Golder Associates Inc.

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July 30, 2009

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

RE: SECOND BIANNUAL GROUNDWATER MONITORING REPORT, LOVINGTON 66, PTSB FACILITY #890 LOVINGTON, NEW MEXICO

Dear Mr. Shapard:

Golder Associates Inc. is pleased to submit one copy of the Second Biannual Groundwater Monitoring Report for the Lovington 66 site located in Lovington, New Mexico. This report is associated with deliverable ID 15275-3.

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

Sincerely,

GOLDER ASSOCIATES INC.

Todd Stein, PG
Senior Hydrogeologist

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

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2nd BIANNUAL GROUNDWATER MONITORING REPORT (FORM 1216) LOVINGTON 66, PSTB FACILITY #1489 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:

Golder Associates Inc.
5200 Pasadena NE, Ste. C
Albuquerque, NM 87113

Distribution:

1 Copy – NMED-PSTB
1 Copy – Jim Maddox, Maddox, Holloman & Kirksey P.C.
2 Copies - Golder Associates Inc., Albuquerque

July 30, 2009

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: Todd Stein
Affiliation: Golder Associates Inc.
Title: Senior Hydrogeologist
Date: July 30, 2009

I. INTRODUCTION

On behalf of Jack Walstad, Golder Associates Inc. (Golder) has completed the second biannual groundwater monitoring event at the former Lovington 66 site. The monitoring event was completed in accordance with the *Work Plan for Semi-Annual Monitoring and Quarterly Free Product Recovery, Lovington 66 Site (LUST ID1182), Lovington, New Mexico* dated April 24, 2008. This work plan satisfies 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 August 5, 2008 under work plan identification number (WPID #) 15275, and an extension of time for the project deliverables was subsequently granted by the NMED PSTB on January 27, 2009. This is the final deliverable under WPID #15275, and is identified as deliverable ID 15275-3.

The former Lovington 66 Site is located at 424 South Main Street, Lovington, New Mexico (Figure 1). This site is bounded by Highway 83/Avenue D on the south, and Main Street on the east. Avenue C is north of the site, and west of the site is commercial property. Southeast of the site is an Allsup's convenience store and self-service gasoline station (Allsup's #109), which is also a leaking underground storage tank site. A self-service gasoline 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 the parking lot for McDonald's. The Lovington 66 dissolved phase plume has migrated southeast across the intersection of Main and Avenue D and is commingled with the Allsup's #109 site dissolved phase plume.

On July 9 and 10, 2009, fluid levels were measured in seventeen Lovington 66 monitoring wells (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 three Allsup's #109 wells (MW-1, MW-2 and MW-3). Groundwater samples were collected from nine Lovington 66 monitoring wells (W-5, W-8, W-9, W-11, W-14, W-16, W-19, W-20, and W-21) and 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 measured in the field. The following sections provide a detailed summary of the results of the second biannual monitoring event.

II. ACTIVITIES PERFORMED DURING THIS QUARTER

This section provides a brief description of previous corrective action activities conducted at the site, and 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. Previous corrective action activities that have occurred at the site include the following:

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

- November 1991 – AEI removed five USTs that contained diesel, unleaded fuels, and used oil, as well as 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 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 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 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 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 vertical extent well V-1, which Billings attributed to leaking well casing.

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

- August 2008 – Golder completed four quarters of groundwater monitoring at the Lovington 66 site.

- February 2009 – Golder completed the first biannual monitoring event and associated quarterly product recovery from wells W-1, W-2, W-3, and V-1. The First Biannual Groundwater Monitoring Report was submitted to the NMED PSTB on February 26, 2009.

B. Description of Activities Performed to Keep System Operating Properly

No active remediation activities have been completed at the site.

C. Monitoring Activities Performed

NAPL Recovery

NAPL remains in three Lovington 66 monitor wells (W-1, W-2, and W-3) and was also present in vertical extent well V-1 up until this well was abandoned in September 2008. Golder subcontracted CMB Environmental to hand bail NAPL from wells W-1, W-2, W-3, and V-1 on a quarterly basis as part of the semi-annual monitoring and quarterly free product recovery project scope. The first and second quarterly events were conducted as part of the first biannual groundwater monitoring event. The third quarterly event occurred on May 12, 2009 and the second event occurred on July 10, 2009. Table 1 summarized the NAPL thicknesses measured in each well prior to and post bailing. A total of approximately 3.5 gallons of NAPL was recovered from the wells during the second biannual monitoring event, and a total of approximately 17.5 gallons of NAPL was recovered from the wells during the four quarterly NAPL recovery events conducted under WPID #15275.

Groundwater Sampling Activities

The first biannual groundwater monitoring event under WPID # 15275 was conducted between July 9 and 10, 2009. Prior to collecting groundwater samples, fluid levels in all existing Lovington 66 wells (except W-10), and Allsup's #109 wells (MW-1, MW-2, and MW-3) were measured with an electronic

water level meter or interface probe. Well W-10 is located in the middle of Main Street and it was determined that it was unsafe to measure fluid levels in this well. Table 2 provides a summary of the groundwater level measurements collected from the monitoring wells. A potentiometric surface map was prepared using the collected data and is included in Figure 2. Hydrographs for the monitor wells are provided in Appendix A.

Nine Lovington monitoring wells (W-5, W-8, W-9, W-11, W-14, W-16, W-19, W-20, and W-21) were purged and sampled with disposable polyethylene bailers following the measurement of fluid levels in the wells. The wells were sampled from least to most contaminated where possible to minimize cross-contamination. All equipment was decontaminated between wells with an Alconox™ solution to prevent cross-contamination. 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 meters were calibrated and/or checked against a standard in accordance with manufacturer's specifications prior to use. Specific conductance, dissolved oxygen, pH, and temperature were recorded on monitoring well sampling field forms. Monitoring well sampling field forms are provided in Appendix B.

Sample containers, preservatives, analytical methods, and holding times employed for this project are specified in Table 3. Samples for VOC analysis were collected such that no headspace air 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.

Groundwater Sampling Results

The laboratory analytical results for the second biannual monitoring event are summarized in Table 4. The following are observations from this data:

- The dissolved phase hydrocarbon concentrations were at or above NMWQCC standards in six of the nine monitor wells sampled.

- The highest benzene concentration observed was 26,000 μg/L in monitor well W-14. Wells W-8 and W-14 had BTEX, MTBE, EDC and total naphthalenes concentrations above standards.
- Well W-8 also had EDB present at a concentration above standards.
- Wells W-9 and W-16 had benzene concentrations above standards.
- Well W-9 also had ethyl-benzene, total naphthalenes, and EDC concentrations above standards.
- Well W-11 had MTBE and EDC concentrations above standards.
- Well W-19 had EDC present at a concentration above standards.
- Wells W-5, W-20 and W-21 had concentrations below NMWQCC standards for all compounds analyzed.

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

III. SUMMARY AND CONCLUSIONS

This section summarizes the results of the second biannual monitoring event and includes a brief discussion of water level and contaminant concentration trends at the Lovington 66 site. Additionally, recommendations for future site activities are provided in this section.

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

The results of groundwater gauging indicate that water levels have fallen slightly for the entire monitoring network when compared to the previous groundwater gauging conducted in January 2009. The overall

direction of groundwater flow remains in a southeasterly direction and the hydraulic gradient ranges between approximately 0.003 and 0.004 foot per foot (Figure 2).

NAPL was bailed off of wells W-1, W-2, and W-3 on May 12, 2009 and again on July 10, 2009. NAPL thicknesses ranged from 0.07 feet in well W-3 to 3.66 feet in well W-1 during the July 10, 2009 NAPL recovery event. There was a slight decrease in the NAPL thickness observed within wells W-2 and W-3, and a slight increase in the NAPL thickness was observed in well W-1 between the first and second bailing event. The estimated extent of NAPL beneath the site is presented on Figure 3.

The distribution of dissolved phase organic contaminants observed in July 2009 is shown on Figure 3. The dissolved phase benzene concentrations in wells W-8 and W-14 were at least 1,800 times the NMWQCC standard of 10 μg/L. Hydrocarbon concentrations generally decreased or remained constant in all wells sampled except for wells W-9 and W-14 when compared to the previous monitoring event in January 2009. The EDC concentrations slightly increased in well W-14, and decreased or remained constant in the remaining wells sampled. MTBE concentrations decreased or remained constant in all wells that had detectable concentrations except for wells W-5 and W-8. EDB concentrations decreased in all wells that had detectable concentrations. Total naphthalene concentrations decreased in all wells that had detectable concentrations except for well W-9. Figures 4, 5, and 6 illustrate the distribution of benzene, MTBE and EDC in July 2009, respectively. 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 MNA parameters measured on July 9 and 10, 2009 are summarized on Table 5 and posted on Figure 7. There does not appear to be an appreciable change in the dissolved oxygen levels measured in the monitoring wells between the January 2009 and July 2009 monitoring events. Copies of the field forms associated with the second biannual monitoring event are provided 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 second biannual groundwater monitoring event, it is recommended that biannual groundwater monitoring and quarterly NAPL recovery (via hand bailing) continue at the site.

List of Attachments

Tables 1 through 5

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 NAPL RECOVERY
LOVINGTON 66, LOVINGTON, NEW MEXICO

Monitor Well	Date Recovered	Prior to Bailing			Post Bailing			Total NAPL Recovered[1]
		Depth To NAPL (feet)	Depth to Water (feet)	NAPL Thickness (feet)	Depth to NAPL (feet)	Depth to Water (feet)	NAPL Thickness (feet)	
W-1	27-Jan-09	54.69	58.22	3.53	-	56.25	0.00	6.00
	3-Sep-08	54.69	58.52	3.83	-	57.22	0.00	6.00
	12-May-09	54.85	57.78	2.93	-	56.62	0.00	1.90
	10-Jul-09	55.33	56.99	1.66	-	56.69	0.00	1.08
W-2	27-Jan-09	54.48	54.81	0.33	-	55.55	0.00	0.25
	3-Sep-08	54.50	54.94	0.44	-	55.52	0.00	0.25
	12-May-09	54.50	54.83	0.33	-	55.64	0.00	0.21
	10-Jul-09	54.68	54.96	0.28	-	55.50	0.00	0.18
W-3	27-Jan-09	54.56	54.69	0.13	-	55.52	0.00	0.25
	3-Sep-08	54.60	54.81	0.21	-	55.57	0.00	0.25
	12-May-09	54.58	54.68	0.10	-	55.54	0.00	0.07
	10-Jul-09	54.78	54.85	0.07	-	55.64	0.00	0.05
V-1	3-Sep-08	53.92	58.45	4.53	-	55.20	0.00	1.00
Cumulative Total NAPL Recovered at the Site[1]								**17.48**

Notes:

Data by Clayton M. Barnhill

NAPL - Non Aqueous Phase Liquid

[1] Measured in gallons - quantity is estimated.

All NAPL recovered is temporarily stored in a 55 gallon drum on-site.

Second Biannual Monitoring Event Data

TABLE 2
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	10-Jul-2009	708392.73	843467.49	3909.74			55.12	3854.62
	28-Jan-2009						54.91	3854.83
	7-Aug-2008						54.86	3854.88
	12-May-2008						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	10-Jul-2009	708398.53	843584.18	3910.05			55.79	3854.26
	28-Jan-2009						55.56	3854.49
	7-Aug-2008						55.54	3854.51
	12-May-2008						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	10-Jul-2009	708484.61	843518.13	3910.14			55.42	3854.72
	28-Jan-2009						55.16	3854.98
	7-Aug-2008						55.15	3854.99
	13-May-2008						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	28-Jan-2009	Well Plugged & Abandoned						
	7-Aug-2008	708614.74	843348.54	3910.67	53.75	4.55	58.30	3855.78
	13-May-2008				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	10-Jul-2009	708649.18	843347.81	3911.33	55.69	0.09	55.78	3855.62
	28-Jan-2009				55.39	0.31	55.70	3855.86
	7-Aug-2008				54.96	3.31	58.27	3855.54
	13-May-2008				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			

TABLE 2
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]
	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	10-Jul-2009	708625.02	843381.13	3910.19	54.69	0.11	54.8	3855.47
	28-Jan-2009				54.44	0.03	54.47	3855.74
	7-Aug-2008				54.34	0.44	54.78	3855.74
	13-May-2008				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			
W-3	10-Jul-2009	708597.90	843348.60	3910.29	54.75	0.02	54.77	3855.54
	28-Jan-2009				54.50	0.06	54.56	3855.78
	13-May-2008				54.44	0.21	54.65	3855.80
	13-May-2008				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	9-Jul-2009	708759.72	843252.39	3911.71			55.54	3856.17
	28-Jan-2009						55.36	3856.35
	7-Aug-2008						55.36	3856.35
	12-May-2008						54.87	3856.84
	13-Feb-2008						54.63	3857.08
	7-Nov-2007						54.61	3857.10

TABLE 2
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]
	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	9-Jul-2009	708910.73	843120.52	3910.88			54.23	3856.65
	28-Jan-2009						54.11	3856.77
	6-Aug-2008						53.97	3856.91
	12-May-2008						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	9-Jul-2009	708389.76	843640.62	3909.92			55.82	3854.10
	28-Jan-2009						55.67	3854.25
	7-Aug-2008						55.64	3854.28
	12-May-2008						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
W-9	9-Jul-2009	708267.18	843790.26	3908.72			55.35	3853.37
	28-Jan-2009						55.19	3853.53
	7-Aug-2008						55.18	3853.54
	12-May-2008						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	9-Jul-2009	Unable to gauge well due to traffic constraints						
	28-Jan-2009	Unable to gauge well due to traffic constraints						
	7-Aug-2008	Unable to gauge well due to traffic constraints						

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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]
	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	9-Jul-2009	708600.95	843650.96	3909.96			55.46	3854.50
	28-Jan-2009						55.26	3854.70
	6-Aug-2008						55.14	3854.82
	12-May-2008						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	9-Jul-2009	708435.38	843045.85	3910.59			54.23	3856.36
	28-Jan-2009						54.09	3856.50
	6-Aug-2008						54.50	3856.09
	12-May-2008						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	9-Jul-2009	708915.13	843525.37	3910.36			54.74	3855.62
	28-Jan-2009						54.66	3855.70
	6-Aug-2008						54.50	3855.86
	12-May-2008						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	10-Jul-2009	708504.99	843463.76	3909.73			54.90	3854.83
	28-Jan-2009						54.67	3855.06
	7-Aug-2008						54.65	3855.08
	13-May-2008						54.24	3855.49
	13-Feb-2008						53.80	3855.93
	7-Nov-2007						53.72	3856.01

TABLE 2
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]
	8-Aug-2006						54.15	3855.58
	26-May-1993			98.54			56.26	42.28
W-15	9-Jul-2009	708221.99	843030.65	3909.40			53.91	3855.49
	28-Jan-2009						53.82	3855.58
	6-Aug-2008						53.71	3855.69
	12-May-2008						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
W-16	9-Jul-2009	708153.28	843364.45	3908.67			54.23	3854.44
	28-Jan-2009						53.52	3855.15
	7-Aug-2008						54.03	3854.64
	12-May-2008						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	9-Jul-2009	708697.21	843818.98	3909.38			55.14	3854.24
	28-Jan-2009						55.04	3854.34
	6-Aug-2008						54.90	3854.48
	12-May-2008						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	9-Jul-2009	708148.94	843934.18	3908.36			55.48	3852.88
	28-Jan-2009						55.36	3853.00
	6-Aug-2008						55.31	3853.05
	12-May-2008						54.88	3853.48
	13-Feb-2008						54.51	3853.85
	7-Nov-2007						54.23	3854.13
W-20	9-Jul-2009	707780.85	844187.25	3907.45			55.60	3851.85
	28-Jan-2009						55.54	3851.91
	6-Aug-2008						55.53	3851.92
	12-May-2008						55.09	3852.36

TABLE 2
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]
	13-Feb-2008						54.69	3852.76
	7-Nov-2007						54.29	3853.16
W-21	9-Jul-2009	707988.79	843841.61	3908.49			55.39	3853.10
	28-Jan-2009						55.32	3853.17
	6-Aug-2008						55.23	3853.26
	12-May-2008						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 3
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 4
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	9-Jul-09	<1.0	<1.0	<1.0	<1.5	21	<1.0	<1.0	<2.0
	28-Jan-09	<1.0	<1.0	<1.0	<1.5	18	<1.0	<1.0	<2.0
	7-Aug-08	5.2	<1.0	3.7	<1.5	39	<1.0	<1.0	<2.0
	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	9-Jul-09	18,000	26,000	2,400	11,000	13,000	230	2,300	500
	28-Jan-09	19,000	26,000	2,500	11,000	9,800	290	3,000	570
	7-Aug-08	20,000	24,000	2,400	11,000	8,600	270	2,900	670
	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	9-Jul-09	6,400	<5	1,100	460	<5	<5	570	139
	28-Jan-09	4,800	<10	370	380	<10	<10	580	120
	7-Aug-08	5,100	<100	830	300	<100	<100	520	<200
	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

TABLE 4
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
	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	9-Jul-09	<1.0	<1.0	34	7.2	160	<1.0	44	<2.0
	28-Jan-09	<1.0	<1.0	40	5.7	160	<1.0	44	<2.0
	6-Aug-08	3.2	<1.0	28	2.5	610	<1.0	38	<2.0
	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
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	10-Jul-09	26,000	24,000	4,000	11,000	2,600	<50	160	590
	28-Jan-09	24,000	19,000	2,200	8,700	3,200	<100	150	640
	7-Aug-08	26,000	20,000	4,400	11,000	3,700	<100	160	840
	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	9-Jul-09	35	<1.0	1.3	<1.5	11	<1.0	3.8	14.5
	28-Jan-09	170	<1.0	<1.0	<1.5	39	<1.0	13	120
	7-Aug-08	790	<1.0	5.4	<1.5	59	<1.0	17	352
	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

TABLE 4
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
	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	9-Jul-09	3.4	<1.0	<1.0	<1.5	<1.0	<1.0	37	<2.0
	28-Jan-09	3.8	<1.0	<1.0	<1.5	<1.0	<1.0	37	<2.0
	6-Aug-08	2.4	<1.0	<1.0	<1.5	<1.0	<1.0	19	<2.0
	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	9-Jul-09	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0
	28-Jan-09	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0
	6-Aug-08	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0
	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	9-Jul-09	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0
	28-Jan-09	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0
	6-Aug-08	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0
	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

Second Biannual Monitoring Event Data

TABLE 5
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
INORGANIC COMPOUNDS AND GEOCHEMICAL INDICATORS
LOVINGTON 66, LOVINGTON, NEW MEXICO

Well Number	Date Sampled	pH	SpC (uS/cm)	Temp (^{o}C)	DO (mg/L)	ORP (mV)
V-1	3-Sep-08	Well Plugged & Abandoned				
	13-May-08	NAPL Present				
	13-Feb-08	NAPL Present				
	7-Nov-07	NAPL Present				
	8-Aug-06	NAPL Present				
W-1	10-Jul-09	NAPL Present				
	28-Jan-09	NAPL Present				
	13-May-08	NAPL Present				
	13-Feb-08	NAPL Present				
	7-Nov-07	NAPL Present				
	8-Aug-06	NAPL Present				
W-2	10-Jul-09	NAPL Present				
	28-Jan-09	NAPL Present				
	13-May-08	NAPL Present				
	13-Feb-08	NAPL Present				
	7-Nov-07	NAPL Present				
	8-Aug-06	NAPL Present				
W-3	10-Jul-09	NAPL Present				
	28-Jan-09	NAPL Present				
	13-May-08	NAPL Present				
	13-Feb-08	NAPL Present				
	7-Nov-07	NAPL Present				
	8-Aug-06	NAPL Present				
W-5	9-Jul-09	6.83	1,862	21.8	0.58	NA
	28-Jan-09	7.49	1,580	18.8	0.78	NA
	7-Aug-08	6.79	1,620	19.5	0.37	NA
	12-May-08	6.74	1,766	20.3	0.25	NA
	13-Feb-08	6.74	2,237	18.8	0.78	NA
	7-Nov-07	NA	2,454	19.7	0.15	NA
	9-Aug-06	6.34	2,110	21.8	0.47	-88
W-7	7-Nov-07	NA	1,200	19.7	5.30	NA
	8-Aug-06	6.78	1,475	19.3	2.43	226
W-8	9-Jul-09	6.61	1,303	21.6	0.48	NA
	28-Jan-09	7.20	1,156	19.0	0.35	NA
	7-Aug-08	6.77	1,035	20.5	0.36	NA
	12-May-08	6.72	1,079	20.2	NA	NA

