



**Semi-Annual Monitoring Report
First Half 2016**

**New Housing New York Legacy Project (Via Verde)
700-730 Brook Avenue, Bronx, NY
BCP Site ID: C203043**

September 2016

Prepared for:

**NYSDEC, Region 2
Division of Environmental Remediation
47-40 21st Street
Long Island City, NY 11101**

On Behalf of

**Via Verde Homes, LLC
Via Verde Rental Associates, L.P.
902 Broadway, 13th Floor
New York, New York 10010**

Prepared by:

**CA RICH CONSULTANTS, INC.
17 Dupont Street
Plainview, NY 11803-1614**



September 13, 2016

NYSDEC, Region 2
Division of Environmental Remediation
47-40 21st Street
Long Island City, NY 11101

Attn: Jane O'Connell

Re: **Semi-Annual Monitoring Report
First Half 2016 Groundwater Sampling**
Via Verde
700-730 Brook Avenue, Bronx, NY
BCP Site ID: C203043

Dear Ms. O'Connell:

CA RICH Consultants, Inc. is pleased to present the Semi-Annual Monitoring Report for the First Half 2016 in connection with the above-captioned Site. This Report is being submitted on behalf of Via Verde Homes, LLC and Via Verde Rental Associates, L.P. (the BCP Volunteer) and was prepared in accordance with the NYSDEC-approved Site Management Plan (SMP) dated December, 2011 (revised May 23, 2013).

If there are any questions regarding this document, please do not hesitate to call our office.

Sincerely,

CA RICH CONSULTANTS, INC.

Richard J. Izzo, CPG
Vice President

cc: Chris Doroski, NYSDOH (email only)
Michael Wadman (email only)

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1.0 INTRODUCTION

The following Semi-Annual Monitoring Report has been prepared by CA RICH Consultants, Inc. (CA RICH) on behalf of Via Verde Homes, LLC and Via Verde Rental Associates, L.P. This document is required as an element of the Site Management Plan (SMP) (Ref. 1) at the New Housing New York Legacy Project (hereinafter referred to as Via Verde or the Site), 700-730 Brook Avenue, Bronx, NY (Brownfield Cleanup Program (BCP) Site ID: C203043). The Site is being managed under the New York State Department of Environmental Conservation (NYSDEC) BCP. The Site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index #W2-1129-08-11, Site #C203043, which was executed on February 23, 2009. The Certificate of Completion was received on December 23, 2011.

2.0 SITE DESCRIPTION AND BACKGROUND

Via Verde Homes, LLC, Via Verde Rental Associates, L.P., and the City of New York Department of Housing Preservation and Development (“HPD”) entered into a BCA with the New York State Department of Environmental Conservation (NYSDEC) in February 2009 to investigate and remediate a 1.41-acre property located in the Bronx, New York. The property was remediated to restricted residential use, and will be used for mixed commercial and residential purposes. It is noted that the Deed was transferred on December 30, 2009 and HPD no longer has any ownership interest.

The Site is located in Bronx County, New York and is identified as Section 9, Block 2359; Lot 51, which includes Condominium Lots 1001, 1002, 1003, and 1004, (formerly part of Lots 1 and 3 on the Bronx County Tax Map). The Site is an approximately 1.41-acre area bounded by East 156th Street to the north, an athletic field to the south, New York City Housing Authority Bronxchester Houses and South Bronx High School to the east, and Brook Avenue to the west (see Figure 1). The boundaries of the Site are more fully described in the metes and bounds Site description that is part of the Environmental Easement. A copy of the Environmental Easement is included in the Final Engineering (FER) Report (Ref. 2).

Under the BCP, the Site was remediated to Track 4 Site Specific Soil Action Levels (“SSSALs”) established for the Site as listed in the FER. Low levels of polyaromatic hydrocarbons and metals remain in the soil in limited areas throughout the Site. Based upon the detection and distribution of groundwater contaminants, in-situ chemical oxidation was performed in the area of the former service station (northwest corner of the Site). On April 1st through 9th, 2010 Regenox™ and ORC® Advanced (ISCO treatment) were injected into the shallow groundwater and soil/fill in the smear zone.

The results from post-remedial groundwater monitoring indicate that fuel related volatile organic compounds (VOCs) and some metals remain within the groundwater above NYSDEC Technical and Administrative Guidance (TOGS) standards (Ref. 3).

As remaining contaminated soil and groundwater exist beneath the Site, implementation of Institutional Controls (ICs) and Engineering Controls (ECs) were required at the Site to be managed through implementation of the Site management Plan (SMP). Exposure to soil vapor (potential off-gassing from residual VOCs in the groundwater) is being prevented by the composite cover system, which is comprised of concrete-covered sidewalks, courtyard areas, foundation walls, concrete building slabs as well as a 2-foot clean fill buffer on all non-capped areas. A vapor barrier and active Sub-Slab Depressurization (SSD) system were installed underneath each of the five building foundations as additional protection.

3.0 MEDIA MONITORING PROGRAM

3.1 Groundwater

Four post-remedial groundwater monitoring wells designated MW-6, MW-7, MW-8, & MW-9 were installed, developed and surveyed at the Site in July 2011 and will serve as the groundwater monitoring wells for the post-remedial groundwater monitoring. The locations of the four wells and direction of groundwater flow are illustrated in Figure 2.

CA RICH conducted semi-annual groundwater sampling on June 16, 2016. The four monitoring wells were purged and sampled in accordance with EPA’s Low-Flow (minimal drawdown) Groundwater Sampling Procedures. Copies of the requisite field forms and Chain-of-

Custody are attached in Appendix A. Quality Assurance/Quality Control (QA/QC) samples were also collected and analyzed in connection with the testing as set forth in the SMP and included one trip blank, one field blank per day of field work, one duplicate, one matrix spike, and one matrix spike duplicate. In addition, the data was validated by a qualified third-party and a Data Usability Summary Report (DUSR) was prepared and is attached in Appendix B.

Groundwater samples were collected from the wells, submitted to ELAP and CLP-certified Accutest Laboratories in Dayton, NJ and analyzed for Volatile Organic Compounds (VOCs) via EPA Method 8260 and dissolved TAL metals with NYSDEC ASP Category B deliverables. All post-remedial groundwater sampling results have been provided to NYSDEC in the appropriate Electronic Data Deliverable format.

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 final air dry. The submersible pump used for groundwater sample collection was decontaminated between sample collection by passing the detergent and water mixture through the pump, followed by two fresh water rinses. Gloves worn for sample handling were discarded between sample collections. Dedicated, new polyethylene tubing was used at each well location for purging and sampling. The 40-mil sample vials were filled completely and checked to ensure that no air bubbles were present.

3.1.1 Summary of Results

The results of the sampling program are presented on Tables 1 and 2. In addition to the tabular presentation, a graph plotting the concentration of key constituents versus time for MW-8 is included as Figure 3.

As illustrated on Table 1, fuel-related VOCs in excess of NYSDEC TOGS continue to be detected within on-site well MW-8. The most elevated fuel-related compound concentration is 9.5 ug/L of n-propylbenzene. No VOCs were detected in MW-6, MW-7, or MW-9 in excess of TOGS Standards.

As shown on Figure 3, comparison of concentrations for naphthalene, n-propylbenzene, 1,2,4-trimethylbenzene, ethylbenzene, and total xylenes in MW-8, between the 4th quarter 2011 sampling event, and the first half semi-annual 2016 sampling event, indicates a continued general reduction in concentration for these selected compounds.

Analysis for metals (Table 2) detected magnesium, manganese, selenium, and sodium at levels in excess of TOGS Standards.

Analysis for SVOCs and PCBs is no longer required by the NYSDEC for the on-site wells.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based upon our review of the analytical results from the most recent (June 2016) sampling event and comparison of the results to those generated during the previous events, it appears that the detected levels of fuel-related VOCs generally continue to decline below initial concentrations. The levels of targeted metals continue to fluctuate above and below TOGS Standards.

Based upon the results of the first year of post remedial monitoring, CA RICH submitted a formal petition to modify the sampling program on April 2, 2013. The petition was approved by the Department via their letter dated May 9, 2013 and includes reduction of sampling frequency from quarterly to semi-annually and reduction of the parameter list to include only VOCs and dissolved TAL metals. The modifications to the sampling program will continue during future sampling rounds. Should conditions continue to remain unchanged during the second half of 2016, a formal request to suspend the post-remedial groundwater monitoring program will be submitted to the NYSDEC.

REFERENCES

1. Stephen J. Osmundsen, P.E. Site Management Plan. New York: Author, December 7, 2011.
2. Stephen J. Osmundsen, P.E. Final Engineering Report. New York: Author, December 21, 2011.
3. New York State Department of Environmental Conservation; Division of Water Technical and Operation Guidance Series (1.1.1): Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations; June 1998.

FIGURES



Property



N

Adapted from USGS 1995 Central Park Quadrangle Map.

CA RICH CONSULTANTS, INC.

