3R - 437

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09 / 13 / 2012

3R-437

Animas Environmental Services, LLC
www.animasenvironmental.com
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Prepared for:
Mr. Glenn von Gonten
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Prepared on behalf of:
Enterprise Products Company
614 Reilly Avenue
Farmington, NM 87401

Groundwater Investigation Report
Enterprise Products Company
Smyers LS #1 Pipeline Release
SW¼ SW¼, Section 2, T31N, R11W
San Juan County, New Mexico

September 13, 2012

Prepared by:
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624 E. Comanche
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1.0 Introduction

Animas Environmental Services, LLC (AES), on behalf of Enterprise Products Company, Inc. (Enterprise), has prepared this Groundwater Investigation Report for the Smyers LS #1 pipeline release that was discovered and confirmed in December 2011. This investigation was conducted in accordance with the AES work plan entitled *Groundwater Investigation Work Plan for the Smyers LS #1* dated May 24, 2012, and submitted to Enterprise, New Mexico Oil Conservation Division (NMOCD), and Bureau of Land Management (BLM).

1.1 Site Location and NMOCD Ranking

The release area is located on federal land under jurisdiction of the BLM within the SW¼ SW¼, Section 2, T31N, R11W, San Juan County, New Mexico. Latitude and longitude of the release were recorded as N36.9234 and W107.96485, respectively. The release is located within an ephemeral stream identified as Kiffen Wash, which discharges directly into the Animas River approximately 2.5 miles to the southeast. A topographic site location map is included as Figure 1, and an aerial site map showing the release location is included as Figure 2.

In accordance with the NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) and prior to the initial assessment, the release location was assigned a ranking score to establish release action levels. The ranking score was obtained by reviewing available records of nearby oil/gas wells using the NMOCD online database; however, no records were found to assist in determining a ranking score for the release location. Additionally, the New Mexico Office of the State Engineer (NMOSE) database was reviewed for the presence of nearby water wells, and no registered water wells were reported to be located within 1,000 feet of the location.

Google Earth and the New Mexico Tech Petroleum Recovery Research Center online mapping tool (http://ford.nmt.edu/react/project.html) were accessed to aid in the identification of downgradient surface water, and a natural spring was identified approximately 800 feet down gradient of the release location. Groundwater was assumed to be less than 20 feet below ground surface (bgs) since the location of the release is in Kiffen Wash. Due to these factors, the release location was assessed a ranking score of 20.

1.2 Initial Release Assessment, December 2011 and January 2012

A release was reported at the location on December 26, 2011, and the cause of the release was attributed to two ruptures in the pipeline due to freezing. On December 28, 2011, an initial release assessment was completed by AES personnel. Using a hand auger, four soil borings were each advanced to a total depth of 3 feet below ground surface (bgs), at which point groundwater was encountered. Soil samples were field screened, and confirmation

soil and water samples were collected for laboratory analysis. Soil laboratory results confirmed that soil had been impacted above NMOCD action levels for benzene, toluene, ethyl-benzene, and xylenes (BTEX) and total petroleum hydrocarbons (TPH). The highest concentrations were recorded in SB-4 with 98 mg/kg benzene, 1,800 mg/kg total BTEX, and 15,140 mg/kg TPH. The groundwater samples reported concentrations of BTEX below New Mexico Water Quality Control Commission (WQCC) standards. Based on laboratory results, remedial excavation was scheduled.

On January 12 and 13, 2012, approximately 142 cubic yards of petroleum hydrocarbon contaminated soil were excavated and transported off-site for disposal by an Enterprise contractor. The final excavation dimensions measured approximately 21 feet by 29 feet by 3 feet deep. Prior to the excavation being backfilled, AES collected confirmation soil and groundwater samples, and the results confirmed that all hydrocarbon contaminated soil had been excavated, but that groundwater had been impacted by the release. The highest concentrations of dissolved phase contaminants were reported in EXCW-1 with 15,000 µg/L benzene, 81,000 µg/L toluene, greater than 10,000 µg/L ethylbenzene, and 53,000 µg/L total xylenes. Details of the initial release assessment were submitted in the *Smyers LS #1 Release Report* prepared by AES and dated March 9, 2012.

Based on laboratory analytical results, AES recommended further assessment of the groundwater dissolved phase contaminant plume using a HydroPunch to install temporary wells.

2.0 Groundwater Investigation – June 2012

On June 20, 2012, AES completed a groundwater investigation in order to delineate the full extent of petroleum hydrocarbon impact on groundwater resulting from the release. The investigation included the installation of nine temporary wells using a HydroPunch sampling tool and the collection of groundwater samples in accordance with U.S. Environmental Protection Agency (USEPA) Environmental Response Team's Standard Operating Procedures (SOPs) and applicable American Society of Testing and Materials (ASTM) standards.

Prior to field work, AES utilized the New Mexico One-Call system to identify and mark all underground utilities at the site and submitted required 48 hour notifications to representatives of Enterprise, BLM, and NMOCD, in writing and by telephone. Additionally, AES prepared and implemented a comprehensive site-specific Job Safety Analysis (JSA) addressing the site investigation activities associated with the drilling and sampling. All employees and subcontractors were required to read and sign the JSA to acknowledge their understanding of the information contained within the JSA. The JSA was implemented and enforced on site by the assigned Site Safety and Health Officer.

2.1 HydroPunch Investigation

The release location is situated within an ephemeral wash; therefore, it was determined that permanent groundwater monitoring wells should not be installed, and that the most appropriate sampling method for site conditions was a HydroPunch, an EPA approved groundwater sampling technique, which allows for in-situ collection of groundwater samples. On June 20, 2012, AES personnel installed nine temporary wells (TW-1 through TW-9) in order to define the lateral extent of groundwater impacts. The locations of the temporary wells are presented on Figure 3.

Each temporary well was installed by hand driving the HydroPunch screen with a fencepost driver. The HydroPunch screens were driven to depths ranging from 6.70 to 7.90 feet bgs. The internal slotted screen of the HydroPunch was set across the top of the shallow groundwater table at depths ranging from approximately 4.0 to 6.4 feet bgs and left in place to allow groundwater to infiltrate and reach equilibrium.

