3R – 449

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3R-449

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3274

April 27, 2012

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

RE: 1st Quarter 2012 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 *1st Quarter 2012 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 quarterly groundwater monitoring and sampling event was completed February 20, 2012, 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 N36.77173 and W108.11515. A topographic site location map is included as Figure 1, and a General Site Plan 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 April 2010 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 and October 2010, and January, April, August and November 2011. Groundwater monitor reports were prepared and submitted in August and November 2010 and in February, May, August, and December 2011.

2.0 Groundwater Monitoring and Sampling February - 2012

On February 20, 2012, groundwater monitoring and sampling were conducted in MW-1 through MW-5 by AES. Monitor well MW-6 was not sampled because the water in the well was frozen. 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 Groundwater Measurements and Water Quality

Prior to sample collection, depth to groundwater in each well was measured with a Keck Water Level Indicator, and water quality data was measured with a YSI Water Quality Meter. Water quality measurements were recorded and included pH, temperature, conductivity, dissolved oxygen (DO), and oxidation reduction potential (ORP). Depth to groundwater measurements and water quality data were recorded onto Water Sample Collection forms.

Depths to groundwater varied across the site and were observed to range from 1.23 feet below top of casing (TOC) in MW-5 to 3.06 feet below TOC in MW-1. The groundwater gradient was calculated to be approximately 0.01 ft/ft to the northwest, which is consistent with previous site data. Note that the site is considered to have 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 3.16°C to 5.74°C, and conductivity ranged from 1.749 mS to 3.869 mS. DO concentrations were between 0.36 mg/L in MW-5 and 1.13 mg/L in MW-1, and pH ranged from 6.81 to 7.15. 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 2. Water Sample Collection forms are presented in Appendix A.

2.2 Groundwater Laboratory Analyses

Groundwater samples were collected with new disposable bailers from a total of five monitor wells and transferred into appropriate sample containers, labeled accordingly, and documented on Water Sample Collection Forms. Samples were shipped in insulated coolers containing ice at less than 6°C to Hall Environmental Analytical Laboratory (Hall) in

Albuquerque, New Mexico. All groundwater analytical samples were analyzed for BTEX per USEPA Method 8021B.

2.2.1 Groundwater Analytical Results

Analytical results from groundwater samples collected during the February 2012 sampling event showed that BTEX concentrations were reported below the laboratory detection limits or applicable WQCC regulatory limits in all monitor wells (MW-1 through MW-5). Groundwater analytical results are included in Table 2 and on Figure 3. Groundwater analytical laboratory reports are presented in Appendix A.

3.0 Conclusion and Recommendations

On February 20, 2012, AES personnel conducted groundwater monitoring and sampling at the Sammons #2 Pipeline December 2009 Release location. Depths to groundwater varied across the site and were observed to exist at about 1.23 to 3.06 feet below TOC, and groundwater gradient was calculated to be approximately 0.01 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 for the eighth consecutive quarter in MW-1, MW-3, MW-4, and MW-5. Dissolved phase benzene concentrations in MW-2 have remained below the WQCC standard for seven consecutive quarters. Monitor well MW-6 has remained below applicable WQCC standards for seven consecutive quarters but was not sampled in February 2012 because the water was frozen.

Based on current site data and in accordance with the project workplan, AES will conduct one additional quarterly sampling event for MW-2 and MW-6 to ensure eight consecutive quarters of groundwater contaminant concentrations below WQCC standards. The next sampling event is tentatively scheduled for May 2012.

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.

Sincerely,

Deborah Watson
Project Manager

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. General Site Plan and Groundwater Elevations, February 2012
Figure 3. Groundwater Analytical Results, February 2012

Appendix A
Water Sample Collection Forms
Groundwater Analytical Laboratory Reports (Hall 1202678)

cc: Brandon Powell
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Mark Potochnik
Williams -Midstream
188 CR 4900
Bloomfield, NM 87413

Nick Clark
719 Otten Street
Aztec, NM 87410

Files:2012/Williams/Sammons#2/Groundwater/Reports/1st Qtr Investigation Report 042712

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

Well ID	*Date Sampled*	*Depth to Water (ft)*	*Surveyed TOC (ft)*	*GW Elev. (ft)*	*Temperature (C)*	*Conductivity (mS)*	*DO (mg/L)*	*pH*	*ORP (mV)*
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-1	11-Aug-11	2.68	5427.26	5424.58	15.31	0.885	0.92	6.98	-111.0
MW-1	08-Nov-11	1.89	5427.26	5425.37	10.66	2.674	2.02	6.78	-102.8
MW-1	20-Feb-12	3.06	5427.26	5424.20	5.74	3.869	1.13	6.81	-79.9
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-2	11-Aug-11	1.34	5424.98	5423.64	17.21	0.753	0.24	7.05	-144.7
MW-2	08-Nov-11	0.83	5424.98	5424.15	8.61	1.746	0.64	7.36	-115.3
MW-2	20-Feb-12	1.67	5424.98	5423.31	3.16	2.106	0.57	7.15	-65.0
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-3	11-Aug-11	1.95	5425.44	5423.49	17.42	0.683	0.22	7.03	-127.2
MW-3	08-Nov-11	1.56	5425.44	5423.88	10.66	0.750	0.37	7.46	-156.1
MW-3	20-Feb-12	2.26	5425.44	5423.18	5.14	1.923	0.40	7.10	-110.3
MW-4	20-Apr-10	1.59	5424.38	5422.79	9.60	2.174	0.22	7.29	-88.4

