3R – 434

2014 AGWMR

04 / 16 / 2015

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ConocoPhillips

Mr. Glenn von Gonten
New Mexico Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

April 16, 2015

Re: NMOCD Case No. 3R-434, 2014 Annual Groundwater Monitoring Report

Dear Mr. von Gonten:

Enclosed is the 2014 Annual Groundwater Monitoring Report for the Faye Burdette No. 1 site. This report, prepared by Conestoga-Rovers & Associates (CRA), contains the results of groundwater monitoring conducted during September 2014, at the referenced site.

Please let me know if you have any questions.

Sincerely,

John F Greiner

Rick Greiner

Enc

CONESTOGA-ROVERS & ASSOCIATES

www.CRAworld.com

2014 Annual Groundwater Monitoring Report

ConocoPhillips Faye Burdette No. 1
San Juan County, New Mexico
API# 30-045-09725
NMOCD# 3RP-434

Prepared for: ConocoPhillips Company

Conestoga-Rovers & Associates
6121 Indian School Road, NE Suite 200
Albuquerque, New Mexico 87110

February 2015 • 074929 • Report No. 6

Partners in Sustainability

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Section 1.0 Introduction

This report presents the results of quarterly groundwater monitoring conducted during 2014 by Conestoga-Rovers & Associates (CRA) at the ConocoPhillips Company (ConocoPhillips) Faye Burdette No. 1 site, located on private land in Unit Letter G, Section 9, Township 30N, Range 11W of San Juan County, New Mexico (Site). Geographical coordinates for the Site are 36° 49' 47.71" North, 107° 59' 31.50" West.

The Site is located near the intersection of Highway 550 and Pioneer Avenue in Aztec, NM. The Site consists of a gas wellhead and associated equipment and installations. The location and general features of the Site are presented as **Figures 1** and **2**, respectively. A generalized geologic cross section of the Site is included as **Figure 3**.

1.1 Background

The Faye Burdette No. 1 wellhead was spudded by Southwest Production Company in April 1962. Ownership was transferred to Beta Development Company in September 1963 and again to Mesa Operating Limited Partnership in August 1988. Conoco Inc., predecessor to ConocoPhillips Company, acquired the well in July 1991. A release occurred at the Site in May 2007 from a rusted portion of the produced water tank. Evidence of pre-existing hydrocarbon impacted soil was encountered during excavation, possibly related to a former earthen pit. Temporary monitoring well MW-1 was drilled by Envirotech in September 2007. Groundwater samples from MW-1 indicated that benzene, toluene, ethylbenzene, and xylenes (BTEX) were below the New Mexico Water Quality Control Commission (NMWQCC) standards.

To complete additional investigation of the Site, as requested by the New Mexico Oil Conservation Division (NMOCD), monitoring wells MW-2, MW-3, and MW-4 were installed under the supervision of Tetra Tech, Inc. (Tetra Tech) during January 2009. All four monitoring wells were incorporated into a quarterly monitoring program that was initiated on January 29, 2009. On June 15, 2011, Site consulting responsibilities were transferred from Tetra Tech to CRA of Albuquerque, NM. Site history is outlined in **Table 1**.

After 10 consecutive quarters of sampling with BTEX constituents below New Mexico Water Quality Control Commission (NMWQCC) standards, BTEX analysis was discontinued following the March 2011 sampling event. From September 2011 to September 2013, annual monitoring for dissolved manganese only has been conducted. Quarterly groundwater sampling and analysis for dissolved manganese was initiated in the first quarter of 2014.

Section 2.0 Groundwater Monitoring Summary, Methodology, and Analytical Results

2.1 Groundwater Monitoring Summary

Groundwater quality monitoring events were conducted at the Site on March 24, June 18, September 19, and December 18, 2014.

2.2 Groundwater Monitoring Methodology

Prior to sampling, groundwater elevation measurements were obtained for monitoring wells MW-1, MW-2, MW-3, and MW-4 using an oil/water interface probe. Groundwater elevations are detailed in **Table 2**. Groundwater potentiometric surface maps for the March, June, September, and December 2014 sampling events presented as **Figure 4, 5, 6, and 7**, respectively**.** Based on the 2014 monitoring event data, groundwater flow is to the northwest and is consistent with historical monitoring event records for the Site.

Monitoring wells MW-1, MW-2, MW-3, and MW-4 were sampled during the March, June, and September annual sampling events. For the December event, sampling was discontinued for monitoring wells MW-2, MW-3, and MW-4 since contaminant concentrations had been below NMWQCC standards since September 2009 and as authorized by the New Mexico Oil Conservation Division (NMOCD) in a meeting October 30, 2014.

Approximately three well volumes were purged from each monitoring well with a dedicated, polyethylene, 1.5-inch disposable bailer prior to sampling. While bailing each well, groundwater parameter data, including temperature, pH, conductivity, dissolved oxygen, and oxidation-reduction potential were collected using a multi-parameter meter. Field parameters are summarized on **Table 3**. Purge water was placed in the on-Site produced water tank.

Groundwater samples were placed in laboratory prepared bottles, packed on ice, and shipped under chain-of-custody documentation to Pace Analytical Services, Inc. in Lenexa, Kansas. The samples were analyzed for the presence of dissolved manganese according to EPA Method 6010.

2.3 Groundwater Monitoring Analytical Results

The NMWQCC standard for dissolved manganese is 0.2 milligrams per liter (mg/L). Laboratory analysis of groundwater samples collected during the March, June, September, and December monitoring events indicated that monitoring well MW-1 exceeded the standard with dissolved manganese concentrations of 0.40 mg/L, 0.58 mg/L, 0.21 mg/L, and 0.21 mg/L, respectively.

Table 4 summarizes the laboratory analytical results for the 2014 groundwater sampling events. The corresponding laboratory analytical reports are included in **Appendix A**.

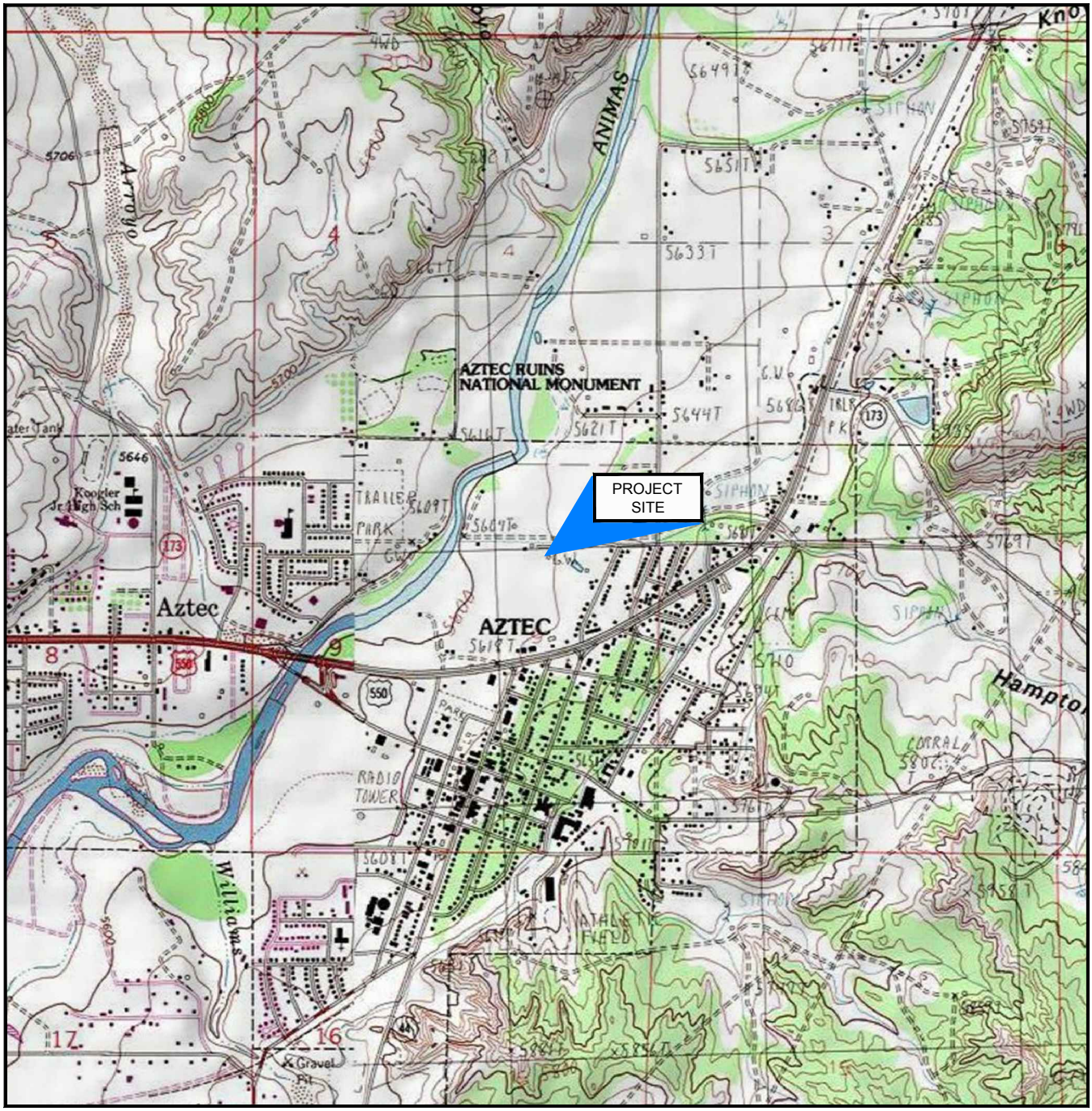
Section 3.0 Conclusions and Recommendations

Analysis for BTEX constituents, which were below both NMWQCC standards and laboratory detection limits for 10 consecutive quarters, was discontinued following the March 2011 sampling event.

Groundwater samples collected from MW-1 have continually exceeded the NMWQCC groundwater quality standard for dissolved manganese from October 2008 to December 2014. The September and December 2014 samples represent the lowest concentrations observed to date in MW-1, at a level approaching the standard.

CRA recommends the continued quarterly groundwater monitoring for dissolved manganese in monitoring well MW-1. All site wells will be gauged for groundwater levels and MW-1 will be sampled for analysis of dissolved manganese. Remediation Site closure will be requested when groundwater quality results are below NMWQCC groundwater quality standards for eight consecutive quarters, are stable, or are representative of background conditions at the Site.