2.2 Groundwater Sampling

Groundwater was encountered at depths ranging from 4.01 feet bgs in TW-6 to 6.38 feet bgs in TW-4. Using a peristaltic pump, groundwater samples were collected from TW-1 through TW-9 for laboratory analysis. Prior to collection of each groundwater sample, depth to groundwater was measured with a water level indicator. Depth to groundwater in each temporary well was recorded on groundwater sample collection forms. Additionally, water quality parameters (pH, temperature, electrical conductivity, and oxygen reduction potential) were also recorded on the groundwater sample collection forms. Once collected, all samples were preserved in laboratory-supplied containers and stored in an insulated cooler containing ice. Samples were shipped via bus to the analytical laboratory in insulated coolers containing ice at less than 6°C.

2.3 Laboratory Analyses

All groundwater samples were analyzed at Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico, for the following parameters:

- BTEX per USEPA Method 8021B;
- Total petroleum hydrocarbons (TPH) for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B.

3.0 Groundwater Investigation Results

3.1 Water Quality Measurements

Water quality measurements were recorded prior to sample collection, and temperature readings ranged from 20.42°C in TW-6 to 26.4°C in TW-9. Conductivity readings were between 6.329 mS in TW-5 and 8.430 mS in TW-7, and pH ranged from 6.92 in TW-6 to 7.98 in TW-3. Oxidation reduction potential ranged from 143.7 mV in TW-4 down to -354.3 mV in TW-8. Water sample collection forms are included in Appendix A.

3.2 Laboratory Analytical Results

Groundwater laboratory analytical results showed that dissolved phase benzene concentrations were above the WQCC standard of 10 µg/L in TW-2 (92 µg/L), TW-7 (44 µg/L), and TW-8 (150 µg/L). TW-8 exceeded the WQCC standard of 750 µg/L for dissolved phase toluene and ethylbenzene with 920 µg/L and 1,200 µg/L, respectively. Dissolved phase xylene concentrations were above the WQCC standard of 620 µg/L in TW-2 with 1,600 µg/L and TW-8 with 11,000 µg/L. All other dissolved phase BTEX concentrations were below WQCC standards or below laboratory detection limits.

Dissolved phase GRO concentrations were reported in TW-1 (0.065 mg/L), TW-2 (8.2 mg/L), TW-7 (0.74 mg/L), and TW-8 (77 mg/L). Dissolved phase DRO was reported in TW-7 with a concentration of 1.2 mg/L. All other samples were below laboratory detection limits for dissolved phase TPH (as GRO/DRO). Note that WQCC standards have not been established for dissolved phase TPH (as GRO/DRO). Tabulated groundwater analytical results are presented in Table 1 and on Figure 3, and groundwater laboratory analytical reports are presented in Appendix B.

Table 1. Laboratory Analytical Results
Smyers LS #1 Groundwater Investigation, June 2012

Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylene (µg/L)	GRO (mg/L)	DRO (mg/L)
WQCC Standard		***10***	***750***	***750***	***620***	***NE***	***NE***
TW-1	6/20/12	<1.0	<1.0	<1.0	<2.0	0.065	<1.0
TW-2	6/20/12	**92**	280	280	**1,600**	8.2	<1.0
TW-3	6/20/12	<2.0	2.3	<2.0	<4.0	<0.10	<1.0
TW-4	6/20/12	<2.0	<2.0	<2.0	<4.0	<0.10	<1.0
TW-5	6/20/12	<2.0	<2.0	<2.0	<4.0	<0.10	<1.0
TW-6	6/20/12	<2.0	<2.0	<2.0	<4.0	<0.10	<1.0

Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylene (µg/L)	GRO (mg/L)	DRO (mg/L)
WQCC Standard		10	750	750	620	NE	NE
TW-7	6/20/12	**44**	<5.0	97	<10	0.74	1.2
TW-8	6/20/12	**150**	**920**	**1,200**	**11,000**	77	<10
TW-9	6/20/12	<2.0	<2.0	<2.0	<4.0	<0.10	<1.0

NE- Not Established

4.0 Conclusions and Recommendations

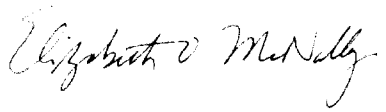
A total of nine HydroPunch temporary wells were installed by AES on June 20, 2012, in accordance with the work plan submitted in May 2012. During the June 2012 investigation, dissolved phase benzene concentrations above WQCC standards were reported in TW-2, TW-7, and TW-8. Additionally, dissolved phase toluene and ethylbenzene concentrations exceeded WQCC standards in TW-8, and dissolved phase xylene concentrations exceeded WQCC standards in TW-2 and TW-8.

Based on laboratory analytical results from the June 2012 investigation, groundwater continues to be impacted above WQCC standards in the area of the December 2011 release. Therefore, AES recommends injection of a microbial bioremediation solution within the dissolved phase plume in Kiffen Wash with follow up groundwater sampling six months later. AES will submit a work plan under separate cover detailing an additional proposed scope of work.

5.0 Certification

I, the undersigned, am personally familiar with the information presented in this Groundwater Investigation Report, prepared on behalf of Enterprise Products Company, Inc. for the December 2011 Smyers LS #1 pipeline release. I attest that it is true and complete to the best of my knowledge.

Tami C. Ross, CHMM
Project Manager



Elizabeth McNally, P.E.
Principal

6.0 References

American Society for Testing and Materials (ASTM) International. *D5730 Guide for Site Characterization for Environmental Purposes with Emphasis on Soil, Rock, the Vadose Zone and Groundwater.*

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AES. *Groundwater Investigation Work Plan for the Smyers LS #1, May 24, 2012.* Enterprise Products Company.

