

August 5, 2022

Mr. Scott R. Deyette
Chief, Inspection Unit
New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Western Remedial Action
625 Broadway, 11th Floor
Albany, New York 12233-7014

**East Garden City Former Stewart Avenue Holder Station
Site Management Routine Annual Groundwater Well Sampling Report
Order on Consent – Index No. A2-0552-0606**

Dear Mr. Deyette:

The purpose of this letter is to document the groundwater sampling activities completed by GEI Consultants, Inc., P.C. (GEI) on May 27, 2022, at the East Garden City Former Stewart Avenue Holder Station (the Site) located in Nassau County, New York. A Site Location Map is provided as Figure 1 in Attachment 1 (Site Figures).

The sampling activities discussed below were completed pursuant to the requirements of the New York State Department of Environmental Conservation (NYSDEC) March 2013 Site Management Plan (SMP). The SMP was prepared to document the processes to be followed to monitor and manage residual contamination at the Site, identified during completion of a Site Characterization (SC) investigation at the Site in 2011 by Dvirka & Bartilucci Consulting Engineers and Architects, P.C. (D&B). As detailed in the December 2011 SC Report by D&B, the SC program identified low-level manufactured gas plant (MGP)-related residual contamination and other low-level contaminants (target analyte list [TAL] metals and polychlorinated biphenyls [PCBs]), in surface and subsurface soil at the Site. In addition, elevated concentrations of total cyanide above the NYSDEC Class GA Groundwater Standards and Guidance Values were identified in one monitoring well (EGCMW-06) located in the southern portion of the Site. Site-wide monitoring well locations are depicted on Figure 2.

Based on elevated concentrations of total cyanide detected in groundwater samples collected from monitoring well EGCMW-06 during the SC investigation, the March 2013 SMP prepared by D&B and subsequent final version (D&B – February 2018) for the Site included provisions for the sampling of three groundwater monitoring wells (EGCMW-03, EGCMW-06 and EGCMW-07) for total cyanide analysis on an annual basis for an initial period of three years. Wells EGCMW-03 and EGCMW-07 are located on the downgradient perimeter of the Site. Following the completion of the 2018 sampling event, which represents the fifth sample event completed at the Site, the NYSDEC approved a reduction in sampling frequency to biennial on October 11, 2018.

The following discussion provides a summary of the completed field activities and a detailed evaluation of the groundwater analytical results generated as part of the May 2022 groundwater sampling event.

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Summary of Field Activities

Groundwater sampling activities, utilizing low-flow sampling techniques, were completed on May 27, 2022. Water level measurements were obtained using an electronic water level indicator. The depth to groundwater within each well was measured in reference to the top of the PVC casing in order to calculate the required purge volume. A check-valve and poly tubing was then utilized to purge and sample each well. The tubing was inserted into the well, with the bottom of the tubing placed within the screened zones (15 to 25 feet, 12.5 to 22.5 feet, and 16 to 26 feet below grade at EGCMW-03, EGCMW-06, and EGCMW-07, respectively).

The purge water was monitored for conductivity, dissolved oxygen, pH, temperature, and turbidity utilizing a calibrated Horiba U-52 water quality meter. Results were recorded on Monitoring Well Sample Data Forms provided as Attachment 2. Purging continued until the pH, temperature and conductivity had stabilized to within 10 percent for three consecutive readings, and the minimum purge water volume requirements had been removed from each well.

Samples were transferred directly to the laboratory-supplied sample containers and sent to the analytical laboratory, Eurofins Laboratories, Inc., within 24 hours of sample collection, for total cyanide analysis. Quality control (QC) samples collected during the groundwater sampling event included one matrix spike/matrix spike duplicate (MS/MSD) set.

Findings/Analysis of Analytical Results

Groundwater Flow

Based on the water level measurements, the groundwater elevations ranged from 54.26 feet above mean sea level (amsl) feet below in EGCMW-03, to 54.12 amsl in EGCMW-07. Groundwater flow direction as reported during the 2011 SC investigation is generally southerly.

Analytical Results

The total cyanide analytical results are provided below:

Sample ID Sampling Date Dilution Factor Units	EGCMW-03 7/29/20 1 µg/L	EGCMW-06 7/29/20 10 µg/L	EGCMW-07 7/29/20 1 µg/L	NYSDEC Class GA Standard or Guidance Value µg/L
Total Cyanide	54	940	7.6	200

Note:

µg/L = micrograms per liter

Bold text denotes an exceedance of the Class GA Groundwater Standard.

Similar to previous results, exceedances were limited to monitoring well EGCMW-06. The total cyanide concentration of 940 µg/L in EGCMW-06 was above the Class GA Standard of 200 µg/L. The total cyanide concentrations detected in EGCMW-06 have varied since sampling began from a high of 1,590 µg/L in September 2011 to a low of 271 µg/L in April 2014 but have been relatively stable in recent events.

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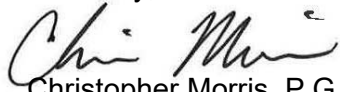
As shown above, total cyanide was detected below the Class GA Standard in wells EGCMW-03 and EGCMW-07, at concentrations of 54 µg/L and 7.6 µg/L, respectively. Total cyanide concentrations at EGCMW-03 had been variable in recent sampling events. The total cyanide concentration in EGCMW-07 decreased relative to 2020 but remained generally similar to historical results.

Sample locations and the May 2022 total cyanide concentrations in groundwater are depicted on Figure 2. The laboratory data package and a data usability summary report (DUSR) are provided in Attachment 3. Historical total cyanide concentrations are provided in Attachment 4.

Based on the relative consistency of the results, it is proposed that the sampling schedule remain biennial.

Please do not hesitate to contact me at 516-220-4363, if you have any questions and/or comments.

Sincerely,



Christopher Morris, P.G.

On behalf of
Michael Quinlan

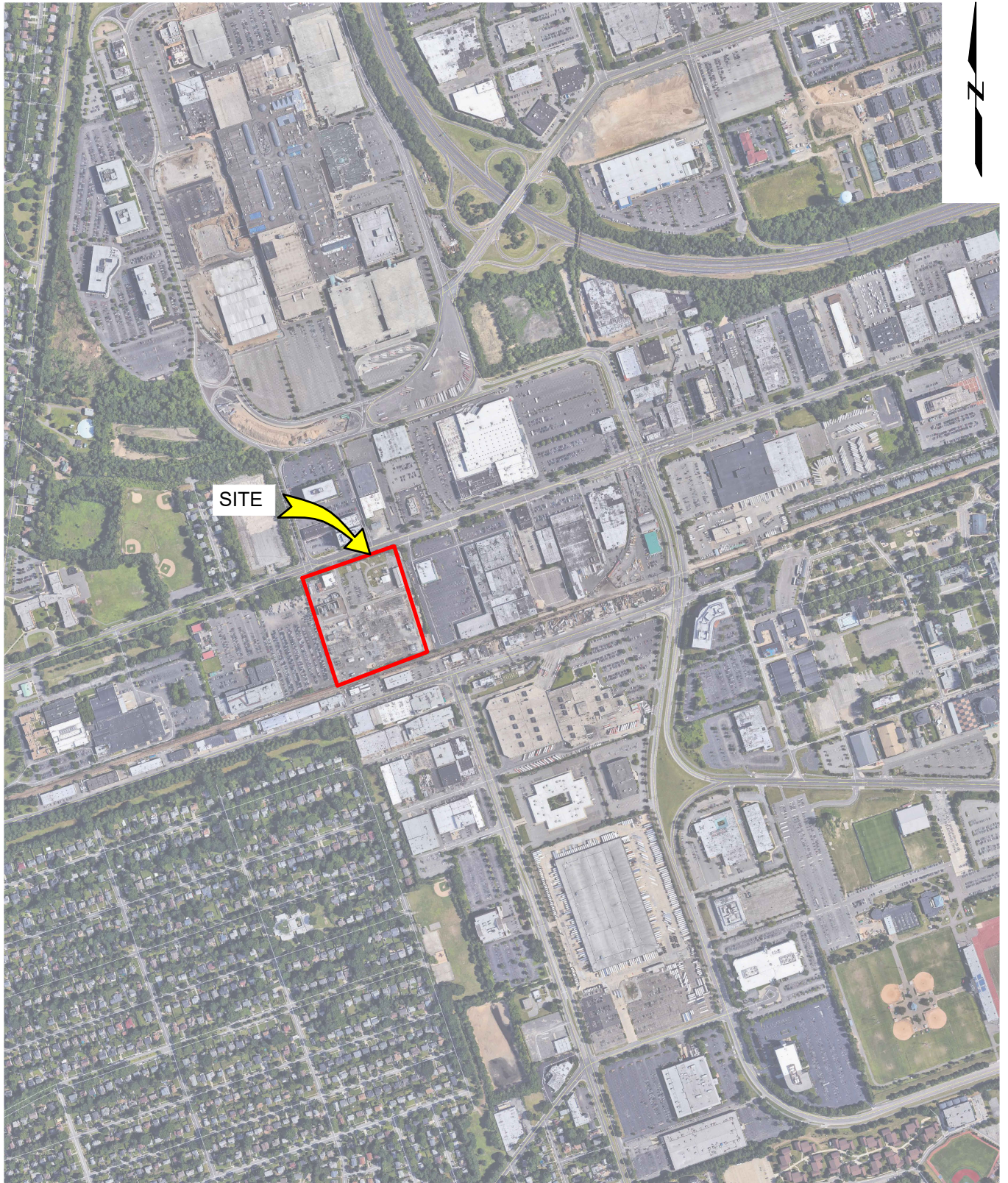
Enclosures

cc: T. Johansen, GEI
J. Mitchell, National Grid

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ATTACHMENT 1

SITE FIGURES



SOURCE:

MAP EXTRACTED FROM GOOGLE MAPS

EAST GARDEN CITY FORMER STEWART AVENUE
HOLDER STATION
EAST GARDEN CITY, NEW YORK

NATIONAL GRID
GARDEN CITY, NEW YORK

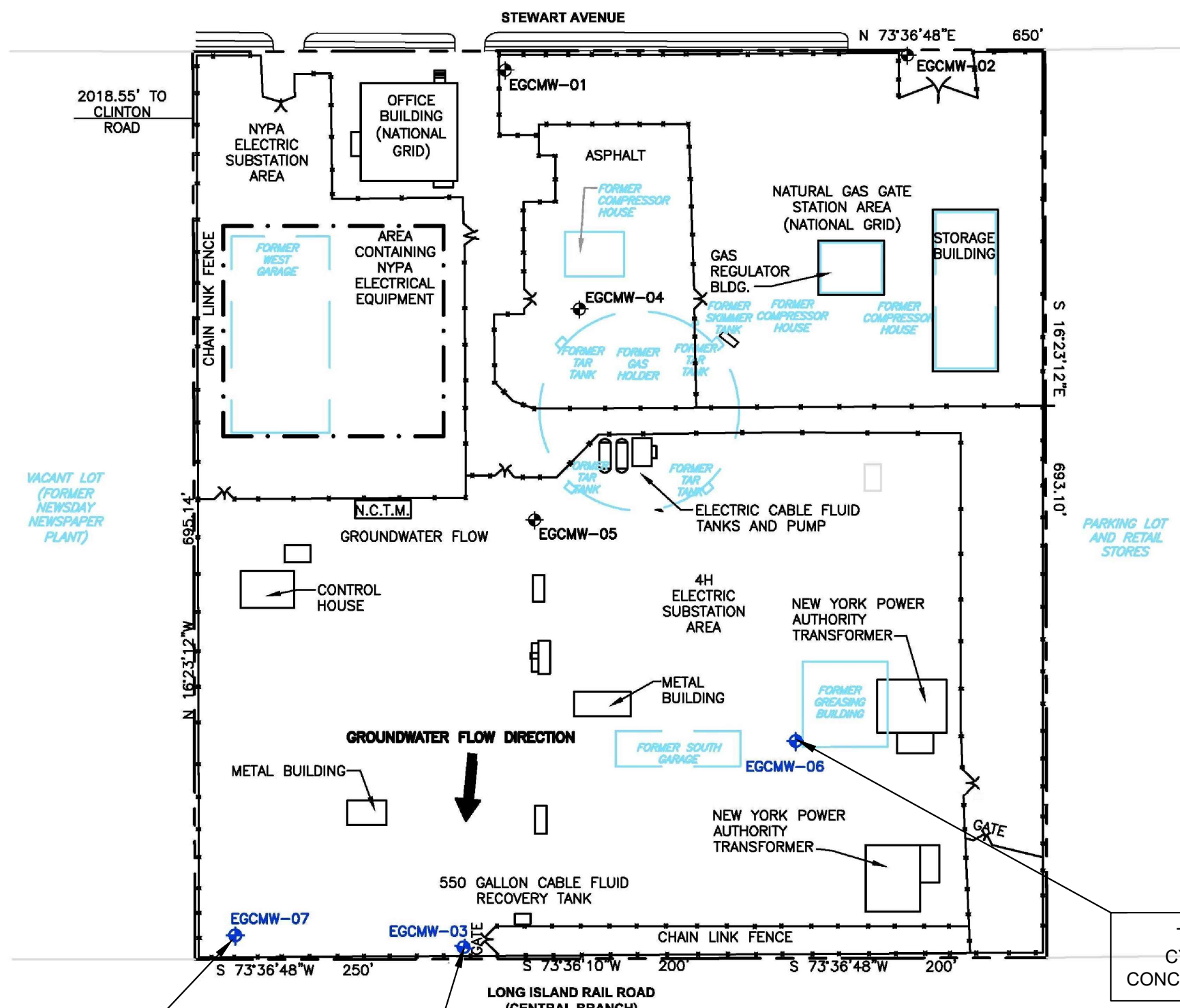


Project 1905774

SITE LOCATION MAP

July 2022

Fig. 1



LEGEND

- EGCMW-03 GROUNDWATER MONITORING WELL SAMPLED ON MAY 7, 2018
- EGCMW-01 GROUNDWATER MONITORING WELL (NOT SAMPLED)
- SITE FENCING
- LOCATION OF FORMER GAS HOLDER SITE STRUCTURE

NOTE:
HIGHLIGHTED CONTAMINANT CONCENTRATIONS DENOTE AN EXCEEDANCE OF THE CLASS GA STANDARD FOR TOTAL CYANIDE OF 200 UG/L.
ALL CONCENTRATIONS PROVIDED IN MICROGRAMS PER LITER (UG/L).

TOTAL CYANIDE CONCENTRATION	7.6 UG/L	TOTAL CYANIDE CONCENTRATION	54 UG/L
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TOTAL CYANIDE CONCENTRATION	940 UG/L
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EAST GARDEN CITY FORMER STEWART AVENUE HOLDER STATION EAST GARDEN CITY, NEW YORK NATIONAL GRID GARDEN CITY, NEW YORK		SAMPLE LOCATION AND TOTAL CYANIDE CONCENTRATION SUMMARY MAP	Project 1905774	July 2022	Fig. 2

ATTACHMENT 2

SAMPLING FORMS

Monitoring Well Sample Data Form

Project: National Grid - Bay Shore - EGCWell ID: EGGW-03Sample Date: 05/27/22Total Well Depth (Field Recording) 27.23'Total Well Depth (On Tracking Sheet) 27'Well Diameter: 3/4" 1" (2") 4"Sampling Crew: ~~Gregory Vouzianis~~ K. DonaldsonPurging Method: ~~Peristaltic Pump~~ Check-ValveSampling Method: Low FlowSample Analysis: ~~BTEX/PAH/2-Methylnaphthalene~~ Cyanide 902BDepth to Water
(from top of casing): 20.53'Pump Intake Depth
(Mid-Point of Screen Zone): 22.23Purge Time: Start: 0920

Finish: _____

Sample Time: Start: 0950

Finish: _____

Purge Data

Sample Time	Flow Rate (lpm/gpm)	Volume Purged (liters/gals.)	pH (std. Units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temperature (Cel.)	Salinity (%)	ORP (mV)	Comments/Observations
920	0.4	Initial	6.95	0.220	0.0	7.73	21.72	0.1	291	* Cloudy/no odor
925	0.4	2	6.88	0.217	0.0	7.05	16.60	0.1	306	
930	0.4	4	6.47	0.206	0.0	7.00	17.06	0.1	329	
935	0.4	6	6.93	0.208	507	6.68	17.46	0.1	340	
940	0.4	8	6.92	0.217	1000	6.51	16.93	0.1	318	
945	0.4	10	6.84	0.216	884	6.41	16.50	0.1	321	

Monitoring Well Sample Data Form

Project: National Grid - Bay Shore - EGCWell ID: EGCW-07Sample Date: 05/27/22Total Well Depth (Field Recording) 29.53'Total Well Depth (On Tracking Sheet) 28'Well Diameter: 3/4" 1" 2" 4"Sampling Crew: Gregory Vouzianas K. DondosPurging Method: Peristaltic Pump Check valveSampling Method: Low FlowSample Analysis: BTEX/PAH+2-Methylnaphthalene CyanideDepth to Water
(from top of casing): 19.93'Pump Intake Depth
(Mid-Point of Screen Zone): 24.53'Purge Time: Start: 1030

Finish: _____

Sample Time: Start: 1100

Finish: _____

Purge Data

Sample Time	Flow Rate (lpm/gpm)	Volume Purged (liters/gals.)	pH (std. Units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temperature (Cel.)	Salinity (%)	ORP (mV)	Comments/Observations
1030	0.4	Initial	6.57	0.093	0.0	9.59	16.82	0.04	272	*cloudy/no odor
1035	0.4	2	6.55	0.094	0.0	8.51	16.61	0.04	284	
1040	0.4	4	6.51	0.062	0.0	7.77	16.50	0.04	292	
1045	0.4	6	6.53	0.098	0.0	7.36	16.24	0.04	299	
1050	0.4	8	6.51	0.097	0.0	7.11	16.14	0.04	305	
1055	0.4	10	6.45	0.096	0.0	6.77	16.23	0.04	306	