Figures



SOURCE: USGS 7.5 MINUTE QUADS
"AZTEC AND FLORA VISTA, NEW MEXICO"

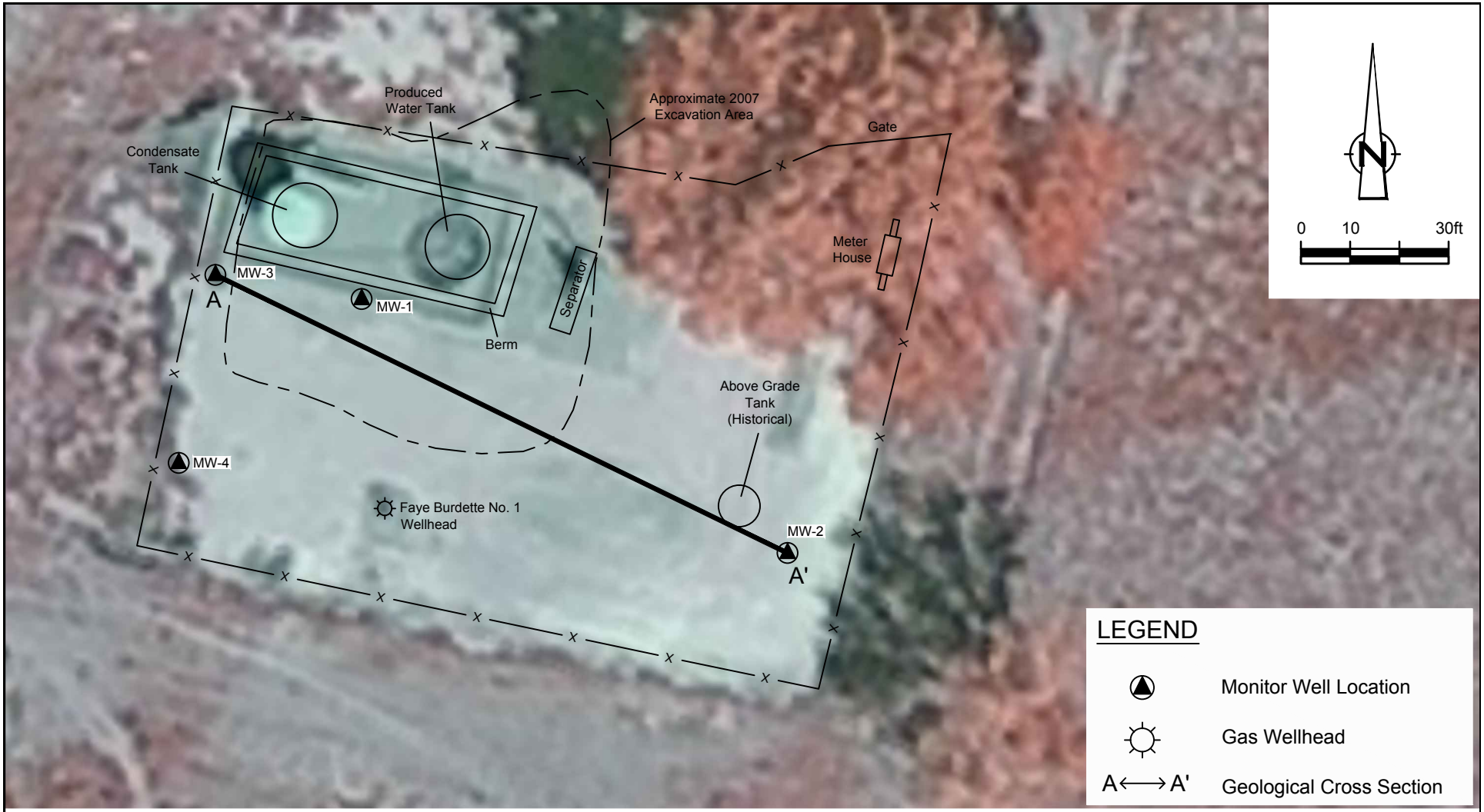
N

0 1000 2000ft

Figure 1

SITE VICINITY MAP
FAYE BURDETTE No. 1 GAS WELL SITE
SECTION 22, T30N-R12W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074929-95(006)GN-DL005_TOPO OCT 28/2014

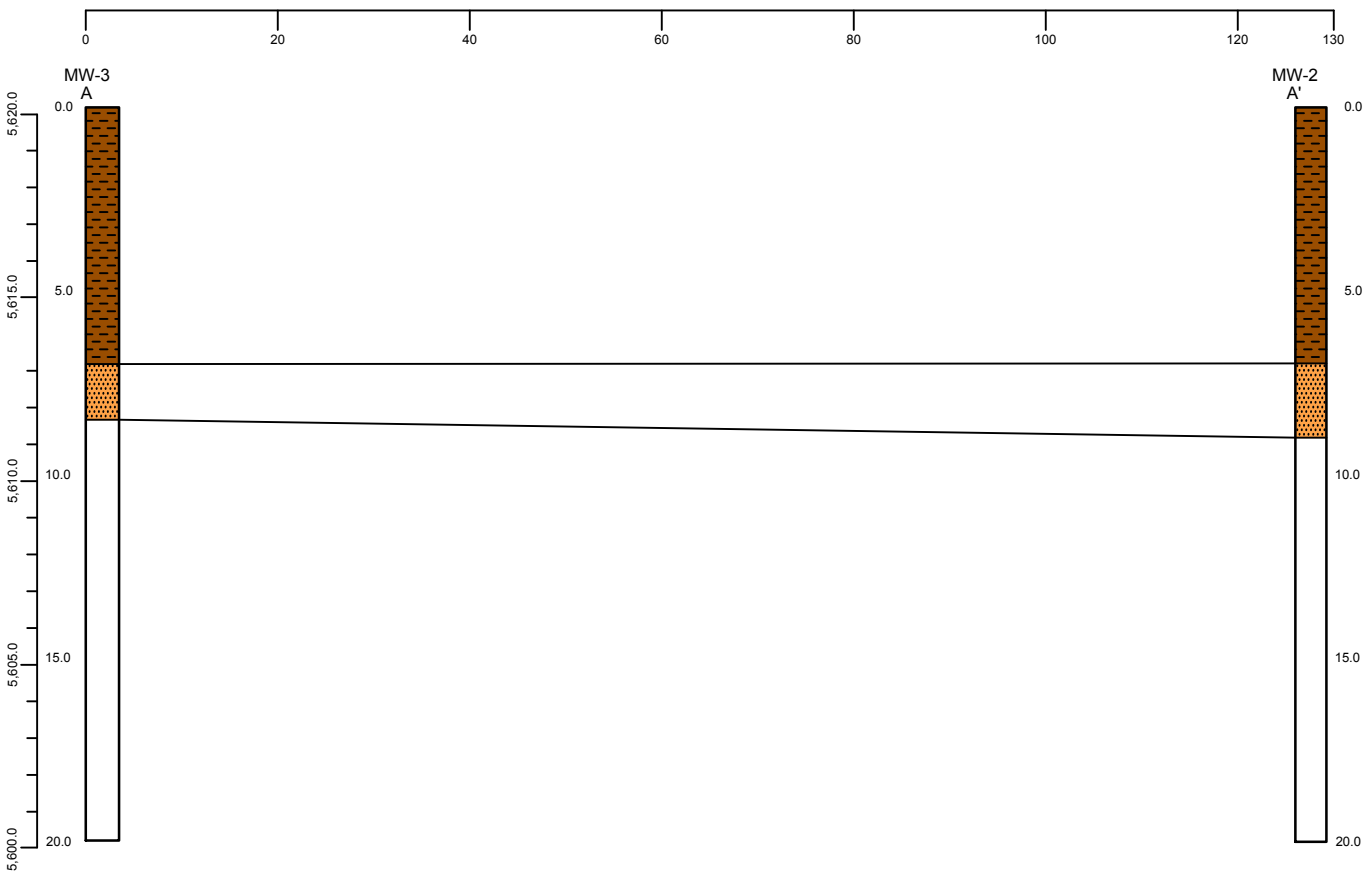


ConocoPhillips high resolution aerial imagery 2008.

Figure 2

SITE DETAIL MAP
FAYE BURDETTE No. 1 GAS WELL SITE
SECTION 09, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074929-95(006)GN-DL001_SD OCT 28/2014



H: 1"= 20'
V: 1"= 10'

Silty Sand

Medium Grained Sand

Figure 3

GEOLOGICAL CROSS SECTION
FAYE BURDETTE No. 1 GAS WELL SITE
SECTION 09, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

