

**3R – 449**

**Q2 2012 GWMR**

**09/04/2012**



# Animas Environmental Services, LLC

624 E. Comanche . Farmington, NM 87401 . TEL 505-564-2281 . FAX 505-324-2022 . www.animasenvironmental.com

RECEIVED OGD

May 6, 2011

2011 MAY 12 A 11:50

Glen von Gonten  
New Mexico Oil Conservation Division  
1220 S. St. Francis Drive  
Santa Fe, New Mexico 87505

RE: 2nd Quarter 2011 Groundwater Monitoring Report for Williams Four Corners, LLC, Sammons #2 Pipeline December 2009 Release, Flora Vista, San Juan County, New Mexico

Dear Mr. von Gonten:

Animas Environmental Services, LLC (AES), on behalf of Williams Four Corners, LLC, has prepared this 2<sup>nd</sup> Quarter Groundwater Monitoring Report for the Sammons #2 Pipeline December 2009 Release in accordance with New Mexico Oil Conservation Division (NMOCD) and New Mexico Environment Department (NMED) Ground Water Quality Bureau (GWQB) regulations. The subject site is located near Flora Vista, San Juan County, New Mexico.

A second quarterly groundwater monitoring and sampling event was completed April 27, 2011, in accordance with a workplan previously prepared by AES and dated March 3, 2011. The workplan was submitted to the NMOCD for review prior to implementing the proposed scope of work.

## 1.0 Site Information

### 1.1 Site Location

The general project area is located in a rural area approximately 0.1 mile east of County Road 3000 on private property owned by Ms. Helen Clark. The spill location is located approximately 140 feet southeast of a wetland area that is adjacent to the Animas River. The project area is described legally as within the SE¼ NE¼ Section 32, T30N, R12W, in Flora Vista, San Juan County, New Mexico. Longitude and latitude were recorded as being N36°46'18.240" and W108°06'54.540". A topographic site location map is included as Figure 1, and a Site Vicinity Map is presented as Figure 2.



## 1.2 Spill History

On December 3, 2009, trenching operations during routine pipeline replacement activities uncovered petroleum hydrocarbon contaminated soils. Williams was in the process of replacing an in-service 2-inch diameter natural gas pipeline with a new 4-inch diameter natural gas pipeline. The pipeline connects the Sammons 2 well locations, which are owned by Conoco Phillips. The volume of natural gas condensate released into the surrounding environment and the length of time that the 2-inch diameter pipeline was leaking are unknown.

Initial remedial activities were completed between December 7 and 17, 2009, and included excavation of approximately 1,884 cubic yards of petroleum contaminated soil (PCS) and removal of 1,122 barrels (bbls) of petroleum contaminated groundwater. Petroleum contaminated soil and groundwater were transported to Industrial Ecosystems, Inc. (IEI) on Crouch Mesa, San Juan County, for disposal. Soil excavation and removal activities were documented in the *Remedial Activities Report for Sammons #2 Pipeline 2009 Spill*, prepared by AES and dated January 11, 2010.

Six 1-inch diameter groundwater monitoring wells were installed and sampled at the site in April 2010. Analytical results from groundwater samples collected during the sampling event showed benzene concentrations exceeded the New Mexico Water Quality Control Commission (WQCC) standard of 10 µg/L in one well, MW-1 (11 µg/L). The remaining wells had benzene, toluene, ethylbenzene, and xylene (BTEX) concentrations either below laboratory detection limits or well below applicable WQCC standards.

Diesel and motor oil range organics were below laboratory detection limits for all wells sampled. Low level gasoline range organics (GRO) were detected in MW-2, MW-4, MW-5, and MW-6. Based on the laboratory results, AES recommended continued quarterly groundwater monitoring at the site for at least a year.

Groundwater investigation details are included within the *Site Investigation Report* prepared by AES and dated May 5, 2010. Subsequent quarterly groundwater monitoring events were conducted in July 2010, October 2010, and January 2011, with quarterly monitoring reports submitted in August 2010, November 2010, and February 2011.

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## 2.0 Groundwater Monitoring and Sampling April 2011

On April 27, 2011, groundwater monitoring and sampling activities were conducted by AES. Work was completed in accordance with the workplan prepared by AES and dated March 3, 2011, and also 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.

## **2.1 Notification**

AES notified Aaron Dailey of Williams and Nick Clark, land owner, via telephone before initiating sampling activities. AES also notified NMOCD via electronic mail prior to the scheduled field work.

## **2.2 Groundwater Monitor Well Monitoring and Sampling**

AES personnel completed groundwater monitoring and sampling of the wells on April 27, 2011. Groundwater samples were collected with new disposable bailers from a total of six monitor wells and transferred into appropriate sample containers, labeled accordingly, and documented on Water Sample Collection Forms.

Prior to sample collection, water quality measurements were recorded and included depth to groundwater, pH, temperature, conductivity, dissolved oxygen (DO), and oxidation reduction potential (ORP). Depth to groundwater was measured with a Keck Water Level Indicator, and water quality data was measured with a YSI Water Quality Meter. Samples were shipped in insulated coolers containing ice at less than 6°C via Greyhound bus to Hall Environmental Analytical Laboratory (Hall) in Albuquerque, New Mexico.

### **2.2.1 Laboratory Analyses - Groundwater**

All groundwater analytical samples were analyzed for the following parameters:

- BTEX – EPA Method 8021

### **2.2.2 Measurement Data**

Depths to groundwater varied across the site and were observed to range from 0.81 feet below top of casing (TOC) in MW-6 to 1.97 feet below TOC in MW-1. The groundwater gradient was calculated to be approximately 0.09 ft/ft to the northwest, which is consistent with previous site data. Note that the site is considered to be groundwater under the direct influence (GUDI) of the Animas River.

Following depth to water measurement, each well was purged with a disposable bailer until recorded temperature, pH, conductivity, and DO measurements were stabilized. All data was recorded onto Water Sample Collection Forms. Groundwater temperature ranged from 9.69°C to 11.76°C, and conductivity ranged from 1.481 mS to 3.472 mS. DO ranged from 1.40 mg/L in MW04 to 3.92 mg/L in MW-1, and pH ranged from 7.12 to 7.35. Although DO was recorded during field activities, it should be noted that due to the use of

bailers, the accuracy of dissolved oxygen measurements is limited. Depth to groundwater measurements and water quality data are summarized in Table 1, and groundwater elevation contours are presented in Figure 3. Water Sample Collection forms are presented in Appendix A.

### **2.2.3 Groundwater Analytical Results**

Analytical results from groundwater samples collected during the April 2011 sampling event showed that BTEX concentrations were below laboratory detection limits in monitoring wells MW-1, MW-2, MW-3, MW-5, and MW-6. Dissolved phase benzene concentrations were detected in MW-4 at 2.1 µg/L, which is well below the New Mexico WQCC regulatory limit of 10 µg/L for benzene concentrations in groundwater. Groundwater analytical laboratory reports are presented in Appendix A.

