O'BRIEN & GERE

October 25, 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-
Aug/Sept 2005
1 Adams Boulevard
Farmingdale, New York
NYSDEC Site 1-52-140

File: 10653/35518 #5

Dear Mr. Dyber:

This letter provides an overview of the ongoing operation of the soil vapor extraction (SVE) system at the National Heatset Printing Site in Farmingdale, New York (Figure 1). A site visit was performed by YEC, Inc. (YEC) personnel on September 13, 2005 on behalf of O'Brien & Gere Engineers, Inc (OBG) in accordance with our approved Work Plan.

System Operation

The SVE system was assumed operational for 100% of the reporting period (August 4, 2005 through September 13, 2005). The system operational data is summarized in Table 1 and on the site visit data collection form provided in Appendix A. As previously reported in the July 2005 report, a new meter was installed on August 8, 2005. The installation occurred after the last site visit, and therefore the run time indicated does not account for the entire reporting period. Run time as shown on the meter will be reported during the next reporting period.

As recommended in the June 2005 report, OBG personnel coordinated with ServiceTech to replace the activated carbon of the SVE system. ServiceTech was onsite and replaced the spent activated carbon on August 10, 2005.

A flow of 89.5 cfm and a vacuum of 25 inches of water column were observed at the extraction well. The SVE blower operated at a flow of 226 cubic feet per minute (cfm) as measured at the SVE influent. Field personnel recorded a tetrachloroethene (PCE) concentration of 14 ppm (by Draeger tube) and a concentration of volatile organic compounds (VOCs) of 59.6 ppm (by PID) from the extraction well (pre-dilution). No water was observed in the knockout vessel during this reporting period.

VOC concentrations of 18.3 ppm (by PID) and a PCE concentration of 12 ppm (by Draeger Tube) were observed at the SVE influent port during the site visit. VOC concentrations of 0.5 ppm (by PID) and a PCE concentration of 0.0 ppm (by Draeger Tube) were observed from the Vapor-phase Granular Activated Carbon (VGAC) mid sampling port, and a VOC concentration of 0.0 ppm (by PID) and a PCE concentration of 0.0 ppm (by Draeger Tube) were observed from the effluent sampling port. Refer to Table 1.

Monitoring Probes

A vacuum of 1.45, 0.5 and 0.15 inches of water column were observed during the site visit at vapor monitoring points VP-1, VP-2 and VP-3, respectively. The vapor points will continue to be monitored during future site visits.

PCE Removal

PCE removal was calculated for this reporting period using SVE influent PCE concentrations measured at the SVE influent sampling point. The SVE system removed approximately 20 pounds of PCE from the extraction well during this reporting period and has removed approximately 2,277 pounds of PCE to date. A summary of the estimated PCE mass removal over time is presented in Table 2.

Air Discharge Monitoring

YEC personnel collected an air sample from the system effluent and submitted the sample to Mitkem Corporation for analysis. The sample was analyzed for volatile organic compounds (VOCs) using USEPA method TO-14. Concentrations of PCE, TCE and cis-1, 2-DCE were not detected in the effluent sample above a detection limit of 1 mg/m^3. Analytical results are summarized in Table 3 and the laboratory data report is presented in Appendix B. A summary of the field monitoring and laboratory air discharge monitoring results is presented as Table 4.

Based on the effluent sampling results, no PCE, TCE or cis-1, 2-DCE was discharged during the current monitoring period. A total of 4.09 lb of cis-1, 2-DCE has been discharged during the year 2005 toward the permitted annual discharge limit of 5,510 lbs. A total of 117.08 lb of PCE has been discharged during the year 2005 toward the permitted annual discharge limit of 270 lb. A total of 3.77 lb of TCE has been discharged during the year 2005 toward the permitted annual discharge limit of 120 lb.

Conclusions and Recommendations

Based on the data collected from the SVE system during this reporting period, OBG recommends continued operation of the SVE system. It is recommended that the dilution valve and the extraction well MW-F remain at the current positions of 75% open and 50% open, respectfully.

