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November 10, 2014
File: 190500751

Todd Caffoe, P.E
New York State Department of Environmental Conservation
Division of Environmental Remediation
6274 East Avon-Lima Road
Avon, NY 14414

Reference: **Brownfield Cleanup Program**
Monthly Progress Report #20
Site #C828184
Former Carriage Factory
33 Litchfield Street
Rochester, Monroe County, New York

Dear Todd,

On behalf of Carriage Factory Special Needs Apartments, LP (CFSNA), Stantec Consulting Services Inc. (Stantec) has prepared this Monthly Progress Report #20 for the Brownfield Cleanup Program (BCP) at the Former Carriage Factory located at 33 Litchfield Street in the City of Rochester, Monroe County, New York (Site). This report covers activities that took place during the month of October 2014.

1. Actions During The Previous Month

- During the period October 6 through October 17, the sub-slab depressurization system (SSDS) was completed. A 2-inch extension pipe was installed as proposed from riser SSDR-1 (see Figure 1) on the first floor to the elevator sump chamber in order to direct potential groundwater vapors away from the elevator space. The extension leg includes ball valves to adjust the amount of vacuum applied to the sump chamber.

  Manometer gauges were installed in the 5th floor monitoring panel to display the amount of vacuum induced by the roof-mounted fans, measured from the riser pipes in the 5th floor ceiling. Each of the three manometer gauges indicate a vacuum of approximately 2 inches of water column (IWC) for their respective fans. Indicator lights were installed above each of the manometer gauges to confirm that the dedicated circuits feeding power to each of the fans are closed.

- During the period October 13 through October 24, the elevator sump water discharge components were completed. Discharge piping was installed from the sump pump to a location approximately 20 feet north of the elevator space and connected to a pipe leading to the building sewer connection. An in-line flow meter was installed just before the piping enters the sewer connection to monitor the amount of water discharged from the

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elevator sump. A ¼-inch ID sampling tube was installed from the bottom of the elevator sump to a location behind the tenant laundry room, adjacent to the elevator space, to facilitate periodic sampling of the water that accumulates in the elevator sump to satisfy the Monroe County Department of Environmental Services (MCDES) sewer use permit requirements . The steel sump cover was installed including two 4-inch drains/traps that collectively allow up to 100 gallons per minute of water to drain through the sump cover while preventing vapors from escaping through the drains. The cover is recessed from the elevator floor by approximately 1-inch to allow drainage of water collected by a series of ½-inch channels cut into the floor. The perimeter of the sump cover, and all piping penetrations were sealed with silicone.

- On October 16, after all exterior grading activities had been completed, Nothnagle Drilling cut down the four exterior groundwater monitoring well risers (B101-MW, B102-MW, RW-4, and RW-11) to meet final surface grades. The wells were finished with flush-mounted well boxes. Interior well B106-MW (located in the atrium, beneath the Carriage platform) was finished with a stick-up PVC riser fitted with a J-plug.

- The Department issued a "No Further Action" fact sheet that invited public comment on the Alternatives Analysis Report and Remedial Action Work Plan (AAR/RAWP) until December 8, 2014.

- On October 23, Parrone surveyed the site features for the environmental easement. This included the exterior, on-site monitoring wells. On October 28, Stantec surveyed all monitoring wells whose top-of-casing elevations had been modified during construction activities. This included all interior wells. The locations and elevations measured by Stantec were provided to Parrone for the final environmental easement survey package.

- On October 28 and 29, twelve groundwater monitoring wells were sampled as outlined in the Enhanced Reductive Dechlorination IRM Work Plan. The attached Table 1 summarizes the recorded groundwater field parameters for this event, and previous injection monitoring events. The data indicate the desired anaerobic, reducing conditions (dissolved oxygen concentrations generally lower than 0.7 mg/L and oxidation-reduction potential values generally lower than -130 mV) are present in each of the wells that received injections of the sodium lactate solution.

- On October 29, a representative MCDES was on site to collect a sample of the water in the elevator sump.

2. Data Received or Generated in the Previous Month

- No laboratory results were received during the month of October.

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3. Deliverables Completed and Submitted during the Previous Month

- Monthly Progress Report No. 19 was submitted on October 10.
- The final EDD was submitted on October 15, and uploaded to the NYSDEC database on October 23.
- The final Remedial Investigation Report was submitted to the Department on October 23 and approved on October 24.

4. Actions Scheduled for the Next Reporting Period

The following activities are anticipated to occur in November 2014:

- Attend the Department's Calendar Call meeting on November 7, 2014.
- Submission of the final Interim Remedial Measures Construction Completion Report and Site Management Plan to the Department.

5. Completion, Delays and Future Schedule

Construction delays have occurred in the elevator shaft pit with the construction of a permanent sump enclosure, and completion of the SSDS.

Closing

If you have any questions or require further information, please call me at any time.

Regards,

STANTEC CONSULTING SERVICES INC.

Michael P. Storonsky
Managing Principal
Phone: 585-413-5266
mike.storonsky@stantec.com

Attachments

Table 1 – Summary of Groundwater Field Parameters
Figure 1 – Sub-Slab Depressurization System Layout

Reference: **Brownfield Cleanup Program**
Monthly Progress Report #20
Site #C828184
Former Carriage Factory
33 Litchfield Street, Rochester, NY

ec:

Bart Putzig (NYSDEC)	Al Floro (Nixon Peabody)
James Mahoney (NYSDEC)	Jonathan Penna (Nixon Peabody)
Justin Deming (NYSDOH)	Mark Gregor (City of Rochester)
Stephanie Selmer (NYSDOH)	Eleonora Bershadskaya (Goldman Sachs)
James Whalen (CFSNA)	Daniel Alger (Goldman Sachs)
Mark Fuller (CFSNA)	Linda Kaiser (Goldman Sachs)
Gillian Conde (CFSNA)	Patrick Miller (CPC)
Joy Cromwell (CFSNA)	David Lent (IVI)
Chris Betts (Betts Housing)	Amy Reichhart (Nixon Peabody)

Table 1 Summary of Groundwater Field Parameters
Former Carriage Factory
33 Litchfield Street, Rochester, NY

Sample Location		B101-MW	B102-MW					B106-MW						B108-MW					
Purge Date		21-May-13	22-May-13	27-Mar-14	28-May-14	2-Jul-14	6-Aug-14	28-Oct-14	23-May-13	26-Mar-14	28-May-14	2-Jul-14	7-Aug-14	28-Oct-14	23-May-13	26-Mar-14	28-May-14	2-Jul-14	8-Aug-14	29-Oct-14
Purge Methodology		Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow
Purge Method		Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic
Sample Date		21-May-13	22-May-13	27-Mar-14	28-May-14	2-Jul-14	6-Aug-14	28-Oct-14	23-May-13	26-Mar-14	28-May-14	2-Jul-14	7-Aug-14	28-Oct-14	23-May-13	26-Mar-14	28-May-14	2-Jul-14	8-Aug-14	29-Oct-14
Sampling Method		Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic
Field Parameters	**Units**																			
Conductivity	mS/cm	0.99	0.86	0.90	0.92	1.41	1.03	1.15	0.92	1.08	1.29	2.20	1.30	1.09	0.95	1.06	1.05	1.27	1.22	1.22
Dissolved Oxygen	mg/L	1.34	0.10	0.12	0.19	0.14	0.03	1.09	0.13	0.07	0.08	0.17	0.11	0.40	0.13	0.13	0.10	0.18	0.13	0.31
Oxidation Reduction Potential	mV	-25.0	13.3	73.6	-49.7	-271.6	-284.0	-118.9	17.8	90.8	-96.3	-231.4	-274.4	-138.8	29.1	137.1	-69.9	-216.0	-293.4	-354.1
pH	S.U.	7.02	6.87	7.02	7.15	7.26	7.04	7.06	6.99	7.05	7.15	6.96	7.07	7.02	7.15	7.04	7.21	7.04	7.02	7.08
Temperature	deg C	13.4	20.5	3.7	18.4	16.2	20.4	15.9	16.1	3.0	18.3	15.7	16.5	15.4	13.6	10.6	19.5	16.1	15.4	16.0
Turbidity	NTU	0.68	4.07	11.71	1.87	1.79	1.45	2.75	4.77	1.84	1.48	1.46	2.1	2.46	0.62	0.28	3.54	0.86	3.78	3.24
Volume Purged	gal	0.8	1.2	0.5	2.6	2.0	2.0	0.7	1.1	0.7	1.8	1.5	1.7	1.4	0.5	0.7	1.8	1.1	1.55	1.7

Sample Location		RW-1						RW-2						RW-3					
Purge Date		23-May-13	26-Mar-14	29-May-14	1-Jul-14	8-Aug-14	29-Oct-14	21-May-13	26-Mar-14	29-May-14	1-Jul-14	8-Aug-14	29-Oct-14	22-May-13	26-Mar-14	29-May-14	1-Jul-14	7-Aug-14	29-Oct-14
Purge Methodology		Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow
Purge Method		Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic
Sample Date		23-May-13	26-Mar-14	29-May-14	1-Jul-14	8-Aug-14	29-Oct-14	21-May-13	26-Mar-14	29-May-14	1-Jul-14	8-Aug-14	29-Oct-14	22-May-13	26-Mar-14	29-May-14	1-Jul-14	7-Aug-14	29-Oct-14
Sampling Method		Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic
Field Parameters	**Units**																		
Conductivity	mS/cm	0.74	1.07	1.22	2.12	1.15	1.23	0.85	1.08	2.34	1.70	1.68	1.27	0.87	1.09	1.79	1.31	1.00	1.05
Dissolved Oxygen	mg/L	0.13	0.01	0.11	0.08	0.14	0.70	0.28	0.03	0.20	0.11	0.16	0.65	0.15	0.06	0.08	0.06	0.23	0.37
Oxidation Reduction Potential	mV	-94.3	179.0	-147.8	-252.9	-313.0	-297.2	-30.3	156.8	-171.5	-172.0	-292.5	-286.4	87.3	157.6	-132.8	-213.0	-216.8	-242.2
pH	S.U.	7.19	7.05	7.16	6.75	7.05	7.36	7.36	7.11	6.94	7.56	6.93	7.52	7.39	7.07	7.45	7.67	7.35	7.71
Temperature	deg C	12.5	8.6	18.8	16.5	15.0	15.3	12.7	7.2	16.8	16.8	14.9	16.0	12.4	9.3	17.7	15.3	15	15.7
Turbidity	NTU	10.55	12.37	1.66	6.31	3.19	4.41	5.23	3.81	7.53	2.34	1.71	3.71	0.88	1.29	1.24	1.72	1.62	2.42
Volume Purged	gal	0.7	0.7	1.5	1.4	1.8	0.9	1.2	0.8	1.4	0.3	1.15	0.6	0.5	0.7	1.5	1.8	0.5	0.6

Sample Location		RW-4						RW-5						RW-6					
Purge Date		22-May-13	26-Mar-14	29-May-14	2-Jul-14	6-Aug-14	29-Oct-14	21-May-13	27-Mar-14	29-May-14	2-Jul-14	7-Aug-14	28-Oct-14	20-May-13	27-Mar-14	28-May-14	1-Jul-14	7-Aug-14	28-Oct-14
Purge Methodology		Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow
Purge Method		Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic
Sample Date		22-May-13	26-Mar-14	29-May-14	2-Jul-14	6-Aug-14	29-Oct-14	21-May-13	27-Mar-14	29-May-14	2-Jul-14	7-Aug-14	28-Oct-14	20-May-13	27-Mar-14	28-May-14	1-Jul-14	7-Aug-14	28-Oct-14
Sampling Method		Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic
Field Parameters	**Units**																		
Conductivity	mS/cm	0.91	0.88	0.89	1.94	1.67	1.00	0.89	1.08	1.40	1.86	1.20	1.01	0.93	1.07	1.72	1.34	1.30	1.21
Dissolved Oxygen	mg/L	0.11	0.17	0.06	0.15	0.04	0.44	0.28	0.00	0.06	0.19	0.08	0.43	0.08	0.01	0.07	0.10	0.14	0.42
Oxidation Reduction Potential	mV	38.6	132.4	29.3	-180.2	-347	-130.3	-2.3	74.7	-95.6	-137.8	-170.0	-164.1	-10.6	138.3	-69.0	-136.7	-306.1	-134.8
pH	S.U.	6.91	7.08	7.10	6.90	7.05	6.95	7.07	7.29	7.27	7.03	7.07	7.23	7.13	7.33	7.03	6.91	7.00	7.06
Temperature	deg C	20.0	2.4	25.5	17.4	19.2	14.8	16.2	5.7	22.8	17.3	19.9	17.5	19.0	6.1	17.6	21.2	17.2	16.7
Turbidity	NTU	5.68	5.81	1.72	3.18	1.93	1.06	2.98	1.22	7.10	1.88	3.89	1.77	7.08[a]	5.46	7.48	4.83	4.79	1.03
Volume Purged	gal	0.8	1.8	0.9	1.9	1.1	2.1	1.1	3.2	0.5	1.2	1.5	0.8	1.3	1.1	1.2	0.7	1.0	0.7

Sample Location		RW-7						RW-8	RW-9						RW-11		RW-12			
Purge Date		20-May-13	27-Mar-14	28-May-14	1-Jul-14	7-Aug-14	28-Oct-14	20-May-13	21-May-13	27-Mar-14	29-May-14	1-Jul-14	7-Aug-14	28-Oct-14	22-May-13	27-Mar-14	20-May-13	28-May-14	2-Jul-14	7-Aug-14	29-Oct-14
Purge Methodology		Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow	Low flow
Purge Method		Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic
Sample Date		20-May-13	27-Mar-14	28-May-14	1-Jul-14	7-Aug-14	28-Oct-14	20-May-13	21-May-13	27-Mar-14	29-May-14	1-Jul-14	7-Aug-14	28-Oct-14	22-May-13	27-Mar-14	20-May-13	28-May-14	2-Jul-14	7-Aug-14	29-Oct-14
Sampling Method		Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic	Peristaltic
Field Parameters	**Units**																				
Conductivity	mS/cm	1.02	1.21	1.30	1.17	1.07	0.96	1.04	0.94	1.05	0.68	0.74	0.85	0.98	0.79	0.82	1.02	1.76	2.09	2.00	1.60
Dissolved Oxygen	mg/L	0.08	0.38	0.31	0.13	0.11	0.44	1.06	2.48	2.45	5.52	2.37	2.43	0.50	2.36	1.62	0.06	0.06	0.24	0.45	1.02
Oxidation Reduction Potential	mV	29.4	92.6	-37.6	-104.6	-303.6	-168.2	77.0	49.4	104.6	28.1	33.9	51.0	4.1	94.5	88.8	20.0	-149.5	-204.6	-159.7	-44.7
pH	S.U.	7.06	7.27	7.08	6.99	7.07	7.11	7.05	7.13	7.29	7.44	7.12	7.06	7.04	7.15	7.33	7.10	7.25	7.11	7.17	7.30
Temperature	deg C	16.8	6.7	20.3	18.4	16.3	17.5	14.4	14.0	9.4	20.7	19.0	15.5	16.8	14.6	5.1	16.0	24.1	17.4	18.1	14.8
Turbidity	NTU	10.38	1.36	3.12	1.12	1.53	4.74	2.54	0.33	0.50	3.62	1.80	1.06	1.61	0.11[b]	1.31	— [c]	1.10	5.55	2.82	2.45
Volume Purged	gal	1.2	0.9	1.8	1.2	1.5	1.3	1.0	0.8	1.2	0.7	0.35	0.7	2.9	0.4	0.7	1.0	2.0	0.9	1.3	0.6

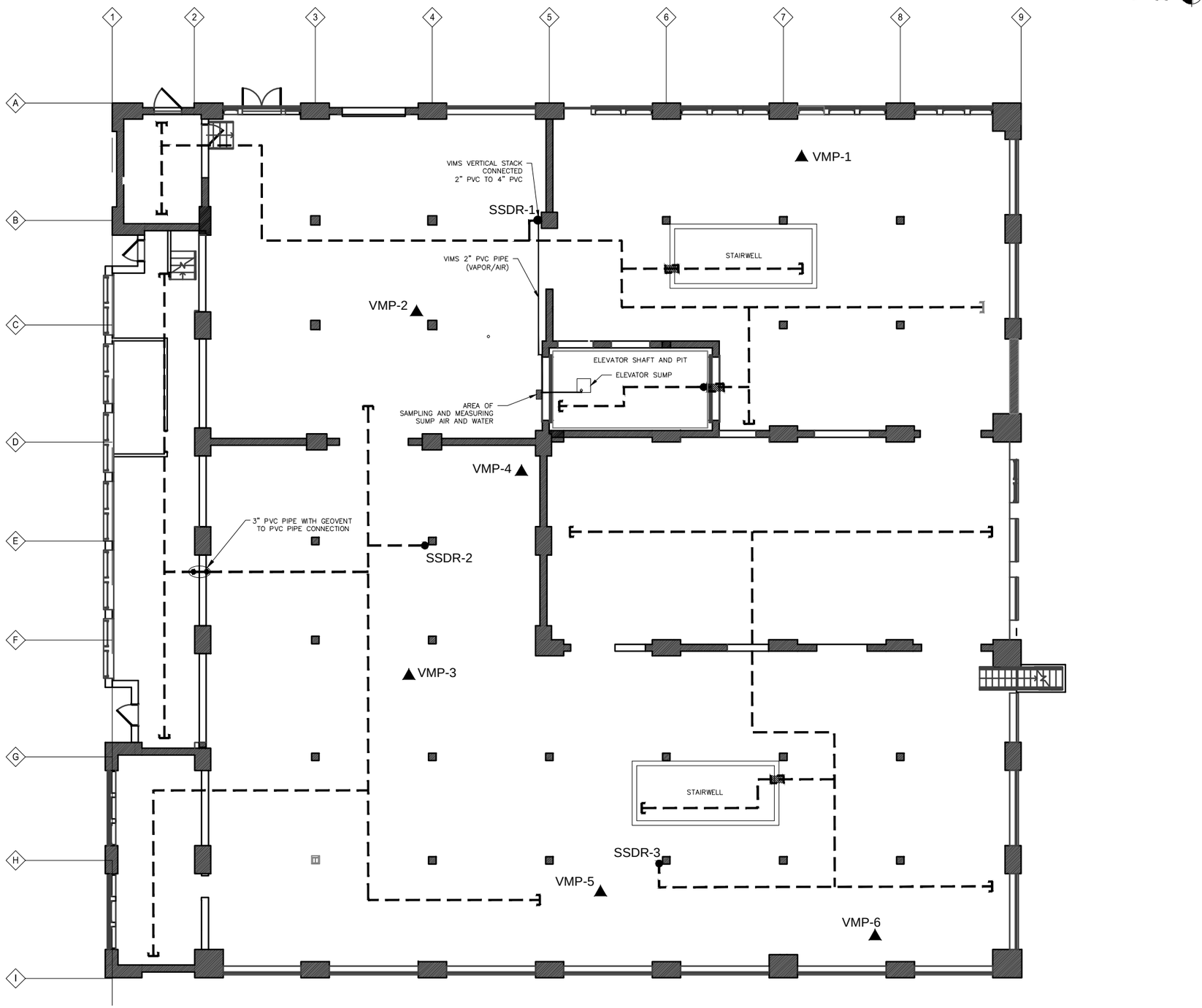
Sample Location		RW-13	
Purge Date		20-May-13	27-Mar-14
Purge Methodology		Low flow	Low flow
Purge Method		Peristaltic	Peristaltic
Sample Date		20-May-13	27-Mar-14
Sampling Method		Peristaltic	Peristaltic
Field Parameters	**Units**		
Conductivity	mS/cm	1.08	1.12
Dissolved Oxygen	mg/L	1.96	2.13
Oxidation Reduction Potential	mV	48.6	101.8
pH	S.U.	7.21	7.25
Temperature	deg C	17.2	6.0
Turbidity	NTU	5.10	1.86
Volume Purged	gal	2.3	2.0

Parameter Average for All Wells
Pre - Post Injection Comparison

Parameter	Mar-14	May-14	Jul-14	Aug-14	Oct-14
	Pre-Injection Baseline	*Month 1 Post-Injection*	*Month 2 Post-Injection*	*Month 3 Post-Injection*	*Month 6 Post-Injection*
Conductivity	**1.04**	**1.36**	**1.60**	**1.29**	**1.15**
Dissolved Oxygen	**0.55**	**0.57**	**0.33**	**0.34**	**0.56**
ORP	**117.55**	**-80.19**	**-173.91**	**-242.46**	**-172.97**
pH	**7.17**	**7.19**	**7.11**	**7.07**	**7.20**
Temperature	**6.45**	**20.04**	**17.28**	**16.95**	**16.03**
Turbidity	**3.76**	**3.46**	**2.74**	**2.49**	**2.64**
Volume Purged	**1.15**	**1.48**	**1.20**	**1.32**	**1.19**

Notes:

deg c	degrees Celsius
gal	gallons
mg/l	milligrams per liter
mS/cm	milliSiemens per centimeter
mV	millivolts
NTU	nephelometric turbidity unit
AU	attenuation unit (equivalent to NTU)
S.U.	standard units
a	Sample turbidity measured approximately 10 minutes prior to sampling; subsequent measurements (-126 NTU) indicated that the turbidity meter was not functioning.
b	Sample turbidity measured approximately 5 minutes prior to sampling; subsequent measurement (-0.02 NTU) indicated that the turbidity meter was not functioning.
c	Turbidity meter was not functioning; groundwater was clear and did not have an odor.



0 8 16 24

SCALE IN FEET
1" = 16'

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Consultants

Legend

- VACUUM MONITORING POINTS (VM)
- RISER PIPE (SSDR-1)
- GEOVENT WITH CAP
- SOLID PVC PIPE
- 3" PVC PIPE WITH GEOVENT TO PVC PIPE CONNECTION
- METAL SLEEVES

Notes

1.) VIMS = VAPOR INTRUSION MITIGATION SYSTEM
2.) VIMS (LIQUID BOOT MEMBRANE SECTION) APPLIED UNDER ENTIRE CONCRETE SLAB.

Revision	By	Appd.	YY.MM.DD

Issued	By	Appd.	YY.MM.DD

File Name:

	Dwn.	Chkd.	Dsgn.	YY.MM.DD

Permit-Seal

Client/Project

CARRIAGE FACTORY

INTERIM REMEDIAL MEASURES CONSTRUCTION COMPLETION REPORT

BROWNFIELD CLEANUP PROGRAM
FORMER CARRIAGE FACTORY

33 LITCHFIELD STREET, ROCHESTER , NY

Title

SUB-SLAB DEPRESSURIZATION SYSTEM LAYOUT

Project No.	Scale	
190500751	AS SHOWN	
Drawing No.	Sheet	Revision
FIGURE 1	of	0

J:\190500751\Drawing\CAD\Basement Excavation\Progress Report November 2014\Figure 1 Sub-Slab Depressurization System Layout.dwg
2014/11/19 8:44 AM By: Lees, Andy

ORIGINAL SHEET – ANSI D