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

Well ID	*Date Sampled*	*Depth to Water (ft)*	*Surveyed TOC (ft)*	*GW Elev. (ft)*	*Temperature (C)*	*Conductivity (mS)*	*DO (mg/L)*	*pH*	*ORP (mV)*
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-4	11-Aug-11	1.77	5424.38	5422.61	17.12	0.960	0.12	6.96	-135.2
MW-4	08-Nov-11	1.26	5424.38	5423.12	11.93	1.125	0.68	7.26	-145.8
MW-4	20-Feb-12	1.76	5424.38	5422.62	5.31	1.909	0.37	7.03	-113.7
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
MW-5	27-Apr-11	0.84	5424.17	5423.33	10.69	1.948	0.73	7.22	-111.1
MW-5	11-Aug-11	1.33	5424.17	5422.84	18.48	1.647	0.16	6.75	-127.8
MW-5	08-Nov-11	0.60	5424.17	5423.57	10.51	8.303	0.60	7.14	-98.7
MW-5	20-Feb-12	1.23	5424.17	5422.94	5.19	1.749	0.36	7.06	-109.5
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
MW-6	11-Aug-11	1.43	5424.91	5423.48	22.41	1.657	0.60	6.70	-121.0
MW-6	08-Nov-11	0.35	5424.91	5424.56	6.33	6.248	0.67	7.43	-58.9
MW-6	20-Feb-12	NOT SAMPLED/ FROZEN							

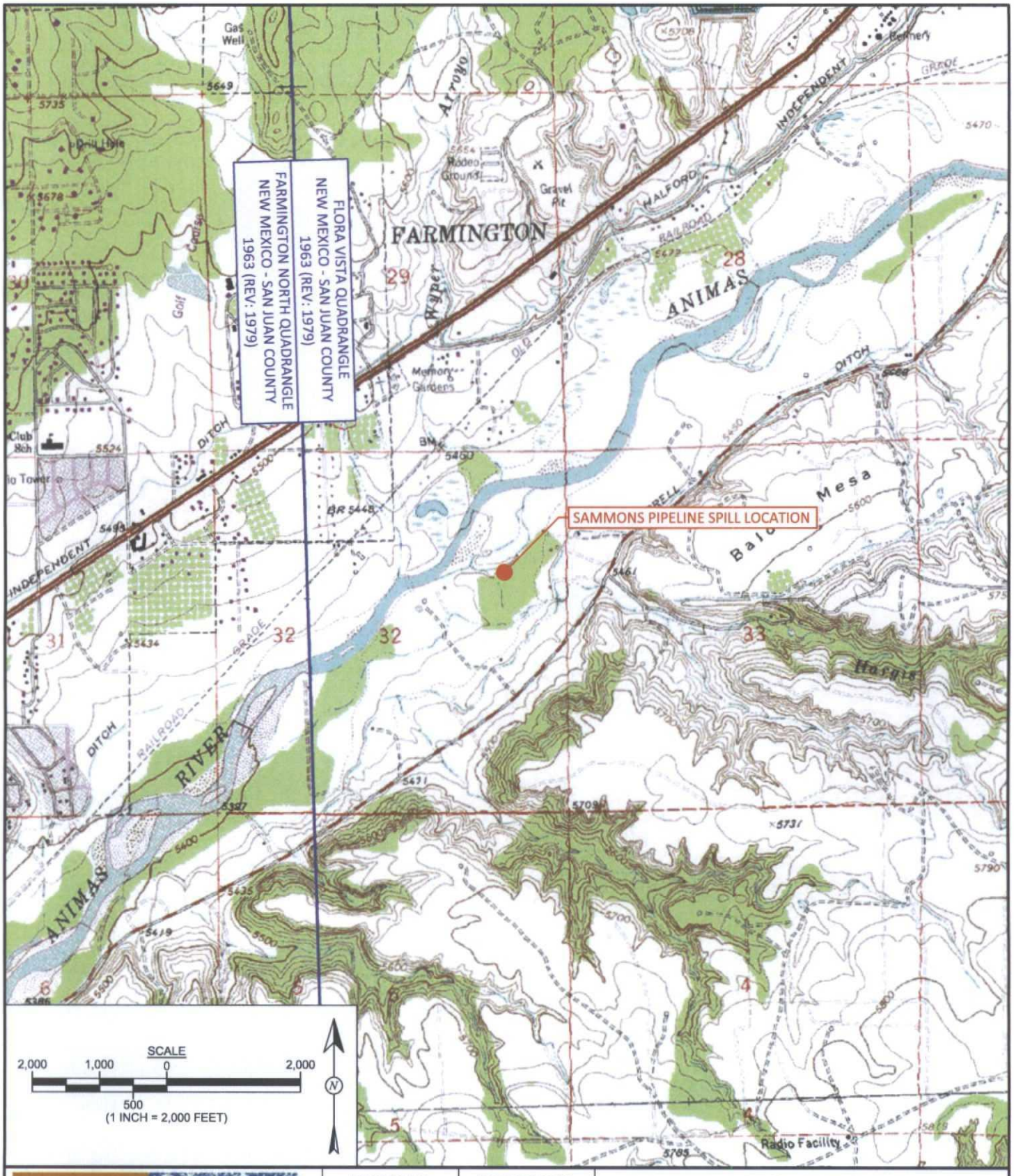
TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
Williams Four Corners #2 Pipeline December 2009 Release
Flora Vista, San Juan County, New Mexico