Please do not hesitate to contact me at 315-437-6100 with any questions you might have regarding this report.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

Marc J. Dent P.E.
Managing Engineer

cc. Trevor Staniec – O'Brien & Gere

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Attachments

TABLES

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

		Run Time Since Last Visit (hours)									Influent SVE					Mid GAC				Effluent GAC			
Date	Run Time Meter Reading (hours)	Available	Actual	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)	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	65	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	68	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
1/20/2005	15933	711	368	52	25	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2/23/2005	15933	833	0	0	75	50	87.5	36	174	50	188	58	110	93	50	265	56	0	0	245	38.5	0	0
3/29/2005	16217	833	284	34	75	50	87 [1]	40	--	--	158 [1]	--	121	6.4	4.5	255 [1]	97	3.4	3	234 [1]	81	0	<2
4/28/2005	--	720	720 [2]	100	75	50	86	39	--	--	227	--	126	8.9	5	244	109	8	4	222	84.2	0	<2
5/31/2005	--	792	792 [2]	100	50	50	98	39	7.4	9.5	208	--	124.2	10.4	10	227	118.6	17.6	10	223	112.3	0	<2
6/24/2005		576	576 [2]	100	50	50	125	25	28.5	16	266	--	152	8.3	7	283	133	13.9	16	242	116	10.1	15
8/4/2005	17972	984	984 [2]	100	75	65	216	26	38.1	19	353	--	153.4	8.8	12	423	135.7	10.5	12	381	120.7	7.5	12
9/13/2005	859	960	960 [2]	100	75	50	89.5	25	59.6	14	226		164.5	18.3	12	265	143	0.5	0	248	124.6	0	0

Notes:

[1] Calculated flows based on the average of flows measured on 3-29-05 and 4-28-05

[2] Run time meter reading not indictitive of SVE system run time; actual hours run is assumed 100% of available.

-- = measurement not recorded or not applicable.

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

As of 4/28/05, the calculation of "Available" run time hours is based on 24 hours, rather than 24.5 hours as prevously calculated.

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	2000 [1]	500 [1]	25.0	34.5	12	126	126
10/14/2002	1,011	400	39.6	38	14	127	253
11/19/2002	0	0	--	49	36	113	367
12/16/2002	560	200	35.7	36.5	27	69	436
1/13/2003	485	400	82.5	28.5	28	154	589
1/21/2003	0	0	--	0	8	63	652
2/10/2003	639	400	62.6	38	20	64	715
3/5/2003	263	200	76.0	24.4	23	129	844
3/18/2003	125	100	80.0	92	13	76	920
4/29/2003	152	50	32.9	75	42	105	1,025
5/13/2003	127	50	39.4	78	14	65	1,090
6/30/2003	82.4	50	60.7	115	48	89	1,179
7/22/2003	406	400	98.5	99.5	12	187	1,367
8/26/2003	137	10	7.3	79	35	276	1,643
9/23/2003	141	15	10.6	218	14	14	1,657
10/21/2003	37.5	20	53.3	166	28	41	1,698
11/24/2003	141	125	88.7	130	34	179	1,877
1/6/2004	118	100	84.7	98.5	43	--	1,877
2/9/2004	23.1	10	43.3	121	34	91	1,968
3/30/2004	22	10	45.5	103	50	22	1,990
4/29/2004	2.4	0	0.0	131	30	8	1,999
5/24/2004	43.8	50	114.2	144	25	49	2,047
6/22/2004	57	10	17.5	127	29	54	2,102
7/28/2004	53.2	7	13.2	142	36	21	2,122
8/12/2004	48	0	0	157	15	8	2,130
9/29/2004	27.7	0	--	139	48	0	2,130
10/20/2004	19.1	10	--	140	21	14	2,144
11/17/2004	17.9	10	55.9	160	28	16	2,160
12/22/2004	15.8	5	31.6	143	35	9	2,169
1/20/2005	--	--	--	--	--	--	--
2/23/2005	174	50	28.7	87.5	34	--	--
3/29/2005	6.4	4.5	70.3	148	34	9	2,178
4/28/2005	8.9	5	56.2	86	30	11	2,189
5/31/2005	10.4	10	96.2	98	33	17	2,206
6/24/2005	8.3	7	84.3	125	24	14	2,220
8/4/2005	8.8	12	136.4	216	41	37	2,257
9/13/2005	18.3	12	65.6	89.5	40	20	2,277

Notes:

[1] = 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.

