
APPENDIX C

Phase II March 2019



Supplemental Phase II Investigation

**Phase 3 Development
Far Rockaway,
Queens, NY 11691**

Block 15537

**Lots: 1A, 46, 50, 51, 53, 55, 56, 57, 58, 59, 60, 112, 128, 130, and
portions of Lots 5 (tentative Lot 15) and 63**

March 2019

Prepared For:

**Phipps Houses
902 Broadway – 13th Floor
New York, NY 10010**

Prepared by:

**CA RICH Consultants, Inc.
17 Dupont Street
Plainview, NY 11803-1614**



March 25, 2019

Mr. Matthew Kelly
Phipps Houses
902 Broadway – 13th floor
New York, NY 10010

Re: Supplemental Phase II Investigation
Phase 3 Development
Far Rockaway, Queens, NY 11691
Block 15537:
Lots: 1A, 46, 50, 51, 53, 55, 56, 57, 58, 59, 60,
112, 128, 130 and portion of Lots 5 and 63

Dear Matt:

The following report summarizes the investigation recently completed at the above-referenced location (hereinafter referred to as the Property or the Site), performed by CA RICH Consultants, Inc. (CA RICH). This additional investigation was completed as a follow up to the Phase II Environmental Site Assessment (ESA) completed in September 2016. The previous Phase II ESA and this Supplemental Phase II Investigation will be submitted on your behalf to the New York State Department of Environmental Conservation (NYSDEC) for consideration into the State Brownfield Cleanup Program (BCP).

If you have any questions pertaining to this report, please feel free to contact the undersigned. We thank you for the opportunity to provide you with our professional environmental services.

Sincerely,

CA RICH CONSULTANTS, INC.


Jason T. Cooper, PG, CPG, EP
Senior Project Manager

Reviewed by:


Richard J. Izzo, PG, CPG, EP
Vice President

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1.0 INTRODUCTION

The following Supplemental Phase II Investigation was prepared by CA RICH Consultants, Inc. (CA RICH) of Plainview, New York and completed on behalf of Phipps Houses (the Client). The Property is composed of multiple tax lots that are slated for redevelopment in Far Rockaway (Queens), New York. The proposed redevelopment Site is situated on tax Block 15537 and includes the following tax Lots: Lot 1A, 46, 50, 51, 53, 55, 56, 57, 58, 59, 60, 112, 128, 130, and portion of 5 (tentative Lot 15), and 63. The proposed redevelopment boundary and each individual tax boundary are depicted on Figure 1. This proposed redevelopment Site is known as the Far Rockaway Phase 3 Development.

This scope of work developed was based upon the findings of the Phase I Environmental Site Assessment (ESA) completed by CA RICH in August 2016 (Ref. 1), the Phase II ESA completed by CA RICH in September 2016 (Ref. 2), the Phase I ESA completed by CA RICH in January 2019 (Ref. 3), and serves to gather additional Site-specific laboratory data at locations that were once inaccessible during the previous Phase ESA conducted in 2016. This report is intended to support a Brownfield Cleanup Program (BCP) Application for admittance into the New York State Department of Environmental Conservation (NYSDEC) BCP.

2.0 PHYSICAL SITE CHARACTERISTICS

2.1 Site Description

This Property is located in Far Rockaway (Queens), New York and is depicted on Figure 1 along with the Site tax lots. The Site is located north of Mott Avenue, south of Augustina Avenue, and situated along portions of Redfern Avenue and Central Avenue. The Property does contain buildings and structures, but is currently not used for any purposes as it was recently acquired for redevelopment and the tenants have vacated. The following summarizes the current Site description:

<u>Lot Number</u>	<u>Address</u>	<u>Site Description</u>
1A	20-02 through 21-10 Mott Avenue	Vacant shopping plaza with associated asphalt- paved parking lot
p/o 5	20-10 Mott Avenue	Active Capital One Bank and closed Dunkin' Donuts
46	No address recorded in New York City Building Department (NYCDOB)	Vacant lot with vegetation
50	17-27 Redfern Avenue	Vacant lot with vegetation
51	17-25 Redfern Avenue	Vacant lot with vegetation
53	17-21 Redfern Avenue	Unoccupied two-story residential building
55	17-17 Redfern Avenue	Vacant lot used for vehicle parking
56	17-15 Redfern Avenue	Unoccupied three-story residential building

<u>Lot Number</u>	<u>Address</u>	<u>Site Description</u>
57	17-11 Redfern Avenue	Unoccupied three-story residential building
58	17-09 Redfern Avenue	Unoccupied three-story residential building
59	17-07 Redfern Avenue	Vacant land with block wall on north side
60	17-01 Redfern Avenue	Unoccupied former tire recycling facility
p/o 63	16-29 Redfern Avenue and 14-30 Bushwick Avenue	Vacant former auto repair building
112	13-25 Bayport Place	Vacant land with vegetation
128	15-08 and 15-10 Central Avenue	Vacant land with vegetation
130	No address recorded in NYCDOB	Vacant land with vegetation

2.2 Site History

The Site is located in a long-standing well-developed urban area of Far Rockaway, Queens. The Phase I ESA's completed by CA RICH in 2016 and 2019 revealed several potential sources of contamination. Potential sources of contamination detailed in the Phase I's are as follows:

1. According to the Sanborn Fire Insurance Maps, the past usage of the Site is described as follows: by 1890, the Site was part of the Long Island Rail Road (LIRR) and included a railroad track. By 1895, the LIRR appears to have increased its usage of the Site by adding multiple railroad track lines, multiple coal bins, pumps, engine house, oil house, freight depot and associated tank. The 1912 Sanborn map denotes additional track lines and a garage with an underground storage tank adjacent to the south; residential development is denoted along Redfern Avenue and stores along Central Avenue. By 1983, the tracks have been removed and a shopping center that resembles the present-day structure is evident. The past usage, according to the Sanborn maps, does indicate a source of contamination as there are no additional records for the former tanks, soil removals, or remediation from the LIRR demolition. Nearby property usage includes The Rockaway News at 333 Central Avenue (1901 & 1912), refrigeration plant near the northwest corner of Guy and Birsall Avenue (1912), and numerous auto repair and gasoline filling stations in the general area.
2. The Property was previously utilized by the LIRR as noted in the New York City Department of Buildings' (NYCDOB) Certificate of Occupancy. In addition, the NYCDOB records indicate that the LIRR applied to store combustibles on Site.
3. According to the City Directory searched for the Site from 1934 to 2015, historical usage was predominantly residential use with some commercial listings. Notable listings include a wastepaper and recycling facility at 16-29 Redfern Avenue from 1962 to 2000.

A Phase II Investigation was completed in September of 2016 as a follow up to the Phase I ESA completed by CA RICH in 2016. This Phase II focused on the entire Far Rockaway Development project and investigated a large area that included the subject Property and off-Site locations not currently part of this Site. It should be noted that access was not available to the entire Phase 3 Development Site during the 2016 Phase II Investigation. The conclusions as they relate to the Phase 3 Development are as follows:

Soil

- Several detections of multiple Semi-Volatile Organic Compounds (SVOCs), Pesticides, and Metals were detected above Unrestricted Use Soil Cleanup Objectives.

Groundwater

- The metals (total and dissolved) iron and sodium; VOC methylene chloride, and PCB (Aroclor 1254) were detected above the TOGS Standards.

Soil Vapor

- The soil vapor sampling at the Site revealed elevated concentrations of methane near Lot 128. The compound 1,1,1 – TCA was detected along Nameoke Avenue (approximately 250-feet north of the Site boundary).

Based on the results of the Phase II investigation SVOCs, Pesticides, Metals, and PCBs are a concern at the Site.

2.3 Geologic and Hydrogeologic Setting

According to maps and reports published by the United States Geological Survey (USGS), the Property is situated approximately 25 to 30 feet above mean sea level and is underlain by glacial fluvial deposits of Upper Cretaceous and/or Quaternary age consisting of sand, silt, clay gravel, cobbles and boulders. These deposits rest unconformably on crystalline bedrock of early Paleozoic and/or Precambrian age.

According to review of regional maps published by the USGS, groundwater underlying the Property flows in a northerly direction towards Motts Basin. The Phase II Investigation revealed the depth to groundwater ranged from 14.5 feet below grade at the northern boundary (Lot 63) to 20-21 feet below grade at the southern boundary (Lot 5).

The Site has a slight downward slope to the north and has no natural or artificial surface water bodies or impoundments. Water from rain events runs off into municipal storm drains, on-site dry wells, or through the surface soils.

3.0 SCOPE OF WORK

3.1 Groundwater Sampling

A total of five temporary groundwater monitoring wells were installed throughout the Site on February 5, 7, and 8, 2019 using a Geoprobe® drill rig. The groundwater monitoring wells were identified as GW-1 through GW-5. These wells were constructed of 1-inch diameter schedule 40 PVC pipe with 5-feet of screen. A decontaminated stainless steel check valve and new polyethylene tubing were used to sample wells GW-1, GW-2, GW-4, and GW-5, which were analyzed for VOCs, SVOCs, Pesticides, PCBs, and total metals. A stainless steel check valve and HDPE tubing were used to sample well GW-3, which was analyzed for VOCs, SVOCs, Pesticides, PCBs, total metals, and PFAS. The following summarizes the groundwater sample identifications, locations, and depth. It should be noted that the depth to water in GW-1 is from basement grade. Basement grade at GW-1 is approximately seven to eight feet below land surface, thus the approximate depth to water from grade is 20-21 feet.

<u>Sample ID</u>	<u>Location</u>	<u>Depth to Water</u>	<u>Sample Depth</u>
GW-1	Lot 5	13	Screened from 13-18 feet below basement grade
GW-2	Lot 1A (SW)	19	Screened from 19-24 feet below grade
GW-3	Lot 1A (NE)	19	Screened from 20-25 feet below grade
GW-4	Lot 63	14.5	Screened from 15-20 feet below grade
GW-5	Lot 112	15	Screened from 15-20 feet below grade

All on-site sampling equipment was decontaminated between each use in the following manner: laboratory grade detergent and fresh water wash using a scrub brush, followed by two fresh water rinses, and a final air dry. Gloves worn for sample handling were discarded between sample collections. Special precautions were taken during the collection of groundwater for PFAS analysis at GW-3.

Each sample was placed in sterilized laboratory-supplied containers. The samples were stored on ice in an air tight cooler to preserve the samples at approximately 4° Celsius prior to and during shipment. All samples were uniquely identified, and all information associated with the samples were recorded utilizing standard chain-of-custody sampling protocols. Groundwater samples were submitted to Alpha Analytical Laboratories for chemical analysis.

3.2 Soil Sampling

A total of seven soil borings were installed throughout the Site on February 5, 7, and 8, 2019 utilizing a Geoprobe® drill rig. The soil borings were identified as SB-1 through SB-7. Soil samples were collected from the shallow soils and from an additional depth depending on field screening results. It should be noted that the soil sample depth at SB-1 is from basement grade. Basement grade at SB-1 is approximately seven to eight feet below grade. The following summarizes the soil sample identifications, locations, and depth. Soil sample SB-1 includes an approximate sample depth below grade:

<u>Sample ID</u>	<u>Location</u>	<u>Sample Depth</u>
SB-1	Lot 5	3-4 feet below basement grade (approximately 10-12 feet below grade)
SB-1	Lot 5	12-13 feet below basement grade (approximately 19-21 feet below grade)
SB-2	Lot 1A (SW)	0.5-1.5 feet below grade
SB-2	Lot 1A (SW)	18-19 feet below grade
SB-3	Lot 1A (NE)	0.5-1.5 feet below grade
SB-3	Lot 1A (NE)	18-19 feet below grade
SB-4	Lot 63	1-2 feet below grade
SB-4	Lot 63	13.5-14 feet below grade
SB-5	Lot 130	1-2 feet below grade
SB-5	Lot 130	14-15 feet below grade
SB-6	Lot 112	1-2 feet below grade
SB-6	Lot 112	14-15 feet below grade
SB-7	Lot 59	1-2 feet below grade
SB-7	Lot 59	14-15 feet below grade

All on-site sampling equipment was decontaminated between each use in the following manner: laboratory grade detergent and fresh water wash using a scrub brush, followed by two fresh water rinses, and a final air dry. Gloves worn for sample handling were discarded between sample collections. A CA RICH scientist oversaw all soil boring activities; logged (characterized) the shallow fill lithology, and screened the earth materials (fill) samples for organic vapors with a Photoionization Detector (PID). No elevated PID readings were observed in any of the soil borings.

The sampled earth materials were settled and capped to ensure that little or no headspace was present within the sample jars. Each sample was placed in sterilized laboratory-supplied containers. The samples were stored on ice in an air tight cooler to preserve the samples at approximately 4°

Celsius prior to and during shipment. All samples were uniquely identified, and all information associated with the samples were recorded utilizing standard chain-of-custody sampling protocols. Soil samples were submitted to American Analytical Laboratories (an ELAP certified laboratory) for chemical analysis. All soil samples were analyzed for VOCs, SVOCs, Pesticides, PCBs and Metals. The soil boring locations are illustrated on Figure 2.

3.2 Soil Vapor Point Installation and Sampling

Four temporary soil vapor points were installed in the areas of concern based on the previous investigation and to fill data gaps. The sampling was completed in accordance with the New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor in New York State (Ref. 4).

The soil vapor points SV-2 through SV-4 were completed using a Geoprobe® direct push drill rig and were installed and sampled on February 7 and 8, 2019. Soil vapor point SV-1 was a sub-slab point installed using a hammer drill and sampled on February 5, 2019. The soil vapor points were installed at the following locations to following depths:

<u>Sample ID</u>	<u>Location</u>	<u>Depth</u>
SV-1	Basement of the Lot 5 building	Two-inches below slab
SV-2	Through parking lot of Proposed Lot 1A	Five-feet below asphalt
SV-3	Through parking lot of Proposed Lot 1A	Five-feet below asphalt
SV-4	Through concrete of Lot 63	Five-feet below concrete

The soil vapor point SV-1 was constructed of a ¼-inch nylon tubing and was set at approximately two inches below the basement floor. The top of the basement slab is approximately seven to eight-feet below grade and is approximately six-inches thick. The annular space of the sub-slab soil vapor point was filled with No. 2 sand from the bottom of the point to approximately two-inches below the top of the basement floor. From two-inches below grade to grade the annular space was filled with a clay and beeswax seal.

The soil vapor points SV-2 through SV-4 were constructed of nylon tubing connected to a three-inch long by ½-inch diameter stainless steel-screened implant set at the bottom of the boring. The bottom of the soil vapor point was set at approximately five feet below grade. The annular space around the soil vapor point was filled with No. 2 sand from five feet to approximately six-inches below grade. From six inches below grade to grade the annular space was filled with hydrated bentonite seal.

Prior to air sampling, a helium check was conducted at the sub-slab soil vapor points and at the soil vapor point. The helium readings observed at each location were detected at a concentration less than 10%; therefore, the sample connections and surface seals were determined to be tight and sampling commenced. All air samples were collected using six-liter Summa canisters fitted with regulators to fill over a period of approximately two-hours. The samples were submitted to NYSDOH-certified laboratory Alpha Analytical Laboratories for analysis of VOCs via Environmental Protection Agency (EPA) Method TO-15. A sample location map is included as Figure 2.

4.0 FINDINGS

4.1 Groundwater Sample Results

The groundwater samples were collected using a stainless steel check valve and implementing the inertial method to purge the water. Groundwater sample GW-2 is centrally located on the Site and was the only location analyzed for PFAS. The laboratory analytical results revealed the following:

VOCs – No detections, with the exception of the compound MTBE, which was found to exceed the TOGS Groundwater Standards in GW-4 and GW-5. The TOGS standard for MTBE is 10 ug/L and was detected at 41 ug/L in GW-4 and 43 ug/L in GW-5.

SVOCs – No detections.

Pesticides – No detections, with the exception of a couple of compounds that were detected at estimated levels. One of the estimated values was above the TOGS standard hexachlorobenzene at a concentration of 0.048 ug/kg, which exceeds the TOGS standard of 0.04 ug/kg.

PCBs – No detections.

Total Metals – Numerous detections above the TOGS standards for all groundwater monitoring wells, which includes the compounds Arsenic, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Sodium, and Thallium were detected.

PFAS – Numerous detections. PFOA/PFOS total concentration is 0.0896 ug/L and PFAS total is 0.25 ug/L.

The laboratory analytical results for the groundwater samples are summarized on Tables 5 through 9 and a copy of the laboratory results is included in Appendix A. Figure 3 box plot map presents exceedances at each sample location along with their respective concentration and guideline value.

Soil Sample Results

The subsurface soils from surface grade to 20 feet below grade were found to consist primarily of sand. The soils did not exhibit any obvious signs of staining, odors, or elevated PID readings. The soil analytical results revealed the following:

VOCs – No detections.

SVOCs – Detection of numerous compounds throughout the Site specifically at sample locations SB-2 (0.5-1.5') and SB-3 (0.5-1.5'). The compound Benzo(b)fluoranthene was detected at 1,300 ug/kg, in SB-2 (0.5-1.5'), which exceeds the NYSDEC Part 375 Restricted Use Soil Cleanup Objectives (SCOs) (Ref. 5) of 1,000 ug/kg. The soil sample SB-2 (0.5-1.5') detected Benzo(a)anthracene at 2,300 ug/kg, Benzo(a)pyrene at 2,000 ug/kg, and Benzo(b)fluoranthene at 2,700 ug/kg, which is above the NYSDEC Part 375 Restricted Use SCO of 1,000 ug/kg.

Pesticides – Numerous detections and estimated concentrations, but no exceedances of NYSDEC Part 375 Restricted Use SCOs.

PCBs – Detections of Aroclor 1260 in SB-1 (3-4'), SB-1 (12-13') and SB-2 (0.5-1.5'), but no exceedances of NYSDEC Part 375 Restricted Use SCO of 1,000 ug/kg.

Total Metals – Numerous detections from each sample, but no exceedances of NYSDEC Part 375 Restricted Use SCOs.

The laboratory analytical results for the soils samples are summarized on Tables 1 through 5 and a copy of the laboratory data is included in Appendix A. Figure 4 box plot map presents exceedances at each sample location along with their respective concentration and guideline value.

4.2 Soil Vapor and Sub-slab Soil Vapor Sample Results

There are currently no standards or guidelines to evaluate soil vapor concentrations. The NYSDOH has developed guidance values for eight compounds used in conjunction with indoor air and sub-slab vapors concentrations. These eight compounds are compared to the NYSDOH decision matrices to determine the appropriate action, if any. Because there are no guidelines for the evaluation of soil vapor, the soil vapor results will be compared to NYSDOH decision matrices.

There are currently eight compounds included in the NYSDOH decision matrices. Of these eight, only 1,1,1-Trichloroethane and Tetrachloroethene were detected. 1,1,1-Trichloroethane was

detected in soil vapor point SV-3 at a concentration of 3.86 ug/m³. Tetrachloroethene was detected at SV-1 at a concentration of 13.4 ug/m³, SV-3 at a concentration of 2.67 ug/m³, and at SV-4 at 180 ug/m³. Numerous other VOCs were detected within each of the soil vapor sample locations.

The laboratory analytical results for the air samples are summarized on Table 10 and a copy of the laboratory results is included in Appendix A. Figure 5 box plot map presents compounds and their respective detections at each sample location.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on this investigation, it is likely that the historical usage of the Site by the Long Island Railroad and on-Site and nearby commercial and industrial usage have impacted the on-site subsurface soils, soil vapor, and groundwater. This investigation concludes the following:

- VOCs were not detected in the soils sampled at the Site; however, VOCs were detected in the groundwater and soil vapor. The compound MTBE was detected in concentrations in excess of the TOGS guidance values in GW-4 and GW-5. Because MTBE was not found in the on-Site soils, it is likely that has MTBE has migrated onto the Site from an upgradient (to the southeast of the Site) source. MTBE was not detected in any of the soil vapor points and most notably SV-4, which was sampled in close proximity to GW-4. MTBE is a compound that is known to be mobile in groundwater.
- VOCs were detected in all soil vapor samples collected throughout the Site. The compounds detected consisted primarily of halogenated and petroleum-based compounds.
- SVOCs in the soil samples were detected above Restricted Use SCOs in the shallow soils in SB-2 and SB-3, which are located near the area formerly occupied by the LIRR. No SVOCs were detected in groundwater, but a few estimated concentrations were found.
- Pesticides were detected in the soil samples, but not above the Restricted Use SCO. The sample locations SB-5, SB-6, and SB-7 were collected from areas not currently capped with concrete or asphalt. Pesticides were not detected in any of groundwater samples, with the exception of laboratory estimated values of hexachlorobenzene in GW-3 and GW-5. The GW-5 laboratory estimated value is in excess of the TOGS groundwater standards.
- PCBs were detected in the soil samples, but not above the Restricted Use SCO. The sample locations SB-1 (3-4'), SB-1 (12-13'), SB-2 (0.5-1.5'), and SB-3 (0.5-1.5') were found with concentrations ranging from 11 ug/kg in SB-3 (0.5-1.5') and 160 ug/kg in SB-1 (12-13'). As discussed in the previous Phase I's, the central area of the Site from Nameoke Avenue to

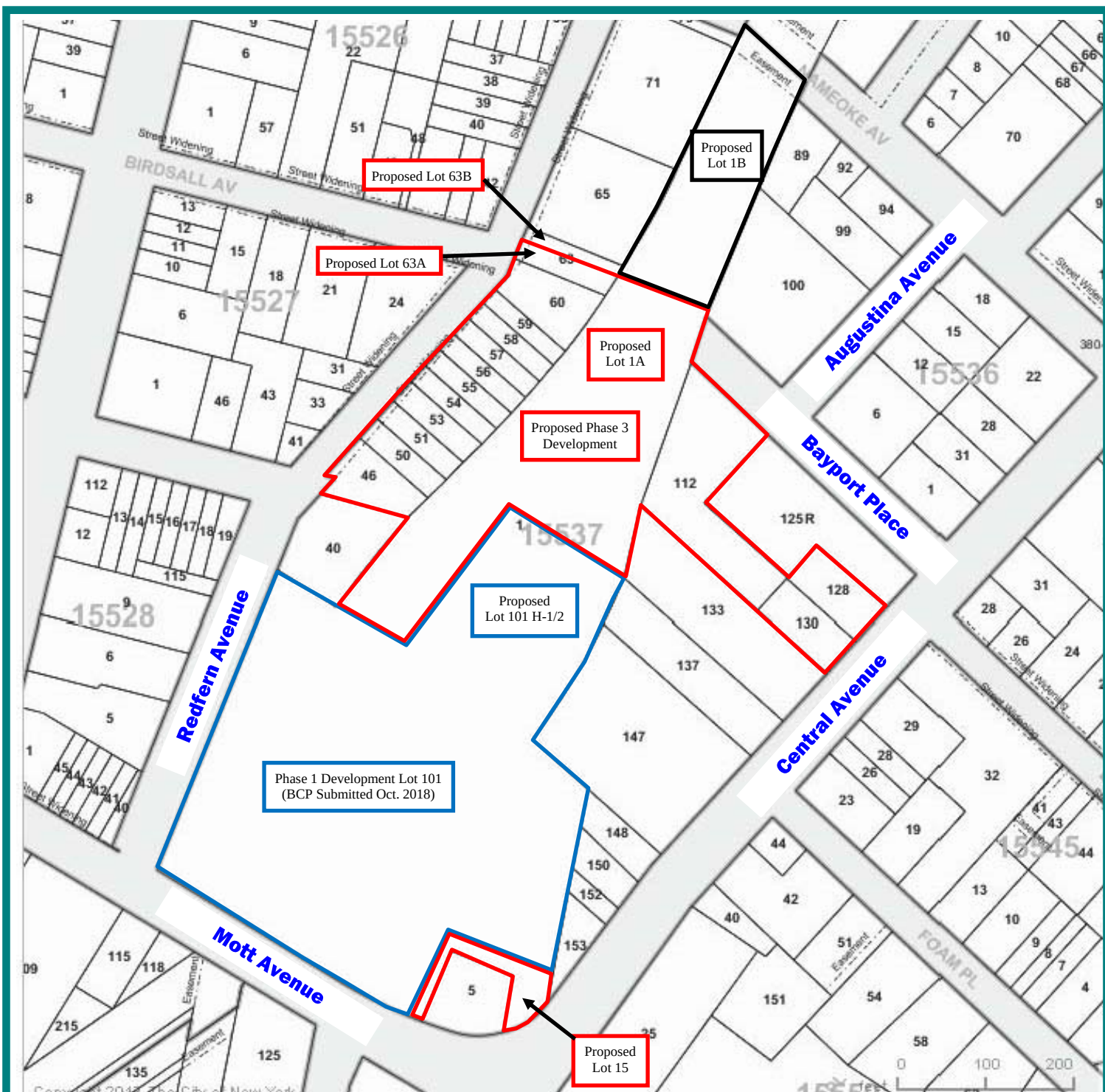
Mott Avenue was occupied for use by the LIRR. PCBs were not detected in any of the groundwater samples.

- Metals were detected in all of the soil samples, but not above the Restricted Use SCOs. Metals were detected above their respective TOGS standards in all five groundwater samples.
- There are currently eight compounds included in the NYSDOH decision matrices. Of these eight, only 1,1,1-Trichloroethane and Tetrachloroethene were detected. 1,1,1-Trichloroethane was detected in soil vapor point SV-3 at a concentration of 3.86 ug/m³. Tetrachloroethene was detected at SV-1 at a concentration of 13.4 ug/m³, SV-3 at a concentration of 2.67 ug/m³, and at SV-4 at 180 ug/m³. Numerous other halogenated and petroleum related VOCs were detected within each of the soil vapor sample locations.
- Based upon these results we recommend that a meeting with NYSDEC be conducted to determine the potential eligibility of this site in the BCP prior to submitting a BCP application.

6.0 REFERENCES

1. CA RICH, Phase I Environmental Site Assessment Report, August 2016.
2. CA RICH, Phase II Environmental Site Assessment Report, September 2016
3. CA RICH Phase I Environmental Site Assessment Report, January 2019
4. NYSDOH, Guidance for Evaluating Soil Vapor Intrusion in the State of New York. New York, Author, October 2006, Revised May 2017.
5. NYSDEC, 6 NYCRR Part 375 Environmental Remediation Programs, Environmental Remediation Programs, Subparts 375-1 to 375- 4 & 375-6. New York: Author, December 2006.

FIGURES



Notes:

1. Phase I Development includes Lot 101, which will be divided into H-1 and H-2. This lot is the northern portion of Lot 101 that is adjacent to Lots 137 and 147
2. Phase 3 Development includes Lots 1A (p/o current Lot 1), 63A (p/o current Lot 63), 15, 46, 50, 51, 53, 54, 55, 56, 57, 58, 59, 60, 112, 128, and 130)
3. Proposed Lot 1B is not part of Phase 3



Adapted from NYCDOF Tax Map



CA RICH CONSULTANTS, INC.
17 Dupont Street,
Plainview, NY 11803

TITLE:

**Phase 3 Development
Proposed BCP Boundaries**

DATE:

2/27/2019

SCALE:

As Shown

FIGURE:

1

DRAWING:

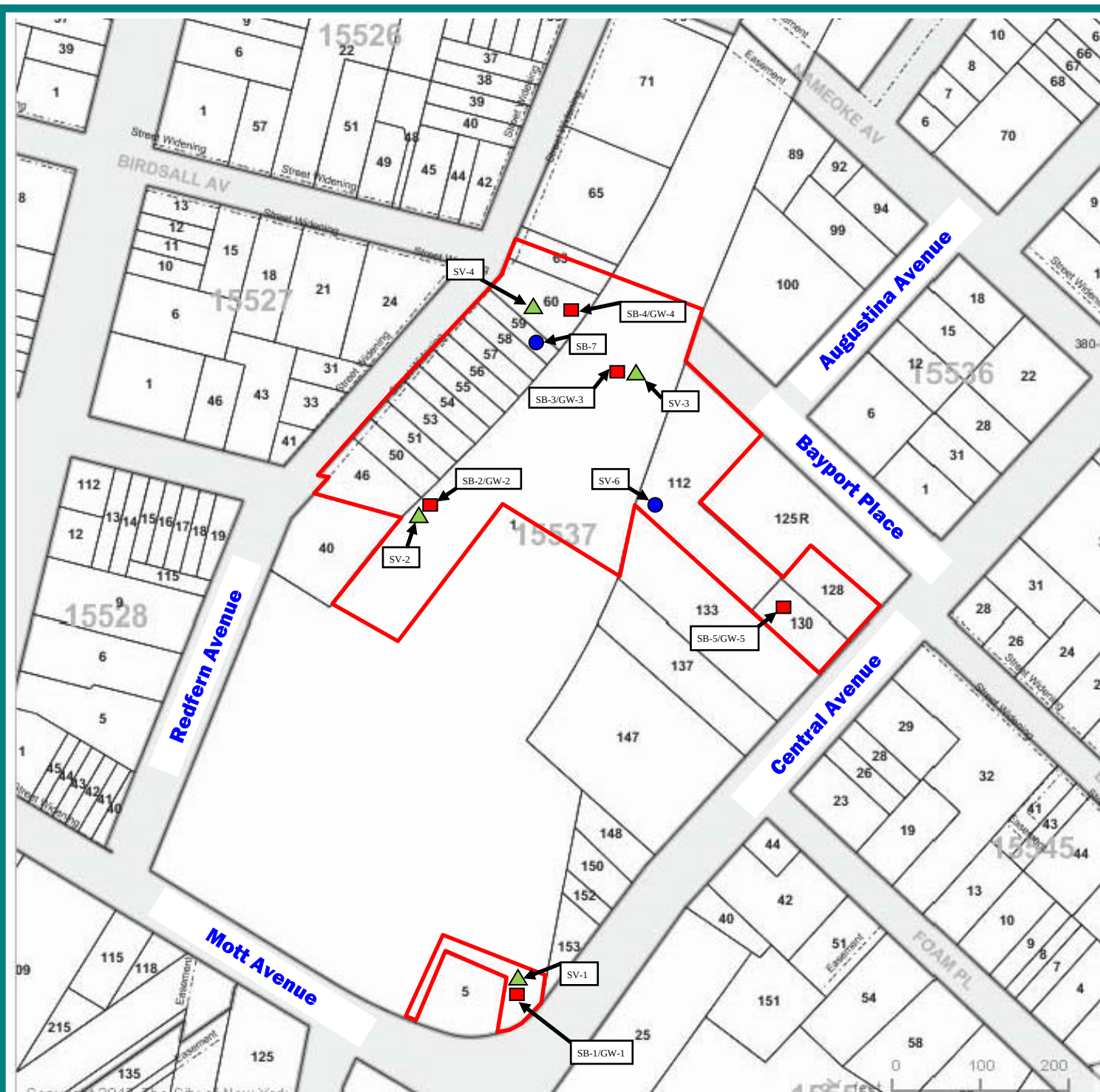
**Far Rockaway
New York**

DRAWN BY:

J.T.C.

APPR. BY:

R.J.I.



LEGEND

- Soil boring sample location
- Combined soil and groundwater sample location
- ▲ Soil vapor sample location



Adapted from NYCDOF Tax Map



CA RICH CONSULTANTS, INC.
17 Dupont Street,
Plainview, NY 11803

TITLE:

**Phase 3 Development
Sample Location Map**

DATE:

2/27/2019

SCALE:

As Shown

FIGURE:

2

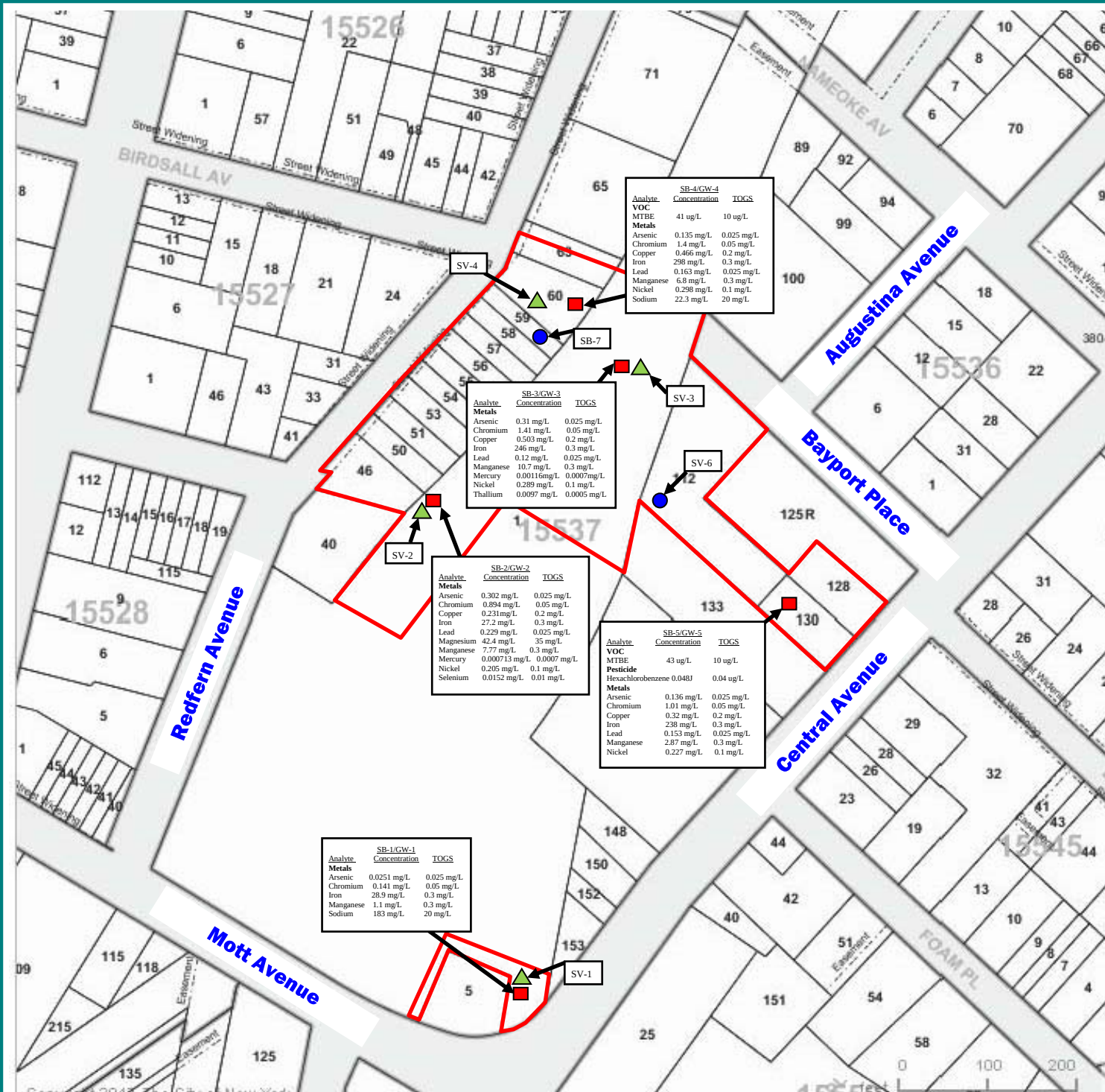
**Far Rockaway
New York**

DRAWN BY:

J.T.C.

APPR. BY:

R.J.I.



LEGEND

- Soil boring sample location
- Combined soil and groundwater sample location
- ▲ Soil vapor sample location



Adapted from NYCDOF Tax Map



CA RICH CONSULTANTS, INC.
17 Dupont Street,
Plainview, NY 11803

TITLE:

**Phase 3 Development
Groundwater Exceedance Map**

DATE:

2/27/2019

SCALE:

As Shown

FIGURE:

3

**Far Rockaway
New York**

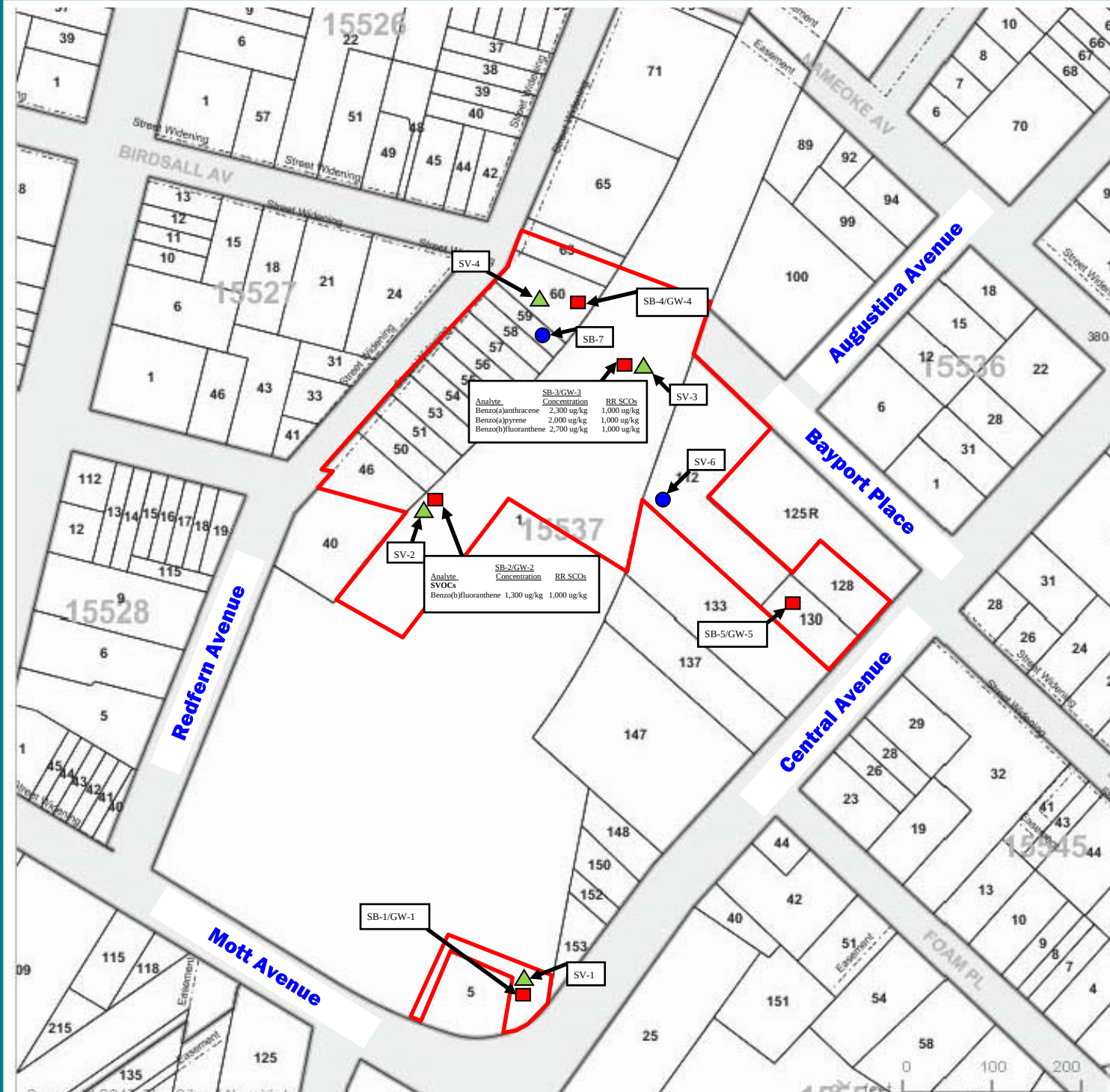
DRAWING:

DRAWN BY:

J.T.C.

APPR. BY:

R.J.I.



LEGEND

- Soil boring sample location
- Combined soil and groundwater sample location
- ▲ Soil vapor sample location



Adapted from NYCDOF Tax Map



CA RICH CONSULTANTS, INC.
17 Dupont Street,
Plainview, NY 11803

TITLE:

**Phase 3 Development
Soil Exceedances of Restricted
Residential SCOs**

DATE:

2/27/2019

SCALE:

As Shown

FIGURE:

4

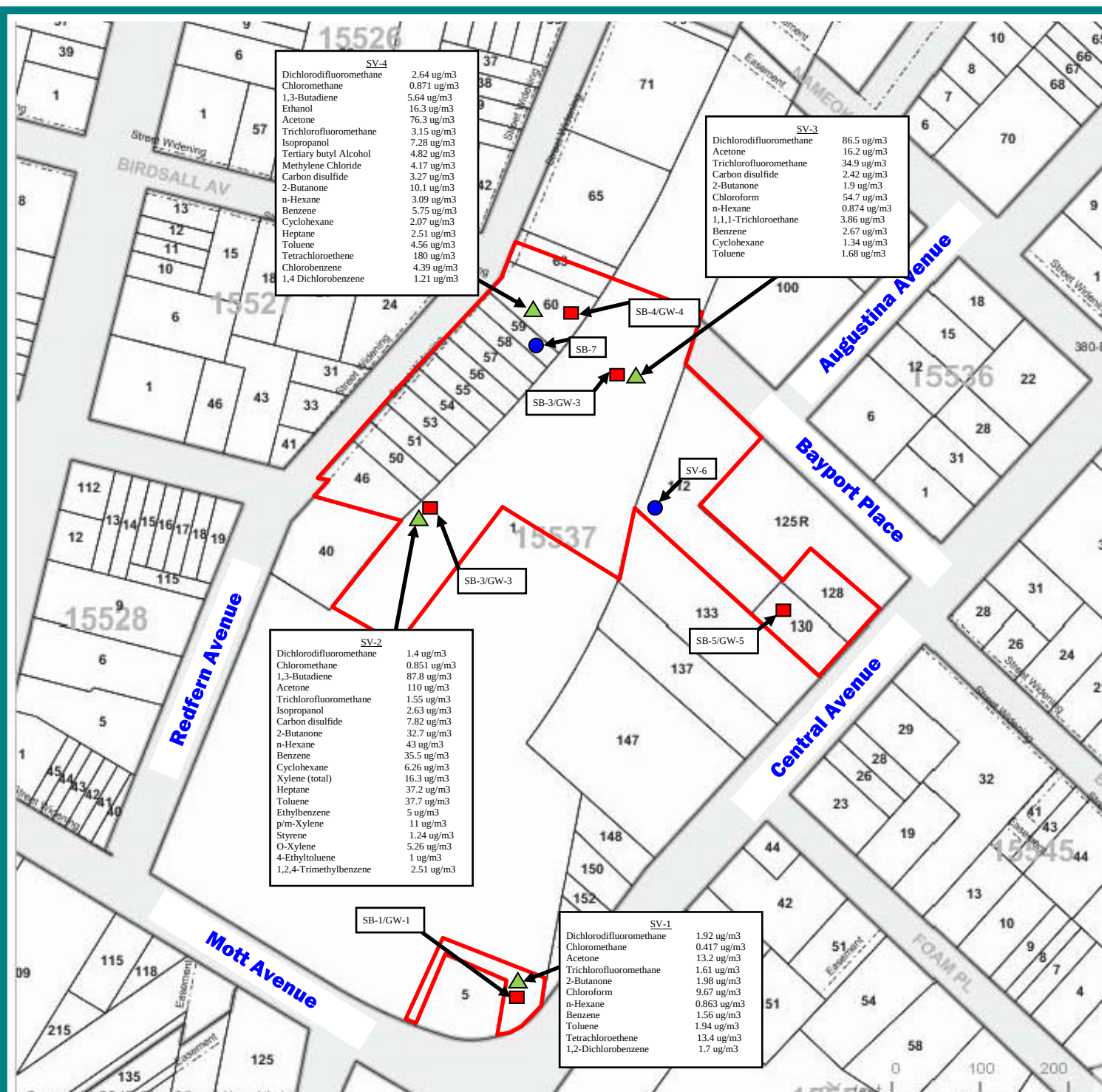
**Far Rockaway
New York**

DRAWN BY:

J.T.C.

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R.J.I.



