

November 11, 2005

Stephen J. DeNardis, P.E. Resident Engineer West Point Area Office New York District U.S. Army Corps of Engineers Building 667A 3rd Floor West Point, New York 10996

Attention:

Mr. Raymond Schembri, P.E./Mr. Lawrence Danner, P.E.

RE:

September Monthly Progress Report Contract # DACA41-01-D-001-0006

Vestal Wellfield 1-1, Area 4, Vestal, New York

Sirs:

Enclosed is the September Monthly Progress Report for the referenced contract. This report covers system operations from 15 September 2005 through 30 September 2005. O&M as well as sampling activities for the period are summarized in this report. Copies of the analytical data are included. The activity in this report covers 30 operational days in September 2005.

Please email me at <u>cmarshall@sevensonphilly.com</u> or call at 610-388-0721 if you've any questions.

Sincerely,

Sevenson Environmental Services, Inc.

Cassandra T. Marshall

Project Manager

CTM/1

cc:

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TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE (Read Instructions on the reverse side prior to initiating this form)						DATE 11/11/05 X New Submittal Resubmittal			
Section 1	REQUEST FOR A	PPROVAL O	F THE FOLLOWING ITE	MS (Th	nis sect	ion will be in	itiated by the contr	actor)	
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	nt, New York 10996	Niagara Fall	s, N.Y. 14302					(If Any)	
SPECIFIC transmittal)	CATION SEC. NO. (Cover only one section w	Iith each	PROJECT TITLE AND System, Broome Count			Vestal Well	I-1 Superfund Site,	Area 2 Soil Vapor E	Extraction
ITEM NO.			MFG. OR CONTR. CAT., CURVE DRAWING OR	NO. COP			CT REFERENCE DCUMENT	VARIATIONS (See instruction No.	FOR C E USE CODE
			BROCHURE NO. (See instruction No. 8)	ROCHURE NO.		SPEC. DRAWING PARA. NO. SHEET NO			
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1.	September 2005 Monthly Report								
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Section II			APPROVAL ACTION						
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MONTHLY PROGRESS REPORT (September 1 through September 30, 2005)

IN-SITU SOIL VAPOR EXTRACTION SYSTEM VESTAL WATER SUPPLY WELL 1-1 SUPERFUND SITE, OPERABLE UNIT 2, AREA 4 VESTAL, NEW YORK

Prepared by:

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Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305

October 17, 2005

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1.0 INTRODUCTION

Envirogen/Shaw E&I, Inc. has prepared this Monthly Progress Report for the operation of the Soil Vapor Extraction System (SVE system or System) for the Vestal Well 1-1 Superfund Site, Area 4 in Vestal, NY. This report was prepared under a subcontract to Sevenson Environmental Services, Inc, under contract DACA41-01-D-0001-0006. Sevenson's remedial action work is under supervision of the U.S. Environmental Protection Agency (USEPA) and the U.S. Army Corps of Engineers (USACE).

Figure 1 is a Site plan showing the SVE System treatment area, comprised of Cells 1 and 2 and other major components of the System. Construction of the SVE System began in early April and was completed in late June 2003. Start-up of the SVE System began on June 23, 2003. The SVE System is operated in accordance the Final Design documents, O&M Manual and subsequent correspondence with the USEPA and USACE. This report covers the time from September 1 to September 30, 2005.

Section 2.0 of this report summarizes general activities conducted during the reporting period. Section 3.0 summarizes System monitoring and adjustments. Section 4.0 discusses volatile organic compound (VOC) contaminant yields based on process air analytical data and flow rates. Section 5.0 discusses problems encountered during the reporting period and their respective corrective measures. Section 6.0 lists anticipated future activities.

2.0 SUMMARY OF ACTIVITIES CONDUCTED DURING THE REPORTING PERIOD

The monthly O&M inspection was performed on September 28, 2005. Airflow, pressure/vacuum, and PID readings were measured throughout the System on September 28, 2005. Process air sampling of the System (influent, mid-carbon and effluent) was performed on September 28, 2005.

The SVE System at the Vestal Area 4 Site ran approximately 16 days without incident during the period 9/1/05 to 9/30/05.

Shaw personnel and Sevenson oversight were on-site during the week of September 5, 2005, to investigate the "mystery well", to conduct Interim Soil Sampling Event #2, and to install a Temporary Groundwater Monitoring well at ISB-5. Once it was opened, the "mystery well" (a well on Stage Road in the vicinity of the old Area 2 of this site that was reported collapsed) was discovered to be an old pressure monitoring point. The collapsed well was closed and the road was repaired. Extensive well closure was not needed. Using a GeoProbe®, soil samples were collected from ISB-5, ISB-6, ISB-7, and ISB-8 from varying depths up to a depth of 20 feet. Deeper samples (using the same GeoProbe ®) were not taken during this visit due to a gravel

layer that collapsed as it was encountered. We expect to return to get the deeper samples once the drill rig can be scheduled sometime in October.

Personnel returned to the site on September 21, 2005 to collect a water sample from the TMW-1.

Physical monitoring of the System parameters, such as vacuum/pressure, temperature, PID readings, and air flow measurements, along with routine maintenance of the System, was conducted during the September reporting period in accordance with the O&M Manual. These O&M measurements and site activities were recorded on daily O&M logs, which are available on-site.

The System was operational approximately 30 days from September 1 to September 30, 2005. This brings the total operational time to approximately 643 days since the June 23, 2003 start-up.

3.0 SVE SYSTEM MONITORING AND ADJUSTMENTS

This section summarizes monitoring of and adjustments to the SVE System during the reporting period. Monitoring of the System included pressure/vacuum and temperature measurements, air flow measurements, and process air sampling and associated VOC analysis. The locations of the SVE wells are illustrated in Figure 1. System parameters were recorded on O&M daily log sheets, available on-site. The chain-of-custody forms and laboratory data summary sheets are provided in Appendix A. All monitoring and/or adjustments were performed in accordance with the O&M Manual.

3.1 Process Air Flows

This section discusses process air flow measurements and balancing throughout the entire System and for the individual SVE wells. Individual SVE withdrawal and injection well process airflow measurements and PID readings were taken on September 28 and are provided in Table 1.

3.1.1 Total System Process Air Flow

During the reporting period, airflow throughout the entire System was measured as outlined in the O&M Manual. The airflow through the System was calculated by measuring amount of vacuum, temperature, speed of the SVE blower, elevation, then using these values to obtain the air flow from the blower curve computer model supplied by the manufacturer (Roots Inc.). Based on this data, the calculated airflow through the entire System on September 28,

2005 averaged 512 cubic feet per minute (cfm). This data is shown in Appendix B. The bypass airflow for September 2005 was approximately 210 scfm.

3.1.2 SVE Well Process Air Flow

Individual SVE withdrawal well process airflow measurements were recorded on September 28, 2005. In addition, PID readings were recorded when process air samples were taken. During the September 28, 2005 System sampling event, PID readings were also taken on the individual SVE withdrawal wells. This data is contained in Table 1.

