Jonathan Mitchell
Project Manager
Site Investigation & Remediation

nationalgrid

October 2, 2020

Mr. R. Scott 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 July 29, 2020 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). It is noted that previous sampling events were typically conducted earlier in the year; however, due to the work restrictions imposed by New York State due to COVID-19, the 2020 sampling event was delayed.

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 (polycyclic aromatic hydrocarbons [PAHs], 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-01 and EGCMW-03 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 at National Grid's request.

175 East Old Country Road, Hicksville, NY 11801
T: 516.545.3551 ■ F: 516.545.2582 ■ Jonathan.Mitchell@nationalgrid.com ■ www.nationalgrid.com

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 July 2020 groundwater sampling event.

Summary of Field Activities

Groundwater sampling activities, utilizing low-flow sampling techniques, were completed on July 29, 2020. 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, within the area of the well screens (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 generated from the wells was contained in a labeled 55-gallon drum for subsequent proper off-site disposal by National Grid.

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, TestAmerica 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 55.76 feet above mean sea level (amsl) feet below grade near the north end of the Site, to 54.12 amsl near the south end of the Site. The elevations measured are in general accordance with the generally southerly groundwater flow direction reported during the 2011 SC investigation.

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	110	**1,000**	13	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 1,000 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.

As shown above, total cyanide was detected below the Class GA Standard in wells EGCMW-03 and EGCMW-07, at concentrations of 110 µg/L and 13 µg/L, respectively. Total cyanide concentrations at EGCMW-03 had been generally decreasing in recent sampling events prior to an increase in 2020. The July 2020 concentration in EGCMW-03 remained within the historical concentration range. The total cyanide concentration in EGCMW-07 decreased relative to 2018 but remained generally similar to historical results.

Sample locations and the July 2020 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) 545-2568, if you have any questions and/or comments.

Sincerely,

Christopher Morris, P.G.
On behalf of
Sarah Aldridge, P.G.

Enclosures

cc: M. Quinlan, GEI

I:\Admin\Projects\Environmental\National Grid\OMM Downstate\13 Sites\East Garden City\Site Reports\Biennial GW Summary Report 2020\letter.A2-0552-0606.2020-10-02.BiennialGWSummary.docx

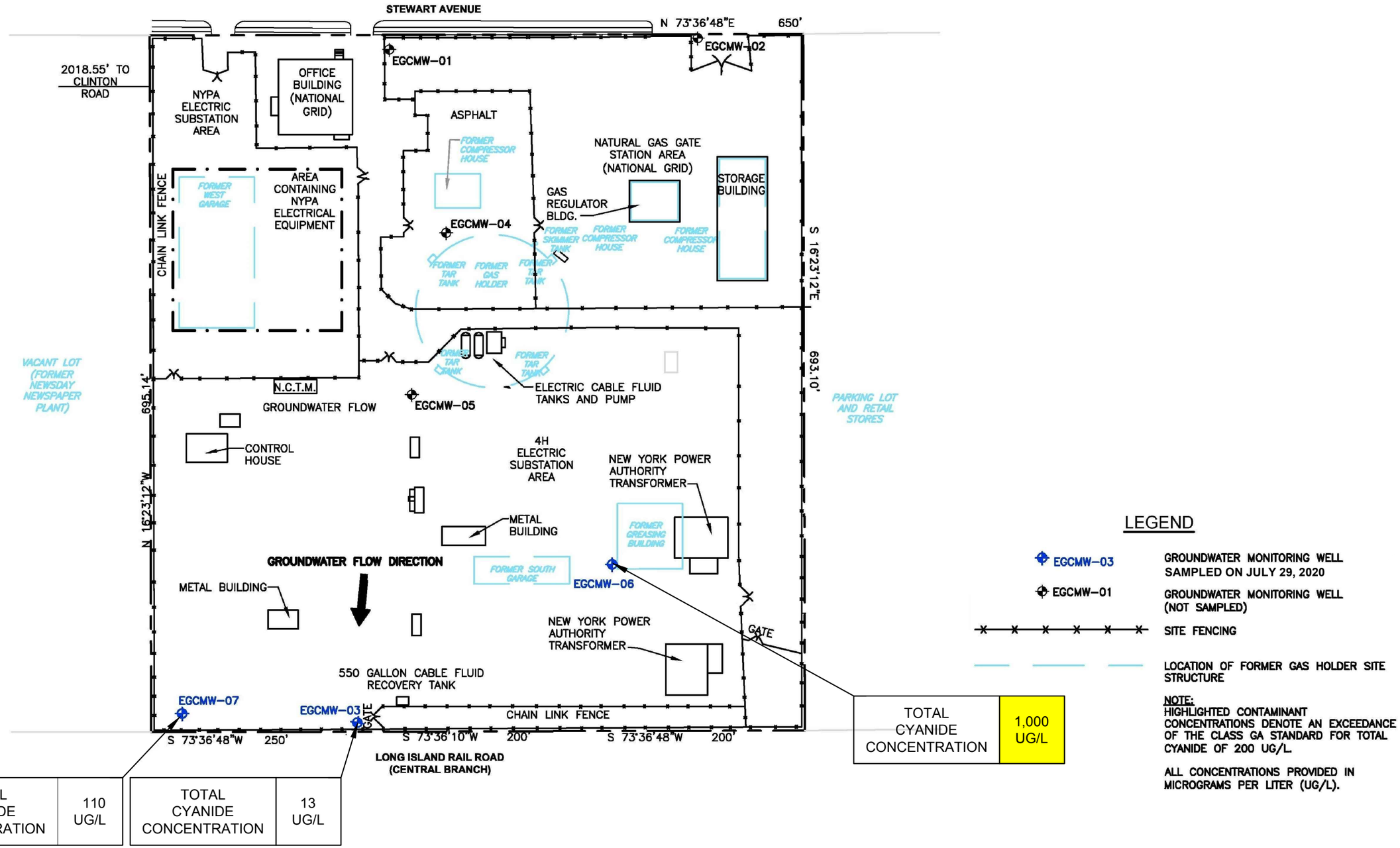
ATTACHMENT 1

SITE FIGURES

SOURCE:
MAP EXTRACTED FROM GOOGLE MAPS

EAST GARDEN CITY FORMER STEWART AVENUE HOLDER STATION EAST GARDEN CITY, NEW YORK	GEI Consultants	SITE LOCATION MAP
NATIONAL GRID GARDEN CITY, NEW YORK	Project 1905774	SEPTEMBER 2020 Fig. 1

\\hts1v-fs01\ I:\Tech\Environmental Projects\National Grid\OMM Downstate\13 Sites\East Garden City\CAD\Figures\1702897 - FIG 2.dwg - 6/6/2018



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

NATIONAL GRID
GARDEN CITY, NEW YORK

GEI Consultants

SAMPLE LOCATION AND TOTAL CYANIDE CONCENTRATION SUMMARY MAP

Project 1905774 | SEPTEMBER 2020 | Fig. 2

\\hts1v-fs01\ I:\Tech\Environmental Projects\National Grid\OMM Downstate\13 Sites\East Garden City\CAD\Figures\1702897 - FIG 1.dwg - 6/6/2018

ATTACHMENT 2

SAMPLING FORMS

Monitoring Well Sample Data Form

Project: National Grid - East Garden City

Well ID: EGCMW-03

Sample Date: 7/29/20

Total Well Depth (from top of casing): 27.00 TD-27.10

Depth to Water (from top of casing): 22.33

Pump Intake Depth (Mid-Point of Screen Zone): 23.10

Well Diameter: 3/4" (1") 2" 4"

Purge Time: Start: 815 Finish: 840

Sampling Crew: Robert Sakalauskas

Purging Method: ~~Peristaltic Pump~~ CHECK VALVE

Sample Time: Start: 845 Finish:

Sampling Method: Low Flow

Sample Analysis: Cyanide 9012B

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
815	0.4	Initial	6.40	.244	46.5	6.68	24.16	0.1	235	Well Headspace PID = 4.7
820		2	6.71	221	38.9	6.69	20.74	0.1	235	
825		4	6.71	.216	.570	5.94	20.66	0.1	254	
830		6	6.72	.219	609	6.27	18.76	0.1	260	
835		8	6.81	219	.537	6.13	18.92	0.1	258	DWL 22.33
840		10	6.83	222	275	6.32	18.57	0.1	257	
										Cloudy
										NO ODOR

Monitoring Well Sample Data Form

Project: National Grid - East Garden City

Well ID: EGCMW-06

Sample Date: 7/29/20

Total Well Depth (from top of casing): 25.50 TD - 25.26

Depth to Water (from top of casing): 19.90

Pump Intake Depth (Mid-Point of Screen Zone): 20.26

Well Diameter: 3/4" (1") 2" 4"

Purge Time: Start: 915 Finish: 940

Sampling Crew: Robert Sakalauskas

Purging Method: ~~Peristaltic Pump~~ CHECK VALVE

Sample Time: Start: 945 Finish:

Sampling Method: Low Flow

Sample Analysis: Cyanide 9012B

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
915	0.4	Initial	7.00	451	800<	4.94	23.04	0.2	234	Well Headspace PID = 0.4
920		2	6.95	417	800<	4.71	18.53	0.2	262	
925		4	7.01	421	800<	4.50	18.71	0.2	265	
930		6	7.00	419	800<	4.44	17.95	0.2	270	
935		8	6.98	427	800<	4.47	17.91	0.2	270	
940		10	6.96	429	800<	4.53	17.37	0.2	267	DWL= 19.98
										Cloudy Silty No ODOR

Monitoring Well Sample Data Form

Project: National Grid - East Garden City

Well ID: EGCMW-07

Sample Date: 7/29/20

Total Well Depth (from top of casing): 28.00 TD- 28.60

Depth to Water (from top of casing): 21.82

Pump Intake Depth (Mid-Point of Screen Zone): 24.60

Well Diameter: 3/4" (1") 2" 4"

Sampling Crew: Robert Sakalauskas

Purge Time: Start: 10.15 Finish: 1040

Purging Method: ~~Peristaltic Pump~~ CHECK VALVE

Sample Time: Start: (1045) Finish:

Sampling Method: Low Flow

Sample Analysis: Cyanide 9012B

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
1015	0.4	Initial	7.44	.145	0.0	7.47	22.18	0.1	211	Well Headspace PID = 0.2
1020		2	6.87	.129	0.0	6.84	19.23	0.1	234	
1025		4	6.64	.128	0.0	6.88	18.46	0.1	254	
1030		6	6.67	.129	0.0	6.92	18.17	0.1	255	
1035		8	6.57	.127	0.0	6.82	18.26	0.1	262	DWL 21.82
1040		10	6.58	.128	0.0	6.89	18.09	0.1	264	
										Elevay
										No Door

ATTACHMENT 3

LABORATORY DATA AND DATA USABILITY SUMMARY REPORT

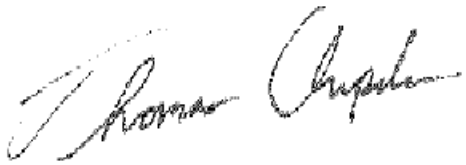
ANALYTICAL REPORT

Job Number: 460-214768-1

Job Description: National Grid Downstate

For:
GEI Consultants, Inc.
110 Walt Whitman Road
Suite 204
Huntington Station, NY 11746

Attention: Christopher Morris



Approved for release.
Thomas A Chupela
Project Management Assistant I
8/7/2020 4:46 PM

Designee for
Melissa Haas, Senior Project Manager
777 New Durham Road, Edison, NJ, 08817
(203)308-0880
Melissa.Haas@Eurofinset.com
08/07/2020

TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LAO00132

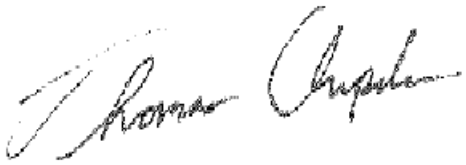
This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Eurofins TestAmerica, Edison
777 New Durham Road, Edison, NJ 08817
Tel (732) 549-3900 Fax (732) 549-3679 www.testamericainc.com

Job Number: 460-214768-1

Job Description: National Grid Downstate

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.



Approved for release.
Thomas A Chupela
Project Management Assistant I
8/7/2020 4:46 PM

Designee for
Melissa Haas

Table of Contents

Table of Contents

CASE NARRATIVE

Client: GEI Consultants, Inc.

Project: National Grid Downstate

Report Number: 460-214768-1

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 7/30/2020 6:00 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.6º 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 (460-214768-1), EGCMW-06 (460-214768-2) and EGCMW-07 (460-214768-3) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared on 08/06/2020 and analyzed on 08/07/2020.

Cyanide, Total failed the recovery criteria high for the MS of sample EGCMW-03MS (460-214768-1) in batch 460-714831.

Refer to the QC report for details.

Sample EGCMW-06 (460-214768-2)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

Sample Summary

Client: GEI Consultants, Inc.
Job ID: 460-214768-1
Project/Site: National Grid Downstate

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-214768-1	EGCMW-03	Water	07/29/20 08:45	07/30/20 18:00	
460-214768-2	EGCMW-06	Water	07/29/20 09:45	07/30/20 18:00	
460-214768-3	EGCMW-07	Water	07/29/20 10:45	07/30/20 18:00	

Detection Summary

Client: GEI Consultants, Inc.
Project/Site: National Grid Downstate

Job ID: 460-214768-1

Client Sample ID: EGCMW-03 — Lab Sample ID: 460-214768-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.11		0.010	0.0040	mg/L	1		9012B	Total/NA

Client Sample ID: EGCMW-06 — Lab Sample ID: 460-214768-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	1.0		0.10	0.040	mg/L	10		9012B	Total/NA

Client Sample ID: EGCMW-07 — Lab Sample ID: 460-214768-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.013		0.010	0.0040	mg/L	1		9012B	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: GEI Consultants, Inc. Job ID: 460-214768-1
Project/Site: National Grid Downstate

Method	Method Description	Protocol	Laboratory
9012B	Cyanide, Total andor 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 TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Client Sample ID: EGCMW-03 — Lab Sample ID: 460-214768-1

Date Collected: 07/29/20 08:45 — **Matrix: Water**
Date Received: 07/30/20 18:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.11		0.010	0.0040	mg/L		08/06/20 13:59	08/07/20 09:15	1

Client Sample ID: EGCMW-06 — Lab Sample ID: 460-214768-2

Date Collected: 07/29/20 09:45 — **Matrix: Water**
Date Received: 07/30/20 18:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	1.0		0.10	0.040	mg/L		08/06/20 13:59	08/07/20 10:04	10

Client Sample ID: EGCMW-07 — Lab Sample ID: 460-214768-3

Date Collected: 07/29/20 10:45 — **Matrix: Water**
Date Received: 07/30/20 18:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.013		0.010	0.0040	mg/L		08/06/20 13:59	08/07/20 09:22	1

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 460-714582/1-A
Matrix: Water
Analysis Batch: 714831

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714582

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0040	mg/L		08/06/20 13:59	08/07/20 09:00	1

Lab Sample ID: LCS 460-714582/2-A
Matrix: Water
Analysis Batch: 714831

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0996		mg/L		100	85 - 115

Lab Sample ID: 460-214768-1 MS
Matrix: Water
Analysis Batch: 714831

Client Sample ID: EGCMW-03
Prep Type: Total/NA
Prep Batch: 714582

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.11		0.200	0.340	N	mg/L		117	90 - 110

Lab Sample ID: 460-214768-1 MSD
Matrix: Water
Analysis Batch: 714831

Client Sample ID: EGCMW-03
Prep Type: Total/NA
Prep Batch: 714582

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.11		0.200	0.324		mg/L		109	90 - 110	5	35

Definitions/Glossary

Client: GEI Consultants, Inc. Job ID: 460-214768-1
Project/Site: National Grid Downstate

Qualifiers

General Chemistry

Qualifier	Qualifier Description
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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.
Project/Site: National Grid Downstate

Job ID: 460-214768-1

General Chemistry

Prep Batch: 714582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-214768-1	EGCMW-03	Total/NA	Water	9012B	
460-214768-2	EGCMW-06	Total/NA	Water	9012B	
460-214768-3	EGCMW-07	Total/NA	Water	9012B	
MB 460-714582/1-A	Method Blank	Total/NA	Water	9012B	
LCS 460-714582/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-214768-1 MS	EGCMW-03	Total/NA	Water	9012B	
460-214768-1 MSD	EGCMW-03	Total/NA	Water	9012B	

Analysis Batch: 714831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-214768-1	EGCMW-03	Total/NA	Water	9012B	714582
460-214768-2	EGCMW-06	Total/NA	Water	9012B	714582
460-214768-3	EGCMW-07	Total/NA	Water	9012B	714582
MB 460-714582/1-A	Method Blank	Total/NA	Water	9012B	714582
LCS 460-714582/2-A	Lab Control Sample	Total/NA	Water	9012B	714582
460-214768-1 MS	EGCMW-03	Total/NA	Water	9012B	714582
460-214768-1 MSD	EGCMW-03	Total/NA	Water	9012B	714582

Lab Chronicle

Client: GEI Consultants, Inc.
Project/Site: National Grid Downstate

Job ID: 460-214768-1

Client Sample ID: EGCMW-03

Date Collected: 07/29/20 08:45
Date Received: 07/30/20 18:00

Lab Sample ID: 460-214768-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			714582	08/06/20 13:59	MBE	TAL EDI
Total/NA	Analysis	9012B		1	714831	08/07/20 09:15	AJP	TAL EDI

Client Sample ID: EGCMW-06

Date Collected: 07/29/20 09:45
Date Received: 07/30/20 18:00

Lab Sample ID: 460-214768-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			714582	08/06/20 13:59	MBE	TAL EDI
Total/NA	Analysis	9012B		10	714831	08/07/20 10:04	AJP	TAL EDI

