



EA Engineering, Science, & Technology, Inc.  
320 Gold Avenue SW, Suite 1210  
Albuquerque, New Mexico 87102  
Phone: (505) 224-9013 Fax (505) 224-9016

October 20, 2011

Mr. George Beaumont  
New Mexico Environment Department  
Petroleum Storage Tank Bureau  
1301 Siler Road, Building B  
Santa Fe, New Mexico 87507

Dear Mr. Beaumont:

On behalf of Conway Oil Company, EA Engineering, Science, and Technology, Inc. is submitting the Annual Groundwater Monitoring Report for the Holiday Chevron site located in Tucumcari, New Mexico. Groundwater monitoring was conducted on September 28, 2011, in accordance with the applicable requirements of the New Mexico Administrative Code, Title 20, Chapter 5, Part 12 titled "Corrective Action for UST Systems Containing Petroleum Products", and the Petroleum Storage Tank Bureau's "Guidelines for Corrective Action" (NMED 2000).

The total approved scope of work was completed during this sampling event. The total for the first Annual Monitoring Report including work plan preparation and New Mexico Gross Receipts Tax of 7% is \$5,831.50.

Please let me know if you have any questions regarding the information provided in this report.

Sincerely,

A handwritten signature in black ink, appearing to read 'Teri McMillan', written in a cursive style.

Teri McMillan  
Project Manager

A handwritten signature in blue ink, appearing to read 'Jay Snyder', written in a cursive style.

Jay Snyder  
Senior Hydrogeologist

Enclosure

Cc: Jim Conway, Conway Oil Company  
File



ANNUAL GROUNDWATER MONITORING  
REPORT

HOLIDAY CHEVRON  
PSTB FACILITY #1407

3623 EAST TUCUMCARI BLVD  
TUCUMCARI, NEW MEXICO

Prepared for:

Mr. Jim Conway  
Conway Oil Company  
1348 US Hwy 60-84  
Clovis, NM 88101

Prepared by:

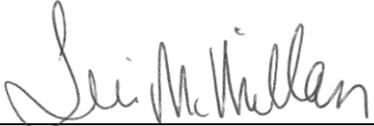
EA Engineering, Science, and Technology, Inc.  
320 Gold Avenue SW, Suite 1210  
Albuquerque, New Mexico 87102

October 2011

EA Project No. 6231702.04

**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: Teri McMillan  
Affiliation: EA Engineering, Science, and Technology, Inc.  
Title: Senior Geologist  
Date: October 20, 2011

## I. INTRODUCTION

On behalf of Conway Oil Company, EA Engineering, Science, and Technology, Inc. (EA) has prepared this Annual Groundwater Monitoring Report for the Holiday Chevron located at 3623 East Tucumcari Boulevard, Tucumcari, New Mexico (Site). This report was completed in accordance with the *Work Plan for Annual Groundwater Monitoring*, dated June 29, 2011, prepared by EA to satisfy the requirements stated in the New Mexico Administrative Code (NMAC), Title 20, Chapter 5, Part 12 (20.5.12 NMAC) and the New Mexico Environment Department (NMED) Petroleum Storage Tank Bureau (PSTB) Guidelines for Corrective Action (GCA) (NMED 2000). The work plan was approved by the NMED PSTB on July 19, 2011. Work was completed under work plan identification number (WPID #) 16128-1.

The Site, located on the east end of Tucumcari, New Mexico, is no longer an active gasoline station. Three underground storage tanks (USTs) were located southeast of the store and east of the canopy and dispenser islands (Figure 1). The USTs (installed in 1984) only contained unleaded gasoline. The dispenser islands were located south of the store. The USTs were steel with cathodic protection and the product lines were composed of fiberglass. The facility was placed in temporary closure on December 5, 2005, when all automatic tank gauging reports for this facility indicated there were no leaks in the tanks. The cathodic protection system was maintained as required until lines, dispensers and tanks were removed on August 24, 2009. However, upon removal of the USTs, water was found in one of the tanks indicating a leak, and petroleum hydrocarbon-impacted soils were found in the UST tank hold, confirming that a release had occurred at the Site.

There are two known leaking petroleum storage tank sites in close proximity to the Holiday Chevron site. A former Whiting Brothers gas station was located adjacent to and immediately west of the Site; this site is now a vacant lot with existing groundwater monitoring wells. The Holiday Conoco is located across Tucumcari Boulevard, southeast of the Site. The Holiday Conoco is an operating gas station that is out of compliance with NMED PSTB Regulations.

On September 28, 2011, EA measured fluid levels from site monitoring wells MW-1 through MW-5, from Holiday Conoco monitoring well MW-8, and from the former Whiting Brothers gas station wells W-2 and W-8. Groundwater samples were collected from MW-1 through MW-5 and from Holiday Conoco MW-8. All six wells were sampled as no measureable non-aqueous phase liquid (NAPL) was present in any of these wells. Wells from the former Whiting Brothers gas station were not sampled. Groundwater samples were analyzed for volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene, and xylenes (BTEX), ethylene dichloride (EDC), ethylene dibromide (EDB), methyl tertiary butyl ether (MTBE), and total naphthalenes by Environmental Protection Agency (EPA) Method 8260B. In addition, pH, specific conductance, dissolved oxygen, and temperature were monitored in the field.

This report summarizes the results of the annual monitoring event.

## II. ACTIVITIES PERFORMED DURING THIS QUARTER

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

### A. Brief Description of Remediation System and Date Installed

A summary of corrective action activities that have occurred at the Site include:

- On August 24, 2009, two USTs were removed from the Site. One contained water, indicating a leak. The tank removal also revealed petroleum hydrocarbon-impacted soils in the UST tank hold, confirming a hydrocarbon release at the Site.
- Based on the Minimum Site Assessment investigation activities conducted in May 2010, it appears that the release has impacted groundwater. Hydrocarbon-impacted soil and aquifer matrix are present at depths from approximately 6 to at least 14 feet below the ground surface (ft bgs).
- In September 2010, NMED PSTB approved semi-annual groundwater monitoring.
- In July 2011, NMED PSTB approved annual groundwater monitoring.

### B. Description of Activities Performed to Keep System Operating Properly

No active remediation activities have been completed at the site.

### C. Monitoring Activities Performed

#### *Groundwater Sampling Activities*

Prior to collecting groundwater samples, fluid levels in all five Site monitoring wells (MW-1 through MW-5), Holiday Conoco monitoring well (MW-8), and two Whiting Brothers monitoring wells (W-2 and W-8) were gauged with an interface probe and/or an electronic water level meter. Table 1 provides a summary of the groundwater gauging data collected from the monitoring network. A potentiometric surface map, Figure 2, was constructed based on the collected data.

On September 28, 2011, groundwater from Site wells MW-1 through MW-5 and Holiday Conoco monitoring well MW-8 were sampled with disposable bailers. Wells were sampled from clean to dirty to the extent possible to minimize cross-contamination. All equipment was decontaminated between wells with an Alconox™ solution to further ensure sample quality. Wells were purged of three casing volumes to the extent possible without bailing dry prior to sampling. Purge water was ground discharged to an impervious surface in accordance with Section 1.7.2 of the GCA. Samples were collected by carefully pouring groundwater from the bailer into the sample containers.

Field parameters were measured with a YSI® water quality meter and YSI® dissolved oxygen meter during purging and prior to sampling. Conductivity, pH, dissolved oxygen, and temperature were monitored and recorded on monitoring well sampling field forms. Each meter

was calibrated and/or checked against a standard in accordance with manufacturer's specifications prior to use. Monitoring well sampling field forms are provided in Appendix A.

Sample containers, preservatives, analytical methods, and holding times are specified in Table 2. Samples for VOC analysis were collected such that no headspace existed in the sample vial. All samples were preserved in accordance with method requirements, then immediately cooled to less than six (6) degrees Celsius (°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 B.

#### *NAPL Thickness*

There was no measurable NAPL present in any of the wells gauged this sampling event.

#### *Groundwater Sampling Results*

Dissolved phase BTEX concentrations were above the New Mexico Water Quality Control Commission (NMWQCC) groundwater quality standards in wells MW-3, MW-4 and MW-5. MW-8 contained benzene in excess of standards, while well MW-2 contained benzene and ethylbenzene above standards. MTBE concentrations were above the New Mexico Environmental Improvement Board groundwater quality standard in all wells during this sampling event, and total naphthalene concentrations were above the standard in wells MW-4 and MW-5.

High dilution levels used at the laboratory to accurately measure site analytes contributed to above average practical quantitation limits (PQLs) during this monitoring event. While EDB was not detected above the laboratory PQL for any well, the PQL was above the standard of 0.1 µg/l for all wells due to the analytical method used. Similarly, the PQL for EDC was above the standard of 10 µg/l for wells MW-3, MW-4, MW-5. Finally, the naphthalene PQL for well MW-3 was above the standard of 30 µg/l for this constituent.

#### **D. System Performance and Effectiveness**

No system has been installed at the Site.

#### **E. Statement Verifying Containment of Release**

The extent of soil and groundwater contamination has not been delineated at the Site. The plume does not appear to be contained onsite.

### III. SUMMARY AND CONCLUSIONS

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

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

The results of groundwater gauging indicate that water levels have fallen when compared to the previous gauging event in March 2011. Water levels in MW-3 may be influenced by precipitation events, with infiltration thru the more permeable fill material used to backfill the former tank hold, causing a slight groundwater mounding in the vicinity of the former tank hold as shown on the potentiometric surface map (Figure 2). At the time of this monitoring event, the groundwater flow direction was to the southwest. Hydrographs for the monitoring wells are included in Appendix C.

The September 2011 distribution of dissolved phase organic contaminants is shown in Figure 3. Benzene (with the exception of MW-1) and MTBE concentrations are present above NMWQCC standards in all groundwater monitoring wells (Table 3). Benzene concentrations have decreased in wells MW-1 through MW-4 as compared to the March 2011 results. Benzene concentrations stayed the same in well MW-5, and increased in well MW-8. Hydrocarbon concentrations have decreased significantly in well MW-1 since April 2010. Total naphthalene concentrations in wells MW-4 and MW-5 remained above the standard, while the PQL for naphthalene in well MW-3 was greater than the standard for this constituent. Benzene concentration trends for the monitoring wells are presented in Appendix D.

Field parameters (dissolved oxygen, pH, specific conductance, and temperature) were measured during sampling. The field parameters are summarized on Table 4 and the dissolved oxygen measurements are displayed on Figure 4. It appears that available oxygen is being depleted in wells MW-3, MW-4, and MW-5, where hydrocarbon concentrations are greatest.

#### B. Ongoing Assessment of Remediation System

There is no active remediation system installed at the Site at this time.

#### C. Recommendations

Based on the results of groundwater monitoring, EA recommends the following:

- Complete direct-push boring investigation to determine if a removal action is warranted.