*Certified Ground Water and Environmental Specialists
17 Dupont Street, Plainview, NY 11803*

TITLE:

**SITE LOCATION MAP ON
TOPOGRAPHIC QUAD**

DATE:

02/3/15

SCALE:

N.T.S.

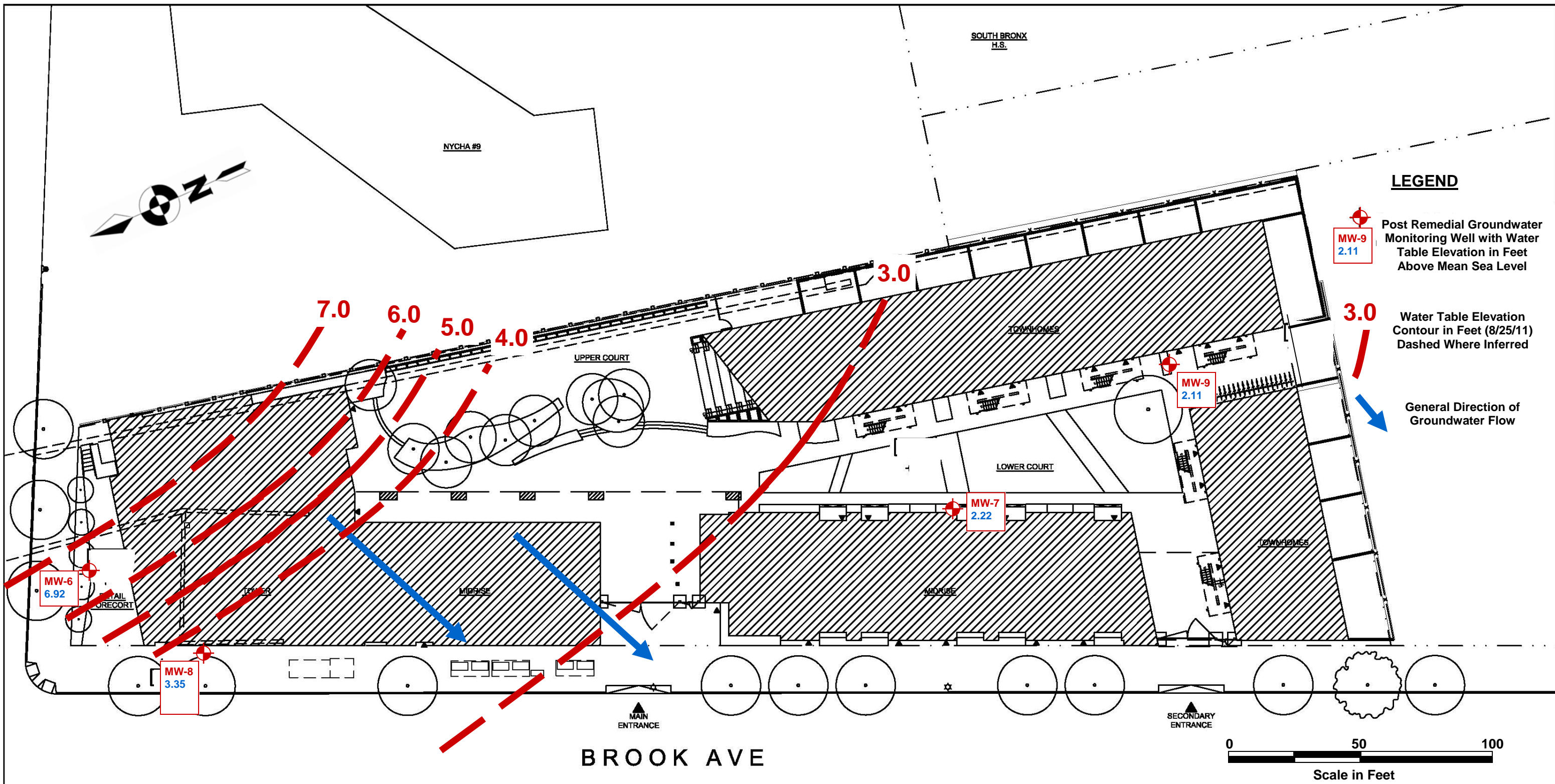
FIGURE: **1**

**Via Verde aka
New Housing New York Legacy
700-730 Brook Avenue
Bronx, New York**




DRAWN BY:
J.T.C.

DRAWING:

APPR. BY:
RJI

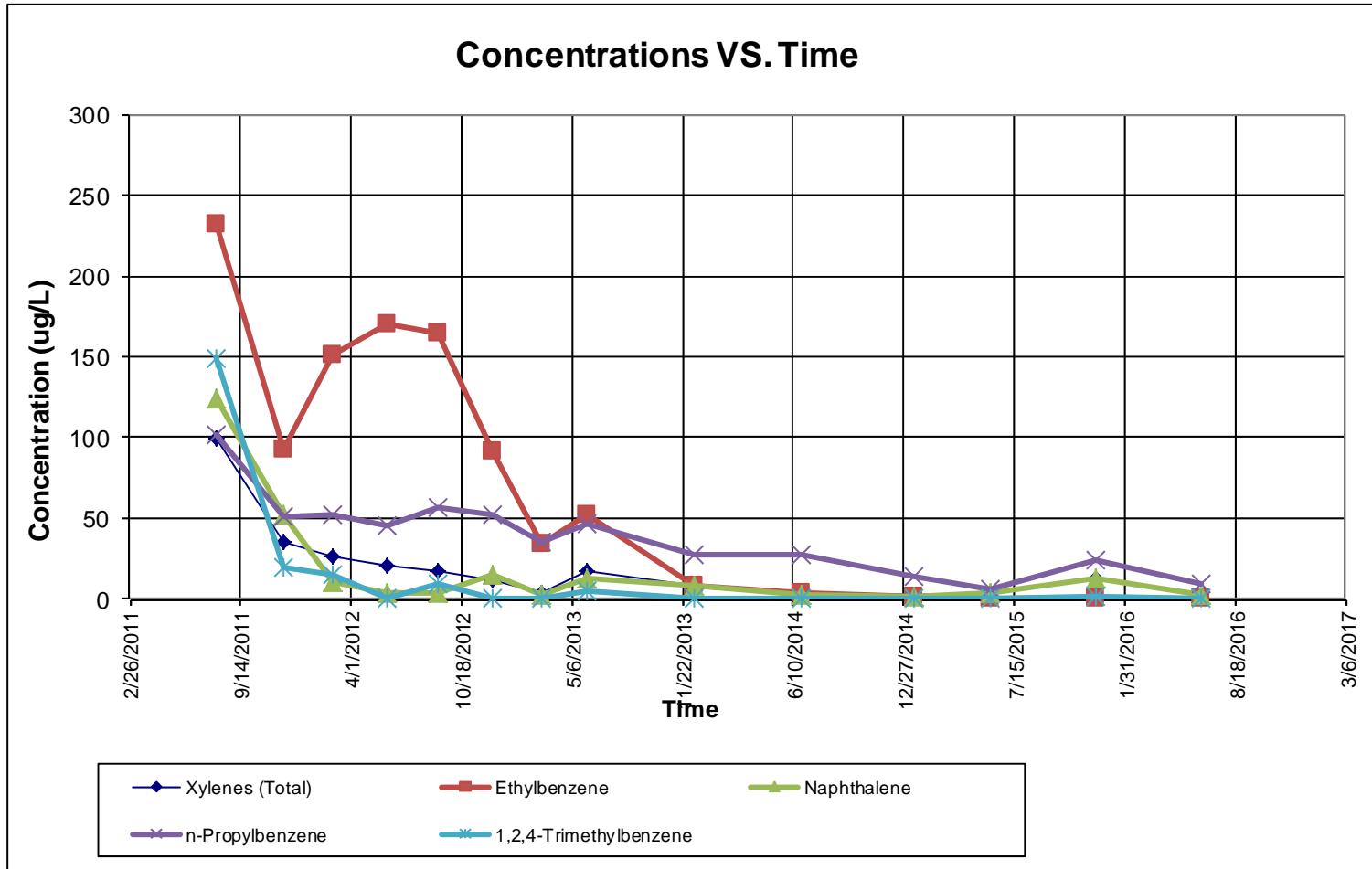


LEGEND

-  Post Remedial Groundwater Monitoring Well with Water Table Elevation in Feet Above Mean Sea Level
-  Water Table Elevation Contour in Feet (8/25/11) Dashed Where Inferred
-  General Direction of Groundwater Flow

CA RICH CONSULTANTS, INC. Certified Ground-Water and Environmental Specialists 17 Dupont Street, Plainview, New York 11803	
Post Remedial Groundwater Monitoring Well Locations & Elevation of the Water Table on 11/30/11	DATE: 12/2/11
FIGURE: 2	SCALE: AS SHOWN
DRAWING NO: 2009-35A	DRAWN BY: J.T.C.
Via Verde New Housing New York Legacy 700-730 Brook Avenue Bronx, New York	APPR. BY: R.J.I.