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

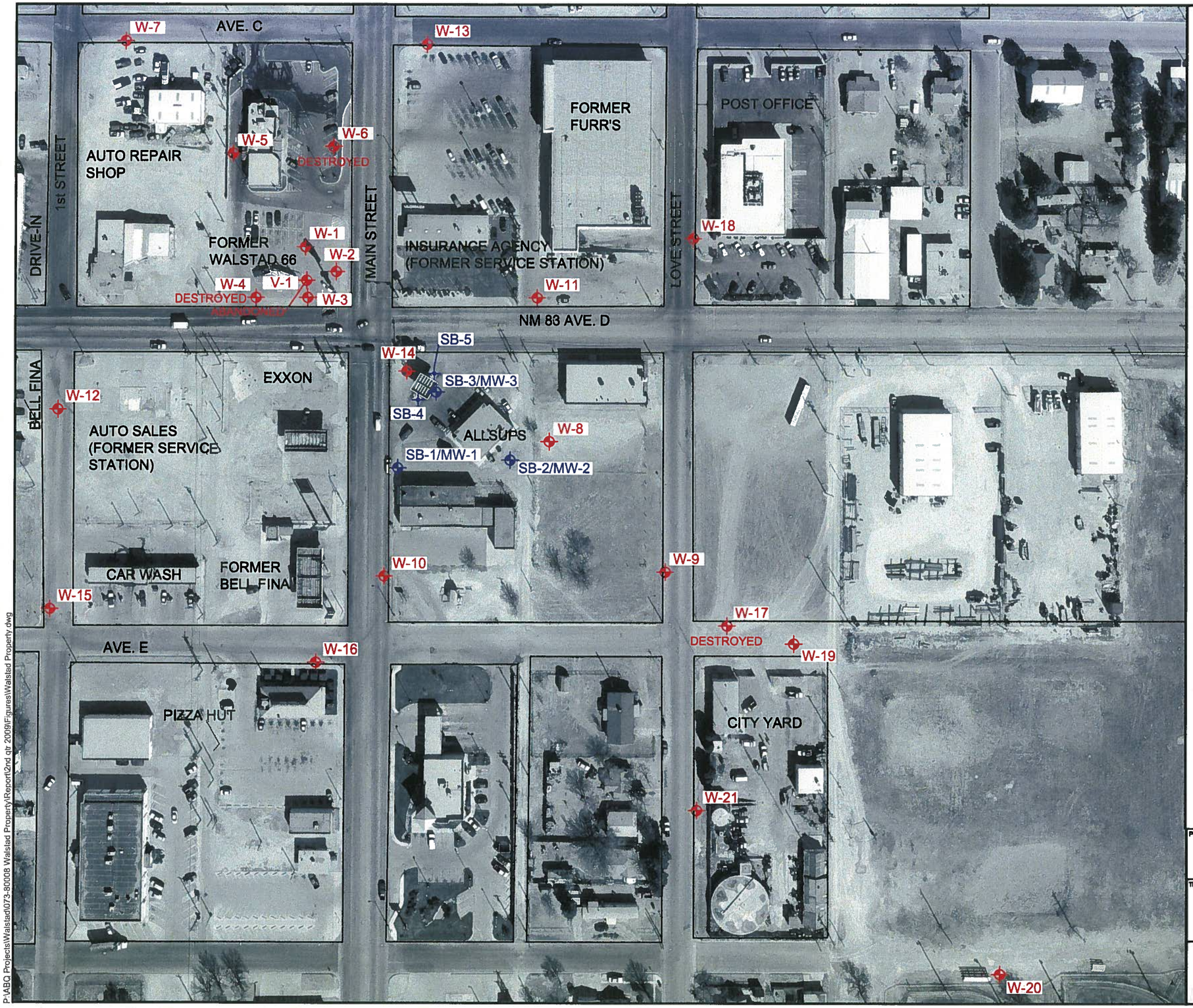
Well Number	Date Sampled	pH	SpC (uS/cm)	Temp (^{o}C)	DO (mg/L)	ORP (mV)
	13-Feb-08	6.15	1,109	20.6	0.65	NA
	7-Nov-07	NA	1,235	19.7	1.26	NA
	9-Aug-06	6.63	1,260	22.9	0.60	-311
	6-Aug-05	6.78	1,090	20.23	3.13	234
W-9	9-Jul-09	6.72	1,229	21.9	0.55	NA
	28-Jan-09	7.17	1,053	19.5	0.31	NA
	7-Aug-08	6.70	1,035	20.0	0.72	NA
	12-May-08	6.76	1,020	19.5	NA	NA
	13-Feb-08	6.73	1,076	20.1	0.68	NA
	7-Nov-07	NA	1,183	19.5	1.12	NA
	9-Aug-06	6.42	1,230	22.5	0.44	-218
	6-Aug-05	6.77	1,050	20.20	3.29	211
W-10	9-Jul-09	Well Not Sampled Due to Unsafe Location				
	28-Jan-09	Well Not Sampled Due to Unsafe Location				
	7-Aug-08	Well Not Sampled Due to Unsafe Location				
	12-May-08	Well Not Sampled Due to Unsafe Location				
	7-Nov-07	Well Not Sampled Due to Unsafe Location				
	9-Aug-06	6.50	2,400	22.1	0.00	-175
	6-Aug-05	6.87	1,610	20.76	3.74	201
W-11	9-Jul-09	6.78	1,677	22.7	0.56	NA
	28-Jan-09	6.87	1,487	19.8	0.17	NA
	6-Aug-08	6.71	1,340	21.8	0.84	NA
	12-May-08	6.75	1,456	20.6	1.19	NA
	13-Feb-08	6.79	1,432	21.1	0.64	NA
	7-Nov-07	NA	1,592	21	0.28	NA
	9-Aug-06	6.38	1,760	22.2	0.17	-97
W-12	8-Aug-06	7.20	880	21.8	2.22	168
W-13	8-Aug-06	5.37	1,111	15.9	1.85	219
W-14	10-Jul-09	6.65	1,597	21.5	0.68	NA
	28-Jan-09	7.27	1,415	19.8	0.17	NA
	7-Aug-08	6.69	1,357	21.3	0.59	NA
	13-May-08	6.67	1,519	20.6	NA	NA
	13-Feb-08	6.72	1,537	20.6	0.54	NA
	7-Nov-07	NA	NA	NA	NA	NA
	9-Aug-06	6.59	1,850	23.4	0.00	-290
W-15	8-Aug-06	6.41	1,240	18.5	3.96	267

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

Well Number	Date Sampled	pH	SpC (uS/cm)	Temp (^{o}C)	DO (mg/L)	ORP (mV)
W-16	9-Jul-09	6.69	1,710	21.8	0.61	NA
	28-Jan-09	7.43	1,664	19.5	0.42	NA
	7-Aug-08	6.63	1,870	20.0	0.31	NA
	12-May-08	6.65	1,859	20.6	0.08	NA
	13-Feb-08	6.67	1,879	20.3	0.27	NA
	7-Nov-07	NA	2,072	20.7	0.11	NA
	8-Aug-06	6.33	2,080	22.4	1.20	-113
W-18	8-Aug-06	6.24	1,090	21.1	1.20	186
W-19	9-Jul-09	6.98	1,164	20.9	8.01	NA
	28-Jan-09	7.34	1,017	18.8	6.75	NA
	6-Aug-08	6.67	863	21.9	8.74	NA
	12-May-08	6.77	869	20.6	7.65	NA
	13-Feb-08	6.84	901	19.3	7.05	NA
	7-Nov-07	NA	1,214	19.5	NA	NA
W-20	9-Jul-09	7.27	900	19.8	8.16	NA
	28-Jan-09	7.63	727	16.4	6.65	NA
	6-Aug-08	7.00	635	20.2	7.21	NA
	12-May-08	7.04	723	20.7	7.18	NA
	12-Feb-08	7.13	816	16.6	7.13	NA
	7-Nov-07	NA	1,185	19.5	NA	NA
W-21	9-Jul-09	7.06	1,747	19.8	NA	NA
	28-Jan-09	7.38	1,575	18.7	6.44	NA
	6-Aug-08	6.60	1,230	20.2	7.89	NA
	12-May-08	6.75	1,269	19.9	5.59	NA
	13-Feb-08	6.68	1,285	17.9	6.34	NA
	7-Nov-07	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
Second Biannual Monitoring Event Data

FIGURES



LEGEND:

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

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

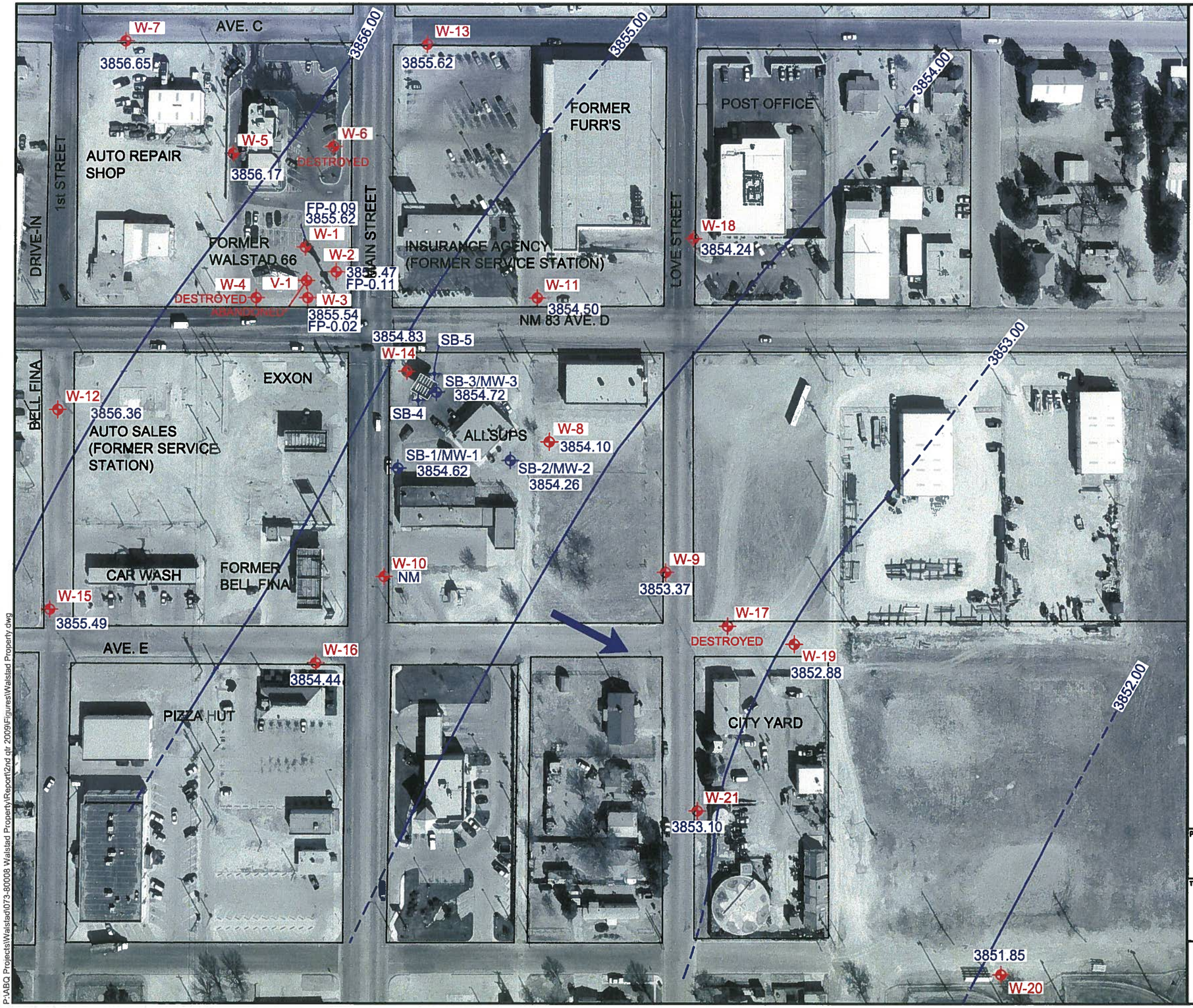
PROJECT
LOVINGTON 66
424 SOUTH MAIN
LOVINGTON, NEW MEXICO

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	CM	07/27/09	**FIGURE 1**	
CHECK	TS	07/27/09		
REVIEW	RB	07/27/09		

P:\ABQ Projects\Walstad\073-80008 Walstad Property\Report\2nd qtr 2009\Figures\Walstad Property.dwg



P:\ABQ Projects\Walstad\073-80008 Walstad Property\Report\2nd qtr 2009\Figures\Walstad Property.dwg

LEGEND:

W-1 3855.54	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
FP-0.44	FREE PRODUCT PRESENT, THICKNESS OBSERVED IN FEET

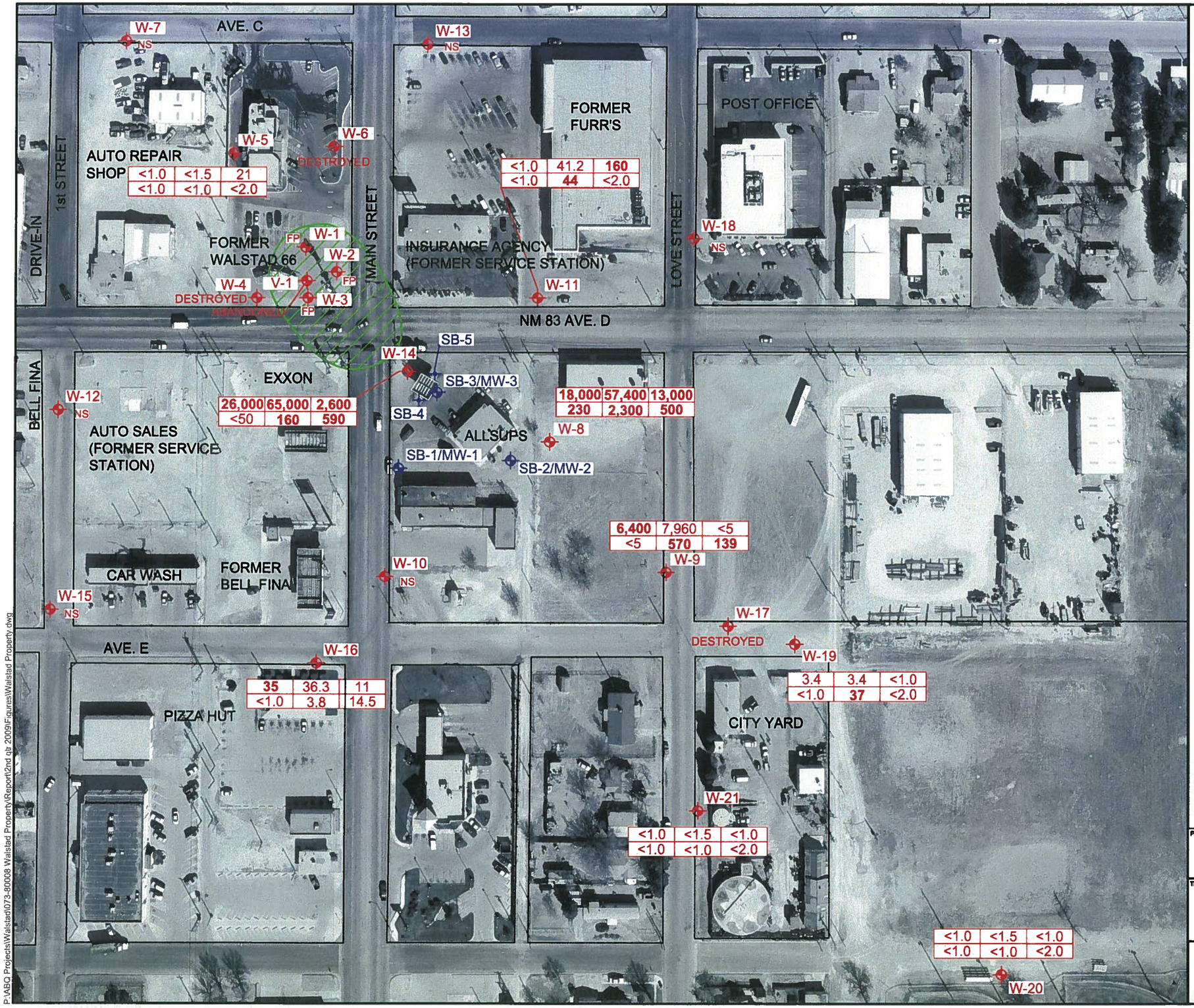
60 0 60 120
B SIZE: 1" = 120' FEET

PROJECT
LOVINGTON 66
424 SOUTH MAIN
LOVINGTON, NEW MEXICO

TITLE
POTENTIOMETRIC SURFACE MAP JULY 2009

Golder Associates
Albuquerque, New Mexico

PROJECT No.		073-80008	FILE No.	Walstad Property.dwg	
DESIGN	TM	08/31/09	SCALE	AS SHOWN	REV. A
CADD	CM	07/27/09	**FIGURE 2**		
CHECK	TS	07/27/09			
REVIEW	RB	07/27/09			



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
FP	FREE PRODUCT

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

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

PROJECT
LOVINGTON 66
424 SOUTH MAIN
LOVINGTON, NEW MEXICO

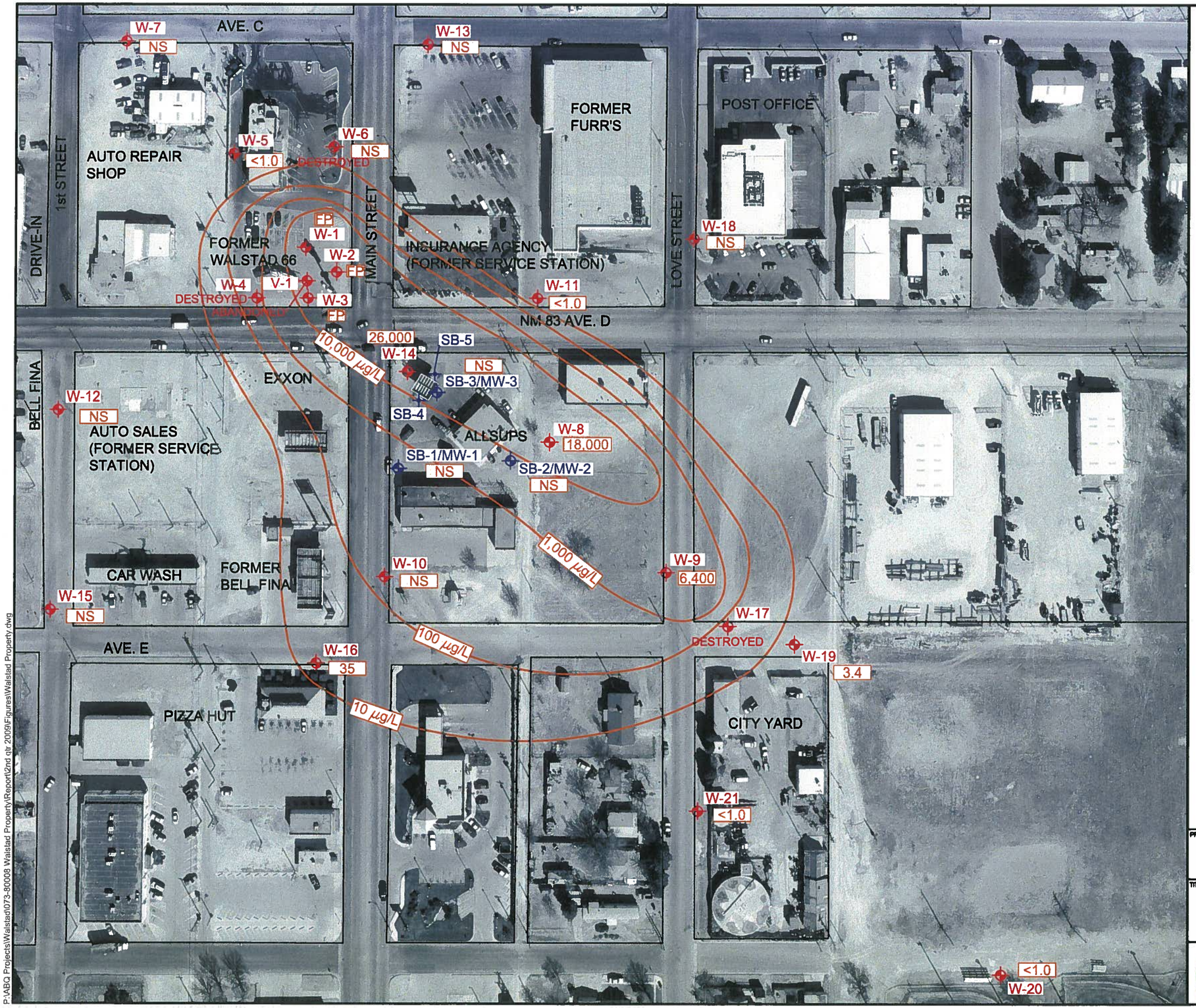
TITLE
DISTRIBUTION OF ORGANIC CONTAMINANTS IN GROUNDWATER JULY 2009

Golder Associates
Albuquerque, New Mexico

PROJECT No.		073–80008	FILE No.	Walstad Property.dwg	
DESIGN	TM	08/31/09	SCALE	AS SHOWN	REV. A
CADD	CM	072/27/09			
CHECK	TS	07/27/09			
REVIEW	RB	07/27/09			

FIGURE 3

P:\ABQ Projects\Walstad\073-80008 Walstad Property\Report\2nd qtr 2009\Figures\Walstad Property.dwg



LEGEND:

- W-20 / <1.0 — LOVINGTON 66 MONITORING WELL WITH BENZENE CONCENTRATIONS (µg/L)
- SB-1/MW-1 / NS — 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

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

PROJECT
LOVINGTON 66
424 SOUTH MAIN
LOVINGTON, NEW MEXICO

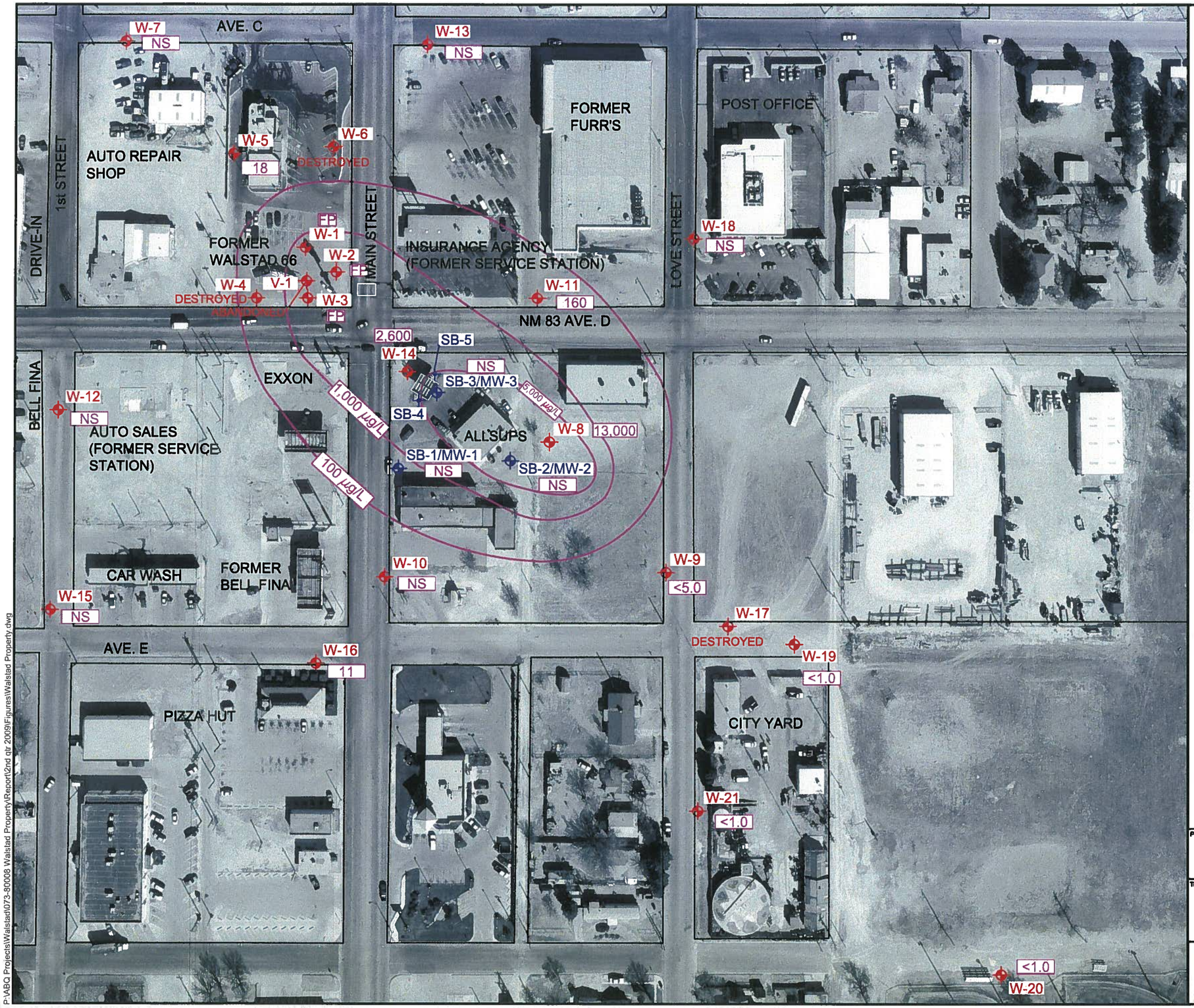
TITLE
DISTRIBUTION OF BENZENE IN GROUNDWATER JULY 2009