New Mexico Oil Conservation Division. *Guidelines for Remediation of Leaks, Spills, and Releases. August 13, 1993.*

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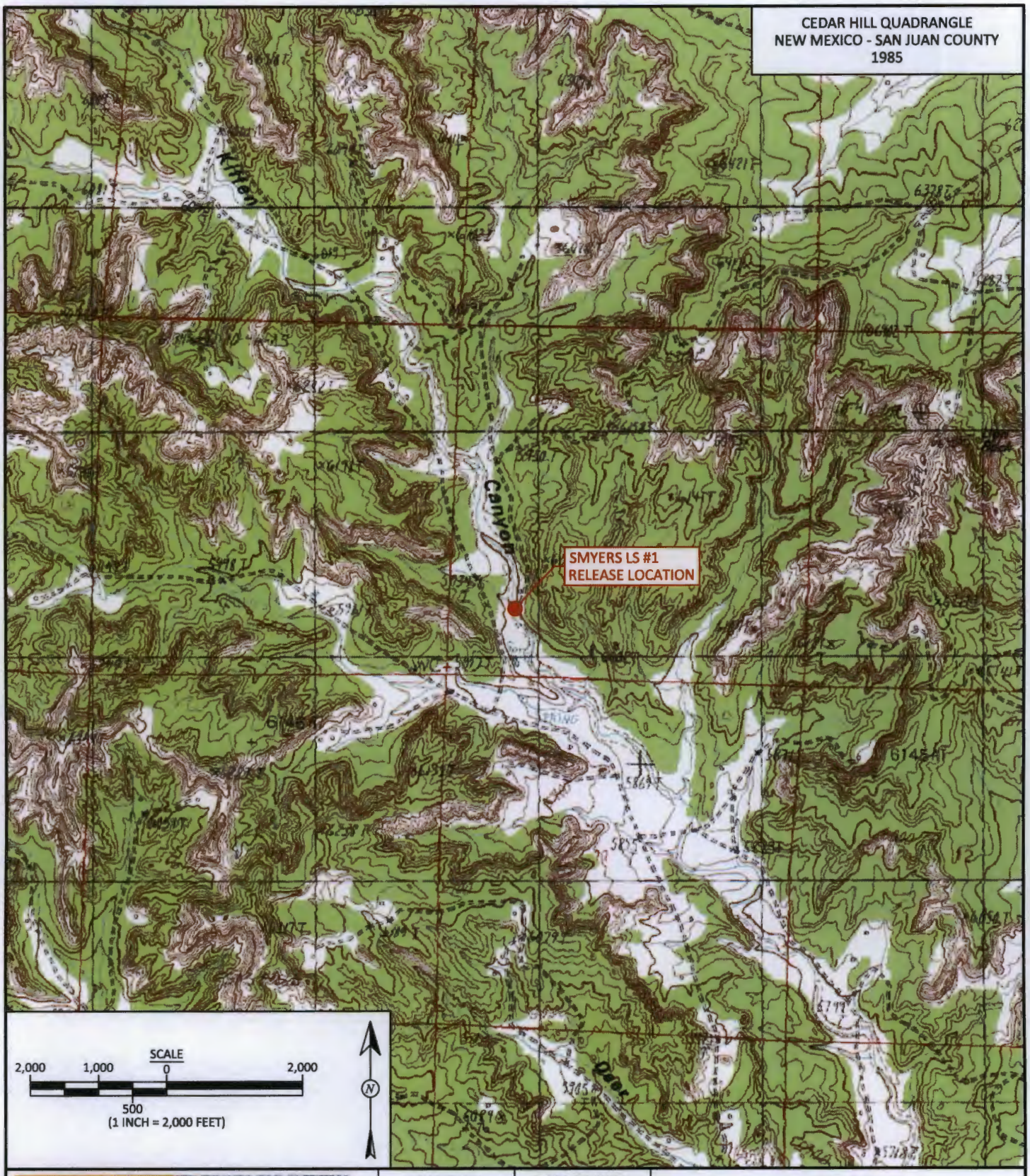
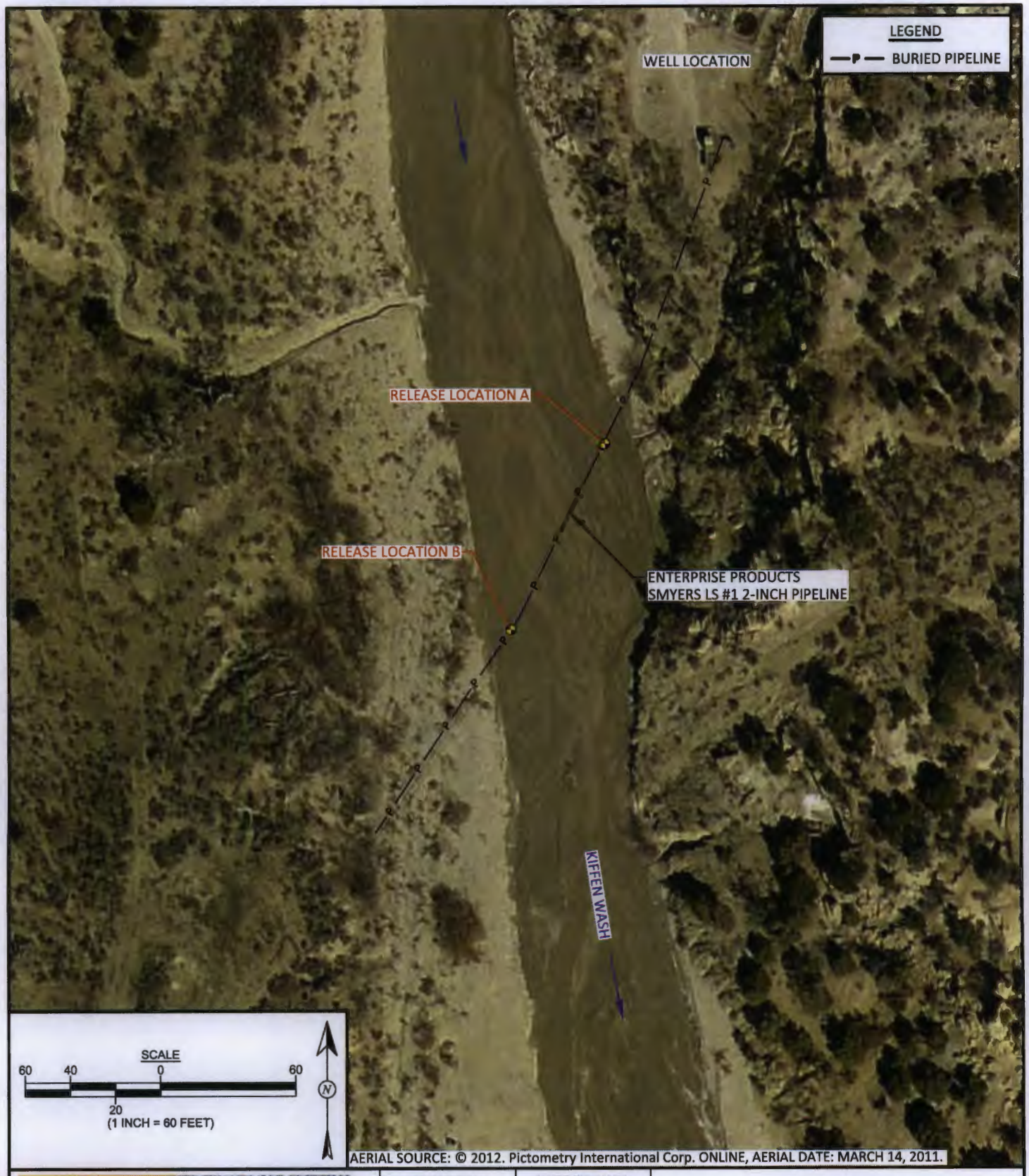
USEPA. 2001. Contract Laboratory Program (CLP) Guidance for Field Samplers. OSWER 9240.0-35, EPA 540-R-00-003. June, 2001.



