The samples were analyzed by Alpha Analytical utilizing EPA Method TO-15 and in accordance with NYSDEC Analytical Services Protocol (2005) 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.

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-Updated September 2016) 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 field air samples:

Sample Identification	Laboratory Identification	Sample Matrix (Air Type)	Collection Date
SV-1	L1934510-01	Soil Vapor	07/31/2019
SV-2	L1934510-02	Soil Vapor	07/31/2019
SV-3	L1934510-03	Soil Vapor	07/31/2019
SV-4	L1934510-04	Soil Vapor	07/31/2019
SV-5	L1934510-05	Soil Vapor	07/31/2019
OA-1	L1934510-06	Outside Air	07/31/2019

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 result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+** - The result is an estimated quantity, but the result may be biased high. (Equis qualified, JK)
- J-** - The result is an estimated quantity, but the result may be biased low. (Equis qualified, JL)
- NJ** - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ** - The analyte was analyzed for but 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.
- D** - Analyte concentration was obtained from diluted analysis.

Sample Receipt:

The Chain of Custody document from 7/31/2019 indicates that the air samples were received on 08/02/19 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) at the laboratory no unresolved discrepancies were notated and therefore the integrity of the summa canister samples is assumed to be good.

Summa Canisters were leak tested prior to collection of each sample. Initial pressure gauge is recorded on the chain of custody and is required to be approximately 30 psi with zero air. Acceptable canister pressure was observed for these samples. All canisters pass the leak check requirements.

The data summary Form I's included in Appendix C includes all usable (qualified) and unusable (rejected) results for the samples identified above and 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.

Volatile Organics by EPA Compendium Method TO-15

The following method criteria were reviewed: holding times, surrogate standards, LCS, Blanks, Laboratory Duplicate, Tunes, Calibrations, Internal Standards, Target Component Identification and Quantitation, Reported Quantitation Limits and Overall System Performance. The volatile results are valid and useable as noted on the data summary table 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.

Air samples pertaining to this SDG were 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 specifications, qualifications are required to be applied to associated samples and analytes.

Samples were not spiked with surrogate standards. Method TO15 does not mandate the addition of surrogate standards.

1.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)/Laboratory 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 samples pertaining to this SDG.

Batch Laboratory duplicate analysis was submitted in the data package. Acceptable precision (RPD) was observed (<25%) for all detected

compounds. Validation criteria uses <50% is used as a guidance for qualifying data.

Field Duplicate analysis was not required for this sampling event. Acceptable precision for air samples is 25%. The following criteria are utilized for Field/Lab 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 or duplicate sample. However, the detected concentration was $\leq 2 \times$ 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 $> 2 \times$ the reporting limit.	J in the parent and duplicate sample	UJ in the parent of duplicate sample

No qualifications to the data were applied 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.

The following table summarizes the LCS criteria and the data qualification guidelines for all associated field samples.

LCS	NOT QUALIFIED	J	R
% Recovery:			
Detects	70-130%	<70%, >130%	
Non-Detects	$\geq 130\%$	50-69%	<50%
Absolute RT of LCS Compounds:			
LCS Compounds in samples RT: (min)	+/-0.33		≥ 0.33

Acceptable LCS was analyzed with this SDG pertaining to this sampling event. Recovery values for all spiked and reported compounds was determined to be >70%-<130% for all reported analytes except for 1,2,4-Trichlorobenzene (138%). This target analyte was not detected in any of the field samples. High recovery does not support any potential loss of detection and/or result bias for non-detects. No qualifications are required based on this outlier.

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 and are not required for TO15 analysis. Canister blanks measure cross-contamination from the sampling media.

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

The table below is utilized to qualify samples with target compound results also present in certification blanks:

Certification Contamination	Sample Result	Action for Sample
>=detect limit	>5x certification contamination	No qualification required
>=detect limit	<detect limit	Detection limit "U"
>=detect limit	>=detect limit and <= 5x certification contamination level	5x certification contamination "U"

<detect limit	</=detection limit and >/= detection limit	No qualification
---------------	--	------------------

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.

**Acetone, Methylene Chloride and/or 2-Butanone was detected in the samples. The end user should proceed with caution when making decisions based on these detections since these are common solvents and/or laboratory contaminants utilized in the organic extraction laboratory. Laboratory reported concentrations could not be negated due to lack of presence in the corresponding method/canister blanks.*

- B) **Field Blank Contamination:**
Field Blank analysis was not required.

- C) **Trip Blank Contamination:**
Trip Blank analysis was not required.

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

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

A) Response Factor GC/MS:

The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be ≥ 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 can be ≥ 0.01 without qualification:

2-Butanone
Carbon Disulfide
Chloroethane
Chloromethane
1,2-Dibromoethane
1,2-Dichloropropane
1,4-Dioxane
1,2-Dibromo-3-chloropropane
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 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. Acceptable ICV was analyzed.

Initial Calibrations: The initial calibrations provided and the %RSD was within acceptable limits (30%) and (40%) for poor responders for all requested target compounds except for Isopropyl Alcohol (30.18%). Results in all samples have been qualified, "J/UJ." Initial calibration verification standard also met QC requirements.

Continuing Calibrations: The continuing calibrations provided and the %D was within acceptable limits (30%) and (40%) for poor responders for all reported compounds except for 1,2,4-Trichlorobenzene (32.6%). Non-detects have been qualified, "UJ."

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 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 ± 0.06 RRT units of the standard

compound and have an ion spectrum which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

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

1.10 Tentatively Identified Compounds (TICs)

TICs were not required for this project. When submitted, 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 because 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 are 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.

Samples were analyzed undiluted at 250mls as notated on the Form I's. The laboratory reported air volumes were verified with raw data and instrument run logs.

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

Lou A. Beyer

Date

10/02/2009

**Appendix A
Chain of Custody Document
And Sample Receipt Checklist**



AIR ANALYSIS

320 Forbes Blvd, Mansfield, MA 02045
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: **BEI / WRS**
Address: **17 Old Dock Rd.**
Woburn, MA 01801
Phone: **(603) 589-6521**
Fax:
Email: **walpino@wrs.com**

☐ These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

Project Information

Project Name: **American Drive-Inn**
Project Location: **1345 Kristine Blvd - Haverhill, NY**
Project #: **1091**
Project Manager: **JH**
ALPHA Quote #: **-**
Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due:

Time:

PAGE 1 OF 1

Date Rec'd In Lab: **8/13/19**

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 deliv. (NYS)
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #: **29109**

ALPHA Job #: **L1934510**

ANALYSIS

☐ Surveys & Microplasma TGA
☐ Fixed Gases
☐ APH Microplasma TGA
☐ TO-15 SIM
☐ TO-15
☐ I/O - Flow Controller

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix	Sample Initials	Can Size	ID Can	I/O - Flow Controller	Sample Comments (i.e. PID)
934510-01	SV-1	7/31/19	10:00	12:30	-1	-1	SV	JH	6L	6714	754	ASP-CAT-B (NYS)
-02	SV-2		10:00	12:30	-1	-1	SV	JH	6L	2627	106	
-03	SV-3		12:30	14:30	-1	-1	SV	JH	6L	941	1007	
-04	SV-4		12:30	14:30	-1	-1	SV	JH	6L	2899	1132	
-05	SV-5		12:30	14:30	-1	-1	SV	JH	6L	653	778	
-06	OA-1		11:30	13:30	-1	-1	AA	JH	6L	1668	1082	

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Relinquished By:

Date/Time:

Container Type

Received By:

Date/Time:

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.



Sample Delivery Group Summary

Alpha Job Number : L1934510

Received : 02-AUG-2019

Account Name : WRS Environmental Services, Inc.

Reviewer : Dylan Snook

Project Number : 11391

Project Name : AMERICAN DRIVE-INN CLEANERS

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
NA	Absent/			

Condition Information

1) All samples on COC received?	YES
2) Extra samples received?	NO
3) Are there any sample container discrepancies?	NO
4) Are there any discrepancies between sample labels & COC?	NO
5) Are samples in appropriate containers for requested analysis?	YES
6) Are samples properly preserved for requested analysis?	YES
7) Are samples within holding time for requested analysis?	YES
8) All sampling equipment returned?	YES

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client?	NA
--	----

**Appendix B
Case Narrative**

Project Name: AMERICAN DRIVE-INN CLEANERS
Project Number: 11391

Lab Number: L1934510
Report Date: 08/09/19

Case Narrative

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

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

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

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

HOLD POLICY

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

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

Project Name: AMERICAN DRIVE-INN CLEANERS
Project Number: 11391

Lab Number: L1934510
Report Date: 08/09/19

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on July 22, 2019. The canister certification results are provided as an addendum.

Sample Receipt

L1934510-02: The sample identified as "SV-2" on the chain of custody was identified as "(Blank)" on the container label. At the client's request, the sample is reported as "SV-2".

Volatile Organics in Air

not applicable.

The WG1270244-3 LCS recovery for dodecane (c12) (138%) and 1,2,4-trichlorobenzene (138%) is above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.

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:

Chad Pote

Report Date: 08/09/19

Title: Technical Director/Representative

for
10/11/19



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

Results Summary Form 1 Volatile Organics in Air

Client : WRS Environmental Services, Inc.
Project Name : AMERICAN DRIVE-INN CLEANERS
Lab ID : L1934510-01
Client ID : SV-1
Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R167923
Sample Amount : 250 ml

Lab Number : L1934510
Project Number : 11391
Date Collected : 07/31/19 12:00
Date Received : 08/02/19
Date Analyzed : 08/08/19 22:04
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	0.582	0.200	--	1.20	0.413	--	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	0.876	0.200	--	2.24	0.511	--	
106-99-0	1,3-Butadiene	5.12	0.200	--	11.3	0.442	--	
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	0.641	0.200	--	1.69	0.528	--	
64-17-5	Ethyl Alcohol	5.10	5.00	--	9.61	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	102	1.00	--	242	2.38	--	
75-69-4	Trichlorofluoromethane	0.558	0.200	--	3.14	1.12	--	
67-63-0	iso-Propyl Alcohol	1.48	0.500	--	3.64	1.23	--	J
75-35-4	1,1-Dichloroethane	ND	0.200	--	ND	0.793	--	U
75-65-0	tert-Butyl Alcohol	4.33	0.500	--	13.1	1.52	--	
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	18.2	0.200	--	56.7	0.623	--	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	4.81	0.200	--	19.1	0.793	--	
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	13.6	0.500	--	40.1	1.47	--	
156-59-2	cis-1,2-Dichloroethene	13.7	0.200	--	54.3	0.793	--	
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	1.02	0.200	--	4.98	0.977	--	
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U

for
10/2/19



Results Summary Form 1 Volatile Organics in Air

Client : WRS Environmental Services, Inc.
Project Name : AMERICAN DRIVE-INN CLEANERS
Lab ID : L1934510-01
Client ID : SV-1
Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R167923
Sample Amount : 250 ml