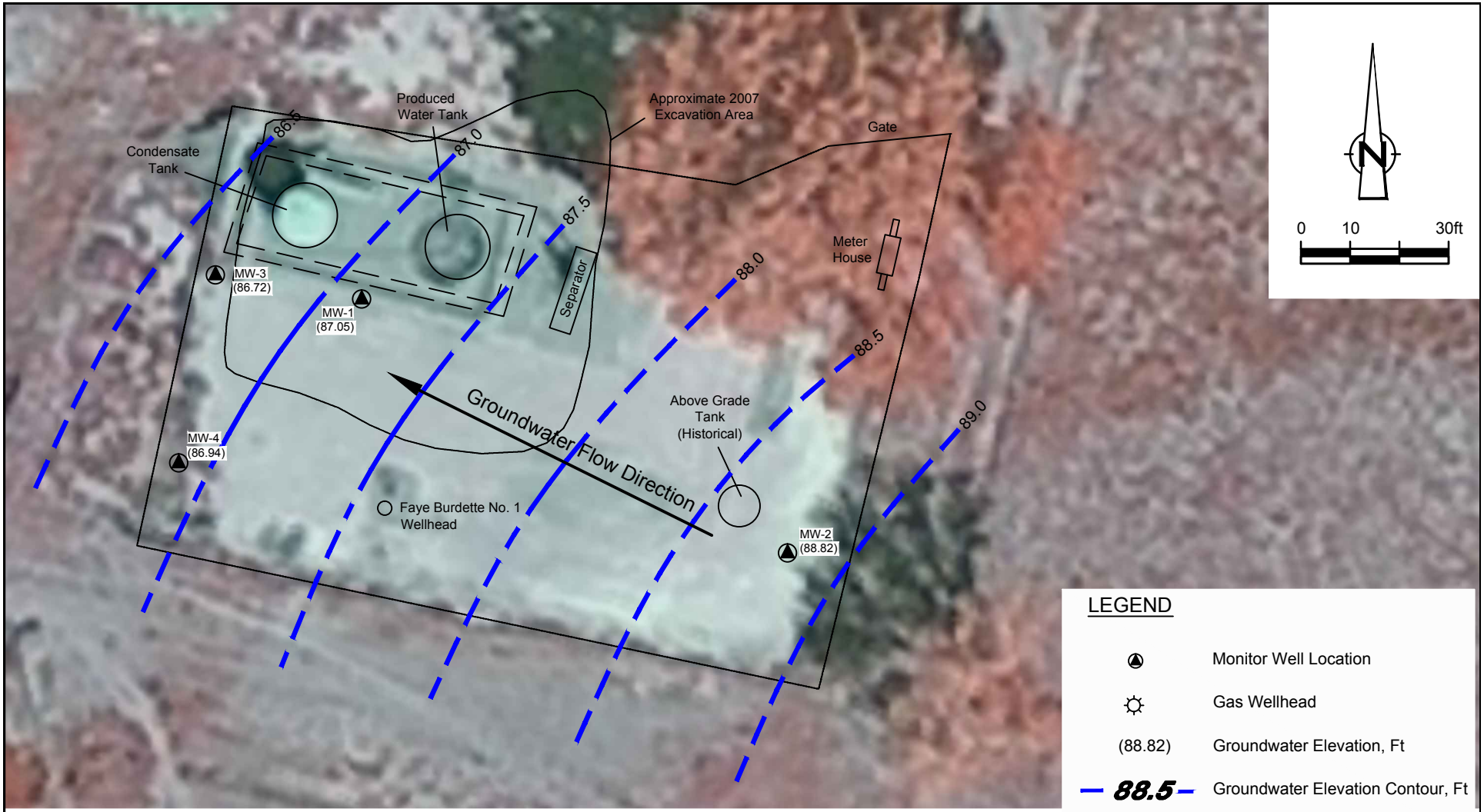
074929-95(006)GN-DL002_XSEC OCT 28/2014

ConocoPhillips high resolution aerial imagery 2008.

Figure 4

MARCH 2014 GROUNDWATER POTENTIOMETRIC SURFACE MAP
FAYE BURDETTE No. 1 GAS WELL SITE
SECTION 09, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074929-95(006)GN-DL003_GG OCT 28/2014

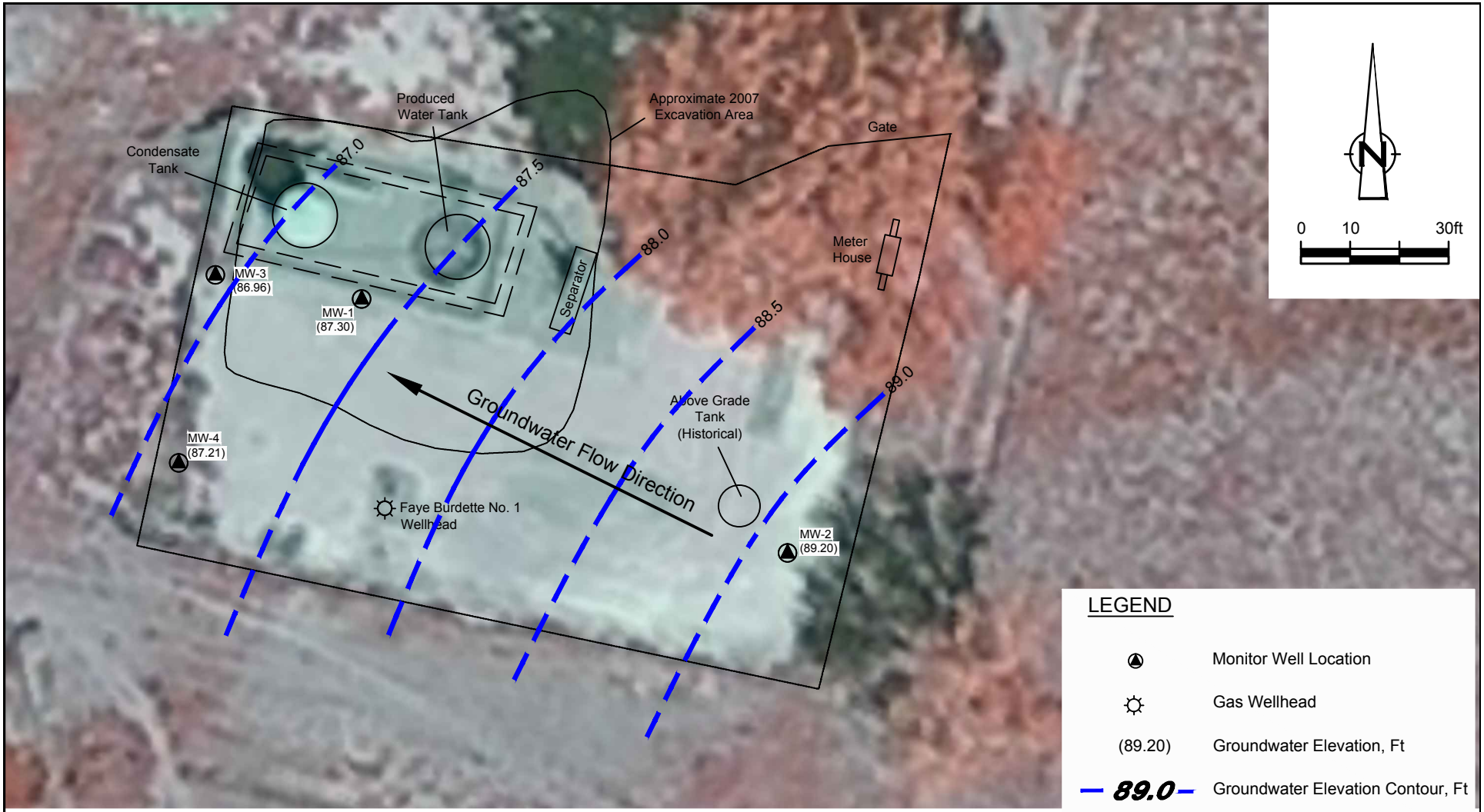


ConocoPhillips high resolution aerial imagery 2008.

Figure 5

JUNE 2014 GROUNDWATER POTENTIOMETRIC SURFACE MAP
FAYE BURDETTE No. 1 GAS WELL SITE
SECTION 09, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074929-95(006)GN-DL003_GG OCT 28/2014

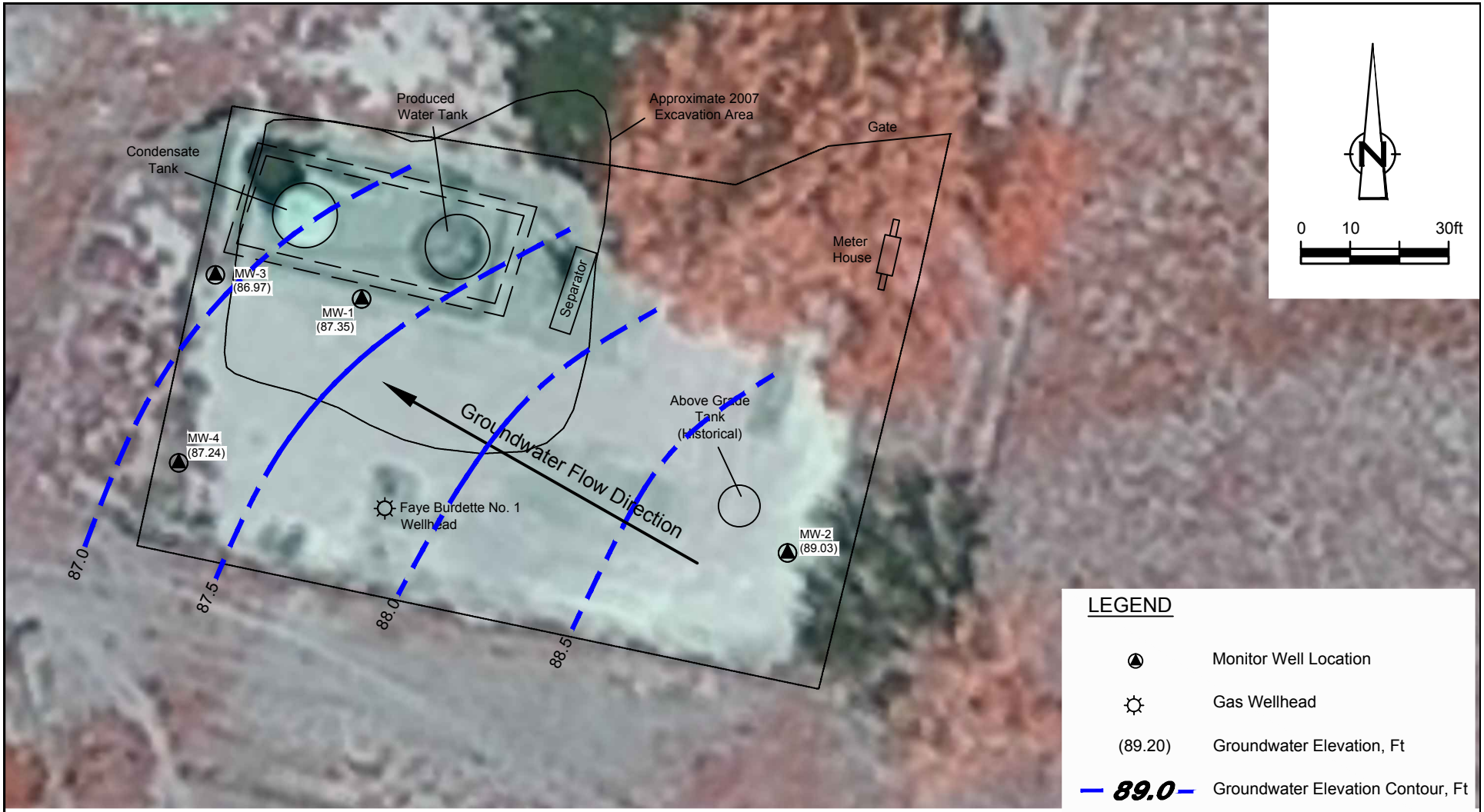


ConocoPhillips high resolution aerial imagery 2008.

