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Golder Associates

3rd QUARTERLY GROUNDWATER MONITORING REPORT (FORM 1216) LOVINGTON 66, PSTB FACILITY #890 503 SOUTH MAIN STREET LOVINGTON, NEW MEXICO

Submitted to:

NMED PSTB

On Behalf of:

Jack Walstad Oil Company
c/o Maddox, Holloman & Kirksey P.C.
205 East Bender, Ste. 150
Hobbs, New Mexico 88241

Submitted by:

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June 16, 2008 073-80008

STATEMENT OF FAMILIARITY

I, the undersigned, am personally familiar with the information submitted in this report and the attached documents and attest that it is true and complete.

Signature: 

Name: Teresa McMillan
Affiliation: Golder Associates Inc.
Title: Senior Scientist
Date: June 16, 2008

I. INTRODUCTION

On behalf of Jack Walstad, Golder Associates Inc. (Golder) has completed the third quarterly groundwater monitoring event at the former Lovington 66 located at 424 South Main, Lovington, New Mexico. The monitoring event was completed in accordance with the *Work Plan for Phase 1 Secondary Investigation activities consisting of monitoring well installation, bail down test and quarterly groundwater monitoring at the Lovington 66 site, Lovington, New Mexico* prepared by Golder to satisfy the requirements stated in the New Mexico Administrative Code, Title 20, Chapter 5, Section 12 and the New Mexico Environment Department (NMED) Petroleum Storage Tank Bureau (PSTB) Guidelines for Corrective Action (GCA). The work plan was approved by the NMED PSTB on July 30, 2007 under work plan identification number (WPID #) 14975. This is the third deliverable under WPID #14975-4.

The former Lovington 66 site is located at 424 South Main in Lovington, New Mexico (Figure 1). The site topography is relatively flat. The site is bounded by Highway 83/Avenue D on the south and Main Street on the east. North of the site is Avenue C and west of the site is commercial property. Southeast of the site is an Allsup's convenience store and self-service gasoline station, which is also a leaking underground storage tank site. A self service gasoline service station is located south of the site. The original Lovington 66 building has been demolished, and presently a McDonald's restaurant is located on the property. The former Lovington 66 was located on the southern portion of the property that now is a parking lot associated with McDonald's. The Lovington 66 dissolved phase plume has migrated across the intersection and is commingled with the Allsup's 109 site.

On May 12 and 13, 2008, fluid levels were measured in eighteen Lovington 66 monitoring wells (V-1, W-1, W-2, W-3, W-5, W-7, W-8, W-9, W-11, W-12, W-13, W-14, W-15, W-16, W-18, W-19, W-20, and W-21) and groundwater samples were collected from nine Walstad monitoring wells (W-5, W-8, W-9, W-11, W-14, W-16, W-19, W-20, and W-21). Groundwater samples were analyzed for volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, and xylenes (BTEX), ethylene dichloride (EDC), methyl tertiary butyl ether (MTBE), and total naphthalenes by Environmental Protection Agency (EPA) Method 8260. In addition, pH, specific conductance, dissolved oxygen (DO), and temperature were monitored in the field.

This report summarizes the results of the monitoring event.

II. ACTIVITIES PERFORMED DURING THIS QUARTER

This section provides a brief description of monitoring activities performed during this monitoring period.

A. Brief Description of Remediation System and Date Installed

A remediation system has not been installed at this site. A summary of corrective action activities that have occurred follows:

- July 1991 – AEI Tank, Inc. (AEI) conducted a site assessment where seven soil borings were advanced within the UST backfill or UST perimeter, and five borings were placed in or near product pipe trenches. Hydrocarbon contamination was observed.

- November 1991 – AEI removed five USTs that contained diesel, unleaded fuels, and used oil and the associated product piping and fuel dispensers. Hydrocarbon contamination was observed in the location of the dispensers and the location of the diesel tank. It was determined that a release likely occurred from overfilling the USTs and from the dispensers and product lines (a large section of product piping had been replaced).

- November and December 1991 – AEI excavated approximately 600 cubic yards of contaminated soil from product line trenches, dispenser islands and tank excavations.

- December 1991 – AEI attempted to delineate the vertical extent of contamination by installing one soil boring. The location of this soil boring was never documented. During the drilling of the boring auger refusal was encountered at 40 feet below ground surface (bgs).

- February 1992 – AEI installed one groundwater monitoring well. Groundwater sample results indicated that groundwater contamination was present above the New Mexico Water Quality Control Commission (NMWQCC) standards.

- March 1992 – AEI installed two additional monitor wells to determine the extent of dissolved phase hydrocarbon contamination. Both wells had dissolved phase hydrocarbon concentrations well above the NMWQCC standards.

- June 1992 – Billings & Associates, Inc (BAI) completed an Interim Hydrogeologic Investigation Report (On-site). During this investigation six soil borings (B-4 through B-9) were advanced at the site to a depth of 40 feet bgs. Heated headspace measurements above action levels were present in all borings except B-8. NAPL was present in the three monitor wells installed by AEI. Three additional monitor wells W-4, W-5, and W-6 were installed. The three new wells exceeded the NMWQCC standards.

- September 1993 – BAI completed a 2nd Interim Hydrogeologic Investigation Report. During this investigation free product recovery efforts commenced using BAI's Product Recovery Filter system. In addition six new monitor wells (W-7 through W-12) and one vertical extent well, V-1, were installed.

- June 1993 – BAI submitted the 3rd Interim Hydrogeologic Investigation Report. Five wells (W-13 through W-17) were installed to delineate the dissolved phase plume. NAPL was present in the vertical extent well V-1, which Billings attributed to leaking casing.

- August 2006 – Golder sampled the Lovington 66 wells as part of an investigation conducted at the Allsup's 109 located downgradient from the Lovington 66 site.

- November 2007 – Golder completed a Continued Secondary Investigation in which three downgradient wells (W-19, W-20, and W-21) were installed and a NAPL bail down test was completed on wells W-2 and W-3. The downgradient extent of contamination was delineated.

B. Description of Activities Performed to Keep System Operating Properly

No active remediation activities have been completed at the site.

C. Monitoring Activities Performed

Groundwater Sampling Activities

Prior to collecting groundwater samples, fluid levels in all existing Lovington 66 wells were gauged with an electronic water level meter or interface probe, except W-10. Well W-10 is located in the middle of Main Street and it was determined that it was a safety risk to gauge this well. Table 1 provides a summary of the groundwater gauging data collected from the monitoring network. A potentiometric surface map (Figure 2) was constructed based on the collected data. Hydrographs for the monitor wells are provided in Appendix A.

On May 12 and 13, 2008, nine Walstad monitoring wells were purged and sampled with disposable polyethylene bailer. Wells were sampled from clean to dirty to the extent possible to minimize cross-contamination. All equipment was decontaminated between wells with an Alconox™ solution to further ensure sample quality. Purge water was ground discharged in accordance with Section 1.7.2 of the GCA. Sampling was accomplished by carefully pouring groundwater from new disposable bailers into the sample containers.

Golder measured field parameters (pH, specific conductance and temperature) with a Hanna HI 991300 water quality meter during purging and prior to sampling. Dissolved oxygen was measured from the first bailer retrieved using a Chemetrics V-2000 meter. The dissolved oxygen meter malfunctioned during the sampling event; therefore, dissolved oxygen measurements were not collected for all wells sampled. Specific conductance, dissolved oxygen, pH, and temperature were recorded on monitoring well sampling field forms. The meters were calibrated and/or checked against a standard in accordance with

manufacturer's specifications prior to use. Monitoring well sampling field forms are provided in Appendix B.

Sample containers, preservatives, analytical methods, and holding times are specified in Table 2. Samples for VOC analysis were collected such that no headspace existed in the sample vial. All samples were preserved in accordance with method requirements, then immediately cooled to 4°C with ice and delivered under chain-of-custody to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico. The analytical laboratory report is provided in Appendix C.

NAPL

NAPL continues to be present in four Walstad monitor wells (V-1, W-1, W-2, and W-3). The NAPL thickness remained the same in V-1 and increased in W-1, W-2, and W-3. The NAPL thickness in V-1 and W-1 were 4.57 feet and 3.37 feet, respectively. In the two wells that were part of the bail down test, W-2 and W-3 the NAPL thickness was 0.38 feet and 0.18 feet, respectively. NAPL in W-2 and W-3 has still not returned to the thickness measured prior to the bail down test that was conducted in November 2007.

Groundwater Sampling Results

During this sampling event, the dissolved phase hydrocarbon concentrations were at or above New Mexico Water Quality Control Commissions (NMWQCC) standards in six of the nine monitor wells sampled, with W-8 having the highest benzene concentration of 19,000 µg/L. Wells W-8 and W-14 had BTEX, MTBE, EDC and total naphthalenes concentrations above standards. Well MW-9 had benzene, ethyl benzene, EDC, and total naphthalenes concentration above standards. W-16 had benzene, EDC, and total naphthalene concentrations above standards. W-5 had a benzene concentration above standard, and W-11 had MTBE and EDC concentrations over standards. W-19 had EDC concentration of 9.2 µg/L, which is the just below the NMWQCC standard for EDC of 10 µg/L. W-20 and W-21 were below NMWQCC standards for all compounds analyzed. Figure 3 illustrates the distribution of organic contaminants in groundwater. The laboratory analytical results for select organic compounds are summarized in Table 3.

D. System Performance and Effectiveness

No system has been installed at the site.

E. Statement Verifying Containment of Release

The Lovington 66 dissolved phase plume has migrated southeast across the intersection of Avenue D and Main Street to Avenue E. The NAPL plume appears to have migrated beneath the intersection of Avenue D and Main Street with dissolved phase concentrations observed in W-14 near NAPL levels. The downgradient extent of the dissolved phase plume has been defined by W-20 and W-21.

III. SUMMARY AND CONCLUSIONS

This section summarizes the results, contains a brief discussion of site trends, and provides recommendations for future site activities.

A. Discussion of any Trends or Changes Noted in Analytical Results or Site Conditions

The results of groundwater gauging indicate that water levels have continued to fall slightly when compared to the previous groundwater gauging conducted in February 2008. The overall direction of groundwater flow remains in a southeasterly direction at a gradient of 0.004 foot per foot (Figure 2).

NAPL was observed in four wells, V-1, W-1, W-2, and W-3 with thicknesses ranging from 0.18 feet to 4.57 feet. NAPL thicknesses have continued to increase slightly in W-2 and W-3 since the final day of the bail down test in November 2007. Neither of these wells has yet to recovered to the pre-bail down test thickness, further indicating that the true NAPL thickness was significantly less than the apparent thickness observed in November 2007. The apparent NAPL thicknesses in wells V-1 and W-1 have remained relatively the same since November 2007.

The May 12 and 13, 2008 distribution of dissolved phase organic contaminants is shown on Figure 3. Dissolved phase benzene concentrations in wells MW-8 and MW-14 are at least 1,000 times the NMWQCC standard of 10 µg/L. Hydrocarbon concentrations generally decreased in all wells sampled except for well W-16. W-16 hydrocarbon concentrations increased slightly when compared to the previous monitoring event in February 2008. Figure 4, 5, and 6 illustrate the distribution of benzene, MTBE and EDC. Concentration trends for benzene and MTBE for select wells are included in Appendix D.

The MNA parameters (dissolved oxygen, and temperature) were measured to evaluate the MNA remedy. The May 12 and 13, 2008 concentrations for MNA parameters are summarized on Table 4 and posted on Figure 7. Copies of the field forms are presented in Appendix B.

B. Ongoing Assessment of Remediation System

No active remediation system has been installed at the site.

C. Recommendations

Based on the results of the groundwater monitoring, the following conclusions and recommendations were prepared:

- Plug and abandon vertical extent well V-1. This well was improperly constructed and NAPL has infiltrated the casing through the joint and has entered the well.
- Continue groundwater monitoring and include NAPL recovery via hand bailing.
- Accelerate NAPL removal using soil vapor extraction.

A work plan to complete the first two recommendations was submitted to the NMED on April 24, 2008.

List of Attachments

Tables 1 through 4

Figures 1 through 7

Appendix A – Hydrographs
Appendix B - Field Forms
Appendix C –Analytical Laboratory Reports
Appendix D – Concentration Trends

TABLES

TABLE 1
SUMMARY OF FLUID GAUGING DATA
LOVINGTON 66, LOVINGTON, NEW MEXICO

Monitor Well	Date Measured	Northing[1]	Easting[1]	Casing Elevation[2]	Depth to Product[3]	Product Thickness[4]	Depth to Water[3]	Groundwater Elevation[2]
Allsup's # 109								
MW-1	12-May-2008	708392.73	843467.49	3909.74			54.36	3855.38
	7-Nov-2007						53.93	3855.81
	8-Aug-2006						54.36	3855.38
	6-Aug-2005						55.07	3854.67
MW-2	12-May-2008	708398.53	843584.18	3910.05			55.05	3855.00
	7-Nov-2007						54.58	3855.47
	8-Aug-2006						55.04	3855.01
	6-Aug-2005						55.74	3854.31
MW-3	13-May-2008	708484.61	843518.13	3910.14			54.76	3855.38
	7-Nov-2007						54.22	3855.92
	8-Aug-2006						54.65	3855.49
	6-Aug-2005						55.33	3854.81
Walstad 66								
V-1	13-May-2008	708614.74	843348.54	3910.67	53.41	4.57	57.98	3856.12
	13-Feb-2008				53.01	4.57	57.58	3856.52
	7-Nov-2007				53.01	4.58	57.59	3856.52
	8-Aug-2006				53.32	4.59	57.91	3856.20
	25-May-1993			99.37			56.74	42.63
	29-Aug-1992						56.68	42.69
W-1	13-May-2008	708649.18	843347.81	3911.33	54.25	3.37	57.62	3856.24
	13-Feb-2008				53.89	3.16	57.05	3856.65
	7-Nov-2007				53.91	3.11	57.02	3856.64
	8-Aug-2006				54.23	3.15	57.38	3856.31
	24-May-1993				NAPL Present			
	28-Aug-1993				NAPL Present			
	24-Jun-1992				>30" of NAPL Present			
	8-Jun-1992				>30" of NAPL Present			
	12-Feb-1992				0.125" of NAPL Present			
W-2	13-May-2008	708625.02	843381.13	3910.19	53.98	0.38	54.36	3856.12
	13-Feb-2008				53.57	0.31	53.88	3856.54
	7-Nov-2007				52.88	3.32	56.20	3856.48
	8-Aug-2006				53.21	5.34	58.55	3855.65
	24-May-1993				NAPL Present			
	28-Aug-1992				NAPL Present			
	24-Jun-1992				>30" of NAPL Present			
	8-Jun-1992				>30" of NAPL Present			
	13-Mar-1992				0.125" of NAPL Present			

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LOVINGTON 66, LOVINGTON, NEW MEXICO

Monitor Well	Date Measured	Northing[1]	Easting[1]	Casing Elevation[2]	Depth to Product[3]	Product Thickness[4]	Depth to Water[3]	Groundwater Elevation[2]
W-3	13-May-2008	708597.90	843348.60	3910.29	54.08	0.18	54.26	3856.17
	13-Feb-2008				53.65	0.13	53.78	3856.61
	7-Nov-2007				53.01	3.03	56.04	3856.52
	8-Aug-2006				53.30	3.20	56.50	3856.19
	24-May-1993				NAPL Present			
	28-Aug-1992				NAPL Present			
	24-Jun-1992				>30" of NAPL Present			
	8-Jun-1992				>30" of NAPL Present			
	13-Mar-1992				0.125" of NAPL Present			
W-4	8-Aug-2006	Well Destroyed						
	25-May-1993			99.62			56.48	43.14
	28-Aug-1992						56.69	42.93
	24-Jun-1992						57.04	42.58
W-5	12-May-2008	708759.72	843252.39	3911.71			54.87	3856.84
	13-Feb-2008						54.63	3857.08
	7-Nov-2007						54.61	3857.10
	8-Aug-2006						54.88	3856.83
	26-May-1993			100.41			57.02	43.39
	28-Aug-1992						57.24	43.17
	24-Jun-1992						57.59	42.82
W-6	8-Aug-2006	Well Destroyed						
	26-May-1993			99.48			56.49	42.99
	28-Aug-1992						56.64	42.84
	24-Jun-1992						56.97	42.51
W-7	12-May-2008	708910.73	843120.52	3910.88			53.55	3857.33
	12-Feb-2008						53.33	3857.55
	7-Nov-2007	708911.67	843120.56	3911.35			53.48	3857.87
	8-Aug-2006						53.74	3857.61
	25-May-1993			100.07			55.96	44.11
	28-Aug-1992						56.29	43.78
W-8	12-May-2008	708389.76	843640.62	3909.92			55.14	3854.78
	13-Feb-2008						54.79	3855.13
	7-Nov-2007						54.65	3855.27
	8-Aug-2006						55.11	3854.81
	25-May-1993			98.69			57.20	41.49
	28-Aug-1992						57.24	41.45

TABLE 1
SUMMARY OF FLUID GAUGING DATA
LOVINGTON 66, LOVINGTON, NEW MEXICO

Monitor Well	Date Measured	Northing[1]	Easting[1]	Casing Elevation[2]	Depth to Product[3]	Product Thickness[4]	Depth to Water[3]	Groundwater Elevation[2]
W-9	12-May-2008	708267.18	843790.26	3908.72			54.68	3854.04
	13-Feb-2008						54.31	3854.41
	7-Nov-2007						54.12	3854.60
	8-Aug-2006						54.66	3854.06
	25-May-1993			97.47			56.74	40.73
	28-Aug-1992						56.76	40.71
W-10	12-May-2008	Unable to gauge well due to traffic constraints						
	13-Feb-2008	Unable to gauge well due to traffic constraints						
	8-Aug-2006	708254.54	843452.92	3908.89			53.79	3855.10
	26-May-1993			97.85			55.80	42.05
	28-Aug-1992						56.18	41.67
W-11	12-May-2008	708600.95	843650.96	3909.96			54.71	3855.25
	13-Feb-2008						54.41	3855.55
	7-Nov-2007						54.26	3855.70
	8-Aug-2006						54.70	3855.26
	26-May-1993			98.66			56.85	41.81
	28-Aug-1992						56.82	41.84
W-12	12-May-2008	708435.38	843045.85	3910.59			54.05	3856.54
	12-Feb-2008						53.29	3857.30
	7-Nov-2007						53.72	3856.87
	8-Aug-2006						53.55	3857.04
	26-May-1993			99.34			55.96	43.38
	29-Aug-1992						56.28	43.06
W-13	12-May-2008	708915.13	843525.37	3910.36			54.08	3856.28
	12-Feb-2008						53.80	3856.56
	7-Nov-2007						53.70	3856.66
	8-Aug-2006						54.01	3856.35
	26-May-1993			99.07			56.25	42.82
	29-Aug-1992						56.36	42.71
W-14	13-May-2008	708504.99	843463.76	3909.73			54.24	3855.49
	13-Feb-2008						53.80	3855.93
	7-Nov-2007						53.72	3856.01
	8-Aug-2006						54.15	3855.58
	26-May-1993			98.54			56.26	42.28
W-15	12-May-2008	708221.99	843030.65	3909.40			53.27	3856.13
	12-Feb-2008						53.02	3856.38
	7-Nov-2007	708195.85	843053.51	3909.71			53.11	3856.60
	8-Aug-2006						53.41	3856.30
	26-May-1993			98.49			55.40	43.09

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SUMMARY OF FLUID GAUGING DATA
LOVINGTON 66, LOVINGTON, NEW MEXICO

Monitor Well	Date Measured	Northing[1]	Easting[1]	Casing Elevation[2]	Depth to Product[3]	Product Thickness[4]	Depth to Water[3]	Groundwater Elevation[2]
W-16	12-May-2008	708153.28	843364.45	3908.67			53.52	3855.15
	13-Feb-2008						53.20	3855.47
	7-Nov-2007						53.06	3855.61
	8-Aug-2006						53.49	3855.18
	26-May-1993			97.44			55.52	41.92
W-17	8-Aug-2006	Well Destroyed						
	26-May-1993			96.94			56.86	40.08
W-18	12-May-2008	708697.21	843818.98	3909.38			54.65	3854.73
	12-Feb-2008						54.13	3855.25
	7-Nov-2007	708698.11	843818.96	3909.50			54.19	3855.31
	8-Aug-2006						54.60	3854.90
	26-May-1993			98.26			56.79	41.48
W-19	12-May-2008	708148.94	843934.18	3908.36			54.88	3853.48
	13-Feb-2008						54.51	3853.85
	7-Nov-2007						54.23	3854.13
W-20	12-May-2008	707780.85	844187.25	3907.45			55.09	3852.36
	13-Feb-2008						54.69	3852.76
	7-Nov-2007						54.29	3853.16
W-21	12-May-2008	707988.79	843841.61	3908.49			54.81	3853.68
	13-Feb-2008						54.45	3854.04
	7-Nov-2007						54.19	3854.30

Note:

[1] Horizontal control to NM State Plane Coordinates Central NAD83 Grid Coordinates (in feet)

[2] Vertical Control to NAVD88 Datum in feet above mean sea level

[3] Measured in feet below the top of casing at survey point on north side of well

[4] Measured in feet

TABLE 2
SUMMARY OF SAMPLE ANALYTICAL AND QUALITY CONTROL REQUIREMENTS
LOVINGTON 66, LOVINGTON, NEW MEXICO

Target Analytes	Matrix	Analytical Method	Sample Container	Preservative	Holding Time
VOCs	Water	EPA 8260	3 x 40- mL glass vials	Mercuric Chloride; Cool to 4°C	14 days