3.2 Process Air VOC Concentrations

Process air samples were collected during the reporting period on September 28, 2005. Samples were collected and analyzed in accordance with the O&M Manual. The system process air analytical results are contained in Appendix A.

4.0 VOC YIELD

This section details the System VOC yield based on System sampling events performed during the September 1 to September 30, 2005 reporting period. Discussed in this section is the estimated Total Targeted Contaminant (TTC) VOC yield, based on the airflow through the blowers and the composite/total system VOC analytical results. Table 2 shows the total target contaminant yield for each sampling period.

4.1 Total System VOC Yield

The total System VOC yield was calculated using the total system airflow rates and contaminant concentrations. Cumulative system contaminant yields for the reporting period are shown in Table 3. Based on these calculations, the System yielded approximately 107.31 pounds of VOCs from August 31, 2005 to September 28, 2005. The average yield rate of the System per operational day between August 31, 2005 and September 28, 2005 is 3.83 lbs/day. TCE constitutes approximately 43 percent and 1,1,1-TCA approximately 57 percent of the total VOC yield over the reporting period. The total TTC yield from start-up (June 23, 2003) to September 28, 2005 is 2,212.71 pounds. The mass of TTC VOCs removed from the treatment area is illustrated in Figure 2. The cumulative contaminant yield is calculated utilizing the data and formulas found in Appendix B. Figure 3 graphically depicts cumulative yield over system operational time. As noted in the SVE System analytical data, the percent concentration of TCE within the influent process air is 43 percent and the concentration of 1,1,1-TCA is 57 percent from startup to September 28, 2005.

5.0 PROBLEMS ENCOUNTERED DURING THE REPORTING PERIOD AND RESPECTIVE CORRECTIVE MEASURES

With the exceptions of problems discussed in Section 2.0 and in this section the System operated well throughout the month of September.

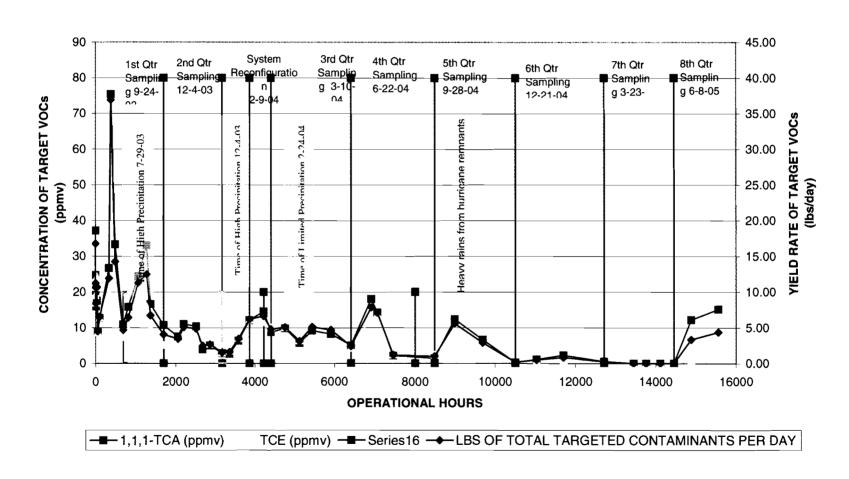
6.0 ANTICIPATED ACTIVITIES

The following activities are anticipated for the next reporting period.

- Continue O&M and monitoring of the SVE System in accordance with the O&M
 Manual and related documents.
- Continue to evaluate and adjust airflow into the SVE unit.
- Re-allocate the amount of by-pass air as Site conditions allow (wetter weather and decreased Site air temperatures).
- Return to the site to collect the Deep Samples using drill auger.
- Develop Interim Sampling Report and evaluate options for reconfiguring the system.
- Anticipate a carbon changeout in Late October or November.

FIGURES AND TABLES

FIGURE 2 CONCENTRATION (ppmv) AND YIELD RATE (lbs/day) OF TOTAL TARGET VOCs Vs. TIME TOTAL SYSTEM SAMPLE VESTAL AREA 4



700

009 TOTAL TARGET CONTAMINANT YIELD START-UP TO DATE (Ibs) Vs. TIME TOTAL SYSTEM SAMPLE VESTAL, AREA 4 --+-- TOTAL TARGET VOCs START-UP TO DATE (lbs) 200 400 **OPERATIONAL DAYS** FIGURE 3 300 80 8 0.00 2500.00

Sevenson Environmental Services, Inc. DACA41-01-D-01-0001-0006

TABLE 1 SVE WELL STATUS VESTAL AREA 4 September 28, 2005

	VAC		FLOW	T	PID	SOIL
SVE WELL#	WELL	INJ WELL	RATE	STATUS	READINGS	CONCENTRATION
Bypass Flow Ra	ite	•	210			
INFLUENT			512		5.1	
MIDDLE			512		1.3	
EFFLUENT			512		1.0	
A1		X	7	OPEN	NA	LOW
A2		X	5	OPEN	NA	LOW
A3	X		5	OPEN	3.8	LOW
B1	Х		NA	WATER	NA	LOW
B2	Х		8	OPEN	10.3	LOW
B3	X		6	OPEN	8.4	LOW
C1		X	5	OPEN	NA	LOW
C2	Х		10	OPEN	2.8	MEDIUM
C3	Х	† †	5	OPEN	4.6	MEDIUM
D1	Х	1	7	OPEN	7.7	LOW
D2		Х	9	OPEN	NA	MEDIUM
D3		Х	9	OPEN	NA	HIGH
D4	Х	1	15	OPEN	4.3	HIGH
E1	X		15	OPEN	2.0	LOW
E2		Х	10	OPEN	NA	MEDIUM
E3	X		6	OPEN	13.5	HIGH
E4	Х	1	18	OPEN	5.4	HIGH
E5	Х		15	OPEN	6.2	HIGH
F1	Х	1	5	OPEN	1.8	LOW
F2		X	4	OPEN	NA	MEDIUM
F3	Х	1	9	OPEN	4.6	MEDIUM
F4	X	1	5	OPEN	6.5	LOW
F5	X		5	OPEN	2.6	LOW
F6	Χ		12	OPEN	5.5	LOW
G1	Χ		11	OPEN	7.5	LOW
G2	Х		8	OPEN	15.6	LOW
H1	Х		6	OPEN	11.2	LOW
H2			NA	OFF	NA	LOW
l1	Χ		5	OPEN	6.5	LOW
12			NA	OFF	NA	LOW
13	Х		6	OPEN	5.4	MEDIUM
14			NA	OFF	NA	MEDIUM
15	X		6	OPEN	3.2	HIGH
J1			NA	OFF	NA	LOW
J2	Х		5	OPEN	2.6	MEDIUM
J3	Х		6	OPEN	6.5	HIGH
J4 J5	Х		6	OPEN	4.3	HIGH
J5	Х		5	OPEN	12.6	HIGH