Lab Number : L1934510
Project Number : 11391
Date Collected : 07/31/19 12:00
Date Received : 08/02/19
Date Analyzed : 08/08/19 22:04
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	63.9	0.200	--	225	0.705	--	
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	12.0	0.200	--	38.3	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	11.3	0.200	--	38.9	0.688	--	
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
1330-20-7	Xylene (Total)	3.52	0.200	--	15.3	0.869	--	
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	5.13	0.200	--	27.6	1.07	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	15.9	0.200	--	65.2	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	7.06	0.200	--	26.6	0.754	--	
540-59-0	1,2-Dichloroethene (total)	18.5	0.200	--	73.3	0.793	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
542-75-6	1,3-Dichloropropene, Total	ND	0.200	--	ND	0.908	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	2.34	0.200	--	15.9	1.36	--	
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	0.773	0.200	--	3.36	0.869	--	



Results Summary Form 1 Volatile Organics in Air

Client : WRS Environmental Services, Inc.
Project Name : AMERICAN DRIVE-INN CLEANERS
Lab ID : L1934510-01
Client ID : SV-1
Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R167923
Sample Amount : 250 ml

Lab Number : L1934510
Project Number : 11391
Date Collected : 07/31/19 12:00
Date Received : 08/02/19
Date Analyzed : 08/08/19 22:04
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
179601-23-1	p/m-Xylene	2.49	0.400	--	10.8	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	0.287	0.200	--	1.22	0.852	--	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	1.04	0.200	--	4.52	0.869	--	
622-96-8	4-Ethyltoluene	0.235	0.200	--	1.16	0.983	--	
108-67-8	1,3,5-Trimethylbenzene	0.318	0.200	--	1.56	0.983	--	
95-63-6	1,2,4-Trimethylbenzene	1.12	0.200	--	5.51	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 <i>UJ</i>
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Results Summary Form 1 Volatile Organics in Air

Client : WRS Environmental Services, Inc.
Project Name : AMERICAN DRIVE-INN CLEANERS
Lab ID : L1934510-02
Client ID : SV-2
Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R167924
Sample Amount : 250 ml

Lab Number : L1934510
Project Number : 11391
Date Collected : 07/31/19 12:00
Date Received : 08/02/19
Date Analyzed : 08/08/19 22:37
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	0.758	0.200	--	1.57	0.413	--	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	0.260	0.200	--	0.575	0.442	--	
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	Ethyl Alcohol	32.7	5.00	--	61.6	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	45.3	1.00	--	108	2.38	--	
75-69-4	Trichlorofluoromethane	1.08	0.200	--	6.07	1.12	--	
67-63-0	iso-Propyl Alcohol	32.8	0.500	--	80.6	1.23	--	J
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	tert-Butyl Alcohol	20.1	0.500	--	60.9	1.52	--	
75-09-2	Methylene chloride	5.62	0.500	--	19.5	1.74	--	
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	1.88	0.200	--	5.85	0.623	--	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	0.330	0.200	--	1.31	0.793	--	
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	5.03	0.500	--	14.8	1.47	--	
156-59-2	cis-1,2-Dichloroethene	1.58	0.200	--	6.26	0.793	--	
141-78-6	Ethyl Acetate	2.38	0.500	--	8.58	1.80	--	
67-66-3	Chloroform	0.254	0.200	--	1.24	0.977	--	
109-99-9	Tetrahydrofuran	1.52	0.500	--	4.48	1.47	--	

for
10/24/19



Results Summary Form 1 Volatile Organics in Air

Client : WRS Environmental Services, Inc.
Project Name : AMERICAN DRIVE-INN CLEANERS
Lab ID : L1934510-02
Client ID : SV-2
Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R167924
Sample Amount : 250 ml

Lab Number : L1934510
Project Number : 11391
Date Collected : 07/31/19 12:00
Date Received : 08/02/19
Date Analyzed : 08/08/19 22:37
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	2.90	0.200	--	10.2	0.705	--	
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	4.28	0.200	--	13.7	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	1.14	0.200	--	3.92	0.688	--	
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
1330-20-7	Xylene (Total)	6.11	0.200	--	26.5	0.869	--	
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	6.07	0.200	--	32.6	1.07	--	
540-84-1	2,2,4-Trimethylpentane	2.57	0.200	--	12.0	0.934	--	
142-82-5	Heptane	2.10	0.200	--	8.61	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	3.86	0.500	--	15.8	2.05	--	
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	69.1	0.200	--	260	0.754	--	
540-59-0	1,2-Dichloroethene (total)	1.91	0.200	--	7.57	0.793	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
542-75-6	1,3-Dichloropropene, Total	ND	0.200	--	ND	0.908	--	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
127-18-4	Tetrachloroethene	3.21	0.200	--	21.8	1.36	--	
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	1.44	0.200	--	6.25	0.869	--	



Results Summary Form 1 Volatile Organics in Air

Client : WRS Environmental Services, Inc.
Project Name : AMERICAN DRIVE-INN CLEANERS
Lab ID : L1934510-02
Client ID : SV-2
Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R167924
Sample Amount : 250 ml

Lab Number : L1934510
Project Number : 11391
Date Collected : 07/31/19 12:00
Date Received : 08/02/19
Date Analyzed : 08/08/19 22:37
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
179601-23-1	p/m-Xylene	4.40	0.400	--	19.1	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	0.363	0.200	--	1.55	0.852	--	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	1.71	0.200	--	7.43	0.869	--	
622-96-8	4-Ethyltoluene	0.419	0.200	--	2.06	0.983	--	
108-67-8	1,3,5-Trimethylbenzene	0.548	0.200	--	2.69	0.983	--	
95-63-6	1,2,4-Trimethylbenzene	2.04	0.200	--	10.0	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

TS
10/2/19



Results Summary Form 1 Volatile Organics in Air

Client : WRS Environmental Services, Inc.
Project Name : AMERICAN DRIVE-INN CLEANERS
Lab ID : L1934510-03
Client ID : SV-3
Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R167925
Sample Amount : 250 ml

Lab Number : L1934510
Project Number : 11391
Date Collected : 07/31/19 14:30
Date Received : 08/02/19
Date Analyzed : 08/08/19 23:09
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	0.493	0.200	--	1.02	0.413	--	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	0.627	0.200	--	1.60	0.511	--	
106-99-0	1,3-Butadiene	2.21	0.200	--	4.89	0.442	--	
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	Ethyl Alcohol	6.34	5.00	--	11.9	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	27.5	1.00	--	65.3	2.38	--	
75-69-4	Trichlorofluoromethane	1.29	0.200	--	7.25	1.12	--	
67-63-0	iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--	U UJ
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	tert-Butyl Alcohol	8.07	0.500	--	24.5	1.52	--	
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	2.45	0.200	--	7.63	0.623	--	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	0.227	0.200	--	0.900	0.793	--	
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	5.14	0.500	--	15.2	1.47	--	
156-59-2	cis-1,2-Dichloroethene	2.89	0.200	--	11.5	0.793	--	
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	2.48	0.200	--	12.1	0.977	--	
109-99-9	Tetrahydrofuran	0.675	0.500	--	1.99	1.47	--	

TS
10/12/19



Results Summary Form 1 Volatile Organics in Air

Client : WRS Environmental Services, Inc.
Project Name : AMERICAN DRIVE-INN CLEANERS
Lab ID : L1934510-03
Client ID : SV-3
Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R167925
Sample Amount : 250 ml

Lab Number : L1934510
Project Number : 11391
Date Collected : 07/31/19 14:30
Date Received : 08/02/19
Date Analyzed : 08/08/19 23:09
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	2.04	0.200	--	7.19	0.705	--	
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	2.50	0.200	--	7.99	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	0.585	0.200	--	2.01	0.688	--	
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
1330-20-7	Xylene (Total)	6.30	0.200	--	27.4	0.869	--	
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	11.1	0.200	--	59.7	1.07	--	
540-84-1	2,2,4-Trimethylpentane	0.769	0.200	--	3.59	0.934	--	
142-82-5	Heptane	1.33	0.200	--	5.45	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	1.70	0.500	--	6.97	2.05	--	
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	7.40	0.200	--	27.9	0.754	--	
540-59-0	1,2-Dichloroethene (total)	3.12	0.200	--	12.4	0.793	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
542-75-6	1,3-Dichloropropene, Total	ND	0.200	--	ND	0.908	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	48.0	0.200	--	325	1.36	--	
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	1.32	0.200	--	5.73	0.869	--	



Results Summary Form 1 Volatile Organics in Air

Client : WRS Environmental Services, Inc.
Project Name : AMERICAN DRIVE-INN CLEANERS
Lab ID : L1934510-03
Client ID : SV-3
Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R167925
Sample Amount : 250 ml

Lab Number : L1934510
Project Number : 11391
Date Collected : 07/31/19 14:30
Date Received : 08/02/19
Date Analyzed : 08/08/19 23:09
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
179601-23-1	p/m-Xylene	4.56	0.400	--	19.8	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	0.758	0.200	--	3.23	0.852	--	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	1.74	0.200	--	7.56	0.869	--	
622-96-8	4-Ethyltoluene	0.397	0.200	--	1.95	0.983	--	
108-67-8	1,3,5-Trimethylbenzene	0.480	0.200	--	2.36	0.983	--	
95-63-6	1,2,4-Trimethylbenzene	1.76	0.200	--	8.65	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

for
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Results Summary Form 1 Volatile Organics in Air

Client : WRS Environmental Services, Inc.
Project Name : AMERICAN DRIVE-INN CLEANERS
Lab ID : L1934510-04
Client ID : SV-4
Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R167926
Sample Amount : 250 ml

Lab Number : L1934510
Project Number : 11391
Date Collected : 07/31/19 14:30
Date Received : 08/02/19
Date Analyzed : 08/08/19 23:41
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.204	0.200	--	1.01	0.989	--	
74-87-3	Chloromethane	0.393	0.200	--	0.812	0.413	--	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	2.09	0.200	--	4.62	0.442	--	
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	Ethyl Alcohol	7.55	5.00	--	14.2	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	42.2	1.00	--	100	2.38	--	
75-69-4	Trichlorofluoromethane	0.628	0.200	--	3.53	1.12	--	
67-63-0	iso-Propyl Alcohol	0.995	0.500	--	2.45	1.23	--	J
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	tert-Butyl Alcohol	8.42	0.500	--	25.5	1.52	--	
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	2.45	0.200	--	7.63	0.623	--	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	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	4.28	0.500	--	12.6	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	0.573	0.500	--	1.69	1.47	--	

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Results Summary Form 1 Volatile Organics in Air

Client : WRS Environmental Services, Inc.
Project Name : AMERICAN DRIVE-INN CLEANERS
Lab ID : L1934510-04
Client ID : SV-4
Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R167926
Sample Amount : 250 ml