Notes:
EPA = U.S. Environmental Protection Agency

TABLE 3
SUMMARY OF GROUNDWATER SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS
LOVINGTON 66, LOVINGTON, NEW MEXICO

Monitor Well	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	EDB	EDC	Total Naphthalenes
W-2	13-Mar-92	29,878	28,953	3,874	13,109	5,921	NA	NA	NA
W-3	13-Mar-92	10,493	8,961	1,253	5,320	5,150	NA	NA	NA
W-4	25-May-93	2,500	980	310	470	<63	NA	NA	NA
	28-Aug-92	1,400	430	95	300	<2.5	NA	NA	NA
	24-Jun-92	200	53	21	40	<5.0	NA	NA	NA
W-5	12-May-08	16	<1.0	7.6	<1.5	65	<1.0	<1.0	<2.0
	13-Feb-08	26	1.1	24	<1.5	140	<1.0	<1.0	4.5
	7-Nov-07	45	8.5	29	15	170	<1.0	<1.0	4.9
	9-Aug-06	2.0	<1.0	3.7	<3.0	22	<1.0	<1.0	<2.0
	28-Aug-92	850	400	58	450	3.3	NA	NA	NA
	24-Jun-92	470	250	41	290	<10	NA	NA	NA
W-6	28-Aug-92	3,000	2,700	93	860	<2.5	NA	NA	NA
	24-Jun-92	1,400	1,200	48	500	<25	NA	NA	NA
W-7	7-Nov-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0
	8-Aug-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<2.0
	25-May-93	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	28-Aug-92	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
W-8	12-May-08	19,000	22,000	1,800	8,000	4,900	250	2,100	400
	13-Feb-08	27,000	39,000	4,800	16,000	8,600	670	4,000	1,350
	7-Nov-07	20,000	27,000	3,200	15,000	5,900	440	4,100	770
	9-Aug-06	21,000	29,000	2,600	13,000	6,300	<500	3,700	1,100
	4-Aug-05	27,000	35,000	3,800	18,000	3,700	1,100	4,300	622
	25-May-93	12,000	8,300	1,500	8,800	<250	NA	NA	NA
	28-Aug-92	8,000	9,500	690	5,200	<2.5	NA	NA	NA
W-9	12-May-08	3,000	63	800	360	<10	<10	480	228
	13-Feb-08	7,500	130	910	590	<10	<10	450	129
	7-Nov-07	6,500	120	620	450	<10	<10	360	51
	9-Aug-06	6,700	560	1,200	1,400	<150	<100	650	250
	4-Aug-05	4,300	180	850	830	<1.0	<0.01	320	28.5
	25-May-93	100	6.3	2.5	170	<5.0	NA	NA	NA
	28-Aug-92	130	8.2	16	140	<2.5	NA	NA	NA
W-10*	9-Aug-06	420	<1.0	31	<3.0	22	<1.0	12	121
	4-Aug-05	940	2.6	930	140	2,400	0.11	48	27.1
	28-Aug-92	1,100	11.0	120	440	<2.5	NA	NA	NA
W-11	12-May-08	3.0	<1.0	31	3.7	740	<1.0	36	<2.0
	13-Feb-08	3.2	<1.0	41	5.1	540	<1.0	37	<2.0
	7-Nov-07	18	<1.0	38	13	540	<1.0	35	<2.0
	9-Aug-06	5.0	<1.0	62	44	88	<1.0	33	<2.0
	28-Aug-92	770	13	13	280	<2.5	NA	NA	NA

TABLE 3
SUMMARY OF GROUNDWATER SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS
LOVINGTON 66, LOVINGTON, NEW MEXICO

Monitor Well	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	EDB	EDC	Total Naphthalenes
W-12	8-Aug-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<2.0
	29-Aug-92	87	6.1	2.6	180	<2.5	NA	NA	NA
W-13	8-Aug-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<2.0
	29-Aug-92	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NAA
W-14	13-May-08	14,000	6,500	2,800	6,300	2,400	<10	170	1,001
	13-Feb-08	30,000	23,000	4,900	13,000	4,400	<50	210	1,270
	9-Aug-06	25,000	23,000	4,000	9,500	4,700	<500	<500	1,200
	5-Aug-05	27,000	26,000	4,900	9,500	7,600	3.3	120	413
	26-May-93	6,600	4,300	1,200	4,000	<125	NA	NA	NA
W-15	8-Aug-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<2.0
	26-May-93	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
W-16	12-May-08	690	<1.0	12	3.6	60	<1.0	21	327
	13-Feb-08	630	<1.0	12	8.6	47	<1.0	17	342
	7-Nov-07	640	<1.0	22	12	55	<1.0	23	363
	8-Aug-06	1.3	14	2.9	<3	<1.5	<1.0	<1.0	<2.0
	26-May-93	52	<0.5	7.9	15	<2.5	NA	NA	NA
W-17	26-May-93	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
W-18	8-Aug-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<2.0
	26-May-93	1.6	1.8	<0.5	2.0	<2.5	NA	NA	NA
W-19	12-May-08	1.6	<1.0	<1.0	<1.5	<1.0	<1.0	9.2	<2.0
	13-Feb-08	2.4	<1.0	<1.0	<1.5	<1.5	<1.0	10	<2.0
	8-Nov-07	4.3	<1.0	<1.0	<1.5	<1.5	<1.0	23	<2.0
W-20	12-May-08	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0
	13-Feb-08	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0
	8-Nov-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0
W-21	12-May-08	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0
	12-Feb-08	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0
	8-Nov-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0
V-1	25-May-93	5,000	14,000	3,000	10,000	600	NA	NA	NA
	29-Aug-92	250	680	240	810	<2.5	NA	NA	NA

Notes:

All concentrations in micrograms per liter (parts per billion)

MTBE = Methyl tertiary butyl ether

EDB = Ethylene dibromide

EDC = Ethylene dichloride

W-10 and W-16 sample containers were labeled incorrectly, therefore results reported for August 8 and 9, 2006 have been switched.

NA = Not Analyzed

TABLE 4
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
INORGANIC COMPOUNDS AND GEOCHEMICAL INDICATORS
LOVINGTON 66 LOVINGTON, NEW MEXICO

Well Number	Date Sampled	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	pH	SpC (uS/cm)	Temp	DO (mg/L)	ORP (mV)
V-1	13-May-08	NAPL Present							
	13-Feb-08	NAPL Present							
	7-Nov-07	NAPL Present							
	8-Aug-06	NAPL Present							
W-1	13-May-08	NAPL Present							
	13-Feb-08	NAPL Present							
	7-Nov-07	NAPL Present							
	8-Aug-06	NAPL Present							
W-2	13-May-08	NAPL Present							
	13-Feb-08	NAPL Present							
	7-Nov-07	NAPL Present							
	8-Aug-06	NAPL Present							
W-3	13-May-08	NAPL Present							
	13-Feb-08	NAPL Present							
	7-Nov-07	NAPL Present							
	8-Aug-06	NAPL Present							
W-5	12-May-08	NA	NA	NA	6.74	1,766	20.3	0.25	NA
	13-Feb-08	NA	NA	NA	6.74	2,237	18.8	0.78	NA
	7-Nov-07	NA	NA	NA	NA	2,454	19.7	0.15	NA
	9-Aug-06	NA	NA	NA	6.34	2,110	21.8	0.47	-88
W-7	7-Nov-07	NA	NA	NA	NA	1,200	19.7	5.30	NA
	8-Aug-06	NA	NA	NA	6.78	1,475	19.3	2.43	226

TABLE 4
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
INORGANIC COMPOUNDS AND GEOCHEMICAL INDICATORS
LOVINGTON 66 LOVINGTON, NEW MEXICO

Well Number	Date Sampled	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	pH	SpC (uS/cm)	Temp	DO (mg/L)	ORP (mV)
W-8	12-May-08	NA	NA	NA	6.72	1,079	20.2	NA	NA
	13-Feb-08	NA	NA	NA	6.15	1,109	20.6	0.65	NA
	7-Nov-07	NA	NA	NA	NA	1,235	19.7	1.26	NA
	9-Aug-06	NA	NA	NA	6.63	1,260	22.9	0.60	-311
	6-Aug-05	NA	NA	NA	6.78	1,090	20.23	3.13	234
W-9	12-May-08	NA	NA	NA	6.76	1,020	19.5	NA	NA
	13-Feb-08	NA	NA	NA	6.73	1,076	20.1	0.68	NA
	7-Nov-07	NA	NA	NA	NA	1,183	19.5	1.12	NA
	9-Aug-06	NA	NA	NA	6.42	1,230	22.5	0.44	-218
	6-Aug-05	NA	NA	NA	6.77	1,050	20.20	3.29	211
W-10	12-May-08	Well Not Sampled Due to Location							
	7-Nov-07	Well Not Sampled Due to Location							
	9-Aug-06	NA	NA	NA	6.50	2,400	22.1	0.00	-175
	6-Aug-05	NA	NA	NA	6.87	1,610	20.76	3.74	201
W-11	12-May-08	NA	NA	NA	6.75	1,456	20.6	1.19	NA
	13-Feb-08	NA	NA	NA	6.79	1,432	21.1	0.64	NA
	7-Nov-07	NA	NA	NA	NA	1,592	21	0.28	NA
	9-Aug-06	NA	NA	NA	6.38	1,760	22.2	0.17	-97
W-12	8-Aug-06	NA	NA	NA	7.20	880	21.8	2.22	168
W-13	8-Aug-06	NA	NA	NA	5.37	1,111	15.9	1.85	219
W-14	13-May-08	NA	NA	NA	6.67	1,519	20.6	NA	NA
	13-Feb-08	NA	NA	NA	6.72	1,537	20.6	0.54	NA
	7-Nov-07	NA	NA	NA	NA	NA	NA	NA	NA
	9-Aug-06	NA	NA	NA	6.59	1,850	23.4	0.00	-290
W-15	8-Aug-06	NA	NA	NA	6.41	1,240	18.5	3.96	267

TABLE 4
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
INORGANIC COMPOUNDS AND GEOCHEMICAL INDICATORS
LOVINGTON 66 LOVINGTON, NEW MEXICO

Well Number	Date Sampled	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	pH	SpC (uS/cm)	Temp	DO (mg/L)	ORP (mV)
W-16	12-May-08	NA	NA	NA	6.65	1,859	20.6	0.08	NA
	13-Feb-08	NA	NA	NA	6.67	1,879	20.3	0.27	NA
	7-Nov-07	NA	NA	NA	NA	2,072	20.7	0.11	NA
	8-Aug-06	NA	NA	NA	6.33	2,080	22.4	1.20	-113
W-18	8-Aug-06	NA	NA	NA	6.24	1,090	21.1	1.20	186
W-19	12-May-08	NA	NA	NA	6.77	869	20.6	7.65	NA
	13-Feb-08	NA	NA	NA	6.84	901	19.3	7.05	NA
	7-Nov-07	NA	NA	NA	NA	1,214	19.5	NA	NA
W-20	12-May-08	NA	NA	NA	7.04	723	20.7	7.18	NA
	12-Feb-08	NA	NA	NA	7.13	816	16.6	7.13	NA
	7-Nov-07	NA	NA	NA	NA	1,185	19.5	NA	NA
W-21	12-May-08	NA	NA	NA	6.75	1,269	19.9	5.59	NA
	13-Feb-08	NA	NA	NA	6.68	1,285	17.9	6.34	NA
	7-Nov-07	NA	NA	NA	NA	2,544	20.2	NA	NA

Notes:

DO = Dissolved oxygen

mg/L = Milligrams per liter

mV = Millivolts

NA = Not analyzed

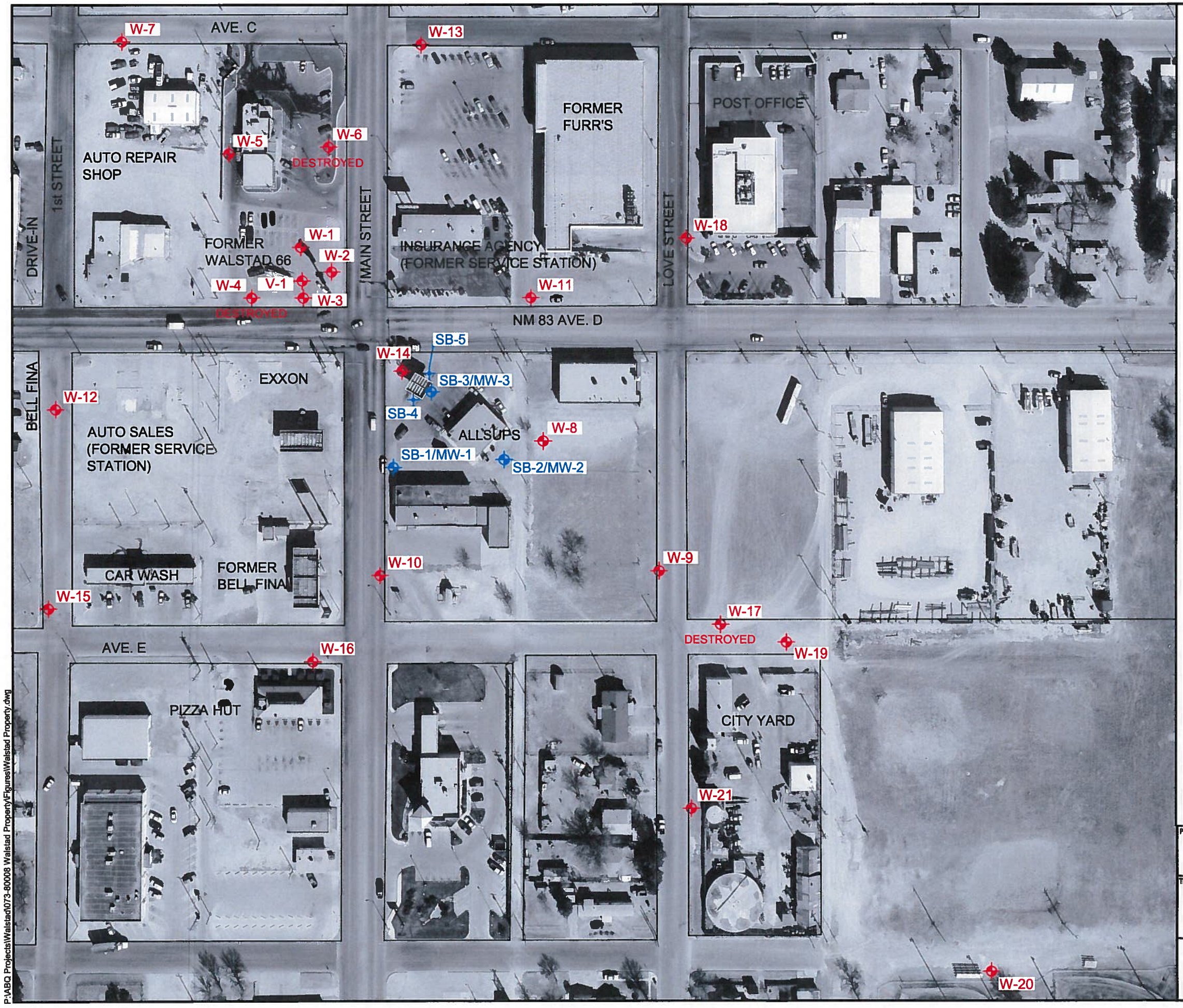
ORP = Oxidation-reduction potential in milli volts (mV)

SpC = Specific conductance measured in micro siemens per centimeter (uS/cm)

Temp = Temperature in degrees Celsius

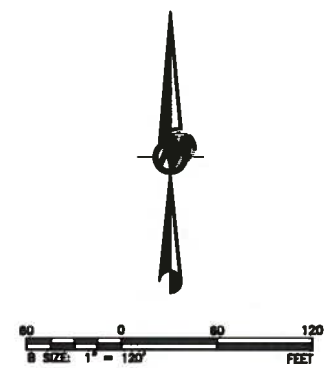
uS/cm = Microsiemens per centimeter

FIGURES



LEGEND:

W-1	LOVINGTON 66 MONITORING WELL
SB-1/MW-1	ALLSUP'S SOIL BORING/ MONITORING WELL
SB-1	ALLSUPS SOIL BORING



PROJECT

LOVINGTON 66
424 SOUTH MAIN
LOVINGTON, NEW MEXICO

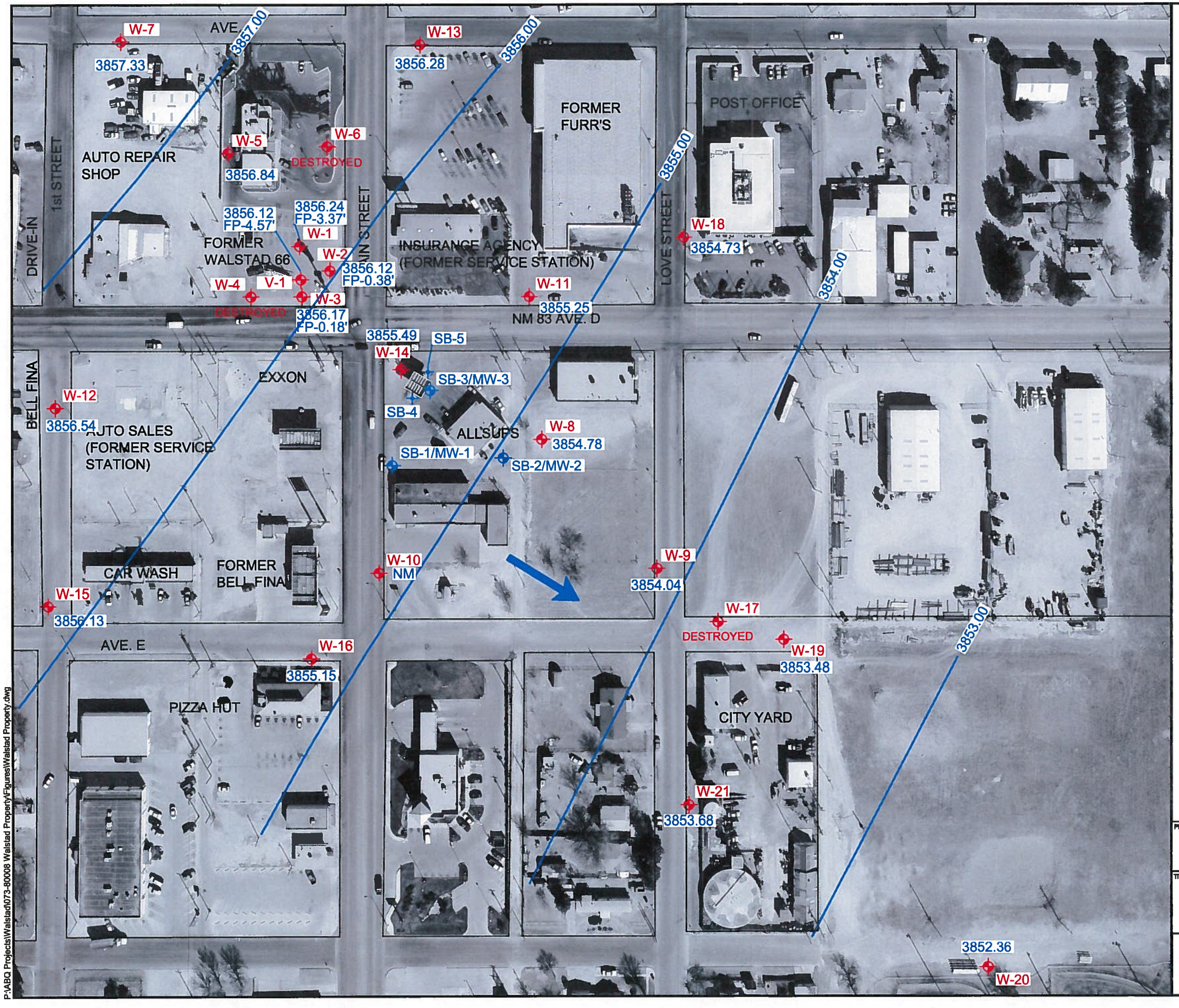
TITLE

SITE MAP

Golder Associates
Albuquerque, New Mexico

PROJECT No.		073-80008	FILE No. Walstad Property.dwg	
DESIGN	TM	08/31/08	SCALE AS SHOWN	REV. A
CADD	RLO	08/12/08	FIGURE 1	
CHECK	TM	08/12/08		
REVIEW	JS	08/12/08		

P:\ABQ Projects\Walstad\073-80008 Walstad Property\Figures\Walstad Property.dwg



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LEGEND:

- W-1 / 3856.24 — LOVINGTON 66 MONITORING WELL WITH GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- SB-1/MW-1 — ALLSUP'S SOIL BORING/ MONITORING WELL LOCATION
- SB-1 — ALLSUPS SOIL BORING
- 3855.00 — POTENTIOMETRIC GROUNDWATER SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- GROUNDWATER FLOW DIRECTION