Client Sample ID: EGCMW-07

Date Collected: 07/29/20 10:45
Date Received: 07/30/20 18:00

Lab Sample ID: 460-214768-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			714582	08/06/20 13:59	MBE	TAL EDI
Total/NA	Analysis	9012B		1	714831	08/07/20 09:22	AJP	TAL EDI

Laboratory References:

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

Accreditation/Certification Summary

Client: GEI Consultants, Inc. Job ID: 460-214768-1
Project/Site: National Grid Downstate

Laboratory: Eurofins TestAmerica, Edison

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-21

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Edison Job Number: 460-214768-1

SDG No.:

Project: National Grid Downstate

Client Sample ID	Lab Sample ID
EGCMW-03	460-214768-1
EGCMW-06	460-214768-2
EGCMW-07	460-214768-3

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EGCMW-03 Lab Sample ID: 460-214768-1

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-214768-1

SDG ID.:

Matrix: Water Date Sampled: 07/29/2020 08:45

Reporting Basis: WET Date Received: 07/30/2020 18:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	0.11	0.010	0.0040	mg/L			1	9012B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EGCMW-06 Lab Sample ID: 460-214768-2

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-214768-1

SDG ID.:

Matrix: Water Date Sampled: 07/29/2020 09:45

Reporting Basis: WET Date Received: 07/30/2020 18:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	1.0	0.10	0.040	mg/L			10	9012B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EGCMW-07 Lab Sample ID: 460-214768-3

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-214768-1

SDG ID.:

Matrix: Water Date Sampled: 07/29/2020 10:45

Reporting Basis: WET Date Received: 07/30/2020 18:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	0.013	0.010	0.0040	mg/L			1	9012B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-214768-1

SDG No.:

Analyst: AJP Batch Start Date: 08/07/2020

Reporting Units: mg/L Analytical Batch No.: 714831

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	08:34	Cyanide, Total	0.198	0.200	99	85-115		WTcn6ppm_ICV_00503
11	ICB	08:35	Cyanide, Total	0.010				U	
32	CCV	08:54	Cyanide, Total	0.211	0.200	106	85-115		WTcn6ppm_Pri_00517
33	CCB	08:57	Cyanide, Total	0.010				U	
44	CCV	09:07	Cyanide, Total	0.210	0.200	105	85-115		WTcn6ppm_Pri_00517
45	CCB	09:09	Cyanide, Total	0.010				U	
56	CCV	09:19	Cyanide, Total	0.211	0.200	106	85-115		WTcn6ppm_Pri_00517
57	CCB	09:21	Cyanide, Total	0.010				U	
68	CCV	09:31	Cyanide, Total	0.210	0.200	105	85-115		WTcn6ppm_Pri_00517
69	CCB	09:33	Cyanide, Total	0.010				U	
92	CCV	09:55	Cyanide, Total	0.210	0.200	105	85-115		WTcn6ppm_Pri_00517
93	CCB	09:57	Cyanide, Total	0.010				U	
102	CCV	10:07	Cyanide, Total	0.211	0.200	106	85-115		WTcn6ppm_Pri_00517
103	CCB	10:10	Cyanide, Total	0.010				U	

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

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-214768-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 714831	Date: 08/07/2020 09:00	Prep Batch: 714582	Date: 08/06/2020 13:59				
9012B	MB 460-714582/1-A	Cyanide, Total	0.010	U	mg/L	0.010	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-214768-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 714831	Date: 08/07/2020 09:16		Prep Batch: 714582		Date: 08/06/2020 13:59						
9012B	460-214768-1	Cyanide, Total	0.11		mg/L						
9012B	460-214768-1 MS	Cyanide, Total	0.340		mg/L	0.200	117	90-110			N

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

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-214768-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 714831	Date: 08/07/2020 09:17		Prep Batch: 714582		Date: 08/06/2020 13:59						
9012B	460-214768-1 MSD	Cyanide, Total	0.324		mg/L	0.200	109	90-110	5	35	

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

FORM V-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-214768-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 714831	Date: 08/07/2020 09:00		Prep Batch: 714582			Date: 08/06/2020 13:59					
						LCS Source: WTcnCmplex-IM_00531					
9012B	LCS 460-714582/2-A	Cyanide, Total	0.0996		mg/L	0.100	100	85-115			

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

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Edison Job Number: 460-214768-1

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 TestAmerica, Edison Job Number: 460-214768-1

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 TestAmerica, Edison Job No.: 460-214768-1

SDG No.:

Prep Method: 9012B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 460-714582/1-A	08/06/2020 13:59	714582		6	6
LCS 460-714582/2-A	08/06/2020 13:59	714582		6	6
460-214768-1	08/06/2020 13:59	714582		6	6
460-214768-1 MS	08/06/2020 13:59	714582		6	6
460-214768-1 MSD	08/06/2020 13:59	714582		6	6
460-214768-2	08/06/2020 13:59	714582		6	6
460-214768-3	08/06/2020 13:59	714582		6	6

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-214768-1

SDG No.:

Instrument ID: Lachat3 Method: 9012B

Start Date: 08/07/2020 08:24 End Date: 08/07/2020 10:10

Lab Sample ID	D/F	Type	Time	Analytes																			
				CN																			
IC 460-714694/21-A			08:24	X																			
IC 460-714694/22-A			08:25	X																			
IC 460-714694/23-A			08:26	X																			
IC 460-714694/24-A			08:27	X																			
IC 460-714694/25-A			08:28	X																			
IC 460-714694/26-A			08:29	X																			
IC 460-714694/27-A			08:29	X																			
CCV 460-714694/29-A			08:30																				
CCB 460-714831/9			08:33																				
ICV 460-714694/31-A	1		08:34	X																			
ICB 460-714831/11	1		08:35	X																			
ZZZZZZ			08:35																				
ZZZZZZ			08:36																				
ZZZZZZ			08:37																				
ZZZZZZ			08:38																				
ZZZZZZ			08:39																				
ZZZZZZ			08:40																				
ZZZZZZ			08:41																				
ZZZZZZ			08:41																				
CCV 460-714694/30-A			08:42																				
CCB 460-714831/21			08:45																				
ZZZZZZ			08:46																				
ZZZZZZ			08:47																				
ZZZZZZ			08:48																				
ZZZZZZ			08:48																				
ZZZZZZ			08:49																				
ZZZZZZ			08:50																				
ZZZZZZ			08:51																				
ZZZZZZ			08:52																				
ZZZZZZ			08:53																				
ZZZZZZ			08:54																				
CCV 460-714694/29-A	1		08:54	X																			
CCB 460-714831/33	1		08:57	X																			
ZZZZZZ			08:58																				
ZZZZZZ			08:59																				
MB 460-714582/1-A	1	T	09:00	X																			
LCS 460-714582/2-A	1	T	09:00	X																			
ZZZZZZ			09:01																				
ZZZZZZ			09:02																				
ZZZZZZ			09:03																				
ZZZZZZ			09:04																				
ZZZZZZ			09:05																				

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-214768-1

SDG No.:

Instrument ID: Lachat3 Method: 9012B

Start Date: 08/07/2020 08:24 End Date: 08/07/2020 10:10

Lab Sample ID	D / F	Type	Time	Analytes																				
				CN																				
ZZZZZZ			09:06																					
CCV 460-714694/29-A	1		09:07	X																				
CCB 460-714831/45	1		09:09	X																				
ZZZZZZ			09:10																					
ZZZZZZ			09:11																					
ZZZZZZ			09:12																					
ZZZZZZ			09:13																					
ZZZZZZ			09:13																					
ZZZZZZ			09:14																					
460-214768-1	1	T	09:15	X																				
460-214768-1 MS	1	T	09:16	X																				
460-214768-1 MSD	1	T	09:17	X																				
ZZZZZZ			09:18																					
CCV 460-714694/29-A	1		09:19	X																				
CCB 460-714831/57	1		09:21	X																				
460-214768-3	1	T	09:22	X																				
ZZZZZZ			09:23																					
ZZZZZZ			09:24																					
ZZZZZZ			09:25																					
ZZZZZZ			09:26																					
ZZZZZZ			09:26																					
ZZZZZZ			09:27																					
ZZZZZZ			09:28																					
ZZZZZZ			09:29																					
ZZZZZZ			09:30																					
CCV 460-714694/28-A	1		09:31	X																				
CCB 460-714831/69	1		09:33	X																				
ZZZZZZ			09:34																					
ZZZZZZ			09:35																					
ZZZZZZ			09:36																					
ZZZZZZ			09:37																					
ZZZZZZ			09:38																					
ZZZZZZ			09:38																					
ZZZZZZ			09:39																					
ZZZZZZ			09:40																					
ZZZZZZ			09:41																					
ZZZZZZ			09:42																					
CCV 460-714694/29-A			09:43																					
CCB 460-714831/81			09:45																					
ZZZZZZ			09:46																					
ZZZZZZ			09:47																					
ZZZZZZ			09:48																					