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## **3.0 Conclusion and Recommendations**

AES personnel conducted groundwater monitoring and sampling at the location of the Sammons #2 Pipeline December 2009 Release in April 2011. Depths to groundwater varied across the site and were observed to exist at about 0.81 to 1.97 feet below TOC, and groundwater gradient was calculated to be approximately 0.09 ft/ft to the northwest, which is consistent with previous site data.

Groundwater analytical results showed that contaminants of concern (BTEX) were below applicable WQCC standards. Dissolved phase benzene concentrations in MW-2 have remained below the WQCC standard for benzene for four consecutive quarters. Remaining wells, MW-1, MW-3, MW-4, MW-5, and MW-6 have remained below applicable standards for five consecutive quarters.

Based on the presented information and in accordance with per the subject workplan, AES will continue quarterly sampling for three additional quarterly monitoring and sampling events for MW-1, MW-3, MW-4, MW-5, and MW-6. This will ensure compliance with WQCC standards for eight consecutive quarters of groundwater contaminant concentrations below standards. Additionally, MW-2 will be sampled for an additional four quarters to ensure compliance with WQCC standards. The next sampling event is tentatively scheduled for July 2011.

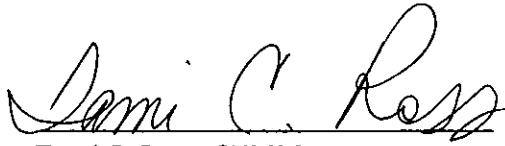
If you have any questions regarding site conditions or this report, please do not hesitate to contact Tami Ross or Elizabeth McNally at (505) 564-2281.

Mr. Glen von Gonten

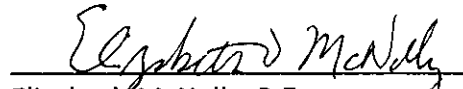
May 6, 2011

Page 5

Sincerely,

A handwritten signature in cursive script, reading "Tami C. Ross", written over a horizontal line.

Tami C. Ross, CHMM  
Project Manager

A handwritten signature in cursive script, reading "Elizabeth McNally", written over a horizontal line.  
Elizabeth McNally, P.E.  
New Mexico Registration #15799

Attachments:

Tables

Table 1. Groundwater Measurement and Water Quality Data

Table 2. Groundwater Analytical Results

Figures

Figure 1. Topographic Site Location Map

Figure 2. Site Plan

Figure 3. Groundwater Elevations, April 2011

Figure 4. Groundwater Analytical Results, April 2011

Appendix A

Water Sample Collection Forms

Groundwater Analytical Laboratory Reports

Cc: Mr. Brandon Powell  
New Mexico Oil Conservation Division  
1000 Rio Brazos Road  
Aztec, New Mexico 87410

Mr. Aaron Dailey  
Williams Four Corners, LLC  
188 CR 4900  
Bloomfield, NM 87413

Mr. Nick Clark  
719 Otten Street  
Aztec, NM 87410

Files:2011/Williams/Sammons#2/Groundwater/Reports/2nd Qutr Investigation Report 050511

TABLE 1  
SUMMARY OF GROUNDWATER MEASUREMENT AND WATER QUALITY DATA  
Williams Four Corners #2 Pipeline December 2009 Release  
Flora Vista, San Juan County, New Mexico

<i>Well ID</i>	<i>Date Sampled</i>	<i>Depth to Water (ft)</i>	<i>Surveyed TOC (ft)</i>	<i>GW Elev. (ft)</i>	<i>Temperature (C)</i>	<i>Conductivity (mS)</i>	<i>DO (mg/L)</i>	<i>pH</i>	<i>ORP (mV)</i>
MW-1	20-Apr-10	2.43	5427.26	5424.83	10.19	4.392	0.43	7.05	35.1
MW-1	20-Jul-10	2.05	5427.26	5425.21	14.75	1.108	1.76	7.14	-89.7
MW-1	28-Oct-10	1.95	5427.26	5425.31	11.84	3.797	0.67	7.03	-71.0
MW-1	25-Jan-11	3.21	5427.26	5424.05	6.45	3.357	2.77	7.40	-13.8
MW-1	27-Apr-11	1.97	5427.26	5425.29	10.16	3.472	3.92	7.12	-6.7
MW-2	20-Apr-10	1.11	5424.98	5423.87	10.37	1.670	0.20	7.39	-132.7
MW-2	20-Jul-10	0.91	5424.98	5424.07	19.09	0.930	1.84	7.26	-99.3
MW-2	28-Oct-10	0.92	5424.98	5424.06	11.52	0.719	0.22	7.45	-103.5
MW-2	25-Jan-11	1.74	5424.98	5423.24	4.55	1.621	2.20	7.59	-66.8
MW-2	27-Apr-11	0.95	5424.98	5424.03	9.69	1.659	1.76	7.31	-102.5
MW-3	20-Apr-10	1.77	5425.44	5423.67	9.73	2.005	0.24	7.21	-69.0
MW-3	20-Jul-10	1.56	5425.44	5423.88	17.89	0.842	1.52	7.22	-85.6
MW-3	28-Oct-10	1.66	5425.44	5423.78	12.61	0.670	0.18	7.43	-108.4
MW-3	25-Jan-11	2.36	5425.44	5423.08	6.13	1.438	1.70	7.63	-63.5
MW-3	27-Apr-11	1.61	5425.44	5423.83	10.70	1.481	1.80	7.34	-111.5
MW-4	20-Apr-10	1.59	5424.38	5422.79	9.60	2.174	0.22	7.29	-88.4
MW-4	20-Jul-10	1.44	5424.38	5422.94	16.39	1.061	1.29	7.17	-87.7
MW-4	28-Oct-10	1.39	5424.38	5422.99	14.48	1.026	0.22	7.28	-111.1
MW-4	25-Jan-11	1.84	5424.38	5422.54	6.88	1.465	2.55	7.52	-56.2
MW-4	27-Apr-11	1.40	5424.38	5422.98	11.21	1.560	1.40	7.35	-136.8
MW-5	20-Apr-10	1.00	5424.17	5423.17	9.88	3.140	0.21	7.37	-102.6
MW-5	20-Jul-10	0.86	5424.17	5423.31	20.50	1.440	1.03	6.98	-93.5
MW-5	28-Oct-10	0.75	5424.17	5423.42	15.62	1.650	0.30	7.09	-91.7
MW-5	25-Jan-11	1.32	5424.17	5422.85	6.15	1.707	2.94	7.49	-53.3



