

3R - 440

Q1 2013 GWMR

06 / 17 / 2013



ENTERPRISE PRODUCTS PARTNERS L.P.
ENTERPRISE PRODUCTS HOLDINGS LLC
(General Partner)

ENTERPRISE PRODUCTS OPERATING LLC

3R-440

June 17, 2013

EMNRD Oil Conservation Division
Aztec District III Office
Attn: Brandon Powell
1000 Rio Brazos Road
Aztec, NM 87410

Return Receipt Requested
7012 3460 0001 7236 3401

EMNRD Oil Conservation Division
Environmental Bureau
Attention: Glenn von Gonten
1220 South St. Francis Drive
Santa Fe, NM 87505

Return Receipt Requested
7012 3460 0001 7236 3418

RE: Enterprise Field Services, LLC
1st Quarter 2013 Groundwater Monitoring Report
Lateral K-31 December 2011 Pipeline Release

Dear Sir or Madam:

Enclosed please find the 1st Quarter 2013 Groundwater Monitoring Report for the Lateral K-31 December 2011 Pipeline Release in Rio Arriba County, New Mexico.

If you have any questions or need more information, please contact Aaron Dailey, Field Environmental Representative, by phone at 505-599-2286, by email at amdailey@eprod.com or me at 713-381-6684.

Regards,

A handwritten signature in black ink, appearing to read 'Matthew E. Marra'.

Matthew E. Marra
Sr. Director, Environmental

/bjm
enclosure

2013 JUN 24 P 2:48
RECEIVED OOD



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche
Farmington, NM 87401
505-564-2281

Durango, Colorado
970-403-3084

May 3, 2013

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

**RE: 1st Quarter 2013 Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral K-31 December 2011 Pipeline Release
SE¼ SW¼, Section 16, T25N, R6W
Rio Arriba County, New Mexico**

Dear Mr. von Gonten:

Animas Environmental Services, LLC (AES), on behalf of Enterprise Field Services, LLC (Enterprise), has prepared this *1st Quarter 2013 Groundwater Monitoring Report* for the Lateral K-31 December 2011 Pipeline Release in accordance with New Mexico Oil Conservation Division (NMOCD) and New Mexico Environment Department (NMED) Ground Water Quality Bureau (GWQB) regulations. This is the third consecutive quarterly monitoring and sampling event for the subject release location.

A groundwater investigation was completed September 5, 2012, in accordance with a workplan previously prepared by AES and dated July 30, 2012. 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 and NMOCD Ranking

The release area is located on state land under jurisdiction of the New Mexico State Land Office within the SE¼ SW¼, Section 16, T25N, R6W, Rio Arriba County, New Mexico. Latitude and longitude of the release were recorded as N36.39373 and W107.47519, respectively. The release location is within the Largo Canyon floodplain, and surface runoff drains northeast towards Largo Canyon, which is 1,550 feet east of the release location. Based on measurements from the groundwater investigation, depth to groundwater is approximately 15 feet below ground surface (bgs). A topographic site location map is included as Figure 1, and an aerial map showing the release location is included as Figure 2.

Prior to site work, the site was ranked in accordance with NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) and was assessed a ranking score of 20.

1.2 Previous Site Activities

A release was reported at the location on December 2, 2011, by Enterprise personnel, and on the same date Enterprise personnel were dispatched to locate and isolate the leak in the pipeline. The line repair was also completed on December 2, 2011. The cause of the release was identified as a corrosion hole on the underside of the line.

Initial Release Assessment – December 2011

On December 8, 2011, four test holes (TP-1 through TP-4) were each excavated to a total depth of 15.5 feet bgs, from which a total of six soil samples were collected for laboratory analysis. A groundwater sample from an existing monitor well labeled MW-4, which is located near the release area, was collected for laboratory analysis. Soil laboratory analytical results for total benzene, toluene, ethylbenzene, and xylenes (BTEX) and total petroleum hydrocarbons (TPH) exceeded applicable NMOCD action levels in two of the four test holes. Groundwater was not encountered in the test holes; however, depth to water was measured at 14 feet bgs in the nearby groundwater monitor well. The laboratory analytical results for the groundwater sample collected from this well showed reported benzene and total BTEX concentrations below laboratory detection limits. Details of the initial release assessment were submitted to Enterprise in a letter report dated January 20, 2012.

Site Investigation – March 2012

On March 15 and 16, 2012, AES completed a site investigation in order to delineate the full extent of hydrocarbon impact on subsurface soils and groundwater resulting from the release. The investigation included the installation of 12 soil borings (SB-1 through SB-12) and the collection of soil and groundwater samples. Soil samples collected for laboratory analysis showed that contaminant concentrations exceeded NMOCD action levels for TPH in borings SB-1, SB-9, and SB-11. The highest TPH concentration was reported in SB-9 with 8,700 mg/kg.

Dissolved phase analytical results from the March 2012 groundwater investigation indicated groundwater was impacted above the New Mexico Water Quality Control Commission (WQCC) standard for benzene in SB-1W through SB-4W, SB-7W, SB-9W, SB-11W, and SB-12W. The highest concentration for benzene was reported in SB-11W with 1,400 µg/L. Concentration contours of dissolved phase contaminants indicated that migration of the plume is primarily north along the pipeline corridor and to the northeast (following gradient) towards Largo Canyon. The highest dissolved phase concentrations of BTEX were noted in SB-3W and SB-11W.

Groundwater Investigation – September 2012

On August 20 through September 5, 2012, AES completed a groundwater investigation in order to further delineate the extent of the dissolved phase hydrocarbon contaminants associated with the Lateral K-31 pipeline release. During the site investigation, AES personnel installed nine soil borings which were advanced to a total depth of 25 feet bgs and completed as monitor wells (MW-1 through MW-9).

The local site lithology consisted of alluvium and floodplain material which constitutes the wash of Largo Canyon. Bedrock was not encountered in the soil borings. Soil observed during the investigation consisted primarily of dark gray, fine grained, moist sand in the upper five feet, grading to sandy clay with depth, which was brown to dark gray to black, moist to wet, and sometimes exhibiting a strong odor and heavy staining. Brown, fine grained, wet sand with no odor or staining was encountered at depths greater than approximately 15 feet bgs.

Soil and groundwater samples were collected from each soil boring/monitor well. Soil laboratory analytical results indicated benzene, total BTEX, and TPH concentrations were not above NMOCD action levels in any of the soil borings. However, laboratory results confirmed dissolved phase benzene concentrations above the WQCC standard of 10 µg/L in four wells, including MW-1 (18 µg/L), MW-5 (10 µg/L), MW-6 (37 µg/L), and MW-8 (20 µg/L). Dissolved phase toluene, ethylbenzene, and xylenes concentrations were below WQCC standards in all monitor wells.

Groundwater Monitoring and Sampling – December 2012

Site monitor wells were monitored and sampled by AES on December 20, 2012. Laboratory results confirmed dissolved phase benzene concentrations above the WQCC standard of 10 µg/L in six wells, including MW-1 (11 µg/L), MW-2 (17 µg/L), MW-4 (19 µg/L), MW-5 (10 µg/L), MW-6 (82 µg/L), and MW-8 (25 µg/L). Details of the groundwater sampling event were presented in the *Quarterly Groundwater Sampling Report* dated February 22, 2013.

2.0 Groundwater Monitoring and Sampling – March 2013

On March 21, 2013, groundwater monitoring and sampling were conducted by AES in MW-1 through MW-9. Work was completed in accordance with the workplan prepared by AES and dated July 30, 2012, 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. Groundwater elevations increased by an average of 0.44 feet across the site, and depths to groundwater were observed to range from 15.00 feet below top of casing (TOC) in MW-5 to 18.59 feet below TOC in MW-1. The groundwater gradient was calculated to be approximately 0.005 foot/foot to the north-northwest, and groundwater elevations and gradient contours are included on Figure 3.

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 13.01°C in MW-6 to 14.85°C in MW-8, and conductivity ranged from 12.30 mS in MW-7 to 17.63 mS in MW-5. DO concentrations were between 0.75 mg/L in MW-1 and 1.87 mg/L in MW-2, and pH ranged from 7.25 in MW-9 to 7.54 in MW-5. 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. Water Sample Collection forms are presented in the Appendix.

2.2 Groundwater Laboratory Analyses

Groundwater samples were collected with new disposable bailers from MW-1 through MW-9 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

Groundwater laboratory analytical results showed that dissolved phase benzene concentrations were at or above the WQCC standard of 10 µg/L in MW-1 (29 µg/L), MW-2 (18 µg/L), MW-6 (130 µg/L), and MW-8 (26 µg/L). Concentrations of dissolved phase toluene, ethylbenzene, and xylene were below the WQCC standards of 750 µg/L, 750 µg/L, and 620 µg/L, respectively, in all wells. Tabulated groundwater analytical results are presented in Table 2 and on Figure 4, and dissolved phase benzene contours are presented on Figure 5. Groundwater laboratory analytical reports are presented in the Appendix.

3.0 Conclusion and Recommendations

A total of nine monitor wells (MW-1 through MW-9) were monitored and sampled at the Lateral K-31 release location by AES on March 21, 2013, in accordance with the work plan submitted by AES in July 2012. Laboratory results confirmed dissolved phase benzene concentrations above the WQCC standard of 10 µg/L in four wells, with the highest concentration reported in MW-6 (130 µg/L). Dissolved phase benzene concentrations in MW-4 and MW-5 decreased below the WQCC standard during the March 2013 sampling event. Dissolved phase toluene, ethylbenzene, and xylenes concentrations were below WQCC standards in all monitor wells for the third consecutive quarter.

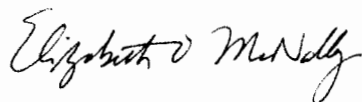
Based on laboratory analytical results from the March 2013 sampling event, groundwater continues to be impacted above the WQCC standard for benzene in the vicinity of the December 2011 release. However, because concentrations are not significantly high, the site appears to be appropriate for monitored natural attenuation. AES recommends continued quarterly monitoring for a total period of two years. If groundwater concentrations of contaminants increase over time, AES recommends evaluation of an oxygen release compound (ORC) compound to promote biodegradation of residual contaminants.

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

Sincerely,



Landrea Cupps
Environmental Scientist



Elizabeth McNally, P.E.

Attachments:

Tables

- Table 1. Summary of Groundwater Measurements and Water Quality Data
Table 2. Summary of Groundwater Analytical Results

Figures

- Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map
Figure 3. Groundwater Elevation Contours, March 2013
Figure 4. Groundwater Contaminant Concentrations, March 2013
Figure 5. Dissolved Benzene Concentration Contours, March 2013

Appendix

- Water Sample Collection Forms
Groundwater Analytical Laboratory Reports (Hall 1303934)

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

Aaron Dailey
Enterprise Field Services, LLC
614 Reilly Avenue
Farmington, New Mexico 87401

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2013 GW Sampling Report 050313.docx

TABLE 1
SUMMARY OF GROUNDWATER MEASUREMENTS AND WATER QUALITY DATA
Enterprise Field Services, LLC Lateral K-31 December 2011 Pipeline Release
Rio Arriba County, New Mexico

Well ID	Date	Depth to Water (ft)	Surveyed TOC (ft)	GW Elev. (ft)	pH	Conductivity (mS)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)
MW-1	05-Sep-12	19.44	6245.24	6225.80	7.40	7.623	0.86	14.52	-90.7
MW-1	20-Dec-12	19.02	6245.24	6226.22	7.48	7.556	0.61	13.75	-59.0
MW-1	21-Mar-13	18.59	6245.24	6226.65	7.32	12.39	0.75	14.06	-93.4
MW-2	05-Sep-12	16.69	6242.58	6225.89	7.39	8.519	1.30	15.35	-48.7
MW-2	20-Dec-12	16.33	6242.58	6226.25	7.43	8.592	0.95	13.42	-21.4
MW-2	21-Mar-13	15.90	6242.58	6226.68	7.30	13.50	1.87	13.45	-70.8
MW-3	05-Sep-12	18.93	6245.48	6226.55	7.42	7.631	0.97	14.93	-63.9
MW-3	20-Dec-12	18.51	6245.48	6226.97	7.23	7.920	0.91	12.81	NM
MW-3	21-Mar-13	18.07	6245.48	6227.41	7.27	12.95	1.23	13.37	-70.6
MW-4	05-Sep-12	17.55	6244.08	6226.53	7.42	10.05	1.97	14.61	-46.7
MW-4	20-Dec-12	17.14	6244.08	6226.94	7.45	10.14	0.90	13.92	-16.4
MW-4	21-Mar-13	16.71	6244.08	6227.37	7.32	16.46	1.30	13.62	-61.8
MW-5	05-Sep-12	15.88	6241.41	6225.53	7.61	10.637	2.76	15.74	-105.0
MW-5	20-Dec-12	15.44	6241.41	6225.97	7.70	10.580	0.57	15.51	-106.6
MW-5	21-Mar-13	15.00	6241.41	6226.41	7.54	17.63	1.23	14.18	-126.7
MW-6	05-Sep-12	17.41	6242.91	6225.50	7.38	8.370	0.90	15.48	-48.3
MW-6	20-Dec-12	16.97	6242.91	6225.94	7.47	8.564	1.15	13.50	-33.7
MW-6	21-Mar-13	16.53	6242.91	6226.38	7.29	13.31	1.04	13.01	-74.3
MW-7	05-Sep-12	17.61	6243.27	6225.66	7.39	7.542	1.19	15.25	-57.2
MW-7	20-Dec-12	17.18	6243.27	6226.09	7.37	7.567	0.75	14.51	-34.6
MW-7	21-Mar-13	16.74	6243.27	6226.53	7.30	12.30	1.03	14.12	-75.0

TABLE 1
SUMMARY OF GROUNDWATER MEASUREMENTS AND WATER QUALITY DATA
Enterprise Field Services, LLC Lateral K-31 December 2011 Pipeline Release
Rio Arriba County, New Mexico

Well ID	Date	Depth to Water (ft)	Surveyed TOC (ft)	GW Elev. (ft)	pH	Conductivity (mS)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)
MW-8	05-Sep-12	16.55	6242.01	6225.46	7.49	8.827	0.62	15.54	-76.3
MW-8	20-Dec-12	16.09	6242.01	6225.92	7.61	8.963	0.59	14.40	-56.8
MW-8	21-Mar-13	15.65	6242.01	6226.36	7.43	14.90	1.64	14.85	-90.3
MW-9	05-Sep-12	16.33	6241.59	6225.26	7.28	8.183	1.02	14.95	-40.5
MW-9	20-Dec-12	15.84	6241.59	6225.75	7.37	8.072	1.08	14.27	-16.5
MW-9	21-Mar-13	15.39	6241.59	6226.20	7.25	13.28	1.93	14.00	-62.8

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
Enterprise Field Services, LLC Lateral K-31 December 2011 Pipeline Release
Rio Arriba County, New Mexico

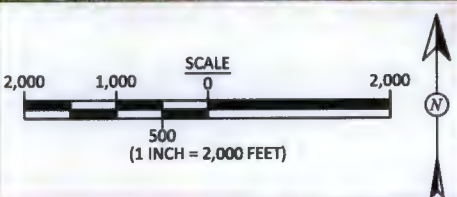
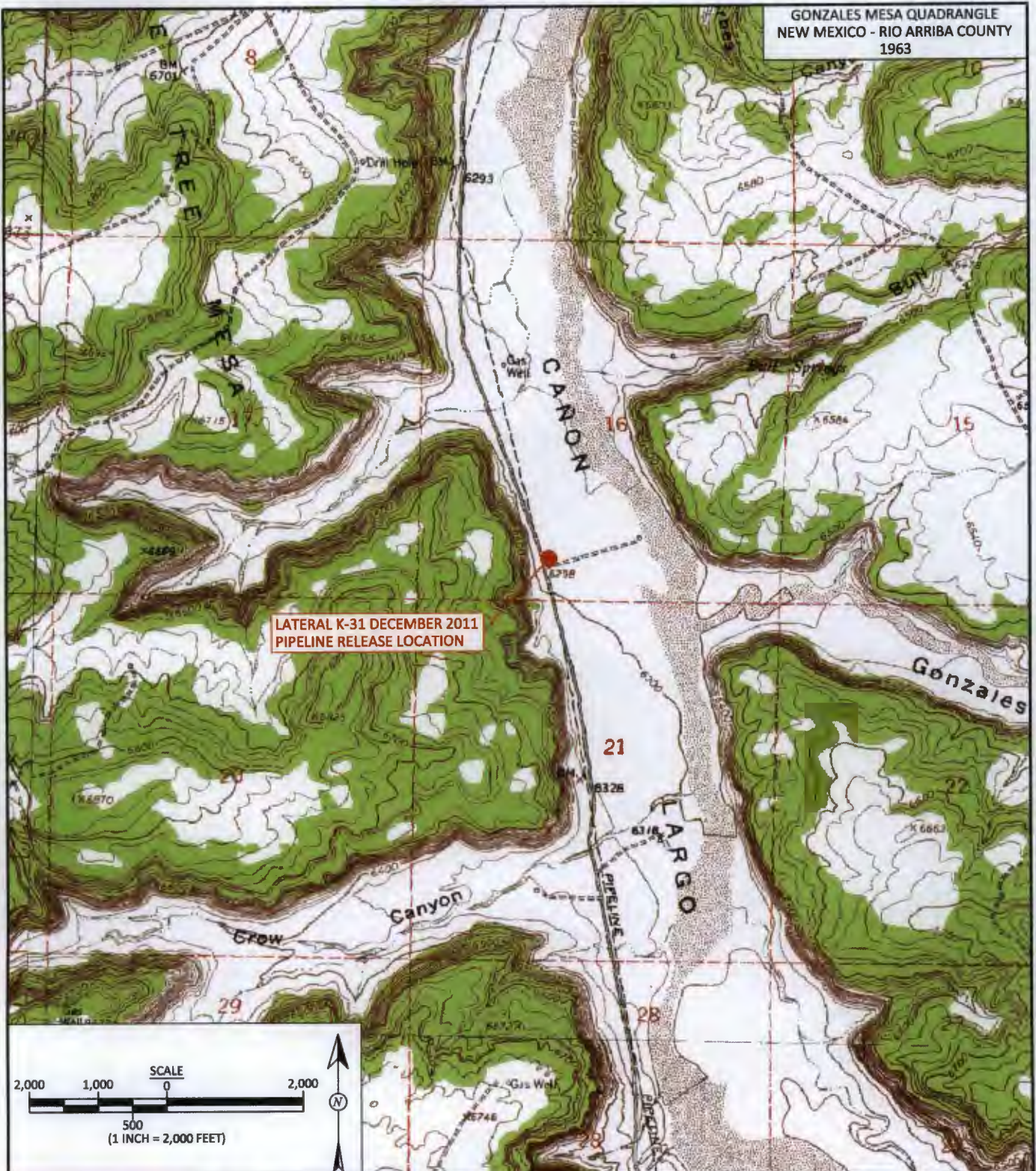
Well ID	Date Sampled	Benzene	Toluene	Ethyl- benzene	Xylenes
		µg/L	µg/L	µg/L	µg/L
Sample Method		EPA Method 8021			
WQCC STANDARD		10	750	750	620
MW-1	05-Sep-12	18	2.9	3.3	25
MW-1	20-Dec-12	11	<2.0	<2.0	5.8
MW-1	21-Mar-13	29	14	<2.0	6.8
MW-2	05-Sep-12	9.5	9.2	<2.0	30
MW-2	20-Dec-12	17	<2.0	<2.0	41
MW-2	21-Mar-13	18	<2.0	<2.0	18
MW-3	05-Sep-12	<2.0	<2.0	<2.0	<4.0
MW-3	20-Dec-12	<2.0	<2.0	<2.0	<4.0
MW-3	21-Mar-13	<2.0	<2.0	<2.0	<4.0
MW-4	05-Sep-12	<2.0	<2.0	<2.0	<4.0
MW-4	20-Dec-12	19	<2.0	<2.0	<4.0
MW-4	21-Mar-13	4.8	<2.0	<2.0	<4.0
MW-5	05-Sep-12	10	<2.0	<2.0	<4.0
MW-5	20-Dec-12	10	<2.0	<2.0	<4.0
MW-5	21-Mar-13	9.0	<2.0	<2.0	<4.0
MW-6	05-Sep-12	37	8.3	<2.0	14
MW-6	20-Dec-12	82	5.8	<2.0	<4.0
MW-6	21-Mar-13	130	5.1	<2.0	<4.0
MW-7	05-Sep-12	3.6	<2.0	<2.0	<4.0
MW-7	20-Dec-12	5.9	<2.0	<2.0	<4.0
MW-7	21-Mar-13	<2.0	<2.0	<2.0	<4.0
MW-8	05-Sep-12	20	<2.0	<2.0	<4.0
MW-8	20-Dec-12	25	<2.0	<2.0	<4.0
MW-8	21-Mar-13	26	<2.0	<2.0	<4.0
MW-9	05-Sep-12	<2.0	<2.0	<2.0	<4.0
MW-9	20-Dec-12	<2.0	<2.0	<2.0	<4.0
MW-9	21-Mar-13	<2.0	<2.0	<2.0	<4.0

Well ID	Date Sampled	Benzene	Toluene	Ethyl- benzene	Xylenes
		µg/L	µg/L	µg/L	µg/L
Sample Method		EPA Method 8021			
WQCC STANDARD		10	750	750	620

Notes:

<	Analyte not detected above listed method limit
NE	Not established
µg/L	Micrograms per liter (ppb)

GONZALES MESA QUADRANGLE
NEW MEXICO - RIO ARRIBA COUNTY
1963



Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: September 14, 2012
REVISIONS BY: C. Lameman	DATE REVISED: April 8, 2013
CHECKED BY: T. Ross	DATE CHECKED: April 8, 2013
APPROVED BY: E. McNally	DATE APPROVED: April 8, 2013

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP
ENTERPRISE FIELD SERVICES, LLC
LATERAL K-31 DECEMBER 2011 PIPELINE RELEASE
SE¼ SW¼, SECTION 16, T25N, R6W
RIO ARRIBA COUNTY, NEW MEXICO
N36.39373, W107.47519



Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: September 14, 2012
REVISIONS BY: C. Lameman	DATE REVISED: April 8, 2013
CHECKED BY: T. Ross	DATE CHECKED: April 8, 2013
APPROVED BY: E. McNally	DATE APPROVED: April 8, 2013

FIGURE 2

AERIAL SITE MAP
 ENTERPRISE FIELD SERVICES, LLC
 LATERAL K-31 DECEMBER 2011 PIPELINE RELEASE
 SE¼ SW¼, SECTION 16, T25N, R6W
 RIO ARriba COUNTY, NEW MEXICO
 N36.39373, W107.47519

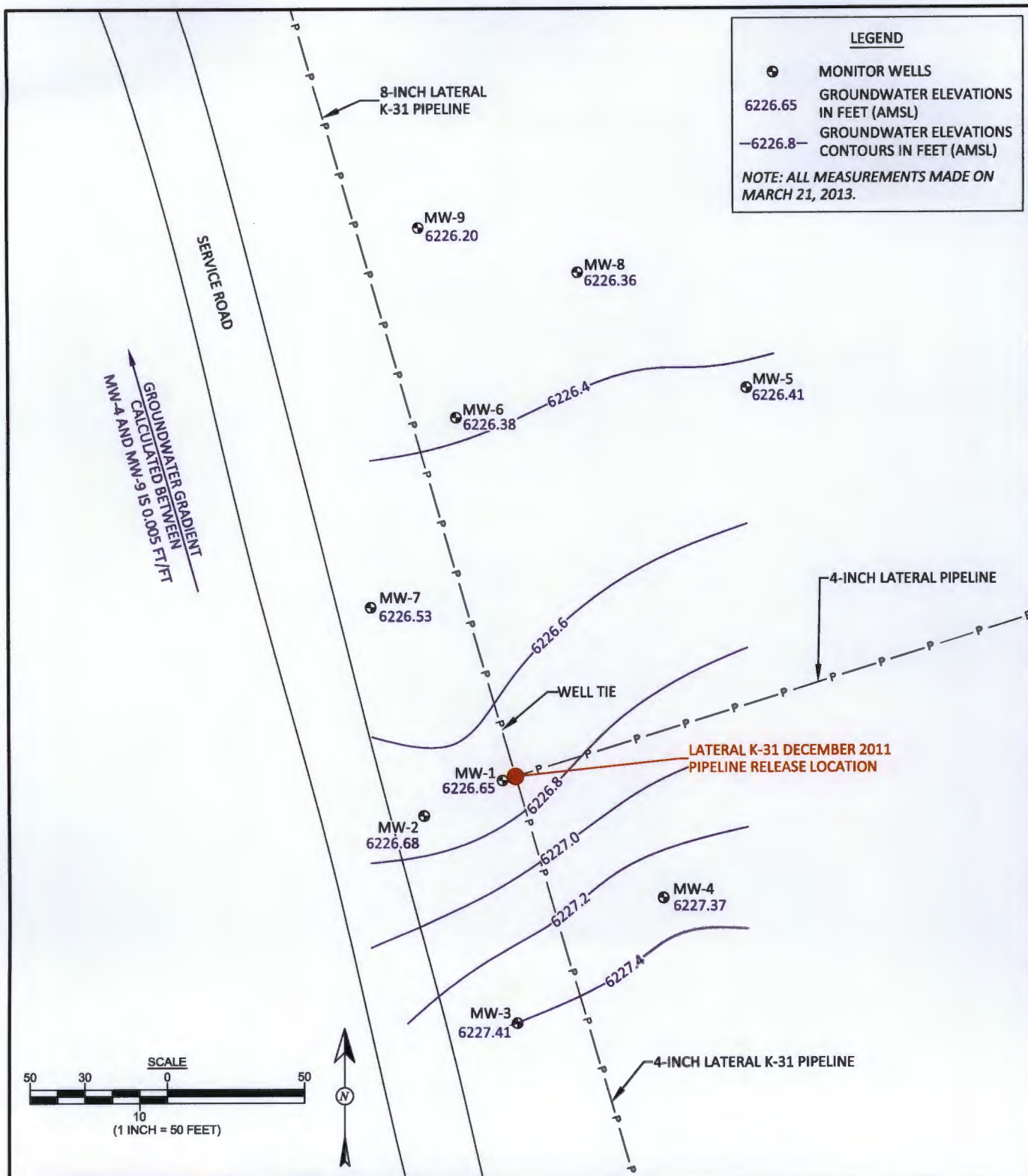


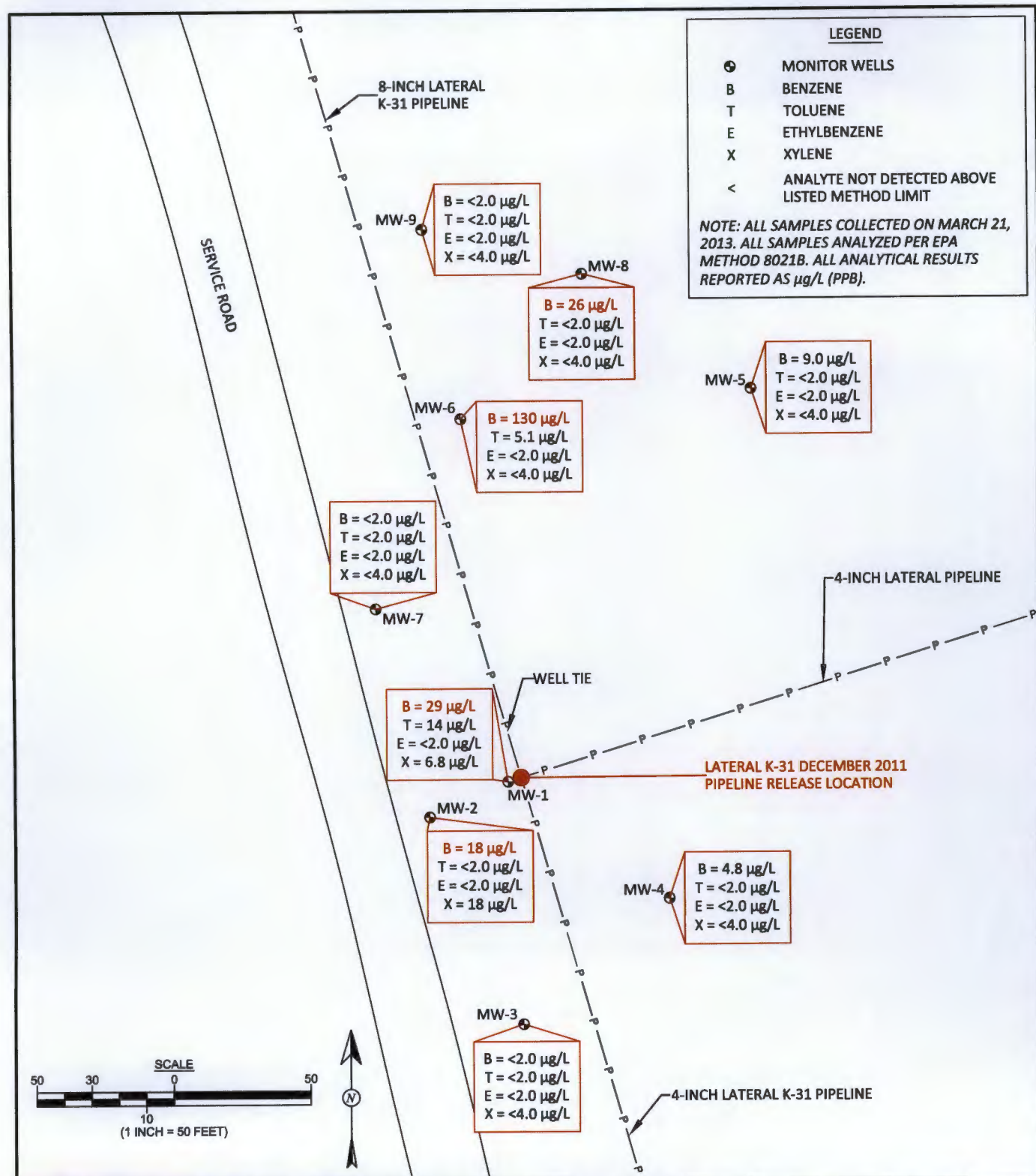
FIGURE 3

**GROUNDWATER ELEVATION CONTOURS
MARCH 2013**

ENTERPRISE FIELD SERVICES, LLC
LATERAL K-31 DECEMBER 2011 PIPELINE RELEASE
SE $\frac{1}{4}$ SW $\frac{1}{4}$, SECTION 16, T25N, R6W
RIO ARriba COUNTY, NEW MEXICO
N36.39373, W107.47519

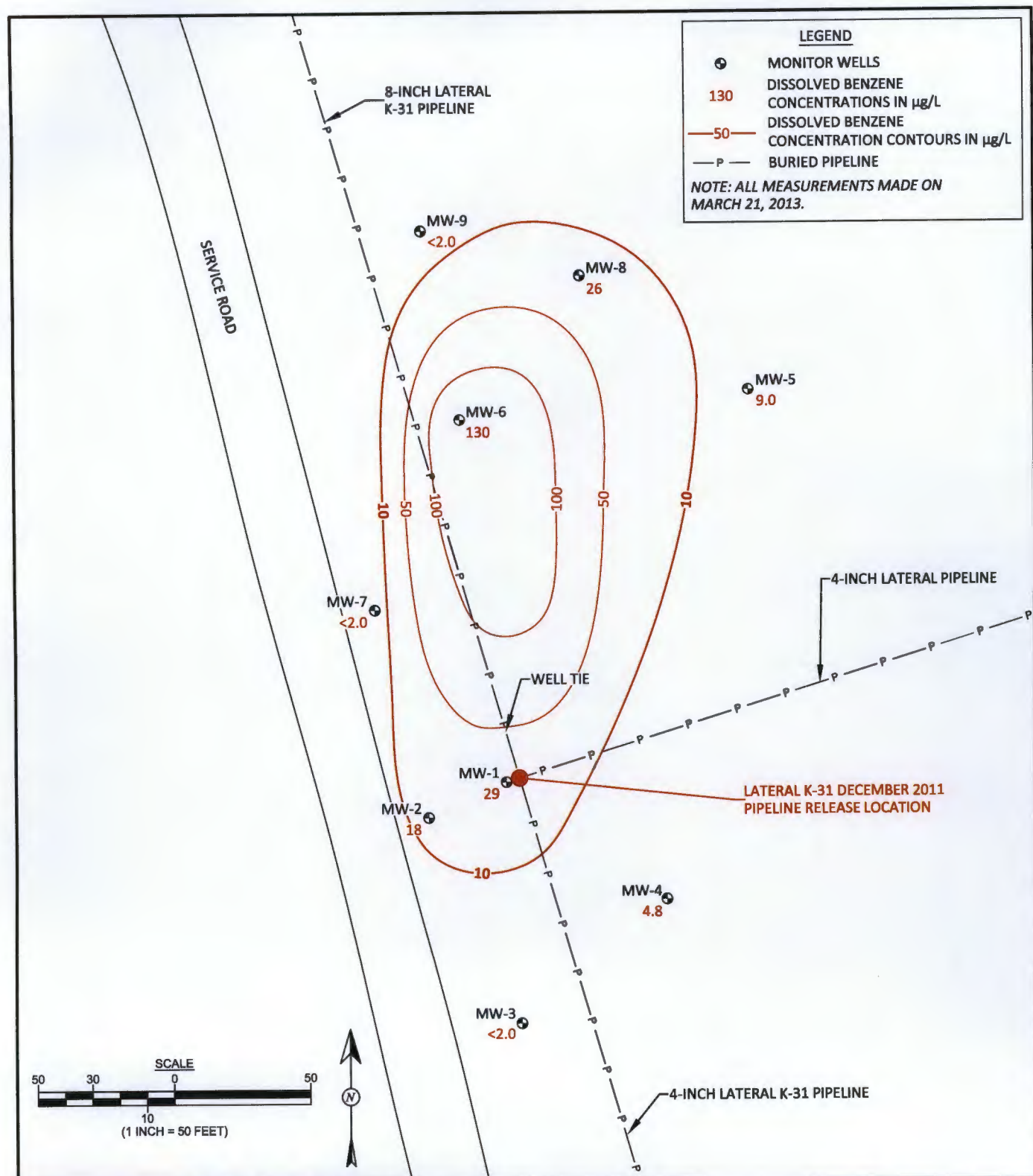


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REVISIONS BY: C. Lameman	DATE REVISED: April 8, 2013
CHECKED BY: T. Ross	DATE CHECKED: April 8, 2013
APPROVED BY: E. McNally	DATE APPROVED: April 8, 2013

GROUNDWATER CONTAMINANT CONCENTRATIONS, MARCH 2013
ENTERPRISE FIELD SERVICES, LLC
LATERAL K-31 DECEMBER 2011 PIPELINE RELEASE
SE¼ SW¼, SECTION 16, T25N, R6W
RIO ARriba COUNTY, NEW MEXICO
N36.39373, W107.47519



DRAWN BY: C. Lameman	DATE DRAWN: September 14, 2012
REVISIONS BY: C. Lameman	DATE REVISED: April 8, 2013
CHECKED BY: T. Ross	DATE CHECKED: April 8, 2013
APPROVED BY: E. McNally	DATE APPROVED: April 8, 2013

FIGURE 5

DISSOLVED BENZENE CONCENTRATION CONTOURS, MARCH 2013
 ENTERPRISE FIELD SERVICES, LLC
 LATERAL K-31 DECEMBER 2011 PIPELINE RELEASE
 SE¼ SW¼, SECTION 16, T25N, R6W
 RIO ARriba COUNTY, NEW MEXICO
 N36.39373, W107.47519

MONITORING WELL SAMPLING RECORD						Animas Environmental Services	
Monitor Well No: <u>1</u>						624 E. Comanche, Farmington NM 87401 Tel. (505) 564-2281 Fax (505) 324-2022	
Site: <u>Enterprise Lateral K-31</u>						Project No.: _____	
Location: _____						Date: <u>3-21-2013</u>	
Project: <u>GROUNDEWATER SAMPLING</u>						Arrival Time: <u>1251</u> (<u>1312 Sample</u>)	
Sampling Technician: <u>L.L.</u>						Air Temp: <u>Windy 47°F</u>	
Purge / No Purge: <u>Purge</u>						T.O.C. Elev. (ft): _____	
Well Diameter (in): <u>2</u>						Total Well Depth (ft): <u>26.82</u>	
Initial D.T.W. (ft): <u>18.59</u> Time: <u>0843</u> (taken at initial gauging of all wells)							
Confirm D.T.W. (ft): <u>18.58</u> Time: <u>1254</u> (taken prior to purging well)							
Final D.T.W. (ft): <u>18.58</u> Time: <u>1311</u> (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
1259	14.21	12.56	1.68	7.32	-83.0	1 st Bailen	Gray H2O
1302	14.11	12.46	0.99	7.30	-87.3	1.0 gal	gray-black H2O
1304	14.08	12.35	0.75	7.30	-95.3	2.0 gal	gray-black H2O
1308	13.88	12.24	5.35 @ 1308	7.36	-102.4	3.0 gal	odor / sheen
1312	14.06	12.39	0.75	7.32	-93.4	4.0 gal	H2O Black Odor/sheen
Analytical Parameters (include analysis method and number and type of sample containers)							
8021 BTEX							
Disposal of Purged Water: <u>ENVIROTECH LANDFARM</u>							
Collected Samples Stored on Ice in Cooler: <u>Yes</u>							
Chain of Custody Record Complete: <u>Yes</u>							
Analytical Laboratory: <u>Hall Environmental Analysis Laboratory, Albuquerque, NM</u>							
Equipment Used During Sampling: <u>Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer</u>							
Notes/Comments:							
8.24 column.							
1.34 Volume							
4.0 gal. Purged							
Above ground well Recovery good H2O Black, odor / sheen well casing has "soot" like covering on inside							

MONITORING WELL SAMPLING RECORD				Animas Environmental Services			
Monitor Well No: <u>2</u>				624 E. Comanche, Farmington NM 87401 Tel. (505) 564-2281 Fax (505) 324-2022			
Site: <u>Enterprise Lateral K-31</u>				Project No.: _____			
Location: _____				Date: <u>3-21-2013</u>			
Project: <u>Groundwater sampling</u>				Arrival Time: <u>1217</u> (1239 SAMPLE)			
Sampling Technician: <u>L.L.</u>				Air Temp: <u>Windy 49°F</u>			
Purge / No Purge: <u>Purge</u>				T.O.C. Elev. (ft): _____			
Well Diameter (in): <u>2</u>				Total Well Depth (ft): <u>26.82</u>			
Initial D.T.W. (ft): <u>15.90</u>		Time: <u>0846</u>		(taken at initial gauging of all wells)			
Confirm D.T.W. (ft): <u>15.89</u>		Time: <u>1221</u>		(taken prior to purging well)			
Final D.T.W. (ft): <u>18.51</u>		Time: <u>1238</u>		(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
1226	14.40	13.75	1.62	7.32	-70.6	1 st Bailers	Clear H ₂ O
1228	13.76	13.85	1.68	7.30	-60.3	1.5 gal.	Tan H ₂ O
1230	13.53	13.85	2.06	7.30	-72.7	2.5 gal	Tan H ₂ O
1233	13.41	13.90	2.00	7.31	-72.6	3.5 gal	Tan H ₂ O
1236	13.38	13.89	1.87	7.31	-71.6	4.5 gal.	Tan H ₂ O
1239	13.45	13.50	4.61 @	7.30	-70.8	5.5 gal.	Tan H ₂ O
Analytical Parameters (include analysis method and number and type of sample containers)							
8021 BTEX							
Disposal of Purged Water: <u>ENVIROTECH LANDFARM</u>							
Collected Samples Stored on Ice in Cooler: <u>Yes</u>							
Chain of Custody Record Complete: <u>Yes</u>							
Analytical Laboratory: <u>Hall Environmental Analysis Laboratory, Albuquerque, NM</u>							
Equipment Used During Sampling: <u>Keck Water Level or Keck Interface Level, YSI Water Quality Meter</u>							
and New Disposable Bailers							
Notes/Comments:							
10.93 column		ground level M.W.					
1.78 volume		H ₂ O Tan color					
5.56 gal. Purged		No odor / sheen					
		Recovery is good					

MONITORING WELL SAMPLING RECORD

Animas Environmental Services

Monitor Well No: 3

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

Site: Enterprise Lateral K-31

Project No.:

Location:

Date: 3-21-2013

Project: Groundwater Sampling

Arrival Time: 0907

Sampling Technician: L.L.

Air Temp:

Purge / No Purge: Purge

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

Well Diameter (in): 2

Total Well Depth (ft): 26.14

Initial D.T.W. (ft): 18.07

Time: 0814

(taken at initial gauging of all wells)

Confirm D.T.W. (ft): 18.07

Time: 0906

(taken prior to purging well)

Final D.T.W. (ft): 18.11

Time: 0924

(taken after sample collection)

If NAPL Present: D.T.P.:

D.T.W.:

Thickness:

Time:

0922 sample

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
0910	13.38	12.81	3.02	7.48	-68.1	1 st Bailen	Clear H ₂ O
0913	13.31	12.95	2.00	7.36	-65.5	1.0 gal	Tan H ₂ O
0916	13.40	13.00	1.18	7.31	-67.8	2.0 gal	Tan H ₂ O
0919	13.37	12.96	1.53	7.30	-70.0	3.0 gal	Tan H ₂ O
0922	13.37	12.95	1.23	7.27	-70.6	4.0 gal	Tan H ₂ O

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

8021 BTEX

Disposal of Purged Water: EnviroTECH LANDFARM

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 Bailor

Notes/Comments:

8.07 column

1.32 volume

4.0 gal. to be purged

Tan / Lt Tan H₂O

Recovery is good

Some Silt.

MONITORING WELL SAMPLING RECORD

Animas Environmental Services

Monitor Well No: 4

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

Site: Enterprise Lateral K-31

Project No.: _____

Location: _____

Date: 3-21-2013

Project: Groundwater Sampling

Arrival Time: 1045 1110 Sample

Sampling Technician: L.L.

Air Temp: Windy 60°F

Purge / No Purge: Purge

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

Well Diameter (in): 2

Total Well Depth (ft): 26.94

Initial D.T.W. (ft): 16.71

Time: 0832 (taken at initial gauging of all wells)

Confirm D.T.W. (ft): 16.70

Time: 1046 (taken prior to purging well)

Final D.T.W. (ft): 17.05

Time: 1109 (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
1051	13.66	15.21	6.84	7.46	-57.5	1st Buret	clear
1056	13.63	16.52	1.54	7.41	-59.7	1.0 gal.	Tan
1104	13.53	16.49	1.94	7.40	-60.1	3.0 gal.	Lt Tan H ₂ O
1107	13.51	16.93	1.30	7.34	-60.1	4.0 gal.	Lt Tan H ₂ O
1110	13.62	16.46	7.95	7.32	-61.8	5.0 gal	Lt. Tan H ₂ O

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

8021 BTEX (3 VOLS)

Disposal of Purged Water: EnviroTECH LANDFARM

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

Notes/Comments:

10.24 column

1.67 Volume

5.0 gal. to be purged

Recovery in well is good.

Above ground NW.

Lt. Tan H₂O w/ some silt

MONITORING WELL SAMPLING RECORD

Monitor Well No: 5

Animas Environmental Services

624 E. Comanche, Farmington NM 87401

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

Site: Enterprise Lateral K-31

Project No.: _____

Location: _____

Date: 3-21-2013

Project: Groundwater sampling

Arrival Time: 1020 1036 Sample

Sampling Technician: L.L.

Air Temp: 60.1

Purge / No Purge: Purge

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

Well Diameter (in): 2

Total Well Depth (ft): 25.19

Initial D.T.W. (ft): 15.00

Time: 0827

(taken at initial gauging of all wells)

Confirm D.T.W. (ft): 14.99

Time: 1021

(taken prior to purging well)

Final D.T.W. (ft): 15.03

Time: 1035

(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
1025	14.43	17.60	3.20	7.55	-114.9	1st Bailen	clear H ₂ O
1027	14.39	17.45	1.24	7.66	-141.7	1.0 gal.	Tan/lt Tan
1030	14.25	17.56	0.94	7.67	-138.1	2.0 gal	Tan H ₂ O
1032	14.24	17.61	1.15	7.61	-127.1	3.0 gal	Tan H ₂ O
1034	14.22	17.62	1.30	7.57	-120.6	4.0 gal	Tan H ₂ O
1036	14.18	17.63	1.23	7.54	-126.7	5.0 gal	Tan H ₂ O

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

8021 BTEX

Disposal of Purged Water: ENVIROTECH LANDFARM

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

Notes/Comments:

1020 column

1.66 volume

5.0 gal. to be purged

Above ground well

Recovery is good

H₂O is Tan w/ some silt

MONITORING WELL SAMPLING RECORD

Animas Environmental Services

Monitor Well No: 6

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

Site: Enterprise Lateral K-31

Project No.:

Location:

Date: 3-21-2013

Project: Groundwater Sampling

Arrival Time: 1120 1138 SAMPLE

Sampling Technician: L.L.

Air Temp: WINDY

Purge / No Purge: Purge

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

Well Diameter (in): 2

Total Well Depth (ft): 27.10

Initial D.T.W. (ft): 16.53

Time: 0837 (taken at initial gauging of all wells)

Confirm D.T.W. (ft): 16.54

Time: 1121 (taken prior to purging well)

Final D.T.W. (ft): 17.12

Time: 1137 (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
1126	13.28	14.39	2.01	7.48	-75.6	1 st Bail	Clear H ₂ O
1128	13.02	14.08	1.81	7.40	-81.3	1.0 gal	lt. Tan H ₂ O
1130	13.06	14.25	0.98	7.34	-82.5	2.0 gal	lt Tan H ₂ O
1133	13.00	14.02	2.25	7.32	-80.9	3.0 gal	lt Tan H ₂ O
1135	13.02	14.14	1.04	7.30	-79.4	4.0 gal	lt Tan H ₂ O
1138	13.01	13.31	8.28	7.29	-74.3	5.0 gal	lt Tan H ₂ O

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

8021 BTEX

Disposal of Purged Water: ENVIRUTECH LANDFARM

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

Notes/Comments:

1056 column

ABOVE ground M.W.

1.72 volume

Recovery is good

5.0 gal. to be purged

lt Tan H₂O w/ silt

Animas Environmental Services

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

Project No.:

Date: 3-21-2013

Arrival Time: 0955 (1612 Sample)

Air Temp: cool

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

Total Well Depth (ft): 26.35

Initial D.T.W. (ft): 16.74 Time: 0823 (taken at initial gauging of all wells)

Confirm D.T.W. (ft): 16.74 Time: 0956 (taken prior to purging well)

Final D.T.W. (ft): 16.78 Time: 1014 (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)**

8021 BTEX

Disposal of Purged Water: ENVIROTECH LANDFARM

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

Notes/Comments:

9.6.1 Column

Recovery good

1.57 volume

Above ground M.W.

4.75 gal. to be purged

MONITORING WELL SAMPLING RECORD

Animas Environmental Services

Monitor Well No: 8

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

Site: Enterprise Lateral K-31

Project No.:

Location:

Date: 3-21-2013

Project: Groundwater Sampling

Arrival Time: 1148

(1208 SAMPLE)

Sampling Technician: L.L.

Air Temp: Windy 49°F

Purge / No Purge: Purge

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

Well Diameter (in): 2

Total Well Depth (ft): 26.67

Initial D.T.W. (ft): 15.65

Time: 0840

(taken at initial gauging of all wells)

Confirm D.T.W. (ft): 15.64

Time: 1149

(taken prior to purging well)

Final D.T.W. (ft): 15.70

Time: 1209

(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
1154	14.85	13.45	1.42	7.66	-115.1	1 st Bailor	Clear H ₂ O
1157	14.81	14.61	1.40	7.52	-96.2	1.0 gal.	Lt TAN H ₂ O
1200	14.86	15.01	1.52	7.43	-83.7	2.5 gal	Lt Tan H ₂ O
1203	14.71	14.41	1.33	7.52	-105.1	3.5 gal.	Lt Tan H ₂ O
1205	14.88	15.02	1.38	7.43	-86.7	4.5 gal.	Lt. Tan H ₂ O
1208	14.85	14.90	1.64	7.43	-90.3	5.5 gal	Lt Tan w/ silt H ₂ O

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

8021 BTEX

Disposal of Purged Water: ENVIROTECH LAND FARM

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 Bailor

Notes/Comments:

Above ground M.W.

11.03 column

Recovery is good.

1.80 volume

No Odor No Sheen

5.50 Purged

Lt Tan H₂O color

MONITORING WELL SAMPLING RECORD

Monitor Well No: 9

Animas Environmental Services

624 E. Comanche, Farmington NM 87401

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

Site: Enterprise Lateral K-31

Project No.: _____

Location: _____

Date: 3-21-2013

Project: Groundwater Sampling

Arrival Time: 0930 (0948 SAMPLE)

Sampling Technician: L.L.

Air Temp: 38°F

~~Purge~~ No Purge: Purge

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

Well Diameter (in): 2

Total Well Depth (ft): 26.56

Initial D.T.W. (ft): 15.39

Time: 0818 (taken at initial gauging of all wells)

Confirm D.T.W. (ft): 15.40

Time: 0932 (taken prior to purging well)

Final D.T.W. (ft): 15.45

Time: 0949 (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
0935	13.44	13.09	2.50	7.22	-67.8	1 st Bailin	Clear H ₂ O
0939	13.82	13.28	7.85	7.29	-64.6	1.0 gal	Lt Tan H ₂ O
0942	13.82	13.28	2.04	7.26	-62.6	3.0 gal.	Lt Tan H ₂ O
0945	13.93	13.27	1.56	7.26	-62.3	4.5 gal.	Lt Tan H ₂ O
0948	14.00	13.28	1.93	7.25	-62.8	5.5 gal	Lt Tan H ₂ O

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

2021 BTEX

Disposal of Purged Water: EnviroTECH LANDFARM

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

Notes/Comments:

11.16 column

1.82 volume

5.50 gal. to be purged

Well Recovery good above ground well.



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

March 27, 2013

Tami Ross

Animas Environmental Services

624 East Comanche

Farmington, NM 87401

TEL: (505) 793-2072

FAX:

RE: Enterprise Lateral K-31

OrderNo.: 1303934

Dear Tami Ross:

Hall Environmental Analysis Laboratory received 9 sample(s) on 3/22/2013 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,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order: 1303934

Date Reported: 3/27/2013

CLIENT: Animas Environmental Services

Lab Order: 1303934

Project: Enterprise Lateral K-31

Lab ID: 1303934-001

Collection Date: 3/21/2013 11:10:00 AM

Client Sample ID: MW-4

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	4.8	2.0		µg/L	2	3/26/2013 5:33:49 PM
Toluene	ND	2.0		µg/L	2	3/26/2013 5:33:49 PM
Ethylbenzene	ND	2.0		µg/L	2	3/26/2013 5:33:49 PM
Xylenes, Total	ND	4.0		µg/L	2	3/26/2013 5:33:49 PM
Surr: 4-Bromofluorobenzene	87.4	69.4-129		%REC	2	3/26/2013 5:33:49 PM

Lab ID: 1303934-002

Collection Date: 3/21/2013 1:12:00 PM

Client Sample ID: MW-1

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	29	2.0		µg/L	2	3/26/2013 6:04:01 PM
Toluene	14	2.0		µg/L	2	3/26/2013 6:04:01 PM
Ethylbenzene	ND	2.0		µg/L	2	3/26/2013 6:04:01 PM
Xylenes, Total	6.8	4.0		µg/L	2	3/26/2013 6:04:01 PM
Surr: 4-Bromofluorobenzene	87.5	69.4-129		%REC	2	3/26/2013 6:04:01 PM

Lab ID: 1303934-003

Collection Date: 3/21/2013 12:39:00 PM

Client Sample ID: MW-2

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	18	2.0		µg/L	2	3/26/2013 6:33:59 PM
Toluene	ND	2.0		µg/L	2	3/26/2013 6:33:59 PM
Ethylbenzene	ND	2.0		µg/L	2	3/26/2013 6:33:59 PM
Xylenes, Total	18	4.0		µg/L	2	3/26/2013 6:33:59 PM
Surr: 4-Bromofluorobenzene	92.9	69.4-129		%REC	2	3/26/2013 6:33:59 PM

Lab ID: 1303934-004

Collection Date: 3/21/2013 10:36:00 AM

Client Sample ID: MW-5

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	9.0	2.0		µg/L	2	3/26/2013 7:04:01 PM
Toluene	ND	2.0		µg/L	2	3/26/2013 7:04:01 PM
Ethylbenzene	ND	2.0		µg/L	2	3/26/2013 7:04:01 PM
Xylenes, Total	ND	4.0		µg/L	2	3/26/2013 7:04:01 PM
Surr: 4-Bromofluorobenzene	82.6	69.4-129		%REC	2	3/26/2013 7:04:01 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Analytical Report

Lab Order: 1303934

Date Reported: 3/27/2013

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Project: Enterprise Lateral K-31

Lab Order: 1303934

Lab ID: 1303934-005

Collection Date: 3/21/2013 10:12:00 AM

Client Sample ID: MW-7

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	2.0		µg/L	2	3/26/2013 9:34:19 PM
Toluene	ND	2.0		µg/L	2	3/26/2013 9:34:19 PM
Ethylbenzene	ND	2.0		µg/L	2	3/26/2013 9:34:19 PM
Xylenes, Total	ND	4.0		µg/L	2	3/26/2013 9:34:19 PM
Surr: 4-Bromofluorobenzene	83.4	69.4-129		%REC	2	3/26/2013 9:34:19 PM

Lab ID: 1303934-006

Collection Date: 3/21/2013 9:48:00 AM

Client Sample ID: MW-9

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	2.0		µg/L	2	3/26/2013 10:04:26 PM
Toluene	ND	2.0		µg/L	2	3/26/2013 10:04:26 PM
Ethylbenzene	ND	2.0		µg/L	2	3/26/2013 10:04:26 PM
Xylenes, Total	ND	4.0		µg/L	2	3/26/2013 10:04:26 PM
Surr: 4-Bromofluorobenzene	88.1	69.4-129		%REC	2	3/26/2013 10:04:26 PM

Lab ID: 1303934-007

Collection Date: 3/21/2013 11:38:00 AM

Client Sample ID: MW-6

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	130	2.0		µg/L	2	3/26/2013 10:34:39 PM
Toluene	5.1	2.0		µg/L	2	3/26/2013 10:34:39 PM
Ethylbenzene	ND	2.0		µg/L	2	3/26/2013 10:34:39 PM
Xylenes, Total	ND	4.0		µg/L	2	3/26/2013 10:34:39 PM
Surr: 4-Bromofluorobenzene	90.0	69.4-129		%REC	2	3/26/2013 10:34:39 PM

Lab ID: 1303934-008

Collection Date: 3/21/2013 9:22:00 AM

Client Sample ID: MW-3

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	2.0		µg/L	2	3/26/2013 11:04:41 PM
Toluene	ND	2.0		µg/L	2	3/26/2013 11:04:41 PM
Ethylbenzene	ND	2.0		µg/L	2	3/26/2013 11:04:41 PM
Xylenes, Total	ND	4.0		µg/L	2	3/26/2013 11:04:41 PM
Surr: 4-Bromofluorobenzene	87.2	69.4-129		%REC	2	3/26/2013 11:04:41 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Analytical Report

Lab Order: 1303934

Date Reported: 3/27/2013

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Animas Environmental Services**Lab Order:** 1303934**Project:** Enterprise Lateral K-31**Lab ID:** 1303934-009**Collection Date:** 3/21/2013 12:08:00 PM**Client Sample ID:** MW-8**Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8021B: VOLATILES

Analyst: NSB

Benzene	26	2.0		µg/L	2	3/26/2013 11:34:44 PM
Toluene	ND	2.0		µg/L	2	3/26/2013 11:34:44 PM
Ethylbenzene	ND	2.0		µg/L	2	3/26/2013 11:34:44 PM
Xylenes, Total	ND	4.0		µg/L	2	3/26/2013 11:34:44 PM
Surr: 4-Bromofluorobenzene	91.7	69.4-129		%REC	2	3/26/2013 11:34:44 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303934

27-Mar-13

Client: Animas Environmental Services

Project: Enterprise Lateral K-31

Sample ID: 5ML RB	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBW	Batch ID: R9435	RunNo: 9435								
Prep Date:	Analysis Date: 3/26/2013	SeqNo: 269509	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		90.1	69.4	129			

Sample ID: 100NG BTEX LCS	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSW	Batch ID: R9435	RunNo: 9435								
Prep Date:	Analysis Date: 3/26/2013	SeqNo: 269515	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	80	120			
Toluene	21	1.0	20.00	0	104	80	120			
Ethylbenzene	21	1.0	20.00	0	105	80	120			
Xylenes, Total	65	2.0	60.00	0	108	80	120			
Surr: 4-Bromofluorobenzene	20		20.00		102	69.4	129			

Qualifiers:

- | | |
|--|--|
| * 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 |
| P Sample pH greater than 2 | R RPD outside accepted recovery limits |
| RL Reporting Detection Limit | S Spike Recovery outside accepted recovery limits |



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87105
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1303934

RcptNo: 1

Received by/date: MG 03/22/13

Logged By: Anne Thorne 3/22/2013 10:15:00 AM

Completed By: Anne Thorne 3/22/2013 3:06:19 PM

Reviewed By: mg 03/22/13

Chain of Custody

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

Log In

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

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			