Lab Number : L1934510
Project Number : 11391
Date Collected : 07/31/19 14:30
Date Received : 08/02/19
Date Analyzed : 08/08/19 23:41
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	1.60	0.200	--	5.64	0.705	--	
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	2.93	0.200	--	9.36	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	0.763	0.200	--	2.63	0.688	--	
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
1330-20-7	Xylene (Total)	4.20	0.200	--	18.2	0.869	--	
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	0.697	0.200	--	3.26	0.934	--	
142-82-5	Heptane	0.831	0.200	--	3.41	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	0.972	0.500	--	3.98	2.05	--	
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	5.46	0.200	--	20.6	0.754	--	
540-59-0	1,2-Dichloroethene (total)	ND	0.200	--	ND	0.793	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
542-75-6	1,3-Dichloropropene, Total	ND	0.200	--	ND	0.908	--	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
127-18-4	Tetrachloroethene	8.94	0.200	--	60.6	1.36	--	
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	0.931	0.200	--	4.04	0.869	--	



Results Summary Form 1 Volatile Organics in Air

Client : WRS Environmental Services, Inc.
Project Name : AMERICAN DRIVE-INN CLEANERS
Lab ID : L1934510-04
Client ID : SV-4
Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R167926
Sample Amount : 250 ml

Lab Number : L1934510
Project Number : 11391
Date Collected : 07/31/19 14:30
Date Received : 08/02/19
Date Analyzed : 08/08/19 23:41
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
179601-23-1	p/m-Xylene	3.00	0.400	--	13.0	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	0.426	0.200	--	1.81	0.852	--	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	1.20	0.200	--	5.21	0.869	--	
622-96-8	4-Ethyltoluene	0.265	0.200	--	1.30	0.983	--	
108-67-8	1,3,5-Trimethylbenzene	0.293	0.200	--	1.44	0.983	--	
95-63-6	1,2,4-Trimethylbenzene	1.16	0.200	--	5.70	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

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Results Summary Form 1 Volatile Organics in Air

Client : WRS Environmental Services, Inc.
Project Name : AMERICAN DRIVE-INN CLEANERS
Lab ID : L1934510-05
Client ID : SV-5
Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
Sample Matrix : SOIL VAPOR
Analytical Method : 48, TO-15
Lab File ID : R167927
Sample Amount : 250 ml

Lab Number : L1934510
Project Number : 11391
Date Collected : 07/31/19 14:30
Date Received : 08/02/19
Date Analyzed : 08/09/19 00:14
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.239	0.200	--	1.18	0.989	--	
74-87-3	Chloromethane	0.389	0.200	--	0.803	0.413	--	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	0.573	0.200	--	1.27	0.442	--	
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	Ethyl Alcohol	5.84	5.00	--	11.0	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	14.6	1.00	--	34.7	2.38	--	
75-69-4	Trichlorofluoromethane	0.704	0.200	--	3.96	1.12	--	
67-63-0	iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--	U - UJ
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	tert-Butyl Alcohol	6.31	0.500	--	19.1	1.52	--	
75-09-2	Methylene chloride	0.532	0.500	--	1.85	1.74	--	
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	2.24	0.200	--	6.98	0.623	--	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	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	1.55	0.500	--	4.57	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	0.528	0.500	--	1.56	1.47	--	

Results Summary

Form 1

Volatile Organics in Air

Client : WRS Environmental Services, Inc.
 Project Name : AMERICAN DRIVE-INN CLEANERS
 Lab ID : L1934510-05
 Client ID : SV-5
 Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167927
 Sample Amount : 250 ml

Lab Number : L1934510
 Project Number : 11391
 Date Collected : 07/31/19 14:30
 Date Received : 08/02/19
 Date Analyzed : 08/09/19 00:14
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	0.862	0.200	--	3.04	0.705	--	
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	1.36	0.200	--	4.34	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	1.13	0.200	--	3.89	0.688	--	
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
1330-20-7	Xylene (Total)	3.02	0.200	--	13.1	0.869	--	
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	0.560	0.200	--	2.62	0.934	--	
142-82-5	Heptane	0.541	0.200	--	2.22	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	1.21	0.500	--	4.96	2.05	--	
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	4.14	0.200	--	15.6	0.754	--	
540-59-0	1,2-Dichloroethene (total)	ND	0.200	--	ND	0.793	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
542-75-6	1,3-Dichloropropene, Total	ND	0.200	--	ND	0.908	--	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
127-18-4	Tetrachloroethene	4.28	0.200	--	29.0	1.36	--	
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	0.671	0.200	--	2.91	0.869	--	



Results Summary Form 1 Volatile Organics in Air

Client : WRS Environmental Services, Inc.
Project Name : AMERICAN DRIVE-INN CLEANERS
Lab ID : L1934510-05
Client ID : SV-5
Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
Sample Matrix : SOIL VAPOR
Analytical Method : 48, TO-15
Lab File ID : R167927
Sample Amount : 250 ml

Lab Number : L1934510
Project Number : 11391
Date Collected : 07/31/19 14:30
Date Received : 08/02/19
Date Analyzed : 08/09/19 00:14
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
179601-23-1	p/m-Xylene	2.18	0.400	--	9.47	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	0.270	0.200	--	1.15	0.852	--	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.846	0.200	--	3.67	0.869	--	
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	0.275	0.200	--	1.35	0.983	--	
95-63-6	1,2,4-Trimethylbenzene	0.997	0.200	--	4.90	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

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Results Summary Form 1 Volatile Organics in Air

Client : WRS Environmental Services, Inc.
Project Name : AMERICAN DRIVE-INN CLEANERS
Lab ID : L1934510-06
Client ID : OA-1
Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R167917
Sample Amount : 250 ml

Lab Number : L1934510
Project Number : 11391
Date Collected : 07/31/19 13:30
Date Received : 08/02/19
Date Analyzed : 08/08/19 18:49
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.366	0.200	--	1.81	0.989	--	
74-87-3	Chloromethane	0.551	0.200	--	1.14	0.413	--	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	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	Ethyl Alcohol	ND	5.00	--	ND	9.42	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	5.76	1.00	--	13.7	2.38	--	
75-69-4	Trichlorofluoromethane	0.294	0.200	--	1.65	1.12	--	
67-63-0	iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--	U - UJ
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
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	1,1,2-Trichloro-1,2,2-Trifluoroethane	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	ND	0.500	--	ND	1.47	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U

80519
10/2/19



Results Summary

Form 1

Volatile Organics in Air

Client : WRS Environmental Services, Inc.
 Project Name : AMERICAN DRIVE-INN CLEANERS
 Lab ID : L1934510-06
 Client ID : OA-1
 Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R167917
 Sample Amount : 250 ml

Lab Number : L1934510
 Project Number : 11391
 Date Collected : 07/31/19 13:30
 Date Received : 08/02/19
 Date Analyzed : 08/08/19 18:49
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	---	ND	0.809	---	U
110-54-3	n-Hexane	0.692	0.200	---	2.44	0.705	---	
71-55-6	1,1,1-Trichloroethane	ND	0.200	---	ND	1.09	---	U
71-43-2	Benzene	0.279	0.200	---	0.891	0.639	---	
56-23-5	Carbon tetrachloride	ND	0.200	---	ND	1.26	---	U
110-82-7	Cyclohexane	ND	0.200	---	ND	0.688	---	U
78-87-5	1,2-Dichloropropane	ND	0.200	---	ND	0.924	---	U
75-27-4	Bromodichloromethane	ND	0.200	---	ND	1.34	---	U
1330-20-7	Xylene (Total)	ND	0.200	---	ND	0.869	---	U
123-91-1	1,4-Dioxane	ND	0.200	---	ND	0.721	---	U
79-01-6	Trichloroethene	ND	0.200	---	ND	1.07	---	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	---	ND	0.934	---	U
142-82-5	Heptane	ND	0.200	---	ND	0.820	---	U
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	0.731	0.200	---	2.75	0.754	---	
540-59-0	1,2-Dichloroethene (total)	ND	0.200	---	ND	0.793	---	U
591-78-6	2-Hexanone	ND	0.200	---	ND	0.820	---	U
542-75-6	1,3-Dichloropropene, Total	ND	0.200	---	ND	0.908	---	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
127-18-4	Tetrachloroethene	15.9	0.200	---	108	1.36	---	
108-90-7	Chlorobenzene	ND	0.200	---	ND	0.921	---	U
100-41-4	Ethylbenzene	ND	0.200	---	ND	0.869	---	U



Results Summary

Form 1

Volatile Organics in Air

Client : WRS Environmental Services, Inc.
 Project Name : AMERICAN DRIVE-INN CLEANERS
 Lab ID : L1934510-06
 Client ID : OA-1
 Sample Location : 1345 PENINSULA BLVD. HEWLETT, NY
 Sample Matrix : AIR
 Analytical Method : 48, TO-15
 Lab File ID : R167917
 Sample Amount : 250 ml

Lab Number : L1934510
 Project Number : 11391
 Date Collected : 07/31/19 13:30
 Date Received : 08/02/19
 Date Analyzed : 08/08/19 18:49
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
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 UT
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

POT
 10/24/19



Appendix-E

CAMP Data

Instrument: MiniRAE 2000 (PGM7600)