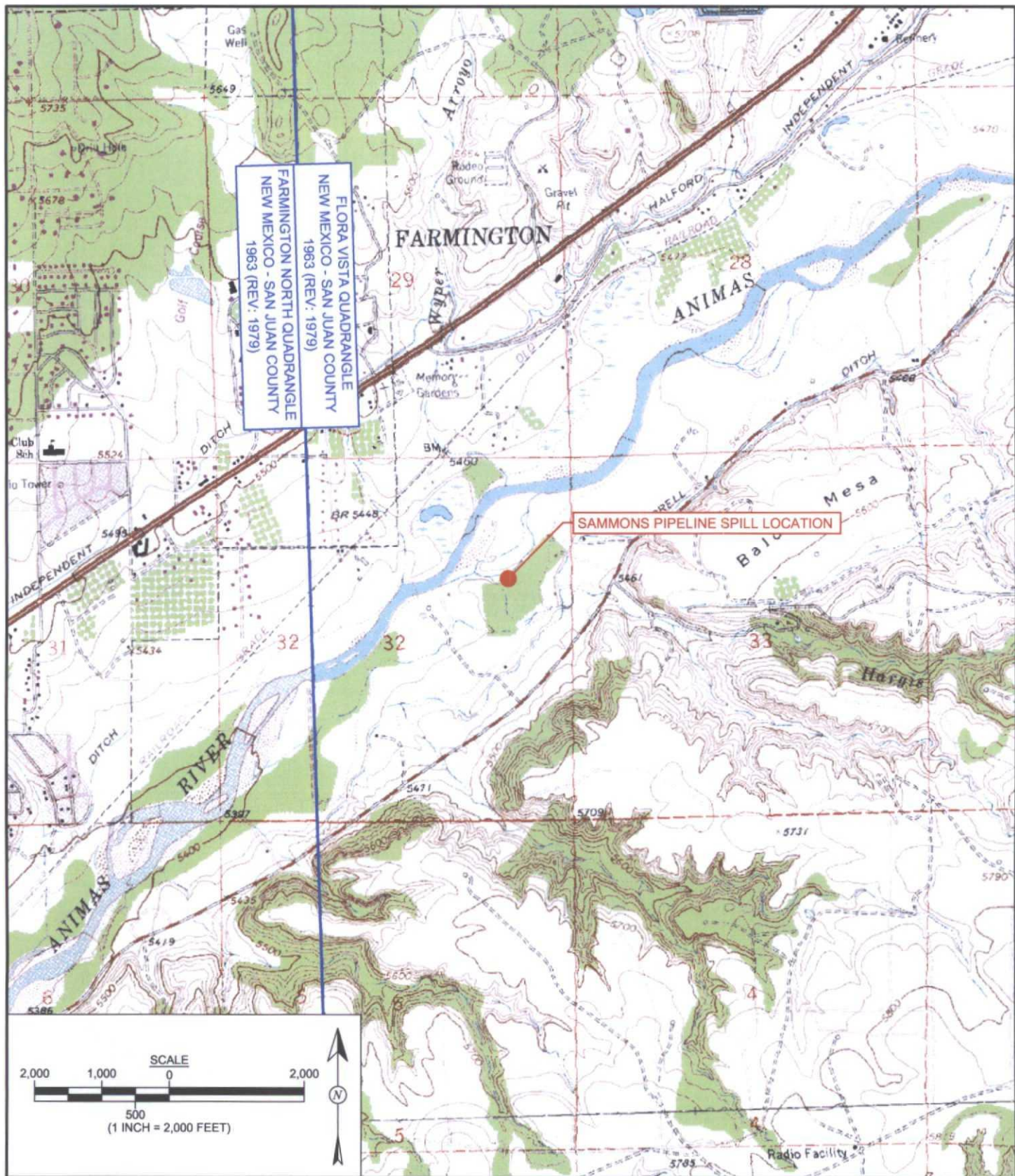
TABLE 1  
SUMMARY OF GROUNDWATER MEASUREMENT AND WATER QUALITY DATA  
Williams Four Corners #2 Pipeline December 2009 Release  
Flora Vista, San Juan County, New Mexico

<i>Well ID</i>	<i>Date Sampled</i>	<i>Depth to Water (ft)</i>	<i>Surveyed TOC (ft)</i>	<i>GW Elev. (ft)</i>	<i>Temperature (C)</i>	<i>Conductivity (mS)</i>	<i>DO (mg/L)</i>	<i>pH</i>	<i>ORP (mV)</i>
MW-5	27-Apr-11	0.84	5424.17	5423.33	10.69	1.948	0.73	7.22	-111.1
MW-6	20-Apr-10	1.04	5424.91	5423.87	11.09	2.277	0.22	7.28	-113.6
MW-6	20-Jul-10	0.89	5424.91	5424.02	21.57	1.399	1.06	6.93	-82.3
MW-6	28-Oct-10	0.68	5424.91	5424.23	11.93	1.482	0.21	7.12	-89.6
MW-6	25-Jan-11	1.51	5424.91	5423.40	4.67	1.726	6.51	7.47	-30.9
MW-6	27-Apr-11	0.81	5424.91	5424.10	11.76	1.662	2.38	7.20	-96.5

TABLE 2  
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS  
Williams Four Corners #2 Pipeline December 2009 Release  
Flora Vista, San Juan County, New Mexico

Well ID	Date Sampled	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	GRO (C6-C10)	DRO (C10-C22)	MRO (C22-C32)
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)
<b>Analytical Method</b>		<b>8260B/8021</b>	<b>8260B/8021</b>	<b>8260B/8021</b>	<b>8260B/8021</b>	<b>8015</b>	<b>8015</b>	<b>8015</b>
<b>WQCC Standard</b>		<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>
MW-1	20-Apr-10	<1.0	<1.0	<1.0	<1.5	<0.050	<1.0	<5.0
MW-1	20-Jul-10	<1.0	<1.0	<1.0	<1.5	<0.050	<1.0	<5.0
MW-1	28-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-1	25-Jan-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-1	27-Apr-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-2	20-Apr-10	11	<1.0	2.4	22	1.1	<1.0	<5.0
MW-2	20-Jul-10	<1.0	<1.0	<1.0	<1.5	<0.050	<1.0	<5.0
MW-2	28-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-2	25-Jan-11	2.6	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-2	27-Apr-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-3	20-Apr-10	<1.0	<1.0	<1.0	<1.5	<0.050	<1.0	<5.0
MW-3	20-Jul-10	<1.0	<1.0	<1.0	<1.5	<0.050	<1.0	<5.0
MW-3	28-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-3	25-Jan-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-3	27-Apr-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-4	20-Apr-10	9.9	<1.0	<1.0	<1.5	0.074	<1.0	<5.0
MW-4	20-Jul-10	<1.0	<1.0	<1.0	<1.5	<0.050	<1.0	<5.0
MW-4	28-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-4	25-Jan-11	2.5	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-4	27-Apr-11	2.1	<1.0	<1.0	<2.0	NA	NA	NA
MW-5	20-Apr-10	9.7	<1.0	<1.0	<1.5	0.055	<1.0	<5.0
MW-5	20-Jul-10	<1.0	<1.0	<1.0	<1.5	<0.050	<1.0	<5.0
MW-5	28-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-5	25-Jan-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-5	27-Apr-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-6	20-Apr-10	4.6	<1.0	11	47	3.2	<1.0	<5.0
MW-6	20-Jul-10	<1.0	<1.0	<1.0	<1.5	0.079	<1.0	<5.0
MW-6	28-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-6	25-Jan-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-6	27-Apr-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
Field Blank	22-Apr-10	<1.0	<1.0	<1.0	<1.5	NA	NA	NA