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-214768-1

SDG No.:

Instrument ID: Lachat3 Method: 9012B

Start Date: 08/07/2020 08:24 End Date: 08/07/2020 10:10

Lab Sample ID	D / F	Type	Time	Analytes																				
				CN																				
ZZZZZZ			09:49																					
ZZZZZZ			09:50																					
ZZZZZZ			09:51																					
ZZZZZZ			09:51																					
ZZZZZZ			09:52																					
ZZZZZZ			09:53																					
ZZZZZZ			09:54																					
CCV 460-714694/29-A	1		09:55	X																				
CCB 460-714831/93	1		09:57	X																				
ZZZZZZ			09:58																					
ZZZZZZ			09:59																					
ZZZZZZ			10:00																					
ZZZZZZ			10:01																					
460-214768-2	10	T	10:04	X																				
ZZZZZZ			10:04																					
ZZZZZZ			10:05																					
ZZZZZZ			10:06																					
CCV 460-714694/28-A	1		10:07	X																				
CCB 460-714831/103	1		10:10	X																				

Prep Types

T = Total/NA

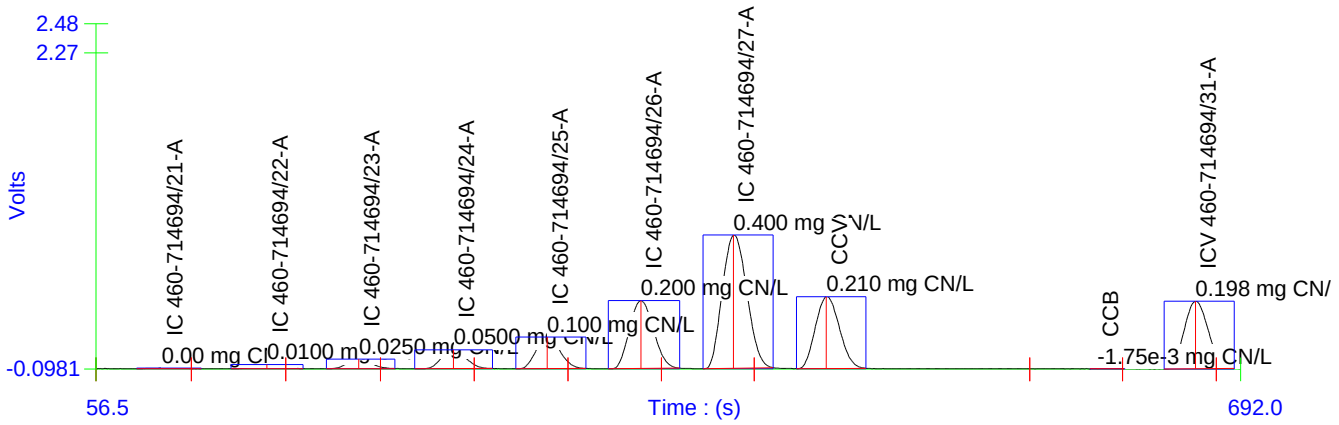
Original Run Filename: OM_8-7-2020_08-23-38AM.OMN Created: 8/7/2020 8:23:38 AM
Original Run Author's Signature: [EdiLachat]
Current Run Filename: OM_8-7-2020_08-23-38AM.OMN Last Modified: 8/7/2020 10:11:44 AM
Current Run Author's Signature: [EdiLachat]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 1 Cyanide Conc. (mg CN/L)	Channel 1 Cyanide Area (V.s)	Detection Time
IC 460-714694/21-A	1	1	0.00	0.0584	8/7/2020@8:24:38 AM
IC 460-714694/22-A	1	2	0.0100	0.467	8/7/2020@8:25:31 AM
IC 460-714694/23-A	1	3	0.0250	1.07	8/7/2020@8:26:24 AM
IC 460-714694/24-A	1	4	0.0500	2.20	8/7/2020@8:27:16 AM
IC 460-714694/25-A	1	5	0.100	3.64	8/7/2020@8:28:09 AM
IC 460-714694/26-A	1	6	0.200	7.86	8/7/2020@8:29:01 AM
IC 460-714694/27-A	1	7	0.400	15.7	8/7/2020@8:29:52 AM
CCV	1	S8	0.210	8.27	8/7/2020@8:30:44 AM
Known Conc:			0.200		
DQM Test: > + Percent Relative Difference					
Result:			5.2 < 10.0		
Message			Passed ccv		
Action			Continue		
DQM Test: < - Percent Relative Difference					
Result:			5.2 > -10.0		
Message			CCV Passed		
Action			Continue		
Calibration:			Table/Fig. : 1		
CCB	1	S9	-1.75e-3	7.29e-3	8/7/2020@8:33:18 AM
Known Conc:			0.00		
ICV 460-714694/31-A	1	8	0.198	7.78	8/7/2020@8:34:09 AM
ICB	1	9	-2.10e-3	-6.19e-3	8/7/2020@8:35:01 AM
MB 460-714694/1-A	1	10	1.14e-3	0.120	8/7/2020@8:35:53 AM
LCSSRM 460-714694/2-A@20	1	11	0.164	6.45	8/7/2020@8:36:45 AM
460-215071-A-1-L	1	12	9.80e-3	0.457	8/7/2020@8:37:36 AM
460-215071-A-1-M MS	1	13	0.164	6.46	8/7/2020@8:38:28 AM
460-215071-A-1-N MSD	1	14	0.169	6.67	8/7/2020@8:39:19 AM
460-215071-A-2-F	1	15	7.57e-3	0.370	8/7/2020@8:40:11 AM
460-215071-A-3-F	1	16	5.62e-3	0.294	8/7/2020@8:41:04 AM
460-215074-A-1-F	1	17	7.67e-3	0.374	8/7/2020@8:41:56 AM
CCV	1	S8	0.209	8.20	8/7/2020@8:42:48 AM
Known Conc:			0.200		
DQM Test: > + Percent Relative Difference					
Result:			4.4 < 10.0		
Message			Passed ccv		
Action			Continue		
DQM Test: < - Percent Relative Difference					
Result:			4.4 > -10.0		
Message			CCV Passed		
Action			Continue		
CCB	1	S9	-1.43e-3	0.0198	8/7/2020@8:45:22 AM
Known Conc:			0.00		
460-215074-A-2-F	1	18	5.85e-3	0.303	8/7/2020@8:46:15 AM
460-215074-A-3-F	1	19	4.35e-3	0.245	8/7/2020@8:47:08 AM
460-215076-A-1-F	1	20	7.95e-3	0.385	8/7/2020@8:48:00 AM
460-215076-A-2-F	1	21	0.0149	0.654	8/7/2020@8:48:52 AM
460-215076-A-3-F	1	22	0.0110	0.504	8/7/2020@8:49:44 AM
460-215111-F-1-C	1	23	0.0761	3.04	8/7/2020@8:50:36 AM
460-215111-H-2-C	1	24	0.0585	2.35	8/7/2020@8:51:27 AM
460-215111-H-2-D MS	1	25	0.134	5.27	8/7/2020@8:52:19 AM
460-215111-H-2-E MSD	1	26	0.165	6.48	8/7/2020@8:53:11 AM
460-215133-A-6-E	1	27	1.35e-3	0.128	8/7/2020@8:54:02 AM
CCV	1	S8	0.211	8.29	8/7/2020@8:54:53 AM
Known Conc:			0.200		
DQM Test: > + Percent Relative Difference					
Result:			5.6 < 10.0		
Message			Passed ccv		
Action			Continue		