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)
Analytical Method		8260B/8021	8260B/8021	8260B/8021	8260B/8021	8015	8015	8015
WQCC Standard		10	750	750	620	NE	NE	NE
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-1	11-Aug-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-1	08-Nov-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-1	08-Nov-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-1	20-Feb-12	<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-2	11-Aug-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-2	08-Nov-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-2	20-Feb-12	1.6	<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-3	11-Aug-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-3	08-Nov-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-3	20-Feb-12	<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-4	11-Aug-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-4	08-Nov-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-4	20-Feb-12	<1.0	<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

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

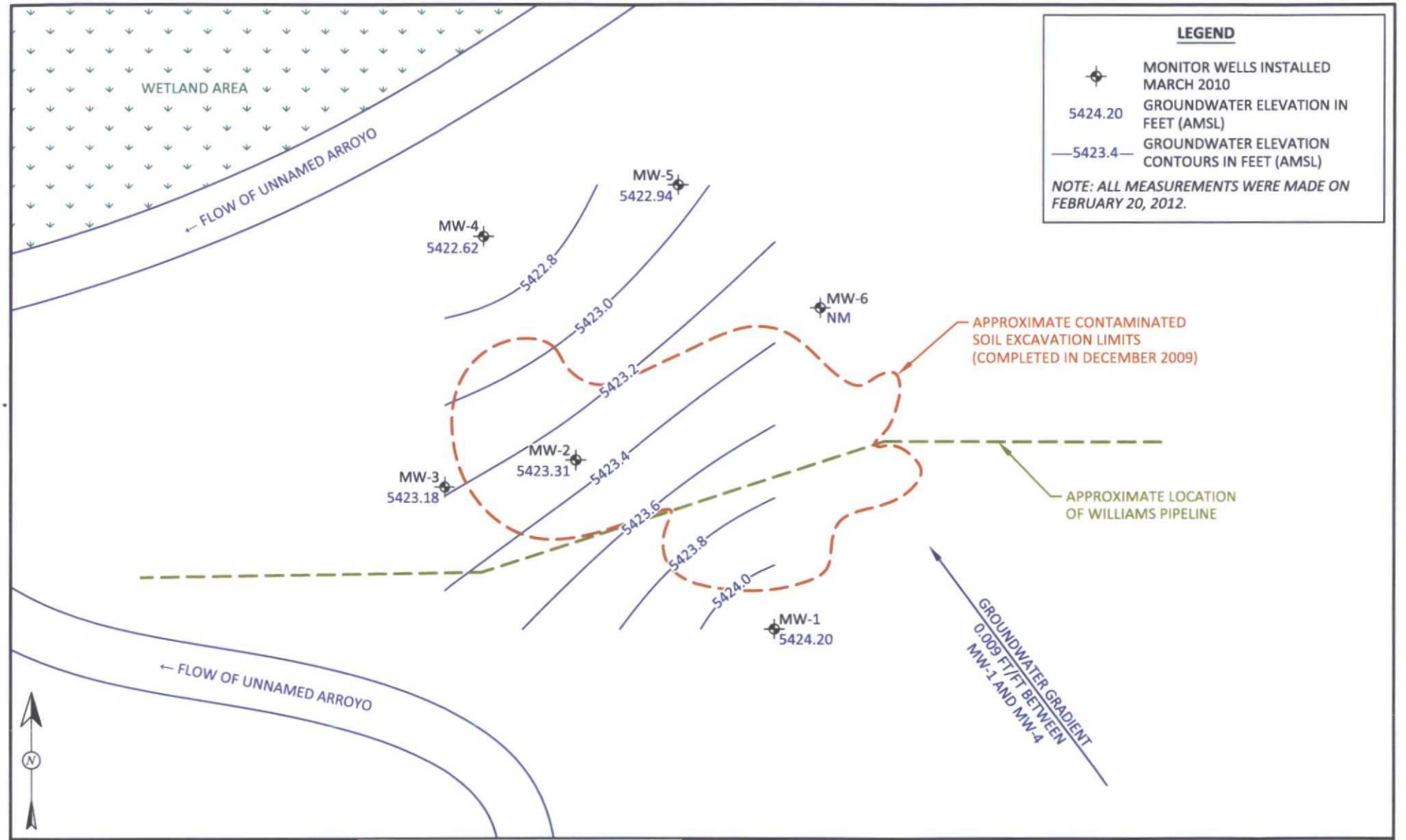
Well ID	*Date Sampled*	*Benzene*	*Toluene*	*Ethyl-Benzene*	*Total Xylenes*	*GRO (C6-C10)*	*DRO (C10-C22)*	*MRO (C22-C32)*
		(µg/L)	*(µg/L)*	*(µg/L)*	*(µg/L)*	*(mg/L)*	*(mg/L)*	*(mg/L)*
Analytical Method		*8260B/8021*	*8260B/8021*	*8260B/8021*	*8260B/8021*	*8015*	*8015*	*8015*
WQCC Standard		*10*	*750*	*750*	*620*	*NE*	*NE*	*NE*
MW-5	11-Aug-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-5	08-Nov-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-5	20-Feb-12	<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
MW-6	11-Aug-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-6	08-Nov-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-6	20-Feb-12	Not sampled-Groundwater frozen in well						
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