* DATA NOT USED FOR CONTOURING

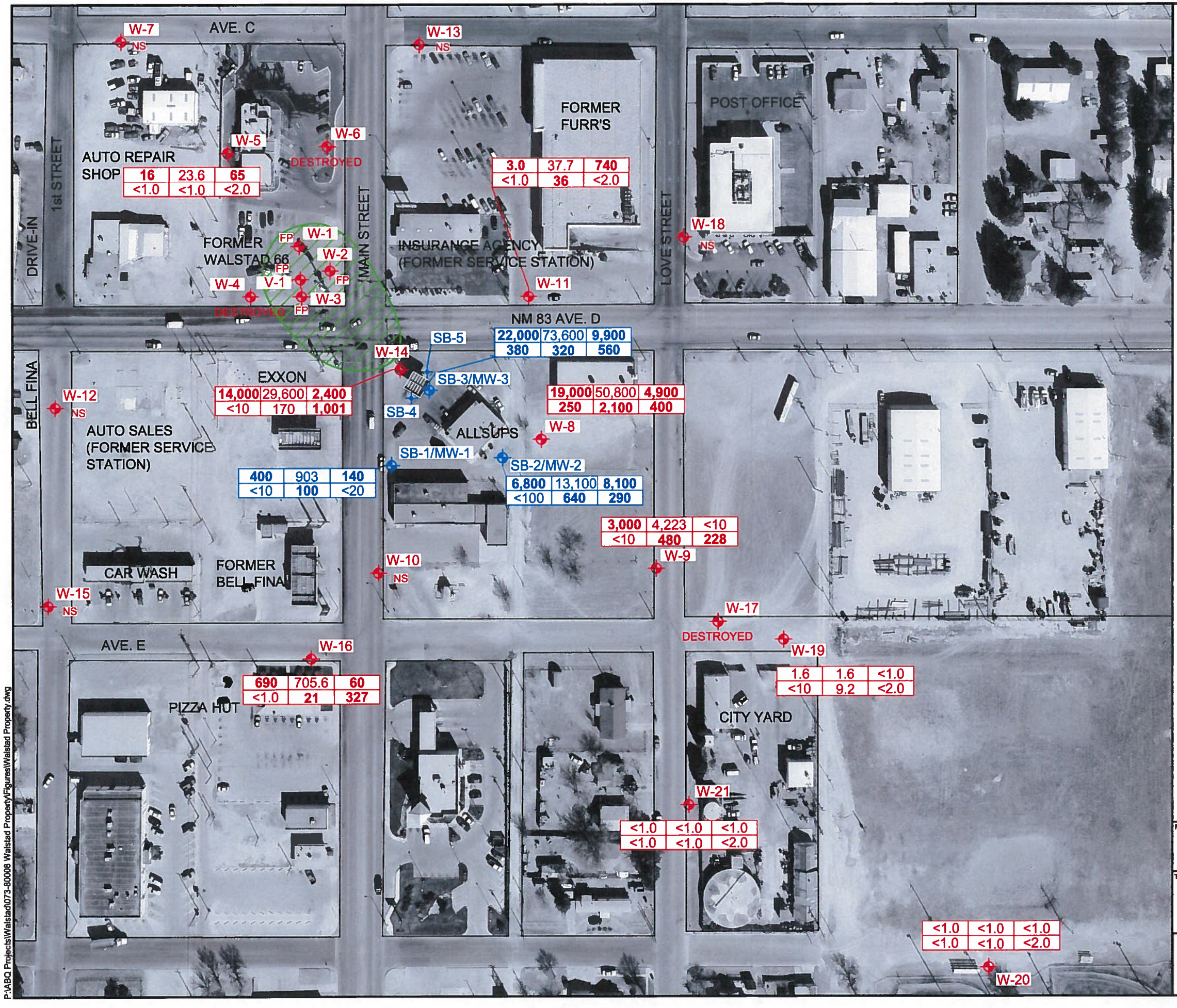
80 0 80 120
B SIZE: 1" = 120' FEET

PROJECT
LOVINGTON 66
424 SOUTH MAIN
LOVINGTON, NEW MEXICO

TITLE
POTENTIOMETRIC SURFACE MAP MAY 2008

Golder Associates
Albuquerque, New Mexico

PROJECT No.		073-80008	FILE No. Walstad Property.dwg	
DESIGN	TM	08/31/08	SCALE AS SHOWN	REV. A
CADD	RLD	09/12/08	**FIGURE 2**	
CHECK	TM	09/12/08		
REVIEW	JS	09/12/08		



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LEGEND:

W–1	LOVINGTON 66 MONITORING WELL
SB–1/MW–1	ALLSUP'S SOIL BORING/ MONITORING WELL
SB–1	ALLSUPS SOIL BORING
	ESTIMATED EXTENT OF NAPL
NS	NOT SAMPLED

LOVINGTON 66

BENZENE	BTEX	MTBE
EDB	EDC	TOTAL NAPHTHALENE

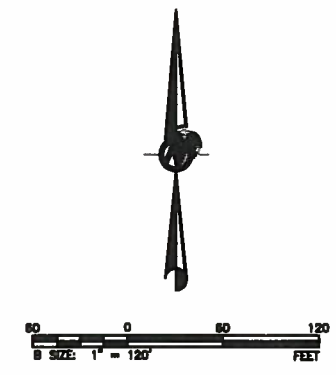
ALL CONCENTRATIONS ARE µg/L (ppb)

BOLD INDICATES THAT CONCENTRATION EXCEEDS NMWQCC GROUNDWATER STANDARD OR EIB STANDARD

ALLSUPS 109

BENZENE	BTEX	MTBE
EDB	EDC	TOTAL NAPHTHALENE

ALL CONCENTRATIONS ARE µg/L (ppb)



PROJECT

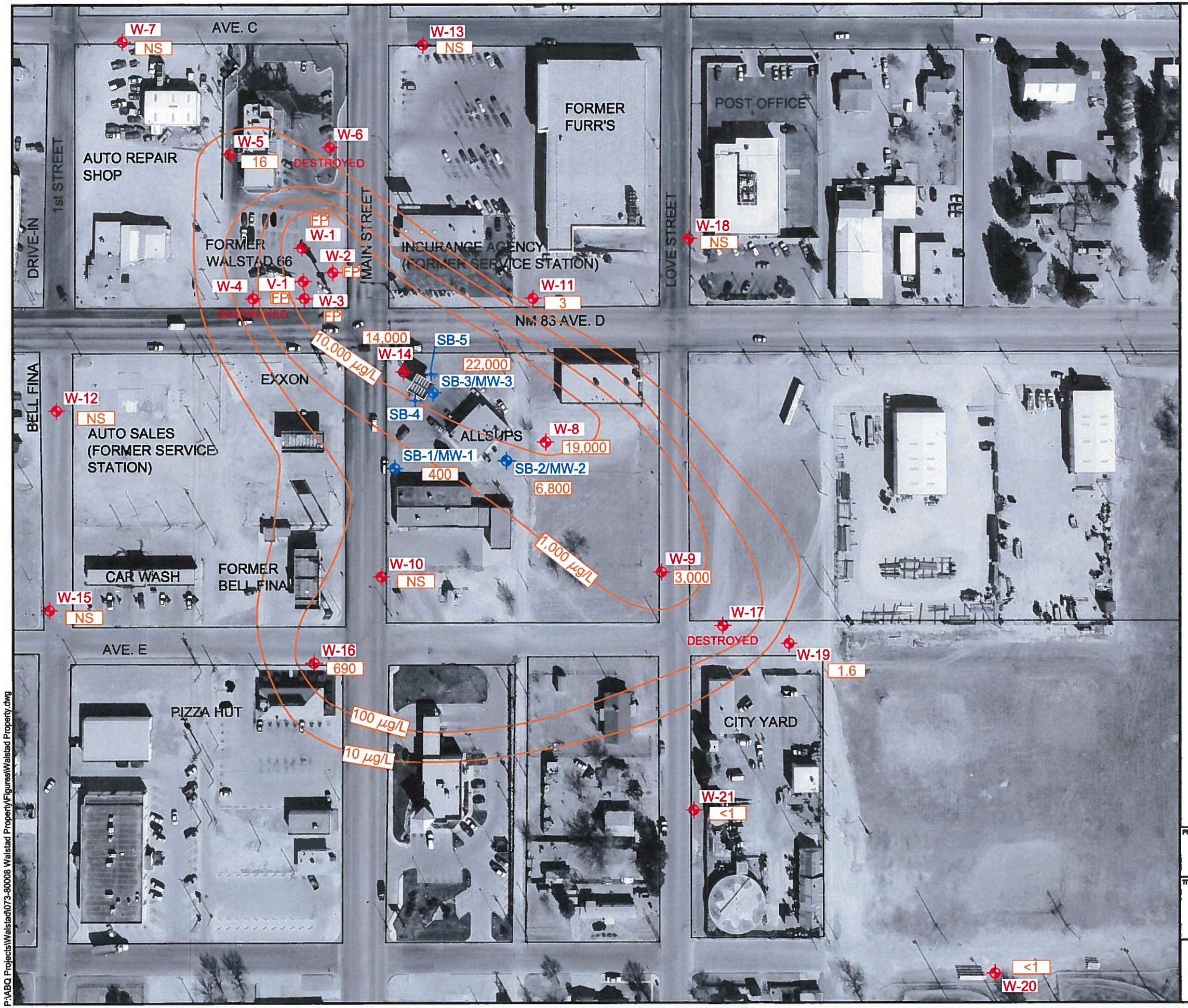
LOVINGTON 66
424 SOUTH MAIN
LOVINGTON, NEW MEXICO

TITLE

DISTRIBUTION OF ORGANIC CONTAMINANTS IN GROUNDWATER MAY 2008

Golder Associates
Albuquerque, New Mexico

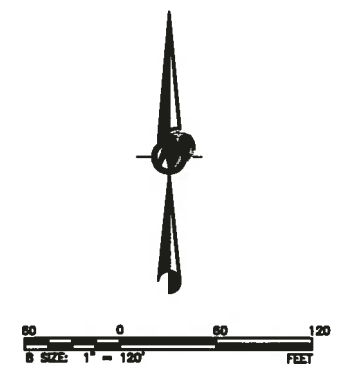
PROJECT No.		073–80008	FILE No. Walstad Property.dwg		
DESIGN	TM	08/31/08	SCALE AS SHOWN	REV.	A
CADD	RLD	06/12/08	FIGURE 3		
CHECK	TM	06/12/08			
REVIEW	JS	06/12/08			



P:\ABQ Projects\Walstad\073-80008 Walstad Property\Figures\Walstad Property.dwg

LEGEND:

W–20 <1	LOVINGTON 66 MONITORING WELL WITH BENZENE CONCENTRATIONS (µg/L)
SB–1/MW–1 400	ALLSUP'S SOIL BORING/ MONITORING WELL WITH BENZENE CONCENTRATIONS (µg/L)
SB–1	ALLSUP'S SOIL BORING
10 µg/L	BENZENE CONCENTRATION CONTOUR
FP	FREE PRODUCT
NS	NOT SAMPLED



PROJECT

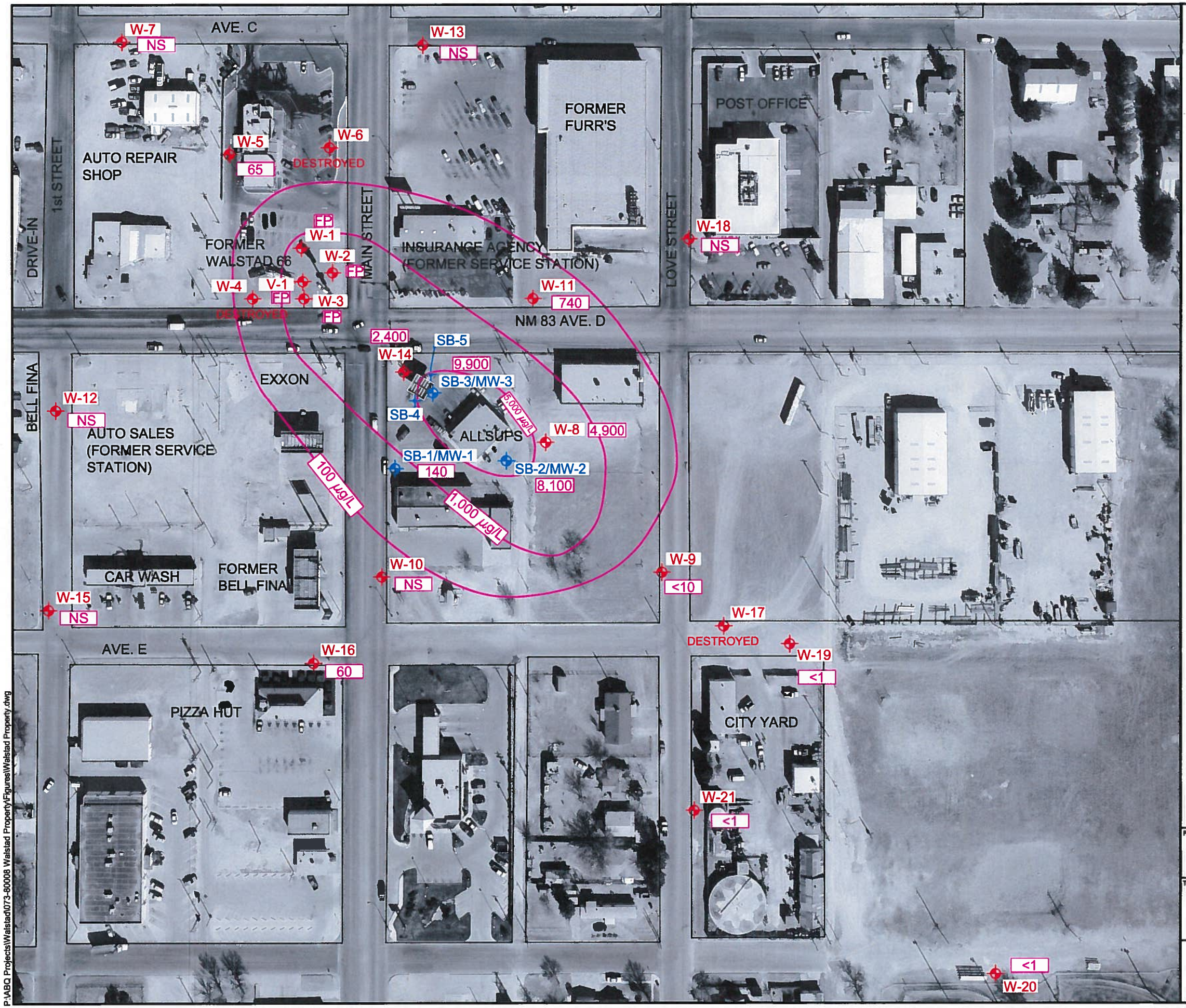
LOVINGTON 66
424 SOUTH MAIN
LOVINGTON, NEW MEXICO

TITLE

DISTRIBUTION OF BENZENE IN GROUNDWATER MAY 2008

Golder Associates
Albuquerque, New Mexico

PROJECT No.		073–80008	FILE No.	Walstad Property.dwg	
DESIGN	TM	08/31/08	SCALE	AS SHOWN	REV. A
CADD	RLD	09/12/08	FIGURE 4		
CHECK	TM	09/12/08			
REVIEW	JS	09/12/08			



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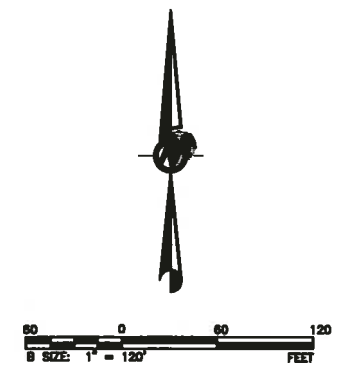
LEGEND:

W–20 <1	LOVINGTON 66 MONITORING WELL WITH MTBE CONCENTRATIONS (µg/L)
SB–1/MW–1 140	ALLSUP'S SOIL BORING/ MONITORING WELL WITH MTBE CONCENTRATIONS (µg/L)
SB–1	ALLSUP'S SOIL BORING
100 µg/L	MTBE CONCENTRATION CONTOUR
FP	FREE PRODUCT
NS	NOT SAMPLED



PROJECT

LOVINGTON 66
424 SOUTH MAIN
LOVINGTON, NEW MEXICO

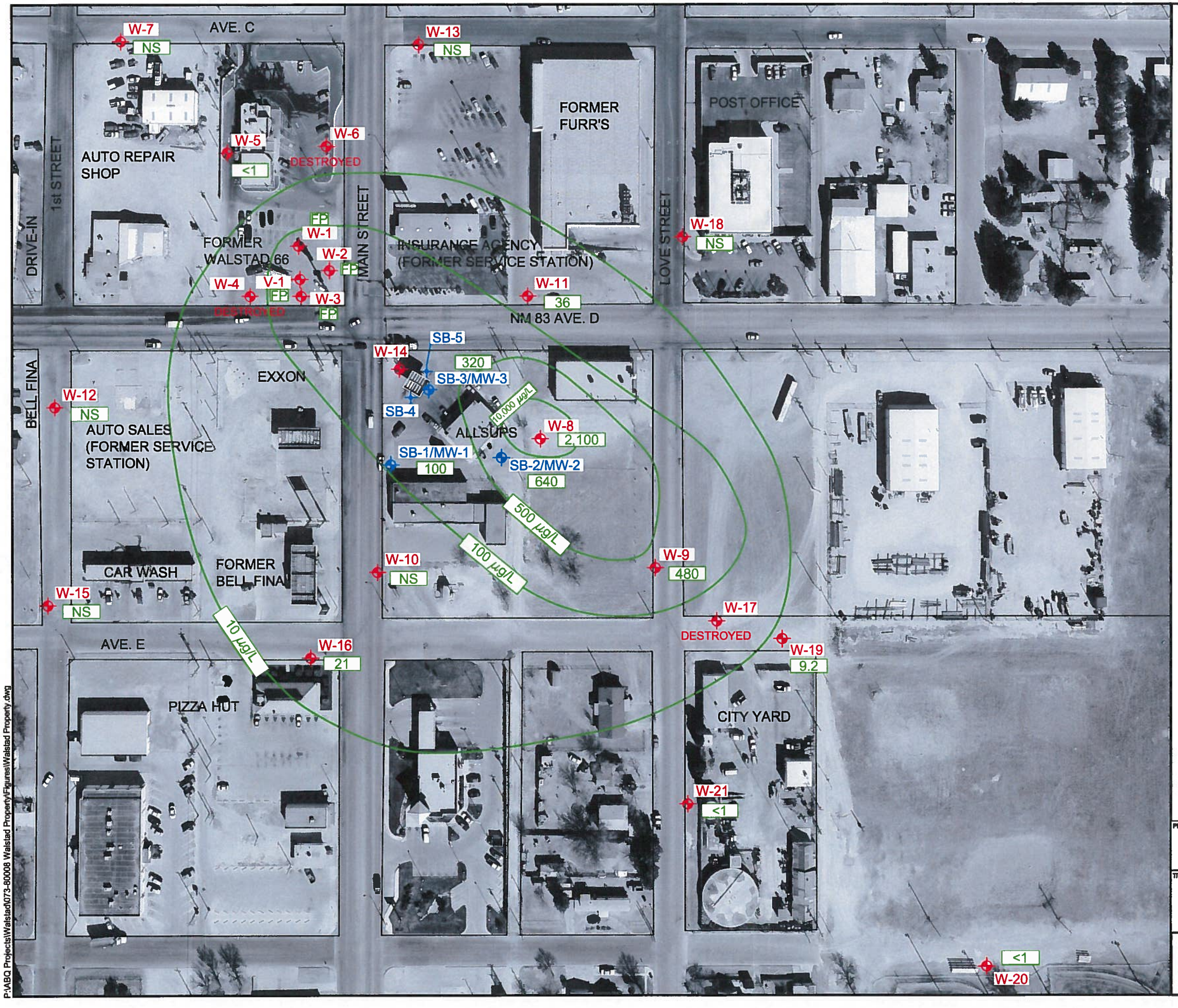
TITLE

DISTRIBUTION OF MTBE IN GROUNDWATER MAY 2008

Golder Associates
Albuquerque, New Mexico

PROJECT No.		073–80008	FILE No.	Walstad Property.dwg	
DESIGN	TM	08/31/08	SCALE	AS SHOWN	REV. A
CADD	RLO	09/12/08			
CHECK	TM	09/12/08			
REVIEW	JS	09/12/08			

FIGURE 5



LEGEND:

W–20 <1	LOVINGTON 66 MONITORING WELL WITH EDC CONCENTRATIONS (µg/L)
SB–1/MW–1 100	ALLSUP'S SOIL BORING/ MONITORING WELL WITH EDC CONCENTRATIONS (µg/L)
SB–1	ALLSUP'S SOIL BORING
10 µg/L	EDC CONCENTRATION CONTOUR
FP	FREE PRODUCT
NS	NOT SAMPLED

