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Site Investigation and Remediation
175 East Old Country Road
Hicksville, NY 11801

September 17, 2014

R. Scott Deyette, Project Manager
New York State Department Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233-7014

Re: East Garden City Former Stewart Avenue Holder Station
Site Management Routine Annual Groundwater Well Sampling Report
D&B No. 3008

Dear Mr. Deyette:

The purpose of this letter is to document the groundwater sampling activities completed by D&B Engineers and Architects, P.C. (D&B) on April 29, 2014 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.

The sampling activities discussed below were completed pursuant to the requirements of the draft 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, which was identified during completion of a Site Characterization (SC) investigation at the Site in April through June 2011. As detailed in the subsequent December 2011 SC Report, the SC program identified some low-level manufactured gas plant (MGP)-related residual contamination and other low-level contaminants (level polycyclic aromatic hydrocarbons [PAHs] target analyte list [TAL] metals and polychlorinated biphenyls [PCBs], in surface and subsurface soil. In addition, elevated concentrations of total cyanide above the New York State Department Environmental Conservation (NYSDEC) GA Class 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, provided in Attachment 2.

Based on elevated concentrations of total cyanide detected in groundwater samples collected from monitoring well EGCMW-06 during the SC investigation, the draft March 2013 SMP for the Site includes 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-01 are located on the downgradient perimeter of the site. Per the requirements of the draft March 2013 SMP, the frequency of future sampling events will be determined by the NYSDEC based on an evaluation of the associated analytical data generated throughout this initial three-year period.

It should be noted that the draft March 2013 SMP has not yet been finalized, as a Deed Restriction document is currently being drafted for inclusion in an upcoming final version of the SMP. However, the NYSDEC has reviewed the draft March 2013 SMP and has requested that the annual groundwater sampling program be implemented prior to review and approval of the final SMP.

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 April 2014 groundwater sampling event.

Summary of Field Activities

The sampling of monitoring wells EGCMW-03, EGCMW-06 and EGCMW-07 was completed on April 29, 2014. 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 liquid volume necessary for well purging. A peristaltic pump 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 screen. As detailed in the December 2011 SC Report, the wells are screened from 15 to 25 feet, 12.5 to 22.5 feet and 16 to 26 feet below grade, respectively. The wells were then purged until a minimum of three to five well volumes had been removed. Purge water generated from the wells was contained in a labeled 55-gallon drum and overpack 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 in a dedicated field book. Purging continued until the pH, temperature and conductivity had stabilized to within 10 percent for three consecutive readings, and a minimum of three well volumes had been removed from each well.

Samples were transferred directly to the laboratory-supplied sample containers and sent to the analytical laboratory, Chemtech Laboratories, within 24 hours of sample collection and were analyzed for total cyanide. Field quality control (QC) samples were collected during the groundwater sampling event, including one matrix spike/matrix spike duplicate (MS/MSD) set and a field blank.

Findings/Analysis of Analytical Results

Based on the water level measurements, groundwater is located approximately 21 feet below grade and the groundwater flow direction beneath the Site, as determined during the 2011 SC investigation, is generally to the south.

The total cyanide analytical results are provided below:

Sample ID Sampling Date Dilution Factor Units	EGCMW-03 4/29/14 1 ug/l	EGCMW-06 4/29/14 1 ug/l	EGCMW-07 4/29/14 1 ug/l	NYSDEC Class GA Standard or Guidance Value ug/l
Total Cyanide	63.0	271	7.0	200

As can be seen on the above table, monitoring well EGCMW-06 exhibited a slight exceedance of total cyanide at a concentration of 271 micrograms per liter (ug/l), above the Class GA Standard of 200 ug/l. Total cyanide was detected well below the Class GA Standard in wells EGCMW-03 and EGCMW-07, at concentrations of 63.0 ug/l and 7.0 ug/l, respectively. Sample locations and the April 2014 cyanide concentrations are depicted on Figure 2, provided in Attachment 2. Data validation checklists are provided in Attachment 3.

It should be noted that the total cyanide concentration detected at EGCMW-06 represents a decrease since this well was last sampled for total cyanide as part of the SC investigation in 2011. At that time, total cyanide was detected at concentrations of 972 ug/l and 1,590 ug/l during two separate sampling events.

Based on the total cyanide exceedance detected at monitoring well EGCMW-06 and as per the requirements of the draft March 2013 SMP, D&B recommends that sampling of monitoring wells EGCMW-03, EGCMW-06 and EGCMW-07 for total cyanide be continued on an annual basis.

Please do not hesitate to contact me at (516) 545-2568, if you have any questions and/or comments.