Golder Associates
Albuquerque, New Mexico

PROJECT No.		073-80008	FILE No. Walstad Property.dwg		
DESIGN	TM	08/31/09	SCALE AS SHOWN	REV.	A
CADD	CM	07/27/09			
CHECK	TS	07/27/09			
REVIEW	RB	07/27/09			

FIGURE 4

P:\ABQ Projects\Walstad\073-80008 Walstad Property\Report\2nd qtr 2009\Figures\Walstad Property.dwg



LEGEND:

W-20 <1.0	LOVINGTON 66 MONITORING WELL WITH MTBE CONCENTRATIONS (µg/L)
SB-1/MW-1 NS	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

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

PROJECT
LOVINGTON 66
424 SOUTH MAIN
LOVINGTON, NEW MEXICO

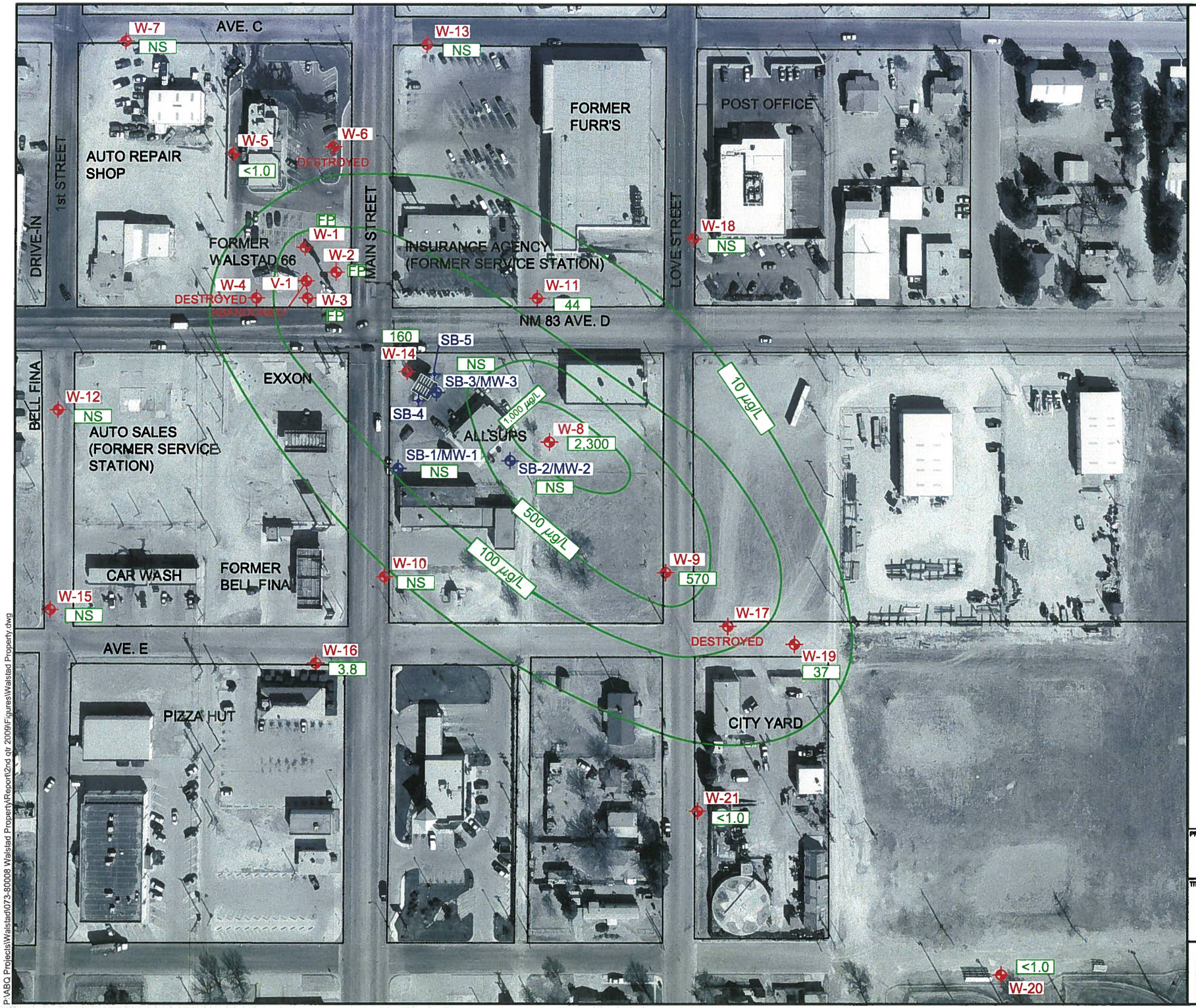
TITLE
DISTRIBUTION OF MTBE IN GROUNDWATER JULY 2009

Golder Associates
Albuquerque, New Mexico

PROJECT No.		073-80008	FILE No. Walstad Property.dwg	
DESIGN	TM	08/31/09	SCALE AS SHOWN	REV. A
CADD	CM	07/27/09		
CHECK	TS	07/27/09		
REVIEW	RB	07/27/09		

FIGURE 5

P:\ABQ Projects\Walstad\073-80008 Walstad Property\Report\2nd qtr 2009\Figures\Walstad Property.dwg



LEGEND:

- W-20 / <1.0 — LOVINGTON 66 MONITORING WELL WITH EDC CONCENTRATIONS (µg/L)
- SB-1/MW-1 / NS — 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

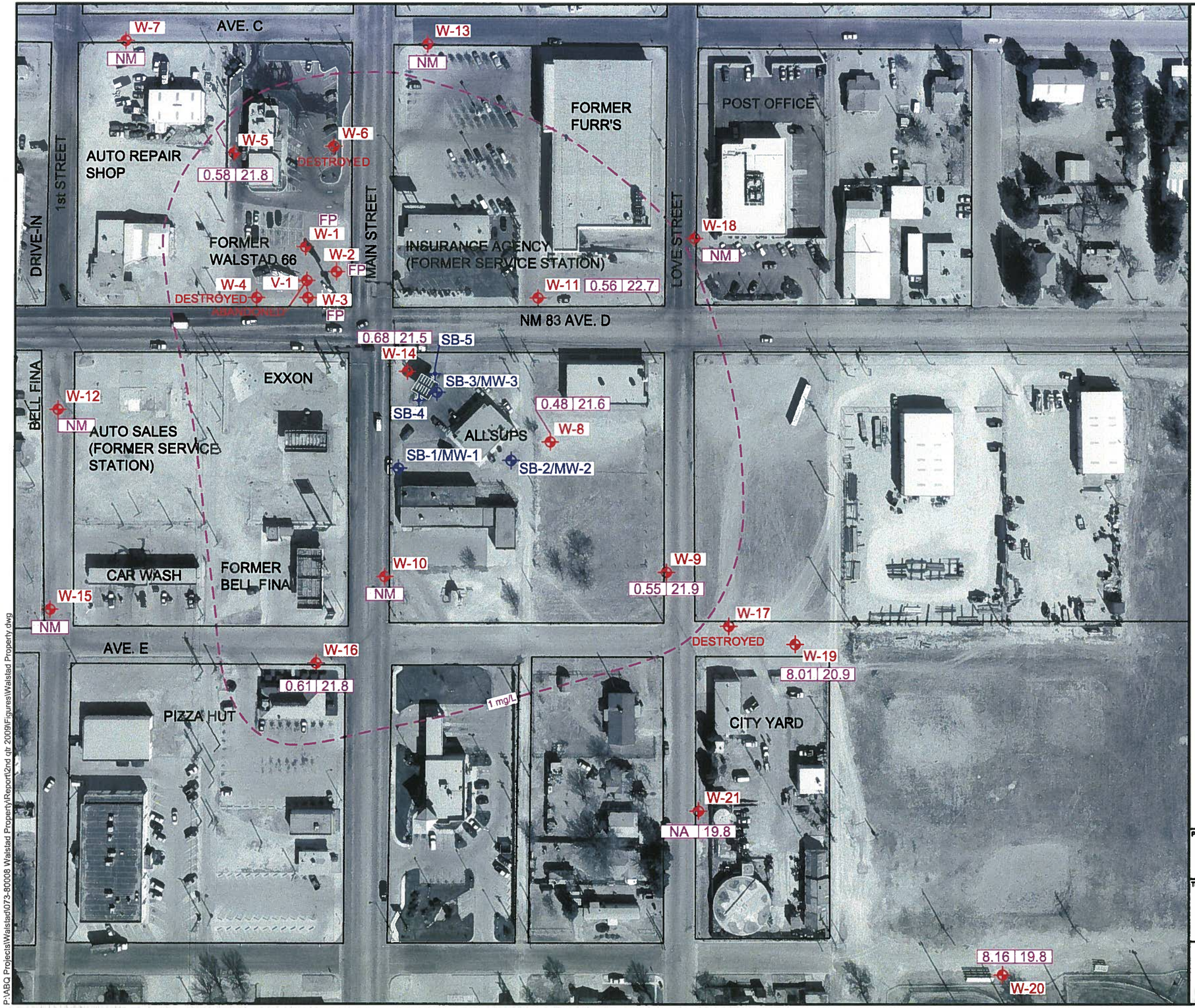
TITLE
DISTRIBUTION OF EDC IN GROUNDWATER JULY 2009

Golder Associates
Albuquerque, New Mexico

PROJECT No.		073-80008	FILE No.	Walstad Property.dwg
DESIGN	TM	08/31/09	SCALE	AS SHOWN
CADD	CM	07/27/09	REV.	A
CHECK	TS	07/27/09		
REVIEW	RB	07/27/09		

FIGURE 6

P:\ABQ Projects\Walstad\073-80008 Walstad Property\Report\2nd qtr 2009\Figures\Walstad Property.dwg



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
FP	FREE PRODUCT

DO	TEMP

DISSOLVED OXYGEN (DO) CONCENTRATIONS ARE IN MILLIGRAMS PER LITER

TEMPERATURE (TEMP) VALUES ARE IN DEGREES CELSIUS

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

PROJECT
WALSTAD 66
424 SOUTH MAIN
LOVINGTON, NEW MEXICO

TITLE
DISTRIBUTION OF MNA PARAMETERS IN GROUNDWATER JULY 2009

Golder Associates
Albuquerque, New Mexico

PROJECT No.		073-80008	FILE No.	Walstad Property.dwg	
DESIGN	TM	08/31/09	SCALE	AS SHOWN	REV. A
CADD	CM	07/27/09	FIGURE 7		
CHECK	TS	07/27/09			
REVIEW	RB	07/27/09			

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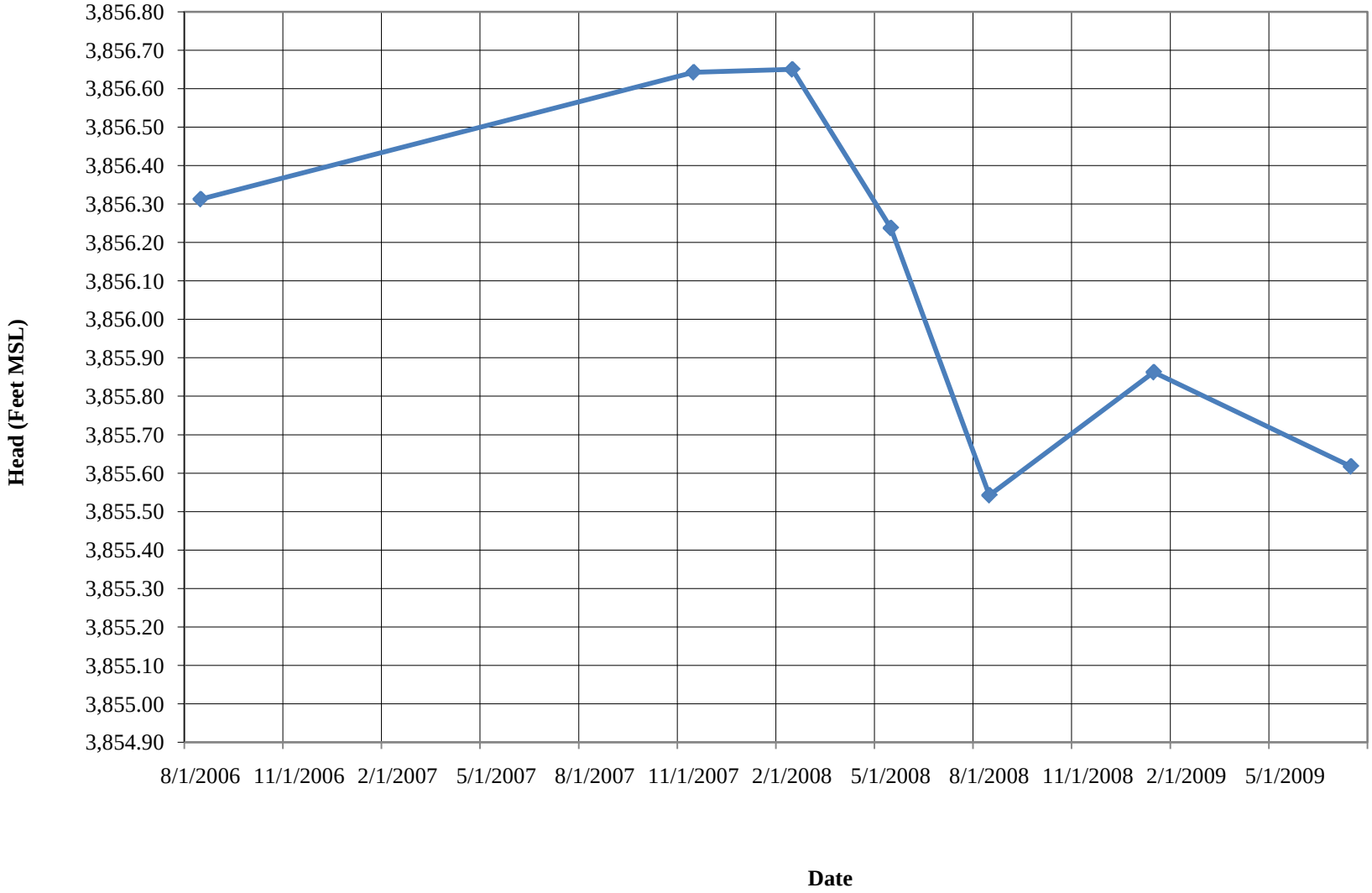
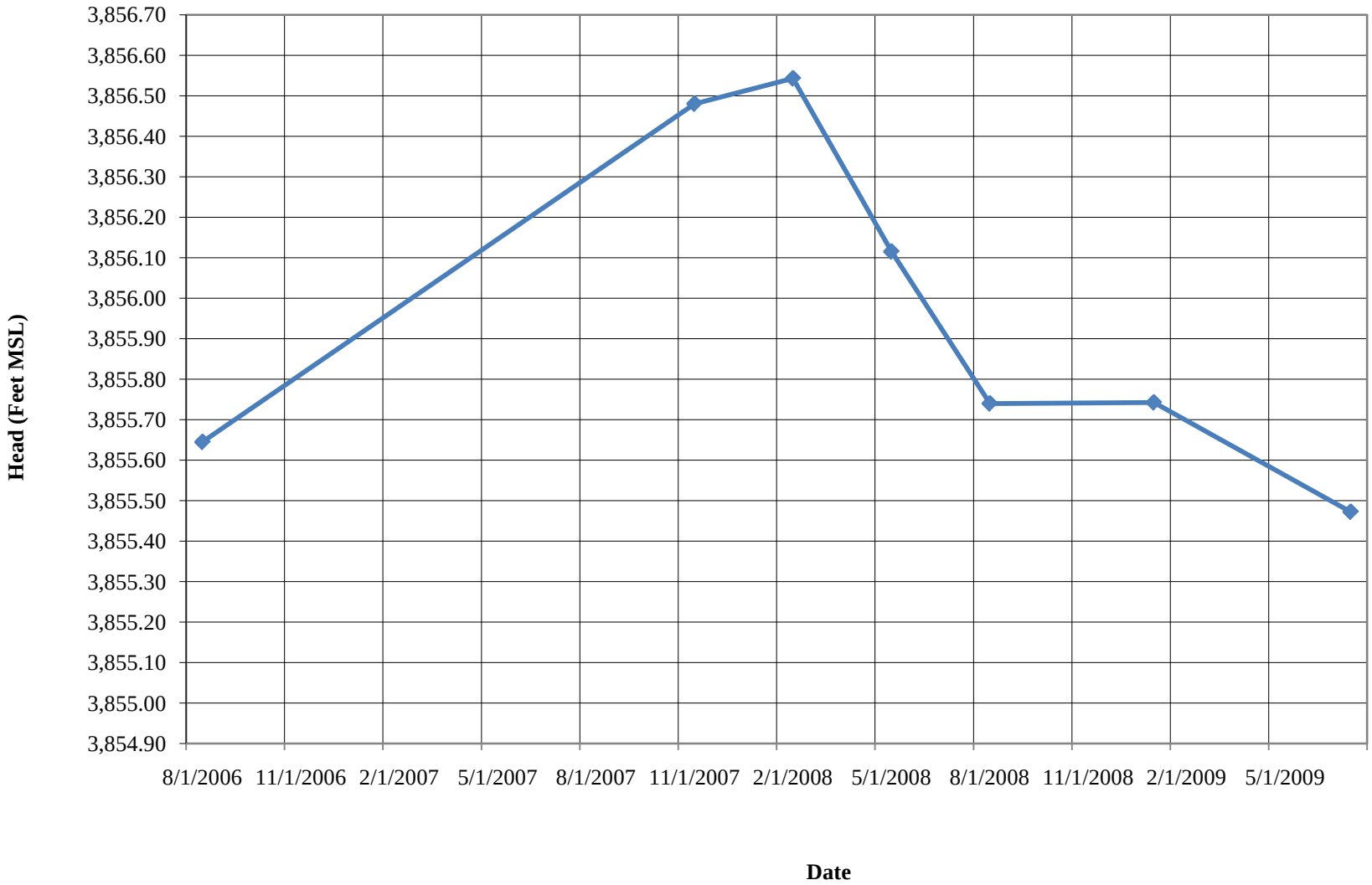
APPENDIX A