Figure 6

SEPTEMBER 2014 GROUNDWATER POTENTIOMETRIC SURFACE MAP
FAYE BURDETTE No. 1 GAS WELL SITE
SECTION 09, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074929-95(006)GN-DL003_GG OCT 28/2014



ConocoPhillips high resolution aerial imagery 2008.

Figure 7

DECEMBER 2014 GROUNDWATER POTENTIOMETRIC SURFACE MAP
FAYE BURDETTE No. 1 GAS WELL SITE
SECTION 09, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074929-95(006)GN-DL003_GG JAN 16/2015

Tables

TABLE 1

SITE HISTORY TIMELINE
CONOCOPHILLIPS COMPANY
FAYE BURDETTE No. 1
SAN JUAN COUNTY, NEW MEXICO

DATE	*Event/Action*	*ACTIVITY*
April 29, 1962	Well spudded	Well was spudded by Southwest Production Company.
September 1, 1963	Ownership transfer	Ownership of well transferred to Beta Development Company.
February 21, 1983	NMOCD inspection	NMOCD inspection noted a leaking 2-inch valve on a storage tank.
August 15, 1988	Ownership transfer	Ownership of well transferred to Mesa Operating Limited Partnership.
July 1, 1991	Ownership transfer	Ownership of well transferred to Conoco Inc.
May 24, 2007	Release from produced water tank	A small (<25 gallons) release occurred from the produced water tank after a rusty spot was scraped off. Follow-up excavation encountered evidence of pre-existing hydrocarbon-impacted soil, apparently related to a former earthen pit beneath the tank.
July 1, 2007	Initial site assessment	Contaminated soil was excavated from the Site. Two ground water samples were obtained at the time of this excavation, and one (1) of these samples was found to contain total xylenes above the State of New Mexico drinking water standard.
September 26, 2007	Monitor well installation/Site assessment	Ground water monitor well installed to a depth of 15 feet below ground surface (bgs) by Envirotech Inc. of Farmington, NM (Envirotech). A soil sample obtained from the well boring was analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and total petroleum hydrocarbons (TPH). Results were below NMOCD regulations of 10 parts per million (ppm), 50 ppm, and 100 ppm, respectively.
	Site assessment	A ground water sample was collected from the temporary Monitor Well (MW-1) and analyzed for BTEX; results were below the State of New Mexico drinking water standard for this constituent. Depth to ground water recorded at 9.5 feet bgs.
November 1, 2007	Envirotech recommendation	Envirotech report recommends plugging and abandonment of the temporary ground water monitor well and a no further action determination for the Site (Envirotech, 2007).
April 8, 2008	Additional monitoring requested by OCD	Oil Conservation Division of NM Energy, Minerals, and Resources Dept. indicates additional investigation and sampling is necessary for closure consideration during a meeting between Tetra Tech and Glenn Von Gonten.
October 22, 2008	Groundwater monitoring	1st quarter sampling of MW-1 conducted by Tetra Tech.
January 9, 2009	Installation of additional monitor wells	WDC Exploration and Wells of Peralta, NM installed additional Monitor Wells MW-2, MW-3 and MW-4 under the supervision of Tetra Tech.
January 29, 2009	Groundwater monitoring	Second quarter sampling of MW-1 conducted by Tetra Tech. Initial sampling of Monitor Wells MW-2, MW-3, and MW-4.
March 31, 2009	Groundwater monitoring	Third consecutive quarter of sampling MW-1 conducted by Tetra Tech. Second quarter sampling of Monitor Wells MW-2, MW-3, and MW-4.
June 17, 2009	Groundwater monitoring	Fourth consecutive quarter of sampling MW-1 conducted by Tetra Tech. Third quarter of sampling Monitor Wells MW-2, MW-3, and MW-4.
September 22, 2009	Groundwater monitoring	Fifth consecutive quarter of sampling MW-1 by Tetra Tech. Fourth consecutive quarter of sampling Monitor Wells MW-2, MW-3, and MW-4. Sampling for total metals discontinued as approved by NMOCD. Sampling for select dissolved metals based on total metals analyses begins.
December 16, 2009	Groundwater monitoring	Sixth consecutive quarter sampling of MW-1 conducted by Tetra Tech. Fifth consecutive quarter sampling of Monitor Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
April 1, 2010	Groundwater monitoring	Seventh consecutive quarter sampling of MW-1 conducted by Tetra Tech. Sixth consecutive quarter sampling of Monitor Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
June 9, 2010	Groundwater monitoring	Eighth consecutive quarter sampling of MW-1 conducted by Tetra Tech. Seventh consecutive quarter sampling of Monitor Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
September 20, 2010	Groundwater monitoring	Ninth consecutive quarter sampling of MW-1 conducted by Tetra Tech. Eighth consecutive quarter sampling of Monitor Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
December 17, 2010	Groundwater monitoring	Tenth consecutive quarter sampling of MW-1 conducted by Tetra Tech. Ninth consecutive quarter sampling of Monitor Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
March 16, 2011	Groundwater monitoring	11th consecutive quarter sampling of MW-1 conducted by Tetra Tech. Tenth consecutive quarter sampling of Monitor Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only. Tetra Tech recommended that sampling for BTEX be discontinued.
June 15, 2011	Transfer of site consulting responsibilities	On June 15, 2011, Site consulting responsibilities were transferred from Tetra Tech of Albuquerque, NM to Conestoga-Rovers & Associates (CRA) of Albuquerque, NM.
June 22, 2011	Groundwater monitoring	12th consecutive quarter sampling of MW-1. 11th consecutive quarter sampling of Monitor Wells MW-2, MW-3, and MW-4. Samples analyzed for dissolved manganese only.
September 27, 2011	Groundwater monitoring	13th consecutive quarter sampling of MW-1. 12th consecutive quarter sampling of Monitor Wells MW-2, MW-3, and MW-4. Samples analyzed for dissolved manganese only.
September 17, 2012	Groundwater monitoring	Annual groundwater sampling event. Samples analyzed for dissolved manganese only.
September 16, 2013	Groundwater monitoring	Annual groundwater sampling event. Samples analyzed for dissolved manganese only.
March 24, 2014	Groundwater monitoring	Annual groundwater sampling event. Samples analyzed for dissolved manganese only.
June 18, 2014	Groundwater monitoring	Annual groundwater sampling event. Samples analyzed for dissolved manganese only.
September 19, 2014	Groundwater monitoring	Annual groundwater sampling event. Samples analyzed for dissolved manganese only.
December 18, 2014	Groundwater monitoring	Annual groundwater sampling event. MW-1 analyzed for dissolved manganese only.

TABLE 2

MONITORING WELL SPECIFICATIONS AND GROUNDWATER ELEVATIONS
CONOCOPHILLIPS COMPANY
FAYE BURDETTE No. 1
SAN JUAN COUNTY, NEW MEXICO

Well ID	*Total Depth (ft below TOC)*	*Elevation**	*Screen Interval (ft bgs)*	*Date Measured*	*Depth to Groundwater (ft below TOC)*	*Relative Water Level*
MW-1	17.52	97.66	4.8 - 14.8	10/22/2008	10.91	86.75
				1/29/2009	11.72	85.94
				3/31/2009	11.88	85.78
				6/17/2009	11.24	86.42
				9/22/2009	10.87	86.79
				12/16/2009	11.56	86.10
				4/1/2010	11.91	85.75
				6/9/2010	11.31	86.35
				9/20/2010	11.39	86.27
				12/17/2010	11.06	86.60
				3/16/2011	11.39	86.27
				6/22/2011	10.73	86.93
				9/27/2011	10.68	86.98
				9/17/2012	10.81	86.85
				9/16/2013	10.64	87.02
				3/24/2014	11.19	86.47
				6/18/2014	10.61	87.05
				9/17/2014	10.36	87.30
				12/18/2014	10.31	87.35
MW-2	19.45	98.54	5 - 20	1/29/2009	10.91	87.63
				3/31/2009	11.12	87.42
				6/17/2009	10.48	88.06
				9/22/2009	10.76	87.78
				12/16/2009	10.61	87.93
				4/1/2010	11.20	87.34
				6/9/2010	10.35	88.19
				9/20/2010	10.35	88.19
				12/17/2010	10.10	88.44
				3/16/2011	10.70	87.84
				6/22/2011	9.69	88.85
				9/27/2011	9.63	88.91
				9/17/2012	10.02	88.52
				9/16/2013	9.73	88.81
				3/24/2014	10.61	87.93
				6/18/2014	9.72	88.82
				9/17/2014	9.34	89.20
				12/18/2014	9.51	89.03

MW-3	22.96	97.16	5 - 20	1/29/2009	11.44	85.72
				3/31/2009	11.62	85.54
				6/17/2009	10.97	86.19
				9/22/2009	10.57	86.59
				12/16/2009	11.32	85.84
				4/1/2010	11.66	85.50
				6/9/2010	11.10	86.06
				9/20/2010	11.17	85.99
				12/17/2010	10.84	86.32
				3/16/2011	11.16	86.00
				6/22/2011	10.54	86.62
				9/27/2011	10.50	86.66
				9/17/2012	10.61	86.55
				9/16/2013	10.45	86.71
				3/24/2014	10.88	86.28
				6/18/2014	10.44	86.72
				9/17/2014	10.20	86.96
				12/18/2014	10.19	86.97
MW-4	22.28	97.06	5 - 20	1/29/2009	11.02	86.04
				3/31/2009	11.18	85.88
				6/17/2009	10.59	86.47
				9/22/2009	10.16	86.90
				12/16/2009	10.87	86.19
				4/1/2010	11.04	86.02
				6/9/2010	10.65	86.41
				9/20/2010	10.72	86.34
				12/17/2010	10.46	86.60
				3/16/2011	10.84	86.22
				6/22/2011	10.15	86.91
				9/27/2011	10.10	86.96
				9/17/2012	10.31	86.75
				9/16/2013	10.08	86.98
				3/24/2014	10.64	86.42
				6/18/2014	10.12	86.94
				9/17/2014	9.85	87.21
				12/18/2014	9.82	87.24

Notes:

1. ft = Feet
2. TOC = Top of casing
3. bgs = below ground surface
4. * Elevation relative to an arbitrary point set at 100 feet