FIGURE 3
Concentration Trends of Selected Compounds in Groundwater Monitoring Well MW-8
Via Verde
700-730 Brook Avenue, Bronx, NY



TABLES

Table 1								
Analytical Results for Volatile Organic Compounds In Groundwater								
Via Verde aka New Housing New York Legacy Project								
700-730 Brook Avenue, Bronx, New York								
BCP # C203043								
Sample ID	MW-6	MW-7	MW-8	MW-9	MW-XX**	Field Blank	Trip Blank	NYSDEC
Matrix	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Liquid	Liquid	TOGS*
Date Sampled	6/16/2016	6/16/2016	6/16/2016	6/16/2016	6/16/2016	6/16/2016	6/16/2016	
Volatile Organic Compounds								
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	ND UJ	ND UJ	ND UJ	ND UJ	ND UJ	ND UJ	ND UJ	50
Benzene	ND	ND	1.2	ND	1.2	ND	ND	1
Bromobenzene	ND	ND	ND	ND	ND	ND	ND	5
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	5
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	50
Bromoform	ND	ND	ND	ND	ND	ND	ND	50
Bromomethane	ND	ND	ND	ND	ND	ND	ND	5
2-Butanone (MEK)	ND R	ND R	ND R	ND R	ND R	ND R	ND R	50
n-Butylbenzene	ND	ND	1.3 J	ND	1.2 J	ND	ND	5
sec-Butylbenzene	ND	ND	2.1	ND	2.1	ND	ND	5
tert-Butylbenzene	ND	ND	1.2 J	ND	1.2 J	ND	ND	5
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	5
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	5
Chloroethane	ND	ND	ND	ND	ND	ND	ND	5
Chloroform	3.6	ND	ND	ND	ND	ND	ND	7
Chloromethane	ND	ND	ND	ND	ND	ND	ND	NVG
o-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	5
p-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	5
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	ND	ND	0.04
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	50
1,2-Dibromoethane	ND	ND	ND	ND	ND	ND	ND	NVG
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	5
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	5
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	0.6
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	5
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	5
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	5
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	1
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	5
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	5
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	5
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	0.4
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	0.4
Ethylbenzene	ND	ND	0.58 J	ND	0.52 J	ND	ND	5
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	0.5
Isopropylbenzene	ND	ND	7.3	ND	7.1	ND	ND	5
p-Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	5
Methyl Tert Butyl Ether	ND	ND	ND	ND	ND	ND	ND	10
4-Methyl-2-pentanone(MIBK)	ND	ND	ND	ND	ND	ND	ND	NVG
Methylene bromide	ND	ND	ND	ND	ND	ND	ND	NVG
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	5
Naphthalene	ND	ND	2.9 J	ND	2.8 J	ND	ND	10
n-Propylbenzene	ND	ND	9.5	ND	8.7	ND	ND	5
Styrene	ND	ND	ND	ND	ND	ND	ND	5
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	5
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	5
Tetrachloroethene	0.28 J	ND	ND	ND	ND	ND	ND	5
Toluene	ND	ND	0.76 J	ND	0.72 J	ND	ND	5
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	5
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	5
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	5
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	1
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	5
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	5
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	0.04
1,2,4-Trimethylbenzene	ND	ND	0.35 J	ND	0.35 J	ND	ND	5
1,3,5-Trimethylbenzene	ND	ND	0.96 J	ND	0.84 J	ND	ND	5
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	2
m,p-Xylene	ND	ND	2.4	ND	2.2	ND	ND	5
o-Xylene	ND	ND	0.34 J	ND	0.34 J	ND	ND	5
Xylene (total)	ND	ND	2.7	ND	2.6	ND	ND	5

Notes:
ug/L - micrograms per liter or parts per billion
ND - Not detected at or above laboratory detection limits
NVG - No Value Given
J - Estimated Value
R- data are not usable, the analyte may or may not be present

*NYSDEC Technical and Operational Guidance Series (1.1.1)
Ambient Water Quality Standards and Guidance Values
and Groundwater Effluent Limitations; June 1996
** MW-XX is a duplicate of MW-8

Boxed and bold indicates exceedance groundwater standards or guidance values

Table 2
Validated Analytical Results for Metals In Groundwater
Via Verde aka New Housing New York Legacy Project
700-730 Brook Avenue, Bronx, New York
BCP # C203043

Sample ID	MW-6	MW-7	MW-8	MW-9	MW-XX**	Field Blank	NYSDEC TOGS*
Matrix	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Liquid	
Date Sampled	6/16/2016	6/16/2016	6/16/2016	6/16/2016	6/16/2016	6/16/2016	
Total Metals Filtered							
Units	<u>ug/L</u>	<u>ug/L</u>	<u>ug/L</u>	<u>ug/L</u>	<u>ug/L</u>	<u>ug/L</u>	<u>ug/L</u>
Aluminum	< 200	< 200	< 200	< 200	< 200	< 200	NVG
Antimony	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	3
Arsenic	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	25
Barium	< 200	< 200	< 200	< 200	< 200	< 200	1,000
Beryllium	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3
Cadmium	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	5
Calcium	39,600	150,000	170,000	153,000	180,000	< 5,000	NVG
Chromium	< 10	< 10	< 10	< 10	< 10	< 10	50
Cobalt	< 50	< 50	< 50	< 50	< 50	< 50	NVG
Copper	< 10	< 10	< 10	< 10	< 10	< 10	200
Iron	< 100	< 100	144	< 100	170	< 100	300
Lead	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	25
Magnesium	6,810	30,200	43,000	18,600	46,000	< 5,000	35,000
Manganese	16	< 15	3,790	782	4,040	< 15	300
Mercury	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.7
Nickel	< 10	< 10	< 10	85.5	< 10	< 10	100
Potassium	< 10,000	< 10,000	< 10,000	12,500	< 10,000	< 10,000	NVG
Selenium	< 10	14.7	< 10	< 10	< 10	< 10	10
Silver	< 10	< 10	< 10	< 10	< 10	< 10	50
Sodium	28,300	82,800	105,000	81,800	113,000	< 10,000	20,000
Thallium	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.5
Vanadium	< 50	< 50	< 50	< 50	< 50	< 50	NVG
Zinc	< 20	< 20	< 20	< 20	< 20	< 20	2,000

Notes:

ug/L - micrograms per liter or parts per billion

NVG - No Value Given

J - Estimated Value

*NYSDEC Technical and Operational Guidance Series (1.1.1)
Ambient Water Quality Standards and Guidance Values
and Groundwater Effluent Limitations; June 1998

** MW-XX is a duplicate of MW-8

Boxed and bold indicates exceedance of groundwater standards or guidance values

Appendix A

Field Forms and Chain of Custody



Water Quality Measurement Log

Location: (Site/Facility Name) Via Verde Depth to: 36.35' of screen
 Date: 6/16/16 (Below MP) Top Bottom
 Sampling Personnel: M. Yager + W. Fitchett Pump Intake at (ft. below MP) ≈ 27 ft
 Weather: overcast/cloudy ~ 70°F Well Diameter: 2" PVC
 Identify Measuring Point (MP): TOC - Wall Purging Device: (Pump type) Monsoon
 Well ID: MW-6 Purge Start Time: 0900 Purge End Time: 0935
 Static Depth to Water (Prior to installing pump) 24.85 Sample Start Time: 0937 Sample End Time: 0947

Clock Time	Water Depth Below MP	Pump Dial ¹	Purge Rate	Cum. Volume Purged	Temp.	Spec. Conduct. ²	pH	ORP/Eh ³	DO	Turbidity	Comments
24 HR	FT		ml/min	Liters	°C	uS/cm		mv	mg/L	NTU	
Tolerance	0.33 ft				3%	3%	± 0.1	± 10	10%	10%	
0900											
0920	28.10	16	100	1	18.07	0.442	7.32	151	8.54	78.6	
0925	28.10	16	100		18.37	0.442	7.29	156	8.39	85.1	
0930	28.50	16.2	75		18.65	0.442	7.27	160	8.01	63.8	
0935	28.4	16.2	75	2	18.67	0.444	7.25	162	7.96	73.7	
											- Well "dry" during sampling - increase pump to sample

- 1. Pump dial setting (Example: hertz, cycles/minute, etc)
- 2. uSiemens per cm (same as umhos/cm) at 25°C
- 3. Oxidation reduction potential (stand in for Eh)

W



Water Quality Measurement Log

Location: (Site/Facility Name) Via Verde
 Date: 6/16/16
 Sampling Personnel: M. Vaser + W. Fitchett
 Weather: Rain/overcast / 70°F
 Identify Measuring Point (MP): TOC - TOOC
 Well ID: MW-7 + MS + MSD
 Static Depth to Water (Prior to installing pump) 21.90

Depth to: 1 31.22' of screen
 (Below MP) Top Bottom
 Pump Intake at (ft. below MP) ≈ 28 ft
 Well Diameter: 2" PVC
 Purging Device: (Pump type) Monsoon
 Purge Start Time: 1155 Purge End Time: 1235
 Sample Start Time: 1235 Sample End Time: 1245