Monitoring Well Sample Data Form

Project: National Grid - Bay Shore - ^{East Golden City}Well ID: EGCMW-06Sample Date: 05/27/22Total Well Depth (Field Recording) 26.15'Total Well Depth (On Tracking Sheet) 24.50'Well Diameter: 3/4" 1" 2" 4"Sampling Crew: Gregory Vouzianas Kobi DonaldsonPurging Method: Peristaltic Pump Check valveSampling Method: Low FlowSample Analysis: BTEX/PAH+2-Methylnaphthalene ^(KSP) CyanideDepth to Water
(from top of casing): 18.11'Pump Intake Depth
(Mid-Point of Screen Zone): 21.15'Purge Time: Start: 1135

Finish: _____

Sample Time: Start: 1205

Finish: _____

Purge Data

Sample Time	Flow Rate (lpm/gpm)	Volume Purged (liters/gals.)	pH (std. Units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temperature (Cel.)	Salinity (%)	ORP (mV)	Comments/Observations
1135	0.4	Initial	6.29	0.262	0.0	10.01	15.08	0.12	369	*cloudy/no odor
1140	0.4	2	6.32	0.255	0.0	6.34	15.11	0.12	373	
1145	0.4	4	6.14	0.238	0.0	5.00	15.43	0.12	374	
1150	0.4	6	6.21	0.257	0.0	4.89	15.25	0.12	372	
1155	0.4	8	6.27	0.254	0.0	4.79	15.40	0.12	373	
1200	0.4	10	6.37	0.257	0.0	4.75	15.49	0.12	371	

ATTACHMENT 3

LABORATORY DATA AND DATA USABILITY SUMMARY REPORT

Site: Downstate OMM East Garden City
Laboratory: Eurofins, Edison, NJ
Report No.: 460-259014
Reviewer: Lorie MacKinnon/GEI Consultants
Date: June 13, 2022

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
EGCMW-03	460-259014-01	Cyanide
EGCMW-06	460-259014-02	Cyanide
EGCMW-07	460-259014-03	Cyanide
DUP-01	460-259014-04	Cyanide

Associated QC Samples:

Field Duplicate Pair: EGCMW-07/DUP-01

The above-listed groundwater samples were collected on May 27, 2022 and were analyzed for total cyanide by SW-846 method 9012B.

The data validation was performed based on the USEPA Region 2 Standard Operating Procedure (SOP) HW-3c Cyanide Data Validation, Revision 1, (September 2016), as well as by the method referenced by the data package and professional and technical judgment.

The data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Initial and Continuing Calibrations
- Blanks
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Duplicate Results
- Field Duplicate Results
- Laboratory Control Sample (LCS)/LCS Duplicate (LCSD) Results
- Quantitation Limits
- Sample Quantitation and Compound Identification

All results appear usable as reported or usable with minor qualification due to uncertainty for levels below the reporting limit. These results were considered valid; even though some were qualified as discussed below.

The validation findings were based on the following information.

Data Completeness

The data package was found to be complete.

Site: East Garden City
Report Number: 460-259014
Date: June 13, 2022

Holding Times and Sample Preservation

All criteria were met.

Initial and Continuing Calibrations

All criteria were met.

Blanks

Contamination was not detected in the associated method blank.

MS/MSD Results

MS/MSD analyses were performed on sample EGCMW-03 for cyanide. All recovery and precision criteria were met.

Laboratory Duplicate Results

MSD analysis was performed in lieu of the laboratory duplicate analysis.

LCS Results

All recovery criteria were met.

Field Duplicate Results

Samples EGCMW-07 and DUP-01 were submitted as the field duplicate pair with this sample group. The following table summarizes the RPD of the detected analyte, which was within the acceptance criteria.

Analyte	EGCMW-07 (mg/L)	DUP-01 (mg/L)	RPD (%)
Benzene	0.0076	0.0069	9.7
NC – Not calculable Criteria: When both results are $\geq 5x$ the RL, RPDs must be $< 30\%$. When results are $< 5x$ the RL, professional judgment was used to qualify results in which the absolute difference between the original and field duplicate was $> 2XRL$			

Quantitation Limits

Results were reported which were below the reporting limit (RL)/quantitation limit (QL) and above the method detection limit (MDL). These results were qualified as estimated (J) by the laboratory.

Site: East Garden City
Report Number: 460-259014
Date: June 13, 2022

A 10-fold dilution was performed on sample EGCMW-06 to bring the cyanide level within the calibration limit.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- JN - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) based on an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Client Sample Results

Client: GEI Consultants, Inc.

Project/Site: National Grid-Downstate East Garden City

Job ID: 460-259014-1

Client Sample ID: EGCMW-03

Date Collected: 05/27/22 09:50

Date Received: 05/27/22 19:00

Lab Sample ID: 460-259014-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.054		0.010	0.0040	mg/L		06/03/22 10:13	06/03/22 14:47	1

Client Sample ID: EGCMW-06

Date Collected: 05/27/22 12:05

Date Received: 05/27/22 19:00

Lab Sample ID: 460-259014-2

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.94		0.10	0.040	mg/L		06/03/22 10:13	06/03/22 15:21	10

Client Sample ID: EGCMW-07

Date Collected: 05/27/22 11:00

Date Received: 05/27/22 19:00

Lab Sample ID: 460-259014-3

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0076	J	0.010	0.0040	mg/L		06/03/22 10:13	06/03/22 14:54	1

Client Sample ID: DUP-01

Date Collected: 05/27/22 00:00

Date Received: 05/27/22 19:00

Lab Sample ID: 460-259014-4

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0069	J	0.010	0.0040	mg/L		06/03/22 10:13	06/03/22 14:55	1

Eurofins Edison

TestAmerica New York City

47-32 32nd Place

Suite 1141

Long Island City, NY 11101-2425

phone 347.507.0579 fax

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☒ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc.

Client Contact GEI Consultants Inc. P.C. 1000 New York Avenue, Huntington Station, NY 11746 (631) 760-9300 Phone (631) 760-9301 FAX Project Name: National Grid Downstate Site: East Garden City P.O.# 1905774-2.3		Project Manager: Chris Morris Tel/Fax: (631) 759-2967		Site Contact: Tom Johansen Lab Contact: Melissa Haas Carrier: Test America		COC No: 1 of 1 COCs Sampler: For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.: 259014			
Analysis Turnaround Time ☒ CALENDAR DAYS ☐ WORKING DAYS TAT if different from Below: standard ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Filtered Sample (Y/N) Perform MS/MSD (Y/N) Total Cyanide 9012B		 460-259014 Chain of Custody		Sample Specific Notes: 1 2 3 4 5 6			
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Total Cyanide 9012B	Sample Specific Notes
EGCMW-03	5/21/22	0750	G	GW	3		X		
EGCMW-06	5/21/22	1105	G	GW	1		X		
EGCMW-07	5/21/22	1100	G	GW	1		X		
DUP-01	5/21/22				1		X		
FB-052722	5/21/22	1215			1				
TB-057222	5/21/22								
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other						1			
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months			
Special Instructions/QC Requirements & Comments: CAT B Report									
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temp. (°C): Obs'd:		Cor'd:		Therm ID No.:	
Relinquished by:		Company: GEI Consultants Inc. P.C.		Date/Time:		Received by:		Date/Time:	
Relinquished by:		Company:		Date/Time:		Received by:		Date/Time:	
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Date/Time:	

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6/6/2022

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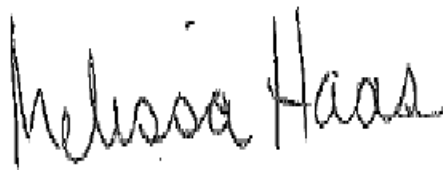
ANALYTICAL REPORT

Job Number: 460-259014-1

Job Description: National Grid-Downstate East Garden City

For:

GEI Consultants, Inc.
1000 New York Avenue
Huntington Station, NY 11746
Attention: Christopher Morris



Approved for release.
Melissa Haas
Senior Project Manager
6/6/2022 4:19 PM

Melissa Haas, Senior Project Manager
777 New Durham Road, Edison, NJ, 08817
(203)308-0880
Melissa.Haas@et.eurofinsus.com
06/06/2022

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing Northeast, LLC Edison and its client. All questions regarding this report should be directed to the Eurofins Environment Testing Northeast, LLC Edison Project Manager or designee who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager. This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Eurofins Edison

777 New Durham Road, Edison, NJ 08817

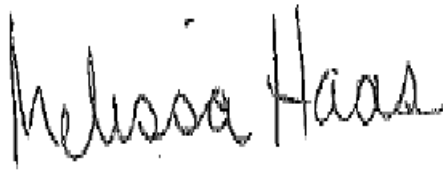
Tel (732) 549-3900 Fax (732) 549-3679 www.EurofinsUS.com



Job Number: 460-259014-1

Job Description: National Grid-Downstate East Garden City

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

A handwritten signature in black ink that reads "Melissa Haas". The signature is written in a cursive style with a horizontal line underneath it.

Approved for release.
Melissa Haas
Senior Project Manager
6/6/2022 4:19 PM

Melissa Haas

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CASE NARRATIVE

Client: GEI Consultants, Inc.

Project: National Grid-Downstate East Garden City

Report Number: 460-259014-1

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

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

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

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

RECEIPT

The samples were received on 05/27/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.4 C.