LEGEND

- Soil boring sample location
- Combined soil and groundwater sample location
- ▲ Soil vapor sample location



Adapted from NYCDOF Tax Map



CA RICH CONSULTANTS, INC.
17 Dupont Street,
Plainview, NY 11803

TITLE:

**Phase 3 Development
Soil Vapor Detections**

DATE:

2/27/2019

SCALE:

As Shown

FIGURE:

5

**Far Rockaway
New York**

DRAWN BY:

J.T.C.

APPR. BY:

R.J.I.

TABLES

TABLE 3
Summary of Pesticides and PCBs in Soil
Far Rockaway Project - Phase 3 Development
Properties between Redfern Avenue and Central Avenue
Far Rockaway, New York

Sample ID Sample Date Sample Depth	SB-1 020519 (3-4') 2/5/2019 3-4'	SB-1 020519 (12-13') 2/5/2019 12-13'	SB-2 020719 (0.5-1.5') 2/7/2019 0.5-1.5'	SB-2 020719 (18-19') 2/7/2019 18-19'	SB-3 020719 (0.5-1.5') 2/7/2019 0.5-1.5'	SB-3 020719 (18-19') 2/7/2019 18-19'	SB-4 020819 (1-2') 2/8/2019 1-2'	SB-4 020819 (13.5-14') 2/8/2019 13.5-14'	SB-5 020819 (1-2') 2/8/2019 1-2'	SB-5 020819 (14-15') 2/8/2019 14-15'	SB-6 020819 (1-2') 2/8/2019 1-2'	SB-6 020819 (14-15') 2/8/2019 14-15'	SB-7 020819 (1-2') 2/8/2019 1-2'	SB-7 020819 (14-15') 2/8/2019 14-15'	*Restricted Res. Use Limits	**Unrestricted Use Limits
Pesticides Units (Parts Per Billion)	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg	µg/kg
4,4'-DDD	1 U	1 U	1.3 U	1 U	1 U	1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	13,000	3.3
4,4'-DDE	1 U	1 U	1.3 U	1 U	1 U	1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	8,900	3.3
4,4'-DDT	5.5 P	12	1.8 JP	1 U	2.9	1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	7,900	3.3
Aldrin	1 U	1 U	1.3 U	1 U	1 U	1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	97	5
alpha-BHC	1 U	1 U	1.3 U	1 U	1 U	1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	480	20
alpha-Chlordane	6 U	6.2 U	7.6 U	6 U	6.1 U	6.2 U	6.8 U	6.2 U	6.5 U	6 U	6.6 U	6.1 U	6.3 U	6.8 U	4,200	94
beta-BHC	1 U	1 U	1.3 U	1 U	1 U	1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	360	36
Chlorobenzilate	1 U	1 U	1.3 U	1 U	1 U	1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	NA	NA
DBCP	1 U	1 U	1.3 U	1 U	1 U	1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	NA	NA
delta-BHC	1 U	1 U	1.3 U	1 U	1 U	1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	100,000	40
Dieldrin	1 U	1 U	1.3 U	1 U	1 U	1 U	1.1 U	1 U	3.8 P	1 U	1.2 JP	1 U	1 U	1.1 U	200	5
Endosulfan I	1 U	1 U	1.3 U	1 U	1 U	1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	24,000	2,400
Endosulfan II	1 U	1 U	1.3 U	1 U	1 U	1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	24,000	2,400
Endosulfan sulfate	1 U	1 U	1.3 U	1 U	1 U	1 U	4.1 P	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	24,000	2,400
Endrin	1 U	1 U	1.3 U	1 U	1 U	1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	11,000	14
Endrin aldehyde	1 U	1 U	1.3 U	1 U	1 U	1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	NA	NA
Endrin ketone	1 U	1 U	1.3 U	1 U	1 U	1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	NA	NA
gamma-BHC	1 U	1 U	1.3 U	1 U	1 U	1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	1,300	100
gamma-Chlordane	6 U	6.2 U	7.6 U	6 U	6.1 U	6.2 U	6.8 U	6.2 U	6.5 U	6 U	6.6 U	6.1 U	6.3 U	6.8 U	NA	NA
Heptachlor	2 U	2.1 U	2.5 U	2 U	2 U	2.1 U	4.1 P	2.1 U	2.2 U	2 U	2.2 U	2 U	2.1 U	2.3 U	2,100	42
Heptachlor epoxide	1.2 J	1.5 J	1.3 U	1 U	1 U	1 U	2 JP	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	NA	NA
Hexachlorobenzene	1 U	1 U	1.3 U	1 U	1 U	1 U	2.6 JP	1 U	2.6 JP	1 U	1.5 JP	1 U	1 U	1.1 U	1,200	330
Hexachlorocyclopentadiene	3 U	3.1 U	3.8 U	3 U	3.1 U	3.1 U	3.4 U	3.1 U	3.2 U	3 U	3.3 U	3 U	3.1 U	3.4 U	NA	NA
Methoxychlor	1 U	1 U	19	1 U	31 P	1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1 U	1 U	1.1 U	NA	NA
Toxaphene	13 U	13 U	16 U	13 U	13 U	13 U	14 U	13 U	13 U	12 U	14 U	13 U	13 U	14 U	NA	NA
PCBs Units (Parts Per Billion)	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg Q	µg/kg	µg/kg
Aroclor 1016	10 U	10 U	13 U	10 U	10 U	10 U	11 U	10 U	11 U	10 U	11 U	10 U	10 U	11 U	1,000	100
Aroclor 1221	10 U	10 U	13 U	10 U	10 U	10 U	11 U	10 U	11 U	10 U	11 U	10 U	10 U	11 U	1,000	100
Aroclor 1232	10 U	10 U	13 U	10 U	10 U	10 U	11 U	10 U	11 U	10 U	11 U	10 U	10 U	11 U	1,000	100
Aroclor 1242	10 U	10 U	13 U	10 U	10 U	10 U	11 U	10 U	11 U	10 U	11 U	10 U	10 U	11 U	1,000	100
Aroclor 1248	10 U	10 U	13 U	10 U	10 U	10 U	11 U	10 U	11 U	10 U	11 U	10 U	10 U	11 U	1,000	100
Aroclor 1254	10 U	10 U	13 U	10 U	10 U	10 U	11 U	10 U	11 J	10 U	11 U	10 U	10 U	11 U	1,000	100
Aroclor 1260	98	160	28	10 U	11 J	10 U	11 U	10 U	11 U	10 U	11 U	10 U	10 U	11 U	1,000	100
Aroclor 1262	10 U	10 U	13 U	10 U	10 U	10 U	11 U	10 U	11 U	10 U	11 U	10 U	10 U	11 U	1,000	100
Aroclor 1268	10 U	10 U	13 U	10 U	10 U	10 U	11 U	10 U	11 U	10 U	11 U	10 U	10 U	11 U	1,000	100

Abbreviation:
Q = Qualifier
NA = Not available, no value specified in NYSDEC 375
U = The compound was analyzed for, but not detected
J = Analyte detected below quantitation limit; value given is an estimate
P = Secondary column exceeds 40% difference for GC Test

* - NYSDEC Part 375 Restricted Residential Use Soil Cleanup Objective Limits
** - NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective Limits

TABLE 4
Summary of Metals in Soil
Far Rockaway Project - Phase 3 Development
Properties between Redfern Avenue and Central Avenue
Far Rockaway, New York

Sample ID	SB-1 020519 (3-4')	SB-1 020519 (12-13')	SB-2 020719 (0.5-1.5')	SB-2 020719 (18-19')	SB-3 020719 (0.5-1.5')	SB-3 020719 (18-19')	SB-4 020819 (1-2')	SB-4 020819 (13.5-14')	SB-5 020819 (1-2')	SB-5 020819 (14-15')	SB-6 020819 (1-2')	SB-6 020819 (14-15')	SB-7 020819 (1-2')	SB-7 020819 (14-15')	*Restricted Res. Use Limits	**Unrestricted Use Limits	
Sample Date	2/5/2019	2/5/2019	2/7/2019	2/7/2019	2/7/2018	2/7/2019	2/8/2019	2/8/2019	2/8/2019	2/8/2019	2/8/2019	2/8/2019	2/8/2019	2/8/2019			
Sample Depth	3-4'	12-13'	0.5-1.5'	18-19'	0.5-1.5'	18-19'	1-2'	13.5-14'	1-2'	14-15'	1-2'	14-15'	1-2'	14-15'			
Metals	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Units (Parts Per Million)																	
Aluminum	562	775	2490	537	1650	822	7420	D	527	9930	D	468	9100	D	557	NA	
Antimony	0.183	0.195	0.245	0.204	0.206	0.197	0.222	U	0.19	0.202	U	0.205	0.207	U	0.203	0.189	
Arsenic	1.39	1.02	2.99	1.33	2.28	1.81	3.89		1.09	2.01		1.38	1.93		1.47	1.21	
Barium	3.55	4.83	27.2	1.88	52.1	3.91	54.8		1.44	47.4		3.84	22.6		2.74	7.67	
Beryllium	0.0915	0.0974	0.123	0.102	0.103	0.0985	0.111	U	0.0952	0.101	U	0.102	0.104	U	0.101	0.0947	
Cadmium	0.0458	0.0487	0.12	0.0509	0.177	0.0492	0.171	J	0.0476	0.111	J	0.0512	0.0519	U	0.0507	0.0473	
Calcium	3190	2000	21500	D	2300	78.5	1220		68.2	500		58.6	500		53.4	200	
Chromium (total)	3.69	4.74	4.69	4.87	5.17	5.08	10.7		4.56	11.9		4.5	10.3		4.6	3.4	
Cobalt	0.117	0.115	0.36	0.417	0.293	0.364	0.413	J	0.137	0.485		0.16	0.504		0.199	0.11	
Copper	4.41	3	8.54	0.717	11.1	1.27	18.2		0.88	7.41		0.768	4.05		0.971	1.46	
Iron	1470	1500	4820	D	4400	3770	D	4250	D	8830	D	3050	D	8220	D	3400	D
Lead	1.15	1.22	44.6	1.03	144	1.54	100		0.714	18.1		0.842	11.4		0.784	1.83	
Magnesium	413	262	1880	46.1	434	106	546		50.5	692		52.8	643		54.7	159	
Manganese	17.4	16.9	78.3	29.1	43	36.6	61.5		10	47.5		19	42		22.3	18.1	
Mercury (total)	0.00787	0.0075	0.00988	U	0.677	0.0778	0.00811	U	0.181	0.00894	J	0.061	0.0107	J	0.0109	0.0142	
Nickel	1.83	2.03	4.1	1.37	3.1	1.96	6.61		1.15	6.24		1.05	4.98		1.13	2.13	
Potassium	63.9	106	224	42	116	76.7	366		47.7	236		47.9	254		52.3	129	
Selenium	0.183	0.195	0.87	0.535	0.379	0.303	0.706		0.19	0.582		0.332	0.344	J	0.217	0.189	
Silver	0.0915	0.0974	0.123	0.102	0.103	0.0985	0.111	U	0.0952	0.101	U	0.102	0.104	U	0.101	0.0947	
Sodium	15.2	21	30.6	6.9	43.9	7.73	91.1		9.16	31.5		8.06	25.4		8.03	9.56	
Thallium	0.275	0.292	0.368	0.305	0.309	0.295	0.349	J	0.286	0.681		0.307	0.573		0.304	0.284	
Vanadium	2.61	2.62	7.07	4.54	5.82	5.3	14.2		2.7	17.3		3.38	14.8		2.92	4.24	
Zinc	19.7	11.4	46.6	6.22	80.3	6.23	71.4		6.96	86.9		8.33	18.8		3.91	5.46	

Abbreviation:
Q = Qualifier
NA = Not available, no value specified in NYSDEC Part 375
U = The compound was analyzed for, but not detected
J = Analyte detected below quantitation limit. Value given is an estimate

* - NYSDEC Part 375 Restricted Residential Use Soil Cleanup Objective Limits
** - NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective Limits

TABLE 6
Summary of SVOCs in Groundwater
Far Rockaway Project - Phase 3 Development
Properties between Redfern Avenue and Central Avenue
Far Rockaway, New York

Sample ID: Sample Date: Sample Depth:	GW-1 020519 2/5/2019 13-18 feet below basement	GW-2 020719 2/7/2019 19-24 feet below grade	GW-3 020819 2/8/2019 20-25 feet below grade	GW-4 020819 2/8/2019 15-20 feet below grade	GW-5 020819 2/8/2019 15-20 feet below grade	* TOGS Groundwater Standards
Semi-Volatile Organic Compounds						
Units (Parts Per Billion)	<u>ug/L</u>	<u>ug/L</u>	<u>ug/L</u>	<u>ug/L</u>	<u>ug/L</u>	<u>ug/L</u>
1,2,4-Trichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5
1,2-Dichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3
1,3-Dichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3
1,4-Dichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3
2,4,5-Trichlorophenol	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
2,4,6-Trichlorophenol	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
2,4-Dichlorophenol	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5
2,4-Dimethylphenol	1 U	1 U	1 U	1 U	1 U	50
2,4-Dinitrophenol	1 U	1 U	1 U	1 U	1 U	NA
2,4-Dinitrotoluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5
2,6-Dinitrotoluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5
2-Chloronaphthalene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10
2-Chlorophenol	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
2-Methylnaphthalene	0.83 J	0.5 U	0.5 U	0.5 U	0.5 U	NA
2-Methylphenol	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
2-Nitroaniline	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5
2-Nitrophenol	1 U	1 U	1 U	1 U	1 U	NA
3,3'-Dichlorobenzidine	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5
3+4-Methylphenol	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1
3-Nitroaniline	1 U	1 U	1 U	1 U	1 U	5
4,6-Dinitro-2-methylphenol	1 U	1 U	1 U	1 U	1 U	NA
4-Bromophenyl phenyl ether	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
4-Chloro-3-methylphenol	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
4-Chloroaniline	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
4-Chlorophenyl phenyl ether	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
4-Nitroaniline	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5
4-Nitrophenol	1 U	1 U	1 U	1 U	1 U	NA
Acenaphthene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	20
Acenaphthylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Acetophenone	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Aniline	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Anthracene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50
Atrazine	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	7.5
Azobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.05
Benzaldehyde	1 U	1 U	1 U	1 U	1 U	NA
Benzidine	1 U	1 U	1 U	1 U	1 U	NA
Benzo(a)anthracene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.002
Benzo(a)pyrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Benzo(b)fluoranthene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.002
Benzo(g,h,i)perylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Benzo(k)fluoranthene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.002
Benzoic acid	2.6 J	1 U	1 U	1 U	1 U	NA
Benzyl alcohol	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Biphenyl	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5
Bis(2-chloroethoxy)methane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5
Bis(2-chloroethyl)ether	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1
Bis(2-chloroisopropyl)ether	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Bis(2-ethylhexyl)phthalate	1 U	1 U	1 U	1 U	1 U	5
Butyl benzyl phthalate	1 U	1 U	1.3 J	1 U	1.3 J	50
Caprolactam	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Carbazole	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Chrysene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.002
Dibenzo(a,h)anthracene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Dibenzofuran	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Diethyl phthalate	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Dimethyl phthalate	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Di-n-butyl phthalate	0.95 J	0.5 U	0.5 U	1.2 J	0.54 J	50
Di-n-octyl phthalate	1 U	1 U	1 U	1 U	1 U	50
Fluoranthene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50
Fluorene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50
Hexachlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.04
Hexachlorobutadiene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5
Hexachlorocyclopentadiene	1 U	1 U	1 U	1 U	1 U	5
Hexachloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5
Indeno(1,2,3-c,d)pyrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.002
Isophorone	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50
Naphthalene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10
Nitrobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4
N-Nitrosodimethylamine	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
N-Nitrosodi-n-propylamine	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
N-Nitrosodiphenylamine	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50
Parathion	1 U	1 U	1 U	1 U	1 U	1.5
Pentachlorophenol	1 U	1 U	1 U	1 U	1 U	NA
Phenanthrene	0.51 J	0.5 U	0.5 U	0.5 U	0.5 U	50
Phenol	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Pyrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50
Pyridine	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50

Abbreviation:
Q = Qualifier
NA = Not available, no value specified in NYSDEC TOGS
U = The compound was analyzed for, but not detected
J = Analyte detected below quantitation limit. Value given is an estimate
*- NYSDEC Technical & Operational Guidance Series (TOGS) for ambient groundwater quality standards

TABLE 7
Summary of Pesticides and PCBs in Groundwater
Far Rockaway Project - Phase 3 Development
Properties between Redfern Avenue and Central Avenue
Far Rockaway, New York

Sample ID: Sample Date: Sample Depth:	GW-1 020519 2/5/2019 13-18 feet below basement	GW-2 020719 2/7/2019 19-24 feet below grade	GW-3 020819 2/8/2019 20-25 feet below grade	GW-4 020819 2/8/2019 15-20 feet below grade	GW-5 020819 2/8/2019 15-20 feet below grade	*TOGS Groundwater Standards
Pesticides						
Units (Parts Per Billion)	<u>µg/L</u>	<u>µg/L</u>	<u>µg/L</u>	<u>µg/L</u>	<u>µg/L</u>	<u>µg/L</u>
4,4'-DDD	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	0.3
4,4'-DDE	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	0.2
4,4'-DDT	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	0.2
Aldrin	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	NA
alpha-BHC	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	0.01
alpha-Chlordane	0.02 U	0.02 U	0.022 U	0.022 U	0.022 U	0.05
beta-BHC	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	0.04
Chlorobenzilate	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	NA
DBCP	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	NA
delta-BHC	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	0.04
Dieldrin	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	0.004
Endosulfan I	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	NA
Endosulfan II	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	NA
Endosulfan sulfate	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	NA
Endrin	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	NA
Endrin aldehyde	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	5
Endrin ketone	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	5
gamma-BHC	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	0.05
gamma-Chlordane	0.02 U	0.02 U	0.022 U	0.022 U	0.022 U	0.05
Heptachlor	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	0.04
Heptachlor epoxide	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	0.03
Hexachlorobenzene	0.012 U	0.012 U	0.016 BJ	0.013 U	0.048 BJ	0.04
Hexachlorocyclopentadiene	0.03 U	0.03 U	0.032 U	0.033 U	0.032 U	5
Methoxychlor	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	35
Toxaphene	0.06 U	0.06 U	0.065 U	0.065 U	0.065 U	0.06
PCBs						
Units (Parts Per Billion)	<u>µg/kg</u>	<u>µg/kg</u>	<u>µg/kg</u>	<u>µg/kg</u>	<u>µg/kg</u>	<u>µg/kg</u>
Aroclor 1016	0.05 U	0.05 U	0.054 U	0.054 U	0.054 U	0.1
Aroclor 1221	0.05 U	0.05 U	0.054 U	0.054 U	0.054 U	0.1
Aroclor 1232	0.05 U	0.05 U	0.054 U	0.054 U	0.054 U	0.1
Aroclor 1242	0.05 U	0.05 U	0.054 U	0.054 U	0.054 U	0.1
Aroclor 1248	0.05 U	0.05 U	0.054 U	0.054 U	0.054 U	0.1
Aroclor 1254	0.05 U	0.05 U	0.054 U	0.054 U	0.054 U	0.1
Aroclor 1260	0.05 U	0.05 U	0.054 U	0.054 U	0.054 U	0.1
Aroclor 1262	0.05 U	0.05 U	0.054 U	0.054 U	0.054 U	0.1
Aroclor 1268	0.05 U	0.05 U	0.054 U	0.054 U	0.054 U	0.1

Abbreviation:

Q = Qualifier

NA = Not available, no value specified in NYSDEC TOGS

U = The compound was analyzed for, but not detected

J = Analyte detected below quantitation limit; value given is an estimate

*- NYSDEC Technical & Operational Guidance Series (TOGS) for ambient groundwater quality standards

Highlighted values exceed the TOGS for groundwater quality standards

TABLE 8
Summary of Total Metals in Groundwater
Far Rockaway Project - Phase 3 Development
Properties between Redfern Avenue and Central Avenue
Far Rockaway, New York

Sample ID: Sample Date: Sample Depth:	GW-1 020519 2/5/2019 13-18 feet below basement	GW-2 020719 2/7/2019 19-24 feet below grade	GW-3 020819 2/8/2019 20-25 feet below grade	GW-4 020819 2/8/2019 15-20 feet below grade	GW-5 020819 2/8/2019 15-20 feet below grade	*TOGS Groundwater Standards
Total Metals Units (Parts Per Million)	<u>mg/L</u> Q	<u>mg/L</u> Q	<u>mg/L</u> Q	<u>mg/L</u> Q	<u>mg/L</u> Q	<u>mg/L</u>
Aluminum	13.3	105	122	98	93.9	NA
Antimony	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003
Arsenic	0.0251	0.302	0.31	0.134	0.136	0.025
Barium	0.247	0.523	0.597	0.437	0.509	1
Beryllium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003
Cadmium	0.005 U	0.0024 J	0.0023 J	0.005 U	0.0031 J	0.005
Calcium	65.6	154	79.5	66.9	31	NA
Chromium	0.141	0.894	1.41	1.4	1.01	0.05
Cobalt	0.005 U	0.0142 J	0.0198 J	0.0155 J	0.0138 J	NA
Copper	0.041	0.231	0.503	0.466	0.32	0.2
Iron	28.9	27.2 D	246 D	298 D	238 D	0.3
Lead	0.0148 J	0.229	0.12	0.163	0.153	0.025
Magnesium	7.8	42.4	19.9	14.8	12.5	35
Manganese	1.1	7.77	10.7	6.8	2.87	0.3
Mercury	0.00015 U	0.000713	0.00116	0.000387	0.000674	0.0007
Nickel	0.0527	0.205	0.289	0.298	0.227	0.1
Potassium	11.7	14.9	16.3	14	14	NA
Selenium	0.01 U	0.0152 J	0.01 U	0.01 U	0.01 U	0.01
Silver	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.05
Sodium	183 D	14.5 D	15.5 D	22.3 D	16.4 D	20
Thallium	0.01 U	0.01 U	0.0097 J	0.01 U	0.01 U	0.0005
Vanadium	0.0461	0.514	0.526	0.335	0.267	NA
Zinc	0.334	0.577	0.474	0.659	1.37	2

Abbreviation:

Q = Qualifier

NA = Not available, no value specified in NYSDEC TOGS Highlighted values exceed the TOGS concentration limits for ambient

U = The compound was analyzed for, but not detected groundwater quality standards

J = Analyte detected below quantitation limit. Value given

*- NYSDEC Technical & Operational Guidance Series (TOGS) for ambient groundwater quality standards

TABLE 9
Summary of PFAS in Groundwater
Far Rockaway Project - Phase 3 Development
Properties between Redfern Avenue and Central Avenue
Far Rockaway, New York

CAS No.	Sample ID: Sample Date: Sample Depth:	GW-3 020819 2/8/2019 20-25 feet below grade		
	PFAS by Isotope Dillution			
	Units	<u>ug/L</u>	<u>Q</u>	<u>RL</u>
375-22-4	Perfluorobutanoic Acid (PFBA)	0.164		0.00198
2706-90-3	Perfluoropentanoic Acid (PFPeA)	1.2		0.00198
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	0.00648		0.00198
307-24-4	Perfluorohexanoic Acid (PFHxA)	0.667		0.00198
375-85-9	Perfluoroheptanoic Acid (PFHpA)	0.0814		0.00198
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	0.00387		0.00198
335-67-1	Perfluorooctanoic Acid (PFOA)	0.0426		0.00198
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		0.00198
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.00083	J	0.00198
375-95-1	Perfluorononanoic Acid (PFNA)	0.0748		0.00198
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	0.047		0.00198
335-76-2	Perfluorodecanoic Acid (PFDA)	0.0017	J	0.00198
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		0.00198
2355-31-9	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		0.00198
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND		0.00198
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	0.000454	J	0.00198
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		0.00198
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	0.00126	J	0.00198
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND		0.00198
72629-94-8	Perfluorotridecanoic Acid (PFTTrDA)	ND		0.00198
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND		0.00198
	PFOA/PFOS, Total	0.0896		0.00198
	PFAS, Total (5)	0.25		0.00198

Abbreviation:

Q = Qualifier

ND = The compound was analyzed for, but not detected

J = Analyte detected below quantitation limit. Value given is an estimate

RL - Laboratory Reporting Limit

TABLE 10
Summary of VOCs in Sub-Slab Soil Vapor, Soil Vapor, Indoor, & Outdoor Air
Far Rockaway Project - Phase 2 Development
Properties Between Redfern Avenue and Central Avenue
Far Rockaway, New York

Sample ID: Sample Date: Sample Depth:	SV-1 020519	SV-2 020719	SV-3 020719	SV-4 020819	*NYSDOH Soil Vapor No Further Action Levels
	2/5/2019	2/7/2019	2/7/2019	2/8/2019	
	2-inches below basement slab	5-feet below grade	5-feet below grade	5-feet below grade	
Volatile Organic Compounds					
Units	ug/m³ Q	ug/m³ Q	ug/m³ Q	ug/m³ Q	ug/m³
Dichlorodifluoromethane	1.92	1.4	86.5	2.64	NVG
Chloromethane	0.417	0.851	ND	0.871	NVG
Freon-114	ND	ND	ND	ND	NVG
Vinyl chloride ^C	ND	ND	ND	ND	<6
1,3-Butadiene	ND	87.8	ND	5.64	NVG
Bromomethane	ND	ND	ND	ND	NVG
Chloroethane	ND	ND	ND	ND	NVG
Ethanol	ND	ND	ND	16.3	NVG
Vinyl bromide	ND	ND	ND	ND	NVG
Acetone	13.2	110	16.2	76.3	NVG
Trichlorofluoromethane	1.61	1.55	34.9	3.15	NVG
Isopropanol	ND	2.63	ND	7.28	NVG
1,1-Dichloroethene ^A	ND	ND	ND	ND	< 60
Tertiary butyl Alcohol	ND	ND	ND	4.82	NVG
Methylene chloride ^B	ND	ND	ND	4.17	< 1,000
3-Chloropropene	ND	ND	ND	ND	NVG
Carbon disulfide	ND	7.82	2.42	3.27	NVG
Freon-113	ND	ND	ND	ND	NVG
trans-1,2-Dichloroethene	ND	ND	ND	ND	NVG
1,1-Dichloroethane	ND	ND	ND	ND	NVG
Methyl tert butyl ether	ND	ND	ND	ND	NVG
2-Butanone	1.98	32.7	1.9	10.1	NVG
cis-1,2-Dichloroethene ^A	ND	ND	ND	ND	< 60
Ethyl Acetate	ND	ND	ND	ND	NVG
Chloroform	9.67	ND	54.7	ND	NVG
Tetrahydrofuran	ND	ND	ND	ND	NVG
1,2-Dichloroethane	ND	ND	ND	ND	NVG
n-Hexane	0.863	43	0.874	3.09	NVG
1,1,1-Trichloroethane ^B	ND	ND	3.86	ND	< 1,000
Benzene	1.56	35.5	2.67	5.75	NVG
Carbon tetrachloride ^A	ND	ND	ND	ND	< 60
Cyclohexane	ND	6.26	1.34	2.07	NVG
1,2-Dichloropropane	ND	ND	ND	ND	NVG
Xylene (total)	ND	16.3	ND	ND	< NVG
Bromodichloromethane	ND	ND	ND	ND	NVG
1,4-Dioxane	ND	ND	ND	ND	NVG
Trichloroethene ^A	ND	ND	ND	ND	< 60
2,2,4-Trimethylpentane	ND	ND	ND	ND	NVG
Heptane	ND	37.2	ND	2.51	NVG
cis-1,3-Dichloropropene	ND	ND	ND	ND	NVG
4-Methyl-2-pentanone	ND	ND	ND	ND	NVG
trans-1,3-Dichloropropene	ND	ND	ND	ND	NVG
1,1,2-Trichloroethane	ND	ND	ND	ND	NVG
Toluene	1.94	37.7	1.68	4.56	NVG
1,2 Dichloroethene (total)	ND	ND	ND	ND	NVG
2-Hexanone	ND	ND	ND	ND	NVG
Dibromochloromethane	ND	ND	ND	ND	NVG
1,3 Dichloropropene (total)	ND	ND	ND	ND	NVG
1,2-Dibromoethane	ND	ND	ND	ND	< NVG
Tetrachloroethene ^B	13.4	ND	2.67	180	< 1,000
Chlorobenzene	ND	ND	ND	4.39	< NVG
Ethylbenzene	ND	5	ND	ND	NVG
p/m-Xylene	ND	11	ND	ND	NVG
Bromoform	ND	ND	ND	ND	NVG
Styrene	ND	1.24	ND	ND	NVG
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	NVG
o-Xylene	ND	5.26	ND	ND	NVG
4-Ethyltoluene	ND	1	ND	ND	NVG
1,3,5-Trimethylbenzene	ND	ND	ND	ND	NVG
1,2,4-Trimethylbenzene	ND	2.51	ND	ND	NVG
Benzyl chloride	ND	ND	ND	ND	NVG
1,3-Dichlorobenzene	ND	ND	ND	ND	NVG
1,4-Dichlorobenzene	ND	ND	ND	1.21	NVG
1,2-Dichlorobenzene	1.7	ND	ND	ND	NVG
1,2,4-Trichlorobenzene	ND	ND	ND	ND	NVG
Hexachlorobutadiene	ND	ND	ND	ND	NVG

Abbreviation:

Q = Qualifier

NVG = No Value Given; concentration limit has not been established by the NYSDOH

ND = The compound was analyzed for, but not detected

Highlighted rows have NYSDOH established decision matrices

Notes:

* - NYSDOH Soil Vapor Intrusion Guidance, October 2006, Matrix A, B, and C tables. Greatest sub-slab vapor concentrations for No Further Action

^A - Matrix A compound. According to NYSDOH, concentrations for sub-slab soil vapor above 60 µg/m³ require monitor mitigate regardless of indoor air concentrations.

^B - Matrix B compound. According to NYSDOH, concentrations for sub-slab soil vapor above 1,000 µg/m³ require monitor or mitigate regardless of indoor air concentrations.

^C - Matrix C compound. According to NYSDOH, concentrations for sub-slab vapor above 6 ug/m³ requires monitor or mitigate regardless of indoor air concentrations.

APPENDIX A

Laboratory Analytical Data

LABORATORY DATA FEBRUARY 5, 2019
SOIL AND GROUNDWATER



American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

February 14, 2019

Jason Cooper
CA Rich Consultants Inc.
17 Dupont Street
Plainview, NY 11803
TEL: (516) 576-8844
FAX (516) 576-0093

RE: Far Rockaway Ph 3; 20-02 Mott Ave., Far R

Order No.: 1902030

Dear Jason Cooper:

American Analytical Laboratories, LLC. received 3 sample(s) on 2/6/2019 for the analyses presented in the following report.

Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report. The results reported herein relate only to the items tested or to the samples as received by the laboratory. This report may not be reproduced, except in full, without the approval of American Analytical Laboratories, LLC and is not considered complete without a cover page and chain of custody documentation. The limits (LOQ) provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report or the data is qualified either on the sample results or in the QC section of the report. This package has been reviewed by American Analytical Laboratories' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at lbeyer@american-analytical.com.

Sincerely,

Lori Beyer
Lab Director
American Analytical Laboratories, LLC.



American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Workorder Sample Summary

WO#: 1902030
14-Feb-19

CLIENT: CA Rich Consultants Inc.
Project: Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1902030-001A	SB-1 020519 (3-4)		2/5/2019 9:55:00 AM	2/6/2019 11:10:00 AM	Soil
1902030-001B	SB-1 020519 (3-4)		2/5/2019 9:55:00 AM	2/6/2019 11:10:00 AM	Soil
1902030-002A	GW-1 020519		2/5/2019 11:10:00 AM	2/6/2019 11:10:00 AM	Liquid
1902030-002B	GW-1 020519		2/5/2019 11:10:00 AM	2/6/2019 11:10:00 AM	Liquid
1902030-002C	GW-1 020519		2/5/2019 11:10:00 AM	2/6/2019 11:10:00 AM	Liquid
1902030-003A	SB-1 020519 (12-13)		2/5/2019 10:55:00 AM	2/6/2019 11:10:00 AM	Soil
1902030-003B	SB-1 020519 (12-13)		2/5/2019 10:55:00 AM	2/6/2019 11:10:00 AM	Soil

Original



CERTIFICATIONS

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

www.american-analytical.com

[illegible]



American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Sample Log-In Check List

Client Name: **CA RICH**

Work Order Number: **1902030**

RcptNo: **1**

Logged by: **Lori Beyer** **2/6/2019 11:10:00 AM**

Lori Beyer

Completed By: **Lori Beyer** **2/6/2019 12:05:43 PM**

Lori Beyer

Reviewed By: **Karen Kelly** **2/6/2019**

Karen Kelly

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? AAL Lab Courier

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒
No. Seal Date: Signed By:
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 ☒ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☒ No ☐ No VOA Vials ☐
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 ☐ NA ☒

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

VOC samples in 2oz jars with zero headspace

Cooler Information

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



American Analytical Laboratories, LLC.
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TEL: (631) 454-6100 FAX: (631) 454-8027
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Case Narrative

WO#: 1902030
Date: 2/14/2019

CLIENT: CA Rich Consultants Inc.
Project: Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock

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.

Soil sample results analyzed for Volatile Organics and/or Gasoline Range Organics (GRO) via preparation method SW846 Method 5035A by the Low Level procedures potentially may be estimated, "J" (biased low) since the samples for this test were not collected according to the 5035A Method. Analysis was performed from intact soil jar. Volatile LCS are analyzed with preservatives - HCL/NaHSO₄/Methanol depending on level of analysis (high/low) similar to sample analysis. Outliers can be attributed to the presence of chemical preservatives. 2-Chloroethyl vinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

SVOA: Calibration for Benzoic Acid does not meet method requirements. Reporting limit must be considered estimated.

Pesticide/PCBs are analyzed on two distinct columns. Once a target compound is qualitatively confirmed by detection on both columns and quantitation is determined to be >40% between the two columns, AAL's policy is to report the lower of the values as suggested by SW846 Method 8000C in cases where no interference exists. If in the professional judgment of the laboratory, the higher value must be utilized this is explained in the lab report.

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, 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.

Original



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Case Narrative

WO#: 1902030
Date: 2/14/2019

CLIENT: CA Rich Consultants Inc.
Project: Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock

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.

Original



American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Definition Only

WO#: 1902030
Date: 2/14/2019

Definitions:

Sample Result and QC Summary Qualifiers - Level I and Level II Reports

ND - Not detected at the reporting limit/Limit of Quantitation

B - The analyte was detected in the associated method blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <5x the blank value as artifact.

E - The value is above the quantitation range

D - Analyte concentration was obtained from diluted analysis or from analysis using reduced sample volume.

J - The analyte was detected below the limit of quantitation but greater than the established Limit of Detection (LOD). There is greater uncertainty associated with these results and data should be considered as estimated.

U - The compound was analyzed for but not detected.

H - Holding time for preparation or analysis has been exceeded.

S - Spike recovery is outside accepted recovery limits.

R - RPD is outside accepted recovery range.

P - Secondary column exceeds 40% difference for GC test.

* - Calibration exceeds method requirement. Due to the large number of analytes for organic testing, the method allows 10% of analytes to have %RSD and/or %D to be >20%.

LOD - Limit of Detection; the lowest level the analyte can be determined to be statistically different from a blank.

LOQ - Limit of Quantitation; the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.

PQL - Practical Quantitation Limit; the lowest level that can be reliably achieved within the specific limits of Precision and accuracy. Listed on the QC Summary Forms.

m - Analyte was manually integrated for GC/MS.

+

Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-1 020519 (3-4)**Lab Order:** 1902030**Collection Date:** 2/5/2019 9:55:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902030-001A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
1,1,1,2-Tetrachloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,1,1-Trichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,1,2,2-Tetrachloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,1,2-Trichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,1-Dichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,1-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,1-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,2,3-Trichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,2,3-Trichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,2,4,5-Tetramethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,2,4-Trichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,2,4-Trimethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,2-Dibromo-3-chloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,2-Dibromoethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,2-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,2-Dichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,2-Dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,3,5-Trimethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,3-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,3-dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,4-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
1,4-Dioxane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
2,2-Dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
2-Butanone	ND	5.2	10	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
2-Chloroethyl vinyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
2-Chlorotoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
2-Hexanone	ND	5.2	10	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
2-Propanol	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
4-Chlorotoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
4-Isopropyltoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
4-Methyl-2-pentanone	ND	5.2	10	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Acetone	ND	5.2	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-1 020519 (3-4)**Lab Order:** 1902030**Collection Date:** 2/5/2019 9:55:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902030-001A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
Benzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Bromobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Bromochloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Bromodichloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Bromoform	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Bromomethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Carbon disulfide	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Carbon tetrachloride	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Chlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Chlorodifluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Chloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Chloroform	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Chloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
cis-1,2-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
cis-1,3-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Cyclohexane	ND	2.1	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Dibromochloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Dibromomethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Dichlorodifluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Diisopropyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Ethanol	ND	10	21	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Ethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Freon-114	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Hexachlorobutadiene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Isopropylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
m,p-Xylene	ND	2.1	10	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Methyl Acetate	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Methyl tert-butyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Methylene chloride	ND	5.2	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
n-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
n-Propylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Naphthalene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
o-Xylene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-1 020519 (3-4)**Lab Order:** 1902030**Collection Date:** 2/5/2019 9:55:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902030-001A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
p-Diethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
p-Ethyltoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
sec-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Styrene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
t-Butyl alcohol	ND	2.6	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
tert-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Tetrachloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Toluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
trans-1,2-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
trans-1,3-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Trichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Trichlorofluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Vinyl acetate	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Vinyl chloride	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Xylenes, Total	ND	3.1	15	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Methylcyclohexane	ND	2.1	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Acrolein	ND	13	26	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM
Acrylonitrile	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 9:26:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-1 020519 (3-4)
Lab Order:	1902030	Collection Date:	2/5/2019 9:55:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902030-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY							
			SW7471B		SW7471B		Analyst: JP
Mercury	ND	0.00787	0.0147	U	mg/Kg-dry	1	2/12/2019 1:11:00 PM
PCB'S AS AROCLORS SW-846 METHOD 8082							
			SW8082A		SW3546		Analyst: SB
Aroclor 1016	ND	10	20	U	µg/Kg-dry	1	2/9/2019 2:39:00 AM
Aroclor 1221	ND	10	20	U	µg/Kg-dry	1	2/9/2019 2:39:00 AM
Aroclor 1232	ND	10	20	U	µg/Kg-dry	1	2/9/2019 2:39:00 AM
Aroclor 1242	ND	10	20	U	µg/Kg-dry	1	2/9/2019 2:39:00 AM
Aroclor 1248	ND	10	20	U	µg/Kg-dry	1	2/9/2019 2:39:00 AM
Aroclor 1254	ND	10	20	U	µg/Kg-dry	1	2/9/2019 2:39:00 AM
Aroclor 1260	98	10	20		µg/Kg-dry	1	2/9/2019 2:39:00 AM
Aroclor 1262	ND	10	20	U	µg/Kg-dry	1	2/9/2019 2:39:00 AM
Aroclor 1268	ND	10	20	U	µg/Kg-dry	1	2/9/2019 2:39:00 AM
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: SB
4,4'-DDD	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
4,4'-DDE	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
4,4'-DDT	5.5	1.0	2.5	P	µg/Kg-dry	1	2/8/2019 6:07:00 PM
Aldrin	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
alpha-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
alpha-Chlordane	ND	6.0	10	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
beta-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
Chlorobenzilate	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
DBCP	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
delta-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
Dieldrin	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
Endosulfan I	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
Endosulfan II	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
Endosulfan sulfate	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
Endrin	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
Endrin aldehyde	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
Endrin ketone	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
gamma-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
gamma-Chlordane	ND	6.0	10	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
Heptachlor	ND	2.0	3.0	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT: CA Rich Consultants Inc.