Clock Time	Water Depth Below MP	Pump Dial ¹	Purge Rate	Cum. Volume Purged	Temp.	Spec. Conduct. ²	pH	ORP/Eh ³	DO	Turbidity	Comments
24 HR	FT		ml/min	Gallons	°C	uS/cm		mv	mg/L	NTU	
Tolerance	0.33 ft				3%	3%	± 0.1	± 10	10%	10%	
1155											
1215	22.15	14.5	300	2-gal	20.23	1.42	6.56	183	1.33	104	
1220	22.15	14.5	300		20.22	1.43	6.53	156	0.87	60.5	
1225	22.15	14.5	300	3-gal	20.28	1.43	6.52	135	0.66	30.9	
1230	22.15	14.5	300		20.31	1.43	6.51	129	0.61	22.2	
1235	22.15	14.5	300	1-gal	20.44	1.43	6.51	126	0.57	18.5	

1. Pump dial setting (Example: hertz, cycles/minute, etc)
2. uSiemens per cm (same as umhos/cm) at 25°C
3. Oxidation reduction potential (stand in for Eh)

MW-7 + MW-7MS + MW-7MSD



Water Quality Measurement Log

Location: (Site/Facility Name) Via Verde Depth to: 1 29.48' of screen
 Date: 6/16/16 (Below MP) Top Bottom
 Sampling Personnel: M. Yagor + W. Fitchett Pump Intake at (ft. below MP) ~ 28 ft
 Weather: Overcast + RAIN ~ 70°F Well Diameter: 2" PVC
 Identify Measuring Point (MP): TOC - Curb Box Purging Device: (Pump type) M21500W
 Well ID: MW-8 Purge Start Time: 0737 Purge End Time: 0825
 Static Depth to Water (Prior to installing pump) 22.82 Sample Start Time: 0825 Sample End Time: 0845

Clock Time	Water Depth Below MP	Pump Dial ¹	Purge Rate	Cum. Volume Purged	Temp.	Spec. Conduct. ²	pH	ORP/Eh ³	DO	Turbidity	Comments
24 HR	FT		ml/min	Gallons	°C	uS/cm		mv	mg/L	NTU	
Tolerance	0.33 ft				3%	3%	± 0.1	± 10	10%	10%	
0737											
0755	24.40	15.0	200	0.75	21.47	1.79	5.24	-122	3.28	27.4	
0800	24.65	15.0	200		21.70	1.80	5.25	-131	2.46	16.9	
0805	25.00	15.0	150		21.82	1.80	5.26	-133	2.47	11.1	
0810	25.21	16.0	150		21.85	1.80	5.27	-98	1.64	15.7	
0815	25.32	16.0	150		21.85	1.80	5.29	-119	1.29	13.4	
0820	25.70	16.0	150		22.90	1.81	5.30	-125	1.18	13.0	
0825	25.44	16.0	100	2.5	21.98	1.80	5.32	-128	1.16	13.8	

1. Pump dial setting (Example: hertz, cycles/minute, etc)
2. uSiemens per cm (same as umhos/cm) at 25°C
3. Oxidation reduction potential (stand in for Eh)

MW-8 + MW-xx duplicate



Water Quality Measurement Log

Location: (Site/Facility Name) VIA Verde
 Date: 6/16/16
 Sampling Personnel: M. Yager & W. Fitchett
 Weather: Overcast/Cloudy ~ 70°F
 Identify Measuring Point (MP): TOC - TOOC
 Well ID: MW-9
 Static Depth to Water (Prior to installing pump): 21.85

Depth to: 33.75' of screen
 (Below MP) Top Bottom
 Pump Intake at (ft. below MP) ~ 32ft
 Well Diameter: 2" PVC
 Purging Device: (Pump type) Monsoon
 Purge Start Time: 1027 Purge End Time: 1120
 Sample Start Time: 1122 Sample End Time: 1140

Clock Time	Water Depth Below MP	Pump Dial ¹	Purge Rate	Cum. Volume Purged	Temp.	Spec. Conduct. ²	pH	ORP/Eh ³	DO	Turbidity	Comments
24 HR	FT		ml/min	Gallons	°C	uS/cm		mv	mg/L	NTU	
Tolerance	0.33 ft				3%	3%	± 0.1	± 10	10%	10%	
1027											
1055	25.23	17.5	100	0.5	21.18	1.44	7.66	-154	1.39	Ø	
1100	25.43	17.0	100		21.24	1.44	7.69	-201	0.89	Ø	
1105	25.48	16.5	100		21.36	1.43	7.72	-258	0.74	Ø	
1110	25.97	17	100		21.60	1.43	7.74	-288	0.64	Ø	
1115	26.60	17	100		21.63	1.42	7.76	-292	0.61	Ø	
1120	26.24	17	100	1.25	21.79	1.40	7.77	-296	0.60	Ø	

Turbidity Flashing
N/A
- Very Turbid Sample

1. Pump dial setting (Example: hertz, cycles/minute, etc)
 2. uSiemens per cm (same as umhos/cm) at 25°C
 3. Oxidation reduction potential (stand in for Eh)



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FED-EX Tracking #	Billie Order Control #
SGS Accutest Quote #	SGS Accutest Job # JC22494

Client/Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)										Matrix Codes	
Company Name CA Rich Consultants, Inc		Project Name Via Verde		Vocs 8alco TAL Metals - Dissolved										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Street Address 17 Dupont St		Street Brook Ave													
City/State/Zip Plainview NY 11803		City/State Bronx NY													
Project Contact Rich Izzo rizzo@carichinc.com		Project # Post Rem GWS													
Phone/Fax 516 576 8844		Client Purchase Order #													
Sample(s) Name(s) M. Jager + W. Fitchett		Project Manager													
ASST Access Sample #	Field ID / Point of Collection	NEOH/OI/Val #	Collection		Matrix	# of bottles	ICI	NEOH	H2O2	H2SO4	HNO3	DI Water	NEOH	H2O2	LAB USE ONLY
1F	MW-6		6/16/16	0947	MW-GW	4	3								C45
	MW-7		6/16/16	1245	MW-GW	4	3								U444
2F	MW-7MS		6/16/16	1245	MW-GW	4	3								
	MW-7MSD		6/16/16	1245	MW-GW	4	3								
3F	MW-8		6/16/16	0845	MW-GW	4	3								
4F	MW-9		6/16/16	1140	MW-GW	4	3								
5F	MW-XX		6/16/16	-	MW-GW	4	3								
6F	Field Blank 6/16/16		6/16/16	-	PB	3	2								
7	Trip Blank		-	-	TB	2	2								

5.2
5

Turnaround Time (Business days)		Data Deliverable Information		Comments / Special Instructions	
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day RUSH <input type="checkbox"/> other		Approved By (SGS Accutest PM): / Date: _____ INITIAL ASSESSMENT 28 dom LABEL VERIFICATION JV		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NJ Data of Known Quality Protocol Reporting <input type="checkbox"/> Commercial "A" = Results Only, Commercial "B" = Results + QC Summary <input type="checkbox"/> NJ Reduced = Results + QC Summary + Partial Raw data	
Emergency & Rush TIA data available via Lablink		Sample Custody must be documented below each time samples change possession, including courier delivery.		<input type="checkbox"/> NYASP Category A <input checked="" type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other	
Relinquished by Sampler: 1 Rich Izzo Date Time: 6/17/16 11:00		Received By: 2 Chris Law Date Time: 6/17/16 11:35		Relinquished by Sampler: 3 Date Time: 4	
Relinquished by Sampler: 4 Date Time: 5		Received By: 5 Date Time: 6		<input type="checkbox"/> In tact <input type="checkbox"/> Not In tact Preserved where applicable <input type="checkbox"/> On Ice <input checked="" type="checkbox"/> Cooler Temp: 3.6°C CP	

Appendix B

DUSR

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

ORGANIC/INORGANIC ANALYSES

**TARGET COMPOUND LIST (TCL) VOLATILES BY GC/MS
TARGET ANALYTE LIST (TAL) METALS (Dissolved) BY ICP/ICP-MS/CV**

**For Groundwater Samples Collected
June 16, 2016
From 700-730 Brook Avenue, Bronx, NY
Via Verde aka New Housing New York Legacy Project
Post Rem GWS
Collected by CA Rich Consultants**

**SAMPLE DELIVERY GROUP NUMBER:
JC22494
BY SGS ACCUTEST LABORATORIES (ELAP #10983)**

SUBMITTED TO:

**Mr. Mike Yager
CA Rich Consultants, Inc.
17 Dupont Street
Plainview, NY 11803**

August 04, 2016

PREPARED BY:

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

Lori A Beyer

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

700-730 Brook Avenue, Bronx – Via Verde; Groundwater Samples; June 2016 (Q2) Sampling Event
Data Usability Summary Report (Data Validation): TCL Volatiles and TAL Metals (Dissolved).

