



February 3, 2005

Mr. Jeff Dyber, P.E.  
Environmental Engineer 2  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
Bureau of Eastern Remedial Action  
625 Broadway  
Albany, New York 12233

**RE: National Heatset Printing  
Operation & Maintenance Report, December 2004  
1 Adams Boulevard  
Farmingdale, New York  
NYSDEC Site 1-52-140**

Dear Mr. Dyber:

This letter provides an overview of the ongoing operation of the soil vapor extraction (SVE) system for the National Heatset Printing Site in Farmingdale, New York (**Figure 1**) for the reporting period including December 2004. A site visit was performed by Shaw Environmental and Infrastructure Engineering of New York, P.C. (Shaw) personnel on December 22, 2004 in accordance with our contract with the New York State Department of Environmental Conservation (NYSDEC).

#### System Operation

Operation of SVE system began on September 17, 2002. The SVE system has been operational for approximately 39% of the reporting period. The system operational data is summarized in **Table 1** and is presented as **Appendix A**.

The SVE blower operated at a vacuum of 85 inches of water column and an air flow of 125 cubic feet per minute (cfm) as observed during the site visit. A flow of 143 cfm and a vacuum of 80 inches of water column were observed at the extraction well. The extraction well and dilution valves were 75% and 50% open, respectively, at the beginning of the site visit. Volatile organic compound (VOC) and tetrachloroethene (PCE) concentrations from the extraction well

sampling port were observed to be 15.8 parts per million (ppm) and less than 5 ppm, respectively. The positioning of the extraction well and dilution air valves were adjusted to 100% and approximately 25% open prior to departing the site. The positioning of the well extraction and dilution air valves will be modified based on continued monitoring of VOC concentrations. No water was collected from the knockout vessel during this reporting period.

VOC and PCE concentrations of 18.3 ppm and approximately 10 ppm, respectively, were observed at the VGAC influent sampling port during the site visit. VOC and PCE concentrations of 16.0 ppm and approximately 5 ppm, respectively, were observed at the VGAC mid sampling port during the site visit. Detectable concentrations of VOCs and PCE were not detected at the VGAC effluent sampling port during the site visit.

#### Monitoring Probes

A vacuum of 2.0 inches of water column was observed at vapor monitoring point VP-1, 0.30 inches of water column was observed at VP-2, and 0.20 inches of water column was observed at VP-3 during the site visit. Monitoring of the vapor points will continue during future site visits.

#### PCE Removal

The SVE system removed approximately 9 pounds of PCE from the extraction well during this reporting period and has removed approximately 2,523 pounds of PCE to date. A summary of the estimated PCE mass removal over time is presented in **Table 2**.

#### Air Discharge Monitoring

Shaw personnel collected a sample of the system effluent air for laboratory analyses during the site visit. With the exception of trace concentrations of acetone, hexachlorobutadiene and naphthalene that were qualified by the laboratory because they were less than the method reporting limit, the laboratory analysis revealed non-detectable VOC and PCE concentrations in the system effluent sample. Analytical results are summarized in **Table 3** and the laboratory report of analyses is presented as **Appendix B**.

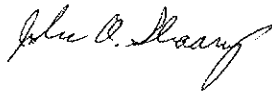
Field monitoring of the system discharge conducted during the site visit indicated non-detectable VOC and PCE concentrations. A summary of the field monitoring and laboratory air discharge monitoring results is presented as **Table 4**.

Conclusions and Recommendations

Based on the data collected from the SVE system during this reporting period, Shaw recommends continued operation of the SVE system at 1 Adams Boulevard. As site conditions change, adjustments will be made to optimize the system operation.

Please do not hesitate to contact me at 518-783-1996 with any questions you might have regarding this report.

Sincerely,  
**Shaw E&I Engineering of New York, P.C.**



John A. Skaarup  
Project Engineer

Cc: File

Attachments: Tables  
                  Figures  
                  Appendix A – Site Visit Documentation  
                  Appendix B – Laboratory Report of Analyses