Notes: < - Analyte below laboratory detection limit  
NA - Not Analyzed  
NE - Not Established



**FIGURE 1**

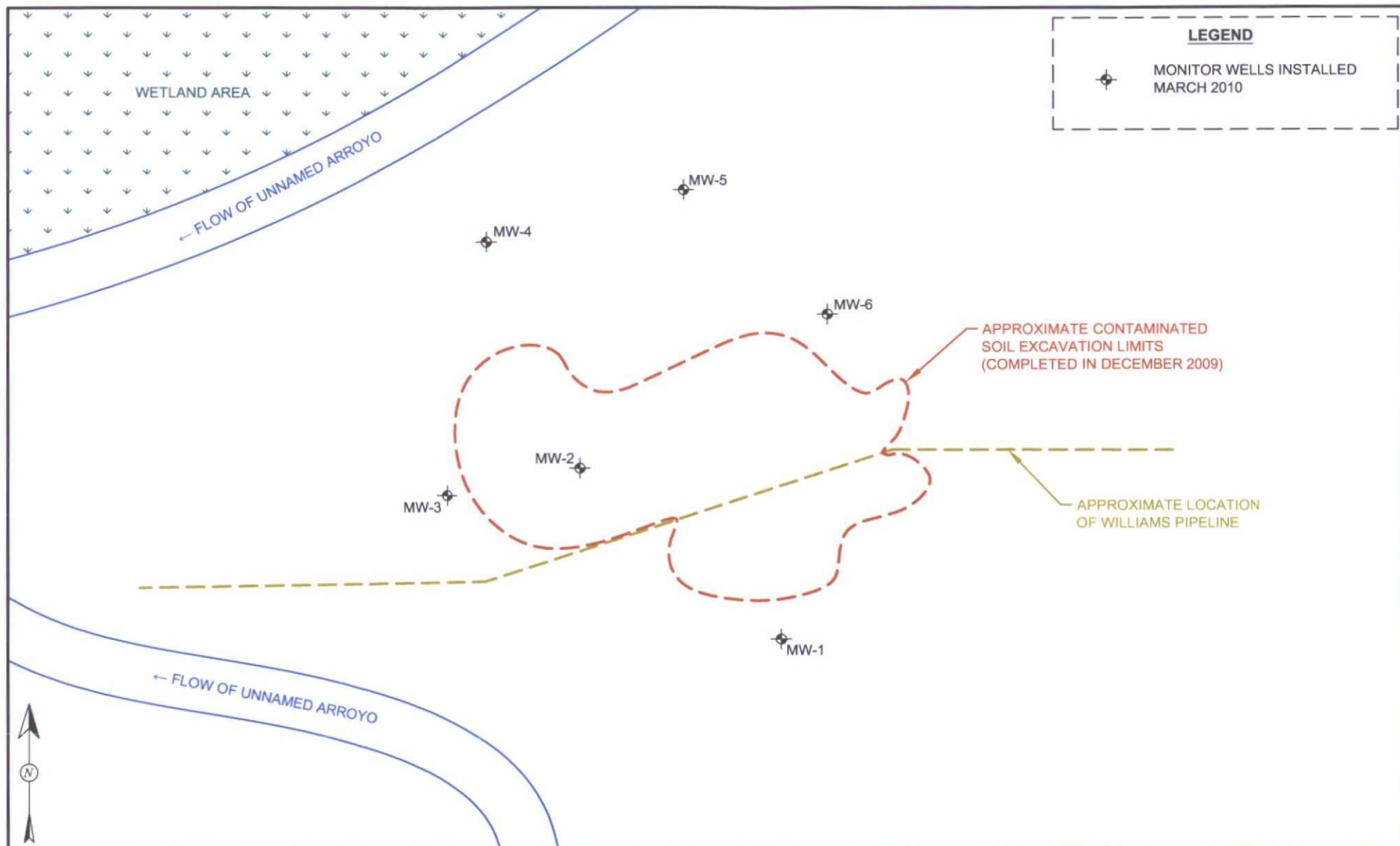
**TOPOGRAPHIC SITE LOCATION MAP**

WILLIAMS FOUR CORNERS, LLC  
SAMMONS #2 PIPELINE DECEMBER 2009 RELEASE  
FARMINGTON, SAN JUAN COUNTY, NEW MEXICO  
N36°45'18.240" , W108°06'54.540"

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> December 29, 2009
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> January 26, 2011
<b>CHECKED BY:</b> T. Ross	<b>DATE CHECKED:</b> May 6, 2011
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> May 10, 2011







**DRAWN BY:**  
C. Lameman

**DATE DRAWN:**  
April 13, 2010

**REVISIONS BY:**  
C. Lameman

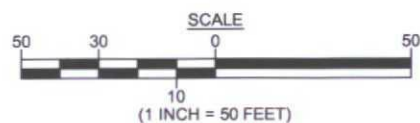
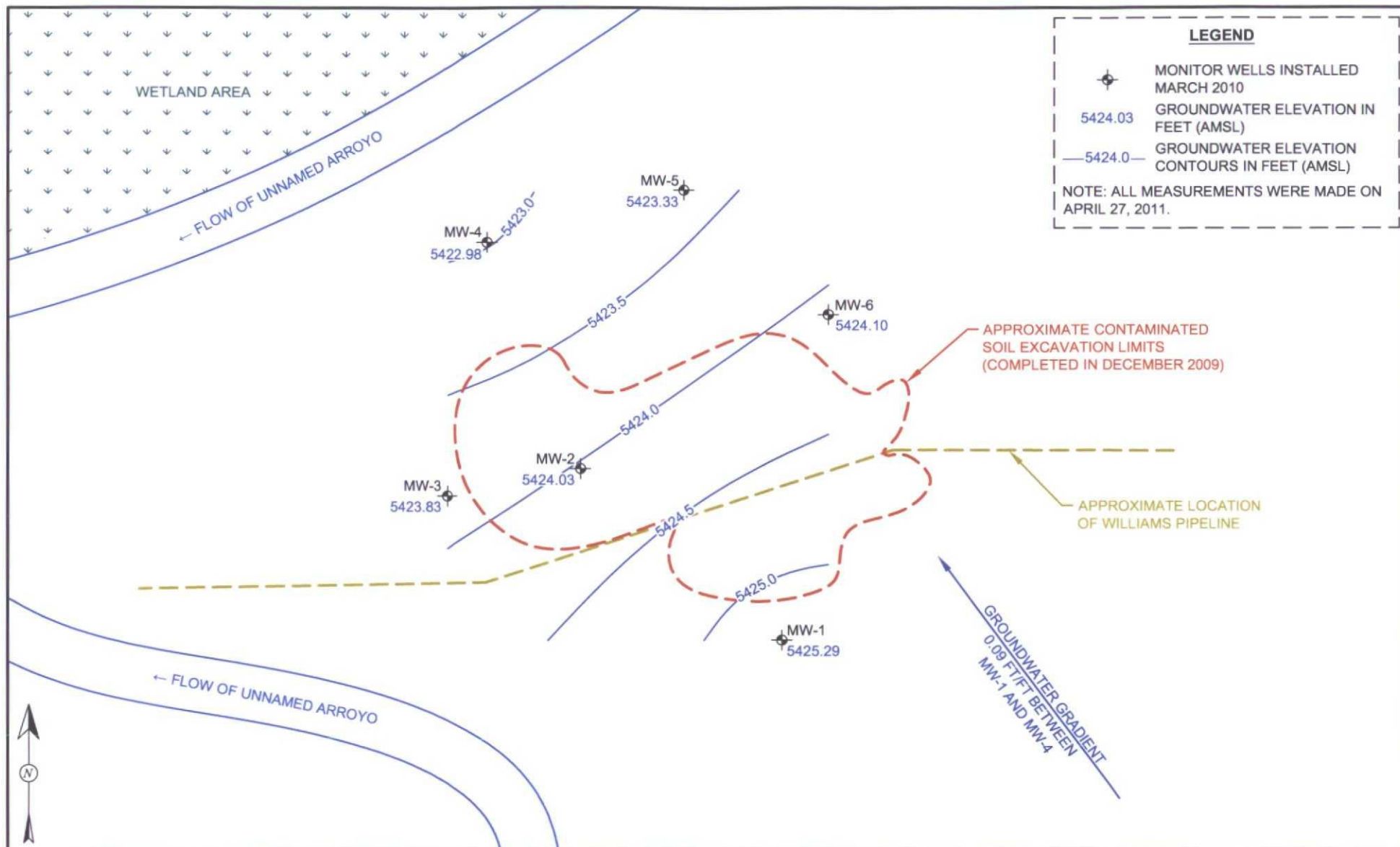
**DATE REVISED:**  
February 26, 2011