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- Introduction
- Data Qualifier Definitions
- Sample Receipt

- 1.0 Target Compound List (TCL) Volatile Organics by GC/MS SW846 Method 8260C
 - 1.1 Holding Time
 - 1.2 System Monitoring Compound (Surrogate) Recovery
 - 1.3 Matrix Spikes (MS), Matrix Spike Duplicates (MSD)
 - 1.4 Laboratory Control Sample/Blank Spikes
 - 1.5 Blank Contamination
 - 1.6 GC/MS Instrument Performance Check (Tuning)
 - 1.7 Initial and Continuing Calibrations
 - 1.8 Internal Standards
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 - 1.10 Target Compound List Identification
 - 1.11 Compound Quantification and Reported Detection Limits
 - 1.12 Overall System Performance

- 2.0 Target Analyte List (TAL) Metals (Dissolved) by ICP, ICP-MS and Cold Vapor SW846
Methods 6010C/6020A/7470A
 - 2.1 Holding Times
 - 2.2 Calibration (Initial and Continuing Calibration Verifications)
 - 2.3 Blanks
 - 2.4 Spiked Sample Recovery
 - 2.5 Laboratory/Field Duplicates
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 - 2.7 Interference Check Sample
 - 2.8 ICP Serial Dilution
 - 2.9 Sample Results Verification
 - 2.10 Overall Assessment of Data

APPENDICES:

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

Introduction:

A validation was performed on groundwater samples and the associated quality control samples for organic/inorganic analysis for samples collected under chain of custody documentation by CA Rich Consultants and submitted to SGS Accutest Laboratories for subsequent analysis. This report contains the laboratory and validation results for the field samples itemized below. The groundwater samples were collected on June 16, 2016.

The samples were analyzed by SGS Accutest Laboratories, utilizing SW846 Methods and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodologies employed. The analytical testing consisted of the Target Compound/Analyte Lists for Volatile Organics and TAL Metals (Dissolved). Dissolved Metals samples were filtered at the laboratory on June 18, 2016.

The data was evaluated in accordance with EPA Region II National Functional Guidelines for Organic Data Review and EPA Region II SOP HW-24 Revision 4 for 8260C, SOPs HW-2a, HW-2b and HW-2c Revision 15 and also in conjunction with the analytical methodologies for which the samples were analyzed and professional judgment, where applicable and relevant.

The data validation report pertains to the following samples:

Sample Identification	Laboratory Identification	Sample Matrix	Date Collected	Date Received
MW-6	JC22494-1, JC22494-1F	Groundwater	06/16/16	06/17/16
MW-7 (plus MS/MSD)	JC22494-2, JC22494-2F	Groundwater	06/16/16	06/17/16
MW-8	JC22494-3, JC22494-3F	Groundwater	06/16/16	06/17/16
MW-9	JC22494-4, JC22494-4F	Groundwater	06/16/16	06/17/16
MW-XX (Field Duplicate of MW-8)	JC22494-5, JC22494-5F	Groundwater	06/16/16	06/17/16
Field Blank 6/16/16	JC22494-6, JC22494-6F	Aqueous	06/16/16	06/17/16
Trip Blank	JC22494-7	Aqueous	06/16/16	06/17/16

Data Qualifier Definitions:

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

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

Sample Receipt:

The Chain of Custody document indicates that the samples were received at SGS Accutest Laboratories via laboratory courier on 06/17/16 upon completion of the sampling event. Sample login notes were generated. The cooler temperature for all sample receipts were recorded upon receipt at Accutest Laboratories and determined to be acceptable (<6.0 degrees C). The actual temperature is recorded on the chain of custody document (3.6 degrees C) in addition to the case narrative provided in Appendix B of this report.

No problems and/or discrepancies were noted, consequently, the integrity of the samples has been assumed to be good. Samples were filtered upon receipt on 6/18/16 and preserved for dissolved metals analysis. Samples were digested after 24 hours from preservation as required by the method.

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

NOTE:

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

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

The following method criteria were reviewed: holding times, SMCs, MS, MSD, LCS, Laboratory Spiked Blanks, Method Blanks, Tunes, Calibrations, Internal Standards, Target Compound Identification, Quantitation, Reported Quantitation Limits and Overall System Performance. The Volatile results were considered to be valid and useable with the exception of non-detects for 2-Butanone in all samples due to low initial and continuing calibration response factors as noted within the following text:

1.1 Holding Time

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

Samples pertaining to this SDG were performed within the Method required holding times as well as the technical holding times for data validation of 14 days from collection to analysis. Samples were properly preserved with HCL to pH <2. No data validation qualifiers were required based upon holding time.

1.2 System Monitoring Compound (Surrogate) Recovery

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

Surrogate recoveries (%R) were found to be within acceptable limits for all four (4) surrogate compounds for all analyses pertaining to this SDG for analysis.

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

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

MS/MSD analyses were conducted for each analytical sequence and were spiked with all components as required by the analytical procedure. Site-specific aqueous MS/MSD was performed by the laboratory on sample MW-7. Acceptable spike recoveries and RPD were obtained for site specific MS/MSD analysis.

1.4 Laboratory Control Sample/Blank Spikes

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

LCS/Blank Spikes were analyzed for each sequence. Recovery values were acceptable and no qualifications were applied.

1.5 Blank Contamination

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

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

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

*2x the CRQL for methylene chloride, 2-butanone and acetone.

**4x the CRQL for methylene chloride, 2-butanone, and acetone

***Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ug/L.

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

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

A) **Method Blank Contamination:**

No target analytes were detected in the method blanks associated with sample analysis.

B) **Field Blank Contamination:**

No target analytes were detected in the field blank associated with sample analysis.

C) **Trip Blank Contamination:**

No target analytes were detected in the Trip Blank associated with sample analysis.

1.6 GC/MS Instrument Performance Check

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

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

1.7 Initial and Continuing Calibrations

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

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

A) Response Factor GC/MS:

The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be ≥ 0.05 in both initial and continuing calibrations. A value < 0.05 indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound in the corresponding samples will be rejected, "R". Method 8260C allows for a minimum response factor of 0.1 for Acetone and 2-Butanone.

All the response factors for the target analytes reported were found to be within acceptable limits (≥ 0.05) and minimum response criteria in Table 4 of Method 8260C, for the initial and continuing calibrations for all reported analytes with the following exceptions:

ICAL 06/09/16 GCMS2A:

2-Butanone – 0.047

Non-detects for this analyte has been rejected, "R" in all samples.

CCAL 06/22/16 GCMS2A:

2-Butanone were less than 0.1 (at 0.045) and previously rejected, "R" due to ICAL response.

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

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

portion of the curve where non linearity exists. Closing CCV must meet 30% criteria.

Initial Calibrations: The initial calibrations provided and the %RSD were within acceptable limits (20%) for all reported compounds with the exception of Acetone (23.68%). Results have been qualified, "UJ" in all samples.

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

1.8 Internal Standards

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

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

All samples were spiked with the internal standards Chlorobenzene-d5, Fluorobenzene and 1,4-Dichlorobenzene-d4 prior to sample analysis. The area responses and retention time of each internal standard met QC criteria in all samples associated with this SDG.

1.9 Field Duplicates

Field duplicate samples are collected and analyzed as an indication of overall precision. These results are expected to have more variability than laboratory duplicate samples. Generally, an acceptable RPD is 25% for water samples.

The following criteria are utilized for Field Duplicate analysis:

Criteria	Detected Compounds	Non-Detected Compounds
The RPD is within the limits of 0 and 25%	No qualification	No qualification
The RPD >25%	J in the parent and duplicate samples	Not applicable
The RPD could not be calculated since the compound was only detected in either the parent of duplicate sample. However, the detected concentration was $\leq 2x$ the reporting limit	No qualification	No qualification
The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample. However, the detected concentration was $> 2x$ the reporting limit.	J in the parent or duplicate sample	UJ in the parent of duplicate sample

Groundwater sample MW-8 was collected in duplicate, a summary of positive detections in ug/L is summarized below:

	<u>MW-8</u>	<u>MW-XX</u>
Benzene	1.2	1.2
N-Butylbenzene	1.3 J	1.2 J
Sec-Butylbenzene	2.1	2.1
Tert-Butylbenzene	1.2 J	1.2 J
Ethylbenzene	0.58 J	0.52 J
Isopropylbenzene	7.3	7.1
Naphthalene	2.9 J	2.8 J
n-Propylbenzene	9.5	8.7
Toluene	0.76 J	0.72 J
1,2,4-Trimethylbenzene	0.35 J	0.35 J
1,3,5-Trimethylbenzene	0.96 J	0.84 J
M,p-Xylene	2.4	2.2
o-Xylene	0.34 J	0.34 J
Xylene (total)	2.7	2.6

Acceptable precision was observed for all detected analytes.

1.10 Target Compound List Identification

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

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

1.11 Compound Quantification and Reported Detection Limits

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

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

All groundwater samples were analyzed undiluted.

1.12 Overall System Performance

Good resolution and chromatographic performance were observed.

2.0 TAL Metals (Dissolved) by ICP, ICP-MS and Cold Vapor SW846 Methods 6010C/6020A/7470A

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

2.1 Holding Times

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

All samples were filtered in the lab upon receipt and analyzed for Dissolved Metals within the method required holding times and the technical holding times for data validation. No qualifications were applied based upon holding time criteria.