TABLE 3

FIELD PARAMETERS SUMMARY
CONOCOPHILLIPS COMPANY
FAYE BURDETTE No. 1
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample Date	Temperature (°C)	pH	TDS (g/L)	Conductivity (µS/cm)	DO (mg/L)	ORP (mV)	Volume (gallons)
MW-1	3/24/2014	12.02	7.38	0.758	1165	3.03	-34.5	2.00
	3/24/2014	11.96	7.33	0.767	1181	2.97	-41.4	2.50
	3/24/2014	11.76	7.29	0.776	1193	2.65	-43.9	3.00
	6/18/2014	14.95	7.29	0.655	1007	4.11	-128.4	2.25
	6/18/2014	15.01	7.21	0.653	1004	3.25	-135.8	2.75
	6/18/2014	14.53	7.15	0.656	1011	2.27	-145.6	3.25
	9/17/2014	18.40	7.14	0.59	922	9.68	-8.0	3.75
	9/17/2014	18.20	7.12	0.59	922	9.27	-9.0	4.00
	9/17/2014	18.20	7.11	0.59	921	8.83	-13.0	4.25
	12/18/2014	15.25	7.57	0.895	1377	14.57	-108.0	2.50
	12/18/2014	15.16	7.54	0.899	1368	6.09	-110.9	3.00
	12/18/2014	15.21	7.53	0.888	1366	3.50	-112.8	3.50
MW-2	3/24/2014	13.38	7.36	0.735	1130	3.57	50.1	3.25
	3/24/2014	13.05	7.53	0.701	1079	3.30	45.8	3.75
	3/24/2014	12.97	7.63	0.697	1072	3.00	36.0	4.25
	6/18/2014	13.80	7.47	0.616	947	4.98	-142.1	3.75
	6/18/2014	13.88	7.38	0.619	952	4.78	-145.0	4.25
	6/18/2014	13.88	7.33	0.619	953	4.11	-143.6	4.75
	9/17/2014	16.50	7.42	0.80	1200	11.98	31.0	4.00
	9/17/2014	16.20	7.29	0.70	1050	11.31	40.0	4.50
	9/17/2014	16.30	7.29	0.70	1050	10.84	41.0	5.00
MW-3	3/24/2014	11.91	7.53	0.751	1156	3.31	2.8	3.75
	3/24/2014	11.96	7.36	0.752	1158	3.27	0.1	4.25
	3/24/2014	11.91	7.38	0.753	1159	3.06	-4.9	4.75
	6/18/2014	13.84	7.11	0.608	935	3.46	-136.3	5.00
	6/18/2014	13.86	7.03	0.608	936	2.75	-140.8	5.50
	6/18/2014	13.93	7.03	0.609	936	2.52	-143.8	6.00
	9/17/2014	16.40	7.24	0.59	918	11.23	57.0	4.25
	9/17/2014	16.40	7.22	0.59	917	10.59	57.0	4.75
	9/17/2014	16.40	7.18	0.59	917	10.26	57.0	5.00
MW-4	3/24/2014	13.05	7.41	0.733	1128	3.41	-7.4	5.00
	3/24/2014	13.22	7.42	0.728	1120	3.04	-11.6	5.50
	3/24/2014	13.16	7.61	0.730	1123	2.73	-14.9	6.00
	6/18/2014	14.87	7.61	0.668	1027	5.60	-183.1	4.00
	6/18/2014	14.80	7.49	0.650	1000	3.23	-183.7	4.50
	6/18/2014	14.54	7.44	0.645	993	2.91	-184.8	5.00
	9/17/2014	17.00	7.22	0.60	980	11.11	54.0	3.75
	9/17/2014	17.20	7.14	0.60	980	9.95	54.0	4.25
	9/17/2014	18.10	7.06	0.60	980	9.29	50.0	4.75

Notes:
TDS = total dissolved solids
DO = dissolved oxygen
ORP = oxidation-reduction potential

TABLE 4

GROUNDWATER ANALYTICAL RESULTS SUMMARY
CONOCOPHILLIPS COMPANY
FAYE BURDETTE No. 1
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)	Iron (dissolved) (mg/L)	Manganese (dissolved) (mg/L)	Manganese (mg/L)
NMWQCC Groundwater Quality Standards				***0.01***	***0.75***	***0.75***	***0.62***	***1***	***0.2***	***0.2***
MW-1	MW-1	10/22/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	--	--	**2.09**
	MW-1	1/29/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	--	--	**1.41**
	MW-1 Duplicate	1/29/2009	Duplicate	< 0.005	< 0.005	< 0.005	< 0.005	--	--	--
	MW-1	3/31/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	--	--	**1.24**
	MW-1 Duplicate	3/31/2009	Duplicate	< 0.005	< 0.005	< 0.005	< 0.005	--	--	--
	MW-1	6/17/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	--	--	**2.47**
	MW-1 Duplicate	6/17/2009	Duplicate	< 0.005	< 0.005	< 0.005	< 0.005	--	--	**2.52**
	MW-1	9/22/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	0.445	**1.44**	--
	MW-1 Duplicate	9/22/2009	Duplicate	< 0.001	< 0.001	< 0.001	< 0.001	--	--	--
	MW-1	12/16/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	**0.732**	--
	MW-1 Duplicate	12/16/2009	Duplicate	< 0.001	< 0.001	< 0.001	< 0.001	--	--	--
	MW-1	4/1/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	**1.71**	--
	MW-1 Duplicate	4/1/2010	Duplicate	< 0.001	< 0.001	< 0.001	< 0.001	--	--	--
	MW-1	6/9/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	**1.61**	--
	MW-1 Duplicate	6/9/2010	Duplicate	< 0.001	< 0.001	< 0.001	< 0.001	--	--	--
	MW-1	9/20/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	**0.895**	--
	MW-1 Duplicate	9/20/2010	Duplicate	< 0.001	< 0.001	< 0.001	< 0.001	--	--	--
	MW-1	12/17/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	**0.773**	--
	MW-1 Duplicate	12/17/2010	Duplicate	< 0.001	< 0.001	< 0.001	< 0.001	--	--	--
	MW-1	3/16/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	**2.23**	--
	MW-1 Duplicate	3/16/2011	Duplicate	< 0.001	< 0.001	< 0.001	< 0.001	--	--	--
	GW-74929-062211-PG-04	6/22/2011	(orig)	--	--	--	--	--	**0.368**	--
	GW-074929-092711-CM-009	9/27/2011	(orig)	--	--	--	--	--	**0.624**	
	GW-074929-091712-CM-MW-1	9/17/2012	(orig)	--	--	--	--	--	**0.73**	
	GW-074929-091712-CM-DUP	9/17/2012	Duplicate	--	--	--	--	--	**0.38**	
	GW-074929-091613-CM-MW-1	9/16/2013	(orig)	--	--	--	--	--	**0.22**	
	GW-074929-032414-CM-MW-1	3/24/2014	(orig)	--	--	--	--	--	**0.40**	
	GW-074929-061814-CK-MW-1	6/18/2014	(orig)	--	--	--	--	--	**0.58**	
	GW-074929-061814-CK-DUP	6/18/2014	Duplicate	--	--	--	--	--	**0.46**	
	GW-074929-091914-CK-MW-1	9/17/2014	(orig)	--	--	--	--	--	**0.21**	--
	GW-074929-121814-CM-MW-1	12/18/2014	(orig)	--	--	--	--	--	**0.21**	--
	GW-074929-121814-CM-DUP	12/18/2014	Duplicate	--	--	--	--	--	**0.34**	--
MW-2	MW-2	1/29/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	--	--	**1.79**
	MW-2	3/31/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	--	--	**0.326**
	MW-2	6/17/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	--	--	**1.37**
	MW-2	9/22/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.02	0.0264	--
	MW-2	12/16/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	0.0654	--
	MW-2	4/1/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	0.16	--
	MW-2	6/9/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	0.0323	--
	MW-2	9/20/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	0.0455	--
	MW-2	12/17/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	0.0332	--
	MW-2	3/16/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	0.0265	--
	GW-74929-062211-PG-01	6/22/2011	(orig)	--	--	--	--	--	0.0232	--
	GW-074929-092711-CM-006	9/27/2011	(orig)	--	--	--	--	--	0.0142	
	GW-074929-091712-CM-MW-2	9/17/2012	(orig)	--	--	--	--	--	< 0.005	
	GW-074929-091613-CM-MW-2	9/16/2013	(orig)	--	--	--	--	--	0.0082	
	GW-074929-032414-CM-MW-2	3/24/2014	(orig)	--	--	--	--	--	0.0078	
	GW-074929-032414-CM-DUP	3/24/2014	Duplicate	--	--	--	--	--	0.0071	
	GW-074929-061814-CK-MW-2	6/18/2014	(orig)	--	--	--	--	--	<0.0050	
	GW-074929-091914-CK-MW-2	9/17/2014	(orig)	--	--	--	--	--	<0.0050	--

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)	Iron (dissolved) (mg/L)	Manganese (dissolved) (mg/L)	Manganese (mg/L)
NMWQCC Groundwater Quality Standards				*0.01*	*0.75*	*0.75*	*0.62*	*1*	*0.2*	*0.2*
MW-3	MW-3	1/29/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	--	--	**0.374**
	MW-3	3/31/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	--	--	**0.271**
	MW-3	6/17/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	--	--	**0.628**
	MW-3	9/22/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	0.0291	0.0201	--
	MW-3	12/16/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	0.0607	--
	MW-3	4/1/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	0.0232	--
	MW-3	6/9/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	< 0.005	--
	MW-3	9/20/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	< 0.005	--
	MW-3	12/17/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	0.178	--
	MW-3	3/16/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	0.0424	--
	GW-74929-062211-PG-03	6/22/2011	(orig)	--	--	--	--	--	0.0311	--
	GW-074929-092711-CM-008	9/27/2011	(orig)	--	--	--	--	--	0.0244	
	GW-074929-091712-CM-MW-3	9/17/2012	(orig)	--	--	--	--	--	0.015	
	GW-074929-091613-CM-MW-3	9/16/2013	(orig)	--	--	--	--	--	0.012	
	GW-074929-091613-CM-DUP	9/16/2013	Duplicate	--	--	--	--	--	0.015	
	GW-074929-032414-CM-MW-3	3/24/2014	(orig)	--	--	--	--	--	0.021	
	GW-074929-061814-CK-MW-3	6/18/2014	(orig)	--	--	--	--	--	0.033	
	GW-074929-091914-CK-MW-3	9/17/2014	(orig)	--	--	--	--	--	0.029	--
MW-4	MW-4	1/29/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	--	--	**4.15**
	MW-4	3/31/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	--	--	**1.45**
	MW-4	6/17/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	--	--	**0.854**
	MW-4	9/22/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	0.108	**0.476**	--
	MW-4	12/16/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	0.0149	--
	MW-4	4/1/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	< 0.005	--
	MW-4	6/9/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	< 0.005	--
	MW-4	9/20/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	0.0152	--
	MW-4	12/17/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	0.0502	--
	MW-4	3/16/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	< 0.005	--
	GW-74929-062211-PG-02	6/22/2011	(orig)	--	--	--	--	--	< 0.015	--
	GW-074929-092711-CM-007	9/27/2011	(orig)	--	--	--	--	--	0.182	
	GW-074929-091712-CM-MW-4	9/17/2012	(orig)	--	--	--	--	--	0.090	
	GW-074929-091613-CM-MW-4	9/16/2013	(orig)	--	--	--	--	--	0.011	
	GW-074929-032414-CM-MW-4	3/24/2014	(orig)	--	--	--	--	--	0.020	
	GW-074929-061814-CK-MW-4	6/18/2014	(orig)	--	--	--	--	--	<0.0050	
	GW-074929-091914-CK-MW-2	9/17/2014	(orig)	--	--	--	--	--	0.057	--