**CHECKED BY:**  
T. Ross

**DATE CHECKED:**  
May 6, 2011

**APPROVED BY:**  
E. McNally

**DATE APPROVED:**  
May 6, 2011



**DRAWN BY:**  
C. Lameman

**DATE DRAWN:**  
April 13, 2010

**REVISIONS BY:**  
C. Lameman

**DATE REVISED:**  
May 5, 2011

**CHECKED BY:**  
T. Ross

**DATE CHECKED:**  
May 5, 2011

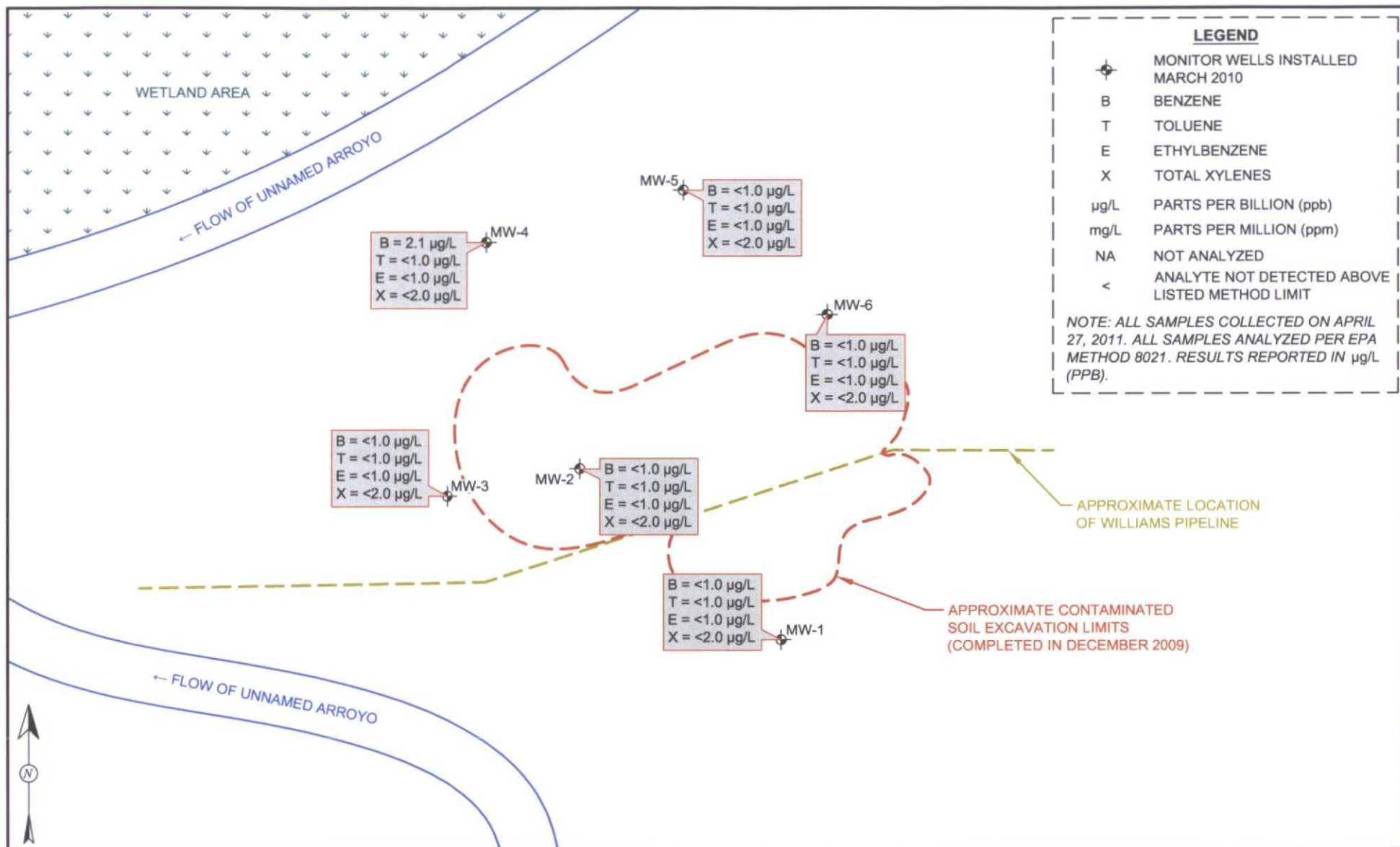
**APPROVED BY:**  
E. McNally

**DATE APPROVED:**  
May 6, 2011

## FIGURE 3

### GROUNDWATER ELEVATION CONTOURS APRIL 2011

WILLIAMS FOUR CORNERS, LLC  
SAMMONS #2 PIPELINE DECEMBER 2009 RELEASE  
FARMINGTON, SAN JUAN COUNTY, NEW MEXICO  
N36°46'18.240" , W108°06'54.540"