[2] SVE Influent (post-dilution) monitoring point data used for calculation of PCE Removal for dates including and subsequent to March 29, 2005

Removal Rate = [(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*24 hr/1 day*days of operation

[3] Run time meter reading not indictitive of SVE system rum time; actual hours run is assumed equal to elapsed time.

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

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

VGAC Effluent Concentration (mg/m3)			
Date	cis-1,2-Dichloroethene	Tetrachloroethene (PCE)	Trichloroethene
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)
1/20/2005	--	--	--
3/29/2005	2	ND (1)	ND (1)
4/28/2005	1	0.5J	ND (1)
5/31/2005	1	5	2
6/24/2005	0.8J	64	2
8/4/2005	0.7J	57	1J
9/13/2005	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 = Concentation exceeded calibration range
-- = sample not collected
SVE = Soil vapor extraction
J = Estimated Value
VGAC = vapor-phase granular activated carbon
mg/m3 = milligrams per cubic meter

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

		Field Monitoring			Laboratory Results			Discharge based on Field Monitoring		Discharge based on Laboratory Results					
Date	System Effluent Flow Rate (cfm)	PCE System Effluent Concentration (ppmv)	System Effluent VOC Concentration (ppmv)	Elapsed Time (day)	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
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
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	--	--	--	--	--	--
2003 Totals:									**431.38**		**26.424**		**5.412**		**0.000**
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
2004 Totals:									**24.34**		**62.26**		**1.41**		**10.00**
1/20/2005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2/23/2005	245	0	0	34	--	--	--	0.0000	0.00	--	--	--	--	--	--
3/29/2005	234 [1]	0	0	34	ND (1)	ND (1)	2	0.0000	0.00	0.000	0.00	0.000	0.00	0.002	1.43
4/28/2005	222	0	0	30	0.5	ND (1)	1	0.0000	0.00	0.0004	0.30	0.000	0.00	0.001	0.60
5/31/2005	223	0	0	33	5	2	1	0.0000	0.00	0.0042	3.31	0.0017	1.32	0.001	0.66
6/24/2005	242	10.1	15	24	64	2	0.8J	0.0620	35.70	0.0580	33.42	0.0018	1.04	0.001	0.42
8/4/2005	381	12	7.5	41	57	1J	0.7J	0.1159	114.09	0.0814	80.05	0.0014	1.40	0.001	0.98
9/13/2005	248	0	0	40	ND (1)	ND (1)	ND (1)	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.000	0.00
2005 Totals:									**149.79**		**117.08**		**3.77**		**4.09**

Notes: -- = Measurement not recorded [1] Calculated flows based on the average of flows measured on 3-29-05 and 4-28-05