## TABLES

TABLE 1  
SUMMARY OF SOL VAPOR EXTRACTION SYSTEM READINGS  
NATIONAL HEATSET PRINTING  
1 ADAMS BLVD., FARMINGDALE, NY

Date	Run Time Meter Reading (hours)	Run Time Since Last Visit (hours)		Operation Time Since Last Visit (%)	Dilution Valve Position (% Open)	Extraction Well MW-F Valve Position (% Open)	Air Flow at Well (scfm)	Vacuum at Well (inches H2O)	Pre-Dilution PID (ppm)	Pre-Dilution PCE (ppm)	Influent SVE					Mid GAC				Effluent GAC									
		Available	Actual								Blower Flow (cfm)	Vacuum (inches H2O)	Temp. (°F)	PID (ppm)	PCE (ppm)	Flow (cfm)	Temp. (°F)	PID (ppm)	PCE (ppm)	Flow (cfm)	Temp. (°F)	PID (ppm)	PCE (ppm)						
9/18/2002	--	--	--	--	--	--	--	--	--	--	SVE PILOT TEST STARTUP																		
9/30/2002	304	294	/	294	100%	100	50	34.5	5	2,000	500	256	25	107.2	1,015	--	317	102.3	0	--	290	89.5	0	--					
10/14/2002	642	343	/	338	99%	100	50	38	7	1,011	400	258	27	--	75.3	50	--	--	0	--	--	--	0	--					
11/19/2002	1508	882	/	866	98%	100	50	49	12	0	0	120	28	106	0	0	209	92	0	--	290	80.3	0	--					
12/4/2002	--	368	/	--	--	--	--	--	--	77	200	--	--	--	14.3	10	--	--	15.5	10	--	--	0	0					
12/16/2002	2153	294	/	645	98%	100	50	36.5	10	560	200	253	28	92	46.4	50	302	60	3.4	--	340	53.9	0	--					
1/21/2003	3016	882	/	863	98%	100	50	--	--	--	--	70	52	98	0	0	220	--	0	--	220	--	0	--					
2/10/2003	3496	490	/	480	98%	100	50	38	--	639	400	262	27	102	72	50	266	90	26	10	258	83	3.2	10					
3/18/2003	4360	882	/	864	98%	100	50	92	12	125	100	266	25	123	15	10	278	124	0	0	282	117	0	0					
4/29/2003	5359	1029	/	999	97%	75	50	75	50	152	50	132	16	118.5	48.2	25	302	96	18.6	10	287	86	0.6	0					
5/13/2003	5700	343	/	341	99%	75	50	78	--	127	50	239	48	130	41.8	50	246	108	46	25	245	97	0.6	0					
6/30/2003	6850	1176	/	1150	98%	50	50	115	32	82.4	50	140	66	173	36.8	50	198	157	25.1	25	240	150	29.8	100					
7/10/2003	6851	245	/	1	0%	50	50	99.5	25	406	400	151	68	156	221	215	260	76	0	0	222	81.9	0	0					
7/22/2003	7144	294	/	294	100	50	50	--	--	127	--	--	--	168	65	--	--	107	0	--	--	106	0	--					
8/26/2003	7957	858	/	813	95	50	50	79	13.5	137	10	186	85	170	51.4	5	291	--	55.4	10	232	--	35.6	10					
9/23/2003	8274	686	/	317	46	50	50	218	33	141	15	194	64	160	55	30	254	124	0	0	210	110	0	0					
10/21/2003	8945	686	/	671	98	50	50	166	45	--	20	158	88	166	37.5	25	214	130	30.7	15	225	112	0	0					
11/24/2003	9749	833	/	805	97	50	50	130	46	141	125	178	72	138	261	200	225	52	0	0	205	51.4	0	0					
1/6/2004	9750	1054	/	1	0	50	50	98.5	74	118	100	164	12	140	247	250	224	48.6	0	0	200	48.4	0	0					
2/9/2004	10336	833	/	586	70	50	50	121	44	23.1	10	172	70	155.8	29.8	25	233	137	41.4	25	235	117	0	0					
3/30/2004	11289	1225	/	953	78	50	50	103	>50	34	<10	198	70	160	22	<10	240	128	22	<10	160	115	24	<5					
4/8/2004	11441	221	/	152	69	50	75	127	--	23.7	<10	--	--	--	--	--	180	83	30	--	206	83	0.9	--					
4/29/2004	11768	515	/	327	64	50	75	131	>60	2.4	0	--	76	170	2.2	0	209	128	0	0	255	116	0	0					
5/24/2004	12264	613	/	496	81	50	75	144	75	43.8	50	172	75	178	33.1	<50	250	121	4.4	0	198	111	0	0					
6/22/2004	12817	711	/	553	78	50	75	127	74	57	10	140	76	180	52	30	181	123	25.8	15	210	113	0	0					
7/28/2004	13630	882	/	813	92	50	75	142	76.5	53.2	7	161	76.5	159	41.1	25	216	137	35.3	20	181	109	3.1	0					
8/31/2004	13989	833	/	359	43	25	90	157	58	48	0	104	74	137	202	200	180	98	2.2	0	187	91	0.1	0					
9/29/2004	14256	711	/	267	38	50	75	139	60	--	--	140	76	153	27.7	--	194	126	0	--	205	102.1	0	--					
10/20/2004	14729	515	/	473	92	50	75	155	58	--	--	120	76	160	19.1	10	202	122	0	0	230	101	0	0					
11/17/2004	15229	686	/	499	73	75	50	160	80	17.9	<5	148	77	160	13.5	<10	152	112	7.2	<5	173	94	0	0					
12/22/2004	15565	858	/	337	39	75	50	143	80	15.8	<5	125	85	160	18.3	10	127	116	16	5	131	93.4	0	0					

Notes:

- PID = Total VOC concentration measured with photoionization detector
- ppm = parts per million (volume/volume basis)
- PCE = Tetrachloroethene (PCE) concentration measured with Drager tube of 10-500 ppm range
- scfm = standard cubic feet per minute
- cfm = cubic feet per minute
- Influent SVE = Readings collected between the SVE Blower and the Carbon Units
- Mid GAC = Readings collected between the lead and lag carbon units
- Effluent GAC = Readings collected after the lag carbon unit
- GAC = granular activated carbon unit
- = measurement not recorded