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

Form: 1 of 1

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

# MONITORING WELL SAMPLING RECORD

Animas Environmental Services

Monitor Well No: MW-1

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

Site: Williams Sammons #2 Pipeline Spill

Project No.: AES 091204

Location: Flora Vista, San Juan County, New Mexico

Date: 4-27-11

Project: Groundwater Monitoring and Sampling

Arrival Time: 1020

Sampling Technician: N. Willis

Air Temp: 58°F

Purge / No Purge: Purge

T.O.C. Elev. (ft): 5427.26

Well Diameter (in): 1

Total Well Depth (ft): 5.9

Initial D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_ (taken at initial gauging of all wells)

Confirm D.T.W. (ft): 1.97 Time: 1024 (taken prior to purging well)

Final D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_ (taken after sample collection)

If NAPL Present: D.T.P.: \_\_\_\_\_ D.T.W.: \_\_\_\_\_ Thickness: \_\_\_\_\_ Time: \_\_\_\_\_

## Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1032	10.20	3.617	4.58	7.27	24.7	0.25	Red Algy growth
1035	9.94	3.596	4.00	7.22	13.5	0.25	Clear
1038	9.87	3.527	3.78	7.12	11.2	0.25	Clear
1041	9.98	3.499	3.82	7.14	2.0	0.25	Clear
1044	10.18	3.497	3.78	7.12	-0.6	0.25	Clear
1047	10.16	3.472	3.92	7.12	-6.7	0.25	Clear
1052							Samples collected

## Analytical Parameters (include analysis method and number and type of sample containers)

Full VOCs per EPA Method 8021 (3 - 40 mL Vials w/ HCl preserve)

Disposal of Purged Water: \_\_\_\_\_

Collected Samples Stored on Ice in Cooler: \_\_\_\_\_

Chain of Custody Record Complete: \_\_\_\_\_

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter  
and New Disposable Bailer

Notes/Comments:



## MONITORING WELL SAMPLING RECORD

**Monitor Well No: MW-2**

Animas Environmental Services

624 E. Comanche, Farmington NM 87401

Tel. (505) 564-2281 Fax (505) 324-2022

**Site:** Williams Sammons #2 Pipeline Spill:

**Project No.: AES 091204**

**Location:** Flora Vista, San Juan County, New Mexico

Date: 4-27-11

**Project:** Groundwater Monitoring and Sampling

Arrival Time: 1058

Sampling Technician: N. Williams

Arrival Time: 1058

Sampling Technician: N. Williams

Purge / No Purge: Purge

Air Temp: 58°F

**Well Diameter (in):** 1

**T.O.C. Elev. (ft):** 5424.98

Initial D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_

**Total Well Depth (ft):** 5.96

Confirm D.T.W. (ft): 0.95 Time:

Time: (taken at initial gauging of all wells)

Final D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_

Time: 1104 (taken prior to purging well)

If NAPL Present: D.T.P.: D.T.W

Time: \_\_\_\_\_ (taken after sample collection)

**Thickness:** \_\_\_\_\_ **Time:** \_\_\_\_\_

### Water Quality Parameters - Recorded During Well Purging

[illegible]**Analytical Parameters (include analysis method and number and type of sample containers)**

Full VOCs per EPA Method 8021 (3 - 40 mL Vials w/ HCl preserve)

**Disposal of Purged Water:**

**Collected Samples Stored on Ice in Cooler:**

**Chain of Custody Record Complete:**

**Analytical Laboratory:** Hall Environmental Analysis Laboratory, Albuquerque, NM

**Equipment Used During Sampling:** Keck Water Level or Keck Interface Level, YSI Water Quality Meter

### and New Disposable Bailer

**Notes/Comments:**

# MONITORING WELL SAMPLING RECORD

Animas Environmental Services

Monitor Well No: MW-3

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

Site: Williams Sammons #2 Pipeline Spill

Project No.: AES 091204

Location: Flora Vista, San Juan County, New Mexico

Date: 4-27-11

Project: Groundwater Monitoring and Sampling

Arrival Time: 1133

Sampling Technician: N. Willis

Air Temp: 58°F

Purge / No Purge: Purge

T.O.C. Elev. (ft): 5425.44

Well Diameter (in): 1

Total Well Depth (ft): 5.9

Initial D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_ (taken at initial gauging of all wells)

Confirm D.T.W. (ft): 1.61 Time: 1136 (taken prior to purging well)

Final D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_ (taken after sample collection)

If NAPL Present: D.T.P.: \_\_\_\_\_ D.T.W.: \_\_\_\_\_ Thickness: \_\_\_\_\_ Time: \_\_\_\_\_

## Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity ( $\mu$ S) ( <u>ms</u> )	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1140	10.78	1.510	2.92	7.45	-100.5	0.25	Clear
1143	10.93	1.471	2.09	7.41	-103.4	0.25	
1146	10.64	1.480	2.00	7.38	-106.1	0.25	
1149	10.57	1.481	1.96	7.36	-108.3	0.25	
1152	10.72	1.480	1.88	7.34	-109.1	0.25	
1155	10.70	1.481	1.80	7.34	-111.5	0.25	
1200							Samples Collected

## Analytical Parameters (include analysis method and number and type of sample containers)

Full VOCs per EPA Method 8021 (3 - 40 mL Vials w/ HCl preserve)

Disposal of Purged Water: \_\_\_\_\_

Collected Samples Stored on Ice in Cooler: \_\_\_\_\_

Chain of Custody Record Complete: \_\_\_\_\_

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter  
and New Disposable Bailor

Notes/Comments:

# MONITORING WELL SAMPLING RECORD

Animas Environmental Services

Monitor Well No: MW-4

624 E. Comanche, Farmington NM 87401

Tel. (505) 564-2281 Fax (505) 324-2022

Site: Williams Sammons #2 Pipeline Spill

Project No.: AES 091204

Location: Flora Vista, San Juan County, New Mexico

Date: 4-27-11

Project: Groundwater Monitoring and Sampling

Arrival Time: 1204

Sampling Technician: N. Willes

Air Temp: 58°F

Purge / No Purge: Purge

T.O.C. Elev. (ft): 5424.38

Well Diameter (in): 1

Total Well Depth (ft): 5.84

Initial D.T.W. (ft): Time:

(taken at initial gauging of all wells)

Confirm D.T.W. (ft): 1.40

Time: 1206

(taken prior to purging well)

Final D.T.W. (ft): Time:

(taken after sample collection)

If NAPL Present: D.T.P.: Time:

D.T.W.: Thickness:

## Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1213	11.34	1.588	2.09	7.48	-118.3	0.25	Clear
1216	11.66	1.530	1.73	7.38	-126.3	0.25	
1219	11.36	1.549	1.91	7.36	-129.5	0.25	
1222	11.25	1.553	1.79	7.35	-132.7	0.25	
1225	11.26	1.554	1.61	7.35	-135.1	0.25	
1228	11.21	1.560	1.40	7.35	-136.8	0.25	
1233							Samples Collected

## Analytical Parameters (include analysis method and number and type of sample containers)

Full VOCs per EPA Method 8021 (3 - 40 mL Vials w/ HCl preserve)

Disposal of Purged Water:

Collected Samples Stored on Ice in Cooler:

Chain of Custody Record Complete:

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter  
and New Disposable Bailer