DRAWN BY: C. Lameman	**DATE DRAWN:** December 29, 2009	**FIGURE 1**
REVISIONS BY: C. Lameman	**DATE REVISED:** April 20, 2012	**TOPOGRAPHIC SITE LOCATION MAP**
CHECKED BY: E. McNally	**DATE CHECKED:** April 20, 2012	WILLIAMS FOUR CORNERS, LLC SAMMONS #2 PIPELINE DECEMBER 2009 RELEASE FARMINGTON, SAN JUAN COUNTY, NEW MEXICO N36.77173, W108.11515
APPROVED BY: E. McNally	**DATE APPROVED:** April 20, 2012	

AES
Animas Environmental Services, LLC



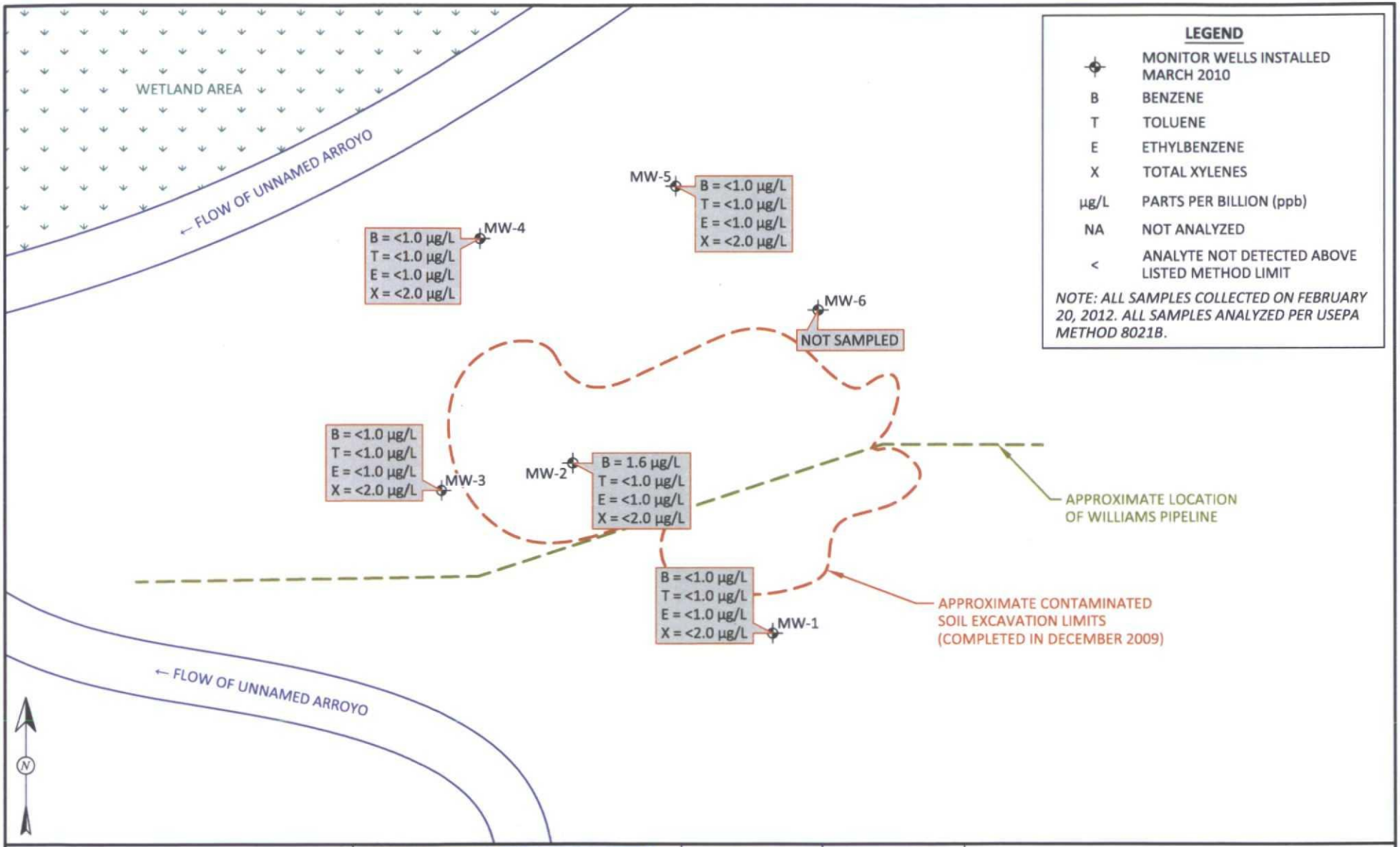
Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** April 13, 2010
REVISIONS BY: C. Lameman	**DATE REVISED:** April 20, 2012
CHECKED BY: D. Watson	**DATE CHECKED:** April 20, 2012
APPROVED BY: E. McNally	**DATE APPROVED:** April 20, 2012