DRAWN BY: C. Lameman	**DATE DRAWN:** July 12, 2012	**FIGURE 1**
REVISIONS BY: C. Lameman	**DATE REVISED:** August 30, 2012	**TOPOGRAPHIC SITE LOCATION MAP** ENTERPRISE PRODUCTS COMPANY SMYERS LS #1 GROUNDWATER INVESTIGATION SAN JUAN COUNTY, NEW MEXICO SW¼ SW¼, SEC. 2, T31N, R11W N 36.9234, W107.96485
CHECKED BY: T. Ross	**DATE CHECKED:** August 30, 2012	
APPROVED BY: E. McNally	**DATE APPROVED:** September 4, 2012	

AES
Animas Environmental Services, LLC

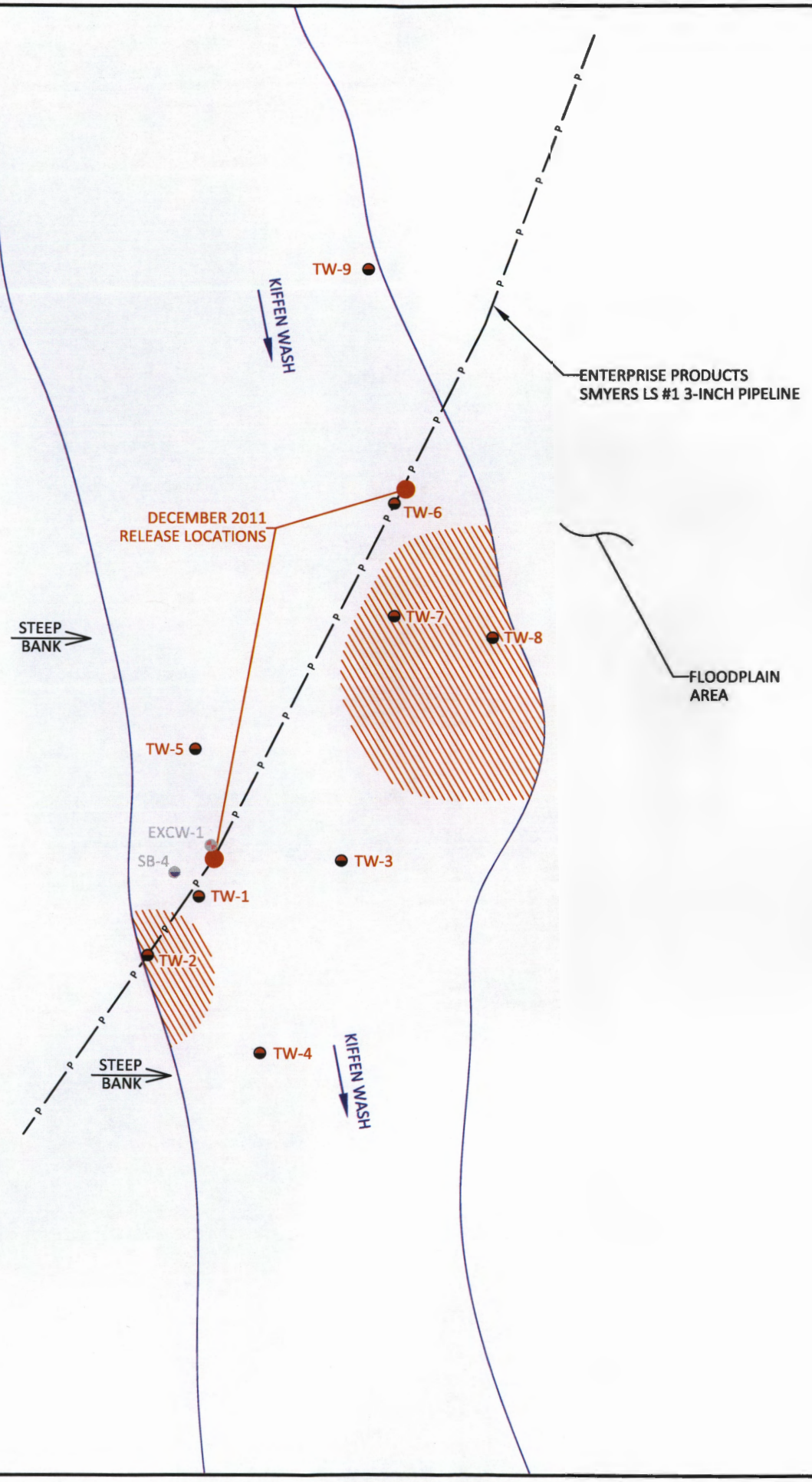


Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** July 12, 2012
REVISIONS BY: C. Lameman	**DATE REVISED:** August 30, 2012
CHECKED BY: T. Ross	**DATE CHECKED:** August 30, 2012
APPROVED BY: E. McNally	**DATE APPROVED:** September 4, 2012