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

TOTAL CYANIDE

Samples EGCMW-03 (460-259014-1), EGCMW-06 (460-259014-2), EGCMW-07 (460-259014-3) and DUP-01 (460-259014-4) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared and analyzed on 06/03/2022.

Sample EGCMW-06 (460-259014-2)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the cyanide analysis.

All quality control parameters were within the acceptance limits.

Sample Summary

Client: GEI Consultants, Inc.

Job ID: 460-259014-1

Project/Site: National Grid-Downstate East Garden City

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-259014-1	EGCMW-03	Water	05/27/22 09:50	05/27/22 19:00
460-259014-2	EGCMW-06	Water	05/27/22 12:05	05/27/22 19:00
460-259014-3	EGCMW-07	Water	05/27/22 11:00	05/27/22 19:00
460-259014-4	DUP-01	Water	05/27/22 00:00	05/27/22 19:00

Detection Summary

Client: GEI Consultants, Inc.

Job ID: 460-259014-1

Project/Site: National Grid-Downstate East Garden City

Client Sample ID: EGCMW-03

Lab Sample ID: 460-259014-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Cyanide, Total	0.054		0.010	0.0040	mg/L	1			9012B	Total/NA

Client Sample ID: EGCMW-06

Lab Sample ID: 460-259014-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Cyanide, Total	0.94		0.10	0.040	mg/L	10			9012B	Total/NA

Client Sample ID: EGCMW-07

Lab Sample ID: 460-259014-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Cyanide, Total	0.0076	J	0.010	0.0040	mg/L	1			9012B	Total/NA

Client Sample ID: DUP-01

Lab Sample ID: 460-259014-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Cyanide, Total	0.0069	J	0.010	0.0040	mg/L	1			9012B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Edison

Method Summary

Client: GEI Consultants, Inc.

Job ID: 460-259014-1

Project/Site: National Grid-Downstate East Garden City

Method	Method Description	Protocol	Laboratory
9012B	Cyanide, Total and/or Amenable	SW846	TAL EDI
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL EDI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: National Grid-Downstate East Garden City

Job ID: 460-259014-1

Client Sample ID: EGCMW-03

Date Collected: 05/27/22 09:50

Date Received: 05/27/22 19:00

Lab Sample ID: 460-259014-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.054		0.010	0.0040	mg/L		06/03/22 10:13	06/03/22 14:47	1

Client Sample ID: EGCMW-06

Date Collected: 05/27/22 12:05

Date Received: 05/27/22 19:00

Lab Sample ID: 460-259014-2

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.94		0.10	0.040	mg/L		06/03/22 10:13	06/03/22 15:21	10

Client Sample ID: EGCMW-07

Date Collected: 05/27/22 11:00

Date Received: 05/27/22 19:00

Lab Sample ID: 460-259014-3

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0076	J	0.010	0.0040	mg/L		06/03/22 10:13	06/03/22 14:54	1

Client Sample ID: DUP-01

Date Collected: 05/27/22 00:00

Date Received: 05/27/22 19:00

Lab Sample ID: 460-259014-4

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0069	J	0.010	0.0040	mg/L		06/03/22 10:13	06/03/22 14:55	1

QC Sample Results

Client: GEI Consultants, Inc.

Job ID: 460-259014-1

Project/Site: National Grid-Downstate East Garden City

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MRL 460-847974/1-A

Matrix: Water

Analysis Batch: 848055

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 847974

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.0100	0.0109		mg/L		109	50 - 150

Lab Sample ID: MB 460-848002/1-A

Matrix: Water

Analysis Batch: 848055

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 848002

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0040	mg/L		06/03/22 10:13	06/03/22 14:41	1

Lab Sample ID: LCS 460-848002/2-A

Matrix: Water

Analysis Batch: 848055

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 848002

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.100	0.100		mg/L		100	85 - 115

Lab Sample ID: 460-259014-1 MS

Matrix: Water

Analysis Batch: 848055

Client Sample ID: EGCMW-03

Prep Type: Total/NA

Prep Batch: 848002

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.054		0.200	0.254		mg/L		100	90 - 110

Lab Sample ID: 460-259014-1 MSD

Matrix: Water

Analysis Batch: 848055

Client Sample ID: EGCMW-03

Prep Type: Total/NA

Prep Batch: 848002

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	0.054		0.200	0.256		mg/L		101	90 - 110	1	35

Definitions/Glossary

Client: GEI Consultants, Inc.

Job ID: 460-259014-1

Project/Site: National Grid-Downstate East Garden City

Qualifiers

General Chemistry

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: GEI Consultants, Inc.

Job ID: 460-259014-1

Project/Site: National Grid-Downstate East Garden City

General Chemistry

Prep Batch: 847974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 460-847974/1-A	Lab Control Sample	Total/NA	Water	9012B	

Prep Batch: 848002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-259014-1	EGCMW-03	Total/NA	Water	9012B	
460-259014-2	EGCMW-06	Total/NA	Water	9012B	
460-259014-3	EGCMW-07	Total/NA	Water	9012B	
460-259014-4	DUP-01	Total/NA	Water	9012B	
MB 460-848002/1-A	Method Blank	Total/NA	Water	9012B	
LCS 460-848002/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-259014-1 MS	EGCMW-03	Total/NA	Water	9012B	
460-259014-1 MSD	EGCMW-03	Total/NA	Water	9012B	

Analysis Batch: 848055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-259014-1	EGCMW-03	Total/NA	Water	9012B	848002
460-259014-2	EGCMW-06	Total/NA	Water	9012B	848002
460-259014-3	EGCMW-07	Total/NA	Water	9012B	848002
460-259014-4	DUP-01	Total/NA	Water	9012B	848002
MB 460-848002/1-A	Method Blank	Total/NA	Water	9012B	848002
LCS 460-848002/2-A	Lab Control Sample	Total/NA	Water	9012B	848002
MRL 460-847974/1-A	Lab Control Sample	Total/NA	Water	9012B	847974
460-259014-1 MS	EGCMW-03	Total/NA	Water	9012B	848002
460-259014-1 MSD	EGCMW-03	Total/NA	Water	9012B	848002

Lab Chronicle

Client: GEI Consultants, Inc.
Project/Site: National Grid-Downstate East Garden City

Job ID: 460-259014-1

Client Sample ID: EGCMW-03

Lab Sample ID: 460-259014-1

Date Collected: 05/27/22 09:50

Matrix: Water

Date Received: 05/27/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			848002	06/03/22 10:13	IAA	TAL EDI
Total/NA	Analysis	9012B		1	848055	06/03/22 14:47	HTV	TAL EDI

Client Sample ID: EGCMW-06

Lab Sample ID: 460-259014-2

Date Collected: 05/27/22 12:05

Matrix: Water

Date Received: 05/27/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			848002	06/03/22 10:13	IAA	TAL EDI
Total/NA	Analysis	9012B		10	848055	06/03/22 15:21	HTV	TAL EDI

Client Sample ID: EGCMW-07

Lab Sample ID: 460-259014-3

Date Collected: 05/27/22 11:00

Matrix: Water

Date Received: 05/27/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			848002	06/03/22 10:13	IAA	TAL EDI
Total/NA	Analysis	9012B		1	848055	06/03/22 14:54	HTV	TAL EDI

Client Sample ID: DUP-01

Lab Sample ID: 460-259014-4

Date Collected: 05/27/22 00:00

Matrix: Water

Date Received: 05/27/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			848002	06/03/22 10:13	IAA	TAL EDI
Total/NA	Analysis	9012B		1	848055	06/03/22 14:55	HTV	TAL EDI

Laboratory References:

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: GEI Consultants, Inc.

Job ID: 460-259014-1

Project/Site: National Grid-Downstate East Garden City

Laboratory: Eurofins Edison

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-23

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Edison Job Number: 460-259014-1

SDG No.: _____

Project: National Grid-Downstate East Garden City

Client Sample ID	Lab Sample ID
<u>EGCMW-03</u>	<u>460-259014-1</u>
<u>EGCMW-06</u>	<u>460-259014-2</u>
<u>EGCMW-07</u>	<u>460-259014-3</u>
<u>DUP-01</u>	<u>460-259014-4</u>

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EGCMW-03
Lab Name: Eurofins Edison
SDG ID.:
Matrix: Water
Reporting Basis: WET

Lab Sample ID: 460-259014-1
Job No.: 460-259014-1
Date Sampled: 05/27/2022 09:50
Date Received: 05/27/2022 19:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	0.054	0.010	0.0040	mg/L			1	9012B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EGCMW-06

Lab Sample ID: 460-259014-2

Lab Name: Eurofins Edison

Job No.: 460-259014-1

SDG ID.:

Matrix: Water

Date Sampled: 05/27/2022 12:05

Reporting Basis: WET

Date Received: 05/27/2022 19:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	0.94	0.10	0.040	mg/L			10	9012B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EGCMW-07
Lab Name: Eurofins Edison
SDG ID.:
Matrix: Water
Reporting Basis: WET

Lab Sample ID: 460-259014-3
Job No.: 460-259014-1
Date Sampled: 05/27/2022 11:00
Date Received: 05/27/2022 19:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	0.0076	0.010	0.0040	mg/L	J		1	9012B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: DUP-01