FIGURE 2

GENERAL SITE PLAN AND GROUNDWATER ELEVATION CONTOURS FEBRUARY 2012

WILLIAMS FOUR CORNERS, LLC
SAMMONS #2 PIPELINE DECEMBER 2009 RELEASE
FARMINGTON, SAN JUAN COUNTY, NEW MEXICO
N36.77173, W108.11515



SCALE
50 30 0 50
10
(1 INCH = 50 FEET)

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** April 13, 2010
REVISIONS BY: C. Lameman	**DATE REVISED:** April 20, 2012
CHECKED BY: D. Watson	**DATE CHECKED:** April 20, 2012
APPROVED BY: E. McNally	**DATE APPROVED:** April 20, 2012

FIGURE 3

GROUNDWATER ANALYTICAL RESULTS FEBRUARY 2012

WILLIAMS FOUR CORNERS, LLC
SAMMONS #2 PIPELINE DECEMBER 2009 RELEASE
FARMINGTON, SAN JUAN COUNTY, NEW MEXICO
N36.77173, W108.11515

DEPTH TO GROUNDWATER MEASUREMENT FORM

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

Project: Groundwater Monitoring
Site: Williams Sammons #2 Pipeline Spill
Location: Flora Vista, San Juan County, New Mexico
Tech: N. Willis

Project No.: AES 091204
Date: 2-20-12
Time: 1048
Form: 1 of 1

Well I.D.	Time	Depth to NAPL (ft.)	Depth to Water (ft.)	NAPL Thickness (ft.)	Notes / Observations
MW-1	1110	—	3.06	—	
MW-2	1142	—	1.67	—	
MW-3	1212	—	2.26	—	
MW-4	1242	—	1.76	—	
MW-5	1311	—	1.23	—	
MW-6	1337	—		—	Water in well is frozen, unable to dislodge in in well, Depth to ice = 0.0 ft.

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

MONITORING WELL SAMPLING RECORD

Monitor Well No: **MW-1**

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

Site: Williams Sammons #2 Pipeline Spill
Location: Flora Vista, San Juan County, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician: N. Willis
Purge / No Purge: Purge
Well Diameter (in): 1
Initial D.T.W. (ft): ____ Time: ____ (taken at initial gauging of all wells)
Confirm D.T.W. (ft): 3.06 Time: 1110 (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: ____

Project No.: AES 091204
Date: 2-20-12
Arrival Time: 1048
Air Temp: 30°F
T.O.C. Elev. (ft): 5427.26
Total Well Depth (ft): 5.9

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
1117	5.86	4.147	2.46	6.98	-13.1	5/32 gal.	
1120	4.97	4.001	1.85	6.93	-41.7	5/32	
1123	5.40	3.999	1.01	6.86	-65.6	5/32	
1126	5.41	3.941	1.12	6.83	-74.3	5/32	
1129	5.74	3.869	1.13	6.81	-79.9	5/32	
1134							Samples Collected