Client Sample ID: SB-1 020519 (3-4)

Lab Order: 1902030

Collection Date: 2/5/2019 9:55:00 AM

Project: Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock

Matrix: SOIL

Lab ID: 1902030-001B

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081			SW8081B		SW3546		Analyst: SB
Heptachlor epoxide	1.2	1.0	2.5	J	µg/Kg-dry	1	2/8/2019 6:07:00 PM
Hexachlorobenzene	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
Hexachlorocyclopentadiene	ND	3.0	3.0	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
Methoxychlor	ND	1.0	2.5	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
Toxaphene	ND	13	25	U	µg/Kg-dry	1	2/8/2019 6:07:00 PM
PERCENT MOISTURE			D2216				Analyst: MR
Percent Moisture	3.13	0	1.00		wt%	1	2/7/2019 9:00:00 AM
TOTAL METALS			SW6010D		SW3050B		Analyst: JP
Aluminum	562	0.183	0.366		mg/Kg-dry	1	2/13/2019 1:30:08 PM
Antimony	ND	0.183	0.458	U	mg/Kg-dry	1	2/13/2019 1:30:08 PM
Arsenic	1.39	0.183	0.458		mg/Kg-dry	1	2/13/2019 1:30:08 PM
Barium	3.55	0.183	0.366		mg/Kg-dry	1	2/13/2019 1:30:08 PM
Beryllium	ND	0.0915	0.366	U	mg/Kg-dry	1	2/13/2019 1:30:08 PM
Cadmium	ND	0.0458	0.366	U	mg/Kg-dry	1	2/13/2019 1:30:08 PM
Calcium	3190	0.183	0.458		mg/Kg-dry	1	2/13/2019 1:30:08 PM
Chromium	3.69	0.0915	0.366		mg/Kg-dry	1	2/13/2019 1:30:08 PM
Cobalt	0.117	0.0915	0.366	J	mg/Kg-dry	1	2/13/2019 1:30:08 PM
Copper	4.41	0.0915	0.366		mg/Kg-dry	1	2/13/2019 1:30:08 PM
Iron	1470	0.183	0.366		mg/Kg-dry	1	2/13/2019 1:30:08 PM
Lead	1.15	0.183	0.366		mg/Kg-dry	1	2/13/2019 1:30:08 PM
Magnesium	413	0.0915	0.366		mg/Kg-dry	1	2/13/2019 1:30:08 PM
Manganese	17.4	0.0915	0.366		mg/Kg-dry	1	2/13/2019 1:30:08 PM
Nickel	1.83	0.0915	0.366		mg/Kg-dry	1	2/13/2019 1:30:08 PM
Potassium	63.9	0.458	0.458		mg/Kg-dry	1	2/13/2019 1:30:08 PM
Selenium	ND	0.183	0.458	U	mg/Kg-dry	1	2/13/2019 1:30:08 PM
Silver	ND	0.0915	0.366	U	mg/Kg-dry	1	2/13/2019 1:30:08 PM
Sodium	15.2	0.183	0.458		mg/Kg-dry	1	2/13/2019 1:30:08 PM
Thallium	ND	0.275	0.458	U	mg/Kg-dry	1	2/13/2019 1:30:08 PM
Vanadium	2.61	0.0915	0.366		mg/Kg-dry	1	2/13/2019 1:30:08 PM
Zinc	19.7	0.0915	0.366		mg/Kg-dry	1	2/13/2019 1:30:08 PM
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-1 020519 (3-4)**Lab Order:** 1902030**Collection Date:** 2/5/2019 9:55:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902030-001B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
Biphenyl	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
1,2,4-Trichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
1,2-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
1,3-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
1,4-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
2,4,5-Trichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
2,4,6-Trichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
2,4-Dichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
2,4-Dimethylphenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
2,4-Dinitrophenol	ND	52	520	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
2,4-Dinitrotoluene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
2,6-Dinitrotoluene	ND	52	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
2-Chloronaphthalene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
2-Chlorophenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
2-Methylnaphthalene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
2-Methylphenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
2-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
2-Nitrophenol	ND	52	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
3+4-Methylphenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
3,3'-Dichlorobenzidine	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
3-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
4,6-Dinitro-2-methylphenol	ND	52	520	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
4-Bromophenyl phenyl ether	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
4-Chloro-3-methylphenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
4-Chloroaniline	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
4-Chlorophenyl phenyl ether	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
4-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
4-Nitrophenol	ND	52	520	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Acenaphthene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Acenaphthylene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Acetophenone	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Aniline	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Anthracene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-1 020519 (3-4)**Lab Order:** 1902030**Collection Date:** 2/5/2019 9:55:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902030-001B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
Atrazine	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Azobenzene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Benzaldehyde	ND	52	520	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Benzidine	ND	52	520	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Benzo(a)anthracene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Benzo(a)pyrene	ND	26	150	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Benzo(b)fluoranthene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Benzo(g,h,i)perylene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Benzo(k)fluoranthene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Benzoic acid	ND	52	520	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Benzyl alcohol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Bis(2-chloroethoxy)methane	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Bis(2-chloroethyl)ether	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Bis(2-chloroisopropyl)ether	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Bis(2-ethylhexyl)phthalate	ND	52	520	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Butyl benzyl phthalate	ND	52	520	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Caprolactam	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Carbazole	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Chrysene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Di-n-butyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Di-n-octyl phthalate	ND	52	520	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Dibenzo(a,h)anthracene	ND	26	150	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Dibenzofuran	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Diethyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Dimethyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Fluoranthene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Fluorene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Hexachlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Hexachlorobutadiene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Hexachlorocyclopentadiene	ND	52	520	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Hexachloroethane	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Indeno(1,2,3-c,d)pyrene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Isophorone	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-1 020519 (3-4)
Lab Order:	1902030	Collection Date:	2/5/2019 9:55:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902030-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
N-Nitrosodi-n-propylamine	ND	26	150	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
N-Nitrosodimethylamine	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
N-Nitrosodiphenylamine	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Naphthalene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Nitrobenzene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Parathion	ND	52	520	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Pentachlorophenol	ND	52	520	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Phenanthrene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Phenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Pyrene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM
Pyridine	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:05:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-1 020519**Lab Order:** 1902030**Collection Date:** 2/5/2019 11:10:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902030-002A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5030C	Analyst: LA		
1,1,1,2-Tetrachloroethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,1,1-Trichloroethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,1,2,2-Tetrachloroethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,1,2-Trichloroethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,1-Dichloroethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,1-Dichloroethene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,1-Dichloropropene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,2,3-Trichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,2,3-Trichloropropane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,2,4,5-Tetramethylbenzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,2,4-Trichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,2,4-Trimethylbenzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,2-Dibromo-3-chloropropane	ND	0.030	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,2-Dibromoethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,2-Dichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,2-Dichloroethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,2-Dichloropropane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,3,5-Trimethylbenzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,3-Dichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,3-dichloropropane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,4-Dichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
1,4-Dioxane	ND	0.25	1.0	U	µg/L	1	2/7/2019 8:46:00 PM
2,2-Dichloropropane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
2-Butanone	ND	0.50	4.0	U	µg/L	1	2/7/2019 8:46:00 PM
2-Chloroethyl vinyl ether	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
2-Chlorotoluene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
2-Hexanone	ND	0.50	4.0	U	µg/L	1	2/7/2019 8:46:00 PM
2-Propanol	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
4-Chlorotoluene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
4-Isopropyltoluene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
4-Methyl-2-pentanone	ND	0.50	4.0	U	µg/L	1	2/7/2019 8:46:00 PM
Acetone	ND	5.0	5.0	U	µg/L	1	2/7/2019 8:46:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-1 020519**Lab Order:** 1902030**Collection Date:** 2/5/2019 11:10:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902030-002A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C		SW5030C		Analyst: LA
Benzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Bromobenzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Bromochloromethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Bromodichloromethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Bromoform	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Bromomethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Carbon disulfide	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Carbon tetrachloride	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Chlorobenzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Chlorodifluoromethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Chloroethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Chloroform	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Chloromethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
cis-1,2-Dichloroethene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
cis-1,3-Dichloropropene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Cyclohexane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Dibromochloromethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Dibromomethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Dichlorodifluoromethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Diisopropyl ether	ND	0.50	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Ethanol	ND	2.5	10	U	µg/L	1	2/7/2019 8:46:00 PM
Ethylbenzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Freon-114	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Hexachlorobutadiene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Isopropylbenzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
m,p-Xylene	ND	0.50	4.0	U	µg/L	1	2/7/2019 8:46:00 PM
Methyl Acetate	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Methyl tert-butyl ether	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Methylene chloride	ND	5.0	5.0	U	µg/L	1	2/7/2019 8:46:00 PM
n-Butylbenzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
n-Propylbenzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Naphthalene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
o-Xylene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-1 020519**Lab Order:** 1902030**Collection Date:** 2/5/2019 11:10:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902030-002A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C		SW5030C		Analyst: LA
p-Diethylbenzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
p-Ethyltoluene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
sec-Butylbenzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Styrene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
t-Butyl alcohol	ND	2.5	10	U	µg/L	1	2/7/2019 8:46:00 PM
tert-Butylbenzene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Tetrachloroethene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Toluene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
trans-1,2-Dichloroethene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
trans-1,3-Dichloropropene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Trichloroethene	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Trichlorofluoromethane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Vinyl acetate	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Vinyl chloride	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Xylenes, Total	ND	0.75	6.0	U	µg/L	1	2/7/2019 8:46:00 PM
Methylcyclohexane	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM
Acrolein	ND	1.0	10	U	µg/L	1	2/7/2019 8:46:00 PM
Acrylonitrile	ND	0.25	2.0	U	µg/L	1	2/7/2019 8:46:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT: CA Rich Consultants Inc.

Client Sample ID: GW-1 020519

Lab Order: 1902030

Collection Date: 2/5/2019 11:10:00 AM

Project: Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock

Matrix: LIQUID

Lab ID: 1902030-002B

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PCB'S AS AROCLORS SW-846 METHOD 8082			SW8082A	SW3510C	Analyst: CP		
Aroclor 1016	ND	0.050	0.10	U	µg/L	1	2/7/2019 4:04:00 PM
Aroclor 1221	ND	0.050	0.10	U	µg/L	1	2/7/2019 4:04:00 PM
Aroclor 1232	ND	0.050	0.10	U	µg/L	1	2/7/2019 4:04:00 PM
Aroclor 1242	ND	0.050	0.10	U	µg/L	1	2/7/2019 4:04:00 PM
Aroclor 1248	ND	0.050	0.10	U	µg/L	1	2/7/2019 4:04:00 PM
Aroclor 1254	ND	0.050	0.10	U	µg/L	1	2/7/2019 4:04:00 PM
Aroclor 1260	ND	0.050	0.10	U	µg/L	1	2/7/2019 4:04:00 PM
Aroclor 1262	ND	0.050	0.10	U	µg/L	1	2/7/2019 4:04:00 PM
Aroclor 1268	ND	0.050	0.10	U	µg/L	1	2/7/2019 4:04:00 PM
PESTICIDES SW-846 METHOD 8081			SW8081B	SW3510C	Analyst: CP		
4,4'-DDD	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
4,4'-DDE	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
4,4'-DDT	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
Aldrin	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
alpha-BHC	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
alpha-Chlordane	ND	0.020	0.10	U	µg/L	1	2/7/2019 5:08:00 PM
beta-BHC	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
Chlorobenzilate	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
DBCP	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
delta-BHC	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
Dieldrin	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
Endosulfan I	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
Endosulfan II	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
Endosulfan sulfate	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
Endrin	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
Endrin aldehyde	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
Endrin ketone	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
gamma-BHC	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
gamma-Chlordane	ND	0.020	0.10	U	µg/L	1	2/7/2019 5:08:00 PM
Heptachlor	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
Heptachlor epoxide	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
Hexachlorobenzene	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT: CA Rich Consultants Inc.

Client Sample ID: GW-1 020519

Lab Order: 1902030

Collection Date: 2/5/2019 11:10:00 AM

Project: Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock

Matrix: LIQUID

Lab ID: 1902030-002B

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081			SW8081B		SW3510C		Analyst: CP
Hexachlorocyclopentadiene	ND	0.030	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
Methoxychlor	ND	0.012	0.050	U	µg/L	1	2/7/2019 5:08:00 PM
Toxaphene	ND	0.060	0.25	U	µg/L	1	2/7/2019 5:08:00 PM
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3510C		Analyst: MH
Biphenyl	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
1,2,4-Trichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
1,2-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
1,3-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
1,4-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
2,4,5-Trichlorophenol	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
2,4,6-Trichlorophenol	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
2,4-Dichlorophenol	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
2,4-Dimethylphenol	ND	1.0	10	U	µg/L	1	2/11/2019 10:21:00 PM
2,4-Dinitrophenol	ND	1.0	10	U	µg/L	1	2/11/2019 10:21:00 PM
2,4-Dinitrotoluene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
2,6-Dinitrotoluene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
2-Chloronaphthalene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
2-Chlorophenol	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
2-Methylnaphthalene	0.83	0.50	5.0	J	µg/L	1	2/11/2019 10:21:00 PM
2-Methylphenol	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
2-Nitroaniline	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
2-Nitrophenol	ND	1.0	10	U	µg/L	1	2/11/2019 10:21:00 PM
3+4-Methylphenol	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
3,3'-Dichlorobenzidine	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
3-Nitroaniline	ND	1.0	10	U	µg/L	1	2/11/2019 10:21:00 PM
4,6-Dinitro-2-methylphenol	ND	1.0	10	U	µg/L	1	2/11/2019 10:21:00 PM
4-Bromophenyl phenyl ether	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
4-Chloro-3-methylphenol	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
4-Chloroaniline	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
4-Chlorophenyl phenyl ether	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
4-Nitroaniline	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
4-Nitrophenol	ND	1.0	10	U	µg/L	1	2/11/2019 10:21:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-1 020519**Lab Order:** 1902030**Collection Date:** 2/5/2019 11:10:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902030-002B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3510C		Analyst: MH
Acenaphthene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Acenaphthylene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Acetophenone	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Aniline	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Anthracene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Atrazine	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Azobenzene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Benzaldehyde	ND	1.0	10	U	µg/L	1	2/11/2019 10:21:00 PM
Benzidine	ND	1.0	10	U	µg/L	1	2/11/2019 10:21:00 PM
Benzo(a)anthracene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Benzo(a)pyrene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Benzo(b)fluoranthene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Benzo(g,h,i)perylene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Benzo(k)fluoranthene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Benzoic acid	2.6	1.0	10	J	µg/L	1	2/11/2019 10:21:00 PM
Benzyl alcohol	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Bis(2-chloroethoxy)methane	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Bis(2-chloroethyl)ether	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Bis(2-chloroisopropyl)ether	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Bis(2-ethylhexyl)phthalate	ND	1.0	10	U	µg/L	1	2/11/2019 10:21:00 PM
Butyl benzyl phthalate	ND	1.0	10	U	µg/L	1	2/11/2019 10:21:00 PM
Caprolactam	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Carbazole	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Chrysene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Di-n-butyl phthalate	0.95	0.50	5.0	J	µg/L	1	2/11/2019 10:21:00 PM
Di-n-octyl phthalate	ND	1.0	10	U	µg/L	1	2/11/2019 10:21:00 PM
Dibenzo(a,h)anthracene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Dibenzofuran	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Diethyl phthalate	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Dimethyl phthalate	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Fluoranthene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Fluorene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Hexachlorobenzene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM

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Original

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Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-1 020519**Lab Order:** 1902030**Collection Date:** 2/5/2019 11:10:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902030-002B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3510C		Analyst: MH
Hexachlorobutadiene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Hexachlorocyclopentadiene	ND	1.0	10	U	µg/L	1	2/11/2019 10:21:00 PM
Hexachloroethane	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Indeno(1,2,3-c,d)pyrene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Isophorone	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
N-Nitrosodi-n-propylamine	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
N-Nitrosodimethylamine	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
N-Nitrosodiphenylamine	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Naphthalene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Nitrobenzene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Parathion	ND	1.0	10	U	µg/L	1	2/11/2019 10:21:00 PM
Pentachlorophenol	ND	1.0	10	U	µg/L	1	2/11/2019 10:21:00 PM
Phenanthrene	0.51	0.50	5.0	J	µg/L	1	2/11/2019 10:21:00 PM
Phenol	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Pyrene	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM
Pyridine	ND	0.50	5.0	U	µg/L	1	2/11/2019 10:21:00 PM

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American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-1 020519**Lab Order:** 1902030**Collection Date:** 2/5/2019 11:10:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902030-002C**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY, TOTAL							
		E245.1 REV3.0 1994		E245.1 REV3.0			Analyst: JP
Mercury	ND	0.000150	0.000300	U	mg/L	1	2/7/2019 3:00:58 PM
TOTAL METALS							
		E200.7 REV4.4 1994		E200.7 REV4.4			Analyst: JP
Aluminum	13.3	0.00500	0.0200		mg/L	1	2/13/2019 10:20:29 AM
Antimony	ND	0.00500	0.0200	U	mg/L	1	2/13/2019 10:20:29 AM
Arsenic	0.0251	0.0100	0.0250		mg/L	1	2/13/2019 10:20:29 AM
Barium	0.247	0.00500	0.0200		mg/L	1	2/13/2019 10:20:29 AM
Beryllium	ND	0.00500	0.0200	U	mg/L	1	2/13/2019 10:20:29 AM
Cadmium	ND	0.00500	0.0100	U	mg/L	1	2/13/2019 10:20:29 AM
Calcium	65.6	0.00500	0.0250		mg/L	1	2/13/2019 10:20:29 AM
Chromium	0.141	0.00500	0.0200		mg/L	1	2/13/2019 10:20:29 AM
Cobalt	ND	0.00500	0.0200	U	mg/L	1	2/13/2019 10:20:29 AM
Copper	0.0410	0.00500	0.0200		mg/L	1	2/13/2019 10:20:29 AM
Iron	28.9	0.00500	0.0200		mg/L	1	2/13/2019 10:20:29 AM
Lead	0.0148	0.00500	0.0150	J	mg/L	1	2/13/2019 10:20:29 AM
Magnesium	7.80	0.00500	0.0200		mg/L	1	2/13/2019 10:20:29 AM
Manganese	1.10	0.00500	0.0200		mg/L	1	2/13/2019 10:20:29 AM
Nickel	0.0527	0.00500	0.0200		mg/L	1	2/13/2019 10:20:29 AM
Potassium	11.7	0.0500	0.200		mg/L	1	2/13/2019 10:20:29 AM
Selenium	ND	0.0100	0.0250	U	mg/L	1	2/13/2019 10:20:29 AM
Silver	ND	0.00500	0.0200	U	mg/L	1	2/13/2019 10:20:29 AM
Sodium	183	1.00	3.00	D	mg/L	100	2/13/2019 11:05:35 AM
Thallium	ND	0.0100	0.0150	U	mg/L	1	2/13/2019 10:20:29 AM
Vanadium	0.0461	0.00500	0.0200		mg/L	1	2/13/2019 10:20:29 AM
Zinc	0.334	0.00500	0.0200		mg/L	1	2/13/2019 10:20:29 AM

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American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-1 020519 (12-13)**Lab Order:** 1902030**Collection Date:** 2/5/2019 10:55:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902030-003A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
1,1,1,2-Tetrachloroethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,1,1-Trichloroethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,1,2,2-Tetrachloroethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,1,2-Trichloroethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,1-Dichloroethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,1-Dichloroethene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,1-Dichloropropene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,2,3-Trichlorobenzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,2,3-Trichloropropane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,2,4,5-Tetramethylbenzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,2,4-Trichlorobenzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,2,4-Trimethylbenzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,2-Dibromo-3-chloropropane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,2-Dibromoethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,2-Dichlorobenzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,2-Dichloroethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,2-Dichloropropane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,3,5-Trimethylbenzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,3-Dichlorobenzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,3-dichloropropane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,4-Dichlorobenzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
1,4-Dioxane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
2,2-Dichloropropane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
2-Butanone	ND	5.1	10	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
2-Chloroethyl vinyl ether	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
2-Chlorotoluene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
2-Hexanone	ND	5.1	10	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
2-Propanol	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
4-Chlorotoluene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
4-Isopropyltoluene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
4-Methyl-2-pentanone	ND	5.1	10	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Acetone	ND	5.1	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-1 020519 (12-13)**Lab Order:** 1902030**Collection Date:** 2/5/2019 10:55:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902030-003A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
Benzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Bromobenzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Bromochloromethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Bromodichloromethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Bromoform	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Bromomethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Carbon disulfide	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Carbon tetrachloride	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Chlorobenzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Chlorodifluoromethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Chloroethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Chloroform	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Chloromethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
cis-1,2-Dichloroethene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
cis-1,3-Dichloropropene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Cyclohexane	ND	2.1	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Dibromochloromethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Dibromomethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Dichlorodifluoromethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Diisopropyl ether	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Ethanol	ND	10	21	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Ethylbenzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Freon-114	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Hexachlorobutadiene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Isopropylbenzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
m,p-Xylene	ND	2.1	10	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Methyl Acetate	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Methyl tert-butyl ether	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Methylene chloride	ND	5.1	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
n-Butylbenzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
n-Propylbenzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Naphthalene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
o-Xylene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-1 020519 (12-13)**Lab Order:** 1902030**Collection Date:** 2/5/2019 10:55:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902030-003A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
p-Diethylbenzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
p-Ethyltoluene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
sec-Butylbenzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Styrene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
t-Butyl alcohol	ND	2.6	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
tert-Butylbenzene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Tetrachloroethene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Toluene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
trans-1,2-Dichloroethene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
trans-1,3-Dichloropropene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Trichloroethene	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Trichlorofluoromethane	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Vinyl acetate	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Vinyl chloride	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Xylenes, Total	ND	3.1	15	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Methylcyclohexane	ND	2.1	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Acrolein	ND	13	26	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM
Acrylonitrile	ND	1.0	5.1	U	µg/Kg-dry	1	2/9/2019 9:58:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-1 020519 (12-13)
Lab Order:	1902030	Collection Date:	2/5/2019 10:55:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902030-003B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY							
			SW7471B		SW7471B		Analyst: JP
Mercury	ND	0.00750	0.0141	U	mg/Kg-dry	1	2/12/2019 1:13:00 PM
PCB'S AS AROCLORS SW-846 METHOD 8082							
			SW8082A		SW3546		Analyst: SB
Aroclor 1016	ND	10	21	U	µg/Kg-dry	1	2/9/2019 3:07:00 AM
Aroclor 1221	ND	10	21	U	µg/Kg-dry	1	2/9/2019 3:07:00 AM
Aroclor 1232	ND	10	21	U	µg/Kg-dry	1	2/9/2019 3:07:00 AM
Aroclor 1242	ND	10	21	U	µg/Kg-dry	1	2/9/2019 3:07:00 AM
Aroclor 1248	ND	10	21	U	µg/Kg-dry	1	2/9/2019 3:07:00 AM
Aroclor 1254	ND	10	21	U	µg/Kg-dry	1	2/9/2019 3:07:00 AM
Aroclor 1260	160	10	21		µg/Kg-dry	1	2/9/2019 3:07:00 AM
Aroclor 1262	ND	10	21	U	µg/Kg-dry	1	2/9/2019 3:07:00 AM
Aroclor 1268	ND	10	21	U	µg/Kg-dry	1	2/9/2019 3:07:00 AM
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: SB
4,4'-DDD	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
4,4'-DDE	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
4,4'-DDT	12	1.0	2.6		µg/Kg-dry	1	2/8/2019 6:25:00 PM
Aldrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
alpha-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
alpha-Chlordane	ND	6.2	10	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
beta-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
Chlorobenzilate	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
DBCP	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
delta-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
Dieldrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
Endosulfan I	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
Endosulfan II	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
Endosulfan sulfate	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
Endrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
Endrin aldehyde	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
Endrin ketone	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
gamma-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
gamma-Chlordane	ND	6.2	10	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
Heptachlor	ND	2.1	3.1	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-1 020519 (12-13)**Lab Order:** 1902030**Collection Date:** 2/5/2019 10:55:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902030-003B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081			SW8081B		SW3546		Analyst: SB
Heptachlor epoxide	1.5	1.0	2.6	J	µg/Kg-dry	1	2/8/2019 6:25:00 PM
Hexachlorobenzene	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
Hexachlorocyclopentadiene	ND	3.1	3.1	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
Methoxychlor	ND	1.0	2.6	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
Toxaphene	ND	13	26	U	µg/Kg-dry	1	2/8/2019 6:25:00 PM
PERCENT MOISTURE			D2216				Analyst: MR
Percent Moisture	5.59	0	1.00		wt%	1	2/7/2019 9:00:00 AM
TOTAL METALS			SW6010D		SW3050B		Analyst: JP
Aluminum	775	0.195	0.389		mg/Kg-dry	1	2/13/2019 1:32:53 PM
Antimony	ND	0.195	0.487	U	mg/Kg-dry	1	2/13/2019 1:32:53 PM
Arsenic	1.02	0.195	0.487		mg/Kg-dry	1	2/13/2019 1:32:53 PM
Barium	4.83	0.195	0.389		mg/Kg-dry	1	2/13/2019 1:32:53 PM
Beryllium	ND	0.0974	0.389	U	mg/Kg-dry	1	2/13/2019 1:32:53 PM
Cadmium	ND	0.0487	0.389	U	mg/Kg-dry	1	2/13/2019 1:32:53 PM
Calcium	2000	0.195	0.487		mg/Kg-dry	1	2/13/2019 1:32:53 PM
Chromium	4.74	0.0974	0.389		mg/Kg-dry	1	2/13/2019 1:32:53 PM
Cobalt	0.115	0.0974	0.389	J	mg/Kg-dry	1	2/13/2019 1:32:53 PM
Copper	3.00	0.0974	0.389		mg/Kg-dry	1	2/13/2019 1:32:53 PM
Iron	1500	0.195	0.389		mg/Kg-dry	1	2/13/2019 1:32:53 PM
Lead	1.22	0.195	0.389		mg/Kg-dry	1	2/13/2019 1:32:53 PM
Magnesium	262	0.0974	0.389		mg/Kg-dry	1	2/13/2019 1:32:53 PM
Manganese	16.9	0.0974	0.389		mg/Kg-dry	1	2/13/2019 1:32:53 PM
Nickel	2.03	0.0974	0.389		mg/Kg-dry	1	2/13/2019 1:32:53 PM
Potassium	106	0.487	0.487		mg/Kg-dry	1	2/13/2019 1:32:53 PM
Selenium	ND	0.195	0.487	U	mg/Kg-dry	1	2/13/2019 1:32:53 PM
Silver	ND	0.0974	0.389	U	mg/Kg-dry	1	2/13/2019 1:32:53 PM
Sodium	21.0	0.195	0.487		mg/Kg-dry	1	2/13/2019 1:32:53 PM
Thallium	ND	0.292	0.487	U	mg/Kg-dry	1	2/13/2019 1:32:53 PM
Vanadium	2.62	0.0974	0.389		mg/Kg-dry	1	2/13/2019 1:32:53 PM
Zinc	11.4	0.0974	0.389		mg/Kg-dry	1	2/13/2019 1:32:53 PM
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-1 020519 (12-13)**Lab Order:** 1902030**Collection Date:** 2/5/2019 10:55:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902030-003B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
Biphenyl	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
1,2,4-Trichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
1,2-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
1,3-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
1,4-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
2,4,5-Trichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
2,4,6-Trichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
2,4-Dichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
2,4-Dimethylphenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
2,4-Dinitrophenol	ND	53	530	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
2,4-Dinitrotoluene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
2,6-Dinitrotoluene	ND	53	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
2-Chloronaphthalene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
2-Chlorophenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
2-Methylnaphthalene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
2-Methylphenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
2-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
2-Nitrophenol	ND	53	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
3+4-Methylphenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
3,3'-Dichlorobenzidine	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
3-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
4,6-Dinitro-2-methylphenol	ND	53	530	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
4-Bromophenyl phenyl ether	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
4-Chloro-3-methylphenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
4-Chloroaniline	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
4-Chlorophenyl phenyl ether	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
4-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
4-Nitrophenol	ND	53	530	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Acenaphthene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Acenaphthylene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Acetophenone	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Aniline	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Anthracene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-1 020519 (12-13)**Lab Order:** 1902030**Collection Date:** 2/5/2019 10:55:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902030-003B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
Atrazine	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Azobenzene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Benzaldehyde	ND	53	530	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Benzidine	ND	53	530	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Benzo(a)anthracene	32	26	260	J	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Benzo(a)pyrene	27	26	160	J	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Benzo(b)fluoranthene	40	26	260	J	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Benzo(g,h,i)perylene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Benzo(k)fluoranthene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Benzoic acid	ND	53	530	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Benzyl alcohol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Bis(2-chloroethoxy)methane	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Bis(2-chloroethyl)ether	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Bis(2-chloroisopropyl)ether	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Bis(2-ethylhexyl)phthalate	ND	53	530	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Butyl benzyl phthalate	ND	53	530	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Caprolactam	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Carbazole	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Chrysene	28	26	260	J	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Di-n-butyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Di-n-octyl phthalate	ND	53	530	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Dibenzo(a,h)anthracene	ND	26	160	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Dibenzofuran	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Diethyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Dimethyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Fluoranthene	57	26	260	J	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Fluorene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Hexachlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Hexachlorobutadiene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Hexachlorocyclopentadiene	ND	53	530	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Hexachloroethane	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Indeno(1,2,3-c,d)pyrene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Isophorone	140	26	260	J	µg/Kg-dry	1	2/9/2019 3:31:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-1 020519 (12-13)
Lab Order:	1902030	Collection Date:	2/5/2019 10:55:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902030-003B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
N-Nitrosodi-n-propylamine	ND	26	160	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
N-Nitrosodimethylamine	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
N-Nitrosodiphenylamine	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Naphthalene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Nitrobenzene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Parathion	ND	53	530	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Pentachlorophenol	ND	53	530	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Phenanthrene	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Phenol	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Pyrene	51	26	260	J	µg/Kg-dry	1	2/9/2019 3:31:00 AM
Pyridine	ND	26	260	U	µg/Kg-dry	1	2/9/2019 3:31:00 AM

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Original

LABORATORY DATA FEBRUARY 5, 2019
SOIL VAPOR



ANALYTICAL REPORT

Lab Number:	L1904834
Client:	CA RICH CONSULTANTS, INC. 17 Dupont St. Plainview, NY 11803
ATTN:	Jason Cooper
Phone:	(516) 576-8844
Project Name:	FAR ROCKAWAY PH3
Project Number:	Not Specified
Report Date:	02/12/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: FAR ROCKAWAY PH3
Project Number: Not Specified

Lab Number: L1904834
Report Date: 02/12/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1904834-01	SV-1020519	SOIL_VAPOR	20-02 MOTT AVE	02/05/19 11:35	02/06/19

Project Name: FAR ROCKAWAY PH3
Project Number: Not Specified

Lab Number: L1904834
Report Date: 02/12/19

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name: FAR ROCKAWAY PH3
Project Number: Not Specified

Lab Number: L1904834
Report Date: 02/12/19

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on February 1, 2019. The canister certification results are provided as an addendum.

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

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 02/12/19

AIR

Project Name: FAR ROCKAWAY PH3**Lab Number:** L1904834**Project Number:** Not Specified**Report Date:** 02/12/19**SAMPLE RESULTS**

Lab ID: L1904834-01
 Client ID: SV-1020519
 Sample Location: 20-02 MOTT AVE

Date Collected: 02/05/19 11:35
 Date Received: 02/06/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 02/11/19 20:43
 Analyst: EW

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.388	0.200	--	1.92	0.989	--		1
Chloromethane	0.202	0.200	--	0.417	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	5.57	1.00	--	13.2	2.38	--		1
Trichlorofluoromethane	0.286	0.200	--	1.61	1.12	--		1
iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.671	0.500	--	1.98	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1904834**Project Number:** Not Specified**Report Date:** 02/12/19**SAMPLE RESULTS**

Lab ID: L1904834-01
 Client ID: SV-1020519
 Sample Location: 20-02 MOTT AVE

Date Collected: 02/05/19 11:35
 Date Received: 02/06/19
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	1.98	0.200	--	9.67	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.245	0.200	--	0.863	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.488	0.200	--	1.56	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
Xylene (Total)	ND	0.200	--	ND	0.869	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.514	0.200	--	1.94	0.754	--		1
1,2-Dichloroethene (total)	ND	0.200	--	ND	0.793	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
1,3-Dichloropropene, Total	ND	0.200	--	ND	0.908	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1904834**Project Number:** Not Specified**Report Date:** 02/12/19**SAMPLE RESULTS**

Lab ID: L1904834-01
 Client ID: SV-1020519
 Sample Location: 20-02 MOTT AVE

Date Collected: 02/05/19 11:35
 Date Received: 02/06/19
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	1.97	0.200	--	13.4	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	0.283	0.200	--	1.70	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	83		60-140



Project Name: FAR ROCKAWAY PH3

Lab Number: L1904834

Project Number: Not Specified

Report Date: 02/12/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/11/19 14:33

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1205669-4								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Acetaldehyde	ND	2.50	--	ND	4.50	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1904834**Project Number:** Not Specified**Report Date:** 02/12/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/11/19 14:33

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1205669-4								
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Xylene (Total)	ND	0.200	--	ND	0.869	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethene (total)	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,3-Dichloropropene, Total	ND	0.200	--	ND	0.908	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Isopropyl Ether	ND	0.200	--	ND	0.836	--		1
Ethyl-Tert-Butyl-Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1904834**Project Number:** Not Specified**Report Date:** 02/12/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/11/19 14:33

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1205669-4								
Thiophene	ND	0.200	--	ND	0.688	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
Tertiary-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Methylthiophene	ND	0.200	--	ND	0.803	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
3-Methylthiophene	ND	0.200	--	ND	0.803	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl Acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1904834**Project Number:** Not Specified**Report Date:** 02/12/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/11/19 14:33

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1205669-4								
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
2-Ethylthiophene	ND	0.200	--	ND	0.918	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane (C9)	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
o-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
p-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane (C10)	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1904834**Project Number:** Not Specified**Report Date:** 02/12/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/11/19 14:33

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1205669-4								
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,3-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
Indane	ND	0.200	--	ND	0.967	--		1
Indene	ND	0.200	--	ND	0.951	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
1,2,4,5-Tetramethylbenzene	ND	0.200	--	ND	1.10	--		1
Dodecane (C12)	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Benzothiophene	ND	0.500	--	ND	2.74	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1
2-Methylnaphthalene	ND	1.00	--	ND	5.82	--		1
1-Methylnaphthalene	ND	1.00	--	ND	5.82	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAR ROCKAWAY PH3

Project Number: Not Specified

Lab Number: L1904834

Report Date: 02/12/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1205669-3								
Chlorodifluoromethane	88		-		70-130	-		
Propylene	101		-		70-130	-		
Propane	87		-		70-130	-		
Dichlorodifluoromethane	85		-		70-130	-		
Chloromethane	102		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	107		-		70-130	-		
Methanol	92		-		70-130	-		
Vinyl chloride	103		-		70-130	-		
1,3-Butadiene	107		-		70-130	-		
Butane	105		-		70-130	-		
Bromomethane	97		-		70-130	-		
Chloroethane	99		-		70-130	-		
Ethyl Alcohol	94		-		40-160	-		
Dichlorofluoromethane	99		-		70-130	-		
Vinyl bromide	104		-		70-130	-		
Acrolein	93		-		70-130	-		
Acetone	78		-		40-160	-		
Acetonitrile	103		-		70-130	-		
Trichlorofluoromethane	106		-		70-130	-		
iso-Propyl Alcohol	74		-		40-160	-		
Acrylonitrile	96		-		70-130	-		
Pentane	87		-		70-130	-		
Ethyl ether	83		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAR ROCKAWAY PH3

Project Number: Not Specified

Lab Number: L1904834

Report Date: 02/12/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1205669-3								
1,1-Dichloroethene	95		-		70-130	-		
tert-Butyl Alcohol	92		-		70-130	-		
Methylene chloride	99		-		70-130	-		
3-Chloropropene	96		-		70-130	-		
Carbon disulfide	88		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	96		-		70-130	-		
trans-1,2-Dichloroethene	92		-		70-130	-		
1,1-Dichloroethane	93		-		70-130	-		
Methyl tert butyl ether	92		-		70-130	-		
Vinyl acetate	97		-		70-130	-		
2-Butanone	102		-		70-130	-		
cis-1,2-Dichloroethene	99		-		70-130	-		
Ethyl Acetate	94		-		70-130	-		
Chloroform	97		-		70-130	-		
Tetrahydrofuran	97		-		70-130	-		
2,2-Dichloropropane	88		-		70-130	-		
1,2-Dichloroethane	96		-		70-130	-		
n-Hexane	97		-		70-130	-		
Isopropyl Ether	92		-		70-130	-		
Ethyl-Tert-Butyl-Ether	89		-		70-130	-		
1,2-Dichloroethene (total)	96		-			-		
1,2-Dichloroethene (total)	96		-			-		
1,1,1-Trichloroethane	98		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAR ROCKAWAY PH3

Project Number: Not Specified

Lab Number: L1904834

Report Date: 02/12/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1205669-3								
1,1-Dichloropropene	99		-		70-130	-		
Benzene	94		-		70-130	-		
Carbon tetrachloride	94		-		70-130	-		
Cyclohexane	96		-		70-130	-		
Tertiary-Amyl Methyl Ether	87		-		70-130	-		
Dibromomethane	96		-		70-130	-		
1,2-Dichloropropane	96		-		70-130	-		
Bromodichloromethane	100		-		70-130	-		
1,4-Dioxane	104		-		70-130	-		
Trichloroethene	97		-		70-130	-		
2,2,4-Trimethylpentane	99		-		70-130	-		
Methyl Methacrylate	71		-		40-160	-		
Heptane	96		-		70-130	-		
cis-1,3-Dichloropropene	100		-		70-130	-		
4-Methyl-2-pentanone	102		-		70-130	-		
trans-1,3-Dichloropropene	87		-		70-130	-		
1,1,2-Trichloroethane	101		-		70-130	-		
Toluene	95		-		70-130	-		
1,3-Dichloropropane	93		-		70-130	-		
2-Hexanone	108		-		70-130	-		
Dibromochloromethane	100		-		70-130	-		
1,2-Dibromoethane	98		-		70-130	-		
Butyl Acetate	87		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAR ROCKAWAY PH3

Project Number: Not Specified

Lab Number: L1904834

Report Date: 02/12/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1205669-3								
Octane	86		-		70-130	-		
Tetrachloroethene	94		-		70-130	-		
1,1,1,2-Tetrachloroethane	88		-		70-130	-		
Chlorobenzene	95		-		70-130	-		
Ethylbenzene	96		-		70-130	-		
p/m-Xylene	96		-		70-130	-		
Bromoform	98		-		70-130	-		
Styrene	94		-		70-130	-		
1,1,2,2-Tetrachloroethane	103		-		70-130	-		
o-Xylene	98		-		70-130	-		
1,2,3-Trichloropropane	92		-		70-130	-		
Nonane (C9)	91		-		70-130	-		
Isopropylbenzene	94		-		70-130	-		
Bromobenzene	90		-		70-130	-		
o-Chlorotoluene	92		-		70-130	-		
n-Propylbenzene	93		-		70-130	-		
p-Chlorotoluene	93		-		70-130	-		
4-Ethyltoluene	97		-		70-130	-		
1,3,5-Trimethylbenzene	96		-		70-130	-		
tert-Butylbenzene	96		-		70-130	-		
1,2,4-Trimethylbenzene	102		-		70-130	-		
Decane (C10)	97		-		70-130	-		
Benzyl chloride	100		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAR ROCKAWAY PH3

Project Number: Not Specified

Lab Number: L1904834

Report Date: 02/12/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1205669-3								
1,3-Dichlorobenzene	103		-		70-130	-		
1,4-Dichlorobenzene	102		-		70-130	-		
sec-Butylbenzene	98		-		70-130	-		
p-Isopropyltoluene	87		-		70-130	-		
1,2-Dichlorobenzene	102		-		70-130	-		
n-Butylbenzene	101		-		70-130	-		
1,2-Dibromo-3-chloropropane	96		-		70-130	-		
Undecane	112		-		70-130	-		
Dodecane (C12)	139	Q	-		70-130	-		
1,2,4-Trichlorobenzene	126		-		70-130	-		
Naphthalene	109		-		70-130	-		
1,2,3-Trichlorobenzene	116		-		70-130	-		
Hexachlorobutadiene	118		-		70-130	-		

Lab Duplicate Analysis Batch Quality Control

Project Name: FAR ROCKAWAY PH3

Project Number: Not Specified

Lab Number: L1904834

Report Date: 02/12/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1205669-5 QC Sample: L1904834-01 Client ID: SV-1020519						
Dichlorodifluoromethane	0.388	0.390	ppbV	1		25
Chloromethane	0.202	ND	ppbV	NC		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	5.57	5.42	ppbV	3		25
Trichlorofluoromethane	0.286	0.268	ppbV	6		25
iso-Propyl Alcohol	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
tert-Butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25

Lab Duplicate Analysis Batch Quality Control

Project Name: FAR ROCKAWAY PH3

Project Number: Not Specified

Lab Number: L1904834

Report Date: 02/12/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1205669-5 QC Sample: L1904834-01 Client ID: SV-1020519						
2-Butanone	0.671	0.572	ppbV	16		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Ethyl Acetate	ND	ND	ppbV	NC		25
Chloroform	1.98	2.04	ppbV	3		25
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	0.245	0.250	ppbV	2		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	0.488	0.473	ppbV	3		25
Carbon tetrachloride	ND	ND	ppbV	NC		25
Cyclohexane	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Xylene (Total)	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
Trichloroethene	ND	ND	ppbV	NC		25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC		25
Heptane	ND	ND	ppbV	NC		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25

Lab Duplicate Analysis Batch Quality Control

Project Name: FAR ROCKAWAY PH3

Project Number: Not Specified

Lab Number: L1904834

Report Date: 02/12/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1205669-5 QC Sample: L1904834-01 Client ID: SV-1020519						
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	0.514	0.509	ppbV	1		25
1,2-Dichloroethene (total)	ND	ND	ppbV	NC		25
2-Hexanone	ND	ND	ppbV	NC		25
1,3-Dichloropropene, Total	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	1.97	1.97	ppbV	0		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	ND	ND	ppbV	NC		25
p/m-Xylene	ND	ND	ppbV	NC		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,1,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	ND	ND	ppbV	NC		25
4-Ethyltoluene	ND	ND	ppbV	NC		25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25

Lab Duplicate Analysis

Batch Quality Control

Project Name: FAR ROCKAWAY PH3

Project Number: Not Specified

Lab Number: L1904834

Report Date: 02/12/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1205669-5 QC Sample: L1904834-01 Client ID: SV-1020519						
1,2-Dichlorobenzene	0.283	0.260	ppbV	8		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Project Name: FAR ROCKAWAY PH3

Serial_No:02121916:58
Lab Number: L1904834

Project Number:

Report Date: 02/12/19

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1904834-01	SV-1020519	0444	Flow 5	02/01/19	284274		-	-	-	Pass	40.0	39.8	1
L1904834-01	SV-1020519	1979	6.0L Can	02/01/19	284274	L1903564-01	Pass	-29.9	-1.4	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903564
Report Date: 02/12/19

Air Canister Certification Results

Lab ID: L1903564-01
Client ID: CAN 1661 SHELF 46
Sample Location:

Date Collected: 01/28/19 09:00
Date Received: 01/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 01/29/19 09:19
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903564
Report Date: 02/12/19

Air Canister Certification Results

Lab ID: L1903564-01
Client ID: CAN 1661 SHELF 46
Sample Location:

Date Collected: 01/28/19 09:00
Date Received: 01/28/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903564
Report Date: 02/12/19

Air Canister Certification Results

Lab ID: L1903564-01
Client ID: CAN 1661 SHELF 46
Sample Location:

Date Collected: 01/28/19 09:00
Date Received: 01/28/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	84		60-140
chlorobenzene-d5	83		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903564
Report Date: 02/12/19

Air Canister Certification Results

Lab ID: L1903564-01
Client ID: CAN 1661 SHELF 46
Sample Location:

Date Collected: 01/28/19 09:00
Date Received: 01/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 01/29/19 09:19
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.046	0.020	--	0.251	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903564
Report Date: 02/12/19

Air Canister Certification Results

Lab ID: L1903564-01
Client ID: CAN 1661 SHELF 46
Sample Location:

Date Collected: 01/28/19 09:00
Date Received: 01/28/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	0.062	0.040	--	0.269	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1903564**Project Number:** CANISTER QC BAT**Report Date:** 02/12/19**Air Canister Certification Results**

Lab ID: L1903564-01

Date Collected: 01/28/19 09:00

Client ID: CAN 1661 SHELF 46

Date Received: 01/28/19

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	84		60-140
chlorobenzene-d5	86		60-140



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1904834**Project Number:** Not Specified**Report Date:** 02/12/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

N/A Absent

Container Information**Container ID** **Container Type**

L1904834-01A Canister - 6 Liter

Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
N/A	NA			Y	Absent		TO15-LL(30)

Project Name: FAR ROCKAWAY PH3
Project Number: Not Specified

Lab Number: L1904834
Report Date: 02/12/19

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total'

Report Format: Data Usability Report



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1904834**Project Number:** Not Specified**Report Date:** 02/12/19

result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: FAR ROCKAWAY PH3
Project Number: Not Specified

Lab Number: L1904834
Report Date: 02/12/19

REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.

ID No.:17873

Facility: **Company-wide**

Revision 12

Department: **Quality Assurance**

Published Date: 10/9/2018 4:58:19 PM

Title: **Certificate/Approval Program Summary**

Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 6860:** SCM: Perchlorate**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg. EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

**LABORATORY DATA FEBRUARY 7, 2019
SOIL AND GROUNDWATER**



American Analytical Laboratories, LLC.
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Website: www.American-Analytical.com

February 14, 2019

Jason Cooper
CA Rich Consultants Inc.
17 Dupont Street
Plainview, NY 11803
TEL: (516) 576-8844
FAX (516) 576-0093

RE: Far Rockaway Ph 3; 20-02 Mott Ave., Far R

Order No.: 1902051

Dear Jason Cooper:

American Analytical Laboratories, LLC. received 5 sample(s) on 2/8/2019 for the analyses presented in the following report.

Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report. The results reported herein relate only to the items tested or to the samples as received by the laboratory. This report may not be reproduced, except in full, without the approval of American Analytical Laboratories, LLC and is not considered complete without a cover page and chain of custody documentation. The limits (LOQ) provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report or the data is qualified either on the sample results or in the QC section of the report. This package has been reviewed by American Analytical Laboratories' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at lbeyer@american-analytical.com.

Sincerely,

Lori Beyer
Lab Director
American Analytical Laboratories, LLC.



American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Workorder Sample Summary

WO#: 1902051
14-Feb-19

CLIENT: CA Rich Consultants Inc.
Project: Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1902051-001A	SB-2 020719 (0.5-1.5)		2/7/2019 9:20:00 AM	2/8/2019 11:45:00 AM	Soil
1902051-001B	SB-2 020719 (0.5-1.5)		2/7/2019 9:20:00 AM	2/8/2019 11:45:00 AM	Soil
1902051-002A	SB-2 020719 (18-19)		2/7/2019 9:45:00 AM	2/8/2019 11:45:00 AM	Soil
1902051-002B	SB-2 020719 (18-19)		2/7/2019 9:45:00 AM	2/8/2019 11:45:00 AM	Soil
1902051-003A	GW-2 020719		2/7/2019 10:40:00 AM	2/8/2019 11:45:00 AM	Liquid
1902051-003B	GW-2 020719		2/7/2019 10:40:00 AM	2/8/2019 11:45:00 AM	Liquid
1902051-003C	GW-2 020719		2/7/2019 10:40:00 AM	2/8/2019 11:45:00 AM	Liquid
1902051-004A	SB-3 020719 (0.5-1.5)		2/7/2019 12:05:00 PM	2/8/2019 11:45:00 AM	Soil
1902051-004B	SB-3 020719 (0.5-1.5)		2/7/2019 12:05:00 PM	2/8/2019 11:45:00 AM	Soil
1902051-005A	SB-3 020719 (18-19)		2/7/2019 12:40:00 PM	2/8/2019 11:45:00 AM	Soil
1902051-005B	SB-3 020719 (18-19)		2/7/2019 12:40:00 PM	2/8/2019 11:45:00 AM	Soil

Original

CHAIN OF CUSTODY

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

CERTIFICATIONS

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

[illegible]



American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Sample Log-In Check List

Client Name: **CA RICH**

Work Order Number: **1902051**

RcptNo: **1**

Logged by: **Lori Beyer** **2/8/2019 11:45:00 AM**

Lori Beyer

Completed By: **Lori Beyer** **2/8/2019 11:15:00 AM**

Lori Beyer

Reviewed By: **Phyllis Masi** **2/8/2019**

Phyllis Masi

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? AAL Lab Courier

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒
No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of $>0^{\circ}\text{C}$ 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 ☒ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☒ No ☐ No VOA Vials ☐
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 ☐ NA ☒

Person Notified:

Date

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
-----------	-------------------------	-----------	-------------	---------	-----------	-----------



American Analytical Laboratories, LLC.
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Website: www.American-Analytical.com

Case Narrative

WO#: 1902051
Date: 2/14/2019

CLIENT: CA Rich Consultants Inc.
Project: Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock

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.