FIGURE 2

AERIAL SITE MAP
ENTERPRISE PRODUCTS COMPANY
SMYERS LS #1 GROUNDWATER INVESTIGATION
SAN JUAN COUNTY, NEW MEXICO
SW¼ SW¼, SEC. 2, T31N, R11W
N36.9234, W107.96485



Groundwater Laboratory Analytical Results

Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)
WQCC STANDARD		10	750	750	620	NE	NE
TW-1	6/20/12	<1.0	<1.0	<1.0	<2.0	0.065	<1.0
TW-2	6/20/12	**92**	280	280	**1,600**	8.2	<1.0
TW-3	6/20/12	<2.0	2.3	<2.0	<4.0	<0.10	<1.0
TW-4	6/20/12	<2.0	<2.0	<2.0	<4.0	<0.10	<1.0
TW-5	6/20/12	<2.0	<2.0	<2.0	<4.0	<0.10	<1.0
TW-6	6/20/12	<2.0	<2.0	<2.0	<4.0	<0.10	<1.0
TW-7	6/20/12	**44**	<5.0	97	<10	0.74	1.2
TW-8	6/20/12	**150**	**920**	**1,200**	**11,000**	77	<10
TW-9	6/20/12	<2.0	<2.0	<2.0	<4.0	<0.10	<1.0

NE - NOT ESTABLISHED

FIGURE 3

HYDROPUNCH GROUNDWATER SAMPLING LOCATIONS AND RESULTS JUNE 2012

ENTERPRISE PRODUCTS COMPANY
SMYERS LS #1 GROUNDWATER INVESTIGATION
SAN JUAN COUNTY, NEW MEXICO
SW¼ SW¼, SEC. 2, T31N, R11W
N36.9234, W107.96485

Animas Environmental Services, LLC

DRAWN BY: N. Willis	**DATE DRAWN:** December 30, 2011
REVISIONS BY: C. Lameman	**DATE REVISED:** August 30, 2012
CHECKED BY: T. Ross	**DATE CHECKED:** August 30, 2012
APPROVED BY: E. McNally	**DATE APPROVED:** September 4, 2012

LEGEND

- HYDROPUNCH LOCATIONS
- EXCAVATION WATER SAMPLE JANUARY 13, 2012
- SOIL BORING SAMPLE DECEMBER 28, 2011
- INFERRED DISSOLVED PHASE PLUME ABOVE WQCC STANDARDS

N

SCALE
30 20 0 30
10
(1 INCH = 30 FEET)

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

June 28, 2012

Ross Kennemer

Animas Environmental Services
624 East Comanche
Farmington, NM 87401
TEL: (505) 486-1776
FAX: (505) 324-2022

RE: Smyers LS#1 OrderNo.: 1206984

Dear Ross Kennemer:

Hall Environmental Analysis Laboratory received 9 sample(s) on 6/22/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to 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. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1206984**
Date Reported: **6/28/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: TW-1
Project: Smyers LS#1
Collection Date: 6/20/2012 3:00:00 PM
Lab ID: 1206984-001 **Matrix:** AQUEOUS **Received Date:** 6/22/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/23/2012 9:00:38 PM
Surr: DNOP	117	61.3-164		%REC	1	6/23/2012 9:00:38 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.065	0.050		mg/L	1	6/23/2012 2:23:22 AM
Surr: BFB	82.9	69.3-120		%REC	1	6/23/2012 2:23:22 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	6/23/2012 2:23:22 AM
Toluene	ND	1.0		µg/L	1	6/23/2012 2:23:22 AM
Ethylbenzene	ND	1.0		µg/L	1	6/23/2012 2:23:22 AM
Xylenes, Total	ND	2.0		µg/L	1	6/23/2012 2:23:22 AM
Surr: 4-Bromofluorobenzene	87.1	55-140		%REC	1	6/23/2012 2:23:22 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: TW-2
Project: Smyers LS#1
Collection Date: 6/20/2012 5:10:00 PM
Lab ID: 1206984-002 **Matrix:** AQUEOUS **Received Date:** 6/22/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/23/2012 9:45:30 PM
Surr: DNOP	105	61.3-164		%REC	1	6/23/2012 9:45:30 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	8.2	1.0		mg/L	20	6/23/2012 2:53:20 AM
Surr: BFB	78.9	69.3-120		%REC	20	6/23/2012 2:53:20 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	92	20		µg/L	20	6/23/2012 2:53:20 AM
Toluene	280	20		µg/L	20	6/23/2012 2:53:20 AM
Ethylbenzene	280	20		µg/L	20	6/23/2012 2:53:20 AM
Xylenes, Total	1600	40		µg/L	20	6/23/2012 2:53:20 AM
Surr: 4-Bromofluorobenzene	86.9	55-140		%REC	20	6/23/2012 2:53:20 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: TW-3
Project: Smyers LS#1
Collection Date: 6/20/2012 2:10:00 PM
Lab ID: 1206984-003 **Matrix:** AQUEOUS **Received Date:** 6/22/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/23/2012 10:07:52 PM
Surr: DNOP	115	61.3-164		%REC	1	6/23/2012 10:07:52 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.10		mg/L	2	6/23/2012 3:23:34 AM
Surr: BFB	82.5	69.3-120		%REC	2	6/23/2012 3:23:34 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	2.0		µg/L	2	6/23/2012 3:23:34 AM
Toluene	2.3	2.0		µg/L	2	6/23/2012 3:23:34 AM
Ethylbenzene	ND	2.0		µg/L	2	6/23/2012 3:23:34 AM
Xylenes, Total	ND	4.0		µg/L	2	6/23/2012 3:23:34 AM
Surr: 4-Bromofluorobenzene	81.9	55-140		%REC	2	6/23/2012 3:23:34 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: TW-4
Project: Smyers LS#1
Collection Date: 6/20/2012 3:12:00 PM
Lab ID: 1206984-004
Matrix: AQUEOUS
Received Date: 6/22/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/23/2012 10:30:20 PM
Surr: DNOP	116	61.3-164		%REC	1	6/23/2012 10:30:20 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.10		mg/L	2	6/23/2012 3:53:53 AM
Surr: BFB	85.8	69.3-120		%REC	2	6/23/2012 3:53:53 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	2.0		µg/L	2	6/23/2012 3:53:53 AM
Toluene	ND	2.0		µg/L	2	6/23/2012 3:53:53 AM
Ethylbenzene	ND	2.0		µg/L	2	6/23/2012 3:53:53 AM
Xylenes, Total	ND	4.0		µg/L	2	6/23/2012 3:53:53 AM
Surr: 4-Bromofluorobenzene	84.9	55-140		%REC	2	6/23/2012 3:53:53 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: TW-5
Project: Smyers LS#1
Collection Date: 6/20/2012 4:40:00 PM
Lab ID: 1206984-005 **Matrix:** AQUEOUS **Received Date:** 6/22/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/23/2012 10:52:39 PM
Surr: DNOP	114	61.3-164		%REC	1	6/23/2012 10:52:39 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.10		mg/L	2	6/23/2012 4:24:07 AM
Surr: BFB	83.2	69.3-120		%REC	2	6/23/2012 4:24:07 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	2.0		µg/L	2	6/23/2012 4:24:07 AM
Toluene	ND	2.0		µg/L	2	6/23/2012 4:24:07 AM
Ethylbenzene	ND	2.0		µg/L	2	6/23/2012 4:24:07 AM
Xylenes, Total	ND	4.0		µg/L	2	6/23/2012 4:24:07 AM
Surr: 4-Bromofluorobenzene	84.5	55-140		%REC	2	6/23/2012 4:24:07 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: TW-6
Project: Smyers LS#1
Collection Date: 6/20/2012 1:25:00 PM
Lab ID: 1206984-006
Matrix: AQUEOUS
Received Date: 6/22/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/23/2012 11:15:02 PM
Surr: DNOP	115	61.3-164		%REC	1	6/23/2012 11:15:02 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.10		mg/L	2	6/23/2012 4:54:28 AM
Surr: BFB	79.8	69.3-120		%REC	2	6/23/2012 4:54:28 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	2.0		µg/L	2	6/23/2012 4:54:28 AM
Toluene	ND	2.0		µg/L	2	6/23/2012 4:54:28 AM
Ethylbenzene	ND	2.0		µg/L	2	6/23/2012 4:54:28 AM
Xylenes, Total	ND	4.0		µg/L	2	6/23/2012 4:54:28 AM
Surr: 4-Bromofluorobenzene	77.8	55-140		%REC	2	6/23/2012 4:54:28 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Project: Smyers LS#1
Lab ID: 1206984-007 **Matrix:** AQUEOUS

Client Sample ID: TW-7
Collection Date: 6/20/2012 1:40:00 PM
Received Date: 6/22/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	1.2	1.0		mg/L	1	6/23/2012 11:37:13 PM
Surr: DNOP	115	61.3-164		%REC	1	6/23/2012 11:37:13 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.74	0.25		mg/L	5	6/25/2012 2:11:22 PM
Surr: BFB	96.6	69.3-120		%REC	5	6/25/2012 2:11:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	44	5.0		µg/L	5	6/25/2012 2:11:22 PM
Toluene	ND	5.0		µg/L	5	6/25/2012 2:11:22 PM
Ethylbenzene	97	5.0		µg/L	5	6/25/2012 2:11:22 PM
Xylenes, Total	ND	10		µg/L	5	6/25/2012 2:11:22 PM
Surr: 4-Bromofluorobenzene	104	55-140		%REC	5	6/25/2012 2:11:22 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: TW-8
Project: Smyers LS#1
Collection Date: 6/20/2012 4:20:00 PM
Lab ID: 1206984-008 **Matrix:** AQUEOUS **Received Date:** 6/22/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/L	1	6/25/2012 11:44:26 AM
Surr: DNOP	121	61.3-164		%REC	1	6/25/2012 11:44:26 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	77	2.5		mg/L	50	6/25/2012 12:40:19 PM
Surr: BFB	119	69.3-120		%REC	50	6/25/2012 12:40:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	150	50		µg/L	50	6/25/2012 12:40:19 PM
Toluene	920	50		µg/L	50	6/25/2012 12:40:19 PM
Ethylbenzene	1200	50		µg/L	50	6/25/2012 12:40:19 PM
Xylenes, Total	11000	100		µg/L	50	6/25/2012 12:40:19 PM
Surr: 4-Bromofluorobenzene	109	55-140		%REC	50	6/25/2012 12:40:19 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: TW-9
Project: Smyers LS#1
Collection Date: 6/20/2012 12:55:00 PM
Lab ID: 1206984-009
Matrix: AQUEOUS
Received Date: 6/22/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/23/2012 11:59:34 PM
Surr: DNOP	120	61.3-164		%REC	1	6/23/2012 11:59:34 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.10		mg/L	2	6/25/2012 1:40:55 PM
Surr: BFB	76.4	69.3-120		%REC	2	6/25/2012 1:40:55 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	2.0		µg/L	2	6/25/2012 1:40:55 PM
Toluene	ND	2.0		µg/L	2	6/25/2012 1:40:55 PM
Ethylbenzene	ND	2.0		µg/L	2	6/25/2012 1:40:55 PM
Xylenes, Total	ND	4.0		µg/L	2	6/25/2012 1:40:55 PM
Surr: 4-Bromofluorobenzene	78.9	55-140		%REC	2	6/25/2012 1:40:55 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206984**

28-Jun-12

Client: Animas Environmental Services

Project: Smyers LS#1

Sample ID: **MB-2529**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **2529**	RunNo: **3631**
Prep Date: **6/22/2012**	Analysis Date: **6/23/2012**	SeqNo: **102218** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Surr: DNOP	1.1		1.000		106	61.3	164			

Sample ID: **LCS-2529**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **2529**	RunNo: **3631**
Prep Date: **6/22/2012**	Analysis Date: **6/23/2012**	SeqNo: **102219** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.6	1.0	5.000	0	92.9	74	157			
Surr: DNOP	0.40		0.5000		80.5	61.3	164			

Sample ID: **LCSD-2529**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **2529**	RunNo: **3631**
Prep Date: **6/22/2012**	Analysis Date: **6/23/2012**	SeqNo: **102220** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.7	1.0	5.000	0	93.6	74	157	0.710	23	
Surr: DNOP	0.43		0.5000		85.2	61.3	164	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206984**

28-Jun-12

Client: Animas Environmental Services

Project: Smyers LS#1

Sample ID: **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R3644**	RunNo: **3644**
Prep Date:	Analysis Date: **6/22/2012**	SeqNo: **102662** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	20		20.00		97.9	69.3	120			

Sample ID: **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R3644**	RunNo: **3644**
Prep Date:	Analysis Date: **6/22/2012**	SeqNo: **102663** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	94.6	101	123			S
Surr: BFB	20		20.00		98.7	69.3	120			

Sample ID: **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R3670**	RunNo: **3670**
Prep Date:	Analysis Date: **6/25/2012**	SeqNo: **103484** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		85.2	69.3	120			

Sample ID: **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R3670**	RunNo: **3670**
Prep Date:	Analysis Date: **6/25/2012**	SeqNo: **103485** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	92.4	101	123			S
Surr: BFB	20		20.00		98.0	69.3	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206984**

28-Jun-12

Client: Animas Environmental Services

Project: Smyers LS#1

Sample ID: **5ML RB** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBW** Batch ID: **R3644** RunNo: **3644**

Prep Date: Analysis Date: **6/22/2012** SeqNo: **102785** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	20		20.00		99.2	55	140			

Sample ID: **100NG BTEX LCS** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSW** Batch ID: **R3644** RunNo: **3644**

Prep Date: Analysis Date: **6/22/2012** SeqNo: **102786** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	80	120			
Toluene	21	1.0	20.00	0	107	80	120			
Ethylbenzene	21	1.0	20.00	0	107	80	120			
Xylenes, Total	64	2.0	60.00	0	107	80	120			
Surr: 4-Bromofluorobenzene	22		20.00		109	55	140			

Sample ID: **5ML RB** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBW** Batch ID: **R3670** RunNo: **3670**

Prep Date: Analysis Date: **6/25/2012** SeqNo: **103501** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	18		20.00		88.5	55	140			

Sample ID: **100NG BTEX LCS** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSW** Batch ID: **R3670** RunNo: **3670**

Prep Date: Analysis Date: **6/25/2012** SeqNo: **103502** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	108	80	120			
Toluene	22	1.0	20.00	0	111	80	120			
Ethylbenzene	22	1.0	20.00	0	110	80	120			
Xylenes, Total	66	2.0	60.00	0	110	80	120			
Surr: 4-Bromofluorobenzene	22		20.00		112	55	140			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1206984

Received by/date: AG 06/22/12

Logged By: Anne Thorne 6/22/2012 10:00:00 AM

Completed By: Anne Thorne 6/22/2012

Reviewed By: 6/22/12

Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (If applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Animas Environmental Services

Mailing Address: 624 E. Comanche Farmington, NM

Phone #: 505-564-2281

email or Fax#:

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Enterprise Smyers LS #1

Project #:

Project Manager: Ross Kennemer

Sampler:

[redacted]

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	[redacted]	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)				
6-20-12	1500	Water	TW-1	6 VOAs, 2 500mL	HCl	-001	X		X												
	1710		TW-2			-002	X		X												
	1410		TW-3			-003	X		X												
	1512		TW-4			-004	X		X												
	1640		TW-5			-005	X		X												
	1325		TW-6			-006	X		X												
	1340		TW-7			-007	X		X												
	1620		TW-8			-008	X		X												
↓	1255	↓	TW-9	↓	↓	-009	X		X												

Date:	Time:	Relinquished by:	Received by:	Date	Time
6-21-12	1550	Thomas Long	Christie Walker	6/21/12	1550
6/21/12	1700	Christie Walker			

Remarks: Bill To Enterprise

DEPTH TO GROUNDWATER MEASUREMENT FORM

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project: GW Sampling
Site: Smyers LS #1 (Enterprise Products Company
Location:
Tech: NW, TL

Project No.:
Date: 6/20/12
Time: 1100
Form:

Well I.D.	Depth to NAPL (ft.)	Depth to Water (ft.)	NAPL Thickness (ft.)	Notes / Observations
TW-9		4.80		TD = 6.95 CH = 22"
TW-6		4.01		TD = 6.85 CH = 19"
TW-7		5.80		TD = 6.90 CH = 28"
TW-3		6.00		TD = 7.85 CH = 45"
TW-1		5.75		TD = 7.90 CH = 38"
TW-4		6.38		TD = 7.80 CH = 36"
TW-8		5.60		TD = 6.70 CH = 36"
TW-5		5.56		TD = 6.80 CH = 33"
TW-2		5.20		TD = 6.80 CH = 34"

Wells measured with KECK water level or KECK interface tape, decontaminated between each well measurement.

Water Sampling Record

Animas Environmental Services

624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Monitor Well No: TW-1

Project: Enterprise
Site: Smyers LS #1
Location:
Sampler: TJL/NW
Sampling Method: Peristaltic Pump
Depth of Well (ft):
Depth to Water (ft):

Project No.:
Date: 6-20-12
Time: 1455
Weather: Hot/Clear
Air Temperature: 90°
Well Diam. (in.):
Site Elevation (ft):

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (gallons)	Notes/Observations
1500	22.22	6.511	31.5	7.97	76.6	~1.0 gallon	

Analytical Parameters Sampled For (include Method #):

8021 BTEX, 8015 DRO/GRO

Disposal of Purged Water:

Chain of Custody Record Complete? (Y/N)

Analytical Laboratory:

Equipment Used During Sampling:

Other Notes/Comments 36.92260, 107.96545

Water Sampling Record

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Monitor Well No: TW-2

Project:	Enterprise	**Project No.:**	
Site:	Smyers LS #1	**Date:**	6/20/12
Location:		**Time:**	1705
Sampler:	NW/TL	**Weather:**	Hot/Clear
Sampling Method:	Dedicated Pump	**Air Temperature:**	90°F
Depth of Well (ft):		**Well Diam. (in.):**	1.25
Depth to Water (ft):		**Site Elevation (ft):**	

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (gallons)	Notes/Observations
1710	23.09	7.323	49.7	7.48	-223	~1.0 gallon	

Analytical Parameters Sampled For (include Method #):

Disposal of Purged Water:

Chain of Custody Record Complete? (Y/N)

Analytical Laboratory:

Equipment Used During Sampling:

Other Notes/Comments

TW-2 36.92210, 107.96547

Water Sampling Record

Monitor Well No: TW-3

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project:	Enterprise	Project No.:	
Site:	Smyers LS # 1	Date:	6-30-12
Location:		Time:	1403
Sampler:	TJL / NW	Weather:	Hot/Clear
Sampling Method:	Peristaltic Pump	Air Temperature:	90°
Depth of Well (ft):	7.85	Well Diam. (in.):	
Depth to Water (ft):		Site Elevation (ft):	

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (gallons)	Notes/Observations
1410	24.75	7.684	4.39	7.98	-184.0	1 gal.	

Analytical Parameters Sampled For (include Method #):

Disposal of Purged Water:

Chain of Custody Record Complete? (Y/N)

Analytical Laboratory:

Equipment Used During Sampling:

Other Notes/Comments 36.9289, 107.96536

Water Sampling Record

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Monitor Well No: TW-4

Project: Enterprise
Site: Sayers LS #1
Location:
Sampler: TJL/NW
Sampling Method: Peristaltic Pump
Depth of Well (ft): 7.60
Depth to Water (ft):

Project No.:
Date: 6-20-12
Time: 1508
Weather: Hot/clear
Air Temperature: 90°
Well Diam. (in.):
Site Elevation (ft):

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (gallons)	Notes/Observations
1512	21.09	7.086	76.9	7.30	143.7		

Analytical Parameters Sampled For (include Method #):

Both BTEX, both DRO/GRO

Disposal of Purged Water:

Chain of Custody Record Complete? (Y/N)

Analytical Laboratory:

Equipment Used During Sampling:

Other Notes/Comments

3 ft Stick up 36.92279, 107.96541

Water Sampling Record

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Monitor Well No: TW-5

Project: Enterprise
Site: ~~Lange~~ Sanyels LS #1
Location:
Sampler: NW/JL
Sampling Method: Parastaltic Pump
Depth of Well (ft):
Depth to Water (ft):

Project No.:
Date: 6/20/12
Time: 1436
Weather: Hot / Clear
Air Temperature: 90°F
Well Diam. (in.): 1.25
Site Elevation (ft):

Time	Temp (deg C)	Conductivity (µS) (~~mS~~)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (gallons)	Notes/Observations
1640	25.62	6.329	3.37	7.49	-94.3	1 gal.	

Analytical Parameters Sampled For (include Method #):

Disposal of Purged Water:

Chain of Custody Record Complete? (Y/N)

Analytical Laboratory:

Equipment Used During Sampling:

Other Notes/Comments

TW-5 36.92303, -107.96533

Water Sampling Record

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Monitor Well No: TW-6

Project: Enterprise
Site: Smyers LS #1
Location:
Sampler: TL/NW
Sampling Method: Peristaltic Pump
Depth of Well (ft): 6.85
Depth to Water (ft):

Project No.:
Date: 6-20-12
Time: 1320
Weather: Hot/Clear
Air Temperature: 96°
Well Diam. (in.):
Site Elevation (ft):

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (gallons)	Notes/Observations
1325	20.42	7.416	3.6.8	7.26	-489	21.0 gallon	

Analytical Parameters Sampled For (include Method #):
8021 BTEX, 8015 DRO/GRO

Disposal of Purged Water:

Chain of Custody Record Complete? (Y/N)

Analytical Laboratory:

Equipment Used During Sampling:

Other Notes/Comments 36.92323, 107.96527

Water Sampling Record

Monitor Well No: TW-7

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project:	Enterprise	Project No.:	
Site:	Smyers LS #1	Date:	6-20-12
Location:		Time:	1333
Sampler:	TJL/NW	Weather:	Hot/Clear
Sampling Method:	Peristaltic Pump	Air Temperature:	90°
Depth of Well (ft):	6.90	Well Diam. (in.):	
Depth to Water (ft):		Site Elevation (ft):	

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (gallons)	Notes/Observations
1340	21.4	8.430	43.8	7.42	-34.5	~1.0 gallon	

Analytical Parameters Sampled For (include Method #):

8021 BTEX, 8015 GRO/DRO

Disposal of Purged Water:

Chain of Custody Record Complete? (Y/N)

Analytical Laboratory:

Equipment Used During Sampling:

Other Notes/Comments

Samples are fizzy.
Water is black and has organic smell.

36.92301, 107.96936

Water Sampling Record

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Monitor Well No: TW-8

Project: Enterprise
Site: Somers LS -1
Location:
Sampler: TJL / NW
Sampling Method: Peristaltic Pump
Depth of Well (ft):
Depth to Water (ft):

Project No.:
Date: 6-20-12
Time: 1615
Weather: Hot / Clear
Air Temperature: 90°
Well Diam. (in.):
Site Elevation (ft):

Time	Temp (deg C)	Conductivity (µS) (~~mS~~)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (gallons)	Notes/Observations
1620	24.35	8.276	1.82	6.92	-354.3	1 gal.	

Analytical Parameters Sampled For (include Method #):

Disposal of Purged Water:

Chain of Custody Record Complete? (Y/N)

Analytical Laboratory:

Equipment Used During Sampling:

Other Notes/Comments

36.92309, 107.76522

Water Sampling Record

Monitor Well No: TW-9

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project:	GW Sampling	**Project No.:**	
Site:	Smyers LS #1	**Date:**	6/20/12
Location:		**Time:**	1250
Sampler:	NW, TL	**Weather:**	Sunny
Sampling Method:	Peristaltic Pump	**Air Temperature:**	90°F
Depth of Well (ft):		**Well Diam. (in.):**	1.25"
Depth to Water (ft):		**Site Elevation (ft):**	

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (gallons)	Notes/Observations
1255	26.4	7.105	6.53	7.39	58.1		Sample collected

Analytical Parameters Sampled For (include Method #):

8021 BTEX, 8015 DRO/GRO

Disposal of Purged Water:

Chain of Custody Record Complete? (Y/N)

Analytical Laboratory:

Equipment Used During Sampling:

Other Notes/Comments 36.92311, 107.76528