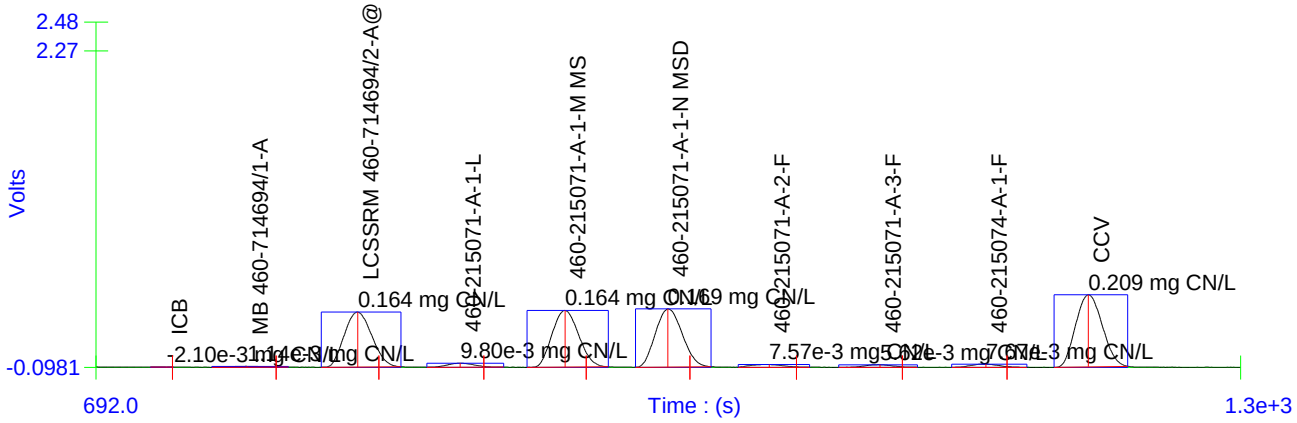
DQM Test: < - Percent Relative Difference					
		Result:	5.6 > -10.0		
		Message	CCV Passed		
		Action	Continue		
CCB	1	S9	-1.47e-3	0.0181	8/7/2020@8:57:27 AM
		Known Conc:	0.00		
460-215133-A-12-E	1	28	4.71e-3	0.259	8/7/2020@8:58:18 AM
460-215133-A-18-E	1	29	-9.08e-5	0.0719	8/7/2020@8:59:10 AM
MB 460-714582/1-A	1	30	5.25e-4	0.0959	8/7/2020@9:00:01 AM
LCS 460-714582/2-A	1	31	0.0996	3.95	8/7/2020@9:00:54 AM
460-214593-F-1-A	1	32	-2.43e-4	0.0660	8/7/2020@9:01:48 AM
460-214593-F-1-B MS	1	33	0.227	8.93	8/7/2020@9:02:40 AM
460-214593-F-1-C MSD	1	34	0.225	8.81	8/7/2020@9:03:33 AM
460-214593-F-2-A	1	35	2.05e-3	0.155	8/7/2020@9:04:25 AM
460-214593-F-3-A	1	36	1.36e-3	0.128	8/7/2020@9:05:17 AM
460-214593-F-5-A	1	37	4.16e-3	0.237	8/7/2020@9:06:09 AM
CCV	1	S8	0.210	8.26	8/7/2020@9:07:01 AM
		Known Conc:	0.200		
DQM Test: > + Percent Relative Difference					
		Result:	5.2 < 10.0		
		Message	Passed ccv		
		Action	Continue		
DQM Test: < - Percent Relative Difference					
		Result:	5.2 > -10.0		
		Message	CCV Passed		
		Action	Continue		
CCB	1	S9	-1.62e-3	0.0124	8/7/2020@9:09:35 AM
		Known Conc:	0.00		
460-214593-F-6-A	1	38	0.0132	0.591	8/7/2020@9:10:27 AM
460-214522-D-2-A	1	39	1.32e-3	0.127	8/7/2020@9:11:19 AM
460-214431-F-8-A	1	40	-9.31e-4	0.0392	8/7/2020@9:12:11 AM
460-214694-A-1-A	1	41	0.151	5.95	8/7/2020@9:13:02 AM
460-214694-A-2-A	1	42	0.0705	2.82	8/7/2020@9:13:54 AM
460-214974-I-5-A	1	43	-4.57e-4	0.0576	8/7/2020@9:14:46 AM
460-214768-A-1-A	1	44	0.106	4.20	8/7/2020@9:15:38 AM
460-214768-A-1-B MS	1	45	0.340	13.3	8/7/2020@9:16:29 AM
460-214768-A-1-C MSD	1	46	0.324	12.7	8/7/2020@9:17:22 AM
460-214768-A-2-A	1	47	1.01	39.4	8/7/2020@9:18:15 AM
CCV	1	S8	0.211	8.30	8/7/2020@9:19:07 AM
		Known Conc:	0.200		
DQM Test: > + Percent Relative Difference					
		Result:	5.7 < 10.0		
		Message	Passed ccv		
		Action	Continue		
DQM Test: < - Percent Relative Difference					
		Result:	5.7 > -10.0		
		Message	CCV Passed		
		Action	Continue		
CCB	1	S9	-1.25e-3	0.0268	8/7/2020@9:21:40 AM
		Known Conc:	0.00		
460-214768-A-3-A	1	48	0.0127	0.568	8/7/2020@9:22:33 AM
460-215041-E-1-A	1	49	6.15e-4	0.0993	8/7/2020@9:23:26 AM
460-215041-E-2-A	1	50	-8.00e-4	0.0443	8/7/2020@9:24:18 AM
460-215041-E-3-A	1	51	-8.69e-4	0.0416	8/7/2020@9:25:10 AM
460-215041-E-4-A	1	52	-5.74e-4	0.0531	8/7/2020@9:26:02 AM
460-215041-E-5-A	1	53	2.87e-4	0.0866	8/7/2020@9:26:54 AM
460-214564-H-10-A	1	54	-8.65e-4	0.0418	8/7/2020@9:27:46 AM
460-215043-D-1-A	1	55	-4.86e-4	0.0565	8/7/2020@9:28:38 AM
MB 460-714584/1-A	1	56	4.60e-4	0.0933	8/7/2020@9:29:29 AM
LCS 460-714584/2-A	1	57	0.0893	3.55	8/7/2020@9:30:21 AM
CCV	1	S8	0.210	8.25	8/7/2020@9:31:13 AM
		Known Conc:	0.200		
DQM Test: > + Percent Relative Difference					
		Result:	5.1 < 10.0		
		Message	Passed ccv		
		Action	Continue		
DQM Test: < - Percent Relative Difference					
		Result:	5.1 > -10.0		

		Message	CCV Passed		
		Action	Continue		
CCB	1	S9	-1.29e-3	0.0252	8/7/2020@9:33:47 AM
		Known Conc:	0.00		
460-214621-D-1-A	1	58	-4.44e-4	0.0582	8/7/2020@9:34:38 AM
460-214621-D-1-B MS	1	59	0.227	8.91	8/7/2020@9:35:29 AM
460-214621-D-1-C MSD	1	60	0.224	8.78	8/7/2020@9:36:21 AM
460-214621-D-2-A	1	61	4.37e-3	0.246	8/7/2020@9:37:14 AM
460-214621-D-3-A	1	62	0.117	4.63	8/7/2020@9:38:07 AM
460-214621-D-4-A	1	63	1.52e-3	0.134	8/7/2020@9:38:59 AM
460-214621-D-5-A	1	64	0.168	6.61	8/7/2020@9:39:52 AM
460-214621-D-6-A	1	65	5.59e-4	0.0972	8/7/2020@9:40:44 AM
460-214621-C-7-O	1	66	-5.02e-5	0.0735	8/7/2020@9:41:36 AM
460-214621-D-9-A	1	67	0.0819	3.26	8/7/2020@9:42:28 AM
CCV	1	S8	0.210	8.26	8/7/2020@9:43:20 AM
		Known Conc:	0.200		
DQM Test: > + Percent Relative Difference					
		Result:	5.2 < 10.0		
		Message	Passed ccv		
		Action	Continue		
DQM Test: < - Percent Relative Difference					
		Result:	5.2 > -10.0		
		Message	CCV Passed		
		Action	Continue		
CCB	1	S9	-1.32e-3	0.0240	8/7/2020@9:45:53 AM
		Known Conc:	0.00		
460-214621-D-10-A	1	68	0.0967	3.84	8/7/2020@9:46:45 AM
460-214621-D-11-A	1	69	0.275	10.8	8/7/2020@9:47:38 AM
460-214621-D-12-A	1	70	0.189	7.43	8/7/2020@9:48:29 AM
460-214621-D-12-B MS	1	71	0.412	16.1	8/7/2020@9:49:20 AM
460-214621-D-12-C MSD	1	72	0.412	16.1	8/7/2020@9:50:12 AM
460-214621-D-13-A	1	73	0.0424	1.73	8/7/2020@9:51:04 AM
460-214621-D-14-A	1	74	0.246	9.64	8/7/2020@9:51:55 AM
460-214621-D-15-A	1	75	-2.00e-4	0.0677	8/7/2020@9:52:47 AM
460-214621-C-16-A	1	76	-5.68e-4	0.0533	8/7/2020@9:53:39 AM
460-214790-H-1-A	1	77	-8.68e-4	0.0416	8/7/2020@9:54:32 AM
CCV	1	S8	0.210	8.26	8/7/2020@9:55:24 AM
		Known Conc:	0.200		
DQM Test: > + Percent Relative Difference					
		Result:	5.1 < 10.0		
		Message	Passed ccv		
		Action	Continue		
DQM Test: < - Percent Relative Difference					
		Result:	5.1 > -10.0		
		Message	CCV Passed		
		Action	Continue		
CCB	1	S9	-1.09e-3	0.0332	8/7/2020@9:57:58 AM
		Known Conc:	0.00		
460-214790-E-2-A	1	78	6.66e-4	0.101	8/7/2020@9:58:51 AM
460-214790-H-3-A	1	79	-9.74e-4	0.0375	8/7/2020@9:59:44 AM
460-214859-G-1-A	1	80	-5.71e-4	0.0532	8/7/2020@10:00:36 AM
460-214750-G-1-A	1	81	2.27e-3	0.164	8/7/2020@10:01:28 AM
460-214768-A-2-A@10	1	82	0.102	4.05	8/7/2020@10:04:02 AM
LCS 460-714584/2-A	1	83	0.101	4.02	8/7/2020@10:04:54 AM
460-214621-D-12-B MS@2	1	84	0.197	7.74	8/7/2020@10:05:46 AM
460-214621-D-12-C MSD@2	1	85	0.199	7.84	8/7/2020@10:06:37 AM
CCV	1	S8	0.211	8.31	8/7/2020@10:07:29 AM
		Known Conc:	0.200		
DQM Test: > + Percent Relative Difference					
		Result:	5.7 < 10.0		
		Message	Passed ccv		
		Action	Continue		
DQM Test: < - Percent Relative Difference					
		Result:	5.7 > -10.0		
		Message	CCV Passed		
		Action	Continue		
CCB	1	S9	-9.07e-4	0.0401	8/7/2020@10:10:03 AM
		Known Conc:	0.00		

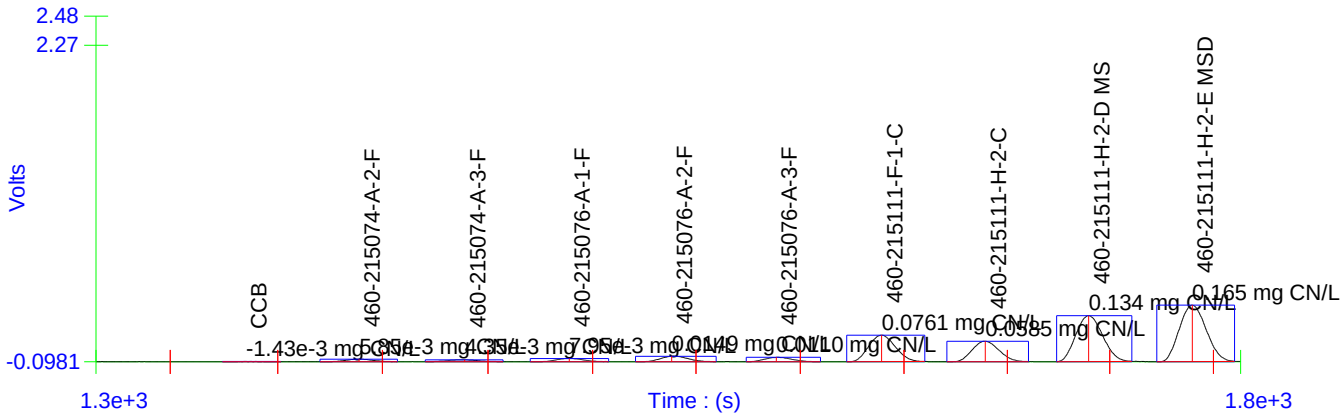
Channel 1 (Cyanide) - Set: 1 / 11



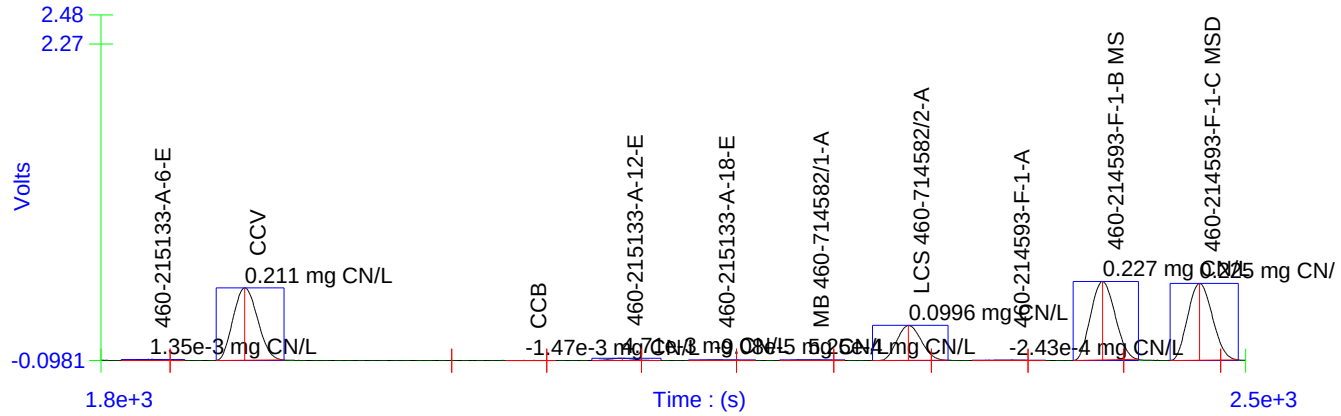
Channel 1 (Cyanide) - Set: 2 / 11



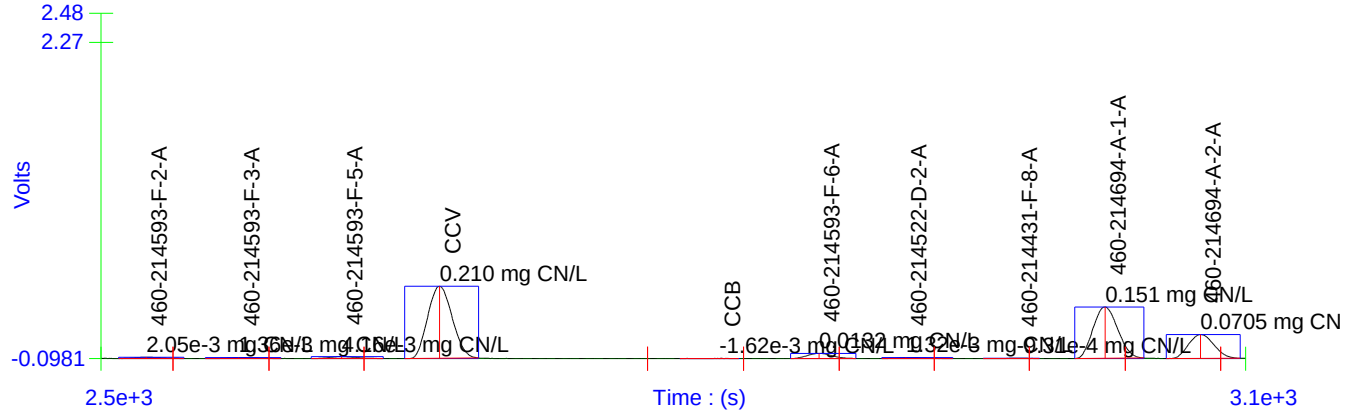
Channel 1 (Cyanide) - Set: 3 / 11



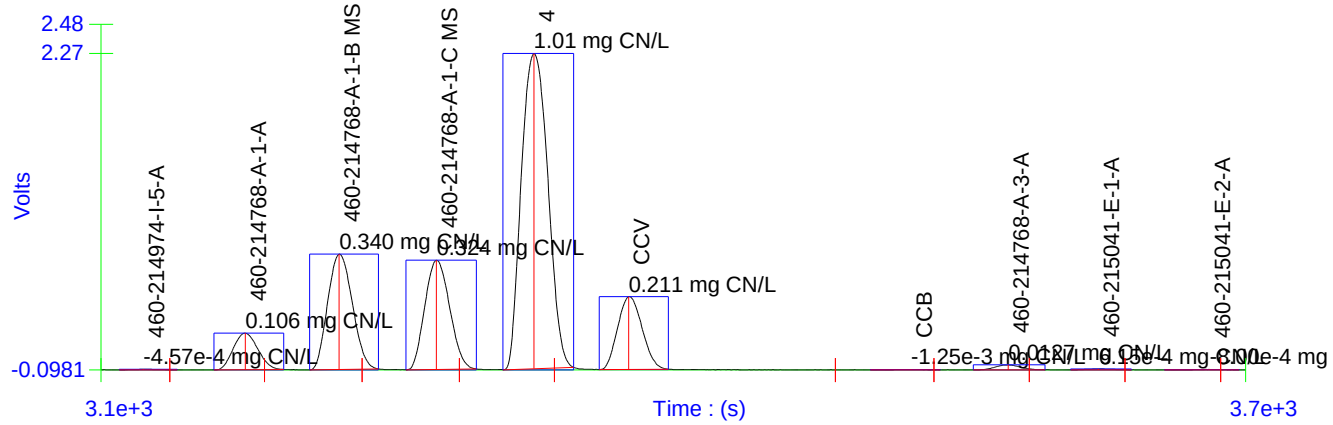
Channel 1 (Cyanide) - Set: 4 / 11



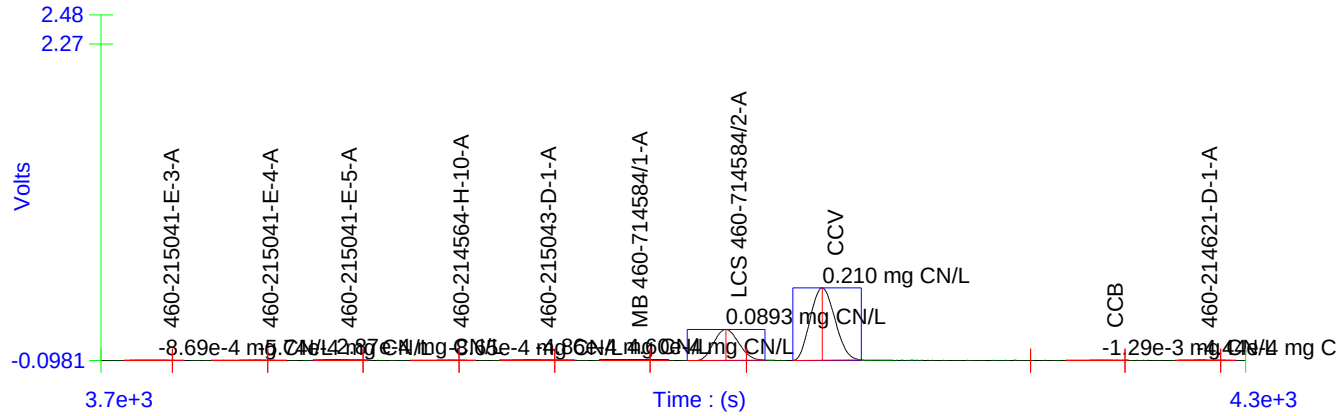
Channel 1 (Cyanide) - Set: 5 / 11



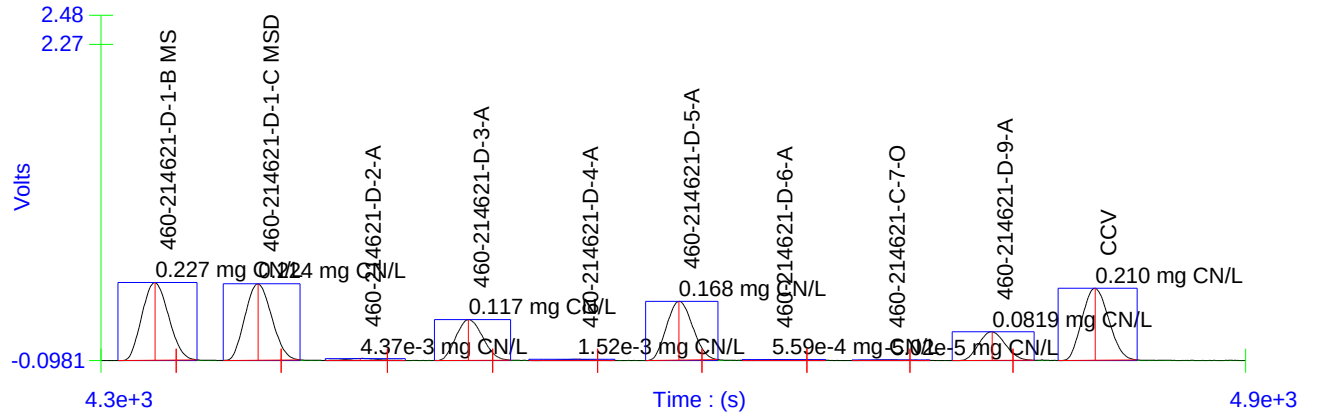
Channel 1 (Cyanide) - Set: 6 / 11



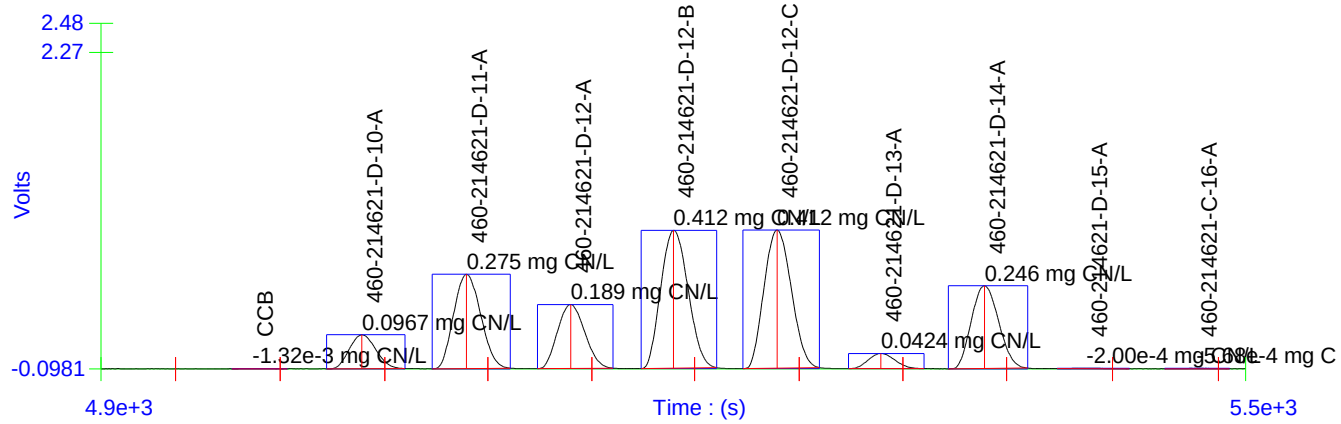
Channel 1 (Cyanide) - Set: 7 / 11



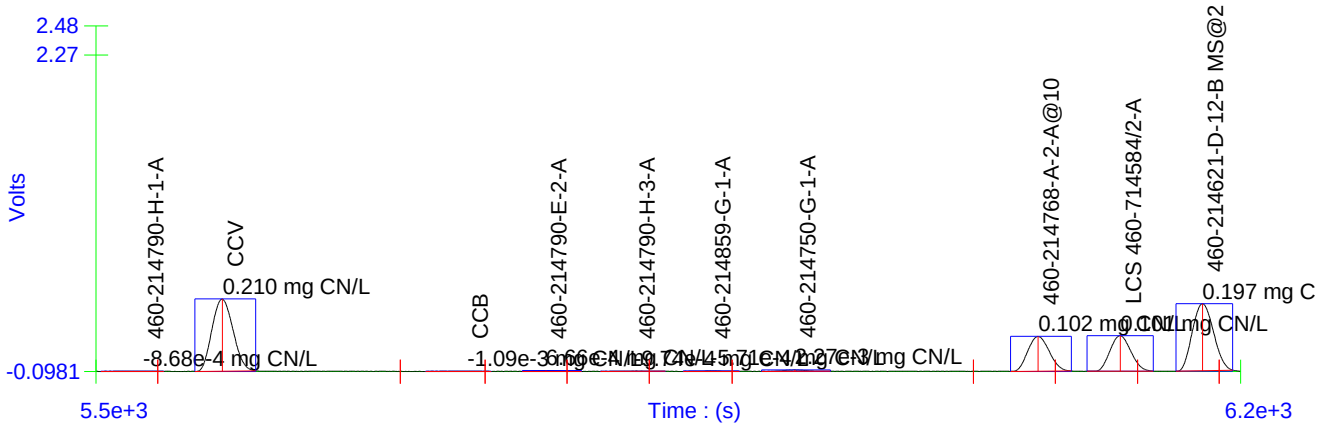
Channel 1 (Cyanide) - Set: 8 / 11



Channel 1 (Cyanide) - Set: 9 / 11



Channel 1 (Cyanide) - Set: 10 / 11



Channel 1 (Cyanide) - Set: 11 / 11

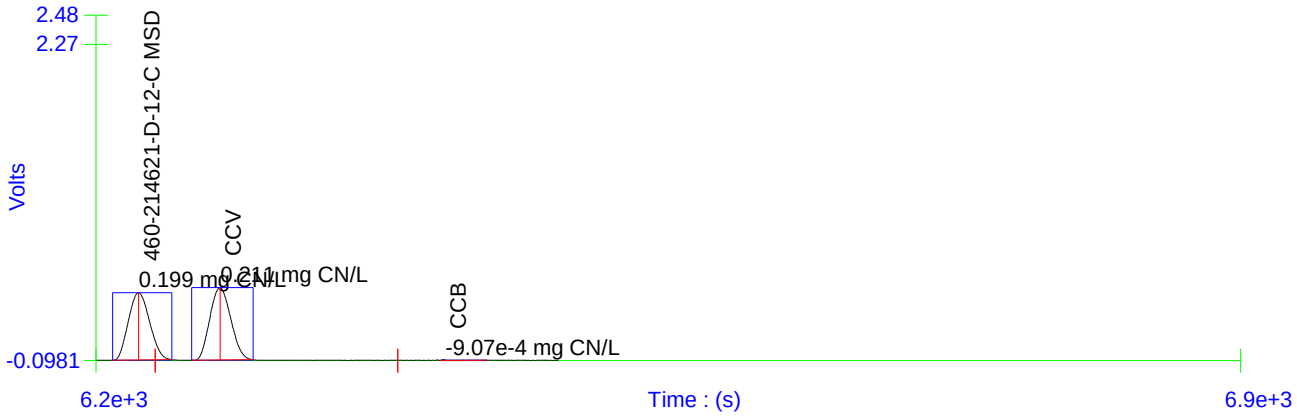
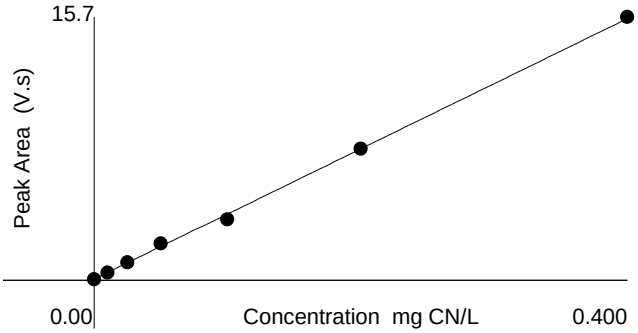


Table : 1 (Cyanide)

	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	15.7	0.998	0.0	-0.6	0.402	8/7/2020	8:29:52 AM
2	0.200	1	7.86	0.508	0.0	-0.2	0.200	8/7/2020	8:29:01 AM
3	0.100	1	3.64	0.238	0.0	8.2	0.0915	8/7/2020	8:28:09 AM
4	0.0500	1	2.20	0.143	0.0	-9.0	0.0546	8/7/2020	8:27:16 AM
5	0.0250	1	1.07	0.0702	0.0	-2.3	0.0256	8/7/2020	8:26:24 AM
6	0.0100	1	0.467	0.0305	0.0	-0.3	0.0101	8/7/2020	8:25:31 AM
7	0.00	1	0.0584	3.43e-3			-4.38e-4	8/7/2020	8:24:38 AM

Figure : 1 (Cyanide)



Area = 38.8 * Conc + 0.0770
Conc = 0.0257 * Area - 1.94e-3
Correlation Coefficient (r) = 0.99980

Weighting : 1/x

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Dilution Log
Wet Chemistry

Method No.: Cyanide

Analyst: CS

Prep Batch:

Analysis Date: 08/07/20

Analytical Batch: 714831

Job/Sample Number	Dilution Factor	Sample Volume (ml)	Final Volume (ml)	Diluent
460-214768-A-2	10	0.5	5.0	0.25 N NaOH
460-214621-D-12 MS	02	2.5	1	
1 MSD	02	2.5		

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-214768-1

SDG No.:

Batch Number: 714582 Batch Start Date: 08/06/20 13:59 Batch Analyst: Esteban, Maria

Batch Method: 9012B Batch End Date: 08/06/20 20:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WTcnCmplex-IM 00531			
MB 460-714582/1		9012B, 9012B		6 mL	6 mL				
LCS 460-714582/2		9012B, 9012B		6 mL	6 mL	0.1 mL			
460-214768-A-1	EGCMW-03	9012B, 9012B	T	6 mL	6 mL				
460-214768-A-1 MS	EGCMW-03	9012B, 9012B	T	6 mL	6 mL	0.2 mL			
460-214768-A-1 MSD	EGCMW-03	9012B, 9012B	T	6 mL	6 mL	0.2 mL			
460-214768-A-2	EGCMW-06	9012B, 9012B	T	6 mL	6 mL				
460-214768-A-3	EGCMW-07	9012B, 9012B	T	6 mL	6 mL				

Batch Notes	
Distillation End Time	08/06/2020 17:30
Distillation Start Time	08/06/2020 17:00
Distillation Temperature	120 Degrees C
Sodium Hydroxide ID	C-0416-20 exp.12/3/20
Pipette/Syringe/Dispenser ID	P-91/92
Sulfamic Acid ID	C-0304-20 exp. 11/1/20
Sulfuric Acid Reagent ID Number	C-0305-20 exp. 11/1/20

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.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-214768-1

SDG No.:

Batch Number: 714694 Batch Start Date: 08/06/20 19:02 Batch Analyst: Esteban, Maria

Batch Method: 9012B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WTcn6ppm_ICV 00503	WTcn6ppm_Pri 00517		
CCV 460-714694/28		9012B, 9012B		6 mL	6 mL		0.2 mL		
CCV 460-714694/29		9012B, 9012B		6 mL	6 mL		0.2 mL		
ICV 460-714694/31		9012B, 9012B		6 mL	6 mL	0.2 mL			

Batch Notes	
Distillation End Time	07/31/2020 09:00
Distillation Start Time	07/31/2020 08:30
Distillation Temperature	120 Degrees C
Sodium Hydroxide ID	C-0416-20 exp.12/3/20
Pipette/Syringe/Dispenser ID	P-91/92
Sulfamic Acid ID	C-0304-20 exp. 11/1/20
Sulfuric Acid Reagent ID Number	C-0305-20 exp. 11/1/20

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.

Shipping and Receiving Documents

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:

NYC

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Chris Morris	Site Contact: Mike Quinlan	Date: [redacted] 7/29/20	COC No:
GEI Consultants Inc. P.C.	Tel/Fax: (631) 759-2967	Lab Contact: Melissa Haas	Carrier: Test America	1 of 1 COCs
110 Walte Whitman Road Suite 204	Analysis Turnaround Time			Sampler: R. Sakalauskas
Huntington Station, NY 11746	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(631) 760 - 9300 Phone	TAT if different from Below standard			Walk-in Client:
(631) 760 - 9301 FAX	☐ 2 weeks			Lab Sampling:
Project Name: National Grid Downstate	☐ 1 week			
Site: East Garden City	☐ 2 days			Job / SDG No.: 214768
PO# [redacted] 1905774.2.3	☐ 1 day			

460-214768 Chain of Custody

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	7/29/20	845	G	GW	3			X	1
EGCMW-06	↓	945	G	GW	1			X	2
EGCMW-07	↓	1045	G	GW	1			X	3
								1	

5-Day RUSH

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

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: _____ Corr'd: _____		Therm ID No.:
Relinquished by: Robert Sakalauskas	Company: GEI Consultants Inc. P.C	Date/Time:	Received by:	Company:	Date/Time: 7/30/20 9:52
Relinquished by:	Company:	Date/Time: 6/30/20 16	Received by:	Company:	Date/Time: 7/30/20 1620
Relinquished by:	Company:	Date/Time: 6/30/20 18	Received in Laboratory by:	Company:	Date/Time: 7/30/20 1800

Form No. CA-C-WI-002, Rev. 4.11, dated 1/24/2017

4. 6 TA 1

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 214768

Number of Coolers: 1 IR Gun # 11

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	6 ℃	℃	Cooler #4:	℃	℃	Cooler #7:	℃	℃
Cooler #2:	℃	℃	Cooler #5:	℃	℃	Cooler #8:	℃	℃
Cooler #3:	℃	℃	Cooler #6:	℃	℃	Cooler #9:	℃	℃

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
1												>12			
1												>12			
1												>12			
2												>12			
3												>12			

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.*

EDS-WI-038, Rev 4.1
10/22/2019

Initials: Kamal **Date:** 7.30.20

Login Sample Receipt Checklist

Client: GEI Consultants, Inc.

Job Number: 460-214768-1

Login Number: 214768
List Number: 1
Creator: Breton, Jayson J

List Source: Eurofins TestAmerica, Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Site: Downstate OMM East Garden City
Laboratory: Test America, Edison, NJ
Report Nos.: 460-214768
Reviewer: Lorie MacKinnon/GEI Consultants
Date: August 26, 2020

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
EGCMW-03	460-214768-01	Total Cyanide
EGCMW-06	460-214768-02	Total Cyanide
EGCMW-07	460-214768-03	Total Cyanide

The above-listed aqueous samples were collected on July 29, 2020 and were analyzed for total cyanide by SW-846 method 9012B. The data validation was performed based on the Standard Operating Procedure (*SOP) for the Evaluation of Cyanide (Inorganics) for the Contract Laboratory Program* (December 2012), 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 Control Sample (LCS) Results
- Quantitation Limits
- Sample Quantitation

In general, the data appear usable with minor qualification due to sample matrix recovery outliers. All results were considered valid; even though they were qualified as discussed below.

The validation findings were based on the following information.

Data Completeness

The data package was complete as received by the laboratory.

Holding Times and Sample Preservation

All holding time and preservative criteria were met.

Initial and Continuing Calibrations

All initial and continuing calibration criteria were met.

Blanks

Contamination was not detected in the associated method and instrument blank samples.

MS/MSD Results

MS/MSD analyses were performed on sample EGCMW-03 for total cyanide. Cyanide (117%) was recovered above the control limits of 90-110. The positive results for total cyanide in associated samples EGCMW-03, EGCMW-06, and EGCMW-07 were qualified as estimated (J) and may be biased high.

LCS Results

All criteria were met.

Quantitation Limits

Due to high analyte level, sample EGCMW-06 was analyzed at a 10-fold dilution.

Sample Quantitation

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.

NJ - 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) on the basis of 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.

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	1200	25
July 2020	110	1,000	13

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