Notes:

1. MW = monitoring well
2. NMWQCC = New Mexico Water Quality Control Commission
3. Constituents in **BOLD** are in excess of NMWQCC groundwater quality standards
4. mg/L = milligrams per liter (parts per million)
5. < 1.0 = Below laboratory detection limit of 1.0 mg/L

Appendix A

Groundwater Laboratory Analytical Reports

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

April 09, 2014

Jeff Walker
COP Conestoga-Rovers & Associa
6121 Indian School Rd. NE
Ste 200
Albuquerque, NM 87110

RE: Project: 074929 Faye Burdette No. 1
Pace Project No.: 60165649

Dear Jeff Walker:
Enclosed are the analytical results for sample(s) received by the laboratory on March 26, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Flanagan
alice.flanagan@pacelabs.com
Project Manager

Enclosures

cc: Angela Bown, COP Conestoga-Rovers & Associa
Christine Matthews, CRA

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60165649

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 13-012-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407-13-4
Utah Certification #: KS000212013-3
Illinois Certification #: 003097

Pace Analytical Services, Inc.
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Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60165649

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60165649001	**GW-074929-032414-CM-MW-1**	Water	03/24/14 12:50	03/26/14 08:15
60165649002	**GW-074929-032414-CM-MW-2**	Water	03/24/14 12:10	03/26/14 08:15
60165649003	**GW-074929-032414-CM-MW-3**	Water	03/24/14 12:25	03/26/14 08:15
60165649004	**GW-074929-032414-CM-MW-4**	Water	03/24/14 12:35	03/26/14 08:15
60165649005	**GW-074929-032414-CM-DUP**	Water	03/24/14 08:00	03/26/14 08:15

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SAMPLE ANALYTE COUNT

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60165649

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60165649001	**GW-074929-032414-CM-MW-1**	EPA 6010	NDJ	1
60165649002	**GW-074929-032414-CM-MW-2**	EPA 6010	NDJ	1
60165649003	**GW-074929-032414-CM-MW-3**	EPA 6010	NDJ	1
60165649004	**GW-074929-032414-CM-MW-4**	EPA 6010	NDJ	1
60165649005	**GW-074929-032414-CM-DUP**	EPA 6010	NDJ	1

REPORT OF LABORATORY ANALYSIS

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Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60165649

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: April 09, 2014

General Information:
5 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, Inc.
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(913)599-5665

ANALYTICAL RESULTS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60165649

Sample: GW-074929-032414-CM-MW-1 **Lab ID: 60165649001** Collected: 03/24/14 12:50 Received: 03/26/14 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	**0.40**	mg/L	0.0050	1	04/02/14 15:10	04/08/14 13:27	7439-96-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60165649

Sample: GW-074929-032414-CM-MW-2 **Lab ID: 60165649002** Collected: 03/24/14 12:10 Received: 03/26/14 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	**0.0078**	mg/L	0.0050	1	04/02/14 15:10	04/08/14 13:30	7439-96-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60165649

Sample: GW-074929-032414-CM-MW-3 **Lab ID: 60165649003** Collected: 03/24/14 12:25 Received: 03/26/14 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	**0.021**	mg/L	0.0050	1	04/02/14 15:10	04/08/14 13:32	7439-96-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60165649

Sample: GW-074929-032414-CM-MW-4 **Lab ID: 60165649004** Collected: 03/24/14 12:35 Received: 03/26/14 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	**0.020**	mg/L	0.0050	1	04/02/14 15:10	04/08/14 13:39	7439-96-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60165649

Sample: GW-074929-032414-CM-DUP **Lab ID: 60165649005** Collected: 03/24/14 08:00 Received: 03/26/14 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	**0.0071**	mg/L	0.0050	1	04/02/14 15:10	04/08/14 13:41	7439-96-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60165649

QC Batch: MPRP/26700 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 60165649001, 60165649002, 60165649003, 60165649004, 60165649005

METHOD BLANK: 1354292 Matrix: Water
Associated Lab Samples: 60165649001, 60165649002, 60165649003, 60165649004, 60165649005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Manganese, Dissolved	mg/L	ND	0.0050	04/07/14 15:20	

LABORATORY CONTROL SAMPLE: 1354293

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	mg/L	1	0.91	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1354294 1354295

Parameter	Units	60165640001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	mg/L	0.37	1	1	1.3	1.2	90	86	75-125	3	20	

REPORT OF LABORATORY ANALYSIS

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(913)599-5665

QUALIFIERS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60165649

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60165649

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60165649001	**GW-074929-032414-CM-MW-1**	EPA 3010	MPRP/26700	EPA 6010	ICP/20298
60165649002	**GW-074929-032414-CM-MW-2**	EPA 3010	MPRP/26700	EPA 6010	ICP/20298
60165649003	**GW-074929-032414-CM-MW-3**	EPA 3010	MPRP/26700	EPA 6010	ICP/20298
60165649004	**GW-074929-032414-CM-MW-4**	EPA 3010	MPRP/26700	EPA 6010	ICP/20298
60165649005	**GW-074929-032414-CM-DUP**	EPA 3010	MPRP/26700	EPA 6010	ICP/20298

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60165649

60165649

Client Name: COP CRA NM

Optional
Proj Due Date:
Proj Name:

Courier: Fed Ex ☒ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☐

Tracking #: 5689128147 03 Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☑ ZIP

Thermometer Used: T-239 / T-194 **Type of Ice:** (Wet) Blue None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 1.0

Temperature should be above freezing to 6°C

Date and initials of person examining contents: PV 3/26/14

Chain of Custody present:	☑Yes ☐No ☐N/A	1.
Chain of Custody filled out:	☑Yes ☐No ☐N/A	2.
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	3.
Sampler name & signature on COC:	☑Yes ☐No ☐N/A	4.
Samples arrived within holding time:	☑Yes ☐No ☐N/A	5.
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	7.
Sufficient volume:	☑Yes ☐No ☐N/A	8.
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	9.
Containers intact:	☑Yes ☐No ☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes ☐No ☑N/A	11.
Filtered volume received for dissolved tests?	☑Yes ☐No ☑N/A	12. PV 3/26
Sample labels match COC:	☑Yes ☐No ☐N/A	
Includes date/time/ID/analyses Matrix: WT		13.
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	14.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	☐Yes ☑No	Initial when completed / Lot # of added preservative
Trip Blank present:	☐Yes ☐No ☑N/A	
Pace Trip Blank lot # (if purchased):		15.
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	16.
Project sampled in USDA Regulated Area:	☐Yes ☐No ☑N/A	17. List State:

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Temp Log: Record start and finish times when unpacking cooler, if >20 min, recheck sample temps.	
Start: 1113	Start:
End: 1115	End:
Temp:	Temp:

Project Manager Review: AAF Date: 3/26/14

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The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company:	COP CRA NM
Address:	6121 Indian School Rd NE, Ste 200
	Albequerque, NM 87110
Email To:	cmathews@craworld.com
Phone: (505)884-0672	Fax: (505)884-4932
Requested Due Date/TAT:	standard

Section B Required Project Information:

Report To:	Christine Mathews
Copy To:	Jeff Walker, Angela Bown
Purchase Order No.:	4517961301
Project Name:	Faye Burdette No. 1
Project Number:	74929

Section C Invoice Information:

Attention:	COP epayables
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Alice Flanagan
Pace Profile #:	5514, 16

Page: of

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NM

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	6010 Dissolved Mn	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	GW-074929-032414-CM-MW-1	WT	G			3.24.14	1250		1			1							X		60165649 IBP3M1.5
2	GW-074929-032414-CM-MW-2	WT	G			3.24.14	1210		1			1							X		IBP3F1.5 001
3	GW-074929-032414-CM-MW-3	WT	G			3.24.14	1225		1			1							X		002
4	GW-074929-032414-CM-MW-4	WT	G			3.24.14	1235		1			1							X		003
5	GW-074929-032414-CM-DUP	WT	G			3.24.14	—		1			1							X		004
6																					005
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
All samples field filtered	CRA	3.25.14	1900	PACE	3/26/14	0815	1.0	Y	Y	X

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Christine Mathews

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 3/25/14

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.08, 12-Oct-2007

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

July 02, 2014

Christine Matthews
CRA
6121 Indian School Rd NE
Suite 200
Albuquerque, NM 87110

RE: Project: 074929 Faye Burdette No. 1
Pace Project No.: 60171890

Dear Christine Matthews:
Enclosed are the analytical results for sample(s) received by the laboratory on June 19, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Flanagan
alice.flanagan@pacelabs.com
Project Manager

Enclosures

cc: Angela Bown, COP Conestoga-Rovers & Associa
Jeff Walker, COP Conestoga-Rovers & Associa

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60171890

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 13-012-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407-13-4
Utah Certification #: KS000212013-3
Illinois Certification #: 003097

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60171890

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60171890001	**GW-074929-061814-CK-MW-1**	Water	06/18/14 14:10	06/19/14 08:30
60171890002	**GW-074929-061814-CK-MW-2**	Water	06/18/14 13:55	06/19/14 08:30
60171890003	**GW-074929-061814-CK-MW-3**	Water	06/18/14 14:15	06/19/14 08:30
60171890004	**GW-074929-061814-CK-MW-4**	Water	06/18/14 13:50	06/19/14 08:30
60171890005	**GW-074929-061814-CK-DUP**	Water	06/18/14 15:00	06/19/14 08:30

