

**Remedy
Operation
Status
Jan. 2008**

January 17, 2008

Bureau of Waste Site Cleanup
Massachusetts Department of Environmental Protection

RE: Remedy Operating Status Inspection and Monitoring Report (July to December 2007)

Dear MassDEP:

Introduction and Background

LSPCO is providing this Inspection and Monitoring Report as required under the Massachusetts Department of Environmental Protection (MassDEP) Massachusetts Contingency Plan (MCP) relative to Remedy Operating Status (ROS) actions being conducted at the above-referenced location. The Immediate Response Action (IRA) Completion Report, Phase IV Remedy Implementation Plan and Phase IV Final Inspection Report and Completion Statement was submitted to the Massachusetts Department of Environmental Protection (MassDEP) on March 18, 2003.

The MassDEP advised ACME of a release of oil to the underground Brook Culvert on October 1, 1998 based on findings reported by the Department of Public Health & Code Enforcement (DPH). A Site Location Map is included as Figure 1. The release was temporarily abated by the DPH at the time of their inspection. LSPCO determined that a 2-hour reporting condition [310 CMR 40.0311(8)] was present at the Site where oil had released, or could potentially release, to a storm drain. This condition also met the criteria for a condition of Substantial Release, Migration [310 CMR 40.0413(2)(a)]. The MCP requires IRAs in both cases. This condition was verbally reported by LSPCO to the MassDEP on March 19, 1999 and assessment-only IRA activities were verbally approved.

It was determined that the likely source of the oil was from a 3,000-gallon No. 2 fuel oil underground storage tank (UST). A Site Plan is included as Figure 2. The UST was closed in-place in 1991 in accordance with 527 CMR 9.22 and at the approval of the

local Fire Department. According to ACME, UST closure included emptying and clearing the tank, inspecting, and filling the tank with concrete slurry.

LSPCO's subcontractor, "the Sub",

constructed an in-situ bioremediation system at the Site in April and May 2001. The Bioremediation System Layout and Groundwater Flow Schematic are shown on Figures 3 and 4, respectively. Continuous operation of the system began on May 23, 2001. Weekly to bi-weekly operation and maintenance of the system has been conducted by the Sub to manually remove liquid-phase hydrocarbon (LPH) from oil/water separator drums, maintain nutrient and microbe levels, and maintain system hydraulic equipment as necessary.

Objective

The goal of the ROS actions is to continue to mitigate conditions present at the Site as Comprehensive Response Actions, which include the presence of LPH on groundwater located next to the underground culvert's exterior wall and at several monitoring points on the Site. Mitigation would be accomplished by recovery of LPH and reduction of dissolved-phase hydrocarbon concentrations in groundwater. LPH recovery and in-situ bioremediation has been implemented as Comprehensive Response Actions to accomplish this objective.

Groundwater Gauging

Monitoring wells MW-1, MW-2, MW-3, MW-4, MW-7, MW-8, MW-9, MW-12, MW-15, MW-16, MW-S4, MW-S7, MW-S11 and monitoring point S-2 were gauged for depth to LPH and/or groundwater on July 27, 2007. The remaining monitoring wells were not accessible on that date. Monitoring wells MW-1, MW-2, MW-3, MW-4, MW-7, MW-8, MW-9, MW-12, and MW-S11 were gauged for depth to LPH and/or groundwater on October 26, 2007. The remaining monitoring wells were not accessible on that date. Measurements were made using an electronic oil/water interface probe. The gauging results are summarized on Table 1.

In reference to Table 1, in July 2007, LPH was detected in monitoring well MW-S7 at a thickness of 0.05 foot. In October 2007, LPH was detected in monitoring wells MW-1, MW-8, MW-9, MW-S11 at thicknesses of 0.09 foot, 0.05 foot, 0.09 foot and 0.04 foot, respectively. Based on groundwater data, it is apparent that the historical fluctuations in LPH thicknesses noted above correlated with groundwater elevations, and the LPH thickness increased with increasing depth to water. Over time, this trend is not as clearly apparent and LPH thicknesses through 2007 have not increased with increasing depth to water, indicating that the amount of LPH on the site is being reduced by operation of the LPH recovery system, discussed below.

Depth to groundwater measurements obtained in July and October 2007 were utilized to determine the groundwater flow direction. Based on these data, the overall groundwater direction is to the east/southeast, which is consistent with previous data. A Groundwater Contour Map of the July 27, 2007 data is included as Figure 5.

Groundwater Sampling

Groundwater samples were collected from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-9, and monitoring point S-2 on July 27, 2007. Monitoring wells MW-5 and MW-6 have been destroyed. Groundwater samples were collected from monitoring wells MW-2, MW-3 and MW-4 on October 26, 2007. The remaining wells that are sampled under this RQS were inaccessible on that date. Each of the samples was analyzed for volatile petroleum hydrocarbons (VPH) and extractable petroleum hydrocarbons (EPH) with target compounds via MassDEP methods. Monitoring wells MW-1, MW-2, MW-3 and MW-4 were additionally analyzed for nitrogen-ammonia, nitrogen-nitrate, total phosphorus, dissolved oxygen and carbon dioxide. A summary of the July and October 2007 analytical results along with historical data is presented in Table 2 (VPH and EPH) and Table 3 (nutrients). A copy of the July 2007 field notes and laboratory analytical reports are included in Appendices 1 and 2, respectively. A copy of the October 2007 field notes and laboratory analytical reports are included in Appendices 1 and 3, respectively. Note that additional analyses were conducted for volatile organic compounds via EPA Method 8260 in both July and October 2007 for additional monitoring wells and monitoring points. These data will be further detailed in reports submitted under RTN #2-14062.

Surface water in the underground Brook Culvert was monitored on both July 27, 2007 and October 26, 2007. Activities included visual inspection for the presence of an oil sheen, and analysis for nitrogen-ammonia, nitrogen-nitrate, and total phosphorus. No oil sheen or odor was observed during either inspection event. Nutrient data is listed in Table 3 and laboratory reports are included in Appendices 2 (July 2007) and 3 (October 2007).

Groundwater samples were collected from the influent to, and effluent from, the bioremediation treatment system on July 27, 2007 and October 26, 2007. The samples were analyzed for VPH and EPH with target compounds. The analytical results are summarized in Table 4 (influent) and Table 5 (effluent), and the analytical reports are included as Appendix 2 (July 2007) and Appendix 3 (October 2007). The results are discussed below.

Bioremediation System Operation

The bioremediation system operated continuously throughout the reporting period of June 30, 2007 through December 27, 2007. During this reporting period, the bioremediation system recovered approximately 14.78 gallons of fuel oil, which was removed from oil/water separator drums located in the treatment shed and stored in a DOT-approved 55-gallon drum labeled as hazardous waste. The drum is a designated RCRA satellite accumulation container and is evacuated along with other waste oil streams for bulk transport from the facility for disposal.

During this reporting period, waste disposal occurred once on September 18, 2007. A copy of the Uniform Hazardous Waste Manifest is attached in Appendix 4. A total of approximately 340 gallons of fuel oil has been removed since system startup, including approximately 38 gallons of LPH that was manually recovered from the monitoring wells.

The system has treated 30,126 gallons of hydrocarbon-impacted groundwater since the July 2007 ROS Inspection and Monitoring Report. A total of 913,251 gallons of groundwater has been treated since system startup (May 23, 2001) through December 27, 2007. System operational data for this reporting period is summarized in Appendix 5.

Between June and December 2007, the monthly volume of fuel oil recovered ranged from 0.32 gallons in July 2007 to 9.76 gallons in August 2007, with an average volume recovered of 2.46 gallons per month. This recovery rate is higher than the average of 0.6 gallons per month reported during the previous reporting period.

Groundwater circulation rates between June and December 2007 ranged from 1,375 gallons (October 2007) to 14,388 gallons (November 2007), with an average of approximately 5,021 gallons per month. This indicates a decrease in groundwater circulation rate from the last reporting period (10,925 gallons per month from December 2006 to June 2007) and reflects normal seasonal changes in the groundwater level.

A graph summarizing fuel oil recovery and groundwater circulation is included as Figure 6. In reference to this figure, historically, fuel oil recovery appeared to increase with an increase in groundwater circulation. As the bioremediation system continues to operate and the Site approaches closure, the amount of LPH recovered per gallon of groundwater recirculated will continue to decrease, as evidenced over the last two reporting periods and shown on Figure 6.

On July 27 and October 26, 2007, samples from the bioremediation system influent and effluent were collected and analyzed for VPH and EPH via MassDEP methods. The analytical results are summarized in Table 4 (influent) and Table 5 (effluent) and are attached in Appendix 2 (July 2007) and Appendix 3 (October 2007). In reference to Table 4, the July 2007 C₉-C₁₈ aliphatic hydrocarbon and C₁₉-C₃₆ aliphatic hydrocarbon concentrations exceeded the MassDEP Method 1 GW-2 Standards and the C₉-C₁₈ aliphatic hydrocarbon concentration exceeded the MassDEP Method 3 Upper Concentration Limit (UCL). However, it should be noted that it is likely that minute amounts of LPH present in the influent resulted in these concentrations. In October 2007, only the C₉-C₁₈ aliphatic hydrocarbon concentration exceeded the MassDEP Method 1 GW-2 Standard. In reference to Table 5, the July and October 2007 C₉-C₁₈ aliphatic hydrocarbon concentration exceeded the MassDEP Method 1 GW-2 Standard. Neither of these results exceeded the MassDEP Method 3 UCLs. A groundwater classification of GW-1 does not apply to the Site.

Summary of Site Conditions

The treatment system continues to successfully capture LPH located in the subsurface. Approximately 340 gallons of fuel oil have been removed from the subsurface since system operation began in May 2001.

The groundwater analytical data obtained through October 2007 indicate an overall increasing trend in dissolved-phase hydrocarbon concentrations in monitoring well MW-

1. This trend, however, is skewed by concentrations obtained in 2005. Since the 2005 data, the trend has been decreasing. The remaining monitoring wells MW-2, MW-3, MW-4, MW-5 and MW-6 indicate decreasing trends in dissolved-phase hydrocarbon concentrations. Groundwater quality graphs illustrating these trends are included as Appendix 6.