Notes/Comments:

# MONITORING WELL SAMPLING RECORD

Animas Environmental Services

Monitor Well No: MW-5

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

Site: Williams Sammons #2 Pipeline Spill

Project No.: AES 091204

Location: Flora Vista, San Juan County, New Mexico

Date: 4-27-11

Project: Groundwater Monitoring and Sampling

Arrival Time: 1237

Sampling Technician: N. Willis

Air Temp: 58°F

Purge / No Purge: Purge

T.O.C. Elev. (ft): 5424.17

Well Diameter (in): 1

Total Well Depth (ft): 5.91

Initial D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_ (taken at initial gauging of all wells)

Confirm D.T.W. (ft): 0.84 Time: 1240 (taken prior to purging well)

Final D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_ (taken after sample collection)

If NAPL Present: D.T.P.: \_\_\_\_\_ D.T.W.: \_\_\_\_\_ Thickness: \_\_\_\_\_ Time: \_\_\_\_\_

## Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity ( $\mu$ S) ( <del>mS</del> )	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1245	12.89	1.905	2.92	7.37	-116.3	0.25	Clear
1248	11.77	1.904	1.91	7.33	-114.9	0.25	
1251	11.04	1.923	1.17	7.28	-112.5	0.25	
1254	10.75	1.936	0.96	7.24	-111.1	0.25	
1257	10.70	1.944	0.86	7.23	-111.1	0.25	
1300	10.69	1.948	0.73	7.22	-111.1	0.25	
1305							Samples Collected

## Analytical Parameters (include analysis method and number and type of sample containers)

Full VOCs per EPA Method 8021 (3 - 40 mL Vials w/ HCl preserve)

Disposal of Purged Water: \_\_\_\_\_

Collected Samples Stored on Ice in Cooler: \_\_\_\_\_

Chain of Custody Record Complete: \_\_\_\_\_

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter  
and New Disposable Bailer

Notes/Comments:

## Animas Environmental Services

Monitor Well No: **MW-6**

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

**Site:** Williams Sammons #2 Pipeline Spill

**Project No.: AES 091204**

**Location:** Flora Vista, San Juan County, New Mexico

Date: 4-27-11

**Project:** Groundwater Monitoring and Sampling

Arrival Time: 308

Sampling Technician: N. Willis

Air Temp: 58°F

**Purge / No Purge:** Purge

T.O.C. Elev. (ft): 5424.91

**Well Diameter (in):** 1

**Total Well Depth (ft):** 6.3

Initial D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_

(taken at initial gauging of all wells)

Confirm D.T.W. (ft): 0.81

**Time:** 1311 (taken prior to purging well)

**Final D.T.W. (ft):** \_\_\_\_\_

Time: \_\_\_\_\_ (taken after sample collection)

If NAPL Present: D.T.P.: \_\_\_\_\_

D.T.W.: \_\_\_\_\_ Thickness: \_\_\_\_\_ Time: \_\_\_\_\_

### Water Quality Parameters - Recorded During Well Purging

[illegible]**Analytical Parameters (include analysis method and number and type of sample containers)**

Full VOCs per EPA Method 8021 (3 - 40 mL Vials w/ HCl preserve)

### Disposal of Purged Water:

**Collected Samples Stored on Ice in Cooler:**

**Chain of Custody Record Complete:**

**Analytical Laboratory:** Hall Environmental Analysis Laboratory, Albuquerque, NM

**Equipment Used During Sampling:** Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

**Notes/Comments:**



## COVER LETTER

Monday, May 02, 2011

Tami Ross  
Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401

TEL: (505) 564-2281

FAX (505) 324-2022

RE: Williams Sammons #2 Pipeline Spill

Order No.: 1104A35

Dear Tami Ross:

Hall Environmental Analysis Laboratory, Inc. received 7 sample(s) on 4/29/2011 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.

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901  
AZ license # AZ0682  
ORELAP Lab # NM100001  
Texas Lab# T104704424-08-TX



**Hall Environmental Analysis Laboratory, Inc.**

Date: 02-May-11

**CLIENT:** Animas Environmental Services  
**Lab Order:** 1104A35  
**Project:** Williams Sammons #2 Pipeline Spill  
**Lab ID:** 1104A35-01

**Client Sample ID:** TRIP BLANK  
**Collection Date:** 4/27/2011 10:52:00 AM  
**Date Received:** 4/29/2011  
**Matrix:** TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/29/2011 5:01:29 PM
Toluene	ND	1.0		µg/L	1	4/29/2011 5:01:29 PM
Ethylbenzene	ND	1.0		µg/L	1	4/29/2011 5:01:29 PM
Xylenes, Total	ND	2.0		µg/L	1	4/29/2011 5:01:29 PM
Surr: 4-Bromofluorobenzene	114	96.8-145		%REC	1	4/29/2011 5:01:29 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

Page 1 of 7

**Hall Environmental Analysis Laboratory, Inc.**

Date: 02-May-11

**CLIENT:** Animas Environmental Services  
**Lab Order:** 1104A35  
**Project:** Williams Sammons #2 Pipeline Spill  
**Lab ID:** 1104A35-02

**Client Sample ID:** MW-1  
**Collection Date:** 4/27/2011 10:52:00 AM  
**Date Received:** 4/29/2011  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/29/2011 5:31:29 PM
Toluene	ND	1.0		µg/L	1	4/29/2011 5:31:29 PM
Ethylbenzene	ND	1.0		µg/L	1	4/29/2011 5:31:29 PM
Xylenes, Total	ND	2.0		µg/L	1	4/29/2011 5:31:29 PM
Surr: 4-Bromofluorobenzene	103	96.8-145		%REC	1	4/29/2011 5:31:29 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

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**Hall Environmental Analysis Laboratory, Inc.**

Date: 02-May-11

**CLIENT:** Animas Environmental Services  
**Lab Order:** 1104A35  
**Project:** Williams Sammons #2 Pipeline Spill  
**Lab ID:** 1104A35-03

**Client Sample ID:** MW-2  
**Collection Date:** 4/27/2011 11:29:00 AM  
**Date Received:** 4/29/2011  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/29/2011 10:32:08 PM
Toluene	ND	1.0		µg/L	1	4/29/2011 10:32:08 PM
Ethylbenzene	ND	1.0		µg/L	1	4/29/2011 10:32:08 PM
Xylenes, Total	ND	2.0		µg/L	1	4/29/2011 10:32:08 PM
Surr: 4-Bromofluorobenzene	95.8	96.8-145	S	%REC	1	4/29/2011 10:32:08 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

Page 3 of 7

**Hall Environmental Analysis Laboratory, Inc.**

Date: 02-May-11

**CLIENT:** Animas Environmental Services  
**Lab Order:** 1104A35  
**Project:** Williams Sammons #2 Pipeline Spill  
**Lab ID:** 1104A35-04