Soil sample results analyzed for Volatile Organics and/or Gasoline Range Organics (GRO) via preparation method SW846 Method 5035A by the Low Level procedures potentially may be estimated, "J" (biased low) since the samples for this test were not collected according to the 5035A Method. Analysis was performed from intact soil jar. Volatile LCS are analyzed with preservatives - HCL/NaHSO₄/Methanol depending on level of analysis (high/low) similar to sample analysis. Outliers can be attributed to the presence of chemical preservatives. 2-Chloroethyl vinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

SVOA: Calibration for Benzoic Acid does not meet method requirements. Reporting limit must be considered estimated.

Pesticide/PCB/Herbicide analysis (if applicable to this work order) are analyzed on two distinct columns. Once a target compound is qualitatively confirmed by detection on both columns and quantitation is determined to be >40% between the two columns, AAL's policy is to report the lower of the values as suggested by SW846 Method 8000C in cases where no interference exists. If in the professional judgment of the laboratory, the higher value must be utilized this is explained in the lab report.

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, 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

Original



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Case Narrative

WO#: 1902051
Date: 2/14/2019

CLIENT: CA Rich Consultants Inc.
Project: Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock

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.

Original



American Analytical Laboratories, LLC.
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Farmingdale, New York 11735
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Website: www.American-Analytical.com

Definition Only

WO#: 1902051
Date: 2/14/2019

Definitions:

Sample Result and QC Summary Qualifiers - Level I and Level II Reports

ND - Not detected at the reporting limit/Limit of Quantitation

B - The analyte was detected in the associated method blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <5x the blank value as artifact.

E - The value is above the quantitation range

D - Analyte concentration was obtained from diluted analysis or from analysis using reduced sample volume.

J - The analyte was detected below the limit of quantitation but greater than the established Limit of Detection (LOD). There is greater uncertainty associated with these results and data should be considered as estimated.

U - The compound was analyzed for but not detected.

H - Holding time for preparation or analysis has been exceeded.

S - Spike recovery is outside accepted recovery limits.

R - RPD is outside accepted recovery range.

P - Secondary column exceeds 40% difference for GC test.

* - Calibration exceeds method requirement. Due to the large number of analytes for organic testing, the method allows 10% of analytes to have %RSD and/or %D to be >20%.

LOD - Limit of Detection; the lowest level the analyte can be determined to be statistically different from a blank.

LOQ - Limit of Quantitation; the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.

PQL - Practical Quantitation Limit; the lowest level that can be reliably achieved within the specific limits of Precision and accuracy. Listed on the QC Summary Forms.

m - Analyte was manually integrated for GC/MS.

+ - Concentration exceeds regulatory level for TCLP

Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-2 020719 (0.5-1.5)**Lab Order:** 1902051**Collection Date:** 2/7/2019 9:20:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-001A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
1,1,1,2-Tetrachloroethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,1,1-Trichloroethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,1,2,2-Tetrachloroethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,1,2-Trichloroethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,1-Dichloroethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,1-Dichloroethene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,1-Dichloropropene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,2,3-Trichlorobenzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,2,3-Trichloropropane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,2,4,5-Tetramethylbenzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,2,4-Trichlorobenzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,2,4-Trimethylbenzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,2-Dibromo-3-chloropropane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,2-Dibromoethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,2-Dichlorobenzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,2-Dichloroethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,2-Dichloropropane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,3,5-Trimethylbenzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,3-Dichlorobenzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,3-dichloropropane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,4-Dichlorobenzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
1,4-Dioxane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
2,2-Dichloropropane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
2-Butanone	ND	6.3	13	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
2-Chloroethyl vinyl ether	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
2-Chlorotoluene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
2-Hexanone	ND	6.3	13	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
2-Propanol	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
4-Chlorotoluene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
4-Isopropyltoluene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
4-Methyl-2-pentanone	ND	6.3	13	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Acetone	ND	6.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-2 020719 (0.5-1.5)**Lab Order:** 1902051**Collection Date:** 2/7/2019 9:20:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-001A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
Benzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Bromobenzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Bromochloromethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Bromodichloromethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Bromoform	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Bromomethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Carbon disulfide	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Carbon tetrachloride	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Chlorobenzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Chlorodifluoromethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Chloroethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Chloroform	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Chloromethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
cis-1,2-Dichloroethene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
cis-1,3-Dichloropropene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Cyclohexane	ND	2.5	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Dibromochloromethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Dibromomethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Dichlorodifluoromethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Diisopropyl ether	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Ethanol	ND	13	25	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Ethylbenzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Freon-114	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Hexachlorobutadiene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Isopropylbenzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
m,p-Xylene	ND	2.5	13	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Methyl Acetate	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Methyl tert-butyl ether	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Methylene chloride	ND	6.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
n-Butylbenzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
n-Propylbenzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Naphthalene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
o-Xylene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-2 020719 (0.5-1.5)
Lab Order:	1902051	Collection Date:	2/7/2019 9:20:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902051-001A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
p-Diethylbenzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
p-Ethyltoluene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
sec-Butylbenzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Styrene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
t-Butyl alcohol	ND	3.1	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
tert-Butylbenzene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Tetrachloroethene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Toluene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
trans-1,2-Dichloroethene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
trans-1,3-Dichloropropene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Trichloroethene	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Trichlorofluoromethane	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Vinyl acetate	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Vinyl chloride	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Xylenes, Total	ND	3.8	19	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Methylcyclohexane	ND	2.5	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Acrolein	ND	16	31	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM
Acrylonitrile	ND	1.3	6.3	U	µg/Kg-dry	1	2/9/2019 9:42:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-2 020719 (0.5-1.5)
Lab Order:	1902051	Collection Date:	2/7/2019 9:20:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902051-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY							
			SW7471B		SW7471B		Analyst: JP
Mercury	ND	0.00988	0.0185	U	mg/Kg-dry	1	2/12/2019 1:51:00 PM
PCB'S AS AROCLORS SW-846 METHOD 8082							
			SW8082A		SW3546		Analyst: CP
Aroclor 1016	ND	13	25	U	µg/Kg-dry	1	2/12/2019 12:43:00 AM
Aroclor 1221	ND	13	25	U	µg/Kg-dry	1	2/12/2019 12:43:00 AM
Aroclor 1232	ND	13	25	U	µg/Kg-dry	1	2/12/2019 12:43:00 AM
Aroclor 1242	ND	13	25	U	µg/Kg-dry	1	2/12/2019 12:43:00 AM
Aroclor 1248	ND	13	25	U	µg/Kg-dry	1	2/12/2019 12:43:00 AM
Aroclor 1254	ND	13	25	U	µg/Kg-dry	1	2/12/2019 12:43:00 AM
Aroclor 1260	28	13	25		µg/Kg-dry	1	2/12/2019 12:43:00 AM
Aroclor 1262	ND	13	25	U	µg/Kg-dry	1	2/12/2019 12:43:00 AM
Aroclor 1268	ND	13	25	U	µg/Kg-dry	1	2/12/2019 12:43:00 AM
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: SB
4,4'-DDD	ND	1.3	3.2	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
4,4'-DDE	ND	1.3	3.2	PU	µg/Kg-dry	1	2/11/2019 8:29:00 PM
4,4'-DDT	1.8	1.3	3.2	JP	µg/Kg-dry	1	2/11/2019 8:29:00 PM
Aldrin	ND	1.3	3.2	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
alpha-BHC	ND	1.3	3.2	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
alpha-Chlordane	ND	7.6	13	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
beta-BHC	ND	1.3	3.2	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
Chlorobenzilate	ND	1.3	3.2	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
DBCP	ND	1.3	3.2	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
delta-BHC	ND	1.3	3.2	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
Dieldrin	ND	1.3	3.2	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
Endosulfan I	ND	1.3	3.2	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
Endosulfan II	ND	1.3	3.2	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
Endosulfan sulfate	ND	1.3	3.2	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
Endrin	ND	1.3	3.2	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
Endrin aldehyde	ND	1.3	3.2	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
Endrin ketone	ND	1.3	3.2	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
gamma-BHC	ND	1.3	3.2	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
gamma-Chlordane	ND	7.6	13	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
Heptachlor	ND	2.5	3.8	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-2 020719 (0.5-1.5)
Lab Order:	1902051	Collection Date:	2/7/2019 9:20:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902051-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: SB
Heptachlor epoxide	ND	1.3	3.2	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
Hexachlorobenzene	ND	1.3	3.2	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
Hexachlorocyclopentadiene	ND	3.8	3.8	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
Methoxychlor	19	1.3	3.2		µg/Kg-dry	1	2/11/2019 8:29:00 PM
Toxaphene	ND	16	32	U	µg/Kg-dry	1	2/11/2019 8:29:00 PM
PERCENT MOISTURE							
			D2216				Analyst: MR
Percent Moisture	22.1	0	1.00		wt%	1	2/11/2019 9:00:00 AM
TOTAL METALS							
			SW6010D		SW3050B		Analyst: JP
Aluminum	2490	0.245	0.490		mg/Kg-dry	1	2/13/2019 2:08:51 PM
Antimony	ND	0.245	0.613	U	mg/Kg-dry	1	2/13/2019 2:08:51 PM
Arsenic	2.99	0.245	0.613		mg/Kg-dry	1	2/13/2019 2:08:51 PM
Barium	27.2	0.245	0.490		mg/Kg-dry	1	2/13/2019 2:08:51 PM
Beryllium	ND	0.123	0.490	U	mg/Kg-dry	1	2/13/2019 2:08:51 PM
Cadmium	0.120	0.0613	0.490	J	mg/Kg-dry	1	2/13/2019 2:08:51 PM
Calcium	21500	2.45	6.13	D	mg/Kg-dry	10	2/13/2019 3:44:14 PM
Chromium	4.69	0.123	0.490		mg/Kg-dry	1	2/13/2019 2:08:51 PM
Cobalt	0.360	0.123	0.490	J	mg/Kg-dry	1	2/13/2019 2:08:51 PM
Copper	8.54	0.123	0.490		mg/Kg-dry	1	2/13/2019 2:08:51 PM
Iron	4820	2.45	4.90	D	mg/Kg-dry	10	2/13/2019 3:44:14 PM
Lead	44.6	0.245	0.490		mg/Kg-dry	1	2/13/2019 2:08:51 PM
Magnesium	1880	0.123	0.490		mg/Kg-dry	1	2/13/2019 2:08:51 PM
Manganese	78.3	0.123	0.490		mg/Kg-dry	1	2/13/2019 2:08:51 PM
Nickel	4.10	0.123	0.490		mg/Kg-dry	1	2/13/2019 2:08:51 PM
Potassium	224	0.613	0.613		mg/Kg-dry	1	2/13/2019 2:08:51 PM
Selenium	0.870	0.245	0.613		mg/Kg-dry	1	2/13/2019 2:08:51 PM
Silver	ND	0.123	0.490	U	mg/Kg-dry	1	2/13/2019 2:08:51 PM
Sodium	30.6	0.245	0.613		mg/Kg-dry	1	2/13/2019 2:08:51 PM
Thallium	ND	0.368	0.613	U	mg/Kg-dry	1	2/13/2019 2:08:51 PM
Vanadium	7.07	0.123	0.490		mg/Kg-dry	1	2/13/2019 2:08:51 PM
Zinc	46.6	0.123	0.490		mg/Kg-dry	1	2/13/2019 2:08:51 PM
SEMIVOLATILE SW-846 METHOD 8270							
			SW8270D		SW3546		Analyst: MH

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-2 020719 (0.5-1.5)**Lab Order:** 1902051**Collection Date:** 2/7/2019 9:20:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-001B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
Biphenyl	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
1,2,4-Trichlorobenzene	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
1,2-Dichlorobenzene	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
1,3-Dichlorobenzene	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
1,4-Dichlorobenzene	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
2,4,5-Trichlorophenol	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
2,4,6-Trichlorophenol	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
2,4-Dichlorophenol	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
2,4-Dimethylphenol	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
2,4-Dinitrophenol	ND	64	640	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
2,4-Dinitrotoluene	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
2,6-Dinitrotoluene	ND	64	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
2-Chloronaphthalene	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
2-Chlorophenol	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
2-Methylnaphthalene	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
2-Methylphenol	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
2-Nitroaniline	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
2-Nitrophenol	ND	64	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
3+4-Methylphenol	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
3,3'-Dichlorobenzidine	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
3-Nitroaniline	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
4,6-Dinitro-2-methylphenol	ND	64	640	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
4-Bromophenyl phenyl ether	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
4-Chloro-3-methylphenol	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
4-Chloroaniline	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
4-Chlorophenyl phenyl ether	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
4-Nitroaniline	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
4-Nitrophenol	ND	64	640	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Acenaphthene	37	32	320	J	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Acenaphthylene	67	32	320	J	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Acetophenone	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Aniline	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Anthracene	120	32	320	J	µg/Kg-dry	1	2/14/2019 12:29:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-2 020719 (0.5-1.5)
Lab Order:	1902051	Collection Date:	2/7/2019 9:20:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902051-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
Atrazine	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Azobenzene	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Benzaldehyde	ND	64	640	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Benzidine	ND	64	640	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Benzo(a)anthracene	900	32	320		µg/Kg-dry	1	2/14/2019 12:29:00 AM
Benzo(a)pyrene	930	32	190		µg/Kg-dry	1	2/14/2019 12:29:00 AM
Benzo(b)fluoranthene	1300	32	320		µg/Kg-dry	1	2/14/2019 12:29:00 AM
Benzo(g,h,i)perylene	650	32	320		µg/Kg-dry	1	2/14/2019 12:29:00 AM
Benzo(k)fluoranthene	380	32	320		µg/Kg-dry	1	2/14/2019 12:29:00 AM
Benzoic acid	ND	64	640	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Benzyl alcohol	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Bis(2-chloroethoxy)methane	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Bis(2-chloroethyl)ether	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Bis(2-chloroisopropyl)ether	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Bis(2-ethylhexyl)phthalate	ND	64	640	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Butyl benzyl phthalate	ND	64	640	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Caprolactam	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Carbazole	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Chrysene	780	32	320		µg/Kg-dry	1	2/14/2019 12:29:00 AM
Di-n-butyl phthalate	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Di-n-octyl phthalate	ND	64	640	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Dibenzo(a,h)anthracene	140	32	190	J	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Dibenzofuran	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Diethyl phthalate	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Dimethyl phthalate	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Fluoranthene	1600	32	320		µg/Kg-dry	1	2/14/2019 12:29:00 AM
Fluorene	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Hexachlorobenzene	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Hexachlorobutadiene	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Hexachlorocyclopentadiene	ND	64	640	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Hexachloroethane	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Indeno(1,2,3-c,d)pyrene	700	32	320		µg/Kg-dry	1	2/14/2019 12:29:00 AM
Isophorone	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-2 020719 (0.5-1.5)
Lab Order:	1902051	Collection Date:	2/7/2019 9:20:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902051-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
N-Nitrosodi-n-propylamine	ND	32	190	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
N-Nitrosodimethylamine	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
N-Nitrosodiphenylamine	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Naphthalene	41	32	320	J	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Nitrobenzene	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Parathion	ND	64	640	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Pentachlorophenol	ND	64	640	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Phenanthrene	450	32	320		µg/Kg-dry	1	2/14/2019 12:29:00 AM
Phenol	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM
Pyrene	1600	32	320		µg/Kg-dry	1	2/14/2019 12:29:00 AM
Pyridine	ND	32	320	U	µg/Kg-dry	1	2/14/2019 12:29:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-2 020719 (18-19)**Lab Order:** 1902051**Collection Date:** 2/7/2019 9:45:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-002A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
1,1,1,2-Tetrachloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,1,1-Trichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,1,2,2-Tetrachloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,1,2-Trichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,1-Dichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,1-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,1-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,2,3-Trichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,2,3-Trichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,2,4,5-Tetramethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,2,4-Trichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,2,4-Trimethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,2-Dibromo-3-chloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,2-Dibromoethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,2-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,2-Dichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,2-Dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,3,5-Trimethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,3-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,3-dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,4-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
1,4-Dioxane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
2,2-Dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
2-Butanone	ND	5.2	10	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
2-Chloroethyl vinyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
2-Chlorotoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
2-Hexanone	ND	5.2	10	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
2-Propanol	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
4-Chlorotoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
4-Isopropyltoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
4-Methyl-2-pentanone	ND	5.2	10	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Acetone	ND	5.2	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-2 020719 (18-19)**Lab Order:** 1902051**Collection Date:** 2/7/2019 9:45:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-002A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
Benzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Bromobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Bromochloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Bromodichloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Bromoform	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Bromomethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Carbon disulfide	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Carbon tetrachloride	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Chlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Chlorodifluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Chloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Chloroform	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Chloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
cis-1,2-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
cis-1,3-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Cyclohexane	ND	2.1	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Dibromochloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Dibromomethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Dichlorodifluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Diisopropyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Ethanol	ND	10	21	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Ethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Freon-114	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Hexachlorobutadiene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Isopropylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
m,p-Xylene	ND	2.1	10	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Methyl Acetate	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Methyl tert-butyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Methylene chloride	ND	5.2	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
n-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
n-Propylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Naphthalene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
o-Xylene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-2 020719 (18-19)**Lab Order:** 1902051**Collection Date:** 2/7/2019 9:45:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-002A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
p-Diethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
p-Ethyltoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
sec-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Styrene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
t-Butyl alcohol	ND	2.6	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
tert-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Tetrachloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Toluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
trans-1,2-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
trans-1,3-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Trichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Trichlorofluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Vinyl acetate	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Vinyl chloride	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Xylenes, Total	ND	3.1	16	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Methylcyclohexane	ND	2.1	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Acrolein	ND	13	26	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM
Acrylonitrile	ND	1.0	5.2	U	µg/Kg-dry	1	2/9/2019 10:14:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-2 020719 (18-19)
Lab Order:	1902051	Collection Date:	2/7/2019 9:45:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902051-002B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY							
			SW7471B		SW7471B		Analyst: JP
Mercury	0.677	0.0155	0.0290	D	mg/Kg-dry	2	2/13/2019 12:54:39 PM
PCB'S AS AROCLORS SW-846 METHOD 8082							
			SW8082A		SW3546		Analyst: CP
Aroclor 1016	ND	10	20	U	µg/Kg-dry	1	2/12/2019 1:10:00 AM
Aroclor 1221	ND	10	20	U	µg/Kg-dry	1	2/12/2019 1:10:00 AM
Aroclor 1232	ND	10	20	U	µg/Kg-dry	1	2/12/2019 1:10:00 AM
Aroclor 1242	ND	10	20	U	µg/Kg-dry	1	2/12/2019 1:10:00 AM
Aroclor 1248	ND	10	20	U	µg/Kg-dry	1	2/12/2019 1:10:00 AM
Aroclor 1254	ND	10	20	U	µg/Kg-dry	1	2/12/2019 1:10:00 AM
Aroclor 1260	ND	10	20	U	µg/Kg-dry	1	2/12/2019 1:10:00 AM
Aroclor 1262	ND	10	20	U	µg/Kg-dry	1	2/12/2019 1:10:00 AM
Aroclor 1268	ND	10	20	U	µg/Kg-dry	1	2/12/2019 1:10:00 AM
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: SB
4,4'-DDD	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
4,4'-DDE	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
4,4'-DDT	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
Aldrin	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
alpha-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
alpha-Chlordane	ND	6.0	10	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
beta-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
Chlorobenzilate	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
DBCP	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
delta-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
Dieldrin	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
Endosulfan I	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
Endosulfan II	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
Endosulfan sulfate	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
Endrin	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
Endrin aldehyde	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
Endrin ketone	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
gamma-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
gamma-Chlordane	ND	6.0	10	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
Heptachlor	ND	2.0	3.0	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-2 020719 (18-19)**Lab Order:** 1902051**Collection Date:** 2/7/2019 9:45:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-002B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081			SW8081B		SW3546		Analyst: SB
Heptachlor epoxide	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
Hexachlorobenzene	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
Hexachlorocyclopentadiene	ND	3.0	3.0	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
Methoxychlor	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
Toxaphene	ND	13	25	U	µg/Kg-dry	1	2/11/2019 8:48:00 PM
PERCENT MOISTURE			D2216				Analyst: MR
Percent Moisture	3.31	0	1.00		wt%	1	2/11/2019 9:00:00 AM
TOTAL METALS			SW6010D		SW3050B		Analyst: JP
Aluminum	537	0.204	0.407		mg/Kg-dry	1	2/13/2019 2:11:37 PM
Antimony	ND	0.204	0.509	U	mg/Kg-dry	1	2/13/2019 2:11:37 PM
Arsenic	1.33	0.204	0.509		mg/Kg-dry	1	2/13/2019 2:11:37 PM
Barium	1.88	0.204	0.407		mg/Kg-dry	1	2/13/2019 2:11:37 PM
Beryllium	ND	0.102	0.407	U	mg/Kg-dry	1	2/13/2019 2:11:37 PM
Cadmium	ND	0.0509	0.407	U	mg/Kg-dry	1	2/13/2019 2:11:37 PM
Calcium	49.7	0.204	0.509		mg/Kg-dry	1	2/13/2019 2:11:37 PM
Chromium	4.87	0.102	0.407		mg/Kg-dry	1	2/13/2019 2:11:37 PM
Cobalt	0.417	0.102	0.407		mg/Kg-dry	1	2/13/2019 2:11:37 PM
Copper	0.717	0.102	0.407		mg/Kg-dry	1	2/13/2019 2:11:37 PM
Iron	4400	2.04	4.07	D	mg/Kg-dry	10	2/13/2019 3:47:00 PM
Lead	1.03	0.204	0.407		mg/Kg-dry	1	2/13/2019 2:11:37 PM
Magnesium	46.1	0.102	0.407		mg/Kg-dry	1	2/13/2019 2:11:37 PM
Manganese	29.1	0.102	0.407		mg/Kg-dry	1	2/13/2019 2:11:37 PM
Nickel	1.37	0.102	0.407		mg/Kg-dry	1	2/13/2019 2:11:37 PM
Potassium	42.0	0.509	0.509		mg/Kg-dry	1	2/13/2019 2:11:37 PM
Selenium	0.535	0.204	0.509		mg/Kg-dry	1	2/13/2019 2:11:37 PM
Silver	ND	0.102	0.407	U	mg/Kg-dry	1	2/13/2019 2:11:37 PM
Sodium	6.90	0.204	0.509		mg/Kg-dry	1	2/13/2019 2:11:37 PM
Thallium	ND	0.305	0.509	U	mg/Kg-dry	1	2/13/2019 2:11:37 PM
Vanadium	4.54	0.102	0.407		mg/Kg-dry	1	2/13/2019 2:11:37 PM
Zinc	6.22	0.102	0.407		mg/Kg-dry	1	2/13/2019 2:11:37 PM
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-2 020719 (18-19)**Lab Order:** 1902051**Collection Date:** 2/7/2019 9:45:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-002B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
Biphenyl	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
1,2,4-Trichlorobenzene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
1,2-Dichlorobenzene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
1,3-Dichlorobenzene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
1,4-Dichlorobenzene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
2,4,5-Trichlorophenol	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
2,4,6-Trichlorophenol	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
2,4-Dichlorophenol	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
2,4-Dimethylphenol	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
2,4-Dinitrophenol	ND	51	510	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
2,4-Dinitrotoluene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
2,6-Dinitrotoluene	ND	51	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
2-Chloronaphthalene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
2-Chlorophenol	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
2-Methylnaphthalene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
2-Methylphenol	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
2-Nitroaniline	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
2-Nitrophenol	ND	51	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
3+4-Methylphenol	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
3,3'-Dichlorobenzidine	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
3-Nitroaniline	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
4,6-Dinitro-2-methylphenol	ND	51	510	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
4-Bromophenyl phenyl ether	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
4-Chloro-3-methylphenol	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
4-Chloroaniline	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
4-Chlorophenyl phenyl ether	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
4-Nitroaniline	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
4-Nitrophenol	ND	51	510	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Acenaphthene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Acenaphthylene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Acetophenone	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Aniline	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Anthracene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-2 020719 (18-19)**Lab Order:** 1902051**Collection Date:** 2/7/2019 9:45:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-002B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
Atrazine	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Azobenzene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Benzaldehyde	ND	51	510	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Benzidine	ND	51	510	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Benzo(a)anthracene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Benzo(a)pyrene	ND	25	150	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Benzo(b)fluoranthene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Benzo(g,h,i)perylene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Benzo(k)fluoranthene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Benzoic acid	ND	51	510	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Benzyl alcohol	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Bis(2-chloroethoxy)methane	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Bis(2-chloroethyl)ether	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Bis(2-chloroisopropyl)ether	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Bis(2-ethylhexyl)phthalate	ND	51	510	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Butyl benzyl phthalate	ND	51	510	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Caprolactam	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Carbazole	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Chrysene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Di-n-butyl phthalate	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Di-n-octyl phthalate	ND	51	510	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Dibenzo(a,h)anthracene	ND	25	150	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Dibenzofuran	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Diethyl phthalate	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Dimethyl phthalate	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Fluoranthene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Fluorene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Hexachlorobenzene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Hexachlorobutadiene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Hexachlorocyclopentadiene	ND	51	510	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Hexachloroethane	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Indeno(1,2,3-c,d)pyrene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Isophorone	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-2 020719 (18-19)
Lab Order:	1902051	Collection Date:	2/7/2019 9:45:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902051-002B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546			Analyst: MH
N-Nitrosodi-n-propylamine	ND	25	150	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
N-Nitrosodimethylamine	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
N-Nitrosodiphenylamine	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Naphthalene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Nitrobenzene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Parathion	ND	51	510	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Pentachlorophenol	ND	51	510	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Phenanthrene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Phenol	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Pyrene	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM
Pyridine	ND	25	250	U	µg/Kg-dry	1	2/14/2019 12:50:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-2 020719**Lab Order:** 1902051**Collection Date:** 2/7/2019 10:40:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902051-003A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5030C	Analyst: LA		
1,1,1,2-Tetrachloroethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,1,1-Trichloroethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,1,2,2-Tetrachloroethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,1,2-Trichloroethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,1-Dichloroethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,1-Dichloroethene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,1-Dichloropropene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,2,3-Trichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,2,3-Trichloropropane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,2,4,5-Tetramethylbenzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,2,4-Trichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,2,4-Trimethylbenzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,2-Dibromo-3-chloropropane	ND	0.030	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,2-Dibromoethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,2-Dichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,2-Dichloroethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,2-Dichloropropane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,3,5-Trimethylbenzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,3-Dichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,3-dichloropropane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,4-Dichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
1,4-Dioxane	ND	0.25	1.0	U	µg/L	1	2/8/2019 3:48:00 PM
2,2-Dichloropropane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
2-Butanone	ND	0.50	4.0	U	µg/L	1	2/8/2019 3:48:00 PM
2-Chloroethyl vinyl ether	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
2-Chlorotoluene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
2-Hexanone	ND	0.50	4.0	U	µg/L	1	2/8/2019 3:48:00 PM
2-Propanol	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
4-Chlorotoluene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
4-Isopropyltoluene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
4-Methyl-2-pentanone	ND	0.50	4.0	U	µg/L	1	2/8/2019 3:48:00 PM
Acetone	ND	5.0	5.0	U	µg/L	1	2/8/2019 3:48:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-2 020719**Lab Order:** 1902051**Collection Date:** 2/7/2019 10:40:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902051-003A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C		SW5030C		Analyst: LA
Benzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Bromobenzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Bromochloromethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Bromodichloromethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Bromoform	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Bromomethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Carbon disulfide	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Carbon tetrachloride	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Chlorobenzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Chlorodifluoromethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Chloroethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Chloroform	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Chloromethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
cis-1,2-Dichloroethene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
cis-1,3-Dichloropropene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Cyclohexane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Dibromochloromethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Dibromomethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Dichlorodifluoromethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Diisopropyl ether	ND	0.50	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Ethanol	ND	2.5	10	U	µg/L	1	2/8/2019 3:48:00 PM
Ethylbenzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Freon-114	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Hexachlorobutadiene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Isopropylbenzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
m,p-Xylene	ND	0.50	4.0	U	µg/L	1	2/8/2019 3:48:00 PM
Methyl Acetate	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Methyl tert-butyl ether	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Methylene chloride	ND	5.0	5.0	U	µg/L	1	2/8/2019 3:48:00 PM
n-Butylbenzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
n-Propylbenzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Naphthalene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
o-Xylene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-2 020719**Lab Order:** 1902051**Collection Date:** 2/7/2019 10:40:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902051-003A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C		SW5030C		Analyst: LA
p-Diethylbenzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
p-Ethyltoluene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
sec-Butylbenzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Styrene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
t-Butyl alcohol	ND	2.5	10	U	µg/L	1	2/8/2019 3:48:00 PM
tert-Butylbenzene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Tetrachloroethene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Toluene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
trans-1,2-Dichloroethene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
trans-1,3-Dichloropropene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Trichloroethene	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Trichlorofluoromethane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Vinyl acetate	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Vinyl chloride	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Xylenes, Total	ND	0.75	6.0	U	µg/L	1	2/8/2019 3:48:00 PM
Methylcyclohexane	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM
Acrolein	ND	1.0	10	U	µg/L	1	2/8/2019 3:48:00 PM
Acrylonitrile	ND	0.25	2.0	U	µg/L	1	2/8/2019 3:48:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-2 020719**Lab Order:** 1902051**Collection Date:** 2/7/2019 10:40:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902051-003B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PCB'S AS AROCLORS SW-846 METHOD 8082			SW8082A	SW3510C	Analyst: CP		
Aroclor 1016	ND	0.050	0.10	U	µg/L	1	2/11/2019 8:04:00 PM
Aroclor 1221	ND	0.050	0.10	U	µg/L	1	2/11/2019 8:04:00 PM
Aroclor 1232	ND	0.050	0.10	U	µg/L	1	2/11/2019 8:04:00 PM
Aroclor 1242	ND	0.050	0.10	U	µg/L	1	2/11/2019 8:04:00 PM
Aroclor 1248	ND	0.050	0.10	U	µg/L	1	2/11/2019 8:04:00 PM
Aroclor 1254	ND	0.050	0.10	U	µg/L	1	2/11/2019 8:04:00 PM
Aroclor 1260	ND	0.050	0.10	U	µg/L	1	2/11/2019 8:04:00 PM
Aroclor 1262	ND	0.050	0.10	U	µg/L	1	2/11/2019 8:04:00 PM
Aroclor 1268	ND	0.050	0.10	U	µg/L	1	2/11/2019 8:04:00 PM
PESTICIDES SW-846 METHOD 8081			SW8081B	SW3510C	Analyst: SB		
4,4'-DDD	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
4,4'-DDE	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
4,4'-DDT	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
Aldrin	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
alpha-BHC	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
alpha-Chlordane	ND	0.020	0.10	U	µg/L	1	2/11/2019 12:12:00 PM
beta-BHC	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
Chlorobenzilate	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
DBCP	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
delta-BHC	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
Dieldrin	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
Endosulfan I	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
Endosulfan II	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
Endosulfan sulfate	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
Endrin	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
Endrin aldehyde	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
Endrin ketone	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
gamma-BHC	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
gamma-Chlordane	ND	0.020	0.10	U	µg/L	1	2/11/2019 12:12:00 PM
Heptachlor	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
Heptachlor epoxide	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
Hexachlorobenzene	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT: CA Rich Consultants Inc.

Client Sample ID: GW-2 020719

Lab Order: 1902051

Collection Date: 2/7/2019 10:40:00 AM

Project: Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock

Matrix: LIQUID

Lab ID: 1902051-003B

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081			SW8081B		SW3510C		Analyst: SB
Hexachlorocyclopentadiene	ND	0.030	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
Methoxychlor	ND	0.012	0.050	U	µg/L	1	2/11/2019 12:12:00 PM
Toxaphene	ND	0.060	0.25	U	µg/L	1	2/11/2019 12:12:00 PM
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3510C		Analyst: MH
Biphenyl	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
1,2,4-Trichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
1,2-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
1,3-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
1,4-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
2,4,5-Trichlorophenol	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
2,4,6-Trichlorophenol	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
2,4-Dichlorophenol	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
2,4-Dimethylphenol	ND	1.0	10	U	µg/L	1	2/11/2019 11:14:00 PM
2,4-Dinitrophenol	ND	1.0	10	U	µg/L	1	2/11/2019 11:14:00 PM
2,4-Dinitrotoluene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
2,6-Dinitrotoluene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
2-Chloronaphthalene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
2-Chlorophenol	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
2-Methylnaphthalene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
2-Methylphenol	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
2-Nitroaniline	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
2-Nitrophenol	ND	1.0	10	U	µg/L	1	2/11/2019 11:14:00 PM
3+4-Methylphenol	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
3,3'-Dichlorobenzidine	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
3-Nitroaniline	ND	1.0	10	U	µg/L	1	2/11/2019 11:14:00 PM
4,6-Dinitro-2-methylphenol	ND	1.0	10	U	µg/L	1	2/11/2019 11:14:00 PM
4-Bromophenyl phenyl ether	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
4-Chloro-3-methylphenol	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
4-Chloroaniline	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
4-Chlorophenyl phenyl ether	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
4-Nitroaniline	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
4-Nitrophenol	ND	1.0	10	U	µg/L	1	2/11/2019 11:14:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-2 020719**Lab Order:** 1902051**Collection Date:** 2/7/2019 10:40:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902051-003B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3510C		Analyst: MH
Acenaphthene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Acenaphthylene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Acetophenone	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Aniline	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Anthracene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Atrazine	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Azobenzene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Benzaldehyde	ND	1.0	10	U	µg/L	1	2/11/2019 11:14:00 PM
Benzidine	ND	1.0	10	U	µg/L	1	2/11/2019 11:14:00 PM
Benzo(a)anthracene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Benzo(a)pyrene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Benzo(b)fluoranthene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Benzo(g,h,i)perylene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Benzo(k)fluoranthene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Benzoic acid	ND	1.0	10	U	µg/L	1	2/11/2019 11:14:00 PM
Benzyl alcohol	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Bis(2-chloroethoxy)methane	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Bis(2-chloroethyl)ether	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Bis(2-chloroisopropyl)ether	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Bis(2-ethylhexyl)phthalate	ND	1.0	10	U	µg/L	1	2/11/2019 11:14:00 PM
Butyl benzyl phthalate	ND	1.0	10	U	µg/L	1	2/11/2019 11:14:00 PM
Caprolactam	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Carbazole	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Chrysene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Di-n-butyl phthalate	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Di-n-octyl phthalate	ND	1.0	10	U	µg/L	1	2/11/2019 11:14:00 PM
Dibenzo(a,h)anthracene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Dibenzofuran	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Diethyl phthalate	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Dimethyl phthalate	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Fluoranthene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Fluorene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Hexachlorobenzene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-2 020719**Lab Order:** 1902051**Collection Date:** 2/7/2019 10:40:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902051-003B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3510C	Analyst: MH		
Hexachlorobutadiene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Hexachlorocyclopentadiene	ND	1.0	10	U	µg/L	1	2/11/2019 11:14:00 PM
Hexachloroethane	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Indeno(1,2,3-c,d)pyrene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Isophorone	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
N-Nitrosodi-n-propylamine	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
N-Nitrosodimethylamine	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
N-Nitrosodiphenylamine	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Naphthalene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Nitrobenzene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Parathion	ND	1.0	10	U	µg/L	1	2/11/2019 11:14:00 PM
Pentachlorophenol	ND	1.0	10	U	µg/L	1	2/11/2019 11:14:00 PM
Phenanthrene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Phenol	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Pyrene	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM
Pyridine	ND	0.50	5.0	U	µg/L	1	2/11/2019 11:14:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	GW-2 020719
Lab Order:	1902051	Collection Date:	2/7/2019 10:40:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	LIQUID
Lab ID:	1902051-003C		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY, TOTAL							
		E245.1 REV3.0 1994		E245.1 REV3.0		Analyst: JP	
Mercury	0.000713	0.000150	0.000300		mg/L	1	2/13/2019 12:28:16 PM
TOTAL METALS							
		E200.7 REV4.4 1994		E200.7 REV4.4		Analyst: JP	
Aluminum	105	0.00500	0.0200		mg/L	1	2/13/2019 10:57:21 AM
Antimony	ND	0.00500	0.0200	U	mg/L	1	2/13/2019 10:57:21 AM
Arsenic	0.302	0.0100	0.0250		mg/L	1	2/13/2019 10:57:21 AM
Barium	0.523	0.00500	0.0200		mg/L	1	2/13/2019 10:57:21 AM
Beryllium	ND	0.00500	0.0200	U	mg/L	1	2/13/2019 10:57:21 AM
Cadmium	0.00240	0.00500	0.0100	J	mg/L	1	2/13/2019 10:57:21 AM
Calcium	154	0.00500	0.0250		mg/L	1	2/13/2019 10:57:21 AM
Chromium	0.894	0.00500	0.0200		mg/L	1	2/13/2019 10:57:21 AM
Cobalt	0.0142	0.00500	0.0200	J	mg/L	1	2/13/2019 10:57:21 AM
Copper	0.231	0.00500	0.0200		mg/L	1	2/13/2019 10:57:21 AM
Iron	27.2	0.0500	0.200	D	mg/L	10	2/13/2019 11:26:50 AM
Lead	0.229	0.00500	0.0150		mg/L	1	2/13/2019 10:57:21 AM
Magnesium	42.4	0.00500	0.0200		mg/L	1	2/13/2019 10:57:21 AM
Manganese	7.77	0.00500	0.0200		mg/L	1	2/13/2019 10:57:21 AM
Nickel	0.205	0.00500	0.0200		mg/L	1	2/13/2019 10:57:21 AM
Potassium	14.9	0.0500	0.200		mg/L	1	2/13/2019 10:57:21 AM
Selenium	0.0152	0.0100	0.0250	J	mg/L	1	2/13/2019 10:57:21 AM
Silver	ND	0.00500	0.0200	U	mg/L	1	2/13/2019 10:57:21 AM
Sodium	14.5	0.100	0.300	D	mg/L	10	2/13/2019 11:26:50 AM
Thallium	ND	0.0100	0.0150	U	mg/L	1	2/13/2019 10:57:21 AM
Vanadium	0.514	0.00500	0.0200		mg/L	1	2/13/2019 10:57:21 AM
Zinc	0.577	0.00500	0.0200		mg/L	1	2/13/2019 10:57:21 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-3 020719 (0.5-1.5)**Lab Order:** 1902051**Collection Date:** 2/7/2019 12:05:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-004A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
1,1,1,2-Tetrachloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,1,1-Trichloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,1,2,2-Tetrachloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,1,2-Trichloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,1-Dichloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,1-Dichloroethene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,1-Dichloropropene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,2,3-Trichlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,2,3-Trichloropropane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,2,4,5-Tetramethylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,2,4-Trichlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,2,4-Trimethylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,2-Dibromo-3-chloropropane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,2-Dibromoethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,2-Dichlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,2-Dichloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,2-Dichloropropane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,3,5-Trimethylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,3-Dichlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,3-dichloropropane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,4-Dichlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
1,4-Dioxane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
2,2-Dichloropropane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
2-Butanone	ND	5.4	11	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
2-Chloroethyl vinyl ether	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
2-Chlorotoluene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
2-Hexanone	ND	5.4	11	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
2-Propanol	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
4-Chlorotoluene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
4-Isopropyltoluene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
4-Methyl-2-pentanone	ND	5.4	11	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Acetone	ND	5.4	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-3 020719 (0.5-1.5)**Lab Order:** 1902051**Collection Date:** 2/7/2019 12:05:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-004A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
Benzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Bromobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Bromochloromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Bromodichloromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Bromoform	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Bromomethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Carbon disulfide	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Carbon tetrachloride	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Chlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Chlorodifluoromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Chloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Chloroform	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Chloromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
cis-1,2-Dichloroethene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
cis-1,3-Dichloropropene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Cyclohexane	ND	2.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Dibromochloromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Dibromomethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Dichlorodifluoromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Diisopropyl ether	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Ethanol	ND	11	21	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Ethylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Freon-114	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Hexachlorobutadiene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Isopropylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
m,p-Xylene	ND	2.1	11	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Methyl Acetate	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Methyl tert-butyl ether	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Methylene chloride	ND	5.4	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
n-Butylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
n-Propylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Naphthalene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
o-Xylene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-3 020719 (0.5-1.5)**Lab Order:** 1902051**Collection Date:** 2/7/2019 12:05:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-004A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
p-Diethylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
p-Ethyltoluene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
sec-Butylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Styrene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
t-Butyl alcohol	ND	2.7	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
tert-Butylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Tetrachloroethene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Toluene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
trans-1,2-Dichloroethene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
trans-1,3-Dichloropropene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Trichloroethene	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Trichlorofluoromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Vinyl acetate	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Vinyl chloride	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Xylenes, Total	ND	3.2	16	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Methylcyclohexane	ND	2.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Acrolein	ND	13	27	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM
Acrylonitrile	ND	1.1	5.4	U	µg/Kg-dry	1	2/9/2019 10:46:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-3 020719 (0.5-1.5)
Lab Order:	1902051	Collection Date:	2/7/2019 12:05:00 PM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902051-004B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY							
			SW7471B		SW7471B		Analyst: JP
Mercury	0.0778	0.00802	0.0150		mg/Kg-dry	1	2/12/2019 1:57:00 PM
PCB'S AS AROCLORS SW-846 METHOD 8082							
			SW8082A		SW3546		Analyst: CP
Aroclor 1016	ND	10	20	U	µg/Kg-dry	1	2/12/2019 1:38:00 AM
Aroclor 1221	ND	10	20	U	µg/Kg-dry	1	2/12/2019 1:38:00 AM
Aroclor 1232	ND	10	20	U	µg/Kg-dry	1	2/12/2019 1:38:00 AM
Aroclor 1242	ND	10	20	U	µg/Kg-dry	1	2/12/2019 1:38:00 AM
Aroclor 1248	ND	10	20	U	µg/Kg-dry	1	2/12/2019 1:38:00 AM
Aroclor 1254	ND	10	20	U	µg/Kg-dry	1	2/12/2019 1:38:00 AM
Aroclor 1260	11	10	20	J	µg/Kg-dry	1	2/12/2019 1:38:00 AM
Aroclor 1262	ND	10	20	U	µg/Kg-dry	1	2/12/2019 1:38:00 AM
Aroclor 1268	ND	10	20	U	µg/Kg-dry	1	2/12/2019 1:38:00 AM
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: SB
4,4'-DDD	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
4,4'-DDE	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
4,4'-DDT	2.9	1.0	2.5		µg/Kg-dry	1	2/11/2019 9:06:00 PM
Aldrin	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
alpha-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
alpha-Chlordane	ND	6.1	10	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
beta-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
Chlorobenzilate	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
DBCP	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
delta-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
Dieldrin	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
Endosulfan I	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
Endosulfan II	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
Endosulfan sulfate	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
Endrin	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
Endrin aldehyde	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
Endrin ketone	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
gamma-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
gamma-Chlordane	ND	6.1	10	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
Heptachlor	ND	2.0	3.1	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-3 020719 (0.5-1.5)
Lab Order:	1902051	Collection Date:	2/7/2019 12:05:00 PM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902051-004B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: SB
Heptachlor epoxide	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
Hexachlorobenzene	ND	1.0	2.5	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
Hexachlorocyclopentadiene	ND	3.1	3.1	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
Methoxychlor	31	1.0	2.5	P	µg/Kg-dry	1	2/11/2019 9:06:00 PM
Toxaphene	ND	13	25	U	µg/Kg-dry	1	2/11/2019 9:06:00 PM
PERCENT MOISTURE							
			D2216				Analyst: MR
Percent Moisture	5.93	0	1.00		wt%	1	2/11/2019 9:00:00 AM
TOTAL METALS							
			SW6010D		SW3050B		Analyst: JP
Aluminum	1650	0.206	0.412		mg/Kg-dry	1	2/13/2019 2:14:22 PM
Antimony	ND	0.206	0.515	U	mg/Kg-dry	1	2/13/2019 2:14:22 PM
Arsenic	2.28	0.206	0.515		mg/Kg-dry	1	2/13/2019 2:14:22 PM
Barium	52.1	0.206	0.412		mg/Kg-dry	1	2/13/2019 2:14:22 PM
Beryllium	ND	0.103	0.412	U	mg/Kg-dry	1	2/13/2019 2:14:22 PM
Cadmium	0.177	0.0515	0.412	J	mg/Kg-dry	1	2/13/2019 2:14:22 PM
Calcium	2300	0.206	0.515		mg/Kg-dry	1	2/13/2019 2:14:22 PM
Chromium	5.17	0.103	0.412		mg/Kg-dry	1	2/13/2019 2:14:22 PM
Cobalt	0.293	0.103	0.412	J	mg/Kg-dry	1	2/13/2019 2:14:22 PM
Copper	11.1	0.103	0.412		mg/Kg-dry	1	2/13/2019 2:14:22 PM
Iron	3770	2.06	4.12	D	mg/Kg-dry	10	2/13/2019 3:49:45 PM
Lead	144	0.206	0.412		mg/Kg-dry	1	2/13/2019 2:14:22 PM
Magnesium	434	0.103	0.412		mg/Kg-dry	1	2/13/2019 2:14:22 PM
Manganese	43.0	0.103	0.412		mg/Kg-dry	1	2/13/2019 2:14:22 PM
Nickel	3.10	0.103	0.412		mg/Kg-dry	1	2/13/2019 2:14:22 PM
Potassium	116	0.515	0.515		mg/Kg-dry	1	2/13/2019 2:14:22 PM
Selenium	0.379	0.206	0.515	J	mg/Kg-dry	1	2/13/2019 2:14:22 PM
Silver	ND	0.103	0.412	U	mg/Kg-dry	1	2/13/2019 2:14:22 PM
Sodium	43.9	0.206	0.515		mg/Kg-dry	1	2/13/2019 2:14:22 PM
Thallium	ND	0.309	0.515	U	mg/Kg-dry	1	2/13/2019 2:14:22 PM
Vanadium	5.82	0.103	0.412		mg/Kg-dry	1	2/13/2019 2:14:22 PM
Zinc	80.3	0.103	0.412		mg/Kg-dry	1	2/13/2019 2:14:22 PM
SEMIVOLATILE SW-846 METHOD 8270							
			SW8270D		SW3546		Analyst: MH