TABLE 1 SVE WELL STATUS VESTAL AREA 4 September 28, 2005

	144E11	VAC		FLOW	OTATUO	PID	SOIL
SVE	WELL #	WELL	INJ WELL	RATE	STATUS	READINGS	CONCENTRATION
J6		Х		6	OPEN	9.4	HIGH
	K1		Х	5	OPEN	NA	LOW
K2		Х		5	OPEN	2.6	LOW
КЗ		Х		6	OPEN	16.4	MEDIUM
K4		X		6	OPEN	15.3	MEDIUM
K5		Х		6	OPEN	10.3	HIGH
	L1		Х	6	OPEN	NA	LOW
L2		Х		6	OPEN	9.4	HIGH
	L3		Х	5	OPEN	NA	LOW
L4		X		5	OPEN	5.9	LOW
	M1			NA	OFF	NA	LOW
M2		X		5	OPEN	4.3	LOW
МЗ		X		5	OPEN	3.5	LOW
	M4			NA	OFF	NA	LOW
	N1			NA	OFF	NA	LOW
	N2			NA	OFF	NA	LOW
	N3			NA	OFF	NA	LOW

NOTE: Total System Flow calculated by Roots Blower program with

climate variables of the day of sampling.

LF= limited airflow

TABLE 2
TARGET CONTAMINANT YIELD
VESTAL AREA 4

SAMPLE DATE	SAMPLE NUMBER	WELL NUMBER	1,1,1 TCA (lbs/day)	TCE (lbs/day)	TOTAL TARGET VOCs (lbs/day)
6/23/2003		ĪNF	9.58	7.18	16.76
6/23/2003	VS-SS-INFL-062303-1	INF	6.37	4.85	11.22
	INFLUENT AVG PER DAY FOR PERIOD 7.98 6.02				13.99
	TOTAL YIELD (lbs) FOR PER				0.56
6/23/2003	VS-SS-INFL-062303-1	INF	6.37	4.85	11.22
6/23/2003	VS-SS-INFL-062303-4	INF	5.23	5.42	10.66
	INFLUENT AVG PER DAY FO		5.80	5.14	10.94
	TOTAL YIELD (lbs) FOR PER				1.42
6/23/2003	VS-SS-INFL-062303-4	INF	5.23	5.42	10.66
6/23/2003	VS-SS-INFL-062303-8	INF	4.10	4.33	8.43
	INFLUENT AVG PER DAY FO		4.67	4.88	9.55
	TOTAL YIELD (lbs) FOR PER				1.62
6/23/2003	VS-SS-INFL-062303-8	INF	4.10	4.33	8.43
6/24/2003	VS-SS-INF-062403	INF	4.52	6.18	10.70
	INFLUENT AVG PER DAY FO		4.31	5.26	9.57
	TOTAL YIELD (lbs) FOR PER				11.19
6/24/2003	VS-SS-INF-062403	INF	4.52	6.18	10.70
6/25/2003	VS-SS-INF-062503	INF	2.28	2.21	4.48 7.59
	INFLUENT AVG PER DAY FOR PERIOD 3.40 4.20				
	TOTAL YIELD (lbs) FOR PERI		5)		4.40
6/25/2003	VS-SS-INF-062503	INF	2.28	2.21	4.48
6/27/2003	VS-SVE-INF-062703	INF	3.28	3.26	6.53
	INFLUENT AVG PER DAY FO		2.78	2.74	5.51
	TOTAL YIELD (lbs) FOR PERI	OD (6/25-6/27	<u>') </u>		10.79
6/27/2003	VS-SVE-INF-062703	INF	3.28	3.26	6.53
7/7/2003	VS-SVE-INF-070703-0001	INF	6.87	5.04	11.91
	INFLUENT AVG PER DAY FO	R PERIOD	5.08	4.15	9.22
	TOTAL YIELD (lbs) FOR PER	IOD (7/27-7/7)			92.57
7/7/2003	VS-SVE-INF-070703-0001	INF	6.87	5.04	11.91
7/9/2003	VS-SVE-INF-070903-0006	INF	19.45	17.96	36.92
	INFLUENT AVG PER DAY FO	R PERIOD	13.16	11.50	24.42
	TOTAL YIELD (lbs) FOR PERI	OD (7/7-7/9)			47.85
7/9/2003	VS-SVE-INF-070903-0006	INF	19.45	17.96	36.92
7/17/2003	VS-SVE-INF-071703-0011	INF	8.60	5.65	14.25
	INFLUENT AVG PER DAY FO		14.03	11.81	25.59
	TOTAL YIELD (lbs) FOR PERI	OD (7/9-7/17)			114.11
7/17/2003	VS-SVE-INF-071703-0011	INF	8.60	5.65	14.25
7/29/2003	VS-SVE-INF-072903-0016	INF	2.70	1.88	4.67
	INFLUENT AVG PER DAY FO		5.65	3.77	9.46
	TOTAL YIELD (lbs) FOR PERI	OD (7/17-7/29)		76.91