HYDROGRAPHS

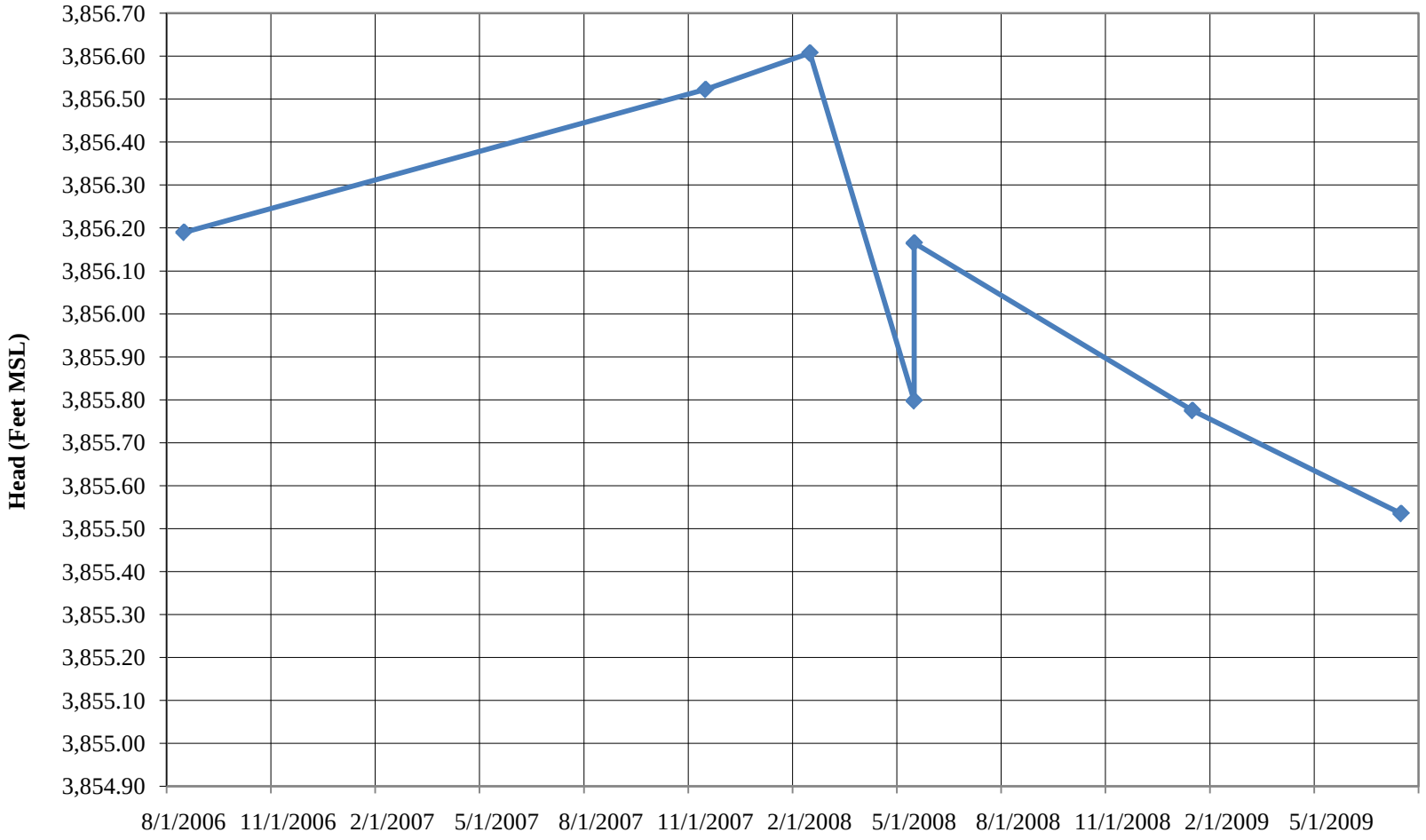
HYDROGRAPH FOR WELL W-1



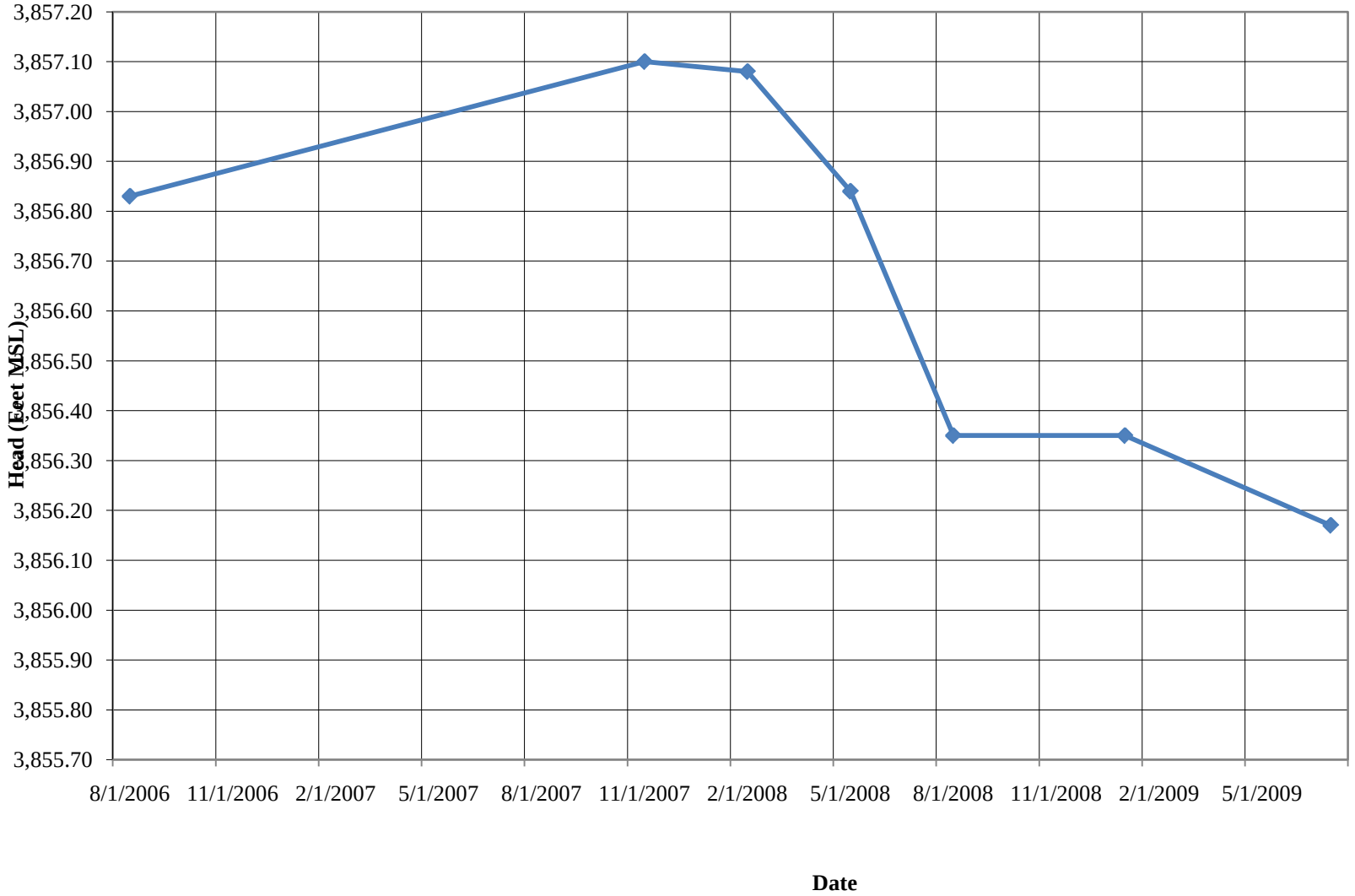
HYDROGRAPH FOR WELL W-2



HYDROGRAPH FOR WELL W-3

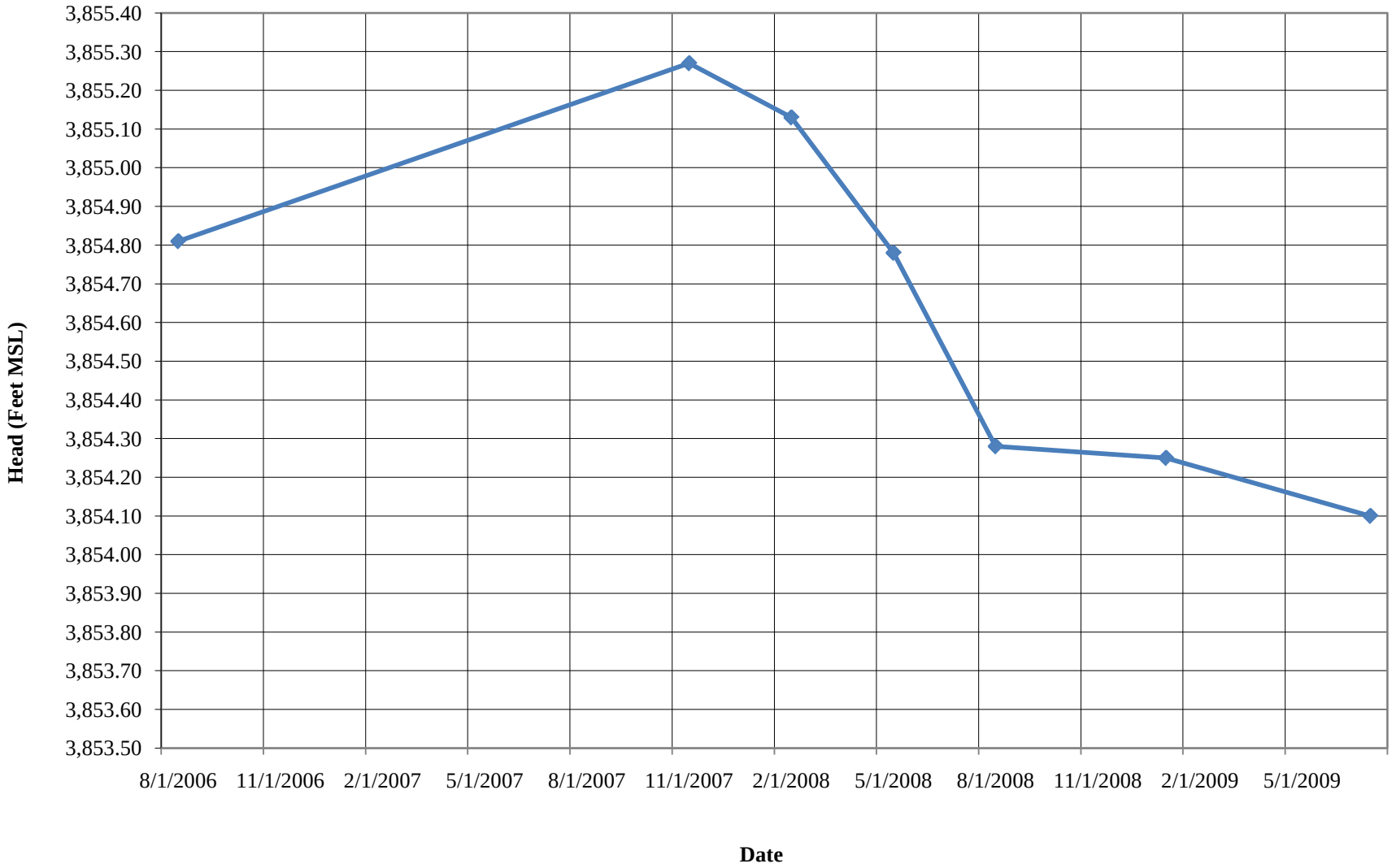


HYDROGRAPH FOR WELL W-5

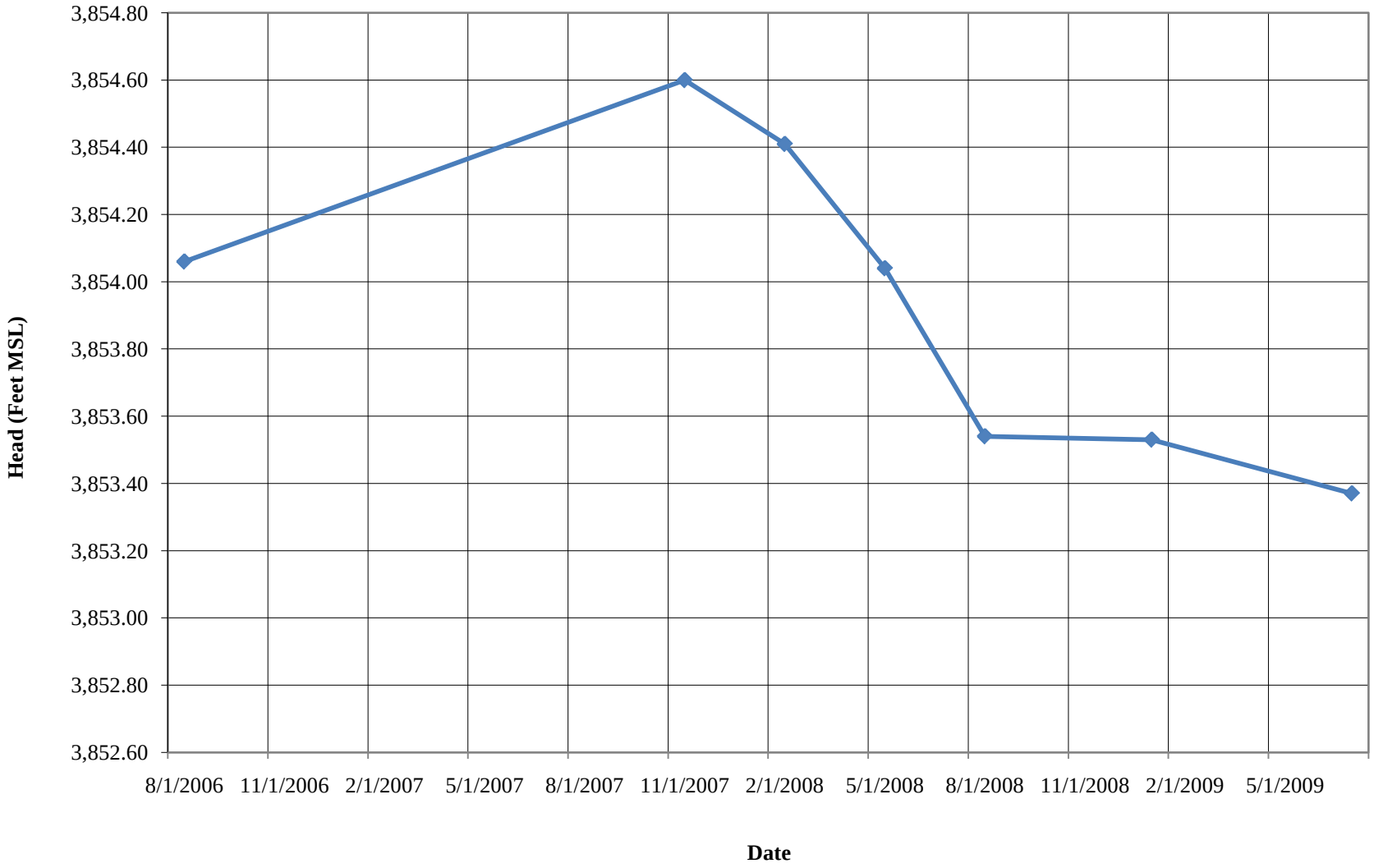


HYDROGRAPH FOR WELL W-7

HYDROGRAPH FOR WELL W-8

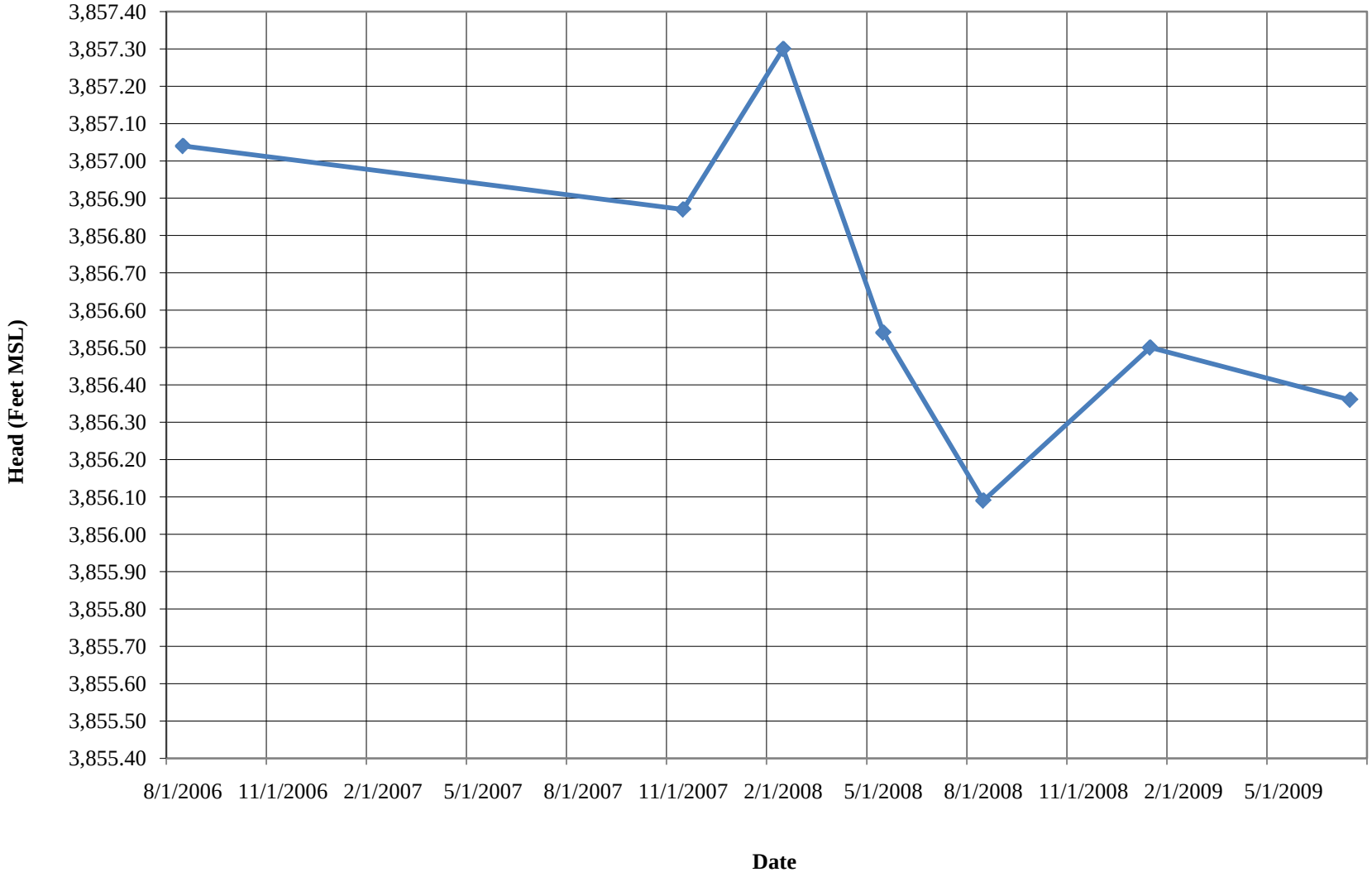


HYDROGRAPH FOR WELL W-9

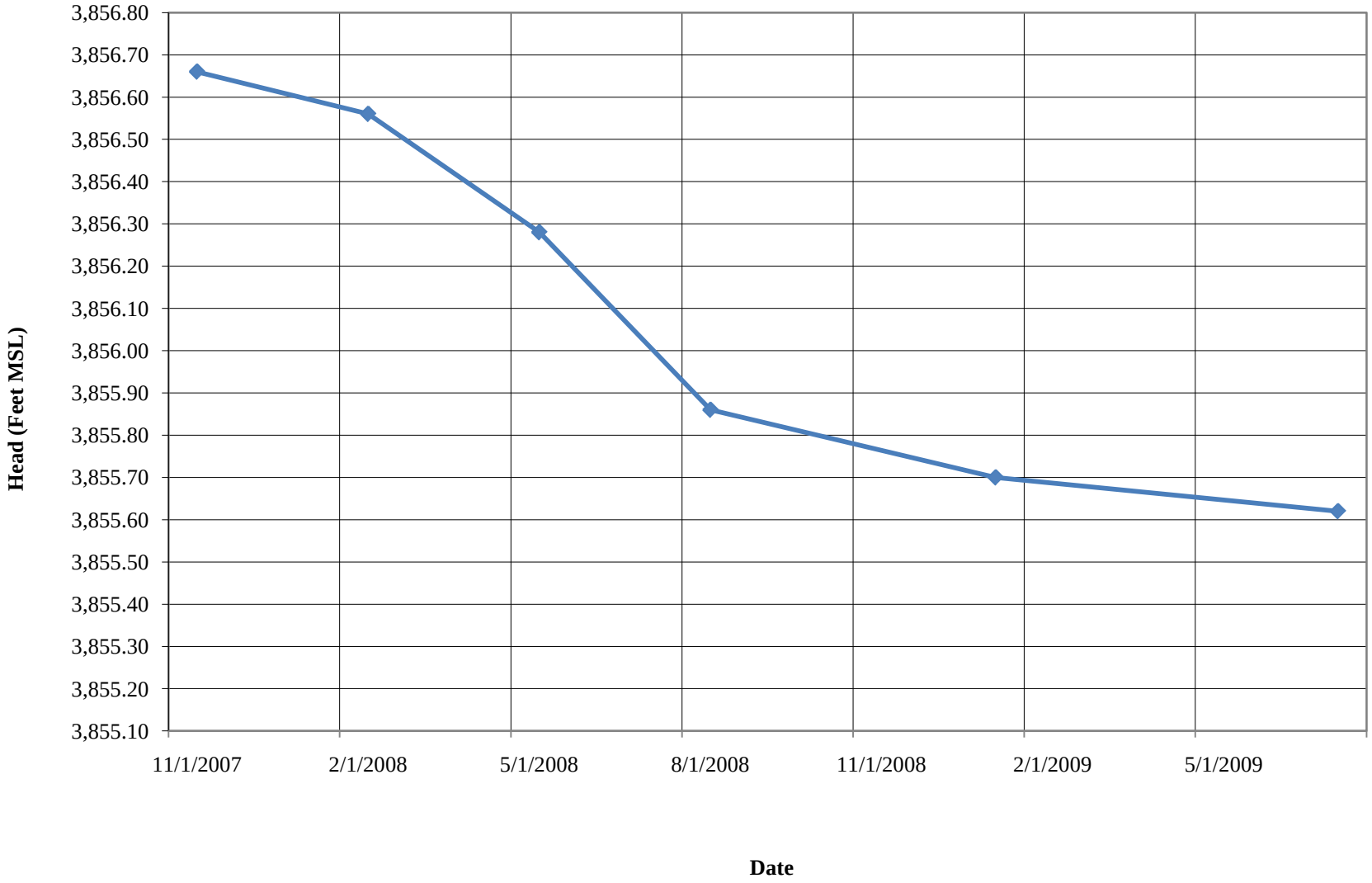


HYDROGRAPH FOR WELL W-11

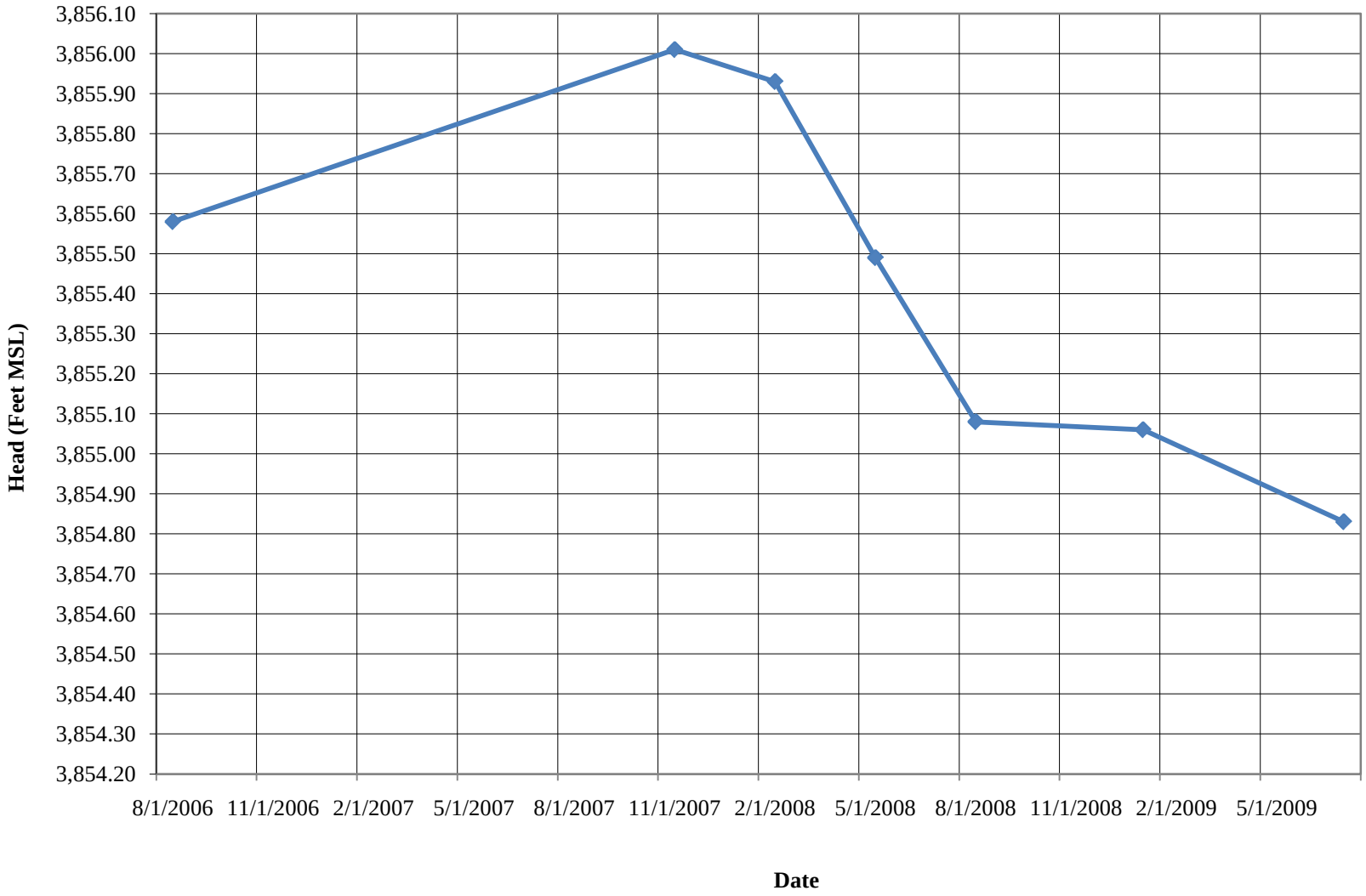
HYDROGRAPH FOR WELL W-12



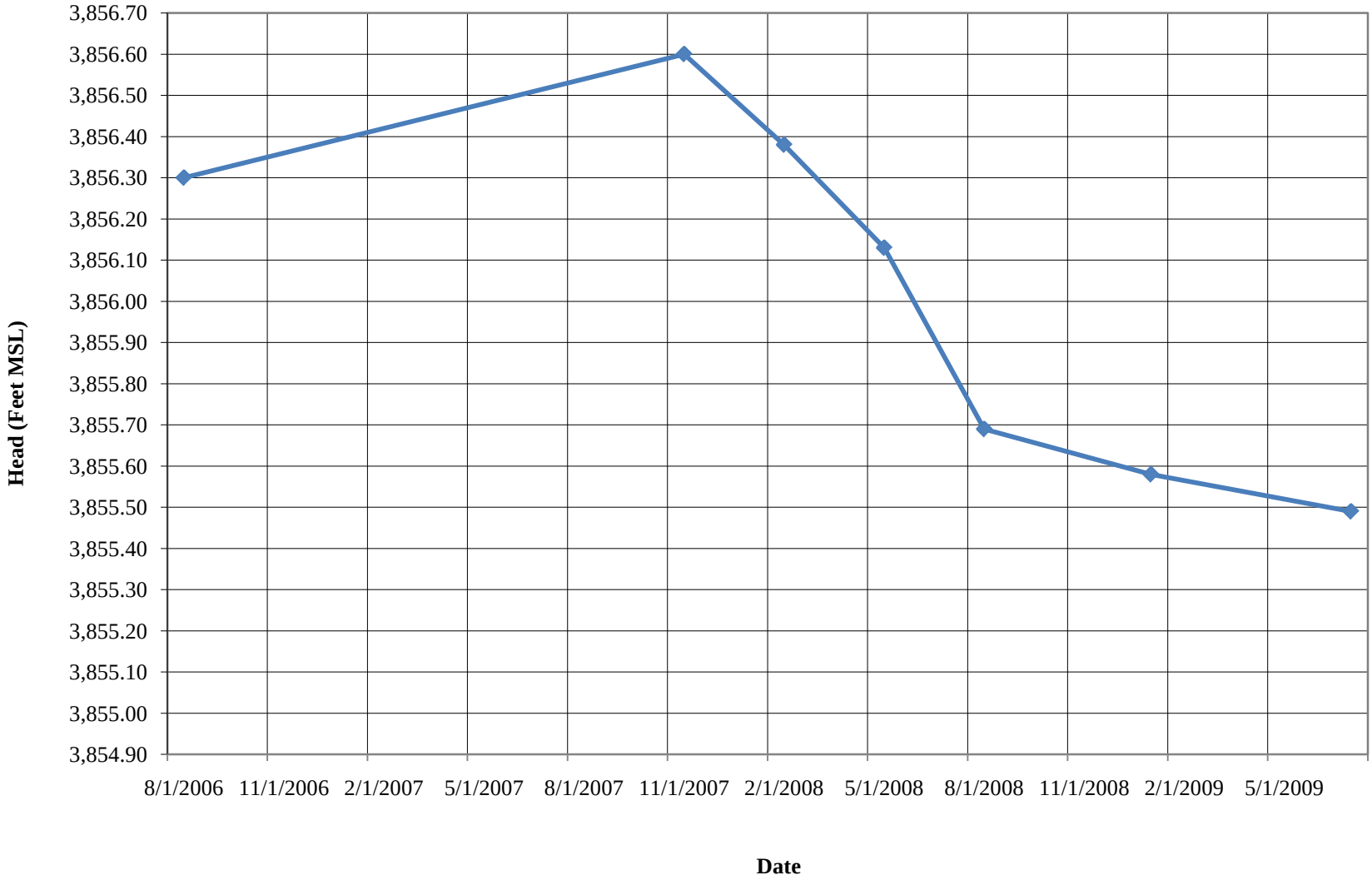
HYDROGRAPH FOR WELL W-13



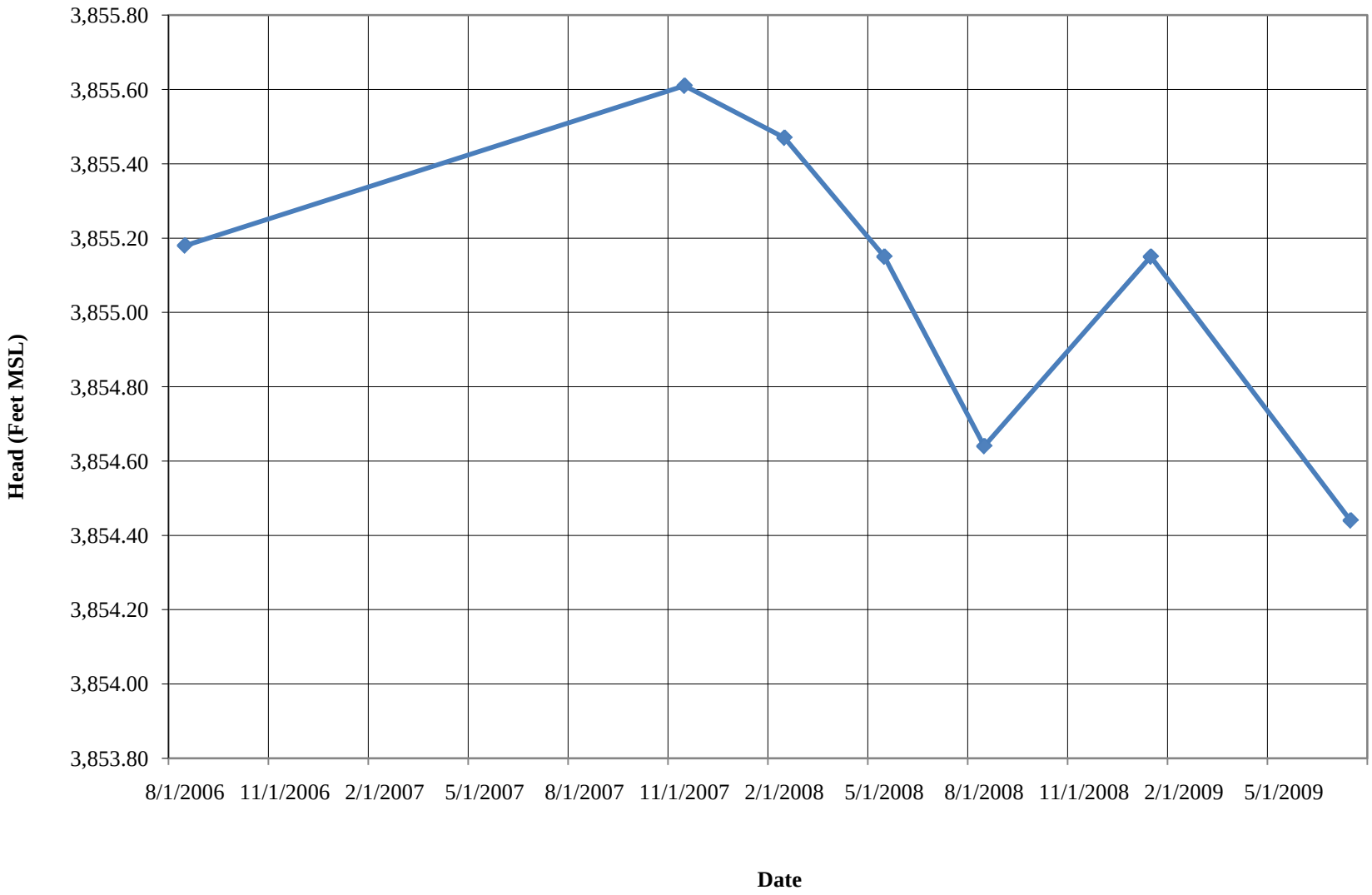
HYDROGRAPH FOR WELL W-14