Very truly yours,

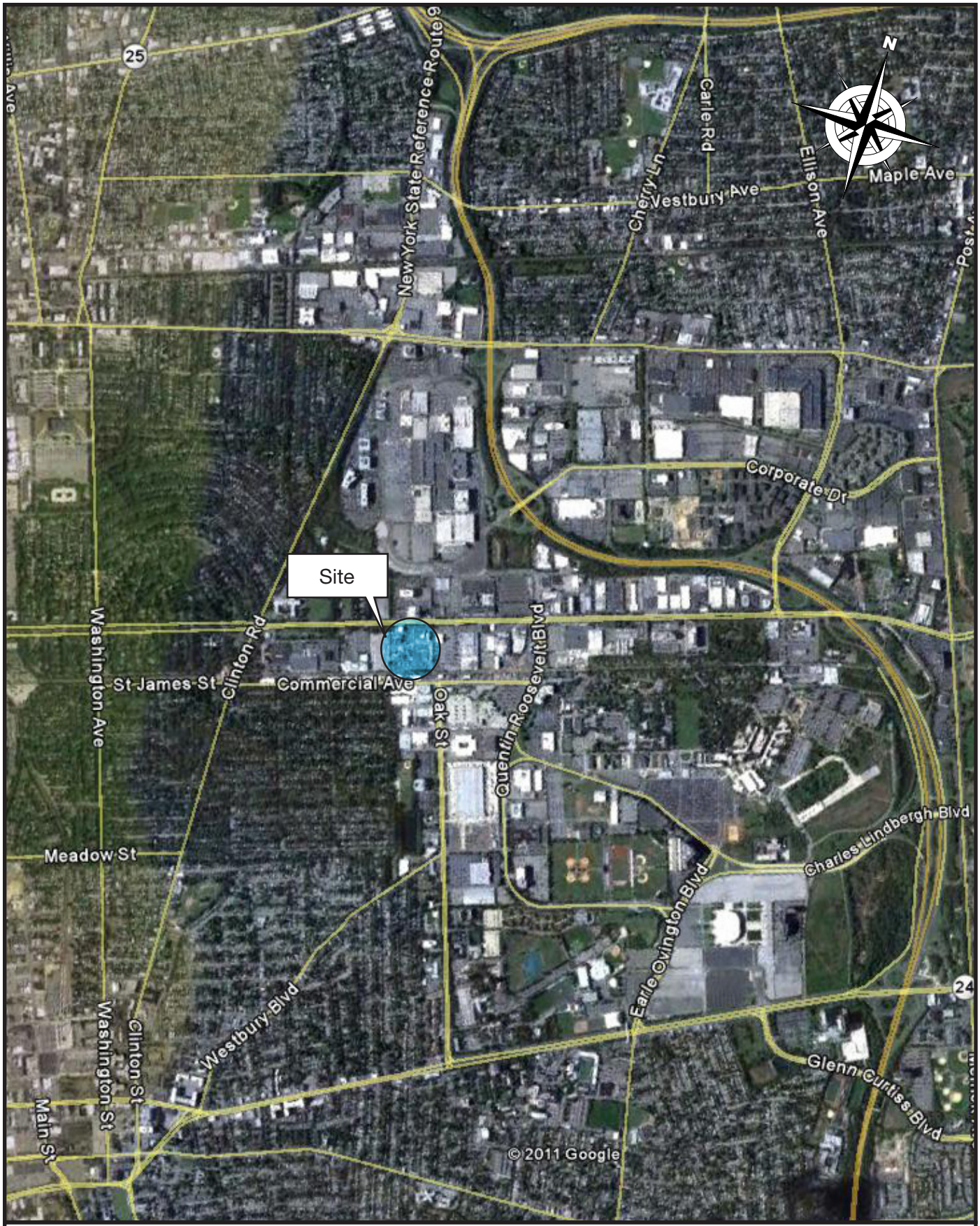
Stephen Tauss

Sarah Alridge
Project Manager

SETF/MRD/nc
Attachments
cc: P. Van Rossen (National Grid)
T. Fox (D&B)
S Tauss (D&B)
♦3008\ST060614_SA(R06)