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SAMPLE ANALYTE COUNT

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60171890

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60171890001	**GW-074929-061814-CK-MW-1**	EPA 6010	NDJ	1
60171890002	**GW-074929-061814-CK-MW-2**	EPA 6010	NDJ	1
60171890003	**GW-074929-061814-CK-MW-3**	EPA 6010	NDJ	1
60171890004	**GW-074929-061814-CK-MW-4**	EPA 6010	NDJ	1
60171890005	**GW-074929-061814-CK-DUP**	EPA 6010	NDJ	1

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60171890

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: July 02, 2014

General Information:
5 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60171890

Sample: GW-074929-061814-CK-MW-1 **Lab ID: 60171890001** Collected: 06/18/14 14:10 Received: 06/19/14 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	**0.58**	mg/L	0.0050	1	06/26/14 10:10	06/27/14 13:34	7439-96-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60171890

Sample: GW-074929-061814-CK-MW-2 **Lab ID: 60171890002** Collected: 06/18/14 13:55 Received: 06/19/14 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	ND	mg/L	0.0050	1	06/26/14 10:10	06/27/14 13:36	7439-96-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60171890

Sample: GW-074929-061814-CK-MW-3 **Lab ID: 60171890003** Collected: 06/18/14 14:15 Received: 06/19/14 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	**0.033**	mg/L	0.0050	1	06/26/14 10:10	06/27/14 13:39	7439-96-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60171890

Sample: GW-074929-061814-CK-MW-4 **Lab ID: 60171890004** Collected: 06/18/14 13:50 Received: 06/19/14 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	ND	mg/L	0.0050	1	06/26/14 10:10	06/27/14 13:41	7439-96-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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ANALYTICAL RESULTS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60171890

Sample: GW-074929-061814-CK-DUP **Lab ID: 60171890005** Collected: 06/18/14 15:00 Received: 06/19/14 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	**0.46**	mg/L	0.0050	1	06/26/14 10:10	06/27/14 13:43	7439-96-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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(913)599-5665

QUALITY CONTROL DATA

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60171890

QC Batch: MPRP/27815 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 60171890001, 60171890002, 60171890003, 60171890004, 60171890005

METHOD BLANK: 1401345 Matrix: Water
Associated Lab Samples: 60171890001, 60171890002, 60171890003, 60171890004, 60171890005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	5.0	06/27/14 13:06	

LABORATORY CONTROL SAMPLE: 1401346

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	1030	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1401347 1401348

Parameter	Units	60171936001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	227	1000	1000	1200	1210	98	98	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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(913)599-5665

QUALIFIERS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60171890

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

LOD - Limit of Detection.

LOQ - Limit of Quantitation.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60171890

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60171890001	**GW-074929-061814-CK-MW-1**	EPA 3010	MPRP/27815	EPA 6010	ICP/21033
60171890002	**GW-074929-061814-CK-MW-2**	EPA 3010	MPRP/27815	EPA 6010	ICP/21033
60171890003	**GW-074929-061814-CK-MW-3**	EPA 3010	MPRP/27815	EPA 6010	ICP/21033
60171890004	**GW-074929-061814-CK-MW-4**	EPA 3010	MPRP/27815	EPA 6010	ICP/21033
60171890005	**GW-074929-061814-CK-DUP**	EPA 3010	MPRP/27815	EPA 6010	ICP/21033

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Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60171890

60171890

Optional
Proj Due Date:
Proj Name:

Client Name: COP CKA NM

Courier: Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☐

Tracking #: 5689 1085 1424 Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐ 6/19

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☑ Other ☑ ZPC

Thermometer Used: T-239 / T-194 **Type of Ice:** Wet Blue None ☐ Samples received on ice, cooling process has begun
(circle one)

Cooler Temperature: 3.4

Temperature should be above freezing to 6°C

Date and initials of person examining contents: AH 6/19

Chain of Custody present:	☑Yes ☐No ☐N/A	1.
Chain of Custody filled out:	☑Yes ☐No ☐N/A	2.
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	3.
Sampler name & signature on COC:	☑Yes ☐No ☐N/A	4.
Samples arrived within holding time:	☑Yes ☐No ☐N/A	5.
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	7.
Sufficient volume:	☑Yes ☐No ☐N/A	8.
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	9.
Containers intact:	☑Yes ☐No ☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes ☐No ☑N/A	11.
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	12.
Sample labels match COC:	☑Yes ☐No ☐N/A	
Includes date/time/ID/analyses Matrix: WT		13.
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	14.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	☐Yes ☑No	Initial when completed / Lot # of added preservative
Trip Blank present:	☐Yes ☐No ☑N/A	
Pace Trip Blank lot # (if purchased):		15.
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	16.
Project sampled in USDA Regulated Area:	☐Yes ☐No ☑N/A	17. List State:

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: MW 62 AFT Date: 6/24/14

Temp Log: Record start and finish times when unpacking cooler, if >20 min, recheck sample temps.

Start: 13:43	Start:
End: 13:50	End:
Temp:	Temp:

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:

Company:	COP CRA NM
Address:	6121 Indian School Rd NE, Ste 200, Albequerque, NM 87110
Email To:	cmathews@craworld.com
Phone:	(505)884-0672
Fax:	(505)884-4932
Requested Due Date/TAT:	standard

Section B Required Project Information:

Report To:	Christine Mathews
Copy To:	Jeff Walker, Angela Bown
Purchase Order No.:	4517961301
Project Name:	Faye Burdette No. 1
Project Number:	74929

Section C Invoice Information:

Attention:	COP epayables
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Alice Flanagan
Pace Profile #:	5514, 16

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER ______

Site Location STATE: NM

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

Pace Project No./ Lab I.D.: 60171890

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	6010 Dissolved Mn											Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	GW-074929-061814-CK-MW-1	WT	G	—	—	6/18/14	1410		1			X							X												1(CP3N) 2.0 001
2	GW-074929-061814-CK-MW-2	WT	G	—	—	6/18/14	1355		1			X							X												2.0 002
3	GW-074929-061814-CK-MW-3	WT	G	—	—	6/18/14	1415		1			X							X												2.0 003
4	GW-074929-061814-CK-MW-4	WT	G	—	—	6/18/14	1350		1			X							X												2.0 004
5	GW-074929-061814-CK-dup	WT	G	—	—	6/18/14	1500		1			X							X												2.0 005
6																															
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Containers have been Field Filtered	Cassie Brown / CRA	6/18/14	1500	[signature] / PASI	6/19	8:30	3.4	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Cassie Brown

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 06/18/14

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.08, 12-Oct-2007

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

October 03, 2014

Christine Matthews
CRA
6121 Indian School Rd NE
Suite 200
Albuquerque, NM 87110

RE: Project: 074929 FAYE BURDETTE NO 1
Pace Project No.: 60178507

Dear Christine Matthews:
Enclosed are the analytical results for sample(s) received by the laboratory on September 20, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Flanagan
alice.flanagan@pacelabs.com
Project Manager

Enclosures

cc: Angela Bown, COP Conestoga-Rovers & Associa
Angela Bown, Conestoga Rovers & Associates
Chris Fetters, COP Conestoga-Rovers & Associa
Jeff Walker, COP Conestoga-Rovers & Associa

Pace Analytical Services, Inc.
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(913)599-5665

CERTIFICATIONS

Project: 074929 FAYE BURDETTE NO 1
Pace Project No.: 60178507

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 13-012-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021

Pace Analytical Services, Inc.
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(913)599-5665

SAMPLE SUMMARY

Project: 074929 FAYE BURDETTE NO 1
Pace Project No.: 60178507

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60178507001	**GW-074929-091914-CB-MW-1**	Water	09/17/14 18:40	09/20/14 08:15
60178507002	**GW-074929-091914-CB-MW-2**	Water	09/17/14 18:20	09/20/14 08:15
60178507003	**GW-074929-091914-CB-MW-3**	Water	09/17/14 18:27	09/20/14 08:15
60178507004	**GW-074929-091914-CB-MW-4**	Water	09/17/14 18:12	09/20/14 08:15

REPORT OF LABORATORY ANALYSIS

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(913)599-5665

SAMPLE ANALYTE COUNT

Project: 074929 FAYE BURDETTE NO 1
Pace Project No.: 60178507

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60178507001	**GW-074929-091914-CB-MW-1**	EPA 6010	TDS	1
60178507002	**GW-074929-091914-CB-MW-2**	EPA 6010	TDS	1
60178507003	**GW-074929-091914-CB-MW-3**	EPA 6010	TDS	1
60178507004	**GW-074929-091914-CB-MW-4**	EPA 6010	TDS	1

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 074929 FAYE BURDETTE NO 1
Pace Project No.: 60178507

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: CRA Conoco New Mexico
Date: October 03, 2014

General Information:
4 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 074929 FAYE BURDETTE NO 1
Pace Project No.: 60178507

Sample: GW-074929-091914-CB-MW-1 **Lab ID: 60178507001** Collected: 09/17/14 18:40 Received: 09/20/14 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	**0.21**	mg/L	0.025	5	09/26/14 17:15	10/02/14 11:54	7439-96-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 074929 FAYE BURDETTE NO 1
Pace Project No.: 60178507

Sample: GW-074929-091914-CB-MW-2 **Lab ID: 60178507002** Collected: 09/17/14 18:20 Received: 09/20/14 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	ND	mg/L	0.0050	1	09/26/14 17:15	10/02/14 12:37	7439-96-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 074929 FAYE BURDETTE NO 1
Pace Project No.: 60178507

Sample: GW-074929-091914-CB-MW-3 **Lab ID: 60178507003** Collected: 09/17/14 18:27 Received: 09/20/14 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	**0.029**	mg/L	0.010	2	09/26/14 17:15	10/02/14 12:03	7439-96-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 074929 FAYE BURDETTE NO 1
Pace Project No.: 60178507

Sample: GW-074929-091914-CB-MW-4 **Lab ID: 60178507004** Collected: 09/17/14 18:12 Received: 09/20/14 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	**0.057**	mg/L	0.025	5	09/26/14 17:15	10/02/14 12:06	7439-96-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 074929 FAYE BURDETTE NO 1
Pace Project No.: 60178507