60 0 60 120
B SIZE: 1" = 120' FEET

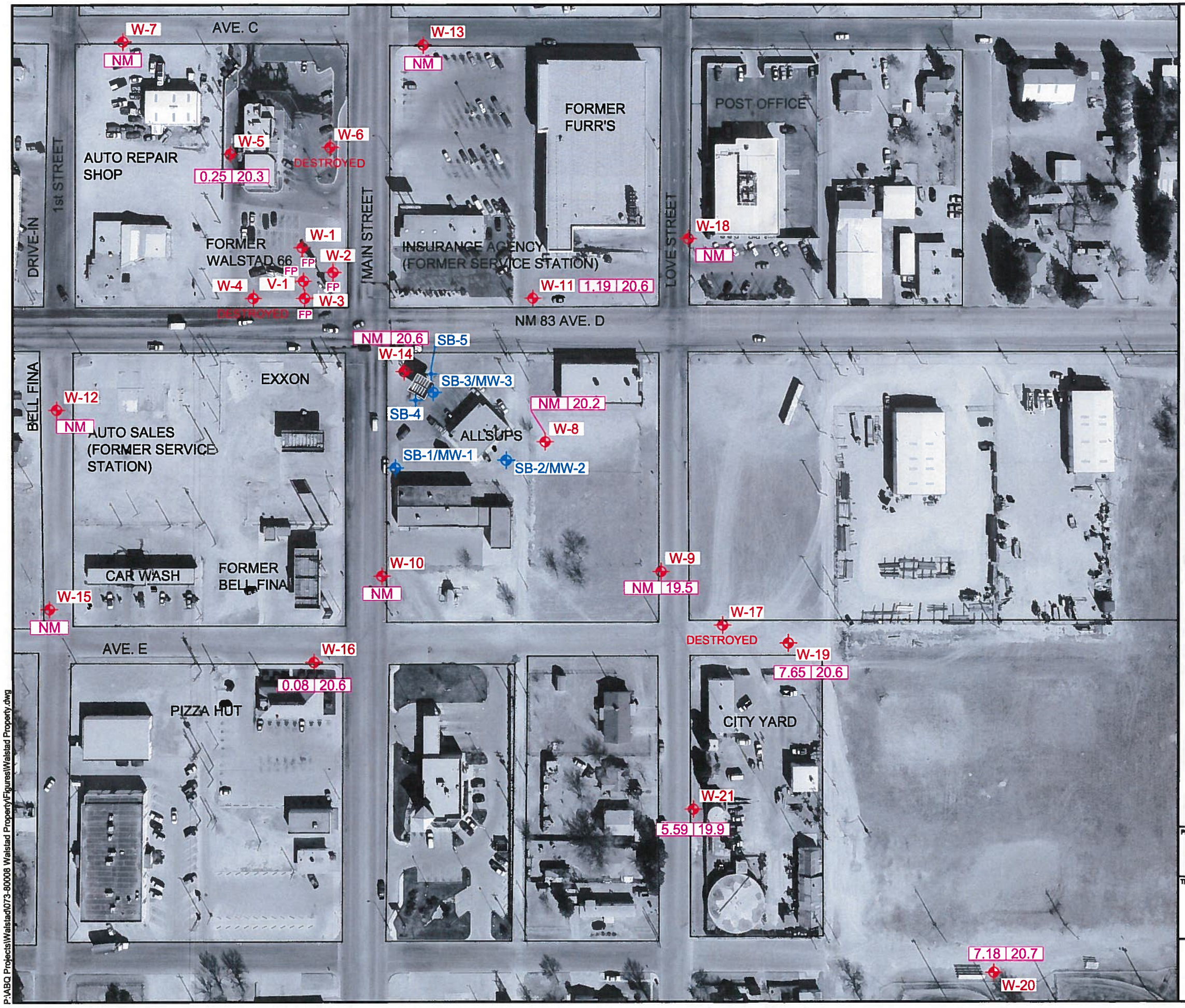
PROJECT
LOVINGTON 66
424 SOUTH MAIN
LOVINGTON, NEW MEXICO

TITLE
**DISTRIBUTION OF EDC
N GROUNDWATER
MAY 2008**

Golder Associates
Albuquerque, New Mexico

PROJECT No.		073–80008	FILE No. Walstad Property.dwg	
DESIGN	TM	08/31/06	SCALE AS SHOWN	REV. A
CADD	RLD	08/12/08		
CHECK	TM	08/12/08		
REVIEW	JS	08/12/08		

FIGURE 6



LEGEND:

W-1	LOVINGTON 66 MONITORING WELL
SB-1/MW-1	ALLSUP'S SOIL BORING/ MONITORING WELL
SB-1	ALLSUP'S SOIL BORING
NM	NOT MEASURED

DO	TEMP

DISSOLVED OXYGEN (DO) CONCENTRATIONS ARE IN MILLIGRAMS PER LITER

TEMPERATURE (TEMP) VALUES ARE IN DEGREES CELSIUS

PROJECT

WALSTAD 66
424 SOUTH MAIN
LOVINGTON, NEW MEXICO

TITLE

DISTRIBUTION OF MNA PARAMETERS IN GROUNDWATER MAY 2008

Golder Associates
Albuquerque, New Mexico

PROJECT No.		073-80008	FILE No. Walstad Property.dwg	
DESIGN	TM	08/31/06	SCALE AS SHOWN	REV. A
CADD	RLO	06/12/08		
CHECK	TM	06/12/08		
REVIEW	JS	06/12/08		