TABLE 2
TARGET CONTAMINANT YIELD
VESTAL AREA 4

SAMPLE DATE	SAMPLE NUMBER	WELL NUMBER	1,1,1 TCA (lbs/day)	TCE (lbs/day)	TOTAL TARGET VOCs (lbs/day)
7/29/2003		INF	2.70	1.88	4.67
8/12/2003	VS-SVE-INF-081203-0026	INF	4.07	2.34	6.40
	INFLUENT AVG. PER DAY FO		3.39	2.11	5.54
	TOTAL YIELD (lbs) FOR PER	IOD (7/29-8/12	2)		30.33
8/12/2003	VS-SVE-INF-081203-0026	INF	4.07	2.34	6.40
8/25/2003	VS-SVE-INF-082503-0031	INF	6.23	5.06	11.28
	INFLUENT AVG. PER DAY FO		5.15	3.70	8.84
	TOTAL YIELD (lbs) FOR PER	IOD (8/12-8/25			90.08
8/25/2003	VS-SVE-INF-082503-0031	INF	6.23	5.06	11.28
9/3/2003	VS-SVE-INF-090303-0036	INF	8.45	4.01	12.46
	INFLUENT AVG. PER DAY FO	OR PERIOD	7.34	4.54	11.87
	TOTAL YIELD (lbs) FOR PERI	OD (8/25-9/3)	•		103.74
9/3/2003	VS-SVE-INF-090303-0036	INF	8.45	4.01	12.46
9/8/2003	VS-SVE-INF-090803-0041	INF	4.23	2.46	6.70
	INFLUENT AVG. PER DAY FO	R PERIOD	6.34	3.24	9.58
	TOTAL YIELD (lbs) FOR PERI	OD (9/3-9/8)			38.51
9/8/2003	VS-SVE-INF-090803-0041	INF	4.23	2.46	6.70
9/24/2003	VS-SVE-INF-092403-0099	INF	2.74	1.30	4.04
	INFLUENT AVG. PER DAY FO	OR PERIOD	3.48	1.88	5.37
	TOTAL YIELD (lbs) FOR PERI	OD (9/8-9/24)			72.89
9/24/2003	VS-SVE-INF-092403-0099	INF	2.74	1.30	4.04
10/9/2003	VS-SVE-INF-100903-0109	INF	1.91	1.51	3.42
	INFLUENT AVG. PER DAY FO		2.32	1.40	3.73
	TOTAL YIELD (lbs) FOR PERI	OD (9/24-10/9	9)		55.77
10/9/2003	VS-SVE-INF-100903-0109	INF	1.91	1.51	3.42
10/15/2003	VS-SVE-INF-101503-0114	INF	2.82	2.26	5.08
	INFLUENT AVG. PER DAY FO	OR PERIOD	2.37	1.89	4.25
	TOTAL YIELD (lbs) FOR PERI	OD (10/9-10/1	5)		25.50
10/15/2003	VS-SVE-INF-101503-0114	INF	2.82	2.26	5.08
10/28/2003	VS-SVE-INF-102803-0119	INF	2.65	2.21	4.86
	INFLUENT AVG. PER DAY FO	OR PERIOD	2.74	2.24	4.97
	TOTAL YIELD (lbs) FOR PERI	OD (10/15-10	/28)		64.91
10/28/2003	VS-SVE-INF-102803-0119	INF	2.65	2.21	4.86
11/11/2003		INF	0.99	1.46	2.45
	INFLUENT AVG. PER DAY FO		1.82	1.84	3.66
	TOTAL YIELD (lbs) FOR PERI	OD (10/28-11			25.11
11/11/2003		INF	0.99	1.46	2.45
11/19/2003		INF	1.27	1.39	2.65
	INFLUENT AVG. PER DAY FO		1.13	1.43	2.55
	TOTAL YIELD (lbs) FOR PERI				19.74
11/19/2003		INF	1.27	1.39	2.65
12/4/2003	VS-SVE-INF-111903-0129	INF	0.74	0.76	1.50
	INFLUENT AVG. PER DAY FO		1.01	1.08	2.08
	TOTAL YIELD (lbs) FOR PERI			2 = 2	32.56
12/4/2003	VS-SVE-INF-111903-0129	INF	0.74	0.76	1.50
1/14/2004	VS-SVE-INF-011404-0197	INF	0.69	0.90	1.59
	INFLUENT AVG. PER DAY FO		0.72	0.83	1.55
	TOTAL YIELD (lbs) FOR PERI	OD (12/4-1/14	<u> </u>		12.13

TABLE 2
TARGET CONTAMINANT YIELD
VESTAL AREA 4

SAMPLE DATE	SAMPLE NUMBER	WELL NUMBER	1,1,1 TCA (lbs/day)	TCE (lbs/day)	TOTAL TARGET VOCs (lbs/day)
1/14/2004	VS-SVE-!NF-011404-0197	0.69	0.90	1.59	
1/26/2004	VS-SVE-INF-012604-0202	INF	1.63	1.79	3.42
_	INFLUENT AVG. PER DAY FO	OR PERIOD	1.16	1.35	2.51
	TOTAL YIELD (lbs) FOR PER	IOD (1/14-1/26	5)		24.17
1/26/2004	VS-SVE-INF-012604-0202	INF	1.63	1.79	3.42
2/9/2004	VS-SVE-INF-020904-0207	INF	3.09	3.10	6.20
	INFLUENT AVG. PER DAY FO	OR PERIOD	2.36	2.45	4.81
	TOTAL YIELD (lbs) FOR PER	IOD (1/26-2/9)			55.27
2/9/2004	VS-SVE-INF-020904-0207	INF	3.09	3.10	6.20
2/24/2004	VS-SVE-INF-022404-0212	INF	3.72	2.91	6.63
	INFLUENT AVG. PER DAY FO	OR PERIOD	3.41	3.01	6.42
	TOTAL YIELD (lbs) FOR PER	IOD (2/9-2/24)			95.58
2/24/2004	VS-SVE-INF-022404-0212	INF	3.72	2.91	6.63
3/10/2004	VS-SVE-INF-031004-0262	INF	2.23	2.54	4.78
	INFLUENT AVG. PER DAY FO	OR PERIOD	2.98	2.73	5.71
	TOTAL YIELD (lbs) FOR PER	IOD (2/24-3/10))		45.58
3/10/2004	VS-SVE-INF-031004-0262	INF	2.23	2.54	4.78
4/5/2004	VS-SVE-INF-040504-0267	INF	2.51	2.56	5.07
	INFLUENT AVG. PER DAY FO	OR PERIOD_	2.37	2.55	4.93
	TOTAL YIELD (lbs) FOR PERI	OD (3/10-4/5)			75.11
4/5/2004	VS-SVE-INF-040504-0267	INF	2.51	2.56	5.07
4/27/2004	VS-SVE-INF-042704-0272	INF	1.47	1.64	3.11
	INFLUENT AVG. PER DAY FO		1.99	2.10	4.09
	TOTAL YIELD (lbs) FOR PERI	IOD (4/5-4/27)			60.45
4/27/2004	VS-SVE-INF-042704-0272	INF	1.47	1.64	3.11
5/11/2004	VS-SVE-INF-051104-0277	INF	2.35	2.77	5.12
	INFLUENT AVG. PER DAY FO	OR PERIOD	1.91	2.21	4.12
	TOTAL YIELD (lbs) FOR PER	OD (4/27-5/11)		54.36
5/11/2004	VS-SVE-INF-051104-0277	INF	2.35	2.77	5.12
6/1/2004	VS-SVE-INF-060104-0282	INF	2.10	2.59	4.69
	INFLUENT AVG. PER DAY FO	OR PERIOD	2.23	2.68	4.91
	TOTAL YIELD (lbs) FOR PERI	OD (5/11-6/1)			94.18
6/1/2004	VS-SVE-INF-060104-0282	INF	2.10	2.59	4.69
6/22/2004	VS-SVE-INF-062204-0332	INF	1.30	1.11	2.40
	INFLUENT AVG. PER DAY FO		1.70	1.85	3.55
	TOTAL YIELD (lbs) FOR PERI				73.91
	VS-SVE-INF-062204-0332	INF	1.30	1.11	2.40
7/13/2004	VS-SVE-INF-071304-0337	INF	4.61	3.23	7.84
	INFLUENT AVG. PER DAY FO		2.96	2.17	5.12
	TOTAL YIELD (lbs) FOR PERI				107.37
	VS-SVE-INF-071304-0337	INF	4.61	3.23	7.84
7/22/2004	VS-SVE-INF-072204-0342	INF	3.63	3.46	7.09
	INFLUENT AVG. PER DAY FO		4.12	3.35	7.47
	TOTAL YIELD (lbs) FOR PERI	<u>OD (7/13-7/22</u>)		46.95