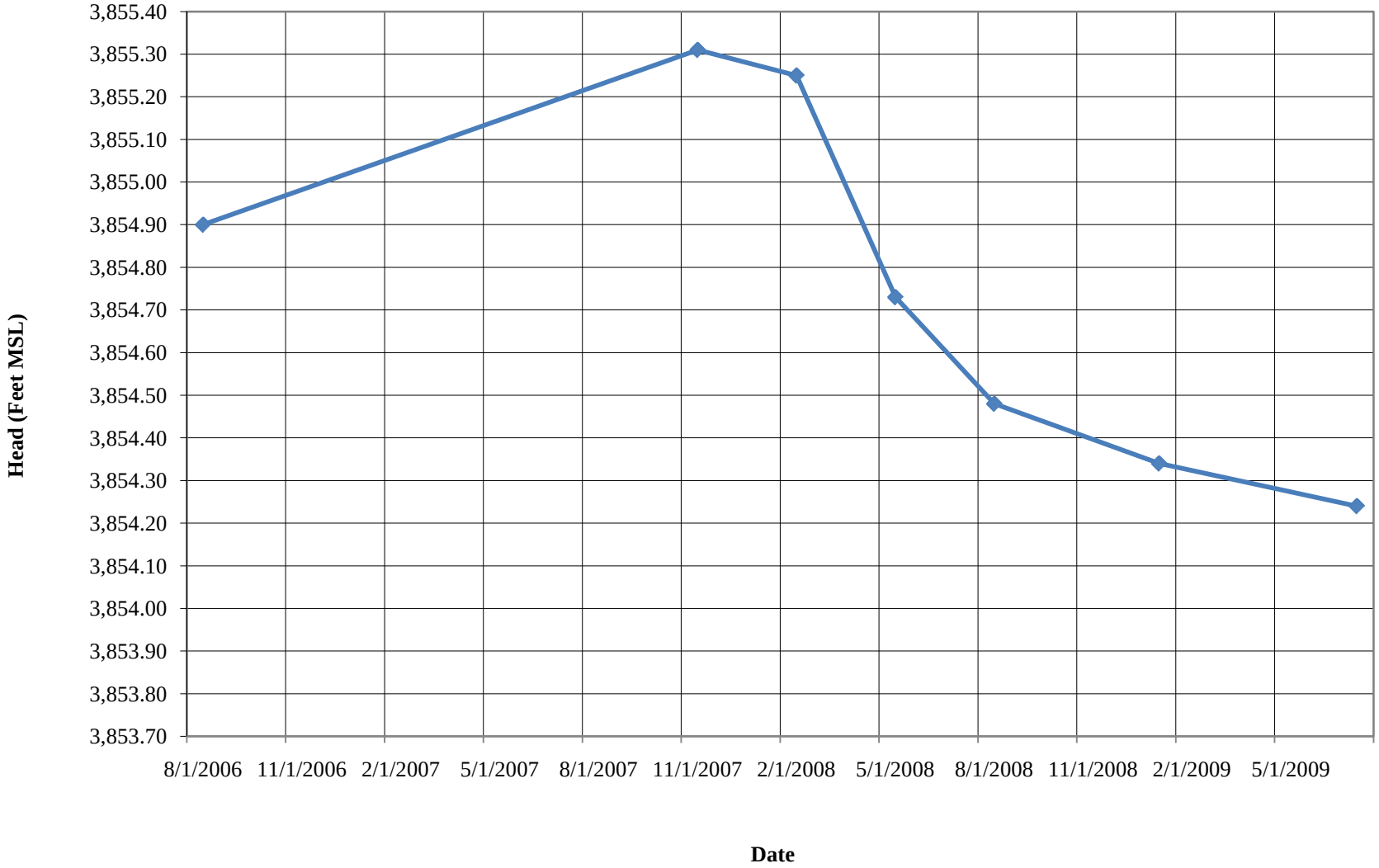
HYDROGRAPH FOR WELL W-15



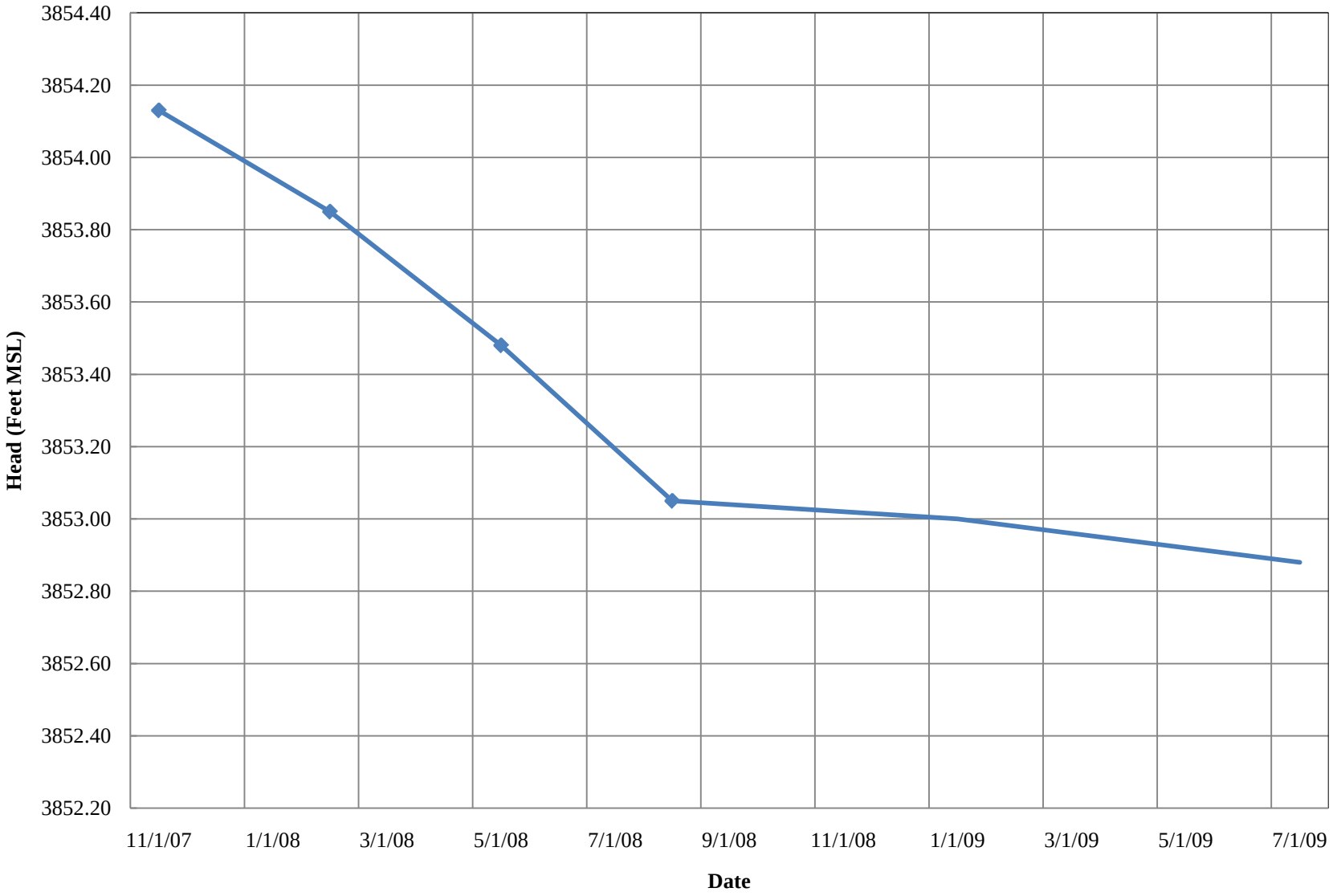
HYDROGRAPH FOR WELL W-16



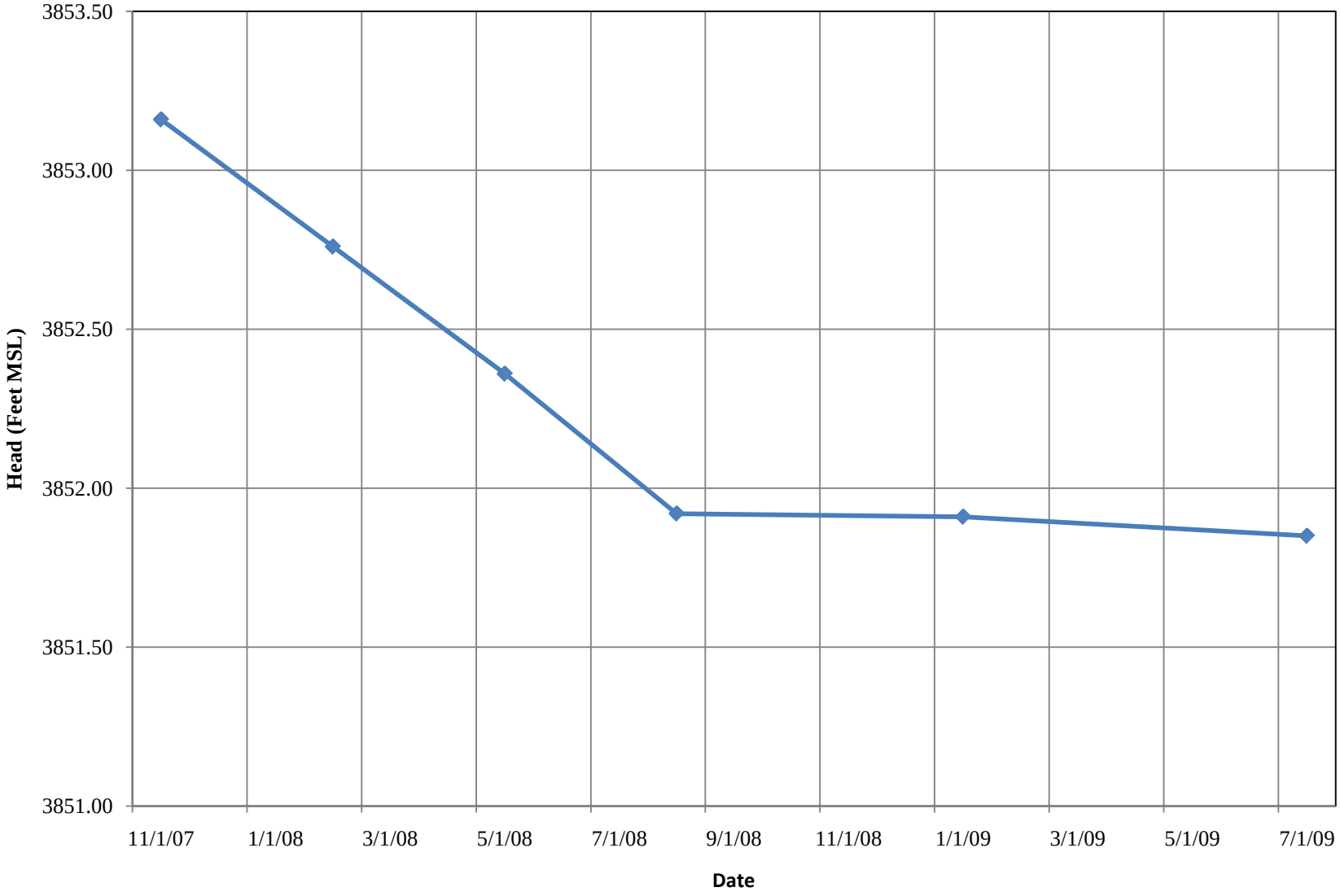
HYDROGRAPH FOR WELL W-18



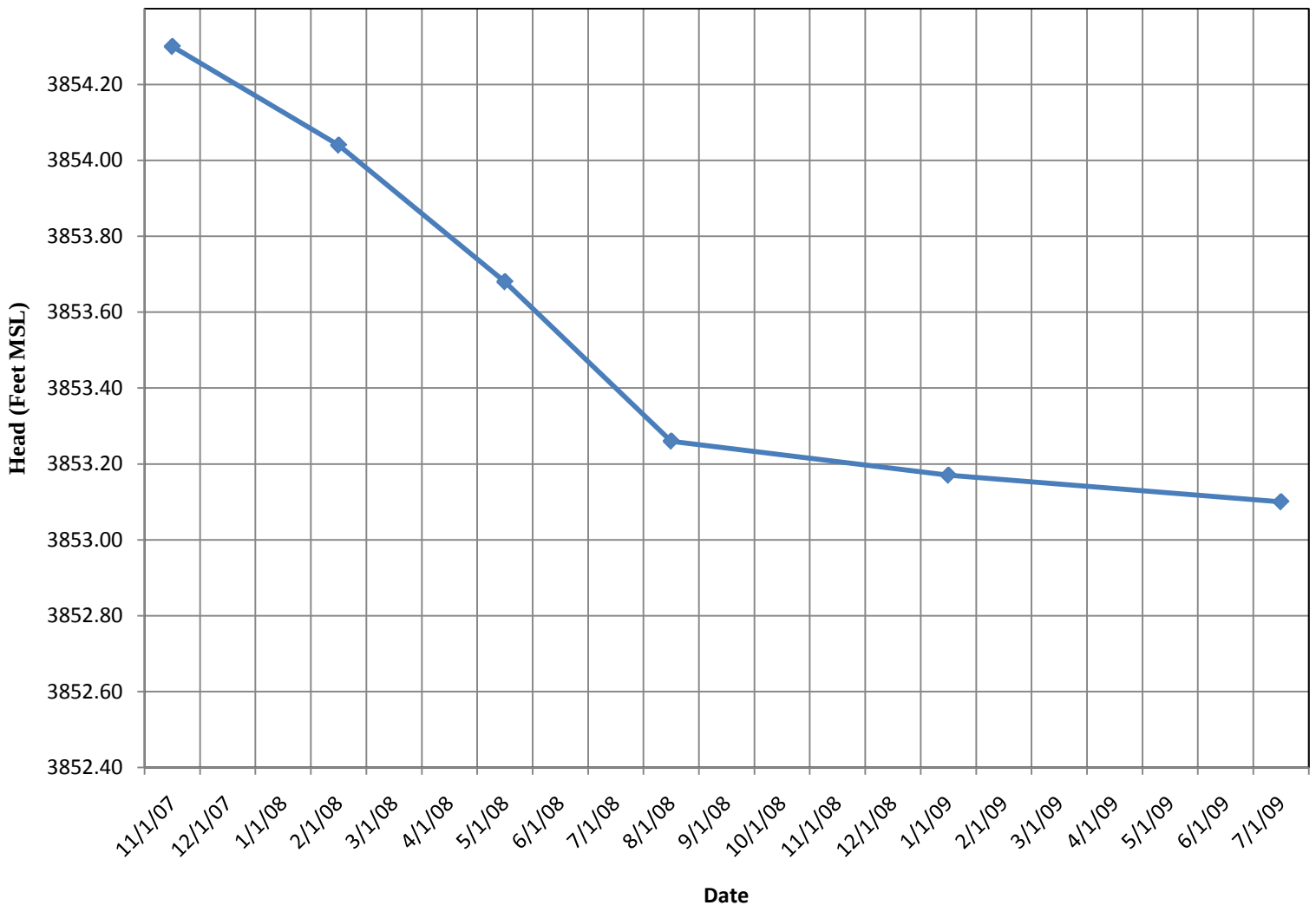
HYDROGRAPH FOR WELL W-19



HYROGRAPH FOR WELL W-20



HYDROGRAPH FOR WELL W-21



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	W-1	Date gauged	7-10-09	
Site	Lovington GG	Time gauged	1110	
Depth to PSH	55.69 Feet	Well diameter	4"	Inches
Depth to water	55.78 Feet	Height of fluid column		Feet
Total depth	Feet	Volume in well		Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged NA Purge Method NA