**TABLE 2**  
**PCE**  
**REMOVAL ESTIMATE**  
**NATIONAL HEATSET PRINTING**  
**1 ADAMS BLVD., FARMINGDALE, NY**

Date	VOC Influent Concentration * (ppmv)	PCE Influent Concentration * (ppmv)	% PCE of Total VOCs	Extraction Well Flow Rate (cfm)	Elapsed Time Since Last Visit (day)	PCE Removal Since Last Visit (lb)	Cumulative PCE Removal (lb)
9/18/2002	SVE PILOT TEST STARTUP						
9/30/2002	2,000	500	25.0	34.5	12	126	126
10/14/2002	1,011	400	39.6	38	14	129	255
11/19/2002	0	0	--	49	36	116	371
12/16/2002	560	200	35.7	36.5	27	70	441
1/13/2003	485	400	82.5	28.5	28	157	597
1/21/2003	0	0	--	0	8	63	660
2/10/2003	639	400	62.6	38	20	65	725
3/5/2003	263	200	76.0	24.4	23	132	856
3/18/2003	125	100	80.0	92	13	77	934
4/29/2003	152	50	32.9	75	42	109	1,042
5/13/2003	127	50	39.4	78	14	65	1,107
6/30/2003	82.4	50	60.7	115	48	91	1,198
7/22/2003	406	400	98.5	99.5	12	416	1,615
8/26/2003	137	10	7.3	79	35	291	1,906
9/23/2003	141	15	10.6	218	14	30	1,936
10/21/2003	37.5	20	53.3	166	28	42	1,978
11/24/2003	141	125	88.7	130	34	179	2,157
1/6/2004	118	100	84.7	98.5	43	--	2,157
2/9/2004	23.1	10	43.3	121	34	126	2,283
3/30/2004	22	10	45.5	103	50	28	2,311
4/29/2004	2.4	0	0.0	131	30	12	2,323
5/24/2004	43.8	50	114.2	144	25	59	2,382
6/22/2004	57	10	17.5	127	29	68	2,449
7/28/2004	53.2	7	13.2	142	36	22	2,471
8/12/2004	48	0	0	157	15	7	2,479
9/29/2004	27.7	0	--	139	48	0	2,479
10/20/2004	19.1	10	--	140	21	14	2,493
11/17/2004	17.9	10	55.9	160	28	22	2,515
12/22/2004	15.8	5	31.6	143	35	9	2,523

Notes:

\* = VOC concentrations of 2,000 ppm and PCE concentrations of 500 ppm are greater than the limit of their respective monitoring device and are to be taken as estimations.

$$\text{Removal Rate} = \left[ \frac{\text{flow}(\text{cfm}) \times \text{influent conc.}(\text{ppmv}) \times \text{MW} \times 12.187}{(273.15 + C)} \right] \times 1 \text{ cu. m.} / 35.31 \text{ cu. ft} \times 1 \text{g} / 1000 \text{ mg} \times 1 \text{ lb} / 453.6 \text{ g} \times 60 \text{ min} / 1 \text{ hr} \times 24 \text{ hr} / 1 \text{ day} \times \text{days of operation}$$

Where:

- MW = molecular weight
- Molecular weight (MW) of PCE is 165.85
- C = degrees centigrade, assumed to be 25
- lb = pounds
- cfm = cubic feet per minute
- ppmv = parts per million (volume/volume basis)
- = information not available

**TABLE 3**  
**AIR SAMPLE ANALYTICAL RESULTS**  
**NATIONAL HEATSET PRINTING**  
**1 ADAMS BLVD., FARMINGDALE, NY**

<b>SVE Influent Concentration (mg/m3)</b>			
<b>Date</b>	<b>cis-1,2-Dichloroethene</b>	<b>Tetrachloroethene (PCE)</b>	<b>Trichloroethene</b>
9/18/2002	5	600E	31
9/30/2002	ND (5)	360E	23
10/14/2002	--	--	--
11/19/2002	--	--	--

<b>VGAC Effluent Concentration (mg/m3)</b>			
<b>Date</b>	<b>cis-1,2-Dichloroethene</b>	<b>Tetrachloroethene (PCE)</b>	<b>Trichloroethene</b>
9/18/2002	--	--	--
9/30/2002	--	--	--
10/14/2002	--	--	--
11/19/2002	--	--	--
12/16/2002	ND (5)	ND (5)	ND (5)
1/21/2003	--	--	--
2/10/2003	ND (5)	8	6
3/18/2003	--	--	--
4/29/2003	--	--	--
5/13/2003	ND (1)	5	ND (1)
6/30/2003	--	--	--
7/22/2003	ND (1)	ND (1)	ND (1)
8/26/2003	ND (5)	29	3.6
9/23/2003	ND (5)	ND (5)	ND (5)
10/21/2003	ND (5)	ND (5)	ND (5)
11/24/2003	--	--	--
1/6/2004	--	--	--
2/9/2004	10	ND (5)	ND (5)
3/30/2004	2J	77	1J
4/29/2004	ND (5)	10	ND (5)
5/24/2004	ND (1)	ND (1)	ND (1)
6/22/2004	ND (1)	ND (1)	ND (1)
7/28/2004	ND (5)	ND (5)	ND (5)
8/12/2004	--	--	--
9/29/2004	ND (1)	ND (1)	ND (1)
10/20/2004	ND (1)	ND (1)	ND (1)
11/17/2004	ND (1)	ND (1)	ND (1)
12/22/2004	ND (1)	ND (1)	ND (1)