TABLE 2
TARGET CONTAMINANT YIELD
VESTAL AREA 4

SAMPLE DATE	SAMPLE NUMBER	WELL NUMBER	1,1,1 TCA (lbs/day)	TCE (lbs/day)	TOTAL TARGET VOCs (lbs/day)
	VS-SVE-INF-072204-0342	3.46	7.09		
8/16/2004	VS-SVE-INF-081604-0347	INF	0.54	0.63	1.17
	INFLUENT AVG. PER DAY FO	2.05	4.13		
	TOTAL YIELD (lbs) FOR PER	IOD (7/22-8/16	5)		68.02
8/16/2004	VS-SVE-INF-081604-0347	INF	0.54	0.63	1.17
9/28/2004	VS-SVE-INF-092804-0423	INF	0.37	0.62	0.98
	INFLUENT AVG. PER DAY FO	OR PERIOD	0.46	0.63	1.08
	TOTAL YIELD (lbs) FOR PER	IOD (8/16-9/28	3)		46.06
9/28/2004	VS-SVE-INF-092804-0423	INF	0.37	0.62	0.98
10/19/2004	VS-SVE-INF-101904-0428	INF	3.15	2.40	5.56
	INFLUENT AVG. PER DAY FO	OR PERIOD	1.76	1.51	3.27
	TOTAL YIELD (lbs) FOR PER	IOD (9/28-10/1	9)		68.67
10/19/2004	VS-SVE-INF-101904-0428	INF	3.15	2.40	5.56
11/17/2004	VS-SVE-INF-111704-0433	INF	1.69	1.20	2.89
	INFLUENT AVG. PER DAY FO	OR PERIOD	2.42	1.80	4.23
	TOTAL YIELD (lbs) FOR PER	IOD (10/19-11	/17)		122.53
11/17/2004	VS-SVE-INF-111704-0433	INF	1.69	1.20	2.89
	VS-SVE-INF-122104-0493	INF	0.07	0.12	0.19
,	INFLUENT AVG. PER DAY FO	OR PERIOD	0.88	0.66	1.54
	TOTAL YIELD (lbs) FOR PER		/21)		52.22
12/21/2004	VS-SVE-INF-122104-0493	INF	0.07	0.12	0.19
	VS-SVE-INF-011205-0498	INF	0.29	0.20	0.49
(2 2000	INFLUENT AVG. PER DAY FO	OR PERIOD	0.18	0.16	0.34
	TOTAL YIELD (lbs) FOR PER				7.49
1/12/2005	VS-SVE-INF-011205-0498	INF	0.29	0.20	0.49
	VS-SVE-INF-020905-0503	INF	0.58	0.24	0.82
2,0,2000	INFLUENT AVG. PER DAY FO		0.44	0.22	0.66
	TOTAL YIELD (lbs) FOR PER		••••	V-1==	18.29
2/9/2005	VS-SVE-INF-020905-0503	INF	0.58	0.24	0.82
	VS-SVE-INF-032305-0551	INF	0.14	0.12	0.25
STEOTE DO	INFLUENT AVG. PER DAY FO		0.36	0.12	0.54
	TOTAL YIELD (lbs) FOR PER		0.00	3.10	22.46
3/23/2005	VS-SVE-INF-032305-0551	INF	0.14	0.12	0.25
	VS-SVE-INF-042705-0556	INF	0.00	0.00	0.25
-1E11E003	INFLUENT AVG. PER DAY FO		0.07	0.06	0.13
	TOTAL YIELD (lbs) FOR PER			3.30	3.86
4/27/2005	VS-SVE-INF-042705-0556	INF	0.00	0.00	0.00
	VS-SVE-INF-051005-0563	INF	0.00	0.00	0.00
5, 10, 2000	INFLUENT AVG. PER DAY FO		0.00	0.00	0.00
	TOTAL YIELD (lbs) FOR PER				0.00
5/10/2005	VS-SVE-INF-051005-0563	INF	0.00	0.00	0.00
	VS-SVE-INF-052505-0568	INF	0.00	0.00	0.00
_,,,	INFLUENT AVG. PER DAY FO	****	0.00	0.00	0.00
	TOTAL YIELD (lbs) FOR PER				0.00

TABLE 2 TARGET CONTAMINANT YIELD VESTAL AREA 4

SAMPLE DATE	SAMPLE NUMBER	WELL NUMBER	1,1,1 TCA (lbs/day)	TCE (ibs/day)	TOTAL TARGET VOCs (lbs/day)	
5/25/2005	VS-SVE-INF-052505-0568	INF	0.00	0.00	0.00	
6/8/2005	VS-SVE-INF-060805-0616	INF	0.00	0.00	0.00	
	INFLUENT AVG. PER DAY FO	OR PERIOD	0.00	0.00	0.00	
	TOTAL YIELD (lbs) FOR PER	IOD (5/25-6/8)	•		0.00	
6/8/2005	VS-SVE-INF-060805-0616	INF	0.00	0.00	0.00	
8/31/2005	VS-SVE-INF-083105-0621	INF	3.10	0.21	3.31	
	INFLUENT AVG. PER DAY FO	OR PERIOD	1.55	0.11	1.66	
	TOTAL YIELD (lbs) FOR PER	IOD (6/8-8/31)			29.79	
8/31/2005	VS-SVE-INF-083105-0621	INF	3.10	0.21	3.31	
9/28/2005	VS-SVE-INF-092805-0626	INF	3.87	0.48	4.34	
	INFLUENT AVG. PER DAY FO	OR PERIOD	3.49	0.35	3.83	
	TOTAL YIELD (lbs) FOR PER	IOD (8/31-9/28	3)		107.21	
9/28/2005	VS-SVE-INF-092805-0626	INF	3.87	0.48	4.34	
10/6/2005	VS-SVE-INF-100605-0631	INF	2.49	0.30	2.79	
	INFLUENT AVG. PER DAY FO	0.39	3.57			
	TOTAL YIELD (lbs) FOR PERIOD (9/28-10/6) 28.52					
	TOTAL YIELD TO F	REPORTED DA	ATE		2240.76	

Note 1: Beginning and ending period influent yields are averaged and then multiplied by the number of operational days during

the reporting period.