Lab Sample ID: 460-259014-4

Lab Name: Eurofins Edison

Job No.: 460-259014-1

SDG ID.:

Matrix: Water

Date Sampled: 05/27/2022 00:00

Reporting Basis: WET

Date Received: 05/27/2022 19:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	0.0069	0.010	0.0040	mg/L	J		1	9012B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Edison Job No.: 460-259014-1
 SDG No.: _____
 Analyst: HTV Batch Start Date: 06/03/2022
 Reporting Units: mg/L Analytical Batch No.: 848055

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	14:33	Cyanide, Total	0.200	0.200	100	85-115		WTcn6ppm_ICV_00821
9	ICB	14:34	Cyanide, Total	0.010				U	
11	CCV	14:38	Cyanide, Total	0.200	0.200	100	85-115		WTcn6ppm_Pri_00838
12	CCB	14:41	Cyanide, Total	0.010				U	
23	CCV	14:50	Cyanide, Total	0.200	0.200	100	85-115		WTcn6ppm_Pri_00838
24	CCB	14:53	Cyanide, Total	0.010				U	
35	CCV	15:02	Cyanide, Total	0.200	0.200	100	85-115		WTcn6ppm_Pri_00838
36	CCB	15:05	Cyanide, Total	0.010				U	
47	CCV	15:17	Cyanide, Total	0.195	0.200	98	85-115		WTcn6ppm_Pri_00838
48	CCB	15:19	Cyanide, Total	0.010				U	
51	CCV	15:22	Cyanide, Total	0.197	0.200	99	85-115		WTcn6ppm_Pri_00838
52	CCB	15:25	Cyanide, Total	0.010				U	

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

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Edison Job No.: 460-259014-1

SDG No.: _____

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 848055 Date: 06/03/2022 14:41 Prep Batch: 848002 Date: 06/03/2022 10:13							
9012B	MB 460-848002/1-A	Cyanide, Total	0.010	U	mg/L	0.010	1

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Edison Job No.: 460-259014-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 848055 Date: 06/03/2022 14:47 Prep Batch: 848002 Date: 06/03/2022 10:13											
9012B	460-259014-1	Cyanide, Total	0.054		mg/L						
9012B	460-259014-1	Cyanide, Total	0.254		mg/L	0.200	100	90-110			
MS											

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

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Edison Job No.: 460-259014-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 848055 Date: 06/03/2022 14:48 Prep Batch: 848002 Date: 06/03/2022 10:13											
9012B	460-259014-1	Cyanide, Total	0.256		mg/L	0.200	101	90-110	1	35	
MSD											

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

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins Edison Job No.: 460-259014-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 848055 Date: 06/03/2022 14:42 Prep Batch: 848002 Date: 06/03/2022 10:13											
LCS Source: WTcnCmplex-IM_00861											
9012B	LCS 460-848002/2-A	Cyanide, Total	0.100		mg/L	0.100	100	85-115			

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

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins Edison Job No.: 460-259014-1
SDG No.: _____
Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 848055 Date: 06/03/2022 14:37 Prep Batch: 847974 Date: 06/03/2022 08:03											
LCS Source: WTcn6ppm_Pri_00838											
9012B	MRL 460-847974/1- A	Cyanide, Total	0.0109		mg/L	0.0100	109	50-150			

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

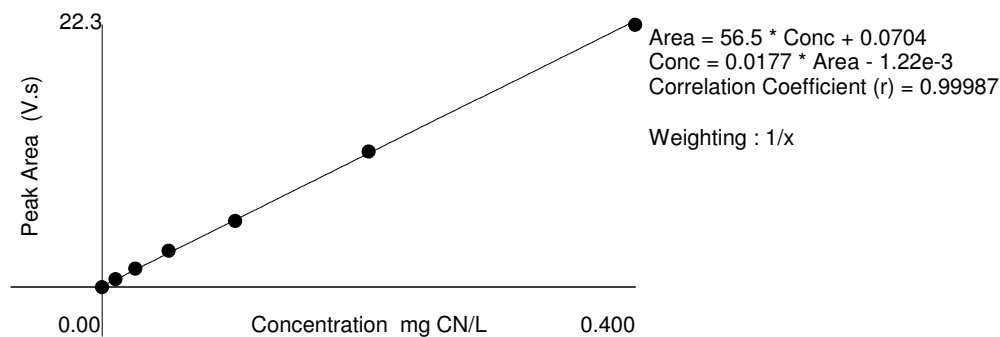
Original Run Filename: OM_6-3-2022_02-26-41PM.OMN Created: 6/3/2022 2:26:41 PM
 Original Run Author's Signature: [EdiLachat]
 Current Run Filename: OM_6-3-2022_02-26-41PM.OMN Last Modified: 6/3/2022 3:27:03 PM
 Current Run Author's Signature: [EdiLachat]
 Description: Default New Run

Sample	Rep.	Cup No.	Channel 1 Cyanide		Detection Time
			Conc. (mg CN/L)	Area (V.s)	
IC 460-847974/16-A	1	1	0.00	-0.0180	6/3/2022@2:27:41 PM
IC 460-847974/17-A	1	2	0.0100	0.663	6/3/2022@2:28:34 PM
IC 460-847974/18-A	1	3	0.0250	1.57	6/3/2022@2:29:26 PM
IC 460-847974/19-A	1	4	0.0500	3.09	6/3/2022@2:30:19 PM
IC 460-847974/20-A	1	5	0.100	5.62	6/3/2022@2:31:11 PM
IC 460-847974/21-A	1	6	0.200	11.5	6/3/2022@2:32:04 PM
IC 460-847974/22-A	1	7	0.400	22.3	6/3/2022@2:32:56 PM

Table : 1 (Cyanide)

	Known Conc. (mg CN/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg CN/L)	Detection Date	Detection Time
1	0.400	1	22.3	1.28	0.0	1.5	0.393	6/3/2022	2:32:56 PM
2	0.200	1	11.5	0.666	0.0	-1.2	0.202	6/3/2022	2:32:04 PM
3	0.100	1	5.62	0.326	0.0	1.7	0.0982	6/3/2022	2:31:11 PM
4	0.0500	1	3.09	0.179	0.0	-6.8	0.0535	6/3/2022	2:30:19 PM
5	0.0250	1	1.57	0.0905	0.0	-5.6	0.0265	6/3/2022	2:29:26 PM
6	0.0100	1	0.663	0.0378	0.0	-4.3	0.0105	6/3/2022	2:28:34 PM
7	0.00	1	-0.0180	-1.35e-3			-1.54e-3	6/3/2022	2:27:41 PM

Figure : 1 (Cyanide)



9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Edison Job Number: 460-259014-1
SDG Number: _____
Matrix: Water Instrument ID: Lachat3
Method: 9012B MDL Date: 04/20/2018 11:15
Prep Method: 9012B

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Cyanide, Total		0.01	0.004

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Edison Job Number: 460-259014-1
SDG Number: _____
Matrix: Water Instrument ID: Lachat3
Method: 9012B XMDL Date: 04/20/2018 11:15

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Cyanide, Total		0.01	0.004

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Edison Job No.: 460-259014-1

SDG No.: _____

Prep Method: 9012B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MRL 460-847974/1-A	06/03/2022 08:03	847974		6.0	6.0

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Edison Job No.: 460-259014-1

SDG No.: _____

Prep Method: 9012B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 460-848002/1-A	06/03/2022 10:13	848002		6.0	6.0
LCS 460-848002/2-A	06/03/2022 10:13	848002		6.0	6.0
460-259014-1	06/03/2022 10:13	848002		6.0	6.0
460-259014-1 MS	06/03/2022 10:13	848002		6.0	6.0
460-259014-1 MSD	06/03/2022 10:13	848002		6.0	6.0
460-259014-2	06/03/2022 10:13	848002		6.0	6.0
460-259014-3	06/03/2022 10:13	848002		6.0	6.0
460-259014-4	06/03/2022 10:13	848002		6.0	6.0

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Edison Job No.: 460-259014-1

SDG No.: _____

Instrument ID: Lachat3 Method: 9012B

Start Date: 06/03/2022 14:27 End Date: 06/03/2022 15:25

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				C N																	
IC 460-847974/16-A			14:27	X																	
IC 460-847974/17-A			14:28	X																	
IC 460-847974/18-A			14:29	X																	
IC 460-847974/19-A			14:30	X																	
IC 460-847974/20-A			14:31	X																	
IC 460-847974/21-A			14:32	X																	
IC 460-847974/22-A			14:32	X																	
ICV 460-847974/26-A	1		14:33	X																	
ICB 460-848055/9	1		14:34	X																	
MRL 460-847974/1-A	1	T	14:37	X																	
CCV 460-847974/25-A	1		14:38	X																	
CCB 460-848055/12	1		14:41	X																	
MB 460-848002/1-A	1	T	14:41	X																	
LCS 460-848002/2-A	1	T	14:42	X																	
ZZZZZZ			14:43																		
ZZZZZZ			14:44																		
ZZZZZZ			14:45																		
ZZZZZZ			14:46																		
460-259014-1	1	T	14:47	X																	
460-259014-1 MS	1	T	14:47	X																	
460-259014-1 MSD	1	T	14:48	X																	
ZZZZZZ			14:49																		
CCV 460-847974/25-A	1		14:50	X																	
CCB 460-848055/24	1		14:53	X																	
460-259014-3	1	T	14:54	X																	
460-259014-4	1	T	14:55	X																	
ZZZZZZ			14:55																		
ZZZZZZ			14:56																		
ZZZZZZ			14:57																		
ZZZZZZ			14:58																		
ZZZZZZ			14:59																		
ZZZZZZ			15:00																		
ZZZZZZ			15:01																		
ZZZZZZ			15:02																		
CCV 460-847974/25-A	1		15:02	X																	
CCB 460-848055/36	1		15:05	X																	
ZZZZZZ			15:06																		
ZZZZZZ			15:07																		
ZZZZZZ			15:08																		
ZZZZZZ			15:09																		
ZZZZZZ			15:10																		
ZZZZZZ			15:10																		