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 WL Rob Bendkowski

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-2	Date gauged	9-10-09	
Site	Farmington 66	Time gauged	11:15	
Depth to PSH	54.69 Feet	Well diameter	4"	Inches
Depth to water	~~54.80~~ 54.69 Feet	Height of fluid column		Feet
Total depth	Feet	Volume in well		Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged NA Purge Method NA

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 WL Rob Bandkowski

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-3	Date gauged	7-10-09	
Site	Lovington GS	Time gauged	1100	
Depth to PSH	54.75 ~~54.75~~ Feet	Well diameter	4"	Inches
Depth to water	54.77 ~~54.77~~ Feet	Height of fluid column		Feet
Total depth	Feet	Volume in well		Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged NA Purge Method NA

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 WL Rob Bendkowski

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-5	Date gauged	1345	
Site	Lovington 66	Time gauged	7 9 09	
Depth to PSH	____ Feet	Well diameter	2"	Inches
Depth to water	55.54 Feet	Height of fluid column	8.95	Feet
Total depth	64.49 Feet	Volume in well	1.5215	Gallons

(3 well volumes = 4.5 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged ____ Purge Method ____

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1357	.25	25	1744	6.71	—	.58
1405	3	21.3	1875	6.90	—	—
1415	5	21.8	1862	6.83		

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

Time/date sampled 1415 7-9-09 Purged/sampled by [signature]

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	L-7	Date gauged	7-9-09	
Site	Lovington 66	Time gauged	1538	
Depth to PSH	_____ Feet	Well diameter	2"	Inches
Depth to water	54.23 Feet	Height of fluid column	_____	Feet
Total depth	_____ Feet	Volume in well	_____	Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged NA Purge Method NA

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 WL Rob Bendkowski

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-8	Date gauged	7-9-09	
Site	LOVINGTON GG	Time gauged	1600	
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	55.82	Feet	Height of fluid column	9.18	Feet
Total depth	65.03	Feet	Volume in well	1.5406	Gallons

(3 well volumes = 4.6218 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 1613 Purge Method FLOW BASED

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1613	.25	24.3	1164	6.74	—	.48
1622	3.5	21.4	1261	6.68	—	—
1630	5	21.6	1303	6.61	—	—

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

Time/date sampled 1630 Purged/sampled by Rob Bendkowski

Sample method DISPOSABLE BAILER

Requested analyses 8260

Comments/observations HCl ODOR

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-9	Date gauged	7-9-09	
Site	Lovington 66	Time gauged	1305	
~~55.35~~ (R3) OK				
Depth to PSH	~~55.55~~ Feet	Well diameter	2"	Inches
Depth to water	55.35 Feet	Height of fluid column	9.28	Feet
Total depth	64.63 Feet	Volume in well	1.5276	Gallons

(3 well volumes = 4.7338 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 1315 7-9-09 Purge Method _____

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1315	1.25	21.32	1120	6.83	—	.55
1325	3	21.7	1179	6.73	—	—
1330	5	21.9	1229	6.72	—	—

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

Time/date sampled 1330 7-9-09 Purged/sampled by [signature]

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-11	Date gauged	7-9-09	
Site	LOVINGTON 66	Time gauged	1130	
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	55.46	Feet	Height of fluid column	9.41	Feet
Total depth	64.87	Feet	Volume in well	1.5547	Gallons

(3 well volumes = 4.79 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 1140 Purge Method HAND BAILED

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1145	2.5	24.4	1610	6.65		.56
1154	3	22.1	1674	6.80		
1205	5	22.7	1677	6.78		

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

Time/date sampled 1205 7-9-09 Purged/sampled by

Sample method

Requested analyses

Comments/observations SPOKE TAKED PARKING LOT
WST BAILED V. SLIGHT HC ODOR

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	LW-12	Date gauged	7-9-09	
Site	Lovington 66	Time gauged	1533	
Depth to PSH	_____ Feet	Well diameter	2"	Inches
Depth to water	54.23 Feet	Height of fluid column	_____	Feet
Total depth	_____ Feet	Volume in well	_____	Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged NA Purge Method NA

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 WL Rob Bardkowski

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-13	Date gauged	7-9-09	
Site	Lovington 66	Time gauged	1547	
Depth to PSH	_____ Feet	Well diameter	2"	Inches
Depth to water	54.74 Feet	Height of fluid column	_____	Feet
Total depth	_____ Feet	Volume in well	_____	Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged NA Purge Method NA

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 WL Rob Bendkowski

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	0930 2-10-09		
Site	Louisiana Pacific GC	Time gauged	0930		
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	54.90	Feet	Height of fluid column	9.47	Feet
Total depth	64.37	Feet	Volume in well	1.6099	Gallons

64.99

(3 well volumes = 4.8297 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 1030 2-10-09 Purge Method

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1030	.25	25.8	1638	6.55	—	.68
1040	2.5	22.4	1591	6.65	—	—
1050	5	21.5	1592	6.65	—	—

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

Time/date sampled 1050 Purged/sampled by RKL

Sample method Disposable Bailer

Requested analyses 8260

Comments/observations Removed Previously Lost Bailer

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	7-9-09	
Site	LOVINGTON 66	Time gauged	1524	
Depth to PSH	____ Feet	Well diameter	2"	Inches
Depth to water	53.91 Feet	Height of fluid column	____	Feet
Total depth	____ Feet	Volume in well	____	Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged NA Purge Method NA

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 WL Rob Bandkowski

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
Phone: (505) 821-3043; Fax: (505) 821-5273

MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID	MW-16		Date gauged	7-9-09	
Site	Lovington 66		Time gauged	1225	
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	54.23	Feet	Height of fluid column	10.64	Feet
Total depth	64.87	Feet	Volume in well	1.8084	Gallons

(3 well volumes = 5.4252 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 1230 7-9-09 Purge Method HAND BAILER

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1230	1.25	24.1	1497	6.21	—	.61
1240	3	21.2	1643	6.80	—	—
1250	5.5	21.8	1710	6.69		

Actual purge volume 5.5 gal. Field measurements stabilized within ± 10%? N

Time/date sampled 1250 Purged/sampled by [signature]

Sample method DISPOSABLE BAILER

Requested analyses 8260

Comments/observations VERY SLIGHT YELLOW TINT & OIL ODOR

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-19	Date gauged	7-9-09	
Site	Lovington 66	Time gauged	1553	
Depth to PSH	_____ Feet	Well diameter	2"	Inches
Depth to water	55.14 Feet	Height of fluid column	_____	Feet
Total depth	_____ Feet	Volume in well	_____	Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged NA Purge Method NA

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 WL Rob Bendkowski

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-19		Date gauged	7-9-09	
Site	LOVINGTON GG		Time gauged	1055	
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	55.48	Feet	Height of fluid column	9.63	Feet
Total depth	65.11	Feet	Volume in well	1.6371	Gallons

(3 well volumes = 4.9113 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 1100 7-9-09 Purge Method HAND BAILER

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1105	.25	24.8	4644	7.14	-	8.01
	1.25	20.9	1055	7.11	-	-
1115	3	20.8	1151	7.07	-	-
1125	5	20.9	1164	6.98		

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

Time/date sampled 1125 7-9-09 Purged/sampled by [signature]

Sample method DES 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-20		Date gauged	7-9-09	
Site	Lovington GC		Time gauged	0936	
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	55.60	Feet	Height of fluid column	9.4	Feet
Total depth	65.00	Feet	Volume in well	1,548	Gallons

(3 well volumes = 4.744 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 0940 7-9-09 Purge Method HAND BAILED

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
0940	.25	20.4	1033	7.07	-	8.16
0944	1.5	19.8	823	7.21	-	-
0953	3	18.8	840	7.23	—	—
1000	5	19.8	900	7.27	—	—

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

Time/date sampled 1000 7-9-09 Purged/sampled by RB/BG

Sample method 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	L-21	Date gauged	7-9-09	
Site	Lovington GS	Time gauged	1015	
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	55.39	Feet	Height of fluid column	9.39	Feet
Total depth	64.78	Feet	Volume in well	1.5463	Gallons

(3 well volumes = 4.7889 gallons)

GROUNDWATER SAMPLING DATA

Time/date purged 1020 Purge Method HAND BAILER

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1020	.25	21.6	1654	7.15	—	—
1030	1.5	20.6	1733	7.14		
1040	3.5	14.9	1756	7.08		
1045	5	19.8	1742	7.06		

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

Time/date sampled 1045 7-9-09 Purged/sampled by

Sample method BAILER

Requested analyses 8260B

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	All SUDS MW-1	Date gauged	7-10-09
Site	All SUDS	Time gauged	0855
Depth to PSH	_____ Feet	Well diameter	2" Inches
Depth to water	55.12 Feet	Height of fluid column	_____ Feet
Total depth	_____ Feet	Volume in well	_____ Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged NA Purge Method NA

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 WL Rob Bendkowski

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-2		Date gauged	7-10-05	
Site	Allsups		Time gauged	0840	
Depth to PSH		Feet	Well diameter	2"	Inches
Depth to water	55.79	Feet	Height of fluid column		Feet
Total depth		Feet	Volume in well		Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged NA Purge Method NA

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 WL Rob Bendkowski

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-3	Date gauged	7-10-09
Site	Allsups	Time gauged	
Depth to PSH	____ Feet	Well diameter	____ Inches
Depth to water	55.42 Feet	Height of fluid column	____ Feet
Total depth	____ Feet	Volume in well	____ Gallons

(3 well volumes = _____ gallons)

GROUNDWATER SAMPLING DATA

Time/date purged NA Purge Method NA

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 WL Rob Bendkowski

Sample method _____

Requested analyses _____

Comments/observations HC smell from well

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

Chain-of-Custody Record

Client: Giddens Ass Inc

Mailing Address:

Phone #:

email or Fax#:

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

Turn-Around Time:
☐ Standard ☐ Rush _____

Project Name: Lovington 66

Project #: TODDSTEIN

Project Manager: TODDSTEIN

Sampler:

On Ice: ☑ Yes ☐ No

Sample Temperature:

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	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)
7-9-04	1000	AQ	MW-20	3 VOAs												✓		
"	1045	"	MW-21	3 VOAs												✓		
"	1125	"	MW-14	"												✓		
"	1205	"	MW-11	"												✓		
"	1240	"	MW-16	"												✓		
"	1330	"	MW-9	"												✓		
"	1415	"	MW-5	"												✓		
"	1630	"	MW-8	"												✓		
7-10-04	1050	"	MW-14	"												✓		

Date:	Time:	Relinquished by:	Received by:	Date	Time
7-10-04	1245			7/10/04	1645
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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 C

ANALYTICAL LABORATORY REPORTS

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, July 16, 2009

Todd Stein
Golder Associates
5200 Pasadena, NE Suite C
Albuquerque, NM 87113

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

RE: Lovington 66

Order No.: 0907204

Dear Todd Stein:

Hall Environmental Analysis Laboratory, Inc. received 10 sample(s) on 7/13/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

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
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc.

Date: *16-Jul-09*

CLIENT:	Golder Associates	**Client Sample ID:**	MW-20
Lab Order:	0907204	**Collection Date:**	7/9/2009 10:00:00 AM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
Toluene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
Naphthalene	ND	2.0		µg/L	1	7/14/2009 9:09:37 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 9:09:37 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 9:09:37 PM
Acetone	ND	10		µg/L	1	7/14/2009 9:09:37 PM
Bromobenzene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
Bromoform	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
Bromomethane	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
2-Butanone	ND	10		µg/L	1	7/14/2009 9:09:37 PM
Carbon disulfide	ND	10		µg/L	1	7/14/2009 9:09:37 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
Chlorobenzene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
Chloroethane	ND	2.0		µg/L	1	7/14/2009 9:09:37 PM
Chloroform	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
Chloromethane	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/14/2009 9:09:37 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
Dibromomethane	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/14/2009 9:09:37 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
2-Hexanone	ND	10		µg/L	1	7/14/2009 9:09:37 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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: *16-Jul-09*

CLIENT:	Golder Associates	**Client Sample ID:**	MW-20
Lab Order:	0907204	**Collection Date:**	7/9/2009 10:00:00 AM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Isopropylbenzene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/14/2009 9:09:37 PM
Methylene Chloride	ND	3.0		µg/L	1	7/14/2009 9:09:37 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
Styrene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/14/2009 9:09:37 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/14/2009 9:09:37 PM
Vinyl chloride	ND	1.0		µg/L	1	7/14/2009 9:09:37 PM
Xylenes, Total	ND	1.5		µg/L	1	7/14/2009 9:09:37 PM
Surr: 1,2-Dichloroethane-d4	106	68.1-123		%REC	1	7/14/2009 9:09:37 PM
Surr: 4-Bromofluorobenzene	111	53.2-145		%REC	1	7/14/2009 9:09:37 PM
Surr: Dibromofluoromethane	111	68.5-119		%REC	1	7/14/2009 9:09:37 PM
Surr: Toluene-d8	102	64-131		%REC	1	7/14/2009 9:09:37 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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: *16-Jul-09*

CLIENT:	Golder Associates	**Client Sample ID:**	MW-21
Lab Order:	0907204	**Collection Date:**	7/9/2009 10:45:00 AM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
Toluene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
Naphthalene	ND	2.0		µg/L	1	7/14/2009 9:38:48 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 9:38:48 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 9:38:48 PM
Acetone	ND	10		µg/L	1	7/14/2009 9:38:48 PM
Bromobenzene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
Bromoform	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
Bromomethane	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
2-Butanone	ND	10		µg/L	1	7/14/2009 9:38:48 PM
Carbon disulfide	ND	10		µg/L	1	7/14/2009 9:38:48 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
Chlorobenzene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
Chloroethane	ND	2.0		µg/L	1	7/14/2009 9:38:48 PM
Chloroform	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
Chloromethane	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/14/2009 9:38:48 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
Dibromomethane	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/14/2009 9:38:48 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
2-Hexanone	ND	10		µg/L	1	7/14/2009 9:38:48 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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: *16-Jul-09*

CLIENT:	Golder Associates	**Client Sample ID:**	MW-21
Lab Order:	0907204	**Collection Date:**	7/9/2009 10:45:00 AM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/14/2009 9:38:48 PM
Methylene Chloride	ND	3.0		µg/L	1	7/14/2009 9:38:48 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
Styrene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/14/2009 9:38:48 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/14/2009 9:38:48 PM
Vinyl chloride	ND	1.0		µg/L	1	7/14/2009 9:38:48 PM
Xylenes, Total	ND	1.5		µg/L	1	7/14/2009 9:38:48 PM
Surr: 1,2-Dichloroethane-d4	104	68.1-123		%REC	1	7/14/2009 9:38:48 PM
Surr: 4-Bromofluorobenzene	110	53.2-145		%REC	1	7/14/2009 9:38:48 PM
Surr: Dibromofluoromethane	113	68.5-119		%REC	1	7/14/2009 9:38:48 PM
Surr: Toluene-d8	106	64-131		%REC	1	7/14/2009 9:38:48 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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: *16-Jul-09*

CLIENT:	Golder Associates	**Client Sample ID:**	W-19
Lab Order:	0907204	**Collection Date:**	7/9/2009 11:25:00 AM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	3.4	1.0		µg/L	1	7/14/2009 10:07:53 PM
Toluene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,2-Dichloroethane (EDC)	37	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
Naphthalene	ND	2.0		µg/L	1	7/14/2009 10:07:53 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 10:07:53 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 10:07:53 PM
Acetone	ND	10		µg/L	1	7/14/2009 10:07:53 PM
Bromobenzene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
Bromoform	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
Bromomethane	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
2-Butanone	ND	10		µg/L	1	7/14/2009 10:07:53 PM
Carbon disulfide	ND	10		µg/L	1	7/14/2009 10:07:53 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
Chlorobenzene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
Chloroethane	ND	2.0		µg/L	1	7/14/2009 10:07:53 PM
Chloroform	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
Chloromethane	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/14/2009 10:07:53 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
Dibromomethane	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,2-Dichloropropane	3.4	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/14/2009 10:07:53 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
2-Hexanone	ND	10		µg/L	1	7/14/2009 10:07:53 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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		

CLIENT:	Golder Associates	**Client Sample ID:**	W-19
Lab Order:	0907204	**Collection Date:**	7/9/2009 11:25:00 AM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	3.5	1.0		µg/L	1	7/14/2009 10:07:53 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/14/2009 10:07:53 PM
Methylene Chloride	ND	3.0		µg/L	1	7/14/2009 10:07:53 PM
n-Butylbenzene	1.9	1.0		µg/L	1	7/14/2009 10:07:53 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
Styrene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/14/2009 10:07:53 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/14/2009 10:07:53 PM
Vinyl chloride	ND	1.0		µg/L	1	7/14/2009 10:07:53 PM
Xylenes, Total	ND	1.5		µg/L	1	7/14/2009 10:07:53 PM
Surr: 1,2-Dichloroethane-d4	104	68.1-123		%REC	1	7/14/2009 10:07:53 PM
Surr: 4-Bromofluorobenzene	112	53.2-145		%REC	1	7/14/2009 10:07:53 PM
Surr: Dibromofluoromethane	112	68.5-119		%REC	1	7/14/2009 10:07:53 PM
Surr: Toluene-d8	102	64-131		%REC	1	7/14/2009 10:07:53 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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: *16-Jul-09*

CLIENT:	Golder Associates	**Client Sample ID:**	W-11
Lab Order:	0907204	**Collection Date:**	7/9/2009 12:05:00 PM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
Toluene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
Ethylbenzene	34	1.0		µg/L	1	7/14/2009 10:36:50 PM
Methyl tert-butyl ether (MTBE)	160	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,2,4-Trimethylbenzene	2.8	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,3,5-Trimethylbenzene	9.7	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,2-Dichloroethane (EDC)	44	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
Naphthalene	ND	2.0		µg/L	1	7/14/2009 10:36:50 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 10:36:50 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 10:36:50 PM
Acetone	ND	10		µg/L	1	7/14/2009 10:36:50 PM
Bromobenzene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
Bromoform	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
Bromomethane	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
2-Butanone	ND	10		µg/L	1	7/14/2009 10:36:50 PM
Carbon disulfide	ND	10		µg/L	1	7/14/2009 10:36:50 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
Chlorobenzene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
Chloroethane	ND	2.0		µg/L	1	7/14/2009 10:36:50 PM
Chloroform	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
Chloromethane	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/14/2009 10:36:50 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
Dibromomethane	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/14/2009 10:36:50 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
2-Hexanone	ND	10		µg/L	1	7/14/2009 10:36:50 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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		

CLIENT:	Golder Associates	**Client Sample ID:**	W-11
Lab Order:	0907204	**Collection Date:**	7/9/2009 12:05:00 PM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	6.8	1.0		µg/L	1	7/14/2009 10:36:50 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/14/2009 10:36:50 PM
Methylene Chloride	ND	3.0		µg/L	1	7/14/2009 10:36:50 PM
n-Butylbenzene	1.1	1.0		µg/L	1	7/14/2009 10:36:50 PM
n-Propylbenzene	7.7	1.0		µg/L	1	7/14/2009 10:36:50 PM
sec-Butylbenzene	2.4	1.0		µg/L	1	7/14/2009 10:36:50 PM
Styrene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/14/2009 10:36:50 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/14/2009 10:36:50 PM
Vinyl chloride	ND	1.0		µg/L	1	7/14/2009 10:36:50 PM
Xylenes, Total	7.2	1.5		µg/L	1	7/14/2009 10:36:50 PM
Surr: 1,2-Dichloroethane-d4	100	68.1-123		%REC	1	7/14/2009 10:36:50 PM
Surr: 4-Bromofluorobenzene	113	53.2-145		%REC	1	7/14/2009 10:36:50 PM
Surr: Dibromofluoromethane	108	68.5-119		%REC	1	7/14/2009 10:36:50 PM
Surr: Toluene-d8	107	64-131		%REC	1	7/14/2009 10:36:50 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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: *16-Jul-09*