Note 2: 1,1,1 TCA= 1,1,1-Trichloroethane

TCE= Trichloroethene

Note 3: INF= Influent

TABLE 3
TOTAL TARGET CONTAMINANT YIELD TO DATE
VESTAL AREA 4

SAMPLE DATE	1,1,1 TCA (lbs)	TCE (lbs)	TOTAL TARGET VOC (lbs)
6/23/2003	0.00	0.00	0.00
6/23/2003	0.33	0.25	0.58
6/23/2003	1.06	0.89	1.95
6/23/2003	1.84	1.71	3.54
6/24/2003	6.87	7.83	14.70
6/25/2003	8.85	10.28	19.13
6/27/2003	14.28	15.63	29.92
7/7/2003	65.21	57.31	122.52
7/9/2003	90.98	79.35	170.33
7/17/2003	153.51	130.86	284.38
7/29/2003	199.85	161.45	361.30
8/12/2003	218.64	172.99	391.63
8/25/2003	271.09	210.67	481.76
9/3/2003	335.21	250.27	585.48
9/8/2003	360.71	263.28	623.99
9/24/2003	408.05	288.83	696.88
10/9/2003	442.85	309.83	752.68
10/15/2003	457.04	321.14	778.18
10/28/2003	492.69	350.33	843.02
11/11/2003	505.20	362.94	868.14
11/19/2003	513.95	373.96	887.91
12/4/2003	529.68	390.80	920.48
1/14/2004	535.30	397.32	932.62
1/26/2004	546.51	410.29	956.80
2/9/2004	573.66	438.42	1012.08
2/24/2004	624.45	483.19	1107.65
3/10/2004	648.24	504.97	1153.22
4/5/2004	684.38	543.87	1228.25
4/27/2004	713.77	574.92	1288.69
5/11/2004	739.02	604.07	1343.09
6/1/2004	781.81	655.48	1437.29
6/22/2004	817.27	693.97	1511.24
7/13/2004	879.24	739.47	1618.71
7/22/2004	905.17	760.52	1665.69
8/16/2004	939.55	794.17	1733.72
9/28/2004	959.14	820.79	1779.93
10/19/2004	996.13	852.47	1848.60
11/17/2004	1066.51	904.73	1971.24
12/21/2004	1096.44	927.00	2023.44
1/12/2005	1100.43	930.44	2030.87
2/9/2005	1112.63	936.50	2049.13
3/23/2005	1127.81	943.89	2071.71

TABLE 3 TOTAL TARGET CONTAMINANT YIELD TO DATE VESTAL AREA 4

SAMPLE DATE	1,1,1 TCA (lbs)	TCE (lbs)	TOTAL TARGET VOCs (lbs)
4/27/2005	1129.95	945.69	2075.64
5/10/2005	1129.95	945.69	2075.64
5/25/2005	1129.95	945.69	2075.64
6/8/2005	1129.95	945.69	2075.64
8/31/2005	1157.80	947.60	2105.40
9/28/05	1255.41	957.29	2212.71
10/6/05	1280.85	960.39	2241.24

NOTE 1: 1,1,1 TCA= 1,1,1-Trichloroethane

TCE= Trichloroethene

APPENDIX A Sampling and Analytical Data

QA/QC Report for Vestal Samples (Sample Date: 9/28/05)

1. Sample Receipt

The samples arrived at the lab were carefully packed in coolers. All of the sample bags in the coolers arrived intact and the labels on the bags were found to be complete. The information on the sample labels agreed with the information on the chain-of-custody forms placed inside the shipping coolers.

2. Sample Holding Times

The required holding times were met according to the lab SOP.

3. Instrument Blank Analysis

The instrument blank analysis indicated the instruments did not contain any target compounds.

4. Lab Duplicate Analysis

Vestal Duplicate Sample RPD Report									
Sample ID: VS-SVE-MID-092805-0627									
Sample Date Analytes Data1 Data2 RPD (%) RPD Acceptable									
9/28/2005	1,1,1-TCA	2.374	2.246	5.5	YES				

5. GC Calibrations

The instruments performed target compound standards calibration check each analysis day, or re-run the standards. The results met the requirement in the lab SOP.

6. Lab Authentication Statement

I certify, to the best of my knowledge, that the information in this QA/QC report is true, accurate and complete.

Yixin Li Chemist Shaw E & I

14155 Farmington Rd.

Livonia, MI 48154

SAMPLE DAT	E SAMPLE ID	1,1,1-TCA (ppm)	TCE (ppm)	Detection Limits (ppm)
9/28/05	INSTRUMENT BLANK	0.00	0.00	0.05
9/28/05	VS-SVE-TB-092805-0630	0.00	0.00	0.05

Notes: 0.00 indicates below detection limit.

Shaw E & I Lab Analytical Results

Client: Sevenson/USACE Analysis Date: 9/29/2005

Detection Limit: See below

Analyst: YL

Client Code: 681086 Sample Date: 9/28/2005

Units: ppmv

Project Manager: D. Callahan

SAMPLE ID	1,1,1-TCA	TCE	DL
VS-SVE-INF-092805-0626	15.13	1.90	0.05
VS-SVE-MID-092805-0627	1.71	0.00	0.05
VS-SVE-EFF-092805-0628	0.62	0.00	0.05
VS-SVE-SP-092805-0629	0.00	0.00	0.05
VS-SVE-TB-092805-0630	0.00	0.00	0.05

Notes:

^[1] TVOC: estimated value. TVOC was calculated by the average response factor of the known contaminants.

^{[2] 0.00} indicates BELOW DETECTION LIMIT. (For TVOC, the Detection Limit is 1.0 ppmv.)

^[3] DL = Detection Limit.

CHAIN - OF - CUSTODY for AIR SAMPLES

	Hour Meter:	15560	·8 H/5 ·		Client: DEVENSON	/USACE Clien	t Code: <u>*6810</u> 86
	Flow Meter- Type	: F	Range (cfm):		Site Address: 210	STAGE B. , V	68TOL, NY
	Withdrawl blower	- Vacuum :	Pressure:		Project Manager:	D. CALLAHMA	<u>)</u>
	Injection blower -	Vacuum:	Pressure: _		System Status :	" DJERSTI	<u>~6"</u>
	Sample ID.	Date	Time	Indicated Flow (cfm)	Carbon Dioxide (ppm)	Analysis Requested	Notes
1	US-5UE-0626	9:28-05	1055			TO14, A	INFLYENT
2	USSVE-8627		1115)	MID CARBON
3	USSVE-0678		1140				EFFLUENT
4	V5-5NE-0629		1030				SAMPLE PUMP
5	US-SVE-0630		TRIP BLANK			*	TRIP BLANK
6	-					-	•
7							
8							
9						-	
10							
11							
12		7.			<u> </u>	<u> </u>	
	Collected By:	LASURDO /MS	E Guire	Date: 938-05	Time: 1033	Envirogen	ı, Inc.
	Delivered By:			Date:	Time:	New Solutions to Haza	ardous Waste Problems
	Received By:	ip .		Date: 9/29/05	Time: 245	5126 West Grand Rive	er, Lansing, Michigan. 48906
	Remarks:				,	Phone # : (517) 886-56	600 Fax #: (517) 886-5700
	1						