QC Batch: MPRP/29080 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 60178507001, 60178507002, 60178507003, 60178507004

METHOD BLANK: 1449940 Matrix: Water
Associated Lab Samples: 60178507001, 60178507002, 60178507003, 60178507004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Manganese, Dissolved	mg/L	ND	0.0050	10/02/14 11:34	

LABORATORY CONTROL SAMPLE: 1449941

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	mg/L	1	0.96	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1449942 1449943

Parameter	Units	60178510001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	mg/L	18.8 ug/L	1	1	0.97	0.99	95	97	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 074929 FAYE BURDETTE NO 1
Pace Project No.: 60178507

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 074929 FAYE BURDETTE NO 1
Pace Project No.: 60178507

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60178507001	**GW-074929-091914-CB-MW-1**	EPA 3010	MPRP/29080	EPA 6010	ICP/21882
60178507002	**GW-074929-091914-CB-MW-2**	EPA 3010	MPRP/29080	EPA 6010	ICP/21882
60178507003	**GW-074929-091914-CB-MW-3**	EPA 3010	MPRP/29080	EPA 6010	ICP/21882
60178507004	**GW-074929-091914-CB-MW-4**	EPA 3010	MPRP/29080	EPA 6010	ICP/21882

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Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60178507

60178507

Client Name: COP CRA

Optional
Proj Due Date:
Proj Name:

Courier: Fed Ex ☒ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☐

Tracking #: 6113 5279 8795 Pace Shipping Label Used? Yes ☐ No ☐

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☒ zPlc

Thermometer Used: ~~T-239~~ / T-194 **Type of Ice:** (Wet) Blue None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 2.6

Date and initials of person examining contents: JB 9/20

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	1.	
Chain of Custody filled out:	☒Yes ☐No ☐N/A	2.	
Chain of Custody relinquished:	☒Yes ☐No ☐N/A	3.	
Sampler name & signature on COC:	☒Yes ☐No ☐N/A	4.	
Samples arrived within holding time:	☒Yes ☐No ☐N/A	5.	
Short Hold Time analyses (<72hr):	☐Yes ☒No ☐N/A	6.	
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	7.	
Sufficient volume:	☒Yes ☐No ☐N/A	8.	
Correct containers used:	☒Yes ☐No ☐N/A		
Pace containers used:	☒Yes ☐No ☐N/A	9.	
Containers intact:	☒Yes ☐No ☐N/A	10.	
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes ☐No ☒N/A	11.	
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	12.	
Sample labels match COC:	☒Yes ☐No ☐N/A		
Includes date/time/ID/analyses Matrix: WT		13.	
All containers needing preservation have been checked.	☒Yes ☐No ☐N/A		
All containers needing preservation are found to be in compliance with EPA recommendation.	☒Yes ☐No ☐N/A	14.	
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	☐Yes ☒No	Initial when completed	Lot # of added preservative
Trip Blank present:	☐Yes ☐No ☒N/A		
Pace Trip Blank lot # (if purchased):		15.	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☒N/A	16.	
Project sampled in USDA Regulated Area:	☐Yes ☐No ☒N/A	17. List State:	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [signature] Date: 9/21

Temp Log: Record start and finish times when unpacking cooler. if >20 min, recheck sample temps.

Start: 1000	Start:
End: 1005	End:
Temp:	Temp:

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:

Company:	COP CRA NM
Address:	6121 Indian School Rd NE, Ste 200
	Albequerque, NM 87110
Email To:	cmathews@craworld.com
Phone:	(505)884-0672 Fax: (505)884-4932
Requested Due Date/TAT:	standard

Section B Required Project Information:

Report To:	Christine Mathews
Copy To:	Jeff Walker, Angela Bown
Purchase Order No.:	4517961301
Project Name:	Faye Burdette No. 1
Project Number:	74929

Section C Invoice Information:

Attention:	COP epayables
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Alice Flanagan
Pace Profile #:	5514, 16

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER ______

Site Location STATE: NM

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	6010 Dissolved Mn		Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 60178507
1	GW-074929-091714-CB-MW-1	WT	G	—		9/17/14	1840		1			1							X	~~BP3N~~ BP3F 2.0 (JS 9/20/20)		001
2	GW-074929-091714-CB-MW-2	WT	G	—		9.17.14	1820		1			1							X	↓		002
3	GW-074929-091714-CB-MW-3	WT	G	—		9.17.14	1827		1			1							X	↓		003
4	GW-074929-091714-CB-MW-4	WT	G	—		9.17.14	1812		1			1							X	↓		004
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Samples have been field filtered	Cassie Brown	9/19/14	1600	[signature] Pace	9/20	0815	2.6	Y	Y	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Cassie Brown

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 9/19/14

F-ALL-Q-020rev.08, 12-Oct-2007

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January 05, 2015

Christine Mathews
CRA
6121 Indian School Rd NE
Suite 200
Albuquerque, NM 87110

RE: Project: 074929 Faye Burdette No. 1
Pace Project No.: 60185113

Dear Christine Mathews:
Enclosed are the analytical results for sample(s) received by the laboratory on December 20, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Flanagan
alice.flanagan@pacelabs.com
Project Manager

Enclosures

cc: Angela Bown, COP Conestoga-Rovers & Associa
Angela Bown, Conestoga Rovers & Associates
Chris Fetters, COP Conestoga-Rovers & Associa
Jeff Walker, COP Conestoga-Rovers & Associa

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CERTIFICATIONS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60185113

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 13-012-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021

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SAMPLE SUMMARY

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60185113

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60185113001	**GW-074929-121814-CM-MW-1**	Water	12/18/14 15:15	12/20/14 09:00
60185113002	**GW-074929-121814-CM-DUP**	Water	12/18/14 00:00	12/20/14 09:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60185113

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60185113001	**GW-074929-121814-CM-MW-1**	EPA 6010	SMW	1
60185113002	**GW-074929-121814-CM-DUP**	EPA 6010	SMW	1

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60185113

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: CRA Conoco New Mexico
Date: January 05, 2015

General Information:
2 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60185113

Sample: GW-074929-121814-CM-MW-1 **Lab ID: 60185113001** Collected: 12/18/14 15:15 Received: 12/20/14 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	**0.21**	mg/L	0.0050	1	12/23/14 10:30	12/29/14 13:54	7439-96-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60185113

Sample: GW-074929-121814-CM-DUP **Lab ID: 60185113002** Collected: 12/18/14 00:00 Received: 12/20/14 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	**0.34**	mg/L	0.0050	1	12/23/14 10:30	12/29/14 13:56	7439-96-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60185113

QC Batch: MPRP/30290 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 60185113001, 60185113002

METHOD BLANK: 1499240 Matrix: Water
Associated Lab Samples: 60185113001, 60185113002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Manganese, Dissolved	mg/L	ND	0.0050	12/29/14 13:25	

LABORATORY CONTROL SAMPLE: 1499241

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	mg/L	1	0.97	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1499242 1499243

Parameter	Units	60185128002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	mg/L	1370 ug/L	1	1	2.3	2.3	93	93	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60185113

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 074929 Faye Burdette No. 1
Pace Project No.: 60185113

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60185113001	**GW-074929-121814-CM-MW-1**	EPA 3010	MPRP/30290	EPA 6010	ICP/22647
60185113002	**GW-074929-121814-CM-DUP**	EPA 3010	MPRP/30290	EPA 6010	ICP/22647

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Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60185113

60185113

Client Name: CRA COP

Optional
Proj Due Date:
Proj Name:

Courier: Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☐

Tracking #: 6262 7064 4839 Pace Shipping Label Used? Yes ☐ No ☐

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☒ ZPL

Thermometer Used: T-239 / T-194 **Type of Ice:** Wet Blue None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 4.9

Temperature should be above freezing to 6°C

Date and initials of person examining contents: JD 12/20

Chain of Custody present:	☒Yes ☐No ☐N/A	1.
Chain of Custody filled out:	☒Yes ☐No ☐N/A	2.
Chain of Custody relinquished:	☒Yes ☐No ☐N/A	3.
Sampler name & signature on COC:	☒Yes ☐No ☐N/A	4.
Samples arrived within holding time:	☒Yes ☐No ☐N/A	5.
Short Hold Time analyses (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	7.
Sufficient volume:	☒Yes ☐No ☐N/A	8.
Correct containers used:	☒Yes ☐No ☐N/A	
Pace containers used:	☒Yes ☐No ☐N/A	9.
Containers intact:	☒Yes ☐No ☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes ☐No ☒N/A	11.
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	12.
Sample labels match COC:	☒Yes ☐No ☐N/A	
Includes date/time/ID/analyses Matrix: WT		13.
All containers needing preservation have been checked.	☒Yes ☐No ☐N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☒Yes ☐No ☐N/A	14.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	☐Yes ☒No	Initial when completed / Lot # of added preservative
Trip Blank present:	☐Yes ☐No ☒N/A	
Pace Trip Blank lot # (if purchased):		15.
Headspace in VOA vials (>6mm):	☐Yes ☐No ☒N/A	16.
Project sampled in USDA Regulated Area:	☐Yes ☐No ☒N/A	17. List State:

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: AAF Date: 12/22/14

Temp Log: Record start and finish times when unpacking cooler, if >20 min, recheck sample temps.

Start: 0955	Start:
End: 1000	End:
Temp:	Temp:

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:

Company:	CRA COP NM
Address:	6121 Indian School Rd NE, Ste 200
	Albequerque, NM 87110
Email To:	cmathews@craworld.com
Phone: (505)884-0672	Fax: (505)884-4932
Requested Due Date/TAT:	standard

Section B Required Project Information:

Report To:	Christine Mathews
Copy To:	Jeff Walker, Angela Bown
Purchase Order No.:	4071731
Project Name:	Faye Burdette No. 1
Project Number:	74929

Section C Invoice Information:

Attention:	CRA
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Alice Flanagan
Pace Profile #:	7801, 16

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NM

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	6010 Dissolved Mn	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	BW-074929-121814-CM-MW-1	WT	G			12.18.14	1515		1			1						X			60185113 BP3F 2.0 001
2	BW-074929-121814-CM-DUP	WT	G			12.18.14	—		1			1						X			002
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Field Filtered	Christine Mathews/CRA	12.19.14	1200		12/20	0900	4.9	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Christine Mathews

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 12.19.14

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.08, 12-Oct-2007