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Edison Job No.: 460-259014-1

SDG No.: _____

Instrument ID: Lachat3 Method: 9012B

Start Date: 06/03/2022 14:27 End Date: 06/03/2022 15:25

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				C N																	
ZZZZZZ			15:11																		
ZZZZZZ			15:12																		
ZZZZZZ			15:13																		
ZZZZZZ			15:14																		
CCV 460-847974/25-A	1		15:17	X																	
CCB 460-848055/48	1		15:19	X																	
ZZZZZZ			15:20																		
460-259014-2	10	T	15:21	X																	
CCV 460-847974/25-A	1		15:22	X																	
CCB 460-848055/52	1		15:25	X																	

Prep Types

T = Total/NA

Original Run Filename: OM_6-3-2022_02-26-41PM.OMN Created: 6/3/2022 2:26:41 PM

Original Run Author's Signature: [EdiLachat]

Current Run Filename: OM_6-3-2022_02-26-41PM.OMN Last Modified: 6/3/2022 3:27:03 PM

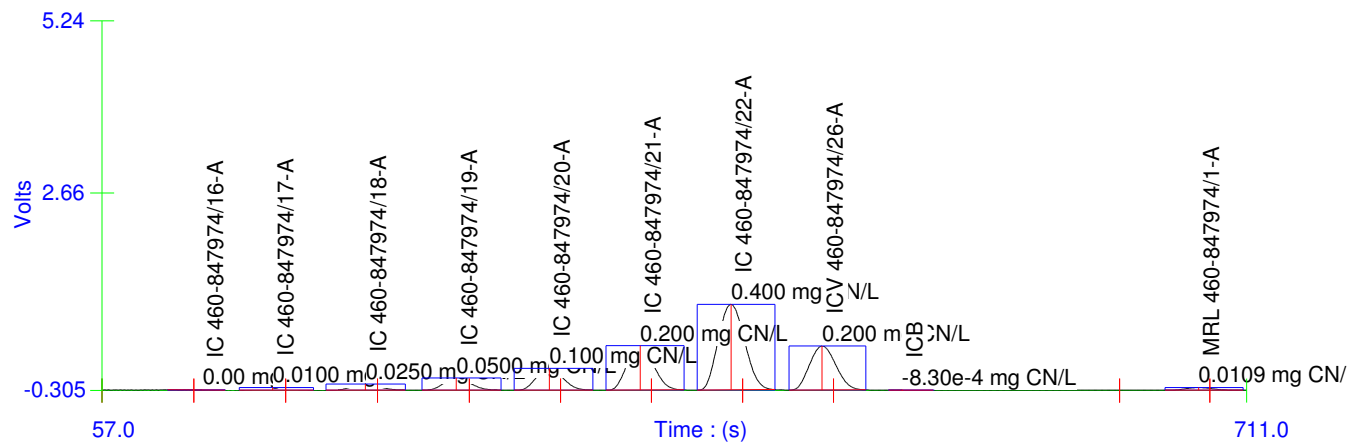
Current Run Author's Signature: [EdiLachat]

Description: Default New Run

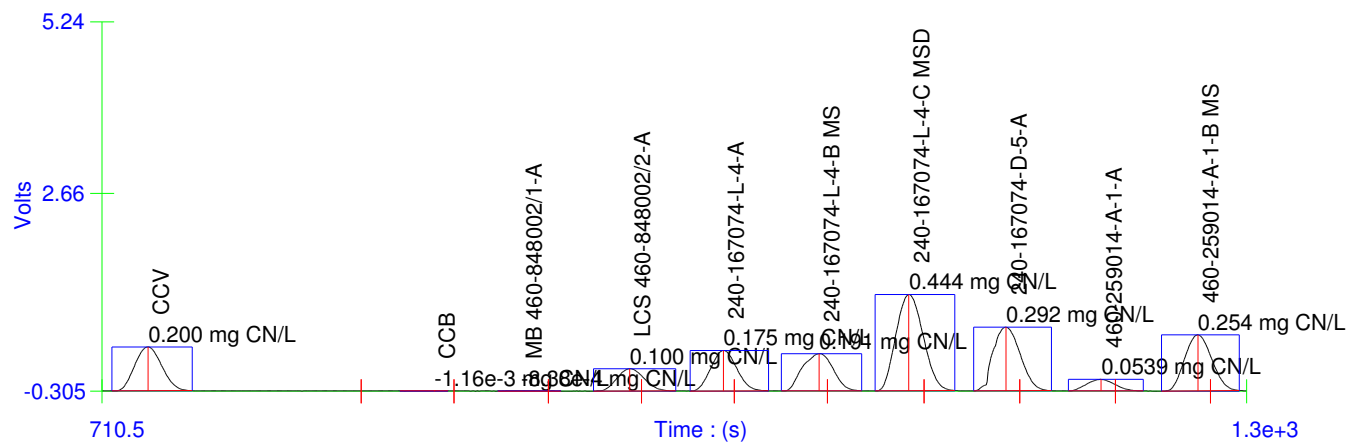
Sample	Rep.	Cup No.	Channel 1		Detection Time
			Cyanide		
			Conc. (mg CN/L)	Area (V.s)	
IC 460-847974/16-A	1	1	0.00	-0.0180	6/3/2022@2:27:41 PM
IC 460-847974/17-A	1	2	0.0100	0.663	6/3/2022@2:28:34 PM
IC 460-847974/18-A	1	3	0.0250	1.57	6/3/2022@2:29:26 PM
IC 460-847974/19-A	1	4	0.0500	3.09	6/3/2022@2:30:19 PM
IC 460-847974/20-A	1	5	0.100	5.62	6/3/2022@2:31:11 PM
IC 460-847974/21-A	1	6	0.200	11.5	6/3/2022@2:32:04 PM
IC 460-847974/22-A	1	7	0.400	22.3	6/3/2022@2:32:56 PM
ICV 460-847974/26-A	1	8	0.200	11.4	6/3/2022@2:33:48 PM
Calibration: Table/Fig. : 1					
ICB	1	9	-8.30e-4	0.0221	6/3/2022@2:34:40 PM
MRL 460-847974/1-A	1	10	0.0109	0.686	6/3/2022@2:37:24 PM
CCV	1	S8	0.200	11.4	6/3/2022@2:38:16 PM
Known Conc:			0.200		
CCB	1	S9	-1.16e-3	3.21e-3	6/3/2022@2:41:00 PM
Known Conc:			0.00		
MB 460-848002/1-A	1	11	-8.38e-4	0.0216	6/3/2022@2:41:51 PM
LCS 460-848002/2-A	1	12	0.100	5.74	6/3/2022@2:42:43 PM
240-167074-L-4-A	1	13	0.175	9.95	6/3/2022@2:43:35 PM
240-167074-L-4-B MS	1	14	0.191	10.9	6/3/2022@2:44:27 PM
240-167074-L-4-C MSD	1	15	0.444	25.2	6/3/2022@2:45:18 PM
240-167074-D-5-A	1	16	0.292	16.6	6/3/2022@2:46:12 PM
460-259014-A-1-A	1	17	0.0539	3.12	6/3/2022@2:47:05 PM
460-259014-A-1-B MS	1	18	0.254	14.4	6/3/2022@2:47:58 PM
460-259014-A-1-C MSD	1	19	0.256	14.6	6/3/2022@2:48:50 PM
460-259014-A-2-A	1	20	0.938	53.1	6/3/2022@2:49:43 PM
CCV	1	S8	0.200	11.4	6/3/2022@2:50:35 PM
Known Conc:			0.200		
CCB	1	S9	-4.03e-4	0.0462	6/3/2022@2:53:19 PM
Known Conc:			0.00		
460-259014-A-3-A	1	21	7.57e-3	0.497	6/3/2022@2:54:12 PM
460-259014-A-4-A	1	22	6.91e-3	0.460	6/3/2022@2:55:04 PM
460-259087-H-2-A	1	23	0.0929	5.32	6/3/2022@2:55:57 PM
460-258699-E-1-A	1	24	1.33e-3	0.144	6/3/2022@2:56:49 PM
460-258717-C-1-A	1	25	1.48e-4	0.0774	6/3/2022@2:57:41 PM
460-258695-E-1-A	1	26	1.03e-3	0.128	6/3/2022@2:58:33 PM
MB 460-847974/2-A	1	27	-2.32e-5	0.0677	6/3/2022@2:59:25 PM
LCSSRM 460-847974/3-A@20	1	28	0.0864	4.95	6/3/2022@3:00:17 PM
460-258553-E-5-D	1	29	4.69e-3	0.334	6/3/2022@3:01:08 PM
460-258553-E-5-E MS	1	30	0.155	8.83	6/3/2022@3:02:00 PM
CCV	1	S8	0.200	11.4	6/3/2022@3:02:52 PM
Known Conc:			0.200		
CCB	1	S9	-7.23e-4	0.0281	6/3/2022@3:05:36 PM
Known Conc:			0.00		
460-258553-E-5-F MSD	1	31	0.154	8.80	6/3/2022@3:06:29 PM
460-258751-F-2-F	1	32	4.47e-4	0.0943	6/3/2022@3:07:23 PM
460-259003-F-3-G	1	33	5.29e-3	0.368	6/3/2022@3:08:16 PM
460-259003-F-4-F	1	34	7.84e-3	0.512	6/3/2022@3:09:09 PM
460-259146-A-1-J	1	35	3.60e-3	0.272	6/3/2022@3:10:02 PM
460-259146-A-2-J	1	36	3.44e-3	0.263	6/3/2022@3:10:54 PM
460-259146-A-3-J	1	37	3.73e-3	0.280	6/3/2022@3:11:47 PM
460-259147-A-1-J	1	38	8.68e-3	0.560	6/3/2022@3:12:39 PM
460-259147-A-2-J	1	39	0.0112	0.701	6/3/2022@3:13:31 PM
460-259147-A-3-J	1	40	0.0111	0.697	6/3/2022@3:14:23 PM
CCV	1	S8	0.195	11.1	6/3/2022@3:17:07 PM
Known Conc:			0.200		
CCB	1	S9	-7.05e-4	0.0291	6/3/2022@3:19:51 PM
Known Conc:			0.00		
240-167074-L-4-C MSD@2	1	41	0.215	12.2	6/3/2022@3:20:43 PM