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

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

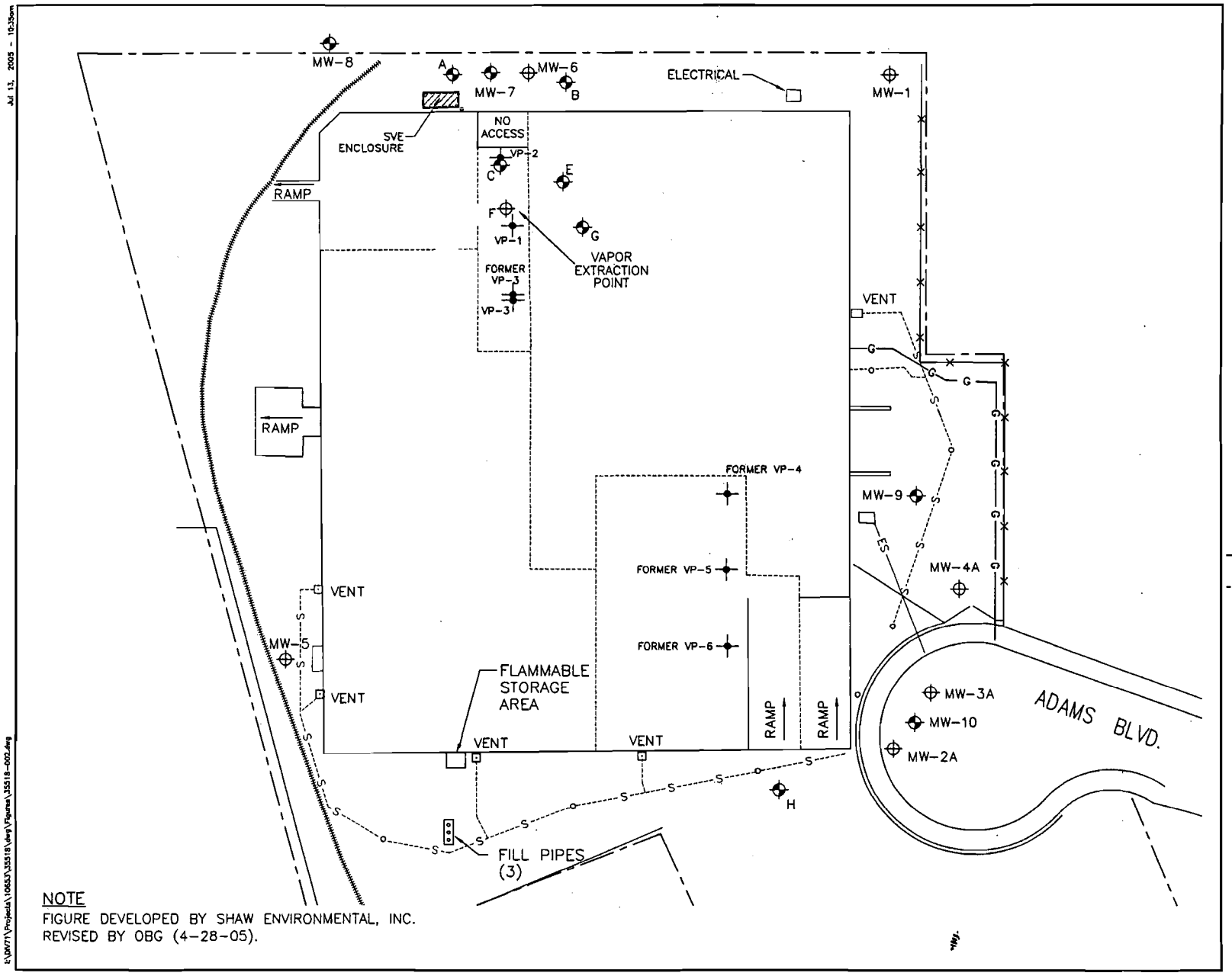
Discharge (Lab Res., lb) = Discharge Rate (lb/hr) * # of days*24hours/day

Where: C = degrees centigrade, assumed to be 25
J = Estimated Value
hr = hours
Molecular weight (MW) of PCE=165.85; TCE=131.4; cis-1,2-DCE=96.94
cfm = cubic feet per minute
mg/cu. m = milligrams per cubic meter
ppmv = parts per million (vol./vol.)
lb = pounds

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

FIGURES

FIGURE 1



NOTE
FIGURE DEVELOPED BY SHAW ENVIRONMENTAL, INC.
REVISED BY OBG (4-28-05).