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

BTEX Only per EPA Method 8021 (3 - 40 mL Vials w/ HCl preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler: Yes
Chain of Custody Record Complete: Yes
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~~ Peristaltic Pump

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
Location: Flora Vista, San Juan County, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician: N. Willis
Purge / No Purge: Purge
Well Diameter (in): 1
Initial D.T.W. (ft): ____ Time: ____ (taken at initial gauging of all wells)
Confirm D.T.W. (ft): 1.67 Time: 1142 (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: ____

Project No.: AES 091204
Date: 2-20-12
Arrival Time: 1139
Air Temp: 32°F
T.O.C. Elev. (ft): 5424.98
Total Well Depth (ft): 5.96

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
1148	3.70	2.981	2.82	7.15	15.1	0.25 gal.	
1151	3.38	2.396	1.15	6.80	-7.9	0.25	
1154	3.36	2.208	0.70	7.00	-40.6	0.25	
1157	3.32	2.161	0.64	7.06	-54.9	0.25	
1200	3.16	2.106	0.57	7.15	-65.0	0.25	
1205							Samples Collected

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

BTEX Only per EPA Method 8021 (3 - 40 mL Vials w/ HCl preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler: Yes
Chain of Custody Record Complete: Yes
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~~ Peristaltic Pump

Notes/Comments:

MONITORING WELL SAMPLING RECORD

Monitor Well No: MW-3

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

Site: Williams Sammons #2 Pipeline Spill
Location: Flora Vista, San Juan County, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician: N. Willis
Purge / No Purge: Purge
Well Diameter (in): 1
Initial D.T.W. (ft): _____ **Time:** _____
Confirm D.T.W. (ft): 2.26 **Time:** 1212
Final D.T.W. (ft): _____ **Time:** _____
If NAPL Present: D.T.P.:_____ D.T.W.:_____ Thickness:_____ Time:_____

Project No.: AES 091204
Date: 2-20-12
Arrival Time: 1210
Air Temp: 32°F
T.O.C. Elev. (ft): 5425.44
Total Well Depth (ft): 5.9
(taken at initial gauging of all wells)
(taken prior to purging well)
(taken after sample collection)

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
1218	4.98	1.906	1.20	7.21	-76.4	3/16 gal.	
1221	5.11	1.909	0.52	7.17	-94.9	3/16	
1224	5.25	1.919	0.35	7.14	-104.5	3/16	
1227	5.10	1.923	0.35	7.12	-108.3	3/16	
1230	5.14	1.923	0.40	7.10	-110.3	3/16	
1235	~~~	~~~	~~~	~~~	~~~	~~~	Samples Collected

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

BTEX Only per EPA Method 8021 (3 - 40 mL Vials w/ HCl preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler: Yes
Chain of Custody Record Complete: Yes
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~~ Peristaltic Pump

Notes/Comments:

MONITORING WELL SAMPLING RECORD

Monitor Well No: MW-4

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

Site: Williams Sammons #2 Pipeline Spill
Location: Flora Vista, San Juan County, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician: N. Willis
Purge / No Purge: Purge
Well Diameter (in): 1
Initial D.T.W. (ft): _____ **Time:** _____ *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 1.76 **Time:** 1242 *(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:** _____

Project No.: AES 091204
Date: 2-20-12
Arrival Time: 1240
Air Temp: 38°F
T.O.C. Elev. (ft): 5424.38
Total Well Depth (ft): 5.84

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
1246	6.40	2.127	1.12	7.08	-74.8	0.25 gal.	
1249	5.50	1.906	0.40	7.08	-93.3	0.25	
1252	5.40	1.902	0.31	7.04	-102.7	0.25	
1255	5.24	1.908	0.30	7.03	-108.8	0.25	
1258	5.31	1.909	0.37	7.03	-113.7	0.25	
1303	—						Samples Collected

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

BTEX Only per EPA Method 8021 (3 - 40 mL Vials w/ HCl preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler: Yes
Chain of Custody Record Complete: Yes
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~~ Peristaltic Pump

Notes/Comments:

MONITORING WELL SAMPLING RECORD

Monitor Well No: **MW-5**

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

Site: Williams Sammons #2 Pipeline Spill
Location: Flora Vista, San Juan County, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician: N. Willis
Purge / No Purge: Purge
Well Diameter (in): 1
Initial D.T.W. (ft): ____ Time: ____ (taken at initial gauging of all wells)
Confirm D.T.W. (ft): 1.23 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: ____

Project No.: AES 091204
Date: 2-20-12
Arrival Time: 1309
Air Temp: 40°F
T.O.C. Elev. (ft): 5424.17
Total Well Depth (ft): 5.91

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
1315	6.47	2.044	1.07	7.16	-85.3	0.25 gal.	
1318	5.28	1.783	0.37	7.14	-94.9	0.25	
1321	5.16	1.761	0.29	7.10	-102.6	0.25	
1324	5.27	1.753	0.30	7.09	-106.7	0.25	
1327	5.19	1.749	0.36	7.06	-109.5	0.25	
1332							Samples Collected

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

BTEX Only per EPA Method 8021 (3 - 40 mL Vials w/ HCl preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler: Yes
Chain of Custody Record Complete: Yes
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~~ Peristaltic Pump

Notes/Comments:

MONITORING WELL SAMPLING RECORD

Monitor Well No: MW-6

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

Site: Williams Sammons #2 Pipeline Spill
Location: Flora Vista, San Juan County, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician: N. Willis
Purge / No Purge: Purge
Well Diameter (in): 1
Initial D.T.W. (ft): _____ **Time:** _____ *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): — **Time:** — *(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:** _____

Project No.: AES 091204
Date: 2-20-12
Arrival Time: 1337
Air Temp: 45°F
T.O.C. Elev. (ft): 5424.91
Total Well Depth (ft): 6.3

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
							Water in well is frozen, unable to dislodge ice in well, Samples not Collected

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

BTEX Only per EPA Method 8021 (3 - 40 mL Vials w/ HCl preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler: Yes
Chain of Custody Record Complete: Yes
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~~ Peristaltic Pump

Notes/Comments:

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

February 23, 2012

Tami Ross

Animas Environmental Services
624 East Comanche
Farmington, NM 87401
TEL: (505) 793-2072
FAX (505) 324-2022

RE: Sammons #2 Pipeline OrderNo.: 1202678

Dear Tami Ross:

Hall Environmental Analysis Laboratory received 6 sample(s) on 2/21/2012 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative. Analytical results designated with a "J" qualifier are estimated and represent a detection above the Method Detection Limit (MDL) and less than the Reporting Limit (PQL). These analytes are not reviewed nor narrated as to whether they are laboratory artifacts.

Quality control data is within laboratory defined or method specified acceptance limits except if noted.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1202678**
Date Reported: **2/23/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Project: Sammons #2 Pipeline
Lab ID: 1202678-001 **Matrix:** AQUEOUS

Client Sample ID: MW-1
Collection Date: 2/20/2012 11:34:00 AM
Received Date: 2/21/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	2/21/2012 11:05:26 PM
Toluene	ND	1.0		µg/L	1	2/21/2012 11:05:26 PM
Ethylbenzene	ND	1.0		µg/L	1	2/21/2012 11:05:26 PM
Xylenes, Total	ND	2.0		µg/L	1	2/21/2012 11:05:26 PM
Surr: 4-Bromofluorobenzene	108	76.5-115		%REC	1	2/21/2012 11:05:26 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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: MW-2
Project: Sammons #2 Pipeline
Collection Date: 2/20/2012 12:05:00 PM
Lab ID: 1202678-002
Matrix: AQUEOUS
Received Date: 2/21/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	1.6	1.0		µg/L	1	2/21/2012 11:34:14 PM
Toluene	ND	1.0		µg/L	1	2/21/2012 11:34:14 PM
Ethylbenzene	ND	1.0		µg/L	1	2/21/2012 11:34:14 PM
Xylenes, Total	ND	2.0		µg/L	1	2/21/2012 11:34:14 PM
Surr: 4-Bromofluorobenzene	107	76.5-115		%REC	1	2/21/2012 11:34:14 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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: MW-3
Project: Sammons #2 Pipeline
Collection Date: 2/20/2012 12:35:00 PM
Lab ID: 1202678-003
Matrix: AQUEOUS
Received Date: 2/21/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	2/22/2012 12:02:58 AM
Toluene	ND	1.0		µg/L	1	2/22/2012 12:02:58 AM
Ethylbenzene	ND	1.0		µg/L	1	2/22/2012 12:02:58 AM
Xylenes, Total	ND	2.0		µg/L	1	2/22/2012 12:02:58 AM
Surr: 4-Bromofluorobenzene	107	76.5-115		%REC	1	2/22/2012 12:02:58 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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: MW-4
Project: Sammons #2 Pipeline
Collection Date: 2/20/2012 1:03:00 PM
Lab ID: 1202678-004
Matrix: AQUEOUS
Received Date: 2/21/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	2/22/2012 12:31:40 AM
Toluene	ND	1.0		µg/L	1	2/22/2012 12:31:40 AM
Ethylbenzene	ND	1.0		µg/L	1	2/22/2012 12:31:40 AM
Xylenes, Total	ND	2.0		µg/L	1	2/22/2012 12:31:40 AM
Surr: 4-Bromofluorobenzene	108	76.5-115		%REC	1	2/22/2012 12:31:40 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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: MW-5
Project: Sammons #2 Pipeline
Collection Date: 2/20/2012 1:32:00 AM
Lab ID: 1202678-005
Matrix: AQUEOUS
Received Date: 2/21/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	2/22/2012 1:00:21 AM
Toluene	ND	1.0		µg/L	1	2/22/2012 1:00:21 AM
Ethylbenzene	ND	1.0		µg/L	1	2/22/2012 1:00:21 AM
Xylenes, Total	ND	2.0		µg/L	1	2/22/2012 1:00:21 AM
Surr: 4-Bromofluorobenzene	109	76.5-115		%REC	1	2/22/2012 1:00:21 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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: Trip Blank
Project: Sammons #2 Pipeline
Collection Date: 2/20/2012
Lab ID: 1202678-006
Matrix: TRIP BLANK
Received Date: 2/21/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	2/22/2012 1:29:03 AM
Toluene	ND	1.0		µg/L	1	2/22/2012 1:29:03 AM
Ethylbenzene	ND	1.0		µg/L	1	2/22/2012 1:29:03 AM
Xylenes, Total	ND	2.0		µg/L	1	2/22/2012 1:29:03 AM
Surr: 4-Bromofluorobenzene	107	76.5-115		%REC	1	2/22/2012 1:29:03 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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1202678**

23-Feb-12

Client: Animas Environmental Services

Project: Sammons #2 Pipeline

Sample ID **b 17**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R1056**	RunNo: **1056**
Prep Date:	Analysis Date: **2/21/2012**	SeqNo: **30314** 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	22		20.00		108	76.5	115			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R1056**	RunNo: **1056**
Prep Date:	Analysis Date: **2/21/2012**	SeqNo: **30318** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.0	80	120			
Toluene	20	1.0	20.00	0	100	80	120			
Ethylbenzene	20	1.0	20.00	0	102	80	120			
Xylenes, Total	61	2.0	60.00	0	102	80	120			
Surr: 4-Bromofluorobenzene	22		20.00		110	76.5	115			

Sample ID **1202688-001A MS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R1056**	RunNo: **1056**
Prep Date:	Analysis Date: **2/21/2012**	SeqNo: **30319** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1,200	50	1,000	185.1	101	70.1	118			
Toluene	1,600	50	1,000	535.0	105	72.3	117			
Ethylbenzene	1,200	50	1,000	160.0	106	73.5	117			
Xylenes, Total	4,200	100	3,000	1,063	106	73.1	119			
Surr: 4-Bromofluorobenzene	1,200		1,000		119	76.5	115			S

Sample ID **1202688-001A MSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R1056**	RunNo: **1056**
Prep Date:	Analysis Date: **2/21/2012**	SeqNo: **30320** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1,100	50	1,000	185.1	96.2	70.1	118	4.20	16.4	
Toluene	1,500	50	1,000	535.0	101	72.3	117	2.69	13.9	
Ethylbenzene	1,200	50	1,000	160.0	101	73.5	117	4.16	13.5	
Xylenes, Total	4,100	100	3,000	1,063	102	73.1	119	3.10	12.9	
Surr: 4-Bromofluorobenzene	1,200		1,000		118	76.5	115	0	0	S

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

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

Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1202678

Received by/date: MG 2/21/12

Logged By: Michelle Garcia 2/21/2012 10:00:00 AM Michelle Garcia

Completed By: Michelle Garcia 2/21/2012 10:26:52 AM Michelle Garcia

Reviewed By: AT 02/21/12

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	2.1	Good	Yes			

Chain-of-Custody Record

Client: Animas Environmental Services

Mailing Address: 624 E Comanche
Farmington , NM 87401

Phone #: 505-564-2281

email or Fax#: 505-324-2022

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

X Standard ☐ Rush

Project Name: Sammons #2 Pipeline

Project #: AES 091204

Project Manager: Tami Ross

Sampler: N. Willis

On Ice: X Yes ☐ No

Sample Temperature: 2.7

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. 1202078	BTEX Only (8021)	Air Bubbles (Y or N)
-20-12	1134	water	MW-1	3 - 40 mL glass	HCl	-1	X	
	1205	water	MW-2	3 - 40 mL glass	HCl	-2	X	
	1235	water	MW-3	3 - 40 mL glass	HCl	-3	X	
	1303	water	MW-4	3 - 40 mL glass	HCl	-4	X	
	1332	water	MW-5	3 - 40 mL glass	HCl	-5	X	
		~~water~~	~~MW-6~~	~~3 - 40 mL glass~~	~~HCl~~	NW	~~X~~	
		water	Trip Blank	2-40 mL glass	HCl	-6	X	

Date	Time	Relinquished by	Received by	Date	Time
2/20/12	1702	Nate Willis	Christine Walden	2/20/12	1702
2/20/12	1721	Christine Walden	Michelle Garcia	2/21/12	1000

Remarks: BTEX Only