2.2 Calibration (ICV/CCV)

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

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

For ICP analysis, satisfactory instrument performance near the Contract Required Detection Limit (CRDL) was demonstrated by analyzing a CRDL standard at the beginning and end of the analytical run. The instruments were calibrated properly by analyzing the CRDL solution at the correct levels, and analyzed at the required frequency at the beginning and end of each analytical run.

All recoveries were within acceptable limits of 90-110 % for initial calibration pertaining to field samples.

Continuing calibrations were within acceptable limits of 90-110% recovery of the true values for (80-120%) for all field samples.

No qualifications were applied based upon ICV/CCV analysis.

2.3 Blanks

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

All digestion/prep/ICB/CCB/Field blanks were generated within acceptable limits yielding final concentrations less than the CRDL.

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

2.4 Spiked Sample Recovery

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

Aqueous spike recoveries are qualified based on the criteria below:

<30% - "R" all detects and non-detects

Between 30%-74% - results \geq MDL "J" and non-detects "UJ"

Between 126-150% - results \geq MDL "J" and

>150% - results \geq MDL "R"

Aqueous MS/MSD was performed on MW-7 for metals. Analysis resulted in acceptable recovery values for all elements. Acceptable RPD was observed.

2.5 Laboratory/Field Duplicates

The laboratory uses duplicate sample determinations to demonstrate acceptable method precision at the time of analysis. Duplicate analyses are also performed to generate data in order to determine the long-term precision of the analytical method on various matrices.

Laboratory Duplicates:

RPD $>20\%$ but $<100\%$ - J detected concentrations

RPD $\geq 100\%$ - R all detected and non-detected concentrations

Field Duplicates:

RPD $\geq 35\%$ but $<120\%$ - qualify sample and duplicate results \geq CRQL "J"

RPD $\geq 120\%$ - rejected sample and duplicate results \geq CRQL "R"

Aqueous Laboratory Duplicate analysis was conducted on MW-7. Acceptable RPD values were obtained for all elements.

Field Duplicate analysis was conducted on MW-8 (MW-XX).

A summary of detected concentrations in ppb is listed below:

Dissolved Metals:

	<u>MW-8</u>	<u>MW-XX (Duplicate)</u>
Calcium	170000	180000
Iron	144	170
Magnesium	43000	46000
Sodium	105000	113000
Manganese	3790	4040

2.6 Laboratory Control Sample

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

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

2.7 Interference Check Sample

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

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

2.8 ICP Serial Dilution

The serial dilution of samples quantitated by ICP determines whether or not significant physical or chemical interferences exist due to sample matrix. An ICP serial dilution analysis must be performed on a sample for each group of samples with a similar matrix type and concentration, or for each Sample Delivery Group (SDG), whichever is more frequent.

Acceptable ICP and ICP-MS serial dilution was performed at a 5-fold dilution as required by the method where the initial concentration is equal or greater than 50x IDL. The serial dilution analysis agrees within a 10% difference of the original determination after correction for dilution for all elements where the sample concentration was determined to be <50x the IDL.

2.9 Sample Results Verification

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

Metals analysis resulted in acceptable results.

2.10 Overall Assessment of Data

The data generated were of acceptable quality.

For the Dissolved TAL analysis, results are usable at the concentration presented in the Form I's provided in this report.

Reviewer's Signature Lou A. Bay Date 08/04/2016

**Appendix A
Chain of Custody
Document**



ACCUTEST

CW
FB
WB

CHAIN OF CUSTODY

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

F
L

FED-EX Tracking #	Boiler Order Control #
SGS Accutest Quote #	SGS Accutest Job # JC22494

Client Reporting Information		Project Information		Requested Analysis (See TEST CODE sheet)												Matrix Codes				
Company Name CA Rich Consultants, Inc		Project Name Via Verde		<p style="writing-mode: vertical-rl; transform: rotate(180deg);">VOCs 8260 TAL Metals - Dissolved</p>												DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank				
Street Address 17 Dupont St		Street Brook Ave																		
City State Zip Plainview NY 11803		City State Brant NY																		
Billing Information (If different from Report to) Company Name		Billing Information (If different from Report to) Company Name																		
Project Contact Rich Izzo rizzo@ca-rich.com		Project # Dom Post Rem GWS																		
Phone # 516 576 8844		Client Purchase Order #																		
Samples (Name(s)) M. Janger + W. Fitchett		Project Manager																		
Attention:																				
SGS Accutest Sample #	Field ID / Point of Collection	MEDICAL USE #	Collection		Sampled by	Matrix	# of bottles	Number of preserved bottles												LAB USE ONLY
			Date	Time				CU	UOQ	RNOB	HSCB	ROCK	DI	WV	MICH	EB	EDD			
1F	MW-6		6/16/16	0949	MW	GW	4	3										X	X	CYS
	MW-7		6/16/16	1245	MW	GW	4	3										X	X	V444
2F	MW-7 MS		6/16/16	1245	MW	GW	4	3										X	X	
	MW-7 MSB		6/16/16	1245	MW	GW	4	3										X	X	
3F	MW-8		6/16/16	0845	MW	GW	4	3										X	X	
4F	MW-9		6/16/16	1140	MW	GW	4	3										X	X	
5F	MW-XX		6/16/16	-	MW	GW	4	3										X	X	
6F	Field Blank	6/16/16	6/16/16	-	FB	FB	3	2										X	X	
7	Trip Blank		-	-	TB	TB	2	2										X	X	

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Turnaround Time (Business days)		Data Deliverable Information		Comments / Special Instructions			
<input checked="" type="checkbox"/> Std. 5 Business Days <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day RUSH <input type="checkbox"/> other		Approved By (SGS Accutest PM): Date: _____ INITIAL ASSESSMENT 28 Dom LABEL VERIFICATION J		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NJ Data of Known Quality Protocol Reporting Commercial "A" - Results Only, Commercial "B" - Results + QC Summary <input type="checkbox"/> NYASP Category A <input checked="" type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other		NYS TOGE Detection Limits TAL Metals = Dissolved only - Lab to Filter	
Emergency & Rush TIA data available VIA Lablink		Sample Custody must be documented below each time samples change possession, including courier delivery.		Sample inventory is verified upon receipt in the Laboratory			
Requisitioned by Sampler:	Date/Time:	Received By:	Date/Time:	Requisitioned by:	Date/Time:		
1 W. J. Fitchett	6/17/16 11:00	1 Chris Law	6/17/16 1:03	2 Chris Law	6/17/16 1:03		
Requisitioned by Sampler:	Date/Time:	Received By:	Date/Time:	Requisitioned by:	Date/Time:		
3		3		4			
Requisitioned by:	Date/Time:	Received By:	Date/Time:	Custody Seal #	Preserved where applicable		
5		5			<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact		
				On Ice	Cooler Temp. 3.6°C		

SGS Accutest Sample Receipt Summary

Job Number: JC22494

Client: CA Rich Consultants

Project: Via Verde

Date / Time Received: 6/17/2016 6:35:00 PM

Delivery Method: Accutest Courier

Airbill #'s: _____

Cooler Temps (Raw Measured) °C: Cooler 1: (3.6);

Cooler Temps (Corrected) °C: Cooler 1: (4.5);

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. SmpI Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | <u>IR Gun</u> | |
| 3. Cooler media: | <u>Ice (Bag)</u> | |
| 4. No. Coolers: | <u>1</u> | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. VOCs headspace free: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | <u>intact</u> | |

Sample Integrity - Instructions

Y or N

N/A

- | | | | |
|--|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments -6 Please verify collection time for FB.

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Appendix B
Case Narrative

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: C. A. Rich Consultants

Job No JC22494

Site: Via Verde, 700-730 Brook Avenue, Bronx, NY

Report Date 7/1/2016 11:05:19 AM

On 06/17/2016, 10 Sample(s), 1 Trip Blank(s) and 2 Field Blank(s) were received at SGS Accutest at a maximum corrected temperature of 4.5 C. Samples were intact and chemically preserved, unless noted below. A SGS Accutest Job Number of JC22494 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Please refer to certification exceptions summary for additional certification information.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ

Batch ID: V2A7176

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC22494-2MS, JC22494-2MSD were used as the QC samples indicated.

Metals By Method SW846 6010C

Matrix: AQ

Batch ID: MP94513

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC22494-2FMS, JC22494-2FMSD, JC22494-2FSDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Aluminum, Cobalt, Iron, Nickel, Selenium, Vanadium are outside control limits for sample MP94513-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Metals By Method SW846 6020A

Matrix: AQ

Batch ID: MP94513A

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC22494-2FMS, JC22494-2FMSD, JC22494-2FSDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Antimony, Thallium are outside control limits for sample MP94513A-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Metals By Method SW846 7470A

Matrix: AQ

Batch ID: MP94549

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC22494-2FMS, JC22494-2FMSD were used as the QC samples for metals.