460-259014-A-2-A@10	1	42	0.0935	5.36	6/3/2022@3:21:35 PM
CCV	1	S8	0.197	11.2	6/3/2022@3:22:27 PM
	Known Conc:		0.200		
CCB	1	S9	-7.91e-4	0.0243	6/3/2022@3:25:11 PM
	Known Conc:		0.00		

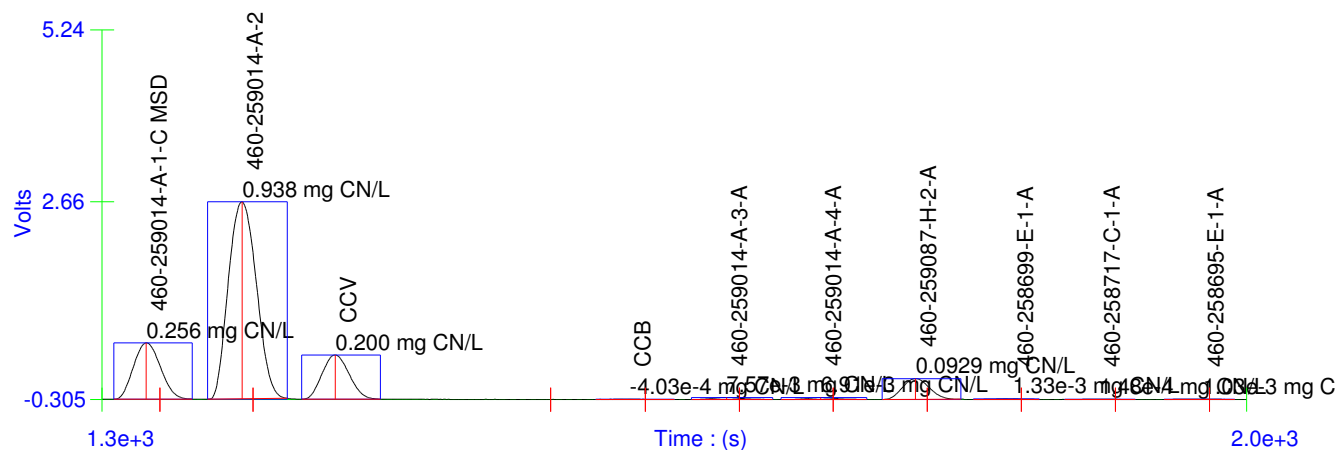
Channel 1 (Cyanide) - Set: 1 / 6



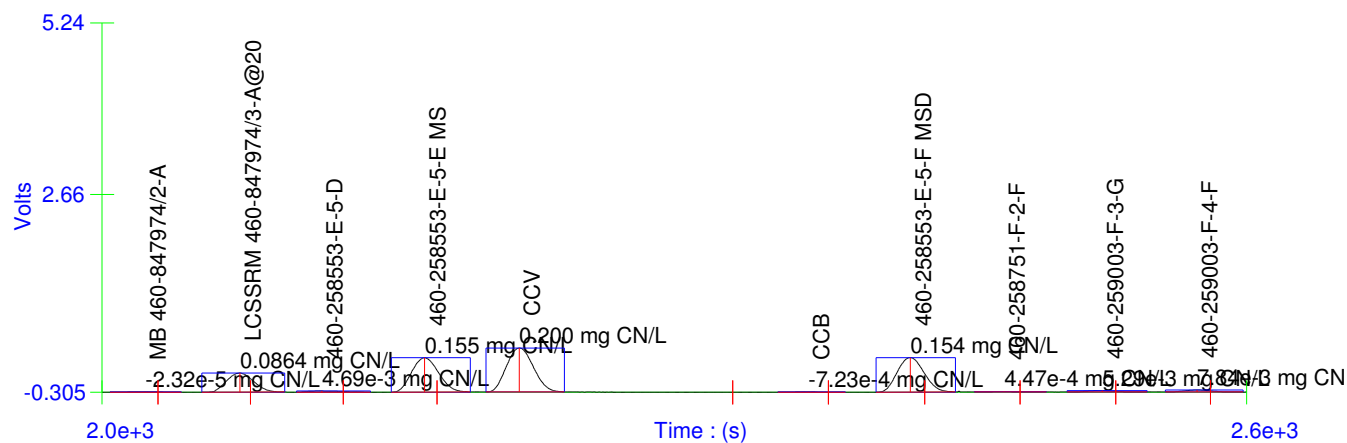
Channel 1 (Cyanide) - Set: 2 / 6



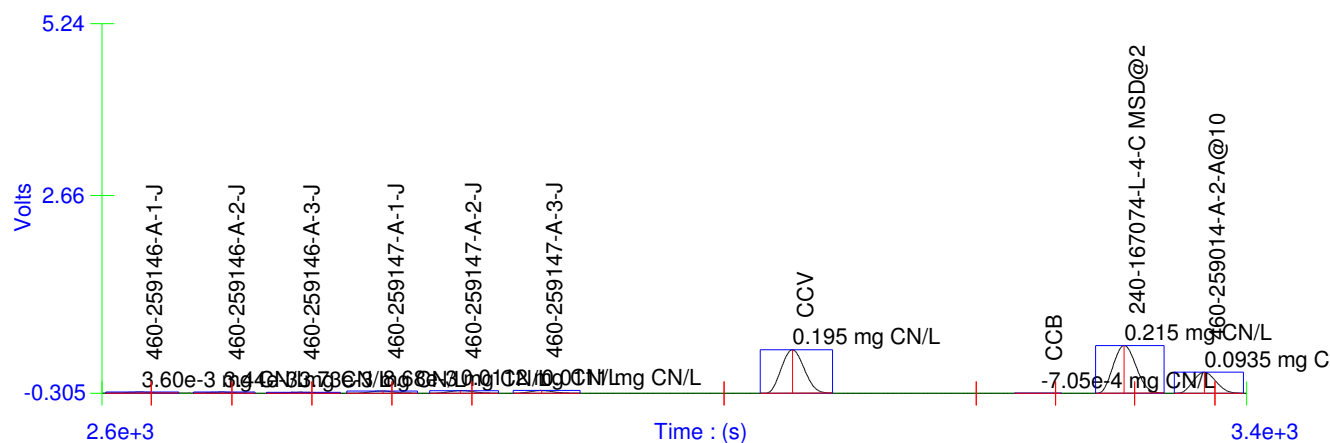
Channel 1 (Cyanide) - Set: 3 / 6



Channel 1 (Cyanide) - Set: 4 / 6



Channel 1 (Cyanide) - Set: 5 / 6



Channel 1 (Cyanide) - Set: 6 / 6

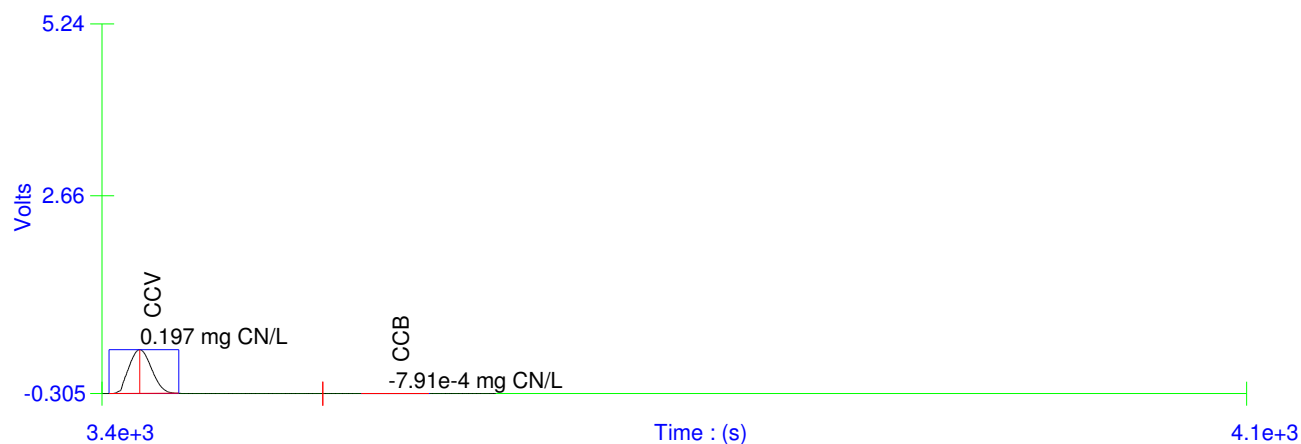
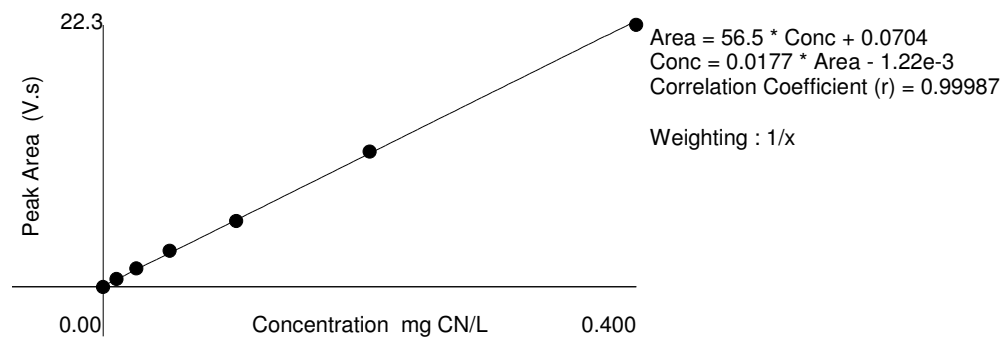


Table : 1 (Cyanide)

	Known Conc. (mg CN/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg CN/L)	Detection Date	Detection Time
1	0.400	1	22.3	1.28	0.0	1.5	0.393	6/3/2022	2:32:56 PM
2	0.200	1	11.5	0.666	0.0	-1.2	0.202	6/3/2022	2:32:04 PM
3	0.100	1	5.62	0.326	0.0	1.7	0.0982	6/3/2022	2:31:11 PM
4	0.0500	1	3.09	0.179	0.0	-6.8	0.0535	6/3/2022	2:30:19 PM
5	0.0250	1	1.57	0.0905	0.0	-5.6	0.0265	6/3/2022	2:29:26 PM
6	0.0100	1	0.663	0.0378	0.0	-4.3	0.0105	6/3/2022	2:28:34 PM
7	0.00	1	-0.0180	-1.35e-3			-1.54e-3	6/3/2022	2:27:41 PM

Figure : 1 (Cyanide)



GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Edison Job No.: 460-259014-1

SDG No.: _____

Batch Number: 847974 Batch Start Date: 06/03/22 06:30 Batch Analyst: Afremova, IzabellaBatch Method: 9012B Batch End Date: 06/03/22 10:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WTcn6ppm_ICV 00821	WTcn6ppm_Pri 00838		
MRL 460-847974/1		9012B, 9012B		6.0 mL	6.0 mL		0.01 mL		
CCV 460-847974/25		9012B, 9012B		6.0 mL	6.0 mL		0.2 mL		
ICV 460-847974/26		9012B, 9012B		6.0 mL	6.0 mL	0.2 mL			

Batch Notes	
Pipette/Syringe/Dispenser ID	P-40; P-41; P-80
Distillation Temperature	120 Degrees C
Sodium Hydroxide ID	# C - 2303-21 exp.06/06/22
Sulfamic Acid ID	# C - 0241-22 exp.10./05/22
Sulfuric Acid Reagent ID Number	# C - 2315-21 exp.06/12/22
Distillation Start Time	06/03/2022 09:30
Distillation End Time	06/03/2022 09:00

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Edison Job No.: 460-259014-1

SDG No.: _____

Batch Number: 848002 Batch Start Date: 06/03/22 09:00 Batch Analyst: Afremova, IzabellaBatch Method: 9012B Batch End Date: 06/03/22 11:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	SulfideCheck	ChlorineCheck	DistillpHCheck	WTcnCmplex-IM 00861
MB 460-848002/1		9012B, 9012B		6.0 mL	6.0 mL	N	N	PH>12	
LCS 460-848002/2		9012B, 9012B		6.0 mL	6.0 mL	N	N	PH>12	0.1 mL
460-259014-A-1	EGCMW-03	9012B, 9012B	T	6.0 mL	6.0 mL	N	N	PH>12	
460-259014-A-1 MS	EGCMW-03	9012B, 9012B	T	6.0 mL	6.0 mL	N	N	PH>12	0.2 mL
460-259014-A-1 MSD	EGCMW-03	9012B, 9012B	T	6.0 mL	6.0 mL	N	N	PH>12	0.2 mL
460-259014-A-2	EGCMW-06	9012B, 9012B	T	6.0 mL	6.0 mL	N	N	PH>12	