CLIENT:	Golder Associates	**Client Sample ID:**	W-16
Lab Order:	0907204	**Collection Date:**	7/9/2009 12:50:00 PM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	35	1.0		µg/L	1	7/15/2009 1:32:28 AM
Toluene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
Ethylbenzene	1.3	1.0		µg/L	1	7/15/2009 1:32:28 AM
Methyl tert-butyl ether (MTBE)	11	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,2,4-Trimethylbenzene	3.2	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,3,5-Trimethylbenzene	6.6	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,2-Dichloroethane (EDC)	3.8	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
Naphthalene	2.7	2.0		µg/L	1	7/15/2009 1:32:28 AM
1-Methylnaphthalene	5.2	4.0		µg/L	1	7/15/2009 1:32:28 AM
2-Methylnaphthalene	6.6	4.0		µg/L	1	7/15/2009 1:32:28 AM
Acetone	ND	10		µg/L	1	7/15/2009 1:32:28 AM
Bromobenzene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
Bromoform	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
Bromomethane	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
2-Butanone	ND	10		µg/L	1	7/15/2009 1:32:28 AM
Carbon disulfide	ND	10		µg/L	1	7/15/2009 1:32:28 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
Chlorobenzene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
Chloroethane	ND	2.0		µg/L	1	7/15/2009 1:32:28 AM
Chloroform	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
Chloromethane	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/15/2009 1:32:28 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
Dibromomethane	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/15/2009 1:32:28 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
2-Hexanone	ND	10		µg/L	1	7/15/2009 1:32:28 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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: *16-Jul-09*

CLIENT:	Golder Associates	**Client Sample ID:**	W-16
Lab Order:	0907204	**Collection Date:**	7/9/2009 12:50:00 PM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	2.7	1.0		µg/L	1	7/15/2009 1:32:28 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/15/2009 1:32:28 AM
Methylene Chloride	ND	3.0		µg/L	1	7/15/2009 1:32:28 AM
n-Butylbenzene	2.3	1.0		µg/L	1	7/15/2009 1:32:28 AM
n-Propylbenzene	1.0	1.0		µg/L	1	7/15/2009 1:32:28 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
Styrene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/15/2009 1:32:28 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/15/2009 1:32:28 AM
Vinyl chloride	ND	1.0		µg/L	1	7/15/2009 1:32:28 AM
Xylenes, Total	ND	1.5		µg/L	1	7/15/2009 1:32:28 AM
Surr: 1,2-Dichloroethane-d4	104	68.1-123		%REC	1	7/15/2009 1:32:28 AM
Surr: 4-Bromofluorobenzene	116	53.2-145		%REC	1	7/15/2009 1:32:28 AM
Surr: Dibromofluoromethane	110	68.5-119		%REC	1	7/15/2009 1:32:28 AM
Surr: Toluene-d8	112	64-131		%REC	1	7/15/2009 1:32:28 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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: *16-Jul-09*

CLIENT:	Golder Associates	**Client Sample ID:**	W-9
Lab Order:	0907204	**Collection Date:**	7/9/2009 1:30:00 PM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-06	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	6400	100		µg/L	100	7/15/2009 2:03:00 AM
Toluene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
Ethylbenzene	1100	100		µg/L	100	7/15/2009 2:03:00 AM
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
1,2,4-Trimethylbenzene	530	100		µg/L	100	7/15/2009 2:03:00 AM
1,3,5-Trimethylbenzene	160	5.0		µg/L	5	7/15/2009 2:33:26 AM
1,2-Dichloroethane (EDC)	570	100		µg/L	100	7/15/2009 2:03:00 AM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
Naphthalene	110	10		µg/L	5	7/15/2009 2:33:26 AM
1-Methylnaphthalene	ND	20		µg/L	5	7/15/2009 2:33:26 AM
2-Methylnaphthalene	29	20		µg/L	5	7/15/2009 2:33:26 AM
Acetone	ND	50		µg/L	5	7/15/2009 2:33:26 AM
Bromobenzene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
Bromodichloromethane	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
Bromoform	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
Bromomethane	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
2-Butanone	ND	50		µg/L	5	7/15/2009 2:33:26 AM
Carbon disulfide	ND	50		µg/L	5	7/15/2009 2:33:26 AM
Carbon Tetrachloride	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
Chlorobenzene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
Chloroethane	ND	10		µg/L	5	7/15/2009 2:33:26 AM
Chloroform	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
Chloromethane	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
2-Chlorotoluene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
4-Chlorotoluene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
cis-1,2-DCE	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	7/15/2009 2:33:26 AM
Dibromochloromethane	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
Dibromomethane	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
Dichlorodifluoromethane	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
1,1-Dichloroethane	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
1,1-Dichloroethene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
1,2-Dichloropropane	37	5.0		µg/L	5	7/15/2009 2:33:26 AM
1,3-Dichloropropane	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
2,2-Dichloropropane	ND	10		µg/L	5	7/15/2009 2:33:26 AM
1,1-Dichloropropene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
Hexachlorobutadiene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
2-Hexanone	ND	50		µg/L	5	7/15/2009 2:33:26 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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: *16-Jul-09*

CLIENT:	Golder Associates	**Client Sample ID:**	W-9
Lab Order:	0907204	**Collection Date:**	7/9/2009 1:30:00 PM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-06	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	49	5.0		µg/L	5	7/15/2009 2:33:26 AM
4-Isopropyltoluene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
4-Methyl-2-pentanone	ND	50		µg/L	5	7/15/2009 2:33:26 AM
Methylene Chloride	ND	15		µg/L	5	7/15/2009 2:33:26 AM
n-Butylbenzene	13	5.0		µg/L	5	7/15/2009 2:33:26 AM
n-Propylbenzene	110	5.0		µg/L	5	7/15/2009 2:33:26 AM
sec-Butylbenzene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
Styrene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
tert-Butylbenzene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	7/15/2009 2:33:26 AM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
trans-1,2-DCE	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
Trichloroethene (TCE)	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
Trichlorofluoromethane	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
1,2,3-Trichloropropane	ND	10		µg/L	5	7/15/2009 2:33:26 AM
Vinyl chloride	ND	5.0		µg/L	5	7/15/2009 2:33:26 AM
Xylenes, Total	460	7.5		µg/L	5	7/15/2009 2:33:26 AM
Surr: 1,2-Dichloroethane-d4	101	68.1-123		%REC	5	7/15/2009 2:33:26 AM
Surr: 4-Bromofluorobenzene	105	53.2-145		%REC	5	7/15/2009 2:33:26 AM
Surr: Dibromofluoromethane	107	68.5-119		%REC	5	7/15/2009 2:33:26 AM
Surr: Toluene-d8	115	64-131		%REC	5	7/15/2009 2:33:26 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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: *16-Jul-09*

CLIENT:	Golder Associates	**Client Sample ID:**	W-5
Lab Order:	0907204	**Collection Date:**	7/9/2009 2:15:00 PM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-07	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
Toluene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
Ethylbenzene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
Methyl tert-butyl ether (MTBE)	21	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
Naphthalene	ND	2.0		µg/L	1	7/15/2009 3:31:46 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/15/2009 3:31:46 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/15/2009 3:31:46 AM
Acetone	ND	10		µg/L	1	7/15/2009 3:31:46 AM
Bromobenzene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
Bromoform	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
Bromomethane	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
2-Butanone	ND	10		µg/L	1	7/15/2009 3:31:46 AM
Carbon disulfide	ND	10		µg/L	1	7/15/2009 3:31:46 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
Chlorobenzene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
Chloroethane	ND	2.0		µg/L	1	7/15/2009 3:31:46 AM
Chloroform	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
Chloromethane	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/15/2009 3:31:46 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
Dibromomethane	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/15/2009 3:31:46 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
2-Hexanone	ND	10		µg/L	1	7/15/2009 3:31:46 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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: *16-Jul-09*

CLIENT:	Golder Associates	**Client Sample ID:**	W-5
Lab Order:	0907204	**Collection Date:**	7/9/2009 2:15:00 PM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-07	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/15/2009 3:31:46 AM
Methylene Chloride	ND	3.0		µg/L	1	7/15/2009 3:31:46 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
Styrene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/15/2009 3:31:46 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/15/2009 3:31:46 AM
Vinyl chloride	ND	1.0		µg/L	1	7/15/2009 3:31:46 AM
Xylenes, Total	ND	1.5		µg/L	1	7/15/2009 3:31:46 AM
Surr: 1,2-Dichloroethane-d4	100	68.1-123		%REC	1	7/15/2009 3:31:46 AM
Surr: 4-Bromofluorobenzene	108	53.2-145		%REC	1	7/15/2009 3:31:46 AM
Surr: Dibromofluoromethane	109	68.5-119		%REC	1	7/15/2009 3:31:46 AM
Surr: Toluene-d8	107	64-131		%REC	1	7/15/2009 3:31:46 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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: *16-Jul-09*

CLIENT:	Golder Associates	**Client Sample ID:**	W-8
Lab Order:	0907204	**Collection Date:**	7/9/2009 4:30:00 PM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-08	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	18000	400		µg/L	400	7/15/2009 4:00:38 AM
Toluene	26000	400		µg/L	400	7/15/2009 4:00:38 AM
Ethylbenzene	2400	50		µg/L	50	7/15/2009 4:29:43 AM
Methyl tert-butyl ether (MTBE)	13000	400		µg/L	400	7/15/2009 4:00:38 AM
1,2,4-Trimethylbenzene	1800	50		µg/L	50	7/15/2009 4:29:43 AM
1,3,5-Trimethylbenzene	530	50		µg/L	50	7/15/2009 4:29:43 AM
1,2-Dichloroethane (EDC)	2300	50		µg/L	50	7/15/2009 4:29:43 AM
1,2-Dibromoethane (EDB)	230	50		µg/L	50	7/15/2009 4:29:43 AM
Naphthalene	500	100		µg/L	50	7/15/2009 4:29:43 AM
1-Methylnaphthalene	ND	200		µg/L	50	7/15/2009 4:29:43 AM
2-Methylnaphthalene	ND	200		µg/L	50	7/15/2009 4:29:43 AM
Acetone	ND	500		µg/L	50	7/15/2009 4:29:43 AM
Bromobenzene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
Bromodichloromethane	ND	50		µg/L	50	7/15/2009 4:29:43 AM
Bromoform	ND	50		µg/L	50	7/15/2009 4:29:43 AM
Bromomethane	ND	50		µg/L	50	7/15/2009 4:29:43 AM
2-Butanone	ND	500		µg/L	50	7/15/2009 4:29:43 AM
Carbon disulfide	ND	500		µg/L	50	7/15/2009 4:29:43 AM
Carbon Tetrachloride	ND	50		µg/L	50	7/15/2009 4:29:43 AM
Chlorobenzene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
Chloroethane	ND	100		µg/L	50	7/15/2009 4:29:43 AM
Chloroform	ND	50		µg/L	50	7/15/2009 4:29:43 AM
Chloromethane	ND	50		µg/L	50	7/15/2009 4:29:43 AM
2-Chlorotoluene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
4-Chlorotoluene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
cis-1,2-DCE	ND	50		µg/L	50	7/15/2009 4:29:43 AM
cis-1,3-Dichloropropene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	7/15/2009 4:29:43 AM
Dibromochloromethane	ND	50		µg/L	50	7/15/2009 4:29:43 AM
Dibromomethane	ND	50		µg/L	50	7/15/2009 4:29:43 AM
1,2-Dichlorobenzene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
1,3-Dichlorobenzene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
1,4-Dichlorobenzene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
Dichlorodifluoromethane	ND	50		µg/L	50	7/15/2009 4:29:43 AM
1,1-Dichloroethane	ND	50		µg/L	50	7/15/2009 4:29:43 AM
1,1-Dichloroethene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
1,2-Dichloropropane	82	50		µg/L	50	7/15/2009 4:29:43 AM
1,3-Dichloropropane	ND	50		µg/L	50	7/15/2009 4:29:43 AM
2,2-Dichloropropane	ND	100		µg/L	50	7/15/2009 4:29:43 AM
1,1-Dichloropropene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
Hexachlorobutadiene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
2-Hexanone	ND	500		µg/L	50	7/15/2009 4:29:43 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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: *16-Jul-09*

CLIENT:	Golder Associates	**Client Sample ID:**	W-8
Lab Order:	0907204	**Collection Date:**	7/9/2009 4:30:00 PM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-08	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Isopropylbenzene	120	50		µg/L	50	7/15/2009 4:29:43 AM
4-Isopropyltoluene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
4-Methyl-2-pentanone	ND	500		µg/L	50	7/15/2009 4:29:43 AM
Methylene Chloride	ND	150		µg/L	50	7/15/2009 4:29:43 AM
n-Butylbenzene	52	50		µg/L	50	7/15/2009 4:29:43 AM
n-Propylbenzene	210	50		µg/L	50	7/15/2009 4:29:43 AM
sec-Butylbenzene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
Styrene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
tert-Butylbenzene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	7/15/2009 4:29:43 AM
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	7/15/2009 4:29:43 AM
Tetrachloroethene (PCE)	ND	50		µg/L	50	7/15/2009 4:29:43 AM
trans-1,2-DCE	ND	50		µg/L	50	7/15/2009 4:29:43 AM
trans-1,3-Dichloropropene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
1,2,3-Trichlorobenzene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	50	7/15/2009 4:29:43 AM
1,1,1-Trichloroethane	ND	50		µg/L	50	7/15/2009 4:29:43 AM
1,1,2-Trichloroethane	ND	50		µg/L	50	7/15/2009 4:29:43 AM
Trichloroethene (TCE)	ND	50		µg/L	50	7/15/2009 4:29:43 AM
Trichlorofluoromethane	ND	50		µg/L	50	7/15/2009 4:29:43 AM
1,2,3-Trichloropropane	ND	100		µg/L	50	7/15/2009 4:29:43 AM
Vinyl chloride	ND	50		µg/L	50	7/15/2009 4:29:43 AM
Xylenes, Total	11000	75		µg/L	50	7/15/2009 4:29:43 AM
Surr: 1,2-Dichloroethane-d4	107	68.1-123		%REC	50	7/15/2009 4:29:43 AM
Surr: 4-Bromofluorobenzene	105	53.2-145		%REC	50	7/15/2009 4:29:43 AM
Surr: Dibromofluoromethane	111	68.5-119		%REC	50	7/15/2009 4:29:43 AM
Surr: Toluene-d8	111	64-131		%REC	50	7/15/2009 4:29:43 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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: *16-Jul-09*

CLIENT:	Golder Associates	**Client Sample ID:**	W-14
Lab Order:	0907204	**Collection Date:**	7/10/2009 10:50:00 AM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-09	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	26000	400		µg/L	400	7/15/2009 5:27:43 AM
Toluene	24000	400		µg/L	400	7/15/2009 5:27:43 AM
Ethylbenzene	4000	50		µg/L	50	7/15/2009 5:56:44 AM
Methyl tert-butyl ether (MTBE)	2600	50		µg/L	50	7/15/2009 5:56:44 AM
1,2,4-Trimethylbenzene	1400	50		µg/L	50	7/15/2009 5:56:44 AM
1,3,5-Trimethylbenzene	390	50		µg/L	50	7/15/2009 5:56:44 AM
1,2-Dichloroethane (EDC)	160	50		µg/L	50	7/15/2009 5:56:44 AM
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	7/15/2009 5:56:44 AM
Naphthalene	590	100		µg/L	50	7/15/2009 5:56:44 AM
1-Methylnaphthalene	ND	200		µg/L	50	7/15/2009 5:56:44 AM
2-Methylnaphthalene	ND	200		µg/L	50	7/15/2009 5:56:44 AM
Acetone	ND	500		µg/L	50	7/15/2009 5:56:44 AM
Bromobenzene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
Bromodichloromethane	ND	50		µg/L	50	7/15/2009 5:56:44 AM
Bromoform	ND	50		µg/L	50	7/15/2009 5:56:44 AM
Bromomethane	ND	50		µg/L	50	7/15/2009 5:56:44 AM
2-Butanone	ND	500		µg/L	50	7/15/2009 5:56:44 AM
Carbon disulfide	ND	500		µg/L	50	7/15/2009 5:56:44 AM
Carbon Tetrachloride	ND	50		µg/L	50	7/15/2009 5:56:44 AM
Chlorobenzene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
Chloroethane	ND	100		µg/L	50	7/15/2009 5:56:44 AM
Chloroform	ND	50		µg/L	50	7/15/2009 5:56:44 AM
Chloromethane	ND	50		µg/L	50	7/15/2009 5:56:44 AM
2-Chlorotoluene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
4-Chlorotoluene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
cis-1,2-DCE	ND	50		µg/L	50	7/15/2009 5:56:44 AM
cis-1,3-Dichloropropene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	7/15/2009 5:56:44 AM
Dibromochloromethane	ND	50		µg/L	50	7/15/2009 5:56:44 AM
Dibromomethane	ND	50		µg/L	50	7/15/2009 5:56:44 AM
1,2-Dichlorobenzene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
1,3-Dichlorobenzene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
1,4-Dichlorobenzene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
Dichlorodifluoromethane	ND	50		µg/L	50	7/15/2009 5:56:44 AM
1,1-Dichloroethane	ND	50		µg/L	50	7/15/2009 5:56:44 AM
1,1-Dichloroethene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
1,2-Dichloropropane	ND	50		µg/L	50	7/15/2009 5:56:44 AM
1,3-Dichloropropane	ND	50		µg/L	50	7/15/2009 5:56:44 AM
2,2-Dichloropropane	ND	100		µg/L	50	7/15/2009 5:56:44 AM
1,1-Dichloropropene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
Hexachlorobutadiene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
2-Hexanone	ND	500		µg/L	50	7/15/2009 5:56:44 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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		

CLIENT:	Golder Associates	**Client Sample ID:**	W-14
Lab Order:	0907204	**Collection Date:**	7/10/2009 10:50:00 AM
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-09	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Isopropylbenzene	160	50		µg/L	50	7/15/2009 5:56:44 AM
4-Isopropyltoluene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
4-Methyl-2-pentanone	ND	500		µg/L	50	7/15/2009 5:56:44 AM
Methylene Chloride	ND	150		µg/L	50	7/15/2009 5:56:44 AM
n-Butylbenzene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
n-Propylbenzene	250	50		µg/L	50	7/15/2009 5:56:44 AM
sec-Butylbenzene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
Styrene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
tert-Butylbenzene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	7/15/2009 5:56:44 AM
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	7/15/2009 5:56:44 AM
Tetrachloroethene (PCE)	ND	50		µg/L	50	7/15/2009 5:56:44 AM
trans-1,2-DCE	ND	50		µg/L	50	7/15/2009 5:56:44 AM
trans-1,3-Dichloropropene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
1,2,3-Trichlorobenzene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	50	7/15/2009 5:56:44 AM
1,1,1-Trichloroethane	ND	50		µg/L	50	7/15/2009 5:56:44 AM
1,1,2-Trichloroethane	ND	50		µg/L	50	7/15/2009 5:56:44 AM
Trichloroethene (TCE)	ND	50		µg/L	50	7/15/2009 5:56:44 AM
Trichlorofluoromethane	ND	50		µg/L	50	7/15/2009 5:56:44 AM
1,2,3-Trichloropropane	ND	100		µg/L	50	7/15/2009 5:56:44 AM
Vinyl chloride	ND	50		µg/L	50	7/15/2009 5:56:44 AM
Xylenes, Total	11000	75		µg/L	50	7/15/2009 5:56:44 AM
Surr: 1,2-Dichloroethane-d4	116	68.1-123		%REC	50	7/15/2009 5:56:44 AM
Surr: 4-Bromofluorobenzene	95.4	53.2-145		%REC	50	7/15/2009 5:56:44 AM
Surr: Dibromofluoromethane	105	68.5-119		%REC	50	7/15/2009 5:56:44 AM
Surr: Toluene-d8	121	64-131		%REC	50	7/15/2009 5:56:44 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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: *16-Jul-09*

CLIENT:	Golder Associates	**Client Sample ID:**	TRIP BLANK
Lab Order:	0907204	**Collection Date:**	
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-10	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
Toluene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
Ethylbenzene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
Naphthalene	ND	2.0		µg/L	1	7/15/2009 6:54:36 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/15/2009 6:54:36 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/15/2009 6:54:36 AM
Acetone	ND	10		µg/L	1	7/15/2009 6:54:36 AM
Bromobenzene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
Bromoform	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
Bromomethane	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
2-Butanone	ND	10		µg/L	1	7/15/2009 6:54:36 AM
Carbon disulfide	ND	10		µg/L	1	7/15/2009 6:54:36 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
Chlorobenzene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
Chloroethane	ND	2.0		µg/L	1	7/15/2009 6:54:36 AM
Chloroform	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
Chloromethane	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/15/2009 6:54:36 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
Dibromomethane	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/15/2009 6:54:36 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
2-Hexanone	ND	10		µg/L	1	7/15/2009 6:54:36 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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: *16-Jul-09*

CLIENT:	Golder Associates	**Client Sample ID:**	TRIP BLANK
Lab Order:	0907204	**Collection Date:**	
Project:	Lovington 66	**Date Received:**	7/13/2009
Lab ID:	0907204-10	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Isopropylbenzene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/15/2009 6:54:36 AM
Methylene Chloride	ND	3.0		µg/L	1	7/15/2009 6:54:36 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
Styrene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/15/2009 6:54:36 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/15/2009 6:54:36 AM
Vinyl chloride	ND	1.0		µg/L	1	7/15/2009 6:54:36 AM
Xylenes, Total	ND	1.5		µg/L	1	7/15/2009 6:54:36 AM
Surr: 1,2-Dichloroethane-d4	101	68.1-123		%REC	1	7/15/2009 6:54:36 AM
Surr: 4-Bromofluorobenzene	112	53.2-145		%REC	1	7/15/2009 6:54:36 AM
Surr: Dibromofluoromethane	113	68.5-119		%REC	1	7/15/2009 6:54:36 AM
Surr: Toluene-d8	102	64-131		%REC	1	7/15/2009 6:54:36 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	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:** 0907204