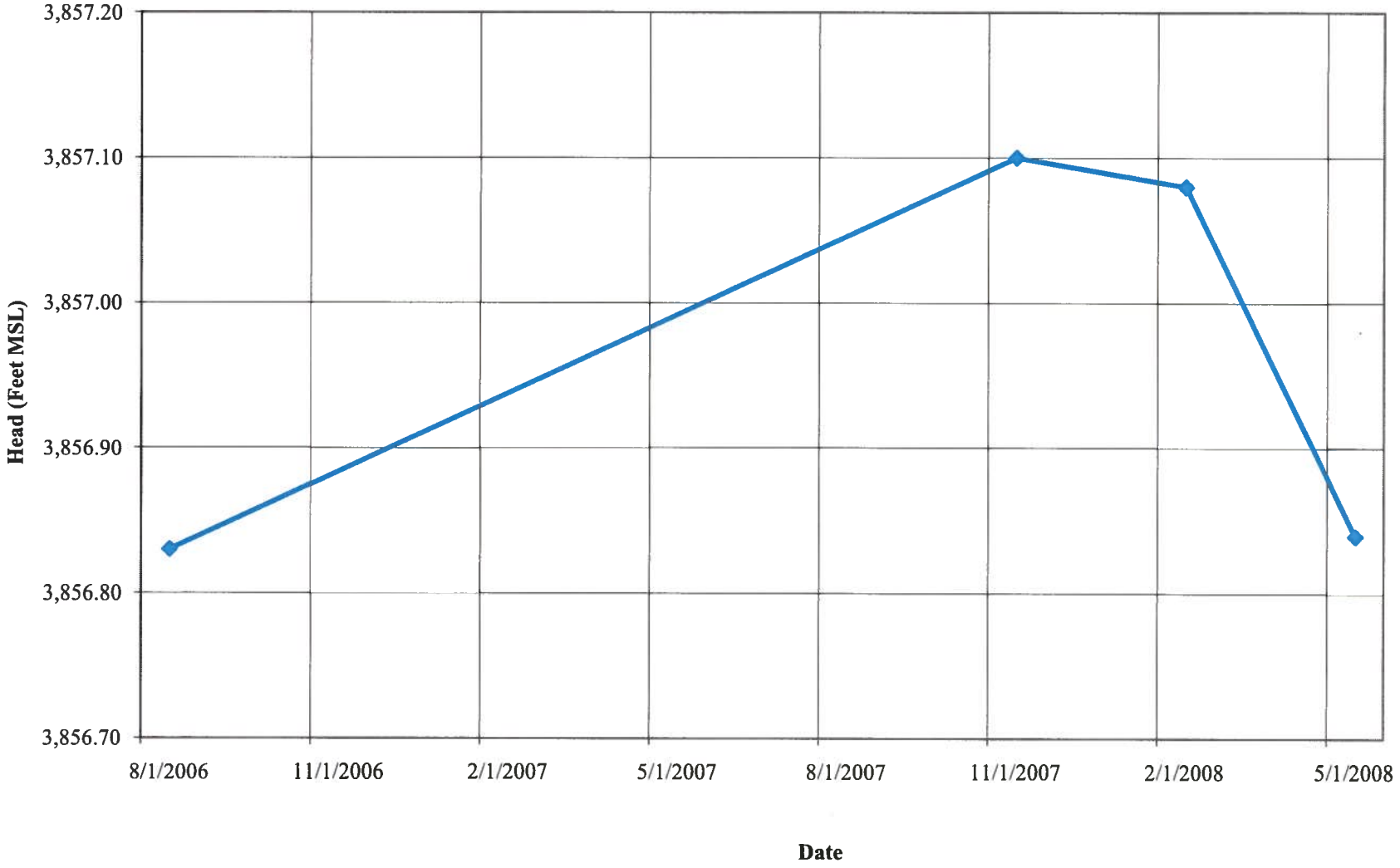
FIGURE 7

P:\ABQ Projects\Walstad\073-80008 Walstad Property\Figures\Walstad Property.dwg

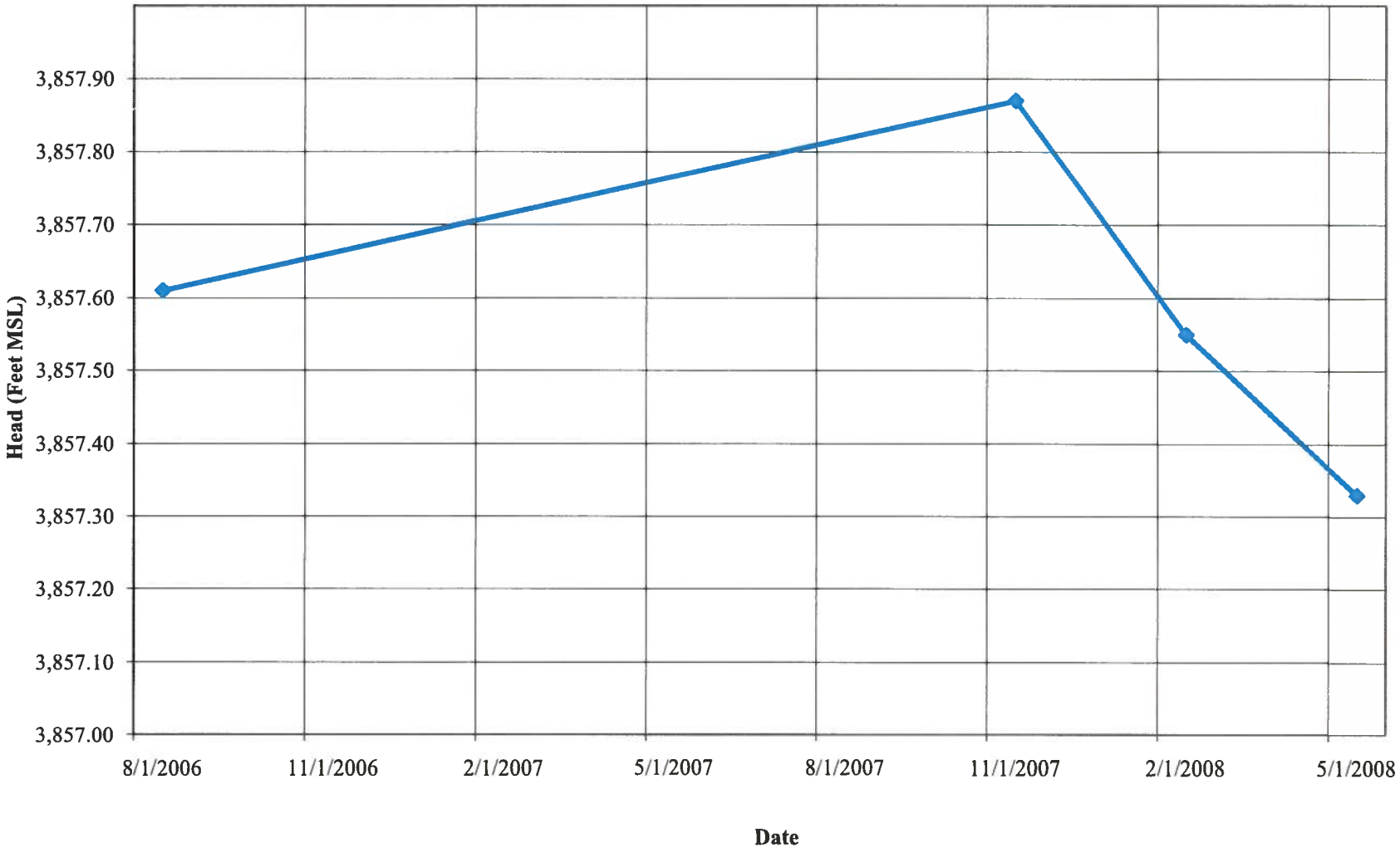
APPENDIX A

HYDROGRAPHS

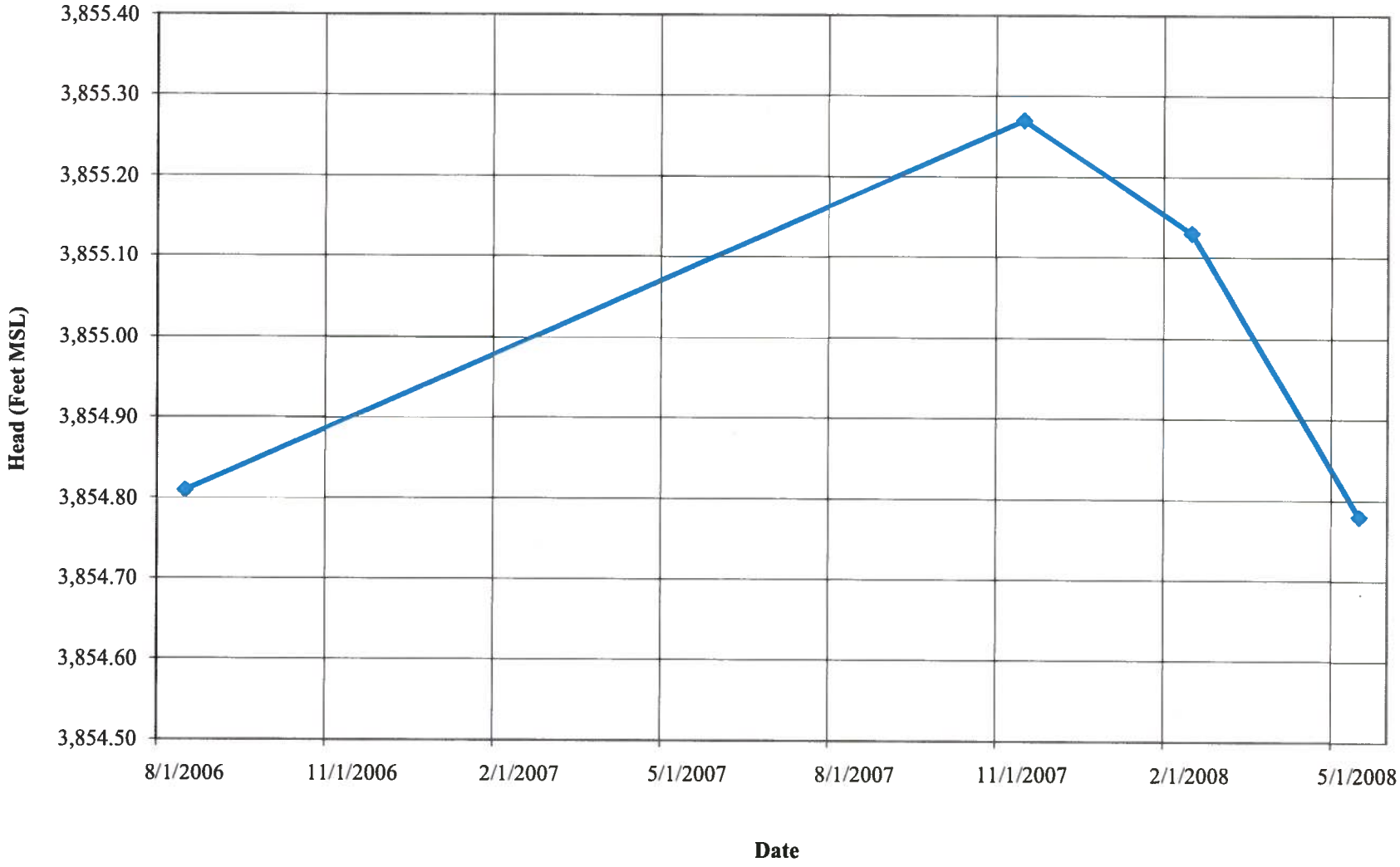
HYDROGRAPH FOR WELL W-5



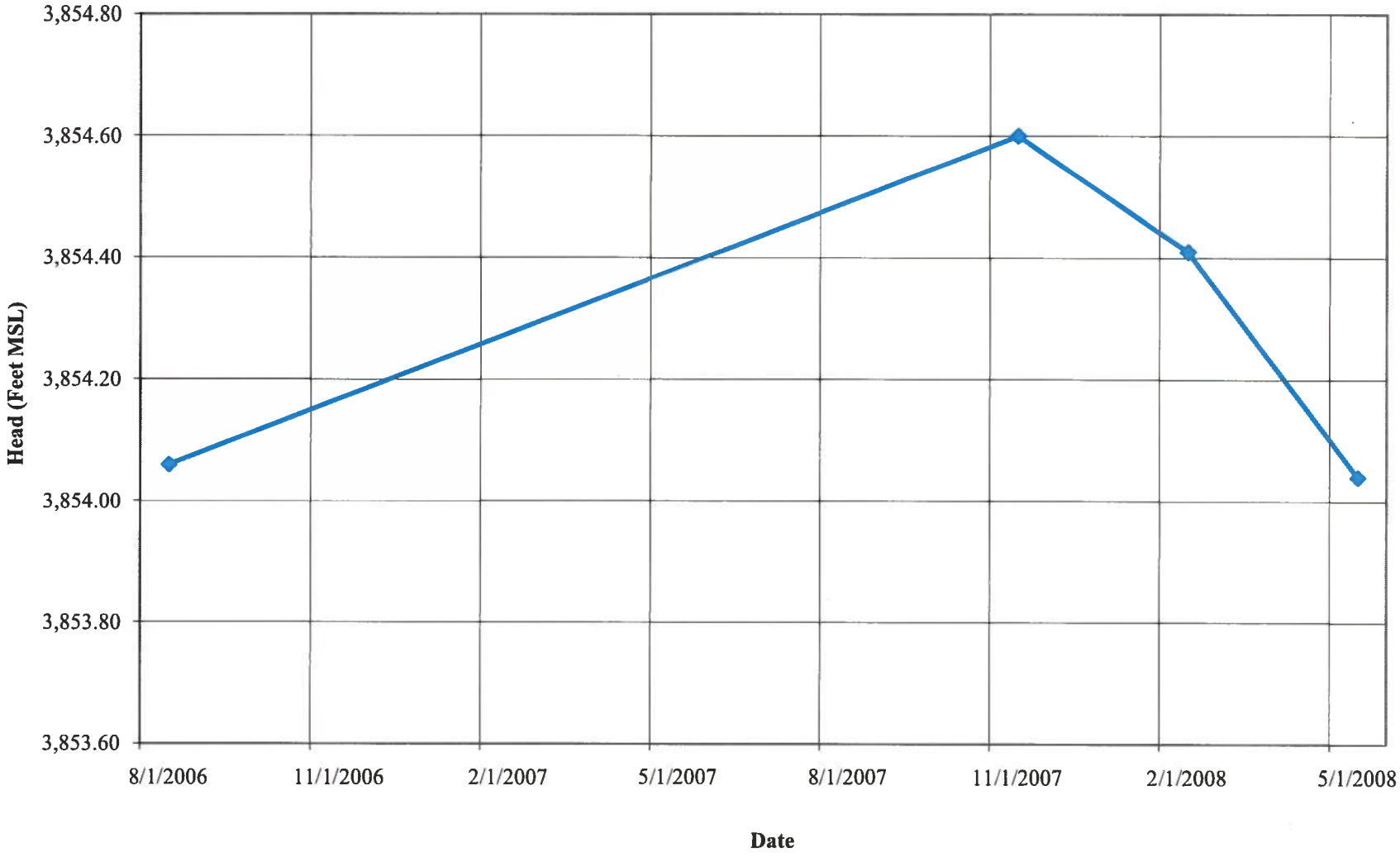
HYDROGRAPH FOR WELL W-7



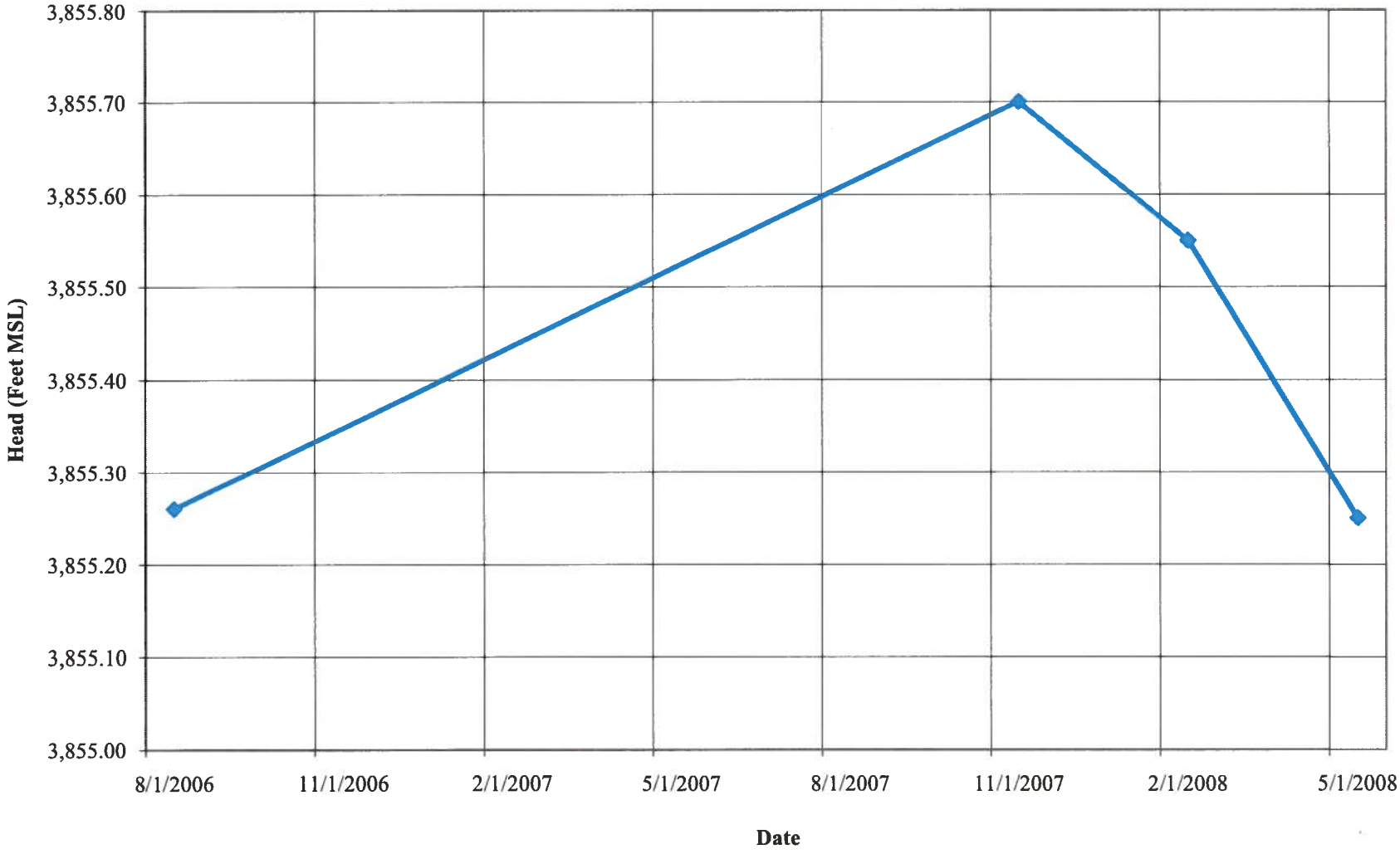
HYDROGRAPH FOR WELL W-8



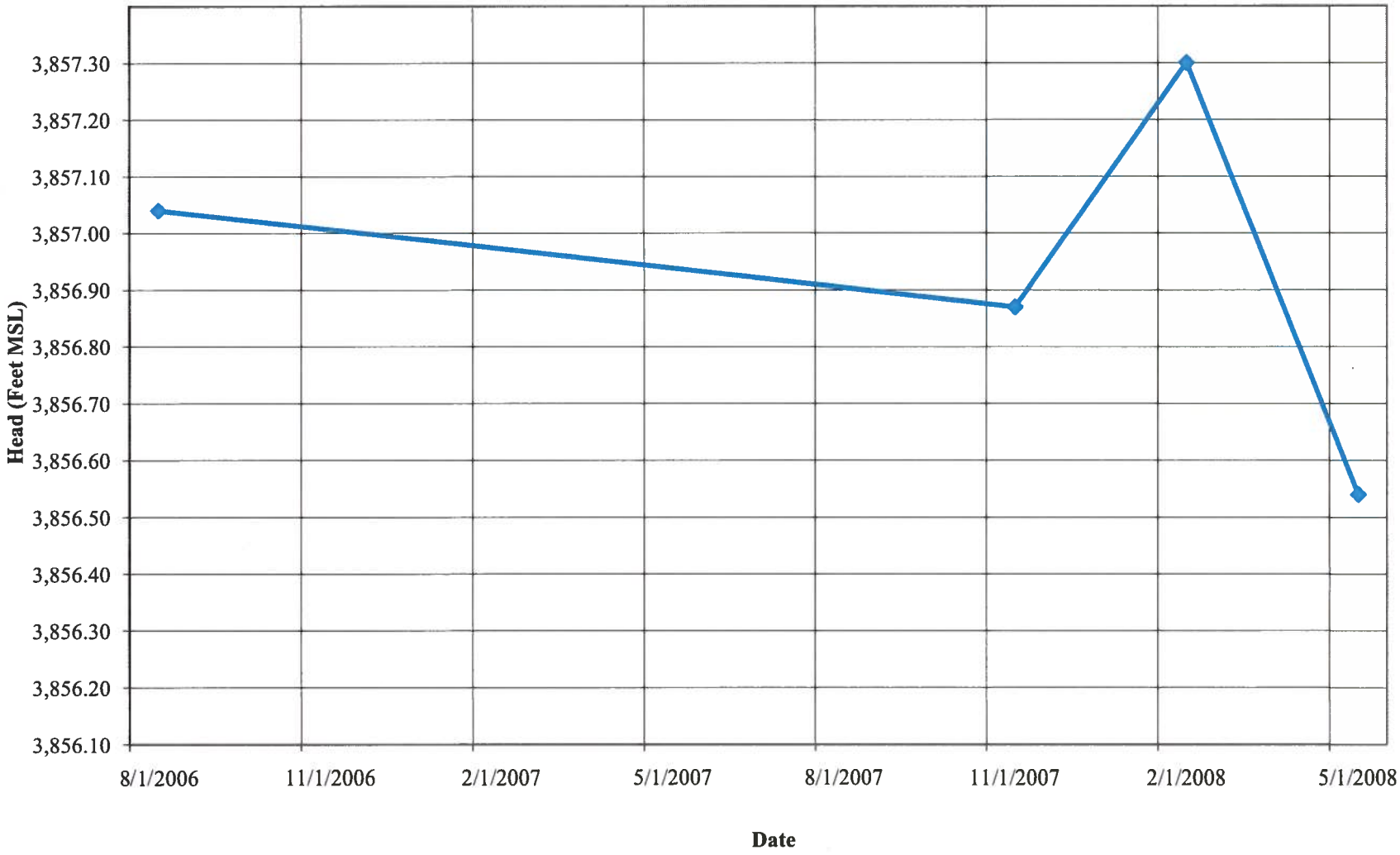
HYDROGRAPH FOR WELL W-9



HYDROGRAPH FOR WELL W-11



HYDROGRAPH FOR WELL W-12



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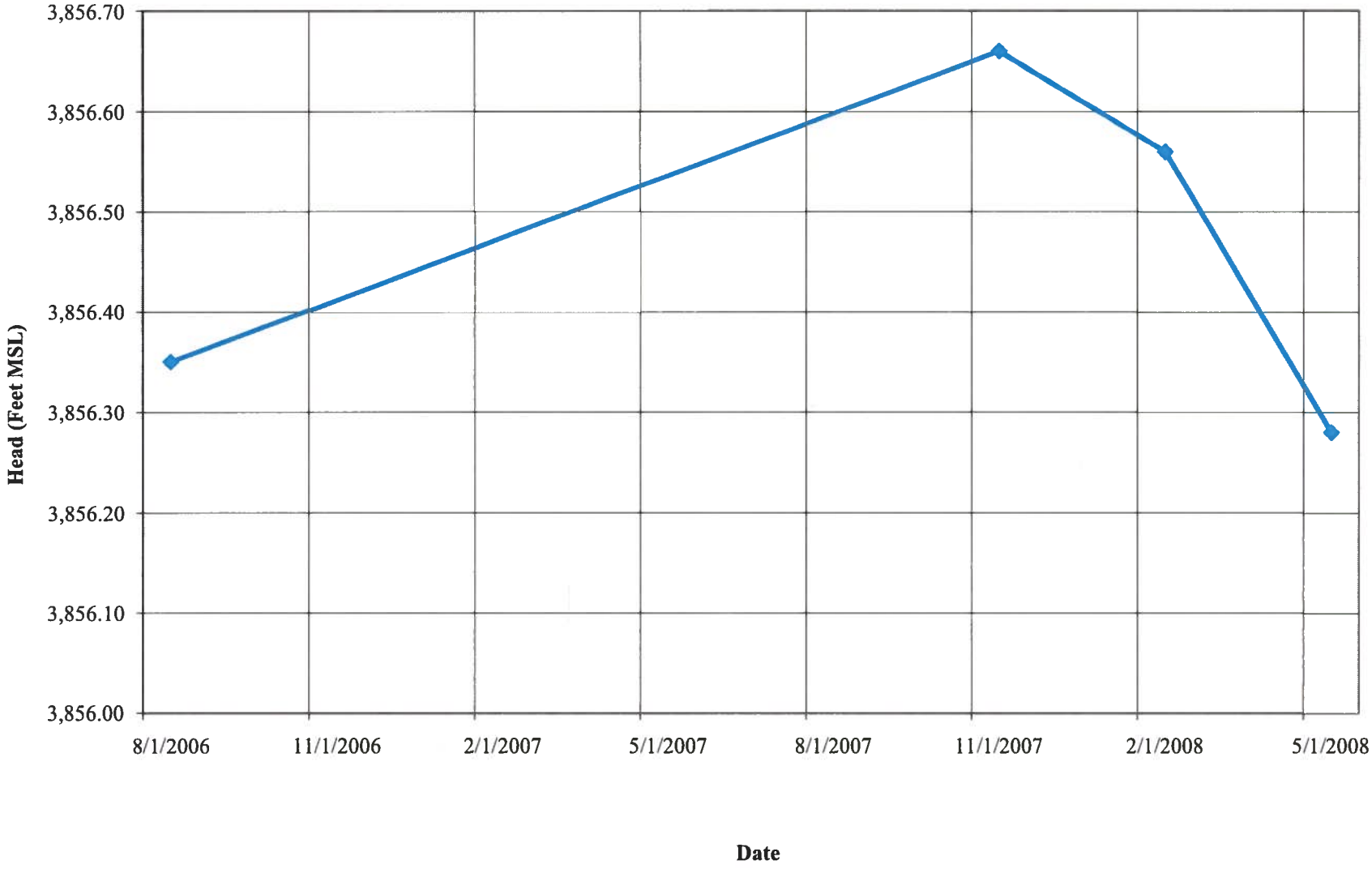
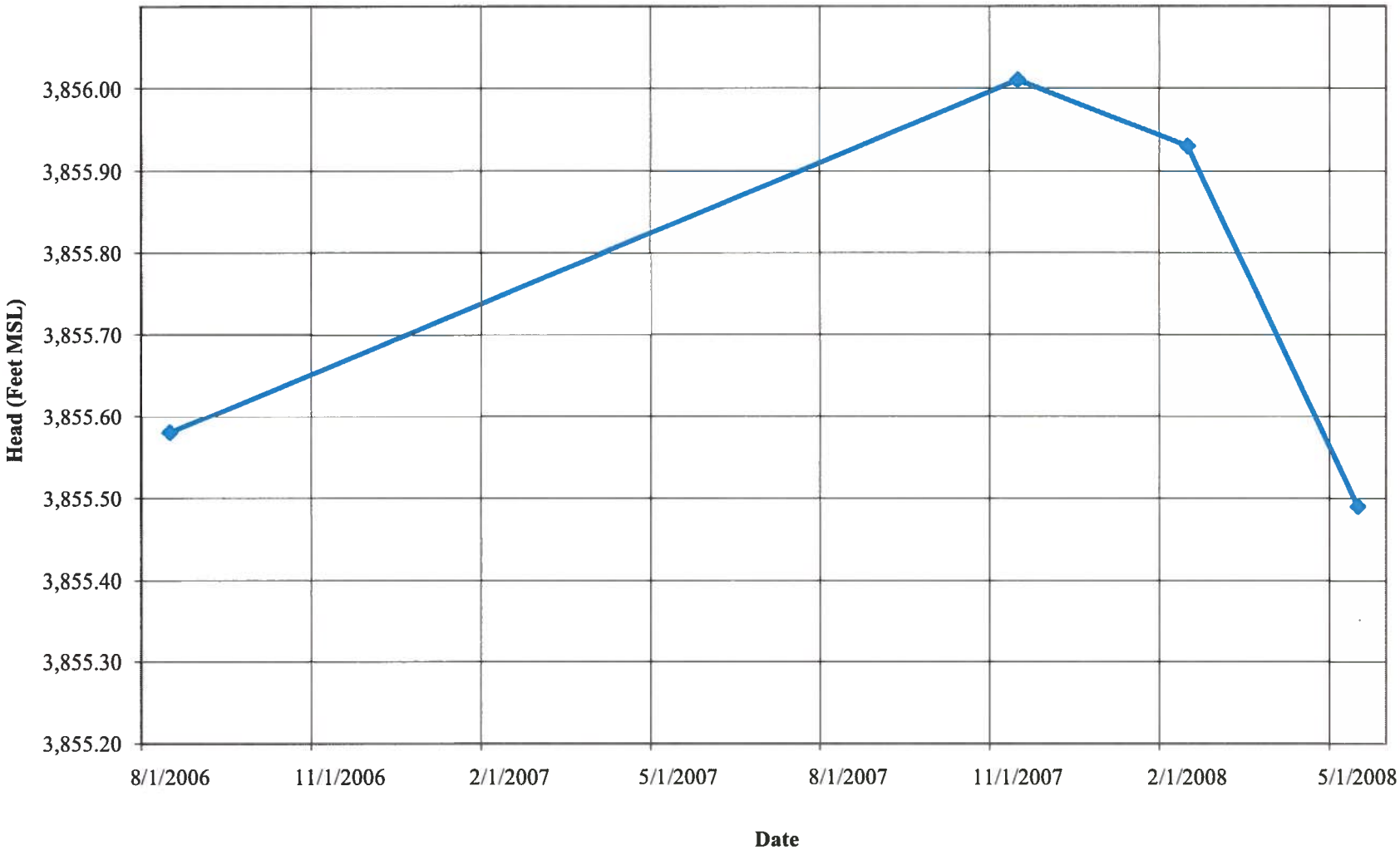
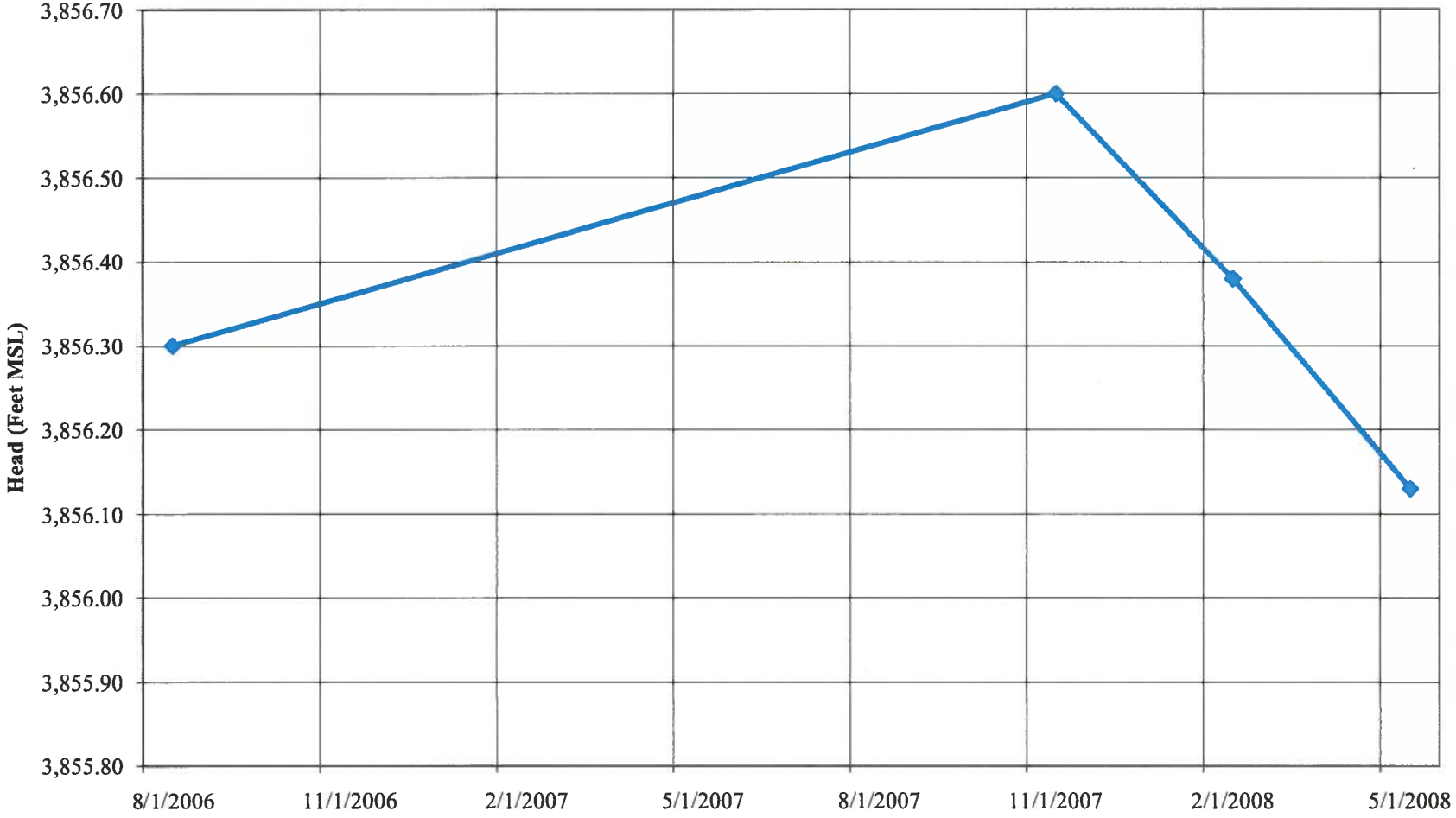