**TABLES**

**TABLE 1. SUMMARY OF FLUID GAUGING DATA  
HOLIDAY CHEVRON, TUCUMCARI, NEW MEXICO**

Monitor Well	Date Measured	Northing <sup>1</sup>	Easting <sup>1</sup>	Casing Elevation <sup>2</sup>	Depth to Product <sup>3</sup>	Product Thickness <sup>4</sup>	Depth to Water <sup>3</sup>	Groundwater Elevation <sup>2</sup>
<b>Holiday Chevron</b>								
MW-1	28-Sep-11	1518602.926	736405.740	4037.08	-	-	10.99	4026.09
	14-Mar-11				-	-	9.11	4027.97
	23-Sep-10				-	-	7.93	4029.15
	11-May-10				-	-	7.59	4029.49
MW-2	28-Sep-11	1518688.909	736281.164	4035.97	-	-	8.57	4027.40
	14-Mar-11				-	-	7.96	4028.01
	23-Sep-10				-	-	6.80	4029.17
	11-May-10				-	-	6.37	4029.60
MW-3	28-Sep-11	1518664.905	736356.987	4036.61	-	-	7.70	4028.91
	14-Mar-11				-	-	7.66	4028.95
	23-Sep-10				-	-	6.39	4030.22
	11-May-10				-	-	6.26	4030.35
MW-4	28-Sep-11	1518642.754	736291.257	4034.98	-	-	7.32	4027.66
	14-Mar-11				-	-	6.87	4028.11
	23-Sep-10				-	-	5.80	4029.18
	11-May-10				-	-	5.41	4029.57
MW-5	28-Sep-11	1518718.060	736341.413	4036.25	-	-	8.57	4027.68
	14-Mar-11				-	-	8.40	4027.85
	23-Sep-10				-	-	7.86	4028.39
	11-May-10				-	-	12.93	4023.32
<b>Holiday Conoco</b>								
MW-8	28-Sep-11	1518652.105	736416.409	4037.19	-	-	9.11	4028.08
	14-Mar-11				-	-	8.63	4028.56
	23-Sep-10				-	-	7.68	4029.51
	11-May-10				-	-	NM	NM
<b>Whiting Brothers</b>								
W-2	28-Sep-11	1518642.98	736178.81	4034.09	-	-	7.71	4026.38
	14-Mar-11				-	-	6.89	4027.20
W-8	28-Sep-11	1518626.28	736223.46	4031.15	-	Trace	4.39	4026.76
	14-Mar-11				-	-	3.61	4027.54
NOTES:								
<sup>1</sup> Horizontal Control to NM State Plane Coordinates Central NAD83 Grid Coordinates (in feet)								
<sup>2</sup> Vertical Control to NAVD88 Datum in feet above mean sea level								
<sup>3</sup> Measured in feet below the top of casing at survey point on north side of well								
<sup>4</sup> Measured in feet.								

**TABLE 2. SAMPLE ANALYTICAL AND QUALITY CONTROL REQUIREMENTS  
HOLIDAY CHEVRON, TUCUMCARI, NEW MEXICO**

Target Analytes	Matrix	Analytical Method	Sample Container	Preservative	Holding Time
VOCs	Water	EPA 8260B	3 x 40-mL glass vials	Mercuric Chloride; Cool to <6°C	14 days

NOTES:  
VOCs = volatile organic compounds  
EPA = U.S. Environmental Protection Agency  
°C = degrees Celsius

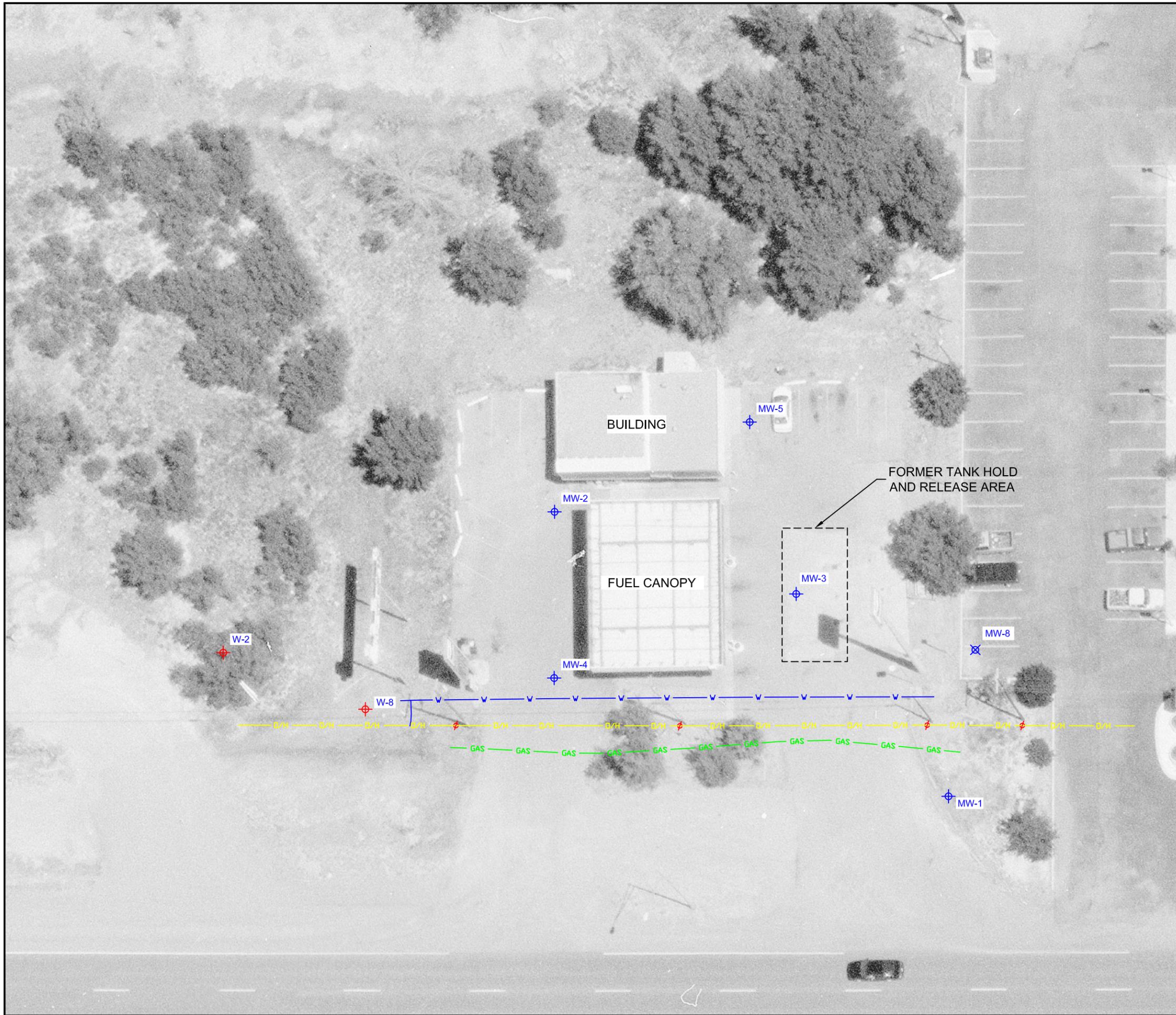
**TABLE 3. SUMMARY OF GROUNDWATER SAMPLE RESULTS  
VOLATILE ORGANIC COMPOUNDS  
HOLIDAY CHEVRON, TUCUMCARI, NEW MEXICO**

Monitor Well	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	EDB	EDC	Total Naphthalenes
<b>Holiday Chevron</b>									
MW-1	28-Sep-11	< 5.0	< 5.0	< 5.0	< 7.5	730	< 5.0	< 5.0	< 10
	15-Mar-11	51	< 1.0	< 1.0	< 1.5	710	< 1.0	< 1.0	< 2.0
	23-Sep-10	98	< 5.0	14	< 7.5	370	< 5.0	< 5.0	< 10
	28-Apr-10	550	1,200	240	750	510	< 10	< 10	39
MW-2	28-Sep-11	2,000	< 10	830	38	180	< 10	< 10	< 20
	15-Mar-11	2,500	< 50	1,200	190	140	< 50	< 50	< 100
	23-Sep-10	3,500	< 10	1,200	31	170	< 10	< 10	150
	28-Apr-10	4,400	5,500	3,100	9,600	66	< 20	< 20	680
MW-3	28-Sep-11	35,000	33,000	3,000	14,000	4,400	< 200	< 200	< 400
	15-Mar-11	36,000	36,000	3,100	15,000	5,400	< 50	< 50	370
	24-Sep-10	47,000	49,000	3,900	19,000	6,400	< 100	< 100	340
	28-Apr-10	37,000	43,000	2,800	18,000	5,000	< 50	< 50	350
MW-4	28-Sep-11	14,000	5,500	1,900	4,600	1,200	< 100	< 100	230
	15-Mar-11	19,000	16,000	3,000	12,000	1,300	< 100	< 100	410
	24-Sep-10	21,000	24,000	2,800	13,000	1,100	< 50	< 50	350
	28-Apr-10	28,000	37,000	3,900	20,000	430	< 50	< 50	570
MW-5	28-Sep-11	34,000	48,000	2,800	17,000	2,900	< 100	< 100	370
	15-Mar-11	34,000	48,000	2,900	20,000	2,500	< 50	< 50	500
	23-Sep-10	36,000	52,000	3,000	20,000	3,100	< 100	< 100	440
	11-May-10	25,000	34,000	1,200	14,000	2,600	< 10	< 10	393
<b>Holiday Conoco</b>									
MW-8	28-Sep-11	4,100	< 10	57	< 15	1,000	< 10	< 10	< 20
	15-Mar-11	680	< 1.0	8.6	< 1.5	720	< 1.0	1.8	< 2.0
	23-Sep-10	4,100	< 10	73	< 15	900	< 10	< 10	< 20
<b>NMWQCC and EIB Standards</b>		10	750	750	620	100	0.1	10	30
<p>NOTES:</p> <p>All concentrations are in micrograms per liter (ug/L) which is equivalent to parts per billion (ppb)</p> <p>EDB = Ethylene dibromide</p> <p>EDC = Ethylene dichloride</p> <p>EIB = Environmental Improvement Board</p> <p>MTBE = Methyl tertiary butyl ether</p> <p>NMWQCC = New Mexico Water Quality Control Commission (20.6.2.3103 NMAC)</p>									

**TABLE 4. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS  
INORGANIC COMPOUNDS AND GEOCHEMICAL INDICATORS,  
HOLIDAY CHEVRON, TUCUMCARI, NEW MEXICO**