ATTACHMENT 1

SITE LOCATION MAP



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

East Garden City Former Stewart Avenue Holder Station
Garden City, NY

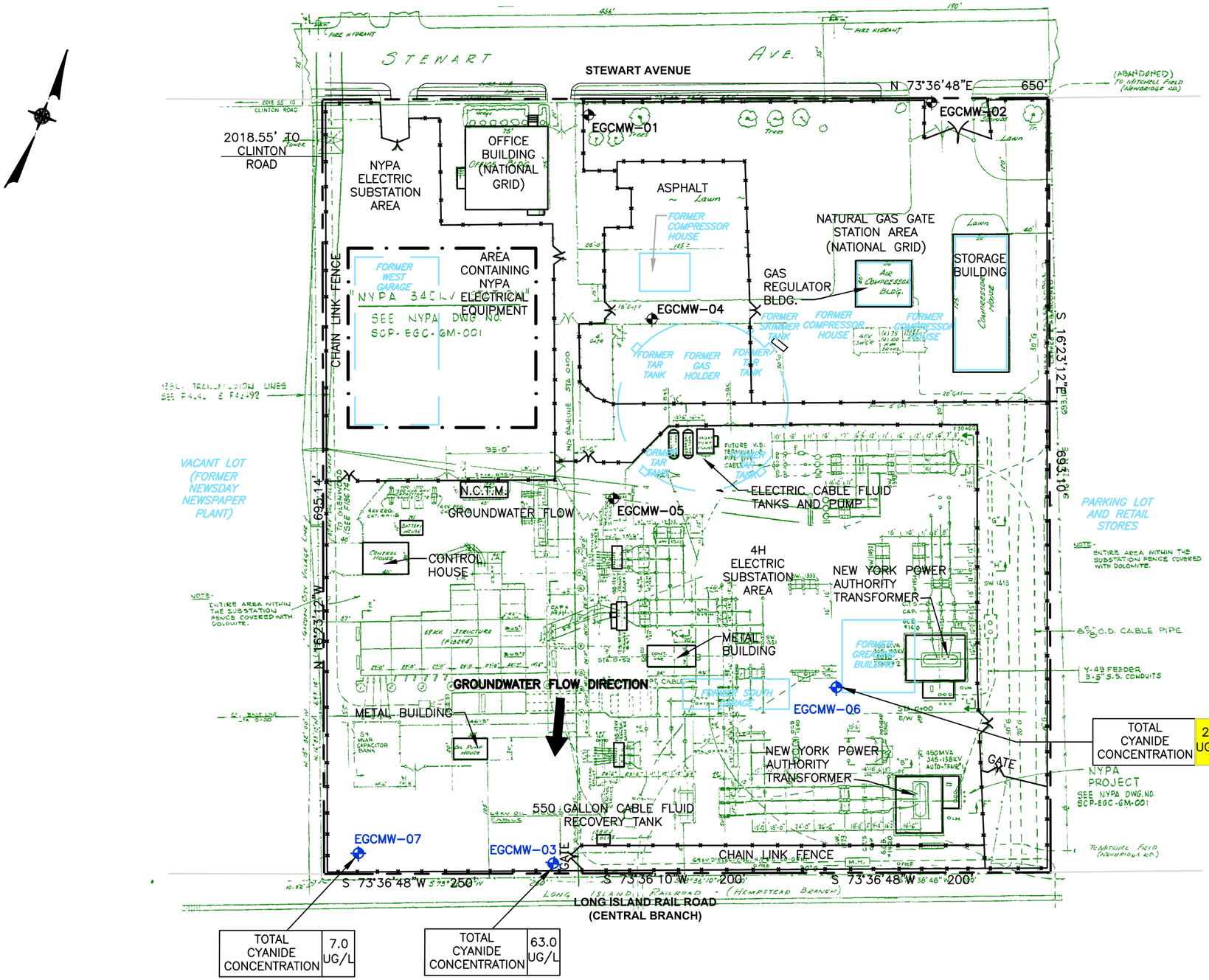
Site Location Map

FIGURE 1

3008 - Site Location Map.indd (08/01/14 - 3:59 PM)

ATTACHMENT 2

SAMPLE LOCATION AND CYANIDE CONCENTRATION SUMMARY MAP



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

SAMPLE LOCATION AND CYANIDE CONCENTRATION SUMMARY MAP

FIGURE 2

ATTACHMENT 3

DATA VALIDATION CHECKLIST

DATA VALIDATION CHECKLIST

Project Name:	East Garden City
Project Number:	3008-C03
Sample Date(s):	April 29, 2014
Sample Team:	PB
Matrix/Number of Samples:	Water/ 3 Field Duplicates/ 0 Trip Blanks / 0 Field Blanks/ 1
Analyzing Laboratory:	Chemtech, Mountainside, NJ
Analyses:	Cyanide: by SW846 Method 9012B
Laboratory Report No:	F2184 Date:5/12/2014

ANALYTICAL DATA PACKAGE DOCUMENTATION GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of Inorganic Data Review, January 2010, method performance criteria, and Dvirka and Bartilucci Consulting Engineers, a Division of D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

C□□□□d□N□□ □□r□□F2□□□

SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis			
				VOC	SVOC	Cyanide	MISC
EGCMW-03	F2184-01	04/29/14				X	
EGCMW-06	F2184-04	04/29/14				X	
EGCMW-07	F2184-05	04/29/14				X	
FIELD BLANK	F2184-06	04/29/14				X	

INORGANIC ANALYSES

C□□□d□

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X		X	
B. Field blanks		X		X	
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. Laboratory control sample %R		X		X	
6. Spike sample %R		X		X	
7. Duplicate %RPD		X		X	
8. Field duplicates RPD					X

%R - percent recovery %D - percent difference RPD - relative percent difference

Comments:
Performance was acceptable.

DATA VALIDATION AND □UALIFICATION SUMMARY L□□□r□□□r□ N□□ □□r□F2□□□

Sample ID	Analyte(s)	Qualifier	Reason(s)
Cyanide			
No qualification of the data was necessary.			

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 5/20/2014
VALIDATION PERFORMED BY SIGNATURE:	