APPENDIX B Summary of Operation Data/ Contaminant Yield Calculation

Appendix B

Summary of Operation Data

Vestal, Area 4

							_					
SAMPLE DATE	SAMPLE ID	REPORT SAMPLE ID	FLOW (CFM)	1,1,1-TCA (ppmv)	TCE (ppmv)	TOTAL TARGETED CONTAMINANTS (ppmv)	LBS OF 1,1,1-TCA per day	LBS OF TCE per day	LBS OF TOTAL TARGETED CONTAMINANTS PER DAY	OPERATION DAYS	STATION HOUR METER	NUMBER OF DAYS IN PERIOD
6/27/03	INF	VS-SVE-INF-062703	517	12.70	12.83	25.53	3.28	3.26	6.53	4.04	97.0	1.96
7/7/2003	INF	VS-SVE-INF-070703-0001	517	26.62	19.87	46.49	6.87	5.04	11.91	14.08	338	10.04
7/9/2003	INF	VS-SVE-INF-070903-0006	517	75.42	68.79	144.21	19.45	17.46	36.92	16.04	385	1.96
7/17/2003	INF	VS-SVE-INF-071703-0011	517	33.34	22.24	55.58	8.60	5.65	14.25	20.50	492	4.46
7/29/2003	INF	VS-SVE-INF-072903-0016	517	10.83	7.39	18.22	2.79	1.88	4.67	28.63	687.2	8.13
8/12/2003	₹NF	VS-SVE-INF-081203-0026	517	15.77	9.20	24.97	4.07	2.34	6.40	34.11	818.7	5.48
8/25/2003	INF	VS-SVE-INF-082503-0031	512	24.37	20.12	44.49	6.23	5.06	11.28	44.30	1063.3	10.19
9/3/2003	INF	VS-SVE-INF-090303-0036	512	33.08	15.94	49.02	8.45	4.01	12.46	53.0	1273	8.74
9/8/2003	INF	VS-SVE-INF-090803-0041	512	16.57	9.80	26.37	4.23	2.46	6.70	57.1	1369.5	4.02
9/24/2003	INF	VS-SVE-INF-092403-0099	512	10.72	5.16	15.88	2.74	1.30	4.04	70.6	1695.5	13.58
10/15/2003	INF	VS-SVE-INF-101503-0114	512	11.02	8.98	20.00	2.82	2.26	5.07	91.6	2,198.6	20.96
10/15/2003	INF	VS-SVE-INF-101503-0114	512	11.02	8.98	20.00	2.82	2.26	5.07	91.6	2198.6	0.00
10/28/2003	INF	VS-SVE-INF-102803-0119	512	10.36	8.80	19.16	2.65	2.21	4.86	104.7	2512.0	13.06
11/11/2003	INF	VS-SVE-INF-111103-0124	512	3.89	5.81	9.70	0.99	1.46	2.45	111.5	2,676.9	6.87
11/19/2003	INF	VS-SVE-INF-111903-0129	512	4.96	5.51	10.47	1.27	1.39	2.65	119.3	2,862.7	7.74
12/4/2003	INF	VS-SVE-INF-120403-0187	512	2.89	3.03	5.92	0.74	0.76	1.50	132.0	3167.2	15.69
1/14/2004	INF	VS-SVE-INF-011404-0197	512	2.71	3.57	6.28	0.69	0.90	1.59	139.8	3,355.7	7.85
1/26/2004	INF	VS-SVE-INF-012604-0202	512	6.39	7.13	13.52	1.63	1.79	3.42	149.5	3,587.2	9.65
2/9/2004	INF	VS-SVE-INF-020904-0207	512	12.11	12.34	24.45	3.09	3.10	6.20	161.0	3,863.0	11.49
2/24/2004	INF	VS-SVE-INF-022404-0212	512	14.57	11.56	26.13	3.72	2.91	6.63	175.9	4,220.7	14.90
3/10/2004	INF	VS-SVE-INF-031004-0262	512	8.74	10.12	18.86	2.23	2.54	4.78	183.9	4,412.5	7.99
4/5/2004	INF	VS-SVE-INF-040504-0267	512	9.82	10.18	19.99	2.51	2.56	5.07	199.1	4778.4	15.25
4/27/2004	INF	VS-SVE-INF-042704-0272	512	5.76	6.54	12.30	1.47	1.64	3.11	213.9	5133	14.78
5/11/2004	INF	VS-SVE-INF-051104-0277	512	9.21	11.02	20.23	2.35	2.77	5.12	227.1	5,450.0	13.21
6/1/2004	INF	VS-SVE-INF-060104-0282	512	8.24	10.29	18.53	2.10	2.59	4.69	246.3	5,910.7	19.20
6/22/2004	INF	VS-SVE-INF-062204-0332	512	5.08	4.40	9.48	1.30	1.11	2.40	267.1	6,411.0	20.85
7/13/2004	INF	VS-SVE-INF-071304-0337	512	18.05	12.86	30.91	4.61	3.23	7.84	288.1	6,914.3	20.97
7/22/2004	INF	VS-SVE-INF-072204-0342	512	14.22	13.76	27.98	3.63	3.46	7.09	294.4	7,065.3	6.29
8/16/2004	INF	VS-SVE-INF-081604-0347	512	2.13	2.49	4.63	0.54	0.63	1.17	310.9	7,460.5	16.47
9/28/2004	INF	VS-SVE-INF-092804-0423	512	1.45	2.45	3.89	0.37	0.62	0.98	353.7	8,489.0	42.85
10/19/2004	INF	VS-SVE-INF-101904-0428	512	12.35	9.55	21.90	3.15	2.40	5.56	374.7	8,993.0	21.00
11/17/2004	INF	VS-SVE-INF-111704-0433	512	6.63	4.76	11.39	1.69	1.20	2.89	403.8	9,690.0	29.04
12/21/2004	INF	VS-SVE-INF-122104-0493	512	0.29	0.46	0.74	0.07	0.12	0.19	437.7	10,503.8	33.91
1/12/2005	INF	VS-SVE-INF-011205-0498	512	1.13	0.79	1.92	0.29	0.20	0.49	459.7	11,032.5	22.03
2/9/2005	INF	VS-SVE-INF-020905-0503	512	2.29	0.94	3.23	0.58	0.24	0.82	487.6	11,702.8	27.93
3/23/2005	INF	VS-SVE-INF-032305-0551	512	0.54	0.46	1.00	0.14	0.12	0.25	529.6	12,710.4	41.98
4/27/2005	INF	VS-SVE-INF-042705-0556	512	0.00	0.00	0.00	0.00	0.00	0.00	560.50	13,452.1	30.90
5/10/2005	INF	VS-SVE-INF-051005-0563	512	0.00	0.00	0.00	0.00	0.00	0.00	573.43	13,762.3	12.93
5/25/2005	INF	VS-SVE-INF-052505-0568	512	0.00	0.00	0.00	0.00	0.00	0.00	588.39	14,121.3	14.96
			-	. 1		*		-				

Sevenson Environmental Services, Inc.