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)

NATIONAL HEATSET PRINTING
FARMINGDALE, NEW YORK

SOIL VAPOR EXTRACTION SYSTEM LOCATION MAP

1"=50' 50 0 50

FILE NO. 10653.35518.002
JUNE 2005

O'BRIEN & GERE ENGINEERS INC.

APPENDIX A
SITE VISIT DOCUMENTATION

National Heatset Printing

1 Adams Boulevard, Farmingdale, New York

O'Brien & Gere Eng. - Job # 35518.005

Personnel: Dan Simpson
Weather: Sunny 90°

Time: 1330
Date: 9/13/05

System Status:

Arrival: 1330
Departure: 1600
Run Timer Reading: 0085902
Electric Meter Reading: 1411 old room / [redacted] 02072, .5kw, 3.17 kw

System Data:

Extraction Well F Gate Valve: 50 % Open
Dilution Valve: 75 % Open

Pre-Bleed Air (Extraction Well):		**Post-Bleed Air (SVE Influent):**		
Flow:	89.3 CFM	Flow:	226 CFM	n=5
Vacuum:	25 "H2O	Vacuum:	— "H2O	
PID Reading:	59.6 PPM	PID Reading:	18.3 PPM	
Draeger Tube:	14 PPM	Draeger Tube:	12 PPM	
Temperature:	80.7 °F	Temperature:	164.5 °F	

Carbon Monitoring:

Mid:	.5 PPM	265 CFM	143.0 Temp. (°F)	0.0 PPM (Drager)
Effluent:	0.0 PPM	248 CFM	124.6 Temp. (°F)	0.0 PPM (Drager)

Carbon effluent sample collected & shipped to lab? Yes 1414

Knockout Tank Drained? WO
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):	17.76	17.76	--	17.95	--	--	--	--	--	--
Vac. (" H2O):	--	--	--	--	1.45	.50	.15	--	--	--

Comments:

* Carbon tanks have been refilled, mid-carbon tank has 2 bolts stripped out on cap 9/16th 1.5", replaced.

APPENDIX B
LABORATORY REPORT OF ANALYSES

MITKEM CORPORATION

"Environmental Testing For The New Millennium"

October 18, 2005

O'Brien & Gere
5000 Brittonfield Parkway
P. O. Box 4873
Syracuse, NY 13221-4873
Attn: Mr. Marc Dent

RE: Client Project: National Heatset
Lab Project #: D1072

Dear Mr. Dent:

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,

Agnes R. Ng
CLP Project Manager

MITKEM CORPORATION

Report of Laboratory Analyses for O'Brien & Gere

Client Project: National Heatset

SDG# MD1072

Mitkem Work Order ID: D1072

October 18, 2005

Prepared For:

O'Brien & Gere
5000 Brittonfield Parkway
P. O. Box 4873
Syracuse, NY 13221-4873
Attn: Mr. Marc Dent

Prepared By:

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

MITKEM CORPORATION

Client: O'Brien & Gere

Client Project: National Heatset

Lab Project: D1072

Date samples received: 09/14/05

Project Narrative

This data report includes the analysis results for one (1) air sample in a Tedlar bag that was received from O'Brien & Gere on September 14, 2005. 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.

Agnes Ng
CLP Project Manager

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SVE EFFLUENT

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MD1072

Matrix: (soil/water) AIR Lab Sample ID: D1072-01A

Sample wt/vol: 25 (g/mL) ML Lab File ID: V2H0566

Level: (low/med) LOW Date Received: 09/14/05

% Moisture: not dec. _____ Date Analyzed: 09/26/05

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
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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SVE EFFLUENT

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MD1072

Matrix: (soil/water) AIR Lab Sample ID: D1072-01A

Sample wt/vol: 25 (g/mL) ML Lab File ID: V2H0566

Level: (low/med) LOW Date Received: 09/14/05

% Moisture: not dec. _____ Date Analyzed: 09/26/05

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	1	U
91-20-3	Naphthalene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Mitkem Corporation

19/Sep/05 16:00

WorkOrder: D1072

Client ID: OBRIEN_GERE
Project: National Heatset
Location:
Comments: Level 2 for air samples

Case:
SDG:
PO:

Report Level: LEVEL 2
EDD: CLF
HC Due: 10/05/05
Fax Due: 09/28/05

Sample ID	Client Sample ID	Collection Date	Date Received	Matrix	Test Code	Lab Test Comments	Iold	MS	SEL	Storage
D1072-01A	SVE EFFLUENT	09/13/05 14:14	09/14/05	Air	TO14		☐	☐	☐	VOA

Client Rep: Agnes R Ng

MITKEM CORPORATION
175 Metro Center Boulevard
Warwick, Rhode Island 02886-1755
(401) 732-3400 • Fax (401) 732-3499
email: mitkem@mitkem.com

CHAIN-OF-CUSTODY RECORD

REPORT TO			INVOICE TO		
COMPANY O'Brien & Gere	PHONE		COMPANY O'Brien & Gere	PHONE (315) 437-6100	LAB PROJECT #: D1072
NAME Marc J. Dent	FAX		NAME Marc J. Dent	FAX (315) 463-7554	
ADDRESS 5000 Brittonfield Pkwy P.O. Box 4873			ADDRESS 5000 Brittonfield Pkwy PO. Box 4873		TURNAROUND TIME:
CITY/ST/ZIP Syracuse, NY 13221 4873			CITY/ST/ZIP Syracuse, NY 13221 4873		

CLIENT PROJECT NAME: National Heat-Set

CLIENT PROJECT #:

CLIENT P.O.#:

REQUESTED ANALYSES

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAB	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS	Method TO-14	COMMENTS
SVE Effluent	9/13/05 1414		X			Air	-1	1	X	
	/									
	/									
	/									
	/									
	/									
	/									
	/									
	/									
	/									
	/									
	/									

TSF#	RELINQUISHED BY	DATE/TIME	ACCEPTED BY	DATE/TIME	ADDITIONAL REMARKS:	COOLER TEMP:
	Daniel Simon	9/13/05 1530	Fed Ex 8527 0777 4118	9/13/05 1530		AMBIENT
		/		9-14-05 0845		
		/		/		

WHITE: LABORATORY COPY YELLOW: REPORT COPY PINK: CLIENT'S COPY

MITKEM CORPORATION
Sample Condition Form

Page 1 of 1

Received By:	Reviewed By:	Date:	MITKEM Project #:
NM	JJH	9-14-05	D1072

Client Project: NATIONAL HEAT SET

Client: O'BRIEN & GERE

Cooler Sealed (Yes) / No

1) Custody Seal(s) Present / Absent
Coolers / Bottles
Intact / Broken

2) Custody Seal Number(s) N/A

3) Chain-of-Custody (Present) / Absent

4) Cooler Temperature AMBIENT
Coolant Condition AIR BAG

5) Airbill(s) (Present) / Absent
Airbill Number(s) FED-EX
852707774118

6) Sample Bottles (Intact)/Broken/Leakin

7) Date Received 9-14-05

8) Time Received 08:45

Preservative Name/Lot No:

Lab Sample ID	Preservation (pH) HNO_3	Preservation (pH) H_2SO_4	Preservation (pH) HCl	Preservation (pH) NaOH	VOA Matrix	Soil Headspace or Air Bubbles ≥ 1/4"
D1072-01					A	

VOA Matrix Key:
US = Unpreserved Soil **A** = Air
UA = Unpreserved Aqueo **H** = HCl
M/N= MeOH & $NaHSO_4$ **E** = Encore
N = $NaHSO_4$ **M** =MeOH

See Sample Condition Notification/Corrective Action Form yes / (no)

Rad OK (yes) no

Form ID: SampleCond.Form-11/04

Last Page of Data Report

File on eDOCs? X Yes ___ No

Site Name National Heatset

Site # 1-52-140

County Suffolk

Town Babylon

Foilable X Yes ___ No

Please Write The eDOC File Name Description SVE DTM 0905