Dissolved-phase petroleum concentrations at monitoring well MW-2 remained below Method 1 GW-2 and GW-3 Standards and nutrient concentrations in surface water in the underground culvert remained stable during this reporting period. These results continue to show that no significant fuel oil has migrated along the underground Brook Culvert Wall and that the bioremediation system is providing capture and treatment of the area of ROS investigation.

Based on the amount of oil recovered from the subsurface, the treatment system continues to operate as designed.

Activities To Be Completed

Activities to be completed within the next six months include continued operation and maintenance of the bioremediation system and environmental monitoring.

Continued environmental monitoring includes the following:

- Quarterly groundwater quality monitoring at monitoring wells MW-1 through MW-4 for VPH and EPH without target compounds (monitoring wells MW-5 and MW-6 were destroyed);
- Quarterly monitoring of the system influent and effluent for VPH and EPH without target compounds;
- Quarterly monitoring of surface water in the underground culvert for nitrogen-ammonia, nitrogen-nitrate, and total phosphorus as well as visual inspection for an oil sheen on the water; and;
- Nutrient monitoring at monitoring wells MW-1, MW-2, MW-3 and MW-4 for nitrogen-ammonia, nitrogen-nitrate, total phosphorus, dissolved oxygen and carbon dioxide;

Permits, Approvals And Reporting

No permits or approvals are required to continue the ROS. A Phase II - Comprehensive Site Assessment Report was submitted to the MassDEP in June 2002 and a Phase III - Remedial Action Report was submitted to the MassDEP in July 2002. An, IRA Completion Report, Phase IV Remedy Implementation Plan, and Phase IV Final Inspection Report and Completion Statement was submitted to the MassDEP on March 18, 2003.

Limitations

This ROS Report is based solely on the scope of work conducted and sources referred to in this report. The data presented in this report was collected and analyzed using generally accepted industry methods and practices at the time the report was generated. This report presents the conditions, locations, and materials that were observed at the time the fieldwork was conducted. No inferences regarding other

conditions, locations, or materials, at a later date or earlier time may be made based on the contents of the report. This report was prepared for the sole use of ACME.

LSPCO acknowledges and agrees that this report may be conveyed by ACME to ACME's attorney, lender, title insurer, and regulatory agencies associated with the release at the Site. This report has been prepared in accordance with the terms and conditions set forth in our Additional Services Letter Agreement dated May 2, 2007. No other warranty, expressed or implied, is made.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Enclosures:

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Table 1

Groundwater Gauging Data

Monitoring Well #	Date	Top of PVC Elevation	Depth to Groundwater	Depth to LPH	LPH Thickness	Groundwater Elevation*
MW-1	1/21/02	98.70	6.26	NA	NA	92.44
	4/24/02		5.86	NA	NA	93.04
	8/2/02		6.00	NA	NA	92.70
	11/4/02		5.49	NA	NA	93.21
	4/17/03		5.81	NA	NA	93.09
	7/21/03		5.70	NA	NA	93.00
	11/6/03		5.50	NA	NA	93.20
	2/2/04		5.10	NA	NA	92.60
	6/23/04		6.59	NA	NA	92.11
	8/26/04		6.17	NA	NA	92.53
	11/4/04		5.50	NA	NA	93.20
	4/29/05		4.83	NA	NA	93.87
	7/25/05		5.50	NA	NA	93.20
	10/17/05		5.20	NA	NA	93.50
	1/27/06		5.51	NA	NA	93.19
	4/3/06		8.47	NA	NA	90.23
	7/25/06		6.03	NA	NA	92.67
	10/26/06		5.75	NA	NA	92.95
	1/22/07		8.43	NA	NA	90.27
	4/25/07		5.50	NA	NA	93.20
	7/27/07		7.40	NA	NA	91.30
	10/26/07		9.01	8.92	0.09	89.76
MW-2	1/21/02	97.46	8.78	NA	NA	88.68
	4/24/02		8.48	NA	NA	88.98
	8/2/02		8.55	NA	NA	88.91
	11/4/02		8.38	NA	NA	89.08
	4/17/03		8.30	NA	NA	89.16
	7/21/03		8.41	NA	NA	89.05
	11/6/03		8.25	NA	NA	89.21
	2/2/04		8.70	NA	NA	90.00
	6/23/04		8.70	NA	NA	90.00
	8/26/04		8.55	NA	NA	90.15
	11/3/04		8.35	NA	NA	90.35
	4/29/05		8.36	NA	NA	90.34
	7/25/05		8.50	NA	NA	90.20
	10/17/05		7.98	NA	NA	90.74
	1/27/06		8.07	NA	NA	90.33
	4/3/06		8.65	NA	NA	90.05
	7/25/06		8.45	NA	NA	90.25
	10/26/06		8.50	NA	NA	90.20
	1/22/07		8.97	NA	NA	90.13
	4/25/07		9.00	NA	NA	89.70
	7/27/07		9.69	NA	NA	89.20
	10/26/07		8.60	NA	NA	90.10

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Table 1,
continued

Groundwater Gauging Data

Monitoring Well #	Date	Top of PVC Elevation	Depth to Groundwater	Depth to LPH	LPH Thickness	Groundwater Elevation*
MW-3	8/2/02	98.84	9.88	NA	NA	88.95
	11/4/02		9.91	NA	NA	88.93
	4/21/03		9.67	NA	NA	89.17
	7/21/03		9.80	NA	NA	89.04
	11/6/03		9.85	NA	NA	88.99
	8/26/04		10.05	NA	NA	88.79
	11/3/04		9.92	NA	NA	88.92
	10/26/05		10.33	NA	NA	88.51
	1/22/07		9.86	NA	NA	88.98
	4/25/07		9.6	NA	NA	89.24
	7/27/07		9.8	NA	NA	89.04
	10/26/07		9.87	NA	NA	88.97
MW-4	1/21/02	98.52	5.31	NA	NA	95.21
	4/24/02		6.18	NA	NA	93.84
	8/2/02		6.14	NA	NA	92.38
	11/4/02		5.14	NA	NA	93.38
	4/17/03		5.55	NA	NA	92.97
	7/21/03		5.46	NA	NA	93.06
	11/6/03		4.90	NA	NA	93.62
	6/23/04		6.17	NA	NA	92.35
	8/26/04		6.37	NA	NA	92.15
	11/3/04		5.18	NA	NA	93.36
	4/29/05		6.39	NA	NA	93.13
	10/17/05		4.26	NA	NA	94.26
	1/27/06		5.00	NA	NA	93.52
	4/3/06		8.46	NA	NA	90.04
	7/25/06		7.03	NA	NA	91.49
	10/26/06		8.50	NA	NA	90.02
	4/25/07		8.20	NA	NA	90.32
	7/27/07		7.30	NA	NA	91.22
	10/26/07		8.21	NA	NA	90.31
MW-5	1/21/02	97.81	8.87	NA	NA	88.94
	4/24/02		8.56	NA	NA	89.26
	8/2/02		8.63	NA	NA	89.18
	11/4/02		8.47	NA	NA	89.34
	4/17/03		8.35	NA	NA	89.46
	7/21/03		8.55	NA	NA	89.26
	11/6/03		NG	NA	NA	NA
MW-6	10/17/05	NS	7.35	NA	NA	NA
	1/30/05		8.01	7.97	0.04	NA
	4/3/06		9.54	NA	NA	NA
	7/25/06		9.61	NA	NA	NA
	10/26/06		9.33	NA	NA	NA
	6/23/04	97.27	8.29	NA	NA	87.98
MW-7	8/26/04		9.10	NA	NA	88.17
	11/3/04		8.80	NA	NA	88.37
	1/18/05		8.66	NA	NA	88.62
	4/29/05		8.68	NA	NA	88.69
	1/22/07		5.80	NA	NA	91.47
	4/25/07		8.30	NA	NA	88.97
	7/27/07		10.40	NA	NA	86.87
	10/26/07		5.46	NA	NA	91.81

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Table 3,
continued

Groundwater Gauging Data

Monitoring Well #	Date	Top of PVC Elevation	Depth to Groundwater	Depth to LPH	LPH Thickness	Groundwater Elevation*
MW-8	6/23/04	97.04	10.95	NA	NA	86.09
	8/26/04		8.65	NA	NA	86.39
	11/3/04		8.00	7.7	0.30	86.28
	4/29/05		8.25	7.84	0.41	86.12
	10/17/05		Dry @ 14:22	NA	NA	NA
	1/30/06		7.70	7.55	0.15	86.46
	4/3/06		8.41	NA	NA	86.63
	6/9/06		7.22	NA	NA	86.82
	7/25/06		8.00	NA	NA	86.04
	4/25/07		8.50	NA	NA	86.54
	7/27/07		8.40	NA	NA	86.64
	10/26/07		8.35	8.3	0.05	86.73
	6/23/04	97.19	9.05	NA	NA	86.14
	8/26/04		14.00	8.56	5.45	87.55
	11/3/04		11.10	8.45	2.65	86.21
	12/23/04		11.50	8.50	3.00	86.09
	1/18/05		8.70	NA	NA	86.49
	4/29/05		9.49	8.58	0.91	86.43
	10/17/05		8.85	8.10	0.75	86.94
	1/30/06		8.12	8.01	0.11	86.16
	4/3/06		8.30	NA	NA	86.28
	7/26/06		9.75	8.61	1.14	86.35
	10/26/06		10.50	NG	NG	NA
	1/22/07		9.01	8.78	0.23	86.36
	4/25/07		8.50	NA	NA	86.69
	7/27/07		8.61	NA	NA	86.58
	10/26/07		9.02	8.93	0.09	86.24
MW-10D	6/23/04	97.42	7.35	NA	NA	90.07
	8/26/04		7.37	NA	NA	90.05
	11/3/04		7.20	NA	NA	90.22
MW-12	10/17/05	97.31	8.73	NA	NA	86.58
	4/3/06		9.40	NA	NA	87.91
	6/9/06		8.85	NA	NA	86.46
	7/26/06		9.21	NA	NA	86.10
	10/26/06		9.33	NA	NA	87.98
	1/22/07		9.36	NA	NA	87.95
	4/25/07		8.80	NA	NA	86.51
	7/27/07		9.30	NA	NA	86.01
	10/26/07		9.31	NA	NA	86.00
MW-13	10/17/05	96.54	7.91	NA	NA	86.63
	1/30/06		8.33	NA	NA	86.21
	4/3/06		8.60	NA	NA	87.94
	7/25/06		8.42	NA	NA	86.12
	10/26/06		9.20	NA	NA	87.34
MW-14	10/17/05	96.41	8.81	NA	NA	86.60
	10/26/06		8.00	NA	NA	86.41

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Table 1,
continued

Groundwater Gauging Data

Monitoring Well #	Date	Top of PVC Elevation	Depth to Groundwater	Depth to LPH	LPH Thickness	Groundwater Elevation*
MW-15	6/9/06	93.47	5.46	NA	NA	88.01
	10/26/06		6.17	NA	NA	87.30
	1/22/07		6.01	NA	NA	87.46
	4/25/07		5.50	NA	NA	87.97
	7/27/07		7.50	NA	NA	85.97
MW-16	6/9/06	94.18	2.79	NA	NA	91.39
	7/26/06		6.16	NA	NA	88.06
	10/26/06		6.25	NA	NA	87.93
	1/22/07		6.03	NA	NA	88.15
	4/25/07		5.60	NA	NA	88.55
	7/27/07		6.90	NA	NA	87.28
MW-17	6/9/06	94.98	5.35	NA	NA	89.61
MW-S4	11/4/02	99.48	8.82	8.53	0.29	87.95
	4/21/03		8.60	NA	NA	90.88
	7/21/03		8.70	NA	NA	90.78
	11/6/03		8.30	NA	NA	91.18
	6/23/04	97.38	9.00	NA	NA	88.38
	8/26/04		8.60	NA	NA	88.78
	11/3/04		8.40	NA	NA	88.98
	4/29/05		8.15	NA	NA	89.23
	1/30/06		8.50	NA	NA	88.88
	4/3/06		8.99	NA	NA	88.39
	4/25/07		8.10	NA	NA	89.28
	7/27/07		8.00	NA	NA	89.38
MW-S7	11/4/02	99.76	13.40	9.71	3.69	89.31
	4/21/03		10.80	8.80	2.00	90.56
	7/21/03		10.90	8.90	2.00	90.48
	11/6/03		10.30	8.70	1.60	90.74
	6/23/04		8.48	7.86	0.63	89.10
	8/26/04	97.58	11.00	8.60	2.40	88.50
	11/3/04		10.60	8.57	2.03	88.60
	4/29/05		8.25	8.22	0.03	89.35
	7/26/05		9.30	8.80	0.50	88.68
	1/30/06		8.20	7.80	0.40	89.70
	4/3/06		9.12	9.08	0.04	88.49
	7/26/05		8.65	8.52	0.13	89.03
	4/25/07		7.80	NA	NA	89.78
	7/27/07		9.07	9.02	0.05	88.55
MW-S11	11/4/02	98.65	14.72	10.30	4.42	87.47
	6/23/04		8.74	NA	NA	89.91
	8/26/04		10.80	9.90	0.90	88.57
	11/3/04		11.00	9.90	1.10	88.53
	12/23/04		11.10	9.83	1.27	88.57
	1/18/05		Dry @ 4.85	NA	NA	NA
	4/29/05		9.66	9.55	0.11	89.08
	7/25/05		Dry @ 4.75	NA	NA	NA
	10/17/05		6.82	8.62	NA	90.03
	7/26/06		9.82	9.70	0.12	88.93
	1/22/07		10.66	9.79	0.86	88.69
	4/25/07		9.00	NA	NA	89.55
	7/27/07		10.00	NA	NA	88.65
	10/28/07		10.06	10.02	0.04	88.62

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Table 1,
continued

Groundwater Gauging Data

Monitoring Well #	Date	Top of PVC Elevation	Depth to GroundWater	Depth to LPH	LPH Thickness	Groundwater Elevation'
S-2	1/14/02	99.25	8.91	NA	NA	90.34
	4/21/03		8.25	8.12	0.13	91.10
	7/21/03		8.30	8.21	0.09	91.02
	11/6/03		8.00	NA	NA	91.25
	6/23/04		8.76	SHEEN	NA	90.49
	8/26/04		8.61	NA	NA	90.64
	11/3/04		8.40	NA	NA	90.85
	4/29/05		TOC	NA	NA	NA
	7/25/05		9.00	NA	NA	90.25
	10/17/05		8.40	NA	NA	90.85
	4/25/07		8.00	NA	NA	91.25
	7/27/07		8.60	NA	NA	90.65
S-10	1/14/02	98.87	12.80	NA	NA	86.45
	4/21/03		8.00	NA	NA	91.25
	7/21/03		8.00	NA	NA	90.87
	11/6/03		7.50	NA	NA	91.37
	8/26/04		7.90	NA	NA	90.97
	11/3/04		8.45	NA	NA	90.42
	1/18/05		7.65	NA	NA	91.21
	4/29/05		TOC	NA	NA	NA
	7/25/05		8.10	NA	NA	90.77
	1/14/02		14.50	NA	NA	84.37
S-12	4/21/03	99.15	10.00	9.33	0.67	89.69
	7/21/03		10.05	9.51	0.54	89.53
	11/6/03		10.00	9.60	0.40	89.47
	2/2/04		10.70	10.02	0.68	88.99
	8/25/04		9.90	NA	NA	89.25
	1/18/05		Dry @ 5.15	NA	NA	NA
	4/29/05		DRY	NA	NA	NA
	7/25/05		Dry @ 4.1	NA	NA	NA
	1/14/02		14.6	9.89	4.71	88.36
	4/21/03		8.28	NA	NA	90.81
S-14	7/21/03	99.19	8.51	NA	NA	90.68
	11/6/03		7.80	NA	NA	91.39
	2/2/04		9.30	9.20	0.10	89.97
	6/23/04		10.71	10.00	0.71	89.05
	8/26/04		9.10	NA	NA	90.09
	11/3/04		9.70	9.50	0.20	89.65
	12/23/04		8.89	8.85	0.04	90.33
	1/18/05		7.69	NA	NA	91.50
	4/29/05		TOC	NA	NA	NA
	7/25/05		8.75	8.71	0.04	90.47
	1/30/06		7.80	7.75	0.05	91.43
	4/3/06		9.70	9.69	0.01	89.50
	1/14/02		14.65	NA	NA	85.28
S-15	4/21/03	99.93	9.22	9.11	0.11	90.80
	7/21/03		9.33	9.20	0.13	90.70
	11/6/03		9.70	9.30	0.40	90.55
	2/2/04		9.62	9.80	0.02	90.33
	12/23/04		9.00	NA	NA	90.93
	1/18/05		5.85	NA	NA	94.08
	4/29/05		8.75	NA	NA	91.18
	7/25/05		DRY	NA	NA	NA

See Legend on Last Page

Table 1,
continued

Groundwater Gauging Data

Monitoring Well #	Date*	Top-of PVC Elevation	Depth to Groundwater	Depth to LPH	LPH Thickness	Groundwater Elevation ^b
S-16	11/4/02	99.76	14.90	NA	NA	84.86
	4/21/03		9.15	NA	NA	90.61
	7/21/03		9.41	NA	NA	90.35
	11/6/03		NG	NA	NA	NA
	8/26/04		9.60	NA	NA	90.16
	11/3/04		9.50	NA	NA	90.26
	4/29/05		9.35	NA	NA	90.41
	7/25/05		9.70	NA	NA	90.06
	1/30/06		9.08	NA	NA	90.68
	4/3/06		9.67	NA	NA	90.09
S-17	11/4/02	99.87	14.98	NA	NA	84.89
	4/17/03		8.80	NA	NA	91.07
S-18	6/23/04	99.32	9.29	NA	NA	90.03
	8/26/04		8.70	NA	NA	90.62
	11/3/04		9.20	NA	NA	90.12
	1/18/05		Dry @ 7.7	NA	NA	NA
	4/29/05		TOC	NA	NA	NA
	7/25/05		DRY	NA	NA	NA
S-21	6/23/04	99.22	9.30	NA	NA	89.92
	8/26/04		9.20	NA	NA	90.02
	1/18/05		Dry @ 12.97	NA	NA	NA
	4/29/05		TOC	NA	NA	NA
S-22	6/23/04	97.71	NG	NA	NA	NA
	8/26/04		11.00	8.90	2.10	88.39
	11/3/04		10.90	8.90	2.00	88.41
	12/23/04		Not Determined	8.80	NA	NA
S-27	6/23/04	99.47	9.41	NA	NA	90.06
	8/26/04		9.30	NA	NA	90.17
	11/3/04		9.00	NA	NA	90.47
	4/29/05		TOC	NA	NA	NA
	7/25/05		Dry @ 5.25	NA	NA	NA
S-30	6/23/04	99.56	9.56	NA	NA	90.00
	8/26/04		9.50	NA	NA	90.06
	11/3/04		9.36	NA	NA	90.21
	4/29/05		9.21	NA	NA	90.35
	7/25/05		9.40	NA	NA	90.16
	4/3/06		9.48	NA	NA	90.08

All measurements are in feet.

NA = Not Applicable

NG = Not Gauged

NS = Not Surveyed

LPH = Liquid-phase Hydrocarbon

* = Groundwater Elevations corrected for presence of LPH using an estimated density correction factor of 0.8

TOC = Top of Casing

Table 2

Summary of Groundwater Analytical Data - VPH and EPH

Monitoring Well #	Sample Date	Depth to Water (ft)	VPH				EPH			
			C ₆ -C ₈ Aliphatics		C ₉ -C ₁₂ Aliphatics		C ₉ -C ₁₆ Aromaticics		C ₉ -C ₁₆ Aliphatics	
			RDL	RDL	RDL	RDL	RDL	RDL	RDL	RDL
4/12/99	9.39	28.3	DNA	79.3	DNA	62.1	DNA	179	DNA	347
5/7/01	9.17	ND	40	541	40	179	40	13,520,000	DNA	2,690
7/23/01	5.48	ND	40	744	40	366	40	13,300	108	5,300
10/1/01	8.33	ND	40	178	40	ND	40	2,790	115	2,550
1/21/02	6.26	ND	40	836	40	312	40	14,600	103	9,150
4/24/02	5.66	ND	40	649	40	328	40	20,600	102	8,120
8/2/02	6	ND	40	81.6	40	ND	40	1,370	109	2,760
1/14/02	5.49	ND	40	318	40	145	40	51,800	110	3,220
4/17/03	5.61	ND	40	ND	40	ND	40	146	100	263
7/21/03	5.7	ND	40	ND	40	ND	40	ND	100	166
1/16/03	5.5	ND	40	ND	40	ND	40	ND	100	100
2/20/04	6.1	ND	40	ND	40	ND	40	196	100	194
6/23/04	6.59	ND	10	ND	10	ND	10	75	20	54
8/26/04	8.59	ND	10	ND	10	ND	10	82	20	66
11/3/04	5.5	ND	10	11	10	ND	10	60	20	79
4/29/05	4.83	37	10	38	10	50	10	57,500	4,000	190,000
7/25/05	5.5	28	10	ND	10	18	10	33,160	100	2,700
10/17/05	5.2	22	10	64	10	40	10	37,500	800	21,000
1/27/06	5.51	ND	10	520	10	450	10	1700	40	1,500
4/3/06	8.47	ND	10	57	10	38	10	31,100	20	1,300
7/25/06	6.03	21	10	220	10	170	10	620	240	710
10/26/06	5.75	ND	50	ND	50	ND	50	ND	200	ND
1/22/07	8.43	ND	50	ND	50	ND	50	ND	240	ND
4/25/07	5.5	110	50	ND	50	ND	50	ND	200	ND
7/27/07	7.4	170	50	ND	50	ND	50	ND	200	ND
MADEP Groundwater Standards										
Method 1 GW-1 Standard	400	4,000	200	—	—	—	—	4,000	14,000	200
Method 1 GW-2 Standard	1,000	1,000	—	5,000	—	—	—	1,000	NA	50,000
Method 1 GW-3 Standard	4,000	20,000	—	4,000	—	—	—	20,000	50,000	30,000
Method 3 UCL	100,000	100,000	—	100,000	—	—	—	100,000	100,000	100,000

See Legend on Last Page

Table 2, continued

Summary of Groundwater Analytical Data - VPH and EPH

Monitoring Well #	Sample Date	Depth to Water (ft)	VPH						EPH					
			C ₃ -C ₈ Aliphatics		C ₉ -C ₁₂ Aliphatics		C ₉ -C ₁₀ Aromatics		C ₉ -C ₁₈ Aliphatics		C ₁₉ -C ₃₈ Aromatic		C ₁₁ -C ₂₂ Aromatics	
			RDL	RDL	RDL	RDL	RDL	RDL	RDL	RDL	RDL	RDL	RDL	RDL
MW-2	4/12/99	8.52	463	DNA	22.7	DNA	29.9	DNA	2,600	DNA	2,010	DNA	2,060	DNA
	7/29/99	8.62	118	DNA	378	DNA	99.2	DNA	1,490	DNA	1,200	DNA	772	DNA
	11/1/99	8.58	148	DNA	488	DNA	143	DNA	1,960	DNA	1,660	DNA	1,530	DNA
	2/15/00	8.58	140	DNA	74	DNA	52	DNA	270	DNA	4,980	DNA	340	DNA
	5/8/00	8.31	89.7	40	ND	40	ND	40	445	DNA	461	DNA	350	DNA
	8/25/00	8.56	50.6	40	ND	40	ND	40	1,000	DNA	914	DNA	943	DNA
	1/22/01	8.85	50.2	40	ND	40	ND	40	581	DNA	717	DNA	612	DNA
	5/7/01	8.48	85.6	DNA	ND	DNA	ND	DNA	ND	ND	100	ND	100	ND
	7/23/01	8.50	252	DNA	268	DNA	187	DNA	1,230	106	2,090	106	1,700	703
	10/11/01	8.8	94.6	40	ND	40	ND	40	ND	ND	100	ND	100	ND
MW-3	1/21/02	8.78	149	DNA	ND	DNA	ND	DNA	ND	ND	105	ND	105	ND
	4/24/02	8.48	72.6	40	ND	40	ND	40	ND	ND	626	ND	606	526
	8/2/02	8.55	116	40	ND	40	ND	40	265	163	591	103	577	103
	11/4/02	8.38	59.8	40	ND	40	ND	40	394	110	546	110	630	110
	4/17/03	8.3	ND	40	ND	40	ND	40	ND	ND	100	ND	100	ND
	7/21/03	8.41	113	40	ND	40	ND	40	ND	ND	100	ND	100	ND
	11/6/03	8.25	51.1	40	ND	40	ND	40	ND	ND	100	ND	100	ND
	2/2/04	8.7	54.9	40	ND	40	ND	40	ND	ND	100	ND	100	ND
	6/23/04	8.7	110	10	34	10	27	10	680	20	700	20	380	20
	8/26/04	8.55	32	10	ND	10	ND	10	370	20	590	20	380	20
MW-4	1/13/04	8.35	12	10	ND	10	ND	10	ND	ND	20	ND	20	ND
	4/29/05	8.36	220	10	ND	10	ND	10	2,600	100	4,500	100	1,400	20
	7/25/05	8.5	56	10	ND	10	ND	10	1,000	20	1,200	20	650	20
	10/6/05	7.96	180	10	13	10	ND	10	1,600	40	1,700	40	1,300	20
MADEP Groundwater Standards														
Method 1 GW1 Standard		400		4,000		200			4,000		14,000			200
Method 1 GW2 Standard		1,000		1,000		5,000			1,000		NA			50,000
Method 1 GW3 Standard		4,000		20,000		4,000			20,000		50,000			30,000
Method 3 UST		100,000		100,000		100,000			100,000		100,000			100,000

See Legend on Last Page

Table 2, continued

Summary of Groundwater Analytical Data - VPH and EPH

Monitoring Well #	Sample Date	Depth to Water (ft)	VPH				EPH				
			C ₅ -C ₈ Aliphatics RDL	C ₉ -C ₁₂ Aliphatics RDL	C ₉ -C ₁₂ Aromatics RDL	C ₉ -C ₁₂ Aliphatics RDL	C ₉ -C ₁₂ Aromatics RDL	C ₁₃ -C ₁₆ Aliphatics RDL	C ₁₃ -C ₁₆ Aromatics RDL	C ₁₇ -C ₂₂ Aliphatics RDL	C ₁₇ -C ₂₂ Aromatics RDL
MW-2, continued	1/27/06	8.37	62	10	ND	10	ND	37	20	54	20
	4/2/06	8.65	26	10	ND	10	11	35	20	300	20
	7/25/06	8.45	34	10	60	10	ND	ND	210	ND	28
	10/26/06	8.5	ND	60	ND	50	ND	ND	260	ND	100
	1/22/07	8.57	ND	50	ND	50	ND	ND	220	460	ND
	4/25/07	9	ND	50	ND	50	ND	ND	210	ND	210
	7/27/07	9.5	78	50	ND	50	ND	ND	200	ND	200
MADEP Groundwater Standards	10/26/07	8.6	61	50	ND	50	ND	ND	220	680	220
	Method 1 GW-1 Standard		400		4,000		200		4,000		200
	Method 1 GW-2 Standard		1,000		1,000		5,000		1,000		50,000
	Method 1 GW-3 Standard		4,000		20,000		4,000		50,000		30,000
	Method 3 UCL		100,000		100,000		100,000		100,000		100,000

See Legend on Last Page

Table 2, continued

Summary of Groundwater Analytical Data - VPH and EPH

Monitoring Well#	Sample Date	Depth to Water (ft)	VPH				EPH			
			C ₆ -C ₈ Aliphatics		C ₉ -C ₁₂ Aliphatics		C ₆ -C ₁₀ Aromatics		C ₉ -C ₁₀ Aliphatics	
			RDL	RDL	RDL	RDL	RDL	RDL	RDL	RDL
4/12/99	9.80	ND	40	ND	40	ND	40	175	100	ND
7/29/99	NA									250
11/19/99	NA									100
2/16/00	NA									
5/8/00	NA									
8/21/00	NA									
1/22/01	NA									
5/7/01	NA									
7/23/01	NA									
10/11/01	10.04	ND	40	1,120	40	40	40	14,100	DNA	37,900
11/24/02	NA									DNA
4/24/02	NA									
8/2/02	9.89	ND	40	ND	40	ND	40	ND	114	ND
11/4/02	9.91	ND	40	ND	40	ND	40	ND	122	102
7/21/03	9.8	ND	40	ND	40	ND	40	ND	100	100
11/6/03	9.85	ND	40	ND	40	ND	40	ND	100	100
8/26/04	10.05	ND	10	ND	10	ND	10	ND	20	20
11/3/04	9.92	ND	10	45	10	ND	10	ND	20	ND
10/26/05	10.33	ND	50	ND	50	ND	50	ND	200	ND
11/22/07	9.86	ND	50	ND	50	ND	50	ND	220	ND
4/25/07	9.8	87	50	ND	50	ND	50	ND	200	ND
7/27/07	9.8	110	50	ND	50	ND	50	ND	220	ND
10/26/07	9.87	ND	50	ND	50	ND	50	ND	220	ND
MADEP Groundwater Standards										
Method 1 GW-1 Standard		400		4,000		200		4,000		14,000
Method 1 GW-2 Standard		1,000		1,000		5,000		1,000		NA
Method 1 GW-3 Standard		25,000		20,000		25,000		20,000		20,000
Method 3 UCL		100,000		100,000		100,000		100,000		100,000

See Legend on Last Page

Table 2, continued

Summary of Groundwater Analytical Data - VPH and EPH

Monitoring Well #	Sample Date	Depth to Water (ft)	VPH			EPH		
			C ₆ -C ₈ Aliphatics		C ₉ -C ₁₂ Aliphatics	C ₆ -C ₁₀ Aromatics		C ₁₁ -C ₁₅ Aliphatics
			RDL	RDL	RDL	RDL	RDL	RDL
4/11/99	9.23	ND	40	283	40	247	40	3,670
7/29/99	NA	NA	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
1/14/99	NA	NA	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
2/16/00	7.86	82	DNA	330	DNA	226	DNA	4,300
5/8/00	NA	NA	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
8/21/00	NA	NA	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
4/22/01	NA	NA	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
5/7/01	8.93	ND	40	132	40	ND	40	565
7/23/01	4.65	ND	40	34,630	40	2,670	40	315,800
10/11/01	7.47	ND	40	ND	40	ND	40	11,700
1/21/02	3.31	ND	40	282	40	ND	40	17,800
4/24/02	5.18	ND	40	315,402	40	1,900	40	13,200
8/2/02	6.14	ND	40	250	40	ND	40	11,800
11/4/02	5.14	ND	40	205	40	107	40	16,500
4/17/03	5.55	ND	40	ND	40	ND	40	10,500
7/2/03	5.46	ND	40	ND	40	ND	40	102
11/6/03	4.9	ND	40	ND	40	ND	40	100
6/23/04	6.17	ND	10	ND	10	10	ND	ND
8/26/04	6.37	ND	10	ND	10	ND	10	ND
11/3/04	5.16	41	10	ND	10	ND	10	80
4/29/05	5.39	30	10	22	10	39	10	12,000
10/17/05	4.26	18	10	11	10	10	10	1,300
1/27/06	5	22	10	620	10	510	10	2,800
4/3/06	8.48	37	10	50	10	18	10	810
7/25/06	7.03	28	10	16	10	ND	10	710
10/26/06	8.5	2,300	50	ND	50	54	50	ND
4/25/07	8.2	9,000	50	ND	50	ND	50	ND
7/27/07	7.3	210	50	ND	50	ND	50	ND
10/26/07	8.21	ND	50	53	50	ND	50	490
MADEP Groundwater Standards								
Method 1 GW-1 Standard	400	4,000	200	5,000	5,000	1,000	NA	200
Method 1 GW-2 Standard	1,000	1,000	1,000	1,000	1,000	1,000	50,000	50,000
Method 1 GW-3 Standard	4,000	20,000	4,000	20,000	20,000	20,000	30,000	30,000
Method 3 UCL	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000

See Legend on Last Page

Table 2, continued

Summary of Groundwater Analytical Data - VPH and EPH

Monitoring Well #	Sample Date	Depth to Water (ft)	VPH				EPH			
			C ₆ -C ₈ Aliphatics		C ₉ -C ₁₂ Aliphatics		C ₉ -C ₁₀ Aromatics		C ₁₁ -C ₁₆ Aliphatics	
			RDL	RDL	RDL	RDL	RDL	RDL	DNA	DNA
	4/12/99	8.33	ND	40	52.9	40	45	40	2,960	DNA
	7/29/99	NA	Not Sampled						Not Sampled	Not Sampled
	11/1/99	NA	Not Sampled						Not Sampled	Not Sampled
	2/16/00	NA	Not Sampled						Not Sampled	Not Sampled
	5/8/00	NA	Not Sampled						Not Sampled	Not Sampled
	8/21/00	NA	Not Sampled						Not Sampled	Not Sampled
	11/22/01	NA	Not Sampled						Not Sampled	Not Sampled
MW-5	5/7/01	8.70	ND	40	96.7	40	61.3	40	114	DNA
MW-5	7/23/01	6.65	ND	40	27.8	40	166	40	537	105
MW-5	10/1/01	8.72	ND	40	158	40	74.8	40	700	1,370
MW-5	11/1/02	8.87	105	40	204	40	105	40	2,160	100
MW-5	4/24/02	8.55	ND	40	81.8	40	ND	40	794	105
MW-5	8/2/02	8.63	ND	40	74.3	40	ND	40	626	100
MW-5	11/4/02	8.47	ND	40	ND	40	ND	40	1,800	100
MW-5	4/17/03	8.35	ND	40	ND	40	ND	40	1,520	100
MW-5	7/21/03	8.55	ND	40	ND	40	ND	40	1,250	100
MADEP Groundwater Standards										
Method 1 GW-1 Standard		400		4,000		200		4,000	44,000	200
Method 1 GW-2 Standard		1,000		1,000		5,000		1,000	NA	50,000
Method 1 GW-3 Standard		4,000		20,000		24,000		20,000	50,000	30,000
Method 3 UCL		100,000		100,000		100,000		100,000	100,000	100,000

See Legend on Last Page

Table 2, continued

Summary of Groundwater Analytical Data - VPH and EPH

Monitoring Well#	Sample Date	Depth to Water (ft)	VPH				EPH				Aromatics	
			C ₅ -C ₁₂ Aliphatics		C ₉ -C ₁₂ Aliphatics	C ₉ -C ₁₂ Aromatics	C ₁₃ -C ₁₆ Aliphatics		C ₁₃ -C ₁₆ Aromatics	C ₁₇ -C ₂₂ Aromatics		
			RDL	RDL	RDL	RDL	RDL	RDL	RDL	RDL	RDL	
4/12/99	NA	Not Sampled									Not Sampled	
7/29/99	NA	Not Sampled									Not Sampled	
11/1/99	NA	Not Sampled									Not Sampled	
2/13/00	NA	Not Sampled									Not Sampled	
5/8/00	NA	Not Sampled									Not Sampled	
8/2/00	NA	Not Sampled									Not Sampled	
1/22/01	NA	Not Sampled									Not Sampled	
5/7/01	NA	Not Sampled									Not Sampled	
7/23/01	NA	Not Sampled									Not Sampled	
10/4/01	9.28	343	DNA	289	DNA	159	DNA	374	DNA	289	DNA	454
1/2/02	NA	Not Sampled									Not Sampled	
4/24/02	NA	Not Sampled									Not Sampled	
8/2/02	NA	Not Sampled									Not Sampled	
11/4/02	NA	Not Sampled									Not Sampled	
7/2/03	NA	Not Sampled									Not Sampled	
11/6/03	NA	Not Sampled									Not Sampled	
10/17/05	7.45	180	10	38	10	28	10	430	20	400	20	84
1/30/06	7.98	93	10	54	10	120	10	1,700	40	960	40	850
4/3/06	9.54	236	10	1500	10	1,100	10	3,300	100	1,600	100	2,260
7/25/06	9.61	410	10	65	10	41	10	750	200	ND	200	660
10/26/06	9.33	160	50	ND	50	82	50	ND	200	ND	200	110
MADEP Groundwater Standards												
Method 1 GW-1 Standard		400		4,000		200		4,000		14,000		200
Method 2 GW-2 Standard		4,000		1,000		5,000		1,000		NA		50,000
Method 3 GW-3 Standard		44,000		20,000		40,000		20,000		50,000		30,000
Method 3 UCL		100,000		100,000		100,000		100,000		100,000		100,000

See Legend on Last Page

Table 2, continued

Summary of Groundwater Analytical Data - VPH and EPH

Monitoring Well #	Sample Date	Depth to Water (ft)	VPH						EPH						
			C ₆ -C ₈ Aliphatics			C ₉ -C ₁₂ Aliphatics			C ₈ -C ₁₀ Aromatics			C ₁₁ -C ₁₆ Aliphatics			
			RDL	RDL	RDL	RDL	RDL	RDL	RDL	RDL	RDL	RDL	RDL	RDL	
MW-8*	6/23/04	10.95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	8/9/06	7.22	\$27,800 ^{**}	10	35	10	ND	10	NA	\$62,000 ^{**}	1,000	27,000	1,000	\$43,000 ^{**}	400
MW-9*	6/23/04	9.05	NA	NA	NA	NA	NA	NA	NA	\$62,000 ^{**}	1,000	27,000	1,000	\$43,000 ^{**}	400
	8/26/04	9.64	38	10	43	10	440	10	140	20	54	20	500	20	
	1/14/04	8.98	79	10	310	10	500	10	220	20	230	20	800	20	
	1/18/05	8.7	\$11,000 ^{**}	1,000	\$360,000 ^{**}	1,000	\$400,000 ^{**}	1,000	\$260,000 ^{**}	10,000	\$120,000 ^{**}	10,000	\$92,000 ^{**}	1,000	
	4/29/05	8.76	\$28,000 ^{**}	1,000	\$240,000 ^{**}	1,000	\$32,000 ^{**}	1,000	\$180,000 ^{**}	32,000	\$27,000 ^{**}	32,000	\$53,000 ^{**}	32,000	
MW-9*	10/17/05	8.85	\$9,200 ^{**}	1,000	\$14,000 ^{**}	1,000	980	1,000	NA	NA	NA	NA	NA	NA	
	1/30/06	8.04	\$2,000 ^{**}	100	\$33,000 ^{**}	100	\$32,000 ^{**}	100	\$30,000 ^{**}	4,000	\$31,000 ^{**}	4,000	\$85,000 ^{**}	400	
	4/3/06	8.39	\$11,000 ^{**}	100	\$10,000 ^{**}	100	\$99,000 ^{**}	100	\$20,000 ^{**}	\$17,000,000 ^{**}	\$80,000 ^{**}	\$990,000 ^{**}	20,000		
	7/25/06	8.52	\$14,000 ^{**}	100	\$15,000 ^{**}	100	\$19,000 ^{**}	100	\$10,000 ^{**}	4,000	\$29,000 ^{**}	4,000	\$230,000 ^{**}	2,000	
	10/26/06	10.5	64	50	190	50	1,600	50	\$12,000 ^{**}	200	7,300	200	15,000	100	
	7/27/07	8.61	510	600	660	500	610	300	\$67,000 ^{**}	2,000	29,000	2,000	\$48,000 ^{**}	1,000	
MW-S11*	6/23/04	8.74	NA	NA	NA	NA	NA	NA	NA	340	20	460	20	860	20
	4/29/05	9.57	\$97,000 ^{**}	1,000	\$49,000 ^{**}	1,000	\$66,000 ^{**}	1,000	NA	NA	NA	NA	NA	NA	
	10/17/05	8.73	2,000	10	3,500	10	1,500	10	NA	NA	NA	NA	NA	NA	
	4/3/06	9.4	2,200	100	\$68,000 ^{**}	10	\$52,000 ^{**}	100	110	20	160	20	ND	20	
MW-12	5/9/06	8.85	2,700	10	44	10	16	10	NA	NA	NA	NA	NA	NA	
	7/26/06	9.21	930	10	3,700	10	2,100	10	NA	NA	NA	NA	NA	NA	
	10/26/06	9.33	700	50	ND	50	ND	50	ND	200	ND	200	ND	200	
	4/25/07	8.8	1,200	50	ND	50	ND	50	ND	200	ND	200	ND	100	
	10/17/05	7.91	20	10	11	10	11	10	ND	20	ND	20	ND	20	
	1/30/06	8.33	32	10	480	10	430	10	126	120	120	120	150	150	
MW-13	4/3/06	8.6	110	10	690	10	610	10	37	20	26	20	ND	20	
	7/25/06	8.42	83	10	4,400	10	3,500	10	ND	240	ND	240	140	120	
	10/26/06	9.2	ND	50	ND	50	95	50	ND	200	ND	200	150	100	
MADEP Groundwater Standards															
Method 1 GW-1 Standard		400		4,000		200		4,000		14,000		14,000		200	
Method 1 GW-2 Standard		-	5,000	-	1,000	-	5,000	-	1,000	-	NA	-	50,000	-	
Method 1 GW-3 Standard		-	4,000	-	20,000	-	4,000	-	20,000	-	50,000	-	30,000	-	
Method 3 UCL		-	100,000	-	100,000	-	100,000	-	100,000	-	100,000	-	100,000	-	

See Legend on Last Page

Table 2, continued

Summary of Groundwater Analytical Data: VPH and EPH

Monitoring Well #	Sample Date	Depth to Water (ft)	VPH			EPH		
			C ₆ -C ₇ Aliphatics RDL	C ₈ -C ₁₂ Aliphatics RDL	C ₈ -C ₁₀ Aromatics RDL	C ₁₁ -C ₁₅ Aliphatics RDL	C ₁₁ -C ₁₅ Aromatics RDL	
MW-14	10/17/05	6.81	39	10	280	10	340	20
MW-14	10/26/06	8	ND	50	ND	ND	200	ND
MW-15	6/9/06	5.46	69	10	ND	10	NA	NA
MW-15	4/25/07	5.5	ND	50	ND	50	ND	ND
MW-16	6/9/06	2.79	38	10	36	10	NA	NA
MW-16	4/25/07	5.6	ND	50	ND	50	ND	ND
S-2	10/3/02	NA	46,800	20,000	31,400*	20,000	156,000	2,350
S-2	4/25/07	8	ND	50	ND	50	ND	ND
S-10	7/27/07	8.6	70	50	ND	50	ND	ND
S-10	10/3/02	NA	ND	40	127	40	3,790	111
S-16	10/3/02	NA	ND	40	752	40	856	147
S-18*	6/23/04	9.29	NA	NA	NA	NA	490	1,920
S-21*	6/23/04	9.30	NA	NA	NA	NA	170	720
S-22	11/4/04	9.30	ND	10	75	10	140	20
S-27*	6/23/04	9.41	NA	NA	NA	NA	220	850
S-30*	6/23/04	9.56	NA	NA	NA	NA	40	20
MADEP Groundwater Standards								
Method 1 GW-1 Standard			400	4,000	200	4,000	14,000	200
Method 1 GW-2 Standard			1,000	1,000	5,000	1,000	NA	50,000
Method 1 GW-3 Standard			4,000	20,000	4,000	20,000	50,000	30,000
Method 3 UGL			100,000	100,000	100,000	100,000	100,000	100,000

VPH: Volatile Petroleum Hydrocarbon

EPH: Extractable Petroleum Hydrocarbon

All results are reported in parts per billion (ppb)

* = Subject to Method 1/GW-2 Standards

Exceeds Applicable MADEP Standard

RDL: Detection Limit

UGL: Upper Concentration Limit (Groundwater)

NA: Not Analyzed

Table 3 Summary of Groundwater Analytical Data - Nutrients

Monitoring Well #	Sample Date	Nitrogen-Ammonia	Nitrogen-Nitrate	Total Phosphorus	Dissolved Oxygen	Carbon Dioxide
5/7/2001	4.73	NA	NA	NA	NA	NA
1/21/2002	3.88	57	590	9.76	NA	NA
4/24/2002	252	110	340	1.76	NA	NA
8/2/2002	142	260	100	2.17	340	170
11/4/2002	18.90	240	18	3.20	NA	NA
4/17/2003	2.98	9	12	1.40	250	NA
7/21/2003	4.50	28	9.60	4.70	103	94.90
11/6/2003	14.60	72	6.20	0.91	47	NA
2/21/2004	9.27	120	5.40	0.32	NA	NA
6/23/2004	1.90	27	4.40	1.20	NA	NA
8/26/2004	0.82	8.70	6.70	1.05	42	NA
11/3/2004	0.68	36	2.10	10.51	20	NA
4/29/2005	1.8	0.17	2.00	3.68	35	NA
7/25/2005	0.22	5.30	3.40	4.4	22	NA
10/17/2005	0.29	12.00	2.70	2.16	27	NA
1/27/2006	0.5	2.60	1.10	3.33	180	NA
4/3/2006	0.62	0.09	2.50	1.38	180	NA
7/25/2006	2.00	2.00	10.00	2.27	260	NA
10/26/2006	0.23	25.00	2.80	4.77	20	NA
1/22/2007	1.10	0.07	5.80	8.4	140	NA
4/25/2007	ND	2.70	1.60	12.61	14	NA
7/27/2007	0.28	7.40	2.90	3.2	36	NA

All Results are in Parts per Million (ppm)

NA = Not Analyzed

ND = Not Detected above Laboratory Detection Limits

Table 3, continued

Summary of Groundwater Analytical Data - Nutrients

Monitoring Well #	Sample Date	Nitrogen-Ammonia	Nitrogen-Nitrate	Total Phosphorus	Dissolved Oxygen	Carbon Dioxide
	5/7/2001	1.29	NA	NA	NA	NA
	7/19/2001	0.30	2.50	0.40	NA	NA
	1/21/2002	1.71	0.64	0.17	0.72	NA
	4/24/2002	1.07	20	0.14	4.18	NA
	8/22/2002	2.74	7.20	6.20	1.87	420
	1/14/2002	0.87	62	4.30	1.35	330
	4/17/2003	0.11	15	1.50	8.65	NA
	7/21/2003	0.20	50	2.70	0.77	300
	1/16/2003	0.25	34	0.96	4.10	50.2
	2/22/2004	1.64	1	0.75	0.65	76
	6/23/2004	0.30	9.20	0.88	9.02	45
	8/26/2004	0.46	9.40	1.20	1.39	29
MW-2	1/13/2004	0.16	23	0.97	10.49	20
	4/29/2005	0.32	8.2	1.5	9.26	38
	7/25/2005	0.43	4.1	3.4	3.76	29
	10/17/2005	0.56	10.0	1.8	3.31	32
	1/27/2006	0.54	4.7	0.93	7.26	63
	4/3/2006	1.6	0.6	0.83	2.82	48
	7/25/2006	0.48	1.1	0.86	2.17	100
	10/26/2006	0.21	21.0	0.87	10.35	31
	1/22/2007	0.44	ND	5	7.15	45
	4/25/2007	0.61	1.5	0.18	19.33	6.9
	7/27/2007	0.12	1.3	0.18	7.2	48.0
	10/26/2007	0.84	4.9	2	1.46	99

All Results are in Parts per Million (ppm)

NA = Not Analyzed

ND = Not Detected above Laboratory Detection Limits

Table 3, continued

Summary of Groundwater Analytical Data - Nutrients

Monitoring Well #	Sample Date	Nitrogen-Ammonia	Nitrogen-Nitrate	Total Phosphorus	Dissolved Oxygen	Carbon Dioxide
MW-3	8/2/2002	0.19	ND	0.89	1.82	170
	11/4/2002	0.29	0.85	3.30	1.00	200
	11/6/2003	0.26	0.86	0.01	0.53	79.4
	7/21/2003	ND	2.40	ND	0.27	140
	8/26/2004	0.25	1.50	0.08	1.10	9.50
	11/3/2004	0.32	1.50	ND	11.51	15
	10/26/2006	0.12	1.40	0.18	6.28	12
	1/22/2007	0.67	0.08	3	4.86	56
	4/25/2007	0.4	1.30	ND	3.08	5.1
	7/27/2007	0.19	0.08	2.2	7.53	14.0
	10/26/2007	0.14	1.60	1.3	1.89	77

All Results are in Parts per Million (ppm)

NA = Not Analyzed

ND = Not Detected above Laboratory Detection Limits

Table 3, continued

Summary of Groundwater Analytical Data - Nutrients

Monitoring Well #	Sample Date	Nitrogen-Ammonia	Nitrogen-Nitrate	Total Phosphorus	Dissolved Oxygen	Carbon Dioxide
	5/7/2001	1.55	NA	NA	NA	NA
	5/21/2001	1	0.60	0.60	NA	NA
	7/19/2001	10	0.30	7	NA	NA
	1/21/2002	40.80	50	50	7.05	NA
	4/24/2002	142	54	160	2.20	NA
	8/21/2002	124	170	120	1.48	450
	11/4/2002	16.60	120	23	1.05	290
	4/17/2003	3.85	12	6.60	0.81	NA
	7/21/2003	15.80	30	9.70	0.35	310
MW-4	11/6/2003	12.40	38	5.50	0.22	36.10
	6/23/2004	4.30	24	3.40	0.98	52
	8/26/2004	1.10	12	6.60	1.90	42
	1/3/2004	4.16	19	6.80	8.50	35
	4/29/2005	0.98	6.6	25.00	6.63	180
	10/17/2005	0.38	8.9	2.40	3.09	47
	1/27/2006	ND	3.3	2.80	3.25	28
	4/3/2006	0.39	ND	2.30	1.46	74
	7/25/2006	0.22	4.6	2.30	2.91	30
	10/26/2006	2.90	0.89	0.22	7.61	39
	4/25/2007	2.66	1.40	0.21	8.00	20
	7/27/2007	0.26	5.30	1.90	1.65	36
	10/26/2007	1.10	1.30	2.50	1.79	69

All Results are in Parts per Million (ppm)

NA = Not Analyzed

ND = Not Detected above Laboratory Detection Limits

Table 3, continued

Summary of Groundwater Analytical Data - Nutrients

Monitoring Well #	Sample Date:	Nitrogen-Ammonia	Nitrogen-Nitrate	Total Phosphorus	Dissolved Oxygen	Carbon Dioxide
MW-5	5/7/2001	2.54	NA	NA	NA	NA
	5/21/2001	2	0.10	0.30	NA	NA
	7/19/2001	5	0.10	0.50	NA	NA
	7/21/2002	6.50	5.60	7.80	4.18	NA
	4/24/2002	20.10	50	19	3.65	NA
	8/22/2002	7.73	3.50	13	1.59	600
	1/14/2002	4.41	38	4.70	2.50	440
	4/17/2003	4.58	0.77	1.30	1.86	NA
	7/21/2003	5.14	4.10	2.40	0.27	580
	10/17/2005	0.92	11.00	0.36	1.8	24
MW-6	1/30/2006	0.79	1.80	0.54	NA	52
	4/3/2006	0.68	ND	0.53	0.94	93
	7/25/2006	0.41	ND	0.46	1.82	160
	10/26/2006	0.41	0.43	0.38	9.2	43
	RW-1	10/3/2001	2	0.40	0.10	NA

All Results are in Parts per Million (ppm)

NA = Not Analyzed

ND = Not Detected above Laboratory Detection Limits

Table 3, continued

Summary of Groundwater Analytical Data - Nutrients

Monitoring Well #	Sample Date	Nitrogen-Ammonia	Nitrogen-Nitrate	Total Phosphorus	Dissolved Oxygen	Carbon Dioxide
5/7/2001	0.22	NA	0.17	NA	NA	NA
7/23/2001	0.31	0.84	0.20	NA	NA	NA
10/11/2001	0.20	0.63	0.06	NA	NA	NA
1/2/2002	0.34	0.63	0.06	NA	NA	NA
4/24/2002	0.19	1.20	0.14	NA	NA	NA
8/2/2002	0.27	0.57	0.28	NA	NA	NA
11/4/2002	ND	ND	0.03	NA	NA	NA
4/21/2003	0.21	1.76	0.05	NA	NA	NA
7/21/2003	0.14	0.68	0.05	NA	NA	NA
11/6/2003	0.08	0.14	0.06	NA	NA	NA
2/22/2004	0.35	0.94	0.11	NA	NA	NA
6/23/2004	0.40	0.34	1.20	NA	NA	NA
8/26/2004	0.48	0.38	0.20	NA	NA	NA
1-14/2004	0.21	0.12	0.14	NA	NA	NA
1/18/2005	ND	1	ND	16.22	NA	NA
4/29/2005	0.26	0.72	0.08	14.99	NA	NA
7/25/2005	0.39	0.55	0.78	8.83	NA	NA
10/17/2005	0.35	0.74	0.1	6.8	NA	NA
1/30/2006	0.29	0.03	0.12	8.99	NA	NA
4/3/2006	0.3	1.1	0.08	7.11	NA	NA
7/25/2006	0.17	0.39	0.08	8.87	NA	NA
10/26/2006	0.15	0.72	0.13	49.36	NA	NA
1/22/2007	0.77	0.55	0.24	NA	NA	NA
4/25/2007	ND	1.2	0.05	NA	NA	NA
7/27/2007	0.34	1.5	ND	8.35	NA	NA
10/26/2007	0.2	ND	0.1	7.48	NA	NA

All Results are in Parts per Million (ppm)

ND = Not Detected above Laboratory Detection Limits

NA = Not Analyzed

Table 4
Summary of Groundwater Analytical Data - System Influent

Sample Date	VPH				EPH			
	C ₆ -C ₈ Aliphatics RDL	C ₉ -C ₁₂ Aliphatics RDL	C ₉ -C ₁₂ Aromatics RDL	C ₉ -C ₁₂ Aliphatics RDL	C ₉ -C ₁₂ Aromatics RDL	C ₁₃ -C ₁₈ Aliphatics RDL	C ₁₃ -C ₁₈ Aromatics RDL	
7/23/2001	ND	40	ND	40	ND	40	908	102
10/11/2001	ND	40	1,120	40	442	40	14,100	106
11/21/2002	ND	40	ND	40	ND	40	2,430	108
4/24/2002	ND	40	392	40	420	40	183,000	2,580
8/22/2002	352	200	9,170	200	4,650	200	2,680,000	104,000
11/14/2002	ND	40	885	40	465	40	4,810	118
4/17/2003	ND	40	682	40	177	40	5100	100
8/7/2003	ND	200	770	200	903	200	129,000	2,000
11/20/2003	ND	40	185	40	804	40	5,610	101
2/22/2004	ND	40	528	40	464	40	15,200	500
8/26/2004	24	10	35	10	55	70	5,600	400
11/14/2004	16	10	120	10	93	10	7,900	400
11/18/2005	ND	10	130	10	120	10	15,000	1,000
4/28/2005	44	10	26	10	34	10	4,200	400
7/25/2005	ND	10	75	10	98	10	13,000	1,000
10/17/2005	37	10	20	10	15	10	990	80
12/30/2006	20	10	ND	10	ND	10	330	20
4/3/2006	53	10	190	10	370	10	3,800	200
7/26/2005	60	10	1,000	10	640	10	2,500	200
10/31/2006	ND	50	ND	50	68	50	410	210
1/22/2007	ND	50	ND	50	62	50	16,000	2,000
4/28/2007	ND	50	ND	50	ND	50	360	210
7/27/2007	ND	500	ND	500	ND	500	120,000	2,000
10/26/2007	78	50	120	50	ND	50	3,700	220
MADDP Groundwater Standards								
Method 1 GW-1 Standard	400	4,000	4,000	200	ND	ND	5,000	200
Method 1 GW-2 Standard	1,000	1,000	1,000	5,000	ND	ND	50,000	ND
Method 1 GW-3 Standard	4,000	20,000	20,000	4,000	ND	ND	30,000	ND
Method 3 UCL	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000

All results are reported in parts per billion (ppb).

VPH: Volatile Petroleum Hydrocarbon

EPH: Extractable Petroleum Hydrocarbon

ND: Not Detected above laboratory method detection limits

NA: Not Analyzed.

RDL: Detection Limit

UCL: Upper Concentration Limit (Groundwater)

Table 5 Summary of Groundwater Analytical Data - System Effluent

Sample Date	VPH				EPH			
	C ₅ -C ₈ Aliphatics	C ₉ -C ₁₂ Aliphatics	C ₉ -C ₁₀ Aromatics	RDL	C ₉ -C ₁₈ Aliphatics	C ₁₉ -C ₃₆ Aliphatics	C ₁₁ -C ₂₂ Aromatics	RDL
8/2/2002	ND	40	288	40	95.2	40	4,970	108
11/4/2002	ND	40	442	40	134	40	919	104
4/17/2003	ND	40	630	40	100	40	2,300	100
8/7/2003	ND	40	343	40	391	40	5,560	110
11/20/2003	ND	40	484	40	465	40	3,090	112
2/2/2004	ND	40	464	40	333	40	77,100	2,000
6/23/2004	ND	10	58	10	41	10	820	40
8/26/2004	35	10	ND	10	30	10	7,200	400
11/4/2004	ND	10	68	10	64	10	4,100	400
11/18/2005	770	100	229	100	470	100	6,100	500
4/29/2005	35	10	ND	10	25	10	860	40
7/25/2005	ND	10	16	10	ND	10	2,300	100
10/17/2005	39	10	26	10	23	10	190	20
11/30/2006	ND	10	ND	10	ND	10	4,700	200
4/3/2006	ND	10	240	10	190	10	1,400	80
7/26/2006	60	10	490	10	350	10	420	200
10/31/2006	ND	50	ND	50	ND	50	ND	210
1/22/2007	ND	50	ND	50	ND	50	1,000	220
4/25/2007	ND	50	ND	50	ND	50	10,000	210
7/27/2007	ND	50	ND	50	ND	50	1,100	200
10/26/2007	ND	50	57	50	ND	50	1,900	220
MADEP Groundwater Standards								
Method 1 GW-1 Standard	400	4,000	200		4,000	5,000		200
Method 1 GW-2 Standard	1,000	1,000	5,000		1,000	NA		50,000
Method 1 GW-3 Standard	4,000	20,000	4,000		20,000	20,000		30,000
Method 3 UCL	100,000	100,000	100,000		100,000	100,000		100,000

All results are reported in parts per billion (ppb)

VPH: Volatile Petroleum Hydrocarbon

EPH: Extractable Petroleum Hydrocarbon

ND: Not Detected above laboratory method detection limits

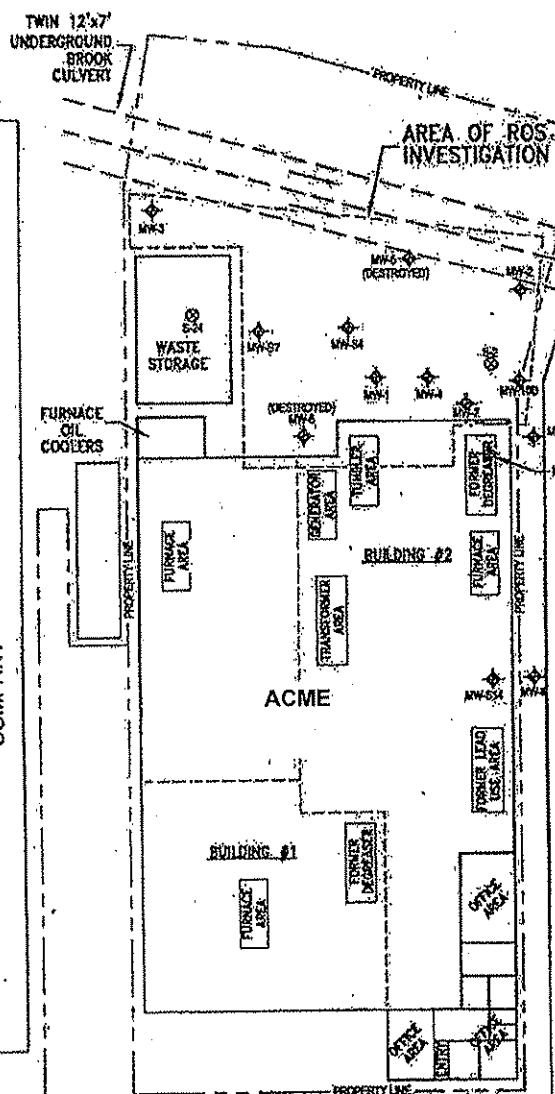
NA: Not Analyzed

RDL: Detection Limit

UCL: Upper Concentration Limit (Groundwater)

DRAWING ISSUE LOG

NO.	DESCRIPTION	DRW	CHK	ENG	DATE
-	Created				01-07-08
A	Several Monitoring Points Removed				01-17-08



RESIDENTIAL

Another Street

South Street

COMPANY

LEGEND:

- Existing Monitoring Well
- Monitoring Points

West STREET

CLIENT:

Figure 2

TITLE:
Site Plan

NORTH

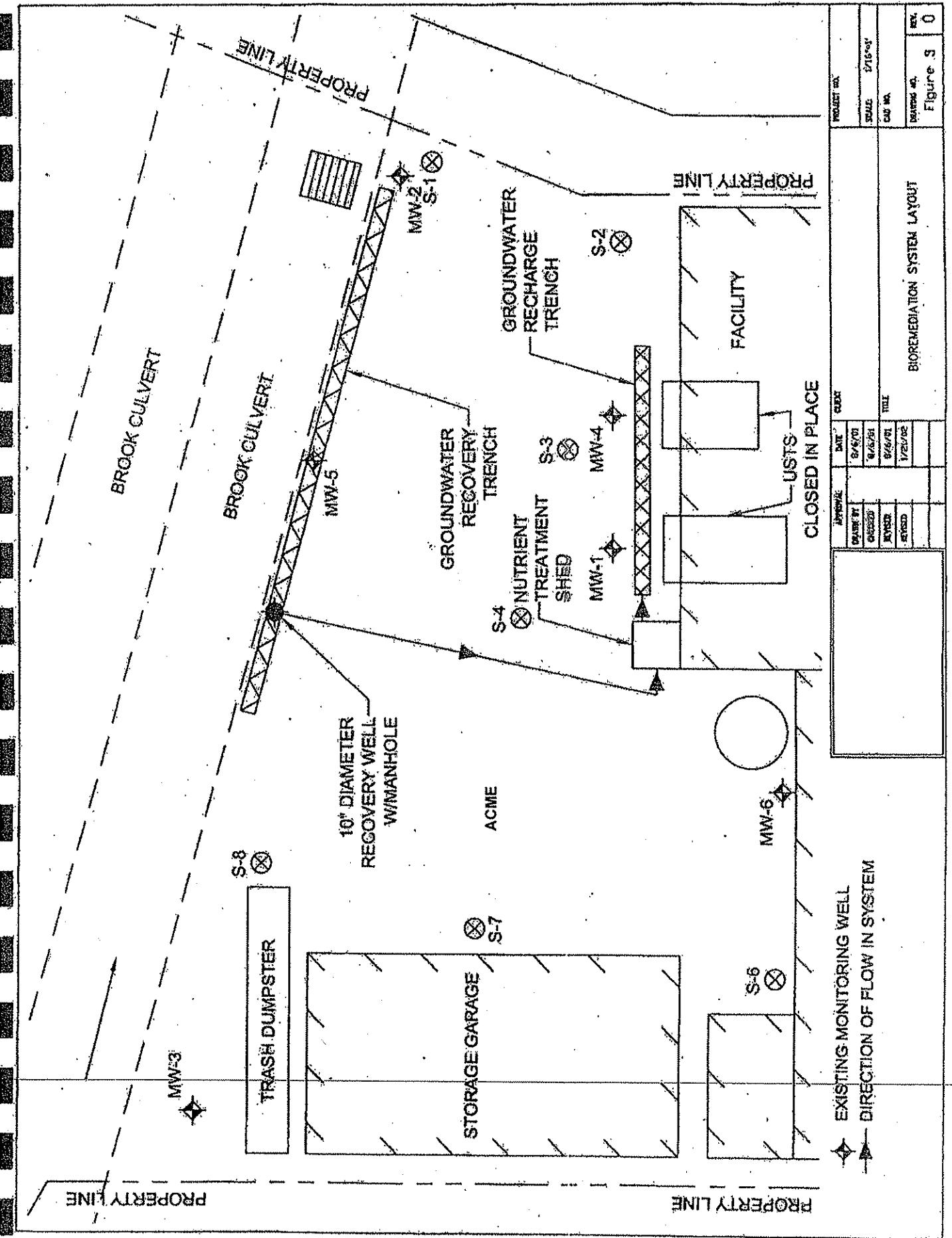


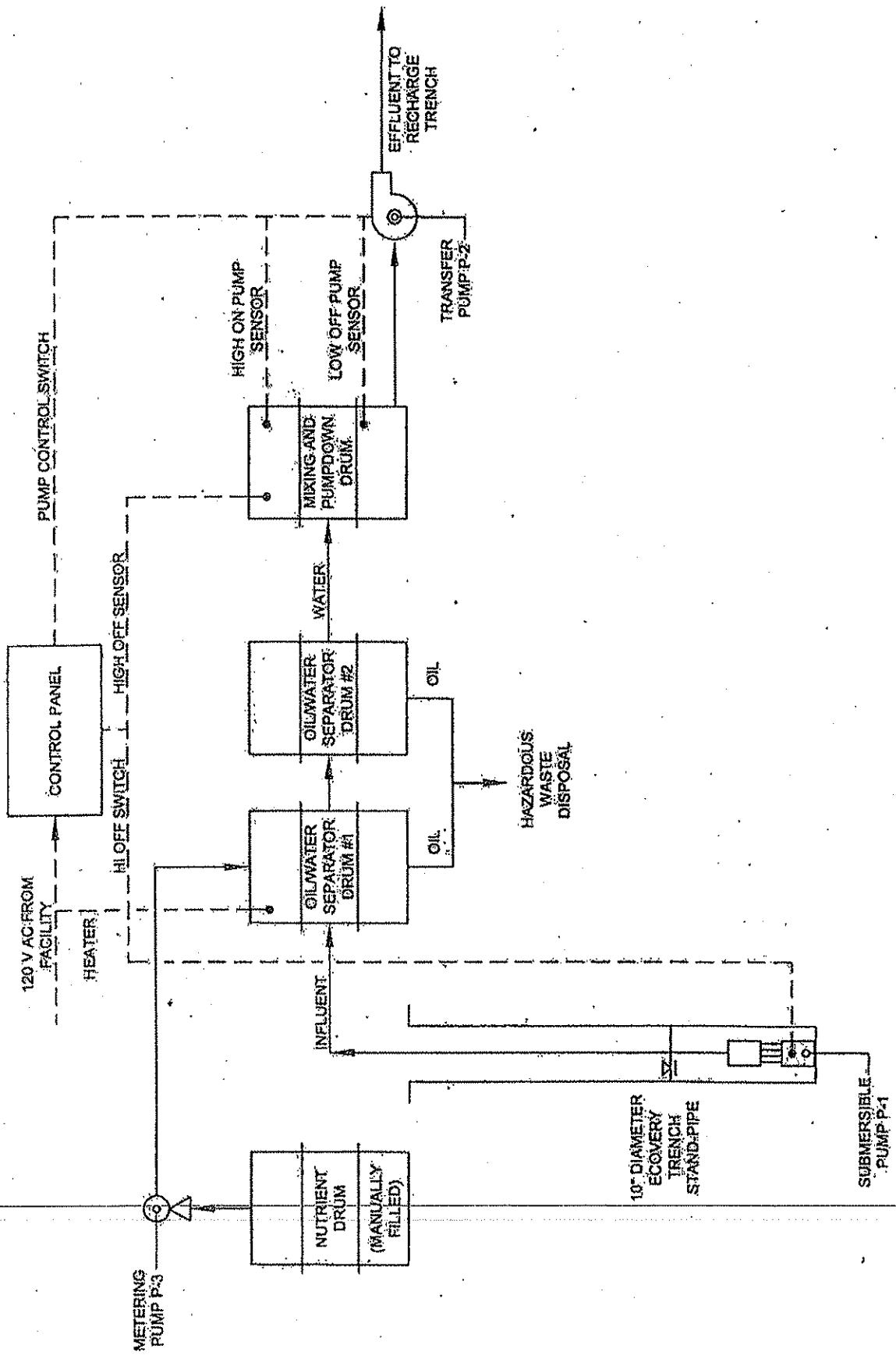
SCALE: 1" = 50'-0"
JOB #: 98-021AJ
DATE: 01-07-08

DR BY:
CK BY:
REV:

SIZE:

A





DRAWING ISSUE LOG

NO.
1
A

TWIN 12'x7'
UNDERGROUND
WELL BROOK
CULVERT

OFFFLOW

PROPERTY LINE

AREA OF ROS
INVESTIGATION

COMPANY

FURNACE
OIL
COOLERSWASTE
STORAGEPROPS
LINEPROPS
LINE

ACME

BUILDING #1

TOPOZ:

West

STREET

STREET

UNIT#1

UNIT#2

UNIT#3

UNIT#4

UNIT#5

UNIT#6

UNIT#7

UNIT#8

UNIT#9

UNIT#10

UNIT#11

UNIT#12

UNIT#13

UNIT#14

UNIT#15

UNIT#16

UNIT#17

UNIT#18

UNIT#19

UNIT#20

UNIT#21

NOTES:

1. WATER TABLE ELEVATIONS ARE IN FEET.
2. CONCENTRATIONS ARE IN PARTS PER BILLION.
3. SHADED VALUES INDICATE CONCENTRATIONS ABOVE MADER GW-Z STANDARDS.
4. ONLY RESULTS ABOVE THE DETECTION LIMIT ARE REPORTED.

LEGEND:

- | | |
|----|--------------------------|
| ◆ | EXISTING MONITORING WELL |
| NA | NOT ACCESSIBLE |
| NS | NOT SURVEYED |
| NI | NOT INSTALLED |
| ND | NOT DETECTED |
| — | GROUNDWATER CONTOUR |

ROAD

CLIENT:

Figure 5

TITLE:
Groundwater Contour Map
July 27, 2007

NORTH


SCALE: 1" = 50'-0"
JOB #:
DATE: 01-17-08

DR BY:
CK BY:
REV:

SIZE:
A

FIGURE 6
BIOREMEDIATION SYSTEM RECOVERY