11 November 2005

Summary of Operation Data

Vestal, Area 4

SAMPLE DATE	SAMPLE ID	REPORT SAMPLE ID	FLOW (CFM)	1,1,1-TCA (ppmv)	TCE (ppmv)	TOTAL TARGETED CONTAMINANTS (ppmv)	LBS OF 1,1,1-TCA per day	LBS OF TCE per day	LBS OF TOTAL TARGETED CONTAMINANTS PER DAY	OPERATION DAYS	STATION HOUR METER	NUMBER OF DAYS IN PERIOD
6/8/2005	INF	VS-SVE-INF-060805-0616	512	0.00	0.00	0.00	0.00	0.00	0.00	602.36	14,456.6	13.97
8/31/05	INF	VS-SVE-INF-083105-0621	512	12.13	0.85	12.98	3.10	0.21	3.31	620.33	14,888.0	17.98
9/28/05	INF	VS-SVE-INF-092805-0626	512	15.13	1.90	17.03	3.87	0.48	4.34	648.37	15,560.8	28.03
10/6/05	INF	VS-SVE-INF-100605-0631	512	9.76	1.18	10.94	2.49	0.30	2.79	656.37	15,752.8	8.00

Appendix B

Example Calculations Vestal, Area 4

Example: 8/25/03

1,1,1 TCA (ppm) to 1,1,1 TCA (lbs/day)

0.00000374(conversion constant)* 24.37(ppm)* 512(flow)* 133.4(molecular weight) = 6.23 lbs

Example: 8/12/03 to 8/25/03 'Total Target VOCs'

[6.40 (8/12) + 11.28 (8/25)] / 2 = 8.84 avg. lbs per day for the period 8.84 (lbs per day) * 10.19 (days) = 90.08 pounds per reporting period

Calculated Flow Rate:
Vacuum Pressure (inches Hg) = 6
Blower Speed (RPM) = 2000
Temperature (degrees F) = 72
Elevation = 1200 feet
Based on proprietary Roots, Inc flow rate software for Roots 68 blower, the
CFM for these parameters is 512 on 8/25/03

Appendix B

Influent Sample Parameters

Vestal, Area 4

SAMPLE	0.000	VACUUM		TEMPERATURE	FLOW		OPERATION	STATION
DATE	SAMPLE ID	PRESURE (inches Hg)	RPM	(degrees F)	(cfm)	PID	DAYS	HOUR METER
6/27/03	VS-SVE-INF-062703	6	2000	68	517	34.0	4.0	97.0
7/7/2003	VS-SVE-INF-070703-0001	6	2000	72	517	15 <u>3.4</u>	14.1	338
7/9/2003	VS-SVE-INF-070903-0006	6	2000	75	517	87.0	16.0	385
7/17/2003	VS-SVE-INF-071703-0011	6	2000	80	517	79.5	20.5	492
7/29/2003	VS-SVE-INF-072903-0016	6	2000	75	517	20.3	28.6	687.2
8/12/2003	VS-SVE-INF-081203-0026	6	2000	73	517	45.6	34.1	818.7
8/25/2003	VS-SVE-INF-082503-0031	6	2000	72	512	27.5	44.3	1063.3
9/3/2003	VS-SVE-INF-090303-0036	6	2000	70	512	21.3	53.0	1273.0
9/8/2003	VS-SVE-INF-090803-0041	6	2000	70	512	22.8	57.1	1369.5
9/24/2003	VS-SVE-INF-092403-0099	6	2000	70	512	12.6	70.6	1695.5
10/15/2003	VS-SVE-INF-101503-0114	6	2000	62	512	14.2	91.6	2,198.6
10/15/2003	VS-SVE-INF-101503-0114	6	2000	68	512	13.7	91.6	2198.6
10/28/2003	VS-SVE-INF-102803-0119	6	2000	65	512	16.4	104.7	2512.0
11/11/2003	VS-SVE-INF-111103-0124	6	2000	54	512	7.9	111.5	2676.9
11/19/2003	VS-SVE-INF-111903-0129	6	2000	50	512	12.1	119.3	2862.7
12/4/2003	VS-SVE-INF-120403-0187	6	2000	48	512	7.7	132.0	3167.2
1/14/2004	VS-SVE-INF-011404-0197	6	2000	50	512	7.7	139.8	3,355.7
1/26/2004	VS-SVE-INF-012604-0202	6	2000	50	512	12.9	149.5	3,587.2
2/9/2004	VS-SVE-INF-020904-0207	6	2000	40	512	21.3	161.0	3,863.0
2/24/2004	VS-SVE-INF-022404-0212	6	2000	45	512	19.5	175.9	4,220.7
3/10/2004	VS-SVE-INF-031004-0262	6	2000	48	512	10.3	183.9	4,412.5
4/5/2004	VS-SVE-INF-040504-0267	6	2000	66	512	11.9	199.1	4778.4
4/27/2004	VS-SVE-INF-042704-0272	6	2000	68	512	5.0	213.9	5133
5/11/2004	VS-SVE-INF-051104-0277	6	2000	64	512	13.4	227.1	5,450.0
6/1/2004	VS-SVE-INF-060104-0282	6	2000	62	512	14.8	246.3	5,910.7
6/22/2004	VS-SVE-INF-062204-0332	6	2000	68	512	7.7	267.1	6,411.0
7/13/2004	VS-SVE-INF-071304-0337	6	2000	76	512	15.4	288.1	6,914.3
7/22/2004	VS-SVE-INF-072204-0342	6	2000	80	512	16.1	294.4	7,065.3
8/16/2004	VS-SVE-INF-081604-0347	6	2000	75	512	5.4	310.9	7,460.5
9/28/2004	VS-SVE-INF-092804-0423	6	2000	60	512	17.4	353.7	8,489.0
10/19/2004	VS-SVE-INF-101904-0428	6	2000	50	512	66.9	374.7	8,993.0
11/17/2004	VS-SVE-INF-111704-0433	6	2000	51	512	47.9	403.75	9,690.0
12/21/2004	VS-SVE-INF-122104-0493	6	2000	54	512	9.9	437.7	10,503.8
1/12/2005	VS-SVE-INF-011205-0498	6	2000	50	512	10.9	459.7	11,032.5
2/9/2005	VS-SVE-INF-020905-0503	6	2000	52	512	12.3	487.6	11,702.8
3/23/2005	VS-SVE-INF-032305-0551	6	2000	60	512	9.6	529.6	12,710.4
4/27/2005	VS-SVE-INF-042705-0556	6	2000	62	512	2.6	560.50	13,452.1
5/10/2005	VS-SVE-INF-051005-0563	6	2000	65	512	1.5	573.43	13,762.3
5/25/2005	VS-SVE-INF-052505-0568	6	2000	70	512	1.0	588.39	14,121.3

Influent Sample Parameters

Vestal, Area 4

SAMPLE DATE	SAMPLE ID	VACUUM PRESURE (inches Hg)	RPM	TEMPERATURE (degrees F)	FLOW (cfm)	PID	OPERATION DAYS	STATION HOUR METER
6/8/2005	VS-SVE-INF-060805-0616	6	2000	75	512	1.1	602.36	14,456.6
8/31/2005	VS-SVE-INF-083105-0621	6	2000	74	512	4.3	620.33	14,888.0
9/28/05	VS-SVE-INF-092805-0626	6	2000	65	512	3.3	648.37	15,560.8
10/6/05	VS-SVE-INF-100605-0631	6	2000	60	512	5.1	656.37	15,752.8