**Notes:**

Only compounds that were detected above the method reporting limit were presented above

ND (5) = Not detected above method reporting limit in parenthesis

E = Concentration exceeded calibration range

SVE = Soil vapor extraction

VGAC = vapor-phase granular activated carbon unit

mg/m3 = milligrams per cubic meter

-- = sample not collected

J = Estimated Value

TABLE 4  
AIR DISCHARGE MONITORING  
NATIONAL HEATSET PRINTING  
1 ADAMS BLVD., FARMINGDALE, NY

Date	System Effluent Flow Rate (cfm)	Field Monitoring		Elapsed Time (day)	Laboratory Results			Discharge based on Field Monitoring		Discharge based on Laboratory Results							
		PCE System Effluent Concentration (ppmv)	System Effluent VOC Concentration (ppmv)		PCE (mg/cu m.)	TCE (mg/cu m.)	cis-1,2-DCE (mg/cu m.)	PCE Discharge Since Last Visit (lb/hr)	PCE Discharge Since Last Visit (lb)	PCE Discharge Since Last Visit (lb/hr)	PCE Discharge Since Last Visit (lb)	TCE Discharge Since Last Visit (lb/hr)	TCE Discharge Since Last Visit (lb)	cis-1,2-DCE Discharge Since Last Visit (lb/hr)	cis-1,2-DCE Discharge Since Last Visit (lb)		
9/18/2002								SVE PILOT TEST STARTUP									
9/30/2002	290	--	0	12	--	--	--	--	--	--	--	--	--	--	--	--	
10/14/2002	--	--	0	14	--	--	--	--	--	--	--	--	--	--	--	--	
11/19/2002	290	--	0	36	--	--	--	--	--	--	--	--	--	--	--	--	
12/16/2002	340	--	0	27	ND (5)	ND (5)	ND (5)	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1/13/2003	45	0	--	28	--	--	--	0.0000	0.00	--	--	--	--	--	--	--	
1/21/2003	220	--	0	8	--	--	--	--	--	--	--	--	--	--	--	--	
2/10/2003	258	10	3.2	20	8.0	6.0	ND (5)	0.0654	31.40	0.008	3.71	0.006	2.78	0.00	0.00		
3/5/2003	305	--	0	23	--	--	--	--	--	--	--	--	--	--	--	--	
3/18/2003	282	0	0	13	--	--	--	0.0000	0.00	--	--	--	--	--	--	--	
4/29/2003	287	0	0.6	42	--	--	--	0.0000	0.00	--	--	--	--	--	--	--	
5/13/2003	245	0	0.6	14	5.0	ND (1)	ND (1)	0.0000	0.00	0.005	1.54	0.00	0.00	0.00	0.00		
6/30/2003	240	100	29.8	48	--	--	--	0.3043	350.56	--	--	--	--	--	--	--	
7/22/2003	222	--	0	12	ND (1)	ND (1)	ND (1)	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8/26/2003	232	10	35.6	35	29.0	3.6	ND (5)	0.0588	49.42	0.025	21.17	0.003	2.63	0.00	0.00		
9/23/2003	210	0	0	28	ND (5)	ND (5)	ND (5)	0.0000	0.00	0.000	0.00	0.000	0.00	0.00	0.00		
10/21/2003	225	0	0	28	ND (5)	ND (5)	ND (5)	0.0000	0.00	0.000	0.00	0.000	0.00	0.00	0.00		
11/24/2003	205	0	0	34	--	--	--	0.0000	0.00	--	--	--	--	--	--	--	
<b>2003 Totals:</b>									<b>431.38</b>		<b>26.424</b>		<b>5.412</b>		<b>0.000</b>		
1/6/2004	200	0	0	43	--	--	--	0.0000	0.00	--	--	--	--	--	--	--	
2/9/2004	235	0	0	34	ND (5)	ND (5)	10	0.0000	0.00	0.000	0.00	0.000	0.00	0.009	7.18		
3/30/2004	160	5	24	50	77	1J	2J	0.0203	24.34	0.046	55.38	0.001	0.72	0.001	1.44		
4/29/2004	255	0	0	30	10	ND (5)	ND (5)	0.0000	0.00	0.010	6.88	0.001	0.69	0.002	1.38		
5/24/2004	198	0	0	25	ND (1)	ND (1)	ND (1)	0.0000	0.00	0.000	0.00	0.000	0.00	0.000	0.00		
6/22/2004	210	0	0	29	ND (1)	ND (1)	ND (1)	0.0000	0.00	0.000	0.00	0.000	0.00	0.000	0.00		
7/28/2004	181	0	3.1	36	ND (5)	ND (5)	ND (5)	0.0000	0.00	0.000	0.00	0.000	0.00	0.000	0.00		
8/12/2004	187	0	0.1	15	--	--	--	0.0000	0.00	--	--	--	--	--	--	--	
9/29/2004	205	--	0	48	ND (1)	ND (1)	ND (1)	--	--	0.000	0.00	0.000	0.00	0.000	0.00		
10/20/2004	230	0	0	21	ND (1)	ND (1)	ND (1)	0.0000	0.00	0.000	0.00	0.000	0.00	0.000	0.00		
11/17/2004	173	0	0	28	ND (1)	ND (1)	ND (1)	0.0000	0.00	0.000	0.00	0.000	0.00	0.000	0.00		
12/22/2004	131	0	0	35	ND (1)	ND (1)	ND (1)	0.0000	0.00	0.000	0.00	0.000	0.00	0.000	0.00		
<b>2004 Totals:</b>									<b>24.34</b>		<b>62.26</b>		<b>1.41</b>		<b>10.00</b>		