Serial Number: 009059

User ID: 00000001

Site ID: 00000202

Data Points: 360

Gas Name: Isobutylene

Sample Period: 60 sec

Last Calibration Time: July 30, 2019 14:35

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

59	07/31/19	08:46	-----	0.0	0.1
60	07/31/19	08:47	-----	0.0	0.1
61	07/31/19	08:48	-----	0.0	0.1
62	07/31/19	08:49	-----	0.0	0.1
63	07/31/19	08:50	-----	0.0	0.1
64	07/31/19	08:51	-----	0.0	0.1
65	07/31/19	08:52	-----	0.0	0.1
66	07/31/19	08:53	-----	0.0	0.1
67	07/31/19	08:54	-----	0.0	0.1
68	07/31/19	08:55	-----	0.0	0.1
69	07/31/19	08:56	-----	0.0	0.1
70	07/31/19	08:57	-----	0.0	0.1
71	07/31/19	08:58	-----	0.0	0.1
72	07/31/19	08:59	-----	0.0	0.1
73	07/31/19	09:00	-----	0.0	0.0
74	07/31/19	09:01	-----	0.0	0.0
75	07/31/19	09:02	-----	0.0	0.0
76	07/31/19	09:03	-----	0.0	0.1
77	07/31/19	09:04	-----	0.0	0.1
78	07/31/19	09:05	-----	0.0	0.1
79	07/31/19	09:06	-----	0.0	0.0
80	07/31/19	09:07	-----	0.0	0.0
81	07/31/19	09:08	-----	0.0	0.0
82	07/31/19	09:09	-----	0.0	0.0
83	07/31/19	09:10	-----	0.0	0.0
84	07/31/19	09:11	-----	0.0	0.0
85	07/31/19	09:12	-----	0.0	0.0
86	07/31/19	09:13	-----	0.0	0.0
87	07/31/19	09:14	-----	0.0	0.0
88	07/31/19	09:15	-----	0.0	0.0
89	07/31/19	09:16	-----	0.0	0.0
90	07/31/19	09:17	-----	0.0	0.0
91	07/31/19	09:18	-----	0.0	0.0
92	07/31/19	09:19	-----	0.0	0.0
93	07/31/19	09:20	-----	0.0	0.0
94	07/31/19	09:21	-----	0.0	0.0
95	07/31/19	09:22	-----	0.0	0.0
96	07/31/19	09:23	-----	0.0	0.0
97	07/31/19	09:24	-----	0.0	0.0
98	07/31/19	09:25	-----	0.0	0.0
99	07/31/19	09:26	-----	0.0	0.0
100	07/31/19	09:27	-----	0.0	0.0
101	07/31/19	09:28	-----	0.0	0.0
102	07/31/19	09:29	-----	0.0	0.0
103	07/31/19	09:30	-----	0.0	0.0
104	07/31/19	09:31	-----	0.0	0.1
105	07/31/19	09:32	-----	0.0	0.0
106	07/31/19	09:33	-----	0.0	0.0
107	07/31/19	09:34	-----	0.0	0.0
108	07/31/19	09:35	-----	0.0	0.0
109	07/31/19	09:36	-----	0.0	0.0
110	07/31/19	09:37	-----	0.0	0.0
111	07/31/19	09:38	-----	0.0	0.0
112	07/31/19	09:39	-----	0.0	0.0
113	07/31/19	09:40	-----	0.0	0.0
114	07/31/19	09:41	-----	0.0	0.0
115	07/31/19	09:42	-----	0.0	0.0
116	07/31/19	09:43	-----	0.0	0.0
117	07/31/19	09:44	-----	0.0	0.0
118	07/31/19	09:45	-----	0.0	0.1
119	07/31/19	09:46	-----	0.0	0.1
120	07/31/19	09:47	-----	0.0	0.0
121	07/31/19	09:48	-----	0.0	0.0
122	07/31/19	09:49	-----	0.0	0.0
123	07/31/19	09:50	-----	0.0	0.0
124	07/31/19	09:51	-----	0.0	0.0
125	07/31/19	09:52	-----	0.0	0.0
126	07/31/19	09:53	-----	0.0	0.0
127	07/31/19	09:54	-----	0.0	0.0

128	07/31/19	09:55	-----	0.0	0.0
129	07/31/19	09:56	-----	0.0	0.0
130	07/31/19	09:57	-----	0.0	0.0
131	07/31/19	09:58	-----	0.0	0.0
132	07/31/19	09:59	-----	0.0	0.0
133	07/31/19	10:00	-----	0.0	0.0
134	07/31/19	10:01	-----	0.0	0.0
135	07/31/19	10:02	-----	0.0	0.1
136	07/31/19	10:03	-----	0.0	0.0
137	07/31/19	10:04	-----	0.0	0.0
138	07/31/19	10:05	-----	0.0	0.0
139	07/31/19	10:06	-----	0.0	0.0
140	07/31/19	10:07	-----	0.0	0.0
141	07/31/19	10:08	-----	0.0	0.0
142	07/31/19	10:09	-----	0.0	0.0
143	07/31/19	10:10	-----	0.0	0.0
144	07/31/19	10:11	-----	0.0	0.0
145	07/31/19	10:12	-----	0.0	0.0
146	07/31/19	10:13	-----	0.0	0.0
147	07/31/19	10:14	-----	0.0	0.1
148	07/31/19	10:15	-----	0.0	0.1
149	07/31/19	10:16	-----	0.0	0.1
150	07/31/19	10:17	-----	0.0	0.0
151	07/31/19	10:18	-----	0.0	0.0
152	07/31/19	10:19	-----	0.0	0.0
153	07/31/19	10:20	-----	0.0	0.0
154	07/31/19	10:21	-----	0.0	0.0
155	07/31/19	10:22	-----	0.0	0.0
156	07/31/19	10:23	-----	0.0	0.0
157	07/31/19	10:24	-----	0.0	0.0
158	07/31/19	10:25	-----	0.0	0.0
159	07/31/19	10:26	-----	0.0	0.0
160	07/31/19	10:27	-----	0.0	0.0
161	07/31/19	10:28	-----	0.0	0.0
162	07/31/19	10:29	-----	0.0	0.0
163	07/31/19	10:30	-----	0.0	0.0
164	07/31/19	10:31	-----	0.0	0.0
165	07/31/19	10:32	-----	0.0	0.0
166	07/31/19	10:33	-----	0.0	0.0
167	07/31/19	10:34	-----	0.0	0.0
168	07/31/19	10:35	-----	0.0	0.0
169	07/31/19	10:36	-----	0.0	0.0
170	07/31/19	10:37	-----	0.0	0.0
171	07/31/19	10:38	-----	0.0	0.0
172	07/31/19	10:39	-----	0.0	0.0
173	07/31/19	10:40	-----	0.0	0.0
174	07/31/19	10:41	-----	0.0	0.0
175	07/31/19	10:42	-----	0.0	0.0
176	07/31/19	10:43	-----	0.0	0.0
177	07/31/19	10:44	-----	0.0	0.0
178	07/31/19	10:45	-----	0.0	0.0
179	07/31/19	10:46	-----	0.0	0.0
180	07/31/19	10:47	-----	0.0	0.0
181	07/31/19	10:48	-----	0.0	0.0
182	07/31/19	10:49	-----	0.0	0.0
183	07/31/19	10:50	-----	0.0	0.0
184	07/31/19	10:51	-----	0.0	0.0
185	07/31/19	10:52	-----	0.0	0.1
186	07/31/19	10:53	-----	0.0	0.0
187	07/31/19	10:54	-----	0.0	0.0
188	07/31/19	10:55	-----	0.0	0.0
189	07/31/19	10:56	-----	0.0	0.0
190	07/31/19	10:57	-----	0.0	0.0
191	07/31/19	10:58	-----	0.0	0.0
192	07/31/19	10:59	-----	0.0	0.0
193	07/31/19	11:00	-----	0.0	0.0
194	07/31/19	11:01	-----	0.0	0.0
195	07/31/19	11:02	-----	0.0	0.0
196	07/31/19	11:03	-----	0.0	0.0

197	07/31/19	11:04	-----	0.0	0.0
198	07/31/19	11:05	-----	0.0	0.0
199	07/31/19	11:06	-----	0.0	0.0
200	07/31/19	11:07	-----	0.0	0.0
201	07/31/19	11:08	-----	0.0	0.0
202	07/31/19	11:09	-----	0.0	0.0
203	07/31/19	11:10	-----	0.0	0.0
204	07/31/19	11:11	-----	0.0	0.0
205	07/31/19	11:12	-----	0.0	0.0
206	07/31/19	11:13	-----	0.0	0.0
207	07/31/19	11:14	-----	0.0	0.0
208	07/31/19	11:15	-----	0.0	0.0
209	07/31/19	11:16	-----	0.0	0.0
210	07/31/19	11:17	-----	0.0	0.0
211	07/31/19	11:18	-----	0.0	0.0
212	07/31/19	11:19	-----	0.0	0.0
213	07/31/19	11:20	-----	0.0	0.0
214	07/31/19	11:21	-----	0.0	0.0
215	07/31/19	11:22	-----	0.0	0.0
216	07/31/19	11:23	-----	0.0	0.0
217	07/31/19	11:24	-----	0.0	0.0
218	07/31/19	11:25	-----	0.0	0.0
219	07/31/19	11:26	-----	0.0	0.1
220	07/31/19	11:27	-----	0.0	0.1
221	07/31/19	11:28	-----	0.0	0.0
222	07/31/19	11:29	-----	0.0	0.0
223	07/31/19	11:30	-----	0.0	0.0
224	07/31/19	11:31	-----	0.0	0.0
225	07/31/19	11:32	-----	0.0	0.1
226	07/31/19	11:33	-----	0.0	0.1
227	07/31/19	11:34	-----	0.0	0.1
228	07/31/19	11:35	-----	0.0	0.0
229	07/31/19	11:36	-----	0.0	0.0
230	07/31/19	11:37	-----	0.0	0.0
231	07/31/19	11:38	-----	0.0	0.0
232	07/31/19	11:39	-----	0.0	0.0
233	07/31/19	11:40	-----	0.0	0.0
234	07/31/19	11:41	-----	0.0	0.0
235	07/31/19	11:42	-----	0.0	0.0
236	07/31/19	11:43	-----	0.0	0.0
237	07/31/19	11:44	-----	0.0	0.0
238	07/31/19	11:45	-----	0.0	0.0
239	07/31/19	11:46	-----	0.0	0.0
240	07/31/19	11:47	-----	0.0	0.0
241	07/31/19	11:48	-----	0.0	0.0
242	07/31/19	11:49	-----	0.0	0.0
243	07/31/19	11:50	-----	0.0	0.0
244	07/31/19	11:51	-----	0.0	0.0
245	07/31/19	11:52	-----	0.0	0.0
246	07/31/19	11:53	-----	0.0	0.0
247	07/31/19	11:54	-----	0.0	0.0
248	07/31/19	11:55	-----	0.0	0.0
249	07/31/19	11:56	-----	0.0	0.0
250	07/31/19	11:57	-----	0.0	0.0
251	07/31/19	11:58	-----	0.0	0.0
252	07/31/19	11:59	-----	0.0	0.1
253	07/31/19	12:00	-----	0.0	0.1
254	07/31/19	12:01	-----	0.0	0.1
255	07/31/19	12:02	-----	0.0	0.1
256	07/31/19	12:03	-----	0.0	0.0
257	07/31/19	12:04	-----	0.0	0.0
258	07/31/19	12:05	-----	0.0	0.0
259	07/31/19	12:06	-----	0.0	0.0
300	07/31/19	12:07	-----	0.0	0.1
301	07/31/19	12:08	-----	0.0	0.1
302	07/31/19	12:09	-----	0.0	0.0
303	07/31/19	12:10	-----	0.0	0.0
304	07/31/19	12:11	-----	0.0	0.0
305	07/31/19	12:12	-----	0.0	0.0