SGS Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS Accutest is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS Accutest indicated via signature on the report cover

Friday, July 01, 2016

Page 1 of 1

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

Report of Analysis

Client Sample ID: MW-6	Date Sampled: 06/16/16
Lab Sample ID: JC22494-1	Date Received: 06/17/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260C	
Project: Via Verde, 700-730 Brook Avenue, Bronx, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A169129.D	1	06/22/16	TK	n/a	n/a	V2A7176
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.8	ug/l	UJ
71-43-2	Benzene	ND	0.50	0.14	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.22	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.46	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.55	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
74-83-9	Bromomethane	ND	2.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	1.9	ug/l	R
104-51-8	n-Butylbenzene	ND	2.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.17	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	3.6	1.0	0.23	ug/l	
74-87-3	Chloromethane	ND	1.0	0.96	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.18	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.29	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.23	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.21	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.70	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.39	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.36	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-6	Date Sampled:	06/16/16
Lab Sample ID:	JC22494-1	Date Received:	06/17/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	1.0	0.42	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.22	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.28	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.35	ug/l	
91-20-3	Naphthalene	ND	5.0	0.39	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.17	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	0.28	1.0	0.23	ug/l	J
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.58	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.75	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.26	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.32	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	101%		84-119%
460-00-4	4-Bromofluorobenzene	104%		78-117%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-6	Date Sampled:	06/16/16
Lab Sample ID:	JC22494-1F	Date Received:	06/17/16
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

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Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Antimony	< 4.0	4.0	ug/l	2	06/23/16	06/24/16 GT	SW846 6020A ²	SW846 3010A ⁵
Arsenic	< 3.0	3.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Barium	< 200	200	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Beryllium	< 1.0	1.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Cadmium	< 3.0	3.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Calcium	39600	5000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Cobalt	< 50	50	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Copper	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Iron	< 100	100	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Lead	< 3.0	3.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Magnesium	6810	5000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Manganese	16.0	15	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	06/24/16	06/24/16 MS	SW846 7470A ¹	SW846 7470A ⁶
Nickel	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Potassium	< 10000	10000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Selenium	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Silver	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Sodium	28300	10000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Thallium	< 1.0	1.0	ug/l	2	06/23/16	06/24/16 GT	SW846 6020A ²	SW846 3010A ⁵
Vanadium	< 50	50	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Zinc	< 20	20	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴

- (1) Instrument QC Batch: MA39711
- (2) Instrument QC Batch: MA39718
- (3) Instrument QC Batch: MA39737
- (4) Prep QC Batch: MP94513
- (5) Prep QC Batch: MP94513A
- (6) Prep QC Batch: MP94549

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-7	Date Sampled: 06/16/16
Lab Sample ID: JC22494-2	Date Received: 06/17/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260C	
Project: Via Verde, 700-730 Brook Avenue, Bronx, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A169128.D	1	06/22/16	TK	n/a	n/a	V2A7176
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.8	ug/l	UJ
71-43-2	Benzene	ND	0.50	0.14	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.22	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.46	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.55	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
74-83-9	Bromomethane	ND	2.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	1.9	ug/l	R
104-51-8	n-Butylbenzene	ND	2.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.17	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.23	ug/l	
74-87-3	Chloromethane	ND	1.0	0.96	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.18	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.29	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.23	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.21	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.70	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.39	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.36	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

John 8/3/16



4.3
 4

Report of Analysis

Client Sample ID:	MW-7	Date Sampled:	06/16/16
Lab Sample ID:	JC22494-2	Date Received:	06/17/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

4.3
4

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	1.0	0.42	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.22	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.28	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.35	ug/l	
91-20-3	Naphthalene	ND	5.0	0.39	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.17	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.23	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.58	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.75	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.26	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.32	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	

CAS No.	Surr ogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	101%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-7	Date Sampled:	06/16/16
Lab Sample ID:	JC22494-2F	Date Received:	06/17/16
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

4.4
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Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Antimony	< 4.0	4.0	ug/l	2	06/23/16	06/24/16	GT SW846 6020A ²	SW846 3010A ⁵
Arsenic	< 3.0	3.0	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Barium	< 200	200	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Beryllium	< 1.0	1.0	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Cadmium	< 3.0	3.0	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Calcium	150000	5000	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Cobalt	< 50	50	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Copper	< 10	10	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Iron	< 100	100	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Lead	< 3.0	3.0	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Magnesium	30200	5000	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Manganese	< 15	15	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	06/24/16	06/24/16	MS SW846 7470A ¹	SW846 7470A ⁶
Nickel	< 10	10	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Potassium	< 10000	10000	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Selenium	14.7	10	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Silver	< 10	10	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Sodium	82800	10000	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Thallium	< 1.0	1.0	ug/l	2	06/23/16	06/24/16	GT SW846 6020A ²	SW846 3010A ⁵
Vanadium	< 50	50	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴
Zinc	< 20	20	ug/l	1	06/23/16	06/28/16	DE SW846 6010C ³	SW846 3010A ⁴

- (1) Instrument QC Batch: MA39711
- (2) Instrument QC Batch: MA39718
- (3) Instrument QC Batch: MA39737
- (4) Prep QC Batch: MP94513
- (5) Prep QC Batch: MP94513A
- (6) Prep QC Batch: MP94549

RL = Reporting Limit

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Report of Analysis

Page 1 of 2

Client Sample ID:	MW-8	Date Sampled:	06/16/16
Lab Sample ID:	JC22494-3	Date Received:	06/17/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A169130.D	1	06/22/16	TK	n/a	n/a	V2A7176
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.8	ug/l	UJ
71-43-2	Benzene	1.2	0.50	0.14	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.22	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.46	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.55	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
74-83-9	Bromomethane	ND	2.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	1.9	ug/l	R
104-51-8	n-Butylbenzene	1.3	2.0	0.28	ug/l	J
135-98-8	sec-Butylbenzene	2.1	2.0	1.0	ug/l	
98-06-6	tert-Butylbenzene	1.2	2.0	0.28	ug/l	J
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.17	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.23	ug/l	
74-87-3	Chloromethane	ND	1.0	0.96	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.18	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.29	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.23	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.21	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.70	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.39	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.36	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

SGS
 8/3/16

Report of Analysis

Client Sample ID:	MW-8	Date Sampled:	06/16/16
Lab Sample ID:	JC22494-3	Date Received:	06/17/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	1.0	0.42	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	0.58	1.0	0.20	ug/l	J
87-68-3	Hexachlorobutadiene	ND	2.0	0.22	ug/l	
98-82-8	Isopropylbenzene	7.3	1.0	0.16	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.28	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.35	ug/l	
91-20-3	Naphthalene	2.9	5.0	0.39	ug/l	J
103-65-1	n-Propylbenzene	9.5	2.0	0.17	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.23	ug/l	
108-88-3	Toluene	0.76	1.0	0.23	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.58	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.75	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.35	2.0	0.26	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	0.96	2.0	0.32	ug/l	J
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
	m,p-Xylene	2.4	1.0	0.42	ug/l	
95-47-6	o-Xylene	0.34	1.0	0.21	ug/l	J
1330-20-7	Xylene (total)	2.7	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	108%		73-122%
2037-26-5	Toluene-D8	101%		84-119%
460-00-4	4-Bromofluorobenzene	102%		78-117%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-8	Date Sampled:	06/16/16
Lab Sample ID:	JC22494-3F	Date Received:	06/17/16
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

4.6
4

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Antimony	< 4.0	4.0	ug/l	2	06/23/16	06/24/16 GT	SW846 6020A ²	SW846 3010A ⁵
Arsenic	< 3.0	3.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Barium	< 200	200	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Beryllium	< 1.0	1.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Cadmium	< 3.0	3.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Calcium	170000	5000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Cobalt	< 50	50	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Copper	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Iron	144	100	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Lead	< 3.0	3.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Magnesium	43000	5000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Manganese	3790	15	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	06/24/16	06/24/16 MS	SW846 7470A ¹	SW846 7470A ⁶
Nickel	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Potassium	< 10000	10000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Selenium	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Silver	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Sodium	105000	10000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Thallium	< 1.0	1.0	ug/l	2	06/23/16	06/24/16 GT	SW846 6020A ²	SW846 3010A ⁵
Vanadium	< 50	50	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Zinc	< 20	20	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴

- (1) Instrument QC Batch: MA39711
- (2) Instrument QC Batch: MA39718
- (3) Instrument QC Batch: MA39737
- (4) Prep QC Batch: MP94513
- (5) Prep QC Batch: MP94513A
- (6) Prep QC Batch: MP94549

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-9	Date Sampled: 06/16/16
Lab Sample ID: JC22494-4	Date Received: 06/17/16
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260C	
Project: Via Verde, 700-730 Brook Avenue, Bronx, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A169136.D	1	06/22/16	TK	n/a	n/a	V2A7176
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.8	ug/l	UJ
71-43-2	Benzene	ND	0.50	0.14	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.22	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.46	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.55	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
74-83-9	Bromomethane	ND	2.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	1.9	ug/l	R
104-51-8	n-Butylbenzene	ND	2.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.17	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.23	ug/l	
74-87-3	Chloromethane	ND	1.0	0.96	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.18	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.29	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.23	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.21	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.70	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.39	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.36	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.7
4