Notes:

-- = Measurement not recorded

Discharge Rate (Field Monitoring, lb/hr) = [(flow(cfm)\*influent conc.(ppmv)\*MW\*12.187)/(273.15+C)]\*1 cu. m./35.31 cu. ft\*1g/1000 mg\*1 lb/453.6 g\*60 min/1 hr

Discharge (Field Monitoring, lb) = Discharge Rate (lb/hr) \* # of days\*24hours/day\*60 minutes/hr

Discharge Rate (Lab Results, lb/hr) = flow (cfm)\*effluent conc. (mg/cu. m.)\*1g/1000mg\*1lb/453.6g\*1cu. m./35.31cu. ft\*60min/1 hr

Discharge (Lab Results, lb) = Discharge Rate (lb/hr) \* # of days\*24hours/day

Where:

MW = molecular weight

Molecular weight (MW) of PCE is 165.85, Molecular weight (MW) of TCE is 131.4, Molecular weight of cis-1,2-DCE is 96.94

C = degrees centigrade, assumed to be 25

cfm = cubic feet per minute

mg/cu. m = milligrams per cubic meter

ppmv = parts per million (volume/volume basis)

lb = pounds

hr = hours

J = Estimated Value

Permit Limit		
	lb/hr	lb/yr
PCE	0.031	270
TCE	0.014	120
cis-1,2-DCE	0.63	5,510



## FIGURES

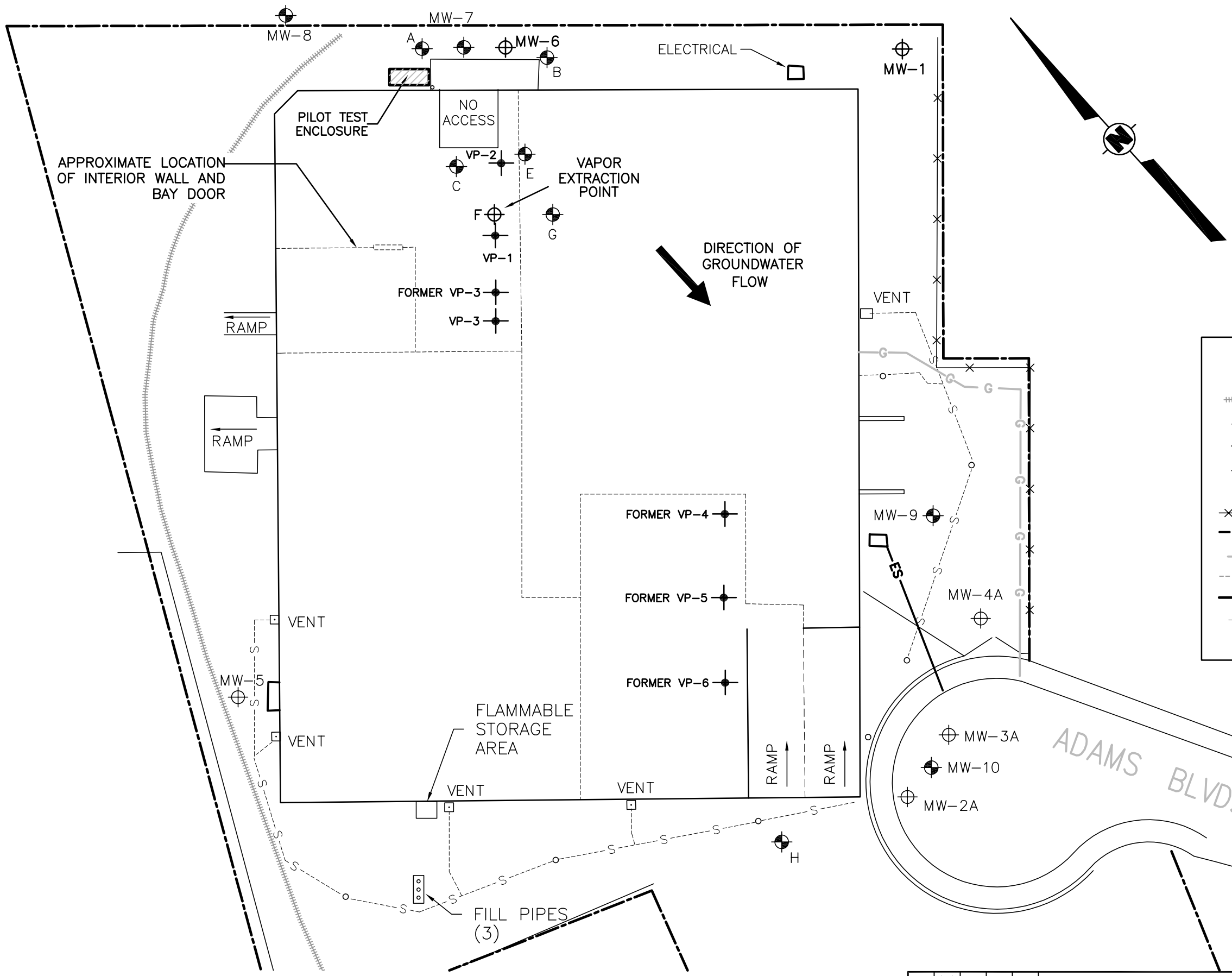
DRAWING NUMBER 802901B35

OFFICE ALBANY, NY

X-REF

IMAGE

L:\project\802901\802901B35.dwg  
 Plot Date/Time: 07/27/04 02:31pm  
 Image: .  
 Xref: .  
 Format Revised: 12/15/99



**LEGEND:**

- +++++ TRAIN TRACK
- ⊕ VAPOR MONITORING POINT
- ⊙ DEEP MONITORING WELL (>30')
- ⊕ SHALLOW MONITORING WELL (<30')
- MANHOLE OR ACCESS POINT
- ×× FENCE LINE
- ES- ELECTRIC LINE
- G- GAS LINE
- S- SANITARY SEWER
- PROPERTY LINE
- - - INTERIOR BUILDING WALL (DIVIDES WAREHOUSE)

FIGURE 1

	NATIONAL HEATSET PRINTING FARMINGDALE, NEW YORK			
	SOIL VAPOR EXTRACTION PILOT TEST LOCATION MAP			
DESIGNED BY	J. SKAARUP	10/23/02	CHECKED BY	
DRAWN BY	CA/HMD/SSH	10/23/02	APPROVED BY	
SCALE:	AS SHOWN	DRAWING NO.	802901B35	SHEET NO.
REV	DATE	BY	CHK'D	APR'VD
				REVISION NO.
				6

REV	DATE	BY	CHK'D	APR'VD	DESCRIPTION/ISSUE
6	6/29/04	SSH			INTERIOR WALL UPDATES
5	2/17/04	SSH			RELIABLE VP's
4	6/9/03	SSH			UPDATE DRAWING
3	4/17/03	SSH			UPDATE DRAWING
2	1/16/03	SSH			ADD FORMER VP-3 TO DRAWING
1	12/3/02	SSH			UPDATE DRAWING

**APPENDIX A**  
**SITE VISIT DOCUMENTATION**

# National Heatset Printing

1 Adams Boulevard, Farmingdale, New York

Shaw Environmental, Inc. Job/Task Number 802901/06010000

Personnel: J. Skarup  
 Weather: partly cloudy, -35°F

Time: 0720  
 Date: 12/22/04

**System Status:**

Arrival: Operational  
 Departure: Operational  
 Run Timer Reading: 15565.33  
 Electric Meter Reading: 1254 [old meter]

**System Data:**

	<u>Arrival</u>	<u>Departure</u>
Extraction Well F Gate Valve:	<u>75%</u> % Open	<u>100%</u> % Open
Dilution Valve:	<u>50%</u> % Open	<u>25%</u> % Open

**Pre-Bleed Air (Extraction Well):**

Flow: 143 CFM  
 Vacuum: 85.70 "H2O  
 PID Reading: 15.8 PPM / SVE  
 Draeger Tube: <5 PPM Vacuum  
 Temperature: 41.8 °F

**Post-Bleed Air (SVE Influent):**

Flow: 125 CFM  
 Vacuum: 88.5 "H2O  
 PID Reading: 18.3 PPM  
 Draeger Tube: ~70 PPM  
 Temperature: 160 °F

**Carbon Monitoring:**

Mid:	<u>16.0</u> PPM	<u>127</u> CFM	<u>116</u> Temp. (°F)	<u>~5</u> PPM (Drager)
Effluent:	<u>0</u> PPM	<u>131</u> CFM	<u>93.4</u> Temp. (°F)	<u>0</u> PPM (Drager)

Carbon effluent sample collected & shipped to lab? Yes

Knockout Tank Drained? No  
 # Gallons: —  
 Purge water drums on-site: —

**Monitoring Well Gauging / Vapor Point Monitoring:**

Well/V.P. ID:	MW-C	MW-E	MW-F	MW-G	VP-1	VP-2	VP-3	VP-4	VP-5	VP-6
DTW (ft):	<u>17.63</u>	<u>NM</u>	<u>-</u>	<u>NM</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Vac. (" H2O):	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>0</u>	<u>0.30</u>	<u>0.20</u>	<u>-</u>	<u>-</u>	<u>-</u>

**Comments:**

[ > 20 (0-2) ]  
[ ~ 2 (0-50) ]

**APPENDIX B**

**LABORATORY REPORT OF ANALYSES**



RECEIVED  
JAN 19 2005

*"Environmental Testing For The New Millennium"*

---

January 14, 2005

Shaw Environmental & Infrastructure, Inc.  
13 British American Boulevard  
Latham, NY 12110  
Attn: Mr. John Skaarup

RE: Client Project: National Heatset, 802901  
Lab Project #: C1591

Dear Mr. Skaarup:

Enclosed please find the data report of the required analysis for the sample associated with the above referenced project. If you have any questions regarding this report, please call me.

We appreciate your business.

Sincerely,

A handwritten signature in black ink, appearing to read "Agnes R. Ng".

Agnes R. Ng  
CLP Project Manager



Report of Laboratory Analyses for Shaw Environmental & Infrastructure, Inc.

Client Project: National Heatset

SDG# C1591

Mitkem Work Order ID: C1591

January 14, 2005

Prepared For: Shaw Environmental & Infrastructure, Inc.  
13 British American Boulevard  
Latham, NY 12110  
Attn: Mr. John Skaarup

Prepared By: Mitkem Corporation  
175 Metro Center Boulevard  
Warwick, RI 02886  
(401) 732-3400



**Client: Shaw Environmental & Infrastructure, Inc.**

**Client Project: National Heatset, 802901**

**Lab Project: C1591**

**Date samples received: 12/23/04**

### **Project Narrative**

This data report includes the analysis results for one (1) air sample in a Tedlar bag that was received from Shaw Environmental & Infrastructure, Inc on December 23, 2004. Analyses were performed per specification in the Chain of Custody form. For reference, a copy of the Mitkem Work Order form is included for cross-referencing the client sample ID and laboratory sample ID.

All of the analyses were performed according to method specifications, as modified by Mitkem. No unusual occurrences were noted during sample analysis.

All pages in this report have been numbered consecutively, starting with the title page and ending with a page saying only "Last Page of Data Report".

This data report has been reviewed and is authorized for release as evidenced by the signature below.

A handwritten signature in black ink, appearing to read "Agnes Ng".

Agnes Ng  
CLP Project Manager



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CARBON EFFLUENT

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: C1591

Matrix: (soil/water) AIR

Lab Sample ID: C1591-01A

Sample wt/vol: 25 (g/mL) ML

Lab File ID: V5F7675

Level: (low/med) LOW

Date Received: 12/23/04

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 01/03/05

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) MG/M3

CAS NO.	COMPOUND	Q
75-71-8	Dichlorodifluoromethane	1 U
74-87-3	Chloromethane	1 U
75-01-4	Vinyl Chloride	1 U
74-83-9	Bromomethane	1 U
75-00-3	Chloroethane	1 U
75-69-4	Trichlorofluoromethane	1 U
75-35-4	1,1-Dichloroethene	1 U
67-64-1	Acetone	0.6 J
74-88-4	Iodomethane	1 U
75-15-0	Carbon Disulfide	1 U
75-09-2	Methylene Chloride	1 U
156-60-5	trans-1,2-Dichloroethene	1 U
1634-04-4	Methyl tert-butyl ether	1 U
75-34-3	1,1-Dichloroethane	1 U
108-05-4	Vinyl acetate	1 U
78-93-3	2-Butanone	1 U
156-59-2	cis-1,2-Dichloroethene	1 U
590-20-7	2,2-Dichloropropane	1 U
74-97-5	Bromochloromethane	1 U
67-66-3	Chloroform	1 U
71-55-6	1,1,1-Trichloroethane	1 U
563-58-6	1,1-Dichloropropene	1 U
56-23-5	Carbon Tetrachloride	1 U
107-06-2	1,2-Dichloroethane	1 U
71-43-2	Benzene	1 U
79-01-6	Trichloroethene	1 U
78-87-5	1,2-Dichloropropane	1 U
74-95-3	Dibromomethane	1 U
75-27-4	Bromodichloromethane	1 U
10061-01-5	cis-1,3-Dichloropropene	1 U
108-10-1	4-Methyl-2-pentanone	1 U
108-88-3	Toluene	1 U
10061-02-6	trans-1,3-Dichloropropene	1 U
79-00-5	1,1,2-Trichloroethane	1 U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CARBON EFFLUENT

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM Case No.:

SAS No.:

SDG No.: C1591

Matrix: (soil/water) AIR

Lab Sample ID: C1591-01A

Sample wt/vol: 25 (g/mL) ML

Lab File ID: V5F7675

Level: (low/med) LOW

Date Received: 10/23/04

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 01/03/05

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/M3	Q
142-28-9	1,3-Dichloropropane	1	U
127-18-4	Tetrachloroethene	1	U
591-78-6	2-Hexanone	1	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
	m,p-Xylene	1	U
95-47-6	o-Xylene	1	U
1330-20-7	Xylene (Total)	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U
106-43-4	4-Chlorotoluene	1	U
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
99-87-6	4-Isopropyltoluene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U
87-68-3	Hexachlorobutadiene	0.3	JB
91-20-3	Naphthalene	0.2	J
87-61-6	1,2,3-Trichlorobenzene	1	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK5X

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: C1591

Matrix: (soil/water) AIR

Lab Sample ID: MB-16337

Sample wt/vol: 25 (g/mL) ML

Lab File ID: V5F7672

Level: (low/med) LOW

Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 01/03/05

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) MG/M3

CAS NO.

COMPOUND

Q

75-71-8-----	Dichlorodifluoromethane	1	U
74-87-3-----	Chloromethane	1	U
75-01-4-----	Vinyl Chloride	1	U
74-83-9-----	Bromomethane	1	U
75-00-3-----	Chloroethane	1	U
75-69-4-----	Trichlorofluoromethane	1	U
75-35-4-----	1,1-Dichloroethene	1	U
67-64-1-----	Acetone	1	U
74-88-4-----	Iodomethane	1	U
75-15-0-----	Carbon Disulfide	1	U
75-09-2-----	Methylene Chloride	1	U
156-60-5-----	trans-1,2-Dichloroethene	1	U
1634-04-4-----	Methyl tert-butyl ether	1	U
75-34-3-----	1,1-Dichloroethane	1	U
108-05-4-----	Vinyl acetate	1	U
78-93-3-----	2-Butanone	1	U
156-59-2-----	cis-1,2-Dichloroethene	1	U
590-20-7-----	2,2-Dichloropropane	1	U
74-97-5-----	Bromochloromethane	1	U
67-66-3-----	Chloroform	1	U
71-55-6-----	1,1,1-Trichloroethane	1	U
563-58-6-----	1,1-Dichloropropene	1	U
56-23-5-----	Carbon Tetrachloride	1	U
107-06-2-----	1,2-Dichloroethane	1	U
71-43-2-----	Benzene	1	U
79-01-6-----	Trichloroethene	1	U
78-87-5-----	1,2-Dichloropropane	1	U
74-95-3-----	Dibromomethane	1	U
75-27-4-----	Bromodichloromethane	1	U
10061-01-5-----	cis-1,3-Dichloropropene	1	U
108-10-1-----	4-Methyl-2-pentanone	1	U
108-88-3-----	Toluene	1	U
10061-02-6-----	trans-1,3-Dichloropropene	1	U
79-00-5-----	1,1,2-Trichloroethane	1	U



4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK5X

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: C1591

Lab File ID: V5F7672

Lab Sample ID: MB-16337

Date Analyzed: 01/03/05

Time Analyzed: 0937

GC Column: DB-624 ID: 0.25 (mm)

Heated Purge: (Y/N) N

Instrument ID: V5

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	CARBON EFFLU	C1591-01A	V5F7675	1106
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
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28				
29				
30				

COMMENTS:

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Client ID: SHAW\_LATHAM  
Project: NYSDEC  
Location:  
Comments: N/A

Case:  
SDG:  
PO: 205503

Report Level: LEVEL 2  
EDD: XL  
HC Due: 01/06/05  
Fax Due:

Sample ID	Client Sample ID	Collection Date	Date Received	Matrix	Test Code	Lab Test Comments	Iold	MS	SEL	Storage
C1591-01A	CARBON EFFLUENT	12/22/04 08:15	10/23/04	Air	TO14		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VOA



**MITKEM CORPORATION**  
**Sample Condition Form**

Received By: <u>ARN</u>		Reviewed By: <u>[Signature]</u>		Date: <u>12/23/04</u>		MITKEM Project #: <u>C1591</u>	
Client Project: <u>Katsit</u>				Client: <u>Shaw</u>			Soil Headspace or Air Bubbles ≥ 1/4"
		Lab Sample ID		Preservation (pH)		VOA Matrix	
Cooler Sealed <input checked="" type="checkbox"/> Yes / No		<u>C1591 01</u>		HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	HCl	NaOH
1) Custody Seal(s) <input checked="" type="checkbox"/> Present / Absent							
Coolers / Bottles <input checked="" type="checkbox"/> Intact / Broken							
2) Custody Seal Number(s) <u>NA</u>							
3) Chain-of-Custody <input checked="" type="checkbox"/> Present / Absent							
4) Cooler Temperature <u>14°C</u>							
Coolant Condition <u>/</u>							
5) Airbill(s) <input checked="" type="checkbox"/> Present / Absent							
Airbill Number(s) <u>FedEx</u>							
<u>848335343077</u>							
6) Sample Bottles <input checked="" type="checkbox"/> Intact / Broken / Leaking							
7) Date Received <u>12/23/04</u>							
8) Time Received <u>10:50</u>							
Preservative Name/Lot No:							

VOA Matrix Key:

**US** = Unpreserved Soil    **A** = Air

**UA** = Unpreserved Aqueous    **H** = HCl

**M/N** = MeOH & NaHSO<sub>4</sub>    **E** = Encore

**N** = NaHSO<sub>4</sub>    **M** = MeOH

See Sample Condition Notification/Corrective Action Form    yes / no

Rad OK    yes/ no



**Last Page of Data Report**