460-259014-A-3	EGCMW-07	9012B, 9012B	T	6.0 mL	6.0 mL	N	N	PH>12	
460-259014-A-4	DUP-01	9012B, 9012B	T	6.0 mL	6.0 mL	N	N	PH>12	

Batch Notes	
Pipette/Syringe/Dispenser ID	P-40; P-41; P-80
Distillation Temperature	120 Degrees C
Sodium Hydroxide ID	# C - 2303-21 exp.06/06/22
Sulfamic Acid ID	# C - 0241-22 exp.10./05/22
Sulfuric Acid Reagent ID Number	# C - 2315-21 exp.06/12/22
Distillation Start Time	06/03/2022 10:30
Distillation End Time	06/03/2022 11:00

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

30 34 7 Rep

259014

9

RAW		CORRECTED	
Cooler #1:	30	30	30
Cooler #2:	30	30	30
Cooler #3:	30	30	30

RAW		CORRECTED	
Cooler #4:	30	30	30
Cooler #5:	30	30	30
Cooler #6:	30	30	30

RAW		CORRECTED	
Cooler #7:	30	30	30
Cooler #8:	30	30	30
Cooler #9:	30	30	30

[illegible]

If pH adjustments are required record the information below:

Sample No(s). adjusted:

Preservative Name/Conc.:

Volume of Preservative used (ml):

Lot # of Preservative(s):

Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

* *Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials:

Date: 5 27 26

Login Sample Receipt Checklist

Client: GEI Consultants, Inc.

Job Number: 460-259014-1

Login Number: 259014
List Number: 1
Creator: Casallas, Angela C

List Source: Eurofins Edison

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

Detected	Exceedance	Analyte	CAS#	Units	Specific Method	Reports To	Basis	Matrix	Project Name	Client Name	Lab	Lab Section	NY-TOGs_Tbl1_GA-WtrClass_GuidValues_June2004	NY-TOGs_Tbl1_GA-WtrClass_StdValues_June2004	460-259014-1 EGCMW-03 5/27/2022	460-259014-2 EGCMW-06 5/27/2022	460-259014-3 EGCMW-07 5/27/2022	460-259014-4 DUP-01 5/27/2022				
													Result	Qualifier	Result	Qualifier	Result	Qualifier				
Y	Y	Cyanide, Total	57-12-5	mg/L	Cyanide, Total andor	UL	Total	Water	National Grid-Downstate	GEl Consultants, Inc. -	Eurofins Edison	General Chemistry		0.2	0.054		0.94		0.0076	J	0.0069	J

*Qualifier
J - The reported value is estimated as-is is between the lab's lower detection limit and reporting limit.
*Units
mg/L - Milligrams/Liter
*Reports To
UL - Upper Limit

ATTACHMENT 4

HISTORICAL TOTAL CYANIDE CONCENTRATIONS

NATIONAL GRID
EAST GARDEN CITY FORMER STEWART AVENUE HOLDER STATION
HISTORICAL TOTAL CYANIDE GROUNDWATER RESULTS

Sample ID	EGCMW-03	EGCMW-06	EGCMW-07
Units	µg/L	µg/L	µg/L
Sample Date			
June 2011	14	972 D	17
September 2011	NA	1,590	27
April 2014	63	271	7
May 2015	74	1,020	8
June 2016	113	1,110 D	4 J
May 2017	27	850 D	6
May 2018	19	1,200	25
July 2020	110	1,000	13
May 2022	54	940	7.6

Notes:

µg/L: micrograms per liter

J: Estimated value

D: Reported from reanalysis at secondary dilution

Shaded values exceed the NYSDEC Class GA Groundwater
Standard for cyanide of 200 µg/L