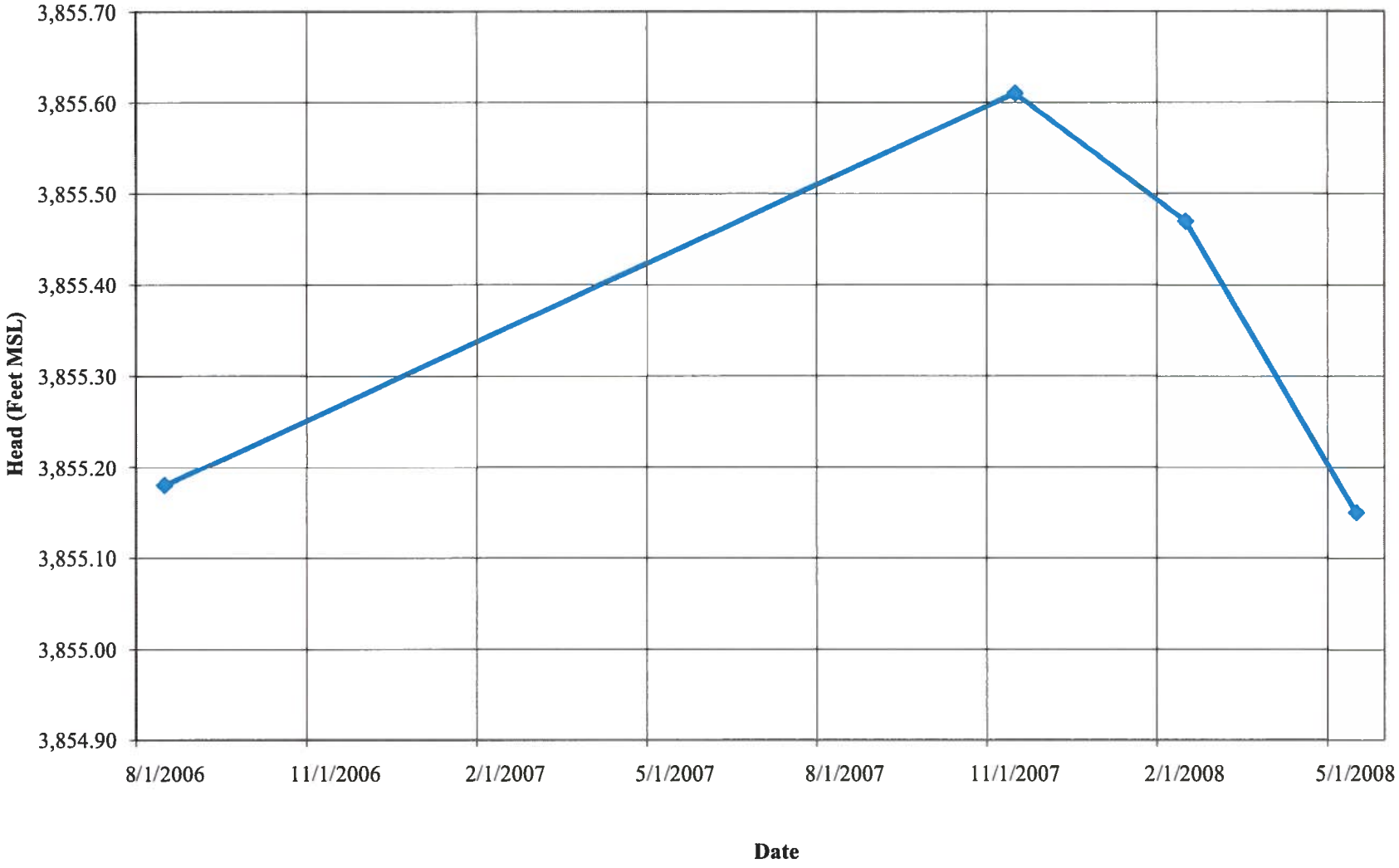
HYDROGRAPH FOR WELL W-14



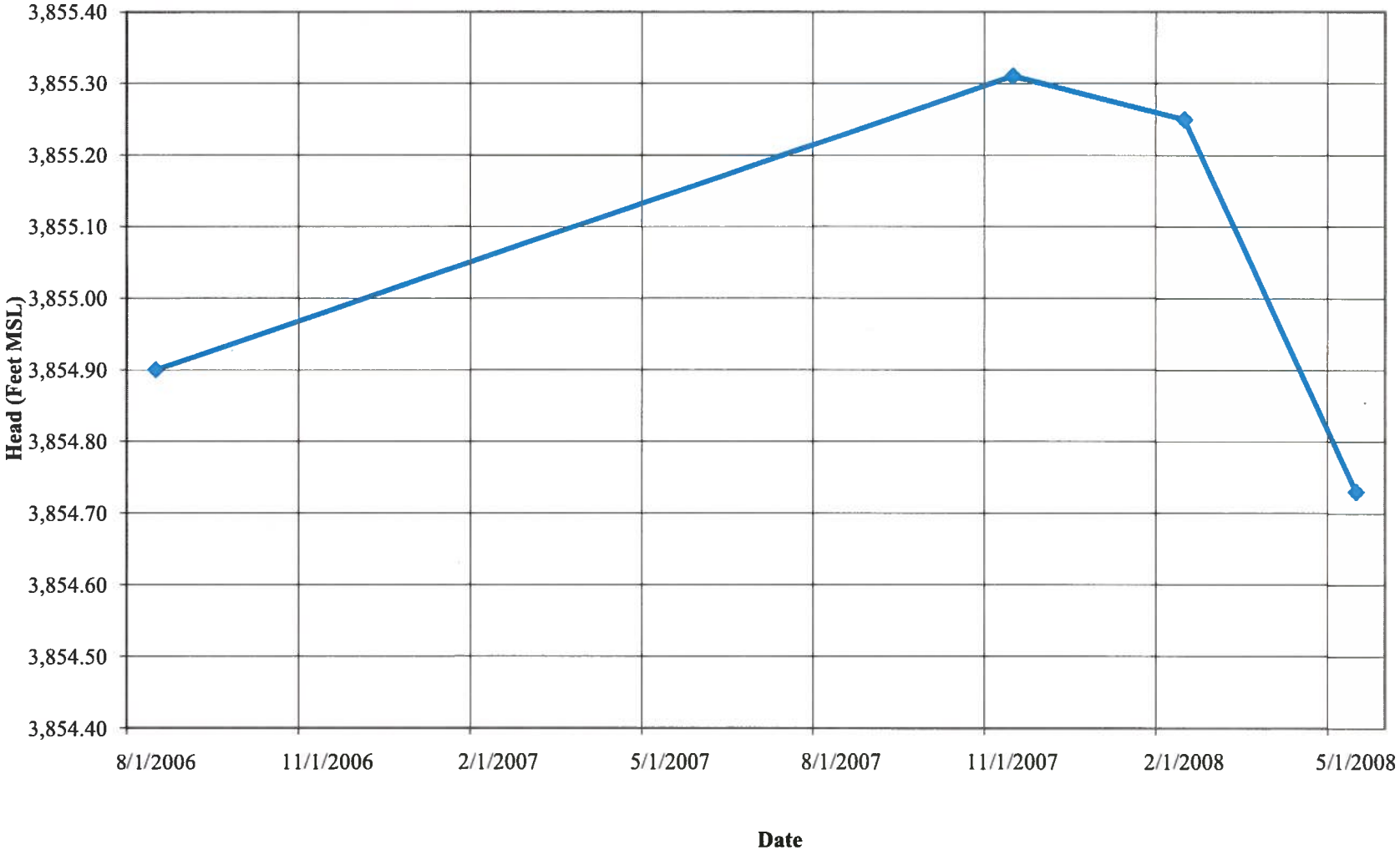
HYDROGRAPH FOR WELL W-15



HYDROGRAPH FOR WELL W-16



HYDROGRAPH FOR WELL W-18



APPENDIX B

FIELD FORMS

Golder Associates
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113
Phone: (505) 821-3043; Fax: (505) 821-5273

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	MW-1	Date gauged	5.13.08	
Site	WALSTAD 66	Time gauged	805	
Depth to PSH	54.25 Feet	Well diameter	~~2~~ 4"	Inches
Depth to water	57.62 Feet	Height of fluid column		Feet
Total depth	Feet	Volume in well		Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged _____ Purge Method _____

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual purge volume _____ gal. Field measurements stabilized within ± 10%? _____

Time/date sampled _____ Purged/sampled by JEM McMillan

Sample method _____

Requested analyses _____

Comments/observations _____

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Golder Associates
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113
Phone: (505) 821-3043; Fax: (505) 821-5273

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	W-2	Date gauged	5.13.08	
Site	WASTAR 66	Time gauged	812	
Depth to PSH	53.98 Feet	Well diameter	DIO 4"	Inches
Depth to water	54.36 Feet	Height of fluid column		Feet
Total depth	Feet	Volume in well		Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged _____ Purge Method _____

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual purge volume _____ gal. Field measurements stabilized within ± 10%? _____

Time/date sampled _____ Purged/sampled by TERI McMillan

Sample method _____

Requested analyses _____

Comments/observations _____

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Golder Associates
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113
Phone: (505) 821-3043; Fax: (505) 821-5273

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	W-3	Date gauged	5.13.08	
Site	WARSTAD 66	Time gauged	817	
Depth to PSH	54.08 Feet	Well diameter	~~2"~~ 4"	Inches
Depth to water	54.26 Feet	Height of fluid column		Feet
Total depth	Feet	Volume in well		Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged _____ Purge Method _____

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual purge volume _____ gal. Field measurements stabilized within ± 10%? _____

Time/date sampled _____ Purged/sampled by Peter McMillan

Sample method _____

Requested analyses _____

Comments/observations _____

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Golder Associates
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113
Phone: (505) 821-3043; Fax: (505) 821-5273

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	MW-5	Date gauged	5.12.08		
Site	NAVSTAD 66	Time gauged	1502		
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	54.87	Feet	Height of fluid column	9.13	Feet
Total depth	64.40	Feet	Volume in well	1.62	Gallons

(3 well volumes = 5 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 5.12.08 Purge Method Hand Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1505	.25	23.1	1457	6.76		.25
1510	1.25	21.4	1690	6.68		1
1514	3.25	20.5	1746	6.70		
1519	5.25	20.3	1766	6.74		

Actual purge volume 5.25 gal. Field measurements stabilized within ± 10%?

Time/date sampled 1521 5.12.08 Purged/sampled by Tech McMillan

Sample method

Requested analyses Disposable Bailer

Comments/observations 8260

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Golder Associates
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113
Phone: (505) 821-3043; Fax: (505) 821-5273

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	W-7	Date gauged	5.12.08	
Site	WALSTAD 66	Time gauged	1247	
Depth to PSH	_____ Feet	Well diameter	2"	Inches
Depth to water	53.85 Feet	Height of fluid column	_____	Feet
Total depth	_____ Feet	Volume in well	_____	Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged _____ Purge Method _____

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual purge volume _____ gal. Field measurements stabilized within ± 10%? _____

Time/date sampled _____ Purged/sampled by _____

Sample method _____

Requested analyses _____

Comments/observations _____

_____

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Golder Associates
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Albuquerque, NM 87113
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MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	W-8	Date gauged	5.12.08		
Site	WALSMAD 66	Time gauged	1700		
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	55.14	Feet	Height of fluid column	9.86	Feet
Total depth	65.00	Feet	Volume in well	1.61	Gallons

(3 well volumes = 5 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 1700 5.12.08 Purge Method Hand Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1704	.25	21.9	971	6.79		
1710	1	20.3	1043	6.71		
1713	3	20.1	1053	6.73		
1718	5	20.2	1079	6.72		

Actual purge volume 5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 1720 5.12.08 Purged/sampled by Teppi McMillan

Sample method Disposable Bailer

Requested analyses 8260

Comments/observations DO Meter Failed

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Golder Associates
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113
Phone: (505) 821-3043; Fax: (505) 821-5273

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	W-9	Date gauged	5.12.08		
Site	WARREN 66	Time gauged	1632		
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	54.68	Feet	Height of fluid column	9.92	Feet
Total depth	64.60	Feet	Volume in well	1.68	Gallons

(3 well volumes = 5 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 1637 5.12.08 Purge Method Hand Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1637	2.5	23.0	934	6.67		
1641	3	20.8	971	6.64		
1645	4	20.2	996	6.67		
1650	5	19.5	1020	6.74		

Actual purge volume 5 gal. Field measurements stabilized within ± 10%?

Time/date sampled 1657 5.12.08 Purged/sampled by Jeff McMillan / Responsible Bailer

Sample method

Requested analyses 8260

Comments/observations DO Meter Failed

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Golder Associates
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113
Phone: (505) 821-3043; Fax: (505) 821-5273

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	MW-11	Date gauged	5.12.08		
Site	WASTE PAD 6	Time gauged	1434		
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	54.71	Feet	Height of fluid column	10.10	Feet
Total depth	64.80	Feet	Volume in well	1.71	Gallons

(3 well volumes = 5.0 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 1434 5.12.08 Purge Method Hand Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1440	1.75	23.8	1438	6.62		1.19
1443	2.25	22.1	1417	6.69		
1447	3.25	21.5	1458	6.72		
1451	5.25	20.6	1456	6.75		

Actual purge volume _____ gal. Field measurements stabilized within ± 10%?

Time/date sampled 1454 5.12.08 Purged/sampled by Terri McMillan

Sample method Disposable Bailer

Requested analyses 8260

Comments/observations

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Golder Associates
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113
Phone: (505) 821-3043; Fax: (505) 821-5273

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	W-12	Date gauged	5.12.08	
Site	WALSH LOC	Time gauged	1255	
Depth to PSH	____ Feet	Well diameter	2"	Inches
Depth to water	54.05 Feet	Height of fluid column	____	Feet
Total depth	____ Feet	Volume in well	____	Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged _____ Purge Method _____

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual purge volume _____ gal. Field measurements stabilized within ± 10%? _____

Time/date sampled _____ Purged/sampled by _____

Sample method _____

Requested analyses _____

Comments/observations _____

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Golder Associates
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113
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MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	MW-13		Date gauged	5.12.08	
Site	WASTE AREA 6		Time gauged	12:40	
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	54.08	Feet	Height of fluid column		Feet
Total depth		Feet	Volume in well		Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged _____ Purge Method _____

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual purge volume _____ gal. Field measurements stabilized within ± 10%? _____

Time/date sampled _____ Purged/sampled by _____

Sample method _____

Requested analyses _____

Comments/observations _____

_____

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Golder Associates
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113
Phone: (505) 821-3043; Fax: (505) 821-5273

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	MW-14	Date gauged	5.13.08		
Site	WMSTAD 66	Time gauged	737		
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	54.24	Feet	Height of fluid column	10.04	Feet
Total depth	64.30	Feet	Volume in well	1.71	Gallons

(3 well volumes = 5 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 741 5.13.08 Purge Method Hand Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
741	.25	21.3	1720	6.63		
745	1	21.0	1708	6.67		
750	3	20.8	1590	6.65		
754	5	20.6	1519	6.67		

Actual purge volume 5 gal. Field measurements stabilized within ± 10%? _____

Time/date sampled 755 5.13.08 Purged/sampled by TERI McMILLAN

Sample method Disposable Bailer

Requested analyses 8260

Comments/observations DO Meter Failed

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Golder Associates
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113
Phone: (505) 821-3043; Fax: (505) 821-5273

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	W-15		Date gauged	5.12.08	
Site	WASTE MGMT UG		Time gauged	1258	
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	53.27	Feet	Height of fluid column		Feet
Total depth		Feet	Volume in well		Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged _____ Purge Method _____

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual purge volume _____ gal. Field measurements stabilized within ± 10%? _____

Time/date sampled _____ Purged/sampled by _____

Sample method _____

Requested analyses _____

Comments/observations _____

_____

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Golder Associates
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113
Phone: (505) 821-3043; Fax: (505) 821-5273

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	MW-16	Date gauged	5.12.08		
Site	WARSOMS Lab	Time gauged	1531		
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	53.52	Feet	Height of fluid column	11.28	Feet
Total depth	64.80	Feet	Volume in well	1.9	Gallons

(3 well volumes = 5.75 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 1531 5.12.08 Purge Method Hand Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1535	1.25	23.0	1767	6.55		.08
1541	~~1.25~~ 2	20.4	1829	5.54		
1546	~~2.75~~ 4	20.8	1865	6.59		
1551	~~5.75~~ 6	20.4	1859	6.65		
	~~6.75~~					

Actual purge volume 6 gal. Field measurements stabilized within ± 10%?

Time/date sampled 1553 5.12.08 Purged/sampled by TERI McMILLAN

Sample method Disposable Bailer

Requested analyses 8260

Comments/observations

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Golder Associates
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113
Phone: (505) 821-3043; Fax: (505) 821-5273

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	MW-18	Date gauged	5.12.08	
Site	NAL STAS 66	Time gauged	1234	
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	54.65	Feet	Height of fluid column		Feet
Total depth		Feet	Volume in well		Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged _____ Purge Method _____

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual purge volume _____ gal. Field measurements stabilized within ± 10%? _____

Time/date sampled _____ Purged/sampled by _____

Sample method _____

Requested analyses _____

Comments/observations _____

_____

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Golder Associates
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113
Phone: (505) 821-3043; Fax: (505) 821-5273

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	W-19	Date gauged	5.12.08		
Site	WASTAA 6	Time gauged	14.01		
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	54.88	Feet	Height of fluid column	10.12	Feet
Total depth	65.00	Feet	Volume in well	1.72	Gallons

(3 well volumes = 5.0 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 1401 5.12.08 Purge Method Hand Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
14.05	.25	23.0	599	6.98		7.65
1411	1.25	20.6	731	6.86		
1416	3.25	20.5	826	6.80		
1421	5.25	20.6	869	6.77		

Actual purge volume 5.25 gal. Field measurements stabilized within ± 10%? _____

Time/date sampled 1422 5.12.08 Purged/sampled by TERI McMURRAY

Sample method Disposable Bailer

Requested analyses _____

Comments/observations _____

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Golder Associates
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113
Phone: (505) 821-3043; Fax: (505) 821-5273

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	MW-20	Date gauged	5.12.08		
Site	WAM STATE 64	Time gauged	1307		
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	55.09	Feet	Height of fluid column	9.95	Feet
Total depth	65.04	Feet	Volume in well	1.69	Gallons

(3 well volumes = 5.0 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 1317 5.12.08 Purge Method Hand Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1317	1.25	21.8	6.35	7.01		1.18
1318	1.25	19.6	6.49	7.0		
1322	3.25	19.6	6.87	7.03		
1324	5.25	20.7	7.23	7.04		

Actual purge volume 5.25 gal. Field measurements stabilized within ± 10%? Y

Time/date sampled 1326 - 5-12-08 Purged/sampled by TERI McMILLAN

Sample method Hand Bailed

Requested analyses 8260

Comments/observations

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Golder Associates
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113
Phone: (505) 821-3043; Fax: (505) 821-5273

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	W-21	Date gauged	5.12.08		
Site	WALSH #66	Time gauged	1335		
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	54.81	Feet	Height of fluid column	9.99	Feet
Total depth	64.80	Feet	Volume in well	1.69	Gallons

(3 well volumes = 5 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 1335 5.12.08 Purge Method Hand Bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1340	.25	22.3	1286	6.80		5.59
1343	1.25	20.3	1180	6.77		
1347	3.25	20.0	1248	6.75		
1352	5.25	19.9	1269	6.75		

Actual purge volume 5.25 gal. Field measurements stabilized within ± 10%?

Time/date sampled 1354 05.12.08 Purged/sampled by TERI McMILLAN

Sample method Disposable Bailer

Requested analyses 8260

Comments/observations

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

Golder Associates
4910 Alameda Blvd, NE Suite A
Albuquerque, NM 87113
Phone: (505) 821-3043; Fax: (505) 821-5273

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	V-1	Date gauged	5.13.08	
Site	WALGREENS L66	Time gauged	823	
Depth to PSH	53.41 Feet	Well diameter	~~2~~ 4"	Inches
Depth to water	57.98 Feet	Height of fluid column		Feet
Total depth	Feet	Volume in well		Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged _____ Purge Method _____

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual purge volume _____ gal. Field measurements stabilized within ± 10%? _____

Time/date sampled _____ Purged/sampled by Teri McMillan

Sample method _____

Requested analyses _____

Comments/observations _____

Well Casing Volumes
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

APPENDIX C

ANALYTICAL LABORATORY REPORTS

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Wednesday, May 21, 2008

Teri McMillan
Golder Associates
5200 Pasadena, NE Suite C
Albuquerque, NM 87113

TEL: (505) 821-3043
FAX (505) 821-5273

RE: Lovington 66

Order No.: 0805199

Dear Teri McMillan:

Hall Environmental Analysis Laboratory, Inc. received 9 sample(s) on 5/14/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001

Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-20
Lab Order:	0805199	**Collection Date:**	5/12/2008 1:26:00 PM
Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Benzene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
Toluene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
Ethylbenzene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
Naphthalene	ND	2.0		µg/L	1	5/15/2008 7:46:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	5/15/2008 7:46:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	5/15/2008 7:46:00 PM
Acetone	ND	10		µg/L	1	5/15/2008 7:46:00 PM
Bromobenzene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
Bromoform	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
Bromomethane	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
2-Butanone	ND	10		µg/L	1	5/15/2008 7:46:00 PM
Carbon disulfide	ND	10		µg/L	1	5/15/2008 7:46:00 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
Chlorobenzene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
Chloroethane	ND	2.0		µg/L	1	5/15/2008 7:46:00 PM
Chloroform	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
Chloromethane	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
cis-1,2-DCE	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/15/2008 7:46:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
Dibromomethane	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	5/15/2008 7:46:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
2-Hexanone	ND	10		µg/L	1	5/15/2008 7:46:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-20
Lab Order:	0805199	**Collection Date:**	5/12/2008 1:26:00 PM
Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Isopropylbenzene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	5/15/2008 7:46:00 PM
Methylene Chloride	ND	3.0		µg/L	1	5/15/2008 7:46:00 PM
n-Butylbenzene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
Styrene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/15/2008 7:46:00 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
trans-1,2-DCE	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/15/2008 7:46:00 PM
Vinyl chloride	ND	1.0		µg/L	1	5/15/2008 7:46:00 PM
Xylenes, Total	ND	1.5		µg/L	1	5/15/2008 7:46:00 PM
Surr: 1,2-Dichloroethane-d4	114	68.1-123		%REC	1	5/15/2008 7:46:00 PM
Surr: 4-Bromofluorobenzene	99.9	53.2-145		%REC	1	5/15/2008 7:46:00 PM
Surr: Dibromofluoromethane	105	68.5-119		%REC	1	5/15/2008 7:46:00 PM
Surr: Toluene-d8	108	64-131		%REC	1	5/15/2008 7:46:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-21
Lab Order:	0805199	**Collection Date:**	5/12/2008 1:54:00 PM
Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Benzene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
Toluene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
Ethylbenzene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
Naphthalene	ND	2.0		µg/L	1	5/15/2008 8:14:33 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	5/15/2008 8:14:33 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	5/15/2008 8:14:33 PM
Acetone	ND	10		µg/L	1	5/15/2008 8:14:33 PM
Bromobenzene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
Bromodichloromethane	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
Bromoform	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
Bromomethane	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
2-Butanone	ND	10		µg/L	1	5/15/2008 8:14:33 PM
Carbon disulfide	ND	10		µg/L	1	5/15/2008 8:14:33 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
Chlorobenzene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
Chloroethane	ND	2.0		µg/L	1	5/15/2008 8:14:33 PM
Chloroform	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
Chloromethane	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
2-Chlorotoluene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
4-Chlorotoluene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
cis-1,2-DCE	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/15/2008 8:14:33 PM
Dibromochloromethane	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
Dibromomethane	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	5/15/2008 8:14:33 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
2-Hexanone	ND	10		µg/L	1	5/15/2008 8:14:33 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
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Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-21
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Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Isopropylbenzene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	5/15/2008 8:14:33 PM
Methylene Chloride	ND	3.0		µg/L	1	5/15/2008 8:14:33 PM
n-Butylbenzene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
n-Propylbenzene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
sec-Butylbenzene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
Styrene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
tert-Butylbenzene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/15/2008 8:14:33 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
trans-1,2-DCE	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/15/2008 8:14:33 PM
Vinyl chloride	ND	1.0		µg/L	1	5/15/2008 8:14:33 PM
Xylenes, Total	ND	1.5		µg/L	1	5/15/2008 8:14:33 PM
Surr: 1,2-Dichloroethane-d4	115	68.1-123		%REC	1	5/15/2008 8:14:33 PM
Surr: 4-Bromofluorobenzene	105	53.2-145		%REC	1	5/15/2008 8:14:33 PM
Surr: Dibromofluoromethane	106	68.5-119		%REC	1	5/15/2008 8:14:33 PM
Surr: Toluene-d8	108	64-131		%REC	1	5/15/2008 8:14:33 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-19
Lab Order:	0805199	**Collection Date:**	5/12/2008 2:22:00 PM
Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Benzene	1.6	1.0		µg/L	1	5/15/2008 8:43:05 PM
Toluene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
Ethylbenzene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,2-Dichloroethane (EDC)	9.2	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
Naphthalene	ND	2.0		µg/L	1	5/15/2008 8:43:05 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	5/15/2008 8:43:05 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	5/15/2008 8:43:05 PM
Acetone	ND	10		µg/L	1	5/15/2008 8:43:05 PM
Bromobenzene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
Bromodichloromethane	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
Bromoform	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
Bromomethane	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
2-Butanone	ND	10		µg/L	1	5/15/2008 8:43:05 PM
Carbon disulfide	ND	10		µg/L	1	5/15/2008 8:43:05 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
Chlorobenzene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
Chloroethane	ND	2.0		µg/L	1	5/15/2008 8:43:05 PM
Chloroform	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
Chloromethane	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
2-Chlorotoluene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
4-Chlorotoluene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
cis-1,2-DCE	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/15/2008 8:43:05 PM
Dibromochloromethane	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
Dibromomethane	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,2-Dichloropropane	1.3	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	5/15/2008 8:43:05 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
2-Hexanone	ND	10		µg/L	1	5/15/2008 8:43:05 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-19
Lab Order:	0805199	**Collection Date:**	5/12/2008 2:22:00 PM
Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Isopropylbenzene	1.7	1.0		µg/L	1	5/15/2008 8:43:05 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	5/15/2008 8:43:05 PM
Methylene Chloride	ND	3.0		µg/L	1	5/15/2008 8:43:05 PM
n-Butylbenzene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
n-Propylbenzene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
sec-Butylbenzene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
Styrene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
tert-Butylbenzene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/15/2008 8:43:05 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
trans-1,2-DCE	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/15/2008 8:43:05 PM
Vinyl chloride	ND	1.0		µg/L	1	5/15/2008 8:43:05 PM
Xylenes, Total	ND	1.5		µg/L	1	5/15/2008 8:43:05 PM
Surr: 1,2-Dichloroethane-d4	118	68.1-123		%REC	1	5/15/2008 8:43:05 PM
Surr: 4-Bromofluorobenzene	108	53.2-145		%REC	1	5/15/2008 8:43:05 PM
Surr: Dibromofluoromethane	107	68.5-119		%REC	1	5/15/2008 8:43:05 PM
Surr: Toluene-d8	110	64-131		%REC	1	5/15/2008 8:43:05 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-11
Lab Order:	0805199	**Collection Date:**	5/12/2008 2:54:00 PM
Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Benzene	3.0	1.0		µg/L	1	5/15/2008 9:11:45 PM
Toluene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
Ethylbenzene	31	1.0		µg/L	1	5/15/2008 9:11:45 PM
Methyl tert-butyl ether (MTBE)	740	5.0		µg/L	5	5/19/2008 12:31:46 PM
1,2,4-Trimethylbenzene	3.2	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,3,5-Trimethylbenzene	5.8	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,2-Dichloroethane (EDC)	36	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
Naphthalene	ND	2.0		µg/L	1	5/15/2008 9:11:45 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	5/15/2008 9:11:45 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	5/15/2008 9:11:45 PM
Acetone	ND	10		µg/L	1	5/15/2008 9:11:45 PM
Bromobenzene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
Bromodichloromethane	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
Bromoform	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
Bromomethane	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
2-Butanone	ND	10		µg/L	1	5/15/2008 9:11:45 PM
Carbon disulfide	ND	10		µg/L	1	5/15/2008 9:11:45 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
Chlorobenzene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
Chloroethane	ND	2.0		µg/L	1	5/15/2008 9:11:45 PM
Chloroform	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
Chloromethane	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
2-Chlorotoluene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
4-Chlorotoluene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
cis-1,2-DCE	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/15/2008 9:11:45 PM
Dibromochloromethane	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
Dibromomethane	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	5/15/2008 9:11:45 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
2-Hexanone	ND	10		µg/L	1	5/15/2008 9:11:45 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-11
Lab Order:	0805199	**Collection Date:**	5/12/2008 2:54:00 PM
Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Isopropylbenzene	4.9	1.0		µg/L	1	5/15/2008 9:11:45 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	5/15/2008 9:11:45 PM
Methylene Chloride	ND	3.0		µg/L	1	5/15/2008 9:11:45 PM
n-Butylbenzene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
n-Propylbenzene	6.3	1.0		µg/L	1	5/15/2008 9:11:45 PM
sec-Butylbenzene	2.9	1.0		µg/L	1	5/15/2008 9:11:45 PM
Styrene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
tert-Butylbenzene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/15/2008 9:11:45 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
trans-1,2-DCE	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/15/2008 9:11:45 PM
Vinyl chloride	ND	1.0		µg/L	1	5/15/2008 9:11:45 PM
Xylenes, Total	3.7	1.5		µg/L	1	5/15/2008 9:11:45 PM
Surr: 1,2-Dichloroethane-d4	110	68.1-123		%REC	1	5/15/2008 9:11:45 PM
Surr: 4-Bromofluorobenzene	101	53.2-145		%REC	1	5/15/2008 9:11:45 PM
Surr: Dibromofluoromethane	105	68.5-119		%REC	1	5/15/2008 9:11:45 PM
Surr: Toluene-d8	105	64-131		%REC	1	5/15/2008 9:11:45 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-5
Lab Order:	0805199	**Collection Date:**	5/12/2008 3:21:00 PM
Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Benzene	16	1.0		µg/L	1	5/19/2008 1:01:15 PM
Toluene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
Ethylbenzene	7.6	1.0		µg/L	1	5/19/2008 1:01:15 PM
Methyl tert-butyl ether (MTBE)	65	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
Naphthalene	ND	2.0		µg/L	1	5/19/2008 1:01:15 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	5/19/2008 1:01:15 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	5/19/2008 1:01:15 PM
Acetone	ND	10		µg/L	1	5/19/2008 1:01:15 PM
Bromobenzene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
Bromodichloromethane	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
Bromoform	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
Bromomethane	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
2-Butanone	ND	10		µg/L	1	5/19/2008 1:01:15 PM
Carbon disulfide	ND	10		µg/L	1	5/19/2008 1:01:15 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
Chlorobenzene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
Chloroethane	ND	2.0		µg/L	1	5/19/2008 1:01:15 PM
Chloroform	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
Chloromethane	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
2-Chlorotoluene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
4-Chlorotoluene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
cis-1,2-DCE	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/19/2008 1:01:15 PM
Dibromochloromethane	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
Dibromomethane	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	5/19/2008 1:01:15 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
2-Hexanone	ND	10		µg/L	1	5/19/2008 1:01:15 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

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Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-5
Lab Order:	0805199	**Collection Date:**	5/12/2008 3:21:00 PM
Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Isopropylbenzene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	5/19/2008 1:01:15 PM
Methylene Chloride	ND	3.0		µg/L	1	5/19/2008 1:01:15 PM
n-Butylbenzene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
n-Propylbenzene	1.1	1.0		µg/L	1	5/19/2008 1:01:15 PM
sec-Butylbenzene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
Styrene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
tert-Butylbenzene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/19/2008 1:01:15 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
trans-1,2-DCE	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/19/2008 1:01:15 PM
Vinyl chloride	ND	1.0		µg/L	1	5/19/2008 1:01:15 PM
Xylenes, Total	ND	1.5		µg/L	1	5/19/2008 1:01:15 PM
Surr: 1,2-Dichloroethane-d4	115	68.1-123		%REC	1	5/19/2008 1:01:15 PM
Surr: 4-Bromofluorobenzene	101	53.2-145		%REC	1	5/19/2008 1:01:15 PM
Surr: Dibromofluoromethane	115	68.5-119		%REC	1	5/19/2008 1:01:15 PM
Surr: Toluene-d8	103	64-131		%REC	1	5/19/2008 1:01:15 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-16
Lab Order:	0805199	**Collection Date:**	5/12/2008 3:53:00 PM
Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-06	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Benzene	690	10		µg/L	10	5/16/2008 4:21:43 PM
Toluene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
Ethylbenzene	12	1.0		µg/L	1	5/15/2008 10:11:08 PM
Methyl tert-butyl ether (MTBE)	60	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,2,4-Trimethylbenzene	35	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,3,5-Trimethylbenzene	49	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,2-Dichloroethane (EDC)	21	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
Naphthalene	78	2.0		µg/L	1	5/15/2008 10:11:08 PM
1-Methylnaphthalene	79	4.0		µg/L	1	5/15/2008 10:11:08 PM
2-Methylnaphthalene	170	40		µg/L	10	5/16/2008 4:21:43 PM
Acetone	ND	10		µg/L	1	5/15/2008 10:11:08 PM
Bromobenzene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
Bromodichloromethane	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
Bromoform	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
Bromomethane	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
2-Butanone	ND	10		µg/L	1	5/15/2008 10:11:08 PM
Carbon disulfide	ND	10		µg/L	1	5/15/2008 10:11:08 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
Chlorobenzene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
Chloroethane	ND	2.0		µg/L	1	5/15/2008 10:11:08 PM
Chloroform	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
Chloromethane	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
2-Chlorotoluene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
4-Chlorotoluene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
cis-1,2-DCE	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/15/2008 10:11:08 PM
Dibromochloromethane	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
Dibromomethane	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	5/15/2008 10:11:08 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
2-Hexanone	ND	10		µg/L	1	5/15/2008 10:11:08 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-16
Lab Order:	0805199	**Collection Date:**	5/12/2008 3:53:00 PM
Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-06	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Isopropylbenzene	14	1.0		µg/L	1	5/15/2008 10:11:08 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	5/15/2008 10:11:08 PM
Methylene Chloride	ND	3.0		µg/L	1	5/15/2008 10:11:08 PM
n-Butylbenzene	15	1.0		µg/L	1	5/15/2008 10:11:08 PM
n-Propylbenzene	15	1.0		µg/L	1	5/15/2008 10:11:08 PM
sec-Butylbenzene	4.2	1.0		µg/L	1	5/15/2008 10:11:08 PM
Styrene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
tert-Butylbenzene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/15/2008 10:11:08 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
trans-1,2-DCE	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/15/2008 10:11:08 PM
Vinyl chloride	ND	1.0		µg/L	1	5/15/2008 10:11:08 PM
Xylenes, Total	3.6	1.5		µg/L	1	5/15/2008 10:11:08 PM
Surr: 1,2-Dichloroethane-d4	121	68.1-123		%REC	1	5/15/2008 10:11:08 PM
Surr: 4-Bromofluorobenzene	101	53.2-145		%REC	1	5/15/2008 10:11:08 PM
Surr: Dibromofluoromethane	113	68.5-119		%REC	1	5/15/2008 10:11:08 PM
Surr: Toluene-d8	109	64-131		%REC	1	5/15/2008 10:11:08 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-9
Lab Order:	0805199	**Collection Date:**	5/12/2008 4:51:00 PM
Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-07	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Benzene	3000	100		µg/L	100	5/16/2008 4:52:13 PM
Toluene	63	10		µg/L	10	5/15/2008 10:41:31 PM
Ethylbenzene	800	10		µg/L	10	5/15/2008 10:41:31 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	5/15/2008 10:41:31 PM
1,2,4-Trimethylbenzene	360	10		µg/L	10	5/15/2008 10:41:31 PM
1,3,5-Trimethylbenzene	120	10		µg/L	10	5/15/2008 10:41:31 PM
1,2-Dichloroethane (EDC)	480	10		µg/L	10	5/15/2008 10:41:31 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	5/15/2008 10:41:31 PM
Naphthalene	80	20		µg/L	10	5/15/2008 10:41:31 PM
1-Methylnaphthalene	54	40		µg/L	10	5/15/2008 10:41:31 PM
2-Methylnaphthalene	94	40		µg/L	10	5/15/2008 10:41:31 PM
Acetone	ND	100		µg/L	10	5/15/2008 10:41:31 PM
Bromobenzene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
Bromodichloromethane	ND	10		µg/L	10	5/15/2008 10:41:31 PM
Bromoform	ND	10		µg/L	10	5/15/2008 10:41:31 PM
Bromomethane	ND	10		µg/L	10	5/15/2008 10:41:31 PM
2-Butanone	ND	100		µg/L	10	5/15/2008 10:41:31 PM
Carbon disulfide	ND	100		µg/L	10	5/15/2008 10:41:31 PM
Carbon Tetrachloride	ND	10		µg/L	10	5/15/2008 10:41:31 PM
Chlorobenzene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
Chloroethane	ND	20		µg/L	10	5/15/2008 10:41:31 PM
Chloroform	ND	10		µg/L	10	5/15/2008 10:41:31 PM
Chloromethane	ND	10		µg/L	10	5/15/2008 10:41:31 PM
2-Chlorotoluene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
4-Chlorotoluene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
cis-1,2-DCE	ND	10		µg/L	10	5/15/2008 10:41:31 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	5/15/2008 10:41:31 PM
Dibromochloromethane	ND	10		µg/L	10	5/15/2008 10:41:31 PM
Dibromomethane	ND	10		µg/L	10	5/15/2008 10:41:31 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
Dichlorodifluoromethane	ND	10		µg/L	10	5/15/2008 10:41:31 PM
1,1-Dichloroethane	ND	10		µg/L	10	5/15/2008 10:41:31 PM
1,1-Dichloroethene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
1,2-Dichloropropane	33	10		µg/L	10	5/15/2008 10:41:31 PM
1,3-Dichloropropane	ND	10		µg/L	10	5/15/2008 10:41:31 PM
2,2-Dichloropropane	ND	20		µg/L	10	5/15/2008 10:41:31 PM
1,1-Dichloropropene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
Hexachlorobutadiene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
2-Hexanone	ND	100		µg/L	10	5/15/2008 10:41:31 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-9
Lab Order:	0805199	**Collection Date:**	5/12/2008 4:51:00 PM
Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-07	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Isopropylbenzene	35	10		µg/L	10	5/15/2008 10:41:31 PM
4-Isopropyltoluene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	5/15/2008 10:41:31 PM
Methylene Chloride	ND	30		µg/L	10	5/15/2008 10:41:31 PM
n-Butylbenzene	12	10		µg/L	10	5/15/2008 10:41:31 PM
n-Propylbenzene	86	10		µg/L	10	5/15/2008 10:41:31 PM
sec-Butylbenzene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
Styrene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
tert-Butylbenzene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	5/15/2008 10:41:31 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	5/15/2008 10:41:31 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	5/15/2008 10:41:31 PM
trans-1,2-DCE	ND	10		µg/L	10	5/15/2008 10:41:31 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	5/15/2008 10:41:31 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	5/15/2008 10:41:31 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	5/15/2008 10:41:31 PM
Trichloroethene (TCE)	ND	10		µg/L	10	5/15/2008 10:41:31 PM
Trichlorofluoromethane	ND	10		µg/L	10	5/15/2008 10:41:31 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	5/15/2008 10:41:31 PM
Vinyl chloride	ND	10		µg/L	10	5/15/2008 10:41:31 PM
Xylenes, Total	360	15		µg/L	10	5/15/2008 10:41:31 PM
Surr: 1,2-Dichloroethane-d4	117	68.1-123		%REC	10	5/15/2008 10:41:31 PM
Surr: 4-Bromofluorobenzene	101	53.2-145		%REC	10	5/15/2008 10:41:31 PM
Surr: Dibromofluoromethane	111	68.5-119		%REC	10	5/15/2008 10:41:31 PM
Surr: Toluene-d8	119	64-131		%REC	10	5/15/2008 10:41:31 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-8
Lab Order:	0805199	**Collection Date:**	5/12/2008 5:20:00 PM
Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-08	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Benzene	19000	400		µg/L	400	5/19/2008 2:58:20 PM
Toluene	22000	400		µg/L	400	5/19/2008 2:58:20 PM
Ethylbenzene	1800	100		µg/L	100	5/16/2008 5:22:40 PM
Methyl tert-butyl ether (MTBE)	4900	100		µg/L	100	5/16/2008 5:22:40 PM
1,2,4-Trimethylbenzene	1600	100		µg/L	100	5/16/2008 5:22:40 PM
1,3,5-Trimethylbenzene	470	100		µg/L	100	5/16/2008 5:22:40 PM
1,2-Dichloroethane (EDC)	2100	100		µg/L	100	5/16/2008 5:22:40 PM
1,2-Dibromoethane (EDB)	250	100		µg/L	100	5/16/2008 5:22:40 PM
Naphthalene	400	200		µg/L	100	5/16/2008 5:22:40 PM
1-Methylnaphthalene	ND	400		µg/L	100	5/16/2008 5:22:40 PM
2-Methylnaphthalene	ND	400		µg/L	100	5/16/2008 5:22:40 PM
Acetone	ND	1000		µg/L	100	5/16/2008 5:22:40 PM
Bromobenzene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
Bromodichloromethane	ND	100		µg/L	100	5/16/2008 5:22:40 PM
Bromoform	ND	100		µg/L	100	5/16/2008 5:22:40 PM
Bromomethane	ND	100		µg/L	100	5/16/2008 5:22:40 PM
2-Butanone	ND	1000		µg/L	100	5/16/2008 5:22:40 PM
Carbon disulfide	ND	1000		µg/L	100	5/16/2008 5:22:40 PM
Carbon Tetrachloride	ND	100		µg/L	100	5/16/2008 5:22:40 PM
Chlorobenzene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
Chloroethane	ND	200		µg/L	100	5/16/2008 5:22:40 PM
Chloroform	ND	100		µg/L	100	5/16/2008 5:22:40 PM
Chloromethane	ND	100		µg/L	100	5/16/2008 5:22:40 PM
2-Chlorotoluene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
4-Chlorotoluene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
cis-1,2-DCE	ND	100		µg/L	100	5/16/2008 5:22:40 PM
cis-1,3-Dichloropropene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
1,2-Dibromo-3-chloropropane	ND	200		µg/L	100	5/16/2008 5:22:40 PM
Dibromochloromethane	ND	100		µg/L	100	5/16/2008 5:22:40 PM
Dibromomethane	ND	100		µg/L	100	5/16/2008 5:22:40 PM
1,2-Dichlorobenzene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
1,3-Dichlorobenzene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
1,4-Dichlorobenzene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
Dichlorodifluoromethane	ND	100		µg/L	100	5/16/2008 5:22:40 PM
1,1-Dichloroethane	ND	100		µg/L	100	5/16/2008 5:22:40 PM
1,1-Dichloroethene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
1,2-Dichloropropane	120	100		µg/L	100	5/16/2008 5:22:40 PM
1,3-Dichloropropane	ND	100		µg/L	100	5/16/2008 5:22:40 PM
2,2-Dichloropropane	ND	200		µg/L	100	5/16/2008 5:22:40 PM
1,1-Dichloropropene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
Hexachlorobutadiene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
2-Hexanone	ND	1000		µg/L	100	5/16/2008 5:22:40 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-8
Lab Order:	0805199	**Collection Date:**	5/12/2008 5:20:00 PM
Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-08	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Isopropylbenzene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
4-Isopropyltoluene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
4-Methyl-2-pentanone	ND	1000		µg/L	100	5/16/2008 5:22:40 PM
Methylene Chloride	ND	300		µg/L	100	5/16/2008 5:22:40 PM
n-Butylbenzene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
n-Propylbenzene	160	100		µg/L	100	5/16/2008 5:22:40 PM
sec-Butylbenzene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
Styrene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
tert-Butylbenzene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
1,1,1,2-Tetrachloroethane	ND	100		µg/L	100	5/16/2008 5:22:40 PM
1,1,2,2-Tetrachloroethane	ND	200		µg/L	100	5/16/2008 5:22:40 PM
Tetrachloroethene (PCE)	ND	100		µg/L	100	5/16/2008 5:22:40 PM
trans-1,2-DCE	ND	100		µg/L	100	5/16/2008 5:22:40 PM
trans-1,3-Dichloropropene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
1,2,3-Trichlorobenzene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
1,2,4-Trichlorobenzene	ND	100		µg/L	100	5/16/2008 5:22:40 PM
1,1,1-Trichloroethane	ND	100		µg/L	100	5/16/2008 5:22:40 PM
1,1,2-Trichloroethane	ND	100		µg/L	100	5/16/2008 5:22:40 PM
Trichloroethene (TCE)	ND	100		µg/L	100	5/16/2008 5:22:40 PM
Trichlorofluoromethane	ND	100		µg/L	100	5/16/2008 5:22:40 PM
1,2,3-Trichloropropane	ND	200		µg/L	100	5/16/2008 5:22:40 PM
Vinyl chloride	ND	100		µg/L	100	5/16/2008 5:22:40 PM
Xylenes, Total	8000	150		µg/L	100	5/16/2008 5:22:40 PM
Surr: 1,2-Dichloroethane-d4	109	68.1-123		%REC	100	5/16/2008 5:22:40 PM
Surr: 4-Bromofluorobenzene	94.9	53.2-145		%REC	100	5/16/2008 5:22:40 PM
Surr: Dibromofluoromethane	105	68.5-119		%REC	100	5/16/2008 5:22:40 PM
Surr: Toluene-d8	108	64-131		%REC	100	5/16/2008 5:22:40 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-14
Lab Order:	0805199	**Collection Date:**	5/13/2008 7:55:00 AM
Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-09	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Benzene	14000	400		µg/L	400	5/19/2008 3:27:37 PM
Toluene	6500	400		µg/L	400	5/19/2008 3:27:37 PM
Ethylbenzene	2800	100		µg/L	100	5/16/2008 6:22:01 PM
Methyl tert-butyl ether (MTBE)	2400	100		µg/L	100	5/16/2008 6:22:01 PM
1,2,4-Trimethylbenzene	1200	100		µg/L	100	5/16/2008 6:22:01 PM
1,3,5-Trimethylbenzene	470	10		µg/L	10	5/16/2008 1:06:46 AM
1,2-Dichloroethane (EDC)	170	10		µg/L	10	5/16/2008 1:06:46 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	5/16/2008 1:06:46 AM
Naphthalene	700	20		µg/L	10	5/16/2008 1:06:46 AM
1-Methylnaphthalene	91	40		µg/L	10	5/16/2008 1:06:46 AM
2-Methylnaphthalene	210	40		µg/L	10	5/16/2008 1:06:46 AM
Acetone	280	100		µg/L	10	5/16/2008 1:06:46 AM
Bromobenzene	ND	10		µg/L	10	5/16/2008 1:06:46 AM
Bromodichloromethane	ND	10		µg/L	10	5/16/2008 1:06:46 AM
Bromoform	ND	10		µg/L	10	5/16/2008 1:06:46 AM
Bromomethane	ND	10		µg/L	10	5/16/2008 1:06:46 AM
2-Butanone	130	100		µg/L	10	5/16/2008 1:06:46 AM
Carbon disulfide	ND	100		µg/L	10	5/16/2008 1:06:46 AM
Carbon Tetrachloride	ND	10		µg/L	10	5/16/2008 1:06:46 AM
Chlorobenzene	ND	10		µg/L	10	5/16/2008 1:06:46 AM
Chloroethane	ND	20		µg/L	10	5/16/2008 1:06:46 AM
Chloroform	ND	10		µg/L	10	5/16/2008 1:06:46 AM
Chloromethane	ND	10		µg/L	10	5/16/2008 1:06:46 AM
2-Chlorotoluene	ND	10		µg/L	10	5/16/2008 1:06:46 AM
4-Chlorotoluene	ND	10		µg/L	10	5/16/2008 1:06:46 AM
cis-1,2-DCE	ND	10		µg/L	10	5/16/2008 1:06:46 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	5/16/2008 1:06:46 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	5/16/2008 1:06:46 AM
Dibromochloromethane	ND	10		µg/L	10	5/16/2008 1:06:46 AM
Dibromomethane	ND	10		µg/L	10	5/16/2008 1:06:46 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	5/16/2008 1:06:46 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	5/16/2008 1:06:46 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	5/16/2008 1:06:46 AM
Dichlorodifluoromethane	ND	10		µg/L	10	5/16/2008 1:06:46 AM
1,1-Dichloroethane	ND	10		µg/L	10	5/16/2008 1:06:46 AM
1,1-Dichloroethene	ND	10		µg/L	10	5/16/2008 1:06:46 AM
1,2-Dichloropropane	ND	10		µg/L	10	5/16/2008 1:06:46 AM
1,3-Dichloropropane	ND	10		µg/L	10	5/16/2008 1:06:46 AM
2,2-Dichloropropane	ND	20		µg/L	10	5/16/2008 1:06:46 AM
1,1-Dichloropropene	ND	10		µg/L	10	5/16/2008 1:06:46 AM
Hexachlorobutadiene	ND	10		µg/L	10	5/16/2008 1:06:46 AM
2-Hexanone	ND	100		µg/L	10	5/16/2008 1:06:46 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *22-May-08*