**Client Sample ID:** MW-3  
**Collection Date:** 4/27/2011 12:00:00 PM  
**Date Received:** 4/29/2011  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/29/2011 11:02:16 PM
Toluene	ND	1.0		µg/L	1	4/29/2011 11:02:16 PM
Ethylbenzene	ND	1.0		µg/L	1	4/29/2011 11:02:16 PM
Xylenes, Total	ND	2.0		µg/L	1	4/29/2011 11:02:16 PM
Surr: 4-Bromofluorobenzene	98.1	96.8-145		%REC	1	4/29/2011 11:02:16 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

Page 4 of 7

**Hall Environmental Analysis Laboratory, Inc.**

Date: 02-May-11

**CLIENT:** Animas Environmental Services  
**Lab Order:** 1104A35  
**Project:** Williams Sammons #2 Pipeline Spill  
**Lab ID:** 1104A35-05

**Client Sample ID:** MW-4  
**Collection Date:** 4/27/2011 12:33:00 PM  
**Date Received:** 4/29/2011  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	2.1	1.0		µg/L	1	4/29/2011 11:32:25 PM
Toluene	ND	1.0		µg/L	1	4/29/2011 11:32:25 PM
Ethylbenzene	ND	1.0		µg/L	1	4/29/2011 11:32:25 PM
Xylenes, Total	ND	2.0		µg/L	1	4/29/2011 11:32:25 PM
Surr: 4-Bromofluorobenzene	102	96.8-145		%REC	1	4/29/2011 11:32:25 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

Page 5 of 7

**Hall Environmental Analysis Laboratory, Inc.**

Date: 02-May-11

**CLIENT:** Animas Environmental Services  
**Lab Order:** 1104A35  
**Project:** Williams Sammons #2 Pipeline Spill  
**Lab ID:** 1104A35-06

**Client Sample ID:** MW-5  
**Collection Date:** 4/27/2011 1:05:00 PM  
**Date Received:** 4/29/2011  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/30/2011 12:02:27 AM
Toluene	ND	1.0		µg/L	1	4/30/2011 12:02:27 AM
Ethylbenzene	ND	1.0		µg/L	1	4/30/2011 12:02:27 AM
Xylenes, Total	ND	2.0		µg/L	1	4/30/2011 12:02:27 AM
Surr: 4-Bromofluorobenzene	109	98.8-145		%REC	1	4/30/2011 12:02:27 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

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**Hall Environmental Analysis Laboratory, Inc.**

Date: 02-May-11

**CLIENT:** Animas Environmental Services  
**Lab Order:** 1104A35  
**Project:** Williams Sammons #2 Pipeline Spill  
**Lab ID:** 1104A35-07

**Client Sample ID:** MW-6  
**Collection Date:** 4/27/2011 1:38:00 PM  
**Date Received:** 4/29/2011  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/30/2011 12:32:31 AM
Toluene	ND	1.0		µg/L	1	4/30/2011 12:32:31 AM
Ethylbenzene	ND	1.0		µg/L	1	4/30/2011 12:32:31 AM
Xylenes, Total	ND	2.0		µg/L	1	4/30/2011 12:32:31 AM
Surr: 4-Bromofluorobenzene	96.1	96.8-145	S	%REC	1	4/30/2011 12:32:31 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

Page 7 of 7

## QA/QC SUMMARY REPORT

Client: Animas Environmental Services  
 Project: Williams Sammons #2 Pipeline Spill

Work Order: 1104A35

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8021B: Volatiles

Sample ID: 1104A35-02A MSD

MSD

Batch ID: R45059 Analysis Date: 4/29/2011 8:01:56 PM

Benzene	21.98	µg/L	1.0	20	0	110	92.7	114	0.301	14
Toluene	21.96	µg/L	1.0	20	0	110	94.6	116	1.19	16.2
Ethylbenzene	20.75	µg/L	1.0	20	0	104	94.3	114	1.45	12.6
Xylenes, Total	63.33	µg/L	2.0	60	0	108	95.7	116	1.96	11.9

Sample ID: 5ML RB

MBLK

Batch ID: R45059 Analysis Date: 4/29/2011 8:29:49 AM

Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	2.0

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R45059 Analysis Date: 4/29/2011 12:00:45 PM

Benzene	22.94	µg/L	1.0	20	0	115	93.4	120
Toluene	23.13	µg/L	1.0	20	0.14	115	96.2	122
Ethylbenzene	21.97	µg/L	1.0	20	0.11	109	95	121
Xylenes, Total	67.37	µg/L	2.0	60	0	112	97.6	122

Sample ID: 1104A35-02A MS

MS

Batch ID: R45059 Analysis Date: 4/29/2011 7:32:01 PM

Benzene	21.92	µg/L	1.0	20	0	110	92.7	114
Toluene	22.22	µg/L	1.0	20	0	111	94.6	116
Ethylbenzene	21.05	µg/L	1.0	20	0	105	94.3	114
Xylenes, Total	64.58	µg/L	2.0	60	0	108	95.7	116

## 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 ANIMAS ENVIRONMENTAL

Date Received:

4/29/2011

Work Order Number 1104A35

Received by: AMG

Sample ID labels checked by:

Checklist completed by:

Signature

Date

Initials

Matrix:

Carrier name: Greyhound

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Number of preserved bottles checked for pH:
Water - Preservation labels on bottle and cap match?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	<2 >12 unless noted below.
Container/Temp Blank temperature?	3.8°	<6° C Acceptable If given sufficient time to cool.		

COMMENTS:

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

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

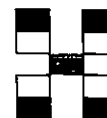
Comments: \_\_\_\_\_

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

# Chain-of-Custody Record

Client: ANIMAS ENVIRONMENTAL SERVICES, LLC.  
 Mailing Address: 624 E. COMANCHE FARMINGTON, NM 87401  
 Phone #: 505-564-2281  
 email or Fax#: 505-324-2022  
 QA/QC Package:  
☒ Standard ☐ Level 4 (Full Validation)  
 Accreditation:  
☐ NELAP ☐ Other \_\_\_\_\_  
☐ EDD (Type) \_\_\_\_\_

Turn-Around Time:  
☒ Standard ☐ Rush \_\_\_\_\_  
 Project Name: WILLIAMS SAMMONS #2 PIPELINE SPILL  
 Project #: AES091204  
 Project Manager: TAMI ROSS  
 Sampler: NATHAN WILLIS  
 On Ice: Yes ☒ No ☐  
 Sample Temperature: 28



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8021 BTEX ONLY	Air Bubbles (Y or N)
		H <sub>2</sub> O	TRIP BLANK	2-40 mL glass	HCl	11091965													
4-27-11	1052		MW-1	3-40 mL GLASS		1													X
	1129		MW-2			2													X
	1200		MW-3			3													X
	1233		MW-4			4													X
	1305		MW-5			5													X
	1338		MW-6			6													X
						7													X

Date: 4/27/11 Time: 1430 Relinquished by: Nathan Willis  
 Date: 4/28/11 Time: 1430 Relinquished by: Ceri  
 Date: 4/27/11 Time: 1430 Received by: Ceri  
 Date: 4/29/11 Time: 9:30 Received by: [Signature]

Remarks: