WALDEN ASSOCIATES

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Via email to jldyber@gw.dec.state.ny.us

June 9, 2014

Mr. Jeffrey Dyber, P.E.
NYSDEC, Remedial Bureau A
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7015

Re: Progress Report: May 2014
Frost Street Sites: Site ID #s 1-30043 I, L, M
New Cassel Industrial Area, Westbury, New York

Dear Mr. Dyber:

Walden Associates (Walden) is pleased to submit the Progress Report for the above-referenced Site for work completed in May 2014.

Work Completed in May 2014

SVE/AS System O&M

Refer to Appendix A for a summary of SVE/AS System O&M procedures. During periodic O&M visits, system parameters were logged on dedicated O&M log forms (Refer to Appendix B).

- Periodic SVE/AS remedial system O&M was conducted.
- Repair and maintenance tasks were completed as needed to ensure proper operation of the SVE/AS system.
- Periodic monitoring of individual SVE well lines and combined effluent flow at the interior system sampling ports for VOC concentrations utilizing a calibrated PID was conducted.
- Periodic PID readings of the influent and effluent sampling ports for the on-site SVE system vapor phase granular activated carbon (GAC) treatment vessels were taken.
- Spent vapor phase GAC totals to date are summarized in Table C-1 in Appendix C.

- Quantitative sampling of the influent and effluent SVE system air flow was conducted with one liter summa canisters for TO-15 analysis on May 29, 2014. The sample results for the May 29th sampling event are not yet available and will be presented in the next monthly report.
- The laboratory analytical data report for the May 7, 2014 quantitative sampling event (done as representative of April 2014) is attached in Appendix D.

Quarterly/Annual Groundwater Monitoring

- The 1st quarter 2014 groundwater sampling analytical data (8 monitoring wells - completed from March 25 - 27, 2014) was validated by a third party data validator. The data validation report is attached in Appendix E.
- The validated March 2014 quarterly sampling groundwater monitoring analytical data was submitted to NYSDEC on May 23, 2014 per the Electronic Data Deliverable (EDD) requirements.

89 Frost Street Site Source Area

- The "Proposed Source Zone Treatment System Optimization" proposal was submitted to NYSDEC on May 6, 2014.
- NYSDEC's comments on the "Proposed Source Zone Treatment System Optimization" proposal were received in a letter dated May 13, 2014. NYSDEC has been notified that the proposal will be modified in accordance with the comments and resubmitted by June 19, 2014.

Upcoming Work

- Monthly operation and maintenance visits to monitor SVE system parameters will be completed.
- Monthly individual SVE well line and combined effluent flow monitoring at the interior system sampling ports for VOC concentrations utilizing a calibrated PID will be completed.
- Monthly readings of the sampling ports at the influent and effluent points of the GAC system with a PID will be taken.
- Monthly quantitative sampling of influent and effluent SVE system air for analysis will be completed.
- A quarterly groundwater monitoring report for the first quarter March 2014 sampling event will be submitted to the NYSDEC upon report completion.
- The second quarter 2014 groundwater sampling event (8 monitoring wells) is scheduled to be conducted on June 24 and 25, 2014.
- The revised "Proposed Source Zone Treatment System Optimization" proposal will be submitted to NYSDEC by June 19th.

Please contact Kristin Scroope or me if you have any questions or require additional information.

Very truly yours,
Walden Associates

Joseph M. Heaney, III P.E.
Principal

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Appendix A

Summary of SVE/AS System O & M Procedures

Frost Street Sites - Site ID #s1-30043 I, L, M

New Cassel Industrial Area, Westbury, New York

Summary of SVE/AS System O&M Activities

During periodic O&M visits, system parameters were logged on dedicated O&M log forms (Refer to Appendix B). The following summarizes SVE/AS system O&M procedures:

Periodic SVE/AS Remedial System O&M

- All SVE well lines and the combined effluent air flow were monitored at the interior system sampling ports for volatile organic compounds (VOCs) using a calibrated photo-ionization detector PID to assess the remedial performance of the SVE/AS system.
- Mechanical checks of the SVE/AS system were performed periodically in accordance with the O&M Manual maintenance schedule.

Vapor Phase Granular Activated Carbon Treatment System Monitoring

- Monthly readings at the influent and effluent sampling ports were made with a calibrated PID to check the GAC system to detect carbon breakthrough. Qualitative VOC monitoring with a PID was utilized to record the performance of the GAC absorption system.
- PID-recorded VOC concentrations (reported in calibrant-gas-equivalents) were used to determine when the GAC in the lead unit requires replacement. The flow from the SVE lines to the lead carbon unit was typically changed to a new lead unit when the intermediate VOC reading is 25 percent or greater of the influent VOC concentration.
- Refer to Appendix C for a log of spent GAC totals to date.

Appendix B

SVE/AS System O & M Log Forms

Frost Street Sites - Site ID #s1-30043 I, L, M
New Cassel Industrial Area, Westbury, New York

O & M CHECKLIST FOR SVE/AIR SPARGE SYSTEM
101 Frost Street, Westbury, New York

Inspected By: TMJ	Date: 5/29/2014	Weather: Sunny @ 70° F

Arrival Time:	13:40	SVE 1 Clock: 35152.00	AS 1 Clock: 25019.8
Departure Time:	15:00	SVE 2 Clock: 36854.7	AS 2 Clock: 15147.3

CONTROL PANEL	Arrival	Departure
AS System	On	On
SVE System	On	On
Surge Protection	Lit	Lit
Lightning Protection	White	White
Sensaphone	On	On

AIR SPARGE SYSTEM		
Cleaned Particulate Filter	Yes	
Drained Filter/collector 1	Yes	
Drained Filter/collector 2	Yes	
Compressor Discharge Pressure		psi
Compressor Holding tank Pressure	100	psi

PID	ppm range	ppb range
Calibrated	Yes	--
Concentration:	100 ppm	-- ppb

SVE SYSTEM	
Knockout Tank Level	<50 gallons
Knockout Discharge to Sewer	0 gallons

Carbon Vessels	Pre-Carbon PID		Post Carbon PID		Bypassed
Carbon Vessel 1	-- ppm	-- ppb	-- ppm	-- ppb	Yes
Carbon Vessel 2	-- ppm	16400 ppb	-- ppm	0 ppb	No
Carbon Vessel 3	-- ppm	-- ppb	-- ppm	-- ppb	Yes

Monitoring Well Depth to Water Readings (feet)	
2a	51.2
4a	50.65
6a	46.35

SVE WELL READINGS (INSIDE TRAILER)

SVE	Velocity	Flow	Vacuum	PID Concentration
V1	7500 FPM	-- scfm	48 inch H_20	-- ppm 38,400 ppb
V2	5000 FPM	-- scfm	50 inch H_20	-- ppm 38,200 ppb
V3a	4600 FPM	-- scfm	40 inch H_20	-- ppm 3672 ppb
V3	5500 FPM	-- scfm	42 inch H_20	-- ppm 13,500 ppb
V4	4600 FPM	-- scfm	42 inch H_20	-- ppm 931 ppb
V6	3800 FPM	-- scfm	41 inch H_20	-- ppm 66 ppb
V5	3500 FPM	-- scfm	42 inch H_20	-- ppm 461 ppb
V7	3600 FPM	-- scfm	42 inch H_20	-- ppm 50 ppb
Pre-Knockout Port			3.0 inch Hg vac	-- ppm 16,400 ppb
SVE Flow Rate	4200 FPM	-- scfm		

AS WELL READINGS (INSIDE TRAILER)

AS WELL #	Pressure	Air Flow	AS WELL #	Pressure	
AS Well #1	15 psi	8 SCFM	AS Well #16	14 psi	0 SCFM
AS Well #2	15 psi	8 SCFM	AS Well #12	0 psi	0 SCFM
AS Well #4	15 psi	8 SCFM	AS Well #10	0 psi	0 SCFM
AS Well #3	14.5 psi	6 SCFM	AS Well #13	0 psi	0 SCFM
AS Well #5	16 psi	8 SCFM	AS Well #14	15 psi	9 SCFM
AS Well #7	15.5 psi	0 SCFM	AS Well #18	14.5 psi	7 SCFM
AS Well #9	15 psi	8 SCFM	AS Well #17	15.5 psi	6 SCFM
AS Well #8	14.5 psi	9 SCFM	AS Well #15	16 psi	8 SCFM
AS Well #6	14 psi	8 SCFM	AS Well #19	15 psi	0 SCFM
AS Well #11	14.5 psi	0 SCFM			

NOTES

11435 Collected Inffluent 05292014 air sample in canister 1SC00438

1341 Collected Effluent 05292014 air sample in canister 1SC00769.

Air Sparge regulator pressure: 75 psi

AS Compressor #1 Running Upon Arrival

No flow was observed within AS# 7, 11, 16, 19

Upon Arrival SVE#1 Filter High Vacuum light was on. It was determined that the filter was clogged from switching carbon vessels last month.

Appendix C

Log of Spent Vapor Phase GAC Totals to Date

Frost Street Sites - Site ID #s1-30043 I, L, M

New Cassel Industrial Area, Westbury, New York

Frost Street Sites
Westbury, New York

Table C1
Spent Vapor Phase GAC Totals

Date of Transport from Site	Spent GAC Weight (pounds)	Carbon Facility	RCRA Facility #
January 19, 2006	7,500	Giant Resource Recovery-Sumter Inc.	SCD036275626
February 2, 2006	11,441	Envirotrol Inc.	PAD987270725
April 7, 2006	6,486	Envirotrol Inc.	PAD987270725
August 25, 2006	5,923	Envirotrol Inc.	PAD987270725
December 5, 2006	5,691	Envirotrol Inc.	PAD987270725
2006 Total	***37,041***		
March 30, 2007	6,913	Envirotrol Inc.	PAD987270725
September 20, 2007	6,164	Envirotrol Inc.	PAD987270725
2007 Total	***13,077***		
January 16, 2008	8,750	Siemens Water Technologies	PAD987270725
April 29, 2008	7,814	Siemens Water Technologies	PAD987270725
September 12, 2008	5,469	Siemens Water Technologies	PAD987270725
2008 Total	***22,033***		
January 28, 2009	7,004	Siemens Water Technologies	PAD987270725
June 4, 2009	6,814	Siemens Water Technologies	PAD987270725
December 8, 2009	6,924	Siemens Water Technologies	PAD987270725
2009 Total	***20,742***		
June 3, 2010	7,207	Siemens Water Technologies	PAD987270725
2010 Total	***7,207***		
January 19, 2011	7,102	Siemens Water Technologies	PAD987270725
2011 Total	***7,102***		
January 25, 2012	7,394	Siemens Water Technologies	PAD987270725
2012 Total	***7,394***		
July 1, 2013	6,757	Siemens Water Technologies	PAD987270725
2013 Total	***6,757***		
March 11, 2014	8,023	Siemens Water Technologies	PAD987270725
2014 Total	***8,023***		
Project Total	**129,376**		

Appendix D

SVE System Influent/Effluent Sampling (TO-15)
Laboratory Analytical Results (on CD)

Frost Street Sites - Site ID #s1-30043 I, L, M

New Cassel Industrial Area, Westbury, New York

Appendix E

March 2014 Groundwater Sampling
Data Validation Report (on CD)
Frost Street Sites - Site ID #s1-30043 I, L, M
New Cassel Industrial Area, Westbury, New York