CLIENT:	Golder Associates	**Client Sample ID:**	W-14
Lab Order:	0805199	**Collection Date:**	5/13/2008 7:55:00 AM
Project:	Lovington 66	**Date Received:**	5/14/2008
Lab ID:	0805199-09	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Isopropylbenzene	150	10		µg/L	10	5/16/2008 1:06:46 AM
4-Isopropyltoluene	11	10		µg/L	10	5/16/2008 1:06:46 AM
4-Methyl-2-pentanone	ND	100		µg/L	10	5/16/2008 1:06:46 AM
Methylene Chloride	ND	30		µg/L	10	5/16/2008 1:06:46 AM
n-Butylbenzene	62	10		µg/L	10	5/16/2008 1:06:46 AM
n-Propylbenzene	280	10		µg/L	10	5/16/2008 1:06:46 AM
sec-Butylbenzene	ND	10		µg/L	10	5/16/2008 1:06:46 AM
Styrene	25	10		µg/L	10	5/16/2008 1:06:46 AM
tert-Butylbenzene	ND	10		µg/L	10	5/16/2008 1:06:46 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	5/16/2008 1:06:46 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	5/16/2008 1:06:46 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	5/16/2008 1:06:46 AM
trans-1,2-DCE	ND	10		µg/L	10	5/16/2008 1:06:46 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	5/16/2008 1:06:46 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	5/16/2008 1:06:46 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	5/16/2008 1:06:46 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	5/16/2008 1:06:46 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	5/16/2008 1:06:46 AM
Trichloroethene (TCE)	ND	10		µg/L	10	5/16/2008 1:06:46 AM
Trichlorofluoromethane	ND	10		µg/L	10	5/16/2008 1:06:46 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	5/16/2008 1:06:46 AM
Vinyl chloride	ND	10		µg/L	10	5/16/2008 1:06:46 AM
Xylenes, Total	6300	150		µg/L	100	5/16/2008 6:22:01 PM
Surr: 1,2-Dichloroethane-d4	120	68.1-123		%REC	10	5/16/2008 1:06:46 AM
Surr: 4-Bromofluorobenzene	77.2	53.2-145		%REC	10	5/16/2008 1:06:46 AM
Surr: Dibromofluoromethane	113	68.5-119		%REC	10	5/16/2008 1:06:46 AM
Surr: Toluene-d8	127	64-131		%REC	10	5/16/2008 1:06:46 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

QA/QC SUMMARY REPORT

Client: Golder Associates
Project: Lovington 66

Work Order: 0805199

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R28552**		Analysis Date:	5/15/2008 9:56:07 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Golder Associates
Project: Lovington 66 **Work Order:** 0805199

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R28552**		Analysis Date:	5/15/2008 9:56:07 AM	
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 5 ml rb		*MBLK*			Batch ID: **R28569**		Analysis Date:	5/16/2008 9:15:48 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Golder Associates
Project: Lovington 66 **Work Order:** 0805199

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5 ml rb		*MBLK*			Batch ID: **R28569**		Analysis Date:	5/16/2008 9:15:48 AM	
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 5 ml rb		*MBLK*			Batch ID: **R28588**		Analysis Date:	5/19/2008 10:18:26 AM	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Golder Associates
Project: Lovington 66 **Work Order:** 0805199

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5 ml rb		*MBLK*			Batch ID: **R28588**		Analysis Date: 5/19/2008 10:18:26 AM		
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Golder Associates
Project: Lovington 66 **Work Order:** 0805199

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5 ml rb		*MBLK*			Batch ID:	**R28588**	Analysis Date:	5/19/2008 10:18:26 AM	
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 100 ng lcs		*LCS*			Batch ID:	**R28552**	Analysis Date:	5/15/2008 11:22:26 AM	
Benzene	20.76	µg/L	1.0	104	86.8	120			
Toluene	16.93	µg/L	1.0	84.7	64.1	127			
Chlorobenzene	18.09	µg/L	1.0	90.4	82.4	113			
1,1-Dichloroethene	25.12	µg/L	1.0	126	86.5	132			
Trichloroethene (TCE)	20.24	µg/L	1.0	101	77.3	123			
Sample ID: 100 ng lcs		*LCS*			Batch ID:	**R28569**	Analysis Date:	5/16/2008 10:27:52 AM	
Benzene	17.22	µg/L	1.0	86.1	86.8	120			S
Toluene	16.56	µg/L	1.0	79.7	64.1	127			
Chlorobenzene	16.78	µg/L	1.0	83.9	82.4	113			
1,1-Dichloroethene	20.50	µg/L	1.0	102	86.5	132			
Trichloroethene (TCE)	17.64	µg/L	1.0	88.2	77.3	123			
Sample ID: 100 ng lcs		*LCS*			Batch ID:	**R28588**	Analysis Date:	5/19/2008 11:31:59 AM	
Benzene	18.46	µg/L	1.0	92.3	86.8	120			
Toluene	18.35	µg/L	1.0	91.7	64.1	127			
Chlorobenzene	18.71	µg/L	1.0	93.6	82.4	113			
1,1-Dichloroethene	21.96	µg/L	1.0	110	86.5	132			
Trichloroethene (TCE)	19.56	µg/L	1.0	97.8	77.3	123			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name GOLDER ASSOC | Date Received: 5/14/2008

Work Order Number 0805199 | Received by: AT

Checklist completed by: Amy Shamis (Signature) 5/14/08 (Date) | Sample ID labels checked by: TS (Initials)

Matrix: | Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐	Not Shipped ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	4°	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Golder Assoc.

Address: 5200 Pasadena ABQ, NM

Phone #: 821-3043

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: Loving ton 66

Project #:

Project Manager: T. McMillan

Sampler: Olson / T. McMillan

On Ice: ☒ Yes ☐ No

Sample Temperature: 4°

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0805199
5-12-08	1326	W-20	3 VOAs		1
"	1354	W-21	"		2
	1422	W-19	"		3
	1454	W-11	"		4
	1521	W-5	"		5
	1553	W-16	"		6
	1651	W-9	"		7
	1720	W-8	"		8
5/13/08	755	W-14			9

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8260)	8310 (PNA or PAH)	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
									X						
									X						
									X						
									X						
									X						
									X						
									X						
									X						
									X						

Date:	Time:	Relinquished by:	Received by:
5/14/08	927		5/14/08 0927
Date:	Time:	Relinquished by:	Received by:

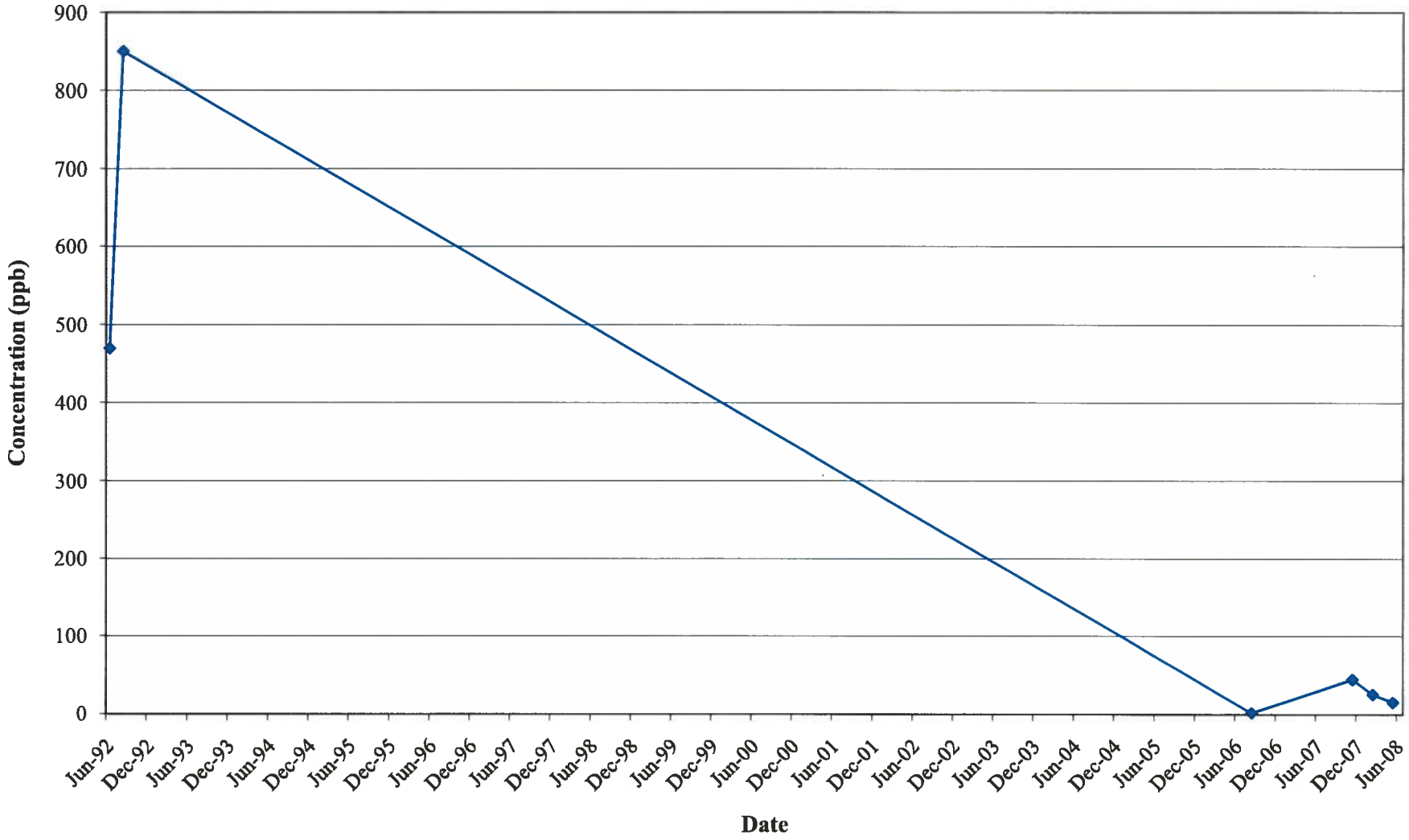
Remarks: Per contract 11/05

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

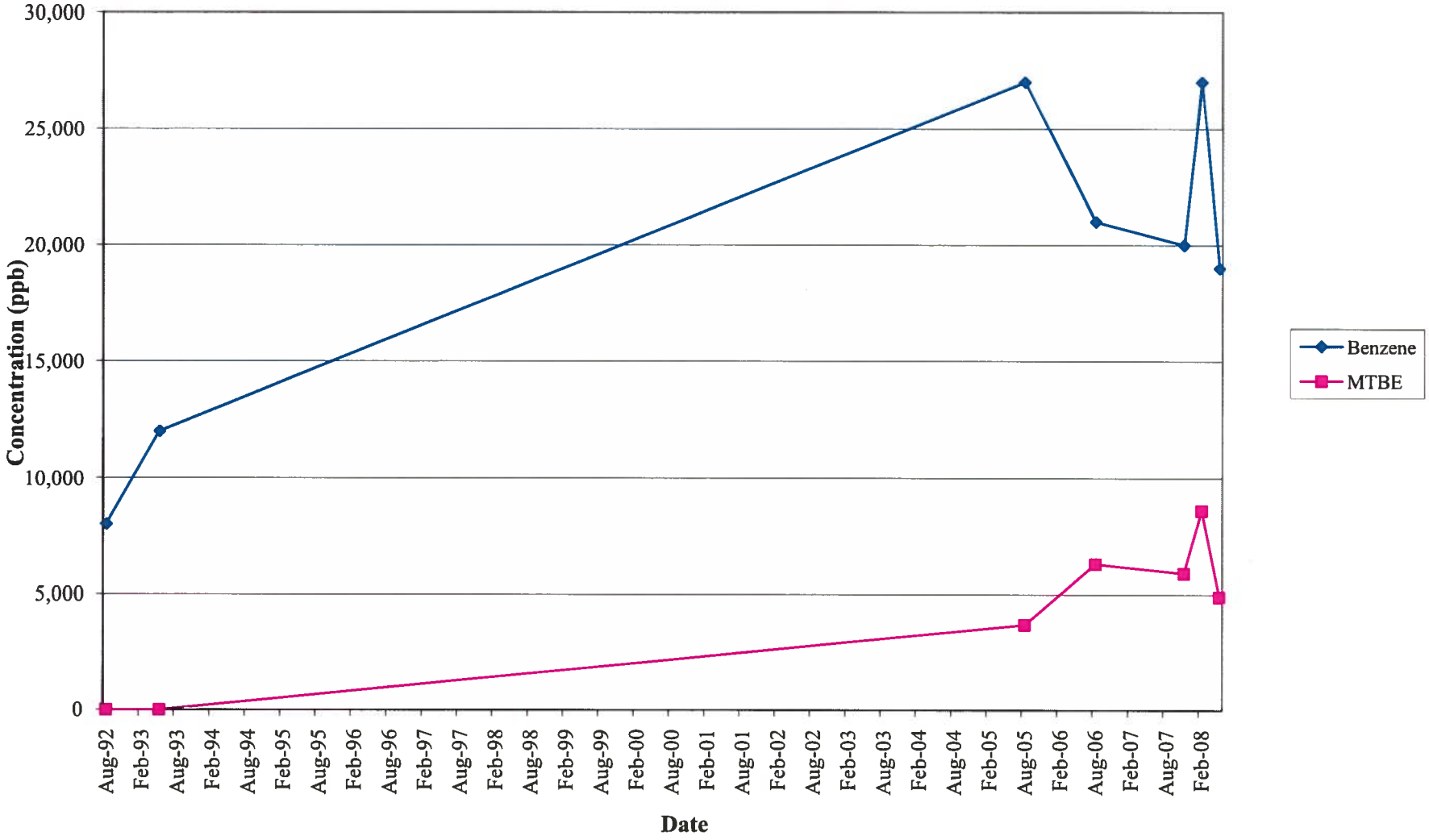
APPENDIX D

CONCENTRATION TRENDS

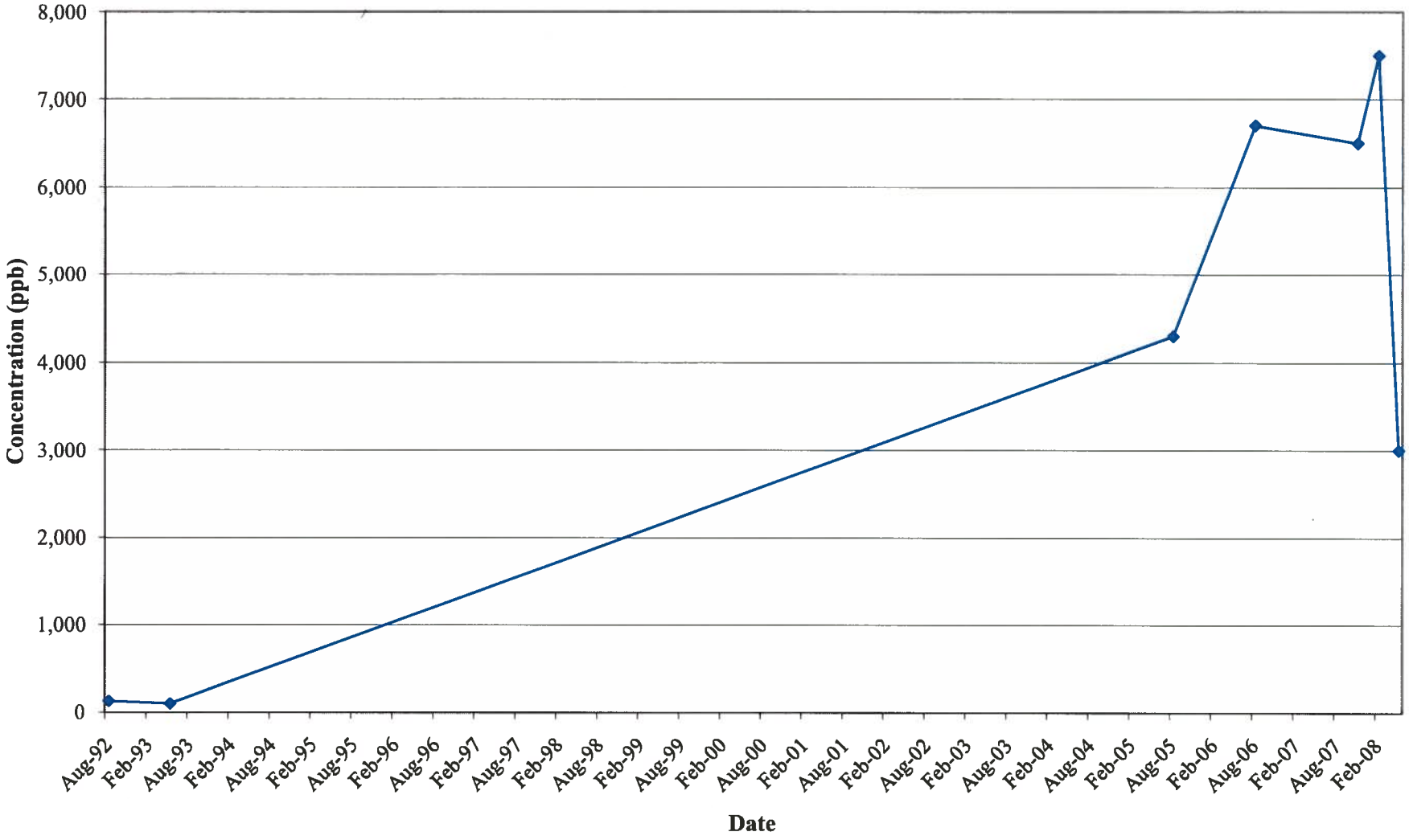
Benzene Trend for W-5



Benzene and MTBE Trend for W-8



Benzene Trend for W-9



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Golder Associates

June 16, 2008

Mr. TC Shapard
NMED PSTB District 4
1914 West Second
Roswell, New Mexico 88201

**RE: GROUNDWATER MONITORING REPORT,
LOVINGTON 66,
LOVINGTON, NEW MEXICO**

Dear Mr. Shapard:

Enclosed, please find the Groundwater Monitoring Report for the Lovington 66 site located in, Lovington, New Mexico.

If you have any questions, please feel free to contact me at (505) 821-3043.

Sincerely,

GOLDER ASSOCIATES INC.

Teri McMillan
Senior Scientist

cc: Jim Maddox, Maddox, Holloman & Kirksey P.C.