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R34626**		Analysis Date: 7/14/2009 10:46:48 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						
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	Estimated value	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:** 0907204

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID:	**R34526**	Analysis Date:	7/14/2009 10:46:48 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: b5		*MBLK*			Batch ID:	**R34526**	Analysis Date:	7/15/2009 12:32:57 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	Estimated value	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:** 0907204

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: b5		*MBLK*			Batch ID: **R34526**		Analysis Date: 7/15/2009 12:32:57 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: 100ng lcs		*LCS*			Batch ID: **R34526**		Analysis Date: 7/14/2009 11:45:10 AM		

Qualifiers:

E	Estimated value	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:** 0907204

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 100ng lcs		*LCS*			Batch ID: **R34526**		Analysis Date:	7/14/2009 11:45:10 AM	
Benzene	19.55	µg/L	1.0	97.8	76.7	114			
Toluene	18.53	µg/L	1.0	92.6	78.4	117			
Chlorobenzene	19.61	µg/L	1.0	98.1	80.7	127			
1,1-Dichloroethene	21.56	µg/L	1.0	108	80.2	128			
Trichloroethene (TCE)	19.70	µg/L	1.0	98.5	77.4	115			
Sample ID: 100ng lcs_b		*LCS*			Batch ID: **R34526**		Analysis Date:	7/15/2009 12:03:56 AM	
Benzene	19.49	µg/L	1.0	97.4	76.7	114			
Toluene	19.03	µg/L	1.0	95.1	78.4	117			
Chlorobenzene	18.99	µg/L	1.0	95.0	80.7	127			
1,1-Dichloroethene	22.75	µg/L	1.0	114	80.2	128			
Trichloroethene (TCE)	19.39	µg/L	1.0	96.9	77.4	115			

Qualifiers:

E	Estimated value	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: **7/13/2009**

Work Order Number **0907204** Received by: AT

Checklist completed by: _____ 7/13/09 Sample ID labels checked by: _____
Signature Date 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 ☐		Number of preserved bottles checked for pH:
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 ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**1.0°**	*<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: Todd Asp Env

Mailing Address:

Phone #:

email or Fax#:

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

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: Lovington 66

Project #: TODDSTEIN

Project Manager: TODDSTEIN

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 4.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0906194	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	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)
7-9-09	1000	AQU	MW-20	3 VOAs		1										✓						
"	1045	"	MW-21	3 VOAs		2										✓						
"	1125	"	MW-19	"		3										✓						
"	1205	"	MW-11	"		4										✓						
"	1250	"	MW-16	"		5										✓						
"	1330	"	MW-9	"		6										✓						
"	1415	"	MW-5	"		7										✓						
"	1630	"	MW-8	"		8										✓						
7-10-09	1050	"	MW-14	"		9										✓						
			Trip Blank			10																

Date:	Time:	Relinquished by:	Received by:	Date	Time
7-10-09	1745			7/10/09	1645
Date:	Time:	Relinquished by:	Received by:	Date	Time

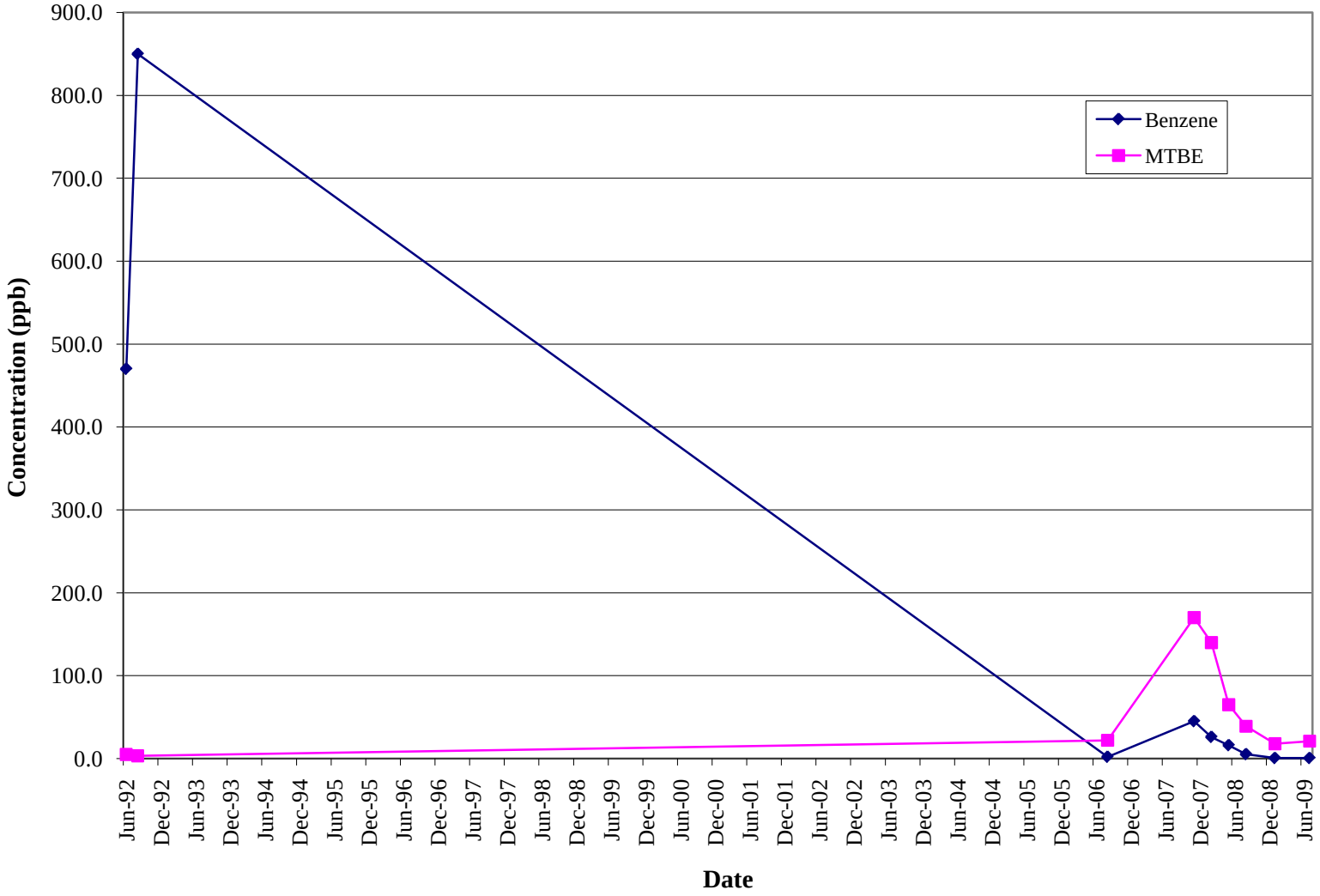
Remarks:

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.

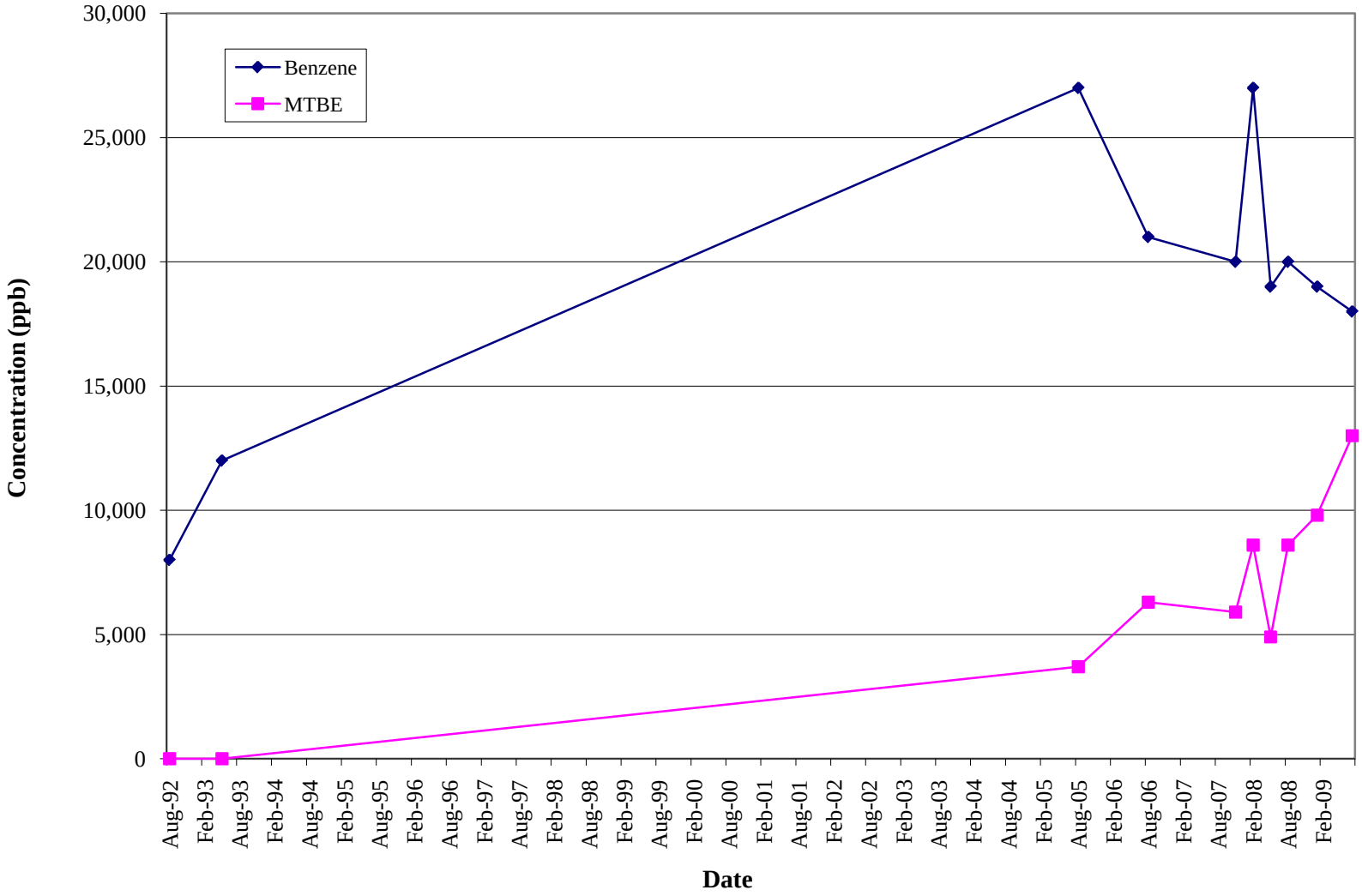
APPENDIX D

CONCENTRATION TRENDS

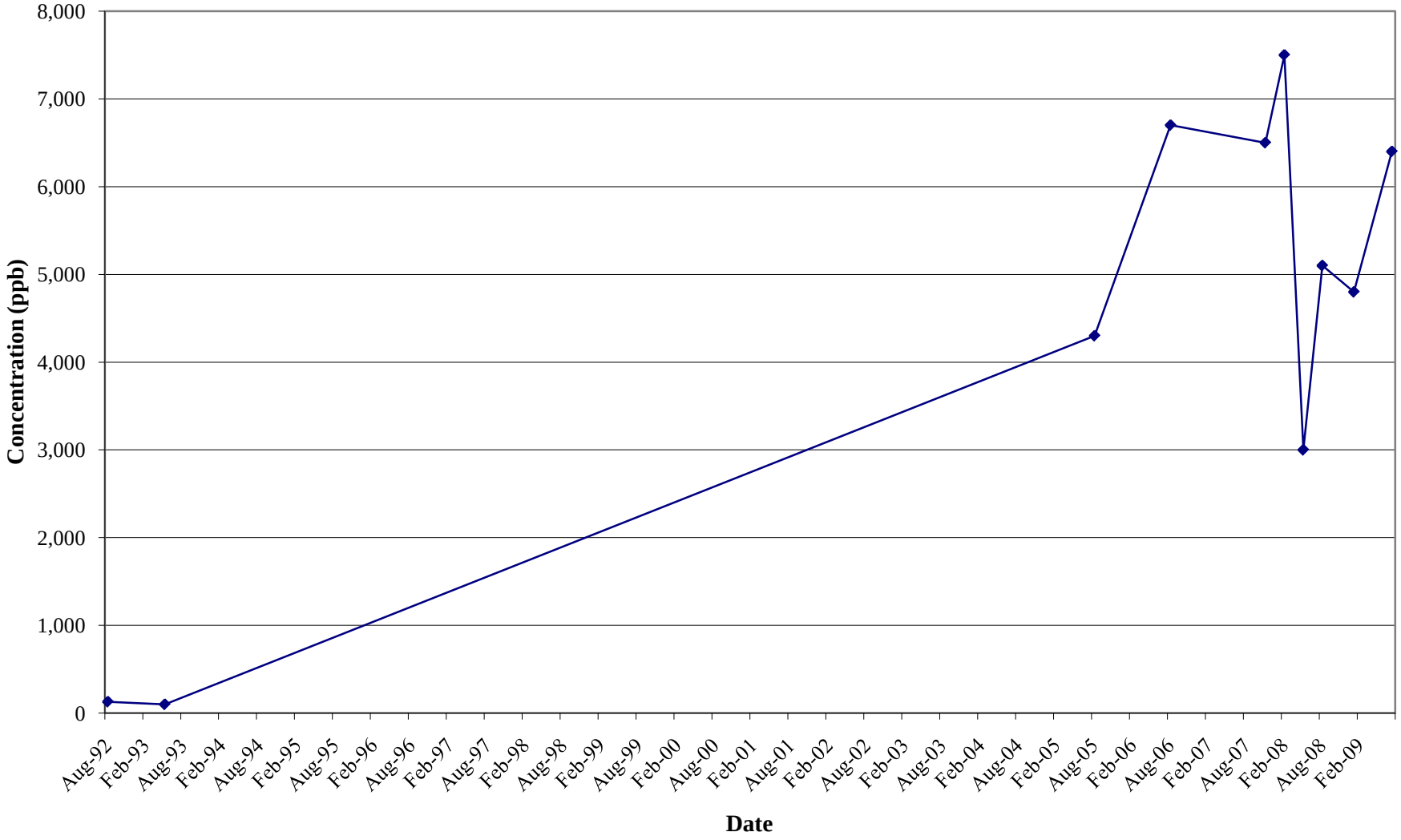
BENZENE AND MTBE TRENDS FOR W-5



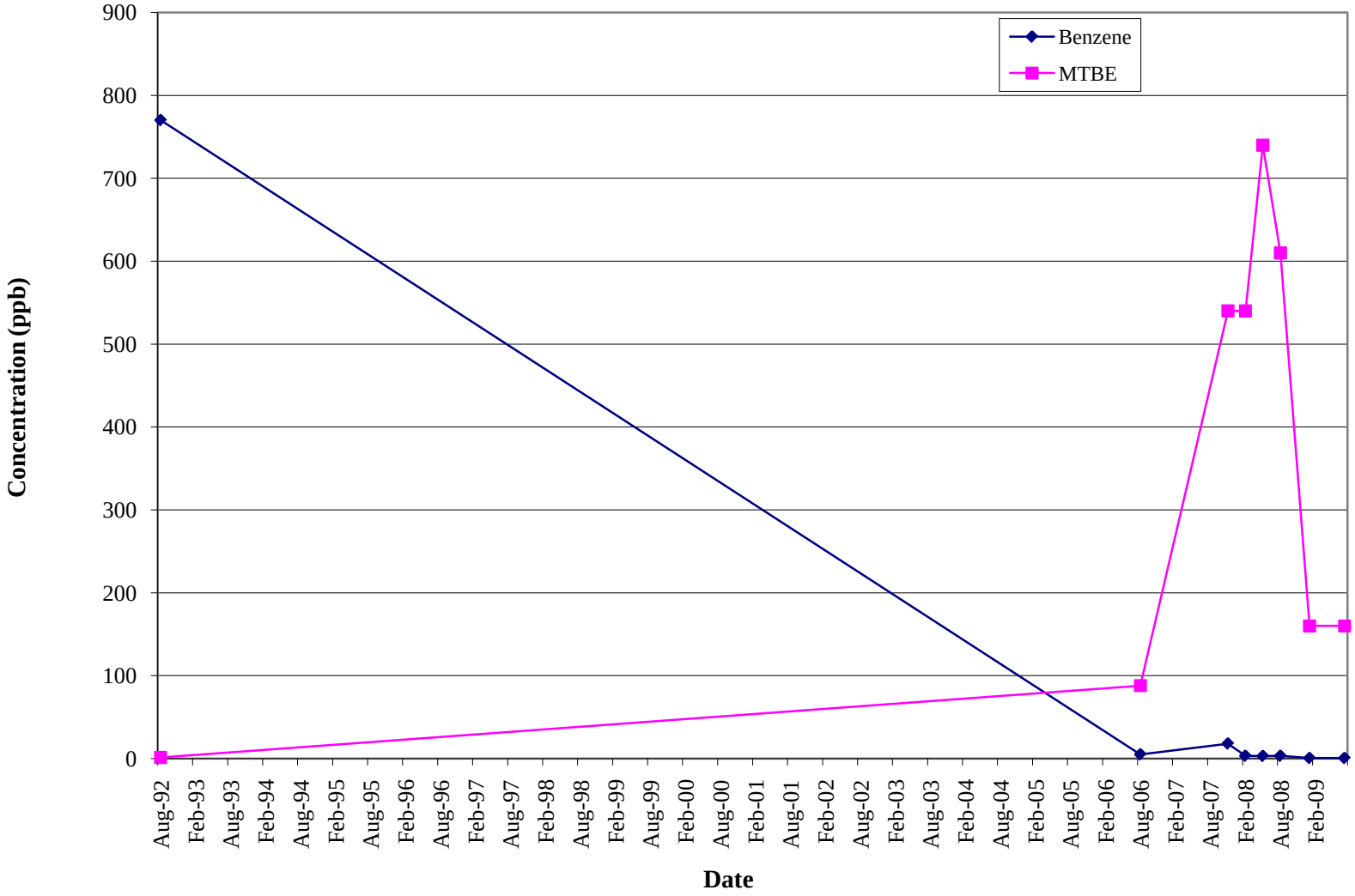
BENZENE AND MTBE TRENDS FOR W-8



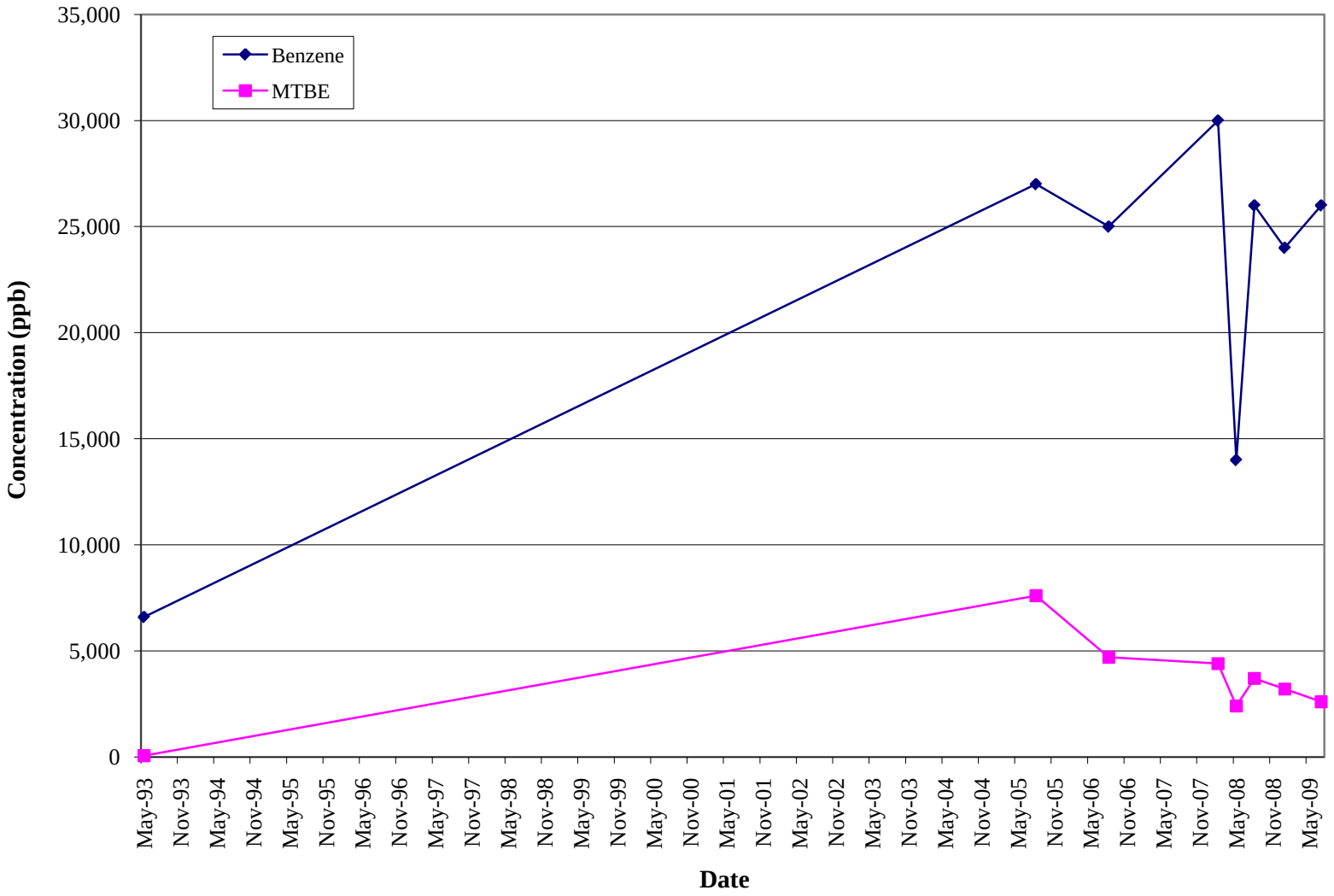
BENZENE TREND FOR W-9



BENZENE AND MTBE TRENDS FOR W-11



BENZENE AND MTBE TRENDS FOR W-14



BENZENE AND MTBE TRENDS FOR W-16