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-3 020719 (0.5-1.5)**Lab Order:** 1902051**Collection Date:** 2/7/2019 12:05:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-004B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
Biphenyl	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
1,2,4-Trichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
1,2-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
1,3-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
1,4-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
2,4,5-Trichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
2,4,6-Trichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
2,4-Dichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
2,4-Dimethylphenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
2,4-Dinitrophenol	ND	52	520	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
2,4-Dinitrotoluene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
2,6-Dinitrotoluene	ND	52	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
2-Chloronaphthalene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
2-Chlorophenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
2-Methylnaphthalene	47	26	260	J	µg/Kg-dry	1	2/14/2019 11:59:00 AM
2-Methylphenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
2-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
2-Nitrophenol	ND	52	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
3+4-Methylphenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
3,3'-Dichlorobenzidine	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
3-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
4,6-Dinitro-2-methylphenol	ND	52	520	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
4-Bromophenyl phenyl ether	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
4-Chloro-3-methylphenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
4-Chloroaniline	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
4-Chlorophenyl phenyl ether	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
4-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
4-Nitrophenol	ND	52	520	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Acenaphthene	150	26	260	J	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Acenaphthylene	110	26	260	J	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Acetophenone	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Aniline	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Anthracene	540	26	260		µg/Kg-dry	1	2/14/2019 11:59:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-3 020719 (0.5-1.5)**Lab Order:** 1902051**Collection Date:** 2/7/2019 12:05:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-004B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
Atrazine	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Azobenzene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Benzaldehyde	ND	52	520	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Benzidine	ND	52	520	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Benzo(a)anthracene	2300	26	260		µg/Kg-dry	1	2/14/2019 11:59:00 AM
Benzo(a)pyrene	2000	26	160		µg/Kg-dry	1	2/14/2019 11:59:00 AM
Benzo(b)fluoranthene	2700	26	260		µg/Kg-dry	1	2/14/2019 11:59:00 AM
Benzo(g,h,i)perylene	1300	26	260		µg/Kg-dry	1	2/14/2019 11:59:00 AM
Benzo(k)fluoranthene	990	26	260		µg/Kg-dry	1	2/14/2019 11:59:00 AM
Benzoic acid	ND	52	520	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Benzyl alcohol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Bis(2-chloroethoxy)methane	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Bis(2-chloroethyl)ether	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Bis(2-chloroisopropyl)ether	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Bis(2-ethylhexyl)phthalate	ND	52	520	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Butyl benzyl phthalate	ND	52	520	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Caprolactam	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Carbazole	160	26	260	J	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Chrysene	1900	26	260		µg/Kg-dry	1	2/14/2019 11:59:00 AM
Di-n-butyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Di-n-octyl phthalate	ND	52	520	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Dibenzo(a,h)anthracene	290	26	160		µg/Kg-dry	1	2/14/2019 11:59:00 AM
Dibenzofuran	80	26	260	J	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Diethyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Dimethyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Fluoranthene	4200	26	260		µg/Kg-dry	1	2/14/2019 11:59:00 AM
Fluorene	160	26	260	J	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Hexachlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Hexachlorobutadiene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Hexachlorocyclopentadiene	ND	52	520	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Hexachloroethane	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Indeno(1,2,3-c,d)pyrene	1400	26	260		µg/Kg-dry	1	2/14/2019 11:59:00 AM
Isophorone	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-3 020719 (0.5-1.5)
Lab Order:	1902051	Collection Date:	2/7/2019 12:05:00 PM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902051-004B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
N-Nitrosodi-n-propylamine	ND	26	160	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
N-Nitrosodimethylamine	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
N-Nitrosodiphenylamine	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Naphthalene	94	26	260	J	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Nitrobenzene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Parathion	ND	52	520	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Pentachlorophenol	ND	52	520	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Phenanthrene	2400	26	260		µg/Kg-dry	1	2/14/2019 11:59:00 AM
Phenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM
Pyrene	4500	26	260		µg/Kg-dry	1	2/14/2019 11:59:00 AM
Pyridine	ND	26	260	U	µg/Kg-dry	1	2/14/2019 11:59:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-3 020719 (18-19)**Lab Order:** 1902051**Collection Date:** 2/7/2019 12:40:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-005A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
1,1,1,2-Tetrachloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,1,1-Trichloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,1,2,2-Tetrachloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,1,2-Trichloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,1-Dichloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,1-Dichloroethene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,1-Dichloropropene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,2,3-Trichlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,2,3-Trichloropropane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,2,4,5-Tetramethylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,2,4-Trichlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,2,4-Trimethylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,2-Dibromo-3-chloropropane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,2-Dibromoethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,2-Dichlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,2-Dichloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,2-Dichloropropane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,3,5-Trimethylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,3-Dichlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,3-dichloropropane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,4-Dichlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
1,4-Dioxane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
2,2-Dichloropropane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
2-Butanone	ND	5.3	11	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
2-Chloroethyl vinyl ether	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
2-Chlorotoluene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
2-Hexanone	ND	5.3	11	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
2-Propanol	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
4-Chlorotoluene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
4-Isopropyltoluene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
4-Methyl-2-pentanone	ND	5.3	11	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Acetone	ND	5.3	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-3 020719 (18-19)**Lab Order:** 1902051**Collection Date:** 2/7/2019 12:40:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-005A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
Benzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Bromobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Bromochloromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Bromodichloromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Bromoform	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Bromomethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Carbon disulfide	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Carbon tetrachloride	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Chlorobenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Chlorodifluoromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Chloroethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Chloroform	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Chloromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
cis-1,2-Dichloroethene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
cis-1,3-Dichloropropene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Cyclohexane	ND	2.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Dibromochloromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Dibromomethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Dichlorodifluoromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Diisopropyl ether	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Ethanol	ND	11	21	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Ethylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Freon-114	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Hexachlorobutadiene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Isopropylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
m,p-Xylene	ND	2.1	11	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Methyl Acetate	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Methyl tert-butyl ether	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Methylene chloride	ND	5.3	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
n-Butylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
n-Propylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Naphthalene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
o-Xylene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-3 020719 (18-19)**Lab Order:** 1902051**Collection Date:** 2/7/2019 12:40:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-005A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
p-Diethylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
p-Ethyltoluene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
sec-Butylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Styrene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
t-Butyl alcohol	ND	2.6	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
tert-Butylbenzene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Tetrachloroethene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Toluene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
trans-1,2-Dichloroethene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
trans-1,3-Dichloropropene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Trichloroethene	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Trichlorofluoromethane	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Vinyl acetate	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Vinyl chloride	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Xylenes, Total	ND	3.2	16	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Methylcyclohexane	ND	2.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Acrolein	ND	13	26	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM
Acrylonitrile	ND	1.1	5.3	U	µg/Kg-dry	1	2/9/2019 11:18:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-3 020719 (18-19)**Lab Order:** 1902051**Collection Date:** 2/7/2019 12:40:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-005B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY							
			SW7471B		SW7471B		Analyst: JP
Mercury	ND	0.00811	0.0152	U	mg/Kg-dry	1	2/12/2019 1:59:00 PM
PCB'S AS AROCLORS SW-846 METHOD 8082							
			SW8082A		SW3546		Analyst: CP
Aroclor 1016	ND	10	21	U	µg/Kg-dry	1	2/12/2019 2:06:00 AM
Aroclor 1221	ND	10	21	U	µg/Kg-dry	1	2/12/2019 2:06:00 AM
Aroclor 1232	ND	10	21	U	µg/Kg-dry	1	2/12/2019 2:06:00 AM
Aroclor 1242	ND	10	21	U	µg/Kg-dry	1	2/12/2019 2:06:00 AM
Aroclor 1248	ND	10	21	U	µg/Kg-dry	1	2/12/2019 2:06:00 AM
Aroclor 1254	ND	10	21	U	µg/Kg-dry	1	2/12/2019 2:06:00 AM
Aroclor 1260	ND	10	21	U	µg/Kg-dry	1	2/12/2019 2:06:00 AM
Aroclor 1262	ND	10	21	U	µg/Kg-dry	1	2/12/2019 2:06:00 AM
Aroclor 1268	ND	10	21	U	µg/Kg-dry	1	2/12/2019 2:06:00 AM
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: SB
4,4'-DDD	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
4,4'-DDE	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
4,4'-DDT	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
Aldrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
alpha-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
alpha-Chlordane	ND	6.2	10	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
beta-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
Chlorobenzilate	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
DBCP	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
delta-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
Dieldrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
Endosulfan I	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
Endosulfan II	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
Endosulfan sulfate	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
Endrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
Endrin aldehyde	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
Endrin ketone	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
gamma-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
gamma-Chlordane	ND	6.2	10	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
Heptachlor	ND	2.1	3.1	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418

CLIENT: CA Rich Consultants Inc.

Client Sample ID: SB-3 020719 (18-19)

Lab Order: 1902051

Collection Date: 2/7/2019 12:40:00 PM

Project: Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock

Matrix: SOIL

Lab ID: 1902051-005B

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081			SW8081B		SW3546		Analyst: SB
Heptachlor epoxide	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
Hexachlorobenzene	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
Hexachlorocyclopentadiene	ND	3.1	3.1	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
Methoxychlor	ND	1.0	2.6	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
Toxaphene	ND	13	26	U	µg/Kg-dry	1	2/11/2019 9:24:00 PM
PERCENT MOISTURE			D2216				Analyst: MR
Percent Moisture	4.21	0	1.00		wt%	1	2/11/2019 9:00:00 AM
TOTAL METALS			SW6010D		SW3050B		Analyst: JP
Aluminum	822	0.197	0.394		mg/Kg-dry	1	2/13/2019 2:17:08 PM
Antimony	ND	0.197	0.492	U	mg/Kg-dry	1	2/13/2019 2:17:08 PM
Arsenic	1.81	0.197	0.492		mg/Kg-dry	1	2/13/2019 2:17:08 PM
Barium	3.91	0.197	0.394		mg/Kg-dry	1	2/13/2019 2:17:08 PM
Beryllium	ND	0.0985	0.394	U	mg/Kg-dry	1	2/13/2019 2:17:08 PM
Cadmium	ND	0.0492	0.394	U	mg/Kg-dry	1	2/13/2019 2:17:08 PM
Calcium	78.5	0.197	0.492		mg/Kg-dry	1	2/13/2019 2:17:08 PM
Chromium	5.08	0.0985	0.394		mg/Kg-dry	1	2/13/2019 2:17:08 PM
Cobalt	0.364	0.0985	0.394	J	mg/Kg-dry	1	2/13/2019 2:17:08 PM
Copper	1.27	0.0985	0.394		mg/Kg-dry	1	2/13/2019 2:17:08 PM
Iron	4250	1.97	3.94	D	mg/Kg-dry	10	2/13/2019 3:52:30 PM
Lead	1.54	0.197	0.394		mg/Kg-dry	1	2/13/2019 2:17:08 PM
Magnesium	106	0.0985	0.394		mg/Kg-dry	1	2/13/2019 2:17:08 PM
Manganese	36.6	0.0985	0.394		mg/Kg-dry	1	2/13/2019 2:17:08 PM
Nickel	1.96	0.0985	0.394		mg/Kg-dry	1	2/13/2019 2:17:08 PM
Potassium	76.7	0.492	0.492		mg/Kg-dry	1	2/13/2019 2:17:08 PM
Selenium	0.303	0.197	0.492	J	mg/Kg-dry	1	2/13/2019 2:17:08 PM
Silver	ND	0.0985	0.394	U	mg/Kg-dry	1	2/13/2019 2:17:08 PM
Sodium	7.73	0.197	0.492		mg/Kg-dry	1	2/13/2019 2:17:08 PM
Thallium	ND	0.295	0.492	U	mg/Kg-dry	1	2/13/2019 2:17:08 PM
Vanadium	5.30	0.0985	0.394		mg/Kg-dry	1	2/13/2019 2:17:08 PM
Zinc	6.23	0.0985	0.394		mg/Kg-dry	1	2/13/2019 2:17:08 PM
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-3 020719 (18-19)**Lab Order:** 1902051**Collection Date:** 2/7/2019 12:40:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-005B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
Biphenyl	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
1,2,4-Trichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
1,2-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
1,3-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
1,4-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
2,4,5-Trichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
2,4,6-Trichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
2,4-Dichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
2,4-Dimethylphenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
2,4-Dinitrophenol	ND	51	510	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
2,4-Dinitrotoluene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
2,6-Dinitrotoluene	ND	51	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
2-Chloronaphthalene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
2-Chlorophenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
2-Methylnaphthalene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
2-Methylphenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
2-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
2-Nitrophenol	ND	51	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
3+4-Methylphenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
3,3'-Dichlorobenzidine	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
3-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
4,6-Dinitro-2-methylphenol	ND	51	510	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
4-Bromophenyl phenyl ether	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
4-Chloro-3-methylphenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
4-Chloroaniline	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
4-Chlorophenyl phenyl ether	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
4-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
4-Nitrophenol	ND	51	510	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Acenaphthene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Acenaphthylene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Acetophenone	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Aniline	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Anthracene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-3 020719 (18-19)**Lab Order:** 1902051**Collection Date:** 2/7/2019 12:40:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-005B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
Atrazine	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Azobenzene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Benzaldehyde	ND	51	510	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Benzidine	ND	51	510	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Benzo(a)anthracene	75	26	260	J	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Benzo(a)pyrene	54	26	150	J	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Benzo(b)fluoranthene	73	26	260	J	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Benzo(g,h,i)perylene	33	26	260	J	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Benzo(k)fluoranthene	30	26	260	J	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Benzoic acid	ND	51	510	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Benzyl alcohol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Bis(2-chloroethoxy)methane	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Bis(2-chloroethyl)ether	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Bis(2-chloroisopropyl)ether	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Bis(2-ethylhexyl)phthalate	ND	51	510	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Butyl benzyl phthalate	ND	51	510	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Caprolactam	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Carbazole	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Chrysene	65	26	260	J	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Di-n-butyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Di-n-octyl phthalate	ND	51	510	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Dibenzo(a,h)anthracene	ND	26	150	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Dibenzofuran	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Diethyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Dimethyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Fluoranthene	120	26	260	J	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Fluorene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Hexachlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Hexachlorobutadiene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Hexachlorocyclopentadiene	ND	51	510	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Hexachloroethane	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Indeno(1,2,3-c,d)pyrene	37	26	260	J	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Isophorone	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM

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Date: 14-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-3 020719 (18-19)**Lab Order:** 1902051**Collection Date:** 2/7/2019 12:40:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902051-005B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
N-Nitrosodi-n-propylamine	ND	26	150	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
N-Nitrosodimethylamine	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
N-Nitrosodiphenylamine	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Naphthalene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Nitrobenzene	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Parathion	ND	51	510	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Pentachlorophenol	ND	51	510	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Phenanthrene	68	26	260	J	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Phenol	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Pyrene	120	26	260	J	µg/Kg-dry	1	2/14/2019 10:42:00 AM
Pyridine	ND	26	260	U	µg/Kg-dry	1	2/14/2019 10:42:00 AM

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LABORATORY DATA FEBRUARY 7 & 8, 2019
SOIL VAPOR



ANALYTICAL REPORT

Lab Number:	L1905378
Client:	CA RICH CONSULTANTS, INC. 17 Dupont St. Plainview, NY 11803
ATTN:	Jason Cooper
Phone:	(516) 576-8844
Project Name:	FAR ROCKAWAY PH3
Project Number:	Not Specified
Report Date:	02/18/19

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Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: FAR ROCKAWAY PH3
Project Number: Not Specified

Lab Number: L1905378
Report Date: 02/18/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1905378-01	SV-2 020719	SOIL_VAPOR	20-02 MOTT AVE	02/07/19 11:47	02/11/19
L1905378-02	SV-3 020719	SOIL_VAPOR	20-02 MOTT AVE	02/07/19 12:56	02/11/19
L1905378-03	SV-4 020819	SOIL_VAPOR	20-02 MOTT AVE	02/08/19 11:30	02/11/19

Project Name: FAR ROCKAWAY PH3
Project Number: Not Specified

Lab Number: L1905378
Report Date: 02/18/19

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name: FAR ROCKAWAY PH3
Project Number: Not Specified

Lab Number: L1905378
Report Date: 02/18/19

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on February 1, 2019. The canister certification results are provided as an addendum.

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

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 02/18/19

AIR

Project Name: FAR ROCKAWAY PH3**Lab Number:** L1905378**Project Number:** Not Specified**Report Date:** 02/18/19**SAMPLE RESULTS**

Lab ID: L1905378-01
 Client ID: SV-2 020719
 Sample Location: 20-02 MOTT AVE

Date Collected: 02/07/19 11:47
 Date Received: 02/11/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 02/15/19 23:54
 Analyst: AR

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.284	0.200	--	1.40	0.989	--		1
Chloromethane	0.412	0.200	--	0.851	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	39.7	0.200	--	87.8	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	46.4	1.00	--	110	2.38	--		1
Trichlorofluoromethane	0.276	0.200	--	1.55	1.12	--		1
iso-Propyl Alcohol	1.07	0.500	--	2.63	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	2.51	0.200	--	7.82	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	11.1	0.500	--	32.7	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1905378**Project Number:** Not Specified**Report Date:** 02/18/19**SAMPLE RESULTS**

Lab ID: L1905378-01
 Client ID: SV-2 020719
 Sample Location: 20-02 MOTT AVE

Date Collected: 02/07/19 11:47
 Date Received: 02/11/19
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	12.2	0.200	--	43.0	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	11.1	0.200	--	35.5	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	1.82	0.200	--	6.26	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
Xylene (Total)	3.75	0.200	--	16.3	0.869	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	9.07	0.200	--	37.2	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	10.0	0.200	--	37.7	0.754	--		1
1,2-Dichloroethene (total)	ND	0.200	--	ND	0.793	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
1,3-Dichloropropene, Total	ND	0.200	--	ND	0.908	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1905378**Project Number:** Not Specified**Report Date:** 02/18/19**SAMPLE RESULTS**

Lab ID: L1905378-01
 Client ID: SV-2 020719
 Sample Location: 20-02 MOTT AVE

Date Collected: 02/07/19 11:47
 Date Received: 02/11/19
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	1.15	0.200	--	5.00	0.869	--		1
p/m-Xylene	2.54	0.400	--	11.0	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.291	0.200	--	1.24	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	1.21	0.200	--	5.26	0.869	--		1
4-Ethyltoluene	0.204	0.200	--	1.00	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	0.510	0.200	--	2.51	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	91		60-140



Project Name: FAR ROCKAWAY PH3**Project Number:** Not Specified**Lab Number:** L1905378**Report Date:** 02/18/19**SAMPLE RESULTS**

Lab ID: L1905378-02
 Client ID: SV-3 020719
 Sample Location: 20-02 MOTT AVE

Date Collected: 02/07/19 12:56
 Date Received: 02/11/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 02/16/19 00:26
 Analyst: AR

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	17.5	0.200	--	86.5	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	6.83	1.00	--	16.2	2.38	--		1
Trichlorofluoromethane	6.21	0.200	--	34.9	1.12	--		1
iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.777	0.200	--	2.42	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.643	0.500	--	1.90	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1905378**Project Number:** Not Specified**Report Date:** 02/18/19**SAMPLE RESULTS**

Lab ID: L1905378-02
 Client ID: SV-3 020719
 Sample Location: 20-02 MOTT AVE

Date Collected: 02/07/19 12:56
 Date Received: 02/11/19
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	11.2	0.200	--	54.7	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.248	0.200	--	0.874	0.705	--		1
1,1,1-Trichloroethane	0.708	0.200	--	3.86	1.09	--		1
Benzene	0.836	0.200	--	2.67	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.389	0.200	--	1.34	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
Xylene (Total)	ND	0.200	--	ND	0.869	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.445	0.200	--	1.68	0.754	--		1
1,2-Dichloroethene (total)	ND	0.200	--	ND	0.793	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
1,3-Dichloropropene, Total	ND	0.200	--	ND	0.908	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1905378**Project Number:** Not Specified**Report Date:** 02/18/19**SAMPLE RESULTS**

Lab ID: L1905378-02
 Client ID: SV-3 020719
 Sample Location: 20-02 MOTT AVE

Date Collected: 02/07/19 12:56
 Date Received: 02/11/19
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	0.393	0.200	--	2.67	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	84		60-140



Project Name: FAR ROCKAWAY PH3**Project Number:** Not Specified**Lab Number:** L1905378**Report Date:** 02/18/19**SAMPLE RESULTS**

Lab ID: L1905378-03
 Client ID: SV-4 020819
 Sample Location: 20-02 MOTT AVE

Date Collected: 02/08/19 11:30
 Date Received: 02/11/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 02/16/19 00:59
 Analyst: AR

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.533	0.200	--	2.64	0.989	--		1
Chloromethane	0.422	0.200	--	0.871	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	2.55	0.200	--	5.64	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethyl Alcohol	8.66	5.00	--	16.3	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	32.1	1.00	--	76.3	2.38	--		1
Trichlorofluoromethane	0.560	0.200	--	3.15	1.12	--		1
iso-Propyl Alcohol	2.96	0.500	--	7.28	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
tert-Butyl Alcohol	1.59	0.500	--	4.82	1.52	--		1
Methylene chloride	1.20	0.500	--	4.17	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	1.05	0.200	--	3.27	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	3.43	0.500	--	10.1	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1905378**Project Number:** Not Specified**Report Date:** 02/18/19**SAMPLE RESULTS**

Lab ID: L1905378-03
 Client ID: SV-4 020819
 Sample Location: 20-02 MOTT AVE

Date Collected: 02/08/19 11:30
 Date Received: 02/11/19
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.877	0.200	--	3.09	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	1.80	0.200	--	5.75	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.601	0.200	--	2.07	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
Xylene (Total)	ND	0.200	--	ND	0.869	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.613	0.200	--	2.51	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	1.21	0.200	--	4.56	0.754	--		1
1,2-Dichloroethene (total)	ND	0.200	--	ND	0.793	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
1,3-Dichloropropene, Total	ND	0.200	--	ND	0.908	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1905378**Project Number:** Not Specified**Report Date:** 02/18/19**SAMPLE RESULTS**

Lab ID: L1905378-03
 Client ID: SV-4 020819
 Sample Location: 20-02 MOTT AVE

Date Collected: 02/08/19 11:30
 Date Received: 02/11/19
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	26.6	0.200	--	180	1.36	--		1
Chlorobenzene	0.954	0.200	--	4.39	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	0.201	0.200	--	1.21	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	81		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	84		60-140



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1905378**Project Number:** Not Specified**Report Date:** 02/18/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/15/19 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1207240-4								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1905378**Project Number:** Not Specified**Report Date:** 02/18/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/15/19 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1207240-4								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylene (Total)	ND	0.200	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Isopropyl Ether	ND	0.200	--	ND	0.836	--		1
Ethyl-Tert-Butyl-Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	0.200	--	ND	0.793	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,3-Dichloropropene, Total	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1905378**Project Number:** Not Specified**Report Date:** 02/18/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/15/19 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1207240-4								
Cyclohexane	ND	0.200	--	ND	0.688	--		1
Tertiary-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl Acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1905378**Project Number:** Not Specified**Report Date:** 02/18/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/15/19 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1207240-4								
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane (C9)	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
o-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
p-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane (C10)	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1905378**Project Number:** Not Specified**Report Date:** 02/18/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/15/19 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1207240-4								
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane (C12)	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAR ROCKAWAY PH3

Project Number: Not Specified

Lab Number: L1905378

Report Date: 02/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1207240-3								
Chlorodifluoromethane	87		-		70-130	-		
Propylene	102		-		70-130	-		
Propane	81		-		70-130	-		
Dichlorodifluoromethane	87		-		70-130	-		
Chloromethane	99		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	109		-		70-130	-		
Methanol	84		-		70-130	-		
Vinyl chloride	101		-		70-130	-		
1,3-Butadiene	121		-		70-130	-		
Butane	47	Q	-		70-130	-		
Bromomethane	100		-		70-130	-		
Chloroethane	100		-		70-130	-		
Ethyl Alcohol	86		-		40-160	-		
Dichlorofluoromethane	97		-		70-130	-		
Vinyl bromide	104		-		70-130	-		
Acrolein	89		-		70-130	-		
Acetone	72		-		40-160	-		
Acetonitrile	89		-		70-130	-		
Trichlorofluoromethane	105		-		70-130	-		
iso-Propyl Alcohol	74		-		40-160	-		
Acrylonitrile	96		-		70-130	-		
Pentane	84		-		70-130	-		
Ethyl ether	76		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAR ROCKAWAY PH3

Project Number: Not Specified

Lab Number: L1905378

Report Date: 02/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1207240-3								
1,1-Dichloroethene	100		-		70-130	-		
tert-Butyl Alcohol	98		-		70-130	-		
Methylene chloride	99		-		70-130	-		
3-Chloropropene	95		-		70-130	-		
Carbon disulfide	95		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	104		-		70-130	-		
trans-1,2-Dichloroethene	95		-		70-130	-		
1,1-Dichloroethane	96		-		70-130	-		
Methyl tert butyl ether	95		-		70-130	-		
Vinyl acetate	108		-		70-130	-		
2-Butanone	110		-		70-130	-		
cis-1,2-Dichloroethene	101		-		70-130	-		
Ethyl Acetate	102		-		70-130	-		
Chloroform	101		-		70-130	-		
Tetrahydrofuran	90		-		70-130	-		
2,2-Dichloropropane	89		-		70-130	-		
1,2-Dichloroethane	97		-		70-130	-		
n-Hexane	95		-		70-130	-		
Isopropyl Ether	93		-		70-130	-		
Ethyl-Tert-Butyl-Ether	86		-		70-130	-		
1,2-Dichloroethene (total)	98		-			-		
1,2-Dichloroethene (total)	98		-			-		
1,1,1-Trichloroethane	97		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAR ROCKAWAY PH3

Lab Number: L1905378

Project Number: Not Specified

Report Date: 02/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1207240-3								
1,1-Dichloropropene	96		-		70-130	-		
Benzene	93		-		70-130	-		
Carbon tetrachloride	93		-		70-130	-		
Cyclohexane	93		-		70-130	-		
Tertiary-Amyl Methyl Ether	87		-		70-130	-		
Dibromomethane	99		-		70-130	-		
1,2-Dichloropropane	96		-		70-130	-		
Bromodichloromethane	99		-		70-130	-		
1,4-Dioxane	103		-		70-130	-		
Trichloroethene	97		-		70-130	-		
2,2,4-Trimethylpentane	95		-		70-130	-		
Methyl Methacrylate	70		-		40-160	-		
Heptane	92		-		70-130	-		
cis-1,3-Dichloropropene	102		-		70-130	-		
4-Methyl-2-pentanone	101		-		70-130	-		
trans-1,3-Dichloropropene	88		-		70-130	-		
1,1,2-Trichloroethane	101		-		70-130	-		
Toluene	96		-		70-130	-		
1,3-Dichloropropane	94		-		70-130	-		
2-Hexanone	107		-		70-130	-		
Dibromochloromethane	106		-		70-130	-		
1,2-Dibromoethane	102		-		70-130	-		
Butyl Acetate	92		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAR ROCKAWAY PH3

Project Number: Not Specified

Lab Number: L1905378

Report Date: 02/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1207240-3								
Octane	90		-		70-130	-		
Tetrachloroethene	99		-		70-130	-		
1,1,1,2-Tetrachloroethane	92		-		70-130	-		
Chlorobenzene	98		-		70-130	-		
Ethylbenzene	99		-		70-130	-		
p/m-Xylene	98		-		70-130	-		
Bromoform	106		-		70-130	-		
Styrene	98		-		70-130	-		
1,1,2,2-Tetrachloroethane	108		-		70-130	-		
o-Xylene	102		-		70-130	-		
1,2,3-Trichloropropane	96		-		70-130	-		
Nonane (C9)	90		-		70-130	-		
Isopropylbenzene	94		-		70-130	-		
Bromobenzene	92		-		70-130	-		
o-Chlorotoluene	96		-		70-130	-		
n-Propylbenzene	97		-		70-130	-		
p-Chlorotoluene	93		-		70-130	-		
4-Ethyltoluene	103		-		70-130	-		
1,3,5-Trimethylbenzene	102		-		70-130	-		
tert-Butylbenzene	99		-		70-130	-		
1,2,4-Trimethylbenzene	106		-		70-130	-		
Decane (C10)	98		-		70-130	-		
Benzyl chloride	100		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAR ROCKAWAY PH3

Project Number: Not Specified

Lab Number: L1905378

Report Date: 02/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1207240-3								
1,3-Dichlorobenzene	103		-		70-130	-		
1,4-Dichlorobenzene	105		-		70-130	-		
sec-Butylbenzene	99		-		70-130	-		
p-Isopropyltoluene	91		-		70-130	-		
1,2-Dichlorobenzene	106		-		70-130	-		
n-Butylbenzene	105		-		70-130	-		
1,2-Dibromo-3-chloropropane	98		-		70-130	-		
Undecane	112		-		70-130	-		
Dodecane (C12)	138	Q	-		70-130	-		
1,2,4-Trichlorobenzene	128		-		70-130	-		
Naphthalene	112		-		70-130	-		
1,2,3-Trichlorobenzene	119		-		70-130	-		
Hexachlorobutadiene	124		-		70-130	-		

Project Name: FAR ROCKAWAY PH3

Serial_No:02181915:39
Lab Number: L1905378

Project Number:

Report Date: 02/18/19

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1905378-01	SV-2 020719	0192	Flow 3	02/01/19	284274		-	-	-	Pass	40.0	38.8	3
L1905378-01	SV-2 020719	2562	6.0L Can	02/01/19	284274	L1903564-02	Pass	-30.0	-3.8	-	-	-	-
L1905378-02	SV-3 020719	0261	Flow 2	02/01/19	284274		-	-	-	Pass	40.0	45.1	12
L1905378-02	SV-3 020719	790	6.0L Can	02/01/19	284274	L1903564-01	Pass	-29.8	0.92	-	-	-	-
L1905378-03	SV-4 020819	01055	Flow 5	02/01/19	284274		-	-	-	Pass	40.0	40.0	0
L1905378-03	SV-4 020819	1964	6.0L Can	02/01/19	284274	L1903564-01	Pass	-29.2	-3.7	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903564
Report Date: 02/18/19

Air Canister Certification Results

Lab ID: L1903564-01
Client ID: CAN 1661 SHELF 46
Sample Location:

Date Collected: 01/28/19 09:00
Date Received: 01/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 01/29/19 09:19
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903564
Report Date: 02/18/19

Air Canister Certification Results

Lab ID: L1903564-01
Client ID: CAN 1661 SHELF 46
Sample Location:

Date Collected: 01/28/19 09:00
Date Received: 01/28/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903564
Report Date: 02/18/19

Air Canister Certification Results

Lab ID: L1903564-01
Client ID: CAN 1661 SHELF 46
Sample Location:

Date Collected: 01/28/19 09:00
Date Received: 01/28/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	84		60-140
chlorobenzene-d5	83		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903564
Report Date: 02/18/19

Air Canister Certification Results

Lab ID: L1903564-01
Client ID: CAN 1661 SHELF 46
Sample Location:

Date Collected: 01/28/19 09:00
Date Received: 01/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 01/29/19 09:19
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.046	0.020	--	0.251	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903564
Report Date: 02/18/19

Air Canister Certification Results

Lab ID: L1903564-01
Client ID: CAN 1661 SHELF 46
Sample Location:

Date Collected: 01/28/19 09:00
Date Received: 01/28/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	0.062	0.040	--	0.269	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903564
Report Date: 02/18/19

Air Canister Certification Results

Lab ID: L1903564-01
Client ID: CAN 1661 SHELF 46
Sample Location:

Date Collected: 01/28/19 09:00
Date Received: 01/28/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	84		60-140
chlorobenzene-d5	86		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903564
Report Date: 02/18/19

Air Canister Certification Results

Lab ID: L1903564-02
Client ID: CAN 1599 SHELF 47
Sample Location:

Date Collected: 01/28/19 09:00
Date Received: 01/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 01/29/19 09:58
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903564
Report Date: 02/18/19

Air Canister Certification Results

Lab ID: L1903564-02
Client ID: CAN 1599 SHELF 47
Sample Location:

Date Collected: 01/28/19 09:00
Date Received: 01/28/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1



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Sample Location:

Date Collected: 01/28/19 09:00
Date Received: 01/28/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	81		60-140
Bromochloromethane	83		60-140
chlorobenzene-d5	80		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

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Report Date: 02/18/19

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Client ID: CAN 1599 SHELF 47
Sample Location:

Date Collected: 01/28/19 09:00
Date Received: 01/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 01/29/19 09:58
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



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Sample Location:

Date Collected: 01/28/19 09:00
Date Received: 01/28/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903564
Report Date: 02/18/19

Air Canister Certification Results

Lab ID: L1903564-02
Client ID: CAN 1599 SHELF 47
Sample Location:

Date Collected: 01/28/19 09:00
Date Received: 01/28/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	84		60-140
chlorobenzene-d5	82		60-140



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1905378**Project Number:** Not Specified**Report Date:** 02/18/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

N/A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1905378-01A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1905378-02A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1905378-03A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)

Project Name: FAR ROCKAWAY PH3
Project Number: Not Specified

Lab Number: L1905378
Report Date: 02/18/19

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total'

Report Format: Data Usability Report



Project Name: FAR ROCKAWAY PH3**Lab Number:** L1905378**Project Number:** Not Specified**Report Date:** 02/18/19

result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: FAR ROCKAWAY PH3
Project Number: Not Specified

Lab Number: L1905378
Report Date: 02/18/19

REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.

ID No.:17873

Facility: **Company-wide**

Revision 12

Department: **Quality Assurance**

Published Date: 10/9/2018 4:58:19 PM

Title: **Certificate/Approval Program Summary**

Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 6860:** SCM: Perchlorate**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg. EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



AIR ANALYSIS

PAGE 1 OF 1

Date Rec'd in Lab: 2/12/19

ALPHA Job #: L1905378

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: CARLTON CONSULTANTS
Address: 17 DuPont St.
Plainville, NY 11803
Phone: 516-576-8844

Fax:

Email: JCooper@larichinc.com

☐ These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

Project Information

Project Name:	Farkodaway Ph3
Project Location:	6270-02nd Ave

Project #:

Project Manager: Tyson Cooper

ALPHA Quote #:

Turn-Around Time

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

Date Due:

Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx

Criteria Checker:

(Default based on Regulatory Criteria Indicated)

~~Other Formats:~~

~~79~~ EMAIL (standard pdf report)

☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
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ANALYSIS

All Columns Below Must Be Filled Out

[illegible]

*SAMPLE MATRIX CODES

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

Container Type

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.

Relinquished By:

Date/Time

Received By:

Date/Time:

**LABORATORY DATA FEBRUARY 8, 2019
SOIL AND GROUNDWATER**



American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

February 18, 2019

Jason Cooper
CA Rich Consultants Inc.
17 Dupont Street
Plainview, NY 11803
TEL: (516) 576-8844
FAX (516) 576-0093

RE: Far Rockaway Ph 3; 20-02 Mott Ave., Far R

Order No.: 1902058

Dear Jason Cooper:

American Analytical Laboratories, LLC. received 11 sample(s) on 2/11/2019 for the analyses presented in the following report.

Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report. The results reported herein relate only to the items tested or to the samples as received by the laboratory. This report may not be reproduced, except in full, without the approval of American Analytical Laboratories, LLC and is not considered complete without a cover page and chain of custody documentation. The limits (LOQ) provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report or the data is qualified either on the sample results or in the QC section of the report. This package has been reviewed by American Analytical Laboratories' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at lbeyer@american-analytical.com.

Sincerely,

Lori Beyer
Lab Director
American Analytical Laboratories, LLC.



American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Workorder Sample Summary

WO#: 1902058
18-Feb-19

CLIENT: CA Rich Consultants Inc.
Project: Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1902058-001A	SB-4 020819 (1-2)		2/8/2019 8:40:00 AM	2/11/2019 10:15:00 AM	Soil
1902058-001B	SB-4 020819 (1-2)		2/8/2019 8:40:00 AM	2/11/2019 10:15:00 AM	Soil
1902058-002A	SB-4 020819 (13.5-14.5)		2/8/2019 8:55:00 AM	2/11/2019 10:15:00 AM	Soil
1902058-002B	SB-4 020819 (13.5-14.5)		2/8/2019 8:55:00 AM	2/11/2019 10:15:00 AM	Soil
1902058-003A	GW-4 020819		2/8/2019 9:20:00 AM	2/11/2019 10:15:00 AM	Liquid
1902058-003B	GW-4 020819		2/8/2019 9:20:00 AM	2/11/2019 10:15:00 AM	Liquid
1902058-003C	GW-4 020819		2/8/2019 9:20:00 AM	2/11/2019 10:15:00 AM	Liquid
1902058-004A	SB-7 020819 (1-2)		2/8/2019 10:30:00 AM	2/11/2019 10:15:00 AM	Soil
1902058-004B	SB-7 020819 (1-2)		2/8/2019 10:30:00 AM	2/11/2019 10:15:00 AM	Soil
1902058-005A	SB-7 020819 (14-15)		2/8/2019 10:50:00 AM	2/11/2019 10:15:00 AM	Soil
1902058-005B	SB-7 020819 (14-15)		2/8/2019 10:50:00 AM	2/11/2019 10:15:00 AM	Soil
1902058-006A	SB-6 020819 (1-2)		2/8/2019 11:30:00 AM	2/11/2019 10:15:00 AM	Soil
1902058-006B	SB-6 020819 (1-2)		2/8/2019 11:30:00 AM	2/11/2019 10:15:00 AM	Soil
1902058-007A	SB-6 020819 (14-15)		2/8/2019 11:50:00 AM	2/11/2019 10:15:00 AM	Soil
1902058-007B	SB-6 020819 (14-15)		2/8/2019 11:50:00 AM	2/11/2019 10:15:00 AM	Soil
1902058-008A	SB-5 020819 (1-2)		2/8/2019 12:40:00 PM	2/11/2019 10:15:00 AM	Soil
1902058-008B	SB-5 020819 (1-2)		2/8/2019 12:40:00 PM	2/11/2019 10:15:00 AM	Soil
1902058-009A	SB-5 020819 (14-15)		2/8/2019 12:50:00 PM	2/11/2019 10:15:00 AM	Soil
1902058-009B	SB-5 020819 (14-15)		2/8/2019 12:50:00 PM	2/11/2019 10:15:00 AM	Soil
1902058-010A	GW-5 020819		2/8/2019 2:55:00 PM	2/11/2019 10:15:00 AM	Liquid
1902058-010B	GW-5 020819		2/8/2019 2:55:00 PM	2/11/2019 10:15:00 AM	Liquid
1902058-010C	GW-5 020819		2/8/2019 2:55:00 PM	2/11/2019 10:15:00 AM	Liquid
1902058-011A	GW-3 020819		2/8/2019 3:10:00 PM	2/11/2019 10:15:00 AM	Liquid
1902058-011B	GW-3 020819		2/8/2019 3:10:00 PM	2/11/2019 10:15:00 AM	Liquid
1902058-011C	GW-3 020819		2/8/2019 3:10:00 PM	2/11/2019 10:15:00 AM	Liquid

Original

CHAIN OF CUSTODY

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



CERTIFICATIONS

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

[illegible]



American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Sample Log-In Check List

Client Name: **CA RICH**

Work Order Number: **1902058**

RcptNo: **1**

Logged by: **Lori Beyer** 2/11/2019 10:15:00 AM

Lori Beyer

Completed By: **Lori Beyer** 2/11/2019 10:37:45 AM

Lori Beyer

Reviewed By: **Phyllis Masi** 2/11/2019

Phyllis Masi

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? AAL Lab Courier

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒
No. Seal Date: Signed By:
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 ☒ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☒ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels? Yes ☒ No ☐
(Note discrepancies on chain of custody)
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? Yes ☒ No ☐
(If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

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
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Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Case Narrative

WO#: 1902058
Date: 2/18/2019

CLIENT: CA Rich Consultants Inc.
Project: Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock

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.

Soil sample results analyzed for Volatile Organics via preparation method SW846 Method 5035A by the Low Level procedures potentially may be estimated, "J" (biased low) since the samples for this test were not collected according to the 5035A Method. Analysis was performed from intact soil jar. Volatile LCS are analyzed with preservatives - HCL/NaHSO₄/Methanol depending on level of analysis (high/low) similar to sample analysis. Outliers can be attributed to the presence of chemical preservatives. 2-Chloroethyl vinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

SVOA: Calibration for Benzoic Acid does not meet method requirements. Reporting limit must be considered estimated.

Pesticide/PCBs are analyzed on two distinct columns. Once a target compound is qualitatively confirmed by detection on both columns and quantitation is determined to be >40% between the two columns, AAL's policy is to report the lower of the values as suggested by SW846 Method 8000C in cases where no interference exists. If in the professional judgment of the laboratory, the higher value must be utilized this is explained in the lab report.

Hexachlorobenzene was detected in the pesticide method blank at 0.017 ug/L. This compound was not found in SVOA analysis (0.5U ug/L). Sample concentrations in GW-5 020819 (0.048 ug/L) should be considered estimated, potentially biased high. Results for this compound in GW-3 020819 (0.016 ug/L) can be attributed to laboratory blank levels/contamination. GW-4 20819 was collected 2/8/19 9:20 am, received 2/11/19 10:15 am and extracted 2/11/19 14:15pm which is beyond 72 hour recommended holding time for unpreserved liquid samples for Aldrin.

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;

Original



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Case Narrative

WO#: 1902058
Date: 2/18/2019

CLIENT: CA Rich Consultants Inc.
Project: Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock

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, 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.

Original



American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Definition Only

WO#: 1902058
Date: 2/18/2019

Definitions:

Sample Result and QC Summary Qualifiers - Level I and Level II Reports

ND - Not detected at the reporting limit/Limit of Quantitation

B - The analyte was detected in the associated method blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <5x the blank value as artifact.

E - The value is above the quantitation range

D - Analyte concentration was obtained from diluted analysis or from analysis using reduced sample volume.

J - The analyte was detected below the limit of quantitation but greater than the established Limit of Detection (LOD). There is greater uncertainty associated with these results and data should be considered as estimated.

U - The compound was analyzed for but not detected.

H - Holding time for preparation or analysis has been exceeded.

S - Spike recovery is outside accepted recovery limits.

R - RPD is outside accepted recovery range.

P - Secondary column exceeds 40% difference for GC test.

* - Calibration exceeds method requirement. Due to the large number of analytes for organic testing, the method allows 10% of analytes to have %RSD and/or %D to be >20%.

LOD - Limit of Detection; the lowest level the analyte can be determined to be statistically different from a blank.

LOQ - Limit of Quantitation; the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.

PQL - Practical Quantitation Limit; the lowest level that can be reliably achieved within the specific limits of Precision and accuracy. Listed on the QC Summary Forms.

m - Analyte was manually integrated for GC/MS.

+ - Concentration exceeds regulatory level for TCLP

Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-4 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 8:40:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-001A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
1,1,1,2-Tetrachloroethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,1,1-Trichloroethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,1,2,2-Tetrachloroethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,1,2-Trichloroethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,1-Dichloroethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,1-Dichloroethene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,1-Dichloropropene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,2,3-Trichlorobenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,2,3-Trichloropropane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,2,4,5-Tetramethylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,2,4-Trichlorobenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,2,4-Trimethylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,2-Dibromo-3-chloropropane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,2-Dibromoethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,2-Dichlorobenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,2-Dichloroethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,2-Dichloropropane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,3,5-Trimethylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,3-Dichlorobenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,3-dichloropropane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,4-Dichlorobenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
1,4-Dioxane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
2,2-Dichloropropane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
2-Butanone	ND	5.7	11	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
2-Chloroethyl vinyl ether	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
2-Chlorotoluene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
2-Hexanone	ND	5.7	11	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
2-Propanol	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
4-Chlorotoluene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
4-Isopropyltoluene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
4-Methyl-2-pentanone	ND	5.7	11	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Acetone	ND	5.7	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM

American Analytical Laboratories, LLC., 56 Toledo Street, Farmingdale, New York, Zip - 11735

Tel - (631) 454-6100 Fax - (631) 454-8027 www.american-analytical.com



Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-4 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 8:40:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-001A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
Benzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Bromobenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Bromochloromethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Bromodichloromethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Bromoform	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Bromomethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Carbon disulfide	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Carbon tetrachloride	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Chlorobenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Chlorodifluoromethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Chloroethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Chloroform	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Chloromethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
cis-1,2-Dichloroethene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
cis-1,3-Dichloropropene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Cyclohexane	ND	2.3	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Dibromochloromethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Dibromomethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Dichlorodifluoromethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Diisopropyl ether	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Ethanol	ND	11	23	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Ethylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Freon-114	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Hexachlorobutadiene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Isopropylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
m,p-Xylene	ND	2.3	11	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Methyl Acetate	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Methyl tert-butyl ether	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Methylene chloride	ND	5.7	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
n-Butylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
n-Propylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Naphthalene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
o-Xylene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-4 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 8:40:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-001A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
p-Diethylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
p-Ethyltoluene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
sec-Butylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Styrene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
t-Butyl alcohol	ND	2.9	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
tert-Butylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Tetrachloroethene	1.3	1.1	5.7	J	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Toluene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
trans-1,2-Dichloroethene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
trans-1,3-Dichloropropene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Trichloroethene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Trichlorofluoromethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Vinyl acetate	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Vinyl chloride	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Xylenes, Total	ND	3.4	17	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Methylcyclohexane	ND	2.3	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Acrolein	ND	14	29	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM
Acrylonitrile	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 1:54:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT: CA Rich Consultants Inc.**Client Sample ID:** SB-4 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 8:40:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-001B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY							
Mercury	0.181	0.00833	0.0156		mg/Kg-dry	1	Analyst: JP 2/15/2019 9:22:50 AM
PCB'S AS AROCLORS SW-846 METHOD 8082							
							Analyst: SB
Aroclor 1016	ND	11	23	U	µg/Kg-dry	1	2/15/2019 3:06:00 PM
Aroclor 1221	ND	11	23	U	µg/Kg-dry	1	2/15/2019 3:06:00 PM
Aroclor 1232	ND	11	23	U	µg/Kg-dry	1	2/15/2019 3:06:00 PM
Aroclor 1242	ND	11	23	U	µg/Kg-dry	1	2/15/2019 3:06:00 PM
Aroclor 1248	ND	11	23	U	µg/Kg-dry	1	2/15/2019 3:06:00 PM
Aroclor 1254	ND	11	23	U	µg/Kg-dry	1	2/15/2019 3:06:00 PM
Aroclor 1260	ND	11	23	U	µg/Kg-dry	1	2/15/2019 3:06:00 PM
Aroclor 1262	ND	11	23	U	µg/Kg-dry	1	2/15/2019 3:06:00 PM
Aroclor 1268	ND	11	23	U	µg/Kg-dry	1	2/15/2019 3:06:00 PM
PESTICIDES SW-846 METHOD 8081							
							Analyst: CP
4,4'-DDD	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
4,4'-DDE	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
4,4'-DDT	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
Aldrin	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
alpha-BHC	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
alpha-Chlordane	ND	6.8	11	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
beta-BHC	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
Chlorobenzilate	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
DBCP	21	1.1	2.8	P	µg/Kg-dry	1	2/14/2019 6:25:00 PM
delta-BHC	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
Dieldrin	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
Endosulfan I	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
Endosulfan II	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
Endosulfan sulfate	4.1	1.1	2.8	P	µg/Kg-dry	1	2/14/2019 6:25:00 PM
Endrin	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
Endrin aldehyde	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
Endrin ketone	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
gamma-BHC	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
gamma-Chlordane	ND	6.8	11	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
Heptachlor	4.1	2.3	3.4	P	µg/Kg-dry	1	2/14/2019 6:25:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-4 020819 (1-2)
Lab Order:	1902058	Collection Date:	2/8/2019 8:40:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: CP
Heptachlor epoxide	2.0	1.1	2.8	JP	µg/Kg-dry	1	2/14/2019 6:25:00 PM
Hexachlorobenzene	2.6	1.1	2.8	JP	µg/Kg-dry	1	2/14/2019 6:25:00 PM
Hexachlorocyclopentadiene	ND	3.4	3.4	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
Methoxychlor	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
Toxaphene	ND	14	28	U	µg/Kg-dry	1	2/14/2019 6:25:00 PM
PERCENT MOISTURE							
			D2216				Analyst: MR
Percent Moisture	12.7	0	1.00		wt%	1	2/12/2019 8:30:00 AM
TOTAL METALS							
			SW6010D		SW3050B		Analyst: JP
Aluminum	7420	2.22	4.44	D	mg/Kg-dry	10	2/15/2019 11:47:36 AM
Antimony	ND	0.222	0.555	U	mg/Kg-dry	1	2/15/2019 9:24:22 AM
Arsenic	3.89	0.222	0.555		mg/Kg-dry	1	2/15/2019 9:24:22 AM
Barium	54.8	0.222	0.444		mg/Kg-dry	1	2/15/2019 9:24:22 AM
Beryllium	ND	0.111	0.444	U	mg/Kg-dry	1	2/15/2019 9:24:22 AM
Cadmium	0.171	0.0555	0.444	J	mg/Kg-dry	1	2/15/2019 9:24:22 AM
Calcium	1220	0.222	0.555		mg/Kg-dry	1	2/15/2019 9:24:22 AM
Chromium	10.7	0.111	0.444		mg/Kg-dry	1	2/15/2019 9:24:22 AM
Cobalt	0.413	0.111	0.444	J	mg/Kg-dry	1	2/15/2019 9:24:22 AM
Copper	18.2	0.111	0.444		mg/Kg-dry	1	2/15/2019 9:24:22 AM
Iron	8830	2.22	4.44	D	mg/Kg-dry	10	2/15/2019 11:47:36 AM
Lead	100	0.222	0.444		mg/Kg-dry	1	2/15/2019 9:24:22 AM
Magnesium	546	0.111	0.444		mg/Kg-dry	1	2/15/2019 9:24:22 AM
Manganese	61.5	0.111	0.444		mg/Kg-dry	1	2/15/2019 9:24:22 AM
Nickel	6.61	0.111	0.444		mg/Kg-dry	1	2/15/2019 9:24:22 AM
Potassium	366	0.555	0.555		mg/Kg-dry	1	2/15/2019 9:24:22 AM
Selenium	0.706	0.222	0.555		mg/Kg-dry	1	2/15/2019 9:24:22 AM
Silver	ND	0.111	0.444	U	mg/Kg-dry	1	2/15/2019 9:24:22 AM
Sodium	91.1	0.222	0.555		mg/Kg-dry	1	2/15/2019 9:24:22 AM
Thallium	0.349	0.333	0.555	J	mg/Kg-dry	1	2/15/2019 9:24:22 AM
Vanadium	14.2	0.111	0.444		mg/Kg-dry	1	2/15/2019 9:24:22 AM
Zinc	71.4	0.111	0.444		mg/Kg-dry	1	2/15/2019 9:24:22 AM
SEMIVOLATILE SW-846 METHOD 8270							
			SW8270D		SW3546		Analyst: MH

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-4 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 8:40:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-001B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
Biphenyl	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
1,2,4-Trichlorobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
1,2-Dichlorobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
1,3-Dichlorobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
1,4-Dichlorobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
2,4,5-Trichlorophenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
2,4,6-Trichlorophenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
2,4-Dichlorophenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
2,4-Dimethylphenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
2,4-Dinitrophenol	ND	56	560	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
2,4-Dinitrotoluene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
2,6-Dinitrotoluene	ND	56	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
2-Chloronaphthalene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
2-Chlorophenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
2-Methylnaphthalene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
2-Methylphenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
2-Nitroaniline	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
2-Nitrophenol	ND	56	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
3+4-Methylphenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
3,3'-Dichlorobenzidine	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
3-Nitroaniline	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
4,6-Dinitro-2-methylphenol	ND	56	560	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
4-Bromophenyl phenyl ether	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
4-Chloro-3-methylphenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
4-Chloroaniline	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
4-Chlorophenyl phenyl ether	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
4-Nitroaniline	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
4-Nitrophenol	ND	56	560	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Acenaphthene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Acenaphthylene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Acetophenone	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Aniline	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Anthracene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-4 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 8:40:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-001B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
Atrazine	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Azobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Benzaldehyde	ND	56	560	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Benzidine	ND	56	560	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Benzo(a)anthracene	81	28	280	J	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Benzo(a)pyrene	73	28	170	J	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Benzo(b)fluoranthene	120	28	280	J	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Benzo(g,h,i)perylene	79	28	280	J	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Benzo(k)fluoranthene	40	28	280	J	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Benzoic acid	ND	56	560	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Benzyl alcohol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Bis(2-chloroethoxy)methane	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Bis(2-chloroethyl)ether	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Bis(2-chloroisopropyl)ether	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Bis(2-ethylhexyl)phthalate	ND	56	560	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Butyl benzyl phthalate	ND	56	560	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Caprolactam	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Carbazole	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Chrysene	90	28	280	J	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Di-n-butyl phthalate	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Di-n-octyl phthalate	ND	56	560	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Dibenzo(a,h)anthracene	ND	28	170	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Dibenzofuran	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Diethyl phthalate	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Dimethyl phthalate	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Fluoranthene	140	28	280	J	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Fluorene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Hexachlorobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Hexachlorobutadiene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Hexachlorocyclopentadiene	ND	56	560	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Hexachloroethane	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Indeno(1,2,3-c,d)pyrene	75	28	280	J	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Isophorone	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-4 020819 (1-2)
Lab Order:	1902058	Collection Date:	2/8/2019 8:40:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
N-Nitrosodi-n-propylamine	ND	28	170	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
N-Nitrosodimethylamine	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
N-Nitrosodiphenylamine	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Naphthalene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Nitrobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Parathion	ND	56	560	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Pentachlorophenol	ND	56	560	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Phenanthrene	72	28	280	J	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Phenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Pyrene	140	28	280	J	µg/Kg-dry	1	2/15/2019 5:03:00 PM
Pyridine	ND	28	280	U	µg/Kg-dry	1	2/15/2019 5:03:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-4 020819 (13.5-14.5)**Lab Order:** 1902058**Collection Date:** 2/8/2019 8:55:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-002A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
1,1,1,2-Tetrachloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,1,1-Trichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,1,2,2-Tetrachloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,1,2-Trichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,1-Dichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,1-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,1-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,2,3-Trichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,2,3-Trichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,2,4,5-Tetramethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,2,4-Trichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,2,4-Trimethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,2-Dibromo-3-chloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,2-Dibromoethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,2-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,2-Dichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,2-Dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,3,5-Trimethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,3-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,3-dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,4-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
1,4-Dioxane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
2,2-Dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
2-Butanone	ND	5.2	10	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
2-Chloroethyl vinyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
2-Chlorotoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
2-Hexanone	ND	5.2	10	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
2-Propanol	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
4-Chlorotoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
4-Isopropyltoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
4-Methyl-2-pentanone	ND	5.2	10	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Acetone	ND	5.2	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-4 020819 (13.5-14.5)**Lab Order:** 1902058**Collection Date:** 2/8/2019 8:55:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-002A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
Benzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Bromobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Bromochloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Bromodichloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Bromoform	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Bromomethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Carbon disulfide	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Carbon tetrachloride	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Chlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Chlorodifluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Chloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Chloroform	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Chloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
cis-1,2-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
cis-1,3-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Cyclohexane	ND	2.1	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Dibromochloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Dibromomethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Dichlorodifluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Diisopropyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Ethanol	ND	10	21	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Ethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Freon-114	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Hexachlorobutadiene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Isopropylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
m,p-Xylene	ND	2.1	10	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Methyl Acetate	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Methyl tert-butyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Methylene chloride	ND	5.2	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
n-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
n-Propylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Naphthalene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
o-Xylene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-4 020819 (13.5-14.5)**Lab Order:** 1902058**Collection Date:** 2/8/2019 8:55:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-002A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
p-Diethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
p-Ethyltoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
sec-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Styrene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
t-Butyl alcohol	ND	2.6	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
tert-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Tetrachloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Toluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
trans-1,2-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
trans-1,3-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Trichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Trichlorofluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Vinyl acetate	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Vinyl chloride	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Xylenes, Total	ND	3.1	16	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Methylcyclohexane	ND	2.1	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Acrolein	ND	13	26	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM
Acrylonitrile	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 2:26:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-4 020819 (13.5-14.5)
Lab Order:	1902058	Collection Date:	2/8/2019 8:55:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-002B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY							
			SW7471B		SW7471B		Analyst: JP
Mercury	0.00894	0.00795	0.0149	J	mg/Kg-dry	1	2/15/2019 9:24:57 AM
PCB'S AS AROCLORS SW-846 METHOD 8082							
			SW8082A		SW3546		Analyst: SB
Aroclor 1016	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:30:00 PM
Aroclor 1221	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:30:00 PM
Aroclor 1232	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:30:00 PM
Aroclor 1242	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:30:00 PM
Aroclor 1248	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:30:00 PM
Aroclor 1254	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:30:00 PM
Aroclor 1260	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:30:00 PM
Aroclor 1262	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:30:00 PM
Aroclor 1268	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:30:00 PM
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: CP
4,4'-DDD	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
4,4'-DDE	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
4,4'-DDT	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
Aldrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
alpha-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
alpha-Chlordane	ND	6.2	10	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
beta-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
Chlorobenzilate	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
DBCP	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
delta-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
Dieldrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
Endosulfan I	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
Endosulfan II	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
Endosulfan sulfate	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
Endrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
Endrin aldehyde	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
Endrin ketone	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
gamma-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
gamma-Chlordane	ND	6.2	10	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
Heptachlor	ND	2.1	3.1	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-4 020819 (13.5-14.5)
Lab Order:	1902058	Collection Date:	2/8/2019 8:55:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-002B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: CP
Heptachlor epoxide	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
Hexachlorobenzene	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
Hexachlorocyclopentadiene	ND	3.1	3.1	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
Methoxychlor	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
Toxaphene	ND	13	26	U	µg/Kg-dry	1	2/14/2019 8:56:00 PM
PERCENT MOISTURE							
			D2216				Analyst: MR
Percent Moisture	5.91	0	1.00		wt%	1	2/12/2019 8:30:00 AM
TOTAL METALS							
			SW6010D		SW3050B		Analyst: JP
Aluminum	527	0.190	0.381		mg/Kg-dry	1	2/15/2019 9:27:07 AM
Antimony	ND	0.190	0.476	U	mg/Kg-dry	1	2/15/2019 9:27:07 AM
Arsenic	1.09	0.190	0.476		mg/Kg-dry	1	2/15/2019 9:27:07 AM
Barium	1.44	0.190	0.381		mg/Kg-dry	1	2/15/2019 9:27:07 AM
Beryllium	ND	0.0952	0.381	U	mg/Kg-dry	1	2/15/2019 9:27:07 AM
Cadmium	ND	0.0476	0.381	U	mg/Kg-dry	1	2/15/2019 9:27:07 AM
Calcium	68.2	0.190	0.476		mg/Kg-dry	1	2/15/2019 9:27:07 AM
Chromium	4.56	0.0952	0.381		mg/Kg-dry	1	2/15/2019 9:27:07 AM
Cobalt	0.137	0.0952	0.381	J	mg/Kg-dry	1	2/15/2019 9:27:07 AM
Copper	0.880	0.0952	0.381		mg/Kg-dry	1	2/15/2019 9:27:07 AM
Iron	2670	1.90	3.81	D	mg/Kg-dry	10	2/15/2019 11:50:21 AM
Lead	0.714	0.190	0.381		mg/Kg-dry	1	2/15/2019 9:27:07 AM
Magnesium	50.5	0.0952	0.381		mg/Kg-dry	1	2/15/2019 9:27:07 AM
Manganese	10.0	0.0952	0.381		mg/Kg-dry	1	2/15/2019 9:27:07 AM
Nickel	1.15	0.0952	0.381		mg/Kg-dry	1	2/15/2019 9:27:07 AM
Potassium	47.7	0.476	0.476		mg/Kg-dry	1	2/15/2019 9:27:07 AM
Selenium	ND	0.190	0.476	U	mg/Kg-dry	1	2/15/2019 9:27:07 AM
Silver	ND	0.0952	0.381	U	mg/Kg-dry	1	2/15/2019 9:27:07 AM
Sodium	9.16	0.190	0.476		mg/Kg-dry	1	2/15/2019 9:27:07 AM
Thallium	ND	0.286	0.476	U	mg/Kg-dry	1	2/15/2019 9:27:07 AM
Vanadium	2.70	0.0952	0.381		mg/Kg-dry	1	2/15/2019 9:27:07 AM
Zinc	6.96	0.0952	0.381		mg/Kg-dry	1	2/15/2019 9:27:07 AM
SEMIVOLATILE SW-846 METHOD 8270							
			SW8270D		SW3546		Analyst: MH

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-4 020819 (13.5-14.5)**Lab Order:** 1902058**Collection Date:** 2/8/2019 8:55:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-002B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
Biphenyl	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
1,2,4-Trichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
1,2-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
1,3-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
1,4-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
2,4,5-Trichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
2,4,6-Trichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
2,4-Dichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
2,4-Dimethylphenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
2,4-Dinitrophenol	ND	51	510	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
2,4-Dinitrotoluene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
2,6-Dinitrotoluene	ND	51	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
2-Chloronaphthalene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
2-Chlorophenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
2-Methylnaphthalene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
2-Methylphenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
2-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
2-Nitrophenol	ND	51	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
3+4-Methylphenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
3,3'-Dichlorobenzidine	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
3-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
4,6-Dinitro-2-methylphenol	ND	51	510	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
4-Bromophenyl phenyl ether	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
4-Chloro-3-methylphenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
4-Chloroaniline	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
4-Chlorophenyl phenyl ether	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
4-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
4-Nitrophenol	ND	51	510	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Acenaphthene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Acenaphthylene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Acetophenone	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Aniline	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Anthracene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-4 020819 (13.5-14.5)**Lab Order:** 1902058**Collection Date:** 2/8/2019 8:55:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-002B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
Atrazine	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Azobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Benzaldehyde	ND	51	510	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Benzidine	ND	51	510	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Benzo(a)anthracene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Benzo(a)pyrene	ND	26	150	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Benzo(b)fluoranthene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Benzo(g,h,i)perylene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Benzo(k)fluoranthene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Benzoic acid	ND	51	510	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Benzyl alcohol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Bis(2-chloroethoxy)methane	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Bis(2-chloroethyl)ether	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Bis(2-chloroisopropyl)ether	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Bis(2-ethylhexyl)phthalate	ND	51	510	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Butyl benzyl phthalate	ND	51	510	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Caprolactam	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Carbazole	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Chrysene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Di-n-butyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Di-n-octyl phthalate	ND	51	510	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Dibenzo(a,h)anthracene	ND	26	150	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Dibenzofuran	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Diethyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Dimethyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Fluoranthene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Fluorene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Hexachlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Hexachlorobutadiene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Hexachlorocyclopentadiene	ND	51	510	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Hexachloroethane	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Indeno(1,2,3-c,d)pyrene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Isophorone	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-4 020819 (13.5-14.5)
Lab Order:	1902058	Collection Date:	2/8/2019 8:55:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-002B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
N-Nitrosodi-n-propylamine	ND	26	150	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
N-Nitrosodimethylamine	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
N-Nitrosodiphenylamine	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Naphthalene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Nitrobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Parathion	ND	51	510	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Pentachlorophenol	ND	51	510	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Phenanthrene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Phenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Pyrene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM
Pyridine	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:28:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-4 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 9:20:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-003A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C		SW5030C		Analyst: LA
1,1,1,2-Tetrachloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,1,1-Trichloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,1,2,2-Tetrachloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,1,2-Trichloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,1-Dichloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,1-Dichloroethene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,1-Dichloropropene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,2,3-Trichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,2,3-Trichloropropane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,2,4,5-Tetramethylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,2,4-Trichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,2,4-Trimethylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,2-Dibromo-3-chloropropane	ND	0.030	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,2-Dibromoethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,2-Dichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,2-Dichloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,2-Dichloropropane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,3,5-Trimethylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,3-Dichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,3-dichloropropane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,4-Dichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
1,4-Dioxane	ND	0.25	1.0	U	µg/L	1	2/13/2019 4:21:00 AM
2,2-Dichloropropane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
2-Butanone	ND	0.50	4.0	U	µg/L	1	2/13/2019 4:21:00 AM
2-Chloroethyl vinyl ether	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
2-Chlorotoluene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
2-Hexanone	ND	0.50	4.0	U	µg/L	1	2/13/2019 4:21:00 AM
2-Propanol	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
4-Chlorotoluene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
4-Isopropyltoluene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
4-Methyl-2-pentanone	ND	0.50	4.0	U	µg/L	1	2/13/2019 4:21:00 AM
Acetone	8.0	5.0	5.0		µg/L	1	2/13/2019 4:21:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-4 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 9:20:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-003A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C		SW5030C		Analyst: LA
Benzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Bromobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Bromochloromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Bromodichloromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Bromoform	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Bromomethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Carbon disulfide	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Carbon tetrachloride	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Chlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Chlorodifluoromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Chloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Chloroform	3.2	0.25	2.0		µg/L	1	2/13/2019 4:21:00 AM
Chloromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
cis-1,2-Dichloroethene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
cis-1,3-Dichloropropene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Cyclohexane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Dibromochloromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Dibromomethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Dichlorodifluoromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Diisopropyl ether	ND	0.50	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Ethanol	ND	2.5	10	U	µg/L	1	2/13/2019 4:21:00 AM
Ethylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Freon-114	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Hexachlorobutadiene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Isopropylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
m,p-Xylene	ND	0.50	4.0	U	µg/L	1	2/13/2019 4:21:00 AM
Methyl Acetate	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Methyl tert-butyl ether	41	0.25	2.0		µg/L	1	2/13/2019 4:21:00 AM
Methylene chloride	ND	5.0	5.0	U	µg/L	1	2/13/2019 4:21:00 AM
n-Butylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
n-Propylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Naphthalene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
o-Xylene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-4 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 9:20:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-003A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C		SW5030C		Analyst: LA
p-Diethylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
p-Ethyltoluene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
sec-Butylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Styrene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
t-Butyl alcohol	ND	2.5	10	U	µg/L	1	2/13/2019 4:21:00 AM
tert-Butylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Tetrachloroethene	0.32	0.25	2.0	J	µg/L	1	2/13/2019 4:21:00 AM
Toluene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
trans-1,2-Dichloroethene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
trans-1,3-Dichloropropene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Trichloroethene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Trichlorofluoromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Vinyl acetate	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Vinyl chloride	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Xylenes, Total	ND	0.75	6.0	U	µg/L	1	2/13/2019 4:21:00 AM
Methylcyclohexane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM
Acrolein	ND	1.0	10	U	µg/L	1	2/13/2019 4:21:00 AM
Acrylonitrile	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:21:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-4 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 9:20:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-003B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PCB'S AS AROCLORS SW-846 METHOD 8082			SW8082A	SW3510C	Analyst: CP		
Aroclor 1016	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:16:00 PM
Aroclor 1221	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:16:00 PM
Aroclor 1232	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:16:00 PM
Aroclor 1242	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:16:00 PM
Aroclor 1248	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:16:00 PM
Aroclor 1254	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:16:00 PM
Aroclor 1260	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:16:00 PM
Aroclor 1262	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:16:00 PM
Aroclor 1268	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:16:00 PM
PESTICIDES SW-846 METHOD 8081			SW8081B	SW3510C	Analyst: CP		
4,4'-DDD	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
4,4'-DDE	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
4,4'-DDT	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
Aldrin	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
alpha-BHC	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
alpha-Chlordane	ND	0.022	0.11	U	µg/L	1	2/12/2019 3:03:00 PM
beta-BHC	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
Chlorobenzilate	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
DBCP	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
delta-BHC	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
Dieldrin	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
Endosulfan I	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
Endosulfan II	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
Endosulfan sulfate	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
Endrin	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
Endrin aldehyde	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
Endrin ketone	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
gamma-BHC	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
gamma-Chlordane	ND	0.022	0.11	U	µg/L	1	2/12/2019 3:03:00 PM
Heptachlor	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
Heptachlor epoxide	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
Hexachlorobenzene	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	GW-4 020819
Lab Order:	1902058	Collection Date:	2/8/2019 9:20:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	LIQUID
Lab ID:	1902058-003B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081			SW8081B		SW3510C		Analyst: CP
Hexachlorocyclopentadiene	ND	0.033	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
Methoxychlor	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:03:00 PM
Toxaphene	ND	0.065	0.27	U	µg/L	1	2/12/2019 3:03:00 PM
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3510C		Analyst: MH
Biphenyl	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
1,2,4-Trichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
1,2-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
1,3-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
1,4-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
2,4,5-Trichlorophenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
2,4,6-Trichlorophenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
2,4-Dichlorophenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
2,4-Dimethylphenol	ND	1.0	10	U	µg/L	1	2/14/2019 5:57:00 PM
2,4-Dinitrophenol	ND	1.0	10	U	µg/L	1	2/14/2019 5:57:00 PM
2,4-Dinitrotoluene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
2,6-Dinitrotoluene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
2-Chloronaphthalene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
2-Chlorophenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
2-Methylnaphthalene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
2-Methylphenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
2-Nitroaniline	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
2-Nitrophenol	ND	1.0	10	U	µg/L	1	2/14/2019 5:57:00 PM
3+4-Methylphenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
3,3'-Dichlorobenzidine	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
3-Nitroaniline	ND	1.0	10	U	µg/L	1	2/14/2019 5:57:00 PM
4,6-Dinitro-2-methylphenol	ND	1.0	10	U	µg/L	1	2/14/2019 5:57:00 PM
4-Bromophenyl phenyl ether	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
4-Chloro-3-methylphenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
4-Chloroaniline	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
4-Chlorophenyl phenyl ether	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
4-Nitroaniline	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
4-Nitrophenol	ND	1.0	10	U	µg/L	1	2/14/2019 5:57:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-4 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 9:20:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-003B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3510C		Analyst: MH
Acenaphthene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Acenaphthylene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Acetophenone	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Aniline	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Anthracene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Atrazine	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Azobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Benzaldehyde	ND	1.0	10	U	µg/L	1	2/14/2019 5:57:00 PM
Benzidine	ND	1.0	10	U	µg/L	1	2/14/2019 5:57:00 PM
Benzo(a)anthracene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Benzo(a)pyrene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Benzo(b)fluoranthene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Benzo(g,h,i)perylene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Benzo(k)fluoranthene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Benzoic acid	ND	1.0	10	U	µg/L	1	2/14/2019 5:57:00 PM
Benzyl alcohol	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Bis(2-chloroethoxy)methane	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Bis(2-chloroethyl)ether	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Bis(2-chloroisopropyl)ether	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Bis(2-ethylhexyl)phthalate	ND	1.0	10	U	µg/L	1	2/14/2019 5:57:00 PM
Butyl benzyl phthalate	ND	1.0	10	U	µg/L	1	2/14/2019 5:57:00 PM
Caprolactam	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Carbazole	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Chrysene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Di-n-butyl phthalate	1.2	0.50	5.0	J	µg/L	1	2/14/2019 5:57:00 PM
Di-n-octyl phthalate	ND	1.0	10	U	µg/L	1	2/14/2019 5:57:00 PM
Dibenzo(a,h)anthracene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Dibenzofuran	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Diethyl phthalate	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Dimethyl phthalate	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Fluoranthene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Fluorene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Hexachlorobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM

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American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-4 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 9:20:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-003B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3510C	Analyst: MH		
Hexachlorobutadiene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Hexachlorocyclopentadiene	ND	1.0	10	U	µg/L	1	2/14/2019 5:57:00 PM
Hexachloroethane	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Indeno(1,2,3-c,d)pyrene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Isophorone	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
N-Nitrosodi-n-propylamine	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
N-Nitrosodimethylamine	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
N-Nitrosodiphenylamine	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Naphthalene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Nitrobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Parathion	ND	1.0	10	U	µg/L	1	2/14/2019 5:57:00 PM
Pentachlorophenol	ND	1.0	10	U	µg/L	1	2/14/2019 5:57:00 PM
Phenanthrene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Phenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Pyrene	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM
Pyridine	ND	0.50	5.0	U	µg/L	1	2/14/2019 5:57:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	GW-4 020819
Lab Order:	1902058	Collection Date:	2/8/2019 9:20:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	LIQUID
Lab ID:	1902058-003C		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY, TOTAL							
		E245.1 REV3.0 1994		E245.1 REV3.0		Analyst: JP	
Mercury	0.000387	0.000150	0.000300		mg/L	1	2/13/2019 12:30:23 PM
TOTAL METALS							
		E200.7 REV4.4 1994		E200.7 REV4.4		Analyst: JP	
Aluminum	98.0	0.00500	0.0200		mg/L	1	2/13/2019 10:12:15 AM
Antimony	ND	0.00500	0.0200	U	mg/L	1	2/13/2019 10:12:15 AM
Arsenic	0.134	0.0100	0.0250		mg/L	1	2/13/2019 10:12:15 AM
Barium	0.437	0.00500	0.0200		mg/L	1	2/13/2019 10:12:15 AM
Beryllium	ND	0.00500	0.0200	U	mg/L	1	2/13/2019 10:12:15 AM
Cadmium	ND	0.00500	0.0100	U	mg/L	1	2/13/2019 10:12:15 AM
Calcium	66.9	0.00500	0.0250		mg/L	1	2/13/2019 10:12:15 AM
Chromium	1.40	0.00500	0.0200		mg/L	1	2/13/2019 10:12:15 AM
Cobalt	0.0155	0.00500	0.0200	J	mg/L	1	2/13/2019 10:12:15 AM
Copper	0.466	0.00500	0.0200		mg/L	1	2/13/2019 10:12:15 AM
Iron	298	0.0500	0.200	D	mg/L	10	2/13/2019 11:11:05 AM
Lead	0.163	0.00500	0.0150		mg/L	1	2/13/2019 10:12:15 AM
Magnesium	14.8	0.00500	0.0200		mg/L	1	2/13/2019 10:12:15 AM
Manganese	6.80	0.00500	0.0200		mg/L	1	2/13/2019 10:12:15 AM
Nickel	0.298	0.00500	0.0200		mg/L	1	2/13/2019 10:12:15 AM
Potassium	14.0	0.0500	0.200		mg/L	1	2/13/2019 10:12:15 AM
Selenium	ND	0.0100	0.0250	U	mg/L	1	2/13/2019 10:12:15 AM
Silver	ND	0.00500	0.0200	U	mg/L	1	2/13/2019 10:12:15 AM
Sodium	22.3	0.100	0.300	D	mg/L	10	2/13/2019 11:11:05 AM
Thallium	ND	0.0100	0.0150	U	mg/L	1	2/13/2019 10:12:15 AM
Vanadium	0.335	0.00500	0.0200		mg/L	1	2/13/2019 10:12:15 AM
Zinc	0.659	0.00500	0.0200		mg/L	1	2/13/2019 10:12:15 AM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-7 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 10:30:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-004A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
1,1,1,2-Tetrachloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,1,1-Trichloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,1,2,2-Tetrachloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,1,2-Trichloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,1-Dichloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,1-Dichloroethene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,1-Dichloropropene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,2,3-Trichlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,2,3-Trichloropropane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,2,4,5-Tetramethylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,2,4-Trichlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,2,4-Trimethylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,2-Dibromo-3-chloropropane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,2-Dibromoethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,2-Dichlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,2-Dichloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,2-Dichloropropane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,3,5-Trimethylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,3-Dichlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,3-dichloropropane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,4-Dichlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
1,4-Dioxane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
2,2-Dichloropropane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
2-Butanone	ND	5.4	11	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
2-Chloroethyl vinyl ether	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
2-Chlorotoluene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
2-Hexanone	ND	5.4	11	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
2-Propanol	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
4-Chlorotoluene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
4-Isopropyltoluene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
4-Methyl-2-pentanone	ND	5.4	11	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Acetone	ND	5.4	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-7 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 10:30:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-004A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
Benzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Bromobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Bromochloromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Bromodichloromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Bromoform	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Bromomethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Carbon disulfide	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Carbon tetrachloride	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Chlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Chlorodifluoromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Chloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Chloroform	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Chloromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
cis-1,2-Dichloroethene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
cis-1,3-Dichloropropene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Cyclohexane	ND	2.2	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Dibromochloromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Dibromomethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Dichlorodifluoromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Diisopropyl ether	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Ethanol	ND	11	22	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Ethylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Freon-114	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Hexachlorobutadiene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Isopropylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
m,p-Xylene	ND	2.2	11	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Methyl Acetate	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Methyl tert-butyl ether	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Methylene chloride	ND	5.4	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
n-Butylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
n-Propylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Naphthalene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
o-Xylene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-7 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 10:30:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-004A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
p-Diethylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
p-Ethyltoluene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
sec-Butylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Styrene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
t-Butyl alcohol	ND	2.7	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
tert-Butylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Tetrachloroethene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Toluene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
trans-1,2-Dichloroethene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
trans-1,3-Dichloropropene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Trichloroethene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Trichlorofluoromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Vinyl acetate	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Vinyl chloride	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Xylenes, Total	ND	3.2	16	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Methylcyclohexane	ND	2.2	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Acrolein	ND	13	27	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM
Acrylonitrile	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 2:57:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-7 020819 (1-2)
Lab Order:	1902058	Collection Date:	2/8/2019 10:30:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-004B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY							
			SW7471B		SW7471B		Analyst: JP
Mercury	0.0142	0.00841	0.0158	J	mg/Kg-dry	1	2/15/2019 9:27:04 AM
PCB'S AS AROCLORS SW-846 METHOD 8082							
			SW8082A		SW3546		Analyst: SB
Aroclor 1016	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:57:00 PM
Aroclor 1221	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:57:00 PM
Aroclor 1232	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:57:00 PM
Aroclor 1242	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:57:00 PM
Aroclor 1248	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:57:00 PM
Aroclor 1254	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:57:00 PM
Aroclor 1260	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:57:00 PM
Aroclor 1262	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:57:00 PM
Aroclor 1268	ND	10	21	U	µg/Kg-dry	1	2/15/2019 4:57:00 PM
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: CP
4,4'-DDD	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
4,4'-DDE	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
4,4'-DDT	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
Aldrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
alpha-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
alpha-Chlordane	ND	6.3	10	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
beta-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
Chlorobenzilate	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
DBCP	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
delta-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
Dieldrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
Endosulfan I	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
Endosulfan II	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
Endosulfan sulfate	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
Endrin	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
Endrin aldehyde	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
Endrin ketone	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
gamma-BHC	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
gamma-Chlordane	ND	6.3	10	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
Heptachlor	ND	2.1	3.1	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-7 020819 (1-2)
Lab Order:	1902058	Collection Date:	2/8/2019 10:30:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-004B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: CP
Heptachlor epoxide	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
Hexachlorobenzene	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
Hexachlorocyclopentadiene	ND	3.1	3.1	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
Methoxychlor	ND	1.0	2.6	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
Toxaphene	ND	13	26	U	µg/Kg-dry	1	2/14/2019 9:14:00 PM
PERCENT MOISTURE							
			D2216				Analyst: MR
Percent Moisture	6.69	0	1.00		wt%	1	2/12/2019 8:30:00 AM
TOTAL METALS							
			SW6010D		SW3050B		Analyst: JP
Aluminum	1560	0.189	0.379		mg/Kg-dry	1	2/15/2019 9:29:51 AM
Antimony	ND	0.189	0.473	U	mg/Kg-dry	1	2/15/2019 9:29:51 AM
Arsenic	1.07	0.189	0.473		mg/Kg-dry	1	2/15/2019 9:29:51 AM
Barium	7.67	0.189	0.379		mg/Kg-dry	1	2/15/2019 9:29:51 AM
Beryllium	ND	0.0947	0.379	U	mg/Kg-dry	1	2/15/2019 9:29:51 AM
Cadmium	ND	0.0473	0.379	U	mg/Kg-dry	1	2/15/2019 9:29:51 AM
Calcium	200	0.189	0.473		mg/Kg-dry	1	2/15/2019 9:29:51 AM
Chromium	3.40	0.0947	0.379		mg/Kg-dry	1	2/15/2019 9:29:51 AM
Cobalt	0.110	0.0947	0.379	J	mg/Kg-dry	1	2/15/2019 9:29:51 AM
Copper	1.46	0.0947	0.379		mg/Kg-dry	1	2/15/2019 9:29:51 AM
Iron	2280	1.89	3.79	D	mg/Kg-dry	10	2/15/2019 12:07:33 PM
Lead	1.83	0.189	0.379		mg/Kg-dry	1	2/15/2019 9:29:51 AM
Magnesium	159	0.0947	0.379		mg/Kg-dry	1	2/15/2019 9:29:51 AM
Manganese	18.1	0.0947	0.379		mg/Kg-dry	1	2/15/2019 9:29:51 AM
Nickel	2.13	0.0947	0.379		mg/Kg-dry	1	2/15/2019 9:29:51 AM
Potassium	129	0.473	0.473		mg/Kg-dry	1	2/15/2019 9:29:51 AM
Selenium	ND	0.189	0.473	U	mg/Kg-dry	1	2/15/2019 9:29:51 AM
Silver	ND	0.0947	0.379	U	mg/Kg-dry	1	2/15/2019 9:29:51 AM
Sodium	9.56	0.189	0.473		mg/Kg-dry	1	2/15/2019 9:29:51 AM
Thallium	ND	0.284	0.473	U	mg/Kg-dry	1	2/15/2019 9:29:51 AM
Vanadium	4.24	0.0947	0.379		mg/Kg-dry	1	2/15/2019 9:29:51 AM
Zinc	5.46	0.0947	0.379		mg/Kg-dry	1	2/15/2019 9:29:51 AM
SEMIVOLATILE SW-846 METHOD 8270							
			SW8270D		SW3546		Analyst: MH

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT: CA Rich Consultants Inc.**Client Sample ID:** SB-7 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 10:30:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-004B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
Biphenyl	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
1,2,4-Trichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
1,2-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
1,3-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
1,4-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
2,4,5-Trichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
2,4,6-Trichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
2,4-Dichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
2,4-Dimethylphenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
2,4-Dinitrophenol	ND	53	530	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
2,4-Dinitrotoluene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
2,6-Dinitrotoluene	ND	53	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
2-Chloronaphthalene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
2-Chlorophenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
2-Methylnaphthalene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
2-Methylphenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
2-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
2-Nitrophenol	ND	53	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
3+4-Methylphenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
3,3'-Dichlorobenzidine	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
3-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
4,6-Dinitro-2-methylphenol	ND	53	530	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
4-Bromophenyl phenyl ether	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
4-Chloro-3-methylphenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
4-Chloroaniline	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
4-Chlorophenyl phenyl ether	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
4-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
4-Nitrophenol	ND	53	530	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Acenaphthene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Acenaphthylene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Acetophenone	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Aniline	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Anthracene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-7 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 10:30:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-004B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
Atrazine	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Azobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Benzaldehyde	ND	53	530	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Benzidine	ND	53	530	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Benzo(a)anthracene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Benzo(a)pyrene	ND	26	160	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Benzo(b)fluoranthene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Benzo(g,h,i)perylene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Benzo(k)fluoranthene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Benzoic acid	ND	53	530	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Benzyl alcohol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Bis(2-chloroethoxy)methane	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Bis(2-chloroethyl)ether	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Bis(2-chloroisopropyl)ether	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Bis(2-ethylhexyl)phthalate	ND	53	530	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Butyl benzyl phthalate	ND	53	530	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Caprolactam	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Carbazole	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Chrysene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Di-n-butyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Di-n-octyl phthalate	ND	53	530	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Dibenzo(a,h)anthracene	ND	26	160	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Dibenzofuran	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Diethyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Dimethyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Fluoranthene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Fluorene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Hexachlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Hexachlorobutadiene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Hexachlorocyclopentadiene	ND	53	530	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Hexachloroethane	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Indeno(1,2,3-c,d)pyrene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Isophorone	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-7 020819 (1-2)
Lab Order:	1902058	Collection Date:	2/8/2019 10:30:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-004B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
N-Nitrosodi-n-propylamine	ND	26	160	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
N-Nitrosodimethylamine	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
N-Nitrosodiphenylamine	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Naphthalene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Nitrobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Parathion	ND	53	530	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Pentachlorophenol	ND	53	530	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Phenanthrene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Phenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Pyrene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM
Pyridine	ND	26	260	U	µg/Kg-dry	1	2/15/2019 5:54:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-7 020819 (14-15)**Lab Order:** 1902058**Collection Date:** 2/8/2019 10:50:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-005A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
1,1,1,2-Tetrachloroethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,1,1-Trichloroethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,1,2,2-Tetrachloroethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,1,2-Trichloroethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,1-Dichloroethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,1-Dichloroethene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,1-Dichloropropene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,2,3-Trichlorobenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,2,3-Trichloropropane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,2,4,5-Tetramethylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,2,4-Trichlorobenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,2,4-Trimethylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,2-Dibromo-3-chloropropane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,2-Dibromoethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,2-Dichlorobenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,2-Dichloroethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,2-Dichloropropane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,3,5-Trimethylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,3-Dichlorobenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,3-dichloropropane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,4-Dichlorobenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
1,4-Dioxane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
2,2-Dichloropropane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
2-Butanone	ND	5.7	11	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
2-Chloroethyl vinyl ether	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
2-Chlorotoluene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
2-Hexanone	ND	5.7	11	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
2-Propanol	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
4-Chlorotoluene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
4-Isopropyltoluene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
4-Methyl-2-pentanone	ND	5.7	11	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Acetone	ND	5.7	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-7 020819 (14-15)**Lab Order:** 1902058**Collection Date:** 2/8/2019 10:50:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-005A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
Benzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Bromobenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Bromochloromethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Bromodichloromethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Bromoform	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Bromomethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Carbon disulfide	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Carbon tetrachloride	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Chlorobenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Chlorodifluoromethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Chloroethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Chloroform	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Chloromethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
cis-1,2-Dichloroethene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
cis-1,3-Dichloropropene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Cyclohexane	ND	2.3	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Dibromochloromethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Dibromomethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Dichlorodifluoromethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Diisopropyl ether	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Ethanol	ND	11	23	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Ethylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Freon-114	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Hexachlorobutadiene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Isopropylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
m,p-Xylene	ND	2.3	11	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Methyl Acetate	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Methyl tert-butyl ether	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Methylene chloride	ND	5.7	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
n-Butylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
n-Propylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Naphthalene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
o-Xylene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-7 020819 (14-15)**Lab Order:** 1902058**Collection Date:** 2/8/2019 10:50:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-005A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
p-Diethylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
p-Ethyltoluene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
sec-Butylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Styrene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
t-Butyl alcohol	ND	2.8	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
tert-Butylbenzene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Tetrachloroethene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Toluene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
trans-1,2-Dichloroethene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
trans-1,3-Dichloropropene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Trichloroethene	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Trichlorofluoromethane	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Vinyl acetate	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Vinyl chloride	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Xylenes, Total	ND	3.4	17	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Methylcyclohexane	ND	2.3	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Acrolein	ND	14	28	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM
Acrylonitrile	ND	1.1	5.7	U	µg/Kg-dry	1	2/12/2019 3:29:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-7 020819 (14-15)
Lab Order:	1902058	Collection Date:	2/8/2019 10:50:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-005B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY							
			SW7471B	SW7471B			Analyst: JP
Mercury	0.0118	0.00856	0.0161	J	mg/Kg-dry	1	2/15/2019 9:37:20 AM
PCB'S AS AROCLORS SW-846 METHOD 8082							
			SW8082A	SW3546			Analyst: SB
Aroclor 1016	ND	11	23	U	µg/Kg-dry	1	2/15/2019 5:25:00 PM
Aroclor 1221	ND	11	23	U	µg/Kg-dry	1	2/15/2019 5:25:00 PM
Aroclor 1232	ND	11	23	U	µg/Kg-dry	1	2/15/2019 5:25:00 PM
Aroclor 1242	ND	11	23	U	µg/Kg-dry	1	2/15/2019 5:25:00 PM
Aroclor 1248	ND	11	23	U	µg/Kg-dry	1	2/15/2019 5:25:00 PM
Aroclor 1254	ND	11	23	U	µg/Kg-dry	1	2/15/2019 5:25:00 PM
Aroclor 1260	ND	11	23	U	µg/Kg-dry	1	2/15/2019 5:25:00 PM
Aroclor 1262	ND	11	23	U	µg/Kg-dry	1	2/15/2019 5:25:00 PM
Aroclor 1268	ND	11	23	U	µg/Kg-dry	1	2/15/2019 5:25:00 PM
PESTICIDES SW-846 METHOD 8081							
			SW8081B	SW3546			Analyst: CP
4,4'-DDD	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
4,4'-DDE	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
4,4'-DDT	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
Aldrin	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
alpha-BHC	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
alpha-Chlordane	ND	6.8	11	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
beta-BHC	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
Chlorobenzilate	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
DBCP	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
delta-BHC	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
Dieldrin	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
Endosulfan I	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
Endosulfan II	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
Endosulfan sulfate	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
Endrin	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
Endrin aldehyde	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
Endrin ketone	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
gamma-BHC	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
gamma-Chlordane	ND	6.8	11	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
Heptachlor	ND	2.3	3.4	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-7 020819 (14-15)**Lab Order:** 1902058**Collection Date:** 2/8/2019 10:50:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-005B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081			SW8081B		SW3546		Analyst: CP
Heptachlor epoxide	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
Hexachlorobenzene	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
Hexachlorocyclopentadiene	ND	3.4	3.4	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
Methoxychlor	ND	1.1	2.8	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
Toxaphene	ND	14	28	U	µg/Kg-dry	1	2/14/2019 9:32:00 PM
PERCENT MOISTURE			D2216				Analyst: MR
Percent Moisture	14.3	0	1.00		wt%	1	2/12/2019 8:30:00 AM
TOTAL METALS			SW6010D		SW3050B		Analyst: JP
Aluminum	523	0.223	0.445		mg/Kg-dry	1	2/15/2019 9:32:37 AM
Antimony	ND	0.223	0.557	U	mg/Kg-dry	1	2/15/2019 9:32:37 AM
Arsenic	1.21	0.223	0.557		mg/Kg-dry	1	2/15/2019 9:32:37 AM
Barium	3.90	0.223	0.445		mg/Kg-dry	1	2/15/2019 9:32:37 AM
Beryllium	ND	0.111	0.445	U	mg/Kg-dry	1	2/15/2019 9:32:37 AM
Cadmium	ND	0.0557	0.445	U	mg/Kg-dry	1	2/15/2019 9:32:37 AM
Calcium	50.0	0.223	0.557		mg/Kg-dry	1	2/15/2019 9:32:37 AM
Chromium	3.09	0.111	0.445		mg/Kg-dry	1	2/15/2019 9:32:37 AM
Cobalt	0.114	0.111	0.445	J	mg/Kg-dry	1	2/15/2019 9:32:37 AM
Copper	0.840	0.111	0.445		mg/Kg-dry	1	2/15/2019 9:32:37 AM
Iron	1690	0.223	0.445		mg/Kg-dry	1	2/15/2019 9:32:37 AM
Lead	0.833	0.223	0.445		mg/Kg-dry	1	2/15/2019 9:32:37 AM
Magnesium	49.5	0.111	0.445		mg/Kg-dry	1	2/15/2019 9:32:37 AM
Manganese	20.4	0.111	0.445		mg/Kg-dry	1	2/15/2019 9:32:37 AM
Nickel	0.880	0.111	0.445		mg/Kg-dry	1	2/15/2019 9:32:37 AM
Potassium	57.9	0.557	0.557		mg/Kg-dry	1	2/15/2019 9:32:37 AM
Selenium	ND	0.223	0.557	U	mg/Kg-dry	1	2/15/2019 9:32:37 AM
Silver	ND	0.111	0.445	U	mg/Kg-dry	1	2/15/2019 9:32:37 AM
Sodium	9.91	0.223	0.557		mg/Kg-dry	1	2/15/2019 9:32:37 AM
Thallium	ND	0.334	0.557	U	mg/Kg-dry	1	2/15/2019 9:32:37 AM
Vanadium	3.20	0.111	0.445		mg/Kg-dry	1	2/15/2019 9:32:37 AM
Zinc	6.79	0.111	0.445		mg/Kg-dry	1	2/15/2019 9:32:37 AM
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-7 020819 (14-15)**Lab Order:** 1902058**Collection Date:** 2/8/2019 10:50:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-005B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
Biphenyl	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
1,2,4-Trichlorobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
1,2-Dichlorobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
1,3-Dichlorobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
1,4-Dichlorobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
2,4,5-Trichlorophenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
2,4,6-Trichlorophenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
2,4-Dichlorophenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
2,4-Dimethylphenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
2,4-Dinitrophenol	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
2,4-Dinitrotoluene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
2,6-Dinitrotoluene	ND	56	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
2-Chloronaphthalene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
2-Chlorophenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
2-Methylnaphthalene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
2-Methylphenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
2-Nitroaniline	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
2-Nitrophenol	ND	56	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
3+4-Methylphenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
3,3'-Dichlorobenzidine	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
3-Nitroaniline	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
4,6-Dinitro-2-methylphenol	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
4-Bromophenyl phenyl ether	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
4-Chloro-3-methylphenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
4-Chloroaniline	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
4-Chlorophenyl phenyl ether	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
4-Nitroaniline	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
4-Nitrophenol	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Acenaphthene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Acenaphthylene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Acetophenone	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Aniline	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Anthracene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-7 020819 (14-15)**Lab Order:** 1902058**Collection Date:** 2/8/2019 10:50:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-005B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
Atrazine	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Azobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Benzaldehyde	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Benzidine	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Benzo(a)anthracene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Benzo(a)pyrene	ND	28	170	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Benzo(b)fluoranthene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Benzo(g,h,i)perylene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Benzo(k)fluoranthene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Benzoic acid	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Benzyl alcohol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Bis(2-chloroethoxy)methane	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Bis(2-chloroethyl)ether	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Bis(2-chloroisopropyl)ether	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Bis(2-ethylhexyl)phthalate	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Butyl benzyl phthalate	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Caprolactam	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Carbazole	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Chrysene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Di-n-butyl phthalate	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Di-n-octyl phthalate	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Dibenzo(a,h)anthracene	ND	28	170	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Dibenzofuran	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Diethyl phthalate	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Dimethyl phthalate	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Fluoranthene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Fluorene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Hexachlorobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Hexachlorobutadiene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Hexachlorocyclopentadiene	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Hexachloroethane	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Indeno(1,2,3-c,d)pyrene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Isophorone	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-7 020819 (14-15)
Lab Order:	1902058	Collection Date:	2/8/2019 10:50:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-005B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
N-Nitrosodi-n-propylamine	ND	28	170	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
N-Nitrosodimethylamine	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
N-Nitrosodiphenylamine	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Naphthalene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Nitrobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Parathion	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Pentachlorophenol	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Phenanthrene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Phenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Pyrene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM
Pyridine	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:20:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-6 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 11:30:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-006A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
1,1,1,2-Tetrachloroethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,1,1-Trichloroethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,1,2,2-Tetrachloroethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,1,2-Trichloroethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,1-Dichloroethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,1-Dichloroethene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,1-Dichloropropene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,2,3-Trichlorobenzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,2,3-Trichloropropane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,2,4,5-Tetramethylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,2,4-Trichlorobenzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,2,4-Trimethylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,2-Dibromo-3-chloropropane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,2-Dibromoethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,2-Dichlorobenzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,2-Dichloroethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,2-Dichloropropane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,3,5-Trimethylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,3-Dichlorobenzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,3-dichloropropane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,4-Dichlorobenzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
1,4-Dioxane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
2,2-Dichloropropane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
2-Butanone	ND	5.5	11	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
2-Chloroethyl vinyl ether	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
2-Chlorotoluene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
2-Hexanone	ND	5.5	11	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
2-Propanol	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
4-Chlorotoluene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
4-Isopropyltoluene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
4-Methyl-2-pentanone	ND	5.5	11	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Acetone	ND	5.5	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-6 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 11:30:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-006A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
Benzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Bromobenzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Bromochloromethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Bromodichloromethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Bromoform	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Bromomethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Carbon disulfide	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Carbon tetrachloride	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Chlorobenzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Chlorodifluoromethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Chloroethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Chloroform	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Chloromethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
cis-1,2-Dichloroethene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
cis-1,3-Dichloropropene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Cyclohexane	ND	2.2	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Dibromochloromethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Dibromomethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Dichlorodifluoromethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Diisopropyl ether	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Ethanol	ND	11	22	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Ethylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Freon-114	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Hexachlorobutadiene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Isopropylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
m,p-Xylene	ND	2.2	11	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Methyl Acetate	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Methyl tert-butyl ether	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Methylene chloride	ND	5.5	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
n-Butylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
n-Propylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Naphthalene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
o-Xylene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-6 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 11:30:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-006A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
p-Diethylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
p-Ethyltoluene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
sec-Butylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Styrene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
t-Butyl alcohol	ND	2.8	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
tert-Butylbenzene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Tetrachloroethene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Toluene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
trans-1,2-Dichloroethene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
trans-1,3-Dichloropropene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Trichloroethene	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Trichlorofluoromethane	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Vinyl acetate	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Vinyl chloride	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Xylenes, Total	ND	3.3	17	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Methylcyclohexane	ND	2.2	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Acrolein	ND	14	28	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM
Acrylonitrile	ND	1.1	5.5	U	µg/Kg-dry	1	2/12/2019 4:01:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-6 020819 (1-2)
Lab Order:	1902058	Collection Date:	2/8/2019 11:30:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-006B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY							
			SW7471B		SW7471B		Analyst: JP
Mercury	0.0620	0.00855	0.0160		mg/Kg-dry	1	2/15/2019 9:39:27 AM
PCB'S AS AROCLORS SW-846 METHOD 8082							
			SW8082A		SW3546		Analyst: SB
Aroclor 1016	ND	11	22	U	µg/Kg-dry	1	2/15/2019 10:03:00 PM
Aroclor 1221	ND	11	22	U	µg/Kg-dry	1	2/15/2019 10:03:00 PM
Aroclor 1232	ND	11	22	U	µg/Kg-dry	1	2/15/2019 10:03:00 PM
Aroclor 1242	ND	11	22	U	µg/Kg-dry	1	2/15/2019 10:03:00 PM
Aroclor 1248	ND	11	22	U	µg/Kg-dry	1	2/15/2019 10:03:00 PM
Aroclor 1254	ND	11	22	U	µg/Kg-dry	1	2/15/2019 10:03:00 PM
Aroclor 1260	ND	11	22	U	µg/Kg-dry	1	2/15/2019 10:03:00 PM
Aroclor 1262	ND	11	22	U	µg/Kg-dry	1	2/15/2019 10:03:00 PM
Aroclor 1268	ND	11	22	U	µg/Kg-dry	1	2/15/2019 10:03:00 PM
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: CP
4,4'-DDD	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
4,4'-DDE	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
4,4'-DDT	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
Aldrin	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
alpha-BHC	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
alpha-Chlordane	ND	6.6	11	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
beta-BHC	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
Chlorobenzilate	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
DBCP	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
delta-BHC	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
Dieldrin	1.2	1.1	2.7	JP	µg/Kg-dry	1	2/14/2019 9:51:00 PM
Endosulfan I	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
Endosulfan II	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
Endosulfan sulfate	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
Endrin	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
Endrin aldehyde	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
Endrin ketone	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
gamma-BHC	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
gamma-Chlordane	ND	6.6	11	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
Heptachlor	ND	2.2	3.3	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-6 020819 (1-2)
Lab Order:	1902058	Collection Date:	2/8/2019 11:30:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-006B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: CP
Heptachlor epoxide	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
Hexachlorobenzene	1.5	1.1	2.7	JP	µg/Kg-dry	1	2/14/2019 9:51:00 PM
Hexachlorocyclopentadiene	ND	3.3	3.3	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
Methoxychlor	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
Toxaphene	ND	14	27	U	µg/Kg-dry	1	2/14/2019 9:51:00 PM
PERCENT MOISTURE							
			D2216				Analyst: MR
Percent Moisture	11.7	0	1.00		wt%	1	2/12/2019 8:30:00 AM
TOTAL METALS							
			SW6010D		SW3050B		Analyst: JP
Aluminum	9100	2.07	4.15	D	mg/Kg-dry	10	2/15/2019 12:13:04 PM
Antimony	ND	0.207	0.519	U	mg/Kg-dry	1	2/15/2019 9:35:21 AM
Arsenic	1.93	0.207	0.519		mg/Kg-dry	1	2/15/2019 9:35:21 AM
Barium	22.6	0.207	0.415		mg/Kg-dry	1	2/15/2019 9:35:21 AM
Beryllium	ND	0.104	0.415	U	mg/Kg-dry	1	2/15/2019 9:35:21 AM
Cadmium	ND	0.0519	0.415	U	mg/Kg-dry	1	2/15/2019 9:35:21 AM
Calcium	500	0.207	0.519		mg/Kg-dry	1	2/15/2019 9:35:21 AM
Chromium	10.3	0.104	0.415		mg/Kg-dry	1	2/15/2019 9:35:21 AM
Cobalt	0.504	0.104	0.415		mg/Kg-dry	1	2/15/2019 9:35:21 AM
Copper	4.05	0.104	0.415		mg/Kg-dry	1	2/15/2019 9:35:21 AM
Iron	8220	2.07	4.15	D	mg/Kg-dry	10	2/15/2019 12:13:04 PM
Lead	11.4	0.207	0.415		mg/Kg-dry	1	2/15/2019 9:35:21 AM
Magnesium	643	0.104	0.415		mg/Kg-dry	1	2/15/2019 9:35:21 AM
Manganese	42.0	0.104	0.415		mg/Kg-dry	1	2/15/2019 9:35:21 AM
Nickel	4.98	0.104	0.415		mg/Kg-dry	1	2/15/2019 9:35:21 AM
Potassium	254	0.519	0.519		mg/Kg-dry	1	2/15/2019 9:35:21 AM
Selenium	0.344	0.207	0.519	J	mg/Kg-dry	1	2/15/2019 9:35:21 AM
Silver	ND	0.104	0.415	U	mg/Kg-dry	1	2/15/2019 9:35:21 AM
Sodium	25.4	0.207	0.519		mg/Kg-dry	1	2/15/2019 9:35:21 AM
Thallium	0.573	0.311	0.519		mg/Kg-dry	1	2/15/2019 9:35:21 AM
Vanadium	14.8	0.104	0.415		mg/Kg-dry	1	2/15/2019 9:35:21 AM
Zinc	18.8	0.104	0.415		mg/Kg-dry	1	2/15/2019 9:35:21 AM
SEMIVOLATILE SW-846 METHOD 8270							
			SW8270D		SW3546		Analyst: MH

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-6 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 11:30:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-006B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
Biphenyl	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
1,2,4-Trichlorobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
1,2-Dichlorobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
1,3-Dichlorobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
1,4-Dichlorobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
2,4,5-Trichlorophenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
2,4,6-Trichlorophenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
2,4-Dichlorophenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
2,4-Dimethylphenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
2,4-Dinitrophenol	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
2,4-Dinitrotoluene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
2,6-Dinitrotoluene	ND	56	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
2-Chloronaphthalene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
2-Chlorophenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
2-Methylnaphthalene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
2-Methylphenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
2-Nitroaniline	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
2-Nitrophenol	ND	56	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
3+4-Methylphenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
3,3'-Dichlorobenzidine	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
3-Nitroaniline	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
4,6-Dinitro-2-methylphenol	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
4-Bromophenyl phenyl ether	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
4-Chloro-3-methylphenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
4-Chloroaniline	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
4-Chlorophenyl phenyl ether	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
4-Nitroaniline	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
4-Nitrophenol	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Acenaphthene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Acenaphthylene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Acetophenone	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Aniline	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Anthracene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-6 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 11:30:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-006B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
Atrazine	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Azobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Benzaldehyde	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Benzidine	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Benzo(a)anthracene	43	28	280	J	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Benzo(a)pyrene	38	28	170	J	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Benzo(b)fluoranthene	59	28	280	J	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Benzo(g,h,i)perylene	29	28	280	J	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Benzo(k)fluoranthene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Benzoic acid	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Benzyl alcohol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Bis(2-chloroethoxy)methane	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Bis(2-chloroethyl)ether	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Bis(2-chloroisopropyl)ether	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Bis(2-ethylhexyl)phthalate	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Butyl benzyl phthalate	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Caprolactam	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Carbazole	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Chrysene	45	28	280	J	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Di-n-butyl phthalate	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Di-n-octyl phthalate	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Dibenzo(a,h)anthracene	ND	28	170	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Dibenzofuran	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Diethyl phthalate	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Dimethyl phthalate	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Fluoranthene	77	28	280	J	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Fluorene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Hexachlorobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Hexachlorobutadiene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Hexachlorocyclopentadiene	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Hexachloroethane	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Indeno(1,2,3-c,d)pyrene	32	28	280	J	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Isophorone	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-6 020819 (1-2)
Lab Order:	1902058	Collection Date:	2/8/2019 11:30:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-006B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
N-Nitrosodi-n-propylamine	ND	28	170	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
N-Nitrosodimethylamine	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
N-Nitrosodiphenylamine	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Naphthalene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Nitrobenzene	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Parathion	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Pentachlorophenol	ND	56	560	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Phenanthrene	35	28	280	J	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Phenol	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Pyrene	73	28	280	J	µg/Kg-dry	1	2/15/2019 6:45:00 PM
Pyridine	ND	28	280	U	µg/Kg-dry	1	2/15/2019 6:45:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-6 020819 (14-15)**Lab Order:** 1902058**Collection Date:** 2/8/2019 11:50:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-007A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
1,1,1,2-Tetrachloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,1,1-Trichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,1,2,2-Tetrachloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,1,2-Trichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,1-Dichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,1-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,1-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,2,3-Trichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,2,3-Trichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,2,4,5-Tetramethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,2,4-Trichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,2,4-Trimethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,2-Dibromo-3-chloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,2-Dibromoethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,2-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,2-Dichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,2-Dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,3,5-Trimethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,3-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,3-dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,4-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
1,4-Dioxane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
2,2-Dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
2-Butanone	ND	5.2	10	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
2-Chloroethyl vinyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
2-Chlorotoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
2-Hexanone	ND	5.2	10	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
2-Propanol	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
4-Chlorotoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
4-Isopropyltoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
4-Methyl-2-pentanone	ND	5.2	10	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Acetone	ND	5.2	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-6 020819 (14-15)**Lab Order:** 1902058**Collection Date:** 2/8/2019 11:50:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-007A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
Benzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Bromobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Bromochloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Bromodichloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Bromoform	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Bromomethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Carbon disulfide	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Carbon tetrachloride	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Chlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Chlorodifluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Chloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Chloroform	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Chloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
cis-1,2-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
cis-1,3-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Cyclohexane	ND	2.1	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Dibromochloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Dibromomethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Dichlorodifluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Diisopropyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Ethanol	ND	10	21	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Ethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Freon-114	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Hexachlorobutadiene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Isopropylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
m,p-Xylene	ND	2.1	10	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Methyl Acetate	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Methyl tert-butyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Methylene chloride	ND	5.2	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
n-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
n-Propylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Naphthalene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
o-Xylene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-6 020819 (14-15)**Lab Order:** 1902058**Collection Date:** 2/8/2019 11:50:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-007A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
p-Diethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
p-Ethyltoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
sec-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Styrene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
t-Butyl alcohol	ND	2.6	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
tert-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Tetrachloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Toluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
trans-1,2-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
trans-1,3-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Trichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Trichlorofluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Vinyl acetate	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Vinyl chloride	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Xylenes, Total	ND	3.1	16	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Methylcyclohexane	ND	2.1	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Acrolein	ND	13	26	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM
Acrylonitrile	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 4:33:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-6 020819 (14-15)
Lab Order:	1902058	Collection Date:	2/8/2019 11:50:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-007B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY							
			SW7471B		SW7471B		Analyst: JP
Mercury	0.0109	0.00795	0.0149	J	mg/Kg-dry	1	2/15/2019 9:41:34 AM
PCB'S AS AROCLORS SW-846 METHOD 8082							
			SW8082A		SW3546		Analyst: SB
Aroclor 1016	ND	10	20	U	µg/Kg-dry	1	2/15/2019 10:30:00 PM
Aroclor 1221	ND	10	20	U	µg/Kg-dry	1	2/15/2019 10:30:00 PM
Aroclor 1232	ND	10	20	U	µg/Kg-dry	1	2/15/2019 10:30:00 PM
Aroclor 1242	ND	10	20	U	µg/Kg-dry	1	2/15/2019 10:30:00 PM
Aroclor 1248	ND	10	20	U	µg/Kg-dry	1	2/15/2019 10:30:00 PM
Aroclor 1254	ND	10	20	U	µg/Kg-dry	1	2/15/2019 10:30:00 PM
Aroclor 1260	ND	10	20	U	µg/Kg-dry	1	2/15/2019 10:30:00 PM
Aroclor 1262	ND	10	20	U	µg/Kg-dry	1	2/15/2019 10:30:00 PM
Aroclor 1268	ND	10	20	U	µg/Kg-dry	1	2/15/2019 10:30:00 PM
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: CP
4,4'-DDD	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
4,4'-DDE	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
4,4'-DDT	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
Aldrin	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
alpha-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
alpha-Chlordane	ND	6.1	10	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
beta-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
Chlorobenzilate	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
DBCP	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
delta-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
Dieldrin	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
Endosulfan I	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
Endosulfan II	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
Endosulfan sulfate	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
Endrin	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
Endrin aldehyde	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
Endrin ketone	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
gamma-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
gamma-Chlordane	ND	6.1	10	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
Heptachlor	ND	2.0	3.0	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-6 020819 (14-15)
Lab Order:	1902058	Collection Date:	2/8/2019 11:50:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-007B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: CP
Heptachlor epoxide	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
Hexachlorobenzene	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
Hexachlorocyclopentadiene	ND	3.0	3.0	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
Methoxychlor	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
Toxaphene	ND	13	25	U	µg/Kg-dry	1	2/14/2019 10:09:00 PM
PERCENT MOISTURE							
			D2216				Analyst: MR
Percent Moisture	3.25	0	1.00		wt%	1	2/12/2019 8:30:00 AM
TOTAL METALS							
			SW6010D		SW3050B		Analyst: JP
Aluminum	557	0.203	0.405		mg/Kg-dry	1	2/15/2019 9:38:05 AM
Antimony	ND	0.203	0.507	U	mg/Kg-dry	1	2/15/2019 9:38:05 AM
Arsenic	1.47	0.203	0.507		mg/Kg-dry	1	2/15/2019 9:38:05 AM
Barium	2.74	0.203	0.405		mg/Kg-dry	1	2/15/2019 9:38:05 AM
Beryllium	ND	0.101	0.405	U	mg/Kg-dry	1	2/15/2019 9:38:05 AM
Cadmium	ND	0.0507	0.405	U	mg/Kg-dry	1	2/15/2019 9:38:05 AM
Calcium	53.4	0.203	0.507		mg/Kg-dry	1	2/15/2019 9:38:05 AM
Chromium	4.60	0.101	0.405		mg/Kg-dry	1	2/15/2019 9:38:05 AM
Cobalt	0.199	0.101	0.405	J	mg/Kg-dry	1	2/15/2019 9:38:05 AM
Copper	0.971	0.101	0.405		mg/Kg-dry	1	2/15/2019 9:38:05 AM
Iron	3400	2.03	4.05	D	mg/Kg-dry	10	2/15/2019 12:15:49 PM
Lead	0.784	0.203	0.405		mg/Kg-dry	1	2/15/2019 9:38:05 AM
Magnesium	54.7	0.101	0.405		mg/Kg-dry	1	2/15/2019 9:38:05 AM
Manganese	22.3	0.101	0.405		mg/Kg-dry	1	2/15/2019 9:38:05 AM
Nickel	1.13	0.101	0.405		mg/Kg-dry	1	2/15/2019 9:38:05 AM
Potassium	52.3	0.507	0.507		mg/Kg-dry	1	2/15/2019 9:38:05 AM
Selenium	0.217	0.203	0.507	J	mg/Kg-dry	1	2/15/2019 9:38:05 AM
Silver	ND	0.101	0.405	U	mg/Kg-dry	1	2/15/2019 9:38:05 AM
Sodium	8.03	0.203	0.507		mg/Kg-dry	1	2/15/2019 9:38:05 AM
Thallium	ND	0.304	0.507	U	mg/Kg-dry	1	2/15/2019 9:38:05 AM
Vanadium	2.92	0.101	0.405		mg/Kg-dry	1	2/15/2019 9:38:05 AM
Zinc	3.91	0.101	0.405		mg/Kg-dry	1	2/15/2019 9:38:05 AM
SEMIVOLATILE SW-846 METHOD 8270							
			SW8270D		SW3546		Analyst: MH

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-6 020819 (14-15)**Lab Order:** 1902058**Collection Date:** 2/8/2019 11:50:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-007B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
Biphenyl	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
1,2,4-Trichlorobenzene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
1,2-Dichlorobenzene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
1,3-Dichlorobenzene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
1,4-Dichlorobenzene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
2,4,5-Trichlorophenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
2,4,6-Trichlorophenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
2,4-Dichlorophenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
2,4-Dimethylphenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
2,4-Dinitrophenol	ND	51	510	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
2,4-Dinitrotoluene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
2,6-Dinitrotoluene	ND	51	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
2-Chloronaphthalene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
2-Chlorophenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
2-Methylnaphthalene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
2-Methylphenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
2-Nitroaniline	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
2-Nitrophenol	ND	51	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
3+4-Methylphenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
3,3'-Dichlorobenzidine	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
3-Nitroaniline	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
4,6-Dinitro-2-methylphenol	ND	51	510	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
4-Bromophenyl phenyl ether	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
4-Chloro-3-methylphenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
4-Chloroaniline	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
4-Chlorophenyl phenyl ether	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
4-Nitroaniline	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
4-Nitrophenol	ND	51	510	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Acenaphthene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Acenaphthylene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Acetophenone	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Aniline	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Anthracene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-6 020819 (14-15)**Lab Order:** 1902058**Collection Date:** 2/8/2019 11:50:00 AM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-007B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
Atrazine	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Azobenzene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Benzaldehyde	ND	51	510	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Benzidine	ND	51	510	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Benzo(a)anthracene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Benzo(a)pyrene	ND	25	150	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Benzo(b)fluoranthene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Benzo(g,h,i)perylene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Benzo(k)fluoranthene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Benzoic acid	ND	51	510	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Benzyl alcohol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Bis(2-chloroethoxy)methane	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Bis(2-chloroethyl)ether	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Bis(2-chloroisopropyl)ether	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Bis(2-ethylhexyl)phthalate	ND	51	510	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Butyl benzyl phthalate	ND	51	510	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Caprolactam	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Carbazole	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Chrysene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Di-n-butyl phthalate	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Di-n-octyl phthalate	ND	51	510	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Dibenzo(a,h)anthracene	ND	25	150	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Dibenzofuran	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Diethyl phthalate	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Dimethyl phthalate	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Fluoranthene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Fluorene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Hexachlorobenzene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Hexachlorobutadiene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Hexachlorocyclopentadiene	ND	51	510	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Hexachloroethane	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Indeno(1,2,3-c,d)pyrene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Isophorone	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-6 020819 (14-15)
Lab Order:	1902058	Collection Date:	2/8/2019 11:50:00 AM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-007B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
N-Nitrosodi-n-propylamine	ND	25	150	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
N-Nitrosodimethylamine	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
N-Nitrosodiphenylamine	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Naphthalene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Nitrobenzene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Parathion	ND	51	510	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Pentachlorophenol	ND	51	510	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Phenanthrene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Phenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Pyrene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM
Pyridine	ND	25	250	U	µg/Kg-dry	1	2/15/2019 7:11:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-5 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 12:40:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-008A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
1,1,1,2-Tetrachloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,1,1-Trichloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,1,2,2-Tetrachloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,1,2-Trichloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,1-Dichloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,1-Dichloroethene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,1-Dichloropropene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,2,3-Trichlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,2,3-Trichloropropane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,2,4,5-Tetramethylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,2,4-Trichlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,2,4-Trimethylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,2-Dibromo-3-chloropropane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,2-Dibromoethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,2-Dichlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,2-Dichloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,2-Dichloropropane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,3,5-Trimethylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,3-Dichlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,3-dichloropropane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,4-Dichlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
1,4-Dioxane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
2,2-Dichloropropane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
2-Butanone	ND	5.4	11	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
2-Chloroethyl vinyl ether	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
2-Chlorotoluene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
2-Hexanone	ND	5.4	11	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
2-Propanol	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
4-Chlorotoluene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
4-Isopropyltoluene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
4-Methyl-2-pentanone	ND	5.4	11	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Acetone	ND	5.4	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-5 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 12:40:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-008A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
Benzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Bromobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Bromochloromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Bromodichloromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Bromoform	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Bromomethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Carbon disulfide	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Carbon tetrachloride	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Chlorobenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Chlorodifluoromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Chloroethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Chloroform	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Chloromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
cis-1,2-Dichloroethene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
cis-1,3-Dichloropropene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Cyclohexane	ND	2.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Dibromochloromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Dibromomethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Dichlorodifluoromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Diisopropyl ether	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Ethanol	ND	11	21	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Ethylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Freon-114	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Hexachlorobutadiene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Isopropylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
m,p-Xylene	ND	2.1	11	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Methyl Acetate	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Methyl tert-butyl ether	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Methylene chloride	ND	5.4	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
n-Butylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
n-Propylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Naphthalene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
o-Xylene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-5 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 12:40:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-008A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
p-Diethylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
p-Ethyltoluene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
sec-Butylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Styrene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
t-Butyl alcohol	ND	2.7	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
tert-Butylbenzene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Tetrachloroethene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Toluene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
trans-1,2-Dichloroethene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
trans-1,3-Dichloropropene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Trichloroethene	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Trichlorofluoromethane	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Vinyl acetate	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Vinyl chloride	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Xylenes, Total	ND	3.2	16	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Methylcyclohexane	ND	2.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Acrolein	ND	13	27	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM
Acrylonitrile	ND	1.1	5.4	U	µg/Kg-dry	1	2/12/2019 5:05:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-5 020819 (1-2)
Lab Order:	1902058	Collection Date:	2/8/2019 12:40:00 PM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-008B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY							
Mercury	0.0610	0.00750	0.0141		mg/Kg-dry	1	Analyst: JP 2/15/2019 9:43:41 AM
PCB'S AS AROCLORS SW-846 METHOD 8082							
							Analyst: SB
Aroclor 1016	ND	11	22	U	µg/Kg-dry	1	2/15/2019 10:58:00 PM
Aroclor 1221	ND	11	22	U	µg/Kg-dry	1	2/15/2019 10:58:00 PM
Aroclor 1232	ND	11	22	U	µg/Kg-dry	1	2/15/2019 10:58:00 PM
Aroclor 1242	ND	11	22	U	µg/Kg-dry	1	2/15/2019 10:58:00 PM
Aroclor 1248	ND	11	22	U	µg/Kg-dry	1	2/15/2019 10:58:00 PM
Aroclor 1254	11	11	22	J	µg/Kg-dry	1	2/15/2019 10:58:00 PM
Aroclor 1260	ND	11	22	U	µg/Kg-dry	1	2/15/2019 10:58:00 PM
Aroclor 1262	ND	11	22	U	µg/Kg-dry	1	2/15/2019 10:58:00 PM
Aroclor 1268	ND	11	22	U	µg/Kg-dry	1	2/15/2019 10:58:00 PM
PESTICIDES SW-846 METHOD 8081							
							Analyst: CP
4,4'-DDD	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
4,4'-DDE	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
4,4'-DDT	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
Aldrin	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
alpha-BHC	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
alpha-Chlordane	ND	6.5	11	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
beta-BHC	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
Chlorobenzilate	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
DBCP	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
delta-BHC	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
Dieldrin	3.8	1.1	2.7	P	µg/Kg-dry	1	2/14/2019 10:28:00 PM
Endosulfan I	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
Endosulfan II	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
Endosulfan sulfate	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
Endrin	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
Endrin aldehyde	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
Endrin ketone	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
gamma-BHC	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
gamma-Chlordane	ND	6.5	11	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
Heptachlor	ND	2.2	3.2	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-5 020819 (1-2)
Lab Order:	1902058	Collection Date:	2/8/2019 12:40:00 PM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-008B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: CP
Heptachlor epoxide	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
Hexachlorobenzene	2.6	1.1	2.7	JP	µg/Kg-dry	1	2/14/2019 10:28:00 PM
Hexachlorocyclopentadiene	ND	3.2	3.2	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
Methoxychlor	ND	1.1	2.7	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
Toxaphene	ND	13	27	U	µg/Kg-dry	1	2/14/2019 10:28:00 PM
PERCENT MOISTURE							
			D2216				Analyst: MR
Percent Moisture	9.65	0	1.00		wt%	1	2/12/2019 8:30:00 AM
TOTAL METALS							
			SW6010D		SW3050B		Analyst: JP
Aluminum	9930	2.02	4.04	D	mg/Kg-dry	10	2/15/2019 12:18:35 PM
Antimony	ND	0.202	0.505	U	mg/Kg-dry	1	2/15/2019 9:40:49 AM
Arsenic	2.01	0.202	0.505		mg/Kg-dry	1	2/15/2019 9:40:49 AM
Barium	47.4	0.202	0.404		mg/Kg-dry	1	2/15/2019 9:40:49 AM
Beryllium	ND	0.101	0.404	U	mg/Kg-dry	1	2/15/2019 9:40:49 AM
Cadmium	0.111	0.0505	0.404	J	mg/Kg-dry	1	2/15/2019 9:40:49 AM
Calcium	524	0.202	0.505		mg/Kg-dry	1	2/15/2019 9:40:49 AM
Chromium	11.9	0.101	0.404		mg/Kg-dry	1	2/15/2019 9:40:49 AM
Cobalt	0.485	0.101	0.404		mg/Kg-dry	1	2/15/2019 9:40:49 AM
Copper	7.41	0.101	0.404		mg/Kg-dry	1	2/15/2019 9:40:49 AM
Iron	8690	2.02	4.04	D	mg/Kg-dry	10	2/15/2019 12:18:35 PM
Lead	18.1	0.202	0.404		mg/Kg-dry	1	2/15/2019 9:40:49 AM
Magnesium	692	0.101	0.404		mg/Kg-dry	1	2/15/2019 9:40:49 AM
Manganese	47.5	0.101	0.404		mg/Kg-dry	1	2/15/2019 9:40:49 AM
Nickel	6.24	0.101	0.404		mg/Kg-dry	1	2/15/2019 9:40:49 AM
Potassium	236	0.505	0.505		mg/Kg-dry	1	2/15/2019 9:40:49 AM
Selenium	0.582	0.202	0.505		mg/Kg-dry	1	2/15/2019 9:40:49 AM
Silver	ND	0.101	0.404	U	mg/Kg-dry	1	2/15/2019 9:40:49 AM
Sodium	31.5	0.202	0.505		mg/Kg-dry	1	2/15/2019 9:40:49 AM
Thallium	0.681	0.303	0.505		mg/Kg-dry	1	2/15/2019 9:40:49 AM
Vanadium	17.3	0.101	0.404		mg/Kg-dry	1	2/15/2019 9:40:49 AM
Zinc	86.9	0.101	0.404		mg/Kg-dry	1	2/15/2019 9:40:49 AM
SEMIVOLATILE SW-846 METHOD 8270							
			SW8270D		SW3546		Analyst: MH

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT: CA Rich Consultants Inc.**Client Sample ID:** SB-5 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 12:40:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-008B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
Biphenyl	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
1,2,4-Trichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
1,2-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
1,3-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
1,4-Dichlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
2,4,5-Trichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
2,4,6-Trichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
2,4-Dichlorophenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
2,4-Dimethylphenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
2,4-Dinitrophenol	ND	53	530	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
2,4-Dinitrotoluene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
2,6-Dinitrotoluene	ND	53	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
2-Chloronaphthalene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
2-Chlorophenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
2-Methylnaphthalene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
2-Methylphenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
2-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
2-Nitrophenol	ND	53	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
3+4-Methylphenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
3,3'-Dichlorobenzidine	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
3-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
4,6-Dinitro-2-methylphenol	ND	53	530	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
4-Bromophenyl phenyl ether	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
4-Chloro-3-methylphenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
4-Chloroaniline	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
4-Chlorophenyl phenyl ether	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
4-Nitroaniline	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
4-Nitrophenol	ND	53	530	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Acenaphthene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Acenaphthylene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Acetophenone	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Aniline	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Anthracene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-5 020819 (1-2)**Lab Order:** 1902058**Collection Date:** 2/8/2019 12:40:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-008B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
Atrazine	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Azobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Benzaldehyde	ND	53	530	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Benzidine	ND	53	530	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Benzo(a)anthracene	84	26	260	J	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Benzo(a)pyrene	76	26	160	J	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Benzo(b)fluoranthene	110	26	260	J	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Benzo(g,h,i)perylene	57	26	260	J	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Benzo(k)fluoranthene	38	26	260	J	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Benzoic acid	ND	53	530	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Benzyl alcohol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Bis(2-chloroethoxy)methane	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Bis(2-chloroethyl)ether	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Bis(2-chloroisopropyl)ether	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Bis(2-ethylhexyl)phthalate	ND	53	530	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Butyl benzyl phthalate	ND	53	530	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Caprolactam	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Carbazole	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Chrysene	87	26	260	J	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Di-n-butyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Di-n-octyl phthalate	ND	53	530	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Dibenzo(a,h)anthracene	ND	26	160	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Dibenzofuran	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Diethyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Dimethyl phthalate	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Fluoranthene	160	26	260	J	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Fluorene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Hexachlorobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Hexachlorobutadiene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Hexachlorocyclopentadiene	ND	53	530	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Hexachloroethane	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Indeno(1,2,3-c,d)pyrene	62	26	260	J	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Isophorone	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-5 020819 (1-2)
Lab Order:	1902058	Collection Date:	2/8/2019 12:40:00 PM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-008B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270							
			SW8270D				Analyst: MH
			SW3546				
N-Nitrosodi-n-propylamine	ND	26	160	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
N-Nitrosodimethylamine	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
N-Nitrosodiphenylamine	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Naphthalene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Nitrobenzene	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Parathion	ND	53	530	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Pentachlorophenol	ND	53	530	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Phenanthrene	88	26	260	J	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Phenol	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Pyrene	140	26	260	J	µg/Kg-dry	1	2/15/2019 7:37:00 PM
Pyridine	ND	26	260	U	µg/Kg-dry	1	2/15/2019 7:37:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-5 020819 (14-15)**Lab Order:** 1902058**Collection Date:** 2/8/2019 12:50:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-009A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
1,1,1,2-Tetrachloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,1,1-Trichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,1,2,2-Tetrachloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,1,2-Trichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,1-Dichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,1-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,1-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,2,3-Trichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,2,3-Trichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,2,4,5-Tetramethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,2,4-Trichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,2,4-Trimethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,2-Dibromo-3-chloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,2-Dibromoethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,2-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,2-Dichloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,2-Dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,3,5-Trimethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,3-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,3-dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,4-Dichlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
1,4-Dioxane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
2,2-Dichloropropane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
2-Butanone	ND	5.2	10	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
2-Chloroethyl vinyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
2-Chlorotoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
2-Hexanone	ND	5.2	10	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
2-Propanol	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
4-Chlorotoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
4-Isopropyltoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
4-Methyl-2-pentanone	ND	5.2	10	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Acetone	ND	5.2	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-5 020819 (14-15)**Lab Order:** 1902058**Collection Date:** 2/8/2019 12:50:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-009A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
Benzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Bromobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Bromochloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Bromodichloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Bromoform	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Bromomethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Carbon disulfide	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Carbon tetrachloride	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Chlorobenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Chlorodifluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Chloroethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Chloroform	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Chloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
cis-1,2-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
cis-1,3-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Cyclohexane	ND	2.1	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Dibromochloromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Dibromomethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Dichlorodifluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Diisopropyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Ethanol	ND	10	21	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Ethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Freon-114	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Hexachlorobutadiene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Isopropylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
m,p-Xylene	ND	2.1	10	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Methyl Acetate	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Methyl tert-butyl ether	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Methylene chloride	ND	5.2	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
n-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
n-Propylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Naphthalene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
o-Xylene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-5 020819 (14-15)**Lab Order:** 1902058**Collection Date:** 2/8/2019 12:50:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-009A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5035A	Analyst: LA		
p-Diethylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
p-Ethyltoluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
sec-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Styrene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
t-Butyl alcohol	ND	2.6	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
tert-Butylbenzene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Tetrachloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Toluene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
trans-1,2-Dichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
trans-1,3-Dichloropropene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Trichloroethene	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Trichlorofluoromethane	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Vinyl acetate	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Vinyl chloride	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Xylenes, Total	ND	3.1	16	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Methylcyclohexane	ND	2.1	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Acrolein	ND	13	26	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM
Acrylonitrile	ND	1.0	5.2	U	µg/Kg-dry	1	2/12/2019 5:37:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-5 020819 (14-15)
Lab Order:	1902058	Collection Date:	2/8/2019 12:50:00 PM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-009B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY							
			SW7471B	SW7471B			Analyst: JP
Mercury	0.0107	0.00744	0.0140	J	mg/Kg-dry	1	2/15/2019 9:45:48 AM
PCB'S AS AROCLORS SW-846 METHOD 8082							
			SW8082A	SW3546			Analyst: SB
Aroclor 1016	ND	10	20	U	µg/Kg-dry	1	2/15/2019 11:26:00 PM
Aroclor 1221	ND	10	20	U	µg/Kg-dry	1	2/15/2019 11:26:00 PM
Aroclor 1232	ND	10	20	U	µg/Kg-dry	1	2/15/2019 11:26:00 PM
Aroclor 1242	ND	10	20	U	µg/Kg-dry	1	2/15/2019 11:26:00 PM
Aroclor 1248	ND	10	20	U	µg/Kg-dry	1	2/15/2019 11:26:00 PM
Aroclor 1254	ND	10	20	U	µg/Kg-dry	1	2/15/2019 11:26:00 PM
Aroclor 1260	ND	10	20	U	µg/Kg-dry	1	2/15/2019 11:26:00 PM
Aroclor 1262	ND	10	20	U	µg/Kg-dry	1	2/15/2019 11:26:00 PM
Aroclor 1268	ND	10	20	U	µg/Kg-dry	1	2/15/2019 11:26:00 PM
PESTICIDES SW-846 METHOD 8081							
			SW8081B	SW3546			Analyst: CP
4,4'-DDD	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
4,4'-DDE	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
4,4'-DDT	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
Aldrin	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
alpha-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
alpha-Chlordane	ND	6.0	10	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
beta-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
Chlorobenzilate	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
DBCP	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
delta-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
Dieldrin	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
Endosulfan I	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
Endosulfan II	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
Endosulfan sulfate	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
Endrin	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
Endrin aldehyde	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
Endrin ketone	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
gamma-BHC	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
gamma-Chlordane	ND	6.0	10	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
Heptachlor	ND	2.0	3.0	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-5 020819 (14-15)
Lab Order:	1902058	Collection Date:	2/8/2019 12:50:00 PM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-009B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081							
			SW8081B		SW3546		Analyst: CP
Heptachlor epoxide	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
Hexachlorobenzene	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
Hexachlorocyclopentadiene	ND	3.0	3.0	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
Methoxychlor	ND	1.0	2.5	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
Toxaphene	ND	12	25	U	µg/Kg-dry	1	2/14/2019 10:46:00 PM
PERCENT MOISTURE							
			D2216				Analyst: MR
Percent Moisture	3.15	0	1.00		wt%	1	2/12/2019 8:30:00 AM
TOTAL METALS							
			SW6010D		SW3050B		Analyst: JP
Aluminum	468	0.205	0.410		mg/Kg-dry	1	2/15/2019 9:43:34 AM
Antimony	ND	0.205	0.512	U	mg/Kg-dry	1	2/15/2019 9:43:34 AM
Arsenic	1.38	0.205	0.512		mg/Kg-dry	1	2/15/2019 9:43:34 AM
Barium	3.84	0.205	0.410		mg/Kg-dry	1	2/15/2019 9:43:34 AM
Beryllium	ND	0.102	0.410	U	mg/Kg-dry	1	2/15/2019 9:43:34 AM
Cadmium	ND	0.0512	0.410	U	mg/Kg-dry	1	2/15/2019 9:43:34 AM
Calcium	58.6	0.205	0.512		mg/Kg-dry	1	2/15/2019 9:43:34 AM
Chromium	4.50	0.102	0.410		mg/Kg-dry	1	2/15/2019 9:43:34 AM
Cobalt	0.160	0.102	0.410	J	mg/Kg-dry	1	2/15/2019 9:43:34 AM
Copper	0.768	0.102	0.410		mg/Kg-dry	1	2/15/2019 9:43:34 AM
Iron	3050	2.05	4.10	D	mg/Kg-dry	10	2/15/2019 12:21:20 PM
Lead	0.842	0.205	0.410		mg/Kg-dry	1	2/15/2019 9:43:34 AM
Magnesium	52.8	0.102	0.410		mg/Kg-dry	1	2/15/2019 9:43:34 AM
Manganese	19.0	0.102	0.410		mg/Kg-dry	1	2/15/2019 9:43:34 AM
Nickel	1.05	0.102	0.410		mg/Kg-dry	1	2/15/2019 9:43:34 AM
Potassium	47.9	0.512	0.512		mg/Kg-dry	1	2/15/2019 9:43:34 AM
Selenium	0.332	0.205	0.512	J	mg/Kg-dry	1	2/15/2019 9:43:34 AM
Silver	ND	0.102	0.410	U	mg/Kg-dry	1	2/15/2019 9:43:34 AM
Sodium	8.06	0.205	0.512		mg/Kg-dry	1	2/15/2019 9:43:34 AM
Thallium	ND	0.307	0.512	U	mg/Kg-dry	1	2/15/2019 9:43:34 AM
Vanadium	3.38	0.102	0.410		mg/Kg-dry	1	2/15/2019 9:43:34 AM
Zinc	8.33	0.102	0.410		mg/Kg-dry	1	2/15/2019 9:43:34 AM
SEMIVOLATILE SW-846 METHOD 8270							
			SW8270D		SW3546		Analyst: MH

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-5 020819 (14-15)**Lab Order:** 1902058**Collection Date:** 2/8/2019 12:50:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-009B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
Biphenyl	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
1,2,4-Trichlorobenzene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
1,2-Dichlorobenzene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
1,3-Dichlorobenzene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
1,4-Dichlorobenzene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
2,4,5-Trichlorophenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
2,4,6-Trichlorophenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
2,4-Dichlorophenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
2,4-Dimethylphenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
2,4-Dinitrophenol	ND	50	500	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
2,4-Dinitrotoluene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
2,6-Dinitrotoluene	ND	50	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
2-Chloronaphthalene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
2-Chlorophenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
2-Methylnaphthalene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
2-Methylphenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
2-Nitroaniline	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
2-Nitrophenol	ND	50	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
3+4-Methylphenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
3,3'-Dichlorobenzidine	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
3-Nitroaniline	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
4,6-Dinitro-2-methylphenol	ND	50	500	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
4-Bromophenyl phenyl ether	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
4-Chloro-3-methylphenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
4-Chloroaniline	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
4-Chlorophenyl phenyl ether	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
4-Nitroaniline	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
4-Nitrophenol	ND	50	500	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Acenaphthene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Acenaphthylene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Acetophenone	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Aniline	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Anthracene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** SB-5 020819 (14-15)**Lab Order:** 1902058**Collection Date:** 2/8/2019 12:50:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** SOIL**Lab ID:** 1902058-009B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3546		Analyst: MH
Atrazine	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Azobenzene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Benzaldehyde	ND	50	500	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Benzidine	ND	50	500	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Benzo(a)anthracene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Benzo(a)pyrene	ND	25	150	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Benzo(b)fluoranthene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Benzo(g,h,i)perylene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Benzo(k)fluoranthene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Benzoic acid	ND	50	500	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Benzyl alcohol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Bis(2-chloroethoxy)methane	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Bis(2-chloroethyl)ether	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Bis(2-chloroisopropyl)ether	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Bis(2-ethylhexyl)phthalate	ND	50	500	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Butyl benzyl phthalate	ND	50	500	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Caprolactam	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Carbazole	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Chrysene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Di-n-butyl phthalate	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Di-n-octyl phthalate	ND	50	500	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Dibenzo(a,h)anthracene	ND	25	150	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Dibenzofuran	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Diethyl phthalate	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Dimethyl phthalate	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Fluoranthene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Fluorene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Hexachlorobenzene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Hexachlorobutadiene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Hexachlorocyclopentadiene	ND	50	500	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Hexachloroethane	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Indeno(1,2,3-c,d)pyrene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Isophorone	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM

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American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418

CLIENT:	CA Rich Consultants Inc.	Client Sample ID:	SB-5 020819 (14-15)
Lab Order:	1902058	Collection Date:	2/8/2019 12:50:00 PM
Project:	Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock	Matrix:	SOIL
Lab ID:	1902058-009B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3546	Analyst: MH		
N-Nitrosodi-n-propylamine	ND	25	150	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
N-Nitrosodimethylamine	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
N-Nitrosodiphenylamine	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Naphthalene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Nitrobenzene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Parathion	ND	50	500	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Pentachlorophenol	ND	50	500	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Phenanthrene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Phenol	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Pyrene	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM
Pyridine	ND	25	250	U	µg/Kg-dry	1	2/15/2019 8:02:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-5 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 2:55:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-010A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5030C		Analyst: LA	
1,1,1,2-Tetrachloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,1,1-Trichloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,1,2,2-Tetrachloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,1,2-Trichloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,1-Dichloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,1-Dichloroethene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,1-Dichloropropene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,2,3-Trichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,2,3-Trichloropropane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,2,4,5-Tetramethylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,2,4-Trichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,2,4-Trimethylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,2-Dibromo-3-chloropropane	ND	0.030	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,2-Dibromoethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,2-Dichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,2-Dichloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,2-Dichloropropane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,3,5-Trimethylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,3-Dichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,3-dichloropropane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,4-Dichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
1,4-Dioxane	ND	0.25	1.0	U	µg/L	1	2/13/2019 4:51:00 AM
2,2-Dichloropropane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
2-Butanone	ND	0.50	4.0	U	µg/L	1	2/13/2019 4:51:00 AM
2-Chloroethyl vinyl ether	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
2-Chlorotoluene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
2-Hexanone	ND	0.50	4.0	U	µg/L	1	2/13/2019 4:51:00 AM
2-Propanol	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
4-Chlorotoluene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
4-Isopropyltoluene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
4-Methyl-2-pentanone	ND	0.50	4.0	U	µg/L	1	2/13/2019 4:51:00 AM
Acetone	5.8	5.0	5.0		µg/L	1	2/13/2019 4:51:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-5 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 2:55:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-010A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C		SW5030C		Analyst: LA
Benzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Bromobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Bromochloromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Bromodichloromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Bromoform	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Bromomethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Carbon disulfide	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Carbon tetrachloride	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Chlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Chlorodifluoromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Chloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Chloroform	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Chloromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
cis-1,2-Dichloroethene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
cis-1,3-Dichloropropene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Cyclohexane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Dibromochloromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Dibromomethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Dichlorodifluoromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Diisopropyl ether	ND	0.50	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Ethanol	ND	2.5	10	U	µg/L	1	2/13/2019 4:51:00 AM
Ethylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Freon-114	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Hexachlorobutadiene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Isopropylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
m,p-Xylene	ND	0.50	4.0	U	µg/L	1	2/13/2019 4:51:00 AM
Methyl Acetate	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Methyl tert-butyl ether	43	0.25	2.0		µg/L	1	2/13/2019 4:51:00 AM
Methylene chloride	ND	5.0	5.0	U	µg/L	1	2/13/2019 4:51:00 AM
n-Butylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
n-Propylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Naphthalene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
o-Xylene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-5 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 2:55:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-010A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C		SW5030C		Analyst: LA
p-Diethylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
p-Ethyltoluene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
sec-Butylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Styrene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
t-Butyl alcohol	ND	2.5	10	U	µg/L	1	2/13/2019 4:51:00 AM
tert-Butylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Tetrachloroethene	0.42	0.25	2.0	J	µg/L	1	2/13/2019 4:51:00 AM
Toluene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
trans-1,2-Dichloroethene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
trans-1,3-Dichloropropene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Trichloroethene	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Trichlorofluoromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Vinyl acetate	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Vinyl chloride	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Xylenes, Total	ND	0.75	6.0	U	µg/L	1	2/13/2019 4:51:00 AM
Methylcyclohexane	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM
Acrolein	ND	1.0	10	U	µg/L	1	2/13/2019 4:51:00 AM
Acrylonitrile	ND	0.25	2.0	U	µg/L	1	2/13/2019 4:51:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-5 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 2:55:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-010B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PCB'S AS AROCLORS SW-846 METHOD 8082			SW8082A		SW3510C		Analyst: CP
Aroclor 1016	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:45:00 PM
Aroclor 1221	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:45:00 PM
Aroclor 1232	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:45:00 PM
Aroclor 1242	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:45:00 PM
Aroclor 1248	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:45:00 PM
Aroclor 1254	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:45:00 PM
Aroclor 1260	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:45:00 PM
Aroclor 1262	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:45:00 PM
Aroclor 1268	ND	0.054	0.11	U	µg/L	1	2/12/2019 5:45:00 PM
PESTICIDES SW-846 METHOD 8081			SW8081B		SW3510C		Analyst: CP
4,4'-DDD	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
4,4'-DDE	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
4,4'-DDT	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
Aldrin	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
alpha-BHC	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
alpha-Chlordane	ND	0.022	0.11	U	µg/L	1	2/12/2019 3:22:00 PM
beta-BHC	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
Chlorobenzilate	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
DBCP	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
delta-BHC	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
Dieldrin	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
Endosulfan I	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
Endosulfan II	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
Endosulfan sulfate	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
Endrin	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
Endrin aldehyde	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
Endrin ketone	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
gamma-BHC	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
gamma-Chlordane	ND	0.022	0.11	U	µg/L	1	2/12/2019 3:22:00 PM
Heptachlor	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
Heptachlor epoxide	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
Hexachlorobenzene	0.043	0.013	0.054	BJ	µg/L	1	2/12/2019 3:22:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-5 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 2:55:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-010B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081			SW8081B		SW3510C		Analyst: CP
Hexachlorocyclopentadiene	ND	0.032	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
Methoxychlor	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:22:00 PM
Toxaphene	ND	0.065	0.27	U	µg/L	1	2/12/2019 3:22:00 PM
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3510C		Analyst: MH
Biphenyl	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
1,2,4-Trichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
1,2-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
1,3-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
1,4-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
2,4,5-Trichlorophenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
2,4,6-Trichlorophenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
2,4-Dichlorophenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
2,4-Dimethylphenol	ND	1.0	10	U	µg/L	1	2/14/2019 6:22:00 PM
2,4-Dinitrophenol	ND	1.0	10	U	µg/L	1	2/14/2019 6:22:00 PM
2,4-Dinitrotoluene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
2,6-Dinitrotoluene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
2-Chloronaphthalene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
2-Chlorophenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
2-Methylnaphthalene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
2-Methylphenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
2-Nitroaniline	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
2-Nitrophenol	ND	1.0	10	U	µg/L	1	2/14/2019 6:22:00 PM
3+4-Methylphenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
3,3'-Dichlorobenzidine	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
3-Nitroaniline	ND	1.0	10	U	µg/L	1	2/14/2019 6:22:00 PM
4,6-Dinitro-2-methylphenol	ND	1.0	10	U	µg/L	1	2/14/2019 6:22:00 PM
4-Bromophenyl phenyl ether	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
4-Chloro-3-methylphenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
4-Chloroaniline	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
4-Chlorophenyl phenyl ether	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
4-Nitroaniline	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
4-Nitrophenol	ND	1.0	10	U	µg/L	1	2/14/2019 6:22:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-5 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 2:55:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-010B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3510C		Analyst: MH
Acenaphthene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Acenaphthylene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Acetophenone	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Aniline	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Anthracene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Atrazine	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Azobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Benzaldehyde	ND	1.0	10	U	µg/L	1	2/14/2019 6:22:00 PM
Benzidine	ND	1.0	10	U	µg/L	1	2/14/2019 6:22:00 PM
Benzo(a)anthracene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Benzo(a)pyrene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Benzo(b)fluoranthene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Benzo(g,h,i)perylene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Benzo(k)fluoranthene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Benzoic acid	ND	1.0	10	U	µg/L	1	2/14/2019 6:22:00 PM
Benzyl alcohol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Bis(2-chloroethoxy)methane	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Bis(2-chloroethyl)ether	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Bis(2-chloroisopropyl)ether	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Bis(2-ethylhexyl)phthalate	ND	1.0	10	U	µg/L	1	2/14/2019 6:22:00 PM
Butyl benzyl phthalate	1.3	1.0	10	J	µg/L	1	2/14/2019 6:22:00 PM
Caprolactam	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Carbazole	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Chrysene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Di-n-butyl phthalate	0.54	0.50	5.0	J	µg/L	1	2/14/2019 6:22:00 PM
Di-n-octyl phthalate	ND	1.0	10	U	µg/L	1	2/14/2019 6:22:00 PM
Dibenzo(a,h)anthracene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Dibenzofuran	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Diethyl phthalate	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Dimethyl phthalate	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Fluoranthene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Fluorene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Hexachlorobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM

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American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-5 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 2:55:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-010B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3510C	Analyst: MH		
Hexachlorobutadiene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Hexachlorocyclopentadiene	ND	1.0	10	U	µg/L	1	2/14/2019 6:22:00 PM
Hexachloroethane	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Indeno(1,2,3-c,d)pyrene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Isophorone	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
N-Nitrosodi-n-propylamine	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
N-Nitrosodimethylamine	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
N-Nitrosodiphenylamine	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Naphthalene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Nitrobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Parathion	ND	1.0	10	U	µg/L	1	2/14/2019 6:22:00 PM
Pentachlorophenol	ND	1.0	10	U	µg/L	1	2/14/2019 6:22:00 PM
Phenanthrene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Phenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Pyrene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM
Pyridine	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:22:00 PM

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American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-5 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 2:55:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-010C**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY, TOTAL							
		E245.1 REV3.0 1994		E245.1 REV3.0		Analyst: JP	
Mercury	0.000674	0.000150	0.000300		mg/L	1	2/13/2019 12:32:30 PM
TOTAL METALS							
		E200.7 REV4.4 1994		E200.7 REV4.4		Analyst: JP	
Aluminum	93.9	0.00500	0.0200		mg/L	1	2/13/2019 10:14:59 AM
Antimony	ND	0.00500	0.0200	U	mg/L	1	2/13/2019 10:14:59 AM
Arsenic	0.136	0.0100	0.0250		mg/L	1	2/13/2019 10:14:59 AM
Barium	0.509	0.00500	0.0200		mg/L	1	2/13/2019 10:14:59 AM
Beryllium	ND	0.00500	0.0200	U	mg/L	1	2/13/2019 10:14:59 AM
Cadmium	0.00310	0.00500	0.0100	J	mg/L	1	2/13/2019 10:14:59 AM
Calcium	31.0	0.00500	0.0250		mg/L	1	2/13/2019 10:14:59 AM
Chromium	1.01	0.00500	0.0200		mg/L	1	2/13/2019 10:14:59 AM
Cobalt	0.0138	0.00500	0.0200	J	mg/L	1	2/13/2019 10:14:59 AM
Copper	0.320	0.00500	0.0200		mg/L	1	2/13/2019 10:14:59 AM
Iron	238	0.0500	0.200	D	mg/L	10	2/13/2019 11:21:18 AM
Lead	0.153	0.00500	0.0150		mg/L	1	2/13/2019 10:14:59 AM
Magnesium	12.5	0.00500	0.0200		mg/L	1	2/13/2019 10:14:59 AM
Manganese	2.87	0.00500	0.0200		mg/L	1	2/13/2019 10:14:59 AM
Nickel	0.227	0.00500	0.0200		mg/L	1	2/13/2019 10:14:59 AM
Potassium	14.0	0.0500	0.200		mg/L	1	2/13/2019 10:14:59 AM
Selenium	ND	0.0100	0.0250	U	mg/L	1	2/13/2019 10:14:59 AM
Silver	ND	0.00500	0.0200	U	mg/L	1	2/13/2019 10:14:59 AM
Sodium	16.4	0.100	0.300	D	mg/L	10	2/13/2019 11:21:18 AM
Thallium	ND	0.0100	0.0150	U	mg/L	1	2/13/2019 10:14:59 AM
Vanadium	0.267	0.00500	0.0200		mg/L	1	2/13/2019 10:14:59 AM
Zinc	1.37	0.00500	0.0200		mg/L	1	2/13/2019 10:14:59 AM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-3 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 3:10:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-011A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C	SW5030C		Analyst: LA	
1,1,1,2-Tetrachloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,1,1-Trichloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,1,2,2-Tetrachloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,1,2-Trichloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,1-Dichloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,1-Dichloroethene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,1-Dichloropropene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,2,3-Trichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,2,3-Trichloropropane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,2,4,5-Tetramethylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,2,4-Trichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,2,4-Trimethylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,2-Dibromo-3-chloropropane	ND	0.030	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,2-Dibromoethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,2-Dichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,2-Dichloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,2-Dichloropropane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,3,5-Trimethylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,3-Dichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,3-dichloropropane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,4-Dichlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
1,4-Dioxane	ND	0.25	1.0	U	µg/L	1	2/13/2019 5:21:00 AM
2,2-Dichloropropane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
2-Butanone	ND	0.50	4.0	U	µg/L	1	2/13/2019 5:21:00 AM
2-Chloroethyl vinyl ether	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
2-Chlorotoluene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
2-Hexanone	ND	0.50	4.0	U	µg/L	1	2/13/2019 5:21:00 AM
2-Propanol	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
4-Chlorotoluene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
4-Isopropyltoluene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
4-Methyl-2-pentanone	ND	0.50	4.0	U	µg/L	1	2/13/2019 5:21:00 AM
Acetone	10	5.0	5.0		µg/L	1	2/13/2019 5:21:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-3 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 3:10:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-011A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C		SW5030C		Analyst: LA
Benzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Bromobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Bromochloromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Bromodichloromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Bromoform	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Bromomethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Carbon disulfide	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Carbon tetrachloride	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Chlorobenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Chlorodifluoromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Chloroethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Chloroform	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Chloromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
cis-1,2-Dichloroethene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
cis-1,3-Dichloropropene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Cyclohexane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Dibromochloromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Dibromomethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Dichlorodifluoromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Diisopropyl ether	ND	0.50	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Ethanol	ND	2.5	10	U	µg/L	1	2/13/2019 5:21:00 AM
Ethylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Freon-114	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Hexachlorobutadiene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Isopropylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
m,p-Xylene	ND	0.50	4.0	U	µg/L	1	2/13/2019 5:21:00 AM
Methyl Acetate	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Methyl tert-butyl ether	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Methylene chloride	ND	5.0	5.0	U	µg/L	1	2/13/2019 5:21:00 AM
n-Butylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
n-Propylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Naphthalene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
o-Xylene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-3 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 3:10:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-011A**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			SW8260C		SW5030C		Analyst: LA
p-Diethylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
p-Ethyltoluene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
sec-Butylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Styrene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
t-Butyl alcohol	ND	2.5	10	U	µg/L	1	2/13/2019 5:21:00 AM
tert-Butylbenzene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Tetrachloroethene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Toluene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
trans-1,2-Dichloroethene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
trans-1,3-Dichloropropene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Trichloroethene	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Trichlorofluoromethane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Vinyl acetate	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Vinyl chloride	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Xylenes, Total	ND	0.75	6.0	U	µg/L	1	2/13/2019 5:21:00 AM
Methylcyclohexane	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM
Acrolein	ND	1.0	10	U	µg/L	1	2/13/2019 5:21:00 AM
Acrylonitrile	ND	0.25	2.0	U	µg/L	1	2/13/2019 5:21:00 AM

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Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-3 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 3:10:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-011B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PCB'S AS AROCLORS SW-846 METHOD 8082			SW8082A	SW3510C	Analyst: CP		
Aroclor 1016	ND	0.054	0.11	U	µg/L	1	2/12/2019 6:14:00 PM
Aroclor 1221	ND	0.054	0.11	U	µg/L	1	2/12/2019 6:14:00 PM
Aroclor 1232	ND	0.054	0.11	U	µg/L	1	2/12/2019 6:14:00 PM
Aroclor 1242	ND	0.054	0.11	U	µg/L	1	2/12/2019 6:14:00 PM
Aroclor 1248	ND	0.054	0.11	U	µg/L	1	2/12/2019 6:14:00 PM
Aroclor 1254	ND	0.054	0.11	U	µg/L	1	2/12/2019 6:14:00 PM
Aroclor 1260	ND	0.054	0.11	U	µg/L	1	2/12/2019 6:14:00 PM
Aroclor 1262	ND	0.054	0.11	U	µg/L	1	2/12/2019 6:14:00 PM
Aroclor 1268	ND	0.054	0.11	U	µg/L	1	2/12/2019 6:14:00 PM
PESTICIDES SW-846 METHOD 8081			SW8081B	SW3510C	Analyst: CP		
4,4'-DDD	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
4,4'-DDE	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
4,4'-DDT	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
Aldrin	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
alpha-BHC	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
alpha-Chlordane	ND	0.022	0.11	U	µg/L	1	2/12/2019 3:40:00 PM
beta-BHC	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
Chlorobenzilate	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
DBCP	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
delta-BHC	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
Dieldrin	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
Endosulfan I	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
Endosulfan II	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
Endosulfan sulfate	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
Endrin	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
Endrin aldehyde	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
Endrin ketone	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
gamma-BHC	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
gamma-Chlordane	ND	0.022	0.11	U	µg/L	1	2/12/2019 3:40:00 PM
Heptachlor	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
Heptachlor epoxide	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
Hexachlorobenzene	0.016	0.013	0.054	BJ	µg/L	1	2/12/2019 3:40:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-3 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 3:10:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-011B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PESTICIDES SW-846 METHOD 8081			SW8081B		SW3510C		Analyst: CP
Hexachlorocyclopentadiene	ND	0.032	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
Methoxychlor	ND	0.013	0.054	U	µg/L	1	2/12/2019 3:40:00 PM
Toxaphene	ND	0.065	0.27	U	µg/L	1	2/12/2019 3:40:00 PM
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3510C		Analyst: MH
Biphenyl	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
1,2,4-Trichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
1,2-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
1,3-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
1,4-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
2,4,5-Trichlorophenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
2,4,6-Trichlorophenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
2,4-Dichlorophenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
2,4-Dimethylphenol	ND	1.0	10	U	µg/L	1	2/14/2019 6:48:00 PM
2,4-Dinitrophenol	ND	1.0	10	U	µg/L	1	2/14/2019 6:48:00 PM
2,4-Dinitrotoluene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
2,6-Dinitrotoluene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
2-Chloronaphthalene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
2-Chlorophenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
2-Methylnaphthalene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
2-Methylphenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
2-Nitroaniline	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
2-Nitrophenol	ND	1.0	10	U	µg/L	1	2/14/2019 6:48:00 PM
3+4-Methylphenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
3,3'-Dichlorobenzidine	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
3-Nitroaniline	ND	1.0	10	U	µg/L	1	2/14/2019 6:48:00 PM
4,6-Dinitro-2-methylphenol	ND	1.0	10	U	µg/L	1	2/14/2019 6:48:00 PM
4-Bromophenyl phenyl ether	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
4-Chloro-3-methylphenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
4-Chloroaniline	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
4-Chlorophenyl phenyl ether	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
4-Nitroaniline	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
4-Nitrophenol	ND	1.0	10	U	µg/L	1	2/14/2019 6:48:00 PM

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Original

American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-3 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 3:10:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-011B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D		SW3510C		Analyst: MH
Acenaphthene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Acenaphthylene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Acetophenone	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Aniline	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Anthracene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Atrazine	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Azobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Benzaldehyde	ND	1.0	10	U	µg/L	1	2/14/2019 6:48:00 PM
Benzidine	ND	1.0	10	U	µg/L	1	2/14/2019 6:48:00 PM
Benzo(a)anthracene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Benzo(a)pyrene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Benzo(b)fluoranthene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Benzo(g,h,i)perylene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Benzo(k)fluoranthene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Benzoic acid	ND	1.0	10	U	µg/L	1	2/14/2019 6:48:00 PM
Benzyl alcohol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Bis(2-chloroethoxy)methane	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Bis(2-chloroethyl)ether	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Bis(2-chloroisopropyl)ether	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Bis(2-ethylhexyl)phthalate	ND	1.0	10	U	µg/L	1	2/14/2019 6:48:00 PM
Butyl benzyl phthalate	1.3	1.0	10	J	µg/L	1	2/14/2019 6:48:00 PM
Caprolactam	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Carbazole	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Chrysene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Di-n-butyl phthalate	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Di-n-octyl phthalate	ND	1.0	10	U	µg/L	1	2/14/2019 6:48:00 PM
Dibenzo(a,h)anthracene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Dibenzofuran	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Diethyl phthalate	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Dimethyl phthalate	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Fluoranthene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Fluorene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Hexachlorobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM

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Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-3 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 3:10:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-011B**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			SW8270D	SW3510C	Analyst: MH		
Hexachlorobutadiene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Hexachlorocyclopentadiene	ND	1.0	10	U	µg/L	1	2/14/2019 6:48:00 PM
Hexachloroethane	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Indeno(1,2,3-c,d)pyrene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Isophorone	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
N-Nitrosodi-n-propylamine	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
N-Nitrosodimethylamine	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
N-Nitrosodiphenylamine	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Naphthalene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Nitrobenzene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Parathion	ND	1.0	10	U	µg/L	1	2/14/2019 6:48:00 PM
Pentachlorophenol	ND	1.0	10	U	µg/L	1	2/14/2019 6:48:00 PM
Phenanthrene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Phenol	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Pyrene	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM
Pyridine	ND	0.50	5.0	U	µg/L	1	2/14/2019 6:48:00 PM

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American Analytical Laboratories, LLC.

Date: 18-Feb-19

ELAP ID : 11418**CLIENT:** CA Rich Consultants Inc.**Client Sample ID:** GW-3 020819**Lab Order:** 1902058**Collection Date:** 2/8/2019 3:10:00 PM**Project:** Far Rockaway Ph 3; 20-02 Mott Ave., Far Rock**Matrix:** LIQUID**Lab ID:** 1902058-011C**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY, TOTAL							
		E245.1 REV3.0 1994		E245.1 REV3.0		Analyst: JP	
Mercury	0.00116	0.000150	0.000300		mg/L	1	2/13/2019 12:42:04 PM
TOTAL METALS							
		E200.7 REV4.4 1994		E200.7 REV4.4		Analyst: JP	
Aluminum	122	0.00500	0.0200		mg/L	1	2/13/2019 10:17:45 AM
Antimony	ND	0.00500	0.0200	U	mg/L	1	2/13/2019 10:17:45 AM
Arsenic	0.310	0.0100	0.0250		mg/L	1	2/13/2019 10:17:45 AM
Barium	0.597	0.00500	0.0200		mg/L	1	2/13/2019 10:17:45 AM
Beryllium	ND	0.00500	0.0200	U	mg/L	1	2/13/2019 10:17:45 AM
Cadmium	0.00230	0.00500	0.0100	J	mg/L	1	2/13/2019 10:17:45 AM
Calcium	79.5	0.00500	0.0250		mg/L	1	2/13/2019 10:17:45 AM
Chromium	1.41	0.00500	0.0200		mg/L	1	2/13/2019 10:17:45 AM
Cobalt	0.0198	0.00500	0.0200	J	mg/L	1	2/13/2019 10:17:45 AM
Copper	0.503	0.00500	0.0200		mg/L	1	2/13/2019 10:17:45 AM
Iron	246	0.0500	0.200	D	mg/L	10	2/13/2019 11:24:04 AM
Lead	0.120	0.00500	0.0150		mg/L	1	2/13/2019 10:17:45 AM
Magnesium	19.9	0.00500	0.0200		mg/L	1	2/13/2019 10:17:45 AM
Manganese	10.7	0.00500	0.0200		mg/L	1	2/13/2019 10:17:45 AM
Nickel	0.289	0.00500	0.0200		mg/L	1	2/13/2019 10:17:45 AM
Potassium	16.3	0.0500	0.200		mg/L	1	2/13/2019 10:17:45 AM
Selenium	ND	0.0100	0.0250	U	mg/L	1	2/13/2019 10:17:45 AM
Silver	ND	0.00500	0.0200	U	mg/L	1	2/13/2019 10:17:45 AM
Sodium	15.5	0.100	0.300	D	mg/L	10	2/13/2019 11:24:04 AM
Thallium	0.00970	0.0100	0.0150	J	mg/L	1	2/13/2019 10:17:45 AM
Vanadium	0.526	0.00500	0.0200		mg/L	1	2/13/2019 10:17:45 AM
Zinc	0.474	0.00500	0.0200		mg/L	1	2/13/2019 10:17:45 AM

American Analytical Laboratories, LLC., 56 Toledo Street, Farmingdale, New York, Zip - 11735

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Original

LABORATORY DATA FEBRUARY 8, 2019
PFAS GROUNDWATER



ANALYTICAL REPORT

Lab Number:	L1905411
Client:	CA RICH CONSULTANTS, INC. 17 Dupont St. Plainview, NY 11803
ATTN:	Jason Cooper
Phone:	(516) 576-8844
Project Name:	FAR ROCKAWAY PH 3
Project Number:	PHIPPS FAR ROCKAWAY
Report Date:	02/18/19

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: FAR ROCKAWAY PH 3
Project Number: PHIPPS FAR ROCKAWAY

Lab Number: L1905411
Report Date: 02/18/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1905411-01	PFAS-SB-3-020819	WATER	20-02 MOTT AVE	02/08/19 15:05	02/11/19

Project Name: FAR ROCKAWAY PH 3
Project Number: PHIPPS FAR ROCKAWAY

Lab Number: L1905411
Report Date: 02/18/19

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name: FAR ROCKAWAY PH 3
Project Number: PHIPPS FAR ROCKAWAY

Lab Number: L1905411
Report Date: 02/18/19

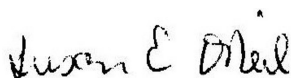
Case Narrative (continued)

Report Submission

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

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:



Susan O'Neil

Title: Technical Director/Representative

Date: 02/18/19

ORGANICS

SEMIVOLATILES

Project Name: FAR ROCKAWAY PH 3
Project Number: PHIPPS FAR ROCKAWA

Lab Number: L1905411
Report Date: 02/18/19

SAMPLE RESULTS

Lab ID: L1905411-01
Client ID: PFAS-SB-3-020819
Sample Location: 20-02 MOTT AVE

Date Collected: 02/08/19 15:05
Date Received: 02/11/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 02/15/19 18:33
Analyst: PB

Extraction Method: EPA 537
Extraction Date: 02/14/19 08:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	164		ng/l	1.98	0.369	1
Perfluoropentanoic Acid (PFPeA)	1200		ng/l	1.98	0.458	1
Perfluorobutanesulfonic Acid (PFBS)	6.48		ng/l	1.98	0.375	1
Perfluorohexanoic Acid (PFHxA)	667		ng/l	1.98	0.486	1
Perfluoroheptanoic Acid (PFHpA)	81.4		ng/l	1.98	0.368	1
Perfluorohexanesulfonic Acid (PFHxS)	3.87		ng/l	1.98	0.431	1
Perfluorooctanoic Acid (PFOA)	42.6		ng/l	1.98	0.454	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.98	0.192	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.830	J	ng/l	1.98	0.514	1
Perfluorononanoic Acid (PFNA)	74.8		ng/l	1.98	0.431	1
Perfluorooctanesulfonic Acid (PFOS)	47.0		ng/l	1.98	0.553	1
Perfluorodecanoic Acid (PFDA)	1.70	J	ng/l	1.98	0.613	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.98	0.287	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.98	0.247	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.98	0.419	1
Perfluorodecanesulfonic Acid (PFDS)	0.454	J	ng/l	1.98	0.381	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.98	0.549	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	1.26	J	ng/l	1.98	0.368	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.98	0.585	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.98	0.310	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.98	0.976	1
PFOA/PFOS, Total	89.6		ng/l	1.98	0.454	1
PFAS, Total (5)	250		ng/l	1.98	0.368	1

Project Name: FAR ROCKAWAY PH 3
Project Number: PHIPPS FAR ROCKAWA

Lab Number: L1905411
Report Date: 02/18/19

SAMPLE RESULTS

Lab ID: L1905411-01
Client ID: PFAS-SB-3-020819
Sample Location: 20-02 MOTT AVE

Date Collected: 02/08/19 15:05
Date Received: 02/11/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	91		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	74		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	89		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	72		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	87		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	97		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	93		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	138		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	92		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	90		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	80		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	97		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	66		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	83		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	18		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	74		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	71		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	82		33-143

Project Name: FAR ROCKAWAY PH 3
Project Number: PHIPPS FAR ROCKAWAY

Lab Number: L1905411
Report Date: 02/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 02/15/19 16:37
Analyst: PB

Extraction Method: EPA 537
Extraction Date: 02/14/19 08:26

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01 Batch: WG1206623-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.373
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.464
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.380
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.492
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.372
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.436
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.460
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	0.194
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.520
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.436
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.560
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.620
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	0.291
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.250
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.424
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.386
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.556
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	0.868	J	ng/l	2.00	0.373
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.592
Perfluorotridecanoic Acid (PFTTrDA)	ND		ng/l	2.00	0.314
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.988
PFOA/PFOS, Total	ND		ng/l	2.00	0.460
PFAS, Total (5)	ND		ng/l	2.00	0.372

Project Name: FAR ROCKAWAY PH 3
Project Number: PHIPPS FAR ROCKAWAY

Lab Number: L1905411
Report Date: 02/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 02/15/19 16:37
Analyst: PB

Extraction Method: EPA 537
Extraction Date: 02/14/19 08:26

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01 Batch: WG1206623-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	99		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	103		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	94		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	99		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	97		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	101		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	96		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	75		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	100		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	90		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	86		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	80		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	84		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	94		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	47		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	88		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	82		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	98		33-143

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAR ROCKAWAY PH 3
Project Number: PHIPPS FAR ROCKAWAY

Lab Number: L1905411
Report Date: 02/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01 Batch: WG1206623-2 WG1206623-3								
Perfluorobutanoic Acid (PFBA)	124		123		67-148	1		30
Perfluoropentanoic Acid (PFPeA)	114		114		63-161	0		30
Perfluorobutanesulfonic Acid (PFBS)	118		119		65-157	1		30
Perfluorohexanoic Acid (PFHxA)	120		121		69-168	1		30
Perfluoroheptanoic Acid (PFHpA)	109		108		58-159	1		30
Perfluorohexanesulfonic Acid (PFHxS)	117		111		69-177	5		30
Perfluorooctanoic Acid (PFOA)	108		107		63-159	1		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	113		119		49-187	5		30
Perfluoroheptanesulfonic Acid (PFHpS)	106		98		61-179	8		30
Perfluorononanoic Acid (PFNA)	111		109		68-171	2		30
Perfluorooctanesulfonic Acid (PFOS)	99		96		52-151	3		30
Perfluorodecanoic Acid (PFDA)	114		118		63-171	3		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	134		122		56-173	9		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	108		114		60-166	5		30
Perfluoroundecanoic Acid (PFUnA)	103		105		60-153	2		30
Perfluorodecanesulfonic Acid (PFDS)	126		112		38-156	12		30
Perfluorooctanesulfonamide (FOSA)	99		102		46-170	3		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	101		110		45-170	9		30
Perfluorododecanoic Acid (PFDoA)	112		109		67-153	3		30
Perfluorotridecanoic Acid (PFTrDA)	110		107		48-158	3		30
Perfluorotetradecanoic Acid (PFTA)	121		116		59-182	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAR ROCKAWAY PH 3
Project Number: PHIPPS FAR ROCKAWAY

Lab Number: L1905411
Report Date: 02/18/19

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01 Batch: WG1206623-2 WG1206623-3								

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	97		98		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	104		104		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	93		94		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	93		93		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	95		97		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	95		98		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	93		96		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	70		75		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	98		103		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	89		101		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	84		89		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	79		86		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	78		76		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	91		93		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	44		47		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	78		80		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	84		87		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	103		107		33-143

Project Name: FAR ROCKAWAY PH 3
Project Number: PHIPPS FAR ROCKAWAY

Serial_No:02181913:46
Lab Number: L1905411
Report Date: 02/18/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1905411-01A	Plastic 250ml unpreserved	A	NA		2.7	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905411-01B	Plastic 250ml unpreserved	A	NA		2.7	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905411-01C	Plastic 250ml unpreserved	A	NA		2.7	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905411-01D	Plastic 250ml unpreserved	A	NA		2.7	Y	Absent		A2-NY-537-ISOTOPE(14)

Project Name: FAR ROCKAWAY PH 3
Project Number: PHIPPS FAR ROCKAWAY

Lab Number: L1905411
Report Date: 02/18/19

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total'

Report Format: DU Report with 'J' Qualifiers



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result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

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REFERENCES

- 122 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537, EPA/600/R-08/092. Version 1.1, September 2009.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at its own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**Revision **12**

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Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 6860:** SCM: Perchlorate**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg. EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 1 of 1		Date Rec'd in Lab 2/12/19		ALPHA Job # L1905411	
		Project Information Project Name: Far Rockaway Ph 3 Project Location: 20-02 Mott Ave Project #: Phipps Far Rockaway Ph 3 (Use Project name as Project #) ☐		Deliverables ☐ ASP-A ☐ ASP-B ☐ EQuIS (1 File) ☐ EQuIS (4 File) ☐ Other		Billing Information ☐ Same as Client Info PO #			
Client Information Client: CA RICH Consultants, Inc. Address: 17 Dupont Street Plainview, NY 11803 Phone: 516-576-8844 Fax: Email: jcooper@carichinc.com		Project Manager: Jason Cooper ALPHAQuote #: Turn-Around Time Standard ☒ Due Date: Rush (only if pre approved) ☐ # of Days:		Regulatory Requirement ☐ NY TOGS ☐ NY Part 375 ☐ AWQ Standards ☐ NY CP-51 ☐ NY Restricted Use ☐ Other ☐ NY Unrestricted Use ☐ NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: ☐ NJ ☐ NY ☐ Other:			
These samples have been previously analyzed by Alpha ☐ Other project specific requirements/comments:						ANALYSIS Perfluorinated via 537MOT		Sample Filtration ☐ Done ☐ Lab to do Preservation ☐ Lab to do (Please Specify below)	
Please specify Metals or TAL.								Sample Specific Comments	
ALPHA Lab ID (Lab Use Only)		Sample ID		Collection Date Time		Sample Matrix		Sampler's Initials	
05411.01		PFAS- SB-3- 020819		2/8/2019 15:05		L		DK	
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type P Preservative A		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.	
				Relinquished By: <i>[Signature]</i>		Date/Time: 2/11/19 1140		Received By: <i>[Signature]</i> 1140	
				Date/Time: 2/11/19 1730		Received By: <i>[Signature]</i> 1900		Date/Time: 2/11/19 1900	
				Date/Time: 2/11/19 2205		Received By: <i>[Signature]</i> 2205		Date/Time: 2/11/19 2205	
				Date/Time: 02/12/19 0515		Received By: <i>[Signature]</i> 0515		Date/Time: 2/12/19 0515	