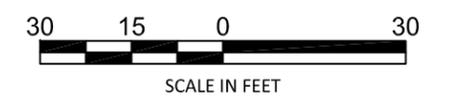
Well Number	Date Sampled	pH	SpC (uS/cm)	Temp	DO (mg/L)
<b>Holiday Chevron</b>					
MW-1	28-Sep-11	7.92	2,120	21.7	0.82
	15-Mar-11	8.34	3,721	15.2	1.41
MW-2	28-Sep-11	7.66	1,796	23.7	1.71
	15-Mar-11	7.92	2,296	15.4	2.05
MW-3	28-Sep-11	7.33	1,605	27.0	0.32
	15-Mar-11	8.12	2,164	14.8	0.50
MW-4	28-Sep-11	7.92	1,818	24.4	0.64
	15-Mar-11	8.06	2,051	15.8	1.23
MW-5	28-Sep-11	7.91	1,690	25.4	0.42
	15-Mar-11	7.92	3,218	15.1	0.90
<b>Holiday Conoco</b>					
MW-8	28-Sep-11	7.84	1,930	25.5	0.76
	15-Mar-11	8.37	3,603	15.1	1.87
NOTES: DO = dissolved oxygen mg/L = milligrams per liter uS/cm = microsiemens per centimeter NA = Not analyzed					

**FIGURES**



**LEGEND:**

-  MW-5 MONITORING WELL
-  MW-8 HOLIDAY CONOCO MONITORING WELLS
-  M-2 WHITNEY BROS. MONITORING WELLS
-  GAS UNDERGROUND GAS LINE
-  W UNDERGROUND WATER LINE
-  OH OVERHEAD ELECTRIC LINE
-  POWER POLE



- SOURCES:
1. GOOGLE EARTH PRO 2009. IMAGE DATE 02/26/06
  2. NMDOT AERIAL PHOTOGRAPH. IMAGE DATE 05/14/04
  3. BILLINGS AND ASSOCIATES, INC. 10/15/07

CONWAY OIL COMPANY  
HOLIDAY CHEVRON, TUCUMCARI, NEW MEXICO

**FIGURE 1  
SITE LAYOUT**

PROJECT #:	6231702	PROJECT PHASE:	04
PROJECT MANAGER:	TM		



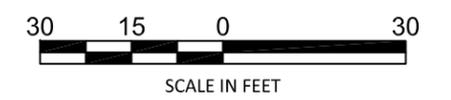
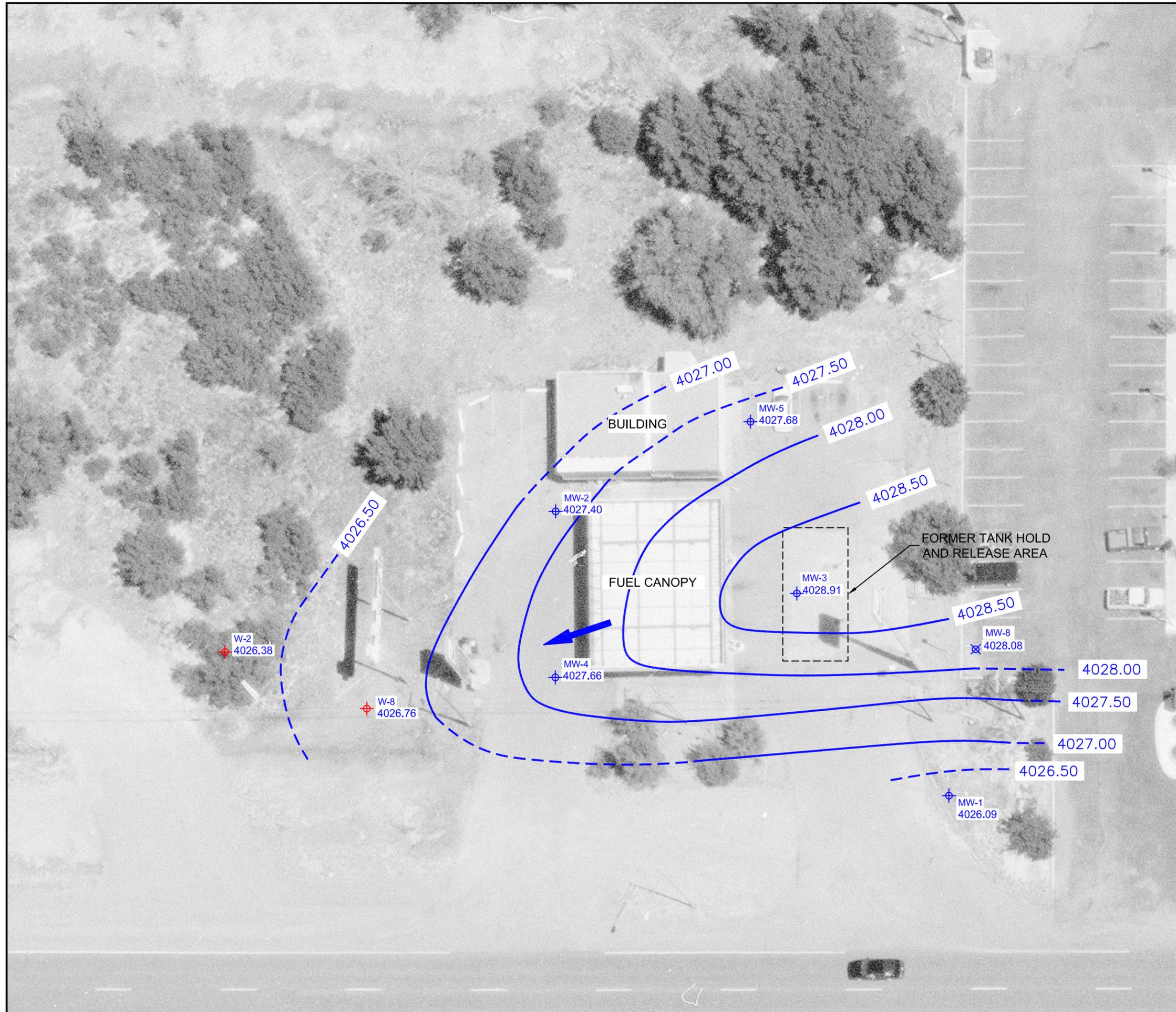
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**LEGEND:**

-  MW-5 MONITORING WELL
-  MW-8 HOLIDAY CONOCO MONITORING WELLS
-  M-2 WHITNEY BROS. MONITORING WELLS
-  \* DATA NOT USED IN CONTOURING
-  NM ELEVATION NOT MEASURED
-  4027.50 GROUNDWATER SURFACE ELEVATION (DASHED WHERE INFERRED) FEET ABOVE MEAN SEA LEVEL
-  GROUNDWATER FLOW DIRECTION



- SOURCES:
1. GOOGLE EARTH PRO 2009. IMAGE DATE 02/26/06
  2. NMDOT AERIAL PHOTOGRAPH. IMAGE DATE 05/14/04
  3. BILLINGS AND ASSOCIATES, INC. 10/15/07

CONWAY OIL COMPANY  
 HOLIDAY CHEVRON, TUCUMCARI, NEW MEXICO

**FIGURE 2**  
**POTENTIOMETRIC SURFACE MAP**  
**SEPTEMBER 2011**

PROJECT #:	6231702	PROJECT PHASE:	04
PROJECT MANAGER:	TM		



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**LEGEND:**

- MTBE            METHYL TETRIARY BUTYL ETHER
- TOTAL NAPH.    TOTAL NAPHTHALENES
-  MW-5    HOLIDAY CHEVRON MONITORING WELLS
-  MW-8    HOLIDAY CONOCO MONITORING WELLS
-  M-2    WHITNEY BROS. MONITORING WELLS
- NS            NOT SAMPLED
-  30,000    BENZENE CONCENTRATION CONTOURS

NOTES:  
 1. ALL CONCENTRATIONS ARE IN MICROGRAMS PER LITER (ug/L)



BENZENE	34,000
TOLUENE	48,000
ETHYLBENZENE	2,800
XYLENES	17,000
MTBE	2,900
TOTAL NAPH.	370

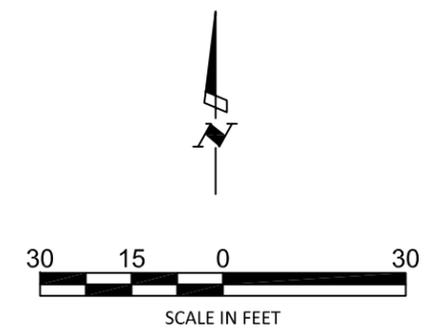
BENZENE	2,000
TOLUENE	<10
ETHYLBENZENE	830
XYLENES	38
MTBE	180
TOTAL NAPH.	<20

BENZENE	35,000
TOLUENE	33,000
ETHYLBENZENE	3,000
XYLENES	14,000
MTBE	4,400
TOTAL NAPH.	<400

BENZENE	14,000
TOLUENE	5,500
ETHYLBENZENE	1,900
XYLENES	4,600
MTBE	1,200
TOTAL NAPH.	230

BENZENE	4,100
TOLUENE	<10
ETHYLBENZENE	57
XYLENES	<15
MTBE	1,000
TOTAL NAPH.	<20

BENZENE	<5.0
TOLUENE	<5.0
ETHYLBENZENE	<5.0
XYLENES	<7.5
MTBE	730
TOTAL NAPH.	<10

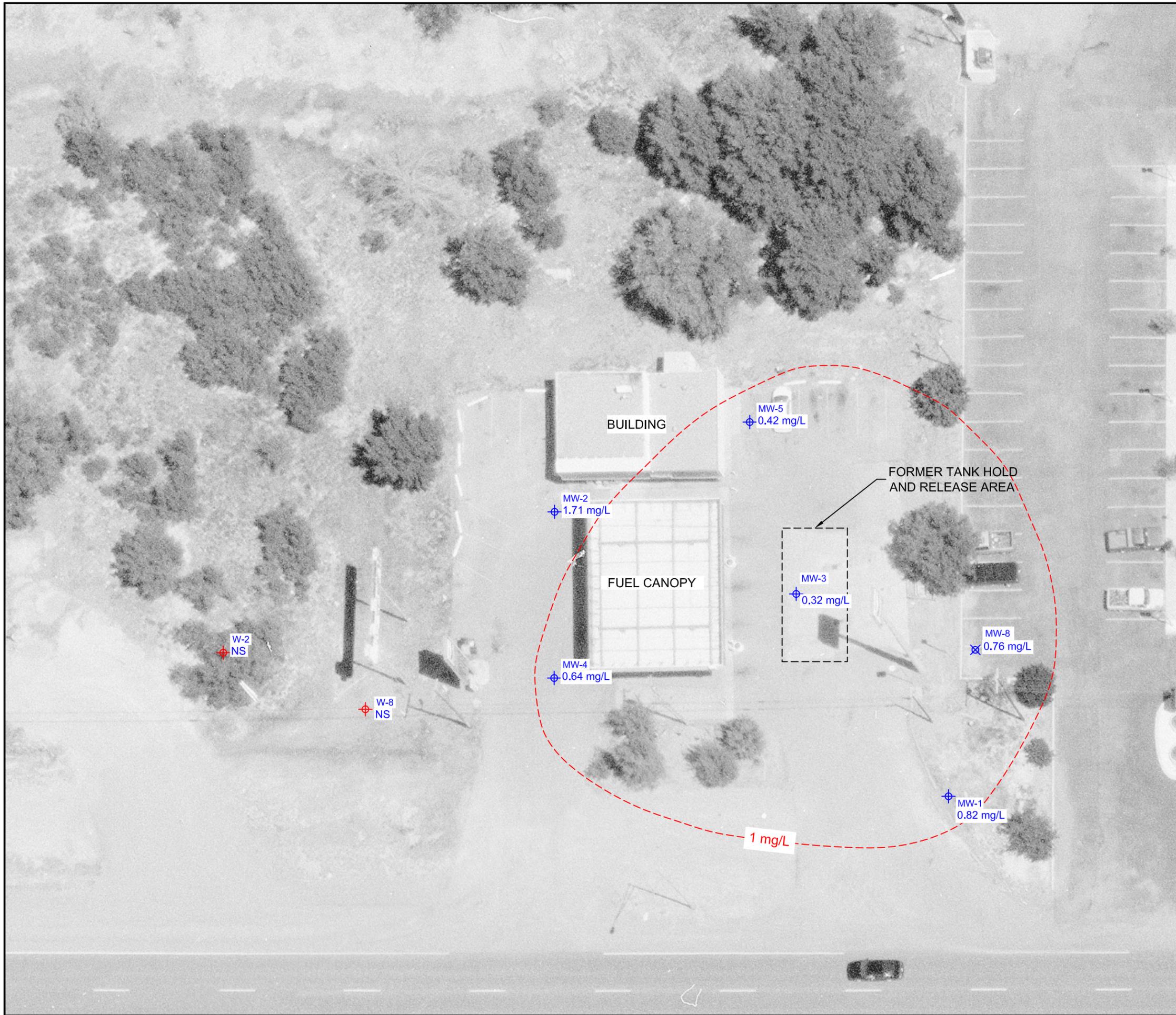


- SOURCES:
- GOOGLE EARTH PRO 2009. IMAGE DATE 02/26/06
  - NMDOT AERIAL PHOTOGRAPH. IMAGE DATE 05/14/04
  - BILLINGS AND ASSOCIATES, INC. 10/15/07

CONWAY OIL COMPANY  
 HOLIDAY CHEVRON, TUCUMCARI, NEW MEXICO

**FIGURE 3**  
**GROUNDWATER ANALYTICAL RESULTS**  
**SEPTEMBER 2011**

PROJECT #:	6231702	PROJECT PHASE:	04	PROJECT MANAGER:	TM
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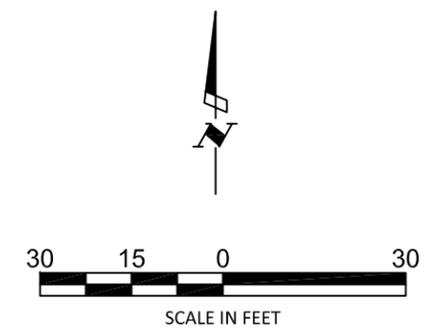


**LEGEND:**

- ⊕ MW-5 HOLIDAY CHEVRON MONITORING WELLS WITH DISSOLVED OXYGEN CONCENTRATION mg/L
- ⊗ MW-8 HOLIDAY CONOCO MONITORING WELLS
- ⊕ M-2 WHITNEY BROS. MONITORING WELLS
- NS NOT SAMPLED
- ESTIMATED EXTENT OF DISSOLVED OXYGEN AT 1 mg/L

**NOTES:**

1. ALL CONCENTRATIONS ARE IN MICROGRAMS PER LITER (mg/L)



- SOURCES:**
1. GOOGLE EARTH PRO 2009. IMAGE DATE 02/26/06
  2. NMDOT AERIAL PHOTOGRAPH. IMAGE DATE 05/14/04
  3. BILLINGS AND ASSOCIATES, INC. 10/15/07

CONWAY OIL COMPANY  
HOLIDAY CHEVRON, TUCUMCARI, NEW MEXICO

**FIGURE 4  
DISSOLVED OXYGEN CONCENTRATIONS  
SEPTEMBER 2011**

PROJECT #:	6231702	PROJECT PHASE:	04	PROJECT MANAGER:	TM
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**APPENDIX A  
SAMPLING FIELD FORMS**



**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID MW-1 Date gauged 9/28/11  
 Site Holiday Chevron Time gauged 0738  
 Depth to PSH NA Feet Well diameter 2 Inches  
 Depth to water 10.00 Feet Height of fluid column 3.22 Feet  
 Total depth 14.21 Feet Volume in well .55 Gallons

(3 well volumes = 1.65 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 9/28/11 0743 Purge Method Hand bailed

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
0745	.25	21.9	2.25 ms	7.45	—	0.82
0748	1.0	22.4	2.13 ms	7.92	—	
0751	1.5	22.7	2.12	7.97		
0752	1.75		sampled			

Actual purge volume 1.75 gal. Field measurements stabilized within ± 10%? \_\_\_\_\_

Time/date sampled 9/28/11 0752 Purged/sampled by J. Curbey

Sample method Hand bailed

Requested analyses 8260

Comments/observations \_\_\_\_\_

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





**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID MW-8 Date gauged 9/28/11  
 Site Holiday Chevron Time gauged 0816  
 Depth to PSH — Feet Well diameter 2" Inches  
 Depth to water 9.11 Feet Height of fluid column 5.84 Feet  
 Total depth 14.95 Feet Volume in well 0.99 Gallons

(3 well volumes = 2.97 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 0821 Purge Method Hand bailed

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
0827	1.25	24.5	2.01 ms	7.81	—	0.76
0825	1.25	25.6	1.84	7.60	—	
0828	2.5	25.5	1.93	7.84	—	
0830	3.0	sampled				

Actual purge volume 3.0 gal. Field measurements stabilized within ± 10%?   

Time/date sampled 9/28/11 0830 Purged/sampled by T. Curtey

Sample method Hand bailed

Requested analyses 8260

Comments/observations Fuel smell. Vault lid is broken, pulls up from surface

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



**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID MW-2 Date gauged 9/28/11  
 Site Holiday Chevron Time gauged 0850  
 Depth to PSH      Feet Well diameter 2" Inches  
 Depth to water 8.57 Feet Height of fluid column 4.58 Feet  
 Total depth 13.15 Feet Volume in well 78 Gallons

(3 well volumes = 2.34 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 0855 Purge Method Hand bailed

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
0856	0.25	24.4	1665	7.85		1.71
0859	1.00	24.4	1653	7.66		
0902	2.00	23.7	1706	7.66		
0905	sampled					

Actual purge volume 2.5 gal. Field measurements stabilized within ± 10%?     

Time/date sampled 9/28/11 0905 Purged/sampled by T. Corley

Sample method Hand bailed

Requested analyses 8200

Comments/observations Fuel odor, silted up after 2 gal

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



### MONITOR WELL SAMPLING FIELD FORM

#### FLUID LEVEL DATA

Well ID MW-21 Date gauged 9/28/11  
 Site Holiday Chevron Time gauged 0923  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 5" 2" Inches  
 Depth to water 7.32 Feet Height of fluid column 5.76 Feet  
 Total depth 13.08 Feet Volume in well 0.98 Gallons

(3 well volumes = 2.94 gallons)

#### GROUNDWATER SAMPLING DATA

Time/date purged 0926 Purge Method Hand bailed

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
0927	0.25	23.5	1245	7.40		0.61
0930	1.75	22.6	1088	7.39		
0933	2.0 2.75	22.4	1418	7.02		
0936	3.0	sampled				

Actual purge volume 3.0 gal. Field measurements stabilized within ± 10%? \_\_\_\_\_

Time/date sampled 9/28/11 0936 Purged/sampled by J. Curley

Sample method Hand bailed

Requested analyses 8260

Comments/observations \_\_\_\_\_

#### Well Casing Volumes

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



**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID MW-5 Date gauged 9/28/11  
 Site Holiday Chevron Time gauged 0953  
 Depth to PSH      Feet Well diameter 2" Inches  
 Depth to water 8.57 Feet Height of fluid column 4.39 Feet  
 Total depth 12.96 Feet Volume in well 0.75 Gallons

(3 well volumes = 2.25 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged      Purge Method hand bailed

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
0959	0.25	25.3	1.72 ms	7.92		0.12
1001	1.00	25.4	1.69 ms	7.91		
1004	1.75	sampled				

Actual purge volume 1.75 gal. Field measurements stabilized within ± 10%?     

Time/date sampled 9/28/11 1004 Purged/sampled by J. Curley

Sample method Hand bailed

Requested analyses 8260

Comments/observations Fuel odor, low recharge

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



**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID MW-3 Date gauged 9/28/11  
 Site Holiday Chevron Time gauged 1024  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2" Inches  
 Depth to water 7.70 Feet Height of fluid column 5.46 Feet  
 Total depth 13.16 Feet Volume in well .03 Gallons

(3 well volumes = 2.8 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 1029 Purge Method hand bailed

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1030	.25	27.0	1596	7.90		0.32
1033	1.00	27.0	1605	7.33		
1035	sampled					

Actual purge volume 1.75 gal. Field measurements stabilized within ± 10%? \_\_\_\_\_

Time/date sampled 9/28/11 1035 Purged/sampled by T. Curley

Sample method hand bailed

Requested analyses STCO

Comments/observations sampled @ 1.75 gal ~~to~~ because of low recharge

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



**APPENDIX B  
ANALYTICAL LABORATORY RESULTS**

COVER LETTER

Wednesday, October 05, 2011

Teri McMillan  
EA Engineering  
320 Gold Ave SW Suite 1210  
Albuquerque, NM 87102

TEL: (505) 224-9013  
FAX

RE: Holiday Chevron

Dear Teri McMillan:

Order No.: 1109C02

Hall Environmental Analysis Laboratory, Inc. received 7 sample(s) on 9/29/2011 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](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,



Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901  
AZ license # AZ0682

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-11

Analytical Report

CLIENT: EA Engineering  
 Lab Order: 1109C02  
 Project: Holiday Chevron  
 Lab ID: 1109C02-01

Client Sample ID: MW-1  
 Collection Date: 9/28/2011 7:52:00 AM  
 Date Received: 9/29/2011  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Benzene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
Toluene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
Ethylbenzene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
Methyl tert-butyl ether (MTBE)	730	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
Naphthalene	ND	10		µg/L	5	10/3/2011 5:24:43 PM
1-Methylnaphthalene	ND	20		µg/L	5	10/3/2011 5:24:43 PM
2-Methylnaphthalene	ND	20		µg/L	5	10/3/2011 5:24:43 PM
Acetone	ND	50		µg/L	5	10/3/2011 5:24:43 PM
Bromobenzene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
Bromodichloromethane	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
Bromoform	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
Bromomethane	ND	15		µg/L	5	10/3/2011 5:24:43 PM
2-Butanone	ND	50		µg/L	5	10/3/2011 5:24:43 PM
Carbon disulfide	ND	50		µg/L	5	10/3/2011 5:24:43 PM
Carbon Tetrachloride	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
Chlorobenzene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
Chloroethane	ND	10		µg/L	5	10/3/2011 5:24:43 PM
Chloroform	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
Chloromethane	ND	15		µg/L	5	10/3/2011 5:24:43 PM
2-Chlorotoluene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
4-Chlorotoluene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
cis-1,2-DCE	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	10/3/2011 5:24:43 PM
Dibromochloromethane	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
Dibromomethane	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
Dichlorodifluoromethane	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,1-Dichloroethane	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,1-Dichloroethene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,2-Dichloropropane	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
2,2-Dichloropropane	ND	10		µg/L	5	10/3/2011 5:24:43 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-11

Analytical Report

CLIENT: EA Engineering  
 Lab Order: 1109C02  
 Project: Holiday Chevron  
 Lab ID: 1109C02-01

Client Sample ID: MW-1  
 Collection Date: 9/28/2011 7:52:00 AM  
 Date Received: 9/29/2011  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Hexachlorobutadiene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
2-Hexanone	ND	50		µg/L	5	10/3/2011 5:24:43 PM
Isopropylbenzene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	10/3/2011 5:24:43 PM
Methylene Chloride	ND	15		µg/L	5	10/3/2011 5:24:43 PM
n-Butylbenzene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
n-Propylbenzene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
sec-Butylbenzene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
Styrene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
tert-Butylbenzene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	10/3/2011 5:24:43 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
trans-1,2-DCE	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
Trichloroethene (TCE)	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
Trichlorofluoromethane	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	10/3/2011 5:24:43 PM
Vinyl chloride	ND	5.0		µg/L	5	10/3/2011 5:24:43 PM
Xylenes, Total	ND	7.5		µg/L	5	10/3/2011 5:24:43 PM
Surr: 1,2-Dichloroethane-d4	97.7	70-130		%REC	5	10/3/2011 5:24:43 PM
Surr: 4-Bromofluorobenzene	110	73-131		%REC	5	10/3/2011 5:24:43 PM
Surr: Dibromofluoromethane	93.2	70-130		%REC	5	10/3/2011 5:24:43 PM
Surr: Toluene-d8	101	70-130		%REC	5	10/3/2011 5:24:43 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-11

Analytical Report

CLIENT: EA Engineering  
 Lab Order: 1109C02  
 Project: Holiday Chevron  
 Lab ID: 1109C02-02

Client Sample ID: MW-8  
 Collection Date: 9/28/2011 8:30:00 AM  
 Date Received: 9/29/2011  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Benzene	4100	100		µg/L	100	10/3/2011 6:21:37 PM
Toluene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
Ethylbenzene	57	10		µg/L	10	10/3/2011 6:50:11 PM
Methyl tert-butyl ether (MTBE)	1000	10		µg/L	10	10/3/2011 6:50:11 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/3/2011 6:50:11 PM
Naphthalene	ND	20		µg/L	10	10/3/2011 6:50:11 PM
1-Methylnaphthalene	ND	40		µg/L	10	10/3/2011 6:50:11 PM
2-Methylnaphthalene	ND	40		µg/L	10	10/3/2011 6:50:11 PM
Acetone	ND	100		µg/L	10	10/3/2011 6:50:11 PM
Bromobenzene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
Bromodichloromethane	ND	10		µg/L	10	10/3/2011 6:50:11 PM
Bromoform	ND	10		µg/L	10	10/3/2011 6:50:11 PM
Bromomethane	ND	30		µg/L	10	10/3/2011 6:50:11 PM
2-Butanone	ND	100		µg/L	10	10/3/2011 6:50:11 PM
Carbon disulfide	ND	100		µg/L	10	10/3/2011 6:50:11 PM
Carbon Tetrachloride	ND	10		µg/L	10	10/3/2011 6:50:11 PM
Chlorobenzene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
Chloroethane	ND	20		µg/L	10	10/3/2011 6:50:11 PM
Chloroform	ND	10		µg/L	10	10/3/2011 6:50:11 PM
Chloromethane	ND	30		µg/L	10	10/3/2011 6:50:11 PM
2-Chlorotoluene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
4-Chlorotoluene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
cis-1,2-DCE	ND	10		µg/L	10	10/3/2011 6:50:11 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/3/2011 6:50:11 PM
Dibromochloromethane	ND	10		µg/L	10	10/3/2011 6:50:11 PM
Dibromomethane	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
Dichlorodifluoromethane	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,1-Dichloroethane	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,1-Dichloroethene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,2-Dichloropropane	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,3-Dichloropropane	ND	10		µg/L	10	10/3/2011 6:50:11 PM
2,2-Dichloropropane	ND	20		µg/L	10	10/3/2011 6:50:11 PM
1,1-Dichloropropene	ND	10		µg/L	10	10/3/2011 6:50:11 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-11

Analytical Report

CLIENT: EA Engineering  
 Lab Order: 1109C02  
 Project: Holiday Chevron  
 Lab ID: 1109C02-02

Client Sample ID: MW-8  
 Collection Date: 9/28/2011 8:30:00 AM  
 Date Received: 9/29/2011  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Hexachlorobutadiene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
2-Hexanone	ND	100		µg/L	10	10/3/2011 6:50:11 PM
Isopropylbenzene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
4-Isopropyltoluene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	10/3/2011 6:50:11 PM
Methylene Chloride	ND	30		µg/L	10	10/3/2011 6:50:11 PM
n-Butylbenzene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
n-Propylbenzene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
sec-Butylbenzene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
Styrene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
tert-Butylbenzene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/3/2011 6:50:11 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/3/2011 6:50:11 PM
trans-1,2-DCE	ND	10		µg/L	10	10/3/2011 6:50:11 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	10/3/2011 6:50:11 PM
Trichloroethene (TCE)	ND	10		µg/L	10	10/3/2011 6:50:11 PM
Trichlorofluoromethane	ND	10		µg/L	10	10/3/2011 6:50:11 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	10/3/2011 6:50:11 PM
Vinyl chloride	ND	10		µg/L	10	10/3/2011 6:50:11 PM
Xylenes, Total	ND	15		µg/L	10	10/3/2011 6:50:11 PM
Surr: 1,2-Dichloroethane-d4	96.7	70-130		%REC	10	10/3/2011 6:50:11 PM
Surr: 4-Bromofluorobenzene	109	73-131		%REC	10	10/3/2011 6:50:11 PM
Surr: Dibromofluoromethane	94.5	70-130		%REC	10	10/3/2011 6:50:11 PM
Surr: Toluene-d8	98.9	70-130		%REC	10	10/3/2011 6:50:11 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-11

Analytical Report

CLIENT: EA Engineering  
 Lab Order: 1109C02  
 Project: Holiday Chevron  
 Lab ID: 1109C02-03

Client Sample ID: MW-2  
 Collection Date: 9/28/2011 9:05:00 AM  
 Date Received: 9/29/2011  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Benzene	2000	100		µg/L	100	10/3/2011 7:47:02 PM
Toluene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
Ethylbenzene	830	10		µg/L	10	10/3/2011 8:15:29 PM
Methyl tert-butyl ether (MTBE)	180	10		µg/L	10	10/3/2011 8:15:29 PM
1,2,4-Trimethylbenzene	27	10		µg/L	10	10/3/2011 8:15:29 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/3/2011 8:15:29 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/3/2011 8:15:29 PM
Naphthalene	ND	20		µg/L	10	10/3/2011 8:15:29 PM
1-Methylnaphthalene	ND	40		µg/L	10	10/3/2011 8:15:29 PM
2-Methylnaphthalene	ND	40		µg/L	10	10/3/2011 8:15:29 PM
Acetone	ND	100		µg/L	10	10/3/2011 8:15:29 PM
Bromobenzene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
Bromodichloromethane	ND	10		µg/L	10	10/3/2011 8:15:29 PM
Bromoform	ND	10		µg/L	10	10/3/2011 8:15:29 PM
Bromomethane	ND	30		µg/L	10	10/3/2011 8:15:29 PM
2-Butanone	ND	100		µg/L	10	10/3/2011 8:15:29 PM
Carbon disulfide	ND	100		µg/L	10	10/3/2011 8:15:29 PM
Carbon Tetrachloride	ND	10		µg/L	10	10/3/2011 8:15:29 PM
Chlorobenzene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
Chloroethane	ND	20		µg/L	10	10/3/2011 8:15:29 PM
Chloroform	ND	10		µg/L	10	10/3/2011 8:15:29 PM
Chloromethane	ND	30		µg/L	10	10/3/2011 8:15:29 PM
2-Chlorotoluene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
4-Chlorotoluene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
cis-1,2-DCE	ND	10		µg/L	10	10/3/2011 8:15:29 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/3/2011 8:15:29 PM
Dibromochloromethane	ND	10		µg/L	10	10/3/2011 8:15:29 PM
Dibromomethane	ND	10		µg/L	10	10/3/2011 8:15:29 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
Dichlorodifluoromethane	ND	10		µg/L	10	10/3/2011 8:15:29 PM
1,1-Dichloroethane	ND	10		µg/L	10	10/3/2011 8:15:29 PM
1,1-Dichloroethene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
1,2-Dichloropropane	ND	10		µg/L	10	10/3/2011 8:15:29 PM
1,3-Dichloropropane	ND	10		µg/L	10	10/3/2011 8:15:29 PM
2,2-Dichloropropane	ND	20		µg/L	10	10/3/2011 8:15:29 PM
1,1-Dichloropropene	ND	10		µg/L	10	10/3/2011 8:15:29 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-11

Analytical Report

CLIENT: EA Engineering  
 Lab Order: 1109C02  
 Project: Holiday Chevron  
 Lab ID: 1109C02-03

Client Sample ID: MW-2  
 Collection Date: 9/28/2011 9:05:00 AM  
 Date Received: 9/29/2011  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Hexachlorobutadiene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
2-Hexanone	ND	100		µg/L	10	10/3/2011 8:15:29 PM
Isopropylbenzene	29	10		µg/L	10	10/3/2011 8:15:29 PM
4-Isopropyltoluene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	10/3/2011 8:15:29 PM
Methylene Chloride	ND	30		µg/L	10	10/3/2011 8:15:29 PM
n-Butylbenzene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
n-Propylbenzene	66	10		µg/L	10	10/3/2011 8:15:29 PM
sec-Butylbenzene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
Styrene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
tert-Butylbenzene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/3/2011 8:15:29 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/3/2011 8:15:29 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/3/2011 8:15:29 PM
trans-1,2-DCE	ND	10		µg/L	10	10/3/2011 8:15:29 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/3/2011 8:15:29 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	10/3/2011 8:15:29 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	10/3/2011 8:15:29 PM
Trichloroethene (TCE)	ND	10		µg/L	10	10/3/2011 8:15:29 PM
Trichlorofluoromethane	ND	10		µg/L	10	10/3/2011 8:15:29 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	10/3/2011 8:15:29 PM
Vinyl chloride	ND	10		µg/L	10	10/3/2011 8:15:29 PM
Xylenes, Total	38	15		µg/L	10	10/3/2011 8:15:29 PM
Surr: 1,2-Dichloroethane-d4	97.7	70-130		%REC	10	10/3/2011 8:15:29 PM
Surr: 4-Bromofluorobenzene	107	73-131		%REC	10	10/3/2011 8:15:29 PM
Surr: Dibromofluoromethane	90.6	70-130		%REC	10	10/3/2011 8:15:29 PM
Surr: Toluene-d8	99.7	70-130		%REC	10	10/3/2011 8:15:29 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-11

Analytical Report

**CLIENT:** EA Engineering  
**Lab Order:** 1109C02  
**Project:** Holiday Chevron  
**Lab ID:** 1109C02-04

**Client Sample ID:** MW-4  
**Collection Date:** 9/28/2011 9:36:00 AM  
**Date Received:** 9/29/2011  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Benzene	14000	1000		µg/L	1000	10/3/2011 10:37:35 PM
Toluene	5500	100		µg/L	100	10/3/2011 11:06:03 PM
Ethylbenzene	1900	100		µg/L	100	10/3/2011 11:06:03 PM
Methyl tert-butyl ether (MTBE)	1200	100		µg/L	100	10/3/2011 11:06:03 PM
1,2,4-Trimethylbenzene	1700	100		µg/L	100	10/3/2011 11:06:03 PM
1,3,5-Trimethylbenzene	460	100		µg/L	100	10/3/2011 11:06:03 PM
1,2-Dichloroethane (EDC)	ND	100		µg/L	100	10/3/2011 11:06:03 PM
1,2-Dibromoethane (EDB)	ND	100		µg/L	100	10/3/2011 11:06:03 PM
Naphthalene	230	200		µg/L	100	10/3/2011 11:06:03 PM
1-Methylnaphthalene	ND	400		µg/L	100	10/3/2011 11:06:03 PM
2-Methylnaphthalene	ND	400		µg/L	100	10/3/2011 11:06:03 PM
Acetone	ND	1000		µg/L	100	10/3/2011 11:06:03 PM
Bromobenzene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
Bromodichloromethane	ND	100		µg/L	100	10/3/2011 11:06:03 PM
Bromoform	ND	100		µg/L	100	10/3/2011 11:06:03 PM
Bromomethane	ND	300		µg/L	100	10/3/2011 11:06:03 PM
2-Butanone	ND	1000		µg/L	100	10/3/2011 11:06:03 PM
Carbon disulfide	ND	1000		µg/L	100	10/3/2011 11:06:03 PM
Carbon Tetrachloride	ND	100		µg/L	100	10/3/2011 11:06:03 PM
Chlorobenzene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
Chloroethane	ND	200		µg/L	100	10/3/2011 11:06:03 PM
Chloroform	ND	100		µg/L	100	10/3/2011 11:06:03 PM
Chloromethane	ND	300		µg/L	100	10/3/2011 11:06:03 PM
2-Chlorotoluene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
4-Chlorotoluene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
cis-1,2-DCE	ND	100		µg/L	100	10/3/2011 11:06:03 PM
cis-1,3-Dichloropropene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
1,2-Dibromo-3-chloropropane	ND	200		µg/L	100	10/3/2011 11:06:03 PM
Dibromochloromethane	ND	100		µg/L	100	10/3/2011 11:06:03 PM
Dibromomethane	ND	100		µg/L	100	10/3/2011 11:06:03 PM
1,2-Dichlorobenzene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
1,3-Dichlorobenzene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
1,4-Dichlorobenzene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
Dichlorodifluoromethane	ND	100		µg/L	100	10/3/2011 11:06:03 PM
1,1-Dichloroethane	ND	100		µg/L	100	10/3/2011 11:06:03 PM
1,1-Dichloroethene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
1,2-Dichloropropane	ND	100		µg/L	100	10/3/2011 11:06:03 PM
1,3-Dichloropropane	ND	100		µg/L	100	10/3/2011 11:06:03 PM
2,2-Dichloropropane	ND	200		µg/L	100	10/3/2011 11:06:03 PM
1,1-Dichloropropene	ND	100		µg/L	100	10/3/2011 11:06:03 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-11

Analytical Report

CLIENT: EA Engineering  
 Lab Order: 1109C02  
 Project: Holiday Chevron  
 Lab ID: 1109C02-04

Client Sample ID: MW-4  
 Collection Date: 9/28/2011 9:36:00 AM  
 Date Received: 9/29/2011  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Hexachlorobutadiene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
2-Hexanone	ND	1000		µg/L	100	10/3/2011 11:06:03 PM
Isopropylbenzene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
4-Isopropyltoluene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
4-Methyl-2-pentanone	ND	1000		µg/L	100	10/3/2011 11:06:03 PM
Methylene Chloride	ND	300		µg/L	100	10/3/2011 11:06:03 PM
n-Butylbenzene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
n-Propylbenzene	240	100		µg/L	100	10/3/2011 11:06:03 PM
sec-Butylbenzene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
Styrene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
tert-Butylbenzene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
1,1,1,2-Tetrachloroethane	ND	100		µg/L	100	10/3/2011 11:06:03 PM
1,1,2,2-Tetrachloroethane	ND	200		µg/L	100	10/3/2011 11:06:03 PM
Tetrachloroethene (PCE)	ND	100		µg/L	100	10/3/2011 11:06:03 PM
trans-1,2-DCE	ND	100		µg/L	100	10/3/2011 11:06:03 PM
trans-1,3-Dichloropropene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
1,2,3-Trichlorobenzene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
1,2,4-Trichlorobenzene	ND	100		µg/L	100	10/3/2011 11:06:03 PM
1,1,1-Trichloroethane	ND	100		µg/L	100	10/3/2011 11:06:03 PM
1,1,2-Trichloroethane	ND	100		µg/L	100	10/3/2011 11:06:03 PM
Trichloroethene (TCE)	ND	100		µg/L	100	10/3/2011 11:06:03 PM
Trichlorofluoromethane	ND	100		µg/L	100	10/3/2011 11:06:03 PM
1,2,3-Trichloropropane	ND	200		µg/L	100	10/3/2011 11:06:03 PM
Vinyl chloride	ND	100		µg/L	100	10/3/2011 11:06:03 PM
Xylenes, Total	4600	150		µg/L	100	10/3/2011 11:06:03 PM
Surr: 1,2-Dichloroethane-d4	96.7	70-130		%REC	100	10/3/2011 11:06:03 PM
Surr: 4-Bromofluorobenzene	85.1	73-131		%REC	100	10/3/2011 11:06:03 PM
Surr: Dibromofluoromethane	94.6	70-130		%REC	100	10/3/2011 11:06:03 PM
Surr: Toluene-d8	97.3	70-130		%REC	100	10/3/2011 11:06:03 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-11

Analytical Report

CLIENT: EA Engineering  
 Lab Order: 1109C02  
 Project: Holiday Chevron  
 Lab ID: 1109C02-05

Client Sample ID: MW-5  
 Collection Date: 9/28/2011 10:04:00 AM  
 Date Received: 9/29/2011  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Benzene	34000	500		µg/L	500	10/4/2011 12:02:56 AM
Toluene	48000	500		µg/L	500	10/4/2011 12:02:56 AM
Ethylbenzene	2800	100		µg/L	100	10/4/2011 12:31:22 AM
Methyl tert-butyl ether (MTBE)	2900	100		µg/L	100	10/4/2011 12:31:22 AM
1,2,4-Trimethylbenzene	1900	100		µg/L	100	10/4/2011 12:31:22 AM
1,3,5-Trimethylbenzene	530	100		µg/L	100	10/4/2011 12:31:22 AM
1,2-Dichloroethane (EDC)	ND	100		µg/L	100	10/4/2011 12:31:22 AM
1,2-Dibromoethane (EDB)	ND	100		µg/L	100	10/4/2011 12:31:22 AM
Naphthalene	370	200		µg/L	100	10/4/2011 12:31:22 AM
1-Methylnaphthalene	ND	400		µg/L	100	10/4/2011 12:31:22 AM
2-Methylnaphthalene	ND	400		µg/L	100	10/4/2011 12:31:22 AM
Acetone	ND	1000		µg/L	100	10/4/2011 12:31:22 AM
Bromobenzene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
Bromodichloromethane	ND	100		µg/L	100	10/4/2011 12:31:22 AM
Bromoform	ND	100		µg/L	100	10/4/2011 12:31:22 AM
Bromomethane	ND	300		µg/L	100	10/4/2011 12:31:22 AM
2-Butanone	ND	1000		µg/L	100	10/4/2011 12:31:22 AM
Carbon disulfide	ND	1000		µg/L	100	10/4/2011 12:31:22 AM
Carbon Tetrachloride	ND	100		µg/L	100	10/4/2011 12:31:22 AM
Chlorobenzene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
Chloroethane	ND	200		µg/L	100	10/4/2011 12:31:22 AM
Chloroform	ND	100		µg/L	100	10/4/2011 12:31:22 AM
Chloromethane	ND	300		µg/L	100	10/4/2011 12:31:22 AM
2-Chlorotoluene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
4-Chlorotoluene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
cis-1,2-DCE	ND	100		µg/L	100	10/4/2011 12:31:22 AM
cis-1,3-Dichloropropene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
1,2-Dibromo-3-chloropropane	ND	200		µg/L	100	10/4/2011 12:31:22 AM
Dibromochloromethane	ND	100		µg/L	100	10/4/2011 12:31:22 AM
Dibromomethane	ND	100		µg/L	100	10/4/2011 12:31:22 AM
1,2-Dichlorobenzene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
1,3-Dichlorobenzene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
1,4-Dichlorobenzene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
Dichlorodifluoromethane	ND	100		µg/L	100	10/4/2011 12:31:22 AM
1,1-Dichloroethane	ND	100		µg/L	100	10/4/2011 12:31:22 AM
1,1-Dichloroethene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
1,2-Dichloropropane	ND	100		µg/L	100	10/4/2011 12:31:22 AM
1,3-Dichloropropane	ND	100		µg/L	100	10/4/2011 12:31:22 AM
2,2-Dichloropropane	ND	200		µg/L	100	10/4/2011 12:31:22 AM
1,1-Dichloropropene	ND	100		µg/L	100	10/4/2011 12:31:22 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-11

Analytical Report

CLIENT: EA Engineering  
 Lab Order: 1109C02  
 Project: Holiday Chevron  
 Lab ID: 1109C02-05

Client Sample ID: MW-5  
 Collection Date: 9/28/2011 10:04:00 AM  
 Date Received: 9/29/2011  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Hexachlorobutadiene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
2-Hexanone	ND	1000		µg/L	100	10/4/2011 12:31:22 AM
Isopropylbenzene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
4-Isopropyltoluene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
4-Methyl-2-pentanone	ND	1000		µg/L	100	10/4/2011 12:31:22 AM
Methylene Chloride	ND	300		µg/L	100	10/4/2011 12:31:22 AM
n-Butylbenzene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
n-Propylbenzene	200	100		µg/L	100	10/4/2011 12:31:22 AM
sec-Butylbenzene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
Styrene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
tert-Butylbenzene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
1,1,1,2-Tetrachloroethane	ND	100		µg/L	100	10/4/2011 12:31:22 AM
1,1,2,2-Tetrachloroethane	ND	200		µg/L	100	10/4/2011 12:31:22 AM
Tetrachloroethene (PCE)	ND	100		µg/L	100	10/4/2011 12:31:22 AM
trans-1,2-DCE	ND	100		µg/L	100	10/4/2011 12:31:22 AM
trans-1,3-Dichloropropene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
1,2,3-Trichlorobenzene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
1,2,4-Trichlorobenzene	ND	100		µg/L	100	10/4/2011 12:31:22 AM
1,1,1-Trichloroethane	ND	100		µg/L	100	10/4/2011 12:31:22 AM
1,1,2-Trichloroethane	ND	100		µg/L	100	10/4/2011 12:31:22 AM
Trichloroethene (TCE)	ND	100		µg/L	100	10/4/2011 12:31:22 AM
Trichlorofluoromethane	ND	100		µg/L	100	10/4/2011 12:31:22 AM
1,2,3-Trichloropropane	ND	200		µg/L	100	10/4/2011 12:31:22 AM
Vinyl chloride	ND	100		µg/L	100	10/4/2011 12:31:22 AM
Xylenes, Total	17000	150		µg/L	100	10/4/2011 12:31:22 AM
Surr: 1,2-Dichloroethane-d4	95.3	70-130		%REC	100	10/4/2011 12:31:22 AM
Surr: 4-Bromofluorobenzene	85.2	73-131		%REC	100	10/4/2011 12:31:22 AM
Surr: Dibromofluoromethane	95.3	70-130		%REC	100	10/4/2011 12:31:22 AM
Surr: Toluene-d8	101	70-130		%REC	100	10/4/2011 12:31:22 AM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-11

Analytical Report

CLIENT: EA Engineering  
 Lab Order: 1109C02  
 Project: Holiday Chevron  
 Lab ID: 1109C02-06

Client Sample ID: MW-3  
 Collection Date: 9/28/2011 10:35:00 AM  
 Date Received: 9/29/2011  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Benzene	35000	1000		µg/L	1000	10/4/2011 1:28:17 AM
Toluene	33000	1000		µg/L	1000	10/4/2011 1:28:17 AM
Ethylbenzene	3000	200		µg/L	200	10/4/2011 1:56:37 AM
Methyl tert-butyl ether (MTBE)	4400	200		µg/L	200	10/4/2011 1:56:37 AM
1,2,4-Trimethylbenzene	1900	200		µg/L	200	10/4/2011 1:56:37 AM
1,3,5-Trimethylbenzene	510	200		µg/L	200	10/4/2011 1:56:37 AM
1,2-Dichloroethane (EDC)	ND	200		µg/L	200	10/4/2011 1:56:37 AM
1,2-Dibromoethane (EDB)	ND	200		µg/L	200	10/4/2011 1:56:37 AM
Naphthalene	ND	400		µg/L	200	10/4/2011 1:56:37 AM
1-Methylnaphthalene	ND	800		µg/L	200	10/4/2011 1:56:37 AM
2-Methylnaphthalene	ND	800		µg/L	200	10/4/2011 1:56:37 AM
Acetone	ND	2000		µg/L	200	10/4/2011 1:56:37 AM
Bromobenzene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
Bromodichloromethane	ND	200		µg/L	200	10/4/2011 1:56:37 AM
Bromoform	ND	200		µg/L	200	10/4/2011 1:56:37 AM
Bromomethane	ND	600		µg/L	200	10/4/2011 1:56:37 AM
2-Butanone	ND	2000		µg/L	200	10/4/2011 1:56:37 AM
Carbon disulfide	ND	2000		µg/L	200	10/4/2011 1:56:37 AM
Carbon Tetrachloride	ND	200		µg/L	200	10/4/2011 1:56:37 AM
Chlorobenzene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
Chloroethane	ND	400		µg/L	200	10/4/2011 1:56:37 AM
Chloroform	ND	200		µg/L	200	10/4/2011 1:56:37 AM
Chloromethane	ND	600		µg/L	200	10/4/2011 1:56:37 AM
2-Chlorotoluene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
4-Chlorotoluene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
cis-1,2-DCE	ND	200		µg/L	200	10/4/2011 1:56:37 AM
cis-1,3-Dichloropropene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
1,2-Dibromo-3-chloropropane	ND	400		µg/L	200	10/4/2011 1:56:37 AM
Dibromochloromethane	ND	200		µg/L	200	10/4/2011 1:56:37 AM
Dibromomethane	ND	200		µg/L	200	10/4/2011 1:56:37 AM
1,2-Dichlorobenzene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
1,3-Dichlorobenzene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
1,4-Dichlorobenzene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
Dichlorodifluoromethane	ND	200		µg/L	200	10/4/2011 1:56:37 AM
1,1-Dichloroethane	ND	200		µg/L	200	10/4/2011 1:56:37 AM
1,1-Dichloroethene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
1,2-Dichloropropane	ND	200		µg/L	200	10/4/2011 1:56:37 AM
1,3-Dichloropropane	ND	200		µg/L	200	10/4/2011 1:56:37 AM
2,2-Dichloropropane	ND	400		µg/L	200	10/4/2011 1:56:37 AM
1,1-Dichloropropene	ND	200		µg/L	200	10/4/2011 1:56:37 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-11

Analytical Report

CLIENT: EA Engineering  
 Lab Order: 1109C02  
 Project: Holiday Chevron  
 Lab ID: 1109C02-06

Client Sample ID: MW-3  
 Collection Date: 9/28/2011 10:35:00 AM  
 Date Received: 9/29/2011  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Hexachlorobutadiene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
2-Hexanone	ND	2000		µg/L	200	10/4/2011 1:56:37 AM
Isopropylbenzene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
4-Isopropyltoluene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
4-Methyl-2-pentanone	ND	2000		µg/L	200	10/4/2011 1:56:37 AM
Methylene Chloride	ND	600		µg/L	200	10/4/2011 1:56:37 AM
n-Butylbenzene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
n-Propylbenzene	240	200		µg/L	200	10/4/2011 1:56:37 AM
sec-Butylbenzene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
Styrene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
tert-Butylbenzene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
1,1,1,2-Tetrachloroethane	ND	200		µg/L	200	10/4/2011 1:56:37 AM
1,1,2,2-Tetrachloroethane	ND	400		µg/L	200	10/4/2011 1:56:37 AM
Tetrachloroethene (PCE)	ND	200		µg/L	200	10/4/2011 1:56:37 AM
trans-1,2-DCE	ND	200		µg/L	200	10/4/2011 1:56:37 AM
trans-1,3-Dichloropropene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
1,2,3-Trichlorobenzene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
1,2,4-Trichlorobenzene	ND	200		µg/L	200	10/4/2011 1:56:37 AM
1,1,1-Trichloroethane	ND	200		µg/L	200	10/4/2011 1:56:37 AM
1,1,2-Trichloroethane	ND	200		µg/L	200	10/4/2011 1:56:37 AM
Trichloroethene (TCE)	ND	200		µg/L	200	10/4/2011 1:56:37 AM
Trichlorofluoromethane	ND	200		µg/L	200	10/4/2011 1:56:37 AM
1,2,3-Trichloropropane	ND	400		µg/L	200	10/4/2011 1:56:37 AM
Vinyl chloride	ND	200		µg/L	200	10/4/2011 1:56:37 AM
Xylenes, Total	14000	300		µg/L	200	10/4/2011 1:56:37 AM
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%REC	200	10/4/2011 1:56:37 AM
Surr: 4-Bromofluorobenzene	90.2	73-131		%REC	200	10/4/2011 1:56:37 AM
Surr: Dibromofluoromethane	91.6	70-130		%REC	200	10/4/2011 1:56:37 AM
Surr: Toluene-d8	99.9	70-130		%REC	200	10/4/2011 1:56:37 AM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-11

Analytical Report

CLIENT: EA Engineering  
 Lab Order: 1109C02  
 Project: Holiday Chevron  
 Lab ID: 1109C02-07

Client Sample ID: Trip Blank  
 Collection Date:  
 Date Received: 9/29/2011  
 Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Benzene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
Toluene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
Ethylbenzene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
Naphthalene	ND	2.0		µg/L	1	10/4/2011 3:21:54 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/4/2011 3:21:54 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/4/2011 3:21:54 AM
Acetone	ND	10		µg/L	1	10/4/2011 3:21:54 AM
Bromobenzene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
Bromodichloromethane	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
Bromoform	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
Bromomethane	ND	3.0		µg/L	1	10/4/2011 3:21:54 AM
2-Butanone	ND	10		µg/L	1	10/4/2011 3:21:54 AM
Carbon disulfide	ND	10		µg/L	1	10/4/2011 3:21:54 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
Chlorobenzene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
Chloroethane	ND	2.0		µg/L	1	10/4/2011 3:21:54 AM
Chloroform	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
Chloromethane	ND	3.0		µg/L	1	10/4/2011 3:21:54 AM
2-Chlorotoluene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
4-Chlorotoluene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
cis-1,2-DCE	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/4/2011 3:21:54 AM
Dibromochloromethane	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
Dibromomethane	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/4/2011 3:21:54 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-11

Analytical Report

CLIENT: EA Engineering  
 Lab Order: 1109C02  
 Project: Holiday Chevron  
 Lab ID: 1109C02-07

Client Sample ID: Trip Blank  
 Collection Date:  
 Date Received: 9/29/2011  
 Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Hexachlorobutadiene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
2-Hexanone	ND	10		µg/L	1	10/4/2011 3:21:54 AM
Isopropylbenzene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/4/2011 3:21:54 AM
Methylene Chloride	ND	3.0		µg/L	1	10/4/2011 3:21:54 AM
n-Butylbenzene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
n-Propylbenzene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
sec-Butylbenzene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
Styrene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
tert-Butylbenzene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/4/2011 3:21:54 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
trans-1,2-DCE	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/4/2011 3:21:54 AM
Vinyl chloride	ND	1.0		µg/L	1	10/4/2011 3:21:54 AM
Xylenes, Total	ND	1.5		µg/L	1	10/4/2011 3:21:54 AM
Surr: 1,2-Dichloroethane-d4	93.8	70-130		%REC	1	10/4/2011 3:21:54 AM
Surr: 4-Bromofluorobenzene	111	73-131		%REC	1	10/4/2011 3:21:54 AM
Surr: Dibromofluoromethane	90.3	70-130		%REC	1	10/4/2011 3:21:54 AM
Surr: Toluene-d8	101	70-130		%REC	1	10/4/2011 3:21:54 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: EA Engineering  
Project: Holiday Chevron

Work Order: 1109C02

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb

MBLK

Batch ID: R48146 Analysis Date: 10/3/2011 9:44:44 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	3.0
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	3.0
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	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: EA Engineering  
 Project: Holiday Chevron

Work Order: 1109C02

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb MBLK Batch ID: R48146 Analysis Date: 10/3/2011 9:44:44 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

Batch ID: R48146 Analysis Date: 10/3/2011 10:41:36 AM

Sample ID: 100ng Ics		Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit
Benzene	19.00	µg/L	1.0	20	0	95.0	81.1	130
Toluene	20.97	µg/L	1.0	20	0	105	82.3	122
Chlorobenzene	19.35	µg/L	1.0	20	0	96.7	70	130
1,1-Dichloroethene	19.54	µg/L	1.0	20	0	97.7	83.1	126
Trichloroethene (TCE)	20.82	µg/L	1.0	20	0	104	67.4	137

Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- H Holding times for preparation or analysis exceeded
- NC Non-Chlorinated
- R RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name EA ENGINEERING ALB

Date Received:

9/29/2011

Work Order Number 1109C02

Received by: AT

Checklist completed by:

Signature

*[Handwritten Signature]*

Date

9/29/11

Sample ID labels checked by:

Initials

*dam*

Matrix:

Carrier name: anne

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present  Not Shipped
- Custody seals intact on sample bottles? Yes  No  N/A
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No
- Water - Preservation labels on bottle and cap match? Yes  No  N/A
- Water - pH acceptable upon receipt? Yes  No  N/A
- Container/Temp Blank temperature? **2.2°** <6° C Acceptable  
If given sufficient time to cool.

Number of preserved bottles checked for pH: \_\_\_\_\_  
<2 >12 unless noted below.

COMMENTS:

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_

# Chain-of-Custody Record

Client: EAE Engineering  Standard  Rush

Mailing Address: 320 Gold Ave SW #1210  
Albuquerque NM 87102  
 Phone #: 505-224-9013  
 email or Fax#: tmcmillan@eest.com

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

Project Manager: Teri McMillan

Sampler: Tyler Gristley



Turn-Around Time: \_\_\_\_\_  
 Standard  Rush  
 Project Name: Holiday Chevron  
 Project #: 6231702

Project Manager: Teri McMillan

Sampler: Tyler Gristley

Container Type and #  
 Preservative Type

3x40ml VOA HgCl2  
 11  
 11  
 11  
 11  
 11  
 11

-1  
 2  
 3  
 4  
 5  
 6  
 7

Received by: [Signature] Date: 09/29/11  
 Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Date: 9/29/11 0946 Relinquished by: [Signature]  
 Date: \_\_\_\_\_ Relinquished by: \_\_\_\_\_

## Analysis Request

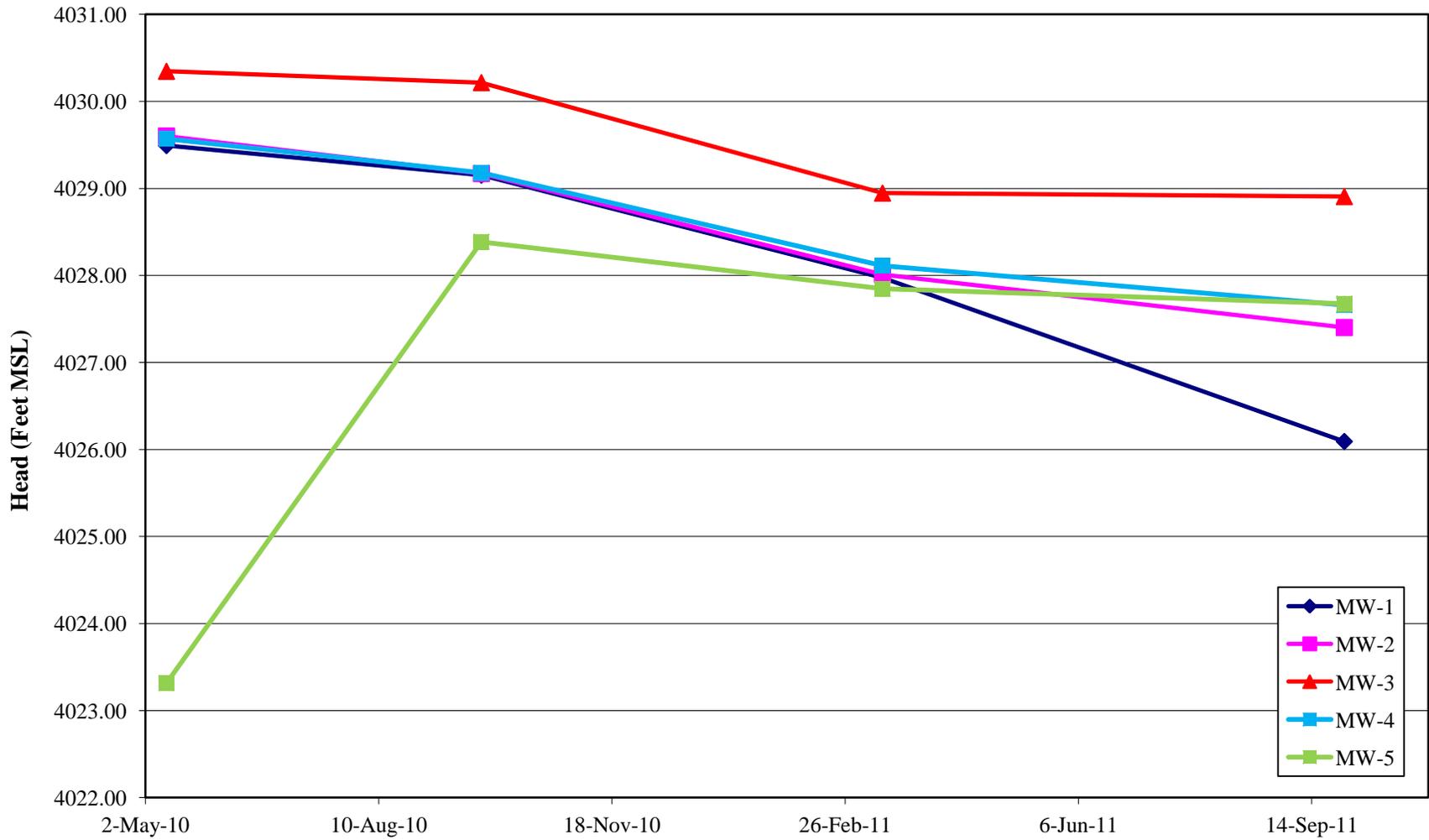
BTEX + MTBE + TPH (Gas only)	
BTEX + MTBE + TMBs (8021)	
TPH Method 8015B (Gas/Diesel)	
TPH (Method 418.1)	
EDB (Method 504.1)	
8310 (PNA or PAH)	
RCRA 8 Metals	
Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	
8081 Pesticides / 8082 PCBs	
8260B (VOA)	X
8270 (Semi-VOA)	X
Air Bubbles (Y or N)	

Remarks:

Trip Blank included

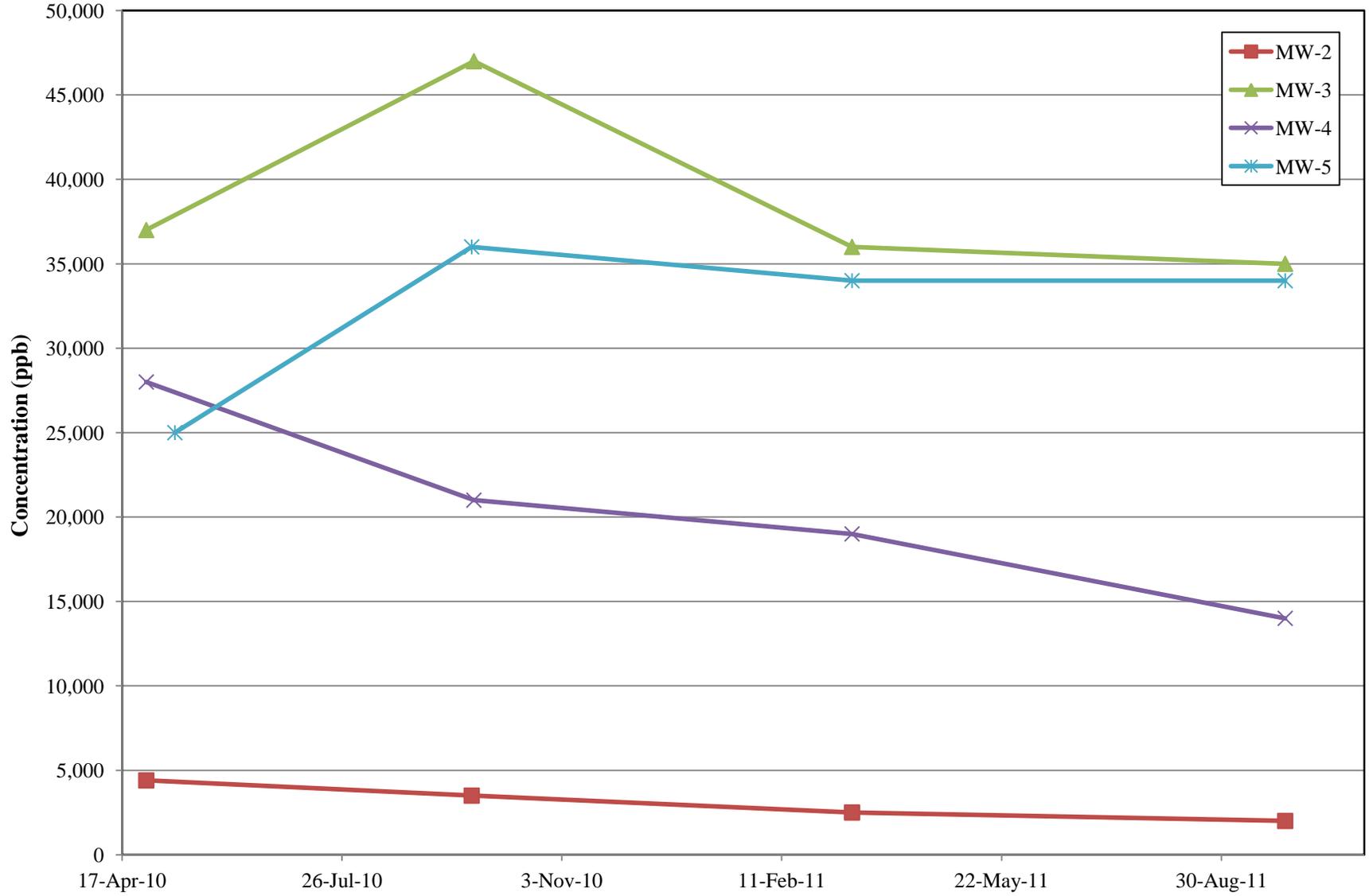
**APPENDIX C  
HYDROGRAPHS**

### HOLIDAY CHEVRON WELLS - HYDROGRAPHS



**APPENDIX D  
CONCENTRATION TRENDS**

### BENZENE CONCENTRATION TRENDS



### BENZENE CONCENTRATION TREND FOR MW-1