Report of Analysis

Client Sample ID:	MW-9	Date Sampled:	06/16/16
Lab Sample ID:	JC22494-4	Date Received:	06/17/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

4.7
4

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	1.0	0.42	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.22	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.28	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.35	ug/l	
91-20-3	Naphthalene	ND	5.0	0.39	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.17	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.23	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.58	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.75	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.26	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.32	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	

CAS No.	Surrrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	109%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	103%		78-117%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-9	Date Sampled:	06/16/16
Lab Sample ID:	JC22494-4F	Date Received:	06/17/16
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

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Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Antimony	< 4.0	4.0	ug/l	2	06/23/16	06/24/16 GT	SW846 6020A ²	SW846 3010A ⁵
Arsenic	< 3.0	3.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Barium	< 200	200	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Beryllium	< 1.0	1.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Cadmium	< 3.0	3.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Calcium	153000	5000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Cobalt	< 50	50	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Copper	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Iron	< 100	100	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Lead	< 3.0	3.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Magnesium	18600	5000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Manganese	782	15	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	06/24/16	06/24/16 MS	SW846 7470A ¹	SW846 7470A ⁶
Nickel	85.5	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Potassium	12500	10000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Selenium	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Silver	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Sodium	81800	10000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Thallium	< 1.0	1.0	ug/l	2	06/23/16	06/24/16 GT	SW846 6020A ²	SW846 3010A ⁵
Vanadium	< 50	50	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Zinc	< 20	20	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴

- (1) Instrument QC Batch: MA39711
- (2) Instrument QC Batch: MA39718
- (3) Instrument QC Batch: MA39737
- (4) Prep QC Batch: MP94513
- (5) Prep QC Batch: MP94513A
- (6) Prep QC Batch: MP94549

RL = Reporting Limit

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Report of Analysis

Page 1 of 2

Client Sample ID:	MW-XX (MW-8)	Date Sampled:	06/16/16
Lab Sample ID:	JC22494-5	Date Received:	06/17/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A169137.D	1	06/22/16	TK	n/a	n/a	V2A7176
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.8	ug/l	UJ
71-43-2	Benzene	1.2	0.50	0.14	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.22	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.46	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.55	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
74-83-9	Bromomethane	ND	2.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	1.9	ug/l	R
104-51-8	n-Butylbenzene	1.2	2.0	0.28	ug/l	J
135-98-8	sec-Butylbenzene	2.1	2.0	1.0	ug/l	
98-06-6	tert-Butylbenzene	1.2	2.0	0.28	ug/l	J
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.17	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.23	ug/l	
74-87-3	Chloromethane	ND	1.0	0.96	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.18	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.29	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.23	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.21	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.70	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.39	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.36	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-XX (MW-8)	Date Sampled:	06/16/16
Lab Sample ID:	JC22494-5	Date Received:	06/17/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

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VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	1.0	0.42	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	0.52	1.0	0.20	ug/l	J
87-68-3	Hexachlorobutadiene	ND	2.0	0.22	ug/l	
98-82-8	Isopropylbenzene	7.1	1.0	0.16	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.28	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.35	ug/l	
91-20-3	Naphthalene	2.8	5.0	0.39	ug/l	J
103-65-1	n-Propylbenzene	8.7	2.0	0.17	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.23	ug/l	
108-88-3	Toluene	0.72	1.0	0.23	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.58	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.75	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.35	2.0	0.26	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	0.84	2.0	0.32	ug/l	J
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
	m,p-Xylene	2.2	1.0	0.42	ug/l	
95-47-6	o-Xylene	0.34	1.0	0.21	ug/l	J
1330-20-7	Xylene (total)	2.6	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	109%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	104%		78-117%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

John 6/30/16



Report of Analysis

Client Sample ID: MW-XX (MW-8)	Date Sampled: 06/16/16
Lab Sample ID: JC22494-5F	Date Received: 06/17/16
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: Via Verde, 700-730 Brook Avenue, Bronx, NY	

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Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Antimony	< 4.0	4.0	ug/l	2	06/23/16	06/24/16 GT	SW846 6020A ²	SW846 3010A ⁵
Arsenic	< 3.0	3.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Barium	< 200	200	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Beryllium	< 1.0	1.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Cadmium	< 3.0	3.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Calcium	180000	5000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Cobalt	< 50	50	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Copper	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Iron	170	100	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Lead	< 3.0	3.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Magnesium	46000	5000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Manganese	4040	15	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	06/24/16	06/24/16 MS	SW846 7470A ¹	SW846 7470A ⁶
Nickel	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Potassium	< 10000	10000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Selenium	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Silver	< 10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Sodium	113000	10000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Thallium	< 1.0	1.0	ug/l	2	06/23/16	06/24/16 GT	SW846 6020A ²	SW846 3010A ⁵
Vanadium	< 50	50	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Zinc	< 20	20	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴

- (1) Instrument QC Batch: MA39711
- (2) Instrument QC Batch: MA39718
- (3) Instrument QC Batch: MA39737
- (4) Prep QC Batch: MP94513
- (5) Prep QC Batch: MP94513A
- (6) Prep QC Batch: MP94549

RL = Reporting Limit

John
8/3/16



Report of Analysis

Client Sample ID:	FIELD BLANK 6/16/16	Date Sampled:	06/16/16
Lab Sample ID:	JC22494-6	Date Received:	06/17/16
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A169138.D	1	06/22/16	TK	n/a	n/a	V2A7176
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.8	ug/l	UJ
71-43-2	Benzene	ND	0.50	0.14	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.22	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.46	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.55	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
74-83-9	Bromomethane	ND	2.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	1.9	ug/l	R
104-51-8	n-Butylbenzene	ND	2.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.17	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.23	ug/l	
74-87-3	Chloromethane	ND	1.0	0.96	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.18	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.29	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.23	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.21	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.70	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.39	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.36	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.11
4

Report of Analysis

Client Sample ID:	FIELD BLANK 6/16/16	Date Sampled:	06/16/16
Lab Sample ID:	JC22494-6	Date Received:	06/17/16
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

4.11
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VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	1.0	0.42	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.22	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.28	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.35	ug/l	
91-20-3	Naphthalene	ND	5.0	0.39	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.17	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.23	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.58	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.75	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.26	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.32	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	

CAS No.	Surrrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	109%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	105%		78-117%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FIELD BLANK 6/16/16	Date Sampled:	06/16/16
Lab Sample ID:	JC22494-6F	Date Received:	06/17/16
Matrix:	AQ - Field Blank Filtered	Percent Solids:	n/a
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	<200	200	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Antimony	<4.0	4.0	ug/l	2	06/23/16	06/24/16 GT	SW846 6020A ²	SW846 3010A ⁵
Arsenic	<3.0	3.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Barium	<200	200	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Beryllium	<1.0	1.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Cadmium	<3.0	3.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Calcium	<5000	5000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Chromium	<10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Cobalt	<50	50	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Copper	<10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Iron	<100	100	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Lead	<3.0	3.0	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Magnesium	<5000	5000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Manganese	<15	15	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Mercury	<0.20	0.20	ug/l	1	06/24/16	06/24/16 MS	SW846 7470A ¹	SW846 7470A ⁶
Nickel	<10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Potassium	<10000	10000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Selenium	<10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Silver	<10	10	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Sodium	<10000	10000	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Thallium	<1.0	1.0	ug/l	2	06/23/16	06/24/16 GT	SW846 6020A ²	SW846 3010A ⁵
Vanadium	<50	50	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴
Zinc	<20	20	ug/l	1	06/23/16	06/29/16 DE	SW846 6010C ³	SW846 3010A ⁴

- (1) Instrument QC Batch: MA39711
(2) Instrument QC Batch: MA39718
(3) Instrument QC Batch: MA39737
(4) Prep QC Batch: MP94513
(5) Prep QC Batch: MP94513A
(6) Prep QC Batch: MP94549

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	06/16/16
Lab Sample ID:	JC22494-7	Date Received:	06/17/16
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A169139.D	1	06/22/16	TK	n/a	n/a	V2A7176
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.8	ug/l	UT
71-43-2	Benzene	ND	0.50	0.14	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.22	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.46	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.55	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
74-83-9	Bromomethane	ND	2.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	1.9	ug/l	R
104-51-8	n-Butylbenzene	ND	2.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.17	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.23	ug/l	
74-87-3	Chloromethane	ND	1.0	0.96	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.18	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.29	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.23	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.21	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.70	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.39	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.36	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.28	ug/l	

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Signature



Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	06/16/16
Lab Sample ID:	JC22494-7	Date Received:	06/17/16
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Via Verde, 700-730 Brook Avenue, Bronx, NY		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	1.0	0.42	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.22	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	1.0	ug/l	
1634-04-4	Methyl Teri Butyl Ether	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.28	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.35	ug/l	
91-20-3	Naphthalene	ND	5.0	0.39	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.17	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.23	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.58	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.75	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.26	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.32	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	

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