306	07/31/19	12:13	-----	0.0	0.1
307	07/31/19	12:14	-----	0.0	0.1
308	07/31/19	12:15	-----	0.0	0.1
309	07/31/19	12:16	-----	0.0	0.0
310	07/31/19	12:17	-----	0.0	0.0
311	07/31/19	12:18	-----	0.0	0.0
312	07/31/19	12:19	-----	0.0	0.0
313	07/31/19	12:20	-----	0.0	0.0
314	07/31/19	12:21	-----	0.0	0.0
315	07/31/19	12:22	-----	0.0	0.0
316	07/31/19	12:23	-----	0.0	0.0
317	07/31/19	12:24	-----	0.0	0.0
318	07/31/19	12:25	-----	0.0	0.0
319	07/31/19	12:26	-----	0.0	0.0
320	07/31/19	12:27	-----	0.0	0.0
321	07/31/19	12:28	-----	0.0	0.0
322	07/31/19	12:29	-----	0.0	0.0
323	07/31/19	12:30	-----	0.0	0.0
324	07/31/19	12:31	-----	0.0	0.0
325	07/31/19	12:32	-----	0.0	0.0
326	07/31/19	12:33	-----	0.0	0.1
327	07/31/19	12:34	-----	0.0	0.1
328	07/31/19	12:35	-----	0.0	0.0
329	07/31/19	12:36	-----	0.0	0.0
330	07/31/19	12:37	-----	0.0	0.0
331	07/31/19	12:38	-----	0.0	0.0
332	07/31/19	12:39	-----	0.0	0.1
333	07/31/19	12:40	-----	0.0	0.1
334	07/31/19	12:41	-----	0.0	0.1
335	07/31/19	12:42	-----	0.0	0.0
336	07/31/19	12:43	-----	0.0	0.0
337	07/31/19	12:44	-----	0.0	0.0
338	07/31/19	12:45	-----	0.0	0.0
339	07/31/19	12:46	-----	0.0	0.0
340	07/31/19	12:47	-----	0.0	0.0
341	07/31/19	12:48	-----	0.0	0.0
342	07/31/19	12:49	-----	0.0	0.0
343	07/31/19	12:50	-----	0.0	0.0
344	07/31/19	12:51	-----	0.0	0.0
345	07/31/19	12:52	-----	0.0	0.0
346	07/31/19	12:53	-----	0.0	0.0
347	07/31/19	12:54	-----	0.0	0.0
348	07/31/19	12:55	-----	0.0	0.0
349	07/31/19	12:56	-----	0.0	0.0
350	07/31/19	12:57	-----	0.0	0.0
351	07/31/19	12:58	-----	0.0	0.0
352	07/31/19	12:59	-----	0.0	0.0
353	07/31/19	1:00	-----	0.0	0.0
354	07/31/19	1:01	-----	0.0	0.0
355	07/31/19	1:02	-----	0.0	0.0
356	07/31/19	1:04	-----	0.0	0.0
357	07/31/19	1:05	-----	0.0	0.0
358	07/31/19	1:06	-----	0.0	0.0
359	07/31/19	1:07	-----	0.0	0.0
360	07/31/19	1:08	-----	0.0	0.0

Instrument: MiniRAE 2000 (PGM7600)

Serial Number: 009059

User ID: 00000001

Site ID: 00000202

Data Points: 188

Gas Name: Isobutylene

Sample Period: 60 sec

Last Calibration Time: July 30, 2019 14:35

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	08/15/19	09:28	-----	0.0	0.0
2	08/15/19	09:29	-----	0.0	0.0
3	08/15/19	09:30	-----	0.0	0.0
4	08/15/19	09:31	-----	0.0	0.1
5	08/15/19	09:32	-----	0.0	0.0
6	08/15/19	09:33	-----	0.0	0.0
7	08/15/19	09:34	-----	0.0	0.0
8	08/15/19	09:35	-----	0.0	0.0
9	08/15/19	09:36	-----	0.0	0.2
10	08/15/19	09:37	-----	0.0	0.0
11	08/15/19	09:38	-----	0.0	0.0
12	08/15/19	09:39	-----	0.0	0.0
13	08/15/19	09:40	-----	0.0	0.0
14	08/15/19	09:41	-----	0.0	0.0
15	08/15/19	09:42	-----	0.0	0.0
16	08/15/19	09:43	-----	0.0	0.0
17	08/15/19	09:44	-----	0.0	0.0
18	08/15/19	09:45	-----	0.0	0.1
19	08/15/19	09:46	-----	0.0	0.1
20	08/15/19	09:47	-----	0.0	0.0
21	08/15/19	09:48	-----	0.0	0.0
22	08/15/19	09:49	-----	0.0	0.0
23	08/15/19	09:50	-----	0.0	0.0
24	08/15/19	09:51	-----	0.0	0.0
25	08/15/19	09:52	-----	0.0	0.0
26	08/15/19	09:53	-----	0.0	0.0
27	08/15/19	09:54	-----	0.0	0.0
28	08/15/19	09:55	-----	0.0	0.0
29	08/15/19	09:56	-----	0.0	0.0
30	08/15/19	09:57	-----	0.0	0.0
31	08/15/19	09:58	-----	0.0	0.0
32	08/15/19	09:59	-----	0.0	0.0
33	08/15/19	10:00	-----	0.0	0.0
34	08/15/19	10:01	-----	0.0	0.0
35	08/15/19	10:02	-----	0.0	0.1
36	08/15/19	10:03	-----	0.0	0.0
37	08/15/19	10:04	-----	0.0	0.0
38	08/15/19	10:05	-----	0.0	0.0
39	08/15/19	10:06	-----	0.0	0.0
40	08/15/19	10:07	-----	0.0	0.0
41	08/15/19	10:08	-----	0.0	0.0
42	08/15/19	10:09	-----	0.0	0.0
43	08/15/19	10:10	-----	0.0	0.0
44	08/15/19	10:11	-----	0.0	0.0
45	08/15/19	10:12	-----	0.0	0.0
46	08/15/19	10:13	-----	0.0	0.0
47	08/15/19	10:14	-----	0.0	0.1
48	08/15/19	10:15	-----	0.0	0.1
49	08/15/19	10:16	-----	0.0	0.1
50	08/15/19	10:17	-----	0.0	0.0
51	08/15/19	10:18	-----	0.0	0.0
52	08/15/19	10:19	-----	0.0	0.0
53	08/15/19	10:20	-----	0.0	0.0
54	08/15/19	10:21	-----	0.0	0.0
55	08/15/19	10:22	-----	0.0	0.0

56	08/15/19	10:23	-----	0.0	0.0
57	08/15/19	10:24	-----	0.0	0.0
58	08/15/19	10:25	-----	0.0	0.0
59	08/15/19	10:26	-----	0.0	0.0
60	08/15/19	10:27	-----	0.0	0.0
61	08/15/19	10:28	-----	0.0	0.0
62	08/15/19	10:29	-----	0.0	0.0
63	08/15/19	10:30	-----	0.0	0.0
64	08/15/19	10:31	-----	0.0	0.0
65	08/15/19	10:32	-----	0.0	0.0
66	08/15/19	10:33	-----	0.0	0.0
67	08/15/19	10:34	-----	0.0	0.0
68	08/15/19	10:35	-----	0.0	0.0
69	08/15/19	10:36	-----	0.0	0.0
70	08/15/19	10:37	-----	0.0	0.2
71	08/15/19	10:38	-----	0.0	0.0
72	08/15/19	10:39	-----	0.0	0.0
73	08/15/19	10:40	-----	0.0	0.0
74	08/15/19	10:41	-----	0.0	0.0
75	08/15/19	10:42	-----	0.0	0.0
76	08/15/19	10:43	-----	0.0	0.0
77	08/15/19	10:44	-----	0.0	0.0
78	08/15/19	10:45	-----	0.0	0.0
79	08/15/19	10:46	-----	0.0	0.0
80	08/15/19	10:47	-----	0.0	0.0
81	08/15/19	10:48	-----	0.0	0.0
82	08/15/19	10:49	-----	0.0	0.0
83	08/15/19	10:50	-----	0.0	0.0
84	08/15/19	10:51	-----	0.0	0.0
85	08/15/19	10:52	-----	0.0	0.1
86	08/15/19	10:53	-----	0.0	0.0
87	08/15/19	10:54	-----	0.0	0.0
88	08/15/19	10:55	-----	0.0	0.0
89	08/15/19	10:56	-----	0.0	0.0
90	08/15/19	10:57	-----	0.0	0.0
91	08/15/19	10:58	-----	0.0	0.0
92	08/15/19	10:59	-----	0.0	0.0
93	08/15/19	11:00	-----	0.0	0.0
94	08/15/19	11:01	-----	0.0	0.0
95	08/15/19	11:02	-----	0.0	0.0
96	08/15/19	11:03	-----	0.0	0.0
97	08/15/19	11:04	-----	0.0	0.0
98	08/15/19	11:05	-----	0.0	0.0
99	08/15/19	11:06	-----	0.0	0.0
100	08/15/19	11:07	-----	0.0	0.0
101	08/15/19	11:08	-----	0.0	0.0
102	08/15/19	11:09	-----	0.0	0.0
103	08/15/19	11:10	-----	0.0	0.1
104	08/15/19	11:11	-----	0.0	0.0
105	08/15/19	11:12	-----	0.0	0.0
106	08/15/19	11:13	-----	0.0	0.0
107	08/15/19	11:14	-----	0.0	0.0
108	08/15/19	11:15	-----	0.0	0.0
109	08/15/19	11:16	-----	0.0	0.0
110	08/15/19	11:17	-----	0.0	0.0
111	08/15/19	11:18	-----	0.0	0.0
112	08/15/19	11:19	-----	0.0	0.0
113	08/15/19	11:20	-----	0.0	0.0
114	08/15/19	11:21	-----	0.0	0.0
115	08/15/19	11:22	-----	0.0	0.0
116	08/15/19	11:23	-----	0.0	0.0
117	08/15/19	11:24	-----	0.0	0.0
118	08/15/19	11:25	-----	0.0	0.0
119	08/15/19	11:26	-----	0.0	0.1
120	08/15/19	11:27	-----	0.0	0.1
121	08/15/19	11:28	-----	0.0	0.0

122	08/15/19	11:29	-----	0.0	0.0
123	08/15/19	11:30	-----	0.0	0.0
124	08/15/19	11:31	-----	0.0	0.2
125	08/15/19	11:32	-----	0.0	0.1
126	08/15/19	11:33	-----	0.0	0.1
127	08/15/19	11:34	-----	0.0	0.1
128	08/15/19	11:35	-----	0.0	0.0
129	08/15/19	11:36	-----	0.0	0.0
130	08/15/19	11:37	-----	0.0	0.0
131	08/15/19	11:38	-----	0.0	0.0
132	08/15/19	11:39	-----	0.0	0.0
133	08/15/19	11:40	-----	0.0	0.0
134	08/15/19	11:41	-----	0.0	0.1
135	08/15/19	11:42	-----	0.0	0.0
136	08/15/19	11:43	-----	0.0	0.2
137	08/15/19	11:44	-----	0.0	0.0
138	08/15/19	11:45	-----	0.0	0.1
139	08/15/19	11:46	-----	0.0	0.1
140	08/15/19	11:47	-----	0.0	0.0
141	08/15/19	11:48	-----	0.0	0.0
142	08/15/19	11:49	-----	0.0	0.0
143	08/15/19	11:50	-----	0.0	0.0
144	08/15/19	11:51	-----	0.0	0.0
145	08/15/19	11:52	-----	0.0	0.0
146	08/15/19	11:53	-----	0.0	0.0
147	08/15/19	11:54	-----	0.0	0.0
148	08/15/19	11:55	-----	0.0	0.0
149	08/15/19	11:56	-----	0.0	0.0
150	08/15/19	11:57	-----	0.0	0.0
151	08/15/19	11:58	-----	0.0	0.0
152	08/15/19	11:59	-----	0.0	0.1
153	08/15/19	12:00	-----	0.0	0.1
154	08/15/19	12:01	-----	0.0	0.1
155	08/15/19	12:02	-----	0.0	0.1
156	08/15/19	12:03	-----	0.0	0.0
157	08/15/19	12:04	-----	0.0	0.0
158	08/15/19	12:05	-----	0.0	0.0
159	08/15/19	12:06	-----	0.0	0.0
160	08/15/19	12:07	-----	0.0	0.1
161	08/15/19	12:08	-----	0.0	0.1
162	08/15/19	12:09	-----	0.0	0.0
163	08/15/19	12:10	-----	0.0	0.0
164	08/15/19	12:11	-----	0.0	0.0
165	08/15/19	12:12	-----	0.0	0.0
166	08/15/19	12:13	-----	0.0	0.1
167	08/15/19	12:14	-----	0.0	0.1
168	08/15/19	12:15	-----	0.0	0.1
169	08/15/19	12:16	-----	0.0	0.0
170	08/15/19	12:17	-----	0.0	0.0
171	08/15/19	12:18	-----	0.0	0.0
172	08/15/19	12:19	-----	0.0	0.0
173	08/15/19	12:20	-----	0.0	0.0
174	08/15/19	12:21	-----	0.0	0.0
175	08/15/19	12:22	-----	0.0	0.0
176	08/15/19	12:23	-----	0.0	0.0
177	08/15/19	12:24	-----	0.0	0.0
178	08/15/19	12:25	-----	0.0	0.0
179	08/15/19	12:26	-----	0.0	0.0
180	08/15/19	12:27	-----	0.0	0.0
181	08/15/19	12:28	-----	0.0	0.0
182	08/15/19	12:29	-----	0.0	0.1
183	08/15/19	12:30	-----	0.0	0.0
184	08/15/19	12:31	-----	0.0	0.0
185	08/15/19	12:32	-----	0.0	0.0
186	08/15/19	12:33	-----	0.0	0.1
187	08/15/19	12:34	-----	0.0	0.1

pDR-1000 S/N: 00000
Tag Number: 16
Number of logged points: 344
Start time and date: 07:29:23 31-Jul
Elapsed time: 05:44:00
Logging period (sec): 60
Calibration Factor (%): 100
Max Display Concentration: 0.740 mg/m³
Time at maximum: 09:34:33 Jul 31
Max STEL Concentration: 0.008 mg/m³
Time at max STEL: 09:45:23 Jul 31
Overall Avg Conc: 0.000 mg/m³

Logged Data:

Point	Date	Time	Avg. (mg/m ³)
1,	31 Jul,	07:30:23,	0.008
2,	31 Jul,	07:31:23,	0.000
3,	31 Jul,	07:32:23,	0.003
4,	31 Jul,	07:33:23,	0.000
5,	31 Jul,	07:34:23,	0.000
6,	31 Jul,	07:35:23,	0.003
7,	31 Jul,	07:36:23,	0.000
8,	31 Jul,	07:37:23,	0.001
9,	31 Jul,	07:38:23,	0.002
10,	31 Jul,	07:39:23,	0.005
11,	31 Jul,	07:40:23,	0.001
12,	31 Jul,	07:41:23,	0.006
13,	31 Jul,	07:42:23,	0.010
14,	31 Jul,	07:43:23,	0.002
15,	31 Jul,	07:44:23,	0.007
16,	31 Jul,	07:45:23,	0.001
17,	31 Jul,	07:46:23,	0.001
18,	31 Jul,	07:47:23,	0.014
19,	31 Jul,	07:48:23,	0.000
20,	31 Jul,	07:49:23,	0.000
21,	31 Jul,	07:50:23,	0.000
22,	31 Jul,	07:51:23,	0.000
23,	31 Jul,	07:52:23,	0.007
24,	31 Jul,	07:53:23,	0.001
25,	31 Jul,	07:54:23,	0.005
26,	31 Jul,	07:55:23,	0.000
27,	31 Jul,	07:56:23,	0.000
28,	31 Jul,	07:57:23,	0.000
29,	31 Jul,	07:58:23,	0.009
30,	31 Jul,	07:59:23,	0.006
31,	31 Jul,	08:00:23,	0.017
32,	31 Jul,	08:01:23,	0.001
33,	31 Jul,	08:02:23,	0.001
34,	31 Jul,	08:03:23,	0.001
35,	31 Jul,	08:04:23,	0.000
36,	31 Jul,	08:05:23,	0.000
37,	31 Jul,	08:06:23,	0.001
38,	31 Jul,	08:07:23,	0.004
39,	31 Jul,	08:08:23,	0.002
40,	31 Jul,	08:09:23,	0.000
41,	31 Jul,	08:10:23,	0.003
42,	31 Jul,	08:11:23,	0.002
43,	31 Jul,	08:12:23,	0.001
44,	31 Jul,	08:13:23,	0.001
45,	31 Jul,	08:14:23,	0.000
46,	31 Jul,	08:15:23,	0.000
47,	31 Jul,	08:16:23,	0.003
48,	31 Jul,	08:17:23,	0.000
49,	31 Jul,	08:18:23,	0.009
50,	31 Jul,	08:19:23,	0.003
51,	31 Jul,	08:20:23,	0.001
52,	31 Jul,	08:21:23,	0.007
53,	31 Jul,	08:22:23,	0.000
54,	31 Jul,	08:23:23,	0.004
55,	31 Jul,	08:24:23,	0.002
56,	31 Jul,	08:25:23,	0.002
57,	31 Jul,	08:26:23,	0.000

58,	31	Jul,	08:27:23,	0.005
59,	31	Jul,	08:28:23,	0.000
60,	31	Jul,	08:29:23,	0.000
61,	31	Jul,	08:30:23,	0.000
62,	31	Jul,	08:31:23,	0.004
63,	31	Jul,	08:32:23,	0.000
64,	31	Jul,	08:33:23,	0.000
65,	31	Jul,	08:34:23,	0.000
66,	31	Jul,	08:35:23,	0.000
67,	31	Jul,	08:36:23,	0.006
68,	31	Jul,	08:37:23,	0.006
69,	31	Jul,	08:38:23,	0.000
70,	31	Jul,	08:39:23,	0.012
71,	31	Jul,	08:40:23,	0.001
72,	31	Jul,	08:41:23,	0.019
73,	31	Jul,	08:42:23,	0.004
74,	31	Jul,	08:43:23,	0.008
75,	31	Jul,	08:44:23,	0.000
76,	31	Jul,	08:45:23,	0.013
77,	31	Jul,	08:46:23,	0.001
78,	31	Jul,	08:47:23,	0.015
79,	31	Jul,	08:48:23,	0.003
80,	31	Jul,	08:49:23,	0.002
81,	31	Jul,	08:50:23,	0.001
82,	31	Jul,	08:51:23,	0.001
83,	31	Jul,	08:52:23,	0.000
84,	31	Jul,	08:53:23,	0.001
85,	31	Jul,	08:54:23,	0.001
86,	31	Jul,	08:55:23,	0.000
87,	31	Jul,	08:56:23,	0.003
88,	31	Jul,	08:57:23,	0.000
89,	31	Jul,	08:58:23,	0.003
90,	31	Jul,	08:59:23,	0.011
91,	31	Jul,	09:00:23,	0.003
92,	31	Jul,	09:01:23,	0.000
93,	31	Jul,	09:02:23,	0.002
94,	31	Jul,	09:03:23,	0.005
95,	31	Jul,	09:04:23,	0.000
96,	31	Jul,	09:05:23,	0.001
97,	31	Jul,	09:06:23,	0.007
98,	31	Jul,	09:07:23,	0.001
99,	31	Jul,	09:08:23,	0.002
100,	31	Jul,	09:09:23,	0.000
101,	31	Jul,	09:10:23,	0.000
102,	31	Jul,	09:11:23,	0.000
103,	31	Jul,	09:12:23,	0.000
104,	31	Jul,	09:13:23,	0.000
105,	31	Jul,	09:14:23,	0.001
106,	31	Jul,	09:15:23,	0.001
107,	31	Jul,	09:16:23,	0.000
108,	31	Jul,	09:17:23,	0.000
109,	31	Jul,	09:18:23,	0.000
110,	31	Jul,	09:19:23,	0.001
111,	31	Jul,	09:20:23,	0.005
112,	31	Jul,	09:21:23,	0.004
113,	31	Jul,	09:22:23,	0.002
114,	31	Jul,	09:23:23,	0.000
115,	31	Jul,	09:24:23,	0.000
116,	31	Jul,	09:25:23,	0.000
117,	31	Jul,	09:26:23,	0.002
118,	31	Jul,	09:27:23,	0.000
119,	31	Jul,	09:28:23,	0.001
120,	31	Jul,	09:29:23,	0.000
121,	31	Jul,	09:30:23,	0.000
122,	31	Jul,	09:31:23,	0.004
123,	31	Jul,	09:32:23,	0.000
124,	31	Jul,	09:33:23,	0.001
125,	31	Jul,	09:34:23,	0.019
126,	31	Jul,	09:35:23,	0.141
127,	31	Jul,	09:36:23,	0.001
128,	31	Jul,	09:37:23,	0.001

129,	31	Jul,	09:38:23,	0.022
130,	31	Jul,	09:39:23,	0.014
131,	31	Jul,	09:40:23,	0.001
132,	31	Jul,	09:41:23,	0.000
133,	31	Jul,	09:42:23,	0.000
134,	31	Jul,	09:43:23,	0.014
135,	31	Jul,	09:44:23,	0.005
136,	31	Jul,	09:45:23,	0.000
137,	31	Jul,	09:46:23,	0.000
138,	31	Jul,	09:47:23,	0.000
139,	31	Jul,	09:48:23,	0.005
140,	31	Jul,	09:49:23,	0.000
141,	31	Jul,	09:50:23,	0.000
142,	31	Jul,	09:51:23,	0.000
143,	31	Jul,	09:52:23,	0.000
144,	31	Jul,	09:53:23,	0.000
145,	31	Jul,	09:54:23,	0.000
146,	31	Jul,	09:55:23,	0.003
147,	31	Jul,	09:56:23,	0.001
148,	31	Jul,	09:57:23,	0.004
149,	31	Jul,	09:58:23,	0.000
150,	31	Jul,	09:59:23,	0.000
151,	31	Jul,	10:00:23,	0.002
152,	31	Jul,	10:01:23,	0.001
153,	31	Jul,	10:02:23,	0.000
154,	31	Jul,	10:03:23,	0.000
155,	31	Jul,	10:04:23,	0.000
156,	31	Jul,	10:05:23,	0.000
157,	31	Jul,	10:06:23,	0.000
158,	31	Jul,	10:07:23,	0.000
159,	31	Jul,	10:08:23,	0.000
160,	31	Jul,	10:09:23,	0.000
161,	31	Jul,	10:10:23,	0.001
162,	31	Jul,	10:11:23,	0.004
163,	31	Jul,	10:12:23,	0.006
164,	31	Jul,	10:13:23,	0.000
165,	31	Jul,	10:14:23,	0.000
166,	31	Jul,	10:15:23,	0.001
167,	31	Jul,	10:16:23,	0.000
168,	31	Jul,	10:17:23,	0.000
169,	31	Jul,	10:18:23,	0.000
170,	31	Jul,	10:19:23,	0.000
171,	31	Jul,	10:20:23,	0.000
172,	31	Jul,	10:21:23,	0.000
173,	31	Jul,	10:22:23,	0.000
174,	31	Jul,	10:23:23,	0.002
175,	31	Jul,	10:24:23,	0.000
176,	31	Jul,	10:25:23,	0.000
177,	31	Jul,	10:26:23,	0.001
178,	31	Jul,	10:27:23,	0.000
179,	31	Jul,	10:28:23,	0.001
180,	31	Jul,	10:29:23,	0.001
181,	31	Jul,	10:30:23,	0.000
182,	31	Jul,	10:31:23,	0.002
183,	31	Jul,	10:32:23,	0.001
184,	31	Jul,	10:33:23,	0.004
185,	31	Jul,	10:34:23,	0.004
186,	31	Jul,	10:35:23,	0.030
187,	31	Jul,	10:36:23,	0.002
188,	31	Jul,	10:37:23,	0.001
189,	31	Jul,	10:38:23,	0.000
190,	31	Jul,	10:39:23,	0.000
191,	31	Jul,	10:40:23,	0.001
192,	31	Jul,	10:41:23,	0.006
193,	31	Jul,	10:42:23,	0.001
194,	31	Jul,	10:43:23,	0.001
195,	31	Jul,	10:44:23,	0.001
196,	31	Jul,	10:45:23,	0.000
197,	31	Jul,	10:46:23,	0.000
198,	31	Jul,	10:47:23,	0.000
199,	31	Jul,	10:48:23,	0.000

200,	31	Jul,	10:49:23,	0.004
201,	31	Jul,	10:50:23,	0.000
202,	31	Jul,	10:51:23,	0.002
203,	31	Jul,	10:52:23,	0.001
204,	31	Jul,	10:53:23,	0.002
205,	31	Jul,	10:54:23,	0.001
206,	31	Jul,	10:55:23,	0.001
207,	31	Jul,	10:56:23,	0.000
208,	31	Jul,	10:57:23,	0.000
209,	31	Jul,	10:58:23,	0.000
210,	31	Jul,	10:59:23,	0.000
211,	31	Jul,	11:00:23,	0.001
212,	31	Jul,	11:01:23,	0.002
213,	31	Jul,	11:02:23,	0.000
214,	31	Jul,	11:03:23,	0.001
215,	31	Jul,	11:04:23,	0.002
216,	31	Jul,	11:05:23,	0.000
217,	31	Jul,	11:06:23,	0.000
218,	31	Jul,	11:07:23,	0.000
219,	31	Jul,	11:08:23,	0.000
220,	31	Jul,	11:09:23,	0.002
221,	31	Jul,	11:10:23,	0.000
222,	31	Jul,	11:11:23,	0.001
223,	31	Jul,	11:12:23,	0.002
224,	31	Jul,	11:13:23,	0.000
225,	31	Jul,	11:14:23,	0.000
226,	31	Jul,	11:15:23,	0.002
227,	31	Jul,	11:16:23,	0.000
228,	31	Jul,	11:17:23,	0.001
229,	31	Jul,	11:18:23,	0.000
230,	31	Jul,	11:19:23,	0.000
231,	31	Jul,	11:20:23,	0.005
232,	31	Jul,	11:21:23,	0.001
233,	31	Jul,	11:22:23,	0.000
234,	31	Jul,	11:23:23,	0.000
235,	31	Jul,	11:24:23,	0.000
236,	31	Jul,	11:25:23,	0.000
237,	31	Jul,	11:26:23,	0.000
238,	31	Jul,	11:27:23,	0.000
239,	31	Jul,	11:28:23,	0.000
240,	31	Jul,	11:29:23,	0.001
241,	31	Jul,	11:30:23,	0.000
242,	31	Jul,	11:31:23,	0.000
243,	31	Jul,	11:32:23,	0.001
244,	31	Jul,	11:33:23,	0.000
245,	31	Jul,	11:34:23,	0.003
246,	31	Jul,	11:35:23,	0.002
247,	31	Jul,	11:36:23,	0.000
248,	31	Jul,	11:37:23,	0.001
249,	31	Jul,	11:38:23,	0.001
250,	31	Jul,	11:39:23,	0.001
251,	31	Jul,	11:40:23,	0.000
252,	31	Jul,	11:41:23,	0.000
253,	31	Jul,	11:42:23,	0.000
254,	31	Jul,	11:43:23,	0.000
255,	31	Jul,	11:44:23,	0.002
256,	31	Jul,	11:45:23,	0.000
257,	31	Jul,	11:46:23,	0.001
258,	31	Jul,	11:47:23,	0.002
259,	31	Jul,	11:48:23,	0.003
260,	31	Jul,	11:49:23,	0.005
261,	31	Jul,	11:50:23,	0.002
262,	31	Jul,	11:51:23,	0.002
263,	31	Jul,	11:52:23,	0.004
264,	31	Jul,	11:53:23,	0.004
265,	31	Jul,	11:54:23,	0.008
266,	31	Jul,	11:55:23,	0.002
267,	31	Jul,	11:56:23,	0.000
268,	31	Jul,	11:57:23,	0.000
269,	31	Jul,	11:58:23,	0.001
270,	31	Jul,	11:59:23,	0.002

271,	31	Jul,	12:00:23,	0.002
272,	31	Jul,	12:01:23,	0.002
273,	31	Jul,	12:02:23,	0.001
274,	31	Jul,	12:03:23,	0.002
275,	31	Jul,	12:04:23,	0.025
276,	31	Jul,	12:05:23,	0.001
277,	31	Jul,	12:06:23,	0.012
278,	31	Jul,	12:07:23,	0.001
279,	31	Jul,	12:08:23,	0.001
280,	31	Jul,	12:09:23,	0.002
281,	31	Jul,	12:10:23,	0.000
282,	31	Jul,	12:11:23,	0.000
283,	31	Jul,	12:12:23,	0.000
284,	31	Jul,	12:13:23,	0.002
285,	31	Jul,	12:14:23,	0.000
286,	31	Jul,	12:15:23,	0.005
287,	31	Jul,	12:16:23,	0.002
288,	31	Jul,	12:17:23,	0.001
289,	31	Jul,	12:18:23,	0.001
290,	31	Jul,	12:19:23,	0.006
291,	31	Jul,	12:20:23,	0.002
292,	31	Jul,	12:21:23,	0.002
293,	31	Jul,	12:22:23,	0.002
294,	31	Jul,	12:23:23,	0.001
295,	31	Jul,	12:24:23,	0.001
296,	31	Jul,	12:25:23,	0.006
297,	31	Jul,	12:26:23,	0.015
298,	31	Jul,	12:27:23,	0.006
299,	31	Jul,	12:28:23,	0.001
300,	31	Jul,	12:29:23,	0.001
301,	31	Jul,	12:30:23,	0.001
302,	31	Jul,	12:31:23,	0.001
303,	31	Jul,	12:32:23,	0.002
304,	31	Jul,	12:33:23,	0.001
305,	31	Jul,	12:34:23,	0.001
306,	31	Jul,	12:35:23,	0.000
307,	31	Jul,	12:36:23,	0.001
308,	31	Jul,	12:37:23,	0.001
309,	31	Jul,	12:38:23,	0.001
310,	31	Jul,	12:39:23,	0.001
311,	31	Jul,	12:40:23,	0.001
312,	31	Jul,	12:41:23,	0.001
313,	31	Jul,	12:42:23,	0.000
314,	31	Jul,	12:43:23,	0.002
315,	31	Jul,	12:44:23,	0.001
316,	31	Jul,	12:45:23,	0.000
317,	31	Jul,	12:46:23,	0.001
318,	31	Jul,	12:47:23,	0.001
319,	31	Jul,	12:48:23,	0.000
320,	31	Jul,	12:49:23,	0.003
321,	31	Jul,	12:50:23,	0.000
322,	31	Jul,	12:51:23,	0.000
323,	31	Jul,	12:52:23,	0.000
324,	31	Jul,	12:53:23,	0.003
325,	31	Jul,	12:54:23,	0.001
326,	31	Jul,	12:55:23,	0.001
327,	31	Jul,	12:56:23,	0.003
328,	31	Jul,	12:57:23,	0.003
329,	31	Jul,	12:58:23,	0.004
330,	31	Jul,	12:59:23,	0.000
331,	31	Jul,	13:00:23,	0.000
332,	31	Jul,	13:01:23,	0.000
333,	31	Jul,	13:02:23,	0.001
334,	31	Jul,	13:03:23,	0.000
335,	31	Jul,	13:04:23,	0.003
336,	31	Jul,	13:05:23,	0.004
337,	31	Jul,	13:06:23,	0.002
338,	31	Jul,	13:07:23,	0.000
339,	31	Jul,	13:08:23,	0.001
340,	31	Jul,	13:09:23,	0.002
341,	31	Jul,	13:10:23,	0.000

342, 31 Jul, 13:11:23, 0.001
343, 31 Jul, 13:12:23, 0.003
344, 31 Jul, 13:13:23, 0.005

pDR-1000 S/N: 00000
Tag Number: 17
Number of logged points: 206
Start time and date: 09:31:58 15-Aug
Elapsed time: 03:26:00
Logging period (sec): 60
Calibration Factor (%): 100
Max Display Concentration: 0.145 mg/m³
Time at maximum: 12:30:00 Aug 15
Max STEL Concentration: 0.000 mg/m³
Time at max STEL: 09:31:58 Aug 15
Overall Avg Conc: 0.000 mg/m³

Logged Data:

Point	Date	Time	Avg. (mg/m ³)
1,	15 Aug,	09:32:58,	0.007
2,	15 Aug,	09:33:58,	0.000
3,	15 Aug,	09:34:58,	0.000
4,	15 Aug,	09:35:58,	0.000
5,	15 Aug,	09:36:58,	0.003
6,	15 Aug,	09:37:58,	0.000
7,	15 Aug,	09:38:58,	0.000
8,	15 Aug,	09:39:58,	0.013
9,	15 Aug,	09:40:58,	0.000
10,	15 Aug,	09:41:58,	0.001
11,	15 Aug,	09:42:58,	0.000
12,	15 Aug,	09:43:58,	0.004
13,	15 Aug,	09:44:58,	0.013
14,	15 Aug,	09:45:58,	0.000
15,	15 Aug,	09:46:58,	0.002
16,	15 Aug,	09:47:58,	0.002
17,	15 Aug,	09:48:58,	0.000
18,	15 Aug,	09:49:58,	0.008
19,	15 Aug,	09:50:58,	0.000
20,	15 Aug,	09:51:58,	0.002
21,	15 Aug,	09:52:58,	0.000
22,	15 Aug,	09:53:58,	0.003
23,	15 Aug,	09:54:58,	0.000
24,	15 Aug,	09:55:58,	0.000
25,	15 Aug,	09:56:58,	0.000
26,	15 Aug,	09:57:58,	0.000
27,	15 Aug,	09:58:58,	0.001
28,	15 Aug,	09:59:58,	0.000
29,	15 Aug,	10:00:58,	0.001
30,	15 Aug,	10:01:58,	0.005
31,	15 Aug,	10:02:58,	0.000
32,	15 Aug,	10:03:58,	0.000
33,	15 Aug,	10:04:58,	0.001
34,	15 Aug,	10:05:58,	0.000
35,	15 Aug,	10:06:58,	0.001
36,	15 Aug,	10:07:58,	0.005
37,	15 Aug,	10:08:58,	0.001
38,	15 Aug,	10:09:58,	0.000
39,	15 Aug,	10:10:58,	0.000
40,	15 Aug,	10:11:58,	0.000
41,	15 Aug,	10:12:58,	0.000
42,	15 Aug,	10:13:58,	0.000
43,	15 Aug,	10:14:58,	0.000
44,	15 Aug,	10:15:58,	0.001
45,	15 Aug,	10:16:58,	0.002
46,	15 Aug,	10:17:58,	0.000
47,	15 Aug,	10:18:58,	0.000
48,	15 Aug,	10:19:58,	0.002
49,	15 Aug,	10:20:58,	0.001
50,	15 Aug,	10:21:58,	0.000
51,	15 Aug,	10:22:58,	0.000
52,	15 Aug,	10:23:58,	0.006
53,	15 Aug,	10:24:58,	0.002
54,	15 Aug,	10:25:58,	0.000
55,	15 Aug,	10:26:58,	0.000
56,	15 Aug,	10:27:58,	0.000
57,	15 Aug,	10:28:58,	0.001

58,	15	Aug,	10:29:58,	0.000
59,	15	Aug,	10:30:58,	0.000
60,	15	Aug,	10:31:58,	0.000
61,	15	Aug,	10:32:58,	0.000
62,	15	Aug,	10:33:58,	0.000
63,	15	Aug,	10:34:58,	0.000
64,	15	Aug,	10:35:58,	0.003
65,	15	Aug,	10:36:58,	0.001
66,	15	Aug,	10:37:58,	0.000
67,	15	Aug,	10:38:58,	0.000
68,	15	Aug,	10:39:58,	0.000
69,	15	Aug,	10:40:58,	0.004
70,	15	Aug,	10:41:58,	0.002
71,	15	Aug,	10:42:58,	0.000
72,	15	Aug,	10:43:58,	0.004
73,	15	Aug,	10:44:58,	0.002
74,	15	Aug,	10:45:58,	0.000
75,	15	Aug,	10:46:58,	0.003
76,	15	Aug,	10:47:58,	0.000
77,	15	Aug,	10:48:58,	0.000
78,	15	Aug,	10:49:58,	0.002
79,	15	Aug,	10:50:58,	0.000
80,	15	Aug,	10:51:58,	0.000
81,	15	Aug,	10:52:58,	0.000
82,	15	Aug,	10:53:58,	0.000
83,	15	Aug,	10:54:58,	0.000
84,	15	Aug,	10:55:58,	0.000
85,	15	Aug,	10:56:58,	0.000
86,	15	Aug,	10:57:58,	0.000
87,	15	Aug,	10:58:58,	0.000
88,	15	Aug,	10:59:58,	0.002
89,	15	Aug,	11:00:58,	0.000
90,	15	Aug,	11:01:58,	0.000
91,	15	Aug,	11:02:58,	0.000
92,	15	Aug,	11:03:58,	0.000
93,	15	Aug,	11:04:58,	0.000
94,	15	Aug,	11:05:58,	0.000
95,	15	Aug,	11:06:58,	0.000
96,	15	Aug,	11:07:58,	0.001
97,	15	Aug,	11:08:58,	0.001
98,	15	Aug,	11:09:58,	0.000
99,	15	Aug,	11:10:58,	0.003
100,	15	Aug,	11:11:58,	0.001
101,	15	Aug,	11:12:58,	0.002
102,	15	Aug,	11:13:58,	0.000
103,	15	Aug,	11:14:58,	0.001
104,	15	Aug,	11:15:58,	0.000
105,	15	Aug,	11:16:58,	0.000
106,	15	Aug,	11:17:58,	0.000
107,	15	Aug,	11:18:58,	0.002
108,	15	Aug,	11:19:58,	0.000
109,	15	Aug,	11:20:58,	0.000
110,	15	Aug,	11:21:58,	0.000
111,	15	Aug,	11:22:58,	0.005
112,	15	Aug,	11:23:58,	0.001
113,	15	Aug,	11:24:58,	0.004
114,	15	Aug,	11:25:58,	0.003
115,	15	Aug,	11:26:58,	0.002
116,	15	Aug,	11:27:58,	0.003
117,	15	Aug,	11:28:58,	0.000
118,	15	Aug,	11:29:58,	0.000
119,	15	Aug,	11:30:58,	0.000
120,	15	Aug,	11:31:58,	0.000
121,	15	Aug,	11:32:58,	0.000
122,	15	Aug,	11:33:58,	0.000
123,	15	Aug,	11:34:58,	0.000
124,	15	Aug,	11:35:58,	0.000
125,	15	Aug,	11:36:58,	0.000
126,	15	Aug,	11:37:58,	0.004
127,	15	Aug,	11:38:58,	0.000
128,	15	Aug,	11:39:58,	0.000

129,	15	Aug,	11:40:58,	0.000
130,	15	Aug,	11:41:58,	0.000
131,	15	Aug,	11:42:58,	0.001
132,	15	Aug,	11:43:58,	0.000
133,	15	Aug,	11:44:58,	0.001
134,	15	Aug,	11:45:58,	0.000
135,	15	Aug,	11:46:58,	0.000
136,	15	Aug,	11:47:58,	0.001
137,	15	Aug,	11:48:58,	0.003
138,	15	Aug,	11:49:58,	0.001
139,	15	Aug,	11:50:58,	0.000
140,	15	Aug,	11:51:58,	0.000
141,	15	Aug,	11:52:58,	0.001
142,	15	Aug,	11:53:58,	0.000
143,	15	Aug,	11:54:58,	0.000
144,	15	Aug,	11:55:58,	0.000
145,	15	Aug,	11:56:58,	0.000
146,	15	Aug,	11:57:58,	0.000
147,	15	Aug,	11:58:58,	0.000
148,	15	Aug,	11:59:58,	0.007
149,	15	Aug,	12:00:58,	0.002
150,	15	Aug,	12:01:58,	0.000
151,	15	Aug,	12:02:58,	0.000
152,	15	Aug,	12:03:58,	0.000
153,	15	Aug,	12:04:58,	0.002
154,	15	Aug,	12:05:58,	0.000
155,	15	Aug,	12:06:58,	0.000
156,	15	Aug,	12:07:58,	0.000
157,	15	Aug,	12:08:58,	0.005
158,	15	Aug,	12:09:58,	0.000
159,	15	Aug,	12:10:58,	0.000
160,	15	Aug,	12:11:58,	0.000
161,	15	Aug,	12:12:58,	0.000
162,	15	Aug,	12:13:58,	0.000
163,	15	Aug,	12:14:58,	0.000
164,	15	Aug,	12:15:58,	0.000
165,	15	Aug,	12:16:58,	0.001
166,	15	Aug,	12:17:58,	0.000
167,	15	Aug,	12:18:58,	0.000
168,	15	Aug,	12:19:58,	0.000
169,	15	Aug,	12:20:58,	0.000
170,	15	Aug,	12:21:58,	0.000
171,	15	Aug,	12:22:58,	0.001
172,	15	Aug,	12:23:58,	0.001
173,	15	Aug,	12:24:58,	0.000
174,	15	Aug,	12:25:58,	0.005
175,	15	Aug,	12:26:58,	0.008
176,	15	Aug,	12:27:58,	0.000
177,	15	Aug,	12:28:58,	0.000
178,	15	Aug,	12:29:58,	0.024
179,	15	Aug,	12:30:58,	0.000
180,	15	Aug,	12:31:58,	0.001
181,	15	Aug,	12:32:58,	0.002
182,	15	Aug,	12:33:58,	0.000
183,	15	Aug,	12:34:58,	0.000
184,	15	Aug,	12:35:58,	0.000
185,	15	Aug,	12:36:58,	0.000
186,	15	Aug,	12:37:58,	0.000
187,	15	Aug,	12:38:58,	0.000
188,	15	Aug,	12:39:58,	0.000
189,	15	Aug,	12:40:58,	0.000
190,	15	Aug,	12:41:58,	0.001
191,	15	Aug,	12:42:58,	0.000
192,	15	Aug,	12:43:58,	0.000
193,	15	Aug,	12:44:58,	0.000
194,	15	Aug,	12:45:58,	0.001
195,	15	Aug,	12:46:58,	0.000
196,	15	Aug,	12:47:58,	0.000
197,	15	Aug,	12:48:58,	0.004
198,	15	Aug,	12:49:58,	0.001
199,	15	Aug,	12:50:58,	0.000

200,	15	Aug,	12:51:58,	0.000
201,	15	Aug,	12:52:58,	0.000
202,	15	Aug,	12:53:58,	0.000
203,	15	Aug,	12:54:58,	0.000
204,	15	Aug,	12:55:58,	0.001
205,	15	Aug,	12:56:58,	0.000
206,	15	